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**HYDROGRAPHIC MEASUREMENTS COLLECTED ABOARD THE UNOLS  
SHIP R/V Knorr, 13 APRIL - 3 MAY 2011: WESTERN BOUNDARY TIME  
SERIES CRUISE KN-200-4 (AB1104)**

James A. Hooper V  
Molly O. Baringer

Atlantic Oceanographic and Meteorological Laboratory  
Miami, Florida  
October 2014

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**noaa**

NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION

/ Office of Oceanic and  
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## *Contents*

Table of Contents	v
List of Figures	vii
List of Tables	viii
Abstract	ix
1 Introduction	1
2 Cruise Narrative	7
3 Inverted Echo-Sounder Operations	10
4 Mooring Operations	11
5 Standards and Pre-Cruise Calibrations	13
5.1 Conductivity . . . . .	15
5.2 Temperature . . . . .	16
5.3 Pressure . . . . .	16
5.4 Dissolved Oxygen . . . . .	17
6 Data Acquisition	21
6.1 Data Acquisition Procedure . . . . .	21
6.2 Shipboard CTD Data Processing . . . . .	25
6.3 CTD Calibration Procedures . . . . .	27
6.3.1 Salinity Analysis . . . . .	27
6.3.2 Oxygen Analysis . . . . .	29
7 Post-Cruise Calibrations	32
7.1 CTD Data Processing . . . . .	32
7.2 CTD Pressure . . . . .	33
7.3 CTD Temperature . . . . .	35
7.4 Conductivity . . . . .	37
7.5 Dissolved Oxygen . . . . .	48
8 Final CTD Data Presentation	58
9 Acknowledgements	71
10 References	72
A Hydrographic - CTD Data	73
B WOCE Summary File	178





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## List of Figures

1	Abaco Mooring station locations. . . . .	5
2	Abaco CTD station locations. . . . .	5
3	FS CTD station locations. . . . .	6
4	Bottle locations for 26.5°N Deep Western Boundary Current section east of Abaco Island. . . . .	22
5	Bottle locations for along the Northwest Providence Channel section. . . . .	23
6	Bottle locations for 27°N section in the Florida Straits. . . . .	24
7	Standard vial calibrations throughout the cruise. . . . .	28
8	Oxygen residuals of the duplicate samples . . . . .	30
9	Pressure differences vs. station number. Top panel is the pressures measured on deck before the cast (blue). Bottom panel are the sea surface pressure values measured at the start of the downcast (blue), at the end of the upcast (red) and their respective difference (green). . . . .	33
10	Temperature differences (after corrections) between sensors by station number (top) and pressure (bottom). The green represents the surface data down to 1000 dbar. The blue represents data below 1000 dbar. The red solid line represents the median with the red dashed representing the standard deviation (same for top and bottom). . . . .	35
11	Pressure dependent correction for temperature differences of the downcast profile (blue) with slope fit (black) and the upcast with slope fit (red). . . . .	36
12	Conductivity (S/m) differences between sensors by station (top) and pressure (bottom). The red solid line represents the median with the red dashed representing the standard deviation. . . . .	39
13	Pressure dependent correction for conductivity differences for stations 1-52 with the downcast profile (blue) with slope fit (black) and the upcast with slope fit (red). . . . .	40
14	Bottle and uncalibrated secondary CTD salinity differences plotted against pressure. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar. . . . .	41
15	Bottle and calibrated secondary CTD salinity differences plotted vs. station. . . . .	42
16	Bottle and calibrated secondary CTD salinity differences plotted vs. pressure. . . . .	43
17	Bottle and calibrated secondary CTD salinity differences plotted vs. station below 1000 dbar. . . . .	44
18	Bottle and calibrated secondary CTD salinity differences plotted vs. pressure below 1000 dbar. . . . .	45
19	Potential Temperature - Salinity diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database. . . . .	46
20	Potential Temperature - Salinity diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database. . . . .	47

21	Dissolved oxygen differences between sensors by station (top) and by pressure (bottom). Sensor changes at station 15 and 24. The red solid line represents the median with the red dashed representing the standard deviation. . . . .	50
22	Bottle and uncalibrated secondary CTD oxygen differences plotted against station number. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar. . . . .	51
23	Bottle and calibrated secondary CTD oxygen differences plotted vs. station.	52
24	Bottle and calibrated secondary CTD oxygen differences plotted vs. pressure.	53
25	Bottle and calibrated secondary CTD oxygen differences plotted vs. station below 1000 dbar. . . . .	54
26	Bottle and calibrated secondary CTD oxygen differences plotted vs. pressure below 1000 dbar. . . . .	55
27	Potential Temperature - Oxygen diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database. . . . .	56
28	Potential Temperature - Oxygen diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database. . . . .	57
29	Potential Temperature (°C) section for the Abaco Section. Dashed vertical lines are the CTD station locations. . . . .	59
30	Salinity (PSS 78) section for the Abaco section. Dashed vertical lines are the CTD station locations. . . . .	60
31	Dissolved Oxygen ( <i>umol/kg</i> ) section for the Abaco Section. Dashed vertical lines are the CTD station locations. . . . .	61
32	Neutral density (kg/m <sup>3</sup> ) section for the Abaco Section. Dashed vertical lines are the CTD station locations. . . . .	62
33	Potential Temperature (°C) section for the Florida Current North section. Dashed vertical lines are the CTD station locations. . . . .	63
34	Salinity (PSS 78) section for the Florida Current North section. Dashed vertical lines are the CTD station locations. . . . .	64
35	Dissolved Oxygen ( <i>umol/kg</i> ) section for the Florida Current North section. Dashed vertical lines are the CTD station locations. . . . .	65
36	Neutral density (kg/m <sup>3</sup> ) section for the Florida Current North section. Dashed vertical lines are the CTD station locations. . . . .	66
37	Potential Temperature (°C) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations. . . . .	67
38	Salinity (PSS 78) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations. . . . .	68
39	Dissolved Oxygen ( <i>umol/kg</i> ) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations. . . . .	69
40	Neutral density (kg/m <sup>3</sup> ) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations. . . . .	70

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## List of Tables

1	Cruise participants of R/V Knorr. . . . .	3
2	Abaco Cruise – CTD Cast Summary . . . . .	4
3	Inverted echo-sounder locations and operation. . . . .	10
4	Summary of U.S. mooring recovery operations. . . . .	11
5	Summary of U.K. mooring recovery operations. . . . .	11
6	Summary of U.S. mooring deployment operations. . . . .	12
7	Summary of U.K. mooring deployment operations. . . . .	12
8	Equipment used during AB1104 . . . . .	14
9	Calibration coefficients for the conductivity sensors. . . . .	15
10	Calibration coefficients for the temperature sensors. . . . .	16
11	Calibration coefficients for the pressure sensor. . . . .	17
12	Calibration coefficients for the dissolved oxygen sensors. . . . .	18
13	Nominal values for the batches of IAPSO standard seawater. . . . .	28
14	Duplicate dissolved oxygen samples collected during the ABACO cruise (values in <i>umol/kg</i> ). . . . .	31
15	Near surface Pressure values and scan number used to remove surface soak and on-deck values. . . . .	34
16	Conductivity pressure offsets. . . . .	37
17	Abaco Cruise – WOCE Summary File . . . . .	179
18	Abaco Cruise – WOCE Bottle Summary File . . . . .	183

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## Abstract

This report summarizes the April 13 - May 3, 2011 cruise on the UNOLS ship R/V Knorr involving full-water-column CTD and lowered ADCP profiles, along with shipboard ADCP profiles, conducted within the Florida Straits and east of Abaco Island, Bahamas. At each station, a package consisting of a Seabird Electronics Model 9/11+ CTD O2 system, a RDI 150 kHz Workhorse Lowered Acoustic Doppler Current Profiler, a RDI 300 kHz Workhorse Lowered Acoustic Doppler Current Profilers, and 23 10-liter Niskin bottles, was to be lowered to the bottom. This report includes a description of the calibrations procedures and profiles of pressure, salinity (conductivity), temperature, and dissolved oxygen concentration. Water samples were also collected at various depths and analyzed for salinity and oxygen concentration to aid with CTD calibration. A total of 52 CTD-O2/LADCP stations were occupied. PIES/CPIES data were downloaded from 3 sites. There was a successful recovery and deployment of a PIES at the A2 site. Mooring operations include recovery and redeployment of 14 moorings with a mixture of current meters, Acoustic Doppler Current Profilers (ADCPs), and temperature/salinity recorders, and bottom landers instrumented with bottom pressure recorders. As part of NOAA contribution to the Global Surface Drifter Program, 8 surface velocity drifters equipped with sea-surface temperature sensors and 3 Argo floats were deployed.

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## 1 *Introduction*

The Abaco time series began in August 1984 when NOAA extended its Straits of Florida program to include measurements of western boundary current transports and water mass properties east of Abaco, the Bahamas. Since 1986, 39 hydrographic sections have been completed east of Abaco, most including direct velocity observations by Pegasus and/or Lowered Acoustic Doppler Current Profiler (LADCP). Transient tracer (CFC) measurements have been made on 8 of these sections. Current meter arrays were also maintained from April 1986 to April 1997. A new international program funded by the United Kingdom's Rapid Climate Change Program and the United States National Science Foundation began in March 2004 and is currently scheduled to end in 2021. Included in this program is a new deployment of current meter moorings along the Abaco section (the UK segment of the program continues with moorings across to the east edge of the Atlantic basin). Independently, the National Oceanic and Atmospheric Administration began a monitoring program in September 2004 utilizing inverted echo sounder moorings (some including bottom pressure measurements and near-bottom current meters) along the Abaco section. All of these programs are collaborating with scientific analysis and logistics including ship time.

The repeated hydrographic and tracer sampling at Abaco has established a high-resolution record of water mass properties in the Deep Western Boundary Current (DWBC) at 26°N, which for temperature and salinity can be reasonably constructed back to about 1985 (Vaughan and Molinari, 1997; Molinari et al., 1998). Events such as the intense convection period in the Labrador Sea and renewal of classical Labrador Sea Water in the 1980's are clearly reflected in the cooling and freshening of the DWBC waters off Abaco, and the arrival of a strong CFC pulse, approximately 10 years later (e.g. van Sebille et al., 2011). This program is unique in that it is not just a single time series site, but instead is a section from which transport can be directly calculated, of which very few are available in the ocean that approach a decade or more in length.

To achieve the goals of NOAA's strategic plan in terms of understanding the Atlantic Ocean's role in decadal and longer time scale climate variability, these continued time series observations at Abaco are seen as serving three main purposes:

1. Monitoring of the DWBC for watermass and transport signatures related to changes in the strengths and regions of high latitude water mass formation in the North Atlantic. Monitoring watermass properties in the DWBC at key locations is one part of an effort to track decadal changes in large-scale watermass properties.
2. Serving as a western boundary endpoint of a subtropical Meridional Overturning Circulation (MOC) heat flux monitoring system designed to measure the interior dynamic height difference across the Atlantic basin and the associated baroclinic heat transport.
3. Monitoring the intensity of the Antilles current as an index (together with the Florida Current) of inter-annual variability in the strength of the subtropical gyre. Variations in the strength of the subtropical gyre in relation to the North Atlantic Oscillation

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(NAO) has been proposed as an important mechanism in the atmosphere-ocean feedback within coupled models (e.g. Latif and Barnett, 1996).

A hydrographic survey consisting of a repeat LADCP/CTD/rosette section in the western North Atlantic was carried out in April-May 2011 (Figure 1 - 3 and Table 2). The R/V Knorr departed Port Everglades, FL on 13 April 2011. A total of 52 LADCP/CTD/Rosette stations were occupied. Water samples (up to 23 for each station), LADCP, CTD data were collected on each cast to within 20 m of the bottom. Salinity and dissolved oxygen samples were analyzed from the majority of bottles sampled on the rosette. Mooring operations included recovery thirteen subsurface moorings and redeployment of 14 subsurface moorings with a mixture of current meters, ADCP's, and temperature/salinity recorders. As part of NOAA's contribution to the Global Surface Drifter Program, nine surface velocity drifters equipped with sea-surface temperature sensors were deployed. The cruise ended in Port Everglades, FL on 3 May 2011.

The goals of cruise KN-200-4 were to:

1. Service 14 deep-sea moorings located off the eastern Bahamas along latitude 26.5°N, including 9 taut wire subsurface current meter/CTD moorings, and 5 "bottom-lander" moorings containing high-precision bottom pressure gauges.
2. Deploy 3 Pressure-Inverted Echo Sounders (PIES) and recover data from 3 PIES sites by underwater acoustic telemetry.
3. Conduct CTD (Conductivity-Temperature-Depth) and Lowered ADCP (Acoustic Doppler Current Profiler) sections across the Florida Current at 27°N, Northwest Providence Channel, and along the 26.5°N RAPID-MOCHA western boundary line east of Abaco, Bahamas.
4. Perform several additional deep water CTD casts to calibrate moored instrumentation, and
5. Deploy 8 satellite tracked surface drifters and 3 profiling Argo floats at chosen locations along the cruise track.

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Table 1: Cruise participants of R/V Knorr.		
Name	Responsibility	Affiliation
Bill Johns	Chief Scientist	RSMAS/ U. Miami
Adam Houk	Scientist	RSMAS/ U. Miami
Mark Graham	Technician	RSMAS/ U. Miami
Robert Jones	Technician	RSMAS/ U. Miami
Erik van Sebille	Post-doc	RSMAS/ U. Miami
Greta Leber	Student	RSMAS/ U. Miami
Chris Meinen	Scientist	NOAA/AOML
Andrew Stefanick	Technician	NOAA/AOML
Pedro Pena	Technician	NOAA/AOML
Kyle Seaton	Technician	UM/CIMAS
Rigoberto Garcia	Scientist	UM/CIMAS
Eleanor Frajka-Williams	Scientist	NOC Southampton
Darren Rayner	Scientist	NOC Southampton
Rob McLachlan	Technician	NOC Southampton
Christian Crowe	Technician	NOC Southampton
Dave Childs	Technician	NOC Southampton
Stephen Whittle	Technician	NOC Southampton
Thomas Roberts	Technician	NOC Southampton
Chris Hughes	Student	NOC Southampton
Kyle McDermott	Intern	Mate



Table 2: Abaco Cruise – CTD Cast Summary

Station	Date	Time (GMT)	Latitude	Longitude	Depth
1	04/13/11	21:31:27	26.432N	78.668W	744
2	04/13/11	23:44:43	26.333N	78.717W	678
3	04/14/11	01:16:52	26.250N	78.766W	506
4	04/14/11	02:43:16	26.164N	78.800W	437
5	04/14/11	04:02:15	26.065N	78.849W	282
6	04/14/11	15:20:21	25.954N	76.894W	3554
7	04/14/11	19:34:39	25.955N	76.894W	3555
8	04/15/11	00:59:24	25.953N	76.896W	4087
9	04/15/11	05:04:10	25.956N	76.898W	3555
10	04/15/11	10:45:34	26.525N	76.884W	442
11	04/15/11	12:06:38	26.518N	76.833W	1079
12	04/15/11	14:36:55	26.501N	76.742W	3883
13	04/15/11	19:18:23	26.501N	76.654W	4643
14	04/15/11	23:48:15	26.499N	76.565W	4897
15	04/16/11	04:46:31	26.494N	76.480W	4888
16	04/16/11	09:39:18	26.494N	76.349W	4913
17	04/16/11	14:05:33	26.493N	76.222W	4875
18	04/16/11	18:29:07	26.491N	76.096W	4861
19	04/16/11	22:59:04	26.487N	75.908W	4807
20	04/17/11	05:00:19	26.503N	75.704W	4741
21	04/17/11	09:19:06	26.507N	75.504W	4743
22	04/17/11	13:41:11	26.506N	75.300W	4690
23	04/17/11	19:33:50	26.500N	75.075W	4660
24	04/18/11	00:04:24	26.501N	74.792W	4599
25	04/18/11	04:41:31	26.502N	74.518W	4537
26	04/18/11	09:55:31	26.506N	74.230W	4602
27	04/18/11	15:06:35	26.510N	73.854W	4787
28	04/18/11	20:26:53	26.506N	73.482W	4984
29	04/19/11	01:36:03	26.496N	73.131W	5115
30	04/19/11	07:06:29	26.501N	72.769W	5205
31	04/19/11	12:39:58	26.499N	72.390W	5247
32	04/19/11	18:30:36	26.514N	71.993W	5368
33	04/20/11	00:53:11	26.502N	71.502W	5503
34	04/20/11	07:27:26	26.504N	71.003W	5564
35	04/20/11	14:26:46	26.518N	70.499W	5574
36	04/20/11	21:11:23	26.545N	70.526W	5542
37	04/21/11	04:25:47	26.513N	70.502W	5535
38	04/24/11	02:07:14	26.486N	75.818W	4789
39	04/25/11	05:31:12	26.503N	75.717W	4740
40	04/26/11	05:02:28	26.500N	76.088W	4845
41	04/27/11	03:06:05	26.490N	76.470W	4889
42	04/29/11	00:06:17	26.497N	76.649W	4041
43	04/30/11	21:14:42	26.789N	76.552W	3485
44	05/02/11	13:02:44	27.001N	79.199W	458
45	05/02/11	14:08:38	27.005N	79.283W	597
46	05/02/11	15:27:04	27.008N	79.381W	672
47	05/02/11	16:54:56	27.017N	79.495W	732
48	05/02/11	18:30:26	27.027N	79.607W	660
49	05/02/11	19:55:55	27.029N	79.686W	493
50	05/02/11	21:21:03	27.018N	79.779W	362
51	05/02/11	22:34:18	27.015N	79.866W	230
52	05/02/11	23:30:04	27.011N	79.932W	117

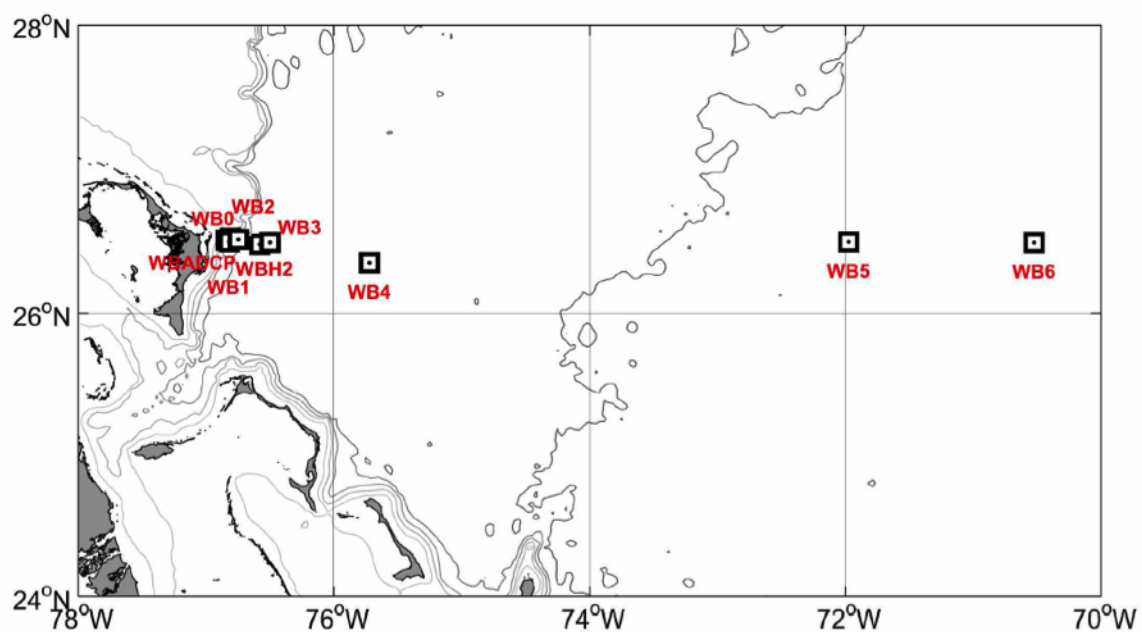


Figure 1: Abaco mooring station locations. Land masses are shaded gray with the Bahamas to the left.

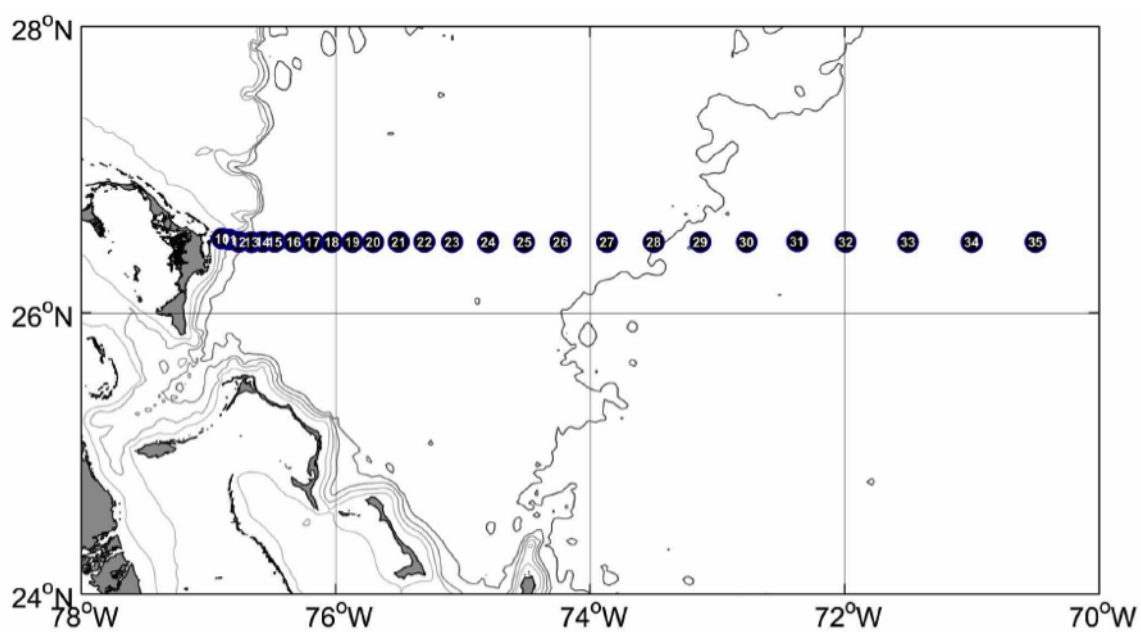


Figure 2: Abaco CTD station locations. Land masses are shaded gray with the Bahamas to the left.

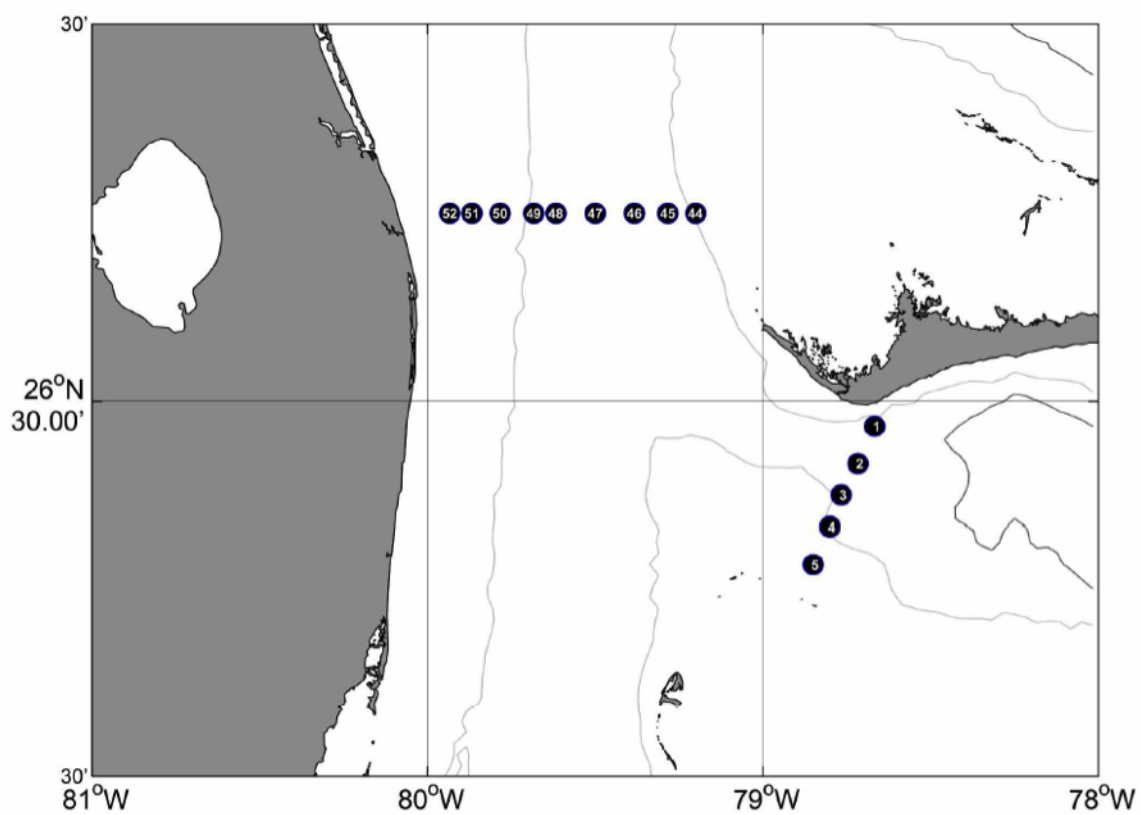


Figure 3: Florida Straits CTD station locations. Land masses are shaded gray with Florida on the left and the Bahamas on the right.

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## 2 Cruise Narrative

*The following section is a personal communication of Bill Johns.*

The cruise departed from Port Everglades (Ft. Lauderdale), FL on April 13 at 0830 local time. The ship arrived in Freeport at 1410 local and anchored offshore to complete Bahamian clearance and immigration, which was finished by 1540 local. The CTD/LADCP section across Northwest Providence Channel (Stations 1 to 5) was accomplished without any problems, with both CTD and LADCP systems functioning well. The NOAA/AOML CTD/LADCP system was used, with NOAA's CTD frame interfaced to the Knorr's Seabird deck unit. A "chinese finger" wire clasp system with a safety strap was attached to the CTD cable just above the termination for added deployment security of the system. The LADCP system is a hybrid 150/300 kHz system, with a 300 kHz Workhorse ADCP looking upward from the CTD frame and a 150 kHz ADCP looking downward. A niskin bottle was removed to mount upward looking ADCP resulting in a maximum of 23 niskin bottles for water sampling. On this cruise we tested two new 150 kHz ADCPs, on loan from Woods Hole, that are designed specifically for deep water LADCP operations and were recently repaired by R.D. Instruments.

Once in deep water east of Abaco, 4 deep "cal-dip" CTD stations (Stations 6 to 9) were done to obtain in-situ calibration data for all the Seabird microcat instruments to be deployed on the moorings, and to test acoustic releases at depth prior to use. The first two cal-dip casts included only Seabird microcats and on these casts we also ran the LADCP system, which provided the first deep water tests of the new 150 kHz LADCP. The profiles from the LADCP system looked very good, similar in quality to what we had been obtained in the past with the AOML hybrid system in this region. On the 3rd of these cal-dip casts, with 4 UK releases included on the CTD and the LADCP system disabled, a minor delay was caused by neglecting to remove the 12 kHz pinger from the CTD frame. This required the CTD to be retrieved after 900m wire out and the cast restarted after removing it, in order to perform the release tests at depth.

Following this, the Abaco 26.5°N CTDO2/LADCP section was commenced on April 15th, and completed on April 20th (Stations 10 to 35). Nine surface drifters were launched along the section, at station 18 (2 drifters), station 25 (3 drifters), and station 29 (2 drifters). Argo floats were launched at stations 23, 32, and 35.

During the section, CTD cast 19 had to be hurried to completion by skipping all bottles above about 1000 m on the upcast, because of a vessel in distress nearby that we had to go assist. This turned out to be a 250ft+ Bolivian-flagged vessel that ran out of fuel and began firing flares. We stood off ready to assist until the U.S. Coast Guard arrived. During this break we replaced the primary temperature sensor on the CTD package, after noticing that there was a larger than normal temperature difference between the two sensors (off by about 0.002 at depth). The primary sensor was measuring higher than the secondary. We chose to replace the primary sensor because it also showed a high bias relative to all the freshly-calibrated microcats during the caldip casts, whereas the comparison with the

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secondary was closer.

The problem with the CTD temperature sensor difference remained on subsequent casts; the new primary T sensor actually showed a slightly higher offset relative to the secondary (up to 0.003 at depth). A relatively large (up to 0.05 deg C) temperature bias, and conductivity bias, between the sensors also continued to occur on the upcast, with the values converging to their downcast offset during bottle stops. On station 23 we tried swapping out the pump for the primary sensors – no change. On station 24 we swapped out the secondary pump; still no affect. At this point it was decided not to swap out the secondary sensor since it compared well with the microcats, and it is likely more accurate than either of the primaries used. This also keeps one sensor pair in place for the whole section. It was later discovered, after completing the section, that this temperature offset in the thermocline was due to flow deflection off of the ADCP heads, as it did not occur during a cal-dip cast performed with the downward-looking ADCP removed. Unlike the old dual LADCP system, the downward looking 150 kHz unit could not be mounted in the center of the frame, and had to be mounted off center and closer to the CTD sensors. Evidently this proximity caused the upcast temperature and conductivity bias.

During casts 21 and 22, download problems began to occur with the WH150 LADCP (master), where the download would stop abruptly and freeze up. Otherwise, serial communications were still good. Hooking directly into the WH150 LADCP instead of through the star-cable solved the download problem, so it appeared to be a star cable problem. Unfortunately communications could not be re-established with the WH300 after reconnecting the star-cable back to the WH150, and so we had to swap in the spare AOML WH300 for station 23. We suspected a blown fuse on the WH300, but after opening it up and inspecting it, no problem was found, and the system began working again. We planned on replacing the star cable after cast 23, but the download began working reliably again on that and subsequent casts, and so the star cable was not replaced.

The last two planned CTD stations on the Abaco line were skipped, due to an advancing low pressure system from the east, and mooring work was commenced on April 20th, at site WB6. All planned mooring operations (Tables 4-7) were successfully completed between April 20 – May 1, working from east to west across the array. For most of the tall moorings (WB2, WBH2, WB3, WB4, and WB5), the approach was to recover the old mooring on one day, normally in the afternoon, and deploy the replacement mooring the next morning, with bottom lander recoveries and deployments fit in between. For the shorter moorings (WB-ADCP, WB0, WB1, and WB6), multiple mooring operations were usually conducted on each day. Few problems occurred. Among them was the failure of all of the new Novatech combination radio-strobe beacons used on the U.S. moorings, as well as the Argo locator beacons on moorings WB3 and WB5. The batteries were drained on the radio/strobe units, indicating that they never powered off when submerged, the reason for this is to be determined. The problem with the Argo locators was identified as a failure of the pressure switches to activate when they reached the surface. Also, Mooring WB3 came up very tangled and some segments had to be stopped off and recovered in reverse order. The mooring appeared to be laid out quite nicely downwind when it hit the surface, and we turned back

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upwind after latching onto it after a short turn to the right. This turn was perhaps too tight and it is possible we dragged the mooring across itself and some of the loops got caught. One microcat on this mooring (at 250m) had clearly been the victim of a shark bite, with teeth scrapes evident and the sensor cover ripped off. Nevertheless it returned a full record.

During the evening breaks in the mooring work, operations consisted of PIES deployments and acoustic data telemetry (Table 3), and several additional CTD casts that either provided post-deployment CTD data for the PIEs sites and/or post-recovery cal-dip data for the microcats retrieved from all of the moorings (stations 36 to 43).

Because of the shortening of the Abaco CTD/LADCP section and the lack of any subsequent weather delay during the cruise or other operational problems, the cruise was nearly 2 days ahead of schedule at the end of the mooring work. The extra time was split between an extended shipboard ADCP survey of the region north of the Little Bahama Bank prior to beginning the Florida Straits CTD section, and moving up the ship's arrival schedule in port by one day (May 3rd instead of May 4th).

The final CTD/LADCP section across the Straits of Florida at 27°N was completed at 1920 local on May 2rd. The ship arrived at the Port Everglades sea buoy at approximately 0200 local May 3rd. Berthed by 0715. The cruise was nearly 100% successful: all planned activities except for the last two CTD stations on the Abaco CTD line were successfully accomplished.

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### 3 *Inverted Echo-Sounder Operations*

NOAA maintains a line of pressure inverted echo sounders (PIES) along 26°30' N as part of its Western Boundary Time Series program. Some of the instruments are configured with an additional acoustic current meter, referred to as CPIES. The operations involving PIES/CPIES during the cruise are summarized in Table 3.

A summary of each of the telemetry session is provided below.

Table 3: Inverted echo-sounder locations and operation.

IES Site	Type	Latitude	Longitude	Date	Operation
A	PIES	026°30.95' N	076°50.02' W	4/30/11	Telemetry
A2	CPIES	026°30.02' N	076°44.61' W	4/28/11	Telemetry
B	PIES	026°29.48' N	076°28.16' W	4/27/11	Deployment
C	PIES	026°30.1' N	076°05.27' W	4/26/11	Deployment
D	PIES	026°30.16' N	075°42.33' W	4/25/11	Deployment
E	PIES	026°30.0' N	071°59.95' W	4/22/11	Telemetry

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## 4 Mooring Operations

Thirteen subsurface moorings were successfully recovered from the locations listed in Tables 4 and 5 and shown in Figure 1. These moorings contained a mixture of current meters, Acoustic Doppler Current Profilers (ADCPs), and temperature/salinity recorders. Sites with an "L" in their name represent bottom lander moorings which contained only precision bottom pressure sensors.

A total of 14 moorings (9 taut-wire moorings and 5 bottom landers) were deployed at the locations listed in Tables 6 and 7 and shown in Figure 1. Acoustic surveying of the on-bottom position of all moorings (except for some of the bottom landers) was successfully completed after each mooring deployment.

Table 4: Summary of U.S. mooring recovery operations.

Mooring Site	Mooring Number	Latitude (N)	Longitude (W)	Depth	Date of Recovery
WB0	M390	26° 30.41'	76° 50.45'	1004	04/29/2011
WB3	M391	26° 29.37'	76° 30.02'	4840	04/25/2011
WB5	M392	26° 30.16'	71° 58.70'	5294	04/21/2011
WBL3	M394	26° 29.42'	76° 29.64'	4843	04/25/2011
WBL5	M395	26° 30.05'	71° 59.20'	5240	04/21/2011

Table 5: Summary of U.K. mooring recovery operations.

Mooring Site	Mooring Number	Latitude (N)	Longitude (W)	Depth	Date of Recovery
WBADCP	N/A	26° 31.50'	76° 52.08'	609	04/30/2011
WB1	N/A	26° 29.97'	76° 49.12'	1394	04/29/2011
WB2	N/A	26° 30.87'	76° 44.79'	3796	04/27/2011
WBH2	N/A	26° 28.86	76° 34.74'	4824	04/26/2011
WBL4	N/A	26° 21.18'	75° 43.32'	4713	04/23/2011
WB6	N/A	26° 29.65'	70° 31.40'	5491	04/20/2011
WB2L5	N/A	26° 30.38'	76° 44.63'	3882	04/28/2011
WB4L5	N/A	26° 21.26'	75° 42.95'	4713	04/24/2011

\* mooring locations on bottom not surveyed after deployment



Table 6: Summary of U.S. mooring deployment operations.

Mooring Site	Mooring Number	Latitude (N)	Longitude (W)	Depth	Date of Deployment
WB0	M402	26° 30.39'	76° 50.47'	1005	04/30/2011
WB3	M403	26° 29.40'	76° 29.87'	4840	04/26/2011
WB5	M405	26° 29.48'	71° 59.07'	5298	04/22/2011
WBL3	M404	26° 29.09'	76° 29.72'	4843	04/25/2011
WBL5*	M406	26° 30.06'	71° 29.18'	5295	04/22/2011

Table 7: Summary of U.K. mooring deployment operations.

Mooring Site	Mooring Number	Latitude (N)	Longitude (W)	Depth	Date of Deployment
WBADCP*	N/A	26° 31.50'	76° 52.08'	617	04/30/2011
WB1	N/A	26° 30.19'	76° 48.91'	1375	04/29/2011
WB2	N/A	26° 30.92'	76° 44.57'	3796	04/28/2011
WBH2	N/A	26° 28.61	76° 37.32'	4763	04/27/2011
WB4	N/A	26° 29.21'	75° 48.56'	4745	04/24/2011
WB6*	N/A	26° 29.58'	70° 31.53'	5500	04/21/2011
WBAL2*	N/A	26° 31.57'	76° 52.55'	501	04/30/2011
WB2L7	N/A	26° 30.43'	76° 44.55'	3882	04/28/2011
WB4L7	N/A	26° 29.04'	75° 48.62'	4713	04/23/2011

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## 5 *Standards and Pre-Cruise Calibrations*

The CTD/O2 system is a real-time data acquisition system with the data from a Sea-Bird Electronics, Inc. (SBE) 9plus underwater unit transmitted via a conducting cable to a SBE 11plus deck unit (V2). The serial data from the underwater unit is sent to the deck unit in RS-232 NRZ format. The deck unit decodes the serial data and sends it to a personal computer for display and storage in a disk file using Sea-Bird Seasave software.

The SBE 911plus system transmits data from primary and auxiliary sensors in the form of binary numbers equivalent to the frequency or voltage outputs from those sensors. These are referred to as the raw data. The SBE software performs the calculations required to convert raw data to engineering units.

The SBE 911plus system is electrically and mechanically compatible with the standard, unmodified carousel water sampler, also made by Sea-Bird Electronics, Inc. A modem and carousel interface allows the 911plus system to control the operations of the carousel directly without interrupting the flow of data from the CTD.

The SBE 911plus underwater unit is configured with dual standard modular temperature (SBE 3 plus) and conductivity (SBE 4) sensors, which are mounted near the lower end cap. The conductivity cell entrance is co-planar with the tip of the temperature sensor probe. The pressure sensor is mounted inside the underwater unit main housing. A centrifugal pump module flushes water through sensor tubing at a constant rate independent of the CTD's motion to improve dynamic performance. Dual dissolved oxygen sensors (SBE 43) are added to the pumped sensor configuration following the temperature-conductivity (TC) pair. A list of sensors used during the cruise can be seen in Table 8.

Table 8: Equipment used during AB1104

Instrument	SN	Stations	Use	Pre-Cruise Calibration	Comment
Sea-Bird SBE 32 24-palce Carousel Water Sampler	32 -	1- 52			
Sea-Bird SBE9plus CTD	1035	1-52		03/18/11	
Paroscientific Digiquartz Pressure Sensor	119631	1-52		03/18/11	
Sea-Bird SBE3plus Temperature Sensor	4663	1- 19	Primary	02/17/11	
Sea-Bird SBE3plus Temperature Sensor	5171	20- 52	Primary	02/15/11	
Sea-Bird SBE3plus Temperature Sensor	2958	1- 52	Secondary	02/16/11	
Sea-Bird SBE4C Conductivity Sensor	3861	1- 52	Primary	02/25/11	
Sea-Bird SBE4C Conductivity Sensor	2980	1- 42	Secondary	02/15/11	
Sea-Bird SBE4C Conductivity Sensor	3854	43- 52	Secondary	03/11/11	
Sea-Bird SBE43 Dissolved Oxygen Sensor	2082	1- 52	Primary	03/16/11	
Sea-Bird SBE43 Dissolved Oxygen Sensor	1348	1-52	Secondary	02/26/11	
Sea-Bird SBE5T Pump	7268	1-22	Primary		
Sea-Bird SBE5T Pump	7268	23-52	Primary		
Sea-Bird SBE5T Pump	7267	1-23	Secondary		
Sea-Bird SBE5T Pump	3953	24-52	Secondary		
Simrad 807 Altimeter	980	1- 52	Range - 280 m		2.928 scale
RDI LADCP - 150 kHz Broad Band (WHOI)			Downward		
RDI LADCP - 150 kHz Broad Band (WHOI)			Downward		
RDI LADCP - 300 kHz Workhorse (UM)		1- 22	Upward		
RDI LADCP - 300 kHz Workhorse (AOML)		23- 52	Upward		

## 5.1 Conductivity

The flow-through conductivity-sensing element is a glass tube (cell) with three platinum electrodes (Seabird model SBE 4). The resistance measured between the center electrode and the end electrode pair is determined by the cell geometry and the specific conductance of the fluid within the cell, and controls the output frequency of a Wein Bridge circuit. The sensor has a frequency output of approximately 3 to 12 kHz corresponding to conductivity from 0 to 7 Siemens/meter (0 to 70 mmho/cm). The SBE 4 has a typical accuracy/stability of  $\pm 0.0003 \text{ S}\cdot\text{m}^{-1}$ /month and resolution of  $0.00004 \text{ S}\cdot\text{m}^{-1}$  at 24 scans per second.

Three conductivity sensors were used during AB1104, serial numbers (s/n) 3861, 2980, and 3854. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington during February and March 2011. The coefficients shown in Table 9 were entered into Seasave using the configuration file.

Conductivity calibration certificates show an equation containing the appropriate pressure-dependent correction term to account for the effect of hydrostatic loading (pressure) on the conductivity cell:

$$C \text{ (Siemens/meter)} = \frac{(g + h * f^2 + i * f^3 + j * f^4)}{[10 * (1 + c_{t_{cor}} * t + c_{p_{cor}} * p)]}$$

where  $g$ ,  $h$ ,  $i$ ,  $j$ ,  $c_{t_{cor}}$ , and  $c_{p_{cor}}$  are the calibrations coefficients shown above,  $f$  is the instrument frequency (kHz),  $t$  is the water temperature (degrees Celsius), and  $p$  is the water pressure (dbar). SEASAVE® automatically implements this equation.

Table 9: Calibration coefficients for the conductivity sensors.

s/n 3861	s/n 2980	s/n 3854
February 25, 2011	February 15, 2014	March 11, 2011
$g = -1.02461340\text{e}+01$	$g = -1.00397788\text{e}+01$	$g = -1.04192061\text{e}+01$
$h = 1.36335330\text{e}+00$	$h = 1.37167095\text{e}+00$	$h = 1.58449935\text{e}+00$
$i = -1.24254575\text{e}-03$	$i = -5.28485306\text{e}-05$	$i = -1.85132152\text{e}-03$
$j = 1.58283501\text{e}-04$	$j = 7.39871538\text{e}-05$	$j = 2.37215775\text{e}-04$
$\text{CPcor} = -9.5700\text{e}-08$	$\text{CPcor} = -9.5700\text{e}-08$	$\text{CPcor} = -9.5700\text{e}-08$
$\text{CTcor} = 3.2500\text{e}-06$	$\text{CTcor} = 3.2500\text{e}-06$	$\text{CTcor} = 3.2500\text{e}-06$

## 5.2 Temperature

The temperature-sensing element is a glass-coated thermistor bead, pressure protected by a stainless steel tube. The sensor output frequency ranges from 5–13 kHz corresponding to temperatures from -5 to 35°C. The output frequency is inversely proportional to the square root of the thermistor resistance, which controls the output of a patented Wien Bridge circuit. The thermistor resistance is exponentially related to temperature. The SBE 3 thermometer has a typical accuracy/stability of  $\pm 0.004^\circ\text{C}$  per year and resolution of  $0.0003^\circ\text{C}$  at 24 samples per second. The SBE 3 thermometer has a fast response time of 0.070 seconds.

Three temperature sensors (SBE 3plus) were used during AB1104, serial numbers (s/n) 4663, 2958 and 5171. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington during February 2011. The following coefficients (Table 10) were entered into SEASAVE® using the configuration file. SEASAVE® automatically implements the equation below and converts between ITS-90 and IPTS-68 temperature scales as desired. The Temperature (ITS-90) is computed from  $g$ ,  $h$ ,  $i$ ,  $j$  and  $f_0$  and  $f$  is the instrument frequency (kHz) coefficients as follows:

$$T (^{\circ}\text{C}) = \frac{1}{\left\{g + h * \left[\ln\left(\frac{f_0}{f}\right)\right] + i * \left[\ln^2\left(\frac{f_0}{f}\right)\right] + j * \left[\ln^3\left(\frac{f_0}{f}\right)\right]\right\}} - 273.15$$

Table 10: Calibration coefficients for the temperature sensors.

s/n 4663	s/n 2958	s/n 5171
February 17, 2011	February 16, 2011	February 15, 2011
$g = 4.38628753\text{e-}03$	$g = 4.39502149\text{e-}03$	$g = 4.39237658\text{e-}03$
$h = 6.40580354\text{e-}04$	$h = 6.73291801\text{e-}04$	$h = 6.45406736\text{e-}04$
$i = 2.13935781\text{e-}05$	$i = 3.02713221\text{e-}05$	$i = 2.29698970\text{e-}05$
$j = 1.79166652\text{e-}06$	$j = 2.84425418\text{e-}06$	$j = 2.13709910\text{e-}06$
$f_0 = 1000.0$	$f_0 = 1000.0$	$f_0 = 1000.0$

## 5.3 Pressure

The Paroscientific series 4000 Digiquartz high pressure transducer uses a quartz crystal resonator whose frequency of oscillation varies with pressure induced stress measuring changes in pressure as small as 0.01 parts per million with an absolute range of 0 to 10,000 psia (0 to 6885 dbar). Repeatability, hysteresis and pressure conformance are 0.002% of full-scale. The nominal pressure frequency (0 to full scale) is 34 to 38 kHz. The nominal temperature frequency is  $172 \text{ kHz} \pm 50 \text{ ppm}/^\circ\text{C}$ .

The pressure sensors utilized during AB1104 was s/n 1035. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington on March 2011. The

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following coefficients (Table 11) were entered into SEASAVE® using the configuration file:  
Pressure coefficients are first formulated into:

$$\begin{aligned} c &= c_1 + c_2 * U + c_3 * U^2 \\ d &= d_1 + d_2 * U \\ t_0 &= t_1 + t_2 * U + t_3 * U^2 + t_4 * U^3 + t_5 * U^4 \end{aligned}$$

where  $U$  is temperature in degrees Celsius. Pressure is computed according to:

$$P \text{ (psia)} = c * \left(1 - \frac{t_0^2}{t}\right) * \left[1 - d * \left(1 - \frac{t_0^2}{t}\right)\right]$$

where  $t$  is pressure period ( $\mu s$ ). SEASAVE® automatically implements this equation.

Table 11: Calibration coefficients for the pressure sensor.

s/n 1035
March 18, 2011
$c_1 = -4.373825e+04$
$c_2 = 4.277260e-01$
$c_3 = 1.413200e-02$
$d_1 = 3.420800e-02$
$d_2 = 0.000000e+00$
$t_1 = 2.988725e+01$
$t_2 = -1.949980e-04$
$t_3 = 4.187800e-06$
$t_4 = 4.590370e-09$
$t_5 = 0.000000e+00$
Slope = 1.00001000
Offset = -0.04860
AD590M = 1.279900e-02
AD590B = -9.386550e+00

## 5.4 Dissolved Oxygen

The SBE 43 dissolved oxygen sensor uses a membrane polarographic oxygen detector (MPOD). Oxygen sensors determine the dissolved oxygen concentration by counting the number of oxygen molecules per second (flux) that diffuse through a membrane. By knowing the flux of oxygen and the geometry of the diffusion path, the concentration of oxygen can be computed. The permeability of the membrane to oxygen is a function of temperature and ambient pressure. In order to minimize the errors in the oxygen measurement due to the temperature differences between the water and the oxygen sensor, a temperature compensation is calculated using a temperature measured near the active surface of the sensor. The interface

electronics output voltages proportional to the temperature-compensated oxygen current. Initial computation of dissolved oxygen in engineering units is done in the software. The range for dissolved oxygen is 120% of surface saturation in all natural waters, fresh and salt, and the nominal accuracy is 2% of saturation.

Under extreme pressure, changes can occur in gas permeable Teflon membranes that affect their permeability characteristics. Some of these changes (plasticization and amorphous/crystallinity ratios) have long time constants and depend on the sensor's time-pressure history. These slow processes result in hysteresis in long, deep casts. The hysteresis correction algorithm operates through the entire data profile and corrects the oxygen voltage values for changes in membrane permeability as pressure varies. At each measurement, the correction to the membrane permeability is calculated based on the current pressure and how long the sensor spent at previous pressures.

Sea-Bird has implemented an optional hysteresis correction for dissolved oxygen data. The correction algorithm requires a continuous time series of data, with no temporal data gaps (although a continuous time series is necessary, a constant sampling interval is not required). Prior to processing, do not remove any data from the downcast or upcast (if to be used), other than a surface soak at the beginning of the downcast.

Oxygen sensors 2082 and 1348 were used during AB1104. The following oxygen coefficients (Table 12) were entered into SEASAVE® using the configuration file:

Table 12: Calibration coefficients for the dissolved oxygen sensors.

s/n 2082	s/n 1348
March 16, 2011	February 26, 2011
Soc = 0.4104	Soc = 0.5388
Voffset = -0.5320	Voffset = -0.5198
Tau20 = 1.30	Tau20 = 1.66
A = -2.5651e-03	A = -3.1314e-03
B = 1.6857e-04	B = 1.3614e-04
C = 2.9053e-06	C = -2.2679e-06
E <sub>nominal</sub> = 0.036	E <sub>nominal</sub> = 0.036

The use of these constants in linear equations of the form  $I = mV + b$  and  $T = kV + c$  yield sensor membrane current and temperature (with maximum error of about 0.5 °C) as a function of sensor output voltage.

Dissolved oxygen concentration is calculated according to:

$$O \text{ (ml/l)} = \left\{ Soc * (V + V_{offset} + tau(T, S) * \frac{\delta v}{\delta t}) + p1 * station \right\} \\ * (1.0 + A * T + B * T^2 + C * T^3) * OXSAT(T, S) * e^{E * (\frac{P}{K})}$$

where  $Soc$ ,  $V_{offset}$ ,  $tau$ ,  $A$ ,  $B$ ,  $C$ ,  $E$  and  $p1$  are the calibration coefficients shown above and  $V$  is the instrument voltage ( $V$ ).  $T$ ,  $S$  and  $P$  are the temperature, salinity and pressure

measured by the CTD.  $K$  is the temperature in the absolute scale ( $K$ ),  $\delta v/\delta t$  is the oxygen voltage time derivative, *station* is the station number, and *OXSAT* is the oxygen saturation value calculated according to (Weiss, 1970):

$$OXSAT(\theta, S) = \exp \left\{ A_1 + A_2 * \left( \frac{100}{\theta} \right) + A_3 * \ln \left( \frac{\theta}{100} \right) + A_4 * \left( \frac{\theta}{100} \right) + S * \left[ B_1 + B_2 * \left( \frac{\theta}{100} \right) + B_3 * \left( \frac{\theta}{100} \right)^2 \right] \right\}$$

where  $\theta$  is the absolute temperature (K); and

$$\begin{aligned} A_1 &= -173.4292 & B_1 &= -0.033096 \\ A_2 &= 249.6339 & B_2 &= 0.014259 \\ A_3 &= 143.3483 & B_3 &= -0.00170 \\ A_4 &= -21.8492. \end{aligned}$$

SEASAVE® automatically implements this equation.

The hysteresis correction is calculated, using the oxygen voltages, with the following algorithm:

$$\begin{aligned} D &= 1 + H_1 * (e^{\left(\frac{P(i)}{H^2}\right)} - 1) \\ C &= e(-1 * \left(\frac{Time(i) - Time(i-1)}{H3}\right)) \\ O_V(i) &= O_{volt}(i) + V_{offset} \\ O_{newvolts}(i) &= a * \frac{a}{D} \\ O_{finalvolts}(i) &= O_{newvolts}(i) - V_{offset} \end{aligned}$$

Where:

$i$  = indexing variable (must be a continuous time series to work; can be performed on bin averaged data), where  $i = 1:\text{end}$  (end is largest data index point plus 1).

$P(i)$  = pressure (decibars) at index point  $i$ .

$Time(i)$  = time (seconds) from start of index point  $i$ .

$O_{volt}(i)$  = SBE 43 oxygen voltage output directly from sensor, with no calibration or hysteresis corrections, at index point  $i$ .

$V_{offset}$  = correction for an electronic offset that is applied to voltage output of sensor.  $V_{offset}$  correction is always negative (see factory calibration sheet for this coefficient).  $V_{offset}$  is added to raw voltages prior to hysteresis correction. At end of hysteresis corrections,  $V_{offset}$  is removed prior to data conversion using SBE 43 calibration equation (see  $O_{finalvolts}(i)$ ).

$O_V(i)$  = dissolved oxygen voltage value with  $V_{offset}$  correction (made prior to hysteresis correction) at index point  $i$ .

$D$  and  $C$  are temporary variables used to simplify expression in processing loop.

$H1$  = amplitude of hysteresis correction function. Default = -0.033, range = -0.02 to -0.05



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(varies from sensor to sensor).

$H2$  = function constant or curvature function for hysteresis. Default = 5000.

$H3$  = time constant for hysteresis (seconds). Default = 1450, range = 1200 to 2000 (varies from sensor to sensor).

$O_{newvolts}(i)$  = hysteresis-corrected oxygen value at index point  $i$ .

$O_{finalvolts}(i)$  = hysteresis-corrected oxygen value at index point  $i$  with  $V_{offset}$  removed.

This step is necessary prior to computing oxygen concentration using SBE 43 calibration equation.

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## 6 *Data Acquisition*

CTD/rosette casts were performed with a package consisting of a 24-place, 10-liter rosette frame, a 24-place water sampler (SBE32) and 24, 10-liter Bullister-style bottles. Underwater electronic components consisted of a Sea-Bird Electronics (SBE) 9 plus CTD with dual pumps and the following sensors: dual temperature (SBE3), dual conductivity (SBE4), dual dissolved oxygen (SBE43), and an altimeter. The other underwater electronic components consisted of two RDI LADCPs. A total of 52 CTD/rosette casts were made, usually to within 20 m of the bottom.

The CTD's supplied a standard Sea-Bird format data stream at a data rate of 24 frames/second. The SBE9 plus CTD was connected to the SBE32 24-place pylon providing for single-conductor sea cable operations. Power to the SBE9 plus CTD, SBE32 pylon, auxiliary sensors, and altimeter was provided through the sea cable from the SBE911plus deck unit. The rosette system was suspended from a UNOLS-standard three-conductor 0.322" electro-mechanical sea cable.

The CTD was mounted vertically attached to the bottom center of the rosette frame. All SBE4 conductivity and SBE3 temperature sensors and their respective pumps were mounted vertically as recommended by SBE, outboard of the CTD. The CTD was outfitted with dual pumps. Primary temperature, conductivity, and dissolved oxygen were plumbed on one pump circuit and secondary temperature, conductivity, and dissolved oxygen on the other. Pump exhausts were attached to outside corners of the CTD cage and directed downward. The altimeter was mounted on the inside of a support strut adjacent to the bottom frame ring. The LADCP's were vertically mounted inside the bottle rings with one 150 kHz pointing down, the other 300 kHz transducer pointing up. A niskin bottle had to be removed to mount the upward looking 300 kHz ADCP.

O-rings were changed as necessary and bottle maintenance was performed each day to insure proper closure and sealing. Valves were inspected for leaks and repaired or replaced as needed.

### 6.1 *Data Acquisition Procedure*

This report was written after the cruise was completed where no CTD procedures were recorded. On deck pressure was obtained from the cruise log book.

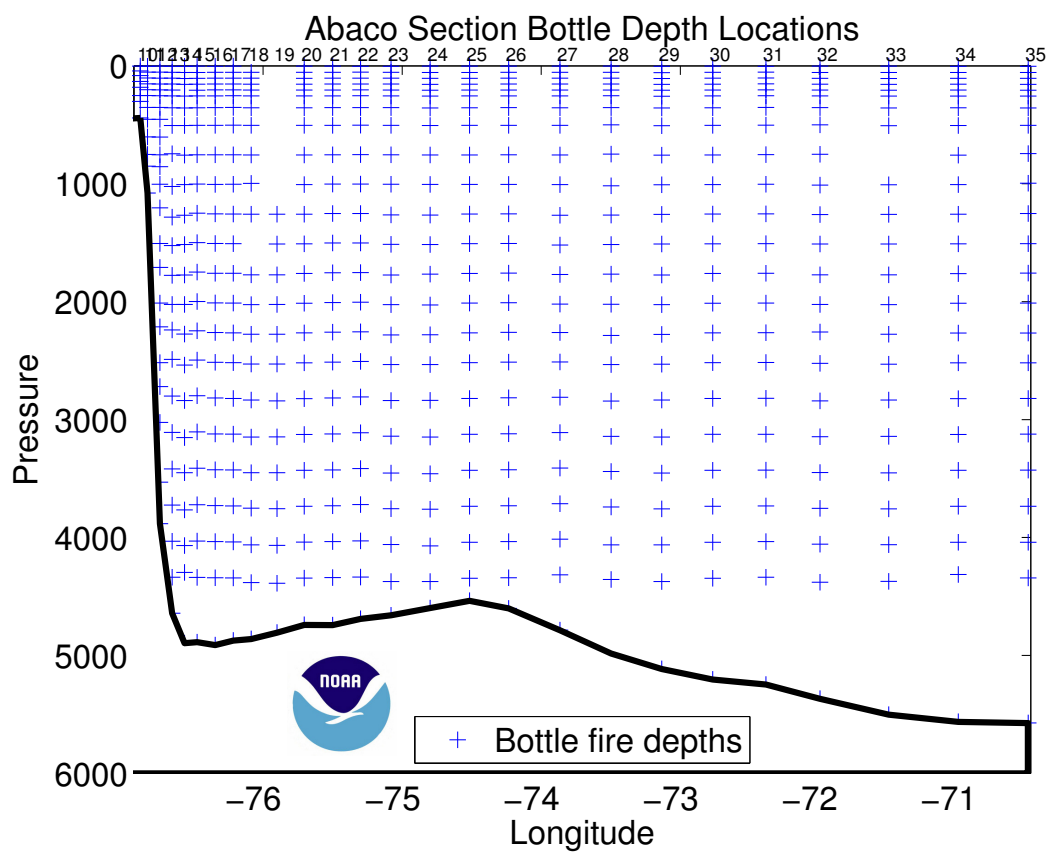


Figure 4: Bottle locations for 26.5°N Deep Western Boundary Current section east of Abaco Island.

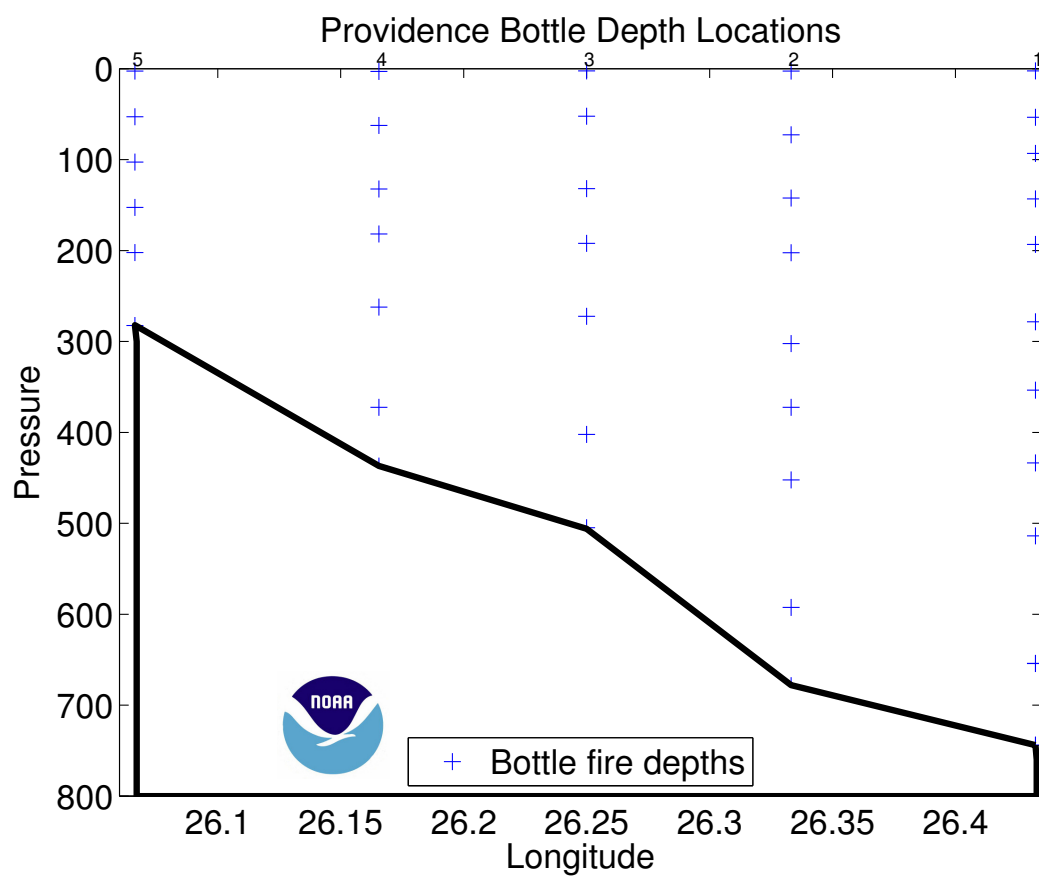


Figure 5: Bottle locations for along the Northwest Providence Channel section.

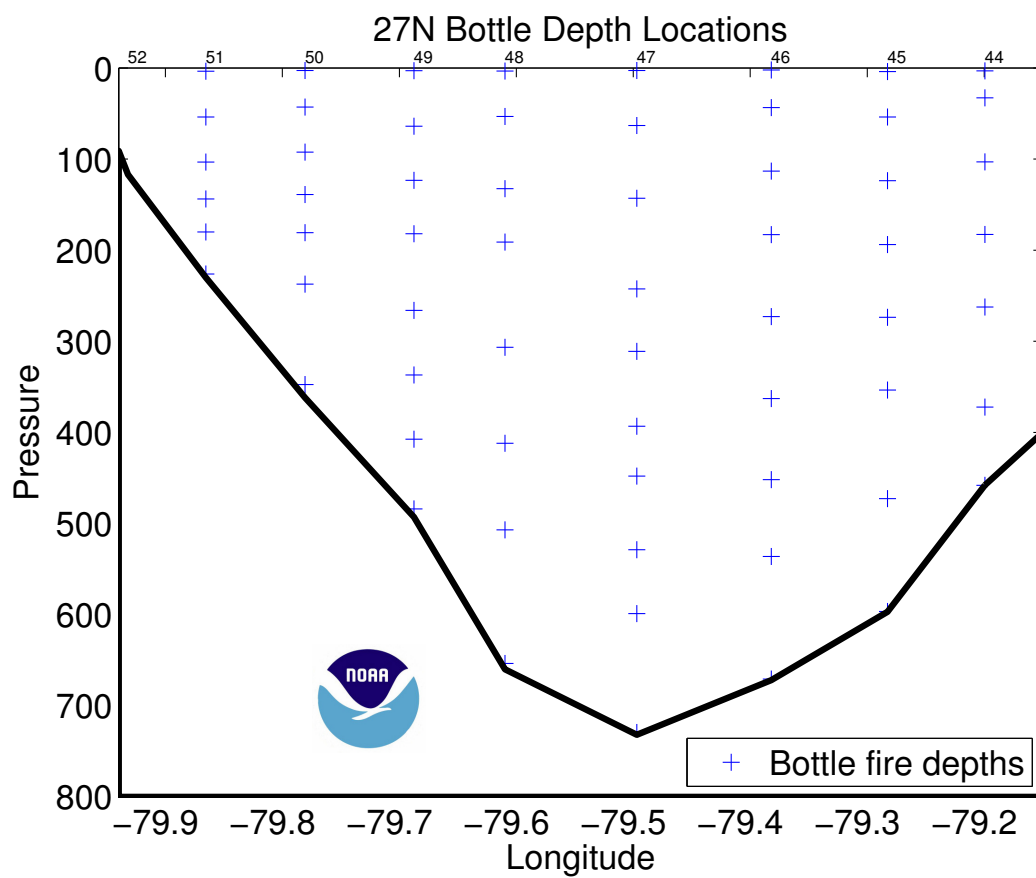


Figure 6: Bottle locations for 27°N section in the Florida Straits.

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## 6.2 Shipboard CTD Data Processing

Shipboard CTD data processing was performed automatically at the end of each deployment using SEABIRD SBE Data Processing version 7.21h and AOML Matlab processing software. The raw CTD data and bottle trips acquired by SBE Seasave on the Windows workstation were copied onto the CTD processing laptop, and processed to a 1-dbar series and a 1-second time series. Bottle trip values were extracted and a 1-decibar (dbar) down cast pressure series created.

Raw data are acquired from the instruments and are stored unmodified. The conversion module DATCNV uses the instrument configuration and pre-cruise factory calibration coefficients to create a converted engineering unit data file that is utilized by all SBEDataProc® post processing modules. Unless otherwise noted, all calibration parameters given are factory default values recommended by Sea Bird Electronics, Inc. The following is the SBEDataProc® processing module sequence and specifications for primary calibrated data (1 dbar averages) uses the following routines in order for reduction of CTD/O<sub>2</sub> data from this cruise:

1. DATCNV converts raw data into engineering units and creates a .ROS bottle file. Both down and up casts were processed for scan, elapsed time(s), depth, pressure, t0 ITS-90 C, t1 ITS-90 C, c0 S/cm, c1 S/cm, salinity (PSU), salinity 2 (PSU), oxygen voltage V, oxygen 2 voltage V, altimeter, optical sensor, oxygen umol/kg, oxygen 2 umol/kg, oxygen mll/l, oxygen 2 ml/l, oxygen dv/dt, oxygen dv/dt 2, latitude, and longitude. MARKSCAN was used to determine the number of scans acquired on deck and while priming the system to exclude these scans from processing.
2. ALIGNCTD aligns temperature, conductivity, and oxygen measurements in time relative to pressure to ensure that derived parameters are made using measurements from the same parcel of water. Secondary conductivity and oxygen were automatically advanced by 0.073 seconds.
3. BOTTLESUM creates a summary of the bottle data. Bottle position, date, and time were output automatically. Pressure, temperature, conductivity, salinity, oxygen voltage and preliminary oxygen values were averaged over a 5 second interval.
4. WILDEDIT computes the standard deviation of 100 point bins, and then makes two passes through the data. The first pass flags points that differ from the mean by more than 2 standard deviations. A new standard deviation is computed excluding the flagged points and the second pass marks bad values greater than 20 standard deviations from the mean. For this data set, data were kept within a distance of 100 of the mean (i.e., all data).

- 
5. FILTER applies a low pass filter to pressure with a time constant of 0.15 seconds. In order to produce zero phase (no time shift), the filter is first run forward through the file and then run backwards through the file.
  6. CELLTM uses a recursive filter to remove conductivity cell thermal mass effects from measured conductivity. In areas with steep temperature gradients the thermal mass correction is on the order of 0.005 PSS-78. In other areas the correction is negligible. The value used for the thermal anomaly amplitude ( $\alpha$ ) was  $0.03^{\circ}\text{C}$ . The value used for the thermal anomaly time constant ( $1/\beta$ ) was  $7.0^{\circ}\text{C}$ .
  7. LOOPEDIT removes scans associated with pressure slowdowns and reversals. If the CTD velocity is less than 0.25 m/s or the pressure is not greater than the previous maximum scan, the scan is omitted.
  8. DERIVE uses 1 dbar averaged pressure, temperature, and conductivity to compute primary and secondary salinities. Oxygen voltage is used to calculate oxygen concentrations.
  9. BINAvg averages the data into 1 dbar bins. Each bin is centered on an integer pressure value, e.g., the 1 dbar bin averages scans where pressure is between 0.5 dbar and 1.5 dbar. There is no surface bin. The number of points averaged in each bin is included in the data file.
  10. STRIP removes the computed oxygen variable.
  11. TRANS converts the binary data file into ASCII format.
  12. SPLIT separates the cast into upcast and downcast values.

Package slowdowns and reversals owing to ship roll can move mixed water in tow to in front of the CTD sensors and create artificial density inversions and other artifacts. In addition to Seasoft module LOOPEDIT, a program computes values of density locally referenced between every 1 dbar of pressure to compute  $N^2$  and linearly interpolates temperature, conductivity, and oxygen voltage over those records where  $N^2$  is less than or equal to  $-1 \times 10^{-5} \text{ s}^{-2}$ . These data were retained but flagged as questionable in the final WOCE formatted files.

Final calibrations are applied to delooped data files. ITS-90 temperature, salinity, and oxygen are computed, and WOCE quality flags are created.

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CTD data were examined at the completion of each deployment for clean corrected sensor response and any calibration shifts. As bottle salinity and oxygen results became available, they were used to refine shipboard conductivity and oxygen sensor calibrations.

A total of 52 casts were processed.

### ***6.3 CTD Calibration Procedures***

Laboratory calibrations of the CTD pressure, temperature, conductivity, and oxygen sensors were all performed at SBE. The calibration dates are listed in Table 8.

Secondary temperature, conductivity and dissolved oxygen (T2, C2 and DO2) sensors served as calibration checks for the reported primary sensors. During the cruise, it was determined that the primary sensors behaved more stably during the cruise.

In-situ salinity and dissolved O2 check samples collected during each cast were used to calibrate the conductivity and dissolved O2 sensors.

There were several sensor combinations (not including pump replacements) used during the cruise.

#### ***6.3.1 Salinity Analysis***

A single Guildline Autosol, model 8400B, was used for all salinity measurements. The salinometer readings were logged on a computer using Ocean Scientific International's logging hardware and software. The Autosol's water bath temperature was set to 24°C, which the Autosol is designed to automatically maintain. The salinometer was standardized for each group of samples analyzed using two bottles of standard seawater: one at the beginning and end of each set of measurements. The salinometer output was logged to a computer file. The software prompted the analyst to flush the instrument's cell and change samples when appropriate. For each calibration standard, the salinometer cell was initially flushed 6 times before a set of conductivity ratio reading was taken. For each sample, the salinometer cell was initially flushed at least 3 times before a set of conductivity ratio readings were taken.

IAPSO Standard Seawater Batch P-152 was used to standardize the casts (Table 13).

The salinity samples were collected in 200 ml Kimax high-alumina borosilicate bottles that had been rinsed at least three times with sample water prior to filling. The bottles were sealed with custom-made plastic insert thimbles and Nalgene screw caps. This assembly provides very low container dissolution and sample evaporation. Prior to sample collection, inserts were inspected for proper fit and loose inserts replaced to insure an airtight seal. Laboratory temperature was also monitored electronically throughout the cruise. PSS-78 salinity [UNES81] was calculated for each sample from the measured conductivity ratios.



Table 13: Nominal values for the batches of IAPSO standard seawater.

P-152
Use By: May 2013
K15: 0.99981
Salinity: 34.993

The offset between the initial standard seawater value and its reference value was applied to each sample. Then the difference (if any) between the initial and final vials of standard seawater was applied to each sample as a linear function of elapsed run time. The corrected salinity data was then incorporated into the cruise database.

The running standard calibration values are shown in Figure 7. Through the course of the 20 day cruise, the autosal standards changed by 0.0005 in conductivity ratio (about 0.1 in salinity). Stations 46-51 were flagged as 4 due to bad autosal runs.

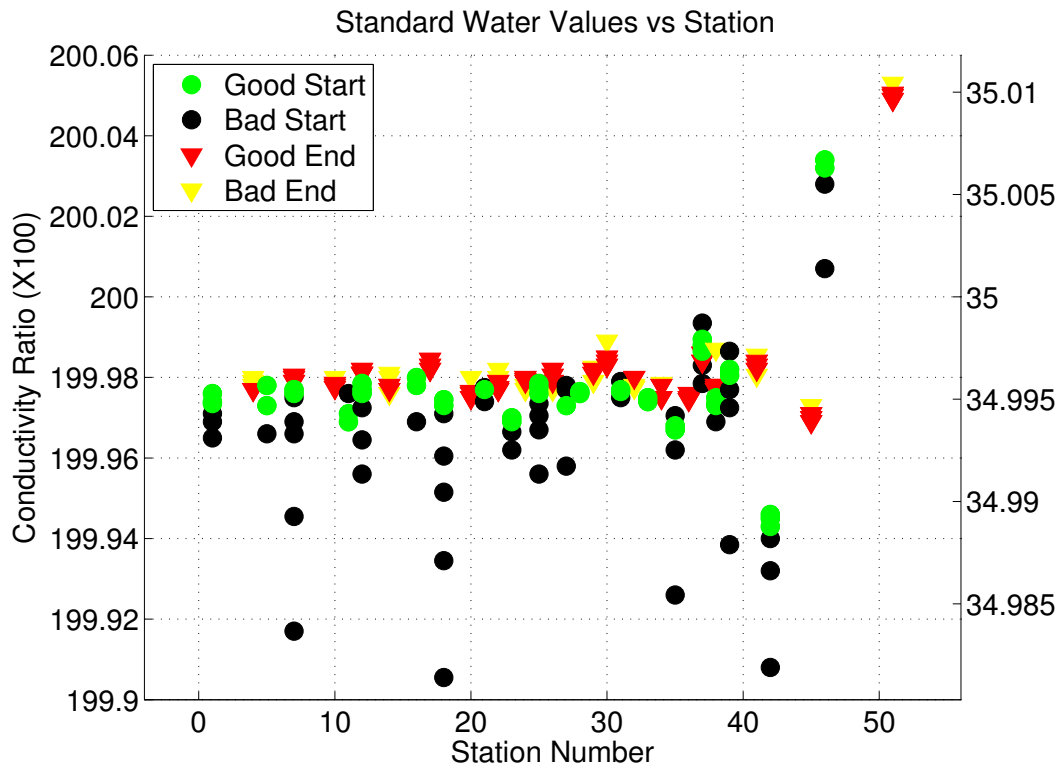


Figure 7: Standard vial calibrations throughout the cruise.

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### 6.3.2 Oxygen Analysis

Dissolved oxygen analyses were performed with an automated titrator using amperometric end-point detection (Langdon, 2010). Sample titration, data logging, and graphical display were performed with a PC running a LabView program written by Ulises Rivero of AOML. Thiosulfate (17.5g per 500 ml) was dispensed by a 2 ml Gilmont burette driven with a stepper motor controlled by the titrator. Tests in the lab were performed to confirm that the precision and accuracy of the volume dispensed were comparable or superior to the Dosimat 665. The whole-bottle titration technique of Carpenter (1965), with modifications by Culberson et al. (1991), was used. Four replicate 10 *ml* iodate standards were run every 3-4 days or at the initial fill of new Thiosulfate and once again after bottle has reached half volume, whichever came first. The reagent blank determined as the difference between V1 and V2, the volumes of Thiosulfate required to titrate 1ml aliquots of the iodate standard, was determined two times during the cruise at the beginning and middle. This method was found during pre-cruise testing to produce a more reproducible blank value than the value determined as the intercept of a standard curve.

Dissolved oxygen samples were drawn from Niskin bottles into calibrated 125-150ml iodine titration flasks using silicon tubing. Bottles were rinsed three times and filled from the bottom, overflowing three volumes while taking care not to entrain any bubbles. The CTD temperatures were used to calculate *umol/kg* concentrations. 1ml of MnCl<sub>2</sub> and 1ml of NaOH/NaI were added immediately after drawing the sample was concluded using a ThermoScientific REPIPET II. The flasks were then stoppered and shaken well. Deionized water (DIW) was added to the neck of each flask to create a water seal. The total number of oxygen samples collected from the rosette was 627 including the duplicate samples, two taken at random every cast. The samples were stored in the lab in plastic totes at room temperature for 1.5 hours before analysis. The data was incorporated into the cruise database shortly after analysis. Thiosulfate normality was calculated from the laboratory temperature for each sample run.

The dispenser used for the standard solution (SOCOREX Calibrex 520) and the burette were calibrated gravimetrically just before the cruise. Oxygen flask volumes were determined gravimetrically with degassed deionized water at AOML. The correction for buoyancy was applied.

The precision of the oxygen measurements during the cruise were estimated by using the duplicate samples. From the 30 duplicate samples (Table 14), which corresponds to 4.6% of the total samples collected during this cruise, the average residual for the duplicates was -0.05 *umol/kg* with a standard deviation of 0.34 *umol/kg* (Figure 8). Not oxygens were collected during the mooring sensor calibration casts, stations 1-6 and 36-43.

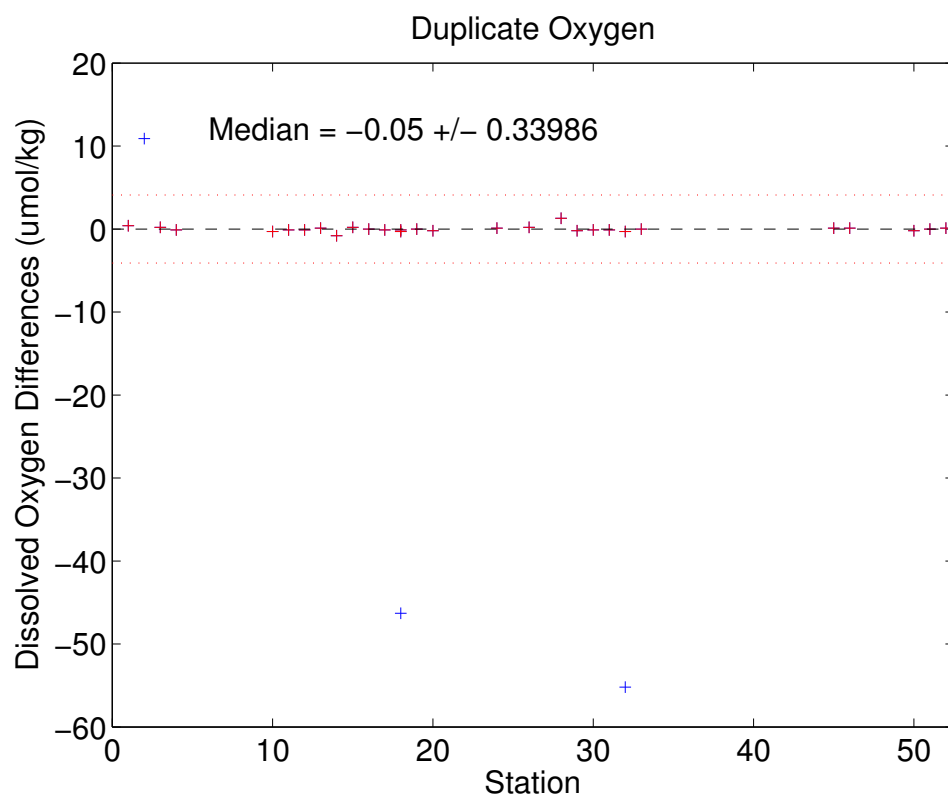


Figure 8: Oxygen residuals of the duplicate samples .

Table 14: Duplicate dissolved oxygen samples collected during the ABACO cruise (values in  $\mu\text{mol/kg}$ ).

Station	Niskin	Oxygen1	Oxygen2	Differences
1	4	147.8	148.2	-0.400
2	2	153.6	164.5	-10.900
3	4	192.5	192.7	-0.200
4	2	180.9	180.8	0.100
10	5	213.6	213.3	0.300
11	9	202.9	202.8	0.100
12	8	270.7	270.6	0.100
13	2	273.0	273.1	-0.100
14	12	266.4	265.6	0.800
15	6	275.9	276.1	-0.200
16	8	270.9	270.9	0.000
17	14	201.6	201.5	0.100
18	6	276.2	275.9	0.300
18	13	246.8	246.7	0.100
19	9	270.6	270.6	0.000
20	14	192.0	191.8	0.200
24	18	204.2	204.3	-0.100
26	13	244.1	244.3	-0.200
28	2	271.4	272.7	-1.300
29	17	201.8	201.6	0.200
30	2	271.4	271.3	0.100
31	20	210.6	210.5	0.100
32	9	269.3	269.0	0.300
32	14	200.0	144.8	55.200
33	6	273.5	273.5	0.000
45	4	159.0	159.1	-0.100
46	4	128.7	128.8	-0.100
50	2	135.5	135.3	0.200
51	2	131.1	131.1	0.000
52	2	131.7	131.8	-0.100

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## 7 *Post-Cruise Calibrations*

Post cruise sensor calibrations were done at Sea-Bird Electronics, Inc.. Secondary temperature, conductivity and dissolved oxygen sensors served as calibration checks for the reported primary sensors.

In-situ salinity and dissolved oxygen samples collected during each cast were used to calibrate the conductivity and dissolved oxygen sensors.

Several sensor combinations were used during the cruise as listed in Table 8. Secondary TC pair T4258/C3854 was selected for final data reduction. Secondary oxygen sensor, s/n 1348, was used for the final data reduction. In addition to the Seasave processing modules, a group of Matlab script files called AOML/CTDCAL Toolbox were used. These scripts were based on earlier work of different groups as well as in modern statistical tools. They cover all the steps of the CTD data processing from the preliminary comparisons between sensors or bottle samples to data reductions and final sensors calibrations.

### 7.1 *CTD Data Processing*

By using the post cruise sensors calibrations; time drifts were estimated for the temperature and conductivity sensors (for estimated time drifts see the appropriate sections below). The processing module sequence used at sea is done again to include the time drifts as well the pressure correction. After this step the following Matlab scripts based on PMEL programs are applied to the CTD data:

- FILL\_SURFACE was used to copy the first good value of salinity, potential temperature, oxygen and oxygen current back to the surface. The program then calculated temperature and conductivity, and zeroed  $dc/dt$  of oxygen current for those records.
- DESPIKE1 removed spikes from primary oxygen current and oxygen temperature data, as well as removing spikes from the primary conductivity sensor. Data were linearly interpolated over de-spiked records. Conductivity was back calculated, and sigma-theta and potential temperature were recomputed for the interpolated records.
- DESPIKE2 removed spikes from secondary sensors in the same method as DESPIKE1.
- Package slowdown and reversals due to ship roll can move mixed water in tow in front of the CTD sensors. This mixture can create artificial density inversions and other artifacts. In addition to the SEASOFT module LOOPEDIT, DELOOP, computes values of density locally referenced between every 1 dbar of pressure to compute  $N^2 = (-g/\rho)(d\rho/dz)$  and linearly interpolated measured parameters over those records where  $N^2 \leq -1.0 \times 10^{-5} \text{ s}^{-2}$ .

## 7.2 CTD Pressure

Pressure sensor calibration coefficients derived from the pre-cruise calibrations were applied to raw pressure data during each cast. Residual pressure offsets (the difference between the first and last submerged pressures) were examined to check for calibration shifts (see Figure 9 and Table 15). Pressure sensor, s/n 1035, was used during the cruise. On deck pressures before the start of each cast was recorded and is plotted in Figure 9. The on deck pressure before the cast was stable at  $0.00 \pm 0.089$  dbar. No correction to the pressure sensor was applied.

Near surface pressure values (which is taken as the near-surface pressure at the markscan and the last fired bottle pressure) showed little variability over the cruise ( $2.81 \pm 0.52$  dbar before and  $2.77 \pm 0.57$  dbar after).

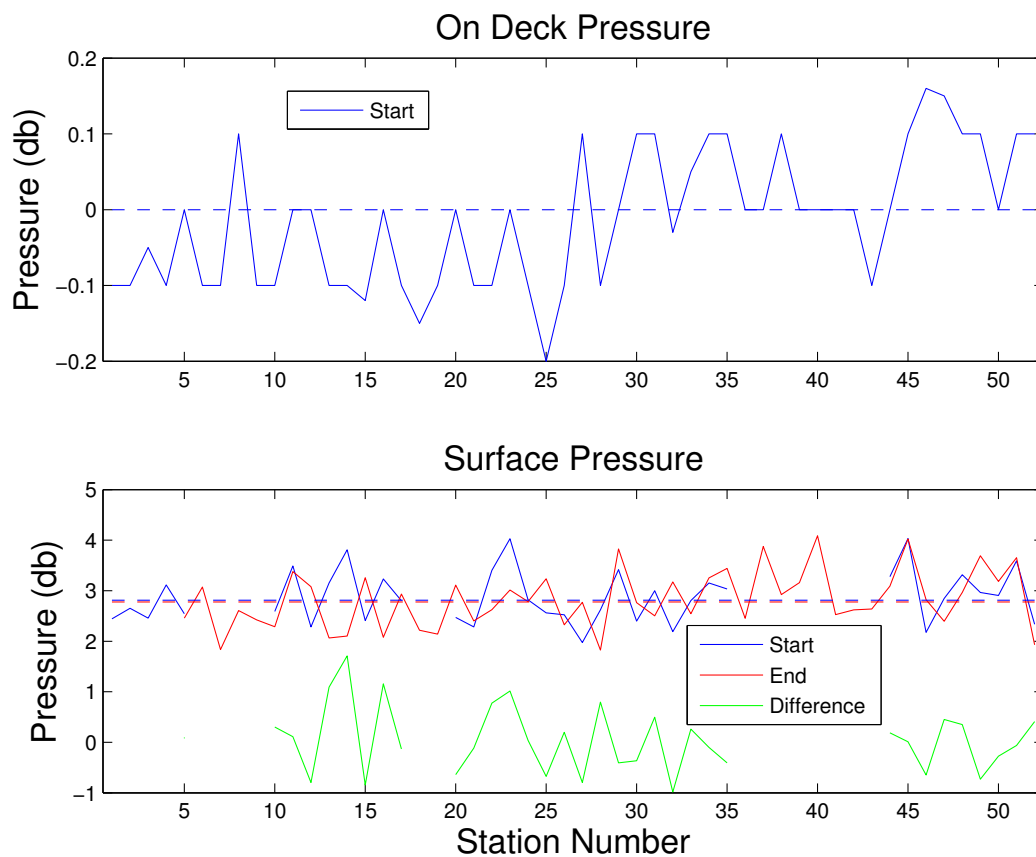


Figure 9: Pressure differences vs. station number. Top panel is the pressures measured on deck before the cast (blue). Bottom panel are the sea surface pressure values measured at the start of the downcast (blue), at the end of the upcast (red) and their respective difference (green).

Table 15: Near surface Pressure values and scan number used to remove surface soak and on-deck values.

Station	Markscan	Deck Prs Start	Deck Prs End	Sfc Prs Start	Sfc Prs End
1	3457	-0.1000	NaN	2.4420	NaN
2	3457	-0.1000	NaN	2.6530	NaN
3	3169	-0.0500	NaN	2.4570	NaN
4	2329	-0.1000	NaN	3.1140	NaN
5	2841	0.0000	NaN	2.5440	2.4580
6	4099	-0.1000	NaN	NaN	3.0720
7	3115	-0.1000	NaN	NaN	1.8350
8	3541	0.1000	NaN	NaN	2.6050
9	3798	-0.1000	NaN	NaN	2.4210
10	3863	-0.1000	NaN	2.5900	2.2870
11	3819	0.0000	NaN	3.4880	3.3770
12	3202	0.0000	NaN	2.2830	3.0790
13	4252	-0.1000	NaN	3.1540	2.0630
14	3060	-0.1000	NaN	3.8090	2.1010
15	2735	-0.1200	NaN	2.4100	3.2550
16	4666	0.0000	NaN	3.2340	2.0770
17	4716	-0.1000	NaN	2.8020	2.9350
18	2657	-0.1500	NaN	NaN	2.2160
19	2813	-0.1000	NaN	NaN	2.1400
20	2049	0.0000	NaN	2.4720	3.1110
21	3316	-0.1000	NaN	2.2850	2.4000
22	4789	-0.1000	NaN	3.4010	2.6250
23	2470	0.0000	NaN	4.0270	3.0130
24	2457	-0.1000	NaN	2.8200	2.7830
25	2578	-0.2000	NaN	2.5620	3.2360
26	5158	-0.1000	NaN	2.5230	2.3250
27	5103	0.1000	NaN	1.9740	2.7710
28	3072	-0.1000	NaN	2.6200	1.8240
29	2281	0.0000	NaN	3.4170	3.8260
30	4351	0.1000	NaN	2.3970	2.7640
31	4879	0.1000	NaN	2.9990	2.5030
32	2992	-0.0300	NaN	2.1880	3.1730
33	2996	0.0500	NaN	2.8040	2.5450
34	4721	0.1000	NaN	3.1520	3.2520
35	4729	0.1000	NaN	3.0330	3.4400
36	2547	0.0000	NaN	NaN	2.4540
37	3317	0.0000	NaN	NaN	3.8750
38	2625	0.1000	NaN	NaN	2.9240
39	2899	0.0000	NaN	NaN	3.1590
40	2848	0.0000	NaN	NaN	4.0860
41	2964	0.0000	NaN	NaN	2.5280
42	4114	0.0000	NaN	NaN	2.6210
43	3297	-0.1000	NaN	NaN	2.6380
44	2116	0.0000	NaN	3.2790	3.0910
45	3171	0.1000	NaN	4.0310	4.0200
46	2732	0.1600	NaN	2.1750	2.8220
47	2582	0.1500	NaN	2.8470	2.3940
48	4546	0.1000	NaN	3.3150	2.9650
49	5791	0.1000	NaN	2.9630	3.6920
50	4137	0.0000	NaN	2.9070	3.1820
51	4862	0.1000	NaN	3.5900	3.6540
52	4540	0.1000	NaN	2.3370	1.9280

### 7.3 CTD Temperature

Temperature sensor calibration coefficients derived from the pre-cruise calibrations were applied to raw primary and secondary temperature data during each cast. Data accuracy, reproducibility and stability were examined by tabulating the difference between the two different temperature sensors over a range of pressures (bottle trip locations) for each cast. These comparisons are summarized in Figure 10, which shows a median temperature difference between the two sensors of 0.0015 °C and a standard deviation of 0.001 °C.

The pressure dependence between the two temperature sensors is shown below in Figure 11. There is a discrepancy in the downcast versus upcast profile slopes due to the pressure dependence effect in the strong gradient of the thermocline. The primary temperature sensor, s/n 4663, was a temperature sensor on loan from Seabird, used to calibrate their temperature sensors, with no known pressure dependence. A pressure correction was then applied to the secondary sensor, s/n 2958, with  $m = 4.0869\text{e-}07$  and  $b = -4.1315\text{e-}04$ .

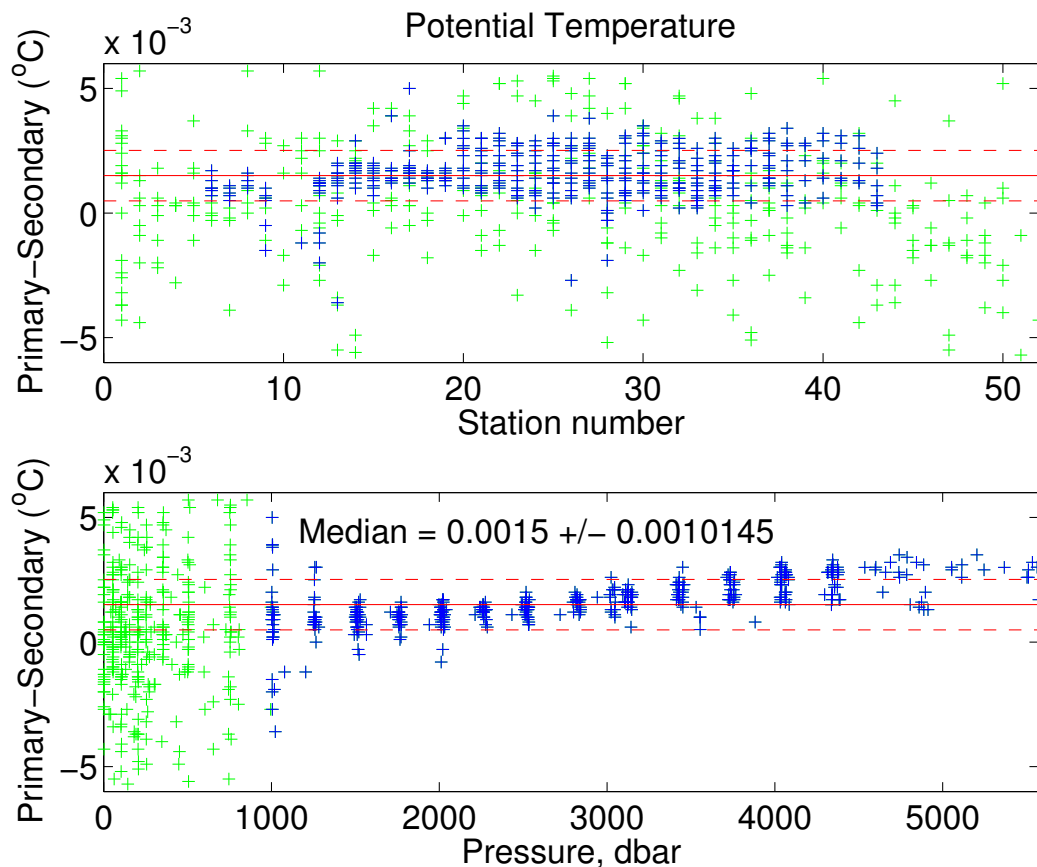


Figure 10: Temperature differences (after corrections) between sensors by station number (top) and pressure (bottom). The green represents the surface data down to 1000 dbar. The blue represents data below 1000 dbar. The red solid line represents the median with the red dashed representing the standard deviation (same for top and bottom).



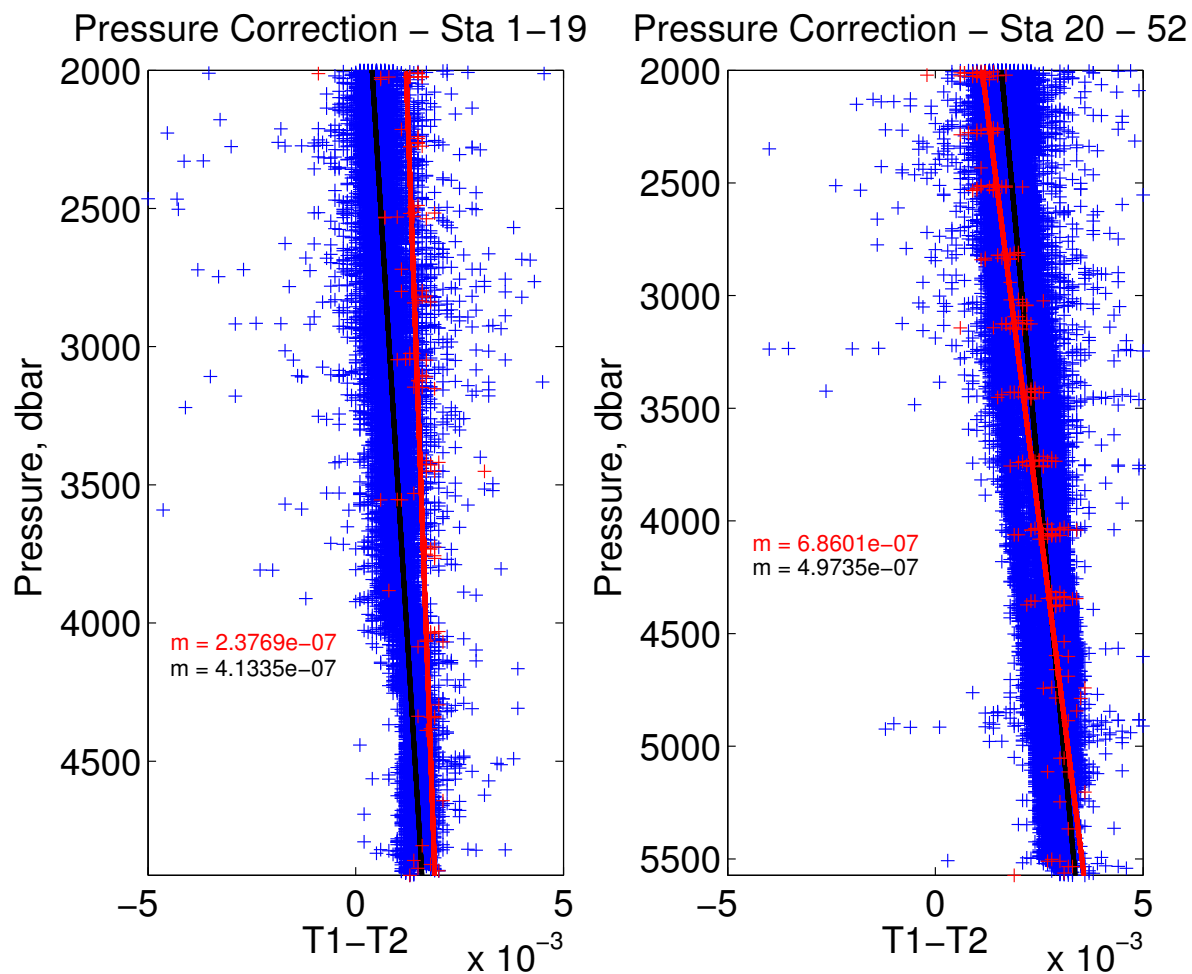


Figure 11: Pressure dependent correction for temperature differences of the downcast profile (blue) with slope fit (black) and the upcast with slope fit (red).

## 7.4 Conductivity

Conductivity sensor calibration coefficients derived from the pre-cruise calibrations were applied to raw primary and secondary conductivities. Comparisons between the primary and secondary sensors and between each of the sensors to conductivity calculated from bottle salinities were used to derive conductivity corrections. Uncorrected C1-C2 are shown in Figure 12 to help identify sensor drift. Several conductivity sensor sets were used throughout the cruise. There is a strong pressure dependence between the primary and secondary sensors. The pressure dependence between the two pairs of conductivity sensors can be seen in Figures 13. The sensors show a median difference of 0.00308 S/m and a standard deviation of 0.001 mS/m. Both sensors showed reasonable values for the residuals. The primary sensor wasn't chosen due to flushing problems caused by the ADCP. There was a strong pressure affect with the secondary sensor, but was linear. The pressure offsets can be seen in Table 16. The secondary sensors, s/n 2980 and s/n 3854, were used for all the final data values (Figure 14).

Table 16: Conductivity pressure offsets.

Sensor s/n	Station	Offset
Primary - 3861	1 - 52	-0.0001
Secondary - 2980	1-42	-0.0031
Secondary - 3854	43 - 52	-0.0029

Despite the large variability of the data in the upper 1000 m, the bottle values are kept in the database and used for the final calibration. However, the bottle data below 1000 m is weighted more heavily to calculate the new conductivity coefficients. The AOML/CTDCAL Toolbox automatically applies a quality control to the data based on comparison with a normal distribution. After these procedures 713 data points (88.9 %) were used in the final calculations.

In order to calibrate the CTD conductivity data against the sample conductivity we assume a constant additive correction (offset), multiplicative correction (slope), time drift correction (represented by station number) and where needed, a linear pressure-dependent term. A non-linear function is used to derive these coefficients and are applied to

$$C_{new} = [m * C_{CTD} + (p_1 * station) + b + pcor * P]$$

with

where  $C_{bottle}$  is bottle conductivity (S/m),  $C_{CTD}$  is pre-cruise calibrated CTD conductivity (S/m),  $m$  is the conductivity slope,  $b$  is the offset (S/m),  $P$  is the pressure,  $pcor$  is the pressure correction coefficient,  $station$  is the station number and  $p_1$  is the polynomial coefficient. The fit is also weighted in such way that the final solution is preferentially forced to fit the

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s/n 2980	s/n 3854
$m=0.9998684$	$m=1.0002494$
$p_1=1.0533148\text{e-}05$	$p_1=-1.434111\text{e-}03$
$b=0.005057$	$b=0.0567455$
$pcor=2.43602678\text{e-}07$	$pcor=-2.5778481\text{e-}08$

data below a specified depth, in this case 1000 dbar.

The coefficients estimated by the equation above were then applied to the CTD conductivities and the final results (Figure 14 to Figure 18) show a residual of  $-6.35 \cdot 10^{-5}$  psu ( $-7.27 \cdot 10^{-5}$  psu for the data below 1000 dbar) and a standard deviation of 0.0026 psu (0.001 psu for the data below 1000 dbar). Also 71.2% of the residuals for the data are within the confidence limits determined by the WOCE ( $\pm 0.002$  psu) and this number increases to 93.6% if we consider only the data below 1000 dbar.

A final verification about the quality of the data was made by comparing the results of this cruise with some historical data (Figure 19 and Figure 20). Water mass properties are very stable, specially for deeper layers of the ocean, that way by comparing these values we can have a very good estimative of the quality of these data.

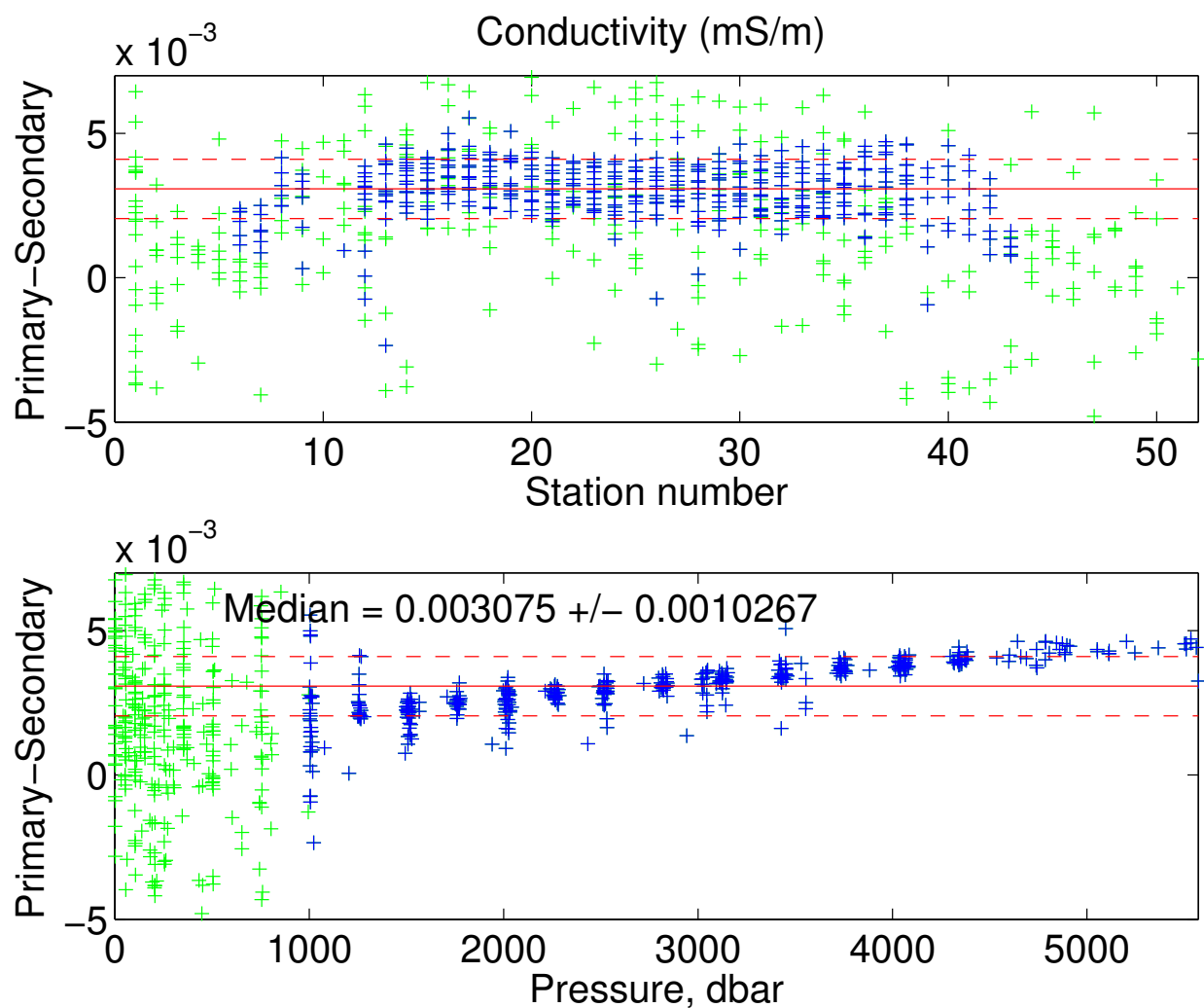


Figure 12: Conductivity (S/m) differences between sensors by station (top) and pressure (bottom). The red solid line represents the median with the red dashed representing the standard deviation.

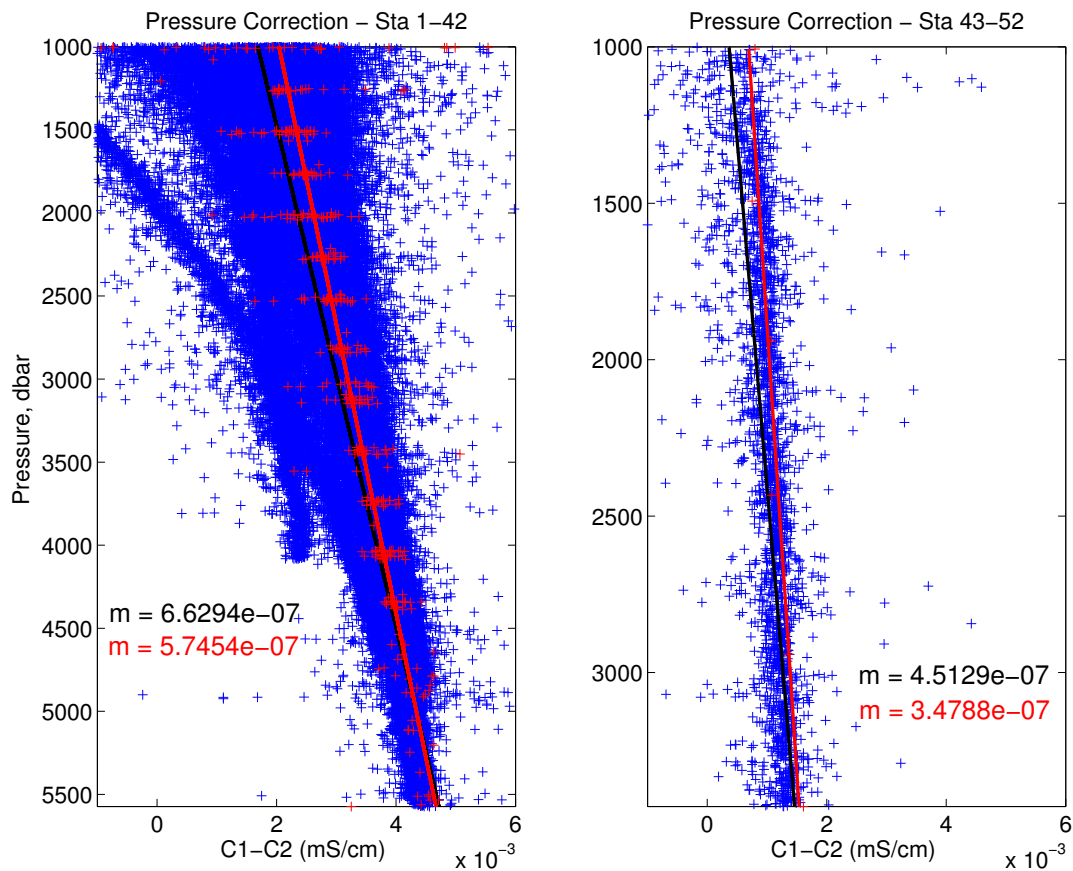


Figure 13: Pressure dependent correction for conductivity differences for stations 1-52 with the downcast profile (blue) with slope fit (black) and the upcast with slope fit (red).

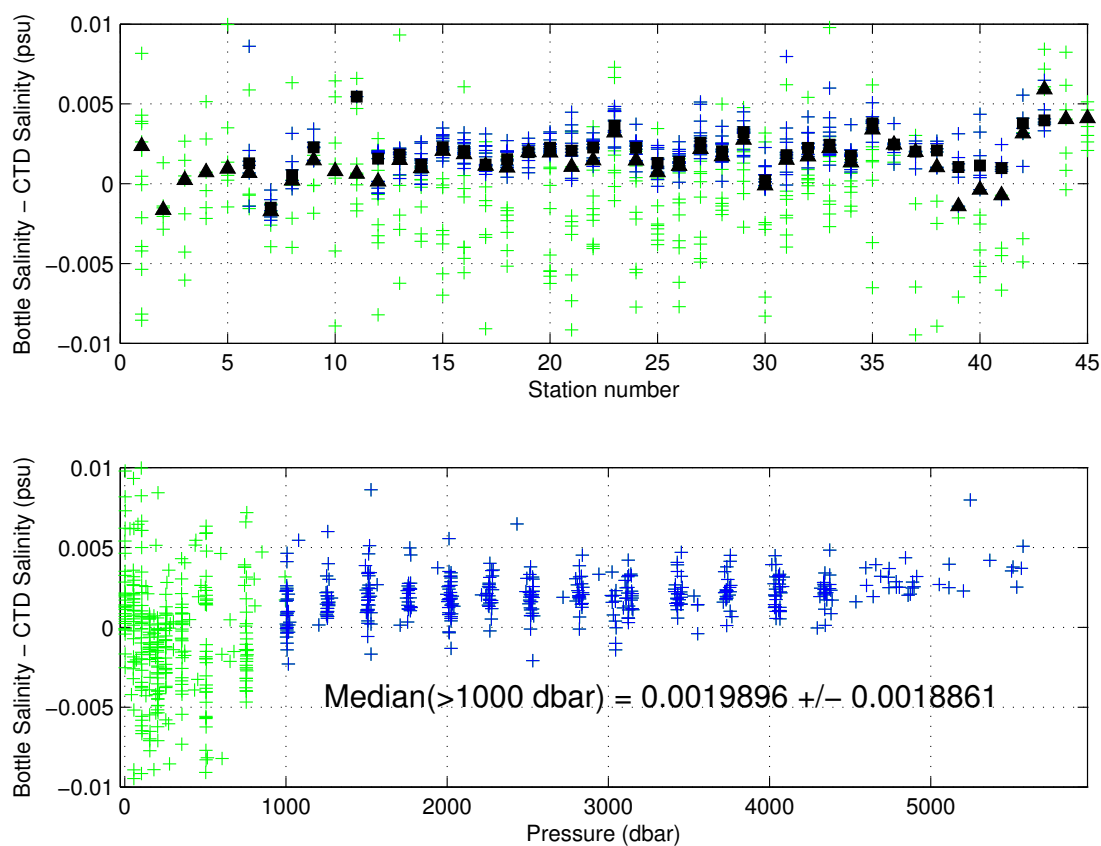


Figure 14: Bottle and uncalibrated secondary CTD salinity differences plotted against pressure. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar.

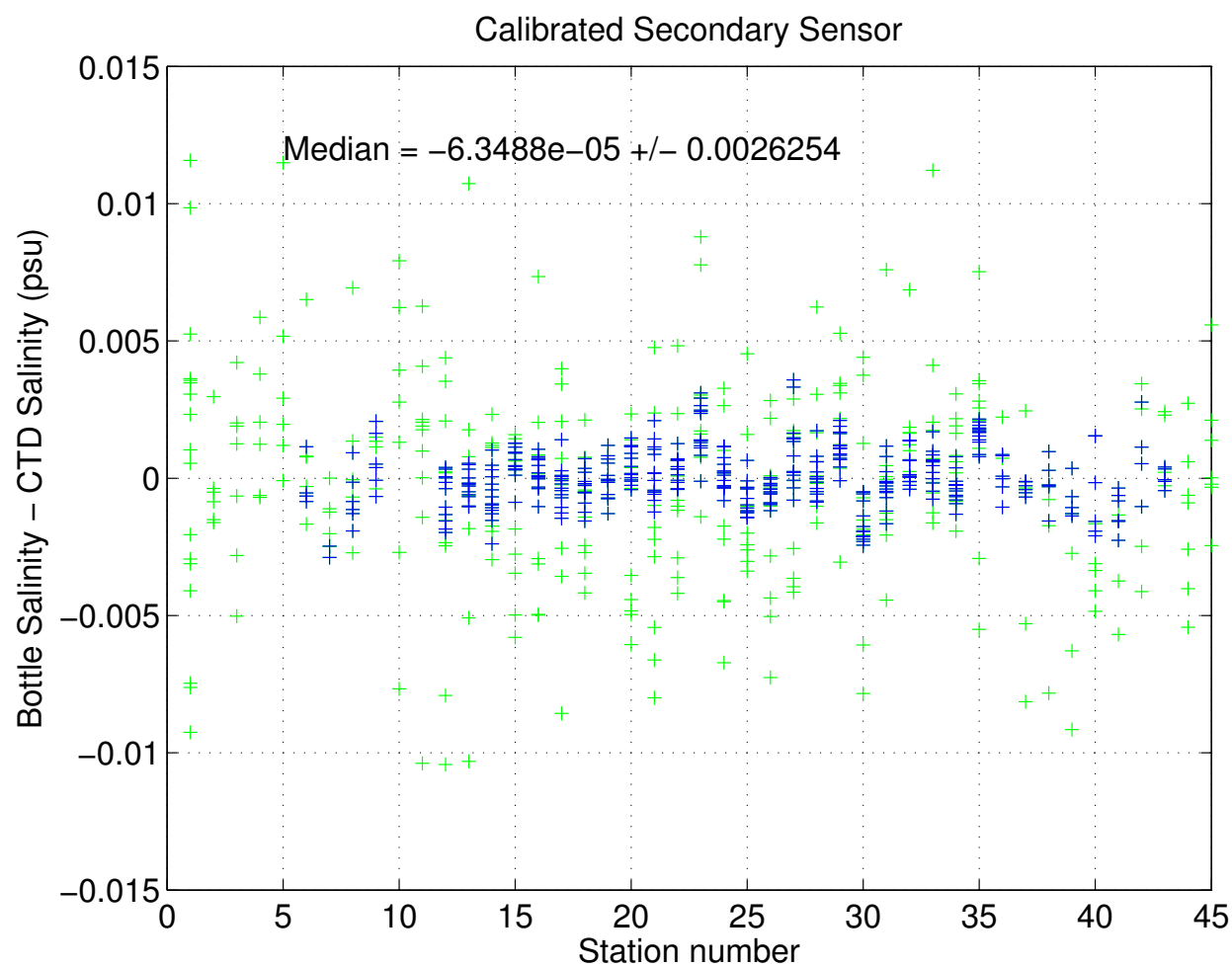


Figure 15: Bottle and calibrated secondary CTD salinity differences plotted vs. station.

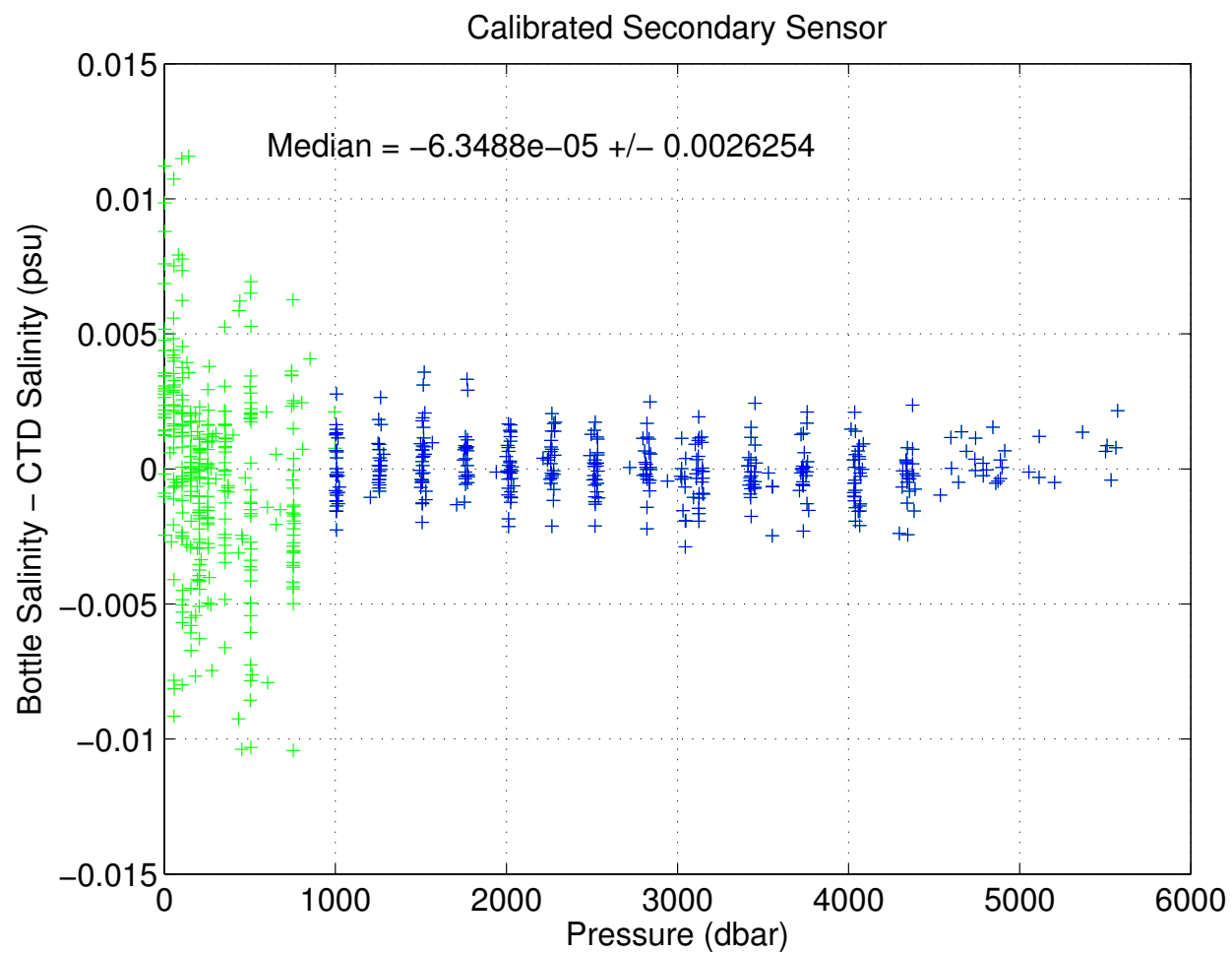


Figure 16: Bottle and calibrated secondary CTD salinity differences plotted vs. pressure.



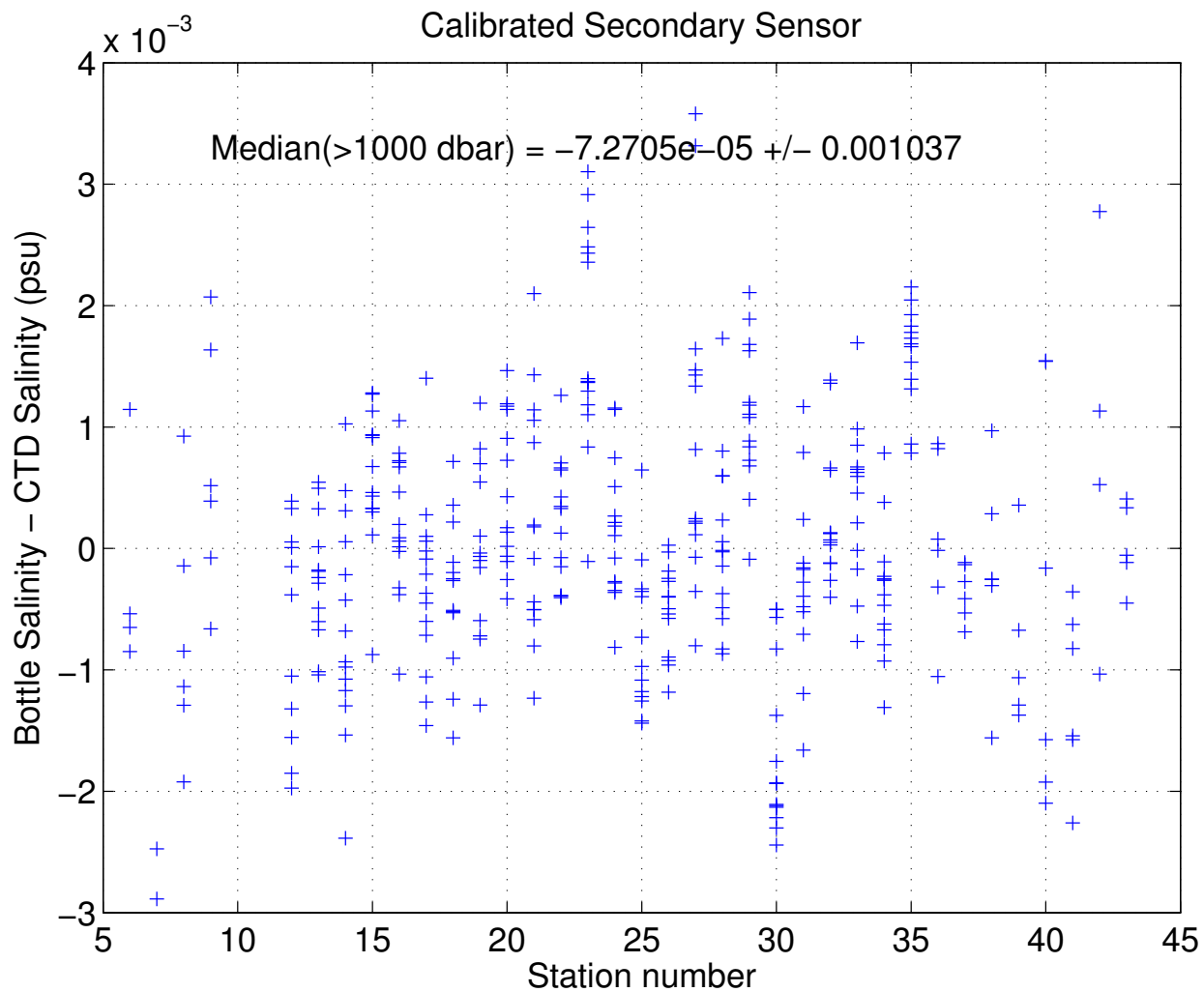


Figure 17: Bottle and calibrated secondary CTD salinity differences plotted vs. station below 1000 dbar.

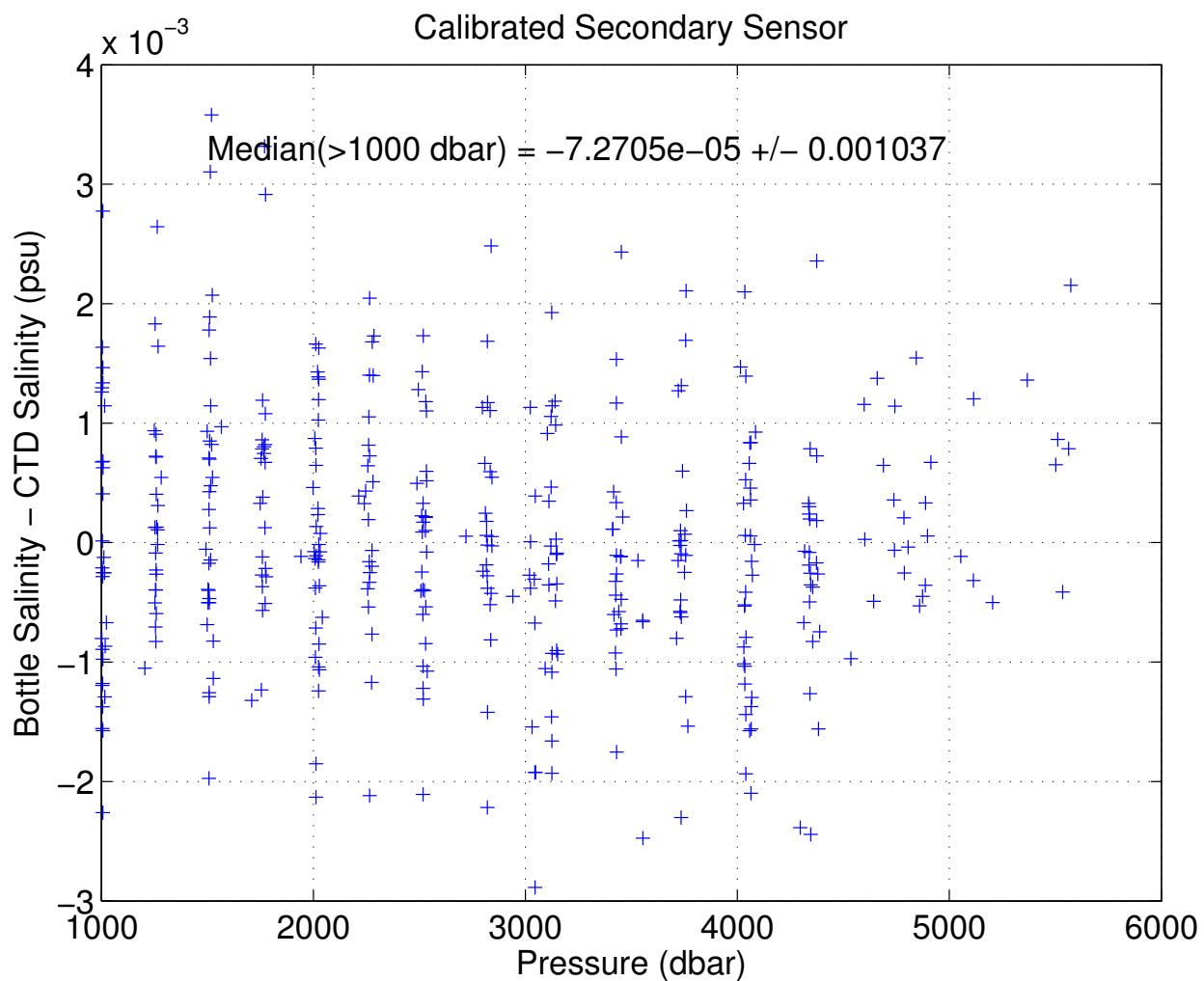


Figure 18: Bottle and calibrated secondary CTD salinity differences plotted vs. pressure below 1000 dbar.

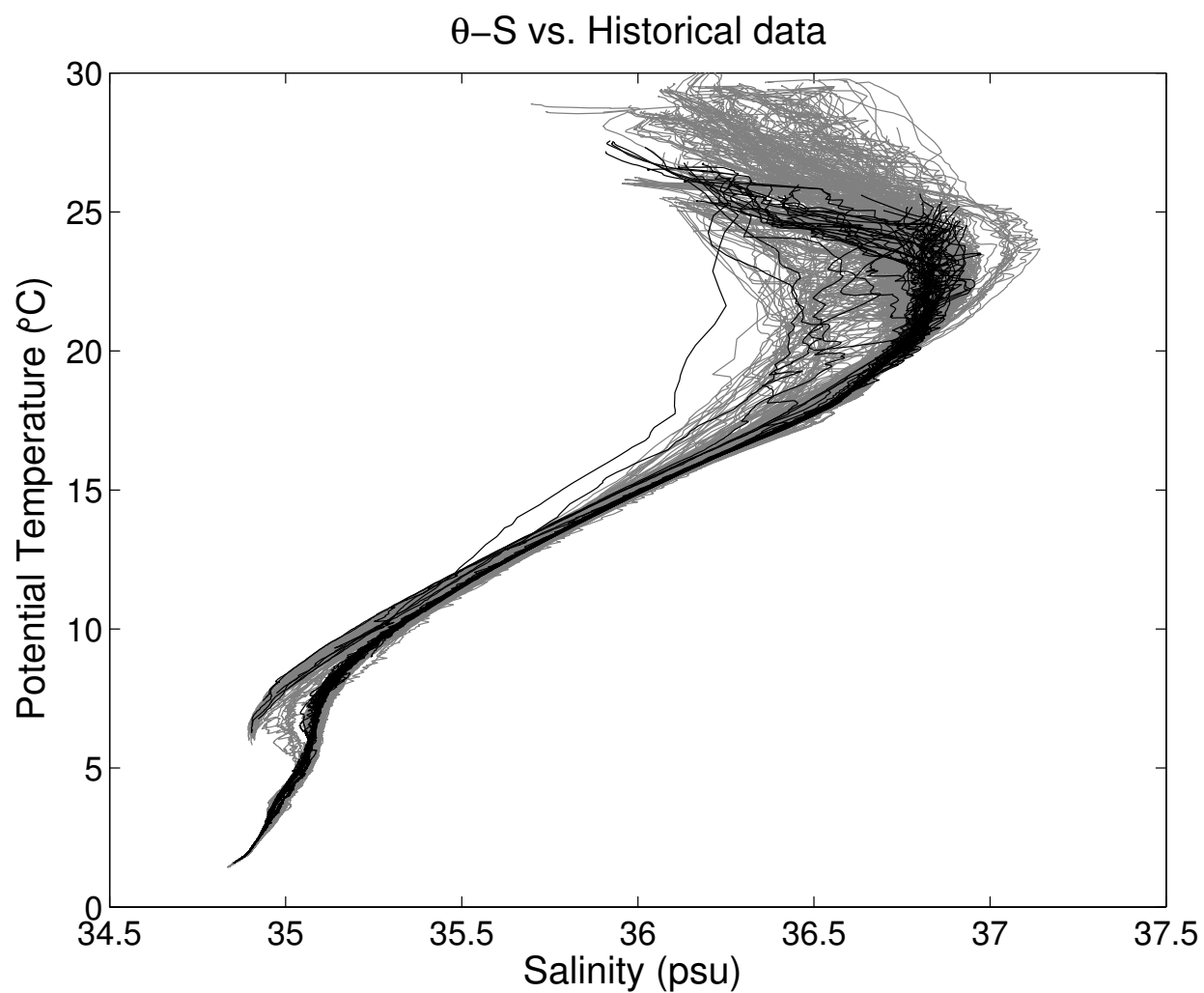


Figure 19: Potential Temperature - Salinity diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

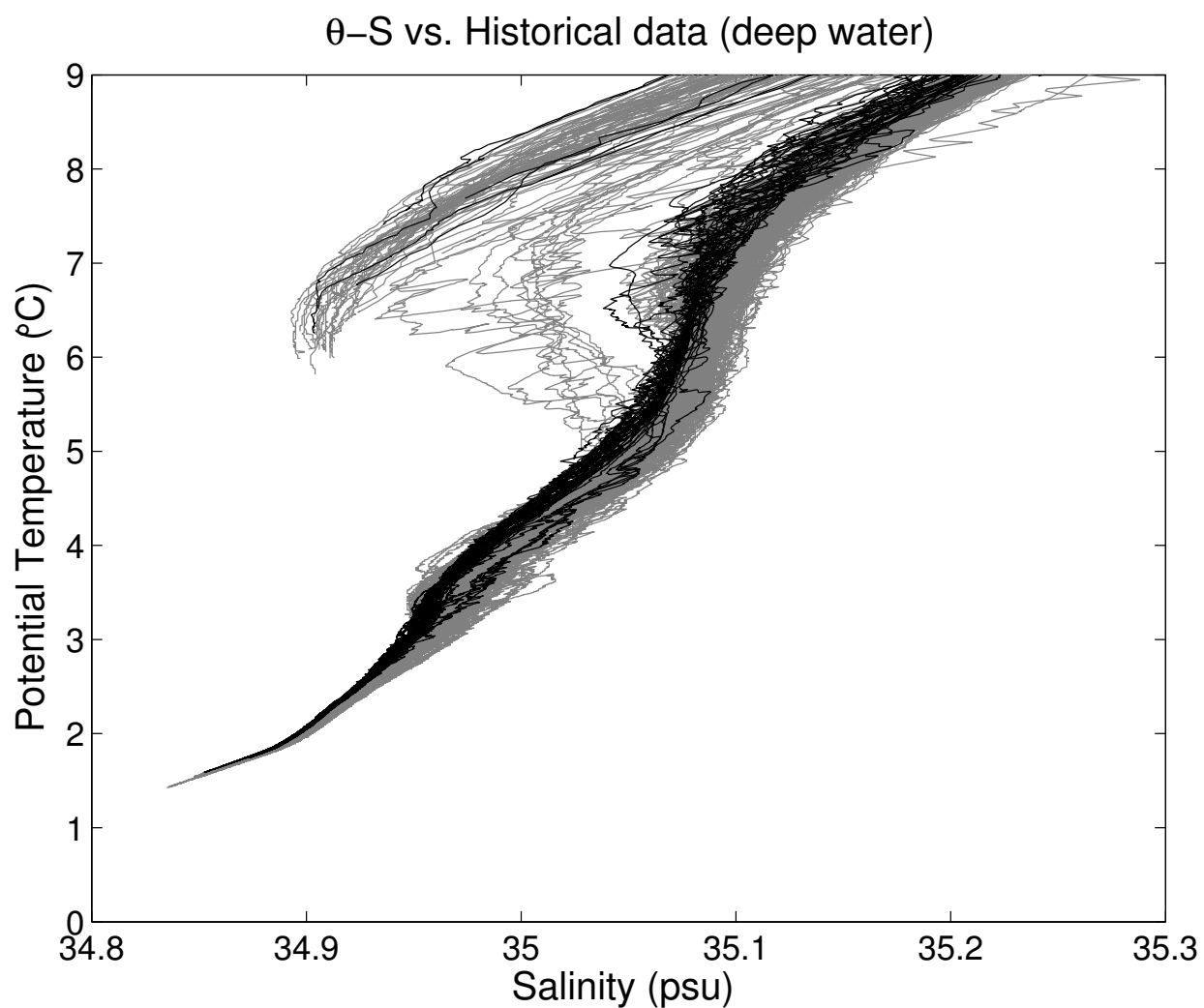


Figure 20: Potential Temperature - Salinity diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

## 7.5 Dissolved Oxygen

Two SBE43 dissolved O<sub>2</sub> (DO) sensors were used on this leg (Table 8). Due to a hysteresis problem with the oxygen sensors the DO sensors were calibrated to dissolved O<sub>2</sub> check samples by matching the up cast bottle trips to down cast CTD data along neutral density surfaces, calculating CTD dissolved O<sub>2</sub>, and then minimizing the residuals using a non-linear least-squares fitting procedure.

The algorithm used for converting oxygen sensor current and probe temperature measurements as described, requires a non-linear least squares regression technique in order to determine the best fit coefficients of the model for oxygen sensor behavior to the water sample observations. A Matlab® sub-routine called `oxfit.m` from the AOML CTD/CAL TOOLBOX performs a non-linear least squares regression using the Gauss-Newton algorithm with Levenberg-Marquardt modifications for global convergence. This algorithm is independent of the first coefficients guess and demonstrates excellent convergence. This `oxfit.m` routine includes an optional time drift term (related with the station number), allowing all stations to be calibrated without breaking into discrete groupings. The Owens and Millard (1985) algorithm was modified as follows:

$$O \text{ (ml/l)} = \{Soc * (V + V_{offset} + tau(T, S) * \frac{\delta v}{\delta t}) + p1 * station\} \\ * (1.0 + A * T + B * T^2 + C * T^3) * OXSAT(T, S) * e^{E * (\frac{P}{K})}$$

with

	S/N 2691			
	Sta 1-19	Sta 20-26	Sta 27-43	44-52
<i>Soc</i>	0.5552073	0.5606948	0.5659613	0.5482985
<i>V<sub>offset</sub></i>	-0.5440344	-0.4828044	-0.4824470	-0.5250512
<i>tau</i>	1.16	1.53	2.03	0.04
<i>A</i>	-0.0011272	-0.01268643	-0.0153370	-0.0017320
<i>B</i>	-0.0000173	0.00079477	0.0009749	0.0000595
<i>C</i>	0.0000012	-0.0000150	-0.0000186	0.00000005
<i>E</i>	0.0392492	0.0355558	0.0347204	0.0486497
<i>p1</i>	0.0003414	0.0000022	0.0002362	-0.0001727

where *Soc*, *tau*, *V<sub>offset</sub>*, *A*, *B*, *C*, *E* and *p1* are the calibration coefficients shown above and *V* is the instrument voltage (V). *T*, *S* and *P* are the temperature, salinity and pressure measured by the CTD. *K* is the temperature in the absolute scale, *station* is the station number, and *OXSAT* is the oxygen saturation.

A comparison between the primary and secondary sensors (Figure 21) was evaluated. The sensors show a median difference of 3.202 *umol/kg* and a standard deviation of 0.44

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*umol/kg*. The secondary sensor was chosen (Figure 22) and the sensor shows a median difference of 13.62 *umol/kg* and a standard deviation of 2.98 *umol/kg* compare to the oxygen bottle data.

The coefficients for oxygen sensor, s/n 1348, were applied to all the stations. Also, analogous to the conductivity, AOML/CTDCAL Toolbox automatically applies a quality control to the data based on comparison with a normal distribution. After these procedures 633 data points (96.2%) were used in the final calculations.

By minimizing the differences between the oxygen samples and the CTD oxygen estimated from the equation described in this section, the new coefficients above were calculated and then applied to the CTD original data (Figure 23 to Figure 26). The residual is -0.08 *umol/kg* (-0.05 *umol/kg* for the data below 1000 dbar) and the standard deviation 1.01 *umol/kg* (0.73 *umol/kg* for the data below 1000 dbar). Also 93.8% of the residuals for the data are within the confidence limits determined by the WOCE ( $\pm 1\%$  of the dissolved oxygen measured) and this number increases to 100% if we consider only the data below 1000 dbar.

A final verification about the quality of the data, like in the salinity data, was made by comparing the results of this cruise with some historical data available at the location of the Abaco section and the other sections (Figure 27 & Figure 28). Again by investigating water mass properties, particularly for deeper layers of the ocean, we can have an estimative of the quality of these data.

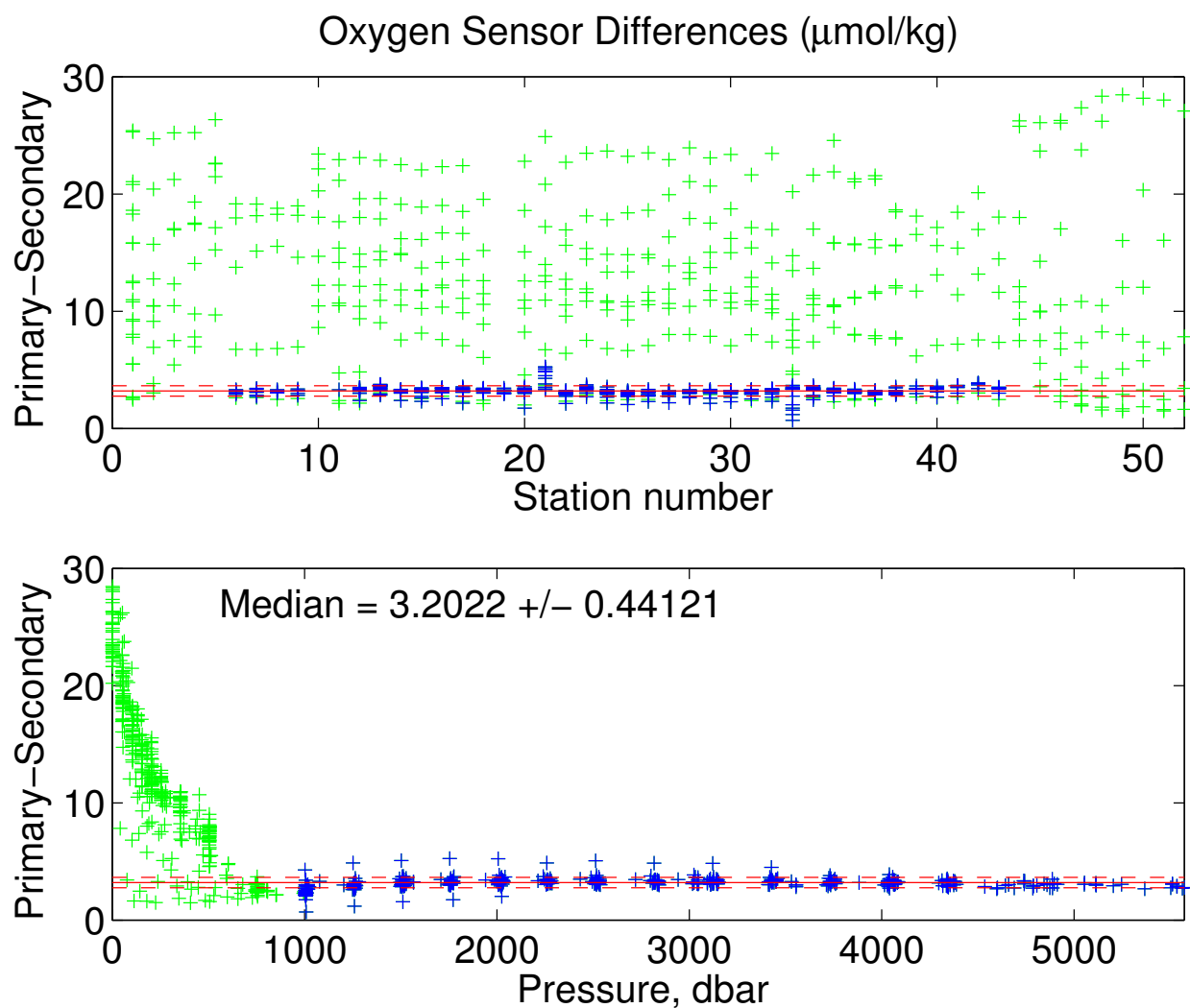


Figure 21: Dissolved oxygen differences between sensors by station (top) and by pressure (bottom). Sensor changes at station 15 and 24. The red solid line represents the median with the red dashed representing the standard deviation.

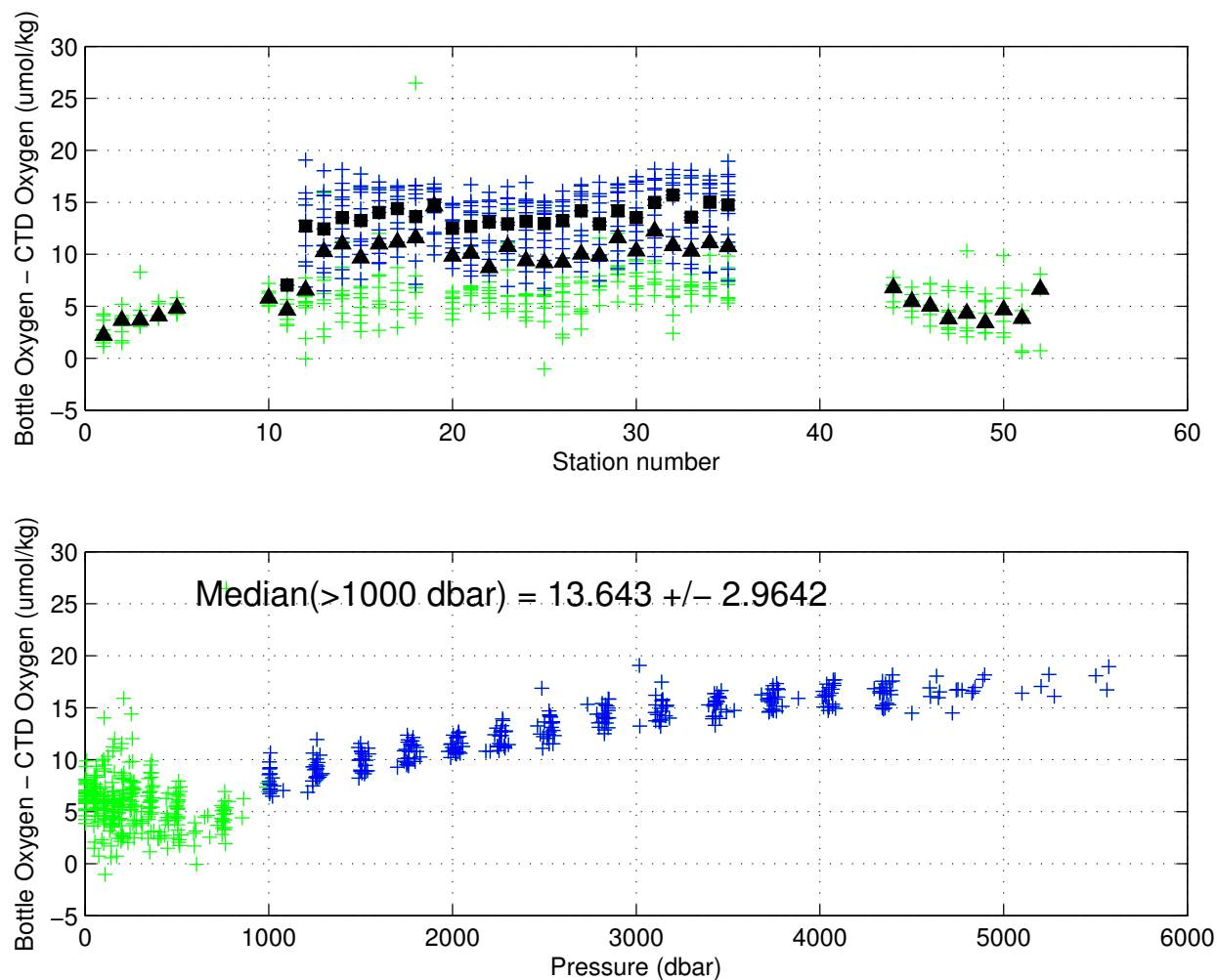


Figure 22: Bottle and uncalibrated secondary CTD oxygen differences plotted against station number. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar.



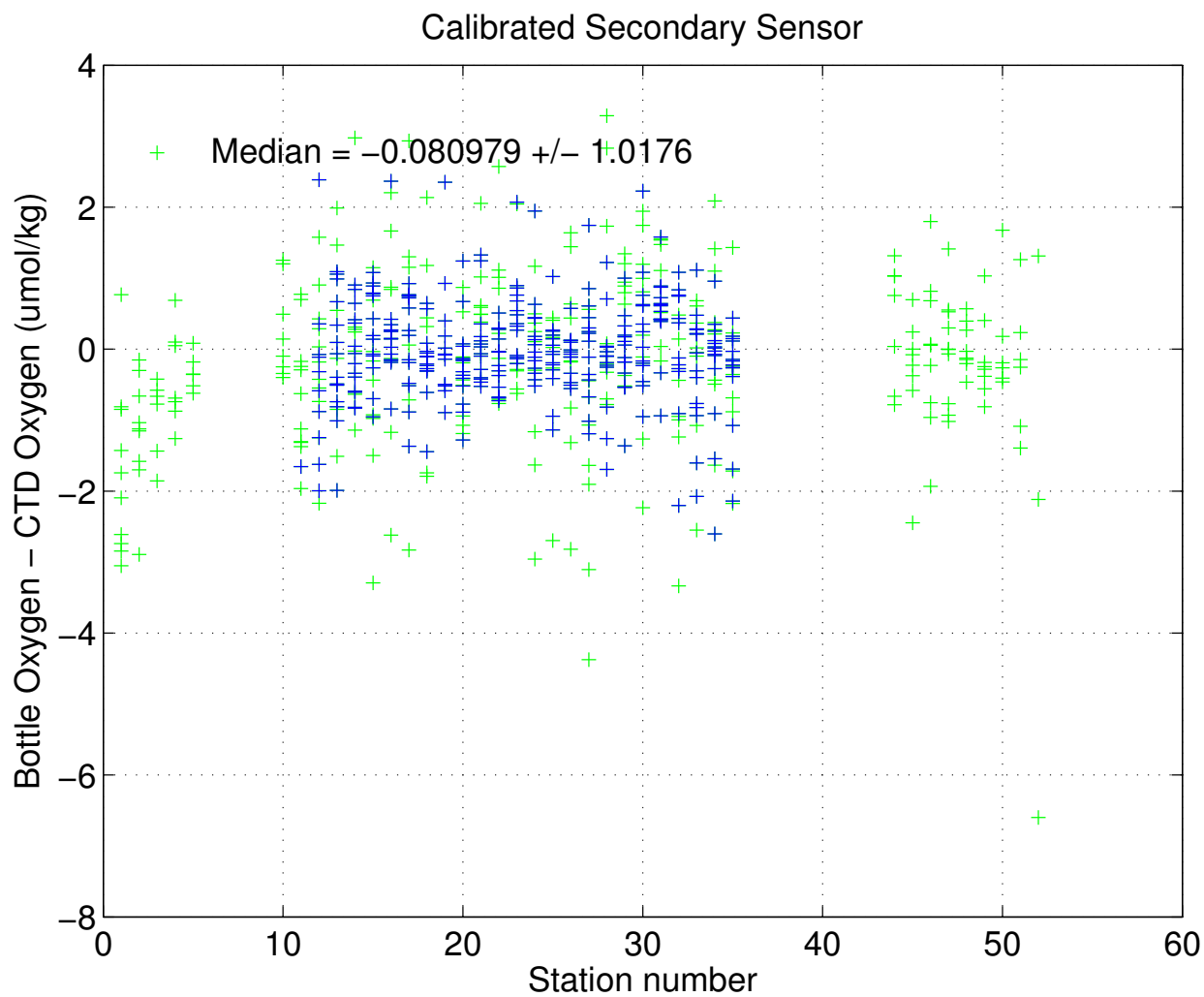


Figure 23: Bottle and calibrated secondary CTD oxygen differences plotted vs. station.

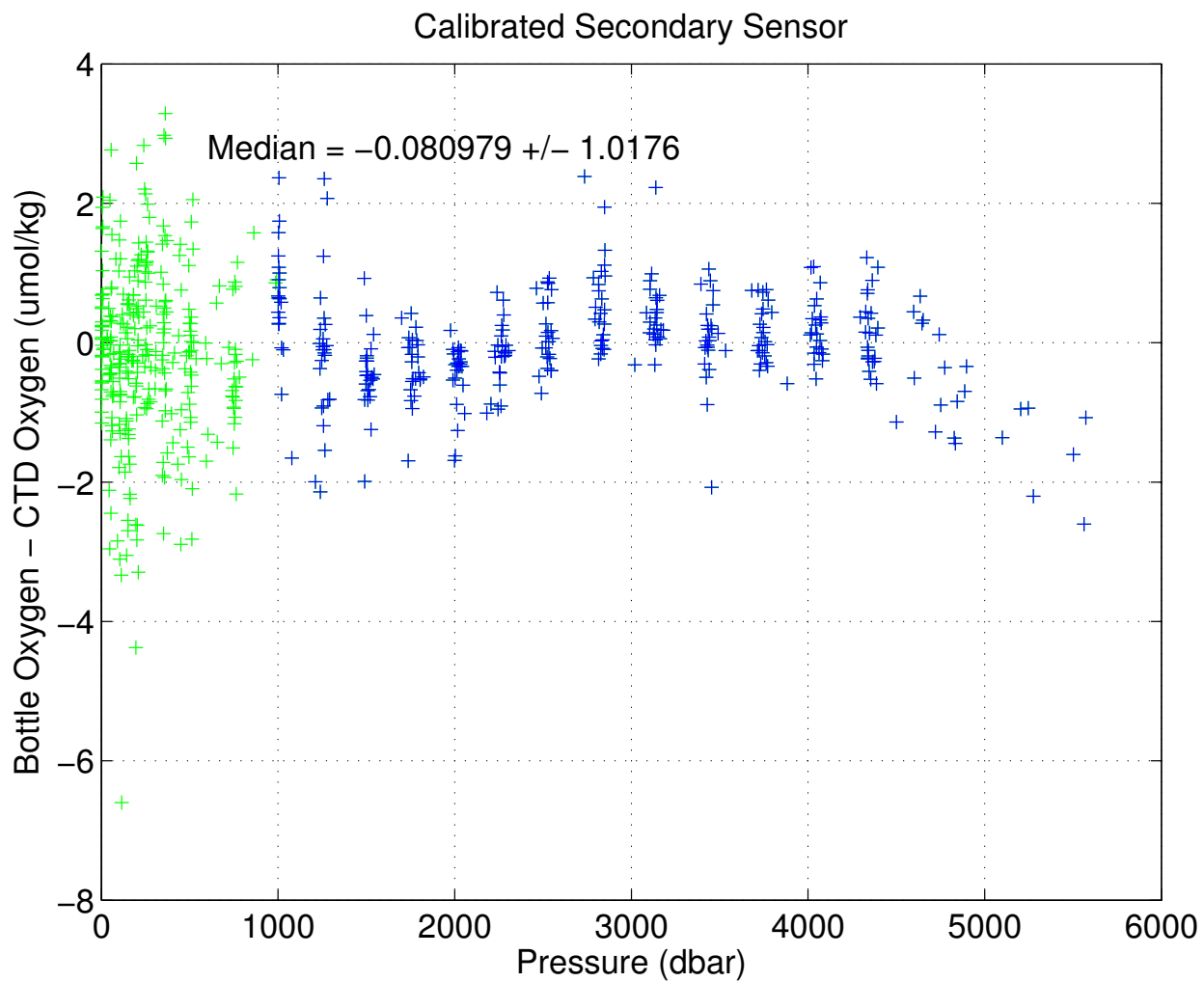


Figure 24: Bottle and calibrated secondary CTD oxygen differences plotted vs. pressure.

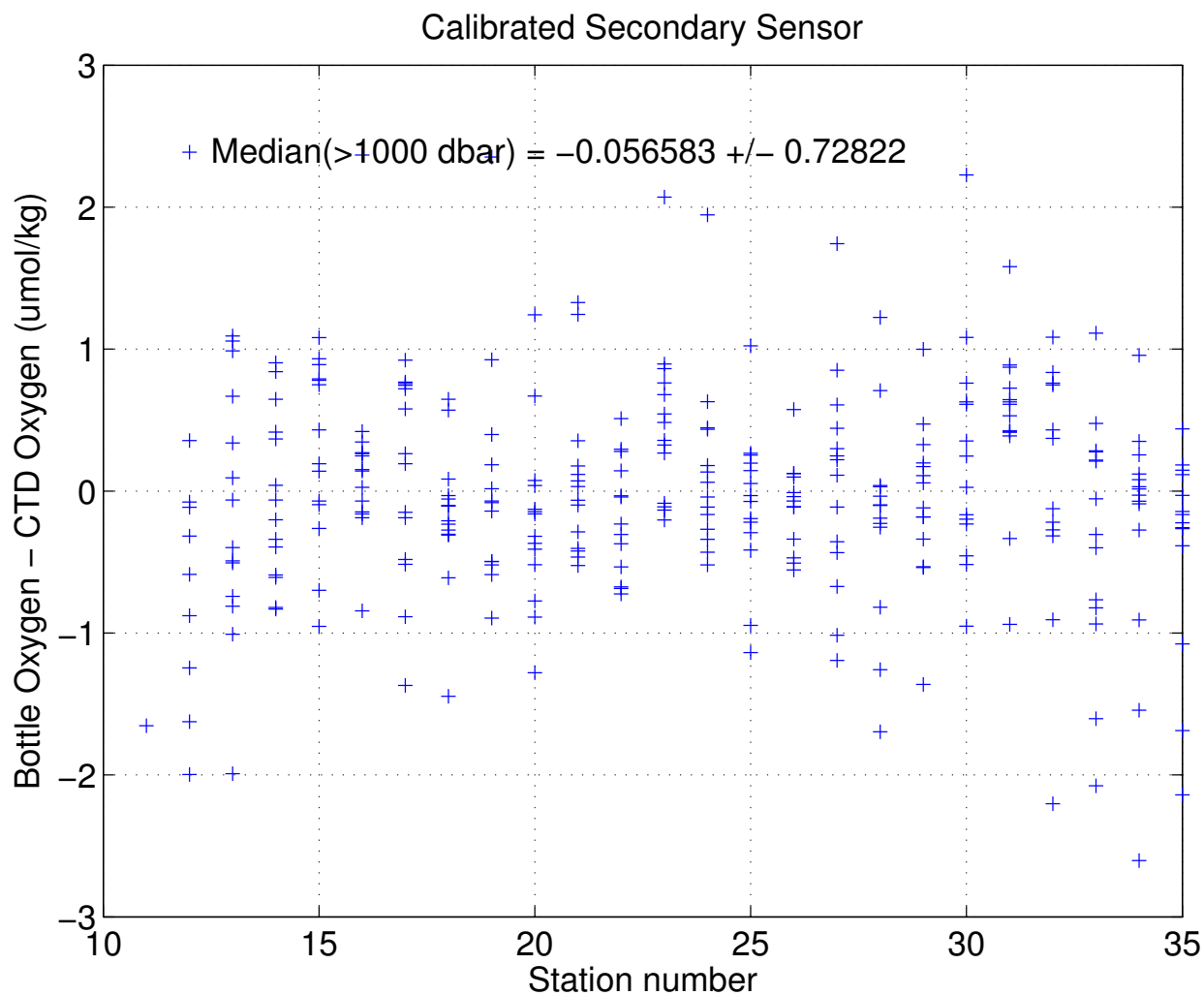


Figure 25: Bottle and calibrated secondary CTD oxygen differences plotted vs. station below 1000 dbar.

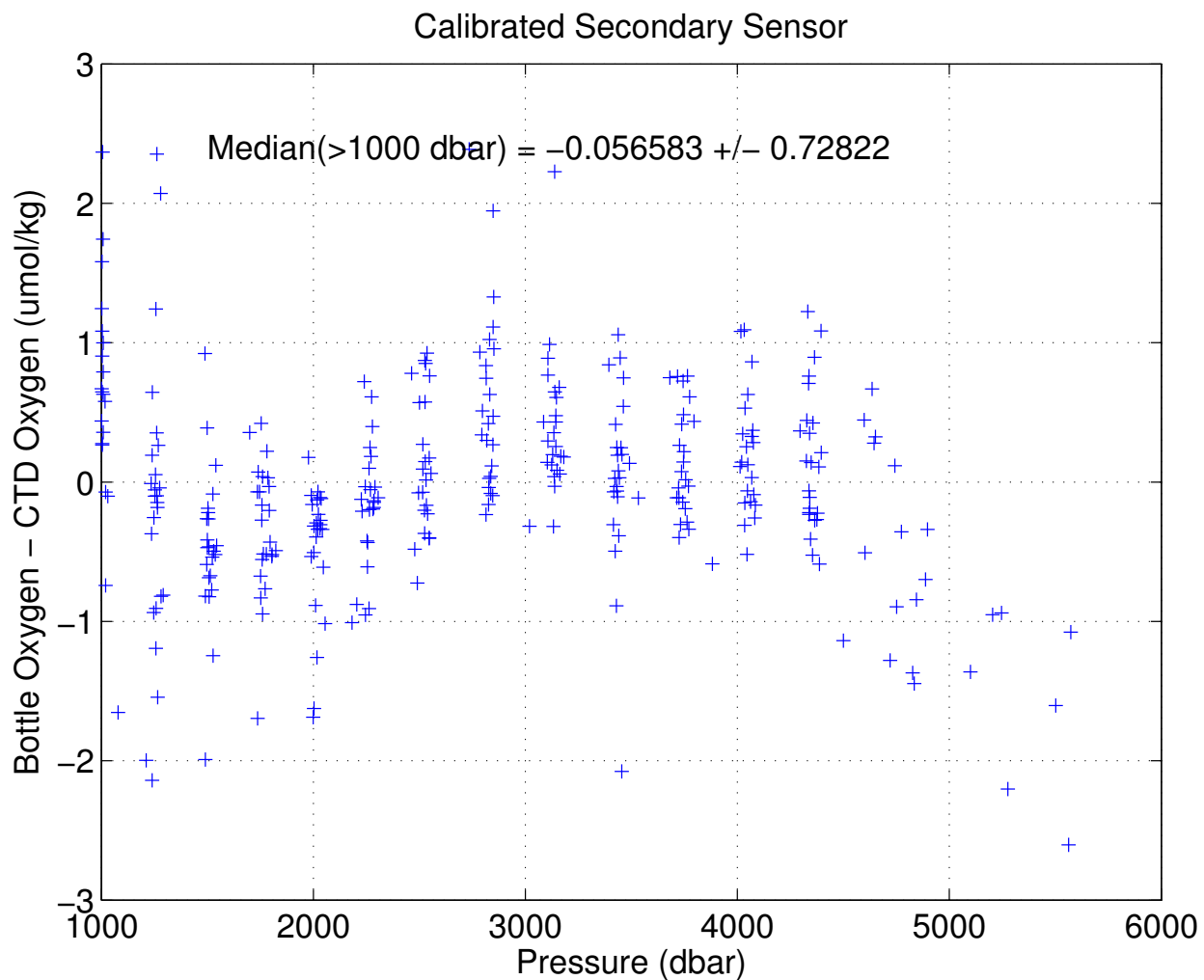


Figure 26: Bottle and calibrated secondary CTD oxygen differences plotted vs. pressure below 1000 dbar.

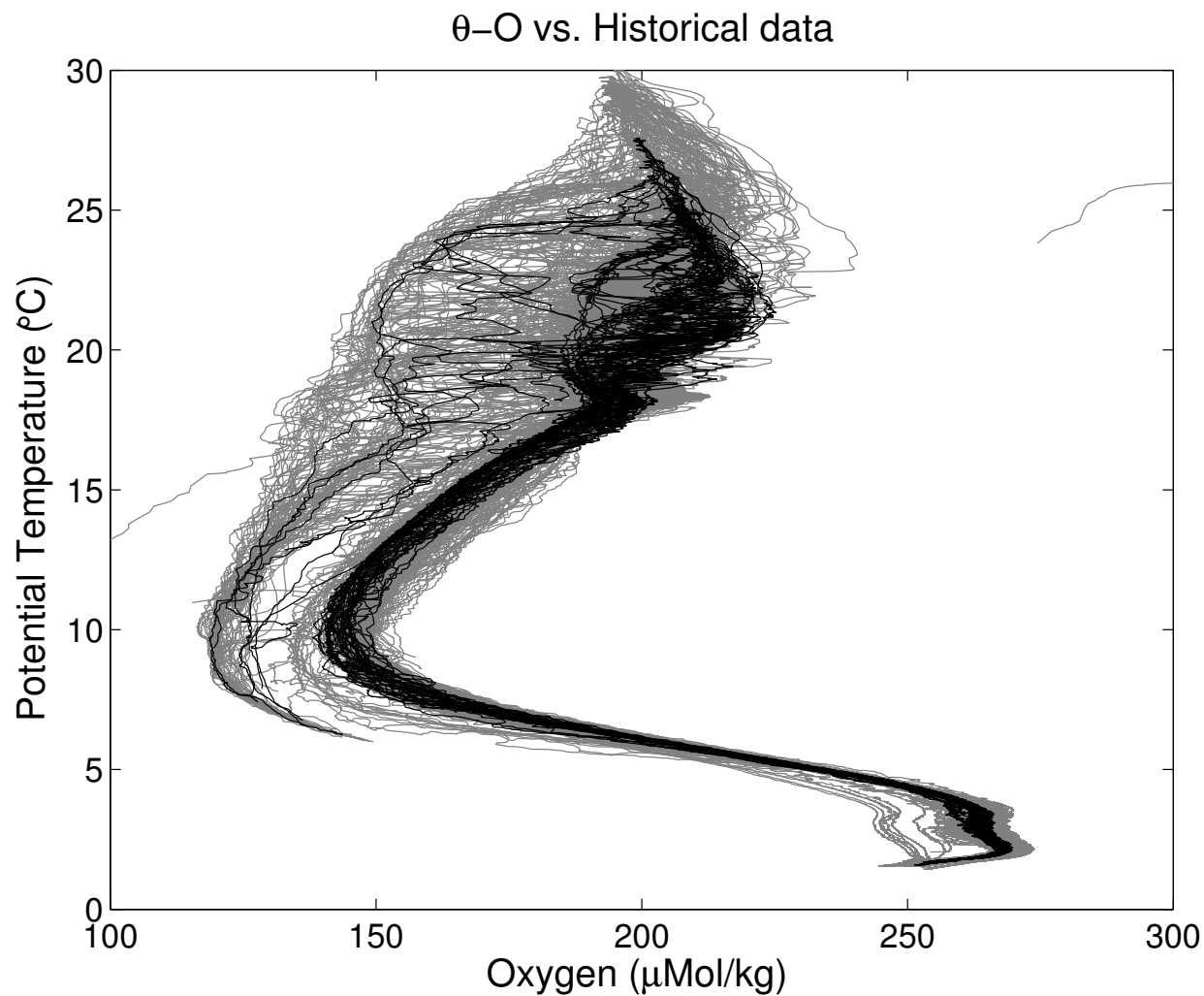


Figure 27: Potential Temperature - Oxygen diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

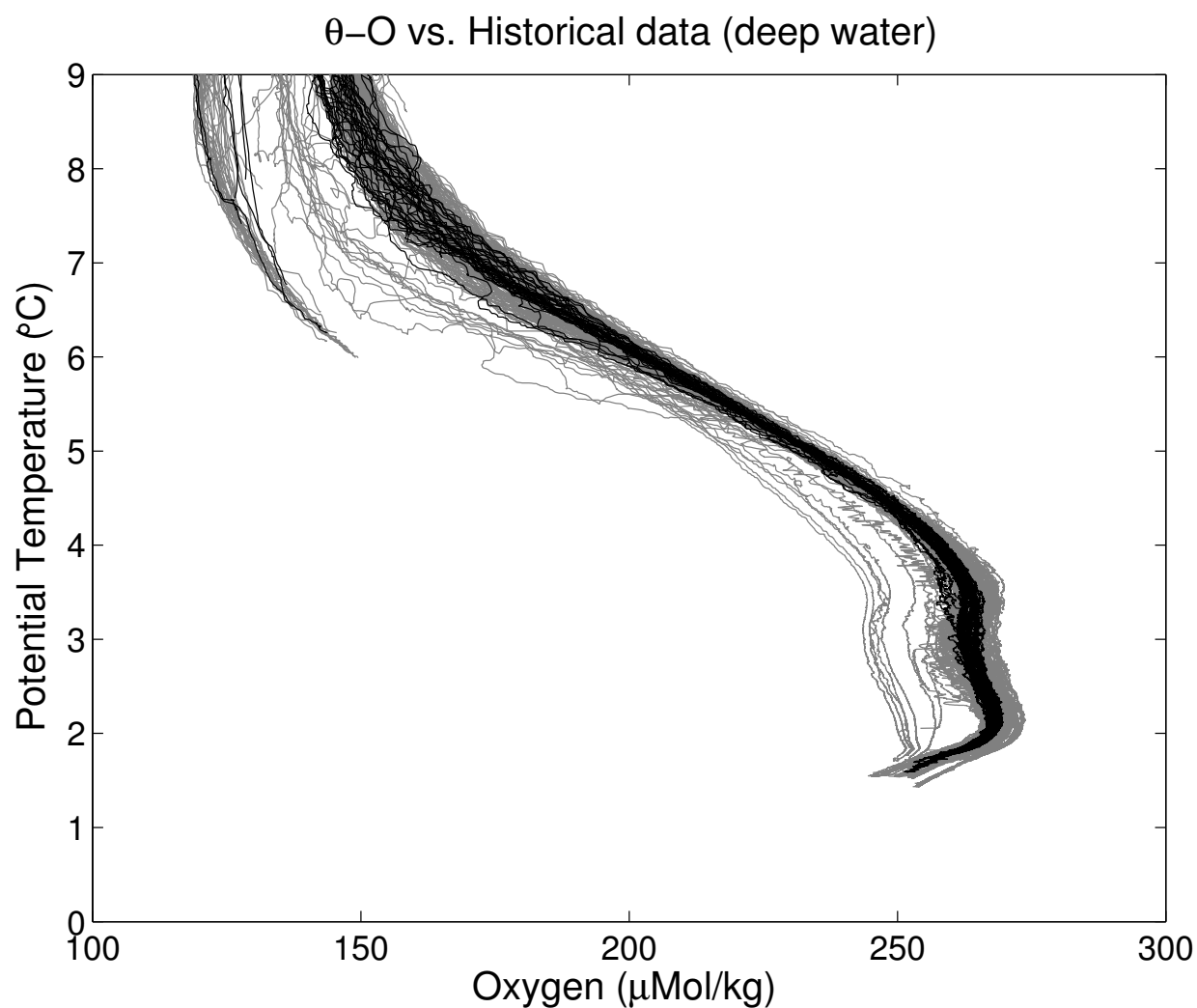


Figure 28: Potential Temperature - Oxygen diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

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## 8 *Final CTD Data Presentation*

The final calibrated data files were used to produce the tables and station profile plots presented in Appendix A for each CTD station. The table on the top is in "standard depths" followed by the a table of the bottle trip depths. The corresponding profile plot is shown on the following page. Niskin bottle depths are presented on the right side of the profile plot. Bottle salinity and oxygen values are plotted as points in the three smaller plots.

Vertical sections of potential temperature, CTD salinity, neutral density, and CTD oxygen are contoured with pressure as the vertical axis and, for Abaco sections longitude as horizontal axis (Figure 29 to Figure 32). Nominal vertical exaggerations are 400:1 below 1000 dbar (lower panels) and 200:1 above 1000 dbar (upper panels). The Florida Current Section also uses longitude as the horizontal axis (Figure 33 to Figure 36). For the Northwest Providence Channel Sections latitude is used as horizontal axis (Figure 37 to Figure 40).

Post-cruise calibrations were applied to CTD data associated with bottle data using Matlab sub-routines (`apply_calibration.m`). WOCE quality flags were appended to bottle data records. "Bad values" (WOCE quality control value = 4) were flagged if the bottle samples failed the initial quality control and were not used for the calibration (which meant they typically fell outside 2.57 standard deviations of the difference between samples and uncalibrated CTD values). A second pass is applied, using the value of 2.5 times the standard deviation of the difference between calibrated CTD values and bottle samples, where bottle values may be flagged as "bad values" or as questionable (WOCE quality control value = 3).

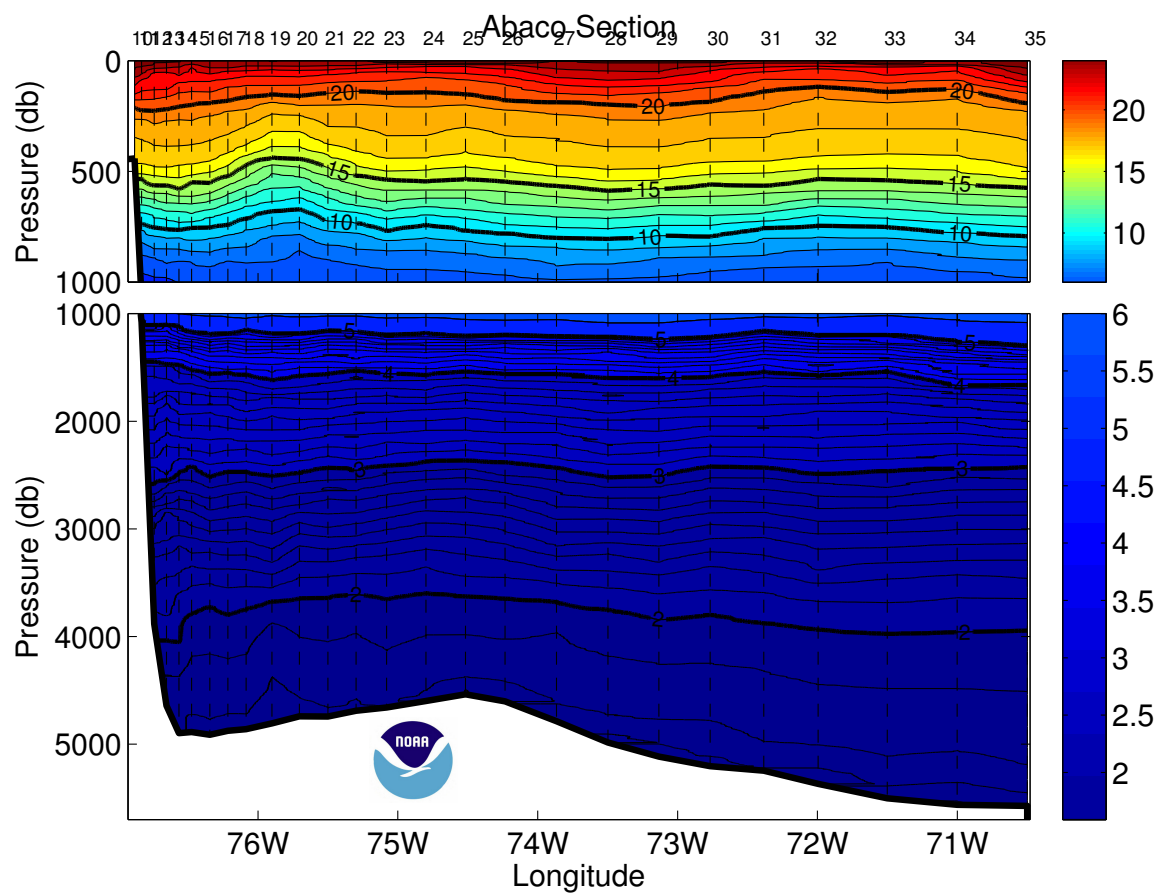


Figure 29: Potential Temperature ( $^{\circ}\text{C}$ ) section for the Abaco Section. Dashed vertical lines are the CTD station locations.



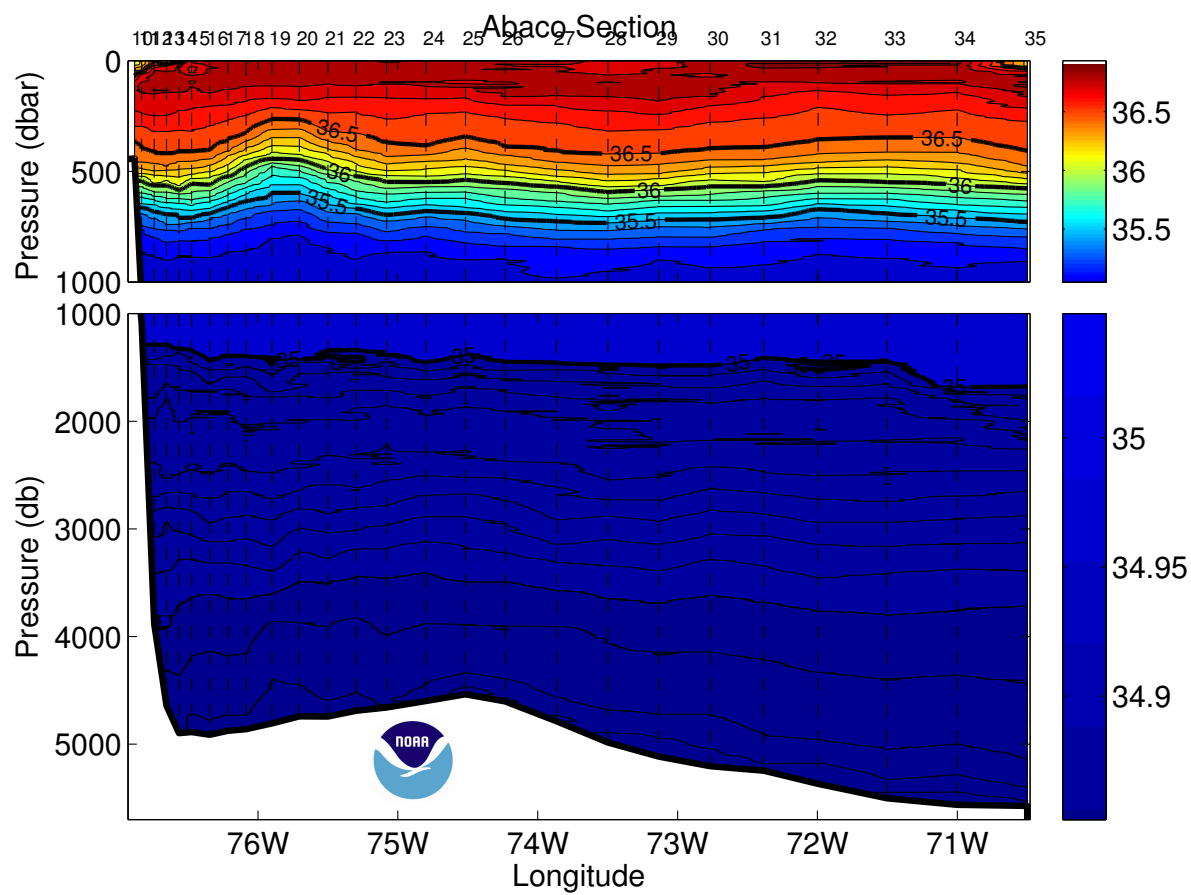


Figure 30: Salinity (PSS 78) section for the Abaco section. Dashed vertical lines are the CTD station locations.

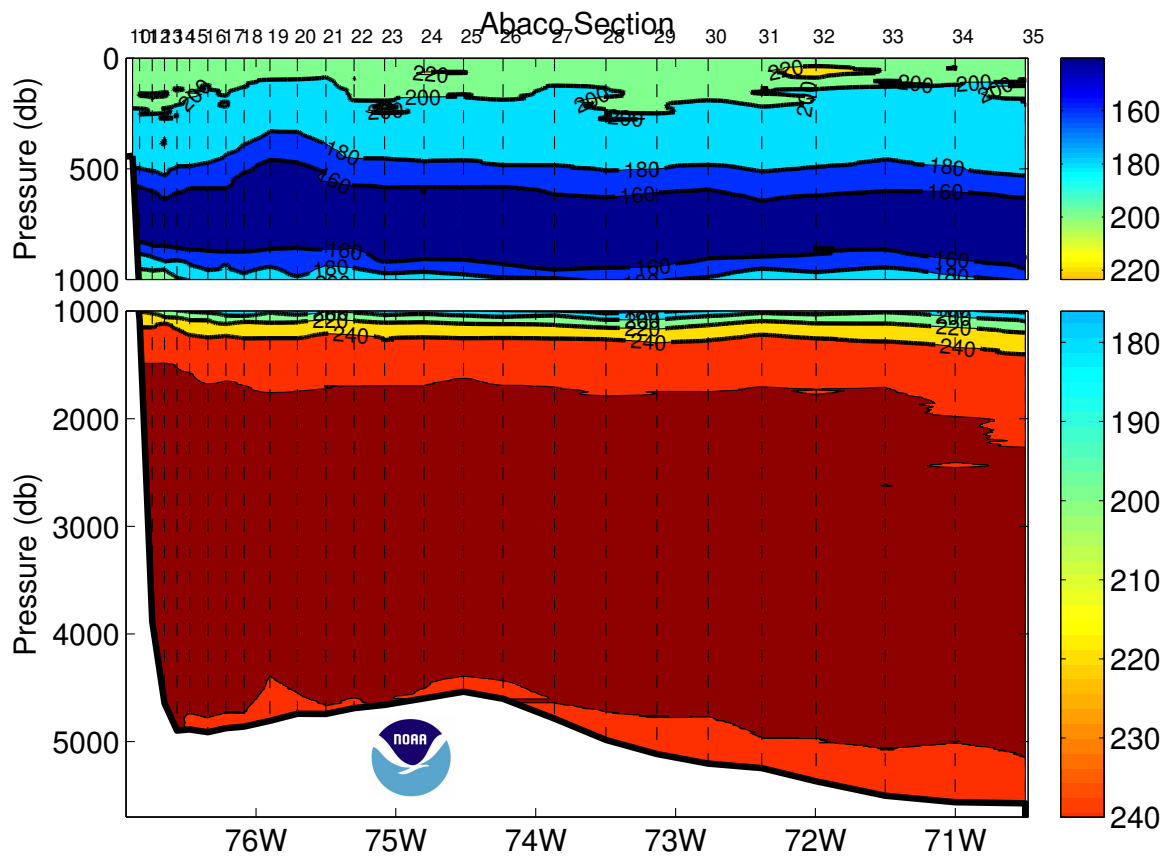


Figure 31: Dissolved Oxygen ( $\mu\text{mol/kg}$ ) section for the Abaco Section. Dashed vertical lines are the CTD station locations.

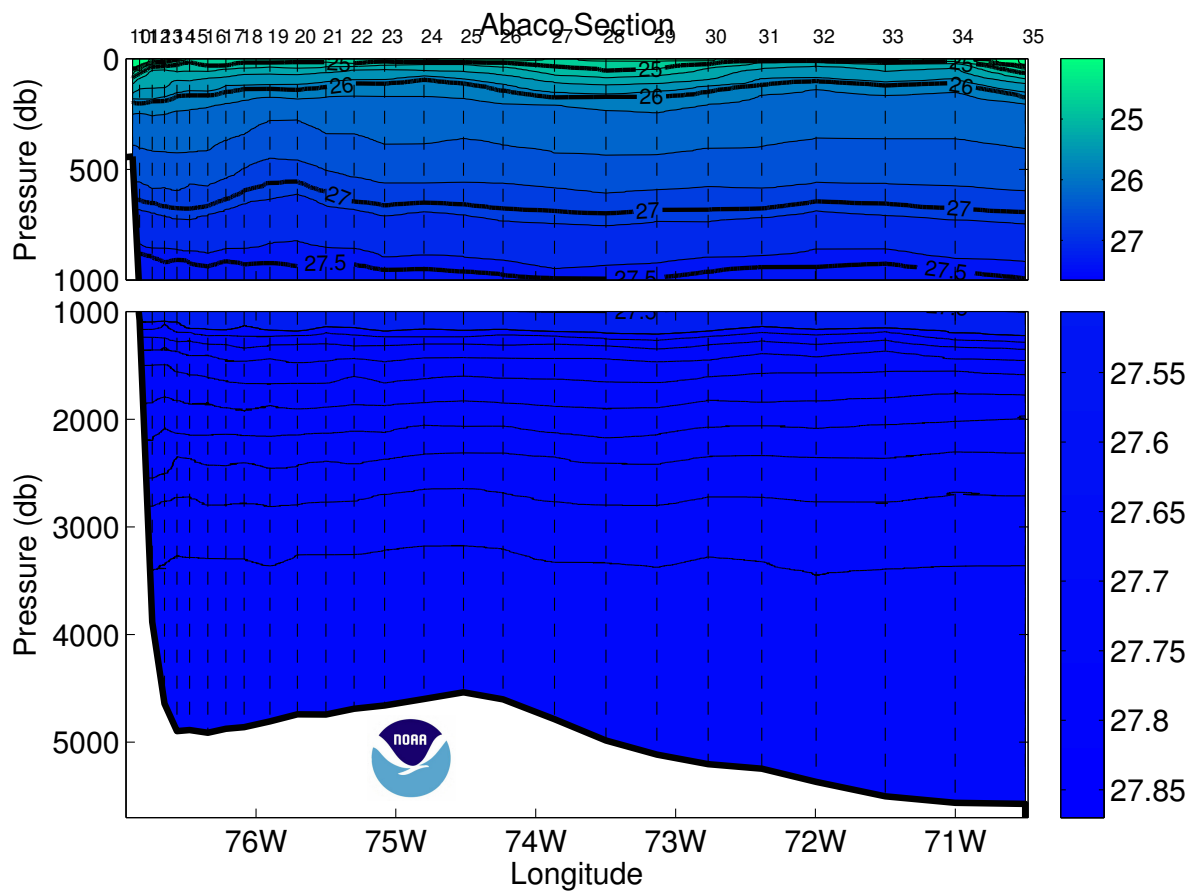


Figure 32: Neutral density (kg/m<sup>3</sup>) section for the Abaco Section. Dashed vertical lines are the CTD station locations.

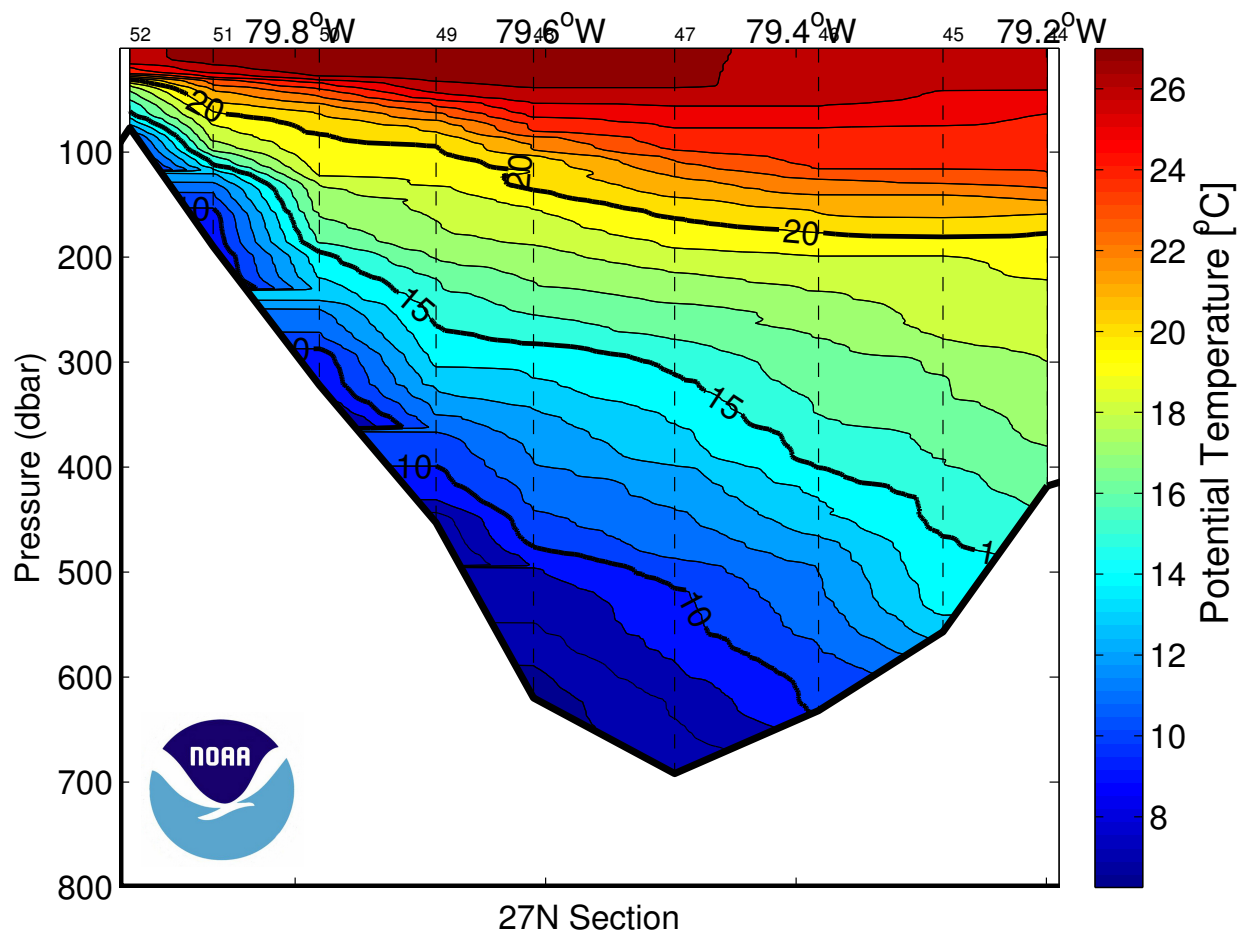


Figure 33: Potential Temperature ( $^{\circ}\text{C}$ ) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

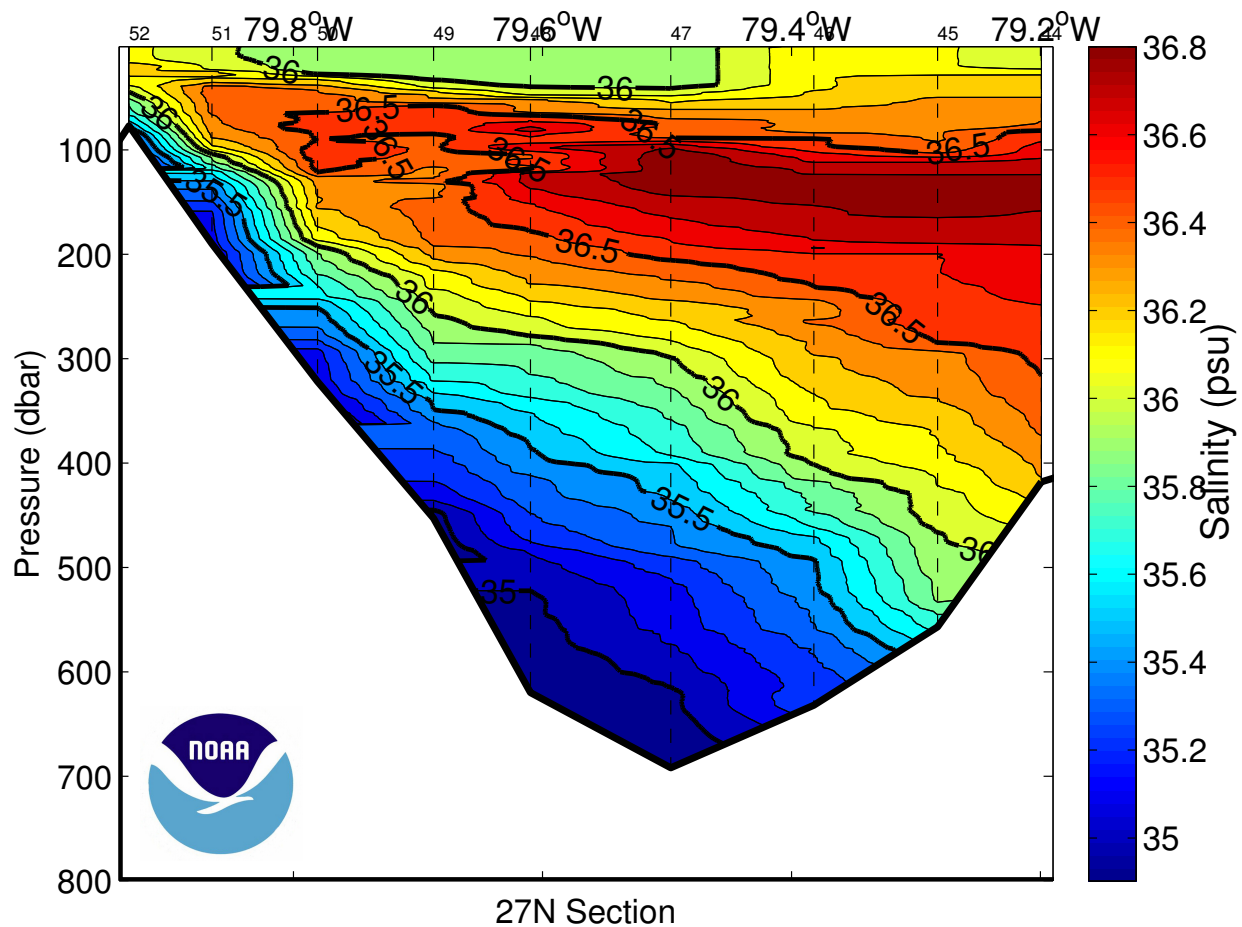


Figure 34: Salinity (PSS 78) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

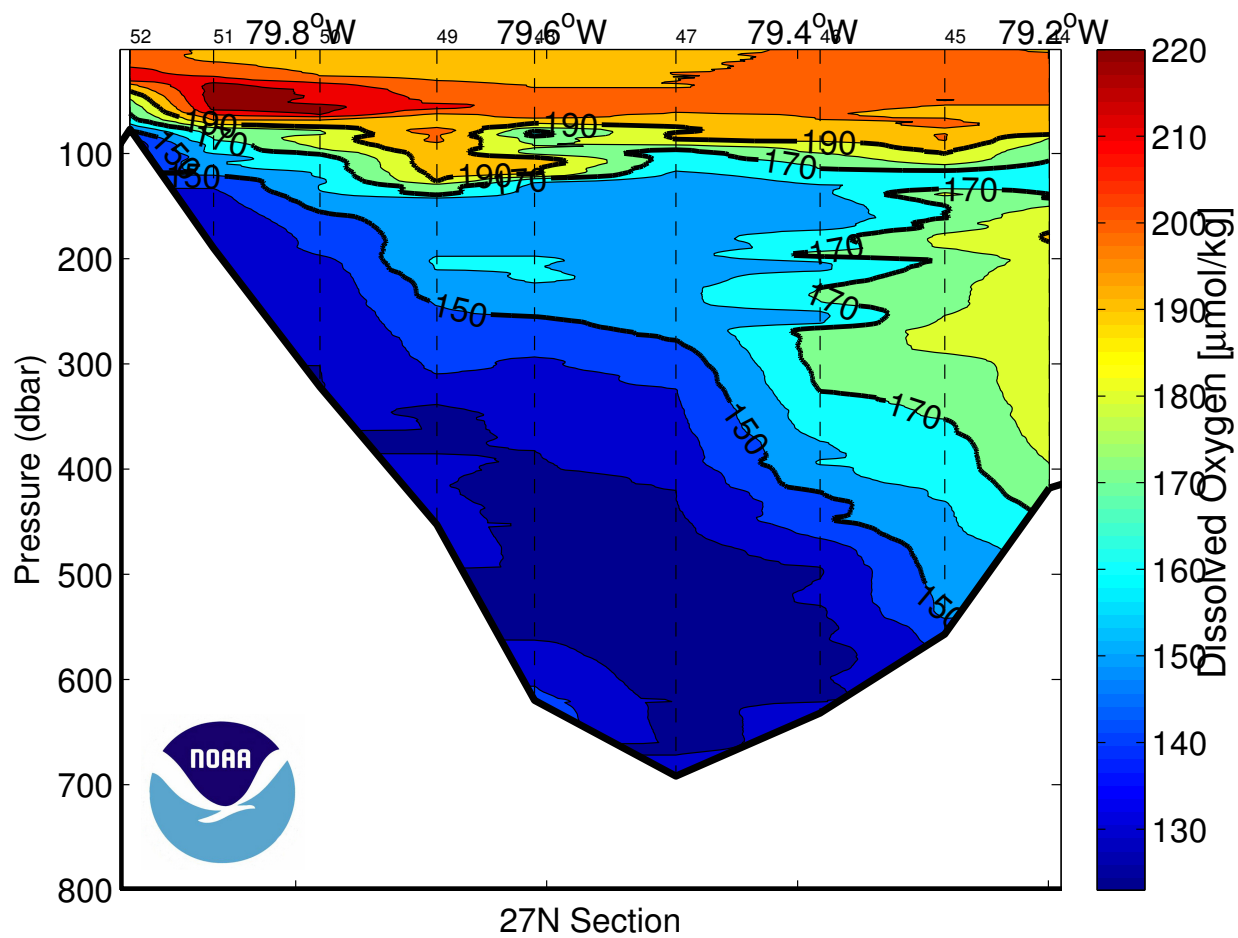


Figure 35: Dissolved Oxygen ( $\mu\text{mol/kg}$ ) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

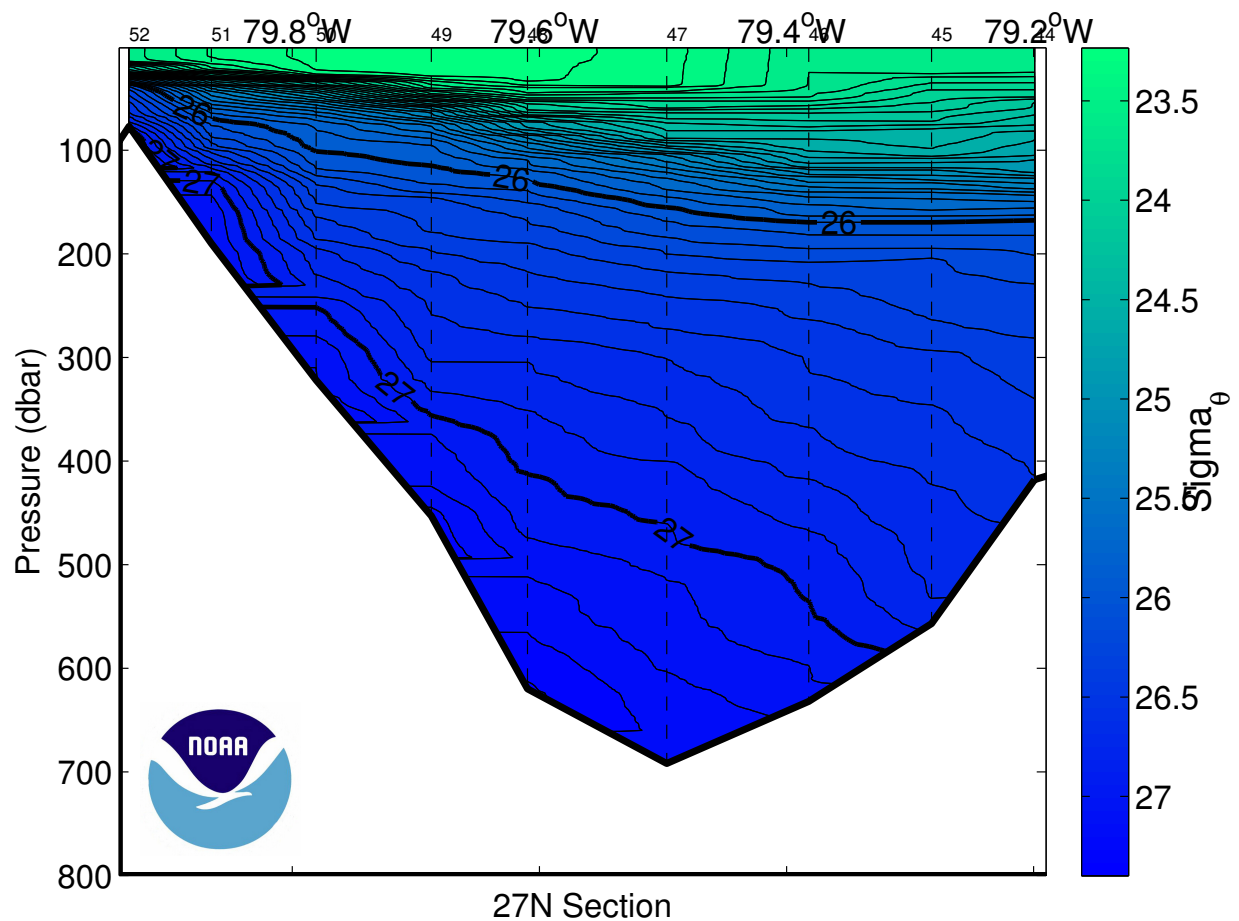


Figure 36: Neutral density ( $\text{kg}/\text{m}^3$ ) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

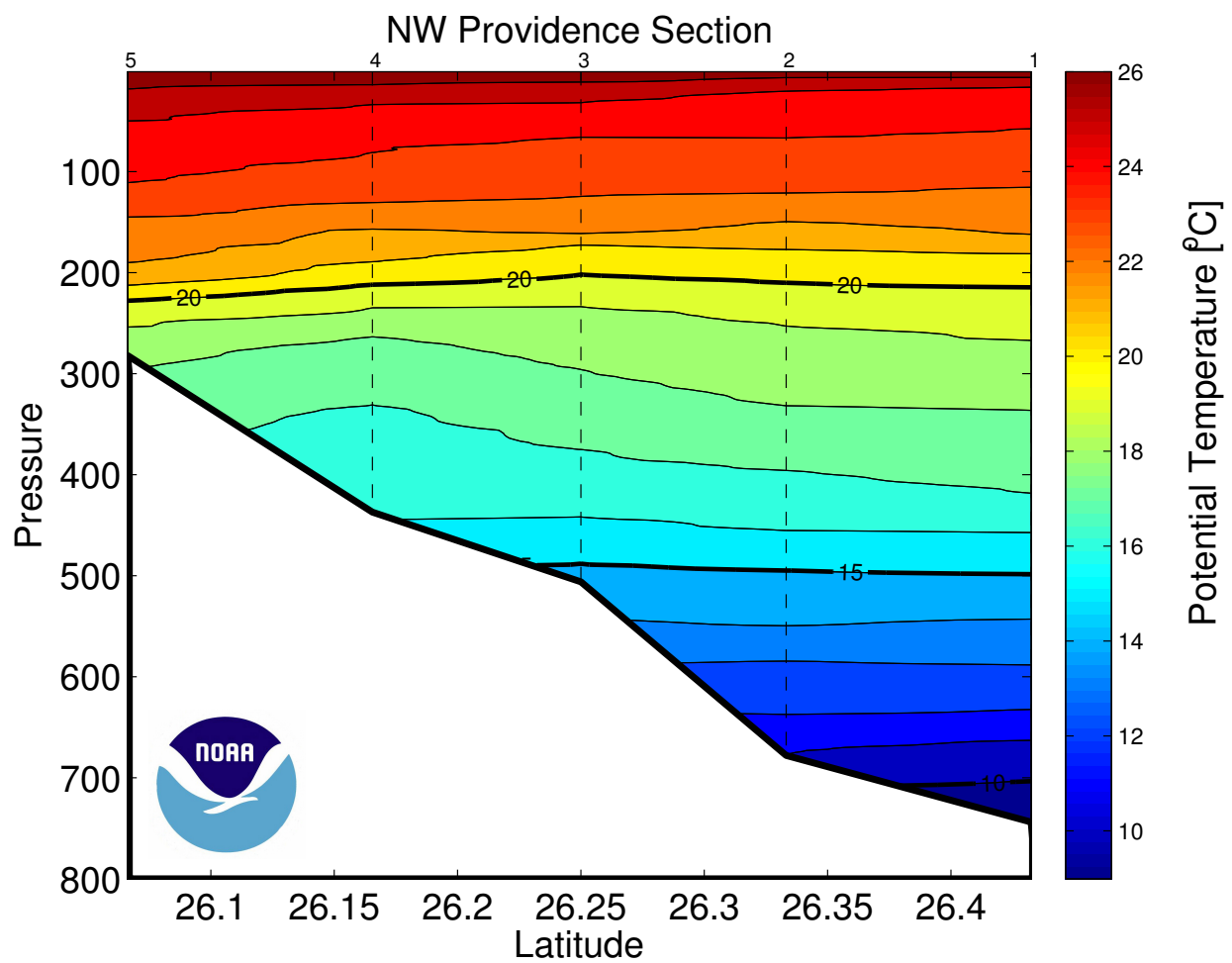


Figure 37: Potential Temperature ( $^{\circ}\text{C}$ ) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.



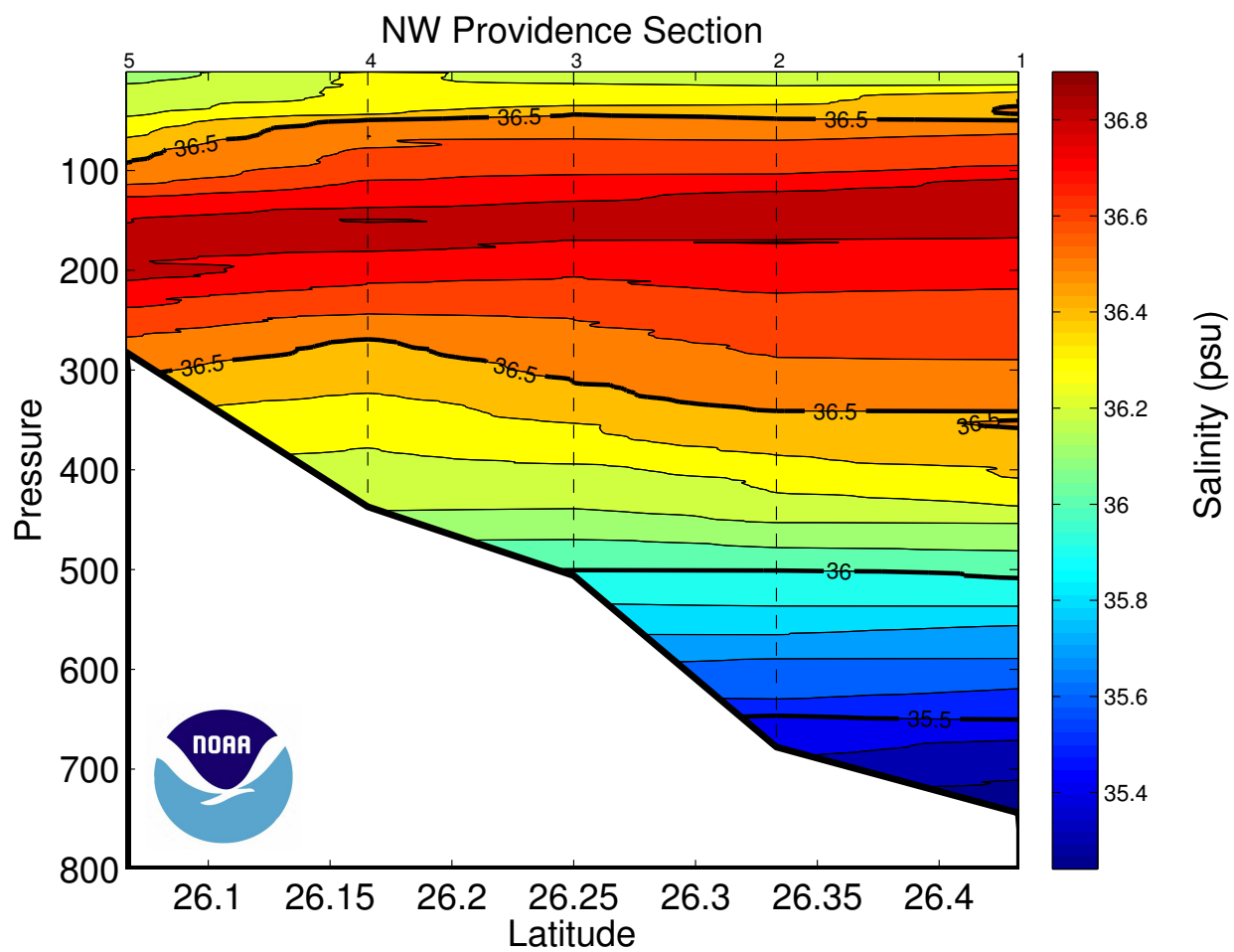


Figure 38: Salinity (PSS 78) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

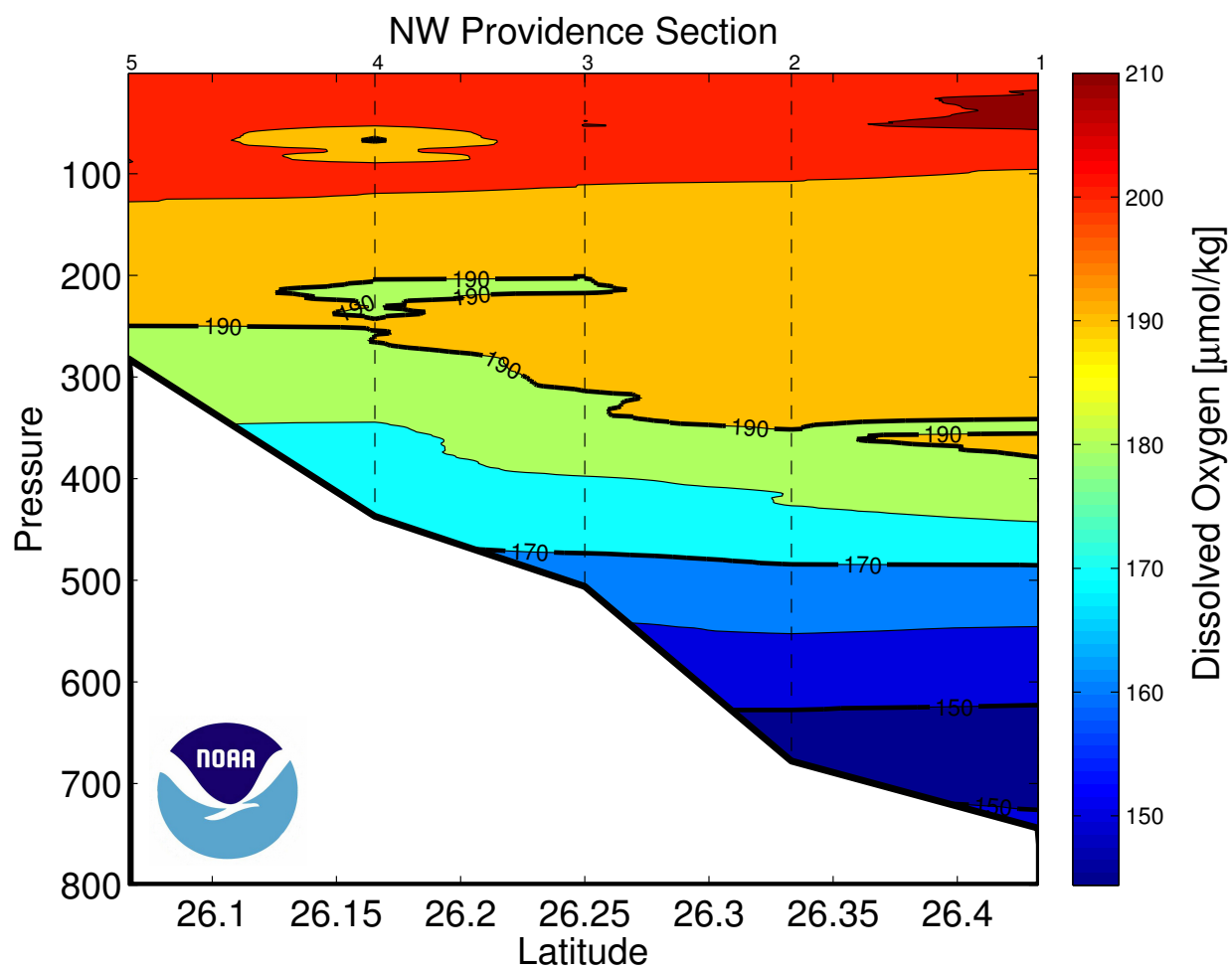


Figure 39: Dissolved Oxygen ( $\mu\text{mol/kg}$ ) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

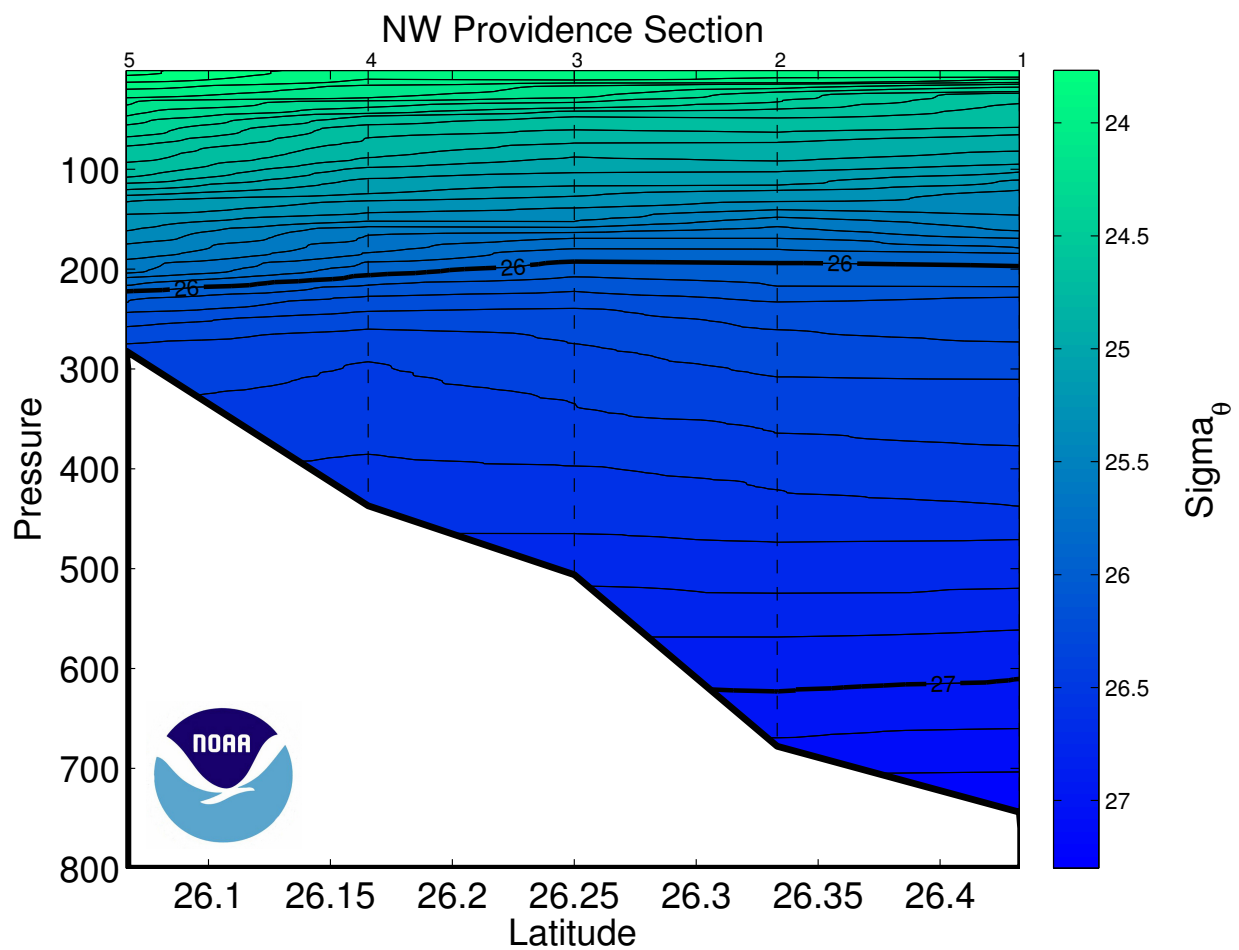


Figure 40: Neutral density (kg/m<sup>3</sup>) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

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## 9 *Acknowledgements*

The successful completion of the cruise relied on dedicated assistance from many individuals on shore and on the UNOLS ship Endeavor. Funded investigators in the project and members of the Western Boundary Time Series, and the RAPID/MOC programs were instrumental in planning and executing the cruise. The participants in the cruise showed dedication and camaraderie during their 17 days at sea. Officers and crew of the Endeavor exhibited a high degree of professionalism and assistance to accomplish the mission and to make us feel at home during the voyage.

The U.S. Western Boundary Time Series Program is sponsored by NOAA's Office of Climate Observation. The U.S. Meridional Overturning Heat transport and Circulation Array is sponsored by the National Science Foundation's Physical Oceanography Program. The UK RAPID/MOC program is sponsored by the National Environmental Research Council (NERC). In particular, we wish to thank program managers Diane Stanitski (NOAA), David Legler (NOAA), Mike Johnson (NOAA), Eric Itsweire (NSF/OCE), and Meric Srokosz (NERC) for their financial support in the effort.

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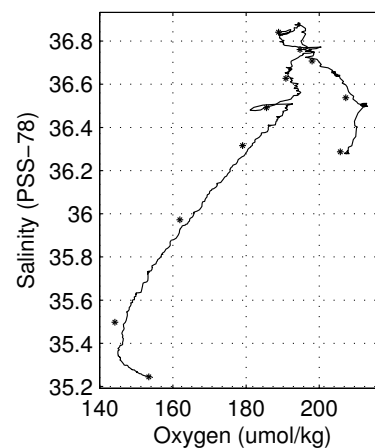
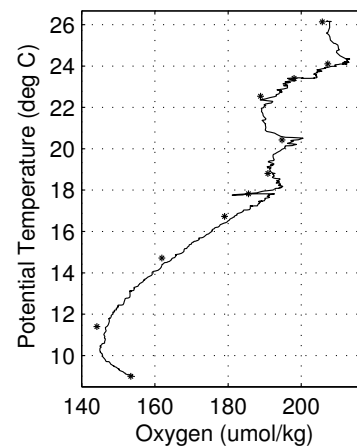
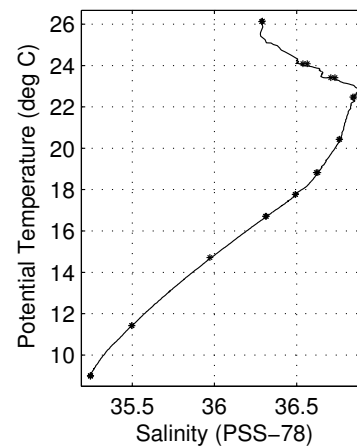
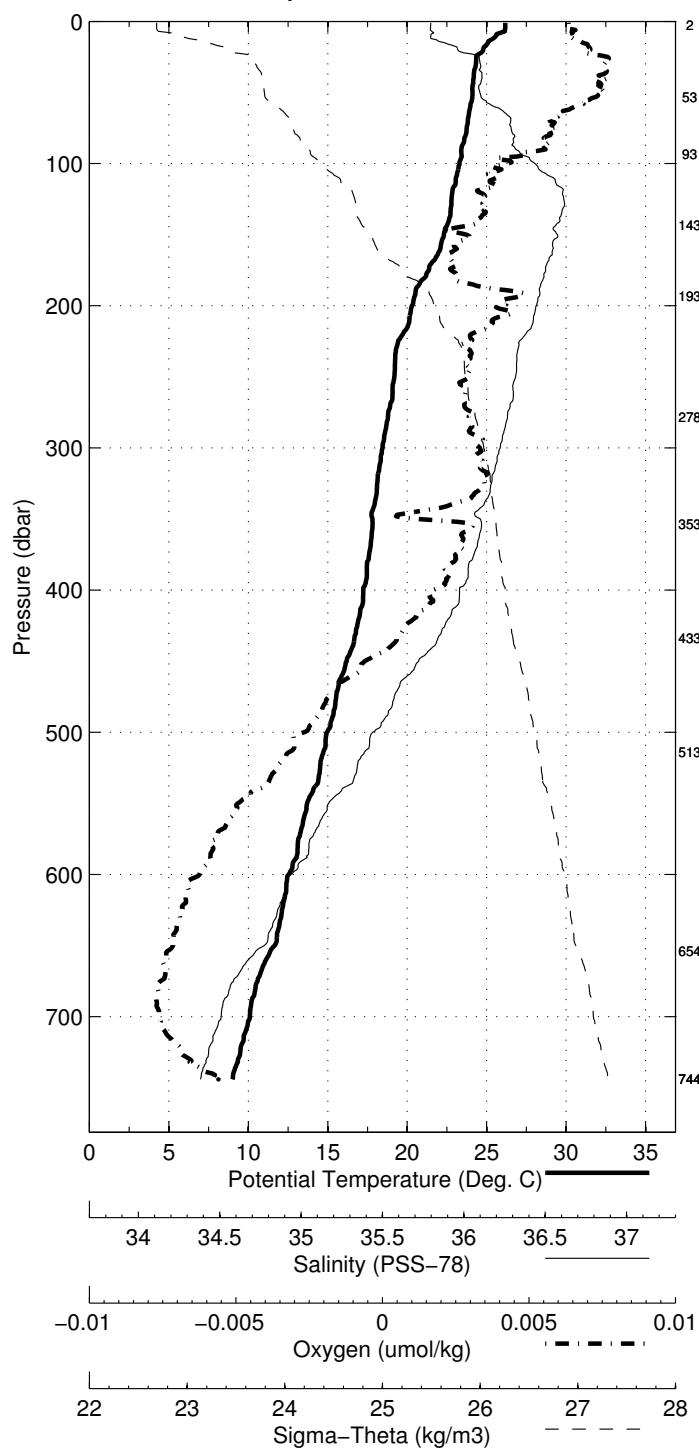
## *A Hydrographic - CTD Data*

Abaco April-May 2011 R/V Knorr  
 CTD Station 1 (CTD001)  
 Latitude 26.432N Longitude 78.668W  
 13-Apr-2011 21:11Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.170	26.170	36.280	207.1	0.004	23.946
10	25.602	25.599	36.281	206.9	0.039	24.125
20	24.784	24.780	36.402	210.4	0.075	24.469
30	24.334	24.327	36.504	212.5	0.108	24.683
50	24.116	24.105	36.502	212.0	0.173	24.747
75	23.763	23.747	36.643	204.6	0.250	24.961
100	23.309	23.288	36.750	198.1	0.323	25.178
125	22.817	22.791	36.880	194.4	0.391	25.421
150	22.337	22.306	36.852	191.7	0.455	25.539
200	20.334	20.297	36.756	197.0	0.569	26.022
250	19.236	19.190	36.663	192.0	0.666	26.243
300	18.494	18.441	36.593	193.8	0.756	26.382
400	17.302	17.234	36.410	186.6	0.925	26.541
500	15.021	14.944	36.019	167.2	1.079	26.770
600	12.614	12.532	35.650	151.5	1.213	26.990
700	10.176	10.092	35.335	145.5	1.327	27.198

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
744	1	9.087	9.003	35.247	<i>NaN</i>
744	2	9.077	8.993	35.245	153.4
744	3	9.067	8.983	35.246	<i>NaN</i>
654	4	11.504	11.419	35.498	144.1
654	5	11.515	11.430	35.497	<i>NaN</i>
514	6	14.794	15.371	-999.000	<i>NaN</i>
514	7	14.796	14.717	35.972	161.9
434	8	16.786	16.714	36.316	179.0
434	9	16.784	16.712	36.309	<i>NaN</i>
354	10	17.829	17.768	36.491	185.6
354	11	17.829	17.768	36.493	<i>NaN</i>
278	12	18.871	18.821	36.628	190.9
278	13	18.870	18.820	36.619	<i>NaN</i>
193	14	20.476	20.439	36.761	194.7
193	15	20.459	20.423	36.758	<i>NaN</i>
143	16	22.509	22.480	36.841	188.9
143	17	22.506	22.477	36.849	<i>NaN</i>
93	18	23.436	23.417	36.708	198.0
93	19	23.436	23.416	36.732	<i>NaN</i>
53	20	24.096	24.085	36.538	207.3
53	21	24.097	24.086	36.564	<i>NaN</i>
2	22	26.133	26.132	36.287	205.8
2	23	26.143	26.142	36.291	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 1 (CTD001)  
 Latitude 26.432 N Longitude 78.668 W  
 13-Apr-2011 21:11 Z



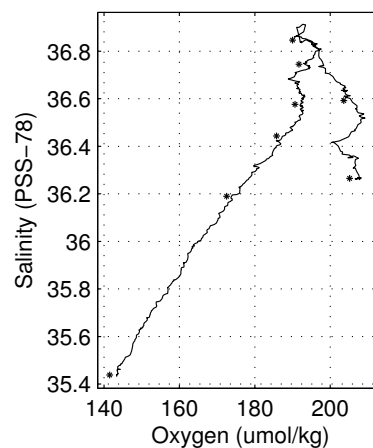
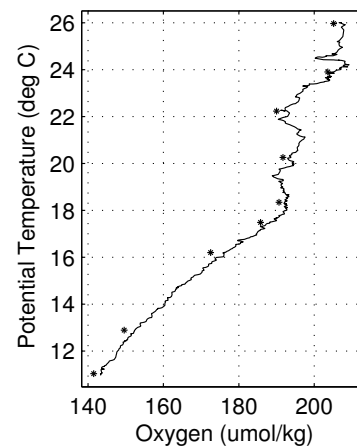
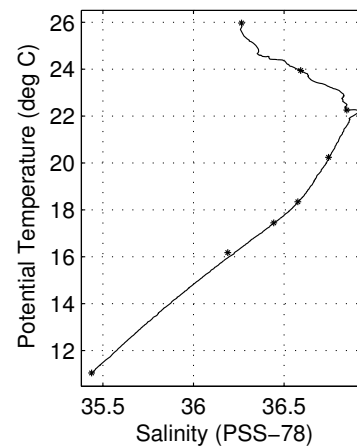
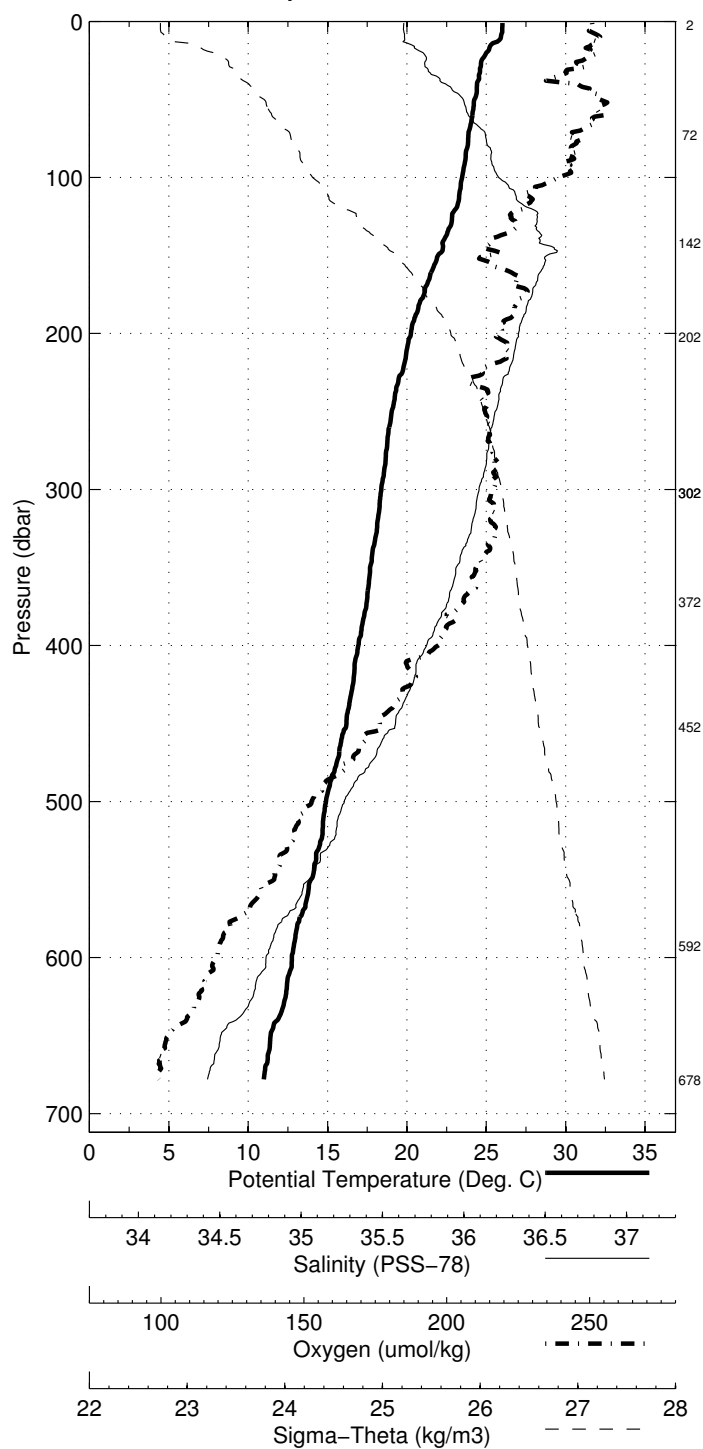


Abaco April-May 2011 R/V Knorr  
 CTD Station 2 (CTD002)  
 Latitude 26.333N Longitude 78.717W  
 13-Apr-2011 23:26Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.010	26.010	36.263	207.1	0.004	23.984
10	25.924	25.922	36.266	208.2	0.039	24.013
20	25.013	25.008	36.344	206.7	0.076	24.355
30	24.604	24.597	36.363	205.0	0.111	24.494
50	24.255	24.244	36.515	208.2	0.178	24.715
75	23.874	23.858	36.611	204.5	0.257	24.904
100	23.502	23.481	36.665	202.7	0.332	25.056
125	22.871	22.845	36.829	195.2	0.403	25.366
150	21.992	21.962	36.869	191.7	0.466	25.650
200	20.282	20.244	36.749	193.5	0.576	26.031
250	19.079	19.033	36.650	191.3	0.673	26.274
300	18.436	18.383	36.582	192.4	0.763	26.388
400	17.006	16.939	36.360	184.5	0.930	26.573
500	14.977	14.900	36.011	165.8	1.082	26.774
600	12.833	12.750	35.680	151.8	1.217	26.970

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
678	1	11.129	11.042	35.438	141.5
593	2	12.962	13.677	-999.000	<i>NaN</i>
452	3	16.253	16.180	36.190	172.5
372	4	17.512	17.448	36.443	185.8
302	5	18.402	18.348	36.576	190.7
302	6	18.401	18.691	-999.000	<i>NaN</i>
202	7	20.279	20.241	36.745	191.7
142	8	22.284	22.255	36.847	190.0
73	9	23.958	23.942	36.592	203.6
3	10	25.966	25.966	36.265	205.2

Abaco April-May 2011 R/V Knorr  
 CTD Station 2 (CTD002)  
 Latitude 26.333 N Longitude 78.717 W  
 13-Apr-2011 23:26 Z

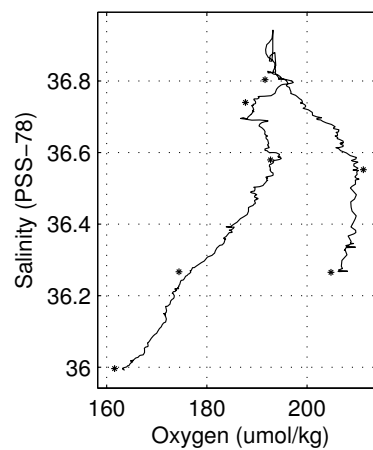
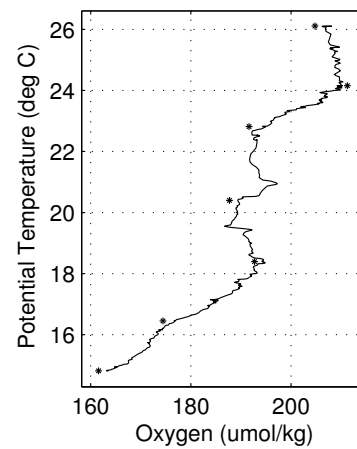
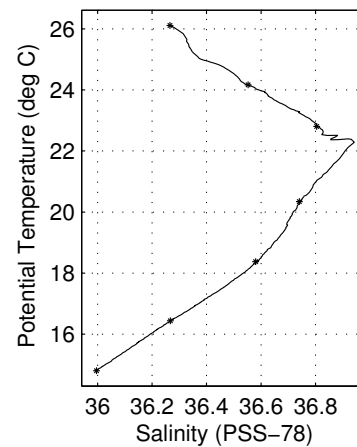
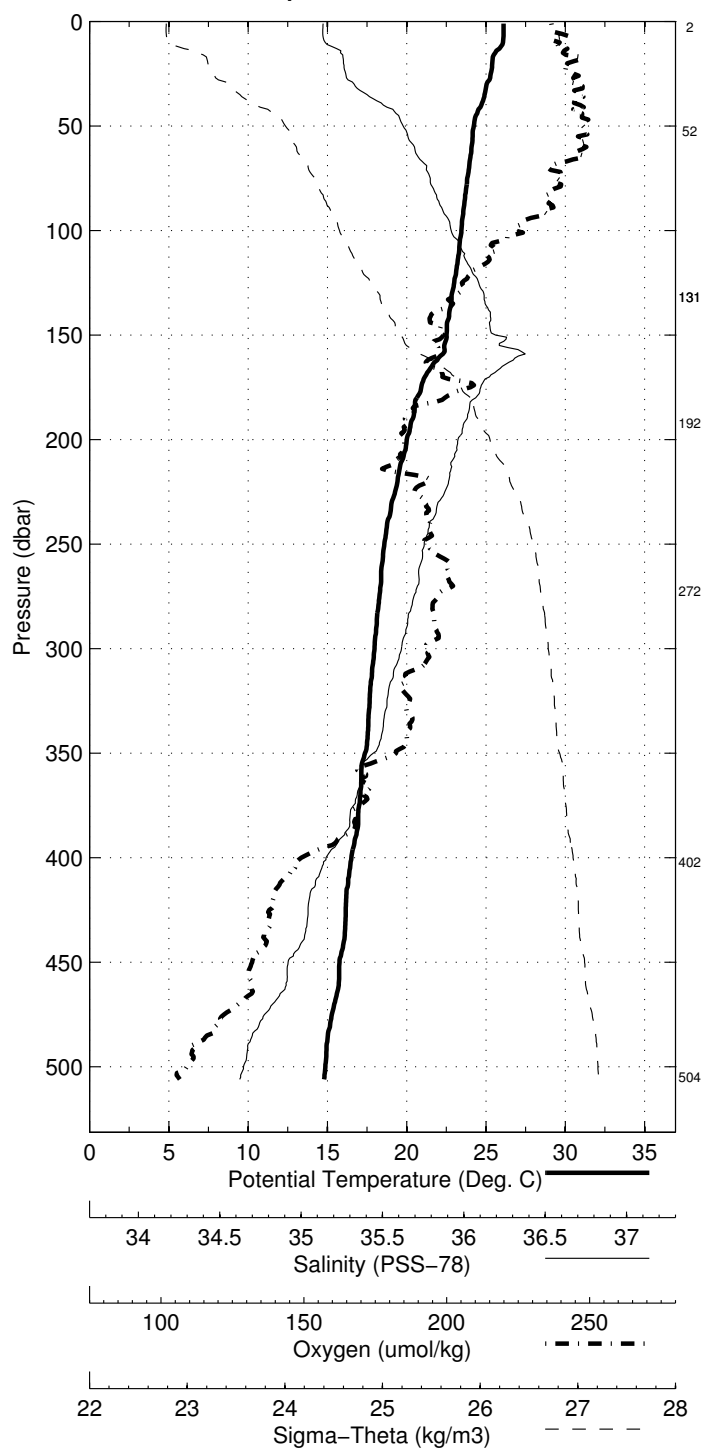


Abaco April-May 2011 R/V Knorr  
 CTD Station 3 (CTD003)  
 Latitude 26.250N Longitude 78.767W  
 14-Apr-2011 01:03Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.106	26.106	36.269	206.2	0.004	23.958
10	26.067	26.065	36.276	207.1	0.039	23.976
20	25.404	25.399	36.337	208.0	0.077	24.229
30	25.046	25.039	36.373	209.4	0.114	24.367
50	24.241	24.230	36.536	209.8	0.181	24.736
75	23.826	23.810	36.626	206.8	0.260	24.930
100	23.470	23.449	36.696	202.0	0.334	25.089
125	23.015	22.990	36.787	195.9	0.404	25.293
150	22.536	22.506	36.844	193.8	0.470	25.475
200	20.045	20.007	36.718	189.2	0.581	26.071
250	18.637	18.592	36.606	191.8	0.675	26.354
300	18.023	17.971	36.530	191.9	0.761	26.452
400	16.573	16.507	36.278	177.5	0.923	26.613
500	14.946	14.869	36.004	164.3	1.073	26.775

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
505	1	14.882	14.805	35.996	161.6
402	2	16.507	16.441	36.267	174.5
272	3	18.425	18.377	36.580	192.7
192	4	20.378	20.342	36.740	187.7
132	5	22.831	22.803	36.804	191.6
132	6	22.830	22.929	-999.000	<i>NaN</i>
52	7	24.175	24.164	36.552	211.3
2	8	26.108	26.107	36.265	204.8

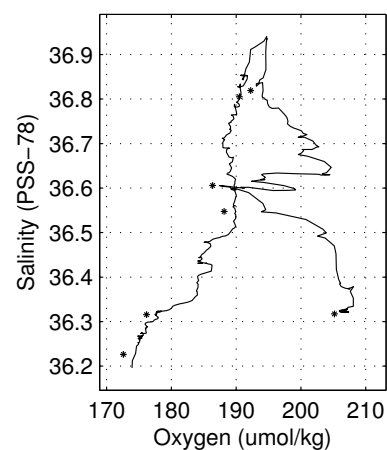
Abaco April-May 2011 R/V Knorr  
 CTD Station 3 (CTD003)  
 Latitude 26.250 N Longitude 78.767 W  
 14-Apr-2011 01:03 Z



Abaco April-May 2011 R/V Knorr  
 CTD Station 4 (CTD004)  
 Latitude 26.165N Longitude 78.800W  
 14-Apr-2011 02:30Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.130	26.130	36.323	206.0	0.004	23.991
10	26.058	26.056	36.323	206.3	0.039	24.015
20	25.645	25.641	36.321	207.4	0.077	24.143
30	25.390	25.383	36.334	208.1	0.115	24.232
50	24.473	24.462	36.508	203.4	0.184	24.645
75	24.066	24.050	36.595	198.1	0.264	24.834
100	23.604	23.583	36.675	199.6	0.341	25.034
125	23.205	23.179	36.755	197.9	0.413	25.213
150	22.761	22.731	36.936	194.7	0.480	25.481
200	20.571	20.533	36.755	189.6	0.594	25.958
250	18.462	18.418	36.572	189.8	0.690	26.372
300	17.497	17.446	36.441	184.7	0.773	26.512
400	16.553	16.488	36.274	175.5	0.931	26.614

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
437	1	16.233	16.162	36.226	172.6
372	2	16.807	16.745	36.315	176.2
262	3	18.230	18.184	36.547	188.1
182	4	21.286	21.250	36.805	190.5
132	5	22.913	22.886	36.819	192.2
132	6	22.912	23.010	-999.000	<i>NaN</i>
62	7	24.195	24.182	36.606	186.4
3	8	26.124	26.123	36.317	205.2

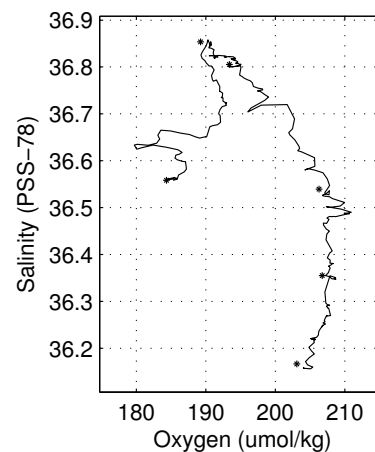
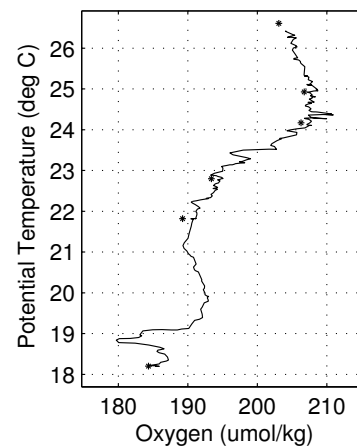
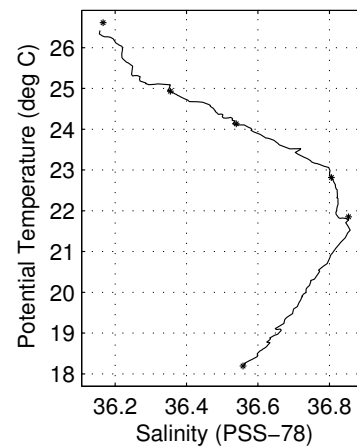
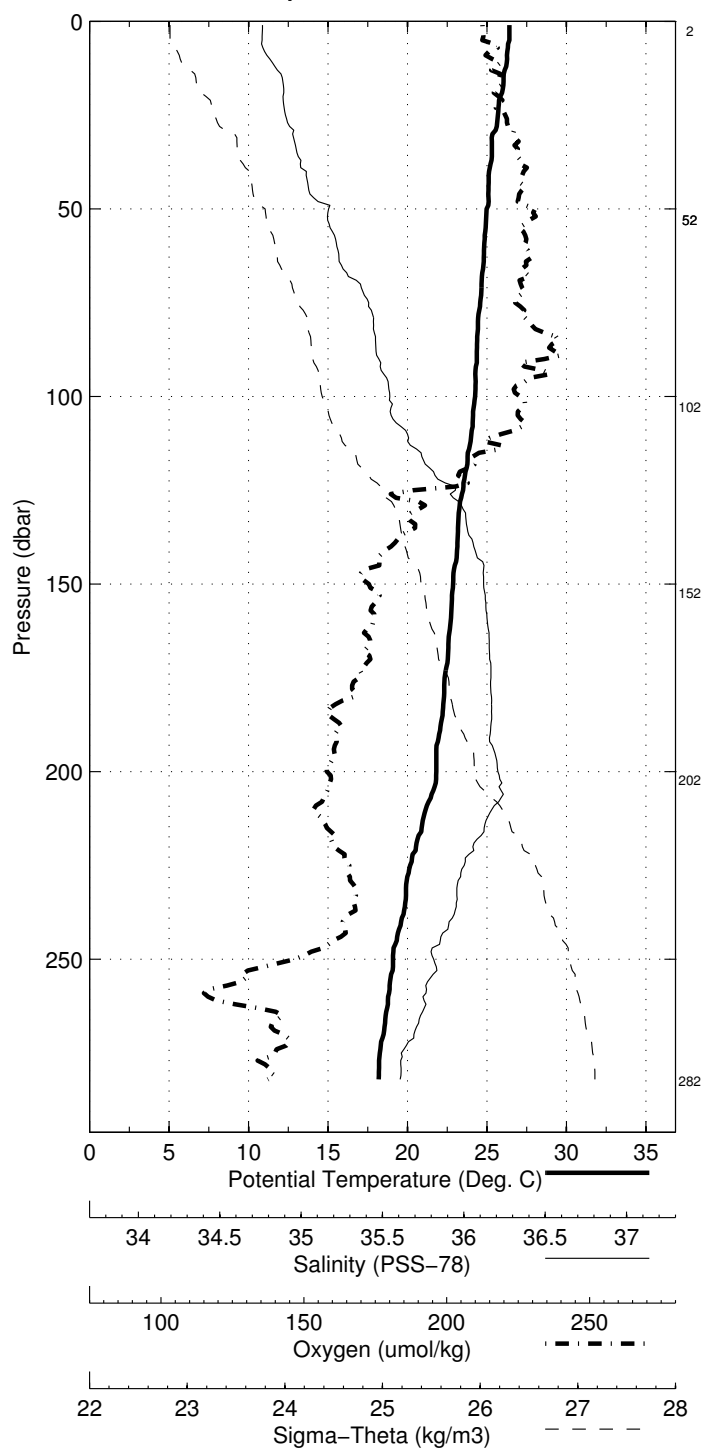


Abaco April-May 2011 R/V Knorr  
 CTD Station 5 (CTD005)  
 Latitude 26.066N Longitude 78.849W  
 14-Apr-2011 03:51Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.416	26.415	36.159	204.0	0.004	23.777
10	26.269	26.266	36.180	204.9	0.041	23.840
20	25.853	25.849	36.218	205.5	0.081	24.000
30	25.349	25.343	36.246	206.7	0.119	24.178
50	24.993	24.982	36.350	208.7	0.193	24.368
75	24.596	24.580	36.467	206.9	0.280	24.578
100	24.277	24.256	36.529	207.4	0.363	24.723
125	23.524	23.498	36.719	198.0	0.440	25.092
150	22.903	22.873	36.801	194.1	0.510	25.337
200	21.856	21.816	36.843	190.5	0.637	25.671
250	19.132	19.087	36.656	187.7	0.741	26.265

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
283	1	18.242	18.193	36.558	184.3
202	2	21.890	21.850	36.854	189.2
153	3	22.847	22.816	36.805	193.4
103	4	24.155	24.133	36.539	206.3
53	5	24.942	24.931	36.355	206.8
53	6	24.944	24.979	-999.000	<i>NaN</i>
3	7	26.612	26.611	36.167	203.1

Abaco April-May 2011 R/V Knorr  
 CTD Station 5 (CTD005)  
 Latitude 26.066 N Longitude 78.849 W  
 14-Apr-2011 03:51 Z



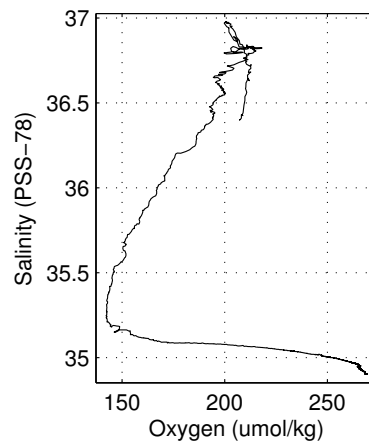
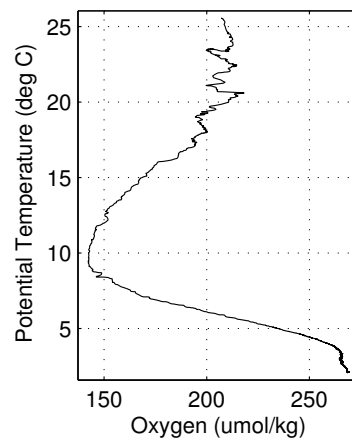
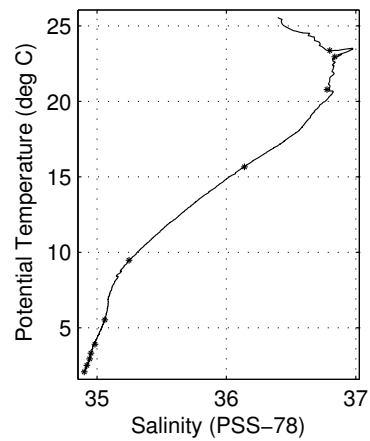
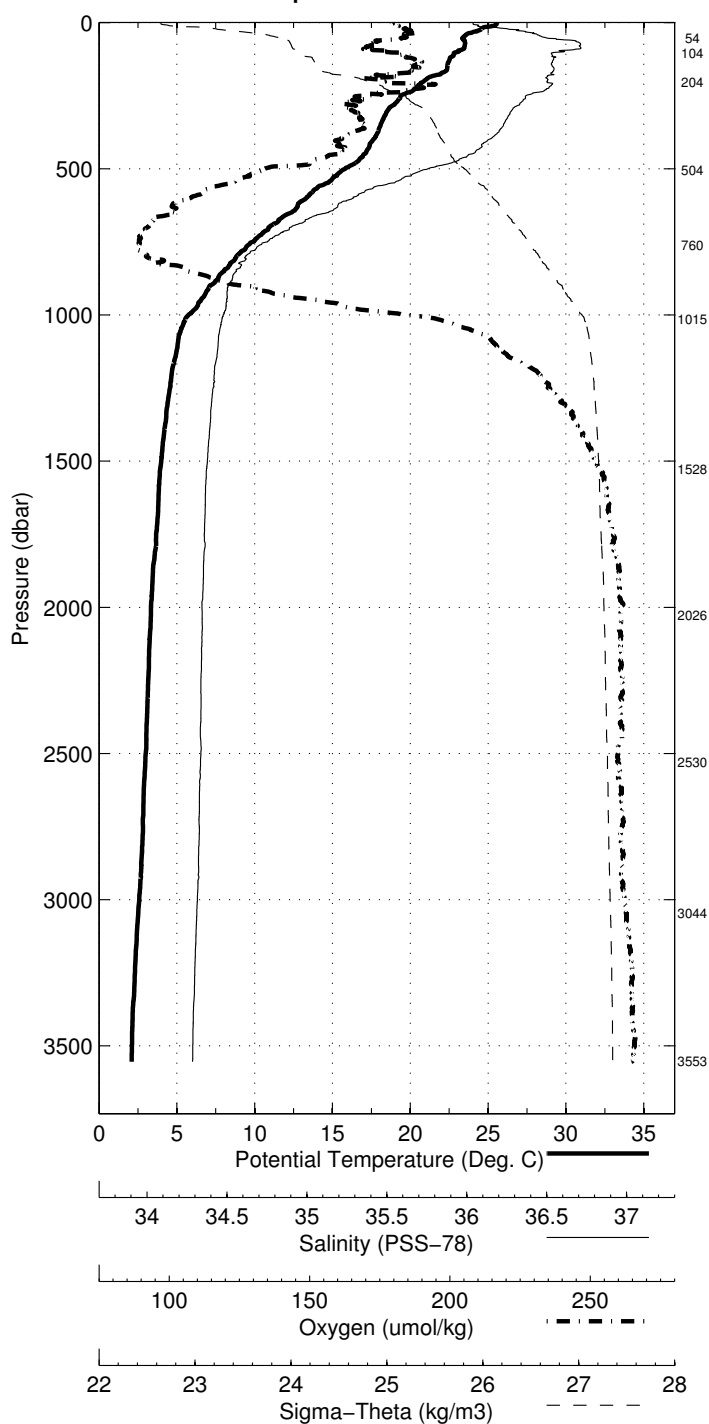


Abaco April-May 2011 R/V Knorr  
 CTD Station 6 (CTD006)  
 Latitude 25.954N Longitude 76.895W  
 14-Apr-2011 14:08Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.553	25.553	36.402	207.2	0.004	24.231
10	25.422	25.420	36.430	208.3	0.037	24.293
20	24.593	24.589	36.564	210.7	0.071	24.649
30	24.290	24.283	36.679	212.4	0.103	24.828
50	23.395	23.384	36.780	210.8	0.161	25.172
75	23.526	23.510	36.975	200.6	0.230	25.283
100	23.093	23.072	36.881	205.0	0.297	25.340
125	22.555	22.529	36.831	212.9	0.363	25.459
150	22.406	22.376	36.826	212.5	0.426	25.499
200	20.921	20.882	36.796	204.8	0.546	25.894
250	19.430	19.384	36.683	199.5	0.648	26.209
300	18.598	18.545	36.608	196.6	0.740	26.367
400	17.683	17.614	36.485	193.7	0.911	26.505
500	15.886	15.806	36.159	174.5	1.072	26.684
600	13.411	13.325	35.761	155.7	1.213	26.916
700	11.000	10.912	35.426	144.7	1.335	27.123
800	8.918	8.828	35.185	144.3	1.437	27.291
900	7.189	7.099	35.090	169.2	1.523	27.476
1000	5.827	5.737	35.065	211.3	1.591	27.638
1100	5.149	5.054	35.038	233.5	1.646	27.699
1200	4.773	4.672	35.018	244.5	1.698	27.728
1300	4.514	4.406	35.003	250.3	1.747	27.745
1400	4.304	4.190	34.993	255.6	1.796	27.760
1500	4.119	3.997	34.981	259.3	1.844	27.771
1750	3.811	3.670	34.965	263.6	1.961	27.792
2000	3.500	3.340	34.952	265.9	2.076	27.815
2500	3.203	2.999	34.947	264.8	2.303	27.843
3000	2.830	2.583	34.928	266.3	2.528	27.865
3500	2.404	2.114	34.903	269.0	2.742	27.885

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
3554	2	2.389	2.094	34.902	<i>NaN</i>
3045	4	2.772	2.522	34.922	<i>NaN</i>
2531	6	3.157	2.951	34.943	<i>NaN</i>
2026	8	3.488	3.325	34.953	<i>NaN</i>
1529	10	4.041	3.918	34.985	<i>NaN</i>
1016	12	5.625	5.535	35.060	<i>NaN</i>
760	14	9.566	9.478	35.247	<i>NaN</i>
504	16	15.744	15.663	36.140	<i>NaN</i>
204	18	20.829	20.790	36.777	<i>NaN</i>
104	20	22.976	22.954	36.837	<i>NaN</i>
54	22	23.386	23.375	36.799	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 6 (CTD006)  
 Latitude 25.954 N Longitude 76.895 W  
 14-Apr-2011 14:08 Z

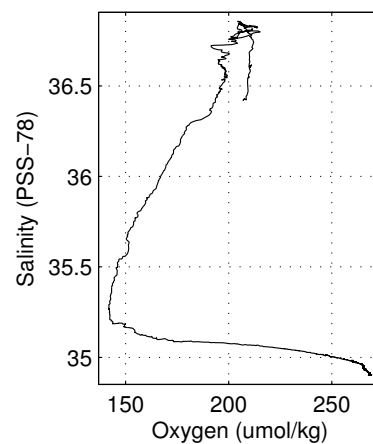
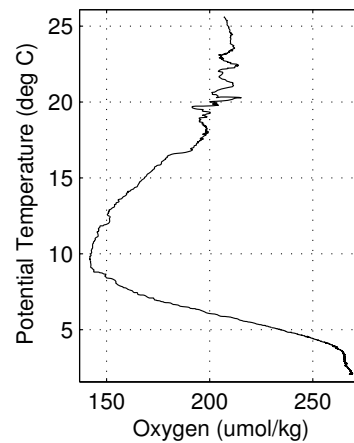
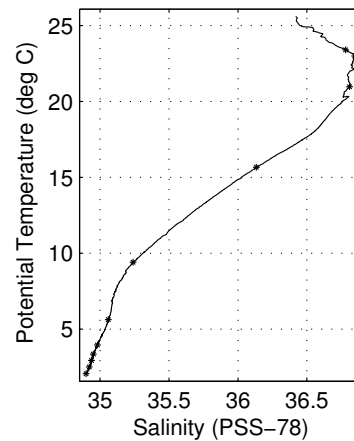
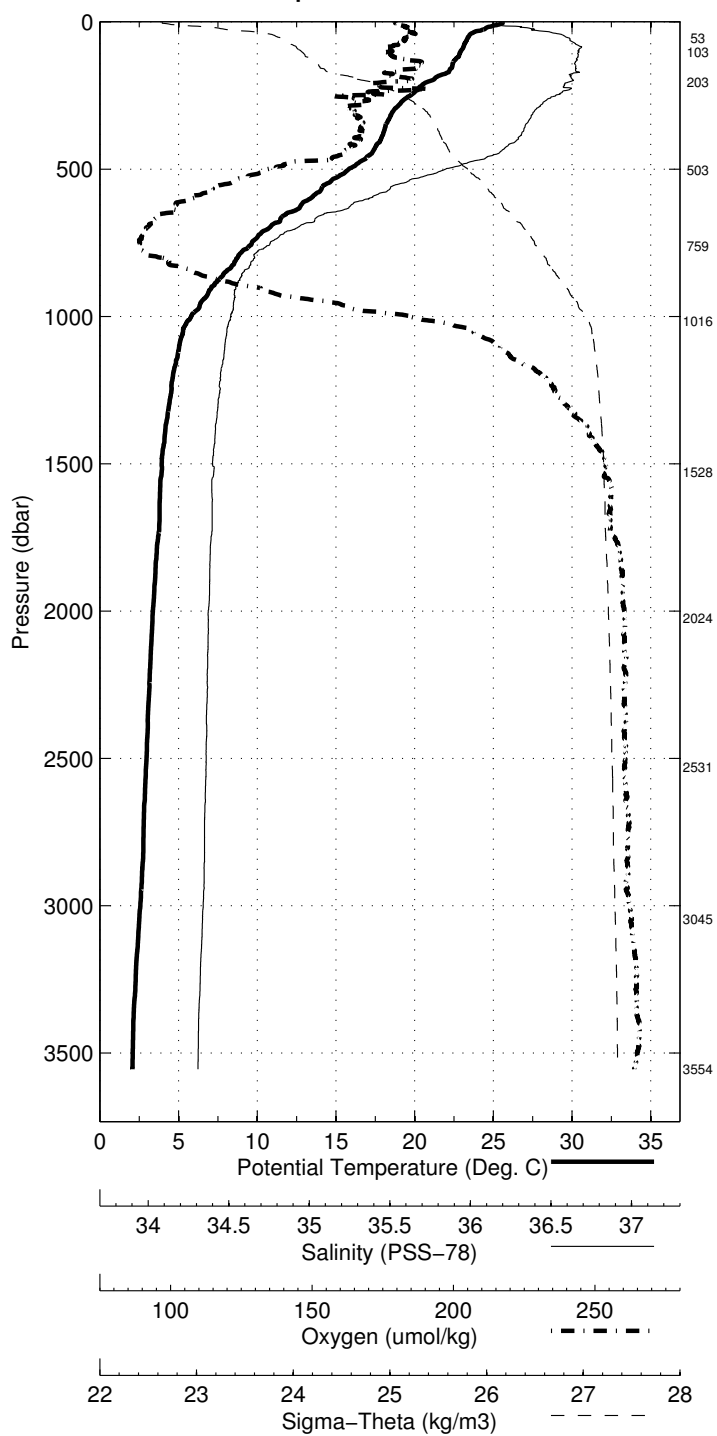


Abaco April-May 2011 R/V Knorr  
 CTD Station 7 (CTD007)  
 Latitude 25.955N Longitude 76.894W  
 14-Apr-2011 18:26Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.591	25.591	36.422	207.1	0.004	24.234
10	25.284	25.282	36.424	208.2	0.037	24.331
20	24.575	24.570	36.578	210.4	0.071	24.665
30	24.173	24.166	36.635	210.3	0.103	24.830
50	23.443	23.433	36.773	210.1	0.161	25.153
75	23.200	23.184	36.826	208.2	0.230	25.265
100	22.950	22.929	36.838	206.3	0.297	25.349
125	22.651	22.625	36.830	208.6	0.363	25.431
150	22.434	22.404	36.827	213.7	0.427	25.492
200	21.053	21.014	36.808	210.9	0.548	25.867
250	19.776	19.729	36.724	193.2	0.651	26.149
300	18.729	18.675	36.618	195.9	0.744	26.342
400	17.918	17.848	36.530	198.0	0.917	26.482
500	15.894	15.814	36.162	174.4	1.079	26.685
600	13.470	13.384	35.770	154.9	1.220	26.911
700	10.831	10.743	35.403	143.6	1.340	27.136
800	8.844	8.755	35.190	147.2	1.440	27.306
900	7.181	7.091	35.094	171.2	1.525	27.480
1000	5.900	5.809	35.068	210.8	1.593	27.631
1100	5.138	5.044	35.038	233.4	1.648	27.700
1200	4.751	4.651	35.017	244.3	1.699	27.729
1300	4.506	4.399	35.003	250.3	1.749	27.746
1400	4.249	4.135	34.989	256.4	1.797	27.763
1500	4.052	3.932	34.976	260.4	1.844	27.774
1750	3.842	3.701	34.968	262.8	1.962	27.792
2000	3.527	3.367	34.954	265.3	2.077	27.813
2500	3.167	2.964	34.943	265.3	2.303	27.843
3000	2.820	2.573	34.928	266.5	2.527	27.866
3500	2.385	2.096	34.903	268.6	2.739	27.886

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
3554	2	2.369	2.074	34.899	<i>NaN</i>
3045	4	2.763	2.513	34.922	<i>NaN</i>
2531	6	3.142	2.936	34.939	<i>NaN</i>
2025	8	3.521	3.358	34.952	<i>NaN</i>
1528	10	4.086	3.962	34.982	<i>NaN</i>
1016	12	5.728	5.637	35.060	<i>NaN</i>
760	14	9.499	9.410	35.240	<i>NaN</i>
504	16	15.746	15.666	36.133	<i>NaN</i>
204	18	21.012	20.973	36.808	<i>NaN</i>
104	20	23.025	23.004	36.847	<i>NaN</i>
54	22	23.413	23.401	36.781	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 7 (CTD007)  
 Latitude 25.955 N Longitude 76.894 W  
 14-Apr-2011 18:26 Z

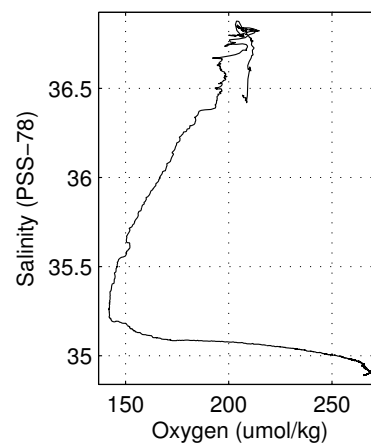
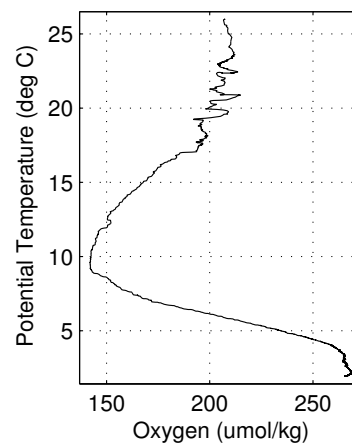
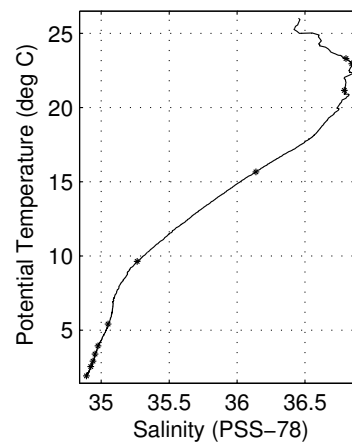
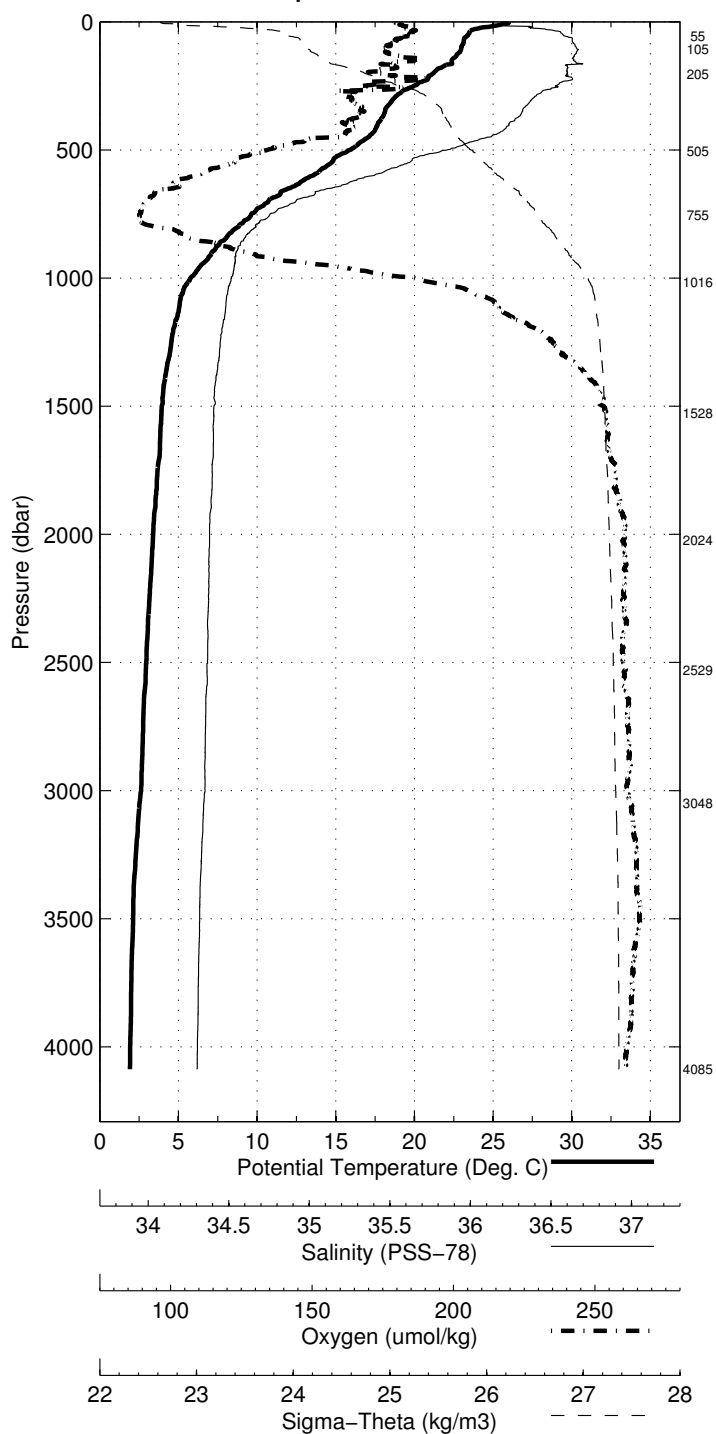


Abaco April-May 2011 R/V Knorr  
CTD Station 8 (CTD008)  
Latitude 25.954N Longitude 76.896W  
14-Apr-2011 23:32Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.000	26.000	36.455	206.9	0.004	24.132
10	25.529	25.527	36.439	208.2	0.037	24.267
20	24.675	24.670	36.607	210.5	0.072	24.657
30	23.761	23.754	36.688	211.8	0.103	24.993
50	23.409	23.398	36.776	210.6	0.160	25.164
75	23.151	23.136	36.823	207.0	0.229	25.277
100	22.997	22.976	36.843	204.6	0.296	25.339
125	22.771	22.746	36.840	205.3	0.363	25.404
150	22.406	22.376	36.828	210.7	0.427	25.501
200	21.255	21.216	36.799	201.8	0.548	25.805
250	20.006	19.959	36.735	198.4	0.655	26.097
300	18.720	18.666	36.618	195.9	0.748	26.344
400	17.732	17.663	36.496	194.3	0.920	26.502
500	15.979	15.899	36.176	174.4	1.082	26.676
600	13.635	13.548	35.800	156.1	1.224	26.900
700	10.803	10.716	35.400	143.5	1.344	27.138
800	8.908	8.818	35.194	146.0	1.445	27.299
900	7.224	7.134	35.092	169.9	1.529	27.472
1000	5.866	5.775	35.069	211.4	1.596	27.636
1100	5.174	5.079	35.040	232.2	1.652	27.697
1200	4.770	4.669	35.018	243.5	1.704	27.728
1300	4.546	4.438	35.006	249.2	1.753	27.744
1400	4.233	4.120	34.986	256.8	1.802	27.763
1500	4.059	3.938	34.977	260.0	1.849	27.775
1750	3.806	3.665	34.968	263.0	1.966	27.795
2000	3.552	3.391	34.955	264.9	2.082	27.812
2500	3.162	2.959	34.944	264.9	2.308	27.844
3000	2.870	2.622	34.931	265.7	2.531	27.865
3500	2.409	2.118	34.904	269.0	2.745	27.885
4000	2.272	1.930	34.892	265.8	2.957	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4086	2	2.273	1.921	34.891	<i>NaN</i>
3049	4	2.791	2.540	34.923	<i>NaN</i>
2529	6	3.118	2.913	34.939	<i>NaN</i>
2025	8	3.543	3.380	34.954	<i>NaN</i>
1528	10	4.060	3.936	34.976	<i>NaN</i>
1017	12	5.494	5.404	35.051	<i>NaN</i>
756	14	9.716	9.628	35.265	<i>NaN</i>
505	16	15.739	15.659	36.139	<i>NaN</i>
206	18	21.189	21.149	36.789	<i>NaN</i>
106	20	22.974	22.952	36.844	<i>NaN</i>
56	22	23.312	23.301	36.802	<i>NaN</i>

Abaco April–May 2011 R/V Knorr  
 CTD Station 8 (CTD008)  
 Latitude 25.954 N Longitude 76.896 W  
 14–Apr–2011 23:32 Z

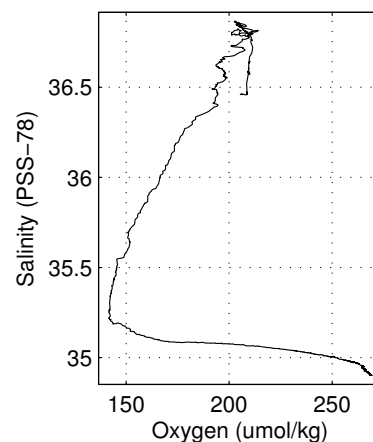
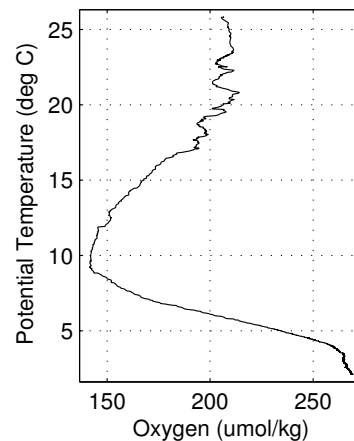
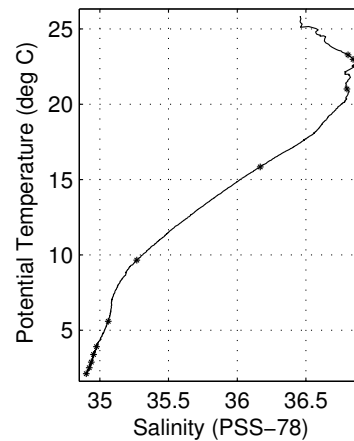
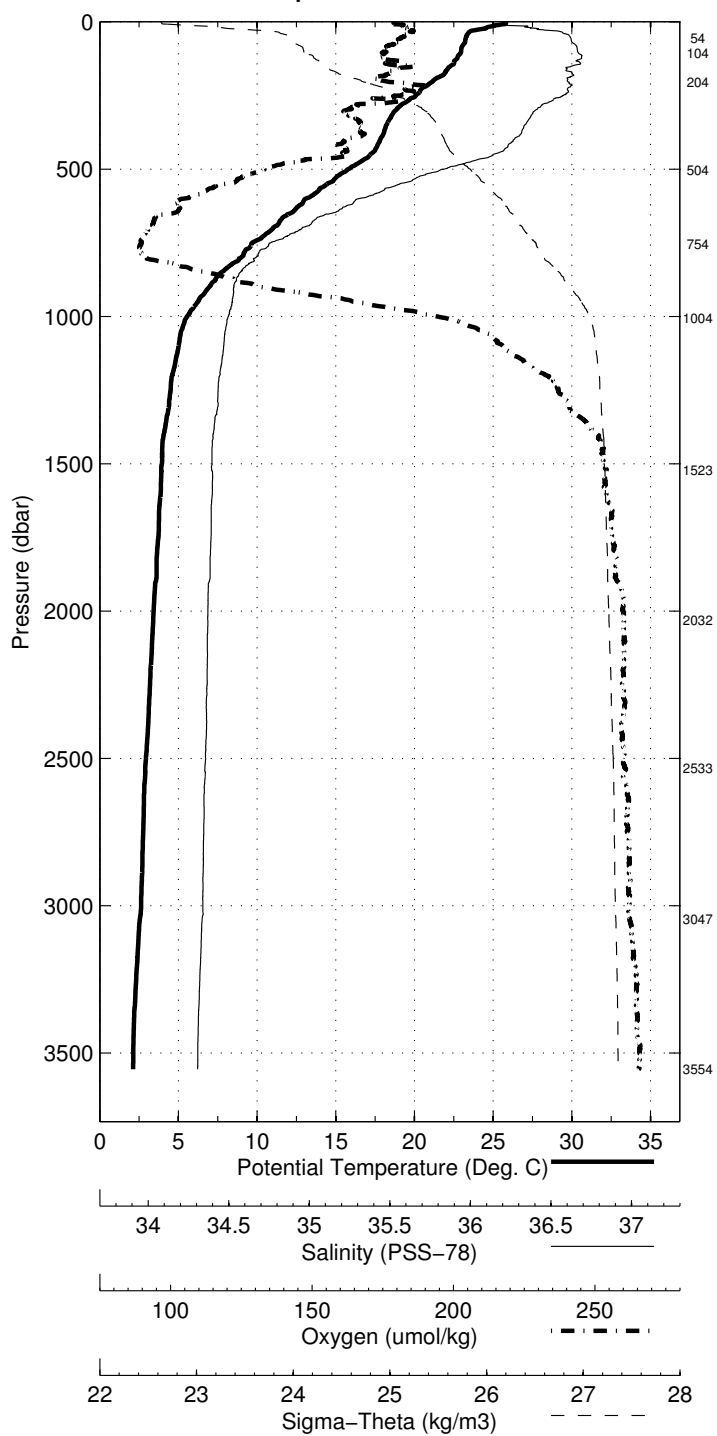


Abaco April-May 2011 R/V Knorr  
CTD Station 9 (CTD009)  
Latitude 25.955N Longitude 76.896W  
15-Apr-2011 03:50Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.812	25.811	36.461	206.2	0.004	24.195
10	25.421	25.419	36.461	208.9	0.037	24.317
20	24.585	24.581	36.605	209.6	0.071	24.683
30	23.641	23.635	36.721	211.5	0.102	25.053
50	23.314	23.304	36.803	209.0	0.158	25.213
75	23.157	23.142	36.827	206.2	0.227	25.279
100	22.983	22.963	36.843	203.8	0.293	25.343
125	22.721	22.695	36.863	202.7	0.359	25.436
150	22.320	22.290	36.815	211.5	0.423	25.515
200	21.223	21.184	36.790	203.8	0.544	25.807
250	20.117	20.071	36.766	207.8	0.649	26.091
300	18.855	18.802	36.627	194.0	0.745	26.316
400	17.879	17.810	36.516	194.4	0.918	26.481
500	15.858	15.778	36.157	173.5	1.081	26.689
600	13.179	13.094	35.726	152.8	1.222	26.936
700	11.096	11.007	35.435	144.2	1.342	27.113
800	9.063	8.973	35.199	143.2	1.445	27.279
900	7.042	6.953	35.087	172.5	1.528	27.494
1000	5.638	5.549	35.058	217.5	1.593	27.656
1100	5.100	5.006	35.035	234.2	1.646	27.702
1200	4.703	4.603	35.014	245.2	1.698	27.732
1300	4.516	4.408	35.007	250.8	1.747	27.748
1400	4.170	4.057	34.981	257.9	1.795	27.765
1500	4.069	3.948	34.975	259.3	1.842	27.772
1750	3.864	3.722	34.970	261.8	1.959	27.791
2000	3.578	3.417	34.954	264.6	2.076	27.809
2500	3.139	2.936	34.942	265.0	2.305	27.845
3000	2.869	2.621	34.928	266.1	2.528	27.862
3500	2.418	2.128	34.902	268.9	2.743	27.883

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
3555	2	2.413	2.117	34.901	<i>NaN</i>
3047	4	2.764	2.514	34.923	<i>NaN</i>
2534	6	3.083	2.878	34.938	<i>NaN</i>
2032	8	3.558	3.394	34.954	<i>NaN</i>
1523	10	4.035	3.913	34.976	<i>NaN</i>
1005	12	5.682	5.593	35.062	<i>NaN</i>
755	14	9.740	9.651	35.269	<i>NaN</i>
504	16	15.925	15.844	36.168	<i>NaN</i>
204	18	21.044	21.004	36.799	<i>NaN</i>
105	20	23.003	22.982	36.844	<i>NaN</i>
55	22	23.287	23.276	36.807	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 9 (CTD009)  
 Latitude 25.955 N Longitude 76.896 W  
 15-Apr-2011 03:50 Z



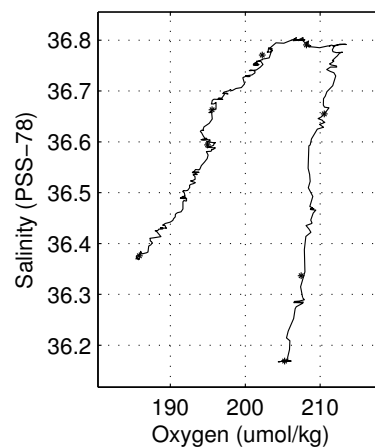
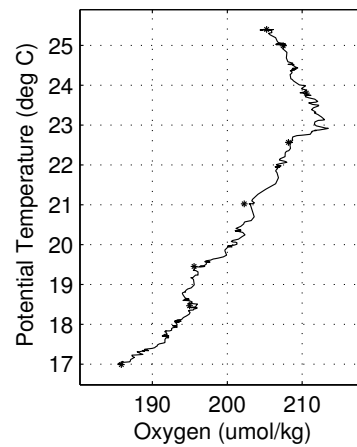
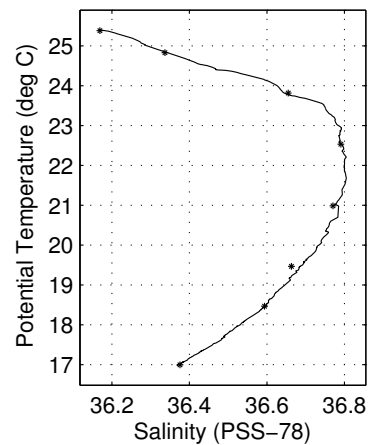
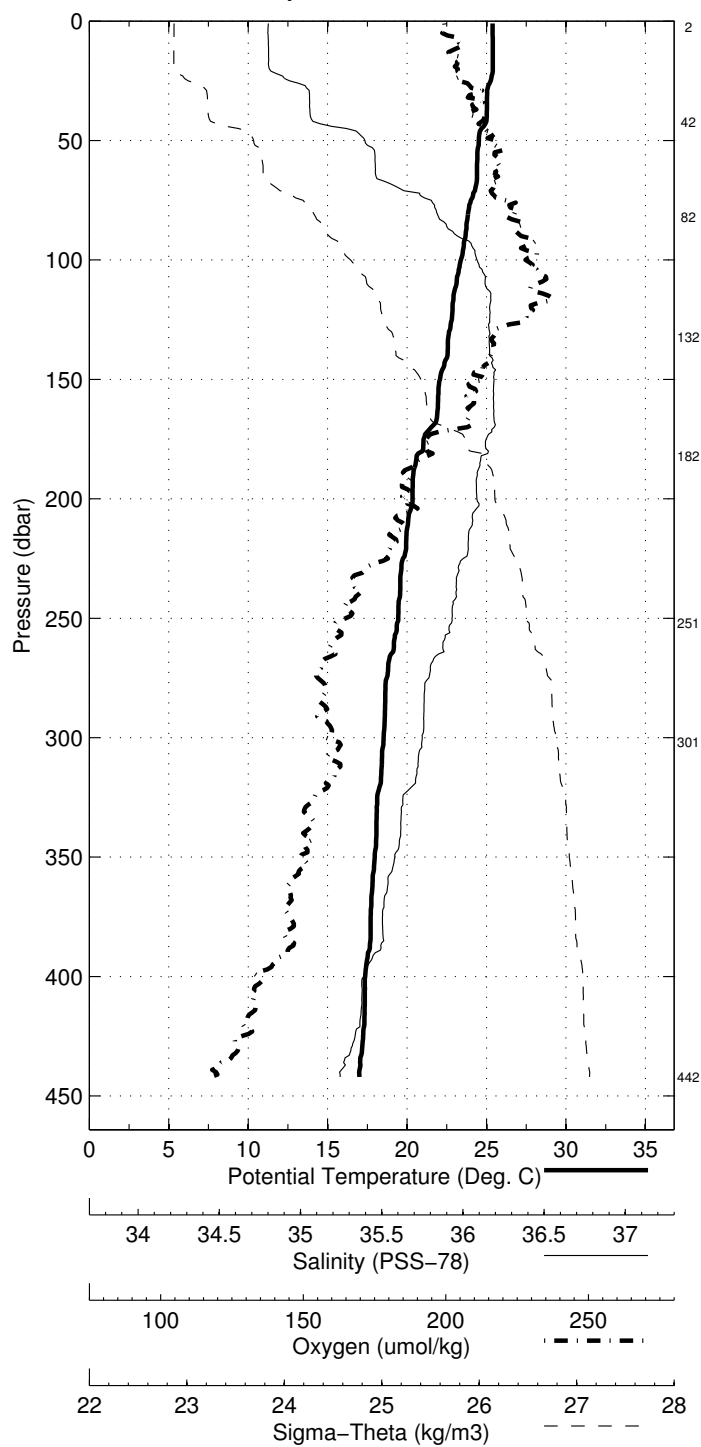


Abaco April-May 2011 R/V Knorr  
 CTD Station 10 (CTD010)  
 Latitude 26.525N Longitude 76.884W  
 15-Apr-2011 10:32Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.388	25.388	36.169	204.6	0.004	24.105
10	25.399	25.397	36.169	206.1	0.038	24.103
20	25.399	25.395	36.171	205.7	0.076	24.105
30	25.045	25.038	36.284	207.4	0.113	24.300
50	24.525	24.515	36.439	208.8	0.184	24.577
75	24.023	24.007	36.625	209.6	0.266	24.870
100	23.405	23.385	36.753	211.2	0.341	25.152
125	22.836	22.811	36.788	211.2	0.409	25.345
150	22.096	22.065	36.801	207.9	0.474	25.568
200	20.382	20.344	36.753	201.2	0.587	26.007
250	19.485	19.439	36.683	196.4	0.685	26.194
300	18.579	18.525	36.600	194.8	0.776	26.366
400	17.427	17.359	36.436	189.3	0.946	26.530

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
442	1	17.068	16.993	36.376	185.9
302	2	18.520	18.466	36.594	195.0
252	3	19.510	19.464	36.663	195.6
182	4	21.018	20.983	36.771	202.3
132	5	22.558	22.531	36.791	208.2
82	6	23.831	23.814	36.655	210.5
42	7	24.838	24.829	36.337	207.5
3	8	25.384	25.383	36.169	205.3

Abaco April-May 2011 R/V Knorr  
 CTD Station 10 (CTD010)  
 Latitude 26.525 N Longitude 76.884 W  
 15-Apr-2011 10:32 Z

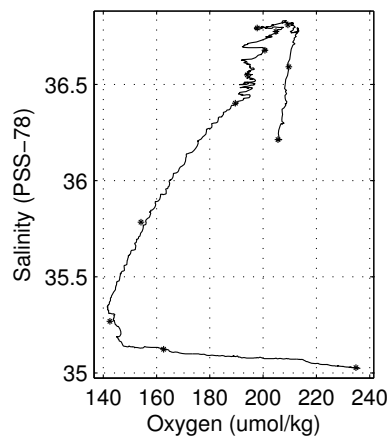
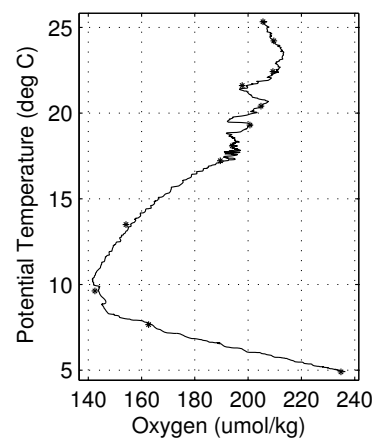
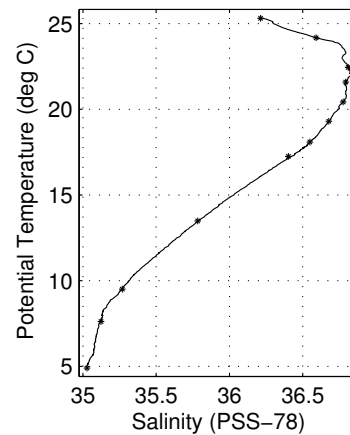
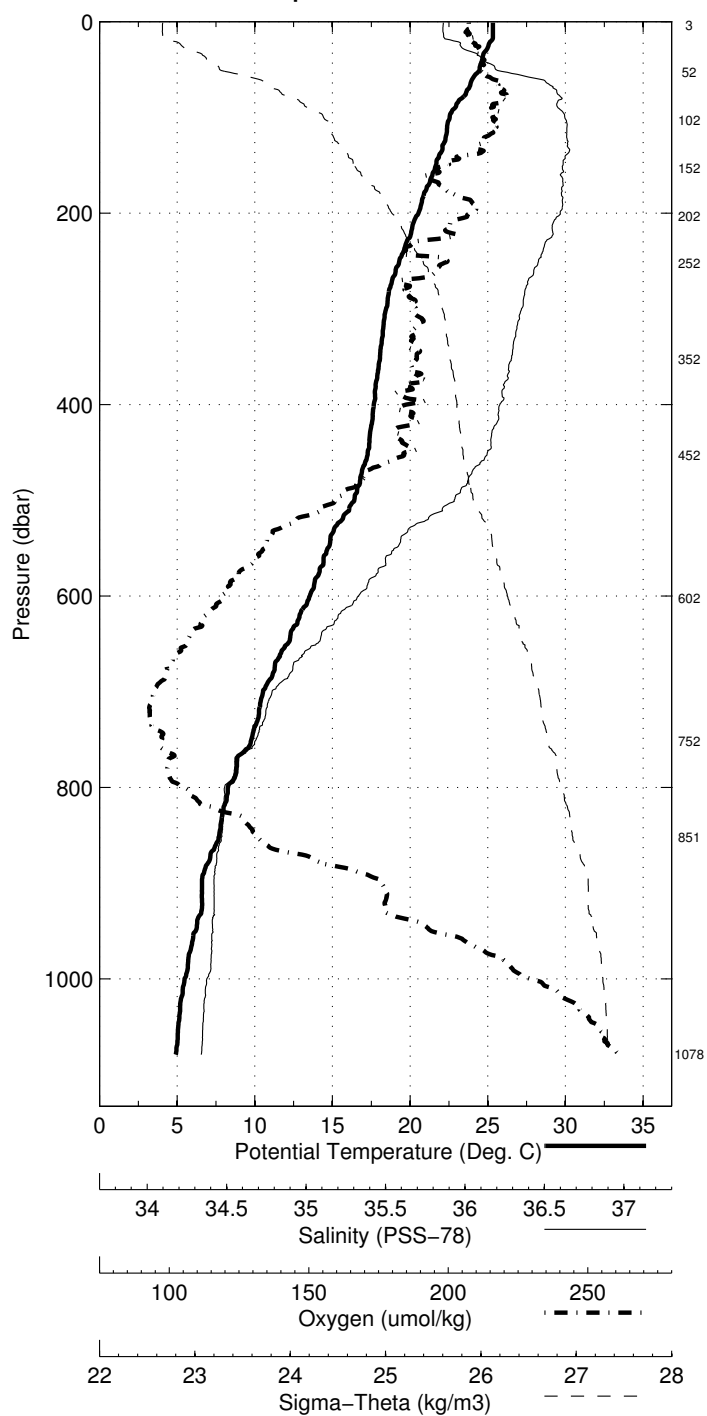


Abaco April-May 2011 R/V Knorr  
 CTD Station 11 (CTD011)  
 Latitude 26.517N Longitude 76.833W  
 15-Apr-2011 11:42Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.327	25.327	36.212	205.7	0.004	24.157
10	25.329	25.327	36.209	205.2	0.038	24.155
20	25.233	25.228	36.262	205.8	0.075	24.226
30	24.901	24.894	36.329	207.1	0.111	24.378
50	24.488	24.478	36.469	208.8	0.179	24.611
75	23.609	23.593	36.771	212.3	0.256	25.103
100	22.566	22.545	36.808	210.5	0.323	25.437
125	22.271	22.246	36.824	209.0	0.386	25.535
150	21.694	21.664	36.799	201.1	0.447	25.680
200	20.577	20.539	36.786	205.7	0.558	25.980
250	19.348	19.302	36.679	201.5	0.657	26.226
300	18.506	18.453	36.595	195.1	0.747	26.381
400	17.731	17.662	36.489	193.1	0.918	26.497
500	16.485	16.403	36.265	178.9	1.082	26.627
600	13.625	13.538	35.796	156.1	1.225	26.900
700	10.613	10.526	35.371	142.4	1.345	27.150
800	8.352	8.266	35.138	148.5	1.445	27.342
900	6.686	6.600	35.086	188.5	1.524	27.542
1000	5.564	5.476	35.050	218.1	1.587	27.658

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
1079	1	4.989	4.898	35.027	234.8
851	2	7.702	7.614	35.123	162.6
752	3	9.589	9.501	35.269	142.5
603	4	13.570	13.483	35.784	154.2
453	5	17.326	17.249	36.402	189.6
353	6	18.150	18.088	36.549	194.1
253	7	19.352	19.306	36.678	200.6
203	8	20.469	20.431	36.776	204.8
153	9	21.614	21.584	36.794	197.8
103	10	22.460	22.439	36.810	209.3
53	11	24.187	24.176	36.592	209.6
3	12	25.308	25.307	36.213	205.5

Abaco April-May 2011 R/V Knorr  
 CTD Station 11 (CTD011)  
 Latitude 26.517 N Longitude 76.833 W  
 15-Apr-2011 11:42 Z

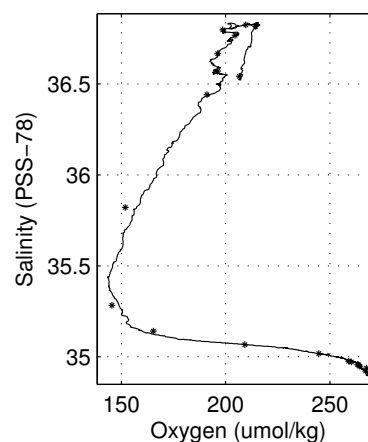
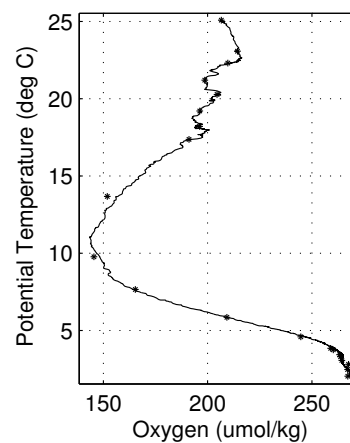
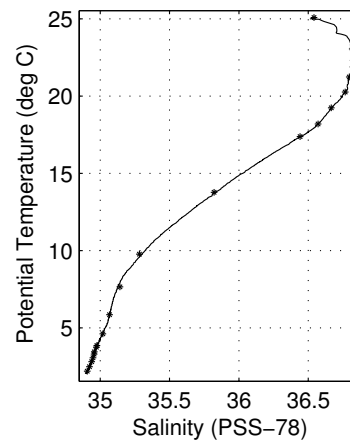
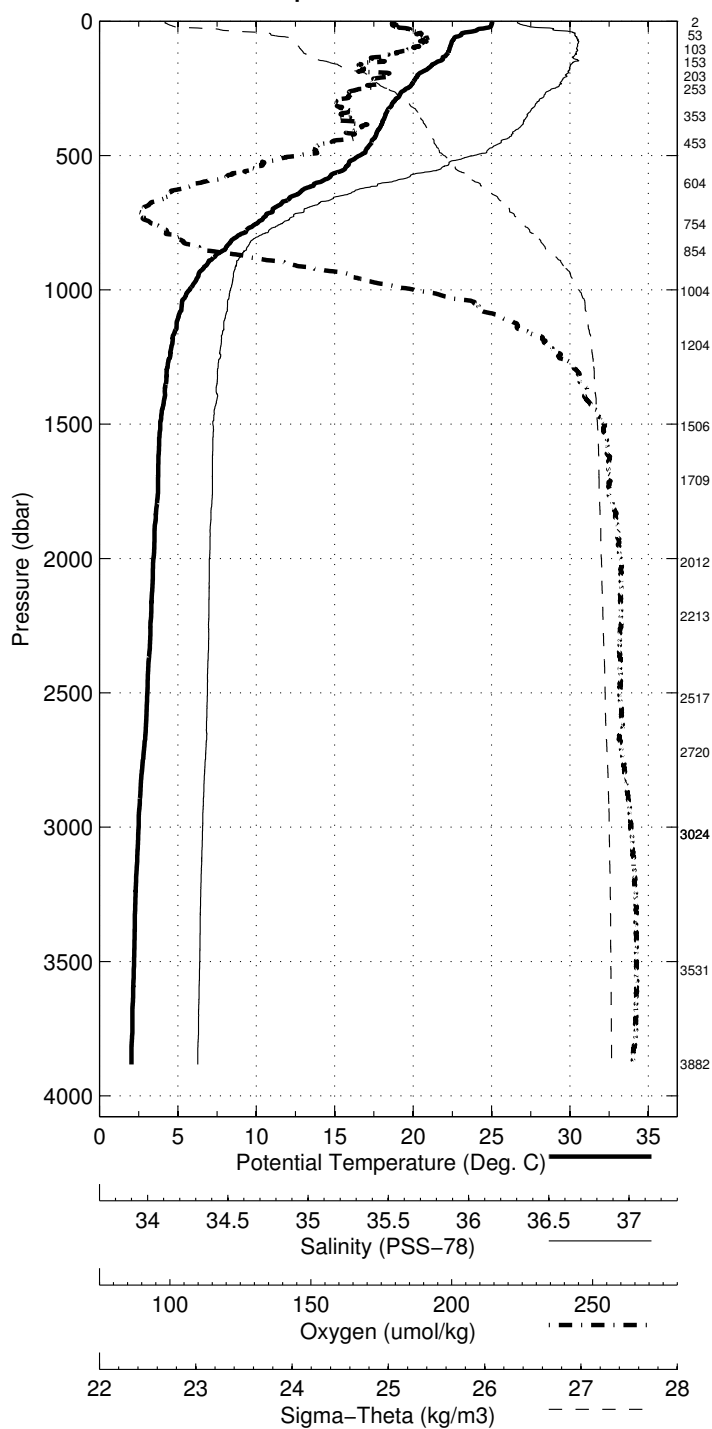


Abaco April-May 2011 R/V Knorr  
 CTD Station 12 (CTD012)  
 Latitude 26.501N Longitude 76.742W  
 15-Apr-2011 13:26Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.033	25.033	36.524	207.0	0.003	24.483
10	25.007	25.005	36.533	207.6	0.034	24.499
20	24.961	24.957	36.585	208.0	0.068	24.553
30	24.138	24.132	36.703	211.7	0.101	24.892
50	23.087	23.076	36.815	214.9	0.158	25.289
75	22.498	22.483	36.835	214.6	0.222	25.476
100	22.359	22.339	36.824	212.4	0.285	25.508
125	22.133	22.108	36.817	205.7	0.347	25.569
150	21.611	21.582	36.815	205.1	0.408	25.715
200	20.312	20.274	36.766	204.5	0.517	26.036
250	19.642	19.595	36.709	200.7	0.617	26.173
300	18.792	18.739	36.623	192.7	0.710	26.330
400	17.914	17.845	36.528	198.4	0.884	26.482
500	16.680	16.597	36.301	183.6	1.049	26.609
600	14.071	13.982	35.870	159.2	1.199	26.863
700	11.140	11.051	35.439	143.7	1.323	27.108
800	8.896	8.806	35.209	153.3	1.426	27.313
900	7.006	6.917	35.095	180.0	1.509	27.505
1000	5.839	5.748	35.065	212.6	1.574	27.636
1100	5.140	5.045	35.038	234.5	1.628	27.700
1200	4.743	4.642	35.017	245.8	1.680	27.730
1300	4.399	4.293	34.998	253.5	1.729	27.753
1400	4.273	4.159	34.997	255.6	1.777	27.767
1500	3.993	3.873	34.974	260.5	1.823	27.779
1750	3.877	3.735	34.972	261.7	1.939	27.791
2000	3.603	3.442	34.957	264.6	2.056	27.809
2500	3.260	3.055	34.947	264.5	2.287	27.838
3000	2.743	2.498	34.922	267.2	2.511	27.868
3500	2.502	2.209	34.908	268.4	2.726	27.881

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
3882	1	2.368	7.896	-999.000	<i>NaN</i>
3531	2	2.485	2.189	34.906	268.7
3024	3	2.729	2.482	34.922	272.9
3024	4	2.728	2.480	34.922	267.2
2720	5	3.031	2.808	34.938	267.5
2518	6	3.264	3.057	34.948	264.3
2214	7	3.484	3.304	34.956	263.8
2012	8	3.609	3.446	34.957	263.3
1709	9	3.878	3.740	34.972	260.3
1507	10	3.976	3.855	34.975	259.0
1205	11	4.716	4.616	35.018	244.7
1004	12	5.945	5.853	35.067	209.2
855	13	7.744	7.655	35.142	165.4
754	14	9.853	9.763	35.283	145.4
604	15	13.854	13.766	35.821	151.9
453	16	17.458	17.381	36.441	191.0
353	17	18.264	18.202	36.571	196.1
254	18	19.285	19.239	36.666	196.2
204	19	20.304	20.266	36.768	204.5
154	20	21.268	21.238	36.797	198.7
104	21	22.329	22.308	36.825	209.6
54	22	23.067	23.056	36.817	214.3
2	23	25.086	25.086	36.542	206.5

Abaco April-May 2011 R/V Knorr  
 CTD Station 12 (CTD012)  
 Latitude 26.501 N Longitude 76.742 W  
 15-Apr-2011 13:26 Z

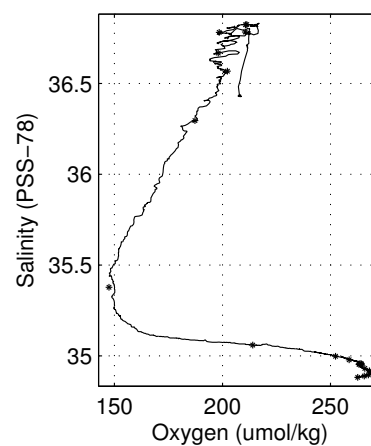
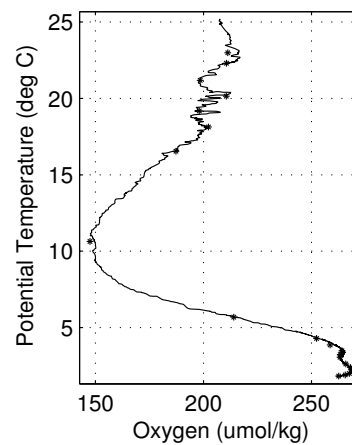
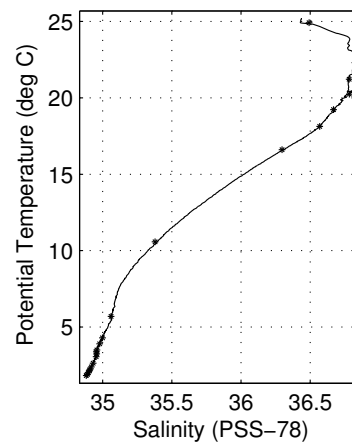
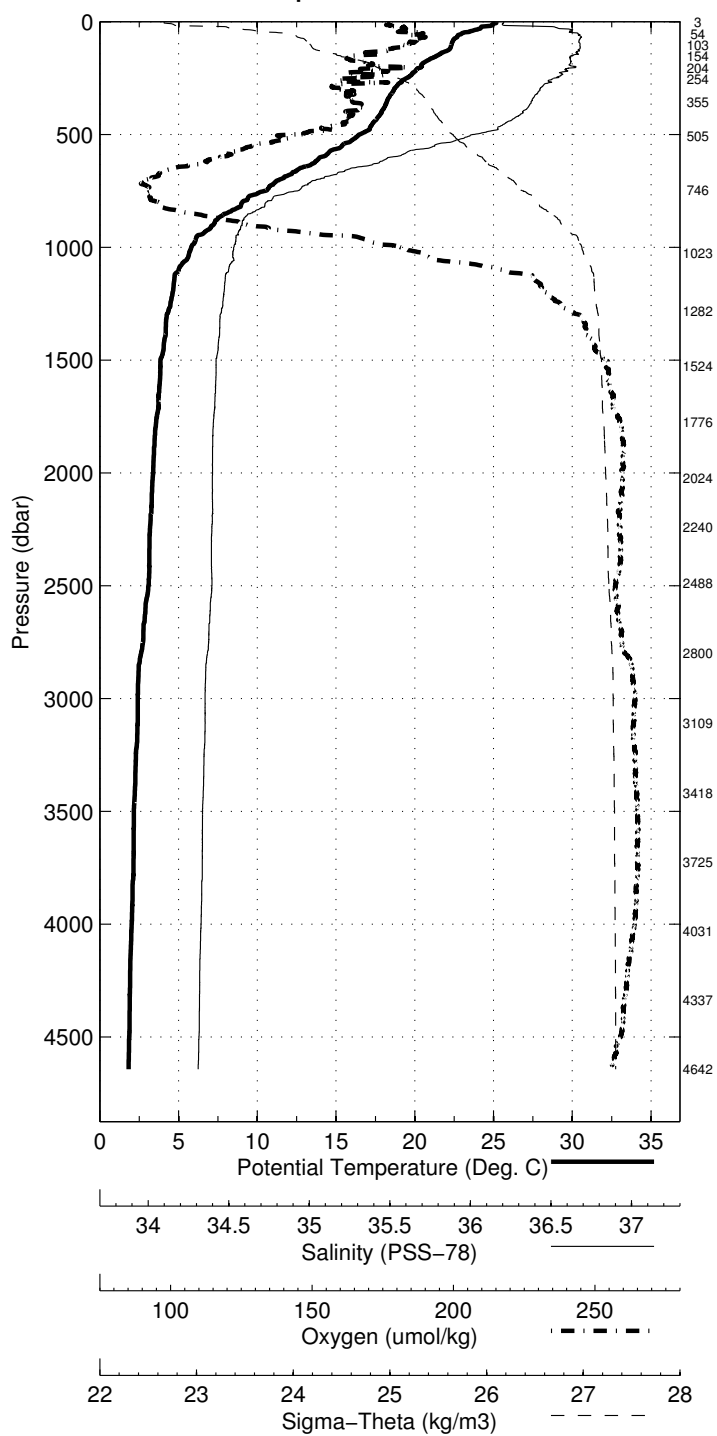


Abaco April-May 2011 R/V Knorr  
 CTD Station 13 (CTD013)  
 Latitude 26.501N Longitude 76.654W  
 15-Apr-2011 17:54Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.179	25.179	36.437	207.5	0.004	24.373
10	24.944	24.942	36.429	208.7	0.035	24.439
20	24.422	24.418	36.633	210.3	0.069	24.753
30	24.166	24.159	36.721	212.2	0.100	24.897
50	23.025	23.015	36.812	216.1	0.157	25.304
75	22.516	22.501	36.824	214.9	0.223	25.462
100	22.354	22.334	36.824	212.4	0.286	25.510
125	22.156	22.131	36.817	207.1	0.348	25.562
150	21.435	21.405	36.788	199.3	0.407	25.744
200	20.438	20.400	36.795	210.5	0.515	26.024
250	19.498	19.452	36.691	199.7	0.614	26.197
300	18.734	18.680	36.620	196.1	0.706	26.342
400	17.963	17.893	36.534	198.0	0.880	26.474
500	16.544	16.462	36.277	183.9	1.045	26.623
600	14.100	14.011	35.862	166.9	1.194	26.851
700	11.485	11.394	35.484	148.5	1.322	27.080
800	9.128	9.037	35.227	152.0	1.427	27.290
900	7.309	7.218	35.104	173.4	1.512	27.470
1000	5.888	5.797	35.063	211.0	1.579	27.628
1100	5.097	5.003	35.037	235.6	1.635	27.704
1200	4.723	4.623	35.013	246.4	1.686	27.729
1300	4.350	4.245	34.994	254.5	1.735	27.756
1400	4.243	4.129	34.989	256.7	1.782	27.764
1500	3.970	3.850	34.974	261.1	1.830	27.781
1750	3.763	3.622	34.962	263.8	1.946	27.795
2000	3.547	3.386	34.955	264.7	2.060	27.813
2500	3.290	3.084	34.952	263.2	2.289	27.839
3000	2.655	2.412	34.918	268.0	2.508	27.872
3500	2.456	2.165	34.905	268.7	2.722	27.882
4000	2.367	2.022	34.897	268.0	2.941	27.887
4500	2.270	1.870	34.887	264.4	3.165	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4643	1	2.243	1.826	34.882	262.6
4338	2	2.283	1.902	34.889	265.6
4032	3	2.347	2.000	34.895	267.5
3725	4	2.464	2.148	34.905	269.1
3419	5	2.492	2.208	34.907	269.6
3109	6	2.649	2.395	34.918	268.0
2800	7	2.864	2.637	34.931	265.9
2489	8	3.270	3.066	34.953	263.2
2240	9	3.434	3.252	34.957	263.3
2024	10	3.543	3.380	34.955	264.4
1777	11	3.645	3.504	34.958	264.1
1524	12	4.026	3.903	34.978	258.6
1282	13	4.400	4.295	34.998	252.3
1024	14	5.795	5.703	35.060	214.0
746	15	10.669	10.576	35.378	147.5
505	16	16.692	16.609	36.296	187.2
355	17	18.196	18.133	36.569	202.3
255	18	19.276	19.229	36.668	198.0
205	19	20.287	20.248	36.783	210.5
154	20	21.253	21.223	36.782	198.5
104	21	22.329	22.309	36.824	210.6
55	22	23.051	23.040	36.825	211.3
3	23	24.919	24.918	36.492	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 13 (CTD013)  
 Latitude 26.501 N Longitude 76.654 W  
 15-Apr-2011 17:54 Z



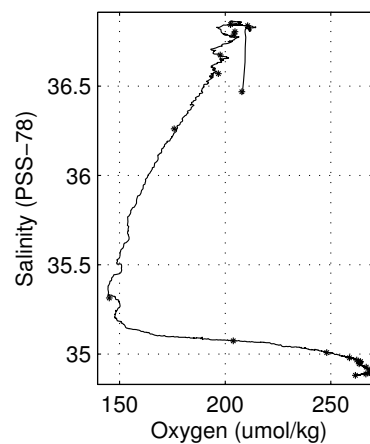
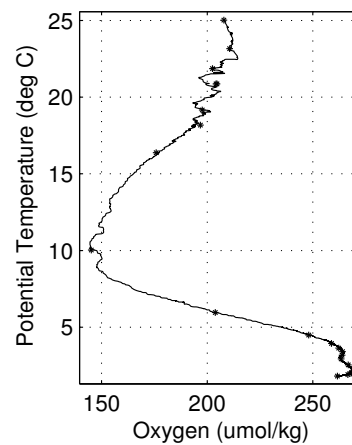
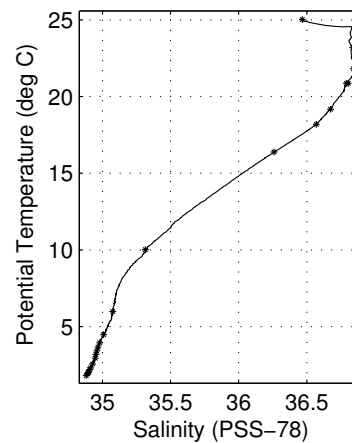
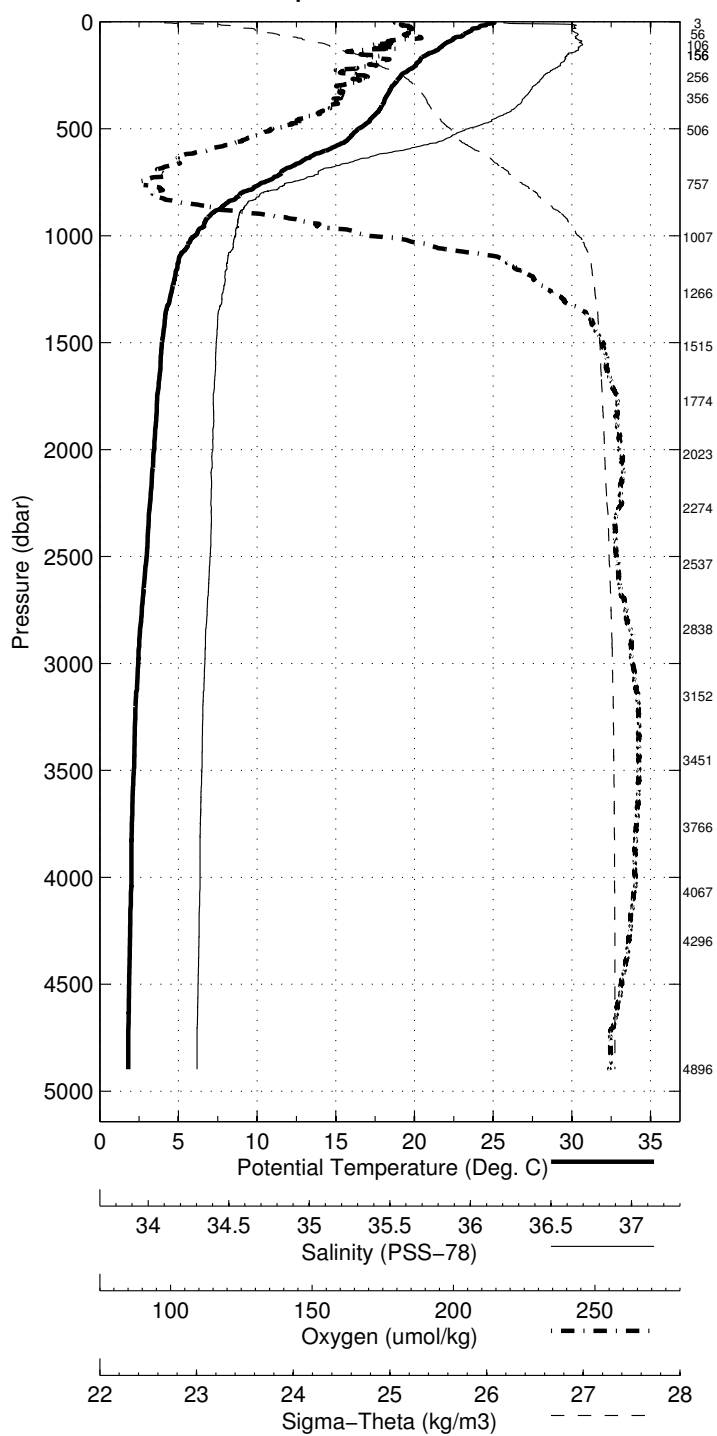


Abaco April-May 2011 R/V Knorr  
 CTD Station 14 (CTD014)  
 Latitude 26.500N Longitude 76.565W  
 15-Apr-2011 22:17Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.076	25.076	36.459	207.9	0.003	24.421
10	24.572	24.570	36.714	209.5	0.034	24.769
20	24.172	24.168	36.819	211.9	0.065	24.969
30	23.878	23.872	36.829	211.9	0.094	25.065
50	23.377	23.366	36.824	211.4	0.151	25.211
75	22.597	22.582	36.828	214.4	0.218	25.442
100	22.005	21.985	36.857	206.1	0.280	25.634
125	21.581	21.556	36.841	208.2	0.338	25.742
150	20.919	20.890	36.791	200.1	0.394	25.888
200	20.133	20.095	36.749	201.6	0.497	26.071
250	19.193	19.148	36.665	199.4	0.594	26.256
300	18.646	18.593	36.611	193.3	0.685	26.357
400	17.934	17.865	36.519	192.0	0.858	26.470
500	16.534	16.452	36.274	177.2	1.023	26.623
600	14.570	14.479	35.943	161.2	1.175	26.814
700	11.632	11.541	35.504	149.0	1.303	27.068
800	9.066	8.976	35.212	147.9	1.411	27.289
900	7.159	7.069	35.099	175.1	1.496	27.487
1000	6.132	6.039	35.076	201.4	1.565	27.608
1100	5.145	5.051	35.040	233.6	1.622	27.701
1200	4.862	4.761	35.024	242.3	1.673	27.722
1300	4.543	4.435	35.009	250.0	1.724	27.747
1400	4.235	4.121	34.986	256.8	1.772	27.762
1500	4.066	3.945	34.979	259.3	1.819	27.775
1750	3.786	3.645	34.964	263.4	1.936	27.794
2000	3.610	3.448	34.962	263.7	2.052	27.812
2500	3.177	2.974	34.948	263.0	2.279	27.846
3000	2.684	2.440	34.921	266.8	2.496	27.872
3500	2.453	2.162	34.905	268.6	2.708	27.883
4000	2.351	2.007	34.896	267.8	2.923	27.888
4500	2.260	1.861	34.886	264.2	3.147	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4897	1	2.263	1.814	34.881	261.6
4296	2	2.292	1.916	34.888	266.6
4068	3	2.356	2.004	34.896	268.0
3767	4	2.359	2.041	34.897	268.3
3451	5	2.490	2.203	34.907	269.3
3152	6	2.570	2.313	34.913	269.1
2838	7	2.797	2.567	34.927	266.8
2537	8	3.154	2.947	34.946	263.4
2275	9	3.369	3.185	34.952	263.9
2023	10	3.578	3.415	34.959	264.0
1774	11	3.802	3.659	34.967	262.2
1515	12	4.072	3.949	34.980	258.8
1266	13	4.588	4.482	35.008	248.0
1007	14	6.080	5.987	35.075	203.8
757	15	10.115	10.024	35.314	145.2
507	16	16.480	16.397	36.260	175.8
356	17	18.255	18.193	36.570	196.7
256	18	19.227	19.181	36.674	197.6
157	19	20.897	20.867	36.790	204.1
157	20	20.895	20.865	36.804	204.6
107	21	21.835	21.814	36.843	202.5
57	22	23.223	23.211	36.837	210.6
4	23	25.029	25.028	36.468	207.8

Abaco April-May 2011 R/V Knorr  
 CTD Station 14 (CTD014)  
 Latitude 26.500 N Longitude 76.565 W  
 15-Apr-2011 22:17 Z

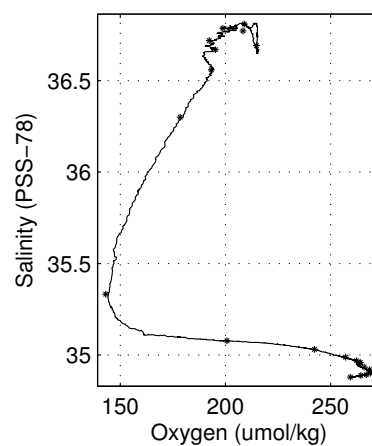
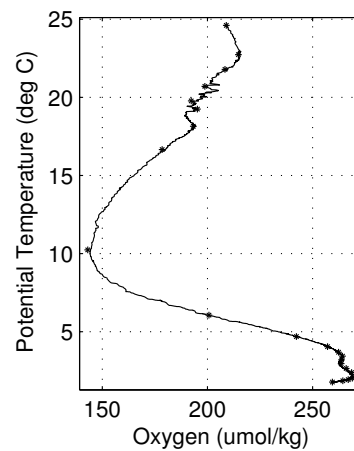
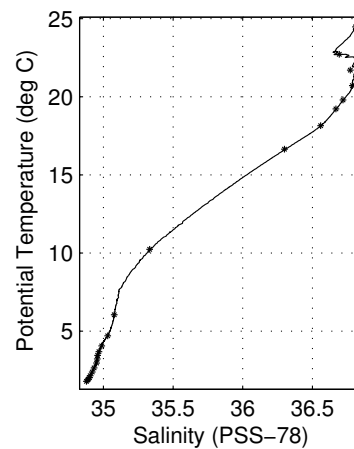
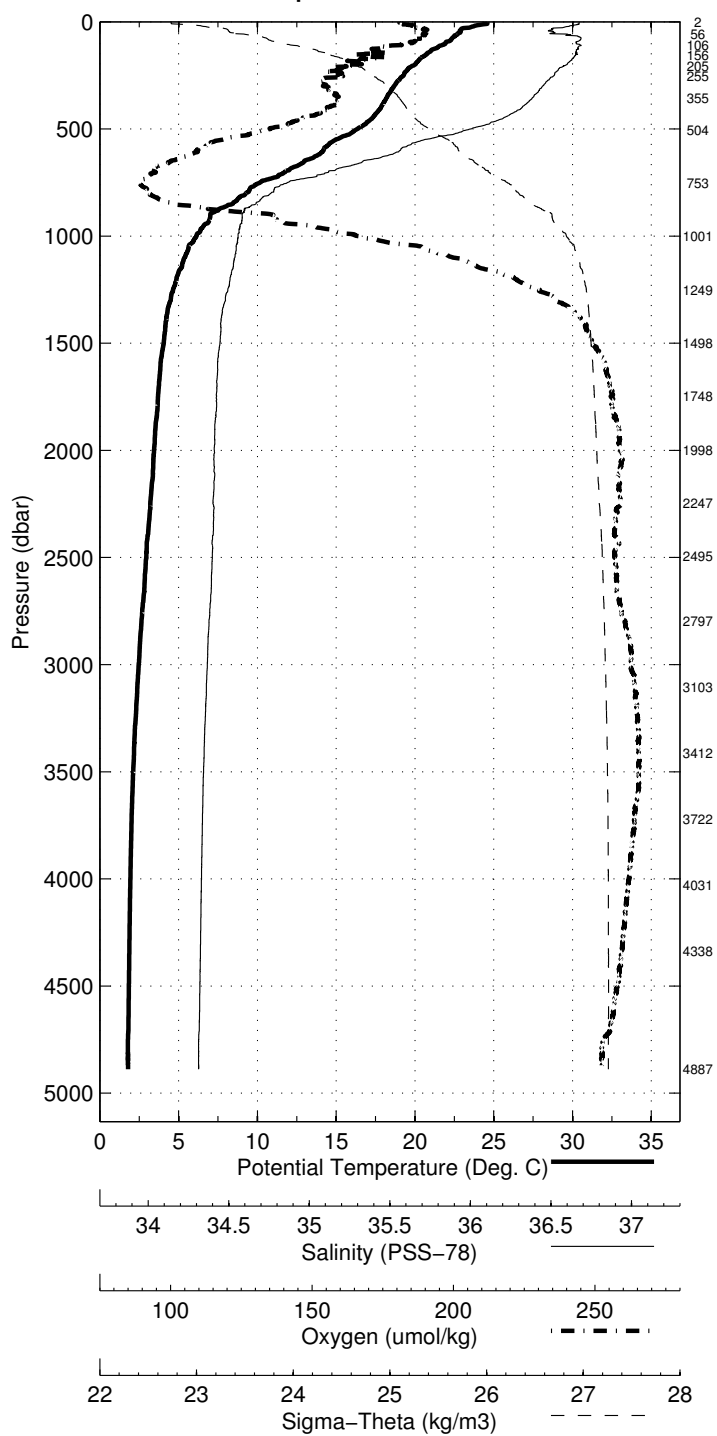


Abaco April-May 2011 R/V Knorr  
CTD Station 15 (CTD015)  
Latitude 26.498N Longitude 76.477W  
16-Apr-2011 03:21Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.598	24.598	36.805	208.9	0.003	24.829
10	24.526	24.524	36.805	209.4	0.031	24.851
20	23.769	23.764	36.755	213.2	0.061	25.041
30	23.025	23.019	36.670	215.0	0.089	25.196
50	22.896	22.885	36.682	214.7	0.144	25.243
75	22.378	22.363	36.814	213.7	0.210	25.494
100	21.961	21.941	36.791	211.6	0.271	25.596
125	21.295	21.271	36.795	203.4	0.330	25.787
150	20.802	20.774	36.788	200.3	0.384	25.918
200	20.040	20.002	36.742	196.5	0.487	26.091
250	19.331	19.285	36.678	192.9	0.582	26.230
300	18.723	18.669	36.619	189.9	0.674	26.344
400	17.911	17.841	36.516	190.9	0.847	26.473
500	16.422	16.340	36.256	176.8	1.012	26.635
600	14.286	14.196	35.899	158.6	1.158	26.840
700	11.863	11.770	35.536	148.0	1.288	27.050
800	9.381	9.288	35.244	146.6	1.395	27.262
900	7.097	7.008	35.098	177.4	1.482	27.495
1000	6.226	6.133	35.077	198.8	1.551	27.597
1100	5.484	5.386	35.062	222.3	1.610	27.678
1200	4.966	4.864	35.037	238.0	1.664	27.721
1300	4.610	4.501	35.014	247.8	1.714	27.743
1400	4.306	4.192	34.991	254.9	1.763	27.759
1500	4.175	4.053	34.986	257.1	1.810	27.769
1750	3.832	3.691	34.968	261.8	1.928	27.793
2000	3.604	3.442	34.958	264.1	2.045	27.809
2500	3.152	2.950	34.948	262.7	2.273	27.848
3000	2.714	2.469	34.922	266.9	2.491	27.870
3500	2.408	2.118	34.903	268.8	2.703	27.884
4000	2.282	1.940	34.892	266.4	2.916	27.890
4500	2.244	1.844	34.884	263.3	3.137	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4888	1	2.235	1.789	34.878	259.5
4339	2	2.252	1.872	34.887	264.4
4031	3	2.281	1.935	34.891	267.0
3722	4	2.342	2.029	34.899	268.9
3413	5	2.433	2.151	34.905	270.1
3104	6	2.649	2.395	34.919	268.5
2798	7	2.882	2.655	34.933	266.0
2495	8	3.169	2.966	34.950	263.6
2247	9	3.407	3.224	34.956	263.8
1999	10	3.611	3.449	34.958	264.3
1749	11	3.835	3.694	34.968	262.3
1499	12	4.177	4.055	34.987	257.2
1250	13	4.805	4.700	35.030	242.3
1002	14	6.151	6.058	35.077	200.8
754	15	10.330	10.238	35.332	143.1
505	16	16.727	16.643	36.300	178.5
355	17	18.206	18.144	36.560	193.3
255	18	19.274	19.228	36.669	195.3
206	19	19.834	19.796	36.720	192.3
156	20	20.747	20.717	36.788	198.7
106	21	21.720	21.699	36.773	208.4
56	22	22.732	22.721	36.694	214.8
2	23	24.477	24.476	36.810	209.0

Abaco April-May 2011 R/V Knorr  
 CTD Station 15 (CTD015)  
 Latitude 26.498 N Longitude 76.477 W  
 16-Apr-2011 03:21 Z

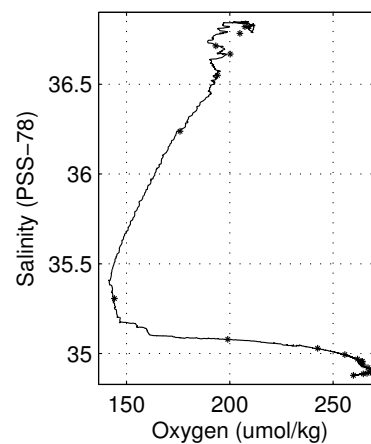
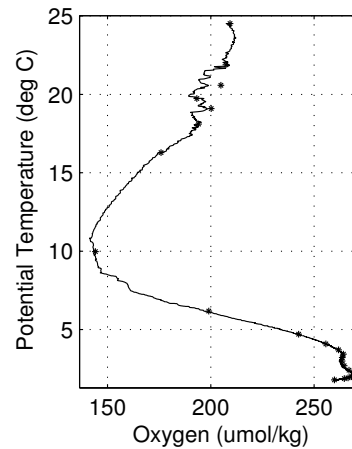
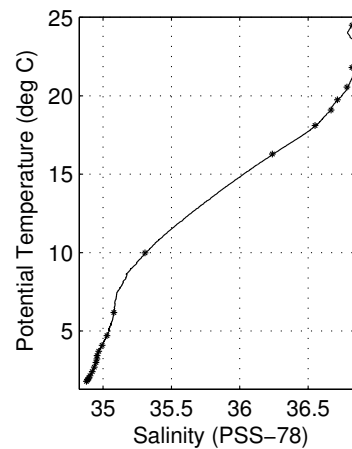
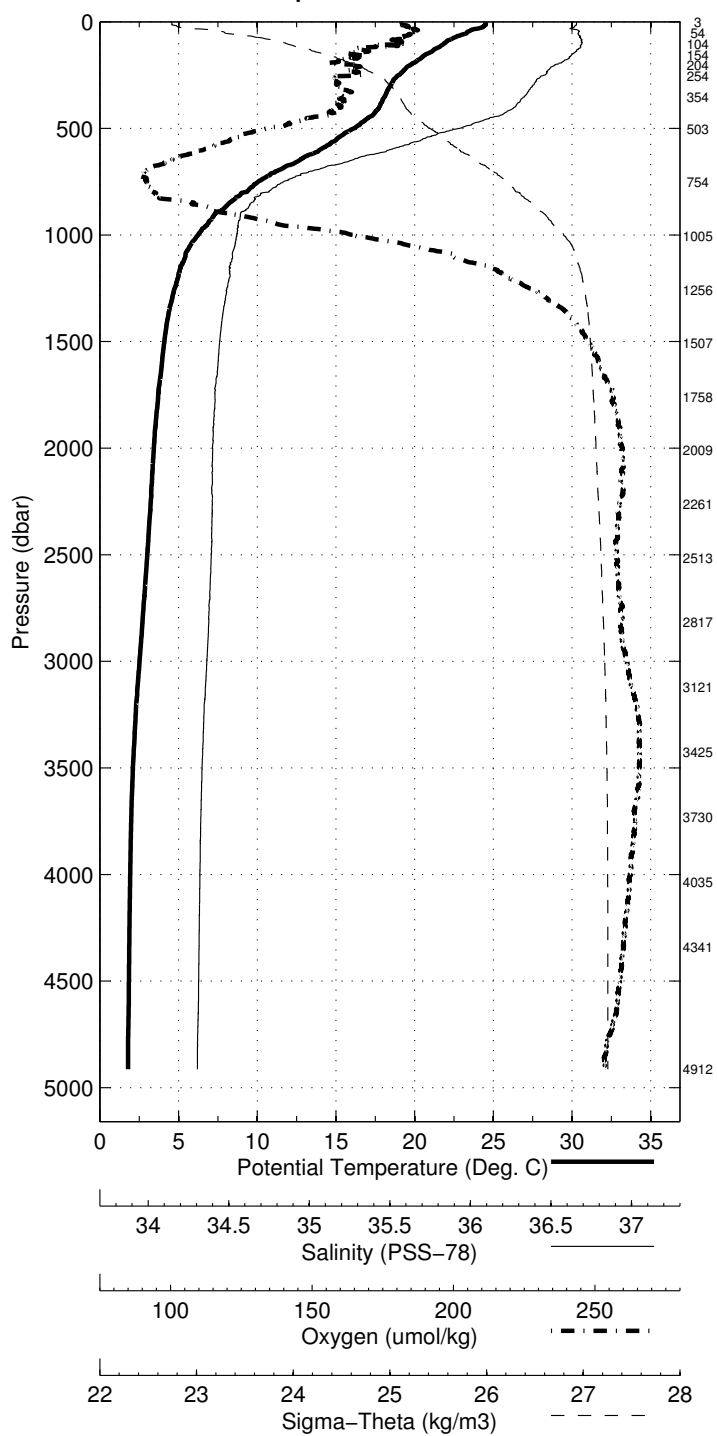


Abaco April-May 2011 R/V Knorr  
 CTD Station 16 (CTD016)  
 Latitude 26.497N Longitude 76.347W  
 16-Apr-2011 08:08Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.522	24.522	36.823	207.8	0.003	24.865
10	24.524	24.522	36.822	208.3	0.031	24.864
20	24.394	24.389	36.813	209.6	0.061	24.898
30	24.091	24.084	36.791	210.2	0.092	24.973
50	23.331	23.321	36.832	210.5	0.148	25.230
75	22.484	22.469	36.841	207.3	0.214	25.484
100	21.914	21.894	36.849	208.8	0.275	25.654
125	21.401	21.377	36.835	196.7	0.333	25.788
150	20.799	20.771	36.803	194.9	0.388	25.930
200	19.792	19.755	36.713	194.0	0.490	26.134
250	19.041	18.995	36.658	197.3	0.584	26.290
300	18.502	18.448	36.596	192.6	0.673	26.382
400	17.820	17.750	36.505	192.6	0.844	26.487
500	16.226	16.145	36.222	173.9	1.007	26.654
600	14.069	13.980	35.864	157.7	1.153	26.859
700	11.326	11.235	35.467	142.9	1.278	27.096
800	9.240	9.148	35.226	145.2	1.384	27.271
900	7.428	7.336	35.098	164.6	1.471	27.448
1000	6.335	6.241	35.079	196.0	1.543	27.584
1100	5.537	5.439	35.058	221.3	1.603	27.669
1200	5.072	4.968	35.044	234.6	1.657	27.714
1300	4.704	4.595	35.021	245.1	1.709	27.739
1400	4.403	4.288	35.004	251.9	1.758	27.759
1500	4.223	4.100	34.992	255.6	1.806	27.769
1750	3.851	3.709	34.968	261.7	1.925	27.790
2000	3.596	3.435	34.956	264.1	2.041	27.808
2500	3.217	3.013	34.949	262.5	2.271	27.843
3000	2.764	2.518	34.926	265.3	2.493	27.869
3500	2.392	2.103	34.902	268.5	2.706	27.885
4000	2.273	1.931	34.891	266.1	2.918	27.890
4500	2.249	1.849	34.884	263.2	3.139	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4913	1	2.242	1.792	34.878	259.9
4341	2	2.254	1.874	34.887	264.6
4036	3	2.271	1.925	34.890	266.5
3730	4	2.312	1.999	34.896	268.1
3426	5	2.436	2.153	34.905	269.2
3122	6	2.670	2.414	34.921	267.0
2817	7	2.929	2.698	34.936	264.5
2514	8	3.203	2.998	34.949	263.6
2261	9	3.403	3.219	34.955	263.7
2010	10	3.597	3.434	34.956	264.3
1759	11	3.852	3.709	34.969	261.8
1507	12	4.217	4.094	34.993	255.7
1256	13	4.810	4.704	35.028	242.6
1005	14	6.279	6.184	35.079	199.0
755	15	10.079	9.988	35.306	144.1
504	16	16.370	16.288	36.239	175.9
354	17	18.167	18.105	36.550	194.1
254	18	19.143	19.097	36.668	200.1
204	19	19.785	19.747	36.715	193.2
154	20	20.584	20.555	36.784	204.9
104	21	21.823	21.802	36.821	207.3
54	22	22.822	22.863	-999.000	NaN
3	23	24.506	24.505	36.822	209.3

Abaco April-May 2011 R/V Knorr  
 CTD Station 16 (CTD016)  
 Latitude 26.497 N Longitude 76.347 W  
 16-Apr-2011 08:08 Z

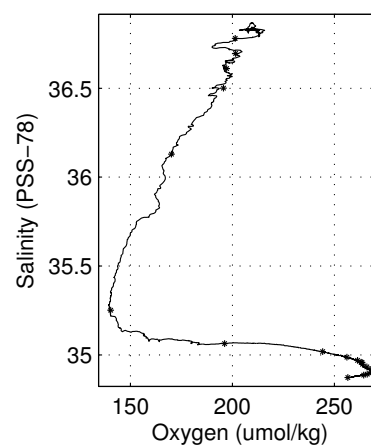
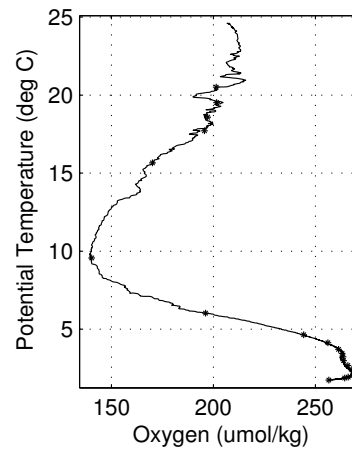
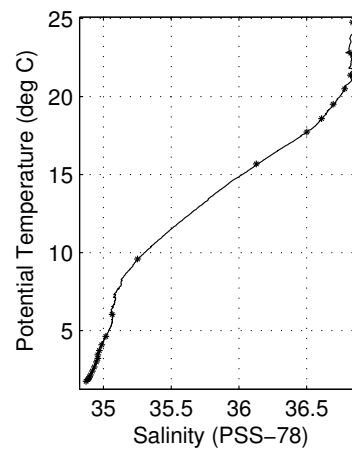
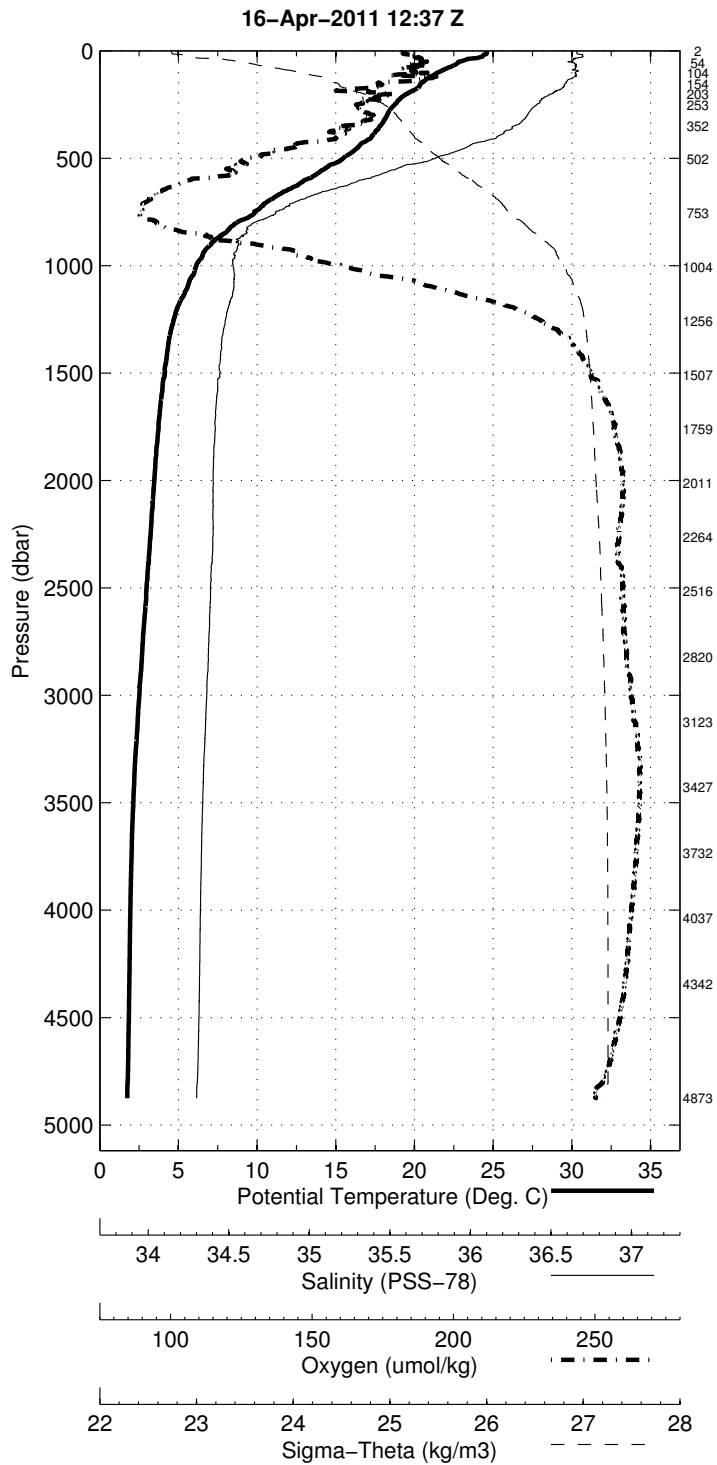


Abaco April-May 2011 R/V Knorr  
 CTD Station 17 (CTD017)  
 Latitude 26.498N Longitude 76.219W  
 16-Apr-2011 12:37Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.593	24.593	36.836	206.8	0.003	24.853
10	24.590	24.588	36.835	207.5	0.031	24.854
20	24.372	24.368	36.864	209.4	0.061	24.943
30	24.150	24.144	36.857	210.6	0.091	25.005
50	22.836	22.826	36.795	213.4	0.147	25.346
75	22.294	22.279	36.828	210.3	0.211	25.529
100	21.531	21.511	36.827	209.9	0.270	25.744
125	20.906	20.882	36.816	214.7	0.325	25.910
150	20.467	20.439	36.778	200.7	0.378	26.001
200	19.558	19.521	36.705	204.7	0.478	26.189
250	18.793	18.748	36.629	195.1	0.569	26.331
300	18.302	18.249	36.578	199.4	0.656	26.419
400	17.330	17.262	36.422	190.4	0.823	26.543
500	15.554	15.475	36.105	167.3	0.979	26.718
600	13.181	13.096	35.732	152.8	1.118	26.941
700	10.757	10.670	35.388	141.6	1.237	27.137
800	8.767	8.678	35.167	144.1	1.340	27.300
900	7.183	7.093	35.090	169.4	1.424	27.477
1000	6.226	6.132	35.060	191.2	1.493	27.583
1100	5.673	5.574	35.064	215.1	1.555	27.657
1200	5.005	4.902	35.034	236.2	1.610	27.713
1300	4.627	4.518	35.011	246.9	1.661	27.739
1400	4.398	4.282	34.996	252.2	1.710	27.753
1500	4.255	4.132	34.993	254.9	1.759	27.767
1750	3.880	3.738	34.970	261.5	1.879	27.789
2000	3.620	3.459	34.957	263.5	1.996	27.807
2500	3.169	2.966	34.944	263.6	2.225	27.844
3000	2.756	2.511	34.925	265.7	2.446	27.869
3500	2.417	2.126	34.904	267.9	2.659	27.884
4000	2.281	1.939	34.892	266.0	2.872	27.890
4500	2.242	1.842	34.884	263.0	3.093	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4874	1	2.192	1.749	34.872	256.5
4343	2	2.256	1.874	34.886	264.3
4037	3	2.279	1.932	34.892	266.1
3732	4	2.339	2.025	34.898	268.3
3428	5	2.448	2.164	34.905	269.0
3124	6	2.670	2.413	34.918	267.8
2820	7	2.904	2.674	34.932	265.9
2517	8	3.204	2.998	34.947	263.8
2264	9	3.411	3.227	34.958	263.6
2011	10	3.619	3.456	34.959	263.1
1760	11	3.863	3.720	34.969	261.3
1508	12	4.224	4.101	34.987	256.1
1256	13	4.742	4.636	35.018	244.2
1005	14	6.140	6.046	35.064	196.1
754	15	9.677	9.589	35.251	140.4
502	16	15.759	15.679	36.129	170.2
353	17	17.785	17.724	36.501	195.6
254	18	18.633	18.587	36.611	197.2
204	19	19.541	19.503	36.695	201.5
154	20	20.529	20.499	36.780	201.4
104	21	21.389	21.369	36.823	<i>NaN</i>
55	22	22.794	22.783	36.826	<i>NaN</i>
3	23	24.760	24.759	36.838	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 17 (CTD017)  
 Latitude 26.498 N Longitude 76.219 W  
 16-Apr-2011 12:37 Z



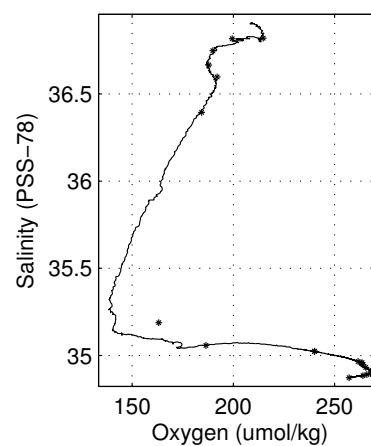
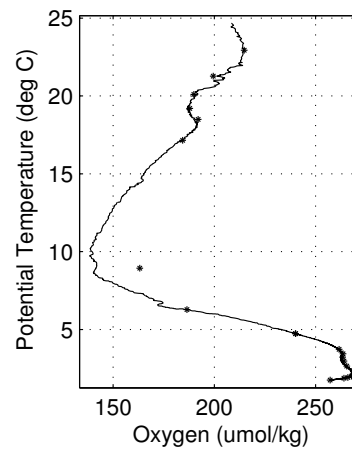
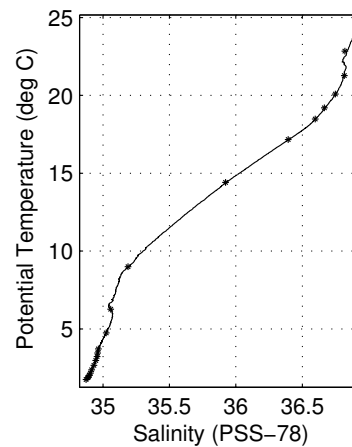
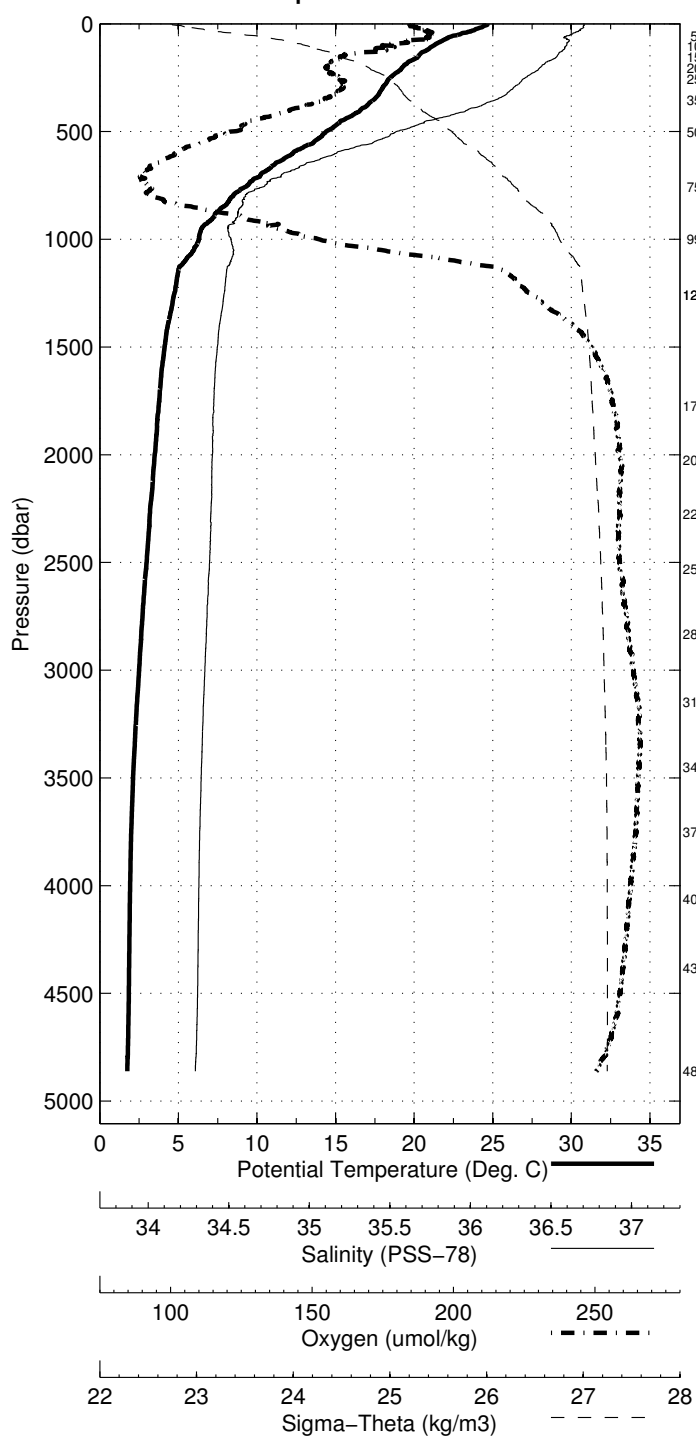


Abaco April-May 2011 R/V Knorr  
 CTD Station 18 (CTD018)  
 Latitude 26.495N Longitude 76.091W  
 16-Apr-2011 17:01Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.661	24.661	36.907	208.4	0.003	24.887
10	24.429	24.427	36.902	208.5	0.030	24.954
20	24.106	24.102	36.898	210.6	0.060	25.049
30	23.826	23.820	36.888	211.2	0.089	25.125
50	22.870	22.860	36.836	214.6	0.143	25.368
75	21.879	21.865	36.829	209.6	0.205	25.646
100	21.286	21.267	36.815	201.4	0.262	25.803
125	20.748	20.724	36.794	201.6	0.316	25.936
150	20.298	20.269	36.765	190.9	0.368	26.037
200	19.321	19.285	36.681	186.8	0.464	26.233
250	18.525	18.481	36.600	190.1	0.554	26.377
300	18.031	17.979	36.535	191.3	0.639	26.454
400	16.645	16.579	36.294	177.4	0.802	26.608
500	14.468	14.393	35.924	162.4	0.949	26.818
600	12.383	12.302	35.612	147.9	1.080	27.006
700	10.307	10.221	35.324	138.9	1.192	27.167
800	8.565	8.477	35.135	141.9	1.291	27.307
900	7.275	7.185	35.087	165.6	1.375	27.461
1000	6.389	6.294	35.058	185.1	1.446	27.560
1100	5.523	5.426	35.057	220.5	1.509	27.670
1200	4.970	4.868	35.030	236.3	1.562	27.714
1300	4.728	4.618	35.017	243.3	1.613	27.732
1400	4.439	4.323	34.998	251.2	1.664	27.750
1500	4.241	4.118	34.988	255.5	1.713	27.764
1750	3.918	3.775	34.969	260.9	1.833	27.785
2000	3.652	3.489	34.961	262.9	1.951	27.807
2500	3.182	2.979	34.948	262.8	2.180	27.845
3000	2.741	2.496	34.922	266.5	2.400	27.868
3500	2.404	2.114	34.903	267.7	2.614	27.885
4000	2.269	1.927	34.891	265.7	2.826	27.890
4500	2.243	1.844	34.884	262.9	3.047	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4860	1	2.194	1.753	34.873	257.2
4382	2	2.251	1.866	34.885	264.0
4062	3	2.269	1.921	34.891	266.0
3751	4	2.324	2.009	34.897	267.8
3451	5	2.440	2.154	34.905	268.7
3148	6	2.625	2.367	34.915	268.6
2834	7	2.884	2.653	34.932	265.4
2530	8	3.174	2.967	34.946	264.0
2277	9	3.410	3.224	34.955	263.4
2025	10	3.613	3.449	34.959	263.6
1772	11	3.856	3.712	34.966	261.6
1259	12	4.850	4.743	35.024	240.1
1259	13	4.850	4.743	35.025	240.1
997	14	6.358	6.264	35.057	186.5
756	15	9.078	8.993	35.188	163.2
505	16	14.486	14.410	35.922	<i>NaN</i>
355	17	17.226	17.166	36.394	184.3
255	18	18.529	18.484	36.597	192.0
205	19	19.239	19.202	36.666	187.9
155	20	20.114	20.085	36.748	189.8
105	21	21.297	21.276	36.817	199.5
55	22	22.850	22.839	36.820	214.8

Abaco April-May 2011 R/V Knorr  
 CTD Station 18 (CTD018)  
 Latitude 26.495 N Longitude 76.091 W  
 16-Apr-2011 17:01 Z

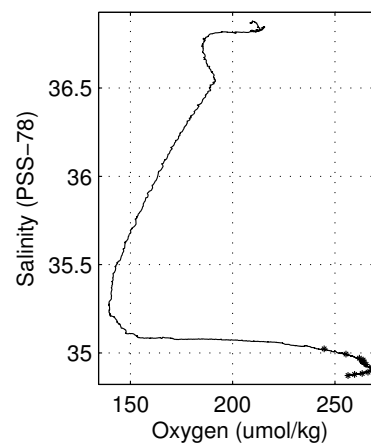
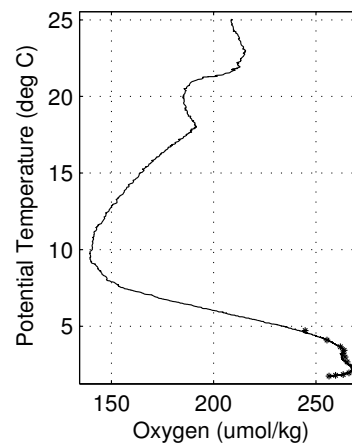
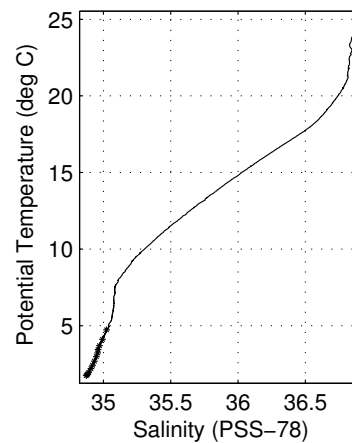
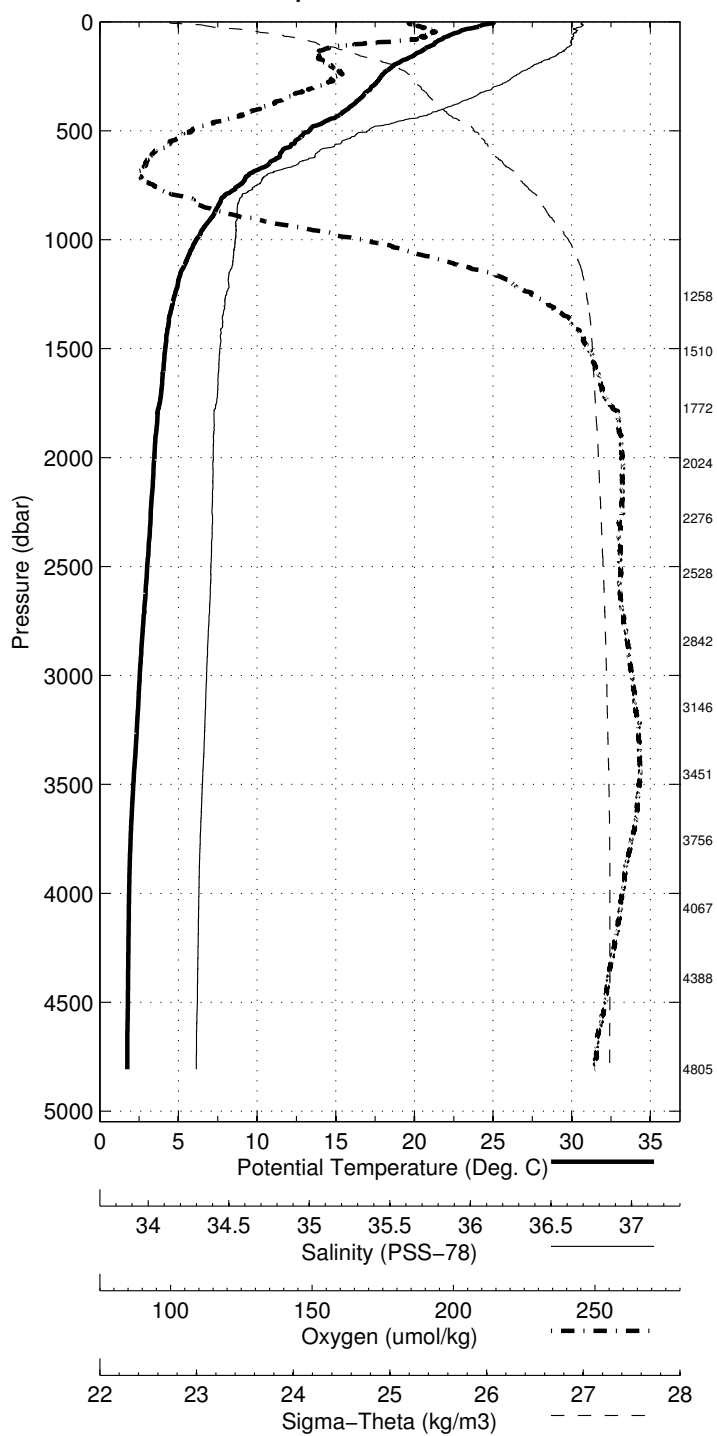


Abaco April-May 2011 R/V Knorr  
 CTD Station 19 (CTD019)  
 Latitude 26.493N Longitude 75.904W  
 16-Apr-2011 21:32Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.038	25.038	36.870	208.4	0.003	24.744
10	24.678	24.676	36.867	208.7	0.032	24.852
20	24.127	24.123	36.871	211.0	0.061	25.022
30	23.602	23.595	36.842	213.2	0.090	25.156
50	22.703	22.693	36.841	214.9	0.143	25.419
75	21.833	21.818	36.820	211.7	0.205	25.653
100	21.308	21.289	36.817	197.4	0.262	25.799
125	20.675	20.651	36.788	187.0	0.316	25.951
150	20.066	20.038	36.744	185.2	0.367	26.083
200	18.740	18.704	36.622	188.8	0.460	26.338
250	17.921	17.878	36.519	190.0	0.544	26.467
300	17.296	17.246	36.411	184.2	0.626	26.539
400	15.839	15.775	36.156	170.5	0.780	26.689
500	13.380	13.309	35.762	153.0	0.917	26.920
600	11.600	11.522	35.500	143.3	1.038	27.068
700	9.564	9.483	35.240	139.7	1.146	27.227
800	7.988	7.904	35.110	150.2	1.239	27.375
900	7.160	7.070	35.086	168.2	1.319	27.477
1000	6.230	6.137	35.074	196.7	1.389	27.594
1100	5.585	5.487	35.062	218.0	1.449	27.667
1200	5.076	4.973	35.040	235.2	1.504	27.711
1300	4.724	4.615	35.021	244.4	1.555	27.736
1400	4.462	4.346	35.008	250.5	1.605	27.755
1500	4.280	4.157	34.994	254.8	1.654	27.765
1750	3.958	3.815	34.977	259.4	1.775	27.787
2000	3.628	3.466	34.961	263.1	1.892	27.809
2500	3.215	3.011	34.948	262.8	2.122	27.842
3000	2.783	2.537	34.925	265.9	2.345	27.867
3500	2.421	2.131	34.904	267.5	2.561	27.884
4000	2.200	1.860	34.886	263.4	2.771	27.891
4500	2.185	1.787	34.878	259.1	2.988	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4806	1	2.180	1.746	34.872	256.4
4389	2	2.182	1.798	34.878	259.7
4067	3	2.196	1.849	34.884	263.4
3756	4	2.269	1.955	34.891	266.2
3451	5	2.485	2.198	34.907	268.6
3146	6	2.673	2.415	34.919	267.9
2842	7	2.914	2.682	34.934	265.3
2529	8	3.186	2.979	34.947	264.2
2276	9	3.408	3.223	34.957	263.3
2024	10	3.601	3.437	34.960	263.8
1772	11	3.833	3.689	34.971	262.0
1510	12	4.233	4.109	34.993	255.4
1259	13	4.833	4.726	35.023	244.7

Abaco April-May 2011 R/V Knorr  
 CTD Station 19 (CTD019)  
 Latitude 26.493 N Longitude 75.904 W  
 16-Apr-2011 21:32 Z

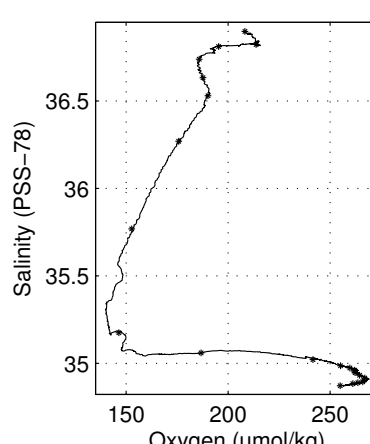
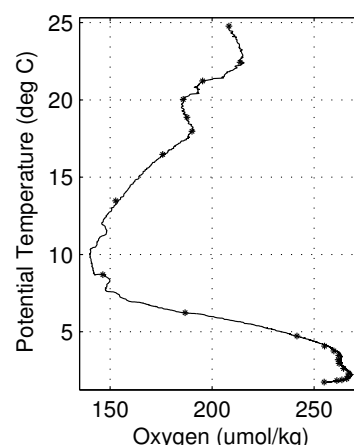
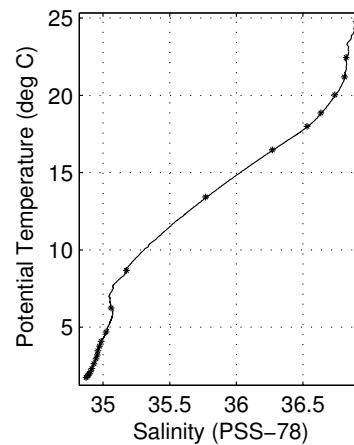
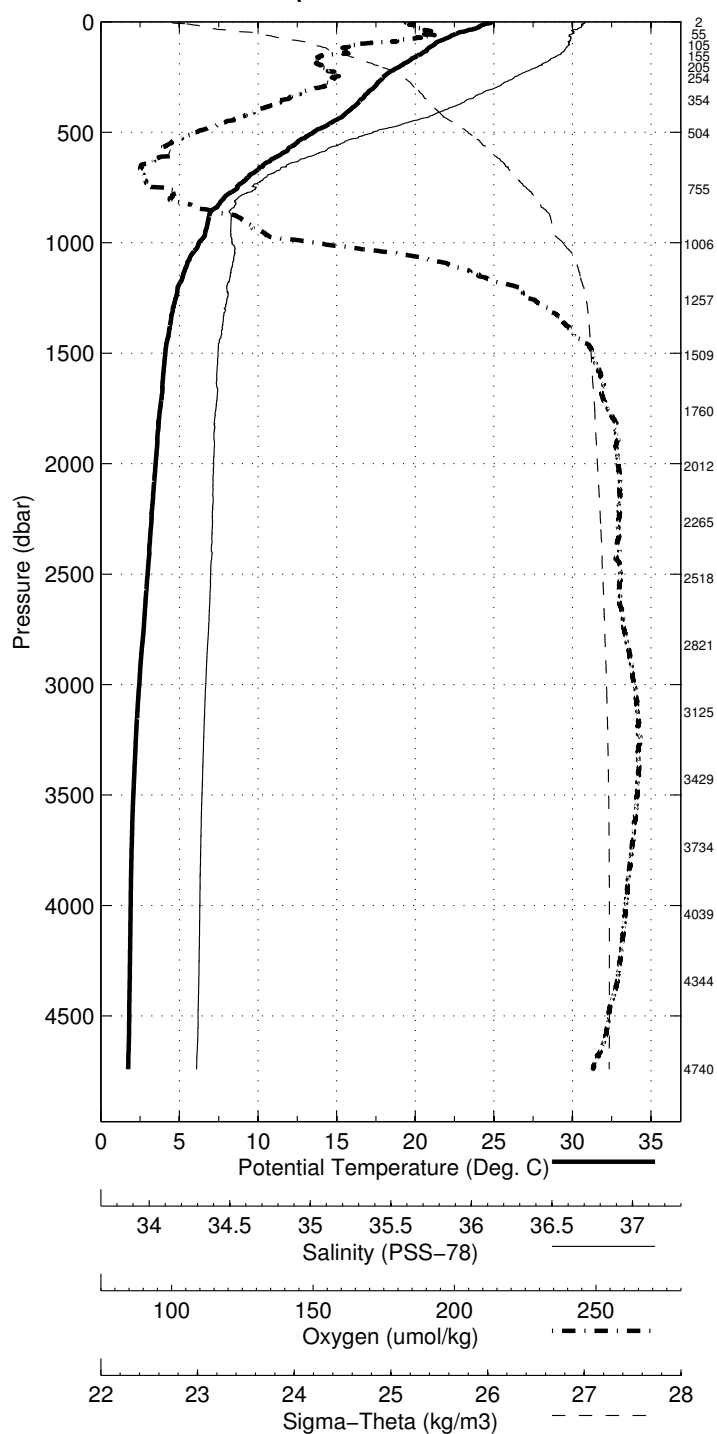


Abaco April-May 2011 R/V Knorr  
 CTD Station 20 (CTD020)  
 Latitude 26.503N Longitude 75.704W  
 17-Apr-2011 03:36Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.822	24.821	36.901	208.3	0.003	24.833
10	24.443	24.441	36.885	210.2	0.031	24.937
20	24.105	24.101	36.881	210.0	0.060	25.036
30	23.861	23.855	36.862	212.2	0.089	25.096
50	22.735	22.725	36.840	214.9	0.144	25.409
75	22.004	21.989	36.827	210.8	0.206	25.610
100	21.266	21.247	36.815	196.0	0.263	25.808
125	20.802	20.778	36.796	192.9	0.317	25.923
150	20.255	20.227	36.763	188.0	0.369	26.046
200	19.096	19.060	36.658	186.9	0.465	26.274
250	18.011	17.968	36.534	189.6	0.551	26.455
300	17.387	17.336	36.428	185.0	0.633	26.530
400	15.885	15.821	36.165	170.3	0.787	26.685
500	13.593	13.521	35.792	154.1	0.927	26.900
600	11.542	11.464	35.496	148.3	1.048	27.076
700	9.494	9.413	35.239	141.1	1.153	27.238
800	7.896	7.812	35.086	147.8	1.244	27.369
900	6.911	6.823	35.052	166.8	1.323	27.485
1000	6.342	6.247	35.056	185.1	1.395	27.565
1100	5.578	5.480	35.060	219.5	1.456	27.665
1200	4.993	4.891	35.030	236.9	1.511	27.711
1300	4.699	4.590	35.022	245.3	1.562	27.739
1400	4.450	4.334	35.003	251.0	1.612	27.753
1500	4.222	4.099	34.984	256.3	1.661	27.763
1750	3.925	3.782	34.974	260.1	1.781	27.788
2000	3.651	3.489	34.962	263.0	1.899	27.808
2500	3.181	2.977	34.946	263.5	2.128	27.844
3000	2.689	2.445	34.920	266.8	2.347	27.871
3500	2.357	2.068	34.901	267.7	2.557	27.887
4000	2.239	1.898	34.889	264.6	2.766	27.891
4500	2.204	1.806	34.880	260.3	2.985	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4741	1	2.172	1.746	34.872	254.9
4345	2	2.220	1.840	34.884	261.1
4039	3	2.241	1.896	34.889	263.6
3735	4	2.279	1.967	34.894	266.0
3430	5	2.402	2.120	34.904	266.6
3126	6	2.581	2.327	34.916	267.0
2822	7	2.859	2.629	34.931	264.4
2518	8	3.159	2.954	34.946	262.2
2265	9	3.380	3.197	34.956	261.7
2013	10	3.632	3.469	34.961	262.0
1761	11	3.907	3.764	34.973	259.7
1509	12	4.209	4.085	34.986	255.1
1258	13	4.787	4.681	35.022	241.6
1007	14	6.337	6.242	35.060	186.8
755	15	8.753	8.669	35.175	146.5
505	16	13.494	13.421	35.769	152.8
355	17	16.529	16.471	36.270	175.8
255	18	18.033	17.989	36.530	190.2
205	19	18.898	18.861	36.634	187.7
155	20	20.059	20.030	36.739	185.9
106	21	21.205	21.184	36.811	195.4
55	22	22.456	22.445	36.824	213.7
2	23	24.769	24.768	36.898	208.2

Abaco April–May 2011 R/V Knorr  
 CTD Station 20 (CTD020)  
 Latitude 26.503 N Longitude 75.704 W  
 17–Apr–2011 03:36 Z

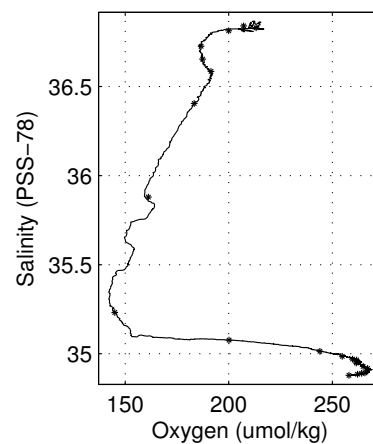
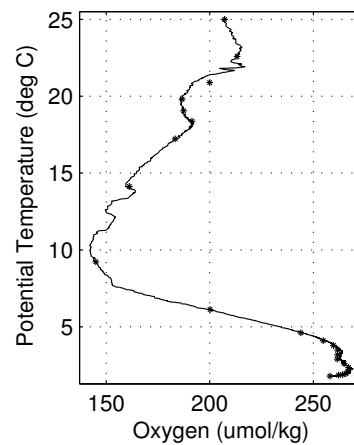
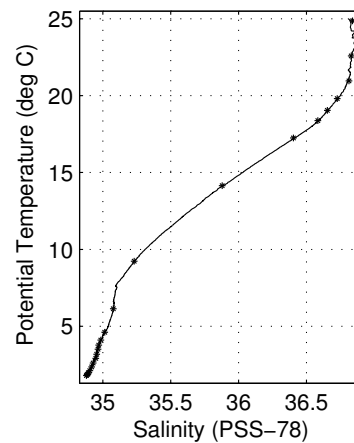
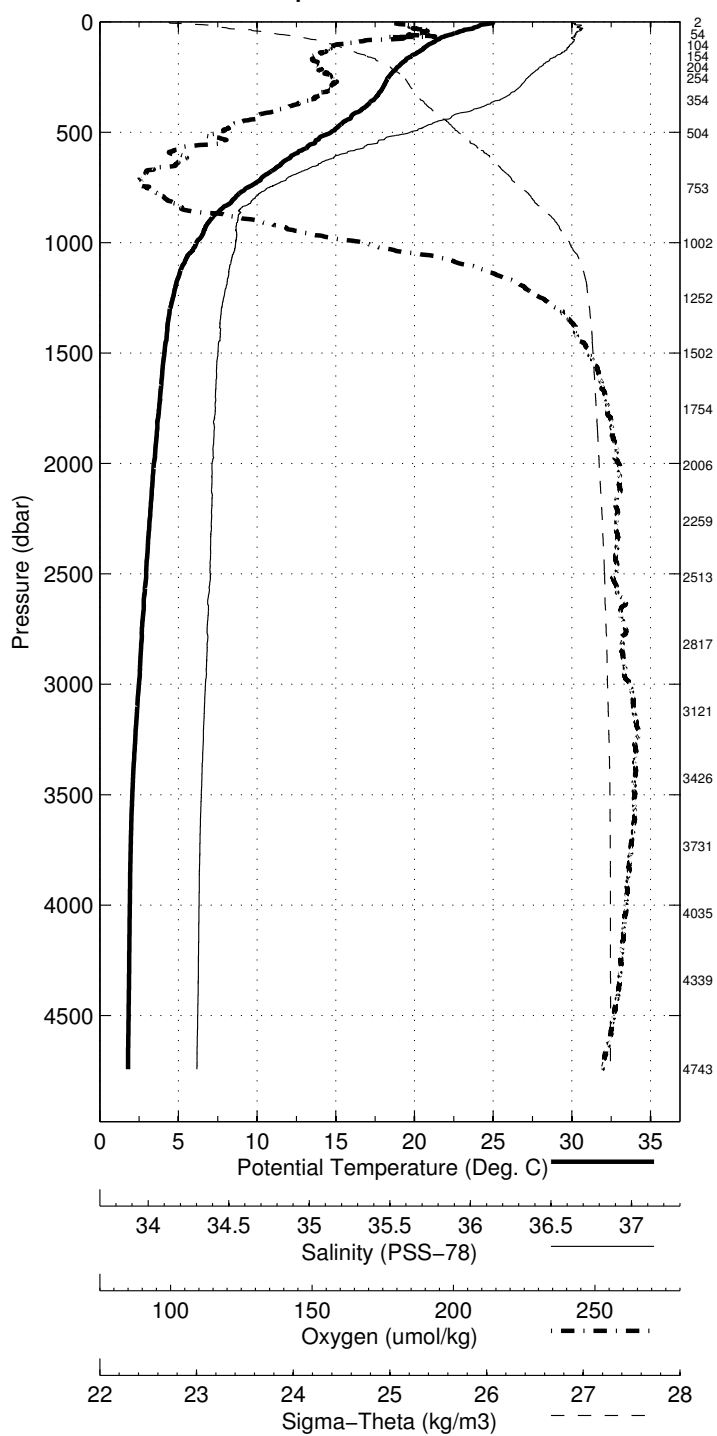


Abaco April-May 2011 R/V Knorr  
 CTD Station 21 (CTD021)  
 Latitude 26.503N Longitude 75.502W  
 17-Apr-2011 07:53Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.000	24.999	36.809	207.1	0.003	24.709
10	24.581	24.579	36.827	207.7	0.032	24.851
20	24.089	24.085	36.851	210.8	0.062	25.018
30	23.739	23.733	36.866	211.8	0.090	25.134
50	22.639	22.629	36.832	212.4	0.144	25.431
75	21.640	21.625	36.814	209.8	0.204	25.703
100	21.004	20.985	36.806	193.7	0.260	25.874
125	20.547	20.523	36.784	190.2	0.312	25.983
150	19.909	19.881	36.736	186.9	0.363	26.118
200	19.061	19.024	36.657	187.2	0.456	26.282
250	18.402	18.358	36.587	191.2	0.544	26.399
300	18.027	17.975	36.535	190.8	0.629	26.455
400	16.669	16.603	36.299	177.3	0.792	26.606
500	14.767	14.691	35.977	162.0	0.940	26.794
600	12.433	12.351	35.617	151.7	1.071	27.001
700	10.480	10.394	35.361	142.4	1.185	27.166
800	8.662	8.574	35.177	148.5	1.283	27.324
900	7.079	6.990	35.089	172.2	1.366	27.491
1000	6.234	6.140	35.078	198.9	1.435	27.596
1100	5.388	5.291	35.050	224.8	1.494	27.680
1200	4.910	4.808	35.029	239.6	1.547	27.721
1300	4.562	4.454	35.004	248.5	1.598	27.741
1400	4.395	4.280	34.999	252.1	1.647	27.756
1500	4.224	4.101	34.987	256.0	1.695	27.765
1750	3.911	3.769	34.974	260.6	1.815	27.790
2000	3.600	3.439	34.957	263.6	1.933	27.809
2500	3.149	2.946	34.948	262.6	2.159	27.848
3000	2.731	2.486	34.923	266.4	2.377	27.869
3500	2.351	2.063	34.901	267.6	2.588	27.887
4000	2.248	1.907	34.890	265.4	2.798	27.891
4500	2.227	1.828	34.883	262.3	3.018	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4743	1	2.224	1.796	34.879	258.0
4340	2	2.238	1.858	34.885	262.2
4035	3	2.244	1.899	34.891	264.1
3731	4	2.273	1.961	34.893	265.8
3427	5	2.392	2.110	34.904	266.7
3122	6	2.615	2.360	34.918	267.1
2817	7	2.835	2.607	34.930	264.8
2513	8	3.114	2.911	34.948	261.5
2259	9	3.365	3.182	34.955	261.7
2007	10	3.667	3.504	34.965	261.7
1755	11	3.920	3.777	34.971	259.7
1503	12	4.220	4.097	34.986	254.7
1252	13	4.712	4.607	35.014	243.9
1002	14	6.227	6.133	35.077	200.2
754	15	9.322	9.236	35.231	144.9
504	16	14.223	14.148	35.879	161.2
354	17	17.304	17.244	36.404	183.3
254	18	18.416	18.372	36.584	191.4
205	19	19.078	19.041	36.653	187.4
155	20	19.829	19.800	36.726	186.6
105	21	20.979	20.959	36.812	199.9
55	22	22.596	22.585	36.829	213.2
2	23	24.861	24.860	36.839	207.2

Abaco April-May 2011 R/V Knorr  
 CTD Station 21 (CTD021)  
 Latitude 26.503 N Longitude 75.502 W  
 17-Apr-2011 07:53 Z



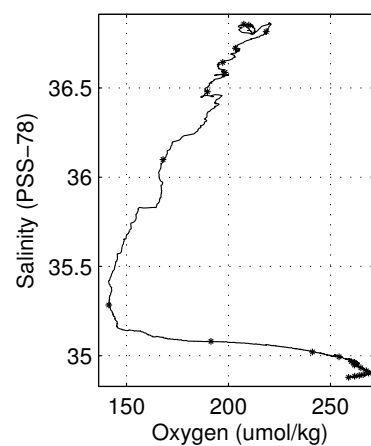
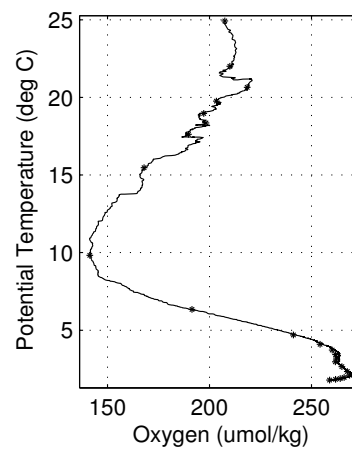
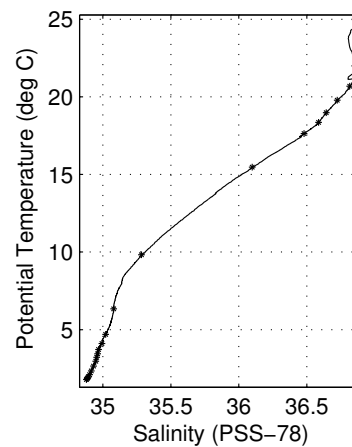
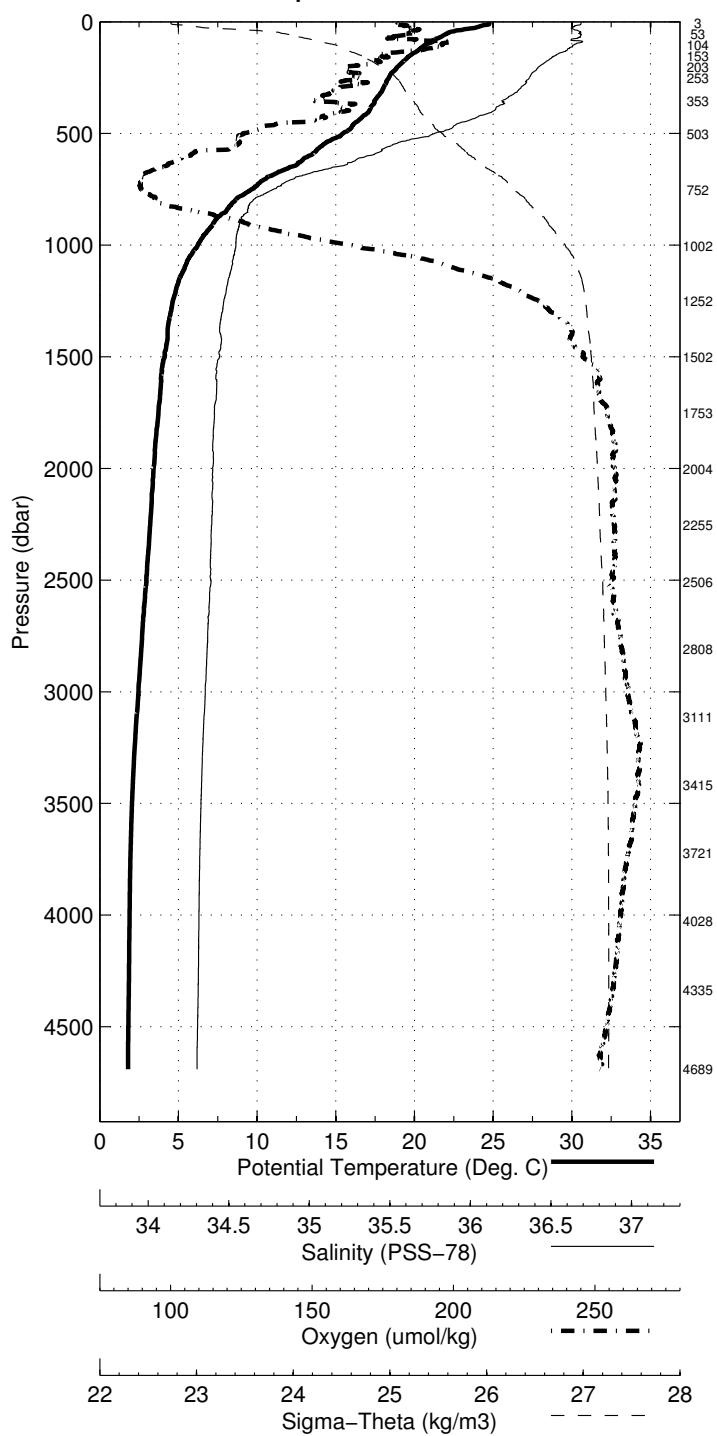


Abaco April-May 2011 R/V Knorr  
 CTD Station 22 (CTD022)  
 Latitude 26.505N Longitude 75.300W  
 17-Apr-2011 12:13Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.765	24.764	36.856	207.6	0.003	24.816
10	24.759	24.757	36.854	207.4	0.031	24.818
20	24.164	24.160	36.823	210.5	0.062	24.974
30	23.538	23.531	36.809	212.8	0.091	25.151
50	22.160	22.150	36.852	211.8	0.142	25.584
75	21.430	21.415	36.827	205.1	0.200	25.771
100	20.808	20.789	36.827	219.0	0.254	25.943
125	20.292	20.269	36.784	214.0	0.305	26.052
150	19.756	19.729	36.723	203.9	0.354	26.149
200	18.981	18.945	36.641	195.0	0.447	26.290
250	18.416	18.372	36.589	197.6	0.535	26.397
300	18.049	17.997	36.540	192.6	0.619	26.453
400	17.167	17.099	36.401	194.5	0.784	26.566
500	15.528	15.449	36.100	168.0	0.939	26.720
600	13.361	13.275	35.756	154.2	1.077	26.923
700	10.686	10.599	35.382	142.9	1.197	27.145
800	8.686	8.598	35.166	145.3	1.298	27.312
900	7.318	7.227	35.100	168.4	1.382	27.465
1000	6.307	6.213	35.078	195.7	1.453	27.587
1100	5.494	5.396	35.056	221.9	1.512	27.672
1200	4.942	4.840	35.029	238.7	1.566	27.717
1300	4.611	4.503	35.008	247.2	1.617	27.738
1400	4.424	4.308	35.000	252.6	1.666	27.753
1500	4.239	4.116	34.995	255.4	1.715	27.770
1750	3.863	3.722	34.967	261.5	1.833	27.789
2000	3.575	3.414	34.959	263.6	1.950	27.813
2500	3.164	2.961	34.949	262.6	2.177	27.848
3000	2.699	2.455	34.921	266.8	2.395	27.871
3500	2.330	2.042	34.898	268.8	2.604	27.887
4000	2.233	1.893	34.888	265.0	2.813	27.891
4500	2.210	1.812	34.881	261.4	3.032	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4689	1	2.216	1.794	34.879	258.9
4336	2	2.225	1.845	34.885	261.8
4028	3	2.236	1.892	34.889	264.0
3721	4	2.267	1.956	34.893	266.0
3416	5	2.383	2.103	34.903	268.6
3111	6	2.601	2.347	34.916	267.5
2808	7	2.882	2.653	34.932	264.8
2507	8	3.174	2.970	34.948	261.7
2256	9	3.401	3.218	34.955	262.2
2004	10	3.606	3.444	34.962	261.7
1753	11	3.867	3.725	34.968	260.1
1503	12	4.227	4.104	34.993	254.1
1252	13	4.806	4.700	35.021	241.1
1002	14	6.436	6.340	35.080	191.4
752	15	9.910	9.820	35.284	141.4
504	16	15.554	15.474	36.099	167.9
354	17	17.691	17.630	36.480	189.7
254	18	18.396	18.351	36.587	198.3
204	19	19.014	18.978	36.643	197.2
154	20	19.810	19.781	36.723	203.4
104	21	20.702	20.682	36.816	218.4
54	22	22.006	21.995	36.852	209.9
3	23	24.918	24.917	36.857	207.5

Abaco April-May 2011 R/V Knorr  
 CTD Station 22 (CTD022)  
 Latitude 26.505 N Longitude 75.300 W  
 17-Apr-2011 12:13 Z

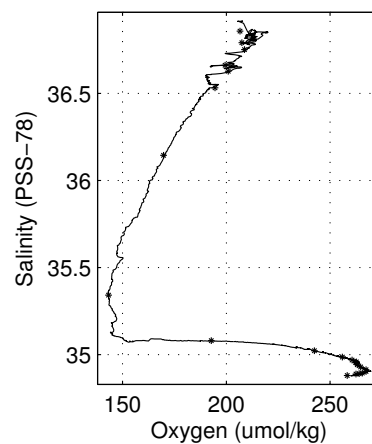
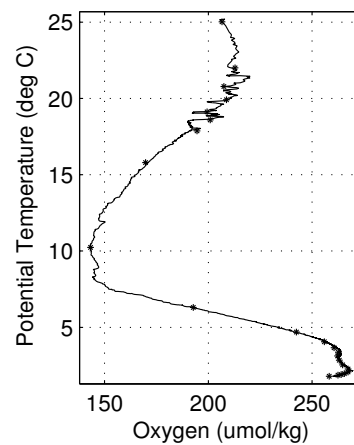
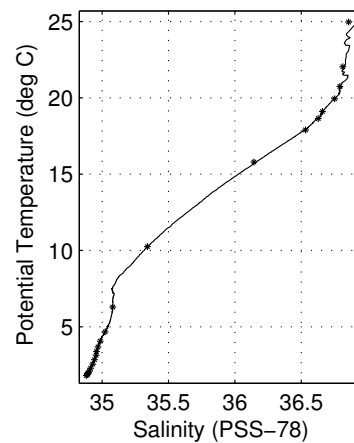
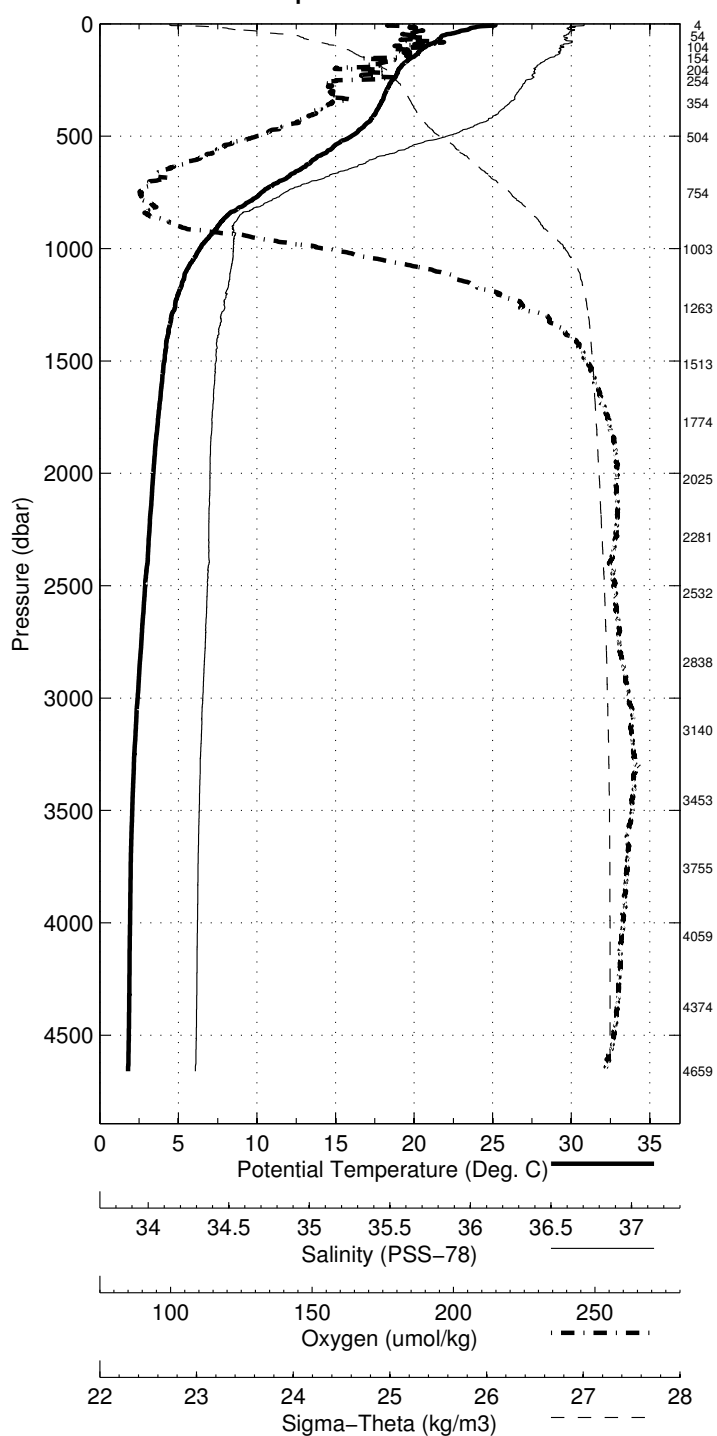


Abaco April-May 2011 R/V Knorr  
 CTD Station 23 (CTD023)  
 Latitude 26.501N Longitude 75.077W  
 17-Apr-2011 18:11Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.187	25.186	36.916	207.3	0.003	24.733
10	24.336	24.334	36.858	210.1	0.032	24.948
20	23.573	23.569	36.824	213.0	0.061	25.151
30	23.049	23.043	36.854	214.7	0.088	25.328
50	21.951	21.941	36.821	212.6	0.138	25.619
75	21.487	21.472	36.824	210.2	0.196	25.753
100	20.787	20.768	36.791	208.9	0.251	25.921
125	20.306	20.283	36.780	211.3	0.302	26.044
150	19.886	19.858	36.739	207.7	0.351	26.126
200	19.072	19.036	36.654	192.3	0.445	26.276
250	18.648	18.604	36.611	194.8	0.534	26.354
300	18.275	18.223	36.572	191.7	0.621	26.421
400	17.609	17.541	36.464	187.5	0.790	26.507
500	16.079	15.998	36.196	172.6	0.951	26.669
600	13.802	13.714	35.818	158.0	1.094	26.879
700	11.518	11.426	35.486	145.9	1.220	27.076
800	9.369	9.276	35.238	146.0	1.327	27.259
900	7.585	7.492	35.072	152.7	1.417	27.405
1000	6.448	6.353	35.079	189.7	1.491	27.569
1100	5.608	5.510	35.064	217.7	1.553	27.665
1200	5.123	5.019	35.043	234.0	1.608	27.707
1300	4.667	4.558	35.013	246.2	1.660	27.736
1400	4.390	4.274	34.993	252.4	1.710	27.751
1500	4.233	4.110	34.988	255.3	1.759	27.765
1750	3.864	3.722	34.967	261.4	1.878	27.789
2000	3.564	3.403	34.956	263.4	1.995	27.811
2500	3.093	2.892	34.943	263.0	2.220	27.850
3000	2.650	2.407	34.918	266.6	2.436	27.872
3500	2.351	2.063	34.899	267.5	2.644	27.886
4000	2.265	1.924	34.890	265.2	2.855	27.890
4500	2.243	1.844	34.884	262.8	3.076	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4660	1	2.218	1.801	34.880	258.3
4374	2	2.254	1.869	34.888	262.5
4059	3	2.260	1.912	34.890	264.0
3756	4	2.286	1.971	34.894	265.6
3453	5	2.368	2.084	34.903	267.3
3140	6	2.531	2.276	34.912	267.3
2839	7	2.777	2.548	34.929	264.7
2533	8	3.048	2.844	34.942	263.2
2282	9	3.327	3.143	34.954	262.3
2025	10	3.540	3.377	34.958	262.7
1774	11	3.813	3.670	34.969	260.7
1514	12	4.171	4.048	34.986	255.9
1264	13	4.771	4.664	35.022	242.5
1004	14	6.390	6.295	35.079	192.8
754	15	10.343	10.251	35.341	143.2
504	16	15.873	15.792	36.144	169.8
354	17	17.962	17.900	36.532	194.6
255	18	18.686	18.640	36.628	200.9
205	19	19.140	19.103	36.661	199.4
155	20	19.965	19.936	36.752	208.7
105	21	20.759	20.739	36.791	207.5
55	22	22.050	22.039	36.814	212.9
4	23	24.979	24.978	36.857	206.6

Abaco April-May 2011 R/V Knorr  
 CTD Station 23 (CTD023)  
 Latitude 26.501 N Longitude 75.077 W  
 17-Apr-2011 18:11 Z

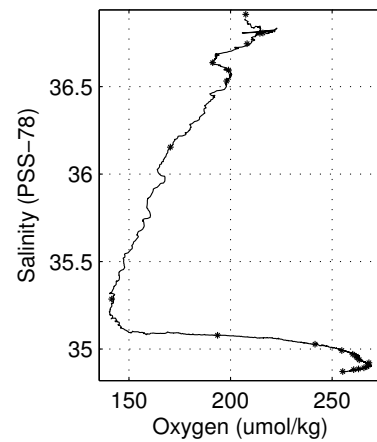
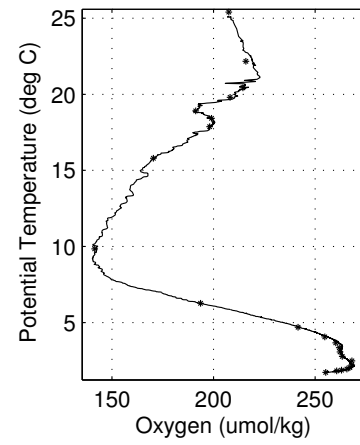
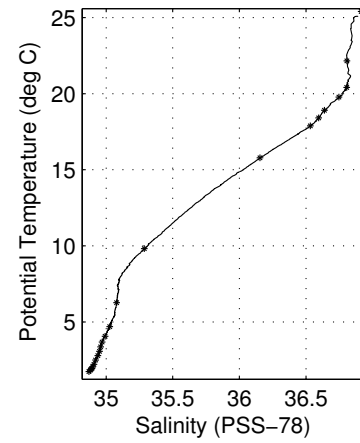
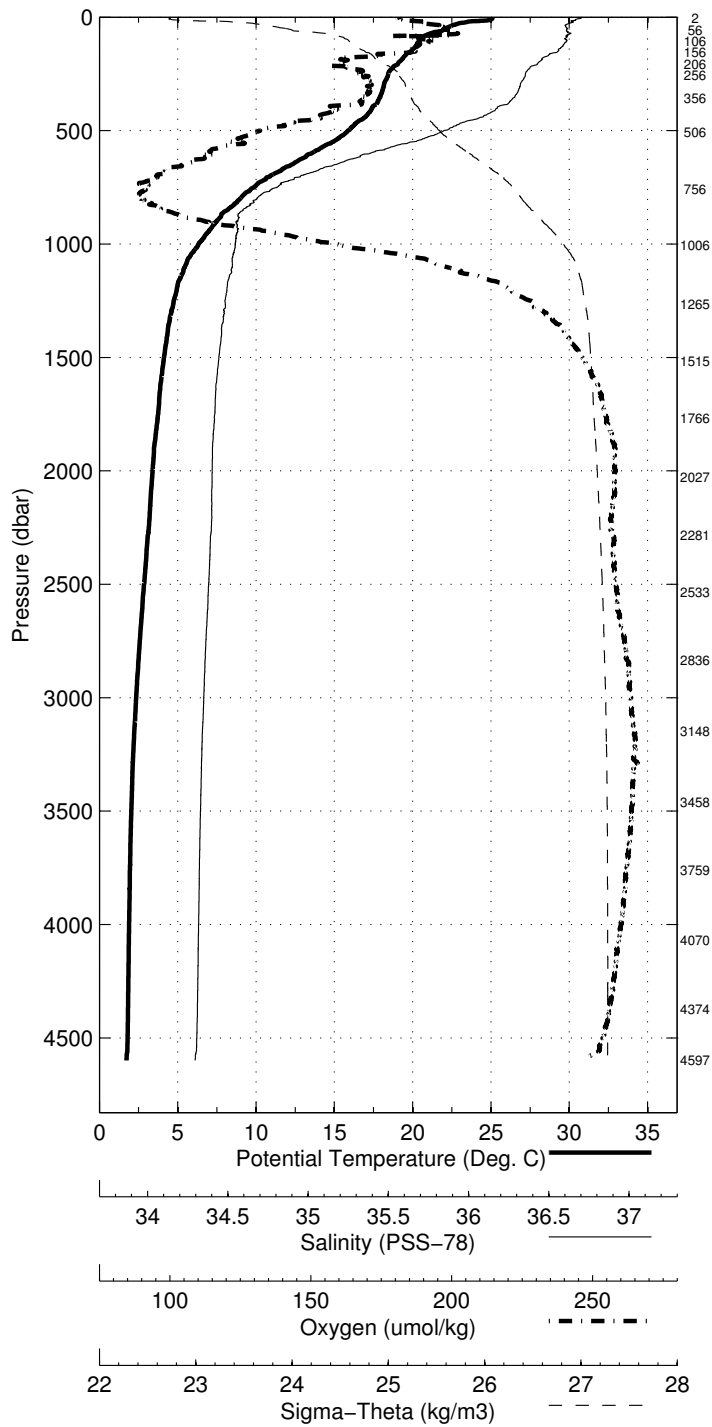


Abaco April-May 2011 R/V Knorr  
 CTD Station 24 (CTD024)  
 Latitude 26.501N Longitude 74.795W  
 17-Apr-2011 22:42Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.093	25.093	36.889	207.1	0.003	24.741
10	24.983	24.980	36.856	208.6	0.032	24.751
20	23.519	23.515	36.837	214.5	0.062	25.177
30	22.831	22.825	36.818	215.3	0.089	25.364
50	22.093	22.083	36.817	219.7	0.139	25.576
75	21.006	20.991	36.825	221.4	0.197	25.886
100	20.480	20.462	36.812	215.0	0.248	26.021
125	20.263	20.239	36.793	212.5	0.298	26.067
150	19.904	19.876	36.767	211.9	0.347	26.143
200	19.145	19.109	36.665	192.7	0.441	26.266
250	18.480	18.436	36.596	197.7	0.529	26.386
300	18.217	18.164	36.569	200.3	0.615	26.434
400	17.484	17.416	36.450	192.1	0.783	26.527
500	15.946	15.866	36.170	171.8	0.942	26.679
600	13.631	13.544	35.784	160.1	1.086	26.889
700	10.992	10.904	35.422	145.2	1.208	27.122
800	9.078	8.987	35.194	141.2	1.311	27.272
900	7.577	7.485	35.093	157.4	1.399	27.423
1000	6.418	6.323	35.081	191.4	1.473	27.574
1100	5.556	5.457	35.065	219.5	1.534	27.672
1200	5.042	4.939	35.037	236.1	1.588	27.711
1300	4.686	4.577	35.020	245.0	1.640	27.740
1400	4.453	4.337	35.009	250.8	1.689	27.757
1500	4.243	4.120	34.994	254.8	1.737	27.769
1750	3.890	3.748	34.973	260.4	1.856	27.791
2000	3.554	3.393	34.959	263.4	1.972	27.815
2500	3.051	2.850	34.941	263.7	2.195	27.852
3000	2.585	2.344	34.915	267.5	2.407	27.876
3500	2.322	2.034	34.898	267.7	2.613	27.887
4000	2.236	1.895	34.888	264.9	2.822	27.891
4500	2.196	1.798	34.879	260.2	3.041	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4598	1	2.139	1.732	34.872	255.2
4374	2	2.212	1.829	34.882	260.6
4071	3	2.228	1.879	34.887	263.0
3760	4	2.262	1.947	34.893	265.6
3459	5	2.328	2.045	34.899	267.1
3148	6	2.469	2.214	34.908	268.0
2837	7	2.716	2.488	34.922	268.1
2534	8	2.989	2.786	34.938	263.4
2281	9	3.254	3.071	34.951	262.2
2028	10	3.519	3.356	34.959	261.9
1767	11	3.818	3.676	34.970	260.2
1516	12	4.185	4.061	34.992	254.7
1266	13	4.793	4.686	35.027	241.6
1006	14	6.359	6.264	35.079	193.6
756	15	9.903	9.813	35.286	141.5
506	16	15.862	15.781	36.155	170.4
357	17	17.941	17.879	36.532	198.1
256	18	18.461	18.416	36.595	199.0
206	19	18.953	18.915	36.638	191.2
156	20	19.807	19.778	36.746	208.2
106	21	20.432	20.412	36.805	214.4
57	22	22.168	22.157	36.807	215.9
3	23	25.405	25.404	36.914	207.5

Abaco April-May 2011 R/V Knorr  
 CTD Station 24 (CTD024)  
 Latitude 26.501 N Longitude 74.795 W  
 17-Apr-2011 22:42 Z

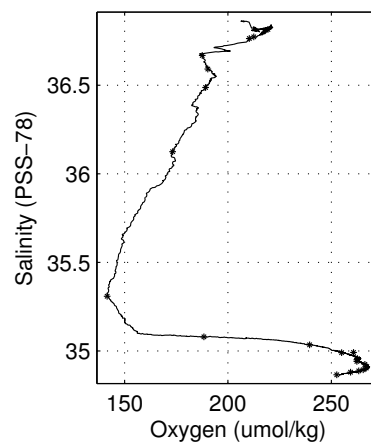
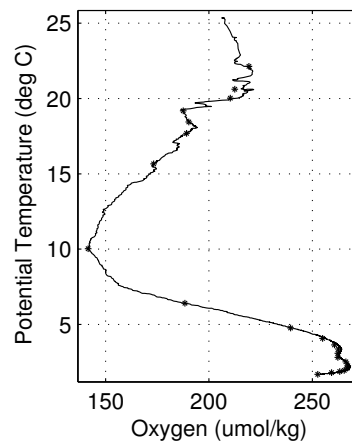
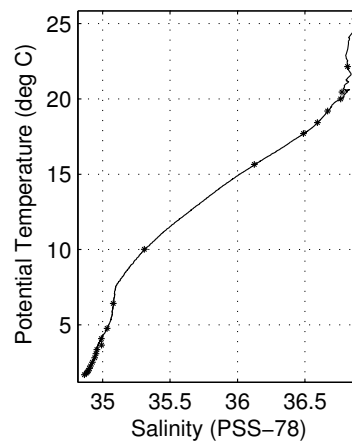
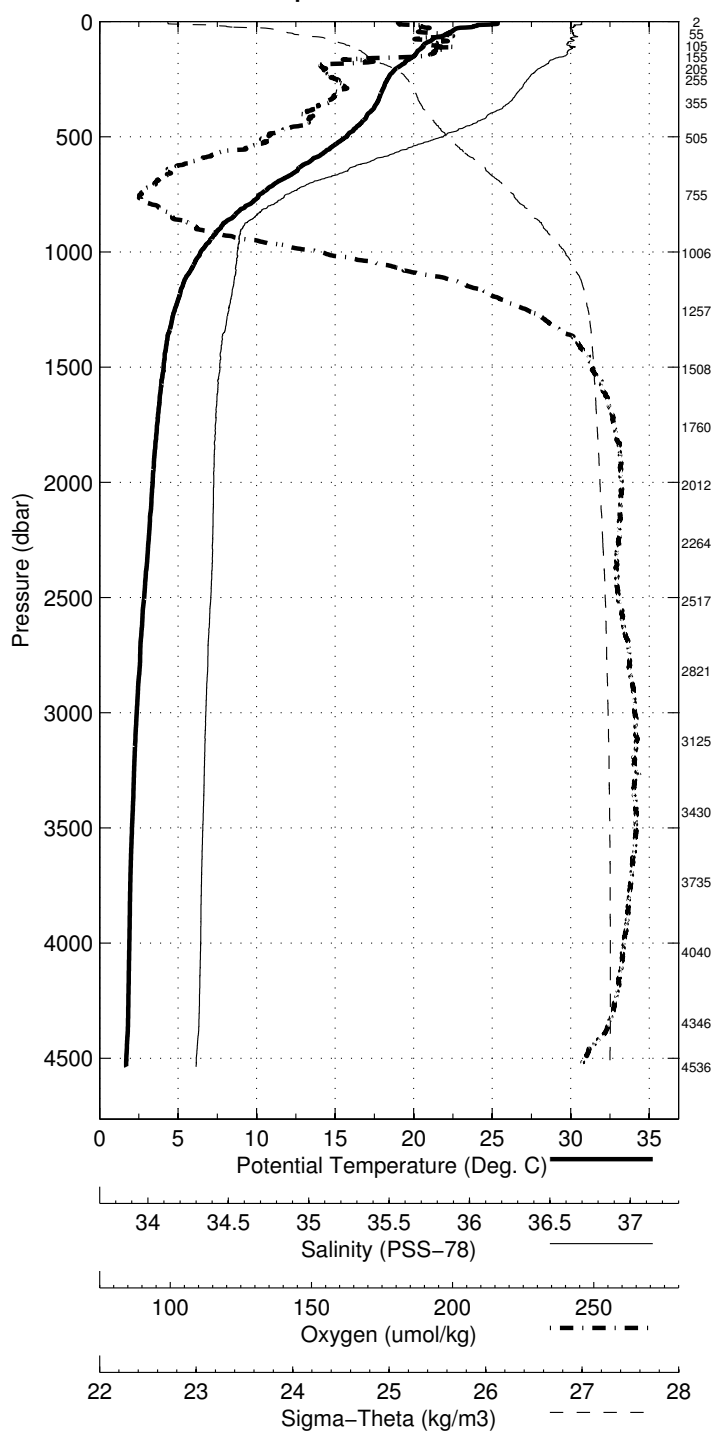


Abaco April-May 2011 R/V Knorr  
 CTD Station 25 (CTD025)  
 Latitude 26.501N Longitude 74.517W  
 18-Apr-2011 03:21Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.344	25.344	36.864	206.7	0.003	24.645
10	25.339	25.337	36.861	207.1	0.033	24.645
20	23.873	23.869	36.826	212.3	0.063	25.064
30	22.731	22.725	36.806	214.4	0.091	25.384
50	22.218	22.208	36.821	216.1	0.141	25.543
75	21.269	21.254	36.810	212.1	0.200	25.802
100	20.674	20.655	36.786	215.9	0.253	25.948
125	20.341	20.318	36.795	216.4	0.304	26.047
150	20.049	20.021	36.773	213.8	0.354	26.109
200	19.013	18.977	36.650	188.3	0.448	26.288
250	18.385	18.341	36.584	191.6	0.535	26.401
300	18.046	17.994	36.539	192.0	0.620	26.453
400	17.169	17.101	36.388	182.4	0.786	26.556
500	15.824	15.744	36.145	174.0	0.942	26.688
600	13.614	13.528	35.788	156.3	1.085	26.896
700	11.330	11.239	35.461	145.7	1.209	27.090
800	9.390	9.298	35.241	146.1	1.316	27.259
900	7.720	7.626	35.102	156.1	1.406	27.409
1000	6.527	6.432	35.079	187.1	1.481	27.559
1100	5.696	5.597	35.068	214.5	1.544	27.658
1200	5.149	5.045	35.047	232.8	1.599	27.708
1300	4.706	4.597	35.024	245.0	1.651	27.740
1400	4.383	4.267	34.999	253.1	1.700	27.757
1500	4.191	4.069	34.987	256.4	1.748	27.769
1750	3.798	3.658	34.965	262.4	1.866	27.794
2000	3.539	3.378	34.957	263.8	1.981	27.815
2500	3.040	2.839	34.942	263.2	2.203	27.854
3000	2.604	2.362	34.916	267.5	2.415	27.875
3500	2.348	2.059	34.900	267.6	2.622	27.887
4000	2.234	1.893	34.889	264.4	2.832	27.891
4500	2.089	1.695	34.866	254.7	3.049	27.888

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4536	1	2.097	1.698	34.865	252.7
4346	2	2.189	1.809	34.880	259.3
4040	3	2.229	1.884	34.887	263.3
3735	4	2.269	1.957	34.894	265.4
3430	5	2.393	2.111	34.903	266.9
3126	6	2.525	2.271	34.911	267.2
2821	7	2.755	2.528	34.924	266.3
2517	8	3.022	2.820	34.940	262.4
2265	9	3.270	3.089	34.950	262.4
2012	10	3.528	3.366	34.957	262.6
1760	11	3.799	3.657	34.991	260.8
1508	12	4.217	4.094	34.990	255.0
1257	13	4.873	4.766	35.034	239.5
1006	14	6.522	6.425	35.079	188.3
755	15	10.104	10.013	35.309	141.6
505	16	15.726	15.646	36.125	173.2
355	17	17.756	17.694	36.488	189.2
255	18	18.478	18.432	36.591	190.3
205	19	19.234	19.196	36.668	187.6
156	20	20.020	19.991	36.764	210.3
106	21	20.477	20.457	36.773	212.5
56	22	22.153	22.142	36.815	219.3
3	23	25.304	25.304	36.871	<i>NaN</i>

Abaco April–May 2011 R/V Knorr  
 CTD Station 25 (CTD025)  
 Latitude 26.501 N Longitude 74.517 W  
 18–Apr–2011 03:21 Z



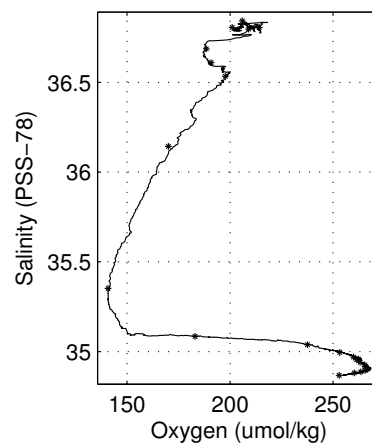
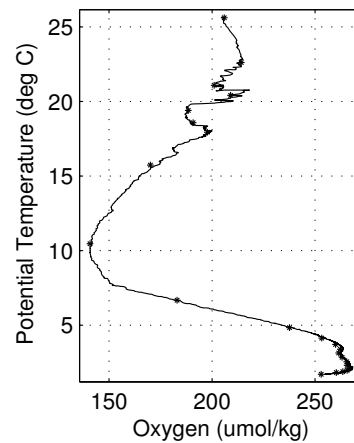
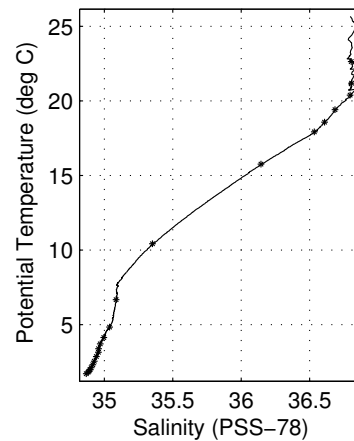
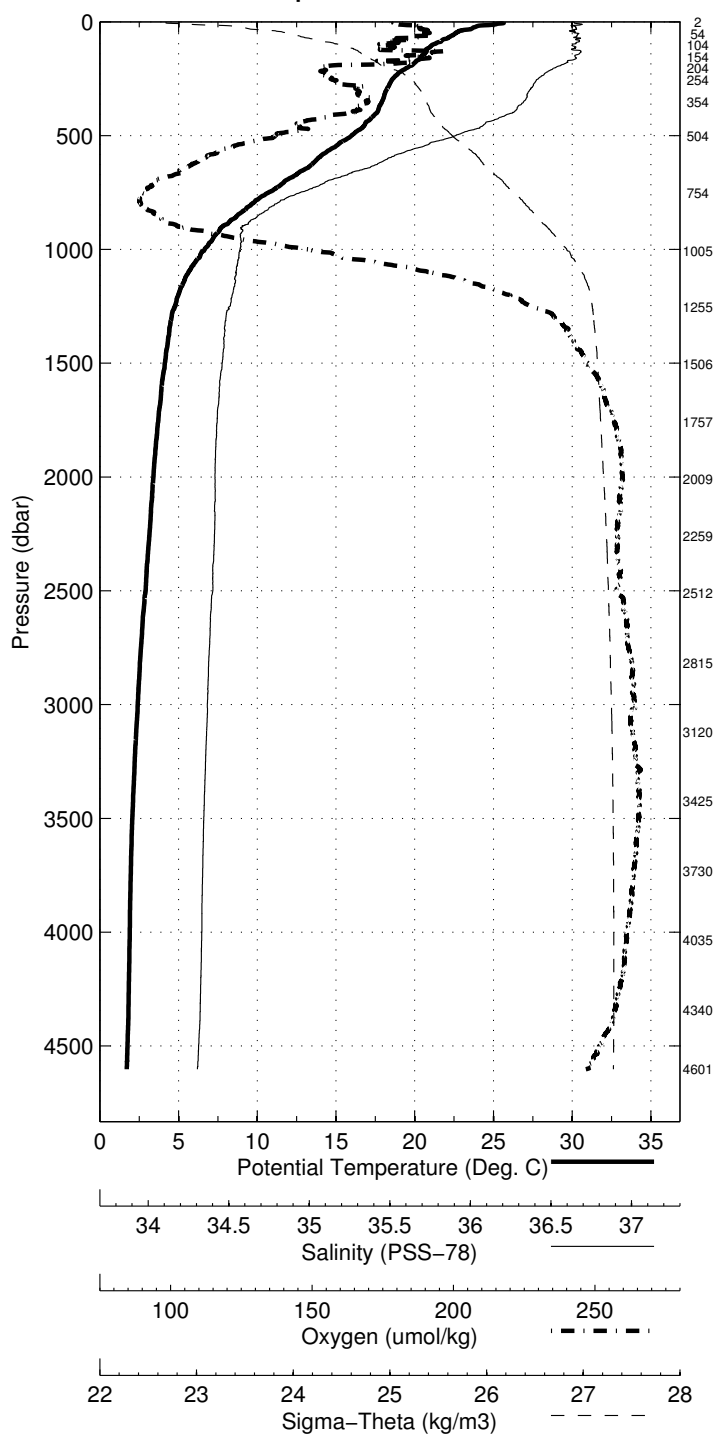


Abaco April-May 2011 R/V Knorr  
 CTD Station 26 (CTD026)  
 Latitude 26.502N Longitude 74.233W  
 18-Apr-2011 08:29Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.654	25.654	36.801	204.8	0.003	24.501
10	25.186	25.184	36.836	206.5	0.034	24.673
20	23.931	23.926	36.801	212.0	0.064	25.028
30	23.628	23.622	36.810	212.0	0.093	25.125
50	22.625	22.615	36.818	213.8	0.147	25.425
75	21.947	21.932	36.810	208.9	0.209	25.613
100	21.160	21.141	36.791	203.7	0.266	25.819
125	20.779	20.755	36.819	205.9	0.320	25.946
150	20.467	20.439	36.802	209.7	0.372	26.020
200	19.610	19.573	36.705	188.0	0.471	26.176
250	18.668	18.623	36.616	189.5	0.562	26.353
300	18.249	18.196	36.570	196.3	0.648	26.426
400	17.662	17.593	36.483	194.0	0.817	26.509
500	16.062	15.981	36.190	174.3	0.977	26.668
600	13.928	13.840	35.843	156.8	1.121	26.873
700	11.846	11.753	35.534	144.8	1.250	27.052
800	9.733	9.638	35.268	141.2	1.360	27.223
900	7.895	7.800	35.100	150.6	1.454	27.383
1000	6.743	6.646	35.085	183.8	1.532	27.535
1100	5.732	5.633	35.066	214.6	1.597	27.651
1200	5.083	4.980	35.046	234.9	1.652	27.714
1300	4.664	4.555	35.014	246.5	1.703	27.737
1400	4.446	4.330	35.004	251.4	1.753	27.754
1500	4.253	4.130	34.995	254.9	1.801	27.768
1750	3.851	3.709	34.969	261.5	1.920	27.791
2000	3.567	3.406	34.958	263.7	2.036	27.813
2500	3.105	2.903	34.946	262.3	2.260	27.851
3000	2.649	2.406	34.919	266.8	2.474	27.873
3500	2.353	2.064	34.900	267.8	2.683	27.887
4000	2.244	1.903	34.890	264.8	2.893	27.891
4500	2.152	1.755	34.874	257.8	3.111	27.890

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4601	1	2.117	1.709	34.868	252.9
4341	2	2.202	1.823	34.881	260.3
4035	3	2.236	1.891	34.888	263.5
3730	4	2.288	1.976	34.895	265.6
3425	5	2.399	2.117	34.903	267.0
3121	6	2.567	2.313	34.915	265.6
2816	7	2.775	2.548	34.925	265.4
2512	8	3.058	2.856	34.941	263.2
2260	9	3.332	3.149	34.955	261.5
2009	10	3.548	3.386	34.958	262.3
1758	11	3.853	3.711	34.970	260.0
1507	12	4.264	4.140	34.995	253.3
1255	13	4.949	4.841	35.038	237.6
1005	14	6.769	6.671	35.085	183.1
755	15	10.514	10.421	35.352	140.8
505	16	15.837	15.757	36.144	170.1
355	17	17.987	17.926	36.534	197.7
255	18	18.624	18.579	36.610	190.8
205	19	19.445	19.408	36.686	188.5
155	20	20.416	20.387	36.797	209.0
105	21	21.203	21.183	36.807	201.0
55	22	22.642	22.630	36.805	214.2
3	23	25.329	25.328	36.842	206.0

Abaco April-May 2011 R/V Knorr  
 CTD Station 26 (CTD026)  
 Latitude 26.502 N Longitude 74.233 W  
 18-Apr-2011 08:29 Z

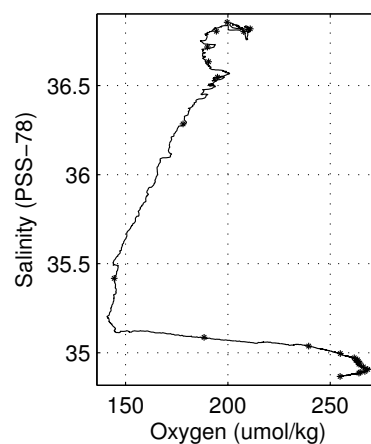
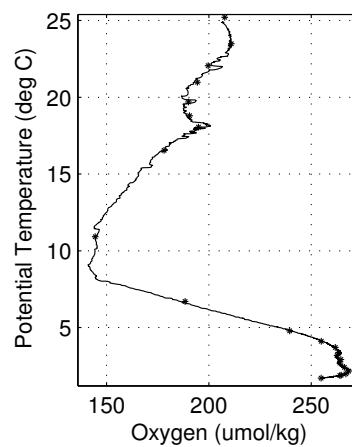
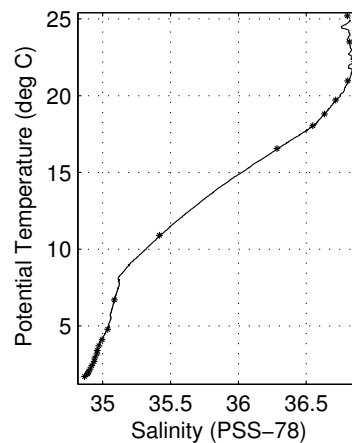
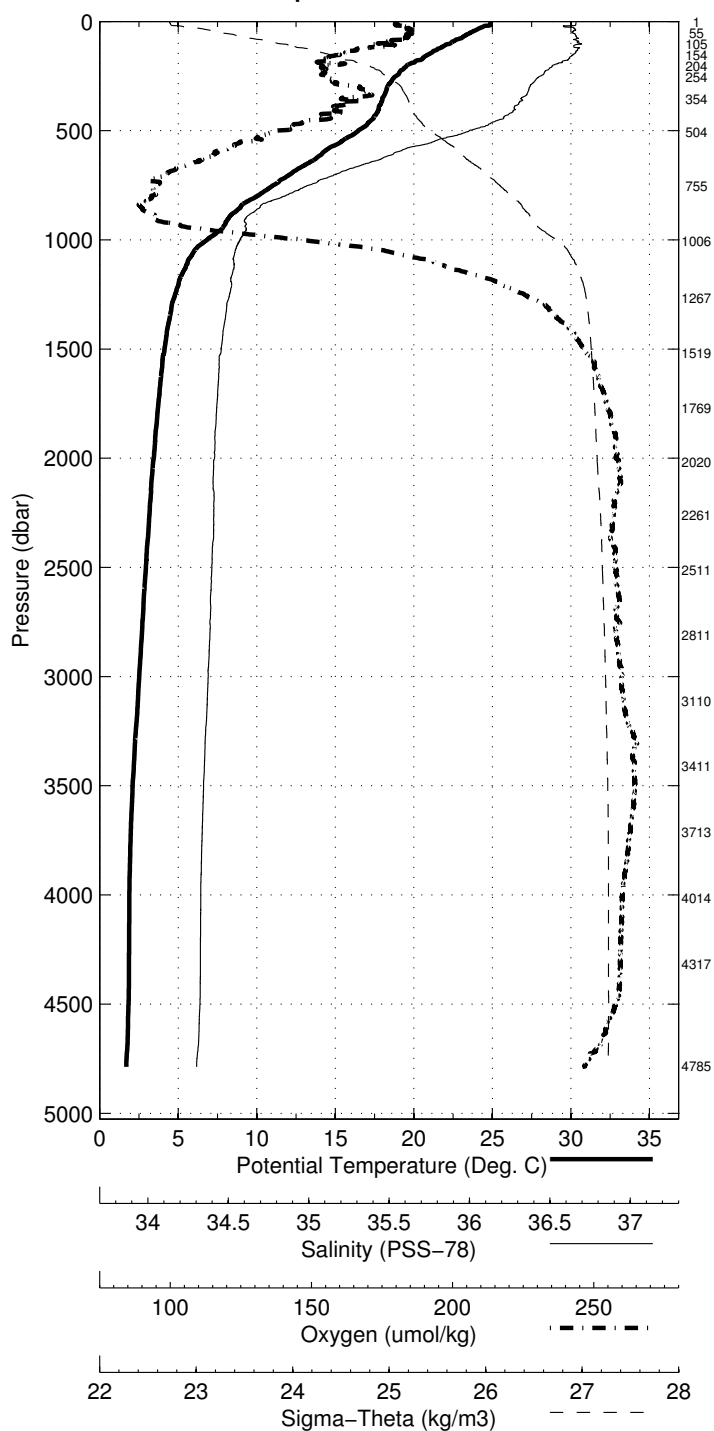


Abaco April-May 2011 R/V Knorr  
 CTD Station 27 (CTD027)  
 Latitude 26.506N Longitude 73.860W  
 18-Apr-2011 13:36Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.899	24.899	36.824	206.7	0.003	24.752
10	24.878	24.876	36.823	207.1	0.032	24.757
20	24.507	24.503	36.759	208.8	0.064	24.822
30	24.215	24.208	36.815	209.7	0.094	24.954
50	23.643	23.632	36.802	210.7	0.153	25.116
75	23.085	23.070	36.829	209.8	0.222	25.301
100	22.344	22.324	36.840	202.2	0.286	25.525
125	21.549	21.524	36.834	196.8	0.346	25.746
150	20.972	20.943	36.810	192.2	0.402	25.888
200	19.607	19.570	36.705	188.0	0.504	26.177
250	18.901	18.856	36.639	188.8	0.597	26.311
300	18.363	18.310	36.585	197.5	0.685	26.409
400	17.839	17.769	36.505	191.0	0.855	26.483
500	16.538	16.456	36.273	176.1	1.020	26.621
600	14.297	14.207	35.890	161.1	1.169	26.831
700	12.228	12.133	35.586	147.9	1.301	27.019
800	10.124	10.028	35.323	144.2	1.414	27.199
900	8.317	8.220	35.122	144.7	1.511	27.337
1000	6.923	6.824	35.090	182.2	1.594	27.514
1100	5.709	5.610	35.058	216.5	1.659	27.648
1200	5.137	5.033	35.047	233.6	1.715	27.709
1300	4.700	4.591	35.023	245.3	1.766	27.740
1400	4.449	4.333	35.007	251.2	1.816	27.756
1500	4.253	4.130	34.993	255.0	1.865	27.767
1750	3.879	3.737	34.972	260.8	1.984	27.791
2000	3.607	3.445	34.959	263.2	2.101	27.810
2500	3.151	2.948	34.946	263.2	2.327	27.846
3000	2.766	2.520	34.927	264.6	2.547	27.870
3500	2.391	2.102	34.903	268.0	2.760	27.886
4000	2.234	1.893	34.888	264.8	2.971	27.890
4500	2.242	1.843	34.884	263.0	3.191	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4786	1	2.132	1.702	34.867	254.8
4317	2	2.249	1.872	34.886	263.9
4014	3	2.240	1.897	34.890	264.6
3713	4	2.298	1.987	34.895	266.9
3412	5	2.451	2.169	34.907	268.2
3111	6	2.667	2.412	34.921	266.2
2811	7	2.913	2.684	34.936	263.9
2511	8	3.113	2.910	34.942	264.4
2261	9	3.363	3.180	34.957	262.6
2020	10	3.557	3.394	34.960	263.4
1769	11	3.840	3.697	34.972	261.7
1519	12	4.231	4.106	34.996	254.9
1267	13	4.889	4.781	35.037	239.5
1007	14	6.790	6.691	35.086	188.3
756	15	10.999	10.903	35.417	144.4
505	16	16.637	16.554	36.285	178.1
355	17	18.105	18.043	36.548	194.8
255	18	18.854	18.808	36.634	190.5
205	19	19.761	19.723	36.716	189.9
154	20	20.995	20.966	36.805	194.4
105	21	22.244	22.223	36.856	199.6
55	22	23.507	23.496	36.819	210.9
2	23	25.203	25.203	36.803	207.7

Abaco April-May 2011 R/V Knorr  
 CTD Station 27 (CTD027)  
 Latitude 26.506 N Longitude 73.860 W  
 18-Apr-2011 13:36 Z

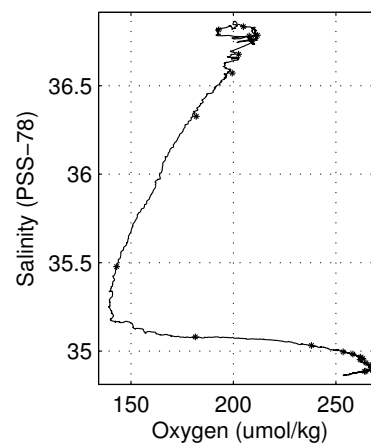
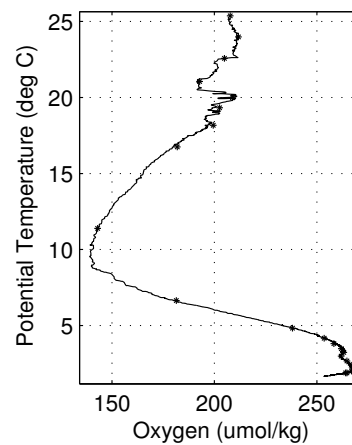
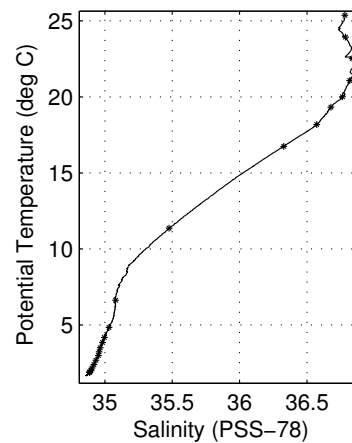
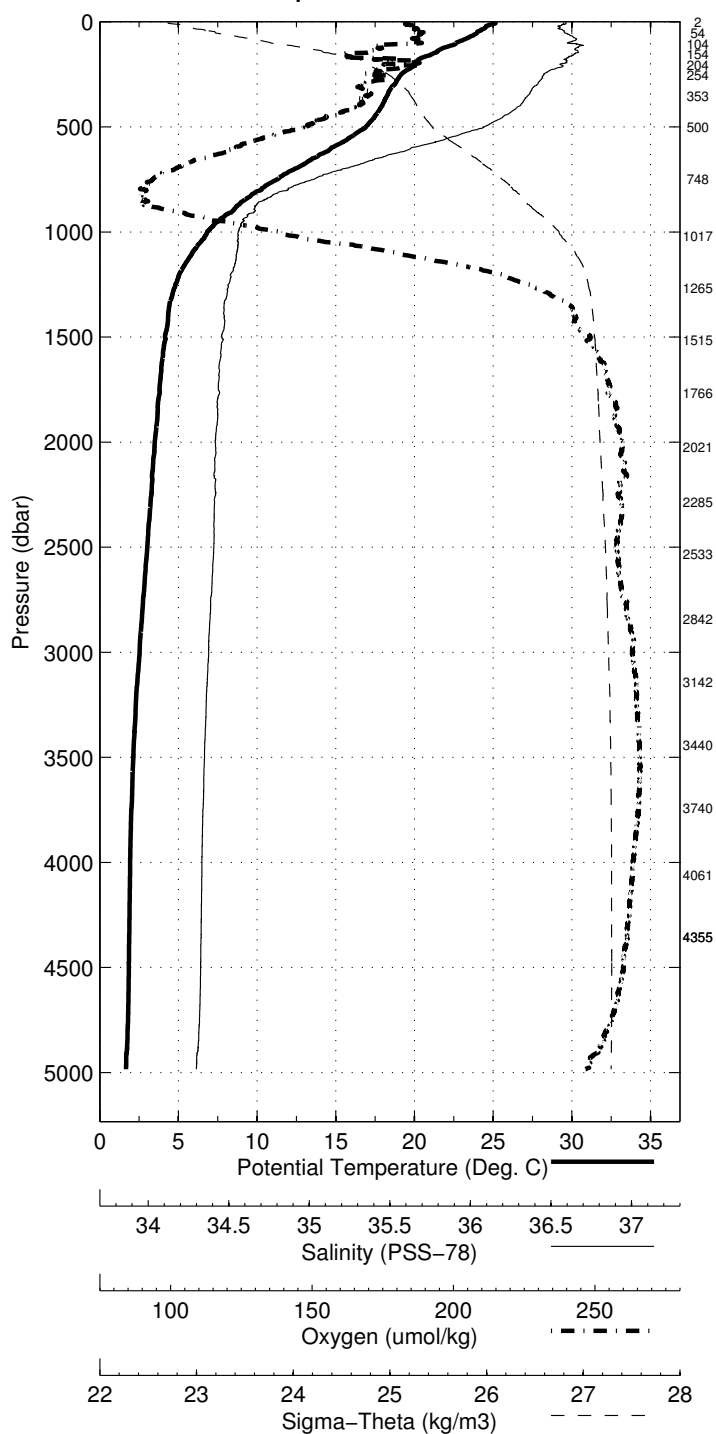


Abaco April-May 2011 R/V Knorr  
 CTD Station 28 (CTD028)  
 Latitude 26.504N Longitude 73.489W  
 18-Apr-2011 18:58Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.150	25.150	36.777	206.8	0.003	24.639
10	25.009	25.007	36.776	207.1	0.033	24.682
20	24.556	24.552	36.734	209.7	0.065	24.789
30	24.471	24.464	36.740	209.6	0.096	24.820
50	23.997	23.986	36.768	212.0	0.157	24.985
75	23.420	23.404	36.818	210.2	0.230	25.195
100	22.662	22.641	36.784	211.4	0.297	25.391
125	21.831	21.806	36.828	200.2	0.360	25.662
150	21.240	21.211	36.825	192.7	0.417	25.826
200	20.021	19.983	36.749	203.3	0.520	26.101
250	19.197	19.152	36.662	198.2	0.617	26.253
300	18.764	18.710	36.625	195.7	0.708	26.338
400	18.013	17.943	36.537	195.5	0.882	26.464
500	16.988	16.904	36.351	180.6	1.049	26.575
600	14.795	14.703	35.973	164.3	1.203	26.788
700	12.445	12.349	35.618	148.4	1.338	27.001
800	10.345	10.247	35.335	141.0	1.454	27.171
900	8.554	8.455	35.166	148.3	1.553	27.335
1000	6.929	6.831	35.079	175.3	1.635	27.504
1100	5.974	5.873	35.070	205.3	1.703	27.624
1200	5.155	5.051	35.039	231.6	1.760	27.700
1300	4.721	4.611	35.021	244.4	1.812	27.736
1400	4.461	4.345	35.007	250.8	1.862	27.755
1500	4.270	4.147	34.993	254.5	1.911	27.765
1750	3.933	3.790	34.976	259.7	2.031	27.789
2000	3.646	3.484	34.959	263.1	2.149	27.806
2500	3.221	3.017	34.952	261.2	2.380	27.845
3000	2.773	2.528	34.925	265.6	2.601	27.868
3500	2.423	2.133	34.904	267.3	2.815	27.884
4000	2.271	1.929	34.890	265.5	3.028	27.889
4500	2.246	1.847	34.884	263.0	3.249	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4356	1	2.260	1.877	34.886	264.0
4356	2	2.261	1.878	34.886	264.7
4062	3	2.265	1.917	34.890	<i>NaN</i>
3741	4	2.317	2.003	34.897	266.9
3440	5	2.444	2.159	34.905	267.5
3142	6	2.651	2.394	34.918	266.8
2843	7	2.912	2.680	34.933	264.6
2534	8	3.196	2.990	34.952	261.8
2286	9	3.413	3.226	34.957	263.1
2021	10	3.668	3.504	34.965	261.9
1766	11	3.986	3.842	34.983	258.2
1516	12	4.298	4.173	34.996	253.6
1266	13	4.947	4.838	35.031	238.1
1018	14	6.728	6.629	35.080	181.4
749	15	11.465	11.368	35.477	143.0
501	16	16.830	16.747	36.327	181.9
354	17	18.246	18.184	36.572	199.4
254	18	19.366	19.320	36.678	202.5
205	19	20.056	20.018	36.763	208.8
155	20	21.107	21.077	36.817	192.8
105	21	22.552	22.531	36.835	204.9
55	22	23.944	23.932	36.786	211.7
3	23	25.376	25.375	36.782	207.7

Abaco April–May 2011 R/V Knorr  
 CTD Station 28 (CTD028)  
 Latitude 26.504 N Longitude 73.489 W  
 18–Apr–2011 18:58 Z

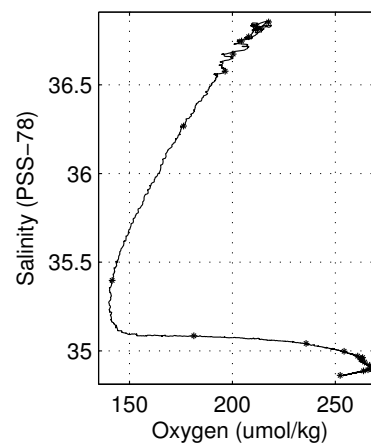
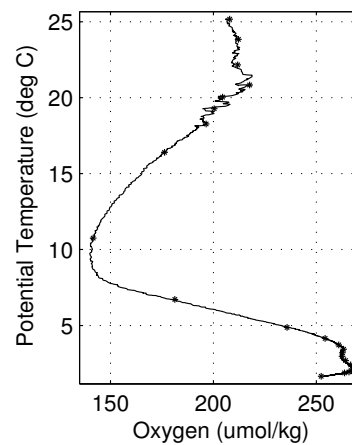
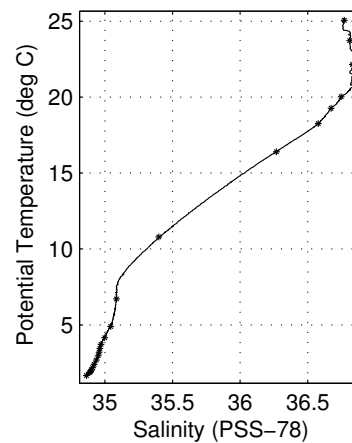
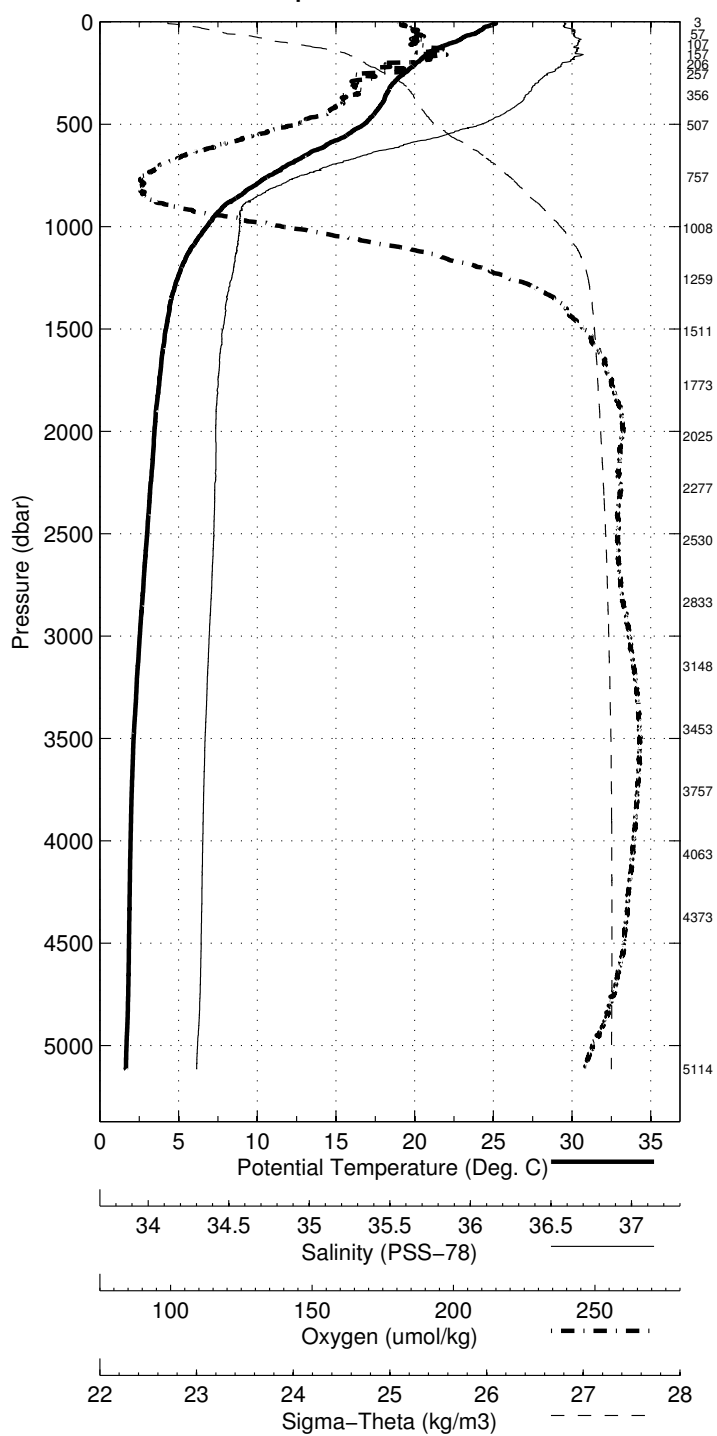


Abaco April-May 2011 R/V Knorr  
 CTD Station 29 (CTD029)  
 Latitude 26.497N Longitude 73.131W  
 19-Apr-2011 00:06Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.165	25.165	36.765	206.0	0.003	24.625
10	25.124	25.122	36.770	206.8	0.033	24.642
20	24.730	24.725	36.757	207.5	0.065	24.753
30	24.401	24.395	36.776	209.2	0.097	24.868
50	24.033	24.022	36.817	211.6	0.157	25.011
75	23.126	23.111	36.819	210.6	0.228	25.282
100	22.518	22.497	36.835	209.5	0.294	25.472
125	21.620	21.595	36.810	214.1	0.354	25.708
150	20.918	20.889	36.818	210.7	0.410	25.909
200	20.126	20.089	36.751	203.5	0.513	26.075
250	19.383	19.337	36.680	199.2	0.611	26.219
300	18.668	18.615	36.614	195.0	0.702	26.354
400	17.974	17.905	36.525	191.6	0.876	26.464
500	16.892	16.808	36.333	179.7	1.043	26.584
600	14.497	14.407	35.931	160.3	1.195	26.820
700	11.991	11.897	35.557	145.3	1.326	27.041
800	9.920	9.824	35.286	140.8	1.437	27.206
900	7.993	7.897	35.102	148.4	1.533	27.369
1000	6.904	6.806	35.084	176.3	1.613	27.512
1100	5.933	5.832	35.070	206.3	1.680	27.630
1200	5.288	5.182	35.053	227.1	1.738	27.696
1300	4.846	4.736	35.028	241.0	1.791	27.728
1400	4.544	4.427	35.010	248.6	1.841	27.748
1500	4.325	4.201	34.998	253.1	1.891	27.763
1750	3.926	3.784	34.972	260.4	2.011	27.786
2000	3.631	3.469	34.960	263.2	2.129	27.809
2500	3.211	3.007	34.950	262.1	2.358	27.845
3000	2.783	2.537	34.927	264.7	2.580	27.868
3500	2.435	2.145	34.906	267.5	2.795	27.884
4000	2.297	1.955	34.894	266.0	3.009	27.890
4500	2.252	1.852	34.885	263.5	3.230	27.891
5000	2.154	1.696	34.867	255.5	3.462	27.889

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5114	1	2.133	1.662	34.863	252.4
4374	2	2.261	1.877	34.888	263.6
4063	3	2.290	1.941	34.894	265.9
3758	4	2.344	2.028	34.901	267.1
3453	5	2.472	2.185	34.909	268.1
3148	6	2.662	2.403	34.920	266.7
2834	7	2.920	2.688	34.937	264.2
2531	8	3.174	2.968	34.950	262.5
2277	9	3.389	3.204	34.958	262.7
2025	10	3.607	3.443	34.962	263.2
1773	11	3.866	3.722	34.971	260.9
1511	12	4.287	4.162	34.998	254.2
1259	13	5.011	4.902	35.042	235.8
1008	14	6.811	6.712	35.085	181.3
757	15	10.882	10.786	35.398	141.6
507	16	16.482	16.398	36.268	176.3
357	17	18.316	18.253	36.577	196.5
257	18	19.303	19.257	36.673	200.3
207	19	20.063	20.025	36.747	204.5
157	20	20.853	20.823	36.854	217.6
107	21	22.175	22.153	36.830	211.8
57	22	23.734	23.722	36.811	212.2
3	23	25.064	25.063	36.770	207.9

Abaco April-May 2011 R/V Knorr  
 CTD Station 29 (CTD029)  
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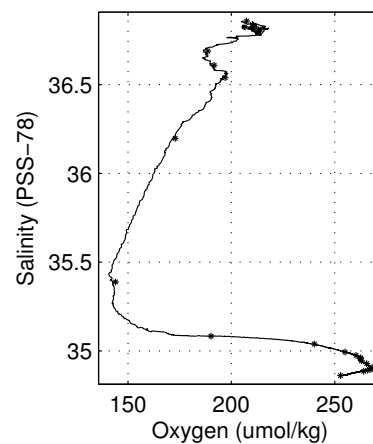
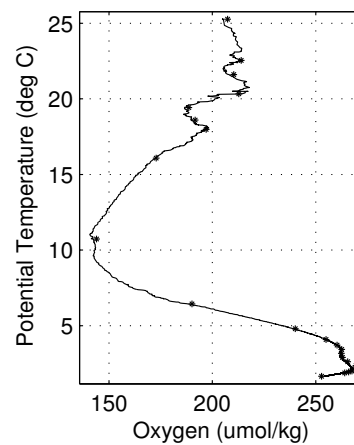
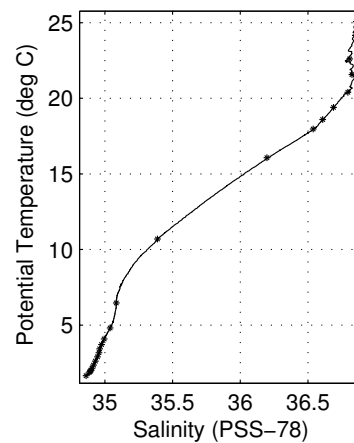
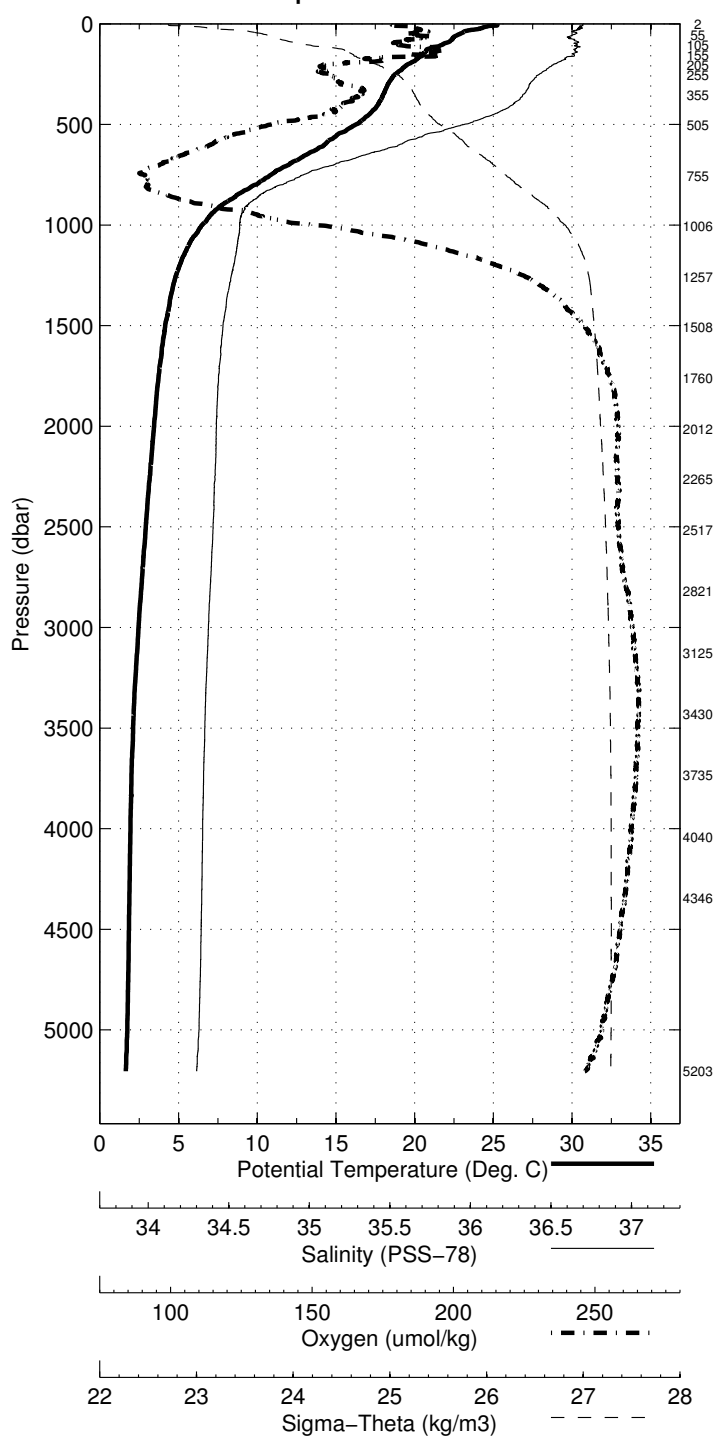


Abaco April-May 2011 R/V Knorr  
 CTD Station 30 (CTD030)  
 Latitude 26.501N Longitude 72.769W  
 19-Apr-2011 05:34Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.268	25.268	36.855	204.7	0.003	24.662
10	24.859	24.857	36.851	205.9	0.033	24.784
20	24.336	24.332	36.846	211.0	0.063	24.940
30	23.580	23.574	36.826	211.9	0.092	25.151
50	22.888	22.877	36.820	208.5	0.147	25.350
75	22.432	22.417	36.798	211.7	0.211	25.467
100	21.855	21.835	36.825	205.6	0.273	25.652
125	20.869	20.845	36.817	216.0	0.329	25.920
150	20.534	20.506	36.800	210.4	0.381	26.000
200	19.641	19.605	36.711	189.5	0.481	26.172
250	18.846	18.801	36.632	189.9	0.574	26.320
300	18.363	18.310	36.581	191.7	0.661	26.406
400	17.769	17.700	36.498	192.6	0.831	26.494
500	16.364	16.282	36.245	174.3	0.994	26.640
600	14.373	14.282	35.910	158.8	1.141	26.831
700	12.106	12.012	35.570	145.9	1.272	27.030
800	9.943	9.847	35.297	143.0	1.384	27.210
900	7.851	7.756	35.124	157.9	1.477	27.408
1000	6.578	6.482	35.084	184.9	1.553	27.556
1100	5.753	5.654	35.071	214.3	1.616	27.653
1200	5.182	5.078	35.053	231.4	1.672	27.708
1300	4.774	4.664	35.031	242.4	1.724	27.739
1400	4.536	4.419	35.014	248.5	1.774	27.752
1500	4.277	4.153	34.998	253.9	1.823	27.768
1750	3.879	3.737	34.975	260.1	1.941	27.793
2000	3.612	3.450	34.964	262.3	2.058	27.813
2500	3.123	2.921	34.946	262.2	2.282	27.850
3000	2.707	2.462	34.922	265.8	2.500	27.871
3500	2.402	2.112	34.904	267.2	2.711	27.885
4000	2.286	1.944	34.893	265.6	2.924	27.890
4500	2.250	1.850	34.885	262.6	3.146	27.891
5000	2.210	1.751	34.874	258.1	3.377	27.890

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5204	1	2.141	1.658	34.861	252.8
4346	2	2.266	1.885	34.886	264.0
4041	3	2.289	1.942	34.891	265.9
3735	4	2.323	2.009	34.895	267.5
3430	5	2.427	2.144	34.904	268.1
3125	6	2.612	2.357	34.915	269.5
2821	7	2.849	2.620	34.929	265.5
2518	8	3.104	2.900	34.944	263.0
2265	9	3.356	3.173	34.955	262.4
2013	10	3.591	3.428	34.961	262.6
1761	11	3.859	3.716	34.975	260.4
1509	12	4.211	4.088	34.994	255.0
1257	13	4.913	4.805	35.039	240.1
1006	14	6.558	6.462	35.083	190.2
755	15	10.784	10.689	35.388	144.0
505	16	16.155	16.073	36.197	172.8
355	17	18.031	17.969	36.538	197.0
255	18	18.645	18.600	36.609	191.6
205	19	19.434	19.397	36.689	188.7
155	20	20.428	20.398	36.795	212.8
105	21	21.594	21.573	36.825	210.4
55	22	22.615	22.603	36.809	214.0
2	23	25.076	25.075	36.858	207.4

Abaco April-May 2011 R/V Knorr  
 CTD Station 30 (CTD030)  
 Latitude 26.501 N Longitude 72.769 W  
 19-Apr-2011 05:34 Z

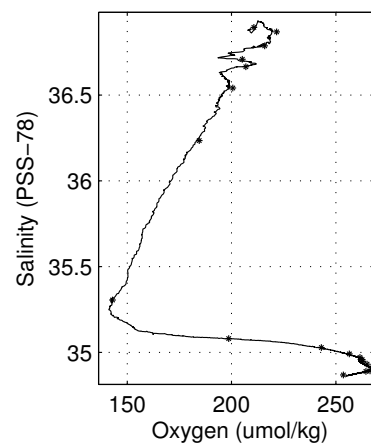
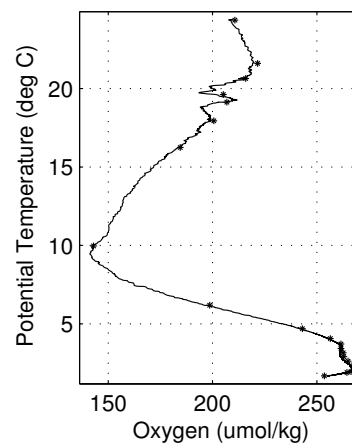
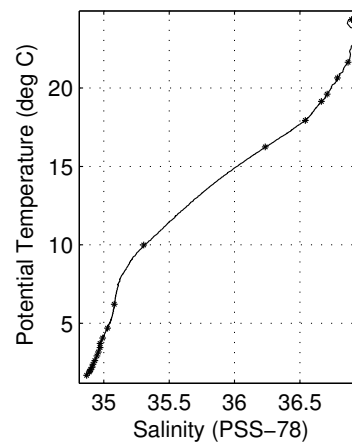
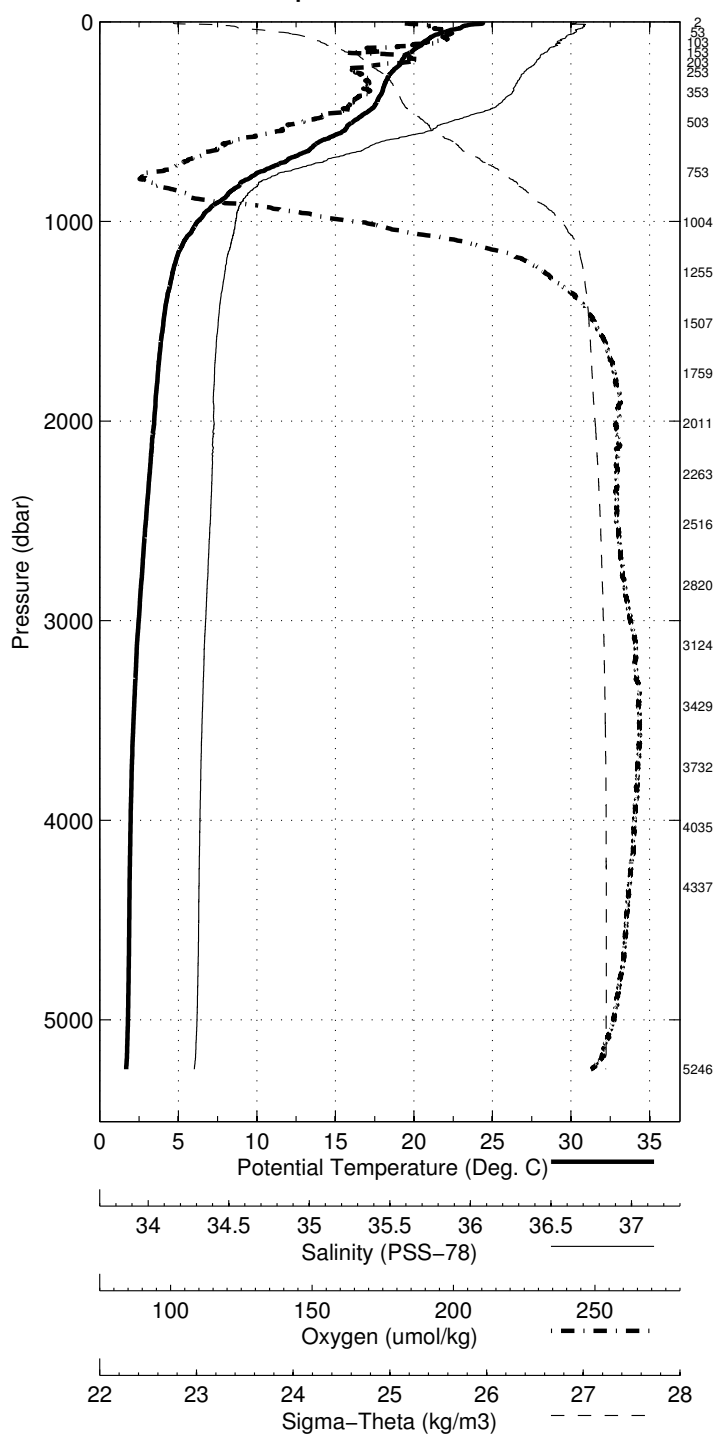


Abaco April-May 2011 R/V Knorr  
CTD Station 31 (CTD031)  
Latitude 26.497N Longitude 72.388W  
19-Apr-2011 11:05Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.405	24.405	36.887	208.7	0.003	24.949
10	24.285	24.283	36.869	208.9	0.030	24.972
20	23.205	23.201	36.924	214.6	0.057	25.335
30	23.012	23.005	36.920	215.3	0.083	25.389
50	22.034	22.024	36.885	218.7	0.133	25.644
75	21.119	21.105	36.830	217.4	0.189	25.859
100	20.676	20.657	36.785	213.3	0.242	25.947
125	20.323	20.299	36.769	205.9	0.293	26.032
150	19.913	19.885	36.732	200.3	0.343	26.114
200	19.239	19.203	36.673	209.1	0.436	26.248
250	18.646	18.601	36.610	196.0	0.526	26.354
300	18.261	18.208	36.574	198.9	0.613	26.426
400	17.725	17.656	36.493	195.4	0.782	26.502
500	16.208	16.127	36.217	182.5	0.944	26.655
600	14.073	13.984	35.854	164.3	1.092	26.851
700	11.923	11.830	35.550	152.3	1.221	27.049
800	9.182	9.091	35.213	143.0	1.328	27.271
900	7.728	7.634	35.119	160.7	1.418	27.422
1000	6.339	6.245	35.083	194.9	1.490	27.586
1100	5.455	5.358	35.060	222.7	1.550	27.680
1200	4.932	4.830	35.035	238.7	1.603	27.722
1300	4.624	4.515	35.018	246.2	1.653	27.745
1400	4.358	4.243	35.002	252.2	1.702	27.762
1500	4.179	4.057	34.991	255.5	1.749	27.773
1750	3.852	3.711	34.971	260.5	1.867	27.793
2000	3.627	3.465	34.967	261.6	1.983	27.815
2500	3.134	2.931	34.949	261.2	2.208	27.851
3000	2.720	2.475	34.924	264.8	2.426	27.871
3500	2.434	2.144	34.905	267.1	2.638	27.884
4000	2.304	1.962	34.894	265.8	2.853	27.890
4500	2.275	1.874	34.887	263.8	3.075	27.891
5000	2.251	1.790	34.878	260.4	3.309	27.890

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5247	1	2.169	1.679	34.869	253.6
4338	2	2.279	1.898	34.889	264.4
4035	3	2.303	1.956	34.893	266.4
3733	4	2.354	2.039	34.899	267.8
3429	5	2.478	2.194	34.909	268.0
3125	6	2.639	2.384	34.917	267.6
2820	7	2.853	2.624	34.932	264.9
2516	8	3.115	2.911	34.948	262.9
2264	9	3.349	3.166	34.958	262.6
2011	10	3.613	3.450	34.971	261.5
1759	11	3.853	3.711	34.971	261.5
1507	12	4.186	4.062	34.991	256.5
1256	13	4.797	4.691	35.028	243.1
1004	14	6.302	6.207	35.080	198.6
754	15	10.076	9.985	35.305	143.0
503	16	16.322	16.240	36.235	184.5
353	17	17.998	17.936	36.542	200.6
253	18	18.531	18.773	-999.000	<i>NaN</i>
203	19	19.183	19.146	36.665	206.9
153	20	19.633	19.605	36.709	205.2
104	21	20.664	20.645	36.787	215.9
54	22	21.647	21.636	36.869	221.6
3	23	24.369	24.368	36.895	210.7

Abaco April–May 2011 R/V Knorr  
 CTD Station 31 (CTD031)  
 Latitude 26.497 N Longitude 72.388 W  
 19–Apr–2011 11:05 Z

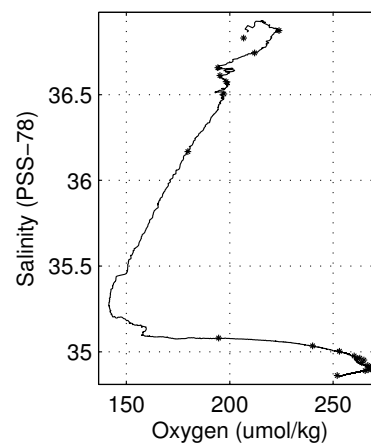
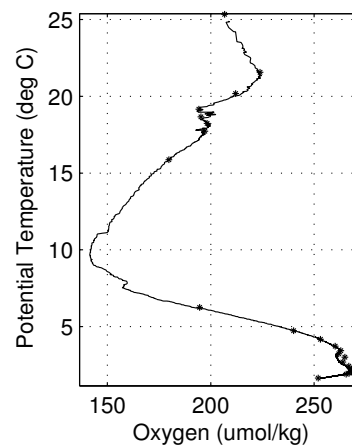
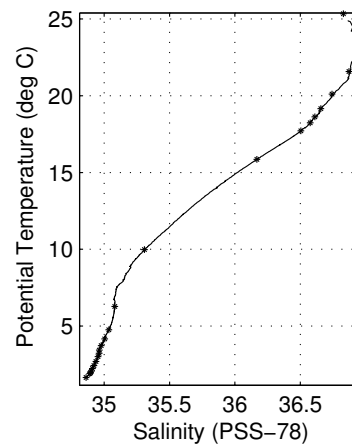
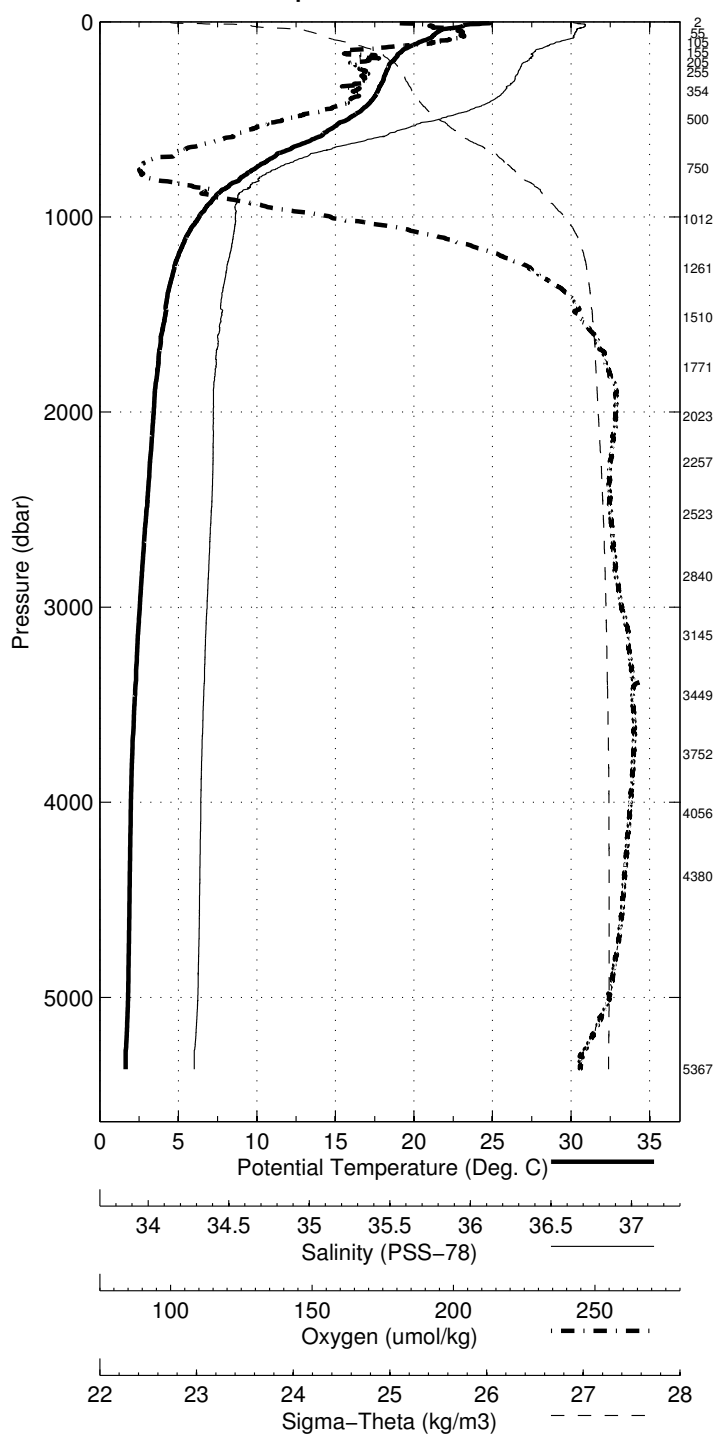


Abaco April-May 2011 R/V Knorr  
 CTD Station 32 (CTD032)  
 Latitude 26.510N Longitude 71.996W  
 19-Apr-2011 16:58Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.884	24.883	36.867	208.4	0.003	24.789
10	24.201	24.199	36.900	212.0	0.031	25.021
20	23.141	23.137	36.929	215.6	0.058	25.358
30	22.627	22.621	36.910	217.8	0.083	25.493
50	21.582	21.572	36.881	223.5	0.130	25.768
75	21.184	21.170	36.866	223.9	0.184	25.869
100	20.522	20.503	36.802	218.1	0.237	26.002
125	19.787	19.763	36.725	207.2	0.286	26.141
150	19.282	19.255	36.665	194.5	0.333	26.228
200	18.704	18.669	36.624	199.4	0.422	26.348
250	18.300	18.256	36.578	198.8	0.508	26.417
300	18.097	18.045	36.555	198.7	0.592	26.453
400	17.415	17.347	36.444	194.9	0.758	26.539
500	15.855	15.775	36.153	179.0	0.916	26.687
600	13.729	13.641	35.800	163.0	1.059	26.881
700	10.999	10.910	35.428	145.0	1.181	27.125
800	9.079	8.988	35.204	143.9	1.284	27.280
900	7.417	7.326	35.091	161.3	1.370	27.445
1000	6.413	6.318	35.077	190.2	1.442	27.573
1100	5.613	5.514	35.067	217.2	1.504	27.667
1200	5.105	5.001	35.048	233.4	1.558	27.713
1300	4.735	4.625	35.026	243.4	1.610	27.739
1400	4.435	4.319	35.008	250.7	1.659	27.758
1500	4.304	4.180	35.006	252.8	1.707	27.772
1750	3.876	3.734	34.977	259.8	1.825	27.795
2000	3.593	3.432	34.961	262.5	1.941	27.813
2500	3.182	2.979	34.951	260.9	2.167	27.848
3000	2.795	2.549	34.928	263.9	2.387	27.868
3500	2.500	2.207	34.909	266.5	2.604	27.882
4000	2.322	1.979	34.895	266.2	2.821	27.889
4500	2.289	1.889	34.888	264.2	3.044	27.891
5000	2.260	1.799	34.879	260.7	3.279	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5367	1	2.156	1.652	34.862	252.0
4380	2	2.297	1.910	34.890	265.5
4056	3	2.322	1.972	34.895	267.0
3753	4	2.386	2.069	34.901	268.1
3450	5	2.521	2.233	34.910	268.0
3145	6	2.690	2.431	34.921	266.8
2841	7	2.930	2.698	34.937	263.8
2524	8	3.218	3.012	34.953	264.8
2257	9	3.417	3.233	34.961	261.9
2023	10	3.597	3.433	34.963	262.9
1772	11	3.869	3.725	34.976	260.2
1511	12	4.285	4.161	35.003	253.1
1261	13	4.864	4.756	35.035	240.0
1012	14	6.371	6.275	35.081	194.6
750	15	10.072	9.982	35.308	<i>NaN</i>
501	16	15.937	15.856	36.168	179.8
354	17	17.781	17.720	36.504	197.2
255	18	18.278	18.233	36.576	198.3
206	19	18.662	18.625	36.611	195.3
156	20	19.194	19.166	36.657	194.3
106	21	20.122	20.102	36.743	212.1
56	22	21.589	21.578	36.873	223.8
2	23	25.342	25.342	36.830	206.7

Abaco April-May 2011 R/V Knorr  
 CTD Station 32 (CTD032)  
 Latitude 26.510 N Longitude 71.996 W  
 19-Apr-2011 16:58 Z

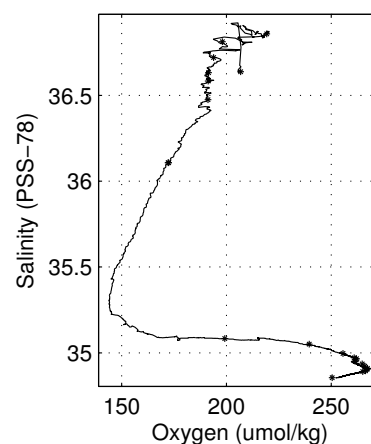
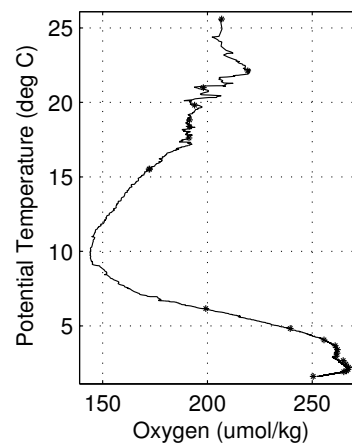
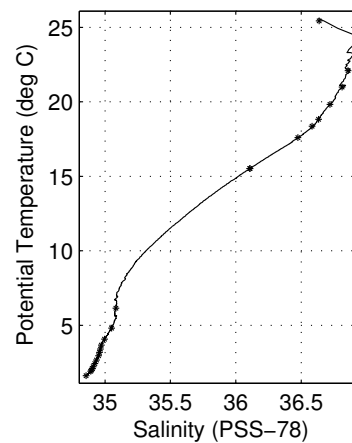
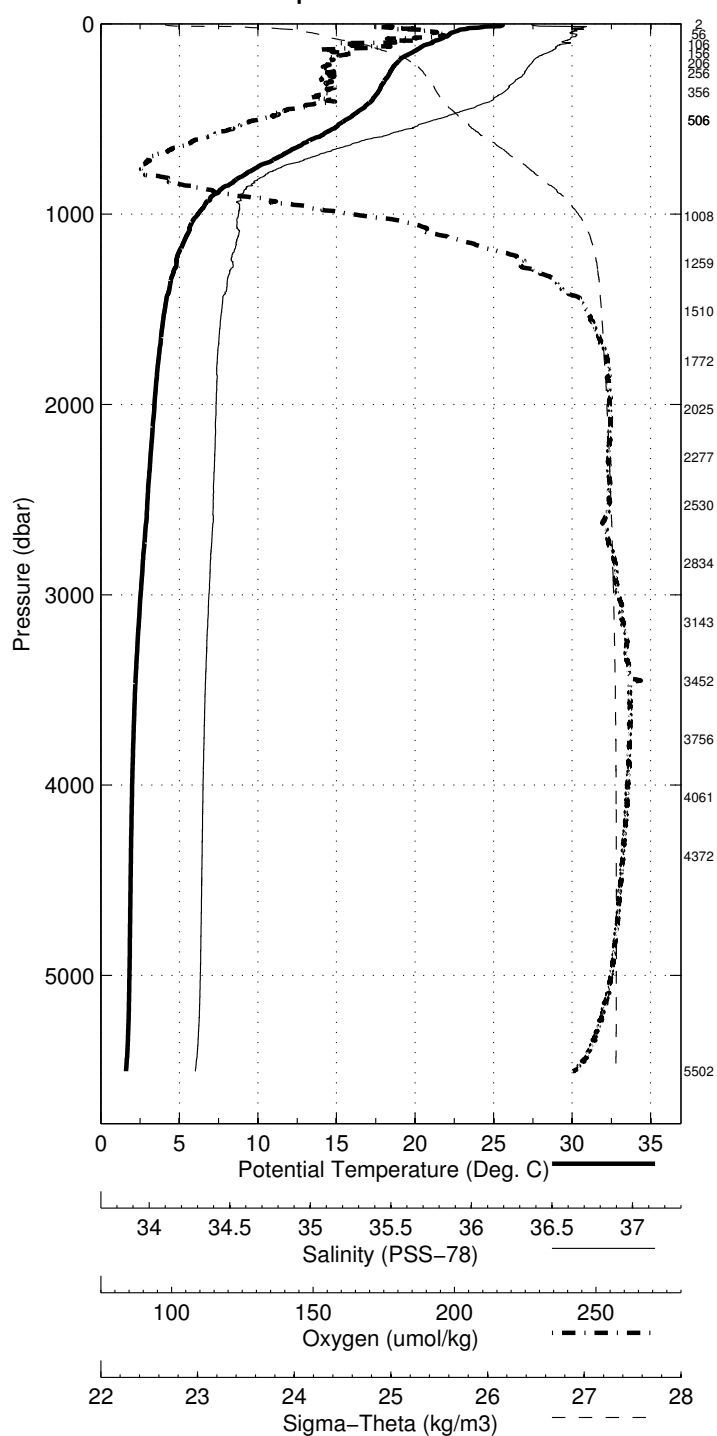


Abaco April-May 2011 R/V Knorr  
 CTD Station 33 (CTD033)  
 Latitude 26.502N Longitude 71.502W  
 19-Apr-2011 23:16Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.597	25.597	36.634	205.7	0.004	24.393
10	25.504	25.502	36.657	206.2	0.035	24.440
20	24.066	24.062	36.905	206.9	0.066	25.066
30	22.902	22.896	36.877	212.7	0.093	25.388
50	22.247	22.237	36.840	218.1	0.143	25.550
75	21.802	21.787	36.840	213.2	0.203	25.677
100	21.125	21.106	36.839	198.9	0.259	25.866
125	20.358	20.334	36.759	204.2	0.311	26.015
150	19.855	19.828	36.721	194.6	0.361	26.121
200	18.935	18.899	36.637	190.7	0.454	26.299
250	18.471	18.426	36.597	192.4	0.542	26.389
300	18.105	18.053	36.546	191.1	0.627	26.444
400	17.366	17.298	36.429	190.9	0.793	26.539
500	15.764	15.685	36.136	173.6	0.951	26.694
600	13.710	13.623	35.793	159.3	1.094	26.880
700	11.399	11.308	35.473	146.5	1.219	27.087
800	9.114	9.023	35.217	148.6	1.323	27.285
900	7.261	7.171	35.089	167.5	1.409	27.465
1000	6.260	6.166	35.082	197.0	1.478	27.596
1100	5.649	5.550	35.085	217.0	1.538	27.677
1200	5.070	4.967	35.058	234.4	1.592	27.725
1300	4.747	4.637	35.037	243.6	1.642	27.747
1400	4.465	4.349	35.019	249.8	1.691	27.764
1500	4.192	4.070	34.994	255.5	1.739	27.774
1750	3.836	3.694	34.972	260.6	1.856	27.795
2000	3.574	3.413	34.964	261.4	1.971	27.817
2500	3.175	2.971	34.949	261.4	2.196	27.847
3000	2.775	2.529	34.926	263.7	2.417	27.868
3500	2.472	2.180	34.907	266.4	2.633	27.882
4000	2.336	1.992	34.895	265.9	2.850	27.888
4500	2.297	1.896	34.888	264.3	3.074	27.890
5000	2.283	1.821	34.881	261.7	3.310	27.890
5500	2.129	1.608	34.855	252.6	3.555	27.886

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5502	1	2.131	1.610	34.855	250.5
4373	2	2.306	1.920	34.890	265.1
4062	3	2.336	1.985	34.896	266.4
3757	4	2.405	2.087	34.903	267.2
3452	5	2.502	2.214	34.909	267.2
3143	6	2.689	2.430	34.922	266.1
2834	7	2.899	2.668	34.935	264.8
2530	8	3.163	2.957	34.951	261.4
2277	9	3.362	3.177	34.958	261.9
2025	10	3.570	3.406	34.965	262.0
1773	11	3.811	3.668	34.971	260.9
1511	12	4.196	4.073	34.997	255.6
1259	13	4.915	4.807	35.051	239.6
1008	14	6.243	6.148	35.083	199.2
507	15	15.603	15.523	36.107	172.5
507	16	15.604	15.524	36.108	172.2
357	17	17.668	17.606	36.475	191.2
257	18	18.406	18.361	36.584	191.3
207	19	18.861	18.824	36.633	191.5
157	20	19.857	19.828	36.720	193.9
107	21	21.022	21.001	36.813	198.1
57	22	22.107	22.096	36.859	219.3
3	23	25.441	25.440	36.637	206.8

Abaco April-May 2011 R/V Knorr  
 CTD Station 33 (CTD033)  
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 19-Apr-2011 23:16 Z



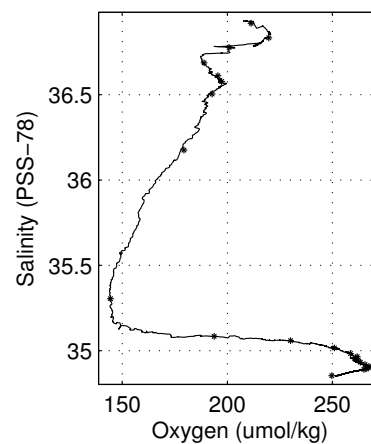
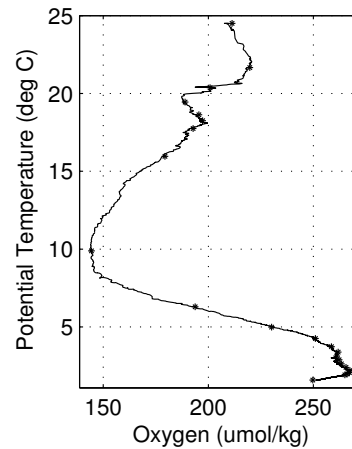
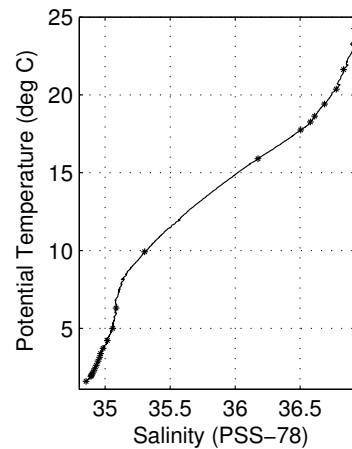
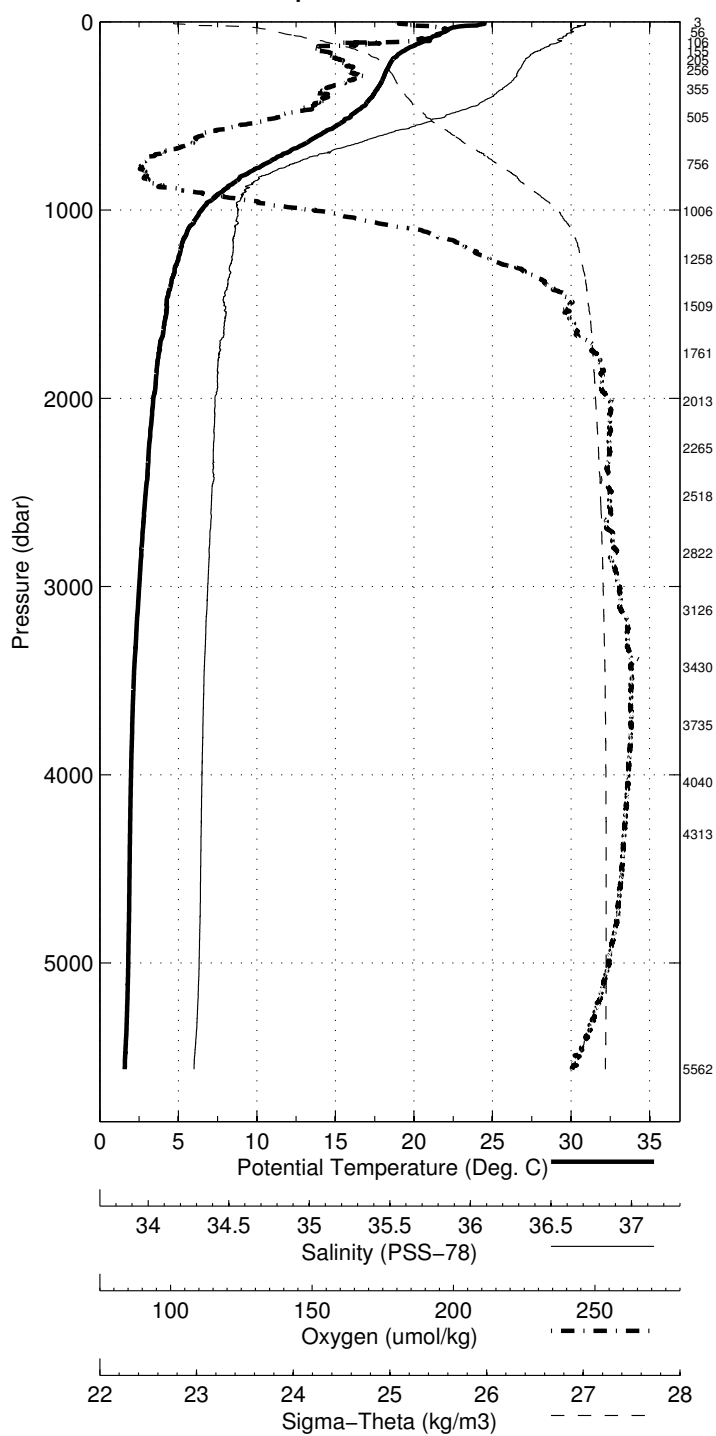


Abaco April-May 2011 R/V Knorr  
 CTD Station 34 (CTD034)  
 Latitude 26.502N Longitude 71.002W  
 20-Apr-2011 05:48Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.502	24.502	36.933	208.0	0.003	24.954
10	24.502	24.500	36.933	208.4	0.030	24.955
20	23.545	23.541	36.914	212.7	0.059	25.228
30	22.497	22.491	36.881	218.7	0.084	25.508
50	21.941	21.931	36.862	219.6	0.133	25.653
75	21.389	21.374	36.829	217.8	0.190	25.784
100	20.684	20.665	36.795	214.0	0.244	25.952
125	20.086	20.063	36.744	197.5	0.294	26.076
150	19.488	19.460	36.694	188.1	0.342	26.197
200	18.686	18.650	36.614	193.5	0.432	26.345
250	18.347	18.303	36.583	197.1	0.518	26.409
300	18.087	18.035	36.554	197.8	0.603	26.454
400	17.387	17.319	36.433	190.7	0.769	26.538
500	16.072	15.991	36.190	178.8	0.928	26.665
600	14.118	14.029	35.862	160.0	1.074	26.847
700	11.813	11.720	35.538	148.9	1.203	27.061
800	9.601	9.507	35.265	144.2	1.313	27.243
900	7.949	7.854	35.130	155.8	1.405	27.398
1000	6.549	6.453	35.085	187.4	1.481	27.561
1100	5.728	5.628	35.072	212.0	1.544	27.657
1200	5.268	5.163	35.061	225.6	1.600	27.704
1300	4.911	4.799	35.041	236.6	1.653	27.731
1400	4.630	4.512	35.032	245.6	1.704	27.756
1500	4.383	4.259	35.015	251.1	1.753	27.770
1750	3.941	3.798	34.992	256.7	1.871	27.801
2000	3.566	3.405	34.964	261.2	1.986	27.818
2500	3.125	2.923	34.948	261.3	2.209	27.851
3000	2.747	2.502	34.926	263.6	2.427	27.870
3500	2.451	2.160	34.906	266.7	2.641	27.883
4000	2.329	1.986	34.895	265.8	2.857	27.889
4500	2.295	1.894	34.888	264.2	3.081	27.891
5000	2.270	1.809	34.880	261.0	3.316	27.891
5500	2.128	1.607	34.856	253.2	3.559	27.886

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5563	1	2.121	1.593	34.854	249.7
4313	2	2.302	1.923	34.890	265.0
4041	3	2.320	1.972	34.894	266.1
3736	4	2.379	2.064	34.900	267.2
3431	5	2.479	2.195	34.908	267.4
3127	6	2.660	2.404	34.919	265.6
2822	7	2.852	2.622	34.933	263.4
2519	8	3.098	2.895	34.946	262.3
2266	9	3.327	3.144	34.958	261.1
2014	10	3.549	3.387	34.965	261.8
1761	11	3.858	3.716	34.984	258.6
1509	12	4.348	4.222	35.017	251.0
1258	13	5.114	5.005	35.059	230.1
1007	14	6.402	6.307	35.084	193.8
757	15	10.012	9.922	35.304	144.4
506	16	15.987	15.906	36.175	179.3
356	17	17.808	17.746	36.504	192.8
256	18	18.307	18.262	36.578	197.3
206	19	18.669	18.633	36.612	195.5
155	20	19.446	19.418	36.686	188.9
106	21	20.386	20.366	36.778	200.9
56	22	21.640	21.629	36.833	219.8
3	23	24.269	24.268	36.918	211.3

Abaco April-May 2011 R/V Knorr  
 CTD Station 34 (CTD034)  
 Latitude 26.502 N Longitude 71.002 W  
 20-Apr-2011 05:48 Z

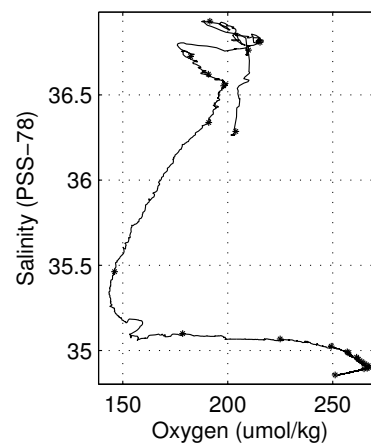
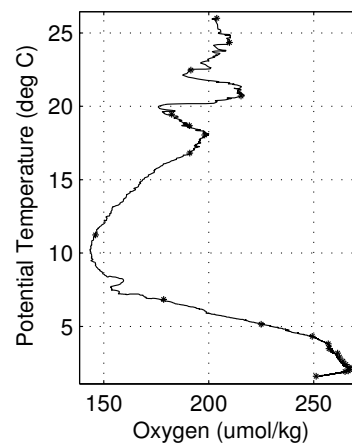
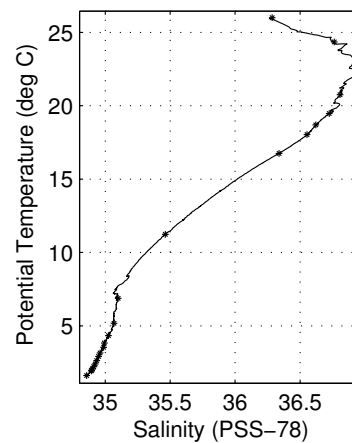
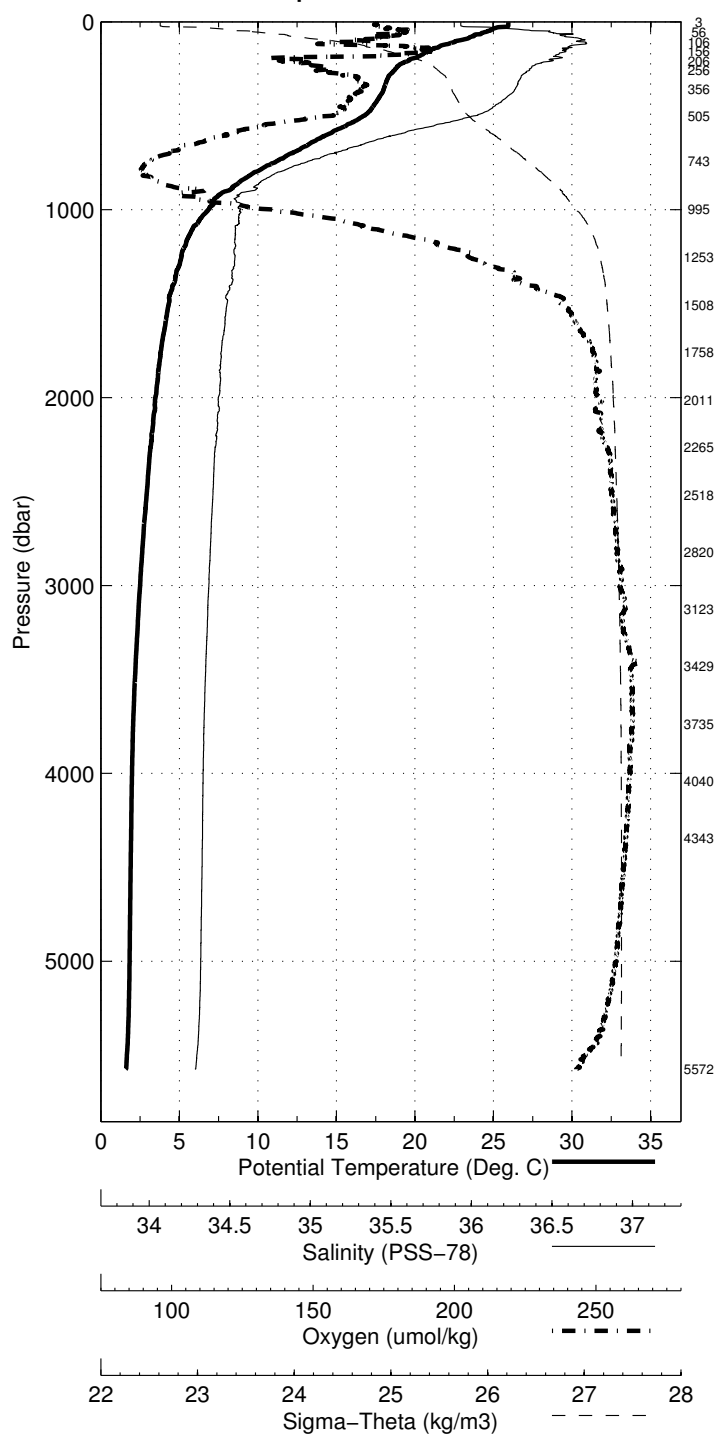


Abaco April-May 2011 R/V Knorr  
 CTD Station 35 (CTD035)  
 Latitude 26.514N Longitude 70.498W  
 20-Apr-2011 12:44Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.951	25.951	36.266	202.4	0.004	24.004
10	25.951	25.948	36.265	202.4	0.039	24.004
20	25.956	25.951	36.265	202.4	0.078	24.004
30	25.235	25.229	36.435	205.4	0.116	24.356
50	24.650	24.639	36.738	208.5	0.183	24.765
75	23.790	23.774	36.823	205.6	0.259	25.089
100	22.803	22.782	36.901	198.9	0.327	25.439
125	21.752	21.727	36.862	202.1	0.388	25.710
150	20.966	20.937	36.812	215.5	0.445	25.892
200	19.703	19.666	36.737	183.9	0.547	26.176
250	18.807	18.763	36.633	188.6	0.639	26.331
300	18.324	18.271	36.583	197.5	0.726	26.417
400	17.810	17.741	36.510	195.4	0.896	26.494
500	16.841	16.758	36.344	191.4	1.061	26.604
600	14.523	14.432	35.927	164.9	1.213	26.811
700	12.235	12.140	35.590	150.5	1.345	27.020
800	9.874	9.779	35.292	144.2	1.458	27.218
900	8.147	8.051	35.152	159.2	1.553	27.385
1000	6.942	6.843	35.093	176.6	1.632	27.514
1100	5.961	5.860	35.068	200.9	1.699	27.624
1200	5.413	5.307	35.065	220.1	1.758	27.691
1300	5.081	4.968	35.061	230.8	1.812	27.727
1400	4.729	4.610	35.045	239.3	1.863	27.756
1500	4.454	4.328	35.022	248.8	1.912	27.769
1750	3.972	3.829	34.993	256.5	2.032	27.798
2000	3.629	3.467	34.976	258.6	2.147	27.821
2500	3.140	2.938	34.948	261.3	2.371	27.850
3000	2.747	2.502	34.926	263.4	2.589	27.870
3500	2.460	2.169	34.907	266.2	2.803	27.883
4000	2.329	1.985	34.895	265.8	3.019	27.889
4500	2.301	1.900	34.890	264.1	3.243	27.891
5000	2.293	1.831	34.882	262.4	3.478	27.891
5500	2.180	1.657	34.862	254.6	3.725	27.887

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5573	1	2.138	1.608	34.857	251.2
4344	2	2.309	1.927	34.893	264.9
4040	3	2.323	1.975	34.896	266.5
3735	4	2.377	2.062	34.902	267.2
3429	5	2.498	2.214	34.911	266.9
3124	6	2.660	2.404	34.923	265.3
2821	7	2.859	2.629	34.935	263.8
2518	8	3.116	2.912	34.949	262.3
2266	9	3.339	3.156	34.960	261.4
2012	10	3.691	3.527	34.987	257.3
1758	11	3.964	3.820	34.993	257.0
1509	12	4.456	4.329	35.025	249.3
1253	13	5.281	5.170	35.068	225.0
995	14	6.973	6.875	35.100	178.5
744	15	11.329	11.233	35.463	146.0
505	16	16.838	16.754	36.339	190.9
356	17	18.091	18.029	36.554	198.1
257	18	18.733	18.687	36.621	190.8
207	19	19.509	19.471	36.725	182.3
157	20	20.780	20.750	36.808	215.4
107	21	22.475	22.453	36.933	191.5
57	22	24.358	24.346	36.763	209.9
3	23	26.004	26.004	36.286	203.8

Abaco April-May 2011 R/V Knorr  
 CTD Station 35 (CTD035)  
 Latitude 26.514 N Longitude 70.498 W  
 20-Apr-2011 12:44 Z

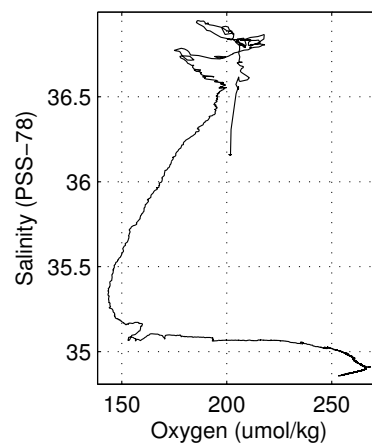
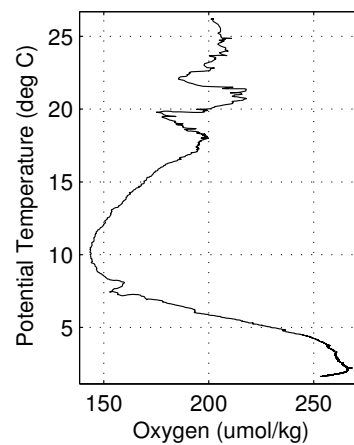
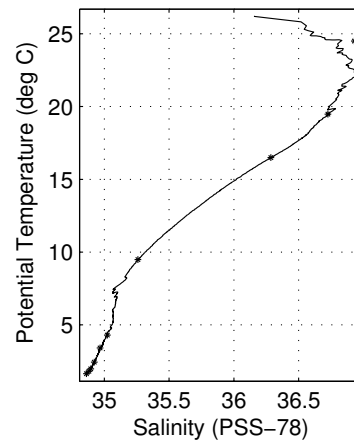
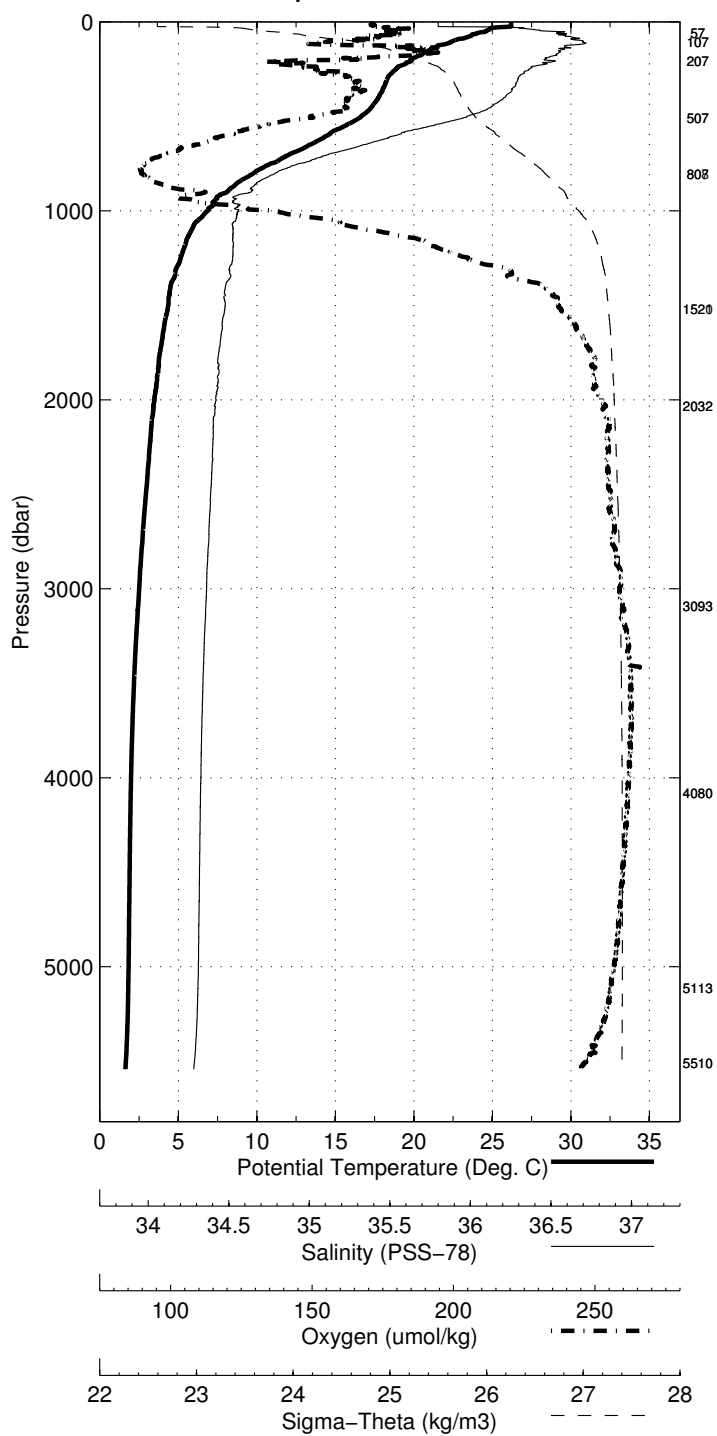


Abaco April-May 2011 R/V Knorr  
CTD Station 36 (CTD036)  
Latitude 26.538N Longitude 70.522W  
20-Apr-2011 19:32Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.197	26.196	36.161	201.1	0.004	23.848
10	26.199	26.197	36.159	201.8	0.040	23.847
20	26.201	26.197	36.160	202.0	0.081	23.847
30	25.223	25.217	36.572	204.4	0.119	24.463
50	24.593	24.582	36.757	205.7	0.185	24.797
75	23.611	23.595	36.835	202.1	0.259	25.152
100	22.549	22.529	36.929	191.0	0.326	25.534
125	21.560	21.535	36.837	202.4	0.385	25.745
150	21.004	20.975	36.808	212.3	0.441	25.878
200	19.854	19.817	36.727	198.0	0.544	26.128
250	18.925	18.880	36.647	187.4	0.637	26.312
300	18.360	18.307	36.585	196.3	0.725	26.410
400	17.825	17.756	36.514	195.8	0.896	26.493
500	16.723	16.640	36.313	186.2	1.060	26.608
600	14.595	14.504	35.937	165.1	1.212	26.803
700	12.197	12.102	35.577	150.1	1.345	27.018
800	9.902	9.806	35.293	143.9	1.457	27.214
900	8.209	8.112	35.164	159.8	1.552	27.385
1000	6.975	6.876	35.097	176.3	1.632	27.512
1100	5.951	5.849	35.067	200.3	1.698	27.625
1200	5.464	5.357	35.067	218.5	1.757	27.686
1300	5.008	4.896	35.048	234.5	1.811	27.726
1400	4.620	4.503	35.027	244.4	1.862	27.753
1500	4.482	4.356	35.025	248.1	1.911	27.768
1750	3.968	3.825	34.991	256.4	2.031	27.797
2000	3.647	3.485	34.978	258.8	2.147	27.821
2500	3.137	2.935	34.948	261.4	2.371	27.849
3000	2.751	2.506	34.926	263.4	2.589	27.870
3500	2.469	2.177	34.907	266.2	2.804	27.883
4000	2.334	1.990	34.896	265.7	3.020	27.889
4500	2.299	1.898	34.889	264.4	3.244	27.890
5000	2.294	1.832	34.883	262.1	3.479	27.891
5500	2.180	1.658	34.862	255.0	3.726	27.888

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5511	1	2.179	9.350	-999.000	<i>NaN</i>
5511	2	2.179	1.655	34.862	<i>NaN</i>
5113	3	2.291	9.079	-999.000	<i>NaN</i>
5113	4	2.291	1.814	34.880	<i>NaN</i>
4081	5	2.328	8.078	-999.000	<i>NaN</i>
4081	6	2.328	1.975	34.895	<i>NaN</i>
3093	7	2.699	7.270	-999.000	<i>NaN</i>
3093	8	2.699	2.445	34.922	<i>NaN</i>
2033	9	3.577	6.694	-999.000	<i>NaN</i>
2033	10	3.577	3.412	34.967	<i>NaN</i>
1521	11	4.424	6.768	-999.000	<i>NaN</i>
1521	12	4.424	4.297	35.023	<i>NaN</i>
808	13	9.579	10.675	-999.000	<i>NaN</i>
808	14	9.579	9.484	35.259	<i>NaN</i>
507	15	16.572	17.098	-999.000	<i>NaN</i>
507	16	16.572	16.489	36.285	<i>NaN</i>
207	17	19.517	19.705	-999.000	<i>NaN</i>
207	18	19.515	19.477	36.727	<i>NaN</i>
107	19	22.328	22.411	-999.000	<i>NaN</i>
107	20	22.330	22.413	-999.000	<i>NaN</i>
58	21	24.508	24.547	-999.000	<i>NaN</i>
58	22	24.509	24.497	36.931	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 36 (CTD036)  
 Latitude 26.538 N Longitude 70.522 W  
 20-Apr-2011 19:32 Z

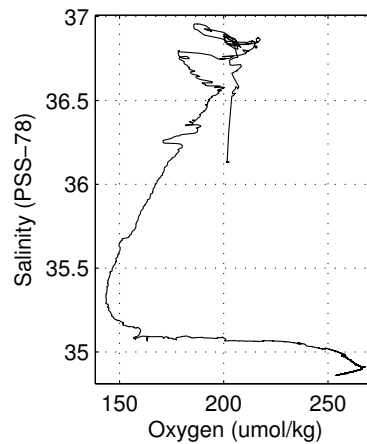
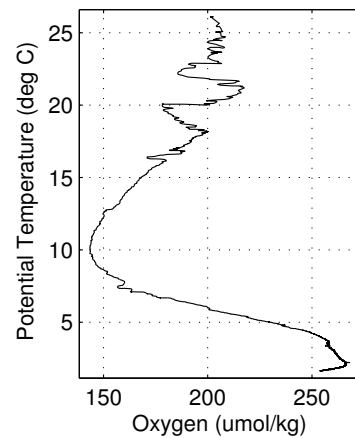
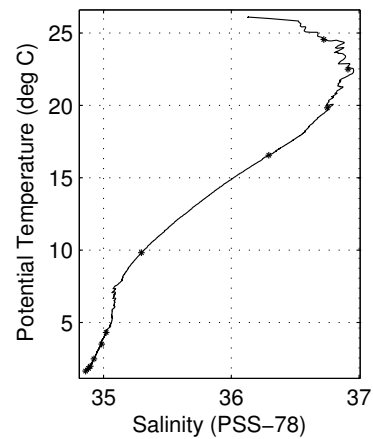
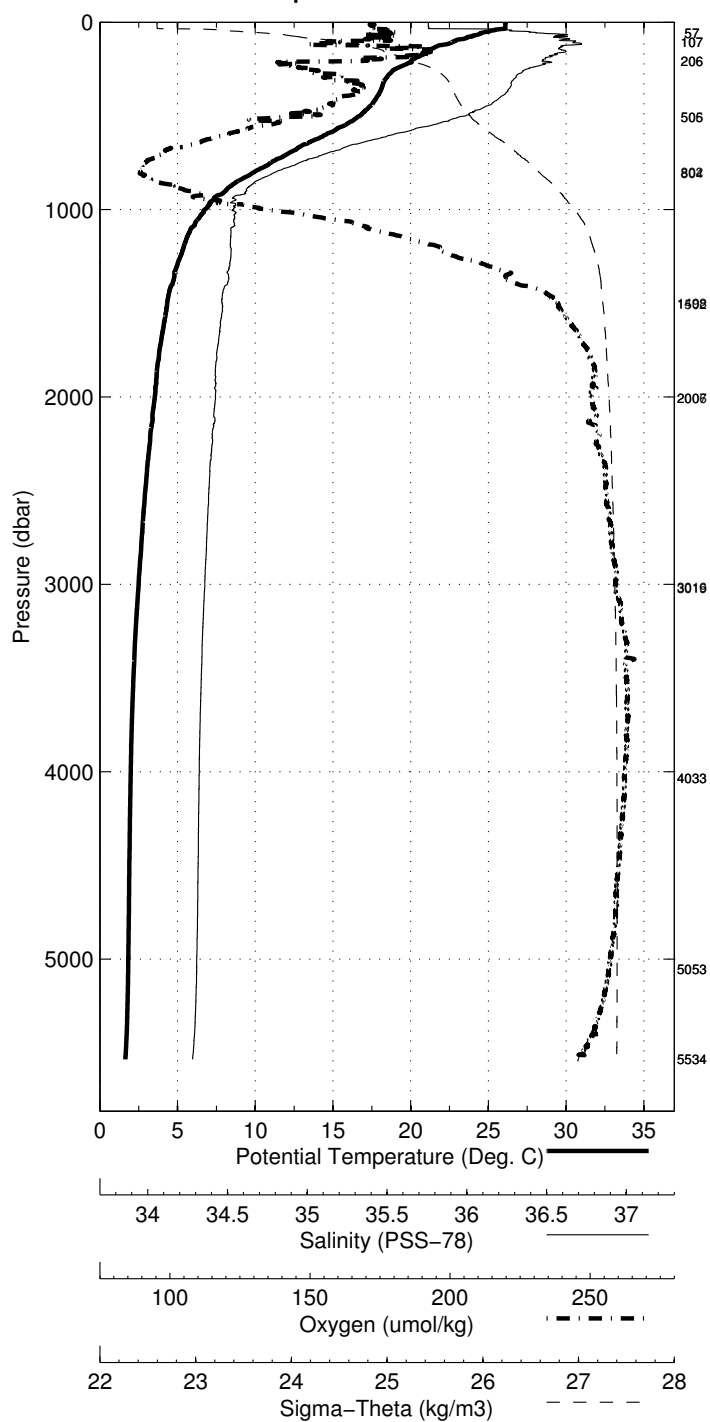


Abaco April-May 2011 R/V Knorr  
 CTD Station 37 (CTD037)  
 Latitude 26.507N Longitude 70.501W  
 21-Apr-2011 02:27Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.099	26.099	36.132	201.2	0.004	23.856
10	26.095	26.092	36.131	201.5	0.040	23.858
20	26.102	26.097	36.131	202.2	0.081	23.857
30	26.101	26.095	36.133	202.0	0.121	23.859
50	25.056	25.045	36.674	205.8	0.194	24.593
75	24.007	23.991	36.881	201.3	0.271	25.069
100	22.913	22.892	36.926	192.3	0.340	25.426
125	21.802	21.777	36.855	200.8	0.402	25.691
150	21.314	21.284	36.870	215.7	0.459	25.840
200	20.122	20.085	36.748	198.8	0.565	26.073
250	19.046	19.000	36.664	184.2	0.660	26.293
300	18.465	18.412	36.598	190.7	0.749	26.393
400	17.892	17.823	36.520	194.1	0.920	26.481
500	16.804	16.721	36.329	187.6	1.086	26.601
600	14.644	14.553	35.942	165.0	1.238	26.796
700	12.235	12.140	35.582	149.2	1.371	27.015
800	10.015	9.919	35.306	143.7	1.484	27.205
900	8.179	8.083	35.150	155.8	1.578	27.379
1000	6.869	6.770	35.078	175.5	1.658	27.512
1100	5.962	5.861	35.066	200.6	1.725	27.623
1200	5.491	5.384	35.064	219.1	1.784	27.680
1300	5.083	4.970	35.060	231.0	1.838	27.727
1400	4.779	4.660	35.046	238.9	1.890	27.751
1500	4.452	4.327	35.018	248.8	1.940	27.766
1750	3.975	3.832	34.992	256.3	2.060	27.797
2000	3.698	3.535	34.983	257.4	2.176	27.820
2500	3.128	2.925	34.948	261.0	2.400	27.850
3000	2.738	2.493	34.926	263.3	2.618	27.871
3500	2.452	2.161	34.907	265.9	2.831	27.884
4000	2.331	1.987	34.896	265.5	3.047	27.889
4500	2.298	1.897	34.889	264.0	3.270	27.891
5000	2.291	1.829	34.882	262.0	3.506	27.891
5500	2.192	1.669	34.863	255.1	3.752	27.888

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5534	1	2.171	9.365	-999.000	<i>NaN</i>
5534	2	2.171	1.645	34.859	<i>NaN</i>
5054	3	2.293	9.025	-999.000	<i>NaN</i>
5053	4	2.293	1.824	34.882	<i>NaN</i>
4033	5	2.328	8.027	-999.000	<i>NaN</i>
4033	6	2.329	1.982	34.895	<i>NaN</i>
3017	7	2.734	7.207	-999.000	<i>NaN</i>
3019	8	2.731	2.484	34.925	<i>NaN</i>
2007	9	3.675	6.748	-999.000	<i>NaN</i>
2008	10	3.677	3.513	34.985	<i>NaN</i>
1502	11	4.440	6.757	-999.000	<i>NaN</i>
1499	12	4.441	4.316	35.019	<i>NaN</i>
803	13	10.028	11.100	-999.000	<i>NaN</i>
804	14	9.918	9.822	35.296	<i>NaN</i>
506	15	16.614	17.138	-999.000	<i>NaN</i>
506	16	16.636	16.552	36.293	<i>NaN</i>
206	17	19.878	20.062	-999.000	<i>NaN</i>
206	18	19.876	19.837	36.751	<i>NaN</i>
107	19	22.512	22.594	-999.000	<i>NaN</i>
107	20	22.521	22.500	36.913	<i>NaN</i>
57	21	24.550	24.589	-999.000	<i>NaN</i>
57	22	24.570	24.558	36.724	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 37 (CTD037)  
 Latitude 26.507 N Longitude 70.501 W  
 21-Apr-2011 02:27 Z



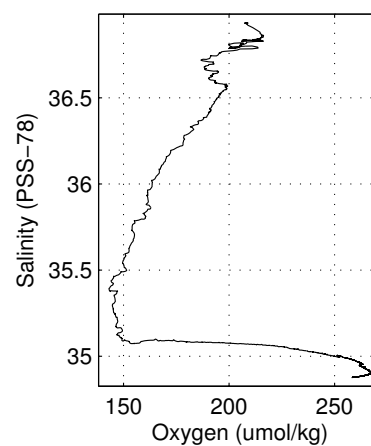
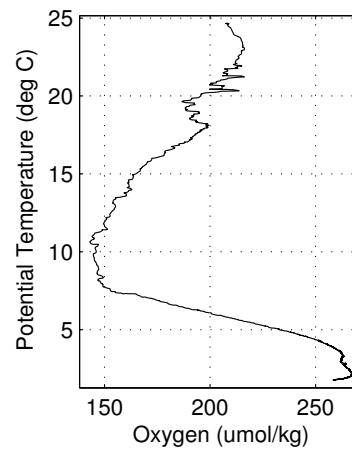
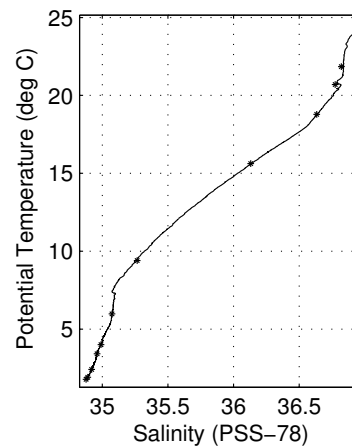
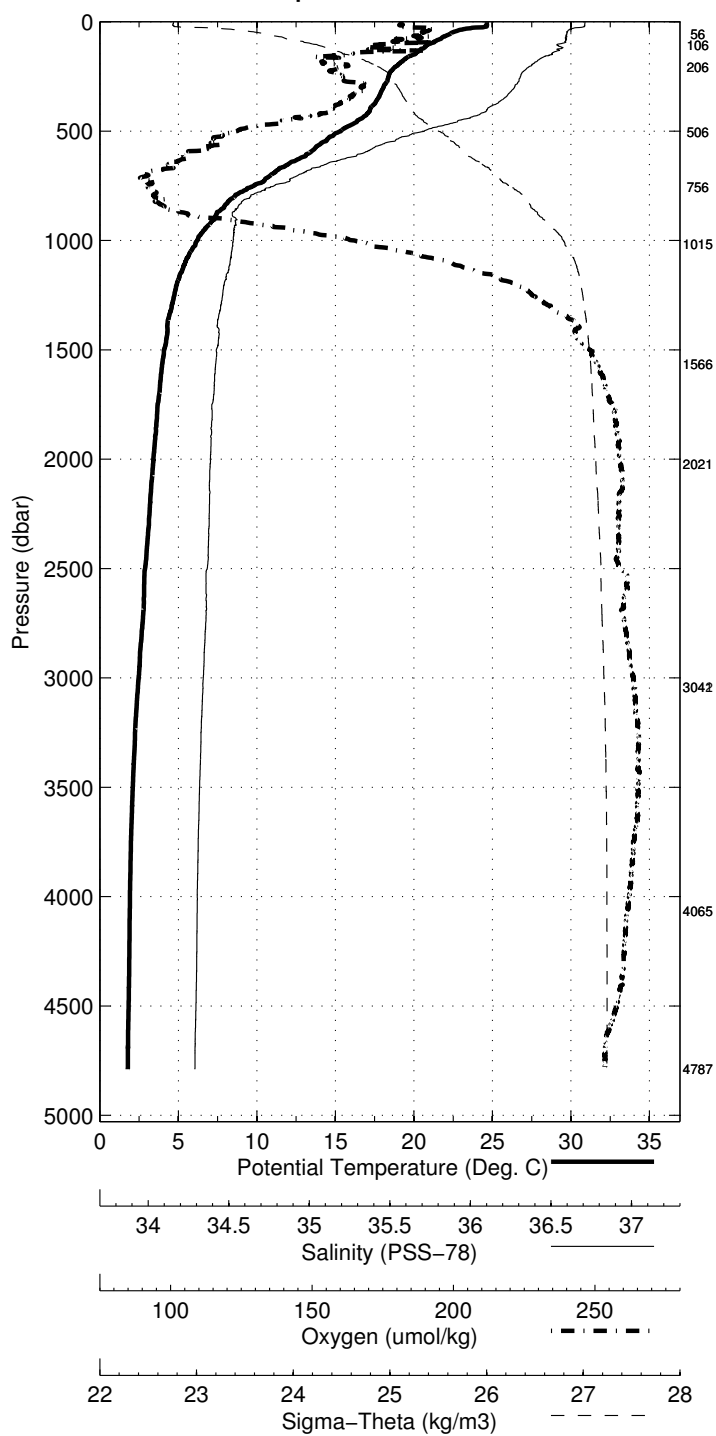


Abaco April-May 2011 R/V Knorr  
 CTD Station 38 (CTD038)  
 Latitude 26.486N Longitude 75.813W  
 24-Apr-2011 00:35Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.640	24.640	36.936	208.0	0.003	24.915
10	24.648	24.646	36.934	208.6	0.030	24.912
20	24.625	24.620	36.931	208.5	0.061	24.918
30	23.461	23.455	36.869	215.3	0.090	25.219
50	22.415	22.405	36.840	213.5	0.142	25.501
75	21.779	21.765	36.833	211.3	0.202	25.677
100	21.044	21.025	36.805	204.9	0.258	25.862
125	20.459	20.435	36.787	201.6	0.310	26.009
150	20.022	19.994	36.763	195.4	0.361	26.109
200	19.000	18.964	36.654	194.4	0.453	26.295
250	18.425	18.381	36.594	193.3	0.540	26.398
300	18.118	18.066	36.563	198.0	0.626	26.454
400	17.276	17.208	36.419	190.9	0.791	26.554
500	15.421	15.342	36.085	167.0	0.947	26.733
600	13.430	13.344	35.766	154.4	1.084	26.916
700	10.978	10.890	35.424	145.1	1.205	27.126
800	8.668	8.580	35.170	146.6	1.306	27.319
900	7.396	7.305	35.094	163.9	1.390	27.450
1000	6.289	6.195	35.079	196.4	1.461	27.590
1100	5.538	5.440	35.062	220.3	1.521	27.672
1200	5.008	4.905	35.032	236.7	1.575	27.711
1300	4.690	4.581	35.014	245.3	1.627	27.734
1400	4.421	4.306	35.001	252.3	1.677	27.754
1500	4.216	4.093	34.990	255.0	1.725	27.768
1750	3.818	3.677	34.967	261.1	1.843	27.793
2000	3.571	3.409	34.959	262.9	1.959	27.813
2500	3.084	2.882	34.942	262.5	2.184	27.850
3000	2.719	2.475	34.921	266.0	2.403	27.869
3500	2.389	2.100	34.902	267.0	2.614	27.885
4000	2.263	1.921	34.890	264.9	2.826	27.889
4500	2.233	1.834	34.883	261.8	3.046	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4787	1	2.214	8.707	-999.000	<i>NaN</i>
4787	2	2.214	1.780	34.876	<i>NaN</i>
4066	3	2.260	8.005	-999.000	<i>NaN</i>
4066	4	2.260	1.911	34.888	<i>NaN</i>
3042	5	2.662	7.175	-999.000	<i>NaN</i>
3042	6	2.662	2.414	34.918	<i>NaN</i>
2022	7	3.580	6.682	-999.000	<i>NaN</i>
2022	8	3.580	3.417	34.960	<i>NaN</i>
1567	9	4.141	6.570	-999.000	<i>NaN</i>
1567	10	4.141	4.013	34.990	<i>NaN</i>
1015	11	6.073	7.605	-999.000	<i>NaN</i>
1015	12	6.073	5.979	35.073	<i>NaN</i>
756	13	9.505	10.537	-999.000	<i>NaN</i>
756	14	9.497	9.409	35.265	<i>NaN</i>
506	15	15.707	16.253	-999.000	<i>NaN</i>
506	16	15.707	15.626	36.130	<i>NaN</i>
206	17	18.823	19.017	-999.000	<i>NaN</i>
206	18	18.823	18.787	36.632	<i>NaN</i>
106	19	20.715	20.805	-999.000	<i>NaN</i>
106	20	20.715	20.695	36.774	<i>NaN</i>
56	21	21.861	21.906	-999.000	<i>NaN</i>
57	22	21.858	21.847	36.820	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 38 (CTD038)  
 Latitude 26.486 N Longitude 75.813 W  
 24-Apr-2011 00:35 Z

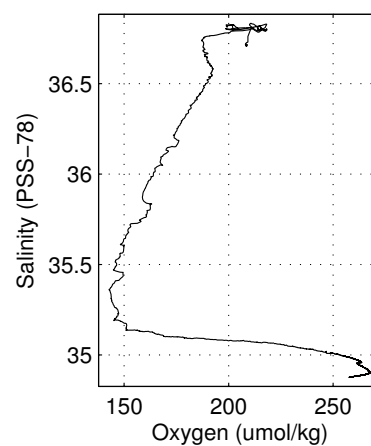
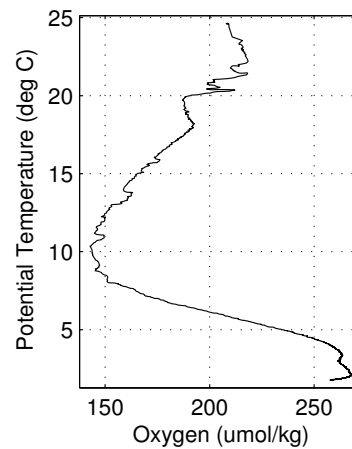
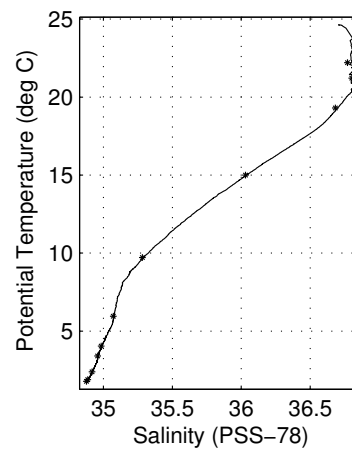
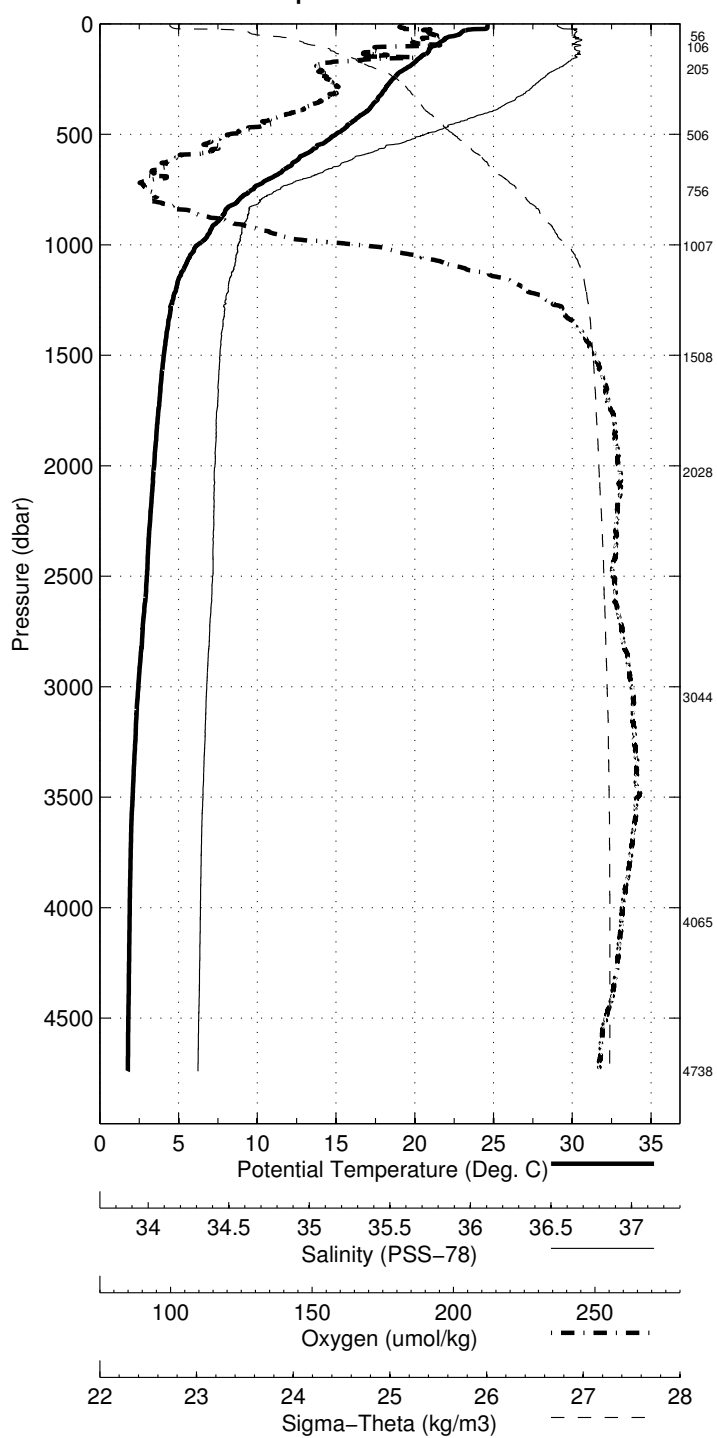


Abaco April-May 2011 R/V Knorr  
 CTD Station 39 (CTD039)  
 Latitude 26.503N Longitude 75.713W  
 25-Apr-2011 04:01Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.627	24.626	36.710	208.4	0.003	24.748
10	24.626	24.624	36.709	208.0	0.032	24.748
20	24.597	24.593	36.731	209.2	0.064	24.774
30	23.227	23.220	36.802	215.5	0.093	25.237
50	22.727	22.717	36.795	216.7	0.146	25.377
75	21.845	21.830	36.831	210.4	0.207	25.658
100	21.251	21.232	36.816	213.7	0.265	25.813
125	20.887	20.863	36.822	202.5	0.319	25.920
150	20.413	20.385	36.809	208.0	0.371	26.039
200	19.524	19.487	36.719	187.9	0.468	26.209
250	18.631	18.587	36.628	189.7	0.558	26.372
300	18.137	18.085	36.567	191.9	0.644	26.452
400	16.924	16.857	36.358	181.3	0.807	26.591
500	15.059	14.981	36.035	165.2	0.958	26.774
600	12.810	12.726	35.679	152.1	1.092	26.974
700	10.872	10.784	35.423	148.3	1.210	27.144
800	8.878	8.789	35.193	145.1	1.310	27.303
900	7.505	7.413	35.113	165.9	1.395	27.449
1000	6.311	6.217	35.082	197.4	1.467	27.589
1100	5.473	5.375	35.061	223.0	1.527	27.679
1200	4.943	4.840	35.031	239.9	1.580	27.718
1300	4.579	4.471	35.011	248.9	1.630	27.744
1400	4.349	4.234	34.996	254.0	1.679	27.758
1500	4.190	4.067	34.988	256.9	1.727	27.770
1750	3.859	3.717	34.973	261.1	1.845	27.794
2000	3.612	3.450	34.963	262.8	1.961	27.813
2500	3.190	2.986	34.952	261.7	2.187	27.848
3000	2.688	2.444	34.921	266.3	2.406	27.872
3500	2.377	2.088	34.902	267.8	2.616	27.886
4000	2.241	1.900	34.889	263.9	2.826	27.891
4500	2.208	1.810	34.880	260.0	3.046	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4738	2	2.206	1.779	34.876	<i>NaN</i>
4065	4	2.236	1.888	34.887	<i>NaN</i>
3045	6	2.637	2.389	34.917	<i>NaN</i>
2029	8	3.573	3.409	34.958	<i>NaN</i>
1508	10	4.169	4.046	34.984	<i>NaN</i>
1007	12	6.051	5.958	35.072	<i>NaN</i>
757	14	9.807	9.717	35.282	<i>NaN</i>
506	16	15.082	15.004	36.030	<i>NaN</i>
206	18	19.336	19.298	36.683	<i>NaN</i>
106	20	21.234	21.213	36.803	<i>NaN</i>
56	22	22.212	22.201	36.771	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 39 (CTD039)  
 Latitude 26.503 N Longitude 75.713 W  
 25-Apr-2011 04:01 Z

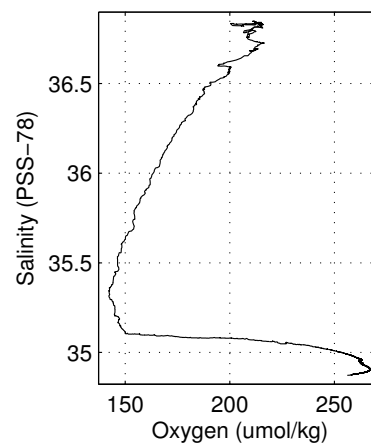
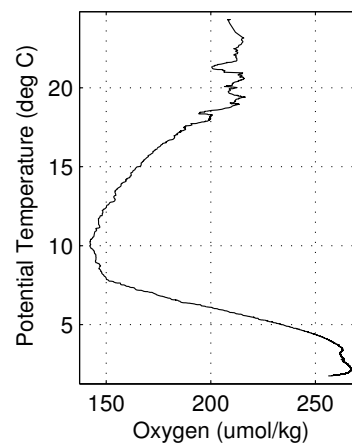
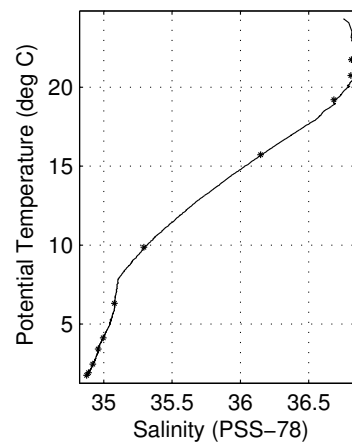
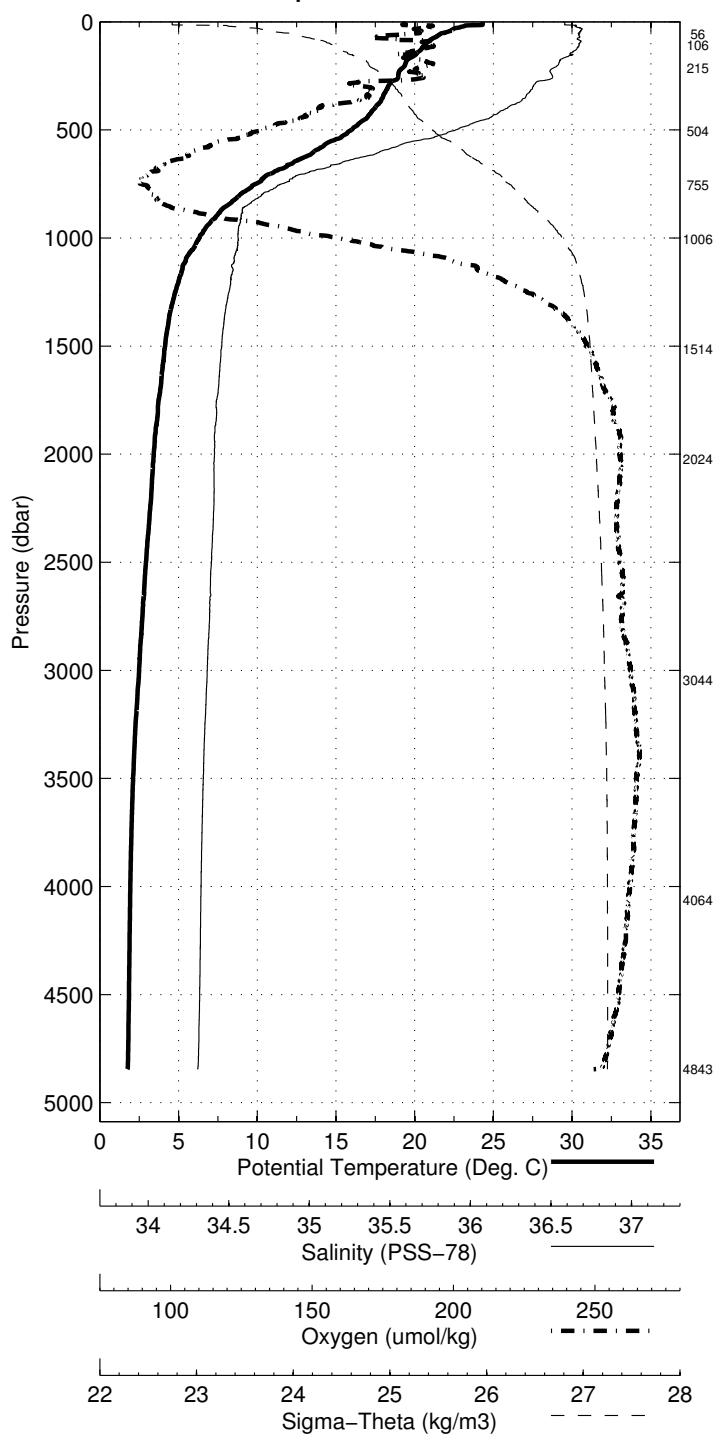


Abaco April-May 2011 R/V Knorr  
 CTD Station 40 (CTD040)  
 Latitude 26.501N Longitude 76.088W  
 26-Apr-2011 03:35Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.323	24.323	36.759	208.2	0.003	24.877
10	24.325	24.322	36.757	208.2	0.031	24.876
20	23.157	23.153	36.812	215.2	0.060	25.264
30	22.559	22.553	36.840	212.4	0.086	25.459
50	21.912	21.902	36.830	212.1	0.135	25.637
75	21.206	21.192	36.823	201.3	0.191	25.830
100	20.729	20.709	36.829	214.5	0.244	25.967
125	20.469	20.445	36.819	213.4	0.295	26.031
150	20.115	20.087	36.784	206.6	0.345	26.100
200	19.421	19.384	36.722	215.0	0.439	26.238
250	19.003	18.958	36.694	212.1	0.530	26.327
300	18.355	18.302	36.594	198.8	0.618	26.418
400	17.529	17.460	36.463	187.3	0.786	26.526
500	16.057	15.977	36.197	172.5	0.945	26.675
600	13.685	13.598	35.810	155.3	1.088	26.898
700	11.023	10.934	35.432	145.2	1.211	27.124
800	8.989	8.899	35.204	145.8	1.313	27.295
900	7.471	7.380	35.098	161.3	1.400	27.443
1000	6.415	6.320	35.082	191.7	1.472	27.576
1100	5.566	5.468	35.061	220.5	1.533	27.668
1200	5.109	5.005	35.043	233.9	1.588	27.709
1300	4.728	4.618	35.023	244.6	1.640	27.737
1400	4.455	4.339	35.008	250.9	1.689	27.756
1500	4.273	4.150	34.998	254.3	1.738	27.769
1750	3.867	3.725	34.970	260.7	1.857	27.791
2000	3.590	3.429	34.960	262.8	1.974	27.813
2500	3.135	2.933	34.944	262.6	2.200	27.847
3000	2.740	2.495	34.923	265.4	2.419	27.869
3500	2.406	2.116	34.903	266.8	2.631	27.885
4000	2.280	1.938	34.891	265.2	2.844	27.890
4500	2.250	1.850	34.884	262.4	3.066	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4844	2	2.197	1.757	34.874	<i>NaN</i>
4065	4	2.272	1.922	34.888	<i>NaN</i>
3045	6	2.709	2.460	34.919	<i>NaN</i>
2024	8	3.583	3.420	34.959	<i>NaN</i>
1515	10	4.255	4.130	34.997	<i>NaN</i>
1007	12	6.410	6.315	35.078	<i>NaN</i>
755	14	9.959	9.869	35.294	<i>NaN</i>
505	16	15.806	15.725	36.147	<i>NaN</i>
216	18	19.247	19.208	36.684	<i>NaN</i>
107	20	20.765	20.745	36.808	<i>NaN</i>
57	22	21.756	21.745	36.812	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 40 (CTD040)  
 Latitude 26.501 N Longitude 76.088 W  
 26-Apr-2011 03:35 Z

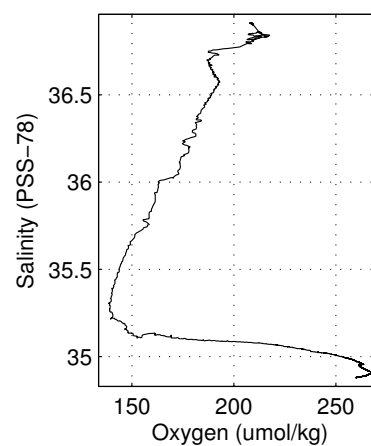
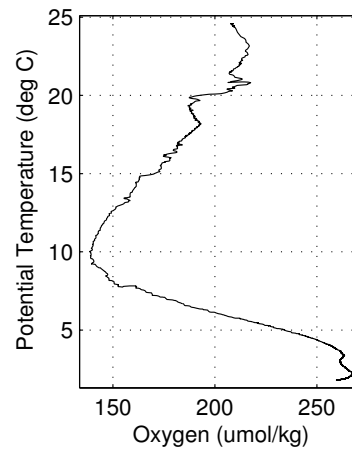
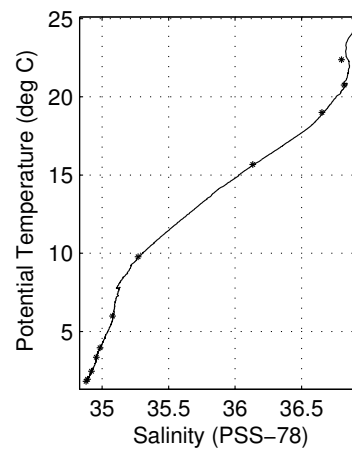
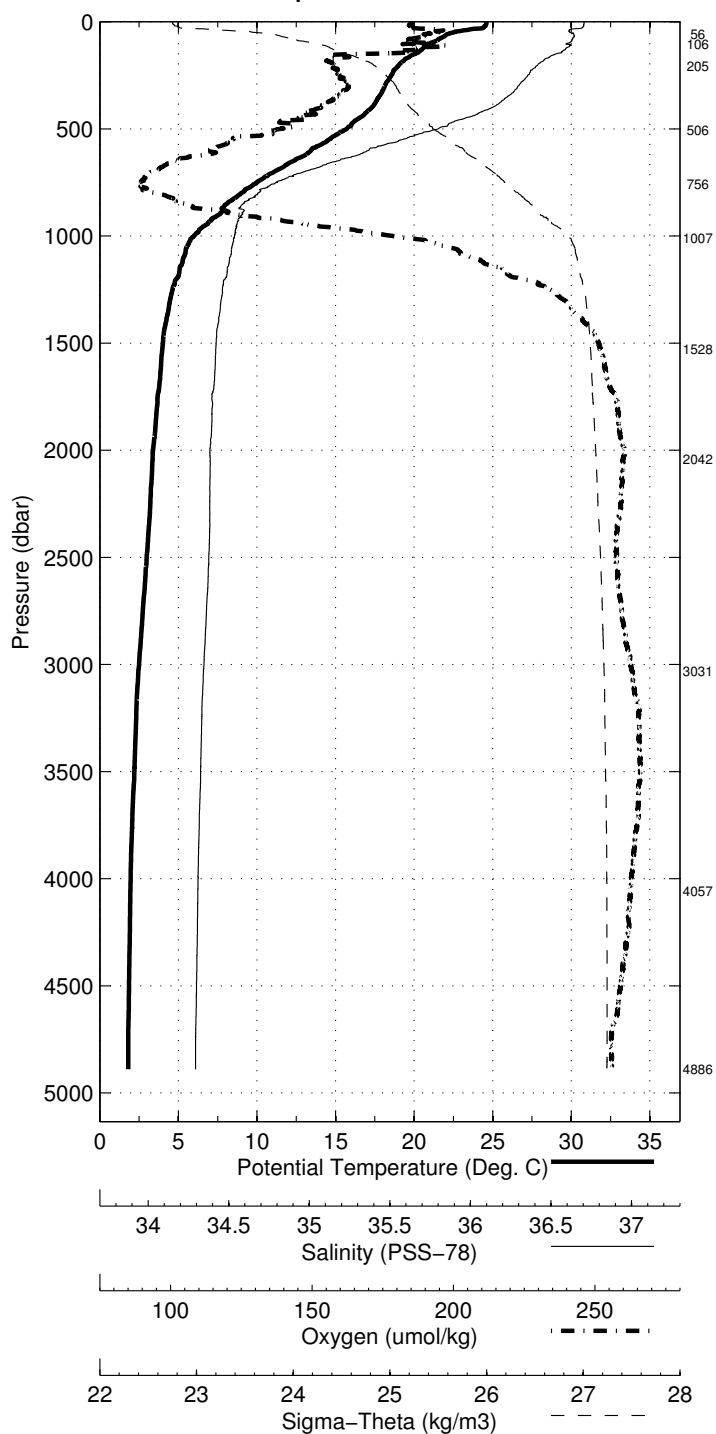


Abaco April-May 2011 R/V Knorr  
 CTD Station 41 (CTD041)  
 Latitude 26.491N Longitude 76.469W  
 27-Apr-2011 01:37Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.600	24.600	36.912	208.6	0.003	24.909
10	24.598	24.595	36.912	209.0	0.030	24.910
20	24.517	24.513	36.910	208.7	0.061	24.934
30	24.340	24.333	36.895	209.9	0.091	24.977
50	22.475	22.465	36.843	214.7	0.145	25.486
75	21.726	21.711	36.852	209.8	0.204	25.708
100	21.027	21.008	36.827	212.8	0.260	25.884
125	20.571	20.547	36.815	209.0	0.312	26.000
150	20.072	20.044	36.764	194.8	0.362	26.096
200	19.089	19.053	36.670	189.1	0.456	26.285
250	18.587	18.543	36.617	189.6	0.544	26.374
300	18.171	18.119	36.565	192.3	0.630	26.442
400	17.369	17.301	36.431	185.4	0.797	26.541
500	15.793	15.713	36.148	174.8	0.953	26.697
600	13.539	13.453	35.786	155.5	1.094	26.909
700	11.170	11.080	35.444	142.2	1.216	27.107
800	9.071	8.980	35.205	143.2	1.321	27.282
900	7.663	7.570	35.122	164.2	1.408	27.433
1000	6.071	5.978	35.083	203.9	1.478	27.621
1100	5.402	5.305	35.059	224.4	1.535	27.686
1200	4.995	4.893	35.036	237.2	1.588	27.717
1300	4.571	4.463	35.013	247.9	1.639	27.746
1400	4.332	4.217	35.001	252.9	1.687	27.764
1500	4.141	4.019	34.988	256.8	1.735	27.774
1750	3.822	3.681	34.966	261.4	1.852	27.792
2000	3.544	3.384	34.956	263.4	1.968	27.813
2500	3.187	2.983	34.949	261.4	2.195	27.846
3000	2.745	2.500	34.924	264.8	2.415	27.869
3500	2.490	2.198	34.906	267.4	2.630	27.881
4000	2.304	1.961	34.893	265.0	2.846	27.889
4500	2.256	1.856	34.885	262.4	3.068	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4887	2	2.260	1.813	34.879	<i>NaN</i>
4057	4	2.295	1.946	34.891	<i>NaN</i>
3032	6	2.709	2.461	34.920	<i>NaN</i>
2042	8	3.522	3.358	34.956	<i>NaN</i>
1528	10	4.090	3.966	34.985	<i>NaN</i>
1007	12	6.079	5.986	35.079	<i>NaN</i>
757	14	9.863	9.774	35.271	<i>NaN</i>
506	16	15.761	15.680	36.133	<i>NaN</i>
206	18	19.035	18.998	36.653	<i>NaN</i>
106	20	20.776	20.755	36.820	<i>NaN</i>
56	22	22.392	22.381	36.800	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 41 (CTD041)  
 Latitude 26.491 N Longitude 76.469 W  
 27-Apr-2011 01:37 Z



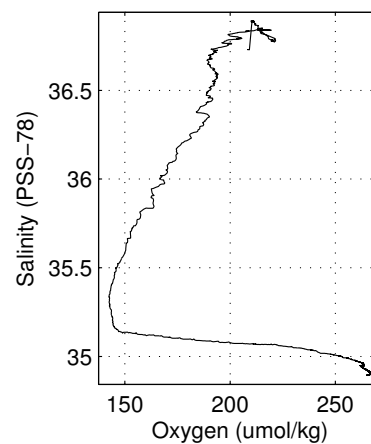
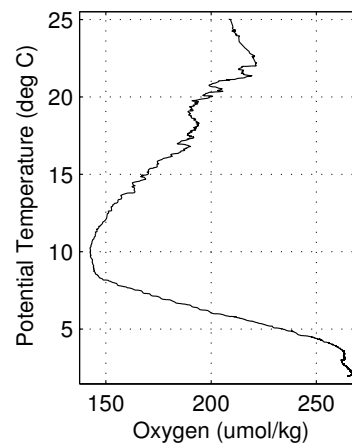
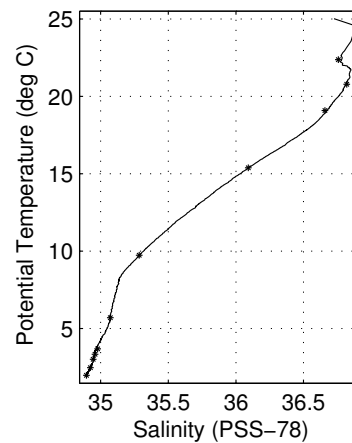
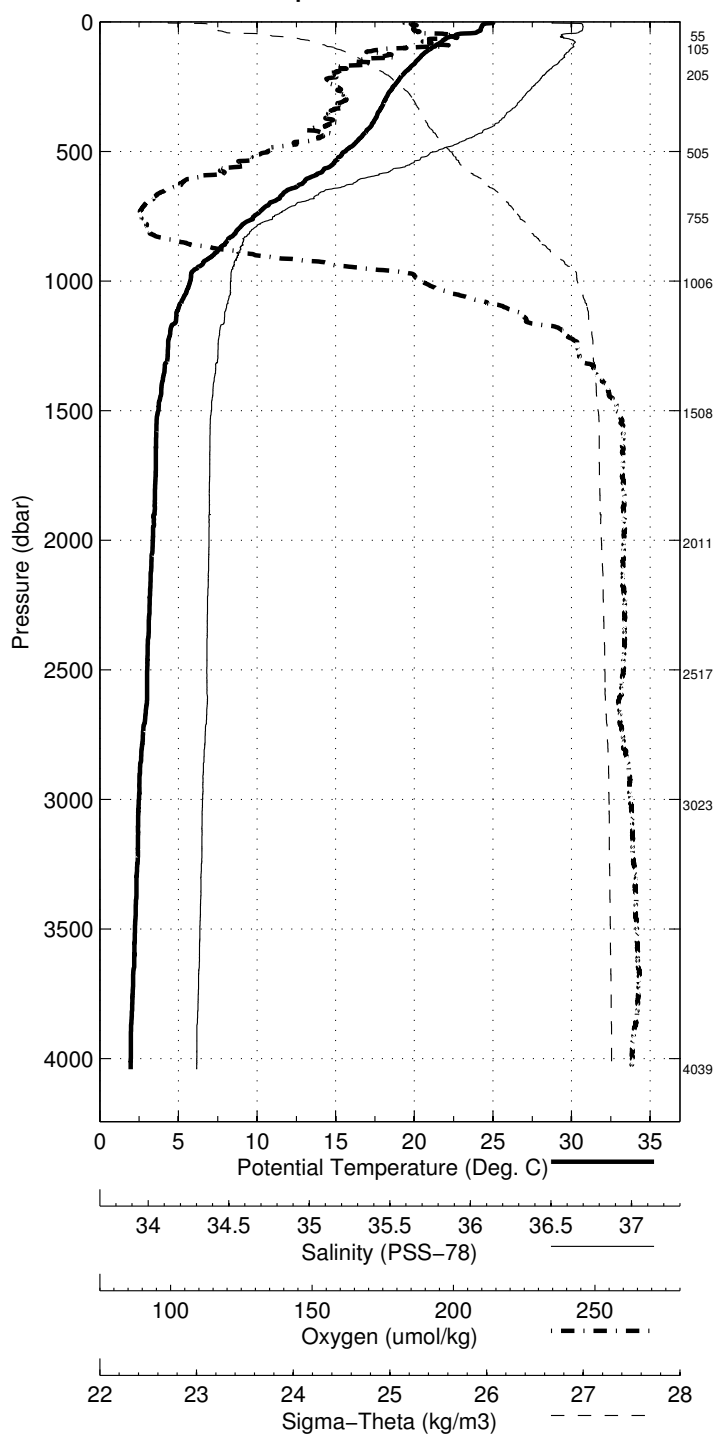


Abaco April-May 2011 R/V Knorr  
 CTD Station 42 (CTD042)  
 Latitude 26.497N Longitude 76.650W  
 28-Apr-2011 22:48Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.017	25.016	36.731	208.4	0.003	24.645
10	24.377	24.375	36.888	210.5	0.032	24.959
20	24.276	24.272	36.890	209.9	0.061	24.992
30	24.230	24.224	36.888	210.8	0.091	25.004
50	22.647	22.637	36.778	220.7	0.148	25.388
75	21.800	21.786	36.844	213.5	0.209	25.680
100	21.137	21.117	36.834	207.3	0.265	25.858
125	20.566	20.542	36.797	204.6	0.318	25.988
150	20.184	20.156	36.771	197.1	0.369	26.072
200	19.387	19.351	36.697	190.6	0.465	26.228
250	18.695	18.651	36.631	190.6	0.555	26.358
300	18.223	18.170	36.574	193.9	0.641	26.436
400	17.356	17.288	36.432	189.0	0.807	26.545
500	15.689	15.610	36.132	174.2	0.964	26.708
600	13.468	13.382	35.774	156.7	1.106	26.915
700	10.885	10.797	35.412	144.0	1.226	27.133
800	8.869	8.780	35.183	144.5	1.328	27.297
900	7.310	7.219	35.107	171.2	1.413	27.472
1000	5.848	5.758	35.071	212.1	1.478	27.640
1100	5.126	5.031	35.048	233.2	1.533	27.709
1200	4.572	4.473	35.012	248.2	1.583	27.745
1300	4.407	4.301	35.002	252.3	1.631	27.756
1400	4.048	3.937	34.979	258.8	1.678	27.776
1500	3.841	3.722	34.970	261.3	1.723	27.791
1750	3.698	3.559	34.961	262.9	1.834	27.800
2000	3.537	3.376	34.957	263.2	1.948	27.815
2500	3.217	3.013	34.945	263.0	2.175	27.840
3000	2.734	2.489	34.925	264.9	2.397	27.871
3500	2.526	2.232	34.910	266.4	2.614	27.881
4000	2.312	1.969	34.894	265.2	2.831	27.889

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4040	2	2.318	1.970	34.894	<i>NaN</i>
3024	4	2.715	2.468	34.924	<i>NaN</i>
2517	6	3.221	3.015	34.944	<i>NaN</i>
2012	8	3.498	3.337	34.958	<i>NaN</i>
1508	10	3.802	3.683	34.978	<i>NaN</i>
1007	12	5.785	5.694	35.071	<i>NaN</i>
756	14	9.828	9.739	35.285	<i>NaN</i>
505	16	15.473	15.393	36.092	<i>NaN</i>
205	18	19.125	19.088	36.659	<i>NaN</i>
106	20	20.808	20.787	36.820	<i>NaN</i>
56	22	22.389	22.378	36.757	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 42 (CTD042)  
 Latitude 26.497 N Longitude 76.650 W  
 28-Apr-2011 22:48 Z

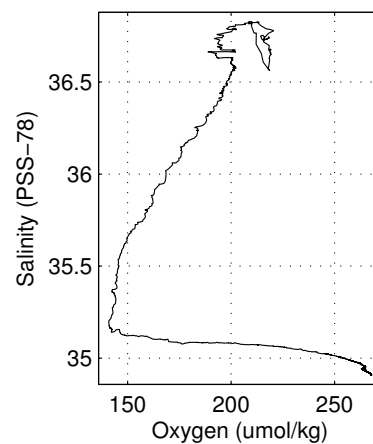
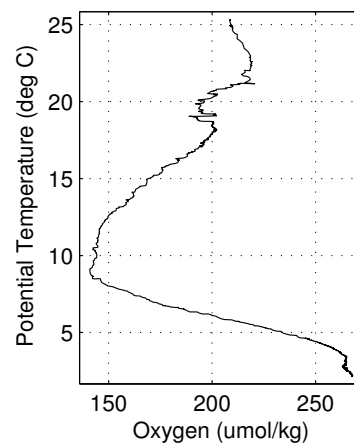
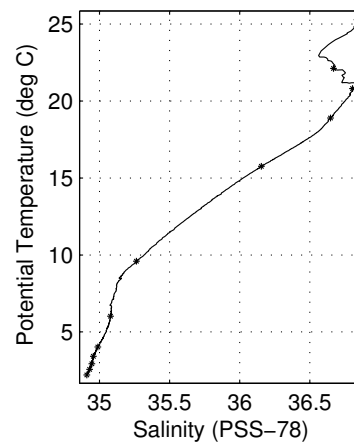
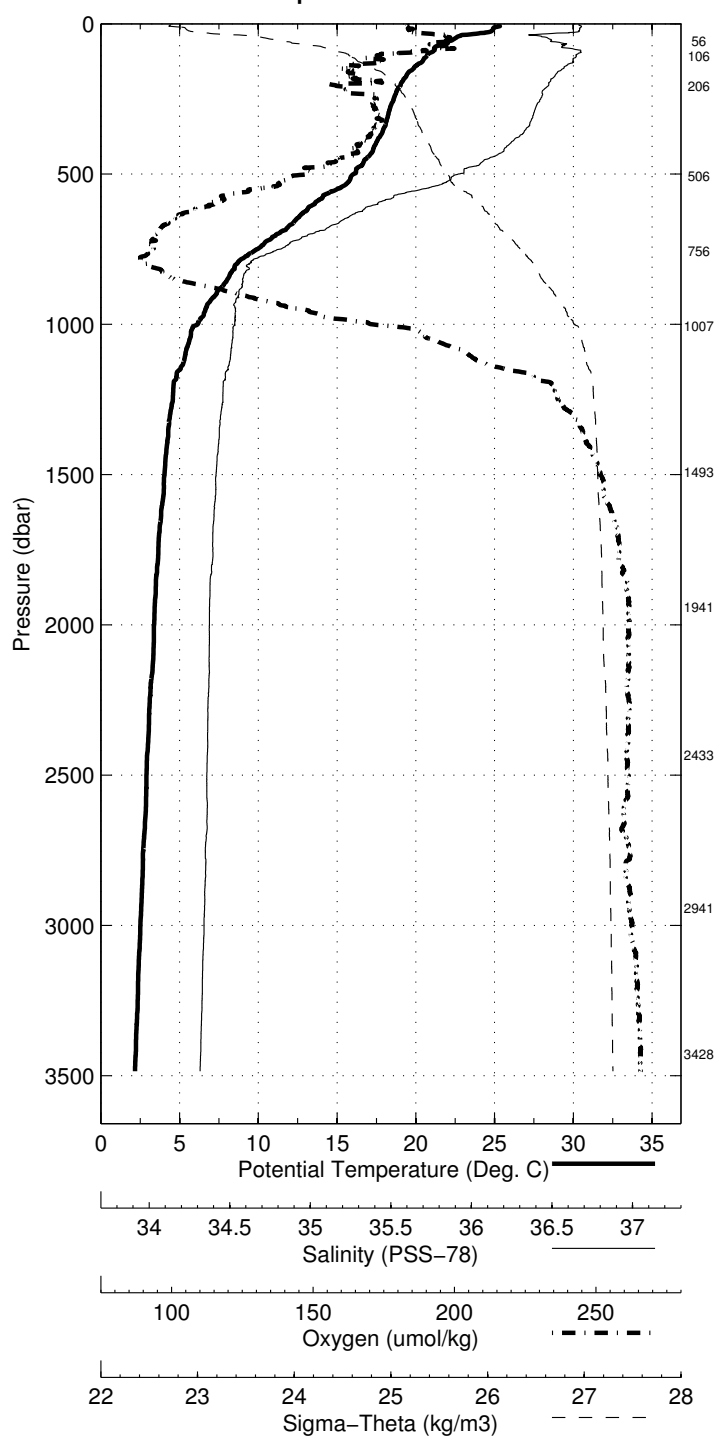


Abaco April-May 2011 R/V Knorr  
 CTD Station 43 (CTD043)  
 Latitude 26.789N Longitude 76.550W  
 30-Apr-2011 20:09Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.276	25.276	36.817	208.5	0.003	24.630
10	25.140	25.138	36.827	208.7	0.033	24.681
20	24.891	24.886	36.820	209.1	0.065	24.752
30	24.383	24.376	36.767	212.2	0.097	24.867
50	22.463	22.453	36.666	218.9	0.152	25.355
75	21.298	21.283	36.731	216.8	0.214	25.735
100	20.818	20.799	36.810	201.9	0.269	25.928
125	20.449	20.426	36.784	202.3	0.321	26.009
150	19.859	19.831	36.733	193.0	0.370	26.129
200	19.079	19.043	36.664	189.0	0.463	26.283
250	18.648	18.604	36.623	200.8	0.552	26.364
300	18.311	18.258	36.587	201.4	0.638	26.424
400	17.517	17.449	36.467	196.2	0.806	26.532
500	16.119	16.038	36.207	183.4	0.966	26.668
600	13.654	13.567	35.804	159.6	1.110	26.899
700	11.248	11.158	35.456	144.6	1.233	27.102
800	8.685	8.597	35.150	142.2	1.336	27.300
900	7.400	7.309	35.104	165.8	1.422	27.457
1000	6.214	6.120	35.084	199.7	1.492	27.603
1100	5.466	5.369	35.062	224.1	1.550	27.680
1200	4.726	4.626	35.024	245.5	1.602	27.737
1300	4.502	4.395	35.011	250.7	1.651	27.753
1400	4.317	4.203	35.000	254.3	1.699	27.765
1500	4.162	4.040	34.988	257.5	1.747	27.772
1750	3.791	3.650	34.971	262.3	1.864	27.799
2000	3.537	3.377	34.954	264.9	1.978	27.813
2500	3.101	2.899	34.941	264.7	2.204	27.848
3000	2.756	2.511	34.927	265.6	2.422	27.871

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
3428	2	2.486	2.202	34.909	<i>NaN</i>
2942	4	2.814	2.573	34.930	<i>NaN</i>
2433	6	3.125	2.930	34.946	<i>NaN</i>
1941	8	3.578	3.422	34.957	<i>NaN</i>
1493	10	4.149	4.027	34.989	<i>NaN</i>
1007	12	6.111	6.017	35.078	<i>NaN</i>
757	14	9.687	9.598	35.264	<i>NaN</i>
506	16	15.843	15.762	36.155	<i>NaN</i>
206	18	18.938	18.901	36.648	<i>NaN</i>
106	20	20.834	20.814	36.805	<i>NaN</i>
56	22	22.131	22.120	36.668	<i>NaN</i>

Abaco April-May 2011 R/V Knorr  
 CTD Station 43 (CTD043)  
 Latitude 26.789 N Longitude 76.550 W  
 30-Apr-2011 20:09 Z

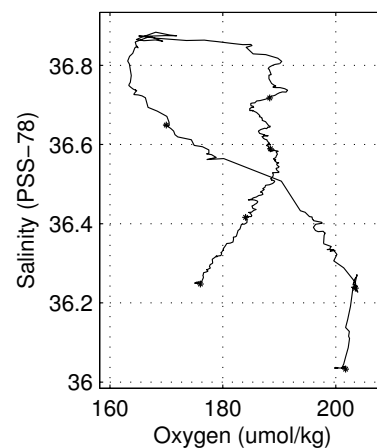
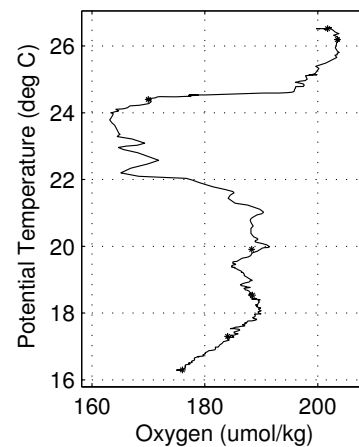
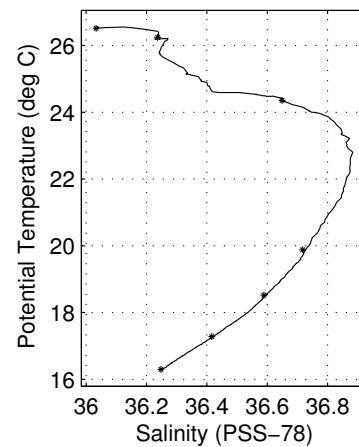
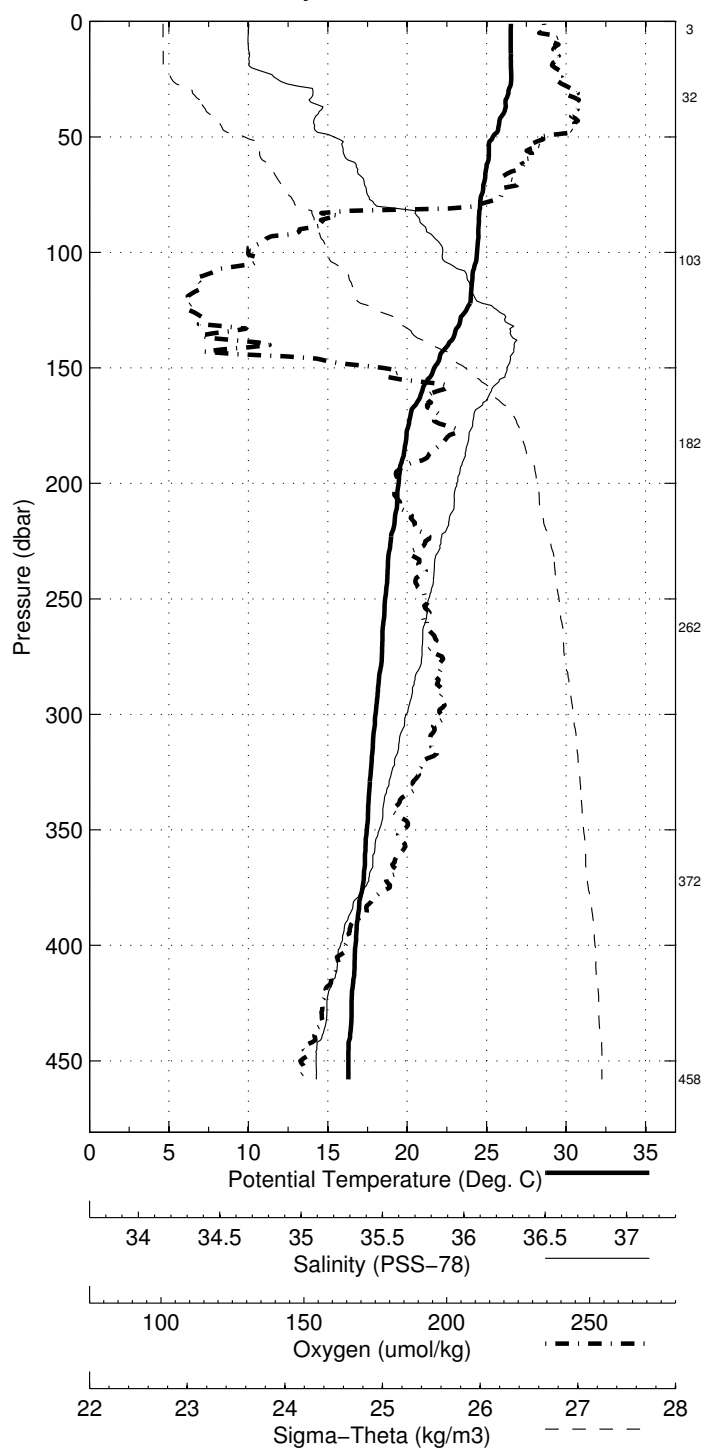


Abaco April-May 2011 R/V Knorr  
 CTD Station 44 (CTD044)  
 Latitude 27.000N Longitude 79.199W  
 02-May-2011 12:50Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.522	26.522	36.037	200.3	0.004	23.652
10	26.521	26.518	36.035	201.8	0.042	23.651
20	26.532	26.527	36.046	201.4	0.085	23.656
30	26.383	26.376	36.240	203.5	0.126	23.851
50	25.405	25.394	36.306	199.6	0.205	24.208
75	24.708	24.692	36.411	195.8	0.294	24.502
100	24.420	24.399	36.649	169.6	0.377	24.771
125	23.739	23.713	36.822	163.5	0.453	25.107
150	21.729	21.699	36.852	183.6	0.518	25.710
200	19.495	19.458	36.694	185.5	0.620	26.198
250	18.653	18.608	36.604	188.1	0.711	26.348
300	18.050	17.998	36.534	189.6	0.798	26.448
400	16.817	16.750	36.327	179.7	0.961	26.593

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
458	2	16.375	16.300	36.248	176.0
372	4	17.342	17.279	36.416	184.0
262	6	18.564	18.518	36.589	188.4
183	8	19.913	19.879	36.718	188.3
103	10	24.377	24.355	36.649	170.0
33	12	26.251	26.244	36.237	203.4
3	14	26.514	26.513	36.033	201.7

Abaco April-May 2011 R/V Knorr  
 CTD Station 44 (CTD044)  
 Latitude 27.000 N Longitude 79.199 W  
 02-May-2011 12:50 Z

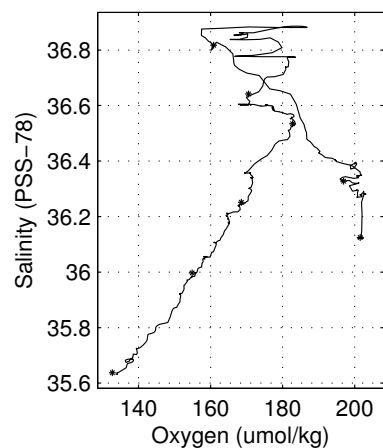
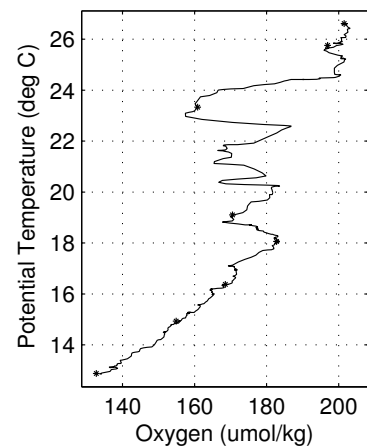
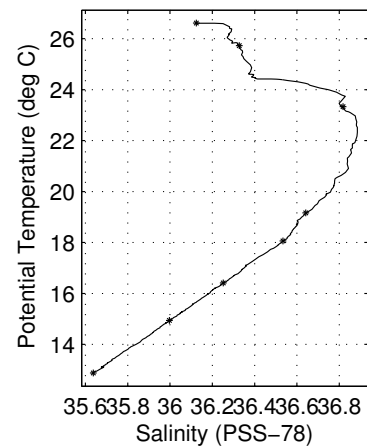
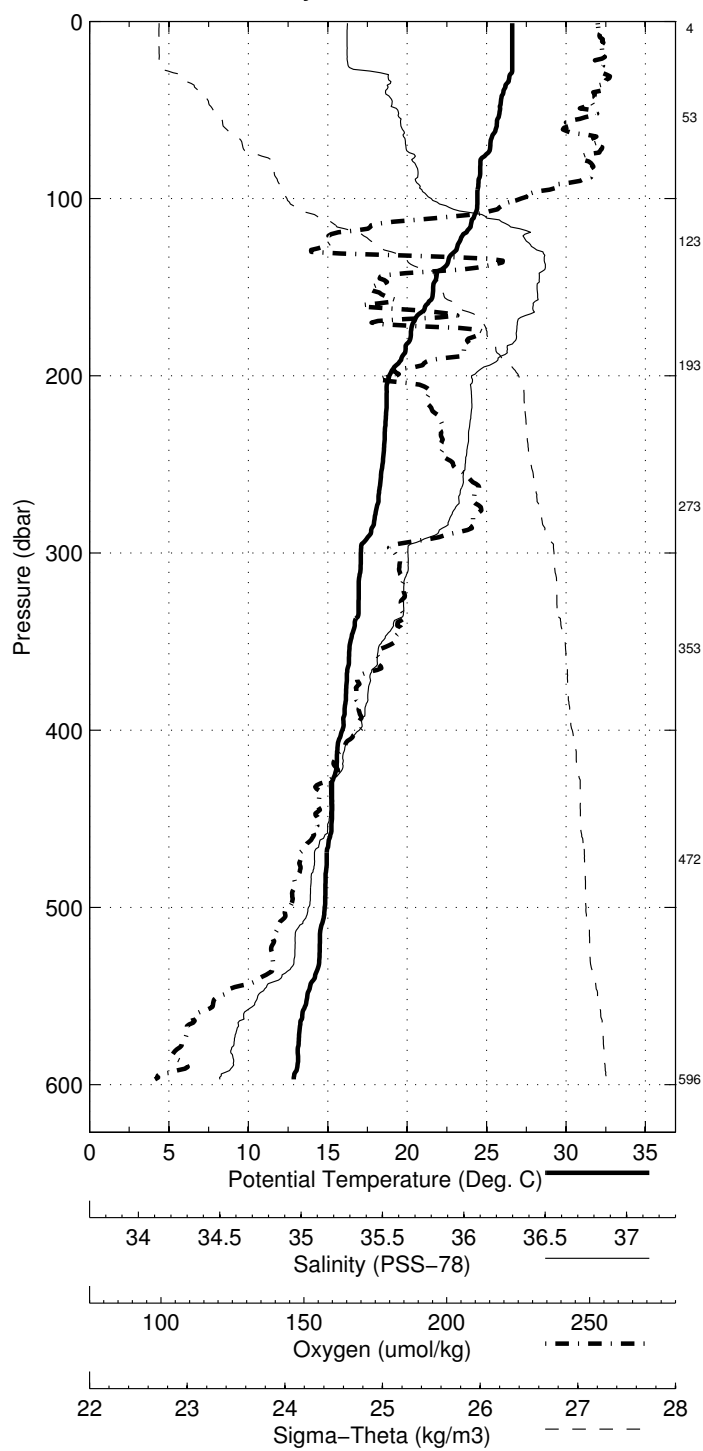


Abaco April-May 2011 R/V Knorr  
 CTD Station 45 (CTD045)  
 Latitude 27.003N Longitude 79.282W  
 02-May-2011 13:54Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.615	26.614	36.124	201.3	0.004	23.688
10	26.615	26.613	36.123	202.0	0.042	23.687
20	26.613	26.608	36.123	202.4	0.084	23.689
30	26.478	26.471	36.282	202.6	0.126	23.852
50	25.852	25.841	36.318	200.3	0.205	24.078
75	24.990	24.974	36.380	199.6	0.298	24.393
100	24.445	24.424	36.446	189.6	0.383	24.610
125	23.271	23.245	36.822	160.3	0.460	25.245
150	21.666	21.637	36.854	166.7	0.523	25.729
200	18.900	18.864	36.601	170.5	0.625	26.281
250	18.488	18.444	36.577	179.2	0.714	26.369
300	17.134	17.083	36.357	170.3	0.798	26.536
400	15.978	15.913	36.169	164.9	0.953	26.668
500	14.879	14.802	35.974	154.1	1.098	26.767

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
597	2	12.957	12.873	35.638	132.7
473	4	15.011	14.938	35.997	154.9
353	6	16.469	16.411	36.252	168.5
274	8	18.106	18.058	36.534	182.8
194	10	19.195	19.160	36.642	170.5
124	12	23.362	23.336	36.818	160.8
54	14	25.741	25.729	36.328	197.0
4	16	26.621	26.620	36.124	201.5

Abaco April-May 2011 R/V Knorr  
 CTD Station 45 (CTD045)  
 Latitude 27.003 N Longitude 79.282 W  
 02-May-2011 13:54 Z



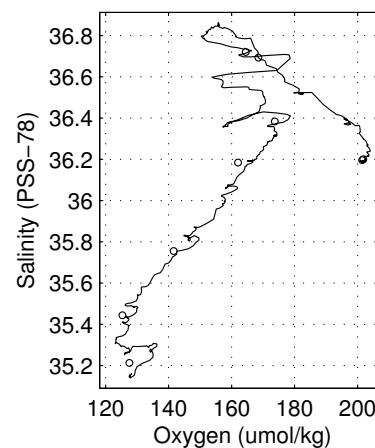
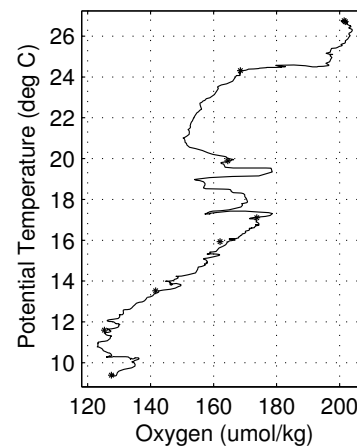
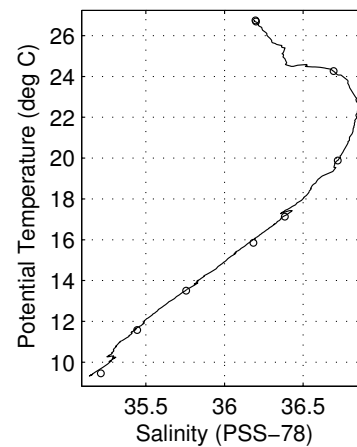
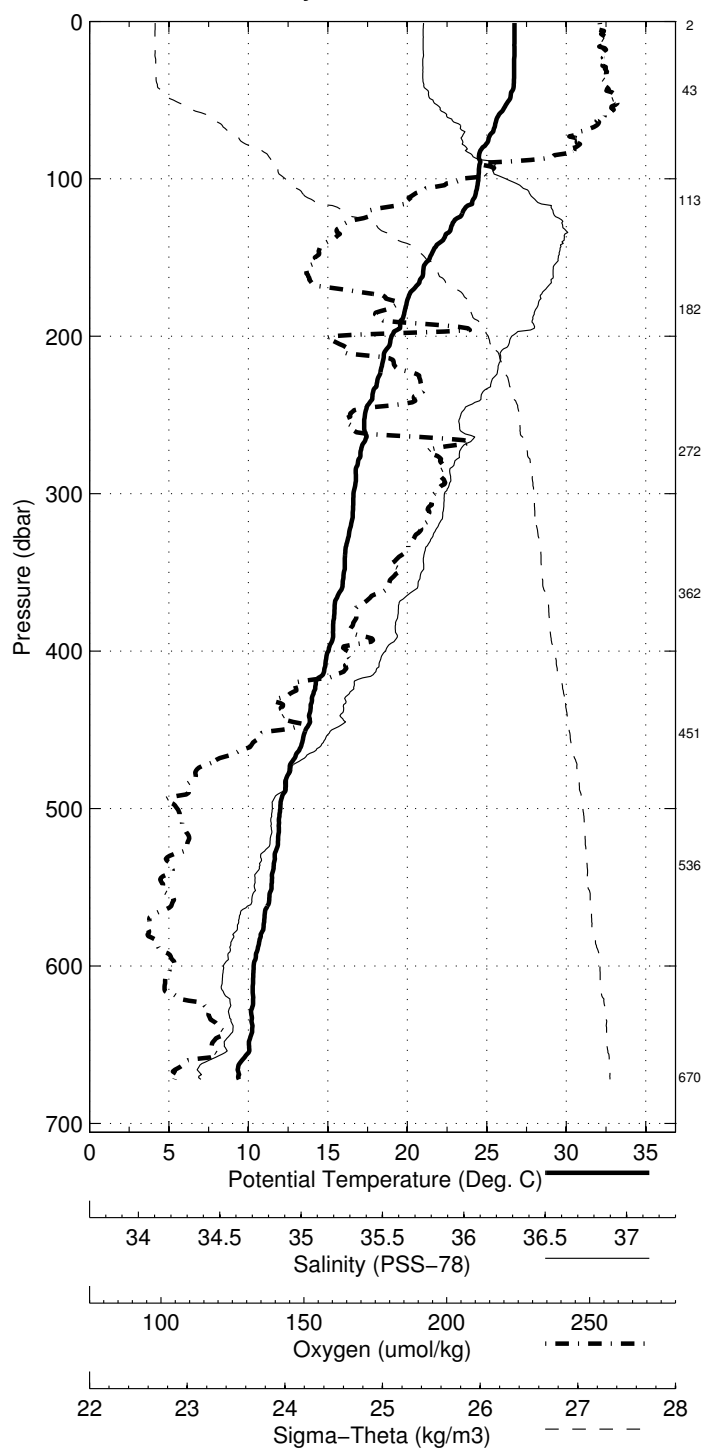


Abaco April-May 2011 R/V Knorr  
 CTD Station 46 (CTD046)  
 Latitude 27.005N Longitude 79.382W  
 02-May-2011 15:10Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.738	26.737	36.192	201.0	0.004	23.700
10	26.740	26.738	36.191	202.1	0.042	23.699
20	26.742	26.738	36.192	201.4	0.084	23.700
30	26.720	26.714	36.189	201.9	0.126	23.706
50	26.416	26.404	36.236	202.9	0.209	23.839
75	25.118	25.101	36.370	197.8	0.304	24.346
100	24.488	24.467	36.575	176.9	0.389	24.694
125	23.160	23.134	36.822	160.3	0.466	25.277
150	21.450	21.421	36.819	151.9	0.528	25.763
200	19.034	18.998	36.602	154.8	0.630	26.247
250	17.375	17.332	36.365	158.0	0.716	26.483
300	16.657	16.608	36.290	172.5	0.795	26.598
400	15.094	15.033	36.017	157.5	0.943	26.749
500	12.071	12.004	35.491	128.2	1.074	26.969
600	10.397	10.324	35.262	127.3	1.191	27.100

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
671	2	9.530	9.452	35.213	127.5
536	4	11.643	11.573	35.444	125.4
452	6	13.569	13.505	35.755	141.6
363	8	15.908	15.850	36.184	162.1
273	10	17.174	17.128	36.383	173.7
183	12	19.918	19.883	36.720	164.5
113	14	24.291	24.267	36.694	168.5
43	16	26.701	26.691	36.200	201.8
2	18	26.751	26.750	36.197	201.4

Abaco April-May 2011 R/V Knorr  
 CTD Station 46 (CTD046)  
 Latitude 27.005 N Longitude 79.382 W  
 02-May-2011 15:10 Z

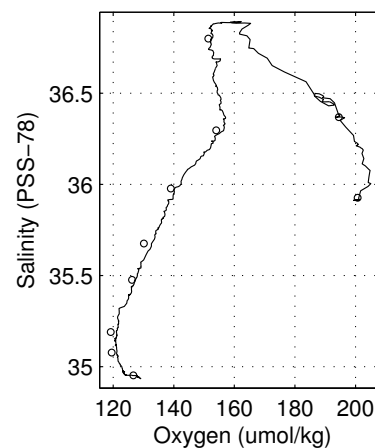
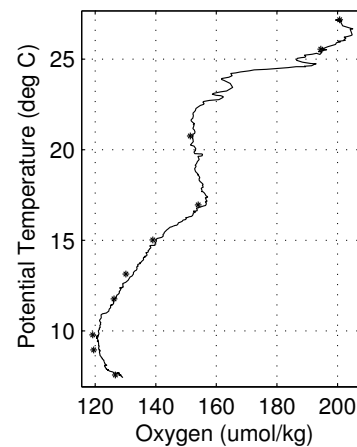
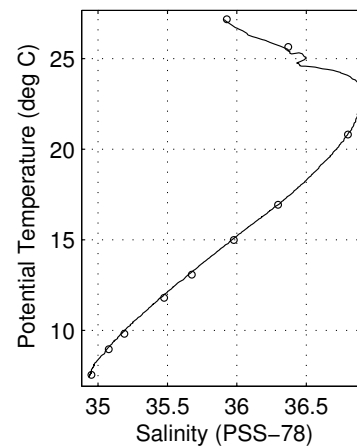
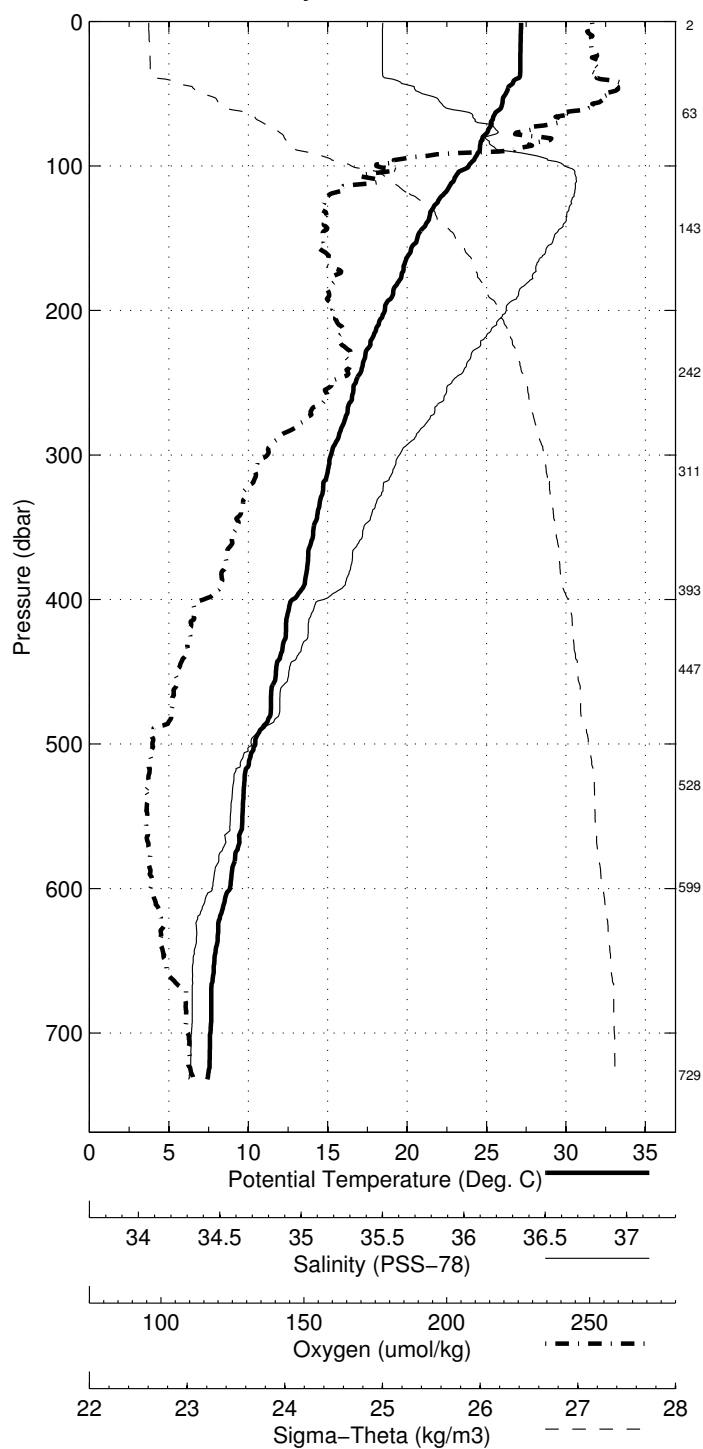


Abaco April-May 2011 R/V Knorr  
 CTD Station 47 (CTD047)  
 Latitude 27.011N Longitude 79.496W  
 02-May-2011 16:37Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	27.171	27.171	35.914	200.2	0.005	23.352
10	27.157	27.155	35.913	200.3	0.045	23.356
20	27.139	27.134	35.912	200.6	0.090	23.362
30	27.136	27.129	35.913	200.6	0.136	23.364
50	26.229	26.218	36.112	202.2	0.223	23.804
75	25.119	25.103	36.487	189.3	0.318	24.434
100	23.900	23.879	36.832	161.7	0.400	25.065
125	21.953	21.928	36.866	152.4	0.465	25.657
150	20.669	20.640	36.778	152.1	0.520	25.946
200	18.634	18.599	36.540	154.0	0.617	26.301
250	16.800	16.759	36.263	153.5	0.700	26.542
300	15.246	15.200	35.998	142.2	0.776	26.698
400	12.849	12.794	35.615	130.8	0.911	26.911
500	10.501	10.440	35.249	121.7	1.030	27.070
600	8.912	8.846	35.051	121.4	1.135	27.183
700	7.676	7.605	34.946	128.0	1.228	27.290

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
729	2	7.620	7.546	34.953	126.6
599	4	9.023	8.956	35.077	119.5
529	6	9.875	9.813	35.190	119.2
448	8	11.861	11.802	35.476	126.2
393	10	13.135	13.080	35.676	130.1
311	12	15.042	14.994	35.977	139.0
243	14	16.980	16.939	36.297	154.0
143	16	20.841	20.814	36.800	151.4
63	18	25.658	25.644	36.369	194.5
3	20	27.177	27.176	35.927	200.7

Abaco April-May 2011 R/V Knorr  
 CTD Station 47 (CTD047)  
 Latitude 27.011 N Longitude 79.496 W  
 02-May-2011 16:37 Z

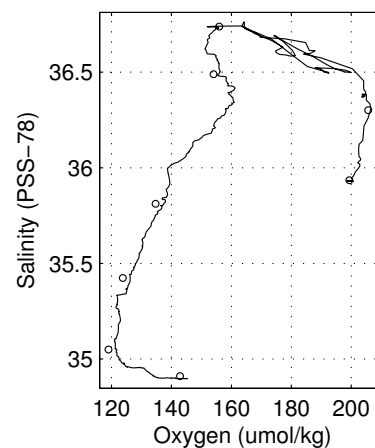
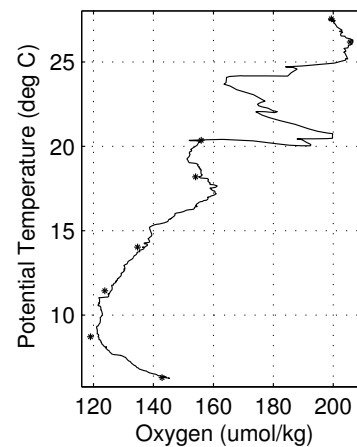
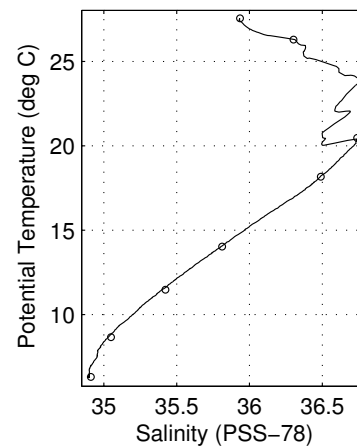
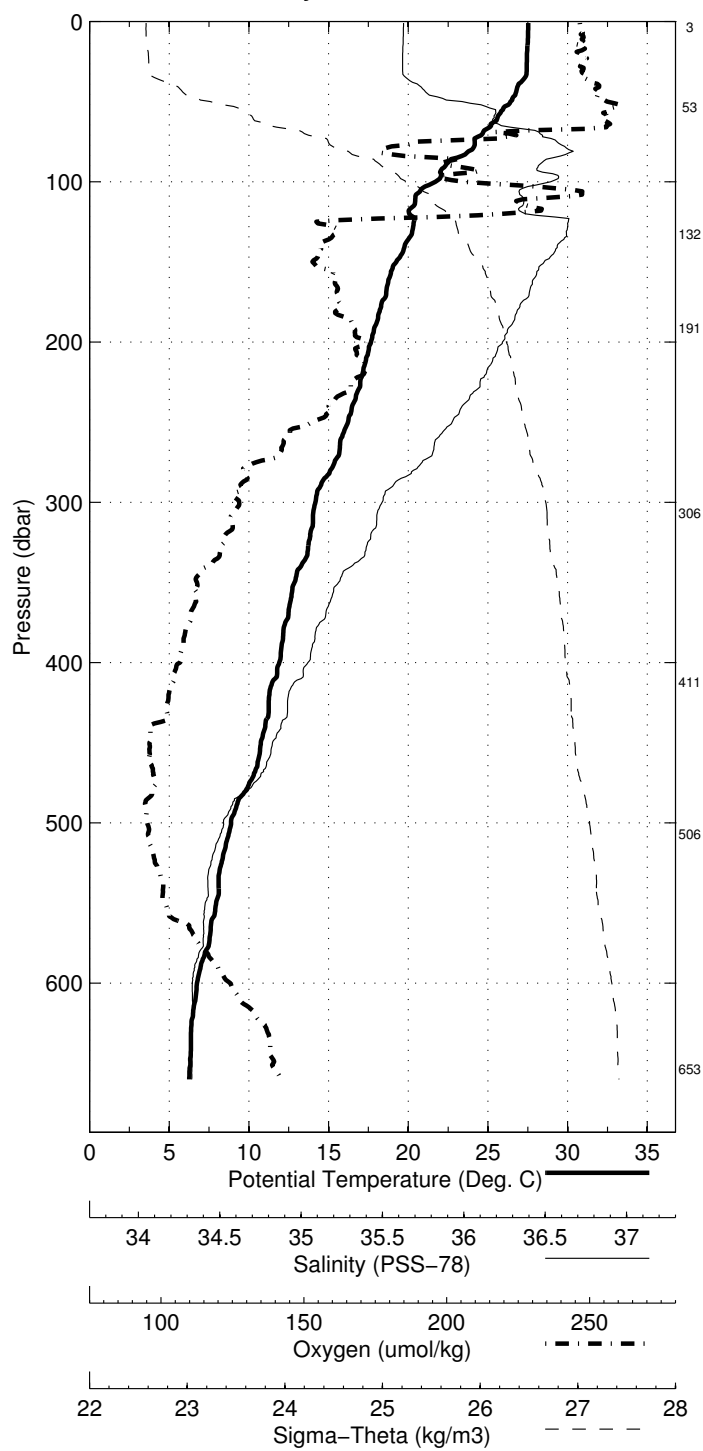


Abaco April-May 2011 R/V Knorr  
 CTD Station 48 (CTD048)  
 Latitude 27.020N Longitude 79.608W  
 02-May-2011 18:12Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	27.524	27.524	35.934	199.4	0.005	23.252
10	27.516	27.514	35.932	200.0	0.046	23.254
20	27.453	27.448	35.929	199.6	0.092	23.273
30	27.439	27.432	35.929	200.0	0.138	23.279
50	26.433	26.421	36.219	204.2	0.226	23.821
75	24.187	24.171	36.683	169.7	0.316	24.865
100	21.722	21.702	36.653	178.5	0.385	25.558
125	20.380	20.357	36.739	151.9	0.440	25.993
150	19.277	19.250	36.621	151.1	0.489	26.196
200	17.696	17.662	36.417	161.2	0.577	26.442
250	16.259	16.219	36.171	151.0	0.656	26.598
300	14.215	14.170	35.829	138.0	0.727	26.791
400	11.960	11.907	35.466	127.3	0.853	26.969
500	8.940	8.885	35.053	121.4	0.963	27.178
600	6.804	6.747	34.901	136.4	1.053	27.375

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
654	2	6.364	6.304	34.911	142.9
507	4	8.712	8.657	35.049	119.0
412	6	11.526	11.473	35.424	123.8
307	8	14.071	14.026	35.812	134.7
191	10	18.198	18.164	36.489	154.0
132	12	20.495	20.470	36.739	155.9
53	14	26.299	26.287	36.301	205.7
3	16	27.546	27.545	35.935	199.4

Abaco April-May 2011 R/V Knorr  
 CTD Station 48 (CTD048)  
 Latitude 27.020 N Longitude 79.608 W  
 02-May-2011 18:12 Z

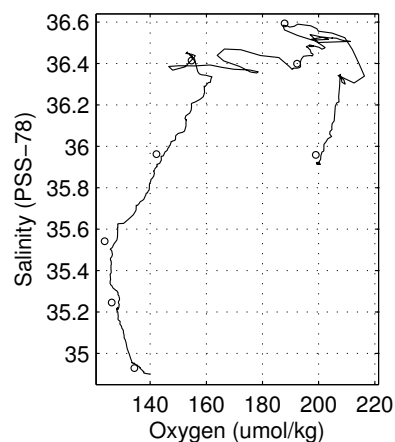
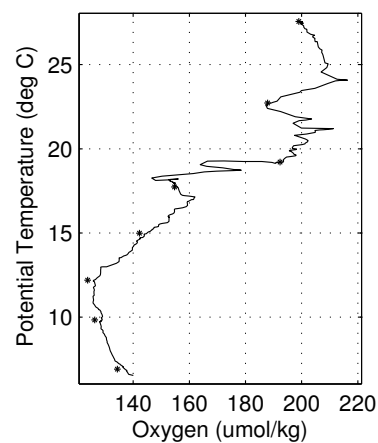
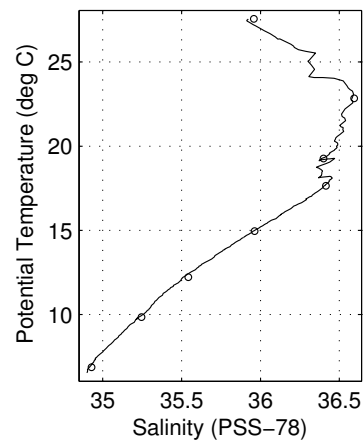
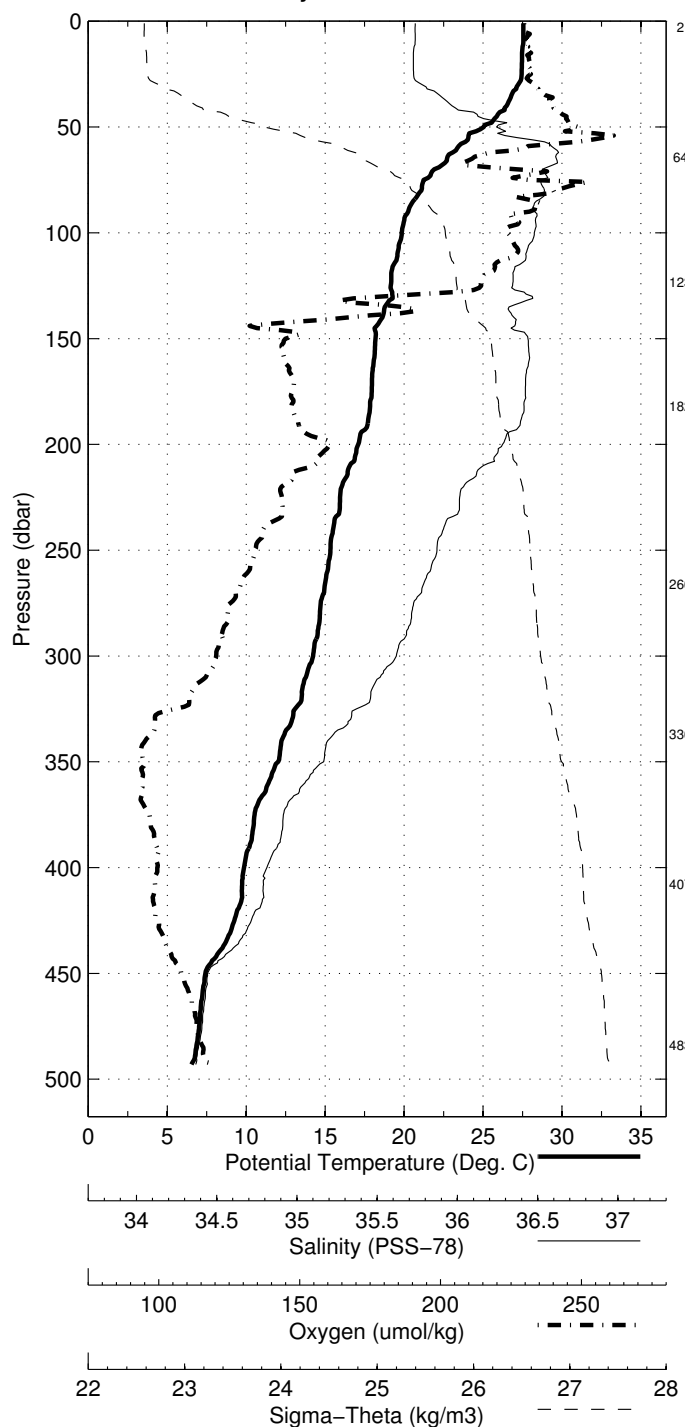


Abaco April-May 2011 R/V Knorr  
 CTD Station 49 (CTD049)  
 Latitude 27.023N Longitude 79.686W  
 02-May-2011 19:41Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	27.554	27.554	35.922	199.1	0.005	23.234
10	27.551	27.548	35.921	199.5	0.046	23.235
20	27.465	27.461	35.914	200.4	0.093	23.258
30	27.231	27.224	35.954	200.8	0.139	23.364
50	25.063	25.052	36.301	209.4	0.221	24.309
75	21.245	21.231	36.502	199.9	0.293	25.574
100	19.870	19.851	36.477	196.0	0.349	25.928
125	19.180	19.158	36.375	190.9	0.401	26.032
150	18.213	18.187	36.447	153.4	0.448	26.334
200	17.130	17.096	36.329	161.7	0.532	26.512
250	15.374	15.335	36.023	147.6	0.606	26.686
300	14.287	14.242	35.834	140.2	0.676	26.780
400	9.904	9.857	35.231	128.9	0.792	27.157

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
484	2	6.913	6.867	34.929	134.3
408	4	9.889	9.842	35.246	126.3
337	6	12.264	12.219	35.542	123.8
266	8	14.989	14.949	35.963	142.2
182	10	17.675	17.644	36.415	154.7
123	12	19.285	19.263	36.399	192.3
64	14	22.861	22.848	36.594	187.9
3	16	27.562	27.562	35.959	199.0

Abaco April-May 2011 R/V Knorr  
 CTD Station 49 (CTD049)  
 Latitude 27.023 N Longitude 79.686 W  
 02-May-2011 19:41 Z



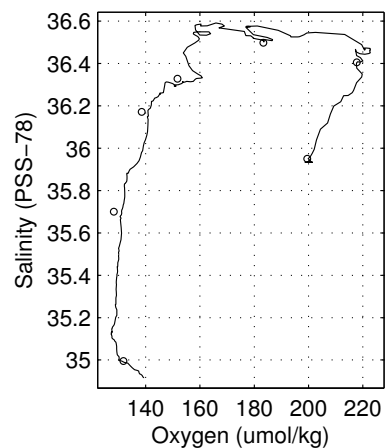
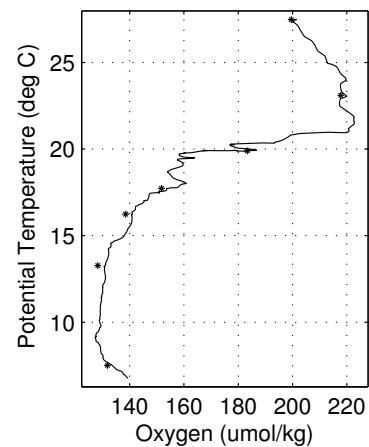
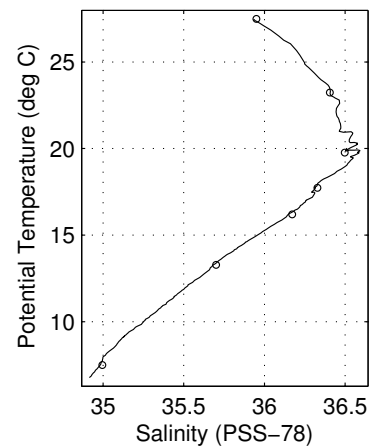
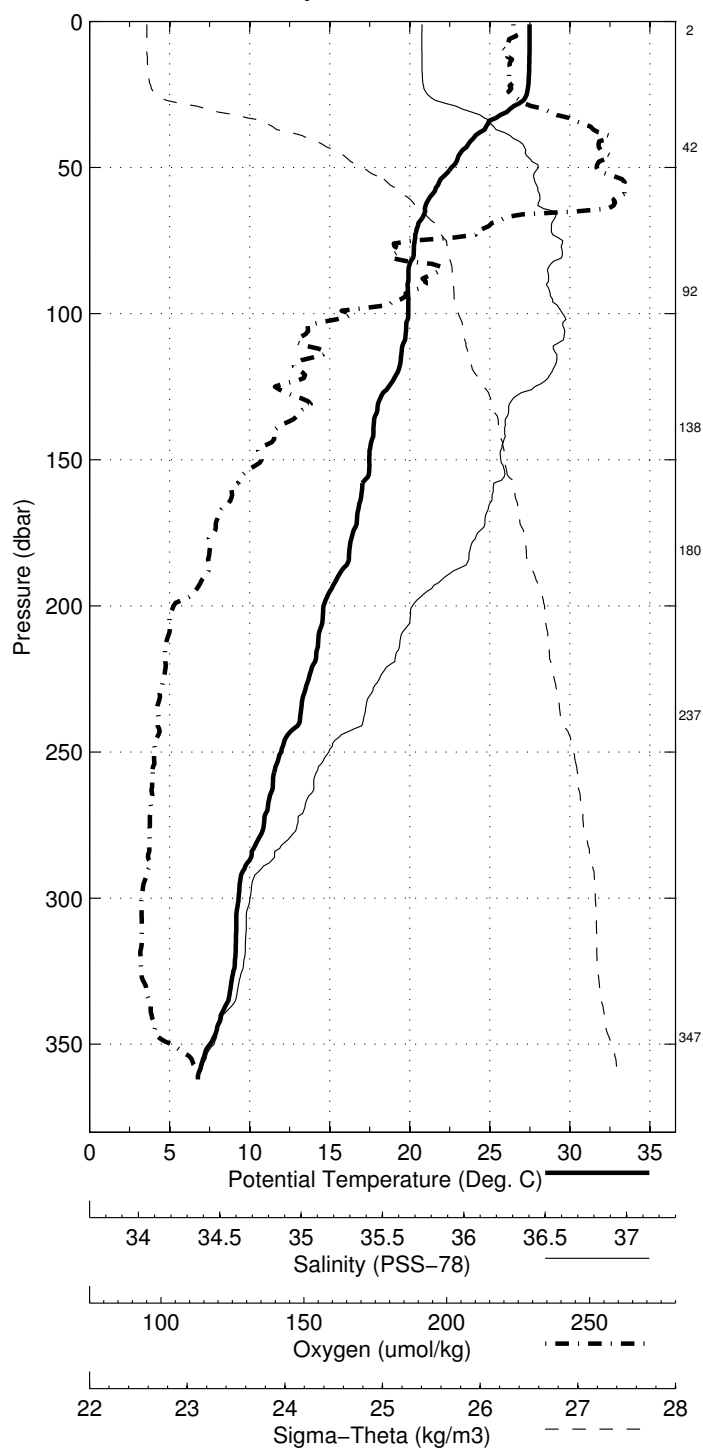


Abaco April-May 2011 R/V Knorr  
 CTD Station 50 (CTD050)  
 Latitude 27.013N Longitude 79.780W  
 02-May-2011 21:09Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	27.483	27.483	35.935	200.8	0.005	23.267
10	27.485	27.483	35.934	199.5	0.046	23.266
20	27.430	27.425	35.938	200.5	0.092	23.287
30	26.268	26.261	36.120	207.0	0.136	23.796
50	22.614	22.604	36.466	217.3	0.203	25.161
75	20.324	20.310	36.577	181.2	0.263	25.882
100	19.931	19.913	36.577	169.0	0.315	25.988
125	18.709	18.687	36.450	153.8	0.364	26.210
150	17.497	17.471	36.294	151.2	0.408	26.394
200	14.649	14.619	35.890	133.8	0.484	26.742
250	12.000	11.967	35.509	130.0	0.547	26.991
300	9.338	9.304	35.149	127.6	0.599	27.185

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
347	2	7.529	7.495	34.995	131.8
237	4	13.317	13.283	35.700	128.3
181	6	16.231	16.202	36.171	138.5
139	8	17.751	17.727	36.328	151.7
92	10	19.779	19.762	36.498	183.3
43	12	23.242	23.233	36.406	217.8
3	14	27.485	27.485	35.950	199.6

Abaco April-May 2011 R/V Knorr  
 CTD Station 50 (CTD050)  
 Latitude 27.013 N Longitude 79.780 W  
 02-May-2011 21:09 Z

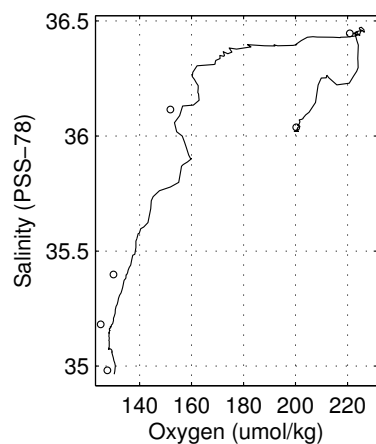
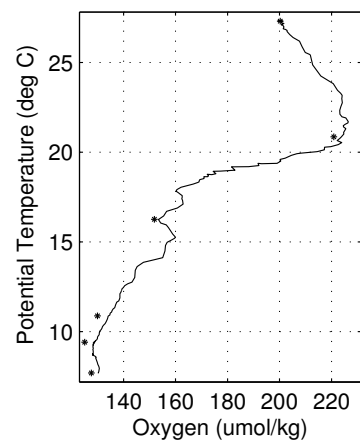
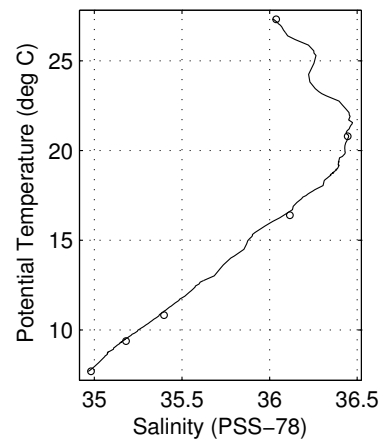
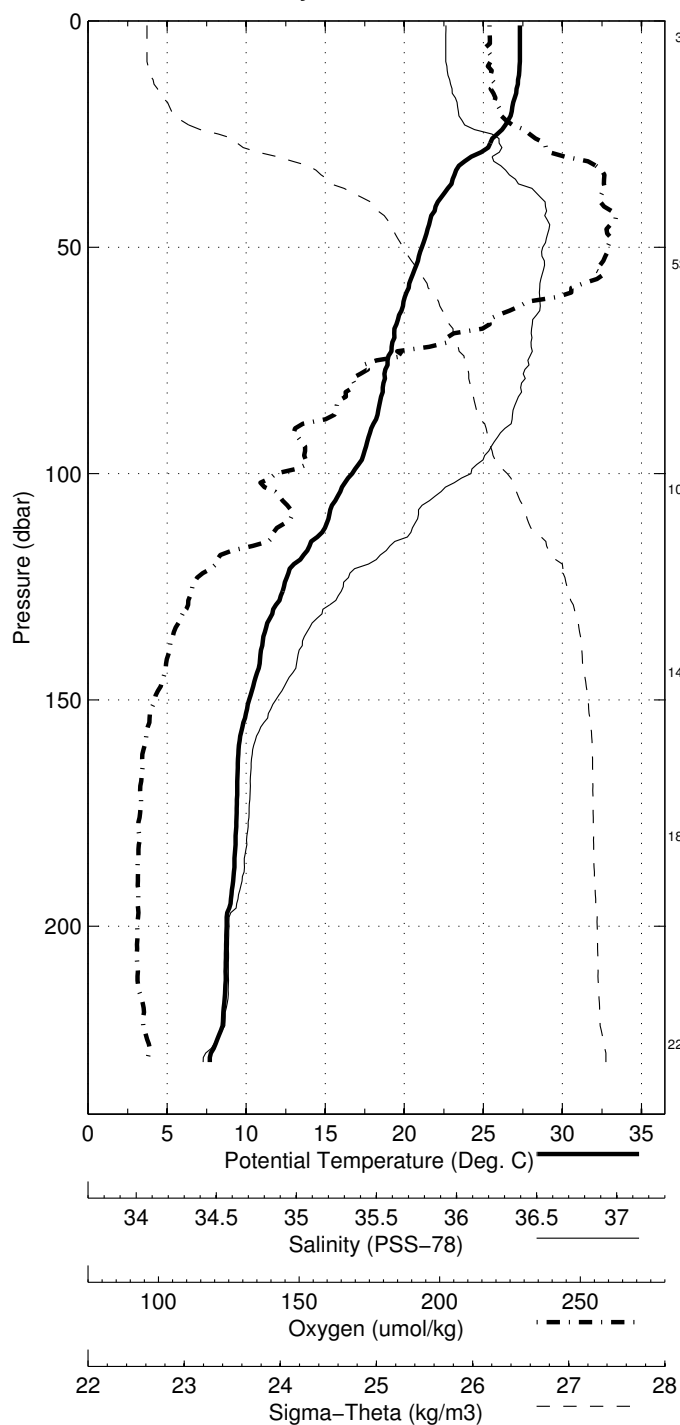


Abaco April-May 2011 R/V Knorr  
 CTD Station 51 (CTD051)  
 Latitude 27.012N Longitude 79.866W  
 02-May-2011 22:23Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	27.315	27.314	36.022	200.4	0.004	23.386
10	27.294	27.291	36.025	200.1	0.045	23.397
20	26.794	26.790	36.076	202.9	0.089	23.595
30	24.250	24.244	36.222	215.9	0.128	24.494
50	21.113	21.104	36.442	224.7	0.183	25.564
75	18.958	18.945	36.378	177.3	0.237	26.089
100	16.722	16.706	36.131	156.5	0.282	26.453
125	12.406	12.390	35.575	139.4	0.316	26.960
150	10.200	10.182	35.281	131.6	0.341	27.140
200	8.782	8.761	35.078	128.1	0.387	27.218

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
226	2	7.714	7.692	34.981	127.6
180	4	9.397	9.377	35.181	125.0
144	6	10.842	10.824	35.398	130.0
103	8	16.410	16.393	36.115	151.9
54	10	20.801	20.791	36.446	220.8
4	12	27.311	27.310	36.038	200.2

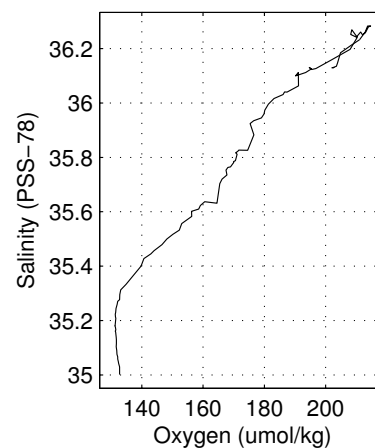
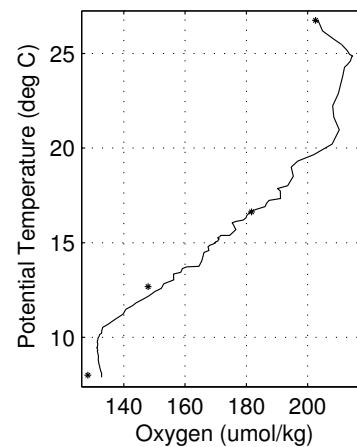
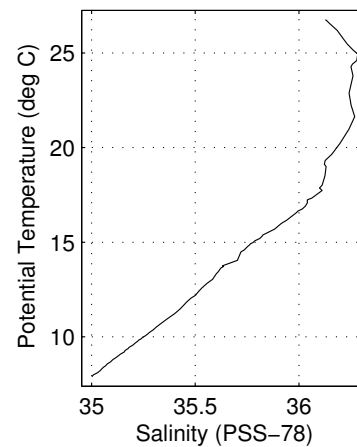
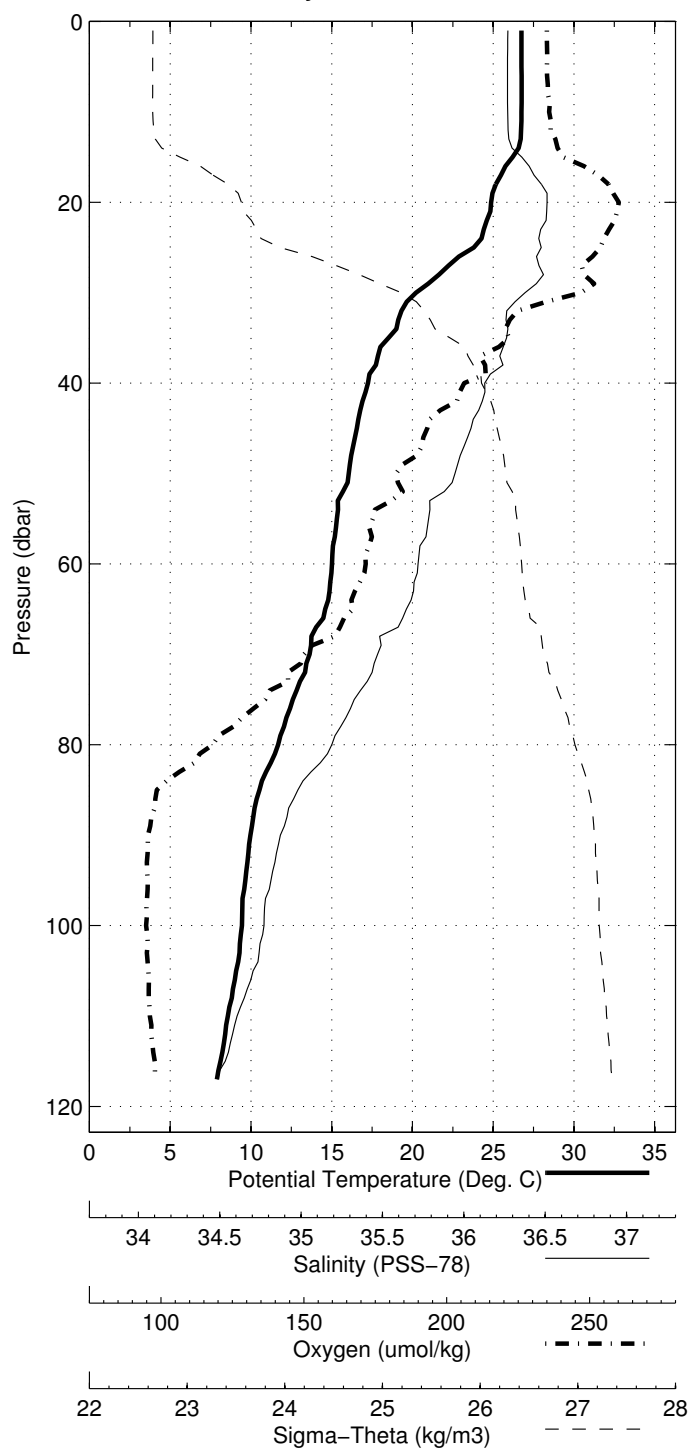
Abaco April-May 2011 R/V Knorr  
 CTD Station 51 (CTD051)  
 Latitude 27.012 N Longitude 79.866 W  
 02-May-2011 22:23 Z



Abaco April-May 2011 R/V Knorr  
 CTD Station 52 (CTD052)  
 Latitude 27.009N Longitude 79.932W  
 02-May-2011 23:22Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.754	26.754	36.130	202.0	0.004	23.648
10	26.756	26.754	36.130	202.4	0.042	23.648
20	24.879	24.875	36.283	214.7	0.082	24.350
30	20.223	20.217	36.198	208.0	0.113	25.618
50	16.060	16.052	35.924	175.4	0.149	26.447
75	12.597	12.587	35.532	152.2	0.184	26.888
100	9.453	9.442	35.181	131.2	0.208	27.188

Abaco April-May 2011 R/V Knorr  
 CTD Station 52 (CTD052)  
 Latitude 27.009 N Longitude 79.932 W  
 02-May-2011 23:22 Z



## ***B WOCE Summary File***

Table 17: Abaco Cruise – WOCE Summary File

SHIP/CRS EXPOCODE	WOCE SECT	STN	CST	CST TYPE	CST DATE	UTC TIME	EVENT CODE	LAT	LOE	NAV	UNC DPH	HT BTM	ABV BTM	WIRE OUT	MAX PRS	NO. BTLS	PARA- METERS	COMMENTS
WBTSKN	AB1104	1	1	ROS	04/13/2011	21:11	BE	26.433N	78.668W	GPS	738	27		740	744	23	1,2	
WBTSKN	AB1104	1	1	ROS	04/13/2011	21:30	BO	26.432N	78.668W	GPS								
WBTSKN	AB1104	1	1	ROS	04/13/2011	22:00	EN	26.431N	78.668W	GPS								
WBTSKN	AB1104	2	1	ROS	04/13/2011	23:26	BE	26.333N	78.706W	GPS	673	20		675	678	10	1,2	
WBTSKN	AB1104	2	1	ROS	04/13/2011	23:43	BO	26.333N	78.717W	GPS								
WBTSKN	AB1104	2	1	ROS	04/13/2011	00:08	EN	26.333N	78.717W	GPS								
WBTSKN	AB1104	3	1	ROS	04/14/2011	01:03	BE	26.250N	78.767W	GPS	501	21		505	506	8	1,2	
WBTSKN	AB1104	3	1	ROS	04/14/2011	01:15	BO	26.250N	78.766W	GPS								
WBTSKN	AB1104	3	1	ROS	04/14/2011	01:38	EN	26.248N	78.768W	GPS								
WBTSKN	AB1104	4	1	ROS	04/14/2011	02:30	BE	26.165N	78.800W	GPS	434	24		435	437	8	1,2	
WBTSKN	AB1104	4	1	ROS	04/14/2011	02:41	BO	26.164N	78.800W	GPS								
WBTSKN	AB1104	4	1	ROS	04/14/2011	03:01	EN	26.161N	78.800W	GPS								
WBTSKN	AB1104	5	1	ROS	04/14/2011	03:51	BE	26.066N	78.849W	GPS								
WBTSKN	AB1104	5	1	ROS	04/14/2011	04:00	BO	26.065N	78.849W	GPS	281	21		280	282	7	1,2	
WBTSKN	AB1104	5	1	ROS	04/14/2011	04:13	EN	26.064N	78.848W	GPS								
WBTSKN	AB1104	6	1	ROS	04/14/2011	14:08	BE	25.954N	76.895W	GPS								
WBTSKN	AB1104	6	1	ROS	04/14/2011	15:18	BO	25.954N	76.894W	GPS	754	236		3525	3554	11	1,2	
WBTSKN	AB1104	6	1	ROS	04/14/2011	17:20	EN	25.955N	76.893W	GPS								
WBTSKN	AB1104	7	1	ROS	04/14/2011	18:26	BE	25.955N	76.894W	GPS								
WBTSKN	AB1104	7	1	ROS	04/14/2011	19:33	BO	25.955N	76.894W	GPS	1007	242		3526	3555	11	1,2	
WBTSKN	AB1104	7	1	ROS	04/14/2011	21:33	EN	25.953N	76.896W	GPS								
WBTSKN	AB1104	8	1	ROS	04/14/2011	23:32	BE	25.954N	76.895W	GPS								
WBTSKN	AB1104	8	1	ROS	04/15/2011	00:58	BO	25.954N	76.896W	GPS	3007	244		4050	4087	11	1,2	
WBTSKN	AB1104	8	1	ROS	04/15/2011	03:10	EN	25.953N	76.896W	GPS								
WBTSKN	AB1104	9	1	ROS	04/15/2011	03:51	BE	25.954N	76.895W	GPS								
WBTSKN	AB1104	9	1	ROS	04/15/2011	05:02	BO	25.956N	76.898W	GPS	2502	246		3525	3555	11	1,2	
WBTSKN	AB1104	9	1	ROS	04/15/2011	07:01	EN	25.965N	76.899W	GPS								
WBTSKN	AB1104	10	1	ROS	04/15/2011	10:32	BE	26.525N	76.884W	GPS								
WBTSKN	AB1104	10	1	ROS	04/15/2011	10:44	BO	26.525N	76.884W	GPS	439	25		NaN	442	8	1,2	
WBTSKN	AB1104	10	1	ROS	04/15/2011	11:01	EN	26.526N	76.885W	GPS								
WBTSKN	AB1104	11	1	ROS	04/15/2011	11:42	BE	26.517N	76.832W	GPS								
WBTSKN	AB1104	11	1	ROS	04/15/2011	12:05	BO	26.518N	76.833W	GPS	1069	23		1075	1079	12	1,2	
WBTSKN	AB1104	11	1	ROS	04/15/2011	12:39	EN	26.521N	76.834W	GPS								
WBTSKN	AB1104	12	1	ROS	04/15/2011	13:27	BE	26.499N	76.743W	GPS								
WBTSKN	AB1104	12	1	ROS	04/15/2011	14:35	BO	26.501N	76.742W	GPS	3822	32		3845	3883	23	1,2	
WBTSKN	AB1104	12	1	ROS	04/15/2011	16:14	EN	26.500N	76.740W	GPS								
WBTSKN	AB1104	13	1	ROS	04/15/2011	17:54	BE	26.501N	76.654W	GPS								
WBTSKN	AB1104	13	1	ROS	04/15/2011	19:16	BO	26.501N	76.654W	GPS	4563	20		4600	4643	23	1,2	
WBTSKN	AB1104	13	1	ROS	04/15/2011	21:04	EN	26.503N	76.654W	GPS								
WBTSKN	AB1104	14	1	ROS	04/15/2011	22:17	BE	26.500N	76.565W	GPS								
WBTSKN	AB1104	14	1	ROS	04/15/2011	23:46	BO	26.500N	76.565W	GPS	4810	22		4880	4897	23	1,2	
WBTSKN	AB1104	14	1	ROS	04/16/2011	02:05	EN	26.494N	76.568W	GPS								
WBTSKN	AB1104	15	1	ROS	04/16/2011	03:21	BE	26.501N	76.475W	GPS								
WBTSKN	AB1104	15	1	ROS	04/16/2011	04:45	BO	26.494N	76.480W	GPS	4801	37		4835	4888	23	1,2	
WBTSKN	AB1104	15	1	ROS	04/16/2011	06:40	EN	26.491N	76.486W	GPS								
WBTSKN	AB1104	16	1	ROS	04/16/2011	08:08	BE	26.500N	76.345W	GPS								
WBTSKN	AB1104	16	1	ROS	04/16/2011	09:37	BO	26.494N	76.349W	GPS	4825	36		4860	4913	23	1,2	
WBTSKN	AB1104	16	1	ROS	04/16/2011	11:26	EN	26.485N	76.356W	GPS								
WBTSKN	AB1104	17	1	ROS	04/16/2011	12:37	BE	26.504N	76.170W	GPS								
WBTSKN	AB1104	17	1	ROS	04/16/2011	14:04	BO	26.493N	76.222W	GPS	4787	24		4820	4875	23	1,2	
WBTSKN	AB1104	17	1	ROS	04/16/2011	15:56	EN	26.483N	76.228W	GPS								
WBTSKN	AB1104	18	1	ROS	04/16/2011	17:01	BE	26.499N	76.086W	GPS								
WBTSKN	AB1104	18	1	ROS	04/16/2011	18:27	BO	26.491N	76.096W	GPS	4774	26		4810	4861	22	1,2	
WBTSKN	AB1104	18	1	ROS	04/16/2011	20:11	EN	26.476N	76.099W	GPS								
WBTSKN	AB1104	19	1	ROS	04/16/2011	21:32	BE	26.499N	75.900W	GPS								
WBTSKN	AB1104	19	1	ROS	04/16/2011	22:57	BO	26.487N	75.908W	GPS	4721	23		4750	4807	13	1,2	
WBTSKN	AB1104	19	1	ROS	04/17/2011	00:35	EN	26.473N	75.913W	GPS								
WBTSKN	AB1104	20	1	ROS	04/17/2011	03:36	BE	26.501N	75.704W	GPS								
WBTSKN	AB1104	20	1	ROS	04/17/2011	04:58	BO	26.503N	75.704W	GPS	4658	31		4690	4741	23	1,2	
WBTSKN	AB1104	20	1	ROS	04/17/2011	06:38	EN	26.500N	75.706W	GPS								
WBTSKN	AB1104	21	1	ROS	04/17/2011	07:53	BE	26.501N	75.501W	GPS								
WBTSKN	AB1104	21	1	ROS	04/17/2011	09:17	BO	26.507N	75.504W	GPS	4660	24		4695	4743	23	1,2	



WBTSKN	AB1104	21	1	ROS	04/17/2011	11:01	EN	26.518N	75.506W	GPS	4608	29	4644	4690	23	1,2
WBTSKN	AB1104	22	1	ROS	04/17/2011	12:14	BE	26.501N	75.299W	GPS						
WBTSKN	AB1104	22	1	ROS	04/17/2011	13:39	BO	26.506N	75.300W	GPS						
WBTSKN	AB1104	22	1	ROS	04/17/2011	15:21	EN	26.512N	75.295W	GPS						
WBTSKN	AB1104	23	1	ROS	04/17/2011	18:11	BE	26.501N	75.081W	GPS						
WBTSKN	AB1104	23	1	ROS	04/17/2011	19:32	BO	26.500N	75.075W	GPS	4579	27	4630	4660	23	1,2
WBTSKN	AB1104	23	1	ROS	04/17/2011	21:15	EN	26.498N	75.073W	GPS						
WBTSKN	AB1104	24	1	ROS	04/17/2011	22:42	BE	26.500N	74.754W	GPS						
WBTSKN	AB1104	24	1	ROS	04/17/2011	00:02	BO	26.501N	74.792W	GPS	4519	21	4570	4599	23	1,2
WBTSKN	AB1104	24	1	ROS	04/18/2011	01:51	EN	26.500N	74.791W	GPS						
WBTSKN	AB1104	25	1	ROS	04/18/2011	03:21	BE	26.500N	74.516W	GPS						
WBTSKN	AB1104	25	1	ROS	04/18/2011	04:40	BO	26.502N	74.518W	GPS	4459	32	4486	4537	23	1,2
WBTSKN	AB1104	25	1	ROS	04/18/2011	06:24	EN	26.502N	74.519W	GPS						
WBTSKN	AB1104	26	1	ROS	04/18/2011	08:29	BO	26.498N	74.234W	GPS						
WBTSKN	AB1104	26	1	ROS	04/18/2011	09:54	BO	26.506N	74.230W	GPS	4522	28	4555	4602	23	1,2
WBTSKN	AB1104	26	1	ROS	04/18/2011	11:40	EN	26.517N	74.223W	GPS						
WBTSKN	AB1104	27	1	ROS	04/18/2011	13:36	BE	26.499N	73.865W	GPS						
WBTSKN	AB1104	27	1	ROS	04/18/2011	15:05	BO	26.510N	73.854W	GPS	4702	27	4760	4787	23	1,2
WBTSKN	AB1104	27	1	ROS	04/18/2011	16:53	EN	26.517N	73.844W	GPS						
WBTSKN	AB1104	28	1	ROS	04/18/2011	18:58	BE	26.502N	73.497W	GPS						
WBTSKN	AB1104	28	1	ROS	04/18/2011	20:25	BO	26.506N	73.482W	GPS	4283	230	4970	4984	23	1,2
WBTSKN	AB1104	28	1	ROS	04/18/2011	22:20	EN	26.505N	73.464W	GPS						
WBTSKN	AB1104	29	1	ROS	04/19/2011	00:07	BE	26.500N	73.133W	GPS						
WBTSKN	AB1104	29	1	ROS	04/19/2011	01:34	BO	26.496N	73.131W	GPS	5021	24	5050	5115	23	1,2
WBTSKN	AB1104	29	1	ROS	04/19/2011	03:29	EN	26.492N	73.129W	GPS						
WBTSKN	AB1104	30	1	ROS	04/19/2011	05:34	BO	26.501N	72.767W	GPS						
WBTSKN	AB1104	30	1	ROS	04/19/2011	07:05	BO	26.501N	72.769W	GPS	5108	28	5140	5205	23	1,2
WBTSKN	AB1104	30	1	ROS	04/19/2011	08:57	EN	26.504N	72.771W	GPS						
WBTSKN	AB1104	31	1	ROS	04/19/2011	11:05	BE	26.499N	72.384W	GPS						
WBTSKN	AB1104	31	1	ROS	04/19/2011	12:38	BO	26.499N	72.390W	GPS	5149	25	5190	5247	23	1,2
WBTSKN	AB1104	31	1	ROS	04/19/2011	14:34	EN	26.502N	72.394W	GPS						
WBTSKN	AB1104	32	1	ROS	04/19/2011	16:58	BE	26.502N	71.995W	GPS						
WBTSKN	AB1104	32	1	ROS	04/19/2011	18:29	BO	26.514N	71.993W	GPS	5266	20	5310	5368	23	1,2
WBTSKN	AB1104	32	1	ROS	04/19/2011	20:22	EN	26.524N	71.987W	GPS						
WBTSKN	AB1104	33	1	ROS	04/19/2011	23:16	BE	26.501N	71.501W	GPS						
WBTSKN	AB1104	33	1	ROS	04/20/2011	00:51	BO	26.502N	71.502W	GPS	5397	25	5430	5503	23	1,2
WBTSKN	AB1104	33	1	ROS	04/20/2011	02:52	EN	26.502N	71.502W	GPS						
WBTSKN	AB1104	34	1	ROS	04/20/2011	05:49	BE	26.501N	71.001W	GPS						
WBTSKN	AB1104	34	1	ROS	04/20/2011	07:25	BO	26.504N	71.003W	GPS	5456	30	5490	5564	23	1,2
WBTSKN	AB1104	34	1	ROS	04/20/2011	09:25	EN	26.509N	71.004W	GPS						
WBTSKN	AB1104	35	1	ROS	04/20/2011	12:44	BE	26.503N	70.498W	GPS						
WBTSKN	AB1104	35	1	ROS	04/20/2011	14:25	BO	26.518N	70.499W	GPS	5405	24	5515	5574	23	1,2
WBTSKN	AB1104	35	1	ROS	04/20/2011	16:24	EN	26.524N	70.500W	GPS						
WBTSKN	AB1104	36	1	ROS	04/20/2011	19:32	BE	26.527N	70.523W	GPS						
WBTSKN	AB1104	36	1	ROS	04/20/2011	21:09	BO	26.545N	70.526W	GPS	5405	78	5510	5542	22	1,2
WBTSKN	AB1104	36	1	ROS	04/21/2011	00:07	EN	26.566N	70.531W	GPS						
WBTSKN	AB1104	37	1	ROS	04/21/2011	02:28	BE	26.501N	70.501W	GPS						
WBTSKN	AB1104	37	1	ROS	04/21/2011	04:24	BO	26.512N	70.502W	GPS	5428	59	5470	5535	22	1,2
WBTSKN	AB1104	37	1	ROS	04/21/2011	06:58	EN	26.536N	70.504W	GPS						
WBTSKN	AB1104	38	1	ROS	04/24/2011	00:35	BE	26.486N	75.808W	GPS						
WBTSKN	AB1104	38	1	ROS	04/24/2011	02:05	BO	26.486N	75.818W	GPS	4703	31	4740	4789	22	1,2
WBTSKN	AB1104	38	1	ROS	04/24/2011	04:28	EN	26.485N	75.835W	GPS						
WBTSKN	AB1104	39	1	ROS	04/25/2011	04:01	BE	26.503N	75.707W	GPS						
WBTSKN	AB1104	39	1	ROS	04/25/2011	05:29	BO	26.503N	75.717W	GPS	4656	36	4685	4740	11	1,2
WBTSKN	AB1104	39	1	ROS	04/25/2011	07:48	EN	26.503N	75.733W	GPS						
WBTSKN	AB1104	40	1	ROS	04/26/2011	03:35	BE	26.502N	76.088W	GPS						
WBTSKN	AB1104	40	1	ROS	04/26/2011	05:01	BO	26.500N	76.088W	GPS	4758	42	4790	4845	11	1,2
WBTSKN	AB1104	40	1	ROS	04/26/2011	06:35	EN	26.497N	76.089W	GPS						
WBTSKN	AB1104	41	1	ROS	04/27/2011	01:37	BE	26.491N	76.469W	GPS						
WBTSKN	AB1104	41	1	ROS	04/27/2011	03:04	BO	26.490N	76.470W	GPS	4800	36	4860	4889	11	1,2
WBTSKN	AB1104	41	1	ROS	04/27/2011	05:31	EN	26.488N	76.468W	GPS						
WBTSKN	AB1104	42	1	ROS	04/28/2011	22:48	BE	26.498N	76.654W	GPS						
WBTSKN	AB1104	42	1	ROS	04/29/2011	00:04	BO	26.497N	76.649W	GPS	2982	242	4000	4041	11	1,2
WBTSKN	AB1104	42	1	ROS	04/29/2011	02:16	EN	26.496N	76.645W	GPS						
WBTSKN	AB1104	43	1	ROS	04/30/2011	20:09	BE	26.790N	76.544W	GPS						
WBTSKN	AB1104	43	1	ROS	04/30/2011	21:13	BO	26.789N	76.552W	GPS	1920	227	3500	3485	11	1,2

WBTSKN	AB1104	43	1	ROS	04/30/2011	23:19	EN	26.789N	76.561W	GPS	455	19	455	458	7	1,2
WBTSKN	AB1104	44	1	ROS	05/02/2011	12:50	BE	26.998N	79.199W	GPS						
WBTSKN	AB1104	44	1	ROS	05/02/2011	13:01	BO	27.001N	79.199W	GPS						
WBTSKN	AB1104	44	1	ROS	05/02/2011	13:18	EN	27.005N	79.199W	GPS						
WBTSKN	AB1104	45	1	ROS	05/02/2011	13:54	BE	27.000N	79.235W	GPS						
WBTSKN	AB1104	45	1	ROS	05/02/2011	14:07	BO	27.004N	79.282W	GPS	592	20	595	597	8	1,2
WBTSKN	AB1104	45	1	ROS	05/02/2011	14:26	EN	27.011N	79.283W	GPS						
WBTSKN	AB1104	46	1	ROS	05/02/2011	15:10	BE	27.001N	79.373W	GPS						
WBTSKN	AB1104	46	1	ROS	05/02/2011	15:25	BO	27.007N	79.382W	GPS	665	26	675	672	9	1,2
WBTSKN	AB1104	46	1	ROS	05/02/2011	15:49	EN	27.018N	79.381W	GPS						
WBTSKN	AB1104	47	1	ROS	05/02/2011	16:38	BE	27.004N	79.497W	GPS						
WBTSKN	AB1104	47	1	ROS	05/02/2011	16:53	BO	27.016N	79.495W	GPS	723	25	786	732	10	1,2
WBTSKN	AB1104	47	1	ROS	05/02/2011	17:18	EN	27.031N	79.491W	GPS						
WBTSKN	AB1104	48	1	ROS	05/02/2011	18:12	BE	27.009N	79.610W	GPS						
WBTSKN	AB1104	48	1	ROS	05/02/2011	18:28	BO	27.026N	79.607W	GPS	648	33	715	660	8	1,2
WBTSKN	AB1104	48	1	ROS	05/02/2011	18:51	EN	27.046N	79.606W	GPS						
WBTSKN	AB1104	49	1	ROS	05/02/2011	19:41	BE	27.013N	79.687W	GPS						
WBTSKN	AB1104	49	1	ROS	05/02/2011	19:54	BO	27.027N	79.687W	GPS	480	43	525	493	8	1,2
WBTSKN	AB1104	49	1	ROS	05/02/2011	20:14	EN	27.046N	79.683W	GPS						
WBTSKN	AB1104	50	1	ROS	05/02/2011	21:09	BE	27.006N	79.781W	GPS						
WBTSKN	AB1104	50	1	ROS	05/02/2011	21:19	BO	27.016N	79.780W	GPS	345	47	400	362	7	1,2
WBTSKN	AB1104	50	1	ROS	05/02/2011	21:35	EN	27.033N	79.777W	GPS						
WBTSKN	AB1104	51	1	ROS	05/02/2011	22:23	BE	27.006N	79.866W	GPS						
WBTSKN	AB1104	51	1	ROS	05/02/2011	22:32	BO	27.014N	79.866W	GPS	225	41	255	230	6	1,2
WBTSKN	AB1104	51	1	ROS	05/02/2011	22:44	EN	27.024N	79.865W	GPS						
WBTSKN	AB1104	52	1	ROS	05/02/2011	23:22	BE	27.005N	79.932W	GPS						
WBTSKN	AB1104	52	1	ROS	05/02/2011	23:28	BO	27.010N	79.932W	GPS	114	36	125	117	4	1,2
WBTSKN	AB1104	52	1	ROS	05/02/2011	23:36	EN	27.016N	79.931W	GPS						

Note:Parameter 1 - salinity sampled, Parameter 2 - oxygen sampled

## *C WOCE Bottle Summary File*

Table 18: Florida Current Cruise – WOCE Bottle Summary File

SHIP/CHS EXPOCODE	WOCE SECT	STN	CAST	BTL#	BTL# Flag	DATE	UTC TIME	LAT	LOX	DEPTH	CTD PRS	CTD TMP	CTD SAL	SAL FLAG	BTL SAL	SAL FLAG	CTD OXY	OXY FLAG	BTL OXY	OXY FLAG
WBTSKN	AB1104	1	1	1	2	20110413	2129	26.432N	78.668W	738	744	9.091	35.244	2	35.247	2	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	2	2	20110413	2130	26.432N	78.668W	738	744	9.079	35.243	2	35.245	2	152.6	2	153.4	2
WBTSKN	AB1104	1	1	3	2	20110413	2130	26.432N	78.668W	738	744	9.079	35.243	2	35.246	2	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	4	2	20110413	2133	26.432N	78.668W	649	654	11.506	35.497	2	35.498	2	145.5	2	144.1	6
WBTSKN	AB1104	1	1	5	2	20110413	2134	26.432N	78.668W	649	654	11.519	35.499	2	35.497	2	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	6	2	20110413	2139	26.432N	78.668W	510	514	14.791	35.980	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	7	2	20110413	2139	26.432N	78.668W	510	514	14.790	35.980	2	35.972	2	164.0	2	161.9	2
WBTSKN	AB1104	1	1	8	2	20110413	2141	26.432N	78.668W	430	434	16.790	36.319	2	36.316	2	180.8	2	179.0	2
WBTSKN	AB1104	1	1	9	2	20110413	2142	26.432N	78.668W	430	434	16.784	36.319	2	36.309	2	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	10	2	20110413	2144	26.432N	78.668W	351	354	17.826	36.488	2	36.491	2	188.3	2	185.6	2
WBTSKN	AB1104	1	1	11	2	20110413	2144	26.432N	78.668W	351	354	17.826	36.488	2	36.493	2	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	12	2	20110413	2147	26.432N	78.668W	276	278	18.870	36.627	2	36.628	2	191.7	2	190.9	2
WBTSKN	AB1104	1	1	13	2	20110413	2147	26.432N	78.668W	276	278	18.868	36.627	2	36.619	2	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	14	2	20110413	2149	26.432N	78.668W	192	193	20.480	36.764	2	36.761	2	197.3	2	194.7	2
WBTSKN	AB1104	1	1	15	2	20110413	2150	26.432N	78.668W	192	193	20.466	36.762	2	36.758	2	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	16	2	20110413	2151	26.431N	78.668W	142	143	22.507	36.838	2	36.841	2	191.9	2	188.9	2
WBTSKN	AB1104	1	1	17	2	20110413	2152	26.431N	78.668W	142	143	22.503	36.838	2	36.849	2	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	18	2	20110413	2154	26.431N	78.668W		93	23.435	36.681	2	36.708	4	200.9	2	198.0	2
WBTSKN	AB1104	1	1	19	2	20110413	2154	26.431N	78.668W		93	23.432	36.683	2	36.732	4	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	20	2	20110413	2156	26.431N	78.668W		53	24.095	36.504	2	36.538	4	212.4	2	207.3	4
WBTSKN	AB1104	1	1	21	2	20110413	2157	26.431N	78.668W		53	24.096	36.504	2	36.564	4	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	22	2	20110413	2200	26.431N	78.668W		2	26.135	36.277	2	36.287	2	206.6	2	205.8	2
WBTSKN	AB1104	1	1	23	2	20110413	2201	26.431N	78.668W		2	26.138	36.280	2	36.291	4	-999.0	9	-999.0	9
WBTSKN	AB1104	1	1	24	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	1	2	20110413	2344	26.333N	78.717W		678	11.123	35.440	2	35.438	2	141.8	2	141.5	2
WBTSKN	AB1104	2	1	2	2	20110413	2347	26.333N	78.717W	588	593	12.968	35.699	2	35.699	9	151.3	2	149.6	2
WBTSKN	AB1104	2	1	3	2	20110413	2351	26.333N	78.717W	370	372	16.258	36.226	2	36.190	4	175.4	2	175.2	2
WBTSKN	AB1104	2	1	4	2	20110413	2354	26.333N	78.717W	370	372	17.512	36.444	2	36.443	2	187.4	2	185.8	2
WBTSKN	AB1104	2	1	5	2	20110413	2357	26.333N	78.717W	300	302	18.401	36.576	2	36.576	2	191.3	2	190.7	2
WBTSKN	AB1104	2	1	6	2	20110413	2357	26.333N	78.717W	300	302	18.402	36.578	2	36.576	2	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	7	2	20110414	0000	26.333N	78.717W	201	202	20.280	36.747	2	36.745	2	192.7	2	191.7	2
WBTSKN	AB1104	2	1	8	2	20110414	0002	26.333N	78.717W	141	142	22.283	36.837	2	36.847	4	191.2	2	190.0	2
WBTSKN	AB1104	2	1	9	2	20110414	0005	26.333N	78.717W	72	73	23.956	36.593	2	36.592	2	203.8	2	203.6	2
WBTSKN	AB1104	2	1	10	2	20110414	0009	26.333N	78.717W	3	3	25.968	36.262	2	36.265	2	206.3	2	205.2	2
WBTSKN	AB1104	2	1	11	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	12	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	13	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	14	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	15	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	16	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	17	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	18	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	19	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	20	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	21	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	22	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	23	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	2	1	24	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	3	1	1	2	20110414	0118	26.250N	78.766W	501	505	14.892	35.994	2	35.996	2	162.0	2	161.6	2
WBTSKN	AB1104	3	1	2	2	20110414	0122	26.250N	78.766W	399	402	16.505	36.266	2	36.267	2	175.9	2	174.5	2
WBTSKN	AB1104	3	1	3	2	20110414	0126	26.249N	78.767W	270	272	18.427	36.585	2	36.580	2	193.4	2	192.7	2
WBTSKN	AB1104	3	1	4	2	20110414	0129	26.249N	78.767W	191	192	20.380	36.741	2	36.740	2	188.5	2	187.7	6
WBTSKN	AB1104	3	1	5	2	20110414	0132	26.249N	78.767W	131	132	22.830	36.807	2	36.804	2	193.5	2	191.6	2
WBTSKN	AB1104	3	1	6	2	20110414	0132	26.249N	78.767W	131	132	22.831	36.808	2	36.808	2	-999.0	9	-999.0	9
WBTSKN	AB1104	3	1	7	2	20110414	0136	26.248N	78.767W	52	52	24.175	36.548	2	36.552	2	208.5	2	211.3	2
WBTSKN	AB1104	3	1	8	2	20110414	0138	26.248N	78.767W	2	2	26.108	36.264	2	36.265	2	205.4	2	204.8	2
WBTSKN	AB1104	3	1	9	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	3	1	10	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	3	1	11	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	3	1	12	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	3	1	13	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	3	1	14	2	-999.000	-999.000	-999.000N	-999.000W		-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9



WBTSKN	AB1104	1	9	2	20110414	1704	25.954N	76.894W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	1	10	2	20110414	1710	25.955N	76.893W	1513	1529	4,039	2	34,976	2	-999.0	9	-999.0	9
WBTSKN	AB1104	1	11	2	20110414	1718	25.955N	76.893W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	2	-999,000	-999,000	-999,000N	-999,000W	1007	1016	5,625	2	35,059	2	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	13	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	14	-999,000	-999,000	-999,000N	-999,000W	754	760	9,566	2	35,247	2	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	15	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	16	-999,000	-999,000	-999,000N	-999,000W	500	504	15,743	2	36,140	2	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	17	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	18	-999,000	-999,000	-999,000N	-999,000W	203	204	20,829	2	36,777	2	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	19	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	20	-999,000	-999,000	-999,000N	-999,000W	104	104	22,976	2	36,837	2	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	21	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	22	-999,000	-999,000	-999,000N	-999,000W	54	54	23,386	2	36,799	2	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	23	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	6	1	24	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	1	20110414	1934	25.955N	76.894W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	2	20110414	1949	25.955N	76.894W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	3	20110414	2003	25.955N	76.894W	3502	3554	2,368	2	34,901	2	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	4	20110414	2017	25.955N	76.894W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	5	20110414	2032	25.954N	76.895W	3004	3045	2,762	2	34,925	2	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	6	20110414	2046	25.954N	76.895W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	7	20110414	2056	25.953N	76.895W	2500	2531	3,141	2	34,939	4	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	8	20110414	2106	25.953N	76.895W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	9	20110414	2116	25.953N	76.895W	2002	2025	3,520	2	34,952	4	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	10	20110414	2123	25.953N	76.896W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	11	20110414	2131	25.953N	76.896W	1513	1528	4,085	2	34,982	4	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	12	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	13	-999,000	-999,000	-999,000N	-999,000W	1007	1016	5,727	2	35,062	2	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	14	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	15	-999,000	-999,000	-999,000N	-999,000W	754	760	9,503	2	35,242	2	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	16	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	17	-999,000	-999,000	-999,000N	-999,000W	500	504	15,747	2	36,135	2	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	18	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	19	-999,000	-999,000	-999,000N	-999,000W	202	204	21,012	2	36,808	2	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	20	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	21	-999,000	-999,000	-999,000N	-999,000W	103	104	23,025	2	36,847	2	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	22	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	23	-999,000	-999,000	-999,000N	-999,000W	54	54	23,413	2	36,781	2	-999.0	9	-999.0	9
WBTSKN	AB1104	7	1	24	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	1	20110415	0059	25.953N	76.896W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	2	20110415	0123	25.954N	76.896W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	3	20110415	0137	25.953N	76.896W	4021	4086	2,272	2	34,890	2	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	4	20110415	0152	25.953N	76.896W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	5	20110415	0206	25.953N	76.896W	3007	3049	2,790	2	34,925	2	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	6	20110415	0221	25.953N	76.896W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	7	20110415	0231	25.953N	76.896W	2498	2529	3,117	2	34,940	2	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	8	20110415	0241	25.953N	76.896W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	9	20110415	0252	25.953N	76.896W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	10	20110415	0301	25.953N	76.896W	1513	1528	4,059	2	34,976	2	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	11	20110415	0308	25.953N	76.896W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	12	-999,000	-999,000	-999,000N	-999,000W	1008	1017	5,492	2	35,051	2	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	13	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	14	-999,000	-999,000	-999,000N	-999,000W	749	756	9,713	2	35,265	2	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	15	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	16	-999,000	-999,000	-999,000N	-999,000W	501	505	15,733	2	36,139	2	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	17	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	18	-999,000	-999,000	-999,000N	-999,000W	204	206	21,188	2	36,789	2	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	19	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	20	-999,000	-999,000	-999,000N	-999,000W	105	106	22,974	2	36,844	2	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	21	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	22	-999,000	-999,000	-999,000N	-999,000W	56	56	23,312	2	36,802	2	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	23	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	8	1	24	-999,000	-999,000	-999,000N	-999,000W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	9	1	1	20110415	0459	25.956N	76.898W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	9	1	2	20110415	0518	25.956N	76.898W	3502	3555	2,413	2	34,901	2	-999.0	9	-999.0	9

WBTSKN	AB1104	9	1	3	2	2	20110415	0532	25.957N	76.898W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	4	2	2	20110415	0546	25.958N	76.898W	-999	3047	2,763	-999,000	2	34,923	2	-999.0	9	-999.0
WBTSKN	AB1104	9	1	5	2	2	20110415	0601	25.959N	76.898W	-999	-999	-999,000	-999,000	2	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	6	2	2	20110415	0615	25.961N	76.899W	-999	2534	3,083	-999,000	2	34,938	2	-999.0	9	-999.0
WBTSKN	AB1104	9	1	7	2	2	20110415	0625	25.962N	76.899W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	8	2	2	20110415	0634	25.963N	76.899W	-999	2032	3,557	-999,000	2	34,954	2	-999.0	9	-999.0
WBTSKN	AB1104	9	1	9	2	2	20110415	0645	25.964N	76.899W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	10	2	2	20110415	0652	25.964N	76.899W	-999	1523	4,036	-999,000	2	34,976	2	-999.0	9	-999.0
WBTSKN	AB1104	9	1	11	2	2	20110415	0659	25.965N	76.899W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	12	2	2	-999.000	-999.000	-999.000N	-999.000W	996	1005	5,684	-999,000	2	35,062	2	-999.0	9	-999.0
WBTSKN	AB1104	9	1	13	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	14	2	2	-999.000	-999.000	-999.000N	-999.000W	748	755	9,739	-999,000	2	35,269	2	-999.0	9	-999.0
WBTSKN	AB1104	9	1	15	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	16	2	2	-999.000	-999.000	-999.000N	-999.000W	500	504	15,926	-999,000	2	36,168	2	-999.0	9	-999.0
WBTSKN	AB1104	9	1	17	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	18	2	2	-999.000	-999.000	-999.000N	-999.000W	203	204	21,041	-999,000	2	36,797	2	-999.0	9	-999.0
WBTSKN	AB1104	9	1	19	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	20	2	2	-999.000	-999.000	-999.000N	-999.000W	104	105	23,003	-999,000	2	36,844	2	-999.0	9	-999.0
WBTSKN	AB1104	9	1	21	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	22	2	2	-999.000	-999.000	-999.000N	-999.000W	54	55	23,284	-999,000	2	36,807	2	-999.0	9	-999.0
WBTSKN	AB1104	9	1	23	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	9	1	24	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	1	2	2	20110415	1045	26.525N	76.884W	439	442	17,065	-999,000	2	36,376	2	184.6	2	185.9
WBTSKN	AB1104	10	1	2	2	2	20110415	1049	26.526N	76.884W	300	302	18,521	-999,000	2	36,594	2	195.4	2	195.6
WBTSKN	AB1104	10	1	3	2	2	20110415	1051	26.526N	76.884W	250	252	19,493	-999,000	2	36,663	4	195.9	2	195.6
WBTSKN	AB1104	10	1	4	2	2	20110415	1053	26.526N	76.884W	181	182	21,024	-999,000	2	36,778	2	202.5	2	202.3
WBTSKN	AB1104	10	1	5	2	2	20110415	1055	26.526N	76.885W	131	132	22,566	-999,000	2	36,791	2	208.0	2	208.2
WBTSKN	AB1104	10	1	6	2	2	20110415	1057	26.526N	76.885W	82	82	23,821	-999,000	2	36,655	2	209.3	2	210.5
WBTSKN	AB1104	10	1	7	2	2	20110415	1100	26.526N	76.885W	42	42	24,841	-999,000	2	36,337	2	207.0	2	207.5
WBTSKN	AB1104	10	1	8	2	2	20110415	1102	26.526N	76.885W	3	3	25,382	-999,000	2	36,169	2	205.4	2	205.3
WBTSKN	AB1104	10	1	9	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	10	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	11	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	12	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	13	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	14	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	15	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	16	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	17	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	18	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	19	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	20	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	21	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	22	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	23	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	10	1	24	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	11	1	1	2	2	20110415	1207	26.518N	76.834W	1069	1079	4,990	-999,000	2	35,027	4	236.4	2	234.8
WBTSKN	AB1104	11	1	2	2	2	20110415	1212	26.518N	76.834W	844	851	7,712	-999,000	2	35,123	2	162.9	2	162.6
WBTSKN	AB1104	11	1	3	2	2	20110415	1215	26.519N	76.833W	746	752	9,598	-999,000	2	35,269	2	143.1	2	142.5
WBTSKN	AB1104	11	1	4	2	2	20110415	1219	26.519N	76.833W	598	603	13,568	-999,000	2	35,784	2	155.5	2	154.2
WBTSKN	AB1104	11	1	5	2	2	20110415	1222	26.520N	76.834W	449	453	17,274	-999,000	2	36,402	2	191.5	2	189.6
WBTSKN	AB1104	11	1	6	2	2	20110415	1225	26.520N	76.834W	350	353	18,147	-999,000	2	36,549	2	195.2	2	194.1
WBTSKN	AB1104	11	1	7	2	2	20110415	1228	26.520N	76.834W	251	253	19,345	-999,000	2	36,678	2	200.6	2	200.6
WBTSKN	AB1104	11	1	8	2	2	20110415	1230	26.520N	76.834W	201	203	20,463	-999,000	2	36,776	2	205.1	2	204.8
WBTSKN	AB1104	11	1	9	2	2	20110415	1232	26.520N	76.834W	152	153	21,612	-999,000	2	36,794	2	199.1	2	197.8
WBTSKN	AB1104	11	1	10	2	2	20110415	1234	26.521N	76.834W	102	103	22,459	-999,000	2	36,810	2	210.6	2	209.3
WBTSKN	AB1104	11	1	11	2	2	20110415	1237	26.521N	76.834W	52	53	24,188	-999,000	2	36,592	4	208.8	2	209.6
WBTSKN	AB1104	11	1	12	2	2	20110415	1240	26.521N	76.834W	3	3	25,308	-999,000	2	36,213	2	204.8	2	205.5
WBTSKN	AB1104	11	1	13	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	11	1	14	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	11	1	15	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	11	1	16	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	11	1	17	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	11	1	18	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999,000	-999,000	9	-999,000	9	-999.0	9	-999.0
WBTSKN	AB1104	11	1	19	2	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999</								

WBTSKN	AB1104	11	1	21	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	11	1	22	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	11	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	11	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	12	1	1	2	20110415	1438	26.501N	76.742W	3822	3822	34.895	9	34.895	9	267.8	2	267.2	2
WBTSKN	AB1104	12	1	2	2	20110415	1445	26.502N	76.741W	3479	3531	2.483	2	34.907	2	34.906	2	268.7	2
WBTSKN	AB1104	12	1	3	2	20110415	1457	26.502N	76.741W	2983	3024	34.922	2	34.922	2	34.922	2	272.9	4
WBTSKN	AB1104	12	1	4	2	20110415	1457	26.502N	76.741W	2983	3024	2.726	2	34.922	2	34.922	2	267.2	4
WBTSKN	AB1104	12	1	5	2	20110415	1504	26.502N	76.741W	2685	2720	3.030	2	34.938	2	34.938	2	267.5	2
WBTSKN	AB1104	12	1	6	2	20110415	1508	26.502N	76.741W	2486	2518	3.263	2	34.947	2	34.947	2	267.5	2
WBTSKN	AB1104	12	1	7	2	20110415	1514	26.502N	76.741W	2188	2214	3.483	2	34.956	2	34.956	2	264.3	2
WBTSKN	AB1104	12	1	8	2	20110415	1519	26.502N	76.741W	1989	2012	3.610	2	34.959	2	34.959	2	263.8	2
WBTSKN	AB1104	12	1	9	2	20110415	1525	26.502N	76.741W	1691	1709	3.877	2	34.973	2	34.972	2	260.3	6
WBTSKN	AB1104	12	1	10	2	20110415	1530	26.502N	76.740W	1492	1507	3.975	2	34.975	2	34.975	2	260.2	2
WBTSKN	AB1104	12	1	11	2	20110415	1537	26.502N	76.740W	1193	1205	4.717	2	35.018	2	35.018	2	259.0	2
WBTSKN	AB1104	12	1	12	2	20110415	1541	26.502N	76.741W	996	1004	5.947	2	35.067	2	35.067	2	244.7	2
WBTSKN	AB1104	12	1	13	2	20110415	1545	26.502N	76.741W	848	855	7.738	2	35.142	4	35.142	2	209.2	2
WBTSKN	AB1104	12	1	14	2	20110415	1548	26.502N	76.741W	748	754	9.827	2	35.293	2	35.293	2	165.4	2
WBTSKN	AB1104	12	1	15	2	20110415	1551	26.502N	76.741W	599	604	13.857	2	35.821	2	35.821	2	145.4	2
WBTSKN	AB1104	12	1	16	2	20110415	1555	26.502N	76.740W	450	453	17.457	2	36.443	2	36.441	2	151.9	4
WBTSKN	AB1104	12	1	17	2	20110415	1559	26.501N	76.740W	351	353	18.263	2	36.571	2	36.571	2	191.0	2
WBTSKN	AB1104	12	1	18	2	20110415	1601	26.501N	76.740W	252	254	19.285	2	36.668	2	36.666	2	196.1	2
WBTSKN	AB1104	12	1	19	2	20110415	1604	26.501N	76.740W	202	204	20.305	2	36.767	2	36.768	2	196.2	2
WBTSKN	AB1104	12	1	20	2	20110415	1606	26.501N	76.740W	153	154	21.268	2	36.795	2	36.797	2	204.9	2
WBTSKN	AB1104	12	1	21	2	20110415	1608	26.501N	76.740W	103	104	22.326	2	36.825	2	36.828	2	198.7	2
WBTSKN	AB1104	12	1	22	2	20110415	1612	26.500N	76.740W	53	54	23.069	2	36.814	2	36.817	2	210.4	2
WBTSKN	AB1104	12	1	23	2	20110415	1614	26.500N	76.740W	2	2	25.084	2	36.537	2	36.542	2	214.3	2
WBTSKN	AB1104	12	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	207.1	2	206.5	2
WBTSKN	AB1104	13	1	1	2	20110415	1918	26.501N	76.654W	4563	4643	2.241	2	34.882	2	34.882	2	207.1	2
WBTSKN	AB1104	13	1	2	2	20110415	1925	26.501N	76.654W	4266	4338	2.282	2	34.889	2	34.889	2	-999.0	9
WBTSKN	AB1104	13	1	3	2	20110415	1931	26.501N	76.654W	3668	4032	2.346	2	34.896	2	34.895	2	262.6	6
WBTSKN	AB1104	13	1	4	2	20110415	1937	26.501N	76.654W	3668	3725	2.462	2	34.905	2	34.905	2	265.6	2
WBTSKN	AB1104	13	1	5	2	20110415	1943	26.501N	76.654W	3369	3419	2.490	2	34.908	2	34.907	2	269.1	2
WBTSKN	AB1104	13	1	6	2	20110415	1949	26.502N	76.654W	3067	3109	2.647	2	34.918	2	34.918	2	268.5	2
WBTSKN	AB1104	13	1	7	2	20110415	1956	26.502N	76.654W	2764	2800	2.863	2	34.931	2	34.931	2	267.0	2
WBTSKN	AB1104	13	1	8	2	20110415	2005	26.502N	76.654W	2458	2489	3.269	2	34.952	2	34.953	2	265.6	2
WBTSKN	AB1104	13	1	9	2	20110415	2010	26.503N	76.654W	2214	2240	3.432	2	34.957	2	34.957	2	263.2	2
WBTSKN	AB1104	13	1	10	2	20110415	2015	26.503N	76.654W	2001	2024	3.541	2	34.956	2	34.955	2	263.3	2
WBTSKN	AB1104	13	1	11	2	20110415	2020	26.503N	76.654W	1758	1777	3.644	2	34.958	2	34.958	2	264.4	2
WBTSKN	AB1104	13	1	12	2	20110415	2026	26.503N	76.654W	1509	1524	4.025	2	34.978	2	34.978	2	264.1	2
WBTSKN	AB1104	13	1	13	2	20110415	2031	26.503N	76.654W	1270	1282	4.399	2	34.997	2	34.998	2	258.6	2
WBTSKN	AB1104	13	1	14	2	20110415	2037	26.503N	76.654W	1014	1024	5.799	2	35.061	2	35.060	2	253.1	2
WBTSKN	AB1104	13	1	15	2	20110415	2043	26.503N	76.654W	740	746	10.674	2	35.391	4	35.378	4	252.3	2
WBTSKN	AB1104	13	1	16	2	20110415	2048	26.503N	76.654W	502	505	16.677	2	36.306	2	36.296	2	214.0	2
WBTSKN	AB1104	13	1	17	2	20110415	2052	26.503N	76.654W	353	355	18.196	2	36.568	2	36.569	2	187.2	2
WBTSKN	AB1104	13	1	18	2	20110415	2054	26.503N	76.654W	253	255	19.273	2	36.670	2	36.668	2	200.8	2
WBTSKN	AB1104	13	1	19	2	20110415	2056	26.503N	76.654W	203	205	20.291	2	36.789	2	36.783	2	208.3	2
WBTSKN	AB1104	13	1	20	2	20110415	2058	26.503N	76.654W	153	154	21.221	2	36.780	2	36.782	2	196.0	2
WBTSKN	AB1104	13	1	21	2	20110415	2100	26.503N	76.654W	103	104	22.333	2	36.824	2	36.824	2	205.3	2
WBTSKN	AB1104	13	1	22	2	20110415	2102	26.503N	76.654W	55	55	23.051	2	36.814	2	36.825	2	197.9	2
WBTSKN	AB1104	13	1	23	2	20110415	2105	26.503N	76.654W	3	3	24.918	2	36.459	2	36.492	2	211.5	2
WBTSKN	AB1104	13	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	216.1	2	211.3	4
WBTSKN	AB1104	14	1	1	2	20110415	2348	26.499N	76.565W	4810	4897	2.261	2	34.881	2	34.881	2	-999.0	9
WBTSKN	AB1104	14	1	2	2	20110416	0000	26.500N	76.566W	4226	4296	2.290	2	34.891	2	34.888	2	-999.0	9
WBTSKN	AB1104	14	1	3	2	20110416	0005	26.499N	76.566W	4003	4068	2.353	2	34.897	2	34.896	2	261.9	2
WBTSKN	AB1104	14	1	4	2	20110416	0012	26.499N	76.566W	3709	3767	2.357	2	34.897	2	34.897	2	266.2	2
WBTSKN	AB1104	14	1	5	2	20110416	0019	26.498N	76.566W	3401	3451	2.488	2	34.908	2	34.907	2	268.3	2
WBTSKN	AB1104	14	1	6	2	20110416	0025	26.497N	76.566W	3108	3152	2.568	2	34.914	2	34.913	2	269.1	2
WBTSKN	AB1104	14	1	7	2	20110416	0032	26.497N	76.566W	2801	2838	2.795	2	34.927	2	34.927	2	268.5	2
WBTSKN	AB1104	14	1	8	2	20110416	0100	26.496N	76.567W	2506	2537	3.152	2	34.947	2	34.946	2	266.7	2
WBTSKN	AB1104	14	1	9	2	20110416	0106	26.496N	76.567W	2248	2275	3.368	2	34.952	2	34.952	2	263.4	2
WBTSKN	AB1104	14	1	10	2	20110416	0112	26.496N	76.567W	2000	2023	3.576	2	34.958	2	34.959	2	263.9	2
WBTSKN	AB1104	14	1	11	2	20110416	0117	26.495N	76.567W	1755	1774	3.800	2	34.967	2	34.967	2	264.0	2
WBTSKN	AB1104	14	1	12	2	20110416	0123	26.495N	76.567W	1500	1515	4.070	2	34.979	2	34.980	2	262.2	2
WBTSKN	AB1104	14	1	13	2	20110416	0129	26.495N	76.567W	1254	1266	4.587	2	35.008	2	35.008	2	259.4	2
WBTSKN	AB1104	14	1	14	2	20110416	0135	26.495N	76.567W	998	1007	6.078	2	35.076	2	35.075	2	248.8	2
WBTSKN	AB1104	14	1	14	2	20110416	0135	26.495N	76.567W	998	1007	6.078	2	35.076	2	35.075	2	203.8	2



WBTSKN	AB1104	14	1	15	2	20110416	0140	26.495N	76.567W	751	757	10.095	35.316	2	35.314	2	145.8	2	145.2	2
WBTSKN	AB1104	14	1	16	2	20110416	0146	26.494N	76.568W	503	507	16.486	36.263	2	36.260	2	177.0	2	175.8	2
WBTSKN	AB1104	14	1	17	2	20110416	0150	26.494N	76.568W	354	356	18.253	36.569	2	36.570	2	193.7	2	196.7	2
WBTSKN	AB1104	14	1	18	2	20110416	0152	26.494N	76.568W	255	256	19.232	36.673	2	36.674	2	197.6	2	197.6	2
WBTSKN	AB1104	14	1	19	2	20110416	0157	26.494N	76.568W	156	157	20.889	36.792	2	36.790	2	199.9	2	204.1	4
WBTSKN	AB1104	14	1	20	2	20110416	0157	26.494N	76.568W	156	157	20.892	36.794	2	36.804	4	200.0	2	204.6	4
WBTSKN	AB1104	14	1	21	2	20110416	0200	26.494N	76.568W	106	107	21.832	36.841	2	36.843	2	202.2	2	202.5	2
WBTSKN	AB1104	14	1	22	2	20110416	0202	26.494N	76.568W	56	57	23.221	36.836	2	36.837	2	210.3	2	210.6	2
WBTSKN	AB1104	14	1	23	2	20110416	0205	26.494N	76.568W	4	4	25.027	36.442	2	36.468	4	207.6	2	207.8	2
WBTSKN	AB1104	14	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	15	1	1	2	20110416	0448	26.494N	76.480W	4801	4888	2.234	34.878	2	34.878	2	260.2	2	259.5	2
WBTSKN	AB1104	15	1	2	2	20110416	0506	26.491N	76.482W	4267	4339	2.250	34.887	2	34.887	2	264.4	2	264.4	2
WBTSKN	AB1104	15	1	3	2	20110416	0512	26.491N	76.483W	3967	4031	2.279	34.891	2	34.891	2	265.9	2	267.0	2
WBTSKN	AB1104	15	1	4	2	20110416	0518	26.491N	76.483W	3666	3722	2.340	34.898	2	34.899	2	268.2	2	268.9	2
WBTSKN	AB1104	15	1	5	2	20110416	0524	26.491N	76.483W	3363	3413	2.431	34.905	2	34.905	2	269.2	2	270.1	2
WBTSKN	AB1104	15	1	6	2	20110416	0530	26.492N	76.484W	3061	3104	2.647	34.918	2	34.919	2	268.1	2	268.5	6
WBTSKN	AB1104	15	1	7	2	20110416	0536	26.492N	76.484W	2761	2798	2.881	34.932	2	34.933	2	265.1	2	266.0	2
WBTSKN	AB1104	15	1	8	2	20110416	0542	26.492N	76.484W	2464	2495	3.167	34.948	2	34.950	2	263.6	2	263.6	2
WBTSKN	AB1104	15	1	9	2	20110416	0547	26.491N	76.484W	2221	2247	3.405	34.955	2	34.956	2	264.7	2	264.7	2
WBTSKN	AB1104	15	1	10	2	20110416	0553	26.491N	76.485W	1976	1999	3.609	34.958	2	34.958	2	264.3	2	264.3	2
WBTSKN	AB1104	15	1	11	2	20110416	0558	26.491N	76.485W	1730	1749	3.834	34.967	2	34.968	2	262.4	2	262.3	2
WBTSKN	AB1104	15	1	12	2	20110416	0603	26.491N	76.485W	1484	1499	4.176	34.986	2	34.987	2	257.4	2	257.2	2
WBTSKN	AB1104	15	1	13	2	20110416	0608	26.491N	76.485W	1238	1250	4.805	35.030	2	35.030	2	242.1	2	242.3	2
WBTSKN	AB1104	15	1	14	2	20110416	0613	26.491N	76.485W	993	1002	6.149	35.077	2	35.077	2	200.0	2	200.8	2
WBTSKN	AB1104	15	1	15	2	20110416	0618	26.491N	76.485W	747	754	10.326	35.336	2	35.332	2	144.0	2	143.1	2
WBTSKN	AB1104	15	1	16	2	20110416	0623	26.492N	76.486W	501	505	16.720	36.305	2	36.300	2	180.3	2	178.5	2
WBTSKN	AB1104	15	1	17	2	20110416	0627	26.492N	76.486W	353	355	18.206	36.559	2	36.560	2	194.3	2	193.3	2
WBTSKN	AB1104	15	1	18	2	20110416	0630	26.492N	76.486W	254	255	19.268	36.672	2	36.669	2	194.1	2	195.3	2
WBTSKN	AB1104	15	1	19	2	20110416	0631	26.492N	76.486W	205	206	19.830	36.722	2	36.720	2	195.6	2	192.3	2
WBTSKN	AB1104	15	1	20	2	20110416	0633	26.492N	76.486W	155	156	20.757	36.793	2	36.788	2	198.9	2	198.7	2
WBTSKN	AB1104	15	1	21	2	20110416	0635	26.492N	76.486W	106	106	21.719	36.771	2	36.773	2	208.4	2	208.4	2
WBTSKN	AB1104	15	1	22	2	20110416	0637	26.492N	76.486W	56	56	22.717	36.682	2	36.694	4	215.2	2	214.8	2
WBTSKN	AB1104	15	1	23	2	20110416	0640	26.491N	76.486W	2	2	24.479	36.809	2	36.810	2	208.3	2	209.0	2
WBTSKN	AB1104	15	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	16	1	1	2	20110416	0939	26.494N	76.349W	4825	4913	2.240	34.878	2	34.878	2	260.7	2	259.9	2
WBTSKN	AB1104	16	1	2	2	20110416	0950	26.493N	76.350W	4269	4341	2.253	34.887	2	34.887	2	264.5	2	264.6	2
WBTSKN	AB1104	16	1	3	2	20110416	0956	26.492N	76.350W	3971	4036	2.269	34.891	2	34.890	2	266.1	2	266.5	2
WBTSKN	AB1104	16	1	4	2	20110416	1002	26.492N	76.351W	3674	3730	2.310	34.896	2	34.896	2	267.9	2	268.1	2
WBTSKN	AB1104	16	1	5	2	20110416	1009	26.491N	76.351W	3376	3426	2.434	34.905	2	34.905	2	269.2	2	269.2	2
WBTSKN	AB1104	16	1	6	2	20110416	1015	26.491N	76.352W	3078	3122	2.669	34.921	2	34.921	2	266.8	2	267.0	2
WBTSKN	AB1104	16	1	7	2	20110416	1021	26.490N	76.352W	2780	2817	2.927	34.936	2	34.936	2	264.1	2	264.5	2
WBTSKN	AB1104	16	1	8	2	20110416	1027	26.490N	76.353W	2482	2514	3.201	34.949	2	34.949	2	263.3	2	263.6	6
WBTSKN	AB1104	16	1	9	2	20110416	1032	26.489N	76.353W	2234	2261	3.401	34.954	2	34.955	2	263.4	2	263.7	2
WBTSKN	AB1104	16	1	10	2	20110416	1038	26.489N	76.354W	1987	2010	3.595	34.956	2	34.956	2	264.3	2	264.3	2
WBTSKN	AB1104	16	1	11	2	20110416	1043	26.488N	76.354W	1740	1759	3.850	34.968	2	34.969	2	261.9	2	261.8	2
WBTSKN	AB1104	16	1	12	2	20110416	1049	26.488N	76.354W	1492	1507	4.216	34.993	2	34.993	2	255.9	2	255.7	2
WBTSKN	AB1104	16	1	13	2	20110416	1054	26.488N	76.355W	1244	1256	4.808	35.028	2	35.028	2	242.7	2	242.6	2
WBTSKN	AB1104	16	1	14	2	20110416	1059	26.487N	76.355W	996	1005	6.275	35.079	2	35.079	2	196.6	2	199.0	2
WBTSKN	AB1104	16	1	15	2	20110416	1104	26.487N	76.355W	748	755	10.070	35.311	2	35.306	2	143.2	2	144.1	2
WBTSKN	AB1104	16	1	16	2	20110416	1110	26.486N	76.355W	500	504	16.366	36.243	2	36.239	2	176.0	2	175.9	2
WBTSKN	AB1104	16	1	17	2	20110416	1113	26.486N	76.355W	351	354	18.163	36.553	2	36.550	2	193.2	2	194.1	2
WBTSKN	AB1104	16	1	18	2	20110416	1116	26.486N	76.355W	252	254	19.142	36.668	2	36.668	2	197.9	2	200.1	2
WBTSKN	AB1104	16	1	19	2	20110416	1118	26.486N	76.355W	203	204	19.783	36.717	2	36.715	2	195.9	2	193.2	2
WBTSKN	AB1104	16	1	20	2	20110416	1120	26.486N	76.356W	153	154	20.585	36.783	2	36.784	2	198.5	2	204.9	4
WBTSKN	AB1104	16	1	21	2	20110416	1122	26.486N	76.356W	104	104	21.823	36.814	2	36.821	2	208.5	2	207.3	2
WBTSKN	AB1104	16	1	22	2	20110416	1124	26.485N	76.356W	54	54	22.821	36.708	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	16	1	23	2	20110416	1126	26.485N	76.356W	3	3	24.505	36.820	2	36.822	2	207.6	2	209.3	2
WBTSKN	AB1104	16	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	17	1	1	2	20110416	1406	26.493N	76.222W	4787	4874	2.190	34.873	2	34.872	2	257.9	2	256.5	2
WBTSKN	AB1104	17	1	2	2	20110416	1417	26.492N	76.223W	4271	4343	2.254	34.887	2	34.886	2	264.3	2	264.3	2
WBTSKN	AB1104	17	1	3	2	20110416	1423	26.491N	76.223W	3973	4037	2.277	34.891	2	34.892	2	266.2	2	266.1	2
WBTSKN	AB1104	17	1	4	2	20110416	1430	26.491N	76.224W	3676	3732	2.337	34.898	2	34.898	2	267.6	2	268.3	2
WBTSKN	AB1104	17	1	5	2	20110416	1436	26.490N	76.224W	3378	3428	2.446	34.906	2	34.905	2	268.8	2	269.0	2
WBTSKN	AB1104	17	1	6	2	20110416	1442	26.490N	76.224W	3081	3124	2.668	34.920	2	34.918	2	267.1	2	267.8	2
WBTSKN	AB1104	17	1	7	2	20110416	1449	26.489N	76.224W	2783	2820	2.902	34.932	2	34.932	2	265.9	2	265.9	2
WBTSKN	AB1104	17	1	8	2	20110416	1455	26.488N	76.225W	2485	2517	3.202	34							

WBTSKN	AB1104	17	1	9	2	20110416	1501	26.488N	76.225W	2237	2264	3.410	34.957	2	34.958	2	262.8	2	263.6	2
WBTSKN	AB1104	17	1	10	2	20110416	1507	26.488N	76.225W	1989	2011	3.618	34.959	2	34.959	2	264.0	2	263.1	2
WBTSKN	AB1104	17	1	11	2	20110416	1513	26.487N	76.226W	1741	1760	3.862	34.969	2	34.969	2	261.9	2	261.3	2
WBTSKN	AB1104	17	1	12	2	20110416	1518	26.487N	76.226W	1492	1508	4.223	34.987	2	34.987	2	255.2	2	256.1	2
WBTSKN	AB1104	17	1	13	2	20110416	1524	26.486N	76.226W	1244	1256	4.739	35.018	2	35.018	2	244.0	2	244.2	2
WBTSKN	AB1104	17	1	14	2	20110416	1529	26.486N	76.227W	996	1005	6.135	35.064	2	35.064	2	195.6	2	196.1	6
WBTSKN	AB1104	17	1	15	2	20110416	1535	26.485N	76.227W	747	754	9.669	35.251	2	35.251	2	140.4	2	140.4	2
WBTSKN	AB1104	17	1	16	2	20110416	1540	26.485N	76.227W	499	502	15.756	36.138	2	36.129	2	137.9	2	170.2	2
WBTSKN	AB1104	17	1	17	2	20110416	1543	26.484N	76.228W	350	353	17.784	36.503	2	36.501	2	192.7	2	195.6	2
WBTSKN	AB1104	17	1	18	2	20110416	1546	26.484N	76.228W	252	254	18.631	36.610	2	36.611	2	195.9	2	197.2	2
WBTSKN	AB1104	17	1	19	2	20110416	1548	26.484N	76.228W	202	204	19.537	36.695	2	36.695	2	204.4	2	201.5	2
WBTSKN	AB1104	17	1	20	2	20110416	1551	26.484N	76.228W	153	154	20.528	36.780	2	36.780	2	201.3	2	201.4	2
WBTSKN	AB1104	17	1	21	2	20110416	1559	26.484N	76.228W	104	104	21.386	36.821	2	36.823	2	-999.0	9	-999.0	9
WBTSKN	AB1104	17	1	22	2	20110416	1553	26.483N	76.228W	55	55	22.793	36.822	2	36.826	2	-999.0	9	-999.0	9
WBTSKN	AB1104	17	1	23	2	20110416	1556	26.483N	76.228W	3	3	24.760	36.835	2	36.838	2	-999.0	9	-999.0	9
WBTSKN	AB1104	17	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	18	1	1	2	20110416	1828	26.491N	76.096W	4774	4860	2.193	34.873	2	34.873	2	258.7	2	257.2	2
WBTSKN	AB1104	18	1	2	2	20110416	1837	26.489N	76.096W	4309	4382	2.250	34.886	2	34.885	2	264.3	2	264.0	2
WBTSKN	AB1104	18	1	3	2	20110416	1844	26.489N	76.097W	3997	4062	2.268	34.891	2	34.891	2	266.3	2	266.0	2
WBTSKN	AB1104	18	1	4	2	20110416	1850	26.488N	76.097W	3694	3751	2.323	34.897	2	34.897	2	268.1	2	267.8	2
WBTSKN	AB1104	18	1	5	2	20110416	1856	26.487N	76.097W	3400	3451	2.438	34.905	2	34.905	2	268.8	2	268.7	2
WBTSKN	AB1104	18	1	6	2	20110416	1902	26.487N	76.097W	3104	3148	2.623	34.916	2	34.915	2	268.5	2	268.6	6
WBTSKN	AB1104	18	1	7	2	20110416	1908	26.486N	76.098W	2796	2834	2.882	34.932	2	34.932	2	265.6	2	265.4	2
WBTSKN	AB1104	18	1	8	2	20110416	1914	26.485N	76.098W	2498	2530	3.172	34.946	2	34.946	2	263.5	2	264.0	2
WBTSKN	AB1104	18	1	9	2	20110416	1919	26.484N	76.098W	2250	2277	3.408	34.955	2	34.955	2	263.6	2	263.4	2
WBTSKN	AB1104	18	1	10	2	20110416	1924	26.483N	76.098W	2002	2025	3.612	34.961	2	34.959	2	264.2	2	263.6	2
WBTSKN	AB1104	18	1	11	2	20110416	1929	26.482N	76.098W	1753	1772	3.854	34.967	2	34.966	2	261.7	2	261.6	2
WBTSKN	AB1104	18	1	12	2	20110416	1940	26.481N	76.099W	1247	1259	4.849	35.024	2	35.024	2	240.2	2	240.1	2
WBTSKN	AB1104	18	1	13	2	20110416	1946	26.481N	76.099W	988	1259	4.849	35.024	2	35.025	2	240.2	2	240.1	6
WBTSKN	AB1104	18	1	14	2	20110416	1946	26.480N	76.099W	988	997	6.357	35.057	2	35.057	2	185.8	2	186.5	2
WBTSKN	AB1104	18	1	15	2	20110416	1951	26.479N	76.099W	750	756	9.080	35.191	2	35.188	2	143.5	2	163.2	4
WBTSKN	AB1104	18	1	16	2	20110416	1956	26.478N	76.099W	501	505	14.473	35.924	2	35.922	2	-999.0	9	-999.0	9
WBTSKN	AB1104	18	1	17	2	20110416	2000	26.478N	76.099W	353	355	17.226	36.398	2	36.394	2	183.9	2	184.3	2
WBTSKN	AB1104	18	1	18	2	20110416	2002	26.477N	76.099W	253	255	18.527	36.599	2	36.597	2	189.9	2	192.0	2
WBTSKN	AB1104	18	1	19	2	20110416	2004	26.477N	76.099W	203	205	19.238	36.670	2	36.666	2	186.7	2	187.9	2
WBTSKN	AB1104	18	1	20	2	20110416	2005	26.477N	76.099W	154	155	20.114	36.749	2	36.748	2	191.6	2	189.8	2
WBTSKN	AB1104	18	1	21	2	20110416	2007	26.476N	76.099W	104	105	21.294	36.817	2	36.817	2	201.2	2	199.5	2
WBTSKN	AB1104	18	1	22	2	20110416	2010	26.476N	76.099W	55	55	22.848	36.818	2	36.820	2	214.8	2	214.8	2
WBTSKN	AB1104	18	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	18	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	1	2	20110416	2259	26.487N	75.908W	4721	4806	2.178	34.872	2	34.872	2	257.3	2	256.4	2
WBTSKN	AB1104	19	1	2	2	20110416	2307	26.486N	75.908W	4315	4389	2.180	34.879	2	34.878	2	260.2	2	259.7	2
WBTSKN	AB1104	19	1	3	2	20110416	2313	26.485N	75.908W	4002	4067	2.194	34.885	2	34.884	2	263.5	2	263.4	2
WBTSKN	AB1104	19	1	4	2	20110416	2320	26.483N	75.909W	3699	3756	2.267	34.893	2	34.891	2	266.2	2	266.2	2
WBTSKN	AB1104	19	1	5	2	20110416	2326	26.483N	75.909W	3401	3451	2.482	34.908	2	34.907	2	269.1	2	268.6	2
WBTSKN	AB1104	19	1	6	2	20110416	2332	26.482N	75.909W	3103	3146	2.672	34.919	2	34.919	2	267.7	2	267.9	2
WBTSKN	AB1104	19	1	7	2	20110416	2338	26.481N	75.910W	2805	2842	2.913	34.934	2	34.934	2	265.3	2	265.3	2
WBTSKN	AB1104	19	1	8	2	20110416	2345	26.480N	75.910W	2497	2529	3.184	34.947	2	34.947	2	263.3	2	264.2	2
WBTSKN	AB1104	19	1	9	2	20110416	2350	26.479N	75.910W	2249	2276	3.407	34.957	2	34.957	2	262.9	2	263.3	6
WBTSKN	AB1104	19	1	10	2	20110416	2355	26.478N	75.911W	2001	2024	3.599	34.959	2	34.960	2	263.8	2	263.8	2
WBTSKN	AB1104	19	1	11	2	20110417	0001	26.477N	75.911W	1753	1772	3.831	34.970	2	34.971	2	262.5	2	262.0	2
WBTSKN	AB1104	19	1	12	2	20110417	0007	26.477N	75.912W	1495	1510	4.231	34.993	2	34.993	2	255.9	2	255.4	2
WBTSKN	AB1104	19	1	13	2	20110417	0013	26.476N	75.912W	1247	1259	4.830	35.024	2	35.023	2	242.4	2	244.7	2
WBTSKN	AB1104	19	1	14	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	15	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	16	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	17	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	18	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	19	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	20	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	21	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	22	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	19	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	20	1	1	2	20110417	0459	26.503N	75.704W	4658	4741	2.168	34.872	2	34.872	2	256.2	2	254.9	2
WBTSKN	AB1104	20	1	2</																

WBTSKN	AB1104	20	1	3	2	20110417	0513	26.503N	75.704W	3975	4039	2.238	34.889	2	34.889	2	264.1	2	263.6
WBTSKN	AB1104	20	1	4	2	20110417	0519	26.502N	75.704W	3678	3735	2.277	34.894	2	34.894	2	265.9	2	266.0
WBTSKN	AB1104	20	1	5	2	20110417	0525	26.502N	75.704W	3380	3430	2.400	34.904	2	34.904	2	267.5	2	266.6
WBTSKN	AB1104	20	1	6	2	20110417	0531	26.502N	75.704W	3082	3126	2.579	34.915	2	34.916	2	267.3	2	267.0
WBTSKN	AB1104	20	1	7	2	20110417	0537	26.502N	75.705W	2785	2822	2.857	34.930	2	34.931	2	264.6	2	264.4
WBTSKN	AB1104	20	1	8	2	20110417	0543	26.502N	75.705W	2487	2518	3.157	34.946	2	34.946	2	262.2	2	262.2
WBTSKN	AB1104	20	1	9	2	20110417	0548	26.502N	75.705W	2238	2265	3.455	34.956	2	34.956	2	261.9	2	261.7
WBTSKN	AB1104	20	1	10	2	20110417	0553	26.501N	75.705W	1990	2013	3.631	34.961	2	34.961	2	262.1	2	262.0
WBTSKN	AB1104	20	1	11	2	20110417	0557	26.501N	75.705W	1742	1761	3.906	34.972	2	34.973	2	259.6	2	259.7
WBTSKN	AB1104	20	1	12	2	20110417	0602	26.501N	75.705W	1494	1509	4.208	34.985	2	34.986	2	255.1	2	255.1
WBTSKN	AB1104	20	1	13	2	20110417	0607	26.501N	75.705W	1246	1258	4.786	35.021	2	35.022	2	240.4	2	241.6
WBTSKN	AB1104	20	1	14	2	20110417	0612	26.500N	75.705W	998	1007	6.330	35.058	2	35.060	2	186.1	2	186.8
WBTSKN	AB1104	20	1	15	2	20110417	0617	26.500N	75.706W	749	755	8.735	35.174	2	35.175	2	147.4	2	146.5
WBTSKN	AB1104	20	1	16	2	20110417	0622	26.500N	75.706W	501	505	13.487	35.775	2	35.769	2	153.9	2	152.8
WBTSKN	AB1104	20	1	17	2	20110417	0626	26.500N	75.706W	352	355	16.526	36.275	2	36.270	2	176.3	2	175.8
WBTSKN	AB1104	20	1	18	2	20110417	0628	26.500N	75.706W	253	255	18.028	36.535	2	36.530	2	189.3	2	190.2
WBTSKN	AB1104	20	1	19	2	20110417	0630	26.500N	75.706W	204	205	18.890	36.637	2	36.634	2	187.1	2	187.7
WBTSKN	AB1104	20	1	20	2	20110417	0631	26.500N	75.706W	154	155	20.049	36.744	2	36.739	2	186.0	2	185.9
WBTSKN	AB1104	20	1	21	2	20110417	0633	26.500N	75.706W	105	106	21.204	36.812	2	36.811	2	195.9	2	195.4
WBTSKN	AB1104	20	1	22	2	20110417	0635	26.500N	75.706W	55	55	22.451	36.821	2	36.824	2	214.8	2	213.7
WBTSKN	AB1104	20	1	23	2	20110417	0638	26.500N	75.706W	2	2	24.769	36.896	2	36.898	2	208.4	2	208.2
WBTSKN	AB1104	20	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	21	1	1	2	20110417	0920	26.507N	75.504W	4660	4743	2.221	34.878	2	34.879	2	257.9	2	258.0
WBTSKN	AB1104	21	1	2	2	20110417	0927	26.507N	75.504W	4268	4340	2.235	34.885	2	34.885	2	262.2	2	262.2
WBTSKN	AB1104	21	1	3	2	20110417	0934	26.508N	75.504W	3971	4035	2.241	34.891	2	34.891	2	264.1	2	264.1
WBTSKN	AB1104	21	1	4	2	20110417	0940	26.508N	75.505W	3674	3731	2.271	34.894	2	34.893	2	266.1	2	265.8
WBTSKN	AB1104	21	1	5	2	20110417	0946	26.509N	75.505W	3377	3427	2.389	34.904	2	34.904	2	266.7	2	266.7
WBTSKN	AB1104	21	1	6	2	20110417	0951	26.509N	75.505W	3078	3122	2.613	34.917	2	34.918	2	266.7	2	267.1
WBTSKN	AB1104	21	1	7	2	20110417	0957	26.510N	75.505W	2780	2817	2.833	34.930	2	34.930	2	263.5	2	264.8
WBTSKN	AB1104	21	1	8	2	20110417	1003	26.510N	75.505W	2482	2513	3.112	34.947	2	34.948	2	261.9	2	261.5
WBTSKN	AB1104	21	1	9	2	20110417	1009	26.511N	75.505W	2233	2259	3.364	34.955	2	34.955	2	262.1	2	261.7
WBTSKN	AB1104	21	1	10	2	20110417	1014	26.512N	75.506W	1984	2007	3.666	34.964	2	34.965	2	261.5	2	261.7
WBTSKN	AB1104	21	1	11	2	20110417	1019	26.512N	75.506W	1736	1755	3.919	34.971	2	34.971	2	259.6	2	259.7
WBTSKN	AB1104	21	1	12	2	20110417	1024	26.513N	75.506W	1488	1503	4.219	34.986	2	34.986	2	255.2	2	254.7
WBTSKN	AB1104	21	1	13	2	20110417	1029	26.514N	75.506W	1240	1252	4.711	35.014	2	35.014	2	244.0	2	243.9
WBTSKN	AB1104	21	1	14	2	20110417	1034	26.514N	75.506W	994	1002	6.226	35.078	2	35.077	2	198.9	2	200.2
WBTSKN	AB1104	21	1	15	2	20110417	1040	26.515N	75.506W	748	754	9.321	35.231	2	35.231	2	145.0	2	144.9
WBTSKN	AB1104	21	1	16	2	20110417	1045	26.516N	75.506W	500	504	14.223	35.879	2	35.879	2	159.1	2	161.2
WBTSKN	AB1104	21	1	17	2	20110417	1048	26.516N	75.506W	352	354	17.302	36.411	2	36.404	2	182.7	2	183.3
WBTSKN	AB1104	21	1	18	2	20110417	1051	26.516N	75.506W	252	254	18.416	36.586	2	36.584	2	190.4	2	191.4
WBTSKN	AB1104	21	1	19	2	20110417	1053	26.517N	75.506W	203	205	19.077	36.656	2	36.653	2	186.9	2	187.4
WBTSKN	AB1104	21	1	20	2	20110417	1054	26.517N	75.506W	153	155	19.828	36.727	2	36.726	2	186.0	2	186.6
WBTSKN	AB1104	21	1	21	2	20110417	1056	26.517N	75.506W	104	105	20.980	36.820	2	36.812	2	193.0	2	199.9
WBTSKN	AB1104	21	1	22	2	20110417	1058	26.517N	75.506W	54	55	22.595	36.826	2	36.829	2	212.8	2	213.2
WBTSKN	AB1104	21	1	23	2	20110417	1101	26.518N	75.506W	2	2	24.860	36.835	2	36.839	2	206.7	2	207.2
WBTSKN	AB1104	21	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	22	1	1	2	20110417	1341	26.506N	75.300W	4608	4689	2.213	34.878	2	34.879	2	258.9	2	258.9
WBTSKN	AB1104	22	1	2	2	20110417	1349	26.507N	75.300W	4264	4336	2.222	34.884	2	34.885	2	262.0	2	261.8
WBTSKN	AB1104	22	1	3	2	20110417	1354	26.507N	75.299W	3964	4028	2.233	34.888	2	34.889	2	263.9	2	264.0
WBTSKN	AB1104	22	1	4	2	20110417	1401	26.507N	75.299W	3665	3721	2.264	34.893	2	34.893	2	266.0	2	266.0
WBTSKN	AB1104	22	1	5	2	20110417	1406	26.507N	75.299W	3366	3416	2.381	34.902	2	34.903	2	268.9	2	268.6
WBTSKN	AB1104	22	1	6	2	20110417	1412	26.507N	75.299W	3068	3111	2.599	34.915	2	34.916	2	267.2	2	267.5
WBTSKN	AB1104	22	1	7	2	20110417	1418	26.507N	75.298W	2772	2808	2.880	34.931	2	34.932	2	264.3	2	264.8
WBTSKN	AB1104	22	1	8	2	20110417	1424	26.507N	75.298W	2476	2507	3.173	34.949	2	34.948	2	262.4	2	261.7
WBTSKN	AB1104	22	1	9	2	20110417	1429	26.508N	75.298W	2229	2256	3.400	34.956	2	34.955	2	262.2	2	262.2
WBTSKN	AB1104	22	1	10	2	20110417	1435	26.508N	75.297W	1982	2004	3.605	34.962	2	34.962	2	262.3	2	261.7
WBTSKN	AB1104	22	1	11	2	20110417	1440	26.508N	75.297W	1734	1753	3.866	34.967	2	34.968	2	260.7	2	260.1
WBTSKN	AB1104	22	1	12	2	20110417	1445	26.508N	75.296W	1488	1503	4.226	34.994	2	34.993	2	254.8	2	254.1
WBTSKN	AB1104	22	1	13	2	20110417	1450	26.508N	75.296W	1240	1252	4.805	35.021	2	35.021	2	241.5	2	241.1
WBTSKN	AB1104	22	1	14	2	20110417	1455	26.509N	75.296W	993	1002	6.434	35.079	2	35.080	2	190.6	2	191.4
WBTSKN	AB1104	22	1	15	2	20110417	1500	26.509N	75.295W	746	752	9.905	35.284	2	35.284	2	142.1	2	141.4
WBTSKN	AB1104	22	1	16	2	20110417	1505	26.510N	75.295W	500	504	15.546	36.103	2	36.099	2	167.6	2	167.9
WBTSKN	AB1104	22	1	17	2	20110417	1508	26.510N	75.295W	351	354	17.692	36.480	2	36.480	2	188.7	2	189.7
WBTSKN	AB1104	22	1	18	2	20110417	1511	26.511N	75.295W	252	254	18.394	36.587	2	36.587	2	197.2	2	198.3
WBTSKN	AB1104	22	1	19	2	20110417	1513	26.511N	75.295W	202	204	19.007	36.644	2	36.643	2	194.6	2	197.2
WBTSKN	AB1104	22	1	20	2	20110417	1515	26.511N	75.295W	153	154	19.786	36.726	2	36.723	2	203.2	2	203.4

WBTSKN	AB1104	22	1	21	2	20110417	1516	26.512N	75.295W	103	104	20.702	36.817	2	36.816	2	218.6	2	218.4	2
WBTSKN	AB1104	22	1	22	2	20110417	1519	26.512N	75.295W	53	54	22.001	36.847	2	36.852	2	210.6	2	209.9	2
WBTSKN	AB1104	22	1	23	2	20110417	1521	26.512N	75.295W	3	3	24.919	36.855	2	36.857	2	207.5	2	207.5	2
WBTSKN	AB1104	22	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	23	1	1	2	20110417	1933	26.500N	75.075W	4379	4660	2.216	34.879	2	34.880	2	258.0	2	258.3	2
WBTSKN	AB1104	23	1	2	2	20110417	1939	26.500N	75.075W	4301	4374	2.251	34.886	2	34.888	2	261.6	2	262.5	2
WBTSKN	AB1104	23	1	3	2	20110417	1946	26.499N	75.075W	3994	4059	2.257	34.890	2	34.890	2	263.2	2	264.0	2
WBTSKN	AB1104	23	1	4	2	20110417	1952	26.499N	75.075W	3698	3756	2.283	34.894	2	34.894	2	265.1	2	265.6	2
WBTSKN	AB1104	23	1	5	2	20110417	1958	26.499N	75.075W	3403	3453	2.366	34.901	2	34.903	2	265.1	2	265.6	2
WBTSKN	AB1104	23	1	6	2	20110417	2004	26.499N	75.074W	3097	3140	2.529	34.911	2	34.912	2	266.8	2	267.3	2
WBTSKN	AB1104	23	1	7	2	20110417	2011	26.499N	75.074W	2801	2839	2.775	34.927	2	34.929	2	266.7	2	267.3	2
WBTSKN	AB1104	23	1	8	2	20110417	2017	26.499N	75.074W	2501	2533	3.047	34.941	2	34.942	2	264.5	2	264.7	2
WBTSKN	AB1104	23	1	9	2	20110417	2022	26.499N	75.074W	2255	2282	3.326	34.953	2	34.954	2	262.4	2	263.2	2
WBTSKN	AB1104	23	1	10	2	20110417	2027	26.499N	75.074W	2002	2025	3.539	34.956	2	34.958	2	262.4	2	263.2	2
WBTSKN	AB1104	23	1	11	2	20110417	2032	26.499N	75.074W	1755	1774	3.813	34.966	2	34.969	2	260.8	2	260.7	2
WBTSKN	AB1104	23	1	12	2	20110417	2038	26.498N	75.074W	1498	1514	4.171	34.983	2	34.986	2	256.0	2	255.9	2
WBTSKN	AB1104	23	1	13	2	20110417	2043	26.498N	75.074W	1252	1264	4.770	35.020	2	35.022	2	240.4	2	242.5	2
WBTSKN	AB1104	23	1	14	2	20110417	2048	26.498N	75.074W	995	1004	6.389	35.078	2	35.079	2	192.4	2	192.8	2
WBTSKN	AB1104	23	1	15	2	20110417	2053	26.498N	75.074W	748	754	10.343	35.342	2	35.341	2	143.2	2	143.2	2
WBTSKN	AB1104	23	1	16	2	20110417	2058	26.498N	75.074W	500	504	15.862	36.159	2	36.144	4	170.4	2	169.8	2
WBTSKN	AB1104	23	1	17	2	20110417	2101	26.498N	75.074W	352	354	17.957	36.530	2	36.532	2	190.9	2	194.6	4
WBTSKN	AB1104	23	1	18	2	20110417	2105	26.498N	75.074W	253	255	18.685	36.625	2	36.628	2	197.4	2	200.9	4
WBTSKN	AB1104	23	1	19	2	20110417	2106	26.498N	75.074W	203	205	19.152	36.660	2	36.661	2	198.1	2	199.4	4
WBTSKN	AB1104	23	1	20	2	20110417	2108	26.498N	75.074W	153	155	19.951	36.750	2	36.752	2	208.9	2	208.7	2
WBTSKN	AB1104	23	1	21	2	20110417	2110	26.498N	75.074W	104	105	20.762	36.783	2	36.791	2	207.8	2	207.5	2
WBTSKN	AB1104	23	1	22	2	20110417	2113	26.498N	75.073W	54	55	22.045	36.811	2	36.814	2	210.8	2	212.9	2
WBTSKN	AB1104	23	1	23	2	20110417	2115	26.498N	75.073W	4	4	25.016	36.848	2	36.857	2	207.2	2	206.6	2
WBTSKN	AB1104	23	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	24	1	1	2	20110418	0005	26.501N	74.791W	4519	4598	2.136	34.870	2	34.872	2	255.2	2	255.2	2
WBTSKN	AB1104	24	1	2	2	20110418	0010	26.501N	74.791W	4301	4374	2.209	34.882	2	34.882	2	260.9	2	260.6	2
WBTSKN	AB1104	24	1	3	2	20110418	0016	26.502N	74.791W	4006	4071	2.225	34.887	2	34.887	2	263.1	2	263.0	2
WBTSKN	AB1104	24	1	4	2	20110418	0023	26.502N	74.791W	3702	3760	2.259	34.893	2	34.893	2	265.2	2	265.6	2
WBTSKN	AB1104	24	1	5	2	20110418	0029	26.502N	74.791W	3408	3459	2.326	34.899	2	34.899	2	267.1	2	267.1	2
WBTSKN	AB1104	24	1	6	2	20110418	0036	26.502N	74.791W	3105	3148	2.466	34.909	2	34.908	2	267.8	2	268.0	2
WBTSKN	AB1104	24	1	7	2	20110418	0042	26.502N	74.791W	2799	2837	2.714	34.923	2	34.922	2	266.2	2	268.1	2
WBTSKN	AB1104	24	1	8	2	20110418	0048	26.502N	74.791W	2502	2534	2.987	34.938	2	34.938	2	263.3	2	263.4	2
WBTSKN	AB1104	24	1	9	2	20110418	0053	26.502N	74.791W	2254	2281	3.253	34.950	2	34.951	2	262.3	2	262.2	2
WBTSKN	AB1104	24	1	10	2	20110418	0059	26.501N	74.791W	2005	2028	3.518	34.959	2	34.959	2	262.3	2	261.9	2
WBTSKN	AB1104	24	1	11	2	20110418	0105	26.501N	74.791W	1748	1767	3.818	34.970	2	34.970	2	260.6	2	260.2	2
WBTSKN	AB1104	24	1	12	2	20110418	0110	26.501N	74.791W	1500	1516	4.184	34.991	2	34.992	2	255.2	2	254.7	2
WBTSKN	AB1104	24	1	13	2	20110418	0116	26.501N	74.791W	1254	1266	4.792	35.027	2	35.027	2	241.6	2	241.6	2
WBTSKN	AB1104	24	1	14	2	20110418	0121	26.501N	74.791W	997	1006	6.359	35.079	2	35.079	2	193.6	2	193.6	2
WBTSKN	AB1104	24	1	15	2	20110418	0127	26.501N	74.791W	750	756	9.902	35.288	2	35.286	2	142.6	2	141.5	2
WBTSKN	AB1104	24	1	16	2	20110418	0132	26.500N	74.791W	502	506	15.861	36.156	2	36.155	2	170.2	2	170.4	2
WBTSKN	AB1104	24	1	17	2	20110418	0136	26.500N	74.791W	354	357	17.940	36.531	2	36.532	2	197.6	2	198.1	2
WBTSKN	AB1104	24	1	18	2	20110418	0140	26.500N	74.791W	254	256	18.459	36.594	2	36.595	2	197.8	2	199.0	6
WBTSKN	AB1104	24	1	19	2	20110418	0142	26.500N	74.791W	205	206	18.954	36.642	2	36.638	2	190.8	2	191.2	2
WBTSKN	AB1104	24	1	20	2	20110418	0144	26.500N	74.791W	155	156	19.803	36.753	2	36.746	2	209.8	2	208.2	2
WBTSKN	AB1104	24	1	21	2	20110418	0146	26.500N	74.791W	106	106	20.430	36.810	2	36.805	2	214.7	2	214.4	2
WBTSKN	AB1104	24	1	22	2	20110418	0149	26.500N	74.791W	56	57	22.166	36.804	2	36.807	2	215.9	2	215.9	2
WBTSKN	AB1104	24	1	23	2	20110418	0151	26.500N	74.791W	3	3	25.405	36.914	2	36.914	2	207.2	2	207.5	2
WBTSKN	AB1104	24	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	25	1	1	2	20110418	0442	26.502N	74.518W	4459	4536	2.094	34.866	2	34.865	2	253.8	2	252.7	2
WBTSKN	AB1104	25	1	2	2	20110418	0446	26.502N	74.518W	4274	4346	2.186	34.880	2	34.880	2	259.3	2	259.3	2
WBTSKN	AB1104	25	1	3	2	20110418	0452	26.502N	74.518W	3976	4040	2.227	34.889	2	34.887	2	263.0	2	263.3	2
WBTSKN	AB1104	25	1	4	2	20110418	0458	26.502N	74.518W	3678	3735	2.267	34.894	2	34.894	2	265.3	2	265.4	2
WBTSKN	AB1104	25	1	5	2	20110418	0504	26.502N	74.518W	3380	3430	2.390	34.903	2	34.903	2	266.9	2	266.9	2
WBTSKN	AB1104	25	1	6	2	20110418	0510	26.502N	74.519W	3082	3126	2.522	34.912	2	34.911	2	267.0	2	267.2	2
WBTSKN	AB1104	25	1	7	2	20110418	0516	26.502N	74.519W	2784	2821	2.753	34.925	2	34.924	2	265.3	2	266.3	2
WBTSKN	AB1104	25	1	8	2	20110418	0522	26.502N	74.519W	2486	2517	3.021	34.941	2	34.940	2	262.5	2	262.4	2
WBTSKN	AB1104	25	1	9	2	20110418	0529	26.502N	74.519W	2238	2265	3.269	34.950	2	34.950	2	262.6	2	262.4	2
WBTSKN	AB1104	25	1	10	2	20110418	0534	26.502N	74.519W	1990	2012	3.527	34.956	2	34.957	2	262.6	2	262.6	2
WBTSKN	AB1104	25	1	11	2	20110418	0539	26.502N	74.519W	1741	1760	3.799	34.964	2	34.991	4	261.7	2	260.8	2
WBTSKN	AB1104	25	1	12	2	20110418	0545	26.502N	74.519W	1493	1508	4.216	34.992	2	34.990	2	255.4	2	255.0	2
WBTSKN	AB1104	25	1	13	2	20110418	0550	26.502N	74.519W	1245	1257	4.872	35.034	2	35.034	2	239.4	2	239.5	2
WBTSKN	AB1104	25	1	14	2	20110418	0555	26.502N	74.519W	997	1006	6.518								

WBTSKN	AB1104	25	1	15	2	20110418	0601	26.502N	74.519W	749	755	10.098	35.312	2	35.309	2	141.8	2	141.6	2
WBTSKN	AB1104	25	1	16	2	20110418	0606	26.502N	74.519W	501	505	15.726	36.128	2	36.125	2	173.0	2	173.2	2
WBTSKN	AB1104	25	1	17	2	20110418	0610	26.502N	74.519W	353	355	17.755	36.490	2	36.488	2	188.8	2	189.2	2
WBTSKN	AB1104	25	1	18	2	20110418	0613	26.502N	74.519W	254	255	18.478	36.593	2	36.591	2	189.3	2	190.3	2
WBTSKN	AB1104	25	1	19	2	20110418	0615	26.502N	74.519W	204	205	19.228	36.671	2	36.668	2	187.4	2	187.6	2
WBTSKN	AB1104	25	1	20	2	20110418	0617	26.502N	74.519W	154	156	20.021	36.764	2	36.764	2	213.0	2	210.3	2
WBTSKN	AB1104	25	1	21	2	20110418	0619	26.502N	74.519W	105	106	20.476	36.769	2	36.773	2	218.5	2	212.5	4
WBTSKN	AB1104	25	1	22	2	20110418	0622	26.502N	74.519W	55	56	22.148	36.814	2	36.815	2	219.3	2	219.3	4
WBTSKN	AB1104	25	1	23	2	20110418	0624	26.502N	74.519W	3	3	25.304	36.872	2	36.871	2	-999.0	9	-999.0	9
WBTSKN	AB1104	25	1	24	2	-999.000	0955	-999.000N	-999.000W	-999	-999	-999.000	36.872	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	26	1	1	2	20110418	0955	26.506N	74.230W	4522	4601	2.114	34.868	2	34.868	2	253.5	2	252.9	2
WBTSKN	AB1104	26	1	2	2	20110418	1001	26.506N	74.230W	4269	4341	2.199	34.882	2	34.881	2	260.5	2	260.3	2
WBTSKN	AB1104	26	1	3	2	20110418	1007	26.507N	74.230W	3971	4035	2.233	34.889	2	34.888	2	263.5	2	263.5	2
WBTSKN	AB1104	26	1	4	2	20110418	1013	26.508N	74.230W	3674	3730	2.285	34.895	2	34.895	2	265.7	2	265.6	2
WBTSKN	AB1104	26	1	5	2	20110418	1020	26.508N	74.229W	3375	3425	2.397	34.904	2	34.903	2	267.0	2	267.0	2
WBTSKN	AB1104	26	1	6	2	20110418	1026	26.509N	74.229W	3077	3121	2.565	34.915	2	34.915	2	265.5	2	265.6	2
WBTSKN	AB1104	26	1	7	2	20110418	1033	26.510N	74.228W	2779	2816	2.773	34.926	2	34.925	2	265.4	2	265.4	2
WBTSKN	AB1104	26	1	8	2	20110418	1039	26.510N	74.228W	2481	2512	3.056	34.941	2	34.941	2	262.6	2	263.2	2
WBTSKN	AB1104	26	1	9	2	20110418	1044	26.511N	74.227W	2233	2260	3.330	34.956	2	34.955	2	261.4	2	261.5	2
WBTSKN	AB1104	26	1	10	2	20110418	1050	26.512N	74.227W	1987	2009	3.547	34.959	2	34.958	2	262.6	2	262.3	2
WBTSKN	AB1104	26	1	11	2	20110418	1056	26.512N	74.227W	1739	1758	3.852	34.970	2	34.970	2	260.5	2	260.0	2
WBTSKN	AB1104	26	1	12	2	20110418	1101	26.513N	74.226W	1491	1507	4.264	34.986	2	34.985	2	253.7	2	253.3	2
WBTSKN	AB1104	26	1	13	2	20110418	1106	26.513N	74.226W	1244	1255	4.948	35.039	2	35.038	2	237.6	2	237.6	6
WBTSKN	AB1104	26	1	14	2	20110418	1112	26.514N	74.225W	996	1005	6.772	35.086	2	35.085	2	182.4	2	183.1	2
WBTSKN	AB1104	26	1	15	2	20110418	1117	26.515N	74.225W	749	755	10.511	35.356	2	35.352	2	141.6	2	140.8	2
WBTSKN	AB1104	26	1	16	2	20110418	1123	26.515N	74.225W	501	505	15.829	36.151	2	36.144	2	172.9	2	170.1	2
WBTSKN	AB1104	26	1	17	2	20110418	1127	26.516N	74.224W	352	355	17.982	36.537	2	36.534	2	197.8	2	197.7	2
WBTSKN	AB1104	26	1	18	2	20110418	1130	26.516N	74.224W	253	255	18.628	36.610	2	36.610	2	189.3	2	190.8	2
WBTSKN	AB1104	26	1	19	2	20110418	1132	26.516N	74.224W	203	205	19.418	36.687	2	36.686	2	188.0	2	188.5	2
WBTSKN	AB1104	26	1	20	2	20110418	1133	26.517N	74.224W	153	155	20.425	36.797	2	36.797	2	210.3	2	209.0	2
WBTSKN	AB1104	26	1	21	2	20110418	1136	26.517N	74.224W	104	105	21.195	36.812	2	36.807	2	214.3	2	201.0	4
WBTSKN	AB1104	26	1	22	2	20110418	1137	26.517N	74.223W	54	55	22.639	36.802	2	36.805	2	214.2	2	214.2	2
WBTSKN	AB1104	26	1	23	2	20110418	1140	26.517N	74.223W	3	3	25.327	36.840	2	36.842	2	204.3	2	206.0	2
WBTSKN	AB1104	26	1	24	2	-999.000	1949	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	27	1	1	2	20110418	1506	26.510N	73.854W	4702	4786	2.129	34.867	2	34.867	2	255.2	2	254.8	2
WBTSKN	AB1104	27	1	2	2	20110418	1516	26.511N	73.853W	4246	4317	2.246	34.886	2	34.886	2	263.9	2	263.9	2
WBTSKN	AB1104	27	1	3	2	20110418	1523	26.511N	73.852W	3951	4014	2.237	34.889	2	34.890	2	264.5	2	264.6	2
WBTSKN	AB1104	27	1	4	2	20110418	1529	26.512N	73.851W	3657	3713	2.295	34.896	2	34.896	2	267.0	2	266.9	2
WBTSKN	AB1104	27	1	5	2	20110418	1536	26.512N	73.851W	3362	3412	2.448	34.907	2	34.907	2	268.0	2	268.2	2
WBTSKN	AB1104	27	1	6	2	20110418	1543	26.513N	73.850W	3068	3111	2.665	34.921	2	34.921	2	265.6	2	266.2	2
WBTSKN	AB1104	27	1	7	2	20110418	1549	26.513N	73.849W	2774	2811	2.911	34.936	2	34.936	2	263.6	2	263.9	2
WBTSKN	AB1104	27	1	8	2	20110418	1555	26.514N	73.848W	2480	2511	3.112	34.942	2	34.942	2	264.4	2	264.4	2
WBTSKN	AB1104	27	1	9	2	20110418	1600	26.514N	73.848W	2234	2261	3.361	34.956	2	34.957	2	263.0	2	262.6	2
WBTSKN	AB1104	27	1	10	2	20110418	1606	26.514N	73.848W	1997	2020	3.555	34.959	2	34.960	2	263.4	2	263.4	2
WBTSKN	AB1104	27	1	11	2	20110418	1611	26.515N	73.847W	1750	1769	3.839	34.969	2	34.972	2	261.5	2	261.7	2
WBTSKN	AB1104	27	1	12	2	20110418	1616	26.515N	73.847W	1504	1519	4.229	34.992	2	34.996	2	255.6	2	254.9	2
WBTSKN	AB1104	27	1	13	2	20110418	1621	26.515N	73.847W	1255	1267	4.886	35.036	2	35.037	2	240.7	2	239.5	2
WBTSKN	AB1104	27	1	14	2	20110418	1627	26.516N	73.846W	998	1007	6.786	35.085	2	35.086	2	186.6	2	186.3	2
WBTSKN	AB1104	27	1	15	2	20110418	1632	26.516N	73.846W	749	756	10.995	35.421	2	35.417	2	145.5	2	144.4	2
WBTSKN	AB1104	27	1	16	2	20110418	1637	26.516N	73.845W	501	505	16.030	36.289	2	36.285	2	179.7	2	178.1	2
WBTSKN	AB1104	27	1	17	2	20110418	1640	26.516N	73.845W	352	355	18.105	36.548	2	36.548	2	196.8	2	194.8	2
WBTSKN	AB1104	27	1	18	2	20110418	1643	26.517N	73.844W	253	255	18.852	36.632	2	36.634	2	189.9	2	190.5	2
WBTSKN	AB1104	27	1	19	2	20110418	1645	26.517N	73.844W	203	205	19.758	36.720	2	36.716	2	189.9	2	189.9	2
WBTSKN	AB1104	27	1	20	2	20110418	1646	26.517N	73.844W	153	154	20.991	36.803	2	36.805	2	193.8	2	194.4	2
WBTSKN	AB1104	27	1	21	2	20110418	1648	26.517N	73.844W	104	105	22.234	36.859	2	36.856	2	202.7	2	199.6	2
WBTSKN	AB1104	27	1	22	2	20110418	1650	26.517N	73.844W	55	55	23.502	36.818	2	36.819	2	211.3	2	210.9	2
WBTSKN	AB1104	27	1	23	2	20110418	1653	26.517N	73.843W	2	2	25.210	36.800	2	36.803	2	208.4	2	207.7	2
WBTSKN	AB1104	27	1	24	2	-999.000	1953	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	28	1	1	2	20110418	2040	26.506N	73.480W	4283	4356	2.257	34.887	2	34.886	2	263.3	2	264.0	2
WBTSKN	AB1104	28	1	2	2	20110418	2041	26.506N	73.480W	4283	4356	2.259	34.887	2	34.886	2	263.4	2	264.7	6
WBTSKN	AB1104	28	1	3	2	20110418	2046	26.507N	73.480W	3997	4062	2.263	34.890	2	34.890	2	267.0	2	267.0	9
WBTSKN	AB1104	28	1	4	2	20110418	2053	26.507N	73.479W	3684	3741	2.315	34.896	2	34.897	2	267.0	2	266.9	2
WBTSKN	AB1104	28	1	5	2	20110418	2059	26.507N	73.478W	3390	3440	2.442	34.906	2	34.905	2	267.5	2	267.5	2
WBTSKN	AB1104	28	1	6	2	20110418	2105	26.507N	73.477W	3099	3142	2.650	34.919	2	34.918	2	266.7	2	266.8	2
WBTSKN	AB1104	28	1	7	2	20110418	2111	26.507N	73.476W	2805	2843	2.911	34.933	2	34.933	2	264.7	2	264.6	2
WBTSKN	AB1104	28	1	8	2	20110418	2117	26.506N	73.476W	2502	2534	3.196	34.951	2</						

WBTSKN	AB1104	28	1	9	2	20110418	2122	26.506N	73.475W	2259	2286	3.412	34.955	2	34.957	2	263.1	2	263.1
WBTSKN	AB1104	28	1	10	2	20110418	2127	26.506N	73.474W	1999	2021	3.668	34.965	2	34.965	2	261.9	2	261.9
WBTSKN	AB1104	28	1	11	2	20110418	2133	26.506N	73.473W	1748	1766	3.986	34.982	2	34.983	2	258.2	2	258.2
WBTSKN	AB1104	28	1	12	2	20110418	2138	26.506N	73.472W	1501	1516	4.299	34.996	2	34.996	2	253.6	2	253.6
WBTSKN	AB1104	28	1	13	2	20110418	2143	26.506N	73.471W	1253	1266	4.947	35.031	2	35.031	2	238.1	2	238.1
WBTSKN	AB1104	28	1	14	2	20110418	2152	26.506N	73.470W	1009	1018	6.730	35.081	2	35.080	2	181.5	2	181.5
WBTSKN	AB1104	28	1	15	2	20110418	2158	26.506N	73.468W	743	749	11.463	35.479	2	35.477	2	143.0	2	143.0
WBTSKN	AB1104	28	1	16	2	20110418	2203	26.506N	73.467W	497	501	16.831	36.324	2	36.327	2	180.1	2	180.1
WBTSKN	AB1104	28	1	17	2	20110418	2207	26.505N	73.467W	351	354	18.246	36.570	2	36.572	2	199.4	2	199.4
WBTSKN	AB1104	28	1	18	2	20110418	2210	26.505N	73.466W	252	254	19.369	36.679	2	36.678	2	202.5	2	202.5
WBTSKN	AB1104	28	1	19	2	20110418	2211	26.505N	73.466W	203	205	20.058	36.763	2	36.763	2	208.8	4	208.8
WBTSKN	AB1104	28	1	20	2	20110418	2213	26.505N	73.466W	154	155	21.103	36.817	2	36.817	2	192.8	2	192.8
WBTSKN	AB1104	28	1	21	2	20110418	2215	26.505N	73.465W	104	105	22.557	36.829	2	36.835	2	204.9	2	204.9
WBTSKN	AB1104	28	1	22	2	20110418	2217	26.505N	73.465W	55	55	23.963	36.770	4	36.786	4	211.7	2	211.7
WBTSKN	AB1104	28	1	23	2	20110418	2220	26.505N	73.464W	3	3	25.375	36.782	2	36.782	2	207.7	2	207.7
WBTSKN	AB1104	28	1	24	2	-999.000	-999.000	-999.000W	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	29	1	1	2	20110419	0137	26.496N	73.131W	5021	5114	2.130	34.862	2	34.863	2	252.4	2	252.4
WBTSKN	AB1104	29	1	2	2	20110419	0151	26.495N	73.131W	4301	4374	2.258	34.888	2	34.888	2	263.6	2	263.6
WBTSKN	AB1104	29	1	3	2	20110419	0157	26.495N	73.131W	3998	4063	2.287	34.893	2	34.894	2	265.6	2	265.6
WBTSKN	AB1104	29	1	4	2	20110419	0203	26.495N	73.131W	3700	3758	2.342	34.899	2	34.901	2	267.4	2	267.4
WBTSKN	AB1104	29	1	5	2	20110419	0209	26.495N	73.131W	3403	3453	2.470	34.908	2	34.909	2	268.1	2	268.1
WBTSKN	AB1104	29	1	6	2	20110419	0215	26.495N	73.130W	3105	3148	2.660	34.920	2	34.920	2	266.7	2	266.7
WBTSKN	AB1104	29	1	7	2	20110419	0222	26.495N	73.130W	2797	2834	2.918	34.936	2	34.937	2	264.2	2	264.2
WBTSKN	AB1104	29	1	8	2	20110419	0228	26.495N	73.130W	2499	2531	3.172	34.949	2	34.950	2	262.3	2	262.3
WBTSKN	AB1104	29	1	9	2	20110419	0233	26.494N	73.130W	2250	2277	3.388	34.956	2	34.958	2	262.9	2	262.9
WBTSKN	AB1104	29	1	10	2	20110419	0238	26.494N	73.130W	2002	2025	3.607	34.961	2	34.962	2	263.3	2	263.3
WBTSKN	AB1104	29	1	11	2	20110419	0244	26.494N	73.130W	1754	1773	3.865	34.970	2	34.971	2	261.4	2	261.4
WBTSKN	AB1104	29	1	12	2	20110419	0250	26.494N	73.130W	1496	1511	4.286	34.996	2	34.998	2	254.8	2	254.8
WBTSKN	AB1104	29	1	13	2	20110419	0255	26.494N	73.130W	1247	1259	5.010	35.042	2	35.042	2	235.9	2	235.9
WBTSKN	AB1104	29	1	14	2	20110419	0301	26.494N	73.130W	999	1008	6.810	35.085	2	35.085	2	180.3	2	180.3
WBTSKN	AB1104	29	1	15	2	20110419	0306	26.493N	73.130W	751	757	10.869	35.401	2	35.398	2	142.1	2	141.6
WBTSKN	AB1104	29	1	16	2	20110419	0312	26.493N	73.129W	503	507	16.479	36.263	2	36.268	2	176.3	2	176.3
WBTSKN	AB1104	29	1	17	2	20110419	0315	26.493N	73.129W	354	357	18.311	36.575	2	36.577	2	196.5	6	196.5
WBTSKN	AB1104	29	1	18	2	20110419	0318	26.493N	73.129W	255	257	19.299	36.670	2	36.673	2	197.0	2	197.0
WBTSKN	AB1104	29	1	19	2	20110419	0320	26.493N	73.129W	205	207	20.058	36.746	2	36.747	2	204.5	2	204.5
WBTSKN	AB1104	29	1	20	2	20110419	0322	26.493N	73.129W	156	157	20.866	36.853	2	36.854	2	216.6	2	216.6
WBTSKN	AB1104	29	1	21	2	20110419	0324	26.492N	73.129W	106	107	22.174	36.830	2	36.830	2	210.6	2	210.6
WBTSKN	AB1104	29	1	22	2	20110419	0327	26.492N	73.129W	57	57	23.734	36.807	2	36.811	2	211.4	2	211.4
WBTSKN	AB1104	29	1	23	2	20110419	0329	26.491N	73.128W	3	3	25.065	36.767	2	36.770	2	207.2	2	207.2
WBTSKN	AB1104	29	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	30	1	1	2	20110419	0706	26.501N	72.769W	5108	5204	2.137	34.861	2	34.861	2	253.8	2	253.8
WBTSKN	AB1104	30	1	2	2	20110419	0721	26.502N	72.770W	4274	4346	2.263	34.888	2	34.886	2	263.2	2	264.0
WBTSKN	AB1104	30	1	3	2	20110419	0727	26.502N	72.770W	3976	4041	2.286	34.893	2	34.891	2	265.3	2	265.9
WBTSKN	AB1104	30	1	4	2	20110419	0734	26.502N	72.770W	3678	3735	2.320	34.898	2	34.895	2	266.9	2	267.5
WBTSKN	AB1104	30	1	5	2	20110419	0740	26.502N	72.770W	3381	3430	2.424	34.906	2	34.904	2	267.9	2	268.1
WBTSKN	AB1104	30	1	6	2	20110419	0746	26.503N	72.770W	3082	3125	2.611	34.917	2	34.915	2	267.3	2	269.5
WBTSKN	AB1104	30	1	7	2	20110419	0752	26.503N	72.770W	2784	2821	2.847	34.931	2	34.929	2	265.5	2	265.5
WBTSKN	AB1104	30	1	8	2	20110419	0759	26.503N	72.770W	2486	2518	3.103	34.946	2	34.944	2	263.0	2	263.0
WBTSKN	AB1104	30	1	9	2	20110419	0804	26.503N	72.771W	2238	2265	3.355	34.958	2	34.955	2	262.6	2	262.4
WBTSKN	AB1104	30	1	10	2	20110419	0809	26.504N	72.771W	1990	2013	3.590	34.963	2	34.961	2	262.8	2	262.6
WBTSKN	AB1104	30	1	11	2	20110419	0814	26.504N	72.771W	1742	1761	3.858	34.975	2	34.975	2	260.9	2	260.4
WBTSKN	AB1104	30	1	12	2	20110419	0819	26.504N	72.771W	1494	1509	4.210	34.994	2	34.994	2	255.0	2	255.0
WBTSKN	AB1104	30	1	13	2	20110419	0825	26.504N	72.772W	1245	1257	4.906	35.039	2	35.039	2	239.8	2	240.1
WBTSKN	AB1104	30	1	14	2	20110419	0830	26.504N	72.772W	997	1006	6.558	35.084	2	35.083	2	263.1	2	263.0
WBTSKN	AB1104	30	1	15	2	20110419	0836	26.504N	72.772W	749	755	10.781	35.389	2	35.389	2	189.1	2	190.2
WBTSKN	AB1104	30	1	16	2	20110419	0842	26.504N	72.771W	501	505	16.153	36.205	2	36.197	2	143.2	2	144.0
WBTSKN	AB1104	30	1	17	2	20110419	0845	26.504N	72.771W	353	355	18.027	36.540	2	36.538	2	172.9	2	172.8
WBTSKN	AB1104	30	1	18	2	20110419	0848	26.504N	72.771W	253	255	18.639	36.611	2	36.609	2	190.7	2	191.0
WBTSKN	AB1104	30	1	19	2	20110419	0850	26.504N	72.771W	204	205	19.439	36.690	2	36.689	2	187.5	2	188.7
WBTSKN	AB1104	30	1	20	2	20110419	0851	26.504N	72.771W	154	155	20.426	36.801	2	36.795	2	215.0	2	212.8
WBTSKN	AB1104	30	1	21	2	20110419	0853	26.504N	72.771W	104	105	21.596	36.821	2	36.825	2	208.6	2	210.4
WBTSKN	AB1104	30	1	22	2	20110419	0855	26.504N	72.771W	55	55	22.612	36.804	2	36.809	2	215.2	2	214.0
WBTSKN	AB1104	30	1	23	2	20110419	0858	26.504N	72.771W	2	2	25.072	36.857	2	36.858	2	205.4	2	207.4
WBTSKN	AB1104	30	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	31	1	1	2	20110419	1240	26.499N	72.390W	5149	5247	2.166	34.861	2	34.869	4	253.6	2	253.6
WBTSKN	AB1104	31	1	2	2	20110419	1256	26.500N	72.390W	4266	4338	2.276	34.889	2	34.889	2	264.0	2	264.4

WBTSKN	AB1104	31	1	3	2	20110419	1302	26.499N	72.390W	3971	4035	2.301	34.893	2	34.893	2	265.8	2	266.4	2
WBTSKN	AB1104	31	1	4	2	20110419	1309	26.499N	72.390W	3676	3733	2.351	34.899	2	34.899	2	267.1	2	267.8	2
WBTSKN	AB1104	31	1	5	2	20110419	1316	26.499N	72.390W	3380	3429	2.476	34.908	2	34.909	2	267.6	2	268.0	2
WBTSKN	AB1104	31	1	6	2	20110419	1322	26.499N	72.390W	3082	3125	2.638	34.919	2	34.917	2	268.8	2	269.6	2
WBTSKN	AB1104	31	1	7	2	20110419	1328	26.500N	72.390W	2783	2820	2.783	34.932	2	34.932	2	264.3	2	264.9	2
WBTSKN	AB1104	31	1	8	2	20110419	1334	26.500N	72.391W	2485	2516	3.114	34.948	2	34.948	2	262.0	2	262.9	2
WBTSKN	AB1104	31	1	9	2	20110419	1339	26.500N	72.391W	2237	2264	3.348	34.959	2	34.958	2	262.0	2	262.6	2
WBTSKN	AB1104	31	1	10	2	20110419	1344	26.500N	72.391W	1989	2011	3.612	34.970	2	34.971	2	261.9	2	261.5	2
WBTSKN	AB1104	31	1	11	2	20110419	1350	26.500N	72.391W	1740	1759	3.853	34.971	2	34.971	2	261.1	2	261.5	2
WBTSKN	AB1104	31	1	12	2	20110419	1355	26.501N	72.391W	1492	1507	4.185	34.991	2	34.991	2	256.1	2	256.5	2
WBTSKN	AB1104	31	1	13	2	20110419	1400	26.501N	72.392W	1244	1256	4.796	35.029	2	35.028	2	242.4	2	243.1	2
WBTSKN	AB1104	31	1	14	2	20110419	1406	26.501N	72.392W	995	1004	6.301	35.081	2	35.080	2	197.0	2	198.6	2
WBTSKN	AB1104	31	1	15	2	20110419	1411	26.502N	72.392W	747	754	10.076	35.310	2	35.305	2	143.0	2	143.0	2
WBTSKN	AB1104	31	1	16	2	20110419	1416	26.502N	72.393W	499	503	16.319	36.237	2	36.235	2	183.4	2	184.5	2
WBTSKN	AB1104	31	1	17	2	20110419	1420	26.502N	72.393W	351	353	17.906	36.542	2	36.542	2	199.1	2	200.6	2
WBTSKN	AB1104	31	1	18	2	20110419	1423	26.502N	72.393W	252	253	18.529	36.599	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	31	1	19	2	20110419	1425	26.502N	72.393W	202	203	19.182	36.667	2	36.665	2	206.8	2	206.9	2
WBTSKN	AB1104	31	1	20	2	20110419	1427	26.502N	72.393W	152	153	19.634	36.709	2	36.709	2	199.3	2	205.2	4
WBTSKN	AB1104	31	1	21	2	20110419	1429	26.502N	72.394W	103	104	20.664	36.787	2	36.787	2	214.4	2	215.9	2
WBTSKN	AB1104	31	1	22	2	20110419	1431	26.502N	72.394W	53	54	21.648	36.871	2	36.869	2	220.0	2	221.6	2
WBTSKN	AB1104	31	1	23	2	20110419	1434	26.502N	72.394W	3	3	24.367	36.888	2	36.895	2	210.2	2	210.7	2
WBTSKN	AB1104	31	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	32	1	1	2	20110419	1830	26.514N	71.993W	5266	5367	2.153	34.860	2	34.862	2	254.2	2	252.0	2
WBTSKN	AB1104	32	1	2	2	20110419	1847	26.515N	71.992W	4307	4380	2.294	34.890	2	34.890	2	264.4	2	265.5	2
WBTSKN	AB1104	32	1	3	2	20110419	1854	26.515N	71.992W	3392	4056	2.319	34.895	2	34.895	2	266.6	2	267.0	2
WBTSKN	AB1104	32	1	4	2	20110419	1900	26.515N	71.991W	3695	3753	2.384	34.901	2	34.901	2	267.4	2	268.1	2
WBTSKN	AB1104	32	1	5	2	20110419	1905	26.515N	71.991W	3399	3450	2.518	34.910	2	34.910	2	267.3	2	268.0	2
WBTSKN	AB1104	32	1	6	2	20110419	1912	26.516N	71.990W	3101	3145	2.689	34.921	2	34.921	2	266.3	2	266.8	2
WBTSKN	AB1104	32	1	7	2	20110419	1918	26.516N	71.990W	2803	2841	2.929	34.937	2	34.937	2	263.0	2	263.8	2
WBTSKN	AB1104	32	1	8	2	20110419	1924	26.517N	71.990W	2492	2524	3.217	34.953	2	34.953	2	261.1	2	264.8	4
WBTSKN	AB1104	32	1	9	2	20110419	1929	26.518N	71.989W	2231	2257	3.416	34.961	2	34.961	2	262.0	2	261.9	6
WBTSKN	AB1104	32	1	10	2	20110419	1934	26.519N	71.989W	2000	2023	3.596	34.963	2	34.963	2	263.2	2	262.9	2
WBTSKN	AB1104	32	1	11	2	20110419	1939	26.519N	71.988W	1753	1772	3.868	34.976	2	34.976	2	260.4	2	260.2	2
WBTSKN	AB1104	32	1	12	2	20110419	1945	26.520N	71.988W	1496	1511	4.284	35.003	2	35.003	2	253.3	2	253.1	2
WBTSKN	AB1104	32	1	13	2	20110419	1950	26.520N	71.988W	1249	1261	4.863	35.035	2	35.035	2	241.0	2	240.0	2
WBTSKN	AB1104	32	1	14	2	20110419	1955	26.521N	71.987W	1003	1012	6.370	35.081	2	35.081	2	191.6	2	194.6	4
WBTSKN	AB1104	32	1	15	2	20110419	2001	26.522N	71.987W	744	750	10.071	35.308	2	35.308	2	-999.0	9	-999.0	9
WBTSKN	AB1104	32	1	16	2	20110419	2006	26.522N	71.986W	497	501	15.936	36.166	2	36.168	2	179.3	2	179.8	2
WBTSKN	AB1104	32	1	17	2	20110419	2010	26.523N	71.986W	352	354	17.779	36.503	2	36.504	2	197.0	2	197.2	2
WBTSKN	AB1104	32	1	18	2	20110419	2012	26.523N	71.986W	254	255	18.280	36.574	2	36.576	2	199.2	2	198.3	2
WBTSKN	AB1104	32	1	19	2	20110419	2014	26.523N	71.986W	204	206	18.661	36.610	2	36.611	2	199.2	2	195.3	4
WBTSKN	AB1104	32	1	20	2	20110419	2016	26.523N	71.986W	155	156	19.191	36.657	2	36.657	2	195.5	2	194.3	2
WBTSKN	AB1104	32	1	21	2	20110419	2017	26.524N	71.986W	105	106	20.118	36.742	2	36.743	2	215.4	2	212.1	2
WBTSKN	AB1104	32	1	22	2	20110419	2020	26.524N	71.987W	55	56	21.545	36.872	2	36.873	2	224.3	2	223.8	2
WBTSKN	AB1104	32	1	23	2	20110419	2023	26.524N	71.987W	2	2	25.337	36.823	2	36.830	2	207.7	2	206.7	2
WBTSKN	AB1104	32	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	33	1	1	2	20110420	0054	26.502N	71.502W	5397	5502	2.128	34.855	2	34.855	2	252.1	2	250.5	2
WBTSKN	AB1104	33	1	2	2	20110420	0114	26.502N	71.502W	4300	4373	2.304	34.890	2	34.890	2	264.9	2	265.1	2
WBTSKN	AB1104	33	1	3	2	20110420	0120	26.502N	71.502W	3397	4062	2.334	34.896	2	34.896	2	266.1	2	266.4	2
WBTSKN	AB1104	33	1	4	2	20110420	0126	26.502N	71.502W	3699	3757	2.403	34.902	2	34.903	2	266.9	2	267.2	2
WBTSKN	AB1104	33	1	5	2	20110420	0133	26.501N	71.502W	3402	3452	2.500	34.909	2	34.909	2	269.3	2	267.2	2
WBTSKN	AB1104	33	1	6	2	20110420	0139	26.502N	71.502W	3099	3143	2.688	34.921	2	34.922	2	265.6	2	266.1	6
WBTSKN	AB1104	33	1	7	2	20110420	0145	26.502N	71.502W	2797	2834	2.898	34.934	2	34.935	2	263.7	2	264.8	2
WBTSKN	AB1104	33	1	8	2	20110420	0153	26.502N	71.502W	2499	2530	3.162	34.951	2	34.951	2	261.8	2	261.4	2
WBTSKN	AB1104	33	1	9	2	20110420	0158	26.501N	71.502W	2250	2277	3.361	34.959	2	34.958	2	262.0	2	261.9	2
WBTSKN	AB1104	33	1	10	2	20110420	0203	26.501N	71.502W	2002	2025	3.569	34.965	2	34.965	2	262.3	2	262.0	2
WBTSKN	AB1104	33	1	11	2	20110420	0209	26.501N	71.502W	1754	1773	3.810	34.971	2	34.971	2	261.7	2	260.9	2
WBTSKN	AB1104	33	1	12	2	20110420	0214	26.501N	71.502W	1496	1511	4.196	34.996	2	34.997	2	256.4	2	255.6	2
WBTSKN	AB1104	33	1	13	2	20110420	0219	26.501N	71.502W	1247	1259	4.914	35.045	2	35.051	4	240.5	2	239.6	2
WBTSKN	AB1104	33	1	14	2	20110420	0225	26.501N	71.502W	999	1008	6.242	35.082	2	35.083	2	198.9	2	199.2	2
WBTSKN	AB1104	33	1	15	2	20110420	0235	26.501N	71.502W	503	507	15.593	36.105	2	36.107	2	172.1	2	172.5	2
WBTSKN	AB1104	33	1	16	2	20110420	0235	26.501N	71.502W	503	507	15.598	36.106	2	36.108	2	172.2	2	172.2	2
WBTSKN	AB1104	33	1	17	2	20110420	0239	26.501N	71.502W	354	357	17.661	36.476	2	36.475	2	190.6	2	191.2	2
WBTSKN	AB1104	33	1	18	2	20110420	0241	26.501N	71.502W	255	257	18.402	36.584	2	36.584	2	191.4	2	191.3	2
WBTSKN	AB1104	33	1	19	2	20110420	0243	26.501N	71.502W	205	207	18.864	36.632	2	36.633	2	191.5	2	191.5	2
WBTSKN	AB1104	33	1	20	2	20110420	0245	26.501N	71.502W	155	157	19.843								

WBTSKN	AB1104	33	1	21	2	20110420	0247	26.501N	71.502W	106	107	20.999	36.815	2	36.813	2	196.6	2	198.1	4
WBTSKN	AB1104	33	1	22	2	20110420	0250	26.501N	71.502W	56	57	22.108	36.855	2	36.859	2	220.4	2	219.3	2
WBTSKN	AB1104	33	1	23	2	20110420	0252	26.502N	71.502W	3	3	25.442	36.626	2	36.637	2	206.1	2	206.8	2
WBTSKN	AB1104	33	1	24	2	-999.000	0727	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	34	1	1	2	20110420	0728	26.504N	71.003W	5456	5563	2.118	34.853	2	34.854	2	252.3	2	249.7	2
WBTSKN	AB1104	34	1	2	2	20110420	0754	26.504N	71.003W	4242	4313	2.299	34.891	2	34.890	2	264.7	2	265.0	2
WBTSKN	AB1104	34	1	3	2	20110420	0800	26.504N	71.003W	3977	4041	2.318	34.895	2	34.894	2	266.2	2	266.1	2
WBTSKN	AB1104	34	1	4	2	20110420	0806	26.504N	71.003W	3679	3736	2.377	34.901	2	34.900	2	267.2	2	267.2	2
WBTSKN	AB1104	34	1	5	2	20110420	0812	26.504N	71.003W	3381	3431	2.477	34.908	2	34.908	2	267.4	2	267.4	2
WBTSKN	AB1104	34	1	6	2	20110420	0818	26.504N	71.003W	3083	3127	2.698	34.920	2	34.919	2	265.3	2	265.6	2
WBTSKN	AB1104	34	1	7	2	20110420	0824	26.505N	71.004W	2785	2822	2.850	34.933	2	34.933	2	262.4	2	263.4	2
WBTSKN	AB1104	34	1	8	2	20110420	0829	26.505N	71.004W	2487	2519	3.097	34.947	2	34.946	2	262.3	2	262.3	2
WBTSKN	AB1104	34	1	9	2	20110420	0835	26.505N	71.004W	2239	2266	3.326	34.959	2	34.958	2	262.0	2	261.1	2
WBTSKN	AB1104	34	1	10	2	20110420	0840	26.505N	71.004W	1991	2014	3.548	34.966	2	34.965	2	262.1	2	261.8	2
WBTSKN	AB1104	34	1	11	2	20110420	0846	26.505N	71.004W	1743	1761	3.858	34.983	2	34.984	2	258.6	2	258.6	2
WBTSKN	AB1104	34	1	12	2	20110420	0851	26.505N	71.004W	1494	1509	4.347	35.017	2	35.017	2	250.9	2	251.0	2
WBTSKN	AB1104	34	1	13	2	20110420	0857	26.505N	71.004W	1246	1258	5.114	35.060	2	35.059	2	231.7	2	230.1	2
WBTSKN	AB1104	34	1	14	2	20110420	0902	26.506N	71.004W	998	1007	6.401	35.085	2	35.084	2	193.8	2	193.8	2
WBTSKN	AB1104	34	1	15	2	20110420	0907	26.506N	71.004W	750	757	10.010	35.306	2	35.304	2	144.9	2	144.4	2
WBTSKN	AB1104	34	1	16	2	20110420	0914	26.506N	71.004W	502	506	15.987	36.173	2	36.175	2	179.0	2	179.3	2
WBTSKN	AB1104	34	1	17	2	20110420	0916	26.506N	71.003W	353	356	17.807	36.503	2	36.504	2	191.4	2	192.8	2
WBTSKN	AB1104	34	1	18	2	20110420	0918	26.507N	71.004W	254	256	18.303	36.577	2	36.578	2	197.1	2	197.3	2
WBTSKN	AB1104	34	1	19	2	20110420	0920	26.507N	71.004W	204	206	18.668	36.611	2	36.612	2	194.4	2	195.5	2
WBTSKN	AB1104	34	1	20	2	20110420	0923	26.508N	71.004W	154	155	19.447	36.687	2	36.686	2	189.4	2	188.9	2
WBTSKN	AB1104	34	1	21	2	20110420	0925	26.508N	71.004W	105	106	20.388	36.776	2	36.778	2	202.5	2	200.9	2
WBTSKN	AB1104	34	1	22	2	20110420	0928	26.508N	71.004W	56	56	21.637	36.831	2	36.833	2	219.4	2	219.8	2
WBTSKN	AB1104	34	1	23	2	20110420	0925	26.509N	71.004W	3	3	24.268	36.915	2	36.918	2	209.2	2	211.3	2
WBTSKN	AB1104	34	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	35	1	1	2	20110420	1426	26.518N	70.499W	5465	5573	2.136	34.855	2	34.857	2	252.3	2	251.2	2
WBTSKN	AB1104	35	1	2	2	20110420	1448	26.518N	70.499W	4272	4344	2.307	34.892	2	34.893	2	264.9	2	264.9	2
WBTSKN	AB1104	35	1	3	2	20110420	1454	26.518N	70.499W	3976	4040	2.320	34.895	2	34.896	2	266.7	2	266.5	2
WBTSKN	AB1104	35	1	4	2	20110420	1501	26.518N	70.499W	3679	3735	2.375	34.900	2	34.902	2	267.2	2	267.2	2
WBTSKN	AB1104	35	1	5	2	20110420	1507	26.518N	70.499W	3379	3429	2.497	34.910	2	34.911	2	267.2	2	266.9	2
WBTSKN	AB1104	35	1	6	2	20110420	1513	26.518N	70.499W	3081	3124	2.658	34.921	2	34.923	2	265.3	2	265.3	2
WBTSKN	AB1104	35	1	7	2	20110420	1519	26.518N	70.499W	2784	2821	2.857	34.933	2	34.935	2	263.7	2	263.8	2
WBTSKN	AB1104	35	1	8	2	20110420	1527	26.518N	70.499W	2487	2518	3.114	34.947	2	34.949	2	262.1	2	262.3	2
WBTSKN	AB1104	35	1	9	2	20110420	1532	26.518N	70.499W	2239	2266	3.338	34.958	2	34.960	2	261.2	2	261.4	2
WBTSKN	AB1104	35	1	10	2	20110420	1538	26.518N	70.499W	1989	2012	3.691	34.986	2	34.987	2	257.3	2	257.3	2
WBTSKN	AB1104	35	1	11	2	20110420	1543	26.517N	70.499W	1739	1758	3.963	34.992	2	34.993	2	259.1	2	259.0	2
WBTSKN	AB1104	35	1	12	2	20110420	1548	26.517N	70.499W	1493	1509	4.454	35.023	2	35.025	2	249.5	2	249.3	2
WBTSKN	AB1104	35	1	13	2	20110420	1553	26.519N	70.500W	1241	1253	5.279	35.066	2	35.068	2	227.1	2	225.0	2
WBTSKN	AB1104	35	1	14	2	20110420	1559	26.520N	70.500W	986	995	6.976	35.097	2	35.100	2	178.1	2	178.5	2
WBTSKN	AB1104	35	1	15	2	20110420	1603	26.522N	70.500W	738	744	11.330	35.459	2	35.463	2	146.7	2	146.0	2
WBTSKN	AB1104	35	1	16	2	20110420	1608	26.523N	70.500W	501	505	16.840	36.336	2	36.339	2	191.8	2	190.9	2
WBTSKN	AB1104	35	1	17	2	20110420	1612	26.523N	70.500W	354	356	18.091	36.552	2	36.554	2	199.8	2	198.1	2
WBTSKN	AB1104	35	1	18	2	20110420	1614	26.524N	70.500W	255	257	18.717	36.624	2	36.621	2	188.3	2	190.8	4
WBTSKN	AB1104	35	1	19	2	20110420	1616	26.524N	70.500W	205	207	19.484	36.724	2	36.725	2	180.9	2	182.3	2
WBTSKN	AB1104	35	1	20	2	20110420	1617	26.524N	70.500W	156	157	20.768	36.814	2	36.808	2	217.6	2	215.4	2
WBTSKN	AB1104	35	1	21	2	20110420	1619	26.524N	70.500W	106	107	22.479	36.930	2	36.933	2	191.7	2	191.5	2
WBTSKN	AB1104	35	1	22	2	20110420	1622	26.524N	70.500W	56	57	24.358	36.755	2	36.763	2	209.9	2	209.9	2
WBTSKN	AB1104	35	1	23	2	20110420	1624	26.525N	70.500W	3	3	26.004	36.282	2	36.286	2	203.6	2	203.8	2
WBTSKN	AB1104	35	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	1	2	20110420	2133	26.550N	70.529W	5405	5511	2.176	34.858	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	2	2	20110420	2133	26.550N	70.529W	5405	5511	2.176	34.861	2	34.862	2	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	3	2	20110420	2146	26.551N	70.529W	5020	5113	2.288	34.878	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	4	2	20110420	2146	26.551N	70.529W	5020	5113	2.288	34.880	2	34.880	2	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	5	2	20110420	2209	26.554N	70.529W	4016	4081	2.325	34.893	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	6	2	20110420	2209	26.554N	70.529W	4016	4081	2.326	34.895	2	34.895	2	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	7	2	20110420	2232	26.556N	70.529W	3051	3093	2.697	34.921	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	8	2	20110420	2232	26.556N	70.529W	3051	3093	2.697	34.923	2	34.922	2	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	9	2	20110420	2255	26.557N	70.529W	2010	2033	3.576	34.965	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	10	2	20110420	2255	26.557N	70.529W	2010	2033	3.576	34.967	2	34.967	2	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	11	2	20110420	2310	26.558N	70.530W	1506	1521	4.423	35.020	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	12	2	20110420	2310	26.558N	70.530W	1505	1521	4.423	35.022	2	35.023	2	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	13	2	20110420	2328	26.559N	70.531W	801	808	9.579	35.257	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	36	1	14	2	20110420	2328	26.559N	70.531W	801	808	9.579								



WBTSKN	AB1104	36	1	15	2	20110420	2339	26.560N	70.531W	504	507	16.571	36.283	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	36	1	16	2	20110420	2339	26.560N	70.531W	504	507	16.571	36.283	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	36	1	17	2	20110420	2350	26.562N	70.532W	206	207	19.522	36.715	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	36	1	18	2	20110420	2350	26.562N	70.532W	206	207	19.520	36.715	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	36	1	19	2	20110420	2358	26.564N	70.532W	107	107	22.324	36.935	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	36	1	20	2	20110420	2358	26.564N	70.532W	107	107	22.324	36.935	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	36	1	21	2	20110421	0005	26.566N	70.531W	57	58	24.509	36.833	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	36	1	22	2	20110421	0005	26.566N	70.531W	57	58	24.510	36.833	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	36	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	36	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	1	2	20110421	0423	26.512N	70.502W	5428	5534	2.168	34.857	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	2	2	20110421	0423	26.512N	70.502W	5428	5534	2.168	34.857	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	3	2	20110421	0438	26.513N	70.502W	4962	5054	2.290	34.879	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	4	2	20110421	0438	26.513N	70.502W	4962	5054	2.290	34.879	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	5	2	20110421	0459	26.515N	70.502W	3969	4033	2.326	34.893	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	6	2	20110421	0503	26.516N	70.502W	3969	4033	2.326	34.896	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	7	2	20110421	0522	26.518N	70.503W	2976	3017	2.732	34.923	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	8	2	20110421	0526	26.518N	70.503W	2978	3019	2.729	34.925	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	9	2	20110421	0544	26.520N	70.504W	1984	2007	3.673	34.982	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	10	2	20110421	0548	26.521N	70.504W	1985	2008	3.676	34.985	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	11	2	20110421	0558	26.522N	70.505W	1487	1502	4.439	35.019	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	12	2	20110421	0602	26.523N	70.505W	1484	1499	4.440	35.020	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	13	2	20110421	0615	26.526N	70.505W	796	803	10.028	35.305	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	14	2	20110421	0619	26.527N	70.505W	797	804	9.920	35.296	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	15	2	20110421	0626	26.528N	70.505W	502	506	16.613	36.285	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	16	2	20110421	0630	26.529N	70.505W	502	506	16.636	36.290	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	17	2	20110421	0636	26.530N	70.505W	205	206	19.877	36.753	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	18	2	20110421	0641	26.531N	70.505W	205	206	19.875	36.751	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	19	2	20110421	0644	26.532N	70.506W	106	107	22.512	36.942	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	20	2	20110421	0648	26.533N	70.505W	106	107	22.522	36.919	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	21	2	20110421	0652	26.534N	70.504W	57	57	24.543	36.748	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	22	2	20110421	0656	26.535N	70.504W	57	57	24.568	36.732	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	37	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	1	2	20110424	0206	26.486N	75.818W	4703	4787	2.210	34.874	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	2	2	20110424	0206	26.486N	75.818W	4703	4787	2.210	34.876	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	3	2	20110424	0224	26.486N	75.820W	4001	4066	2.257	34.887	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	4	2	20110424	0224	26.486N	75.820W	4001	4066	2.257	34.887	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	5	2	20110424	0247	26.486N	75.821W	3000	3042	2.659	34.916	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	6	2	20110424	0247	26.486N	75.821W	3000	3042	2.659	34.919	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	7	2	20110424	0310	26.487N	75.823W	1999	2022	3.578	34.958	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	8	2	20110424	0310	26.487N	75.823W	1999	2022	3.578	34.958	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	9	2	20110424	0324	26.487N	75.825W	1550	1567	4.141	34.987	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	10	2	20110424	0324	26.487N	75.825W	1551	1567	4.141	34.987	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	11	2	20110424	0339	26.487N	75.826W	1006	1015	6.072	35.072	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	12	2	20110424	0339	26.487N	75.826W	1006	1015	6.072	35.073	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	13	2	20110424	0350	26.487N	75.827W	750	756	9.527	35.253	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	14	2	20110424	0350	26.487N	75.827W	750	756	9.527	35.253	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	15	2	20110424	0400	26.487N	75.829W	502	506	15.705	36.131	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	16	2	20110424	0400	26.487N	75.829W	502	506	15.706	36.130	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	17	2	20110424	0411	26.486N	75.832W	205	206	18.825	36.635	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	18	2	20110424	0411	26.486N	75.832W	205	206	18.825	36.634	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	19	2	20110424	0419	26.486N	75.833W	106	106	20.716	36.787	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	20	2	20110424	0426	26.486N	75.833W	106	106	20.716	36.787	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	21	2	20110424	0426	26.485N	75.834W	56	56	21.862	36.829	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	22	2	20110424	0426	26.485N	75.834W	56	57	21.859	36.827	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	38	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	39	1	1	2	20110425	0530	26.503N	75.717W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	39	1	2	2	20110425	0530	26.503N	75.717W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	39	1	3	2	20110425	0609	26.503N	75.719W	4656	4738	2.203	34.876	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	39	1	4	2	20110425	0632	26.503N	75.721W	4000	4065	2.234	34.888	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	39	1	5	2	20110425	0646	26.503N	75.722W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	39	1	6	2	20110425	0700	26.503N	75.724W	3003	3045	2.635	34.918	2	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	39	1	7	2	20110425	0710	26.503N	75.725W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSKN	AB1104	39	1	8	2	20110425	0720	26.503N	75.727W	2006	2029	3.572	34.959	2	-999.000	9	-999.0	9	-999.0

WBTSKN	AB1104	39	1	9	2	20110425	0731	26.503N	75.730W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	10	2	20110425	0738	26.503N	75.731W	1493	4.167	34.986	2	34.984	2	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	11	2	20110425	0746	26.503N	75.733W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	12	2	-999,000	-999,000	-999,000N	-999,000W	998	6.050	35.072	2	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	13	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	14	2	-999,000	-999,000	-999,000N	-999,000W	750	9.805	35.285	2	35.282	2	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	15	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	16	2	-999,000	-999,000	-999,000N	-999,000W	502	506	36.032	2	36.030	2	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	17	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	18	2	-999,000	-999,000	-999,000N	-999,000W	205	19.337	36.689	2	36.683	2	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	19	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	20	2	-999,000	-999,000	-999,000N	-999,000W	105	106	36.804	2	36.803	4	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	21	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	22	2	-999,000	-999,000	-999,000N	-999,000W	56	22.215	36.780	2	36.771	2	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	23	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	39	1	24	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	1	2	20110426	0502	26.500N	76.088W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	2	2	20110426	0516	26.500N	76.088W	4758	2.194	34.873	2	34.874	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	3	2	20110426	0534	26.499N	76.088W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	4	2	20110426	0552	26.498N	76.089W	4000	4065	34.890	2	34.888	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	5	2	20110426	0602	26.498N	76.089W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	6	2	20110426	0612	26.497N	76.089W	3003	3045	34.921	2	34.919	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	7	2	20110426	0617	26.497N	76.089W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	8	2	20110426	0622	26.497N	76.089W	2001	2024	34.960	2	34.959	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	9	2	20110426	0628	26.497N	76.089W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	10	2	20110426	0631	26.497N	76.089W	1500	1515	34.995	2	34.997	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	11	2	20110426	0633	26.497N	76.089W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	12	2	-999,000	-999,000	-999,000N	-999,000W	998	1007	35.080	2	35.078	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	13	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	14	2	-999,000	-999,000	-999,000N	-999,000W	749	755	35.297	2	35.294	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	15	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	16	2	-999,000	-999,000	-999,000N	-999,000W	501	505	36.149	2	36.147	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	17	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	18	2	-999,000	-999,000	-999,000N	-999,000W	214	216	36.688	2	36.684	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	19	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	20	2	-999,000	-999,000	-999,000N	-999,000W	106	107	36.813	2	36.808	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	21	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	22	2	-999,000	-999,000	-999,000N	-999,000W	56	57	36.816	2	36.812	2	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	23	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	40	1	24	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	1	2	20110427	0310	26.490N	76.470W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	2	2	20110427	0330	26.490N	76.470W	4800	4887	34.880	2	34.879	2	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	3	2	20110427	0353	26.490N	76.470W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	4	2	20110427	0415	26.489N	76.470W	3993	4057	34.892	2	34.891	2	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	5	2	20110427	0429	26.488N	76.470W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	6	2	20110427	0444	26.487N	76.470W	2990	3032	34.922	2	34.920	2	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	7	2	20110427	0454	26.487N	76.469W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	8	2	20110427	0504	26.487N	76.469W	2019	2042	34.956	2	34.956	2	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	9	2	20110427	0514	26.487N	76.469W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	10	2	20110427	0522	26.487N	76.469W	1513	1528	34.986	2	34.985	2	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	11	2	20110427	0529	26.488N	76.468W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	12	2	-999,000	-999,000	-999,000N	-999,000W	998	1007	35.081	2	35.079	2	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	13	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	14	2	-999,000	-999,000	-999,000N	-999,000W	751	757	35.272	2	35.271	2	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	15	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	16	2	-999,000	-999,000	-999,000N	-999,000W	502	506	36.137	2	36.133	2	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	17	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	18	2	-999,000	-999,000	-999,000N	-999,000W	205	206	36.656	2	36.653	2	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	19	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	20	2	-999,000	-999,000	-999,000N	-999,000W	105	106	36.826	2	36.820	2	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	21	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	22	2	-999,000	-999,000	-999,000N	-999,000W	56	56	36.804	2	36.800	4	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	23	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	41	1	24	2	-999,000	-999,000	-999,000N	-999,000W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	42	1	1	2	20110429	0007	26.497N	76.649W	-999	-999,000	-999,000	9	-999,000	9	-999,0	9	-999,0	9
WBTSKN	AB1104	42	1	2	2	20110429	0029	26.497N	76.649W	3975	4040	34.894	2	34.894	2	-999,0	9	-999,0	9

[illegible]

AB1104	WBTSKN	44	1	21	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	44	1	22	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	44	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	44	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	1	2	20110502	1409	27.005N	79.283W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	2	2	20110502	1412	27.006N	79.283W	592	597	12.957	35.638	2	133.0	2	132.7	2	
AB1104	WBTSKN	45	1	3	2	20110502	1415	27.007N	79.283W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	4	2	20110502	1417	27.008N	79.283W	469	473	15.011	35.997	2	155.3	2	154.9	6	
AB1104	WBTSKN	45	1	5	2	20110502	1419	27.009N	79.283W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	6	2	20110502	1421	27.009N	79.283W	351	353	16.469	36.252	2	168.5	2	168.5	2	
AB1104	WBTSKN	45	1	7	2	20110502	1424	27.010N	79.283W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	8	2	20110502	1426	27.011N	79.283W	272	274	18.107	36.534	2	182.5	2	182.8	2	
AB1104	WBTSKN	45	1	9	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	10	2	-999.000	-999.000	-999.000N	-999.000W	193	194	19.202	36.642	2	171.1	2	170.5	2	
AB1104	WBTSKN	45	1	11	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	12	2	-999.000	-999.000	-999.000N	-999.000W	123	124	23.372	36.802	2	160.2	2	160.8	2	
AB1104	WBTSKN	45	1	13	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	14	2	-999.000	-999.000	-999.000N	-999.000W	54	54	25.742	36.322	2	199.4	2	197.0	2	
AB1104	WBTSKN	45	1	15	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	16	2	-999.000	-999.000	-999.000N	-999.000W	4	4	26.622	36.127	2	201.6	2	201.5	2	
AB1104	WBTSKN	45	1	17	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	18	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	19	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	20	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	21	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	22	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	45	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	1	2	20110502	1527	27.008N	79.381W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	2	2	20110502	1531	27.010N	79.381W	665	671	9.536	35.169	2	127.5	2	127.5	2	
AB1104	WBTSKN	46	1	3	2	20110502	1534	27.011N	79.381W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	4	2	20110502	1536	27.012N	79.381W	532	536	11.653	35.425	2	125.4	2	125.4	6	
AB1104	WBTSKN	46	1	5	2	20110502	1539	27.014N	79.381W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	6	2	20110502	1542	27.015N	79.381W	448	452	13.571	35.746	2	141.6	2	141.6	2	
AB1104	WBTSKN	46	1	7	2	20110502	1544	27.016N	79.381W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	8	2	20110502	1547	27.017N	79.381W	360	363	15.918	36.150	2	162.1	2	162.1	2	
AB1104	WBTSKN	46	1	9	2	20110502	1549	27.019N	79.381W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	10	2	-999.000	-999.000	-999.000N	-999.000W	271	273	17.174	36.369	2	173.7	2	173.7	2	
AB1104	WBTSKN	46	1	11	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	12	2	-999.000	-999.000	-999.000N	-999.000W	182	183	19.925	36.714	2	163.8	2	164.5	2	
AB1104	WBTSKN	46	1	13	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	14	2	-999.000	-999.000	-999.000N	-999.000W	112	113	24.293	36.683	2	168.5	2	168.5	2	
AB1104	WBTSKN	46	1	15	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	16	2	-999.000	-999.000	-999.000N	-999.000W	43	43	26.700	36.183	2	201.8	2	201.8	2	
AB1104	WBTSKN	46	1	17	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	18	2	-999.000	-999.000	-999.000N	-999.000W	2	2	26.753	36.180	2	201.4	2	201.4	2	
AB1104	WBTSKN	46	1	19	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	20	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	21	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	22	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	46	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	47	1	1	2	20110502	1655	27.017N	79.495W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	47	1	2	2	20110502	1659	27.020N	79.494W	723	729	7.620	34.943	2	126.6	2	126.6	2	
AB1104	WBTSKN	47	1	3	2	20110502	1701	27.021N	79.493W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	47	1	4	2	20110502	1704	27.023N	79.493W	594	599	9.024	35.077	2	119.5	2	119.5	2	
AB1104	WBTSKN	47	1	5	2	20110502	1706	27.024N	79.492W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
AB1104	WBTSKN	47	1	6	2														

WBTSKN	AB1104	47	1	15	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	47	1	16	2	-999.000	-999.000	-999.000N	-999.000W	-999	20.851	36.792	2	36.800	4	150.8	2	151.4	2
WBTSKN	AB1104	47	1	17	2	-999.000	-999.000	-999.000N	-999.000W	-999	25.663	-999.000	2	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	47	1	18	2	-999.000	-999.000	-999.000N	-999.000W	-999	63	36.321	2	36.369	4	195.3	2	194.5	2
WBTSKN	AB1104	47	1	19	2	-999.000	-999.000	-999.000N	-999.000W	-999	3	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	47	1	20	2	-999.000	-999.000	-999.000N	-999.000W	-999	3	35.927	2	35.927	4	200.4	2	200.7	2
WBTSKN	AB1104	47	1	21	2	-999.000	-999.000	-999.000N	-999.000W	-999	27.178	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	47	1	22	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	47	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	47	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	1	2	20110502	1831	-999.000N	-999.000W	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	2	2	20110502	1835	-999.000N	-999.000W	-999	654	34.901	2	34.911	4	142.3	2	142.9	2
WBTSKN	AB1104	48	1	3	2	20110502	1838	-999.000N	-999.000W	-999	507	8.736	2	35.049	4	119.4	2	119.0	2
WBTSKN	AB1104	48	1	4	2	20110502	1841	-999.000N	-999.000W	-999	507	8.736	2	35.049	4	119.4	2	119.0	2
WBTSKN	AB1104	48	1	5	2	20110502	1844	-999.000N	-999.000W	-999	412	11.537	2	35.424	4	123.9	2	123.8	2
WBTSKN	AB1104	48	1	6	2	20110502	1846	-999.000N	-999.000W	-999	409	35.402	2	35.424	4	123.9	2	123.8	2
WBTSKN	AB1104	48	1	7	2	20110502	1848	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	8	2	20110502	1851	-999.000N	-999.000W	-999	307	14.073	2	35.812	4	134.8	2	134.7	2
WBTSKN	AB1104	48	1	9	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	10	2	-999.000	-999.000	-999.000N	-999.000W	-999	191	18.200	2	36.489	4	153.6	2	154.0	2
WBTSKN	AB1104	48	1	11	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	12	2	-999.000	-999.000	-999.000N	-999.000W	-999	132	36.747	2	36.739	4	155.7	2	155.9	2
WBTSKN	AB1104	48	1	13	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	14	2	-999.000	-999.000	-999.000N	-999.000W	-999	53	36.305	2	36.301	4	205.7	2	205.7	2
WBTSKN	AB1104	48	1	15	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	16	2	-999.000	-999.000	-999.000N	-999.000W	-999	3	35.931	2	35.935	4	199.4	2	199.4	2
WBTSKN	AB1104	48	1	17	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	18	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	19	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	20	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	21	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	22	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	48	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	1	2	20110502	1957	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	2	2	20110502	2000	-999.000N	-999.000W	-999	484	6.915	2	34.929	4	134.5	2	134.3	2
WBTSKN	AB1104	49	1	3	2	20110502	2002	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	4	2	20110502	2005	-999.000N	-999.000W	-999	408	9.890	2	35.246	4	126.6	2	126.3	2
WBTSKN	AB1104	49	1	5	2	20110502	2008	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	6	2	20110502	2009	-999.000N	-999.000W	-999	337	12.284	2	35.542	4	124.0	2	123.8	2
WBTSKN	AB1104	49	1	7	2	20110502	2011	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	8	2	20110502	2014	-999.000N	-999.000W	-999	266	14.991	2	35.963	4	143.0	2	142.2	2
WBTSKN	AB1104	49	1	9	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	10	2	-999.000	-999.000	-999.000N	-999.000W	-999	182	17.679	2	36.415	4	153.7	2	154.7	2
WBTSKN	AB1104	49	1	11	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	12	2	-999.000	-999.000	-999.000N	-999.000W	-999	123	36.385	2	36.399	4	191.9	2	192.3	2
WBTSKN	AB1104	49	1	13	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	14	2	-999.000	-999.000	-999.000N	-999.000W	-999	64	22.852	2	36.594	4	188.4	2	187.9	2
WBTSKN	AB1104	49	1	15	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	16	2	-999.000	-999.000	-999.000N	-999.000W	-999	3	35.920	2	35.959	4	199.4	2	199.0	2
WBTSKN	AB1104	49	1	17	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	18	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	19	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	20	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	21	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	22	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	23	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	49	1	24	2	-999.000	-999.000	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	50	1	1	2	20110502	2121	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	50	1	2	2	20110502	2125	-999.000N	-999.000W	-999	347	7.533	2	34.978	4	130.1	2	131.8	6
WBTSKN	AB1104	50	1	3	2	20110502	2127	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	50	1	4	2	20110502	2129	-999.000N	-999.000W	-999	237	13.324	2	35.700	4	128.4	2	128.3	2
WBTSKN	AB1104	50	1	5	2	20110502	2131	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	50	1	6	2	20110502	2133	-999.000N	-999.000W	-999	181	16.233	2	36.171	4	138.8	2	138.5	2
WBTSKN	AB1104	50	1	7	2	20110502	2135	-999.000N	-999.000W	-999	-999	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSKN	AB1104	50	1	8	2	-999.000	-999.000	-999.000N	-999.000W	-999	139	17.754	2	36.328	4	152.1	2	151.7	2

