NOAA Data Report, OAR AOML-46

HYDROGRAPHIC MEASUREMENTS COLLECTED ABOARD THE UNOLS SHIP R/V ATLANTIC EXPLORER, 15 MARCH - 1 APRIL 2014: WESTERN BOUNDARY TIME SERIES CRUISE AE1404 (AB1403)

James A. Hooper V
Molly O. Baringer

Atlantic Oceanographic and Meteorological Laboratory
Miami, Florida
September 2014

noaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION / Office of Oceanic and Atmospheric Research

NOAA Data Report OAR AOML - 46

HYDROGRAPHIC MEASUREMENTS COLLECTED ABOARD THE UNOLS SHIP R/V ATLANTIC EXPLORER, 15 MARCH - 1 APRIL 2014: WESTERN BOUNDARY TIME SERIES CRUISE AE1404 (AB1403)

James A. Hooper V
University of Miami / Cooperative Institute for Marine and Atmospheric Studies
NOAA/ Atlantic Oceanographic and Meteorological Laboratory
Miami, Florida

Molly O. Baringer
NOAA/ Atlantic Oceanographic and Meteorological Laboratory
Miami, Florida

September 2014

Disclaimer

NOAA does not approve, recommend, or endorse any proprietary product or material mentioned in this document. No reference shall be made to NOAA or to this document in any advertising or sales promotion, which would indicate or imply that NOAA approves, recommends, or endorses any proprietary product or proprietary material herein or which has as its purpose any intent to cause directly or indirectly the advertised product to be used or purchased because of this document.

The findings and conclusion on this report are those of the authors and do not necessarily represent the views of the funding agency.

Contents

List of Figures

List of Tables

Abstract

This report summarizes the March 15 - April 1, 2014 cruise on the UNOLS ship R/V Atlantic Explorer 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, an RDI 150 kHz Workhorse Lowered Acoustic Doppler Current Profiler, a RDI 300 kHz Workhorse Lowered Acoustic Doppler Current Profiler, and 24 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 41 CTD-O2/LADCP stations were occupied. PIES/CPIES data were downloaded from 6 sites. There was a successful recovery and deployment of a PIES at the A2 site. Mooring operations include recovery and redeployment of three tall moorings with a mixture of microcats and current meters. Two two bottom landers instrumented were recovered and one was deployed equipped with bottom pressure recorders. As part of NOAA contribution to the Global Surface Drifter Program, 10 surface velocity drifters equipped with sea-surface temperature sensors were deployed.

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, 43 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

(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 March-April 2014 (Figure 1 and Table 2). The R/V Atlantic Explorer departed Ft. Pierce, FL on 15 March 2014. A total of 41 LADCP/CTD/Rosette stations were occupied. Water samples (up to 24 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 and redeployment of three tall moorings with a mixture of microcats and current meters, and two bottom landers instrumented with bottom pressure recorders. As part of NOAA's contribution to the Global Surface Drifter Program, ten surface velocity drifters equipped with sea-surface temperature sensors were deployed. The cruise ended in Ft. Pierce, FL on April 1, 2014.

The goals of cruise AE-1404 were to:

1. Recover 5 deep-sea moorings located off the eastern Bahamas along latitude 26.5°N, and deploy 4 new moorings along the same line.

2. Recover and redeploy one pressure-inverted echo sounder (PIES), and recover data from 6 previously deployed PIES 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.

Table 1: Cruise participants of R/V Atlantic Explorer Cruise AB1403, March 15–April 1, 2014.

Name	Responsibility	Affiliation	Nationality
Bill Johns	Chief Scientist	RSMAS/ U. Miami	USA
Christopher Meinen	Co-Chief Scientist	NOAA/ AOML	USA
Andrew Stefanick	Oxygen analysis, CTD operations	NOAA/AOML	USA
Kyle Seaton	Salinity/Oxygen analysis	UM/CIMAS,	USA
Pedro Pena	Salinity/Oxygen analysis, IES operations	NOAA/AOML	USA
James Hooper	CTD processing	UM/CIMAS	USA
Adam Houk	LADCP processing Moorings	UM/RSMAS	USA
Athanasia Papapostolout	CTD watch Moorings	RSMAS/ U. Miami	Greece
Jian Zhao	LADCP watch Moorings	RSMAS/ U. Miami	China
Elizabeth Wong	CTD watch Moorings	RSMAS/ U. Miami	USA
Mark Graham	Moorings	RSMAS/ U. Miami	

Table 2: Abaco Cruise – CTD Cast Summary

Station	Date	Time (GMT)	Latitude	Longitude	Depth
1	03/16/14	16:02:10	25.953N	76.922W	4352
2	03/16/14	23:36:33	26.531N	76.879W	449
3	03/17/14	01:28:52	26.521N	76.820W	1336
4	03/17/14	05:25:33	26.515N	76.742W	3922
5	03/17/14	17:08:17	26.505N	76.649W	4593
6	03/17/14	22:03:40	26.499N	76.551W	4904
7	03/18/14	03:22:29	26.496N	76.470W	4912
8	03/18/14	08:51:23	26.498N	76.337W	4900
9	03/19/14	06:41:20	26.497N	76.222W	4884
10	03/19/14	12:01:37	26.496N	76.087W	4867
11	03/19/14	17:37:36	26.502N	75.901W	4808
12	03/19/14	22:43:58	26.499N	75.703W	4753
13	03/20/14	04:43:34	26.504N	75.498W	4749
14	03/20/14	10:15:36	26.500N	75.301W	4704
15	03/20/14	16:17:04	26.508N	75.079W	4668
16	03/20/14	21:21:48	26.501N	74.798W	4600
17	03/21/14	02:34:12	26.512N	74.518W	4550
18	03/21/14	07:52:06	26.502N	74.230W	4604
19	03/21/14	13:53:59	26.504N	73.871W	4806
20	03/21/14	19:57:01	26.496N	73.500W	5040
21	03/22/14	01:52:37	26.500N	73.133W	5125
22	03/22/14	08:05:14	26.498N	72.769W	5108
23	03/22/14	14:13:34	26.504N	72.373W	5110
24	03/23/14	00:22:51	26.505N	71.983W	5113
25	03/26/14	02:28:59	26.501N	76.095W	4871
26	03/27/14	05:36:46	26.496N	76.473W	4908
27	03/28/14	04:41:09	26.502N	76.740W	3006
28	03/30/14	02:44:48	26.065N	78.850W	284
29	03/30/14	04:00:39	26.166N	78.800W	441
30	03/30/14	05:22:53	26.254N	78.773W	503
31	03/30/14	06:44:35	26.336N	78.718W	679
32	03/30/14	08:15:39	26.437N	78.657W	740
33	03/30/14	16:13:25	26.999N	79.201W	468
34	03/30/14	17:27:13	27.004N	79.285W	602
35	03/30/14	18:46:14	27.005N	79.372W	661
36	03/30/14	20:23:15	27.007N	79.499W	748
37	03/30/14	22:00:33	27.007N	79.614W	640
38	03/30/14	23:16:17	27.008N	79.685W	519
39	03/31/14	00:35:58	27.005N	79.785W	370
40	03/31/14	01:36:55	27.005N	79.865W	252
41	03/31/14	02:31:29	27.009N	79.932W	130

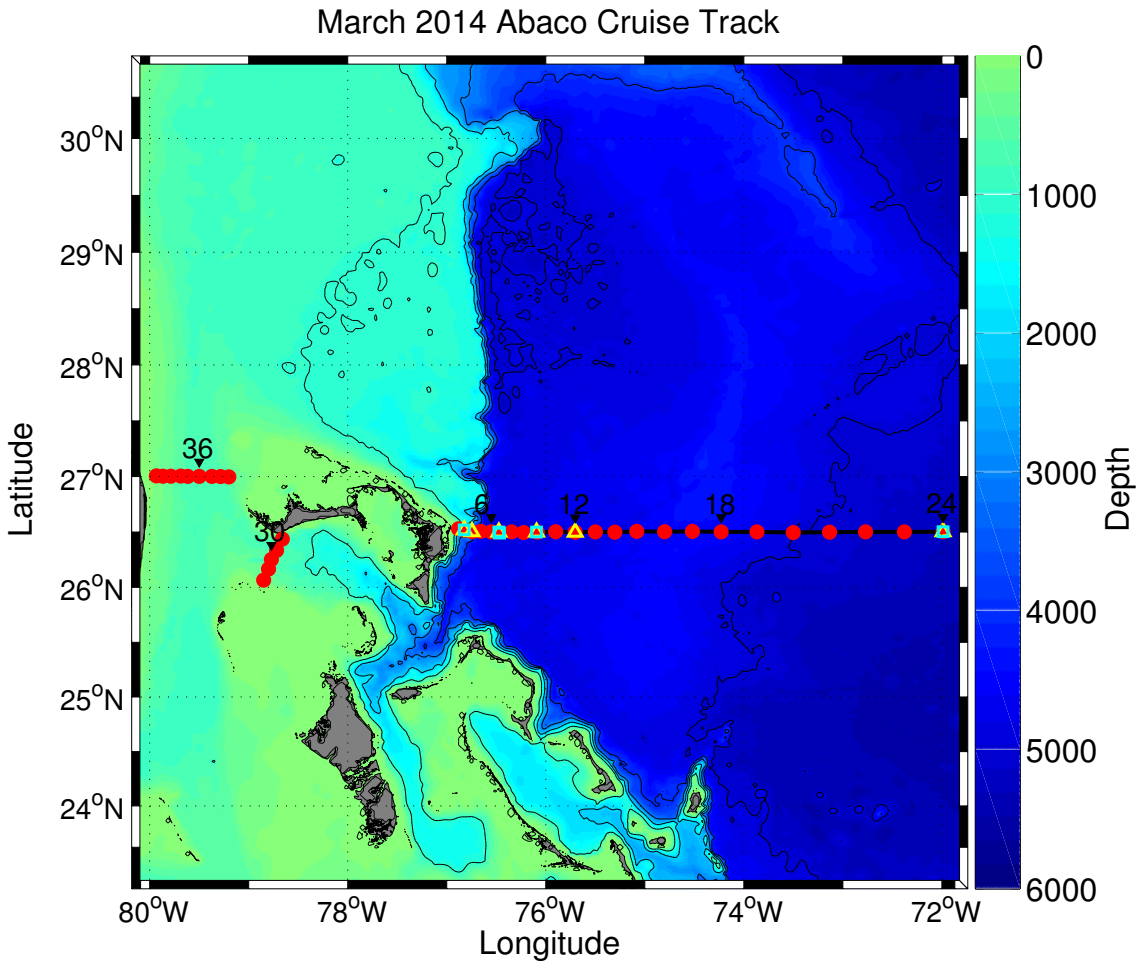


Figure 1: Abaco CTD station locations. The landmasses are shaded and the bathymetry is contoured at 1000 m intervals. The red dots are the CTD stations, the cyan squares are the mooring operations, and the yellow triangles are the IES operations.

2 Cruise Narrative

The following section is a personal communication of Bill Johns.

The cruise departed from Fort Pierce, FL on March 15 at 08:30 local time. After crossing the Florida Current, the ship arrived off West End, Bahamas at 17:30 local and a small boat was sent in to complete Bahamian clearance check in, which was finished by 19:30. After transiting through Northwest Providence Channel, a "cal-dip" CTD station was done in 4300 m depth east of Abaco to obtain in-situ calibration data for all the moored Seabird microcat instruments to be deployed during the cruise. The CTD system obtained good temperature and salinity data on the cast but there was a problem with the dissolved oxygen channels and the altimeter data due to a system configuration error. This was immediately fixed and another short test cast (not recorded) was done before beginning the main Abaco section along 26.5°N, which showed all sensors working well. The LADCP system in use on the cruise consists of a downward looking 150 kHz ADCP and upward looking 300 kHz ADCP, both U. Miami instruments. It was discovered partway through the Abaco section that the U. Miami 150 kHz ADCP developed a problem with one of its beams and was giving poor results in the deep water casts. Thereafter it was swapped out for an identical 150 kHz ADCP from NOAA/AOML, which performed well for the remainder of the cruise. A more detailed account of CTD/LADCP package sensor issues and sensor replacements that took place during the cruise can be found in Table 7.

The Abaco CTD/LADCP section was completed from March 16-22, consisting of stations 2-24. An incident occurred during CTD004 when the CTD package got temporarily snagged on a nearby current meter mooring (mooring "WB2", maintained by the U.K. National Oceanography Centre), which we luckily got clear of after some great ship handling by the captain and bridge watch. The CTD package sustained only minor damage (some scrapes on the frame and damage to the Chinese finger tension grips), and was able to be redeployed again after a short delay. After CTD008 the ship had to transit to Marsh Harbor and send in a small boat to let off the Chief Engineer due to an illness, and pick up a replacement for him, which took place on Mar. 18, causing about a 17 hour delay including steaming time back and forth from the line. Near the end of the Abaco section, the deeper stations, 22, 23, and 24, had to be stopped before reaching the bottom due to an insufficient amount of conducting cable on the CTD winch (wire payout was limited to 5000 m).

Mooring work commenced on March 22nd with the recovery of bottom lander WBL5 at the eastern end of the Abaco line. All planned mooring operations (Tables 4 and 5) were successfully completed between March 22-29, working from east to west across the array. Underwater communications with the acoustic releases were initially difficult, with replies from the releases being either very faint or not detected at all by the deck unit, even though they could generally be heard on the ship's Knudsen echo-sounding system. After swapping out both the deck unit and transducers with backup units brought by AOML, it became apparent that the Benthos model UDB-9000 deck units, when paired with their cabled transducers, were not working well for communications with the EdgeTech acoustic releases used on the U. Miami moorings. Reasons for this are still to be determined. An

older EG & G model 8011-A deck unit with cabled transducer was then used for mooring recovery and deployment operations, which showed more reliable communications. Later in the cruise, the Benthos deck units were interfaced with the ships 12 kHz transducer instead of their cabled transducers, and this combination worked much better and was used for all subsequent mooring operations.

All mooring recoveries went relatively smoothly except for M417 (site WB5) which had a bad tangle near the mid-depth float that took the mooring crew considerable time to unravel and recover safely. The mooring deployments also were generally smooth except for the end of M420 (site WB3), where the anchor fell over on deck as the tension was transferred to the mooring line just before anchor launch. Quick action by the mooring team restored order on the deck and resulted in a normal and safe anchor launch.

During breaks in the mooring work, a number of PIES operations were conducted, including one PIES recovery and redeployment, and acoustic data telemetry at all 6 PIES sites on the Abaco line (Table 3 provides a summary of the PIES operations). Additional CTD casts (stations 25-27) were also conducted to provide post-deployment CTD data for PIES site A2 and post-recovery cal-dip data for the microcats retrieved from the two tall moorings WB3 and WB5.

After completing all work on the Abaco line, the ship transited Northwest Providence Channel and completed the CTD/LADCP section at the western end of the Channel (stations 28-32), on March 29-30. The ship stopped into West End on the morning of March 30 to clear out from the Bahamas and then proceeded northward to the 27°N line across the Straits of Florida. The final CTD/LADCP section across the Straits of Florida (stations 33-41) was completed at 03:00 on March 31st. The ship arrived at Fort Pierce at dawn on March 31st and was docked by 09:30. The cruise was very successful and all planned operations were accomplished.

Specific summaries of the various data collected include:

1. A single Guildline Autosal, model 8400B, was used and functioned normally during the cruise. Standard water vial P-155 was used, with the exception of one case run back at the lab using P-154.

2. The Oxygen titrations were done using the AOML amperometric titration system.

3. LADCP measurements were taken using a RDI 150 kHz ADCP (RSMAS) down-looking for stations 1-12 and the RDI 150 kHz ADCP (PHOD) for stations 13-41. The CTD frame was equipped with an upward looking 300 kHz ADCP.

4. A total of 10 surface drifters were deployed throughout the cruise.

3 Inverted Echo-Sounder Operations

In addition to the tall mooring and hydrographic operations completed on this cruise, regular maintenance of an array of pressure-equipped inverted echo sounders (PIES) was also completed (see Table 3). This maintenance consisted of acoustic download of the last 15 months of data as well as recovery and redeployment of one instrument that had reached the end of its battery life.

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°31.0′ N	076°49.90′ W	3/29/14	Telemetry
A2	CPIES	026°30.0′ N	076°44.60′ W	3/27/14	Telemetry
					Recovered and Deployed
B	PIES	026°29.5′ N	076°28.20′ W	3/27/14	Telemetry
C	PIES	026°30.1′ N	076°05.30′ W	3/26/14	Telemetry
D	PIES	026°30.0′ N	075°42.20′ W	3/25/14	Telemetry
E	PIES	026°30.0′ N	071°59.95′ W	3/23/14	Telemetry

4 Mooring Operations

Five subsurface moorings were successfully recovered from the locations listed in Table 4. 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.

Four moorings (3 taut-wire moorings and 1 bottom landers) were deployed at the locations listed in Table 5. Acoustic surveying of the on-bottom position of all moorings was successfully completed after each mooring deployment.

Table 4: Summary of mooring recovery operations.

Mooring Site	Mooring Number	Latitude (N)	Longitude (W)	Depth	Date of Recovery
WB0	M414	26° 30.49'	76° 50.50'	1005	03/28/2014
WB3	M415	26° 29.50'	76° 29.75'	4840	03/25/2014
WB5	M416	26° 30.01'	71° 58.59'	5298	03/23/2014
WBL3	M417	26° 29.27'	76° 29.39'	4843	03/27/2014
WBL5	M418	26° 29.68'	71° 58.71'	5295	03/22/2014

Table 5: Summary of mooring deployment operations.

Mooring Site	Mooring Number	Latitude (N)	Longitude (W)	Depth	Date of Deployment
WB0	M419	26° 30.54'	76° 50.51'	1005	03/29/2014
WB3	M420	26° 29.93'	76° 29.79'	4840	03/28/2014
WBC	M422	26° 30.84'	76° 06.24'	4809	03/24/2014
WBL3	M421	26° 29.36'	76° 29.18'	4845	03/27/2014

5 Surface Drifters

Surface drifters were deployed from the fan tail on the ship during transits. Positions of the deployments of the surface drifters are given in Table 6. The first seven were deployed east of Abaco along 26° 30' N followed by the last three along 27° N.

Table 6: Summary of drifter deployments.

Number	Date	Time (GMT)	Latitude (N)	Longitude (W)
116143	3/19/2014	14:22	26° 29.891' N	76° 04.711' W
116190	3/19/2014	14:22	26° 29.891' N	76° 04.711' W
116189	3/21/2014	00:43	26° 31.946' N	74° 30.709' W
116148	3/21/2014	00:43	26° 31.946' N	74° 30.709' W
116146	3/21/2014	00:43	26° 31.946' N	74° 30.709' W
116142	3/22/14	00:15	26° 29.92' N	73° 07.922' W
116145	3/22/14	00:15	26° 29.92' N	73° 07.922' W
116191	3/30/14	17:52	27° 00.752' N	79° 17.293' W
116144	3/30/14	17:52	27° 00.774' N	79° 17.312' W
116147	3/30/14	20:52	27° 01.376' N	79° 30.131' W

6 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 (version 7.22.5).

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 7.

Table 7: Equipment used during AB1403

Instrument	SN	Stations	Use	Pre-Cruise Calibration	Comment
Sea-Bird SBE 32 24-palce Carousel Water Sampler	32 - 0980	1- 41			
Sea-Bird SBE9plus CTD	1165	1-8		10/23/13	
Paroscientific Digiquartz Pressure Sensor	128030	1-8		10/23/13	
Sea-Bird SBE9plus CTD	0360	9- 41		09/07/10	
Paroscientific Digiquartz Pressure Sensor	95798	9- 41		09/07/10	
Sea-Bird SBE3plus Temperature Sensor	5898	1- 41	Primary	10/16/13	
Sea-Bird SBE3plus Temperature Sensor	5237	1- 41	Secondary	02/06/14	
Sea-Bird SBE4C Conductivity Sensor	3861	1- 41	Primary	02/06/14	
Sea-Bird SBE4C Conductivity Sensor	3854	1- 11	Secondary	02/06/14	
Sea-Bird SBE4C Conductivity Sensor	4229	12- 41	Secondary	10/01/13	
Sea-Bird SBE43 Dissolved Oxygen Sensor	2691	1- 41	Primary	10/23/13	
Sea-Bird SBE43 Dissolved Oxygen Sensor	2082	1-6,9-41	Secondary	02/08/14	
Sea-Bird SBE43 Dissolved Oxygen Sensor	1348	7-8	Secondary	03/04/14	
Sea-Bird SBE5T Pump	7268	1-41	Primary		
Sea-Bird SBE5T Pump	7267	1-7	Secondary		
Sea-Bird SBE5T Pump	3953	8-41	Secondary		
Simrad 807 Altimeter	980	1- 41	Range - 280 m		2.928 scale
RDI LADCP - 150 kHz Broad Band (UM)	18144	1-12	Downward		
RDI LADCP - 150 kHz Broad Band	18145	13-41	Downward		
RDI LADCP - 300 kHz Workhorse (UM)	6820	1- 41	Upward		

6.1 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 ± 0.0003 S·m^{-1}/month and resolution of 0.00004 S·m^{-1} at 24 scans per second.

Three conductivity sensors were used during AB1403, serial numbers (s/n) 3861, 3854, and 4229. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington during October 2013 and February 2014. The coefficients shown in Table 8 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:

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

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 8: Pre-Cruise Calibration coefficients for the conductivity sensors.

s/n 3861	s/n 3854	s/n 4229
February 6, 2014	February 6, 2014	October 1, 2013
g = -1.02405868e+01	g = -1.04135442e+01	g = -9.73943407e+00
h = 1.36123638e+00	h = 1.58208445e+00	h = 1.50351574e+00
i = -6.33050018e-04	i = -1.09536279e-03	i = -1.34147631e-03
j = 1.13159547e-04	j = 1.79416667e-04	j = 1.89910999e-04
CPcor = -9.5700e-08	CPcor = -9.5700e-08	CPcor = -9.5700e-08
CTcor = 3.2500e-06	CTcor = 3.2500e-06	CTcor = 3.2500e-06

6.2 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 ±0.004°C per year and resolution of 0.0003°C at 24 samples per second. The SBE 3 thermometer has a fast response time of 0.070 seconds.

Two temperature sensors (SBE 3plus) were used during AB1403, serial numbers (s/n) 5898 and 5237. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington during October 2013 and February 2014. The following coefficients (Table 9) 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:

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

Table 9: Pre-Cruise Calibration coefficients for the temperature sensors.

s/n 5898	s/n 5237
October 16, 2013	February 6, 2014
g = 4.35065832e-03	g = 4.41001537e-03
h = 6.25971885e-04	h = 6.79564837e-04
i = 1.89617832e-05	i = 2.82910680e-05
j = 1.32016463e-06	j = 2.15342915e-06
f_0 = 1000.0	f_0 = 1000.0

6.3 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 kHz ± 50 ppm/°C.

The pressure sensors utilized during AB1403 were s/n 1165 and s/n 0360. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington on

October 2013 and September 2010. The following coefficient (Table 10) 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:

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

where t is pressure period (μs). SEASAVE® automatically implements this equation.

Table 10: Pre-Cruise Calibration coefficients for the pressure sensor.

s/n 1165 October 23, 2013	s/n 0360 September 7, 2010
c_1 = -3.955625e+04	c_1 = -4.698871e+04
c_2 = -4.423182e-01	c_2 = 6.928599e-01
c_3 = 1.291600e-02	c_3 = 1.264330e-02
d_1 = 3.518300e-02	d_1 = 3.832000e-02
d_2 = 0.000000e+00	d_2 = 0.000000e+00
t_1 = 2.987961e+01	t_1 = 2.996944e+01
t_2 = -3.979280e-04	t_2 = -1.348850e-04
t_3 = 4.178490e-06	t_3 = 3.953500e-06
t_4 = 2.677760e-09	t_4 = 2.102830e-09
t_5 = 0.000000e+00	t_5 = 0.000000e+00
Slope = 1.00001000	Slope = 1.00001000
Offset = 0.0000	Offset = -1.3878
AD590M = 1.27910e-02	AD590M = 1.14100e-02
AD590B = -9.20600e+00	AD590B = -8.42813e+00

6.4 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/crystalinity 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 2691, 2082, and 1348 were used during AB1403. The following oxygen coefficients (Table 11) were entered into SEASAVE® using the configuration file:

Table 11: Pre-Cruise Calibration coefficients for the dissolved oxygen sensors.

s/n 2691	s/n 2082	s/n 1348
October 23, 2013	February 08, 2014	March 04, 2014
Soc = 0.4390	Soc = 0.4551	Soc = 0.3542
Voffset = -0.4968	Voffset = -0.5333	Voffset = -0.5139
Tau20 = 2.43	Tau20 = 1.31	Tau20 = 1.07
A = -2.8397e-03	A = -4.3258e-03	A = -3.6375e-03
B = 1.2502e-04	B = 2.4952e-04	B = 2.0198e-05
C = -1.7165e-06	C = -4.0206e-06	C = -2.7879e-06
$E_{nominal}$ = 0.036	$E_{nominal}$ = 0.036	$E_{nominal}$ = 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:

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

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 θ is the absolute temperature (K); and

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

SEASAVE® automatically implements this equation.

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

$$D = 1 + H_1 * (e^{\left(\frac{P(i)}{H2}\right)} - 1)$$

$$C = e(-1 * \left(\frac{Time(i) - Time(i-1))}{H3}\right)$$

$$O_V(i) = O_{volt}(i) + V_{offset}$$

$$O_{newvolts}(i) = a * \frac{a}{D}$$

$$O_{finalvolts}(i) = O_{newvolts}(i) - V_{offset}$$

Where:

i = indexing variable (must be a continuous time series to work; can be performed on bin averaged data), where i = 1: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 (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.

7 Data Acquisition

CTD/rosette casts were performed with a package consisting of a 24-place, 10-liter rosette frame (AOML's pink frame), a 24-place water sampler (SBE32) and 24, 10-liter Bullister-style bottles. This package was deployed on all stations/casts. 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 a Simrad 807 altimeter. The other underwater electronic components consisted of two RDI LADCPs. A total of 41 CTD/rosette casts were made, usually to within 20 m of the bottom (we were not able to get within 20 m of the bottom for the last three stations of the Abaco line due to the winch only having 5100 m of cable available for wire out).

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 in the computer lab. 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. The R/V Atlantic Explorer's starboard A-frame CTD winch was used with the 24-place 10-liter rosette for all station/casts.

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.

7.1 System Problems

- The CTD acquisition computer had no serial ports. USB to serial port adapters were used instead. The ships adapters did not have drivers installed. We had adapters with the serial ports drivers available, so we used ours instead. The default Seabird coms ports were not available via the adapters. Instead, coms 13 and 14 were used for the SBE 9plus and SBE water sampler, respectively.

- The configuration file for the cast at Station 1 was set up incorrectly for both oxygen sensors and the altimeter. No data was recorded for either of these. It was also determined that the auxiliary 1 port on the CTD, s/n 1165, was not working correctly.

- During the upcast at station 4 the CTD package became tangled with the British W2 mooring. The package was recovered with minimal damage. The package was lowered $\approx$ 600 m to untangle it from the mooring. No water samples were used due to water intrusion.

- Step-like profile features were seen during the cast at station 6 in the secondary oxygen profiles at depth. The secondary sensor, s/n 2082, was replaced with s/n1348. The problem persisted during stations 7 and 8. Replaced CTD, s/n 1165, with CTD, s/n 0363 along with a new cable for the secondary oxygen. This fixed the problem. It was determined after that s/n 1165 had flooding in the top cap. Secondary oxygen sensor, s/n 2082, was swapped back in place of s/n 1348. It was performing better with the primary oxygen sensor.

- At station 12 the secondary conductivity sensor, s/n 3854, was swapped out for s/n 4229. A shift was seen in the T-S plot at depth in stations 10 and 11 for sensor s/n 3854.

- At station 13 the UM 150 kHz ADCP was showing large error bars in the velocity profiles and replaced with AOML's 150 kHz ADCP.

- At station 26 the CTD was re-terminated. Modulo errors were seen during several casts (Stations 13, 15, 25 and 26) and it was finally determined this was due to a bad sea-cable.

7.2 Data Acquisition

The CTD data acquisition system consisted of an SBE-11plus (V2) deck unit and a networked generic PC workstation running Windows 7 located in the aft bridge. SBE Seasave software version 7.22.5 was used for data acquisition and to close bottles on the rosette.

The console watch initiated CTD deployments after the ship stopped on station. The watch maintained a console operations log containing a description of each deployment, a record of every attempt to close a bottle and any pertinent comments.

The deck watch leader directed the winch operator to raise the package, the starboard A-frame and rosette were extended outboard, and the package quickly lowered into the water and submerged to 10-15 meters of wire out. Tag lines were necessary for both deployments

and recoveries during this cruise. The CTD sensor pumps were configured with a 60 second startup delay. The CTD console operator waited for the CTD sensor pumps to turn on, waiting for 2-3 minutes for sensors to stabilize, then directed the winch operator to bring the package close to the surface, pause for typically 10 seconds, hitting "Mark Scan" and begin the descent. The profiling rate was no more than 30 m/min to 150 m and no more than 60 m/min deeper than 150 m depending on sea cable tension and the sea state.

The console watch monitored the progress of the deployment and quality of the CTD data through interactive graphics and operational displays. Additionally, the watch created a sample log for the deployment that would be later used to record the correspondence between rosette bottles and analytical samples taken. The altimeter channel, CTD pressure, wire-out and bathymetric depth were all monitored to determine the distance of the package from the bottom, usually allowing a safe approach to within 20 m.

On the up cast, the winch operator was directed to stop at each bottle trip depth. The CTD console operator waited 30 seconds before tripping a bottle using a "point and click" graphical trip button. The data acquisition system responded with trip confirmation messages and the corresponding CTD data in a rosette bottle trip window on the display. All tripping attempts were noted on the console log. The console watch then directed the winch operator to raise the package up to the next bottle trip location.

After the last bottle was tripped, the console watch directed the deck watch to bring the rosette on deck. Once on deck, the console watch terminated the data acquisition, turned off the deck unit, and assisted with rosette sampling.

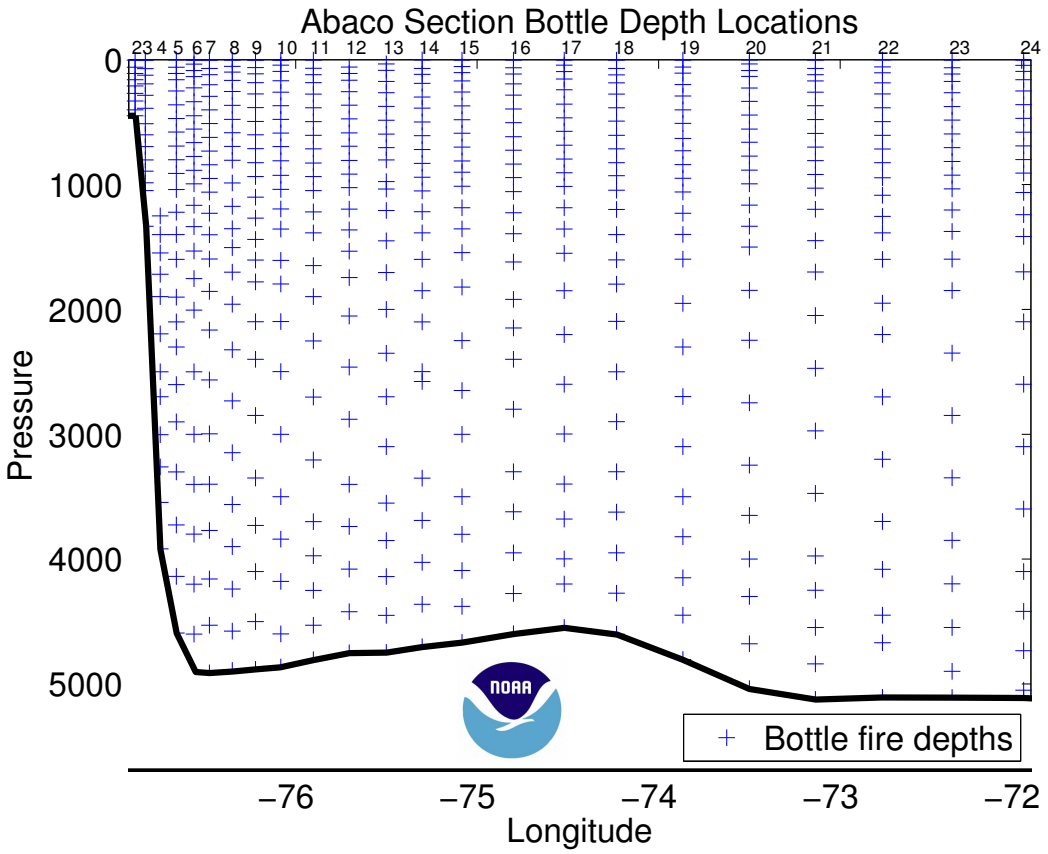


Figure 2: Bottle locations for 26.5°N Deep Western Boundary Current section east of Abaco Island.

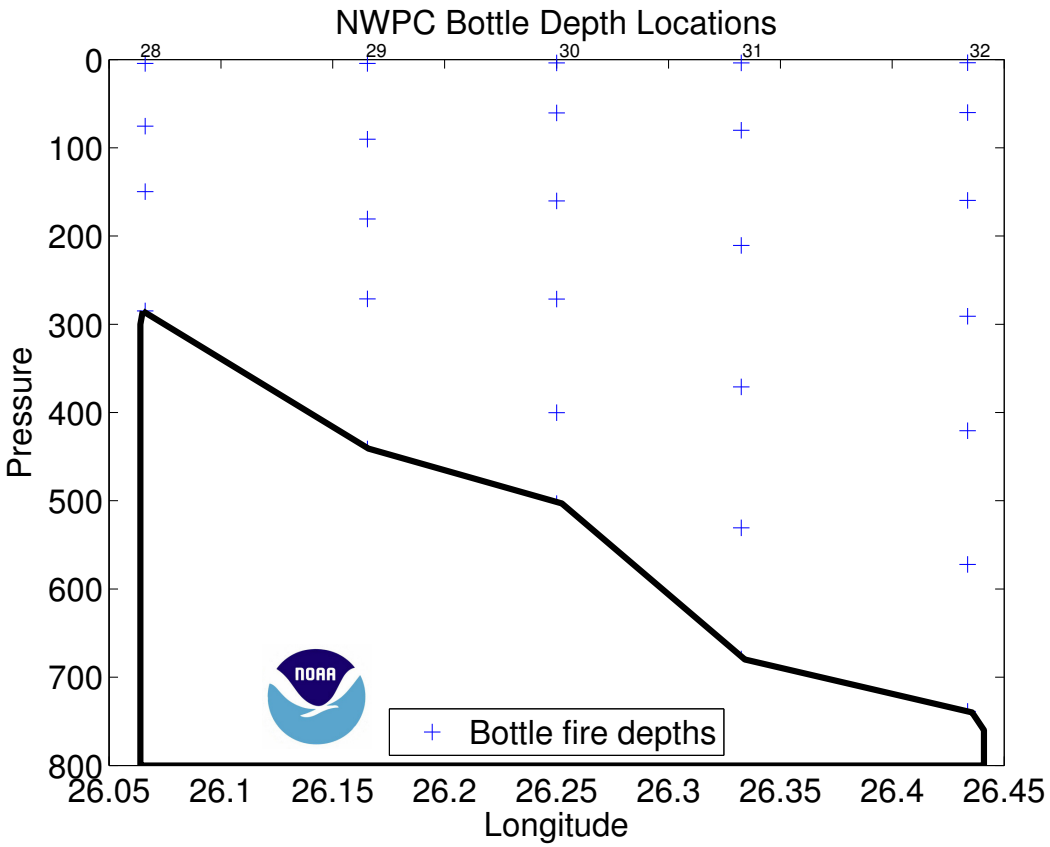


Figure 3: Bottle locations for along the Northwest Providence Channel section.

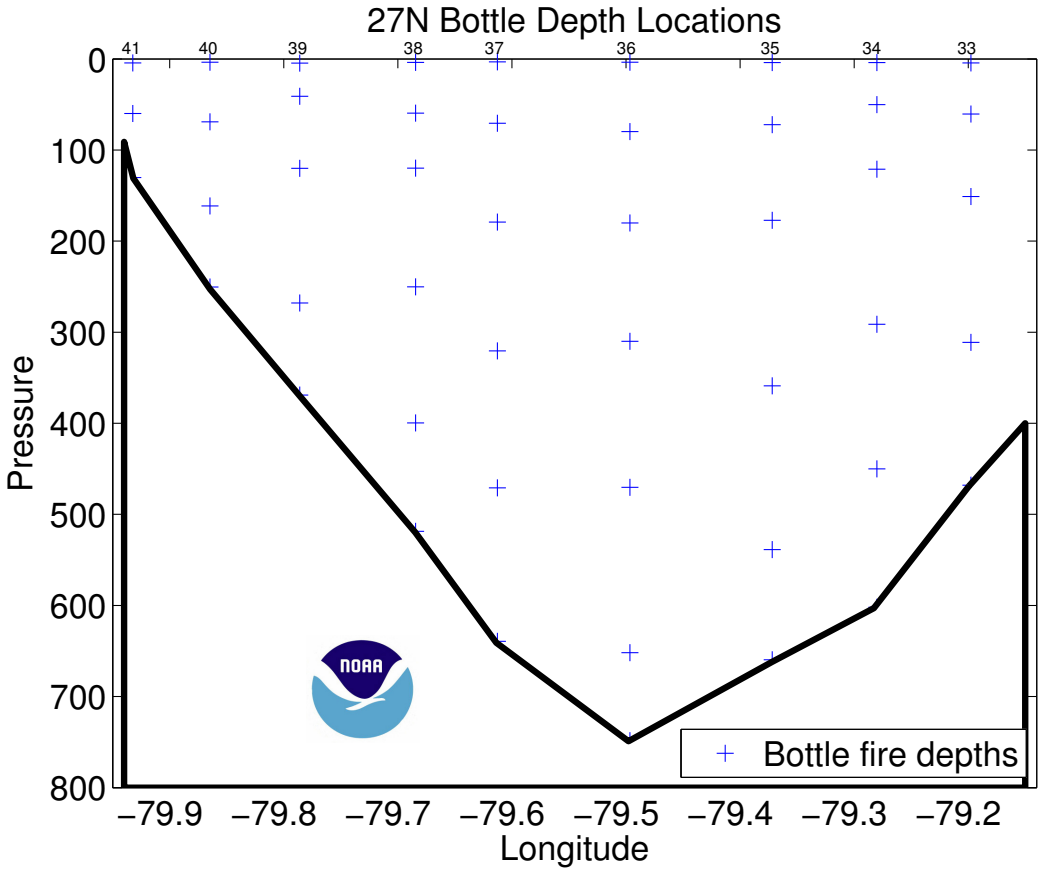


Figure 4: Bottle locations for 27°N section in the Florida Straits.

7.3 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 7 workstation were copied onto the CTD-PROC workstation, 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/O2 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°C. The value used for the thermal anomaly time constant (1/beta) was 7.0°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 x 10^{-5} 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.

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 41 casts were processed.

7.4 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 7.

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.

7.4.1 Salinity Analysis

A single Guildline Autosal, model 8400B (s/n 71011), located in salinity analysis room, was used for all salinity measurements hooked up to a UPS. The autosal used was provided by AOML and last calibrated August 23, 2012. The salinometer readings were logged on a computer using Ocean Scientific International's logging hardware and software. The Autosal's water bath temperature was set to 24°C, which the Autosal is designed to automatically maintain. The laboratory's temperature is typically set and maintained to just below 24°C, to help further stabilize reading values and improve accuracy. The room temperature was monitored by a digital thermometer with serial output continuously logging on the salinity computer (Figure 5). The temperature was used to gauge when the Autosal room temperature was acceptable to run salts. Salinity analyses were performed after samples had equilibrated to laboratory temperature, usually at least 12 hours after collection. The salinometer was standardized for each group of samples analyzed (usually 2 casts and up to 52 samples) 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. Prior to each run a sub-standard flush, approximately 200 ml, of the conductivity cell was conducted to flush out the DI water used in between runs. 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.

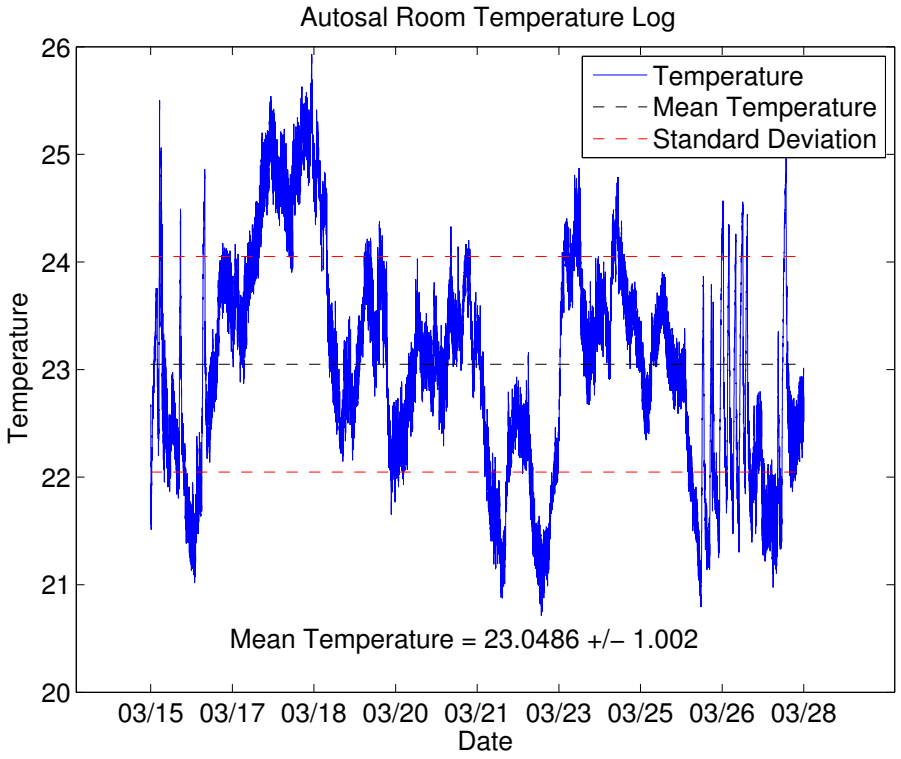


Figure 5: Temperature logged of the Autosal room during the cruise.

IAPSO Standard Seawater Batch P-155 and P-154 was used to standardize the casts (Table 12).

Table 12: Nominal values for the batches of IAPSO standard seawater.

P-155	P-154
Use By: September 2015	Use By: October 2014
K15: 0.99981	K15: 0.99990
Salinity: 34.993	Salinity: 34.996

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. 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. When duplicate measurements were deemed to have been collected and run properly, they were averaged and submitted with a quality flag of 6. On WBTS - AB1403, 621 salinity measurements were taken, including 59 duplicates, and approximately 22 vials of standard seawater (SSW) were used. Up to two duplicate samples drawn from most casts to determine total analytical precision.

The running standard calibration values are shown in Figure 6. Through the course of the 17 day cruise, the autosal standards changed by 0.00037 in conductivity ratio (about 0.07 in salinity). The precision of the salinity measurements during the cruise were estimated by using the duplicate samples. From the 59 duplicate samples (Table 13), which corresponds to 9.5% of the total samples collected during this cruise, the average residual for the duplicates was 0.0001 PSU with and standard deviation of 0.0016 PSU (Figure 6).

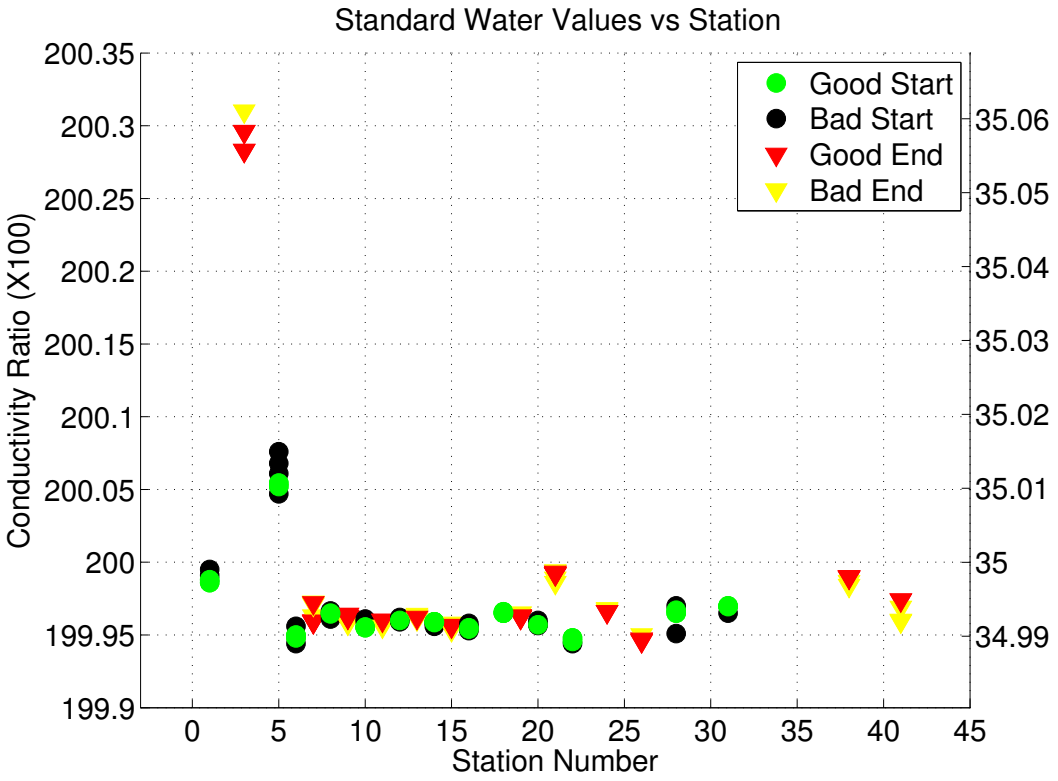


Figure 6: Standard vial calibrations throughout the cruise.

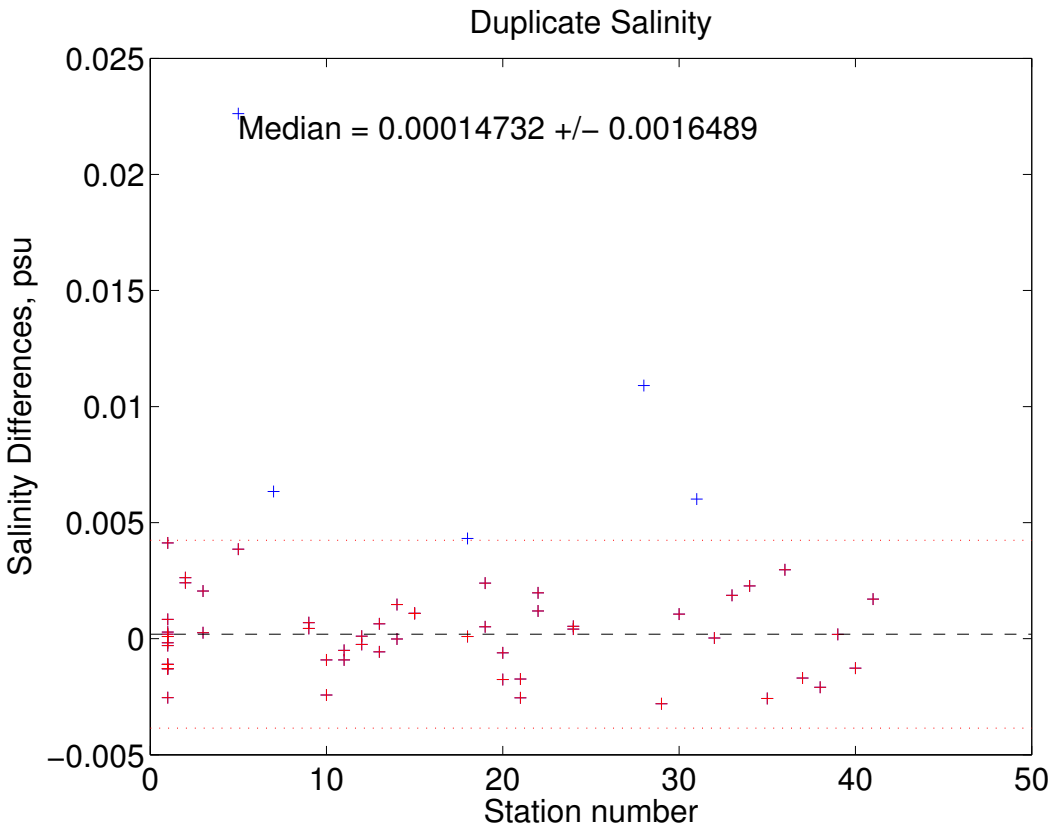


Figure 7: Salinity residuals of the duplicate samples.

Table 13: Duplicate salinity samples collected during the ABACO cruise.

Station	Niskin	Salinity1	Salinity2	Differences
1	2	34.884	34.884	-0.000
1	4	34.884	34.883	0.001
1	6	34.884	34.885	-0.000
1	8	34.883	34.882	0.001
1	10	34.882	34.881	0.001
1	12	34.894	34.891	0.003
1	13	34.903	34.902	0.000
1	15	34.961	34.960	0.000
1	17	35.052	35.052	-0.000
1	19	36.045	36.044	0.001
1	21	36.653	36.657	-0.004
1	23	36.526	36.527	-0.001
2	2	36.382	36.385	-0.002
2	8	36.470	36.473	-0.003
3	2	35.042	35.042	-0.000
3	13	36.502	36.504	-0.002
5	1	34.889	34.892	-0.004
5	2	34.895	34.917	-0.023
7	5	34.913	34.919	-0.006
9	8	34.956	34.957	-0.001
9	18	36.223	36.224	-0.000
10	5	34.903	34.901	0.002
10	19	36.517	36.517	0.001
11	9	34.969	34.968	0.001
11	23	36.582	36.581	0.001
12	10	34.995	34.995	-0.000
12	17	35.926	35.926	0.000
13	3	34.887	34.887	0.001
13	9	34.961	34.962	-0.001
14	7	34.942	34.943	-0.001
14	9	34.969	34.969	0.000
15	5	34.897	34.898	-0.001
15	16	35.628	35.629	-0.001
18	7	34.945	34.950	-0.004
18	17	36.186	36.186	-0.000
19	3	34.888	34.890	-0.002
19	14	35.166	35.166	-0.001
20	4	34.892	34.892	0.001
20	17	36.435	36.434	0.002
21	2	34.877	34.875	0.002
21	15	35.368	35.366	0.003

22	2	34.885	34.887	-0.002
22	22	36.558	36.560	-0.001
24	2	34.877	34.877	-0.001
24	12	35.032	35.032	-0.000
28	4	36.674	36.685	-0.011
29	4	36.618	36.616	0.003
30	2	36.062	36.063	-0.001
31	10	36.469	36.475	-0.006
32	6	36.434	36.434	-0.000
33	6	36.697	36.698	-0.002
34	6	36.558	36.560	-0.002
35	6	36.284	36.282	0.003
36	6	35.375	35.378	-0.003
37	6	35.994	35.993	0.002
38	2	34.951	34.948	0.002
39	4	35.783	35.783	-0.000
40	4	36.255	36.254	0.001
41	2	35.951	35.952	-0.002

7.4.2 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, which ever 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 MnCl2 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.

During the initial setup for analyses the following instruments were used: Aoml Titrator #4, Burette #15, stepper motor AOML2, stirrer Hi 190M, computer desktop AOML_ADMIN, Weaton Dispensor #3 (10 ml=9.962), and amp probe s/n: 3129022P. At the beginning of station 7 run the stirring table was switched due to the first having motor issues. At station 18 it was observed that the stepper motor controlling the burette being to freeze and loose step. It was switched out for the station 19 run to motor AOML#4, Burette #39. After getting higher than normal standard reading prior the run of station 28 the amp probe was switched to s/n: 4034104P, but the same readings were observed and the higher readings were concluded to be true.

The precision of the oxygen measurements during the cruise were estimated by using the duplicate samples. From the 57 duplicate samples (14), which corresponds to 9.1% of the total samples collected during this cruise, the average residual for the duplicates was -0.049 $umol/kg$ with and standard deviation of 0.73 $umol/kg$ (8).

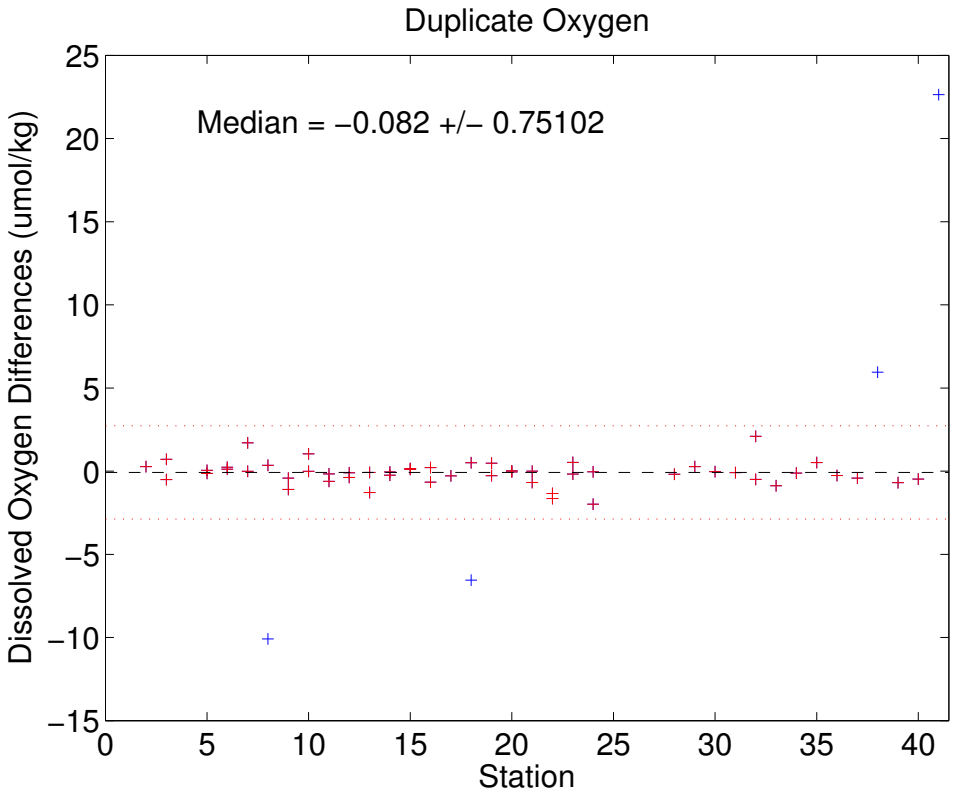


Figure 8: Oxygen residuals of the duplicate samples .

Table 14: Duplicate dissolved oxygen samples collected during the ABACO cruise (values in $umol/kg$).

Station	Niskin	Oxygen1	Oxygen2	Differences
2	4	191.1	191.3	-0.269
3	2	213.4	214.1	-0.712
3	13	205.9	205.4	0.507
5	4	268.4	268.5	-0.050
5	20	188.6	188.5	0.133
6	5	268.7	268.9	-0.121
6	19	189.6	189.8	-0.231
7	12	245.3	245.3	0.010
7	13	223.0	224.7	-1.707
8	2	272.7	262.6	10.087
8	3	265.6	265.9	-0.349
9	1	260.5	259.4	1.105
9	3	267.7	267.3	0.414
10	3	267.0	267.0	0.005
10	8	262.9	263.9	-1.039
11	6	269.1	268.5	0.616
11	18	178.8	178.7	0.168
12	7	262.9	262.6	0.375
12	15	142.2	142.1	0.099
13	5	269.2	267.9	1.290
13	6	268.3	268.2	0.074
14	3	264.6	264.5	0.048
14	7	263.1	262.9	0.244
15	8	262.5	262.6	-0.109
15	13	179.6	179.7	-0.160
16	8	262.5	262.8	-0.217
16	14	156.4	155.8	0.663
17	2	262.3	262.0	0.283
18	4	267.4	260.8	6.550
18	8	262.0	262.5	-0.504
19	9	261.3	261.8	-0.473
19	11	239.7	239.4	0.269
20	10	250.4	250.3	0.049
20	11	235.7	235.8	-0.015
21	4	266.9	266.9	0.000
21	12	225.1	224.5	0.678
22	10	254.9	253.6	1.347
22	12	241.0	239.4	1.643
23	7	264.8	265.3	-0.530
23	11	250.5	250.4	0.173
24	4	268.4	266.4	1.983
24	8	264.4	264.3	0.043
28	4	188.2	188.0	0.189
29	2	166.6	166.9	-0.277
30	4	186.2	186.2	0.034
31	6	188.1	188.0	0.090
32	2	156.9	156.4	0.498
32	12	199.9	202.0	-2.097
33	6	187.4	186.5	0.873
34	8	165.5	165.4	0.112
35	4	131.3	131.8	-0.514
36	10	166.1	165.9	0.262
37	2	132.8	132.3	0.420
38	4	113.9	119.9	-5.953
39	6	202.8	202.1	0.692
40	2	121.1	120.7	0.476
41	4	193.6	216.2	-22.638

8 Post-Cruise Calibrations

Post cruise sensor calibrations were done at Sea-Bird Electronics, Inc. (Table 15 & 16). 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 7. Primary TC pair T5898/C3861 was selected for final data reduction. Primary conductivity post-calibration shows a drift since last calibration of -0.0003 PSU/month. Primary temperature residual of 0.00005. The temperature residual is used to calculate the temperature offset since the last calibration and the conductivity drift is used as a check to the station drift coefficient we derive. Primary oxygen sensor, s/n 2691, 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.

Table 15: Post–Calibration coefficients for the conductivity sensors.

s/n 3861 April 23, 2014	s/n 3854 April 24, 2014	s/n 4229 April 24, 2014
g = -1.02406797e+01	g = -1.04173234e+01	g = -9.73937240e+00
h = 1.36117321e+00	h = 1.58355917e+00	h = 1.50361823e+00
i = -6.02783494e-04	i = 1.51885502e-03	i = -1.40181978e-03
j = 1.10733316e-04	j = 2.13652651e-04	j = 1.98618128e-04
CPcor = -9.5700e-08	CPcor = -9.5700e-08	CPcor = -9.5700e-08
CTcor = 3.2500e-06	CTcor = 3.2500e-06	CTcor = 3.2500e-06

Table 16: Post–Calibration coefficients for the temperature sensors.

s/n 5898 April 24, 2014	s/n 5237 April 23, 2014
g = 4.35081330e-03	g = 4.41021953e-03
h = 6.26294438e-04	h = 6.80037366e-04
i = 1.91859680e-05	i = 2.86364525e-05
j = 1.37230704e-06	j = 2.23473962e-06
f_0 = 1000.0	f_0 = 1000.0

8.1 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 doc/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/p) (dp/dz) and linearly interpolated measured parameters over those records where $N^2 \leq$ -1.0 e -05 s^{-2}.

8.2 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 17). Two pressure sensors were used during the cruise, s/n 1165 and s/n 0363. On deck pressures before the start of each cast was recorded and is plotted in Figure 9. The on deck pressure before and after the cast were stable at 0.14± 0.054 dbar and -0.11 ± 0.20 dbar for s/n 1165 and 0.84± 0.075 dbar and 0.50 ± 0.17 dbar for s/n 0363, respectively. There is a noticeable shift with the end on deck pressure at station 36. This corresponds to the change in station depths; Station 28 and onwards were all less than 850 m. It is clear that the pressure offset needs to be corrected before final calibration of the data is complete. This was accomplished by applying an offset of 0.015 dbar (s/n 1165) and 0.67 dbar (s/n 0360) to the configuration files.

Near surface pressure values (which is taken as the near-surface pressure at the markscan and the last fired bottle pressure) showed larger variability, but no remarkable trends over the cruise (3.92 ± 1.52 dbar before and 3.90 ± 1.08 dbar after (s/n 1165) and 4.16 ± 0.65 dbar before and 4.04 ± 0.52 dbar after (s/n 0360)).

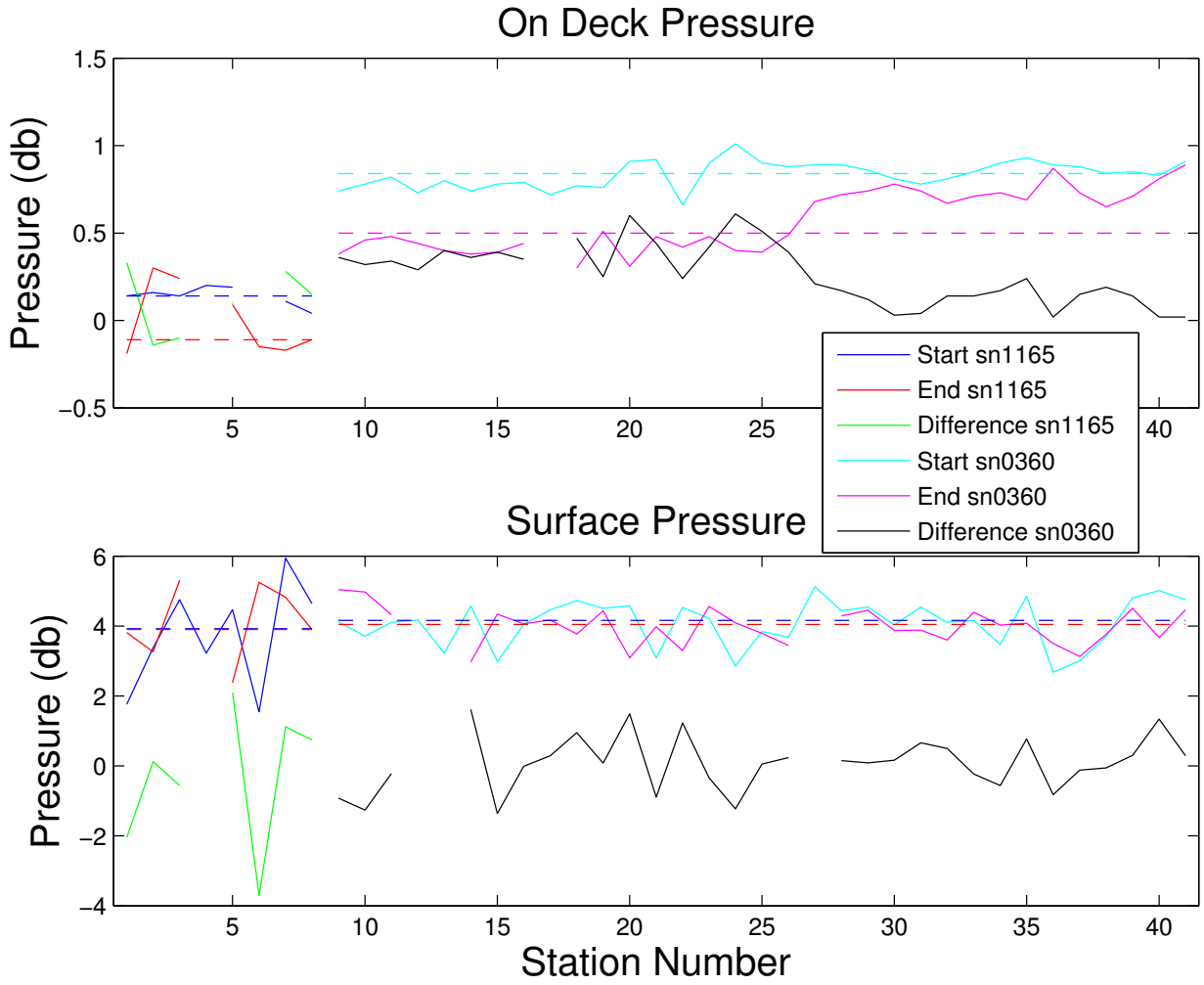


Figure 9: Pressure differences vs. station number. Top panel are the pressures measured on deck before the cast (blue),at the end of the upcast (red) and their respective difference (green) for s/n 1165 and on deck before the cast (cyan),at the end of the upcast (magenta) and their respective difference (black) for s/n 0360. 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) for s/n 1165 and at the start of the downcast (cyan), at the end of the upcast (magenta) and their respective difference (black) for s/n 0360.

Table 17: 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	18930	0.1400	-0.1900	1.7600	3.8100
2	4663	0.1600	0.3000	3.3800	3.2600
3	5629	0.1400	0.2400	4.7500	5.3100
4	5586	0.2000	0.0000	3.2200	0.0000
5	3919	0.1900	0.0900	4.4700	2.3800
6	7677	0.0000	-0.1500	1.5500	5.2500
7	5723	0.1100	-0.1700	5.9400	4.8200
8	6776	0.0400	-0.1100	4.6400	3.9000
9	6079	0.7400	0.3800	4.1200	5.0400
10	3542	0.7800	0.4600	3.7100	4.9700
11	4963	0.8200	0.4800	4.1000	4.3200
12	5459	0.7300	0.4400	4.1700	0.0000
13	4710	0.8000	0.4000	3.2300	0.0000
14	6111	0.7400	0.3800	4.5800	2.9700
15	4143	0.7800	0.3900	2.9800	4.3400
16	5562	0.7900	0.4400	4.0500	4.0600
17	5567	0.7200	0.0000	4.4600	4.1700
18	7820	0.7700	0.3000	4.7200	3.7700
19	4881	0.7600	0.5100	4.5100	4.4300
20	7505	0.9100	0.3100	4.5800	3.0900
21	7047	0.9200	0.4800	3.0900	3.9800
22	6610	0.6600	0.4200	4.5300	3.3000
23	3679	0.9000	0.4800	4.2200	4.5600
24	9057	1.0100	0.4000	2.8600	4.0900
25	6287	0.9000	0.3900	3.8400	3.7900
26	6279	0.8800	0.4900	3.6800	3.4400
27	6951	0.8900	0.6800	5.1200	0.0000
28	4366	0.8900	0.7200	4.4400	4.2900
29	4932	0.8600	0.7400	4.5400	4.4500
30	4130	0.8100	0.7800	4.0300	3.8700
31	4320	0.7800	0.7400	4.5400	3.8800
32	4120	0.8100	0.6700	4.1000	3.6000
33	4170	0.8500	0.7100	4.1600	4.3900
34	6233	0.9000	0.7300	3.4700	4.0300
35	5892	0.9300	0.6900	4.8500	4.0800
36	4298	0.8900	0.8700	2.6800	3.5000
37	5153	0.8800	0.7300	3.0100	3.1300
38	4682	0.8400	0.6500	3.7000	3.7600
39	5118	0.8500	0.7100	4.8100	4.5100
40	5415	0.8300	0.8100	5.0100	3.6700
41	4667	0.9100	0.8900	4.7500	4.4600

8.3 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 -0.0007 °C and a standard deviation of 0.0005 °C.

Following Seabird application note No. 31, a linear offset drift is applied between the pre-cruise calibration and the pos-cruise calibration value. The corrected temperature and offset are computed according to:

$$T_{cor} = slope * T_{CTD} + offset$$

and

$$offset = b * (residual/n)$$

where T_{cor} is the corrected temperature, the slope is taken to be 1, T_{CTD} is the sensor temperature, b is number of days between pre-cruise calibration and the cast to be corrected, n is the number of days between pre- and post-cruise calibrations, and $residual$ is the residual from the post-calibration sheet (Sea-Bird Electronics, Inc., 2010).

The pressure dependence between the two temperature sensors is show 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.

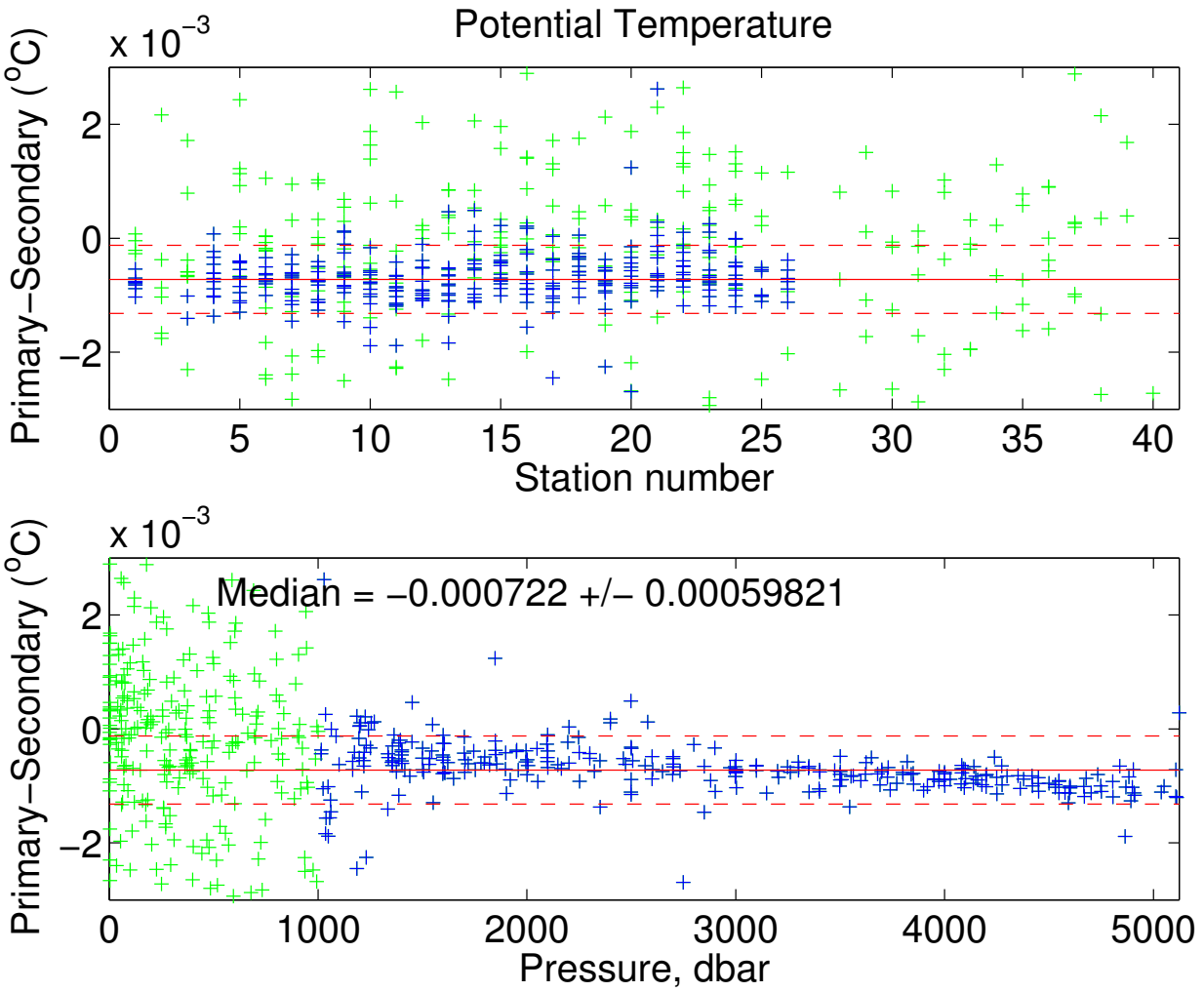


Figure 10: Temperature differences (after corrections) between sensors by station number (top) and pressure (bottom). The green represents the surface data down to 1000 dbar. The blue represents data below 1000 dbar. The red solid line represents the median with the red dashed representing the standard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

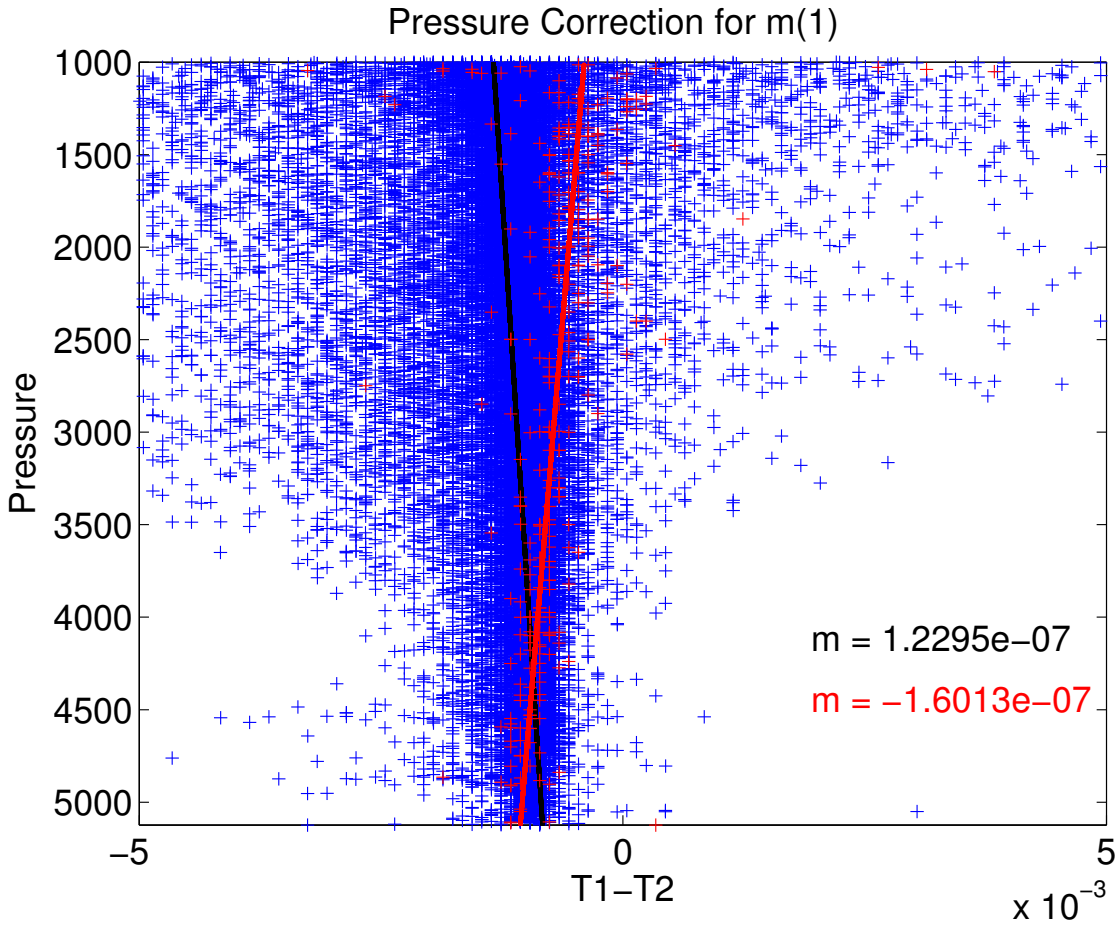


Figure 11: Pressure dependent correction for temperature differences of the downcast profile (blue) with slope fit (black) and the upcast with slope fit (red).

8.4 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. A slight shift in the deep water T-S plot was seen in the secondary conductivity sensor, s/n 3854, in stations 10 and 11 and replaced with s/n 4229. The sensors show a median difference of 0.00015 S/m and a standard deviation of 0.000065 S/m. Both sensors showed reasonable values for the residuals. The primary sensor, s/n 3861, was used for all the final data values (Figure 15).

The pressure dependence between the two pairs of conductivity sensors can be seen in Figures 13 and 14. In Figure 13 you can see two distinct downcast profiles in blue (stations 1-8) and yellow (stations 9-11). The secondary conductivity sensor shifted after station 8 and was replaced.

Despite the large variability of the data from station 28 on, the bottle values are kept in the database and used for the final calibration. Note also that these CTD stations were in the Northwest Providence Channel and Florida Straits where bottom depths do not exceed 850 m. The AOML/CTDCAL Toolbox automatically applies a quality control to the data based on comparison with a normal distribution. After these procedures 420 data points (74.47 %) were used in the final calculations.The low percentage of data points was due to several bad autosal runs being manually removed, including stations 1-5, 20, and 21.

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

s/n 3861
m=0.9999033
p_1=-1.6147492e-05
b=0.0030554
$pcor$=-6.867571e-07

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 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 15 to Figure 19) show a residual of 1.3 · 10-4 psu (-5.6 · 10-5 psu for the data below 1000 dbar) and a standard deviation of 0.0017 psu (0.001 psu for the data below 1000 dbar). Also 80.0% of the residuals for the data are within the confidence limits determined by the WOCE (± 0.002 psu) and this number increases to 92.6% 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 20 and Figure 21). 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.

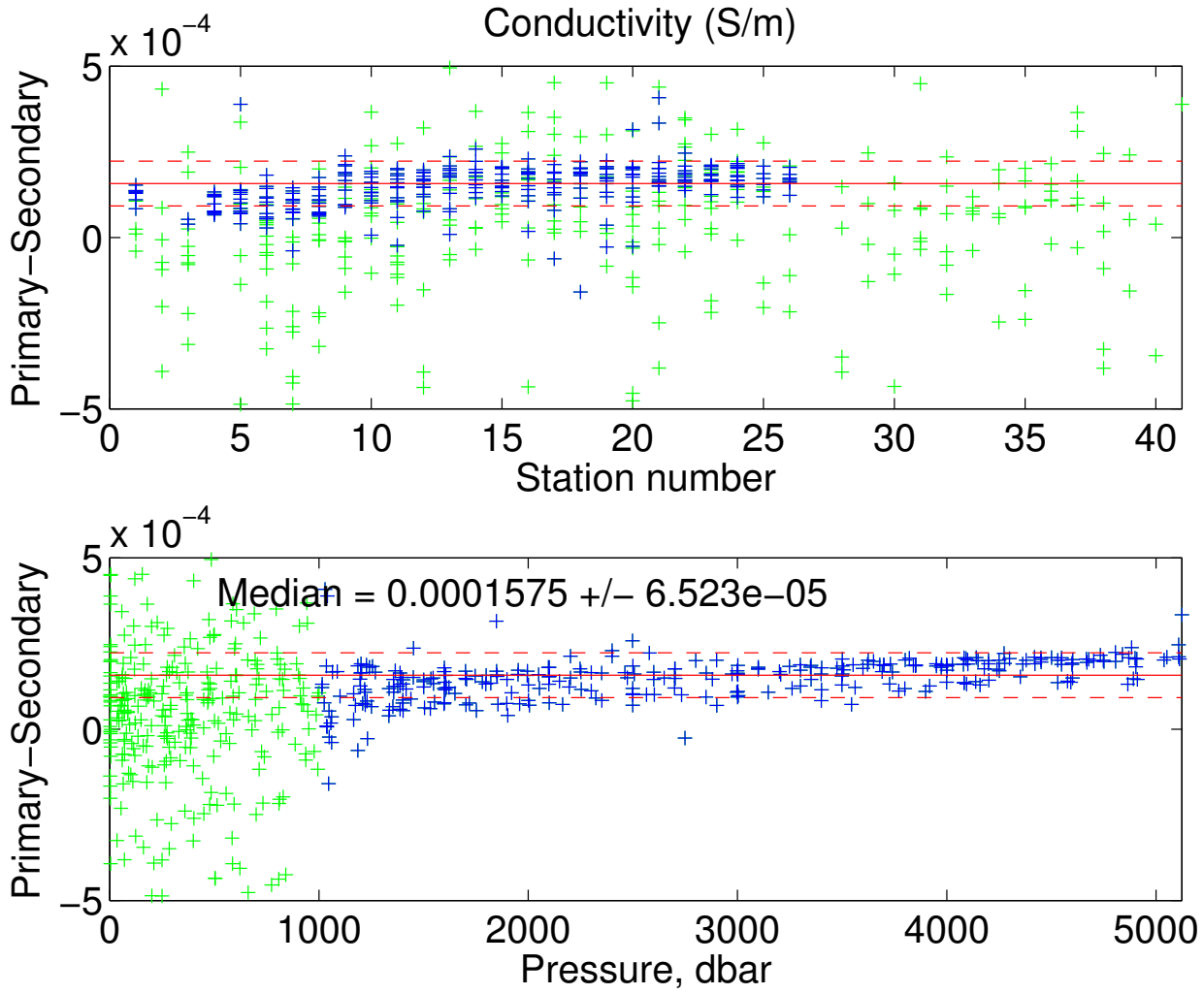


Figure 12: Conductivity (S/m) differences between sensors by station (top) and pressure (bottom). The red solid line represents the median with the red dashed representing the standard deviation.

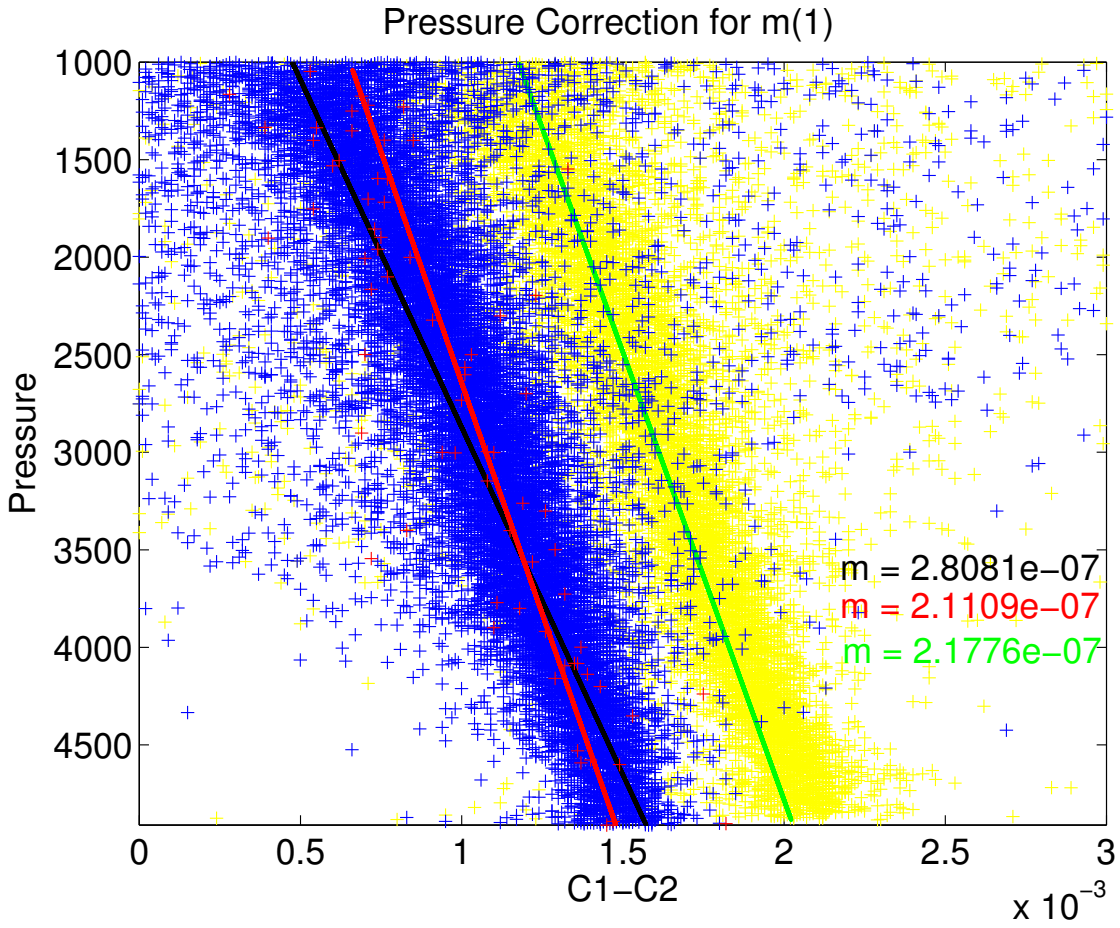


Figure 13: Pressure dependent correction for conductivity differences for stations 1-11. The downcast profile (blue) with slope fit (black) and the upcast with slope fit (red) represent stations 1-8, while the downcast profile (yellow) with slope fit (green) represent stations 9-11.

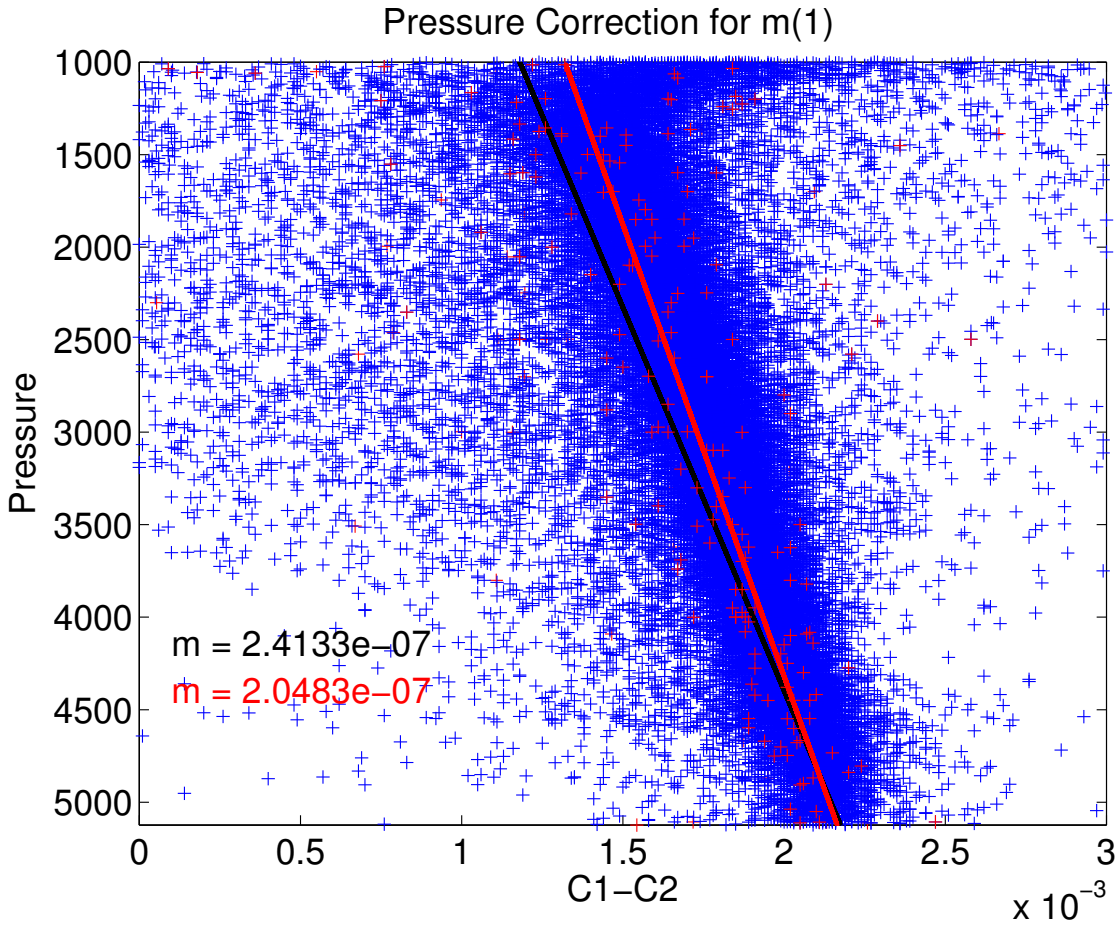


Figure 14: Pressure dependent correction for conductivity differences (stations 12-41) of the downcast profile (blue) with slope fit (black) and the upcast with slope fit (red).

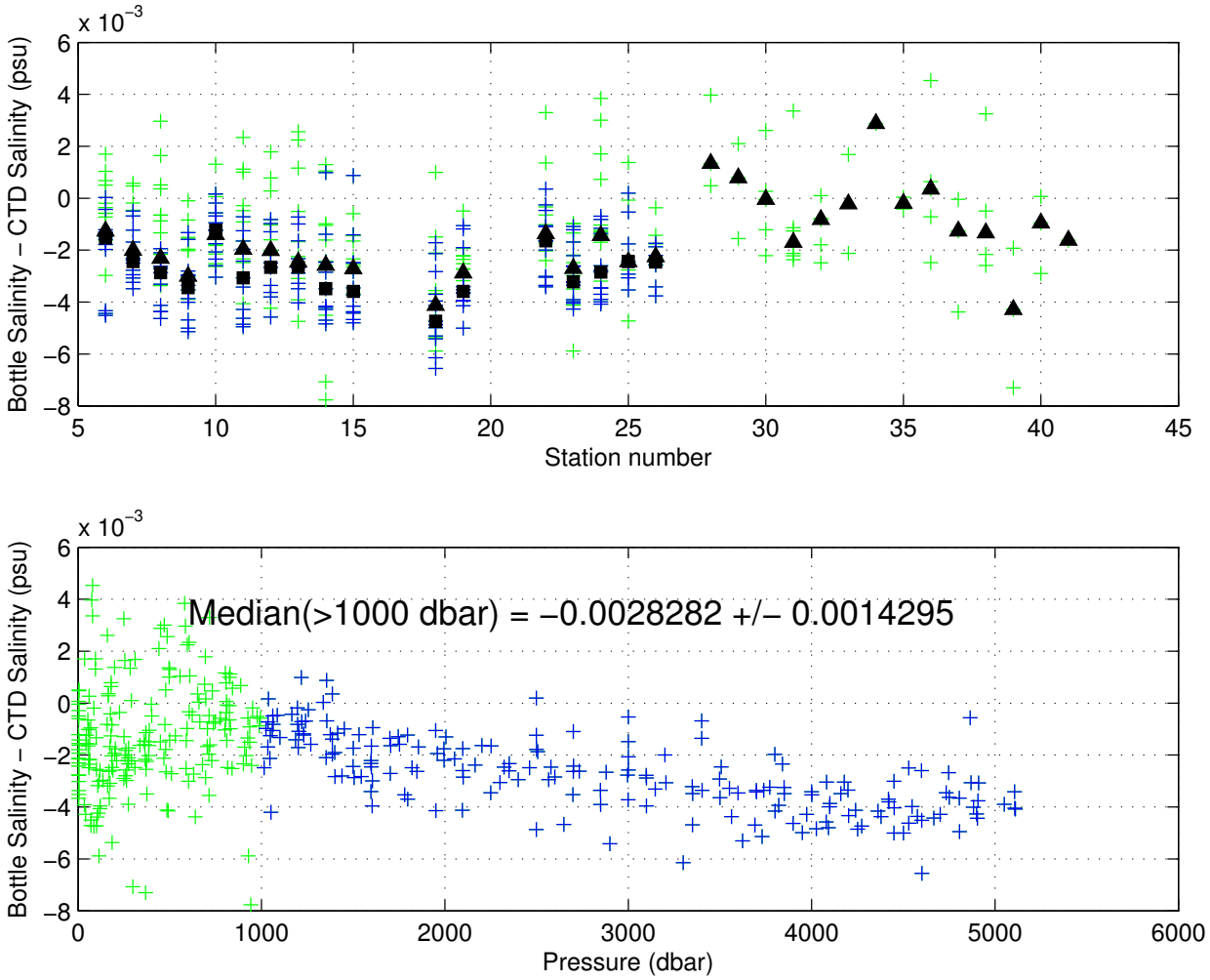


Figure 15: Bottle and uncalibrated primary CTD salinity differences plotted against pressure. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar.

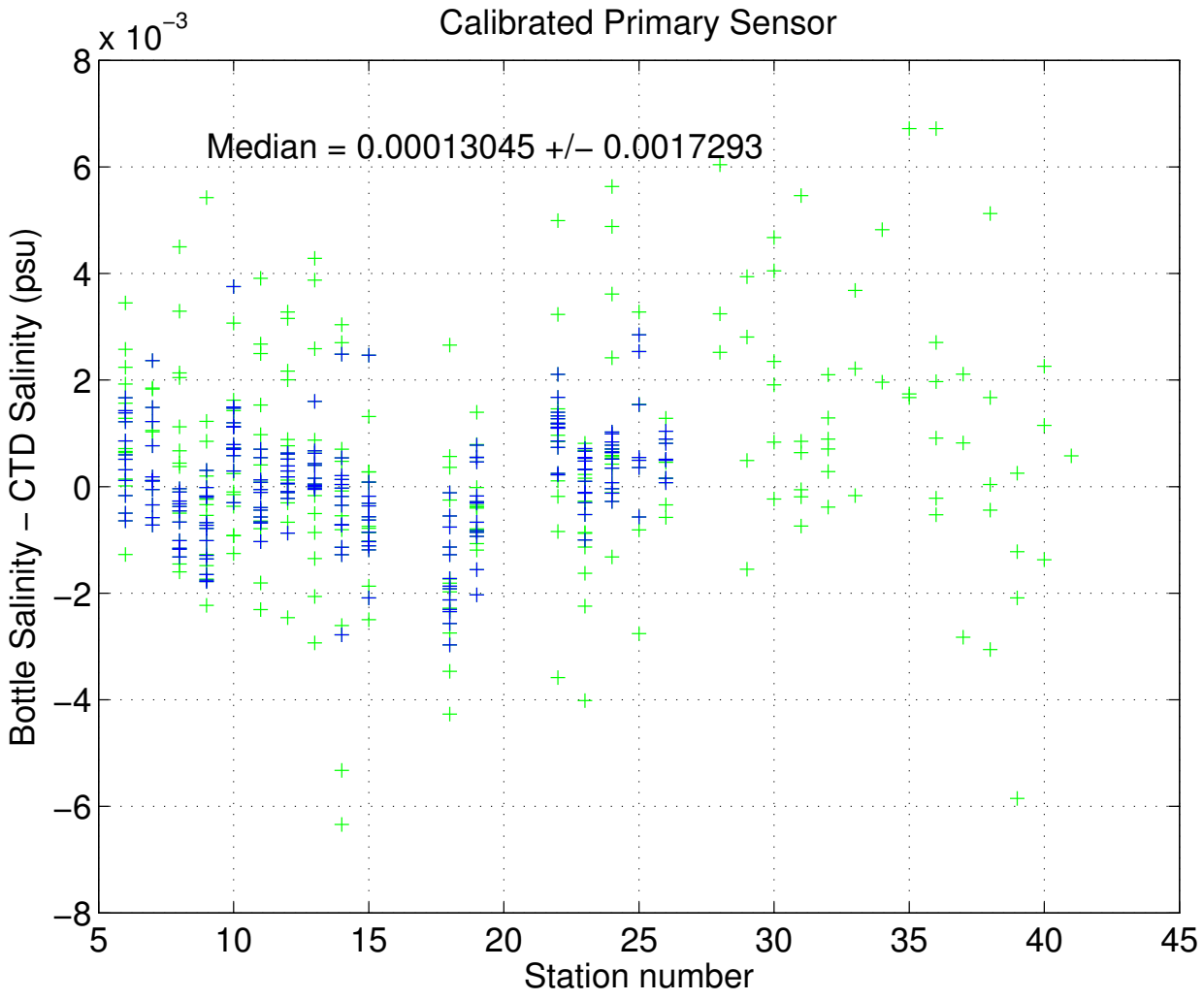


Figure 16: Bottle and calibrated primary CTD salinity differences plotted vs. station.

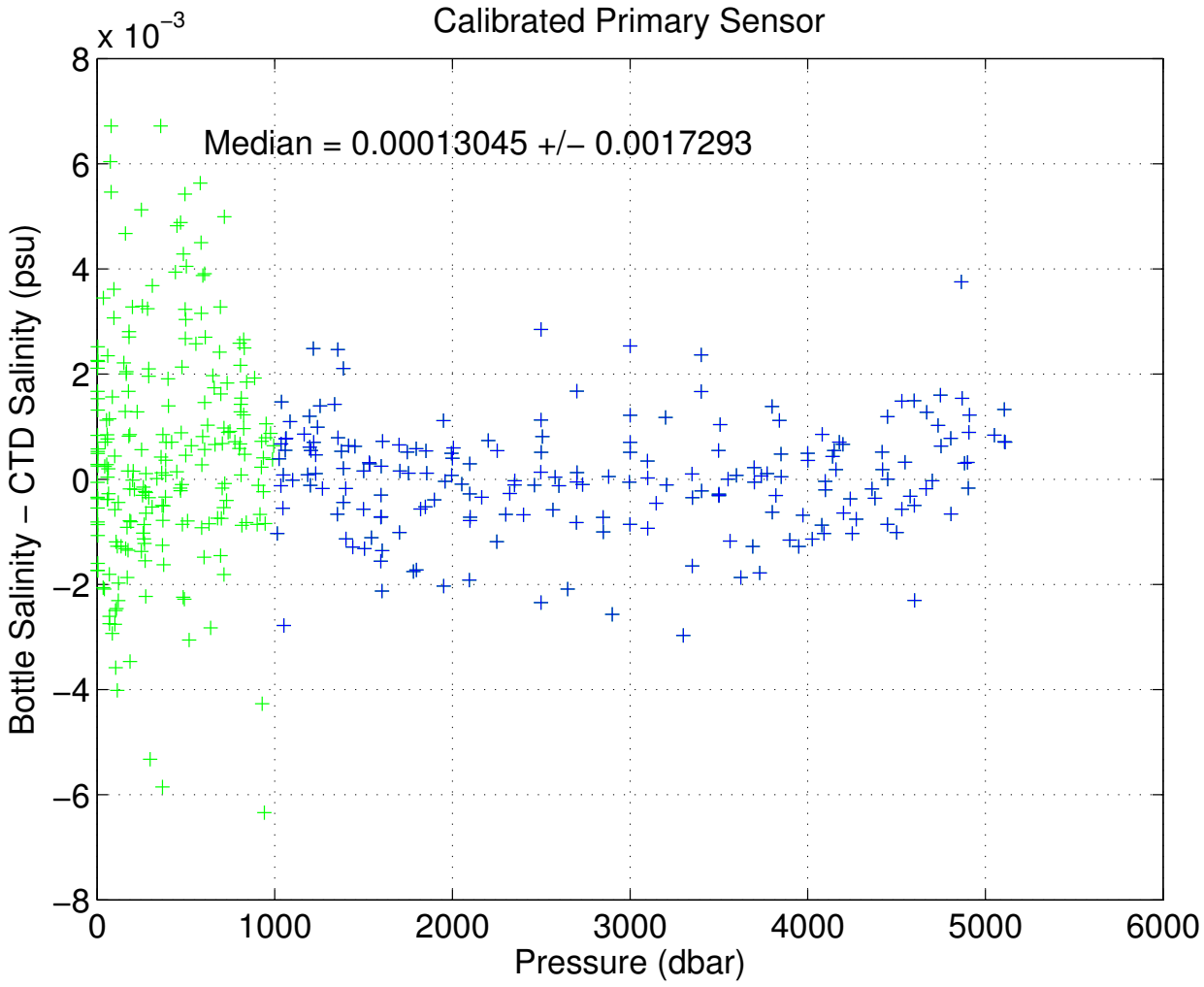


Figure 17: Bottle and calibrated primary CTD salinity differences plotted vs. pressure.

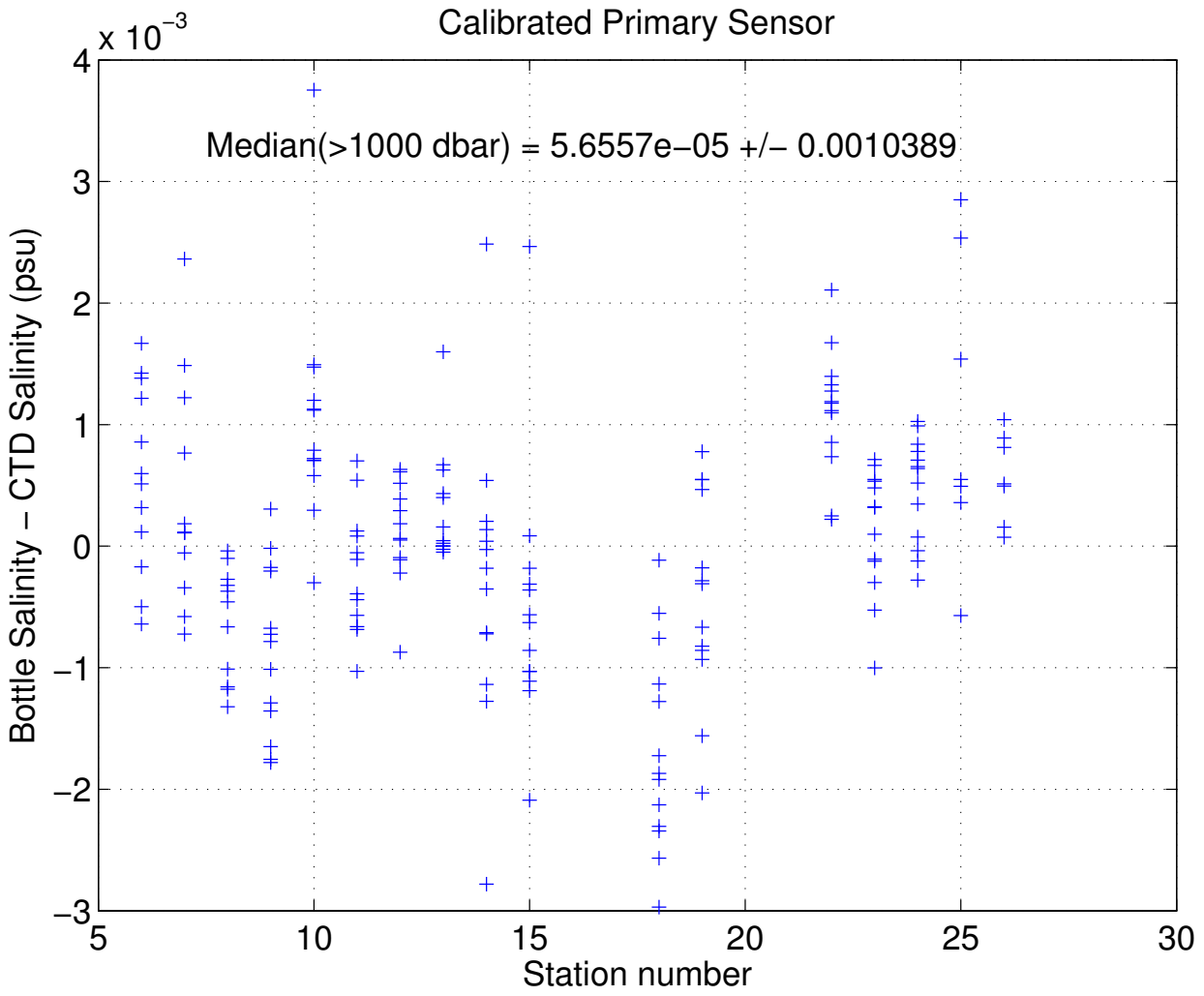


Figure 18: Bottle and calibrated primary CTD salinity differences plotted vs. station below 1000 dbar.

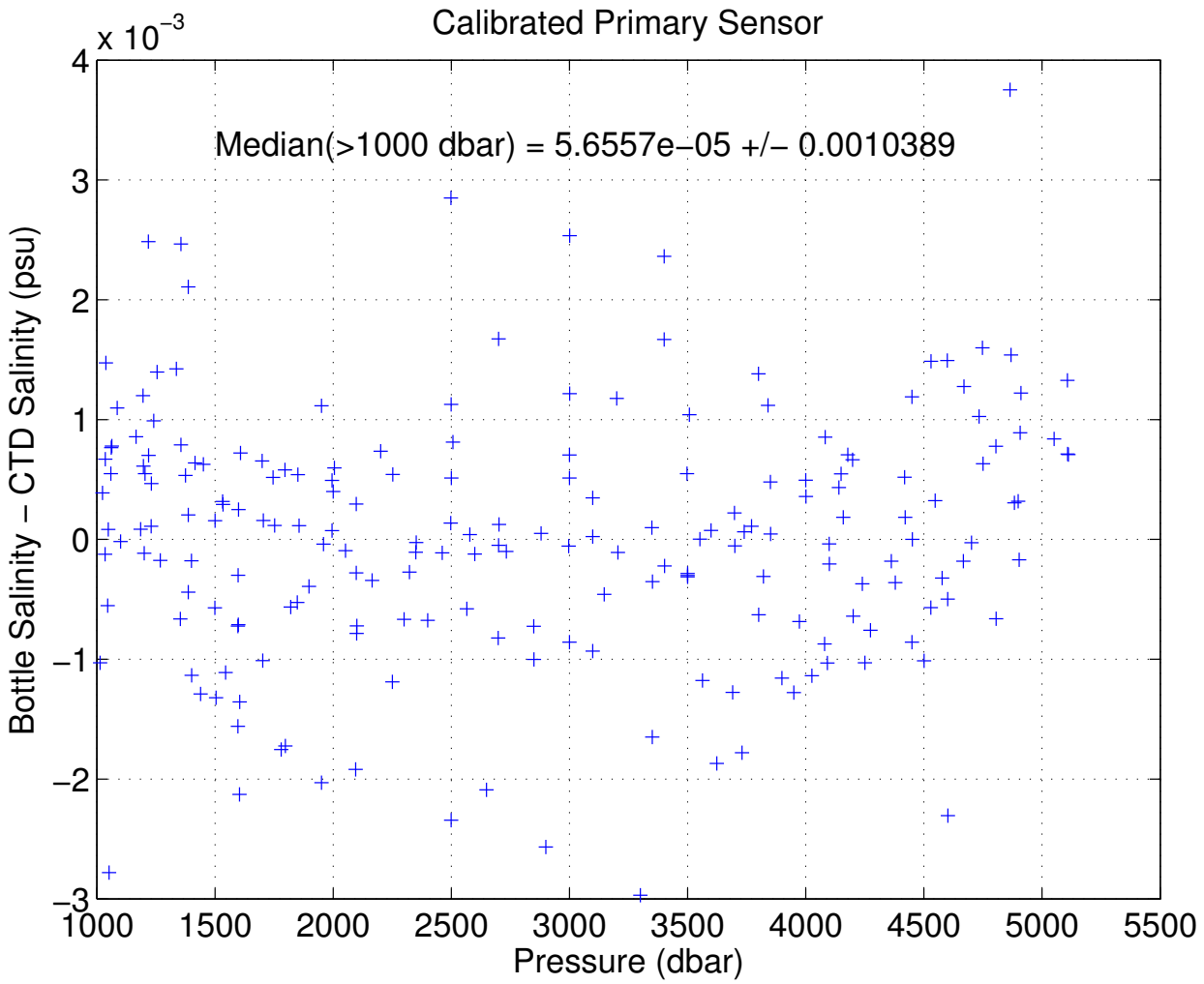


Figure 19: Bottle and calibrated primary CTD salinity differences plotted vs. pressure below 1000 dbar.

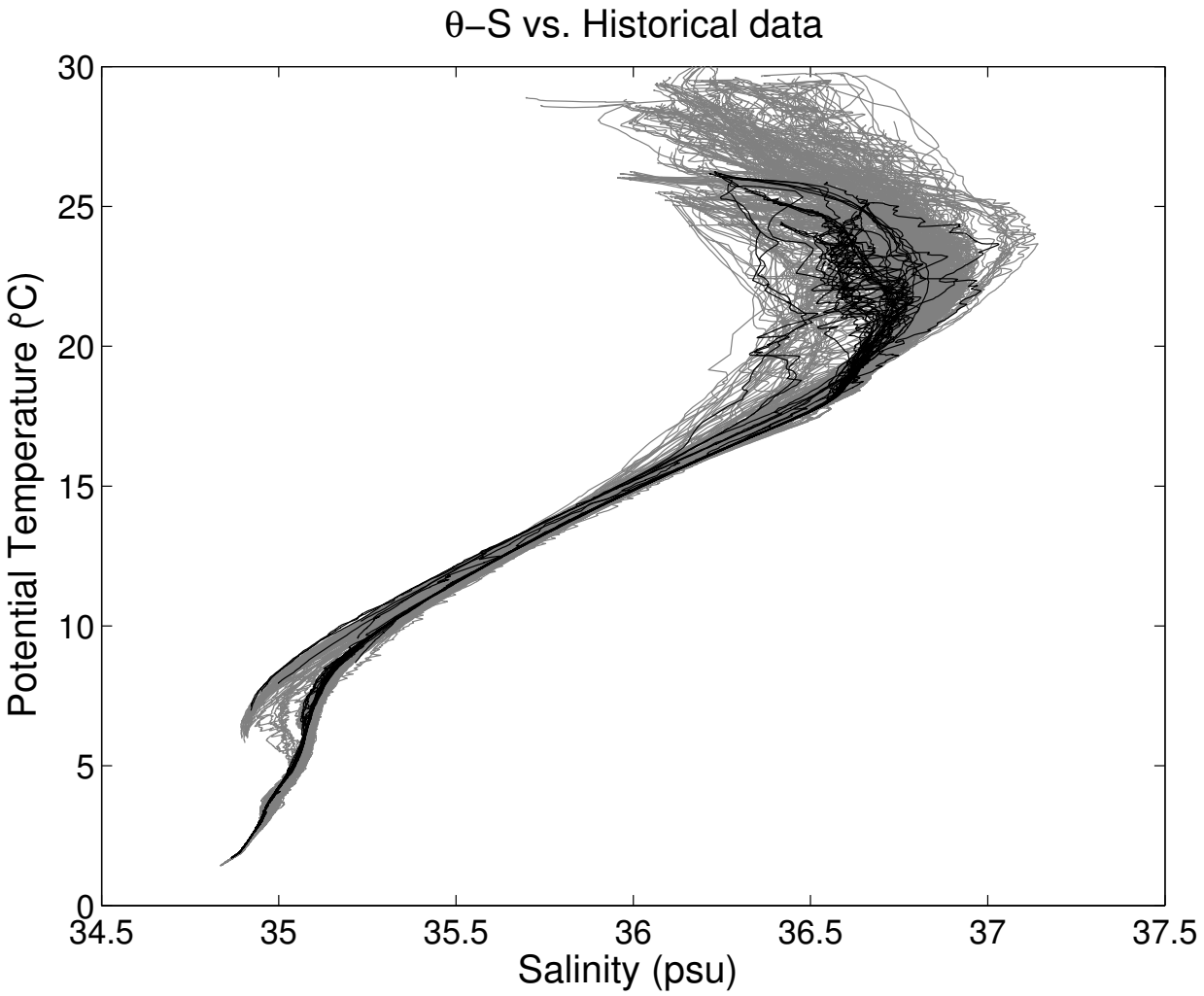


Figure 20: Potential Temperature - Salinity diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

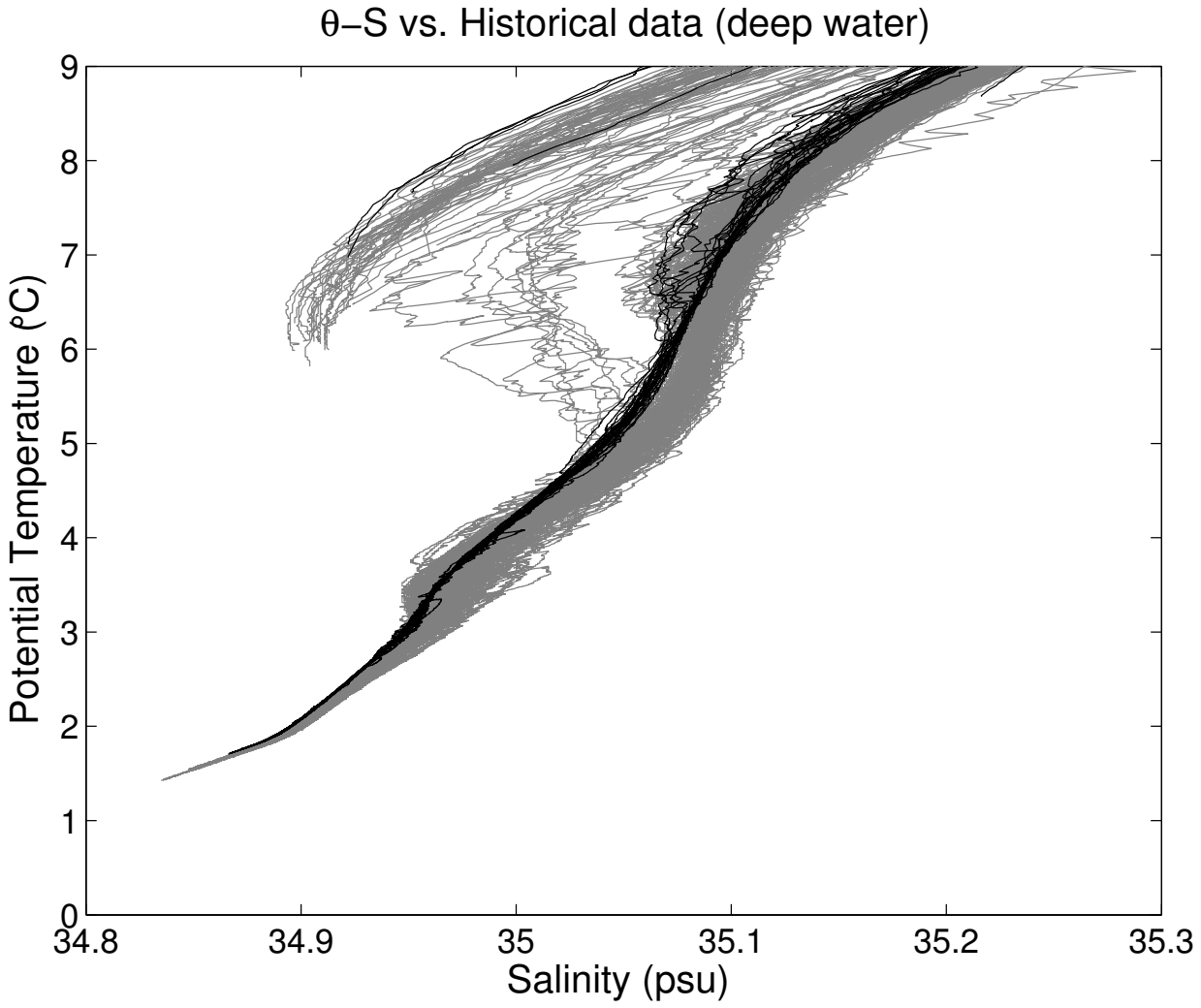


Figure 21: Potential Temperature - Salinity diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

8.5 Dissolved Oxygen

Three SBE43 dissolved O_2 (DO) sensors were used on this leg (Table 7). Due to a hysteresis problem with the oxygen sensors the DO sensors were calibrated to dissolved O2 check samples by matching the up cast bottle trips to down cast CTD data along neutral density surfaces, calculating CTD dissolved O_2, 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:

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

with

	S/N 2691
Soc	0.4432801
V_offset	-0.4773774
tau	0.56
A	-0.0087554
B	0.0005559
C	-0.0000104
E	0.0365120
$p1$	0.0002056

where Soc, tau, V_{offset}, 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 22) was evaluated. There is a shift in the differences for stations 7 and 8, which was due to swapping out a a sensor that was thought to be bad. It wasn't and the original sensor was put back on.

The sensors show a median difference of -0.918 $umol/kg$ and a standard deviation of 2.78 $umol/kg$. The primary sensor was chosen (Figure 23) and the sensor shows a median difference of 5.53 $umol/kg$ and a standard deviation of 2.79 $umol/kg$ compare to the oxyen bottle data.

Stations from 28 and on correspond to the Florida Straits and Northwest Providence Channel (where bottom depths do not exceed 800 m). The coefficients for oxygen sensor, s/n 2691, 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 526 data points (92.44%) 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 24 to Figure 27). The residual is -0.06 $umol/kg$ (-0.01 $umol/kg$ for the data below 1000 dbar) and the standard deviation 0.83 $umol/kg$ (0.69 $umol/kg$ for the data below 1000 dbar). Also 100.0% of the residuals for the data are within the confidence limits determined by the WOCE ($\pm$ 1% of the dissolved oxygen measured).

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 28 & Figure 29). Again by investigating water mass properties, particularly for deeper layers of the ocean, we can have an estimative of the quality of these data.

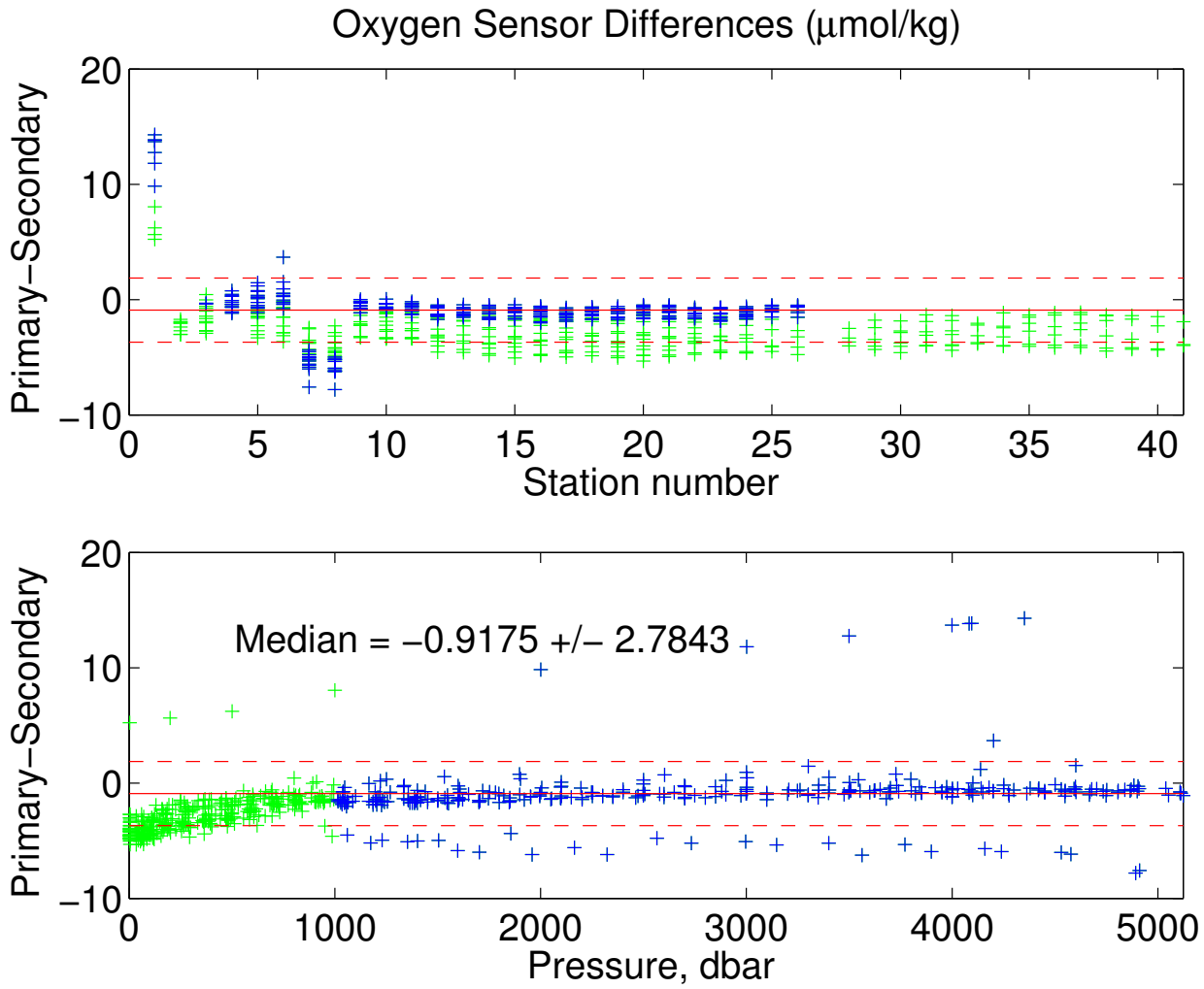


Figure 22: Dissolved oxygen differences between sensors by station (top) and by pressure (bottom). Sensor changes at station 15 and 24. The red solid line represents the median with the red dashed representing the standard deviation.

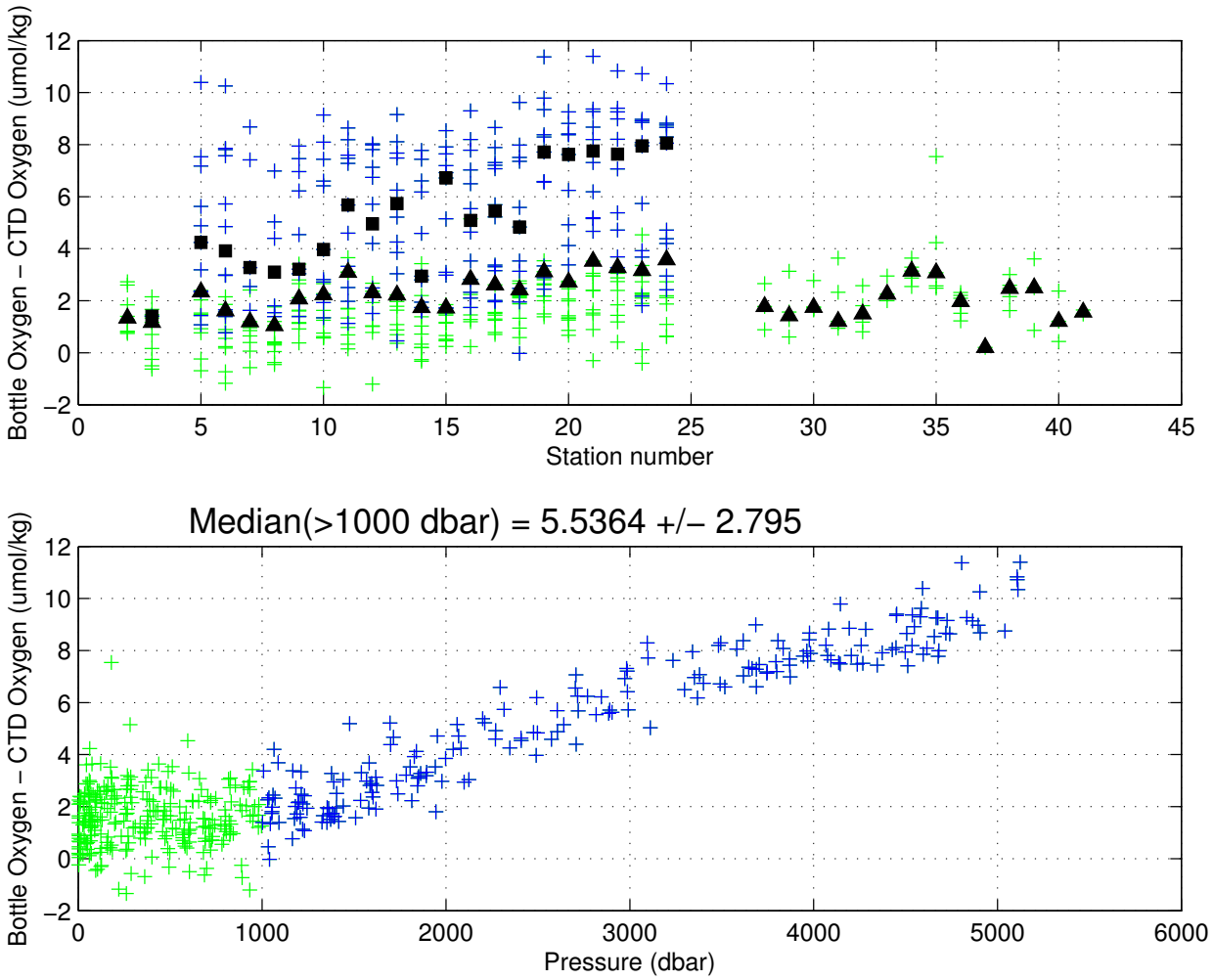


Figure 23: Bottle and uncalibrated primary CTD oxygen differences plotted against station number. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar.

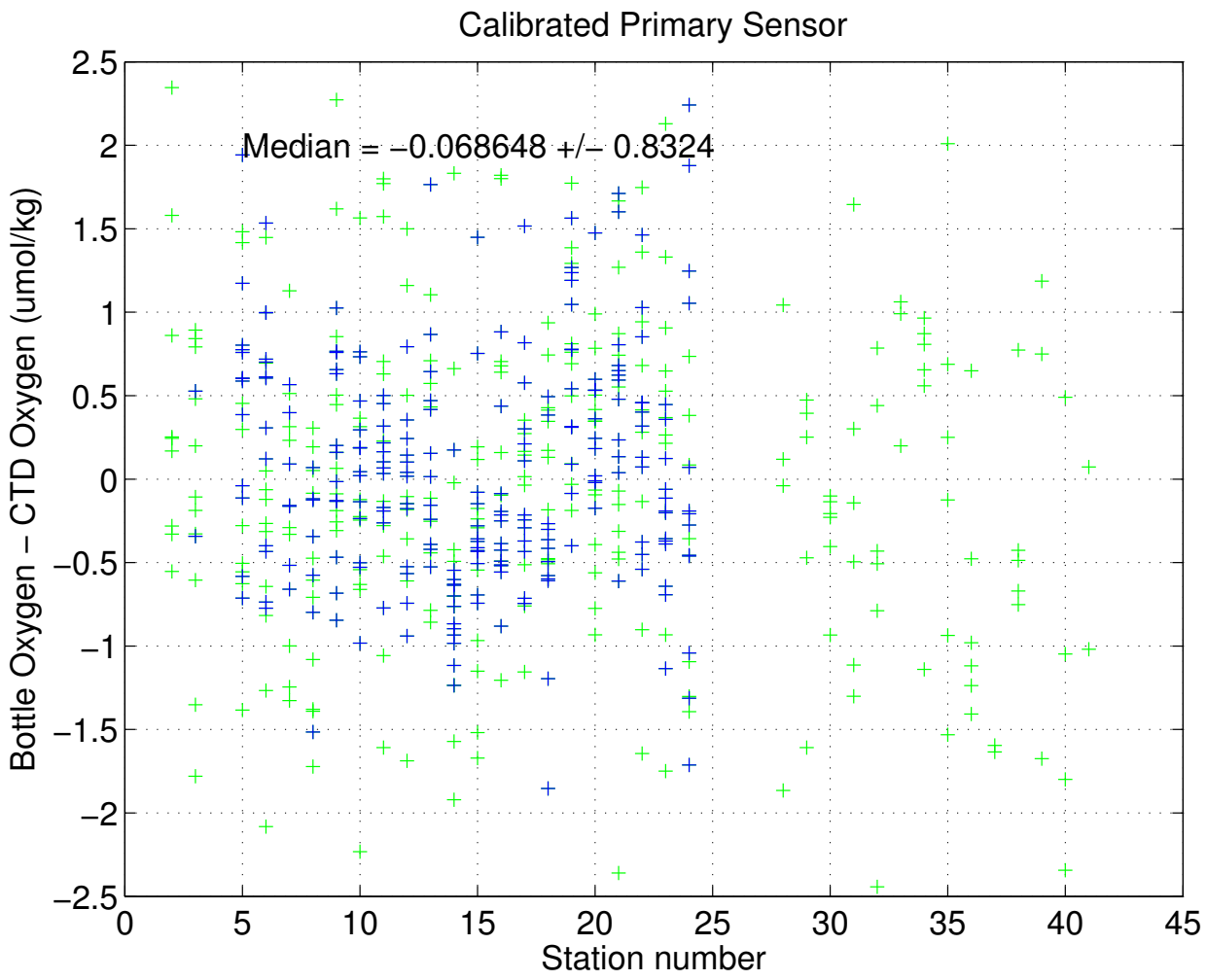


Figure 24: Bottle and calibrated primary CTD oxygen differences plotted vs. station.

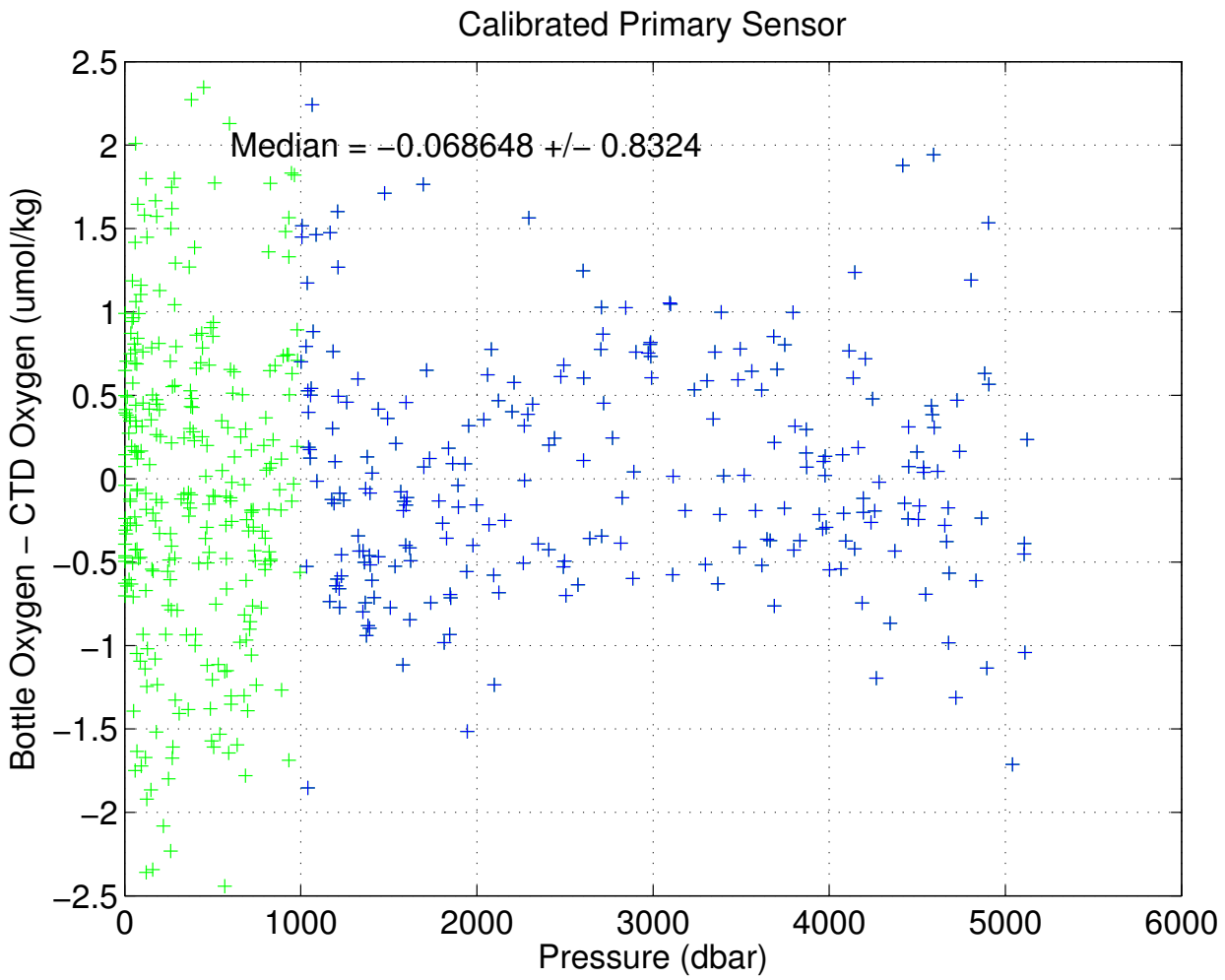


Figure 25: Bottle and calibrated primary CTD oxygen differences plotted vs. pressure.

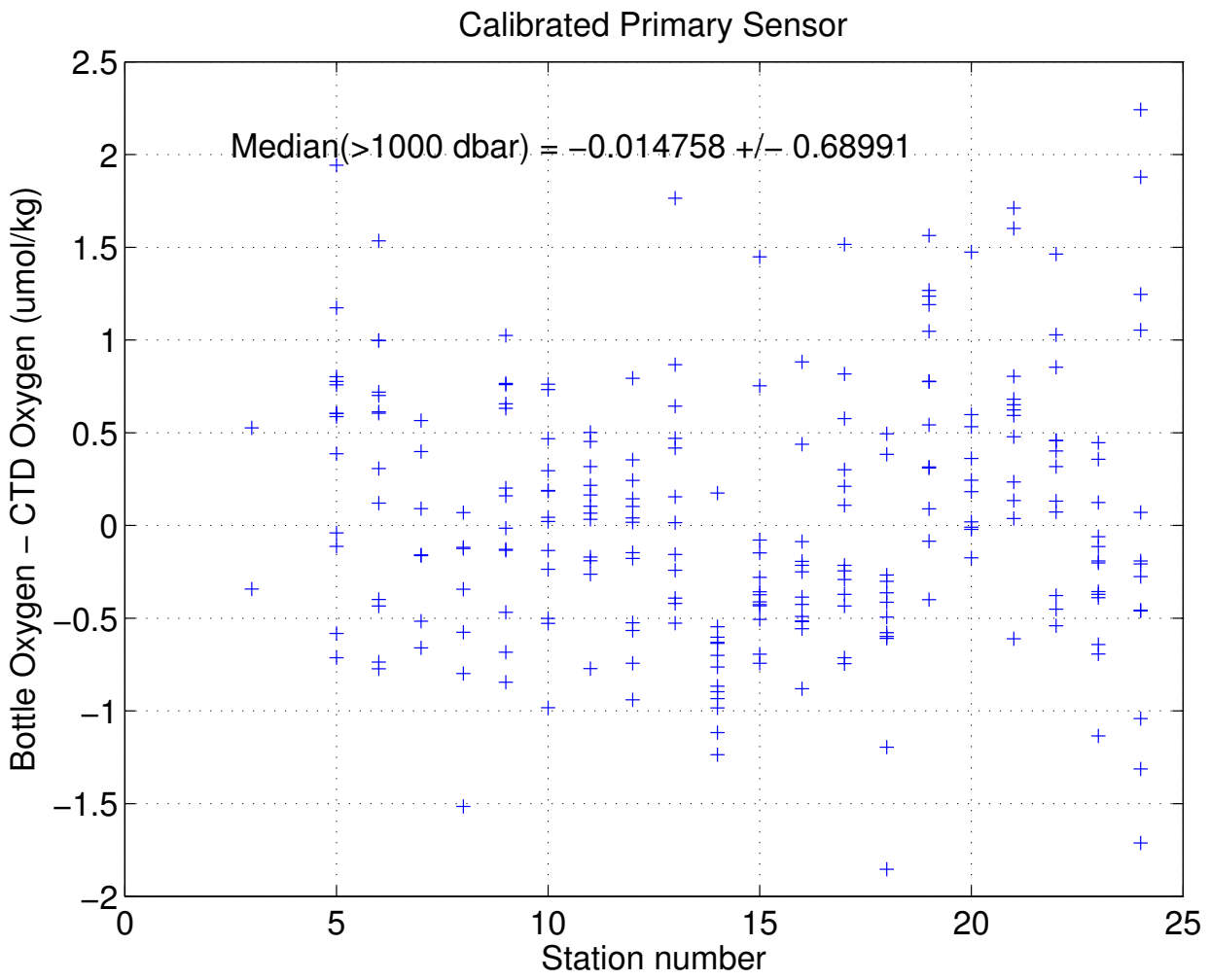


Figure 26: Bottle and calibrated primary CTD oxygen differences plotted vs. station below 1000 dbar.

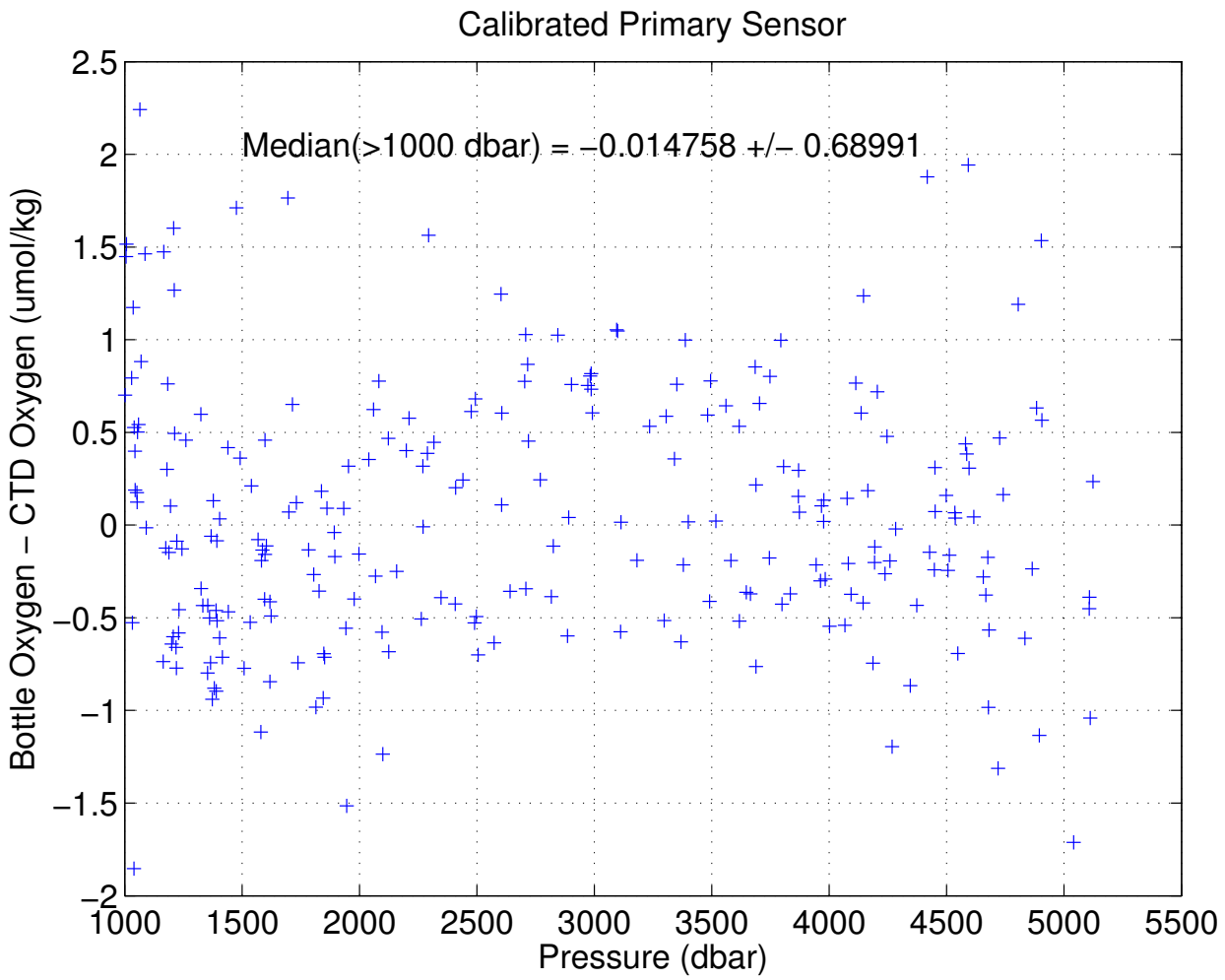


Figure 27: Bottle and calibrated primary CTD oxygen differences plotted vs. pressure below 1000 dbar.

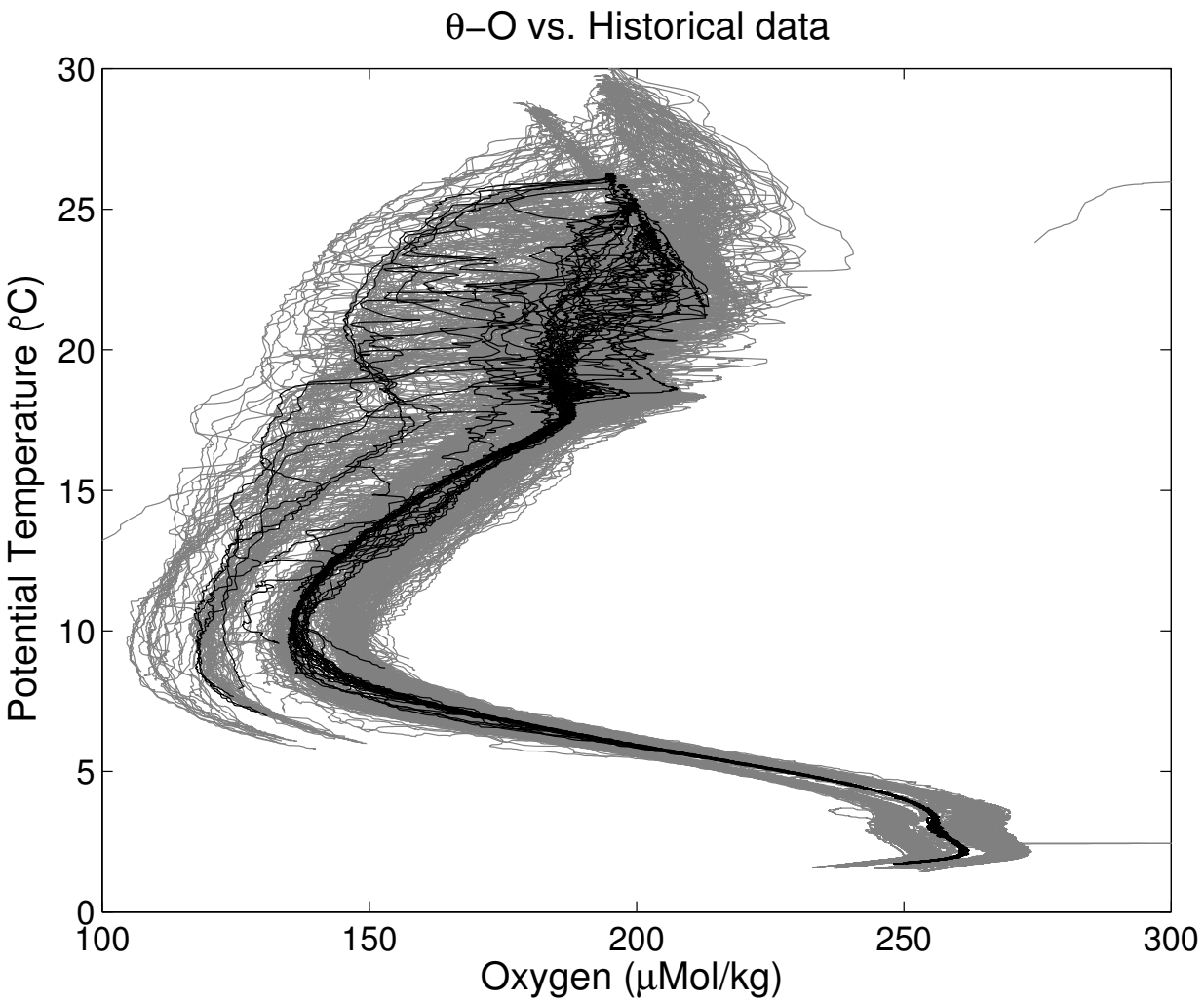


Figure 28: Potential Temperature - Oxygen diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

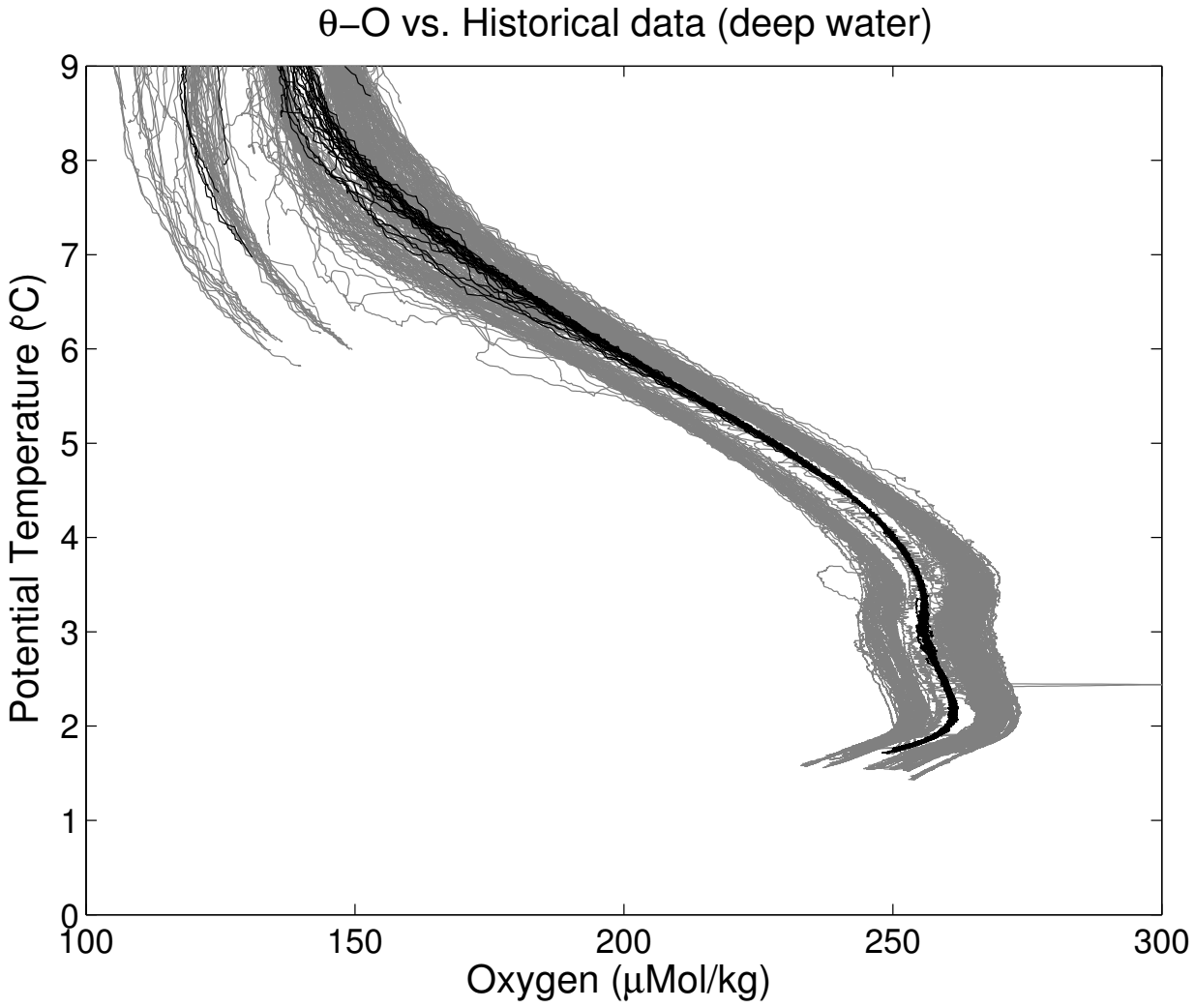


Figure 29: Potential Temperature - Oxygen diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

9 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 30 to Figure 33). 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 34 to Figure 37). For the Northwest Providence Channel Sections latitude is used as horizontal axis (Figure 38 to Figure 41).

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).

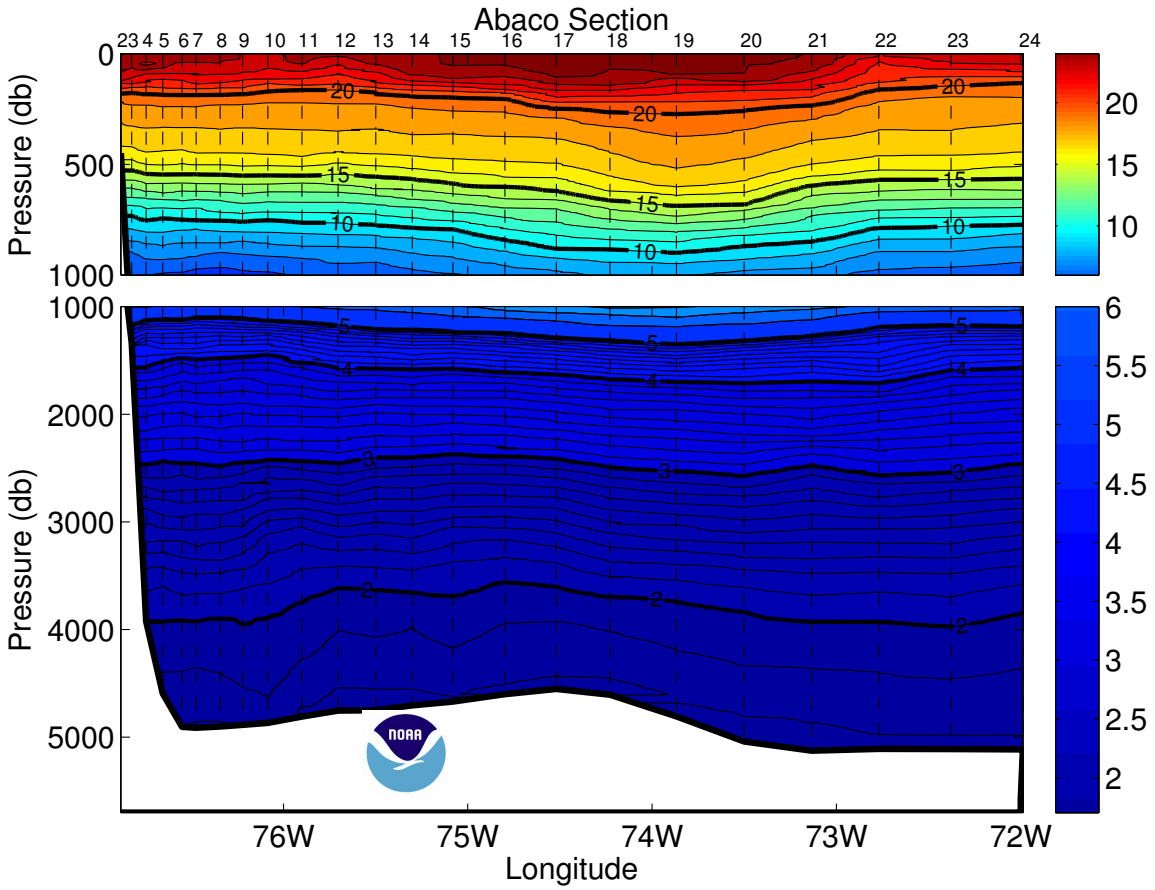


Figure 30: Potential Temperature (°C) section for the Abaco Section. Dashed vertical lines are the CTD station locations.

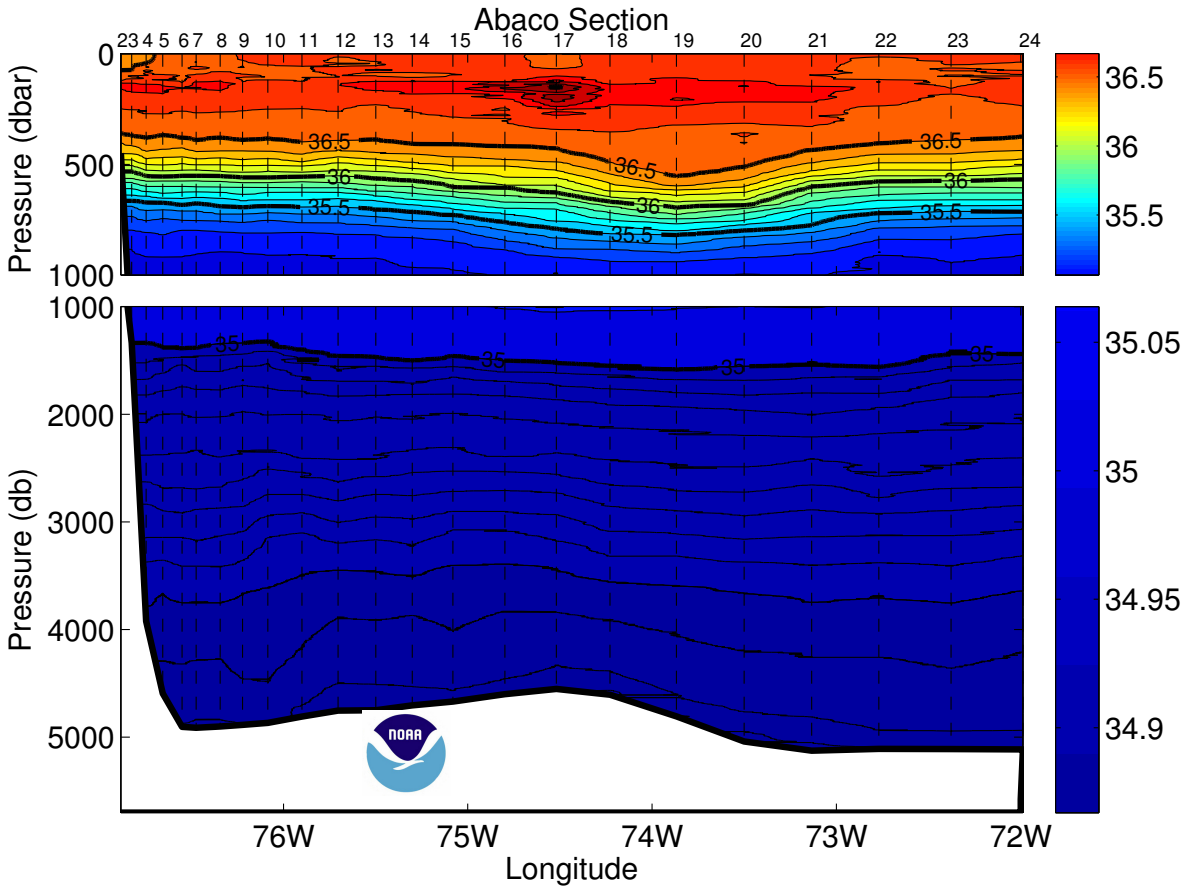


Figure 31: Salinity (PSS 78) section for the Abaco section. Dashed vertical lines are the CTD station locations.

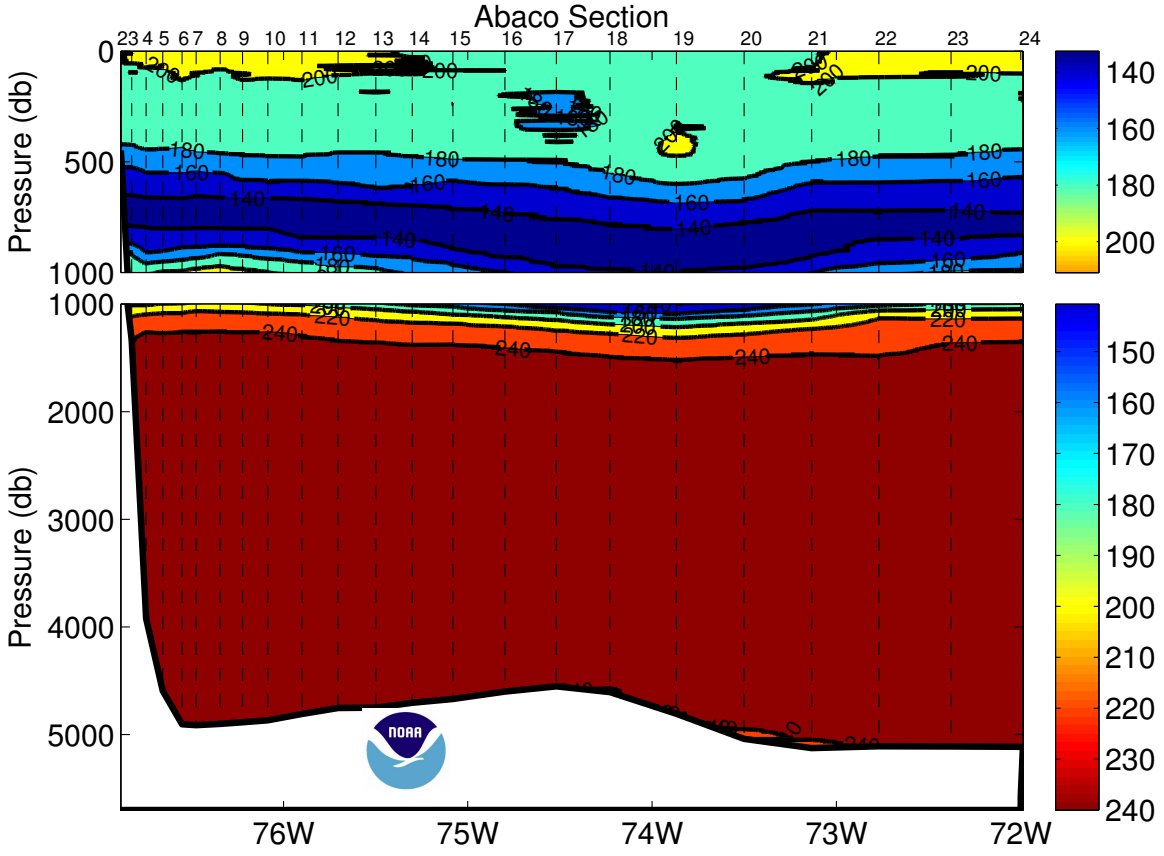


Figure 32: Dissolved Oxygen ($umol/kg$) section for the Abaco Section. Dashed vertical lines are the CTD station locations.

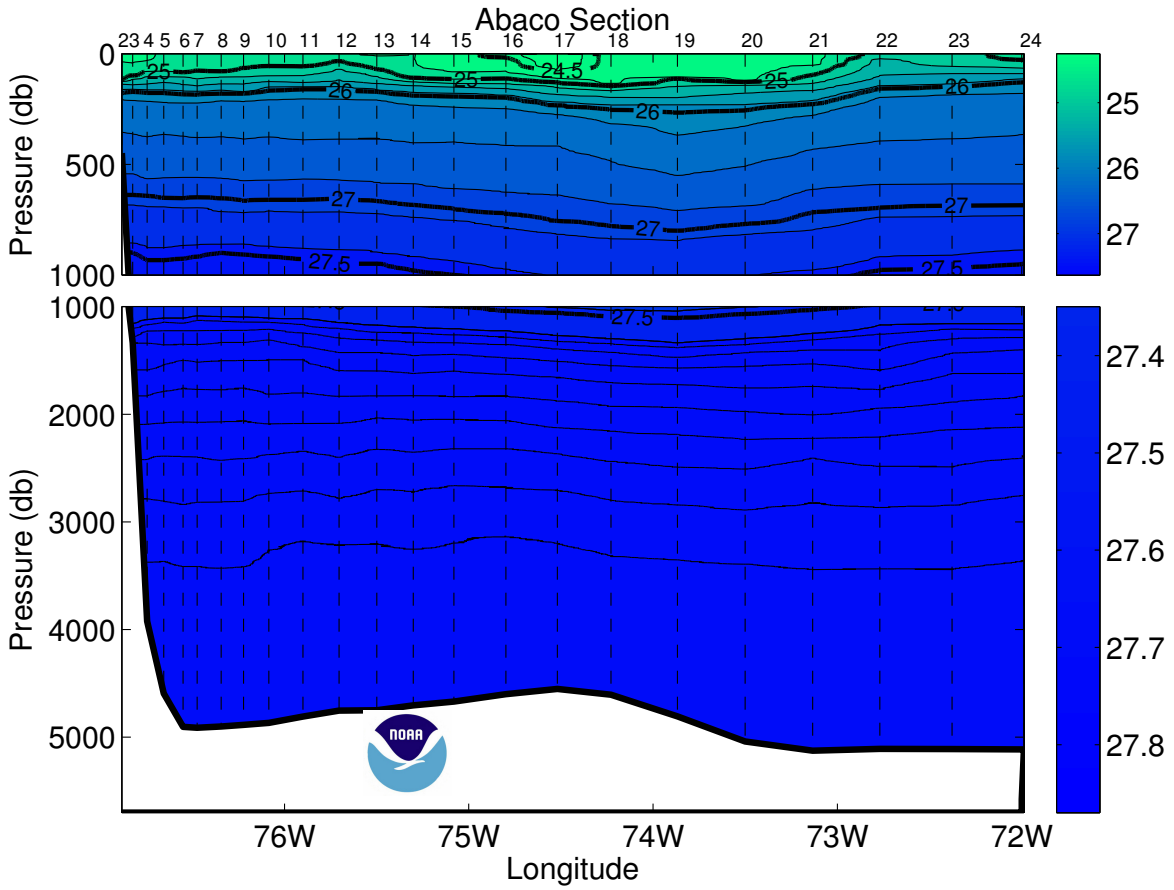


Figure 33: Neutral density (kg/m3) section for the Abaco Section. Dashed vertical lines are the CTD station locations.

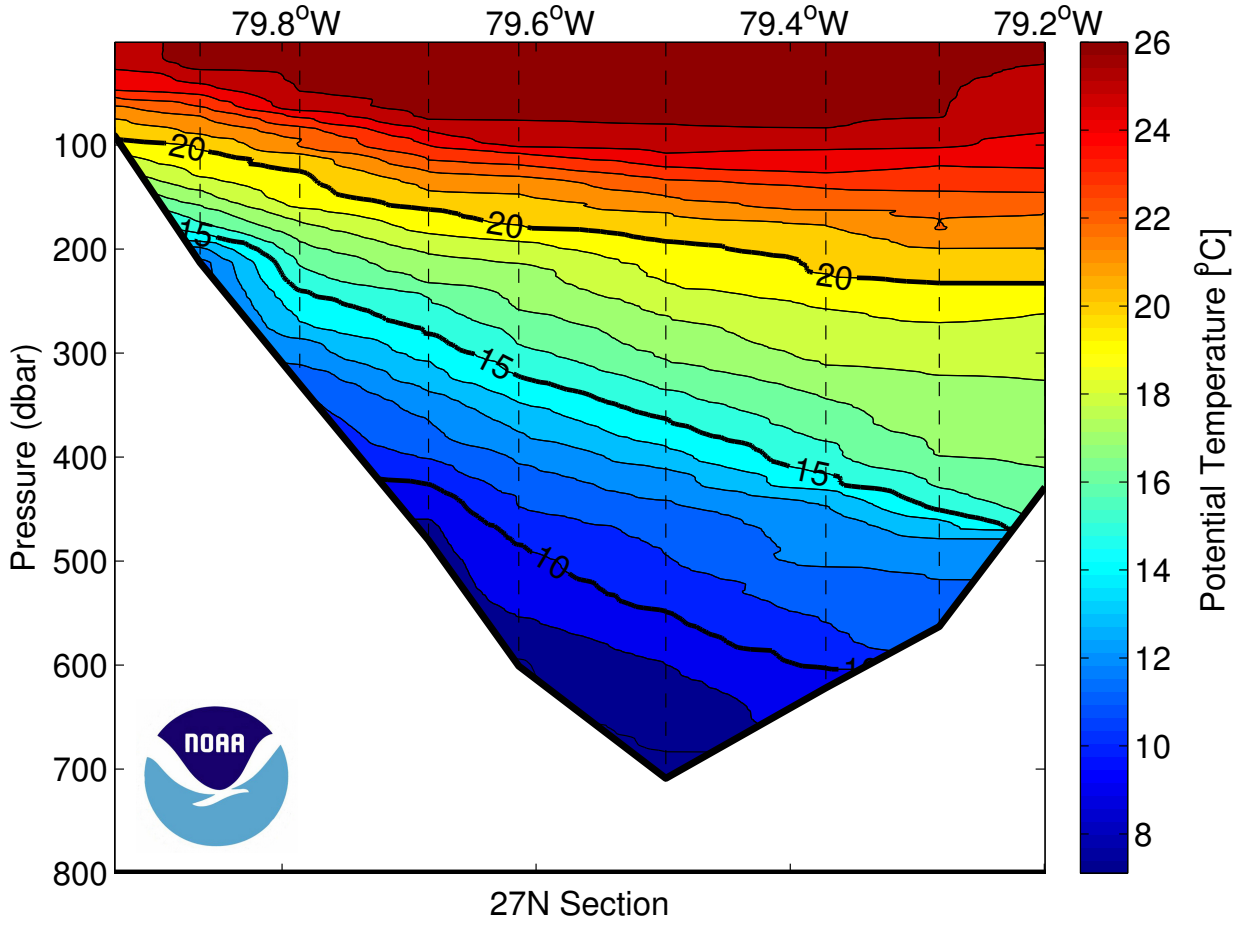


Figure 34: Potential Temperature (°C) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

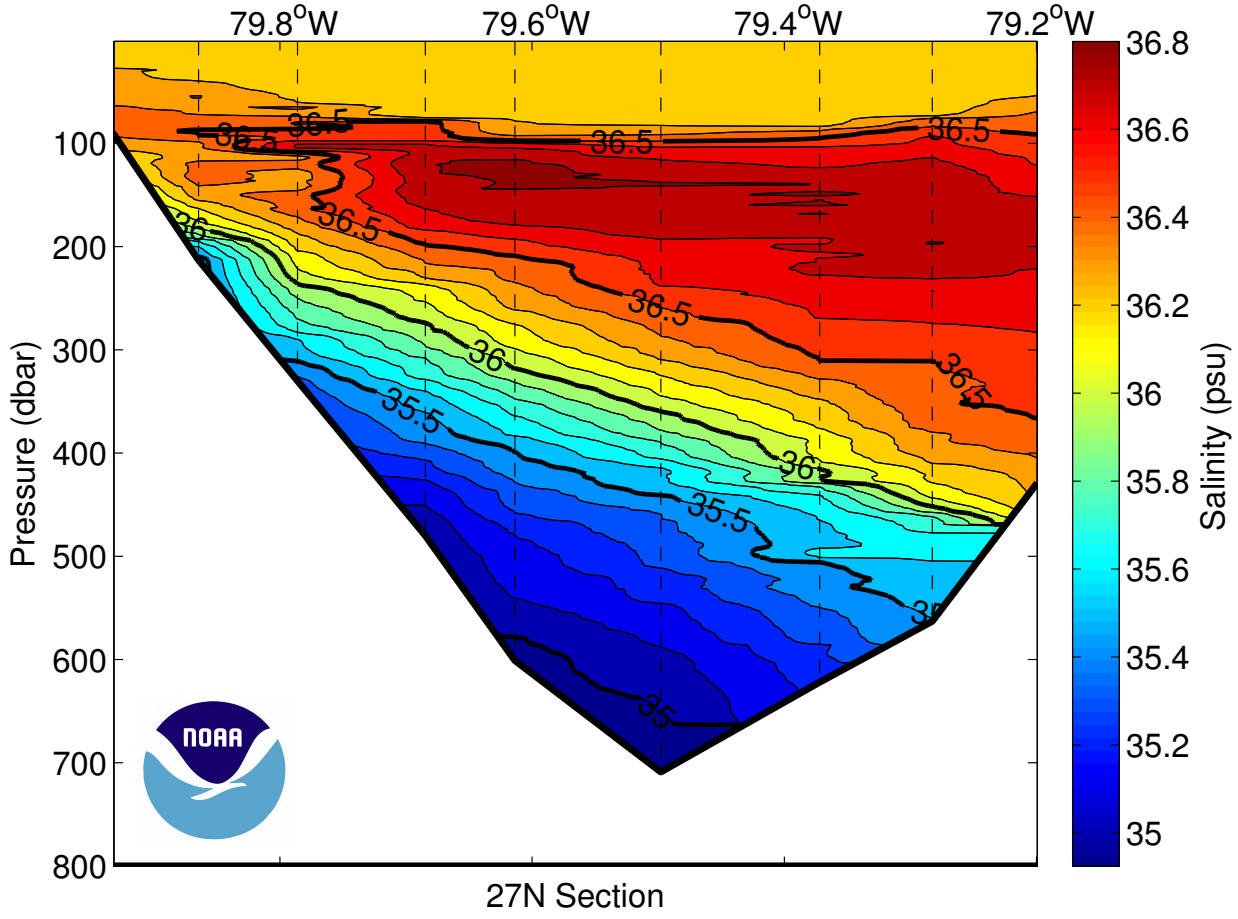


Figure 35: Salinity (PSS 78) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

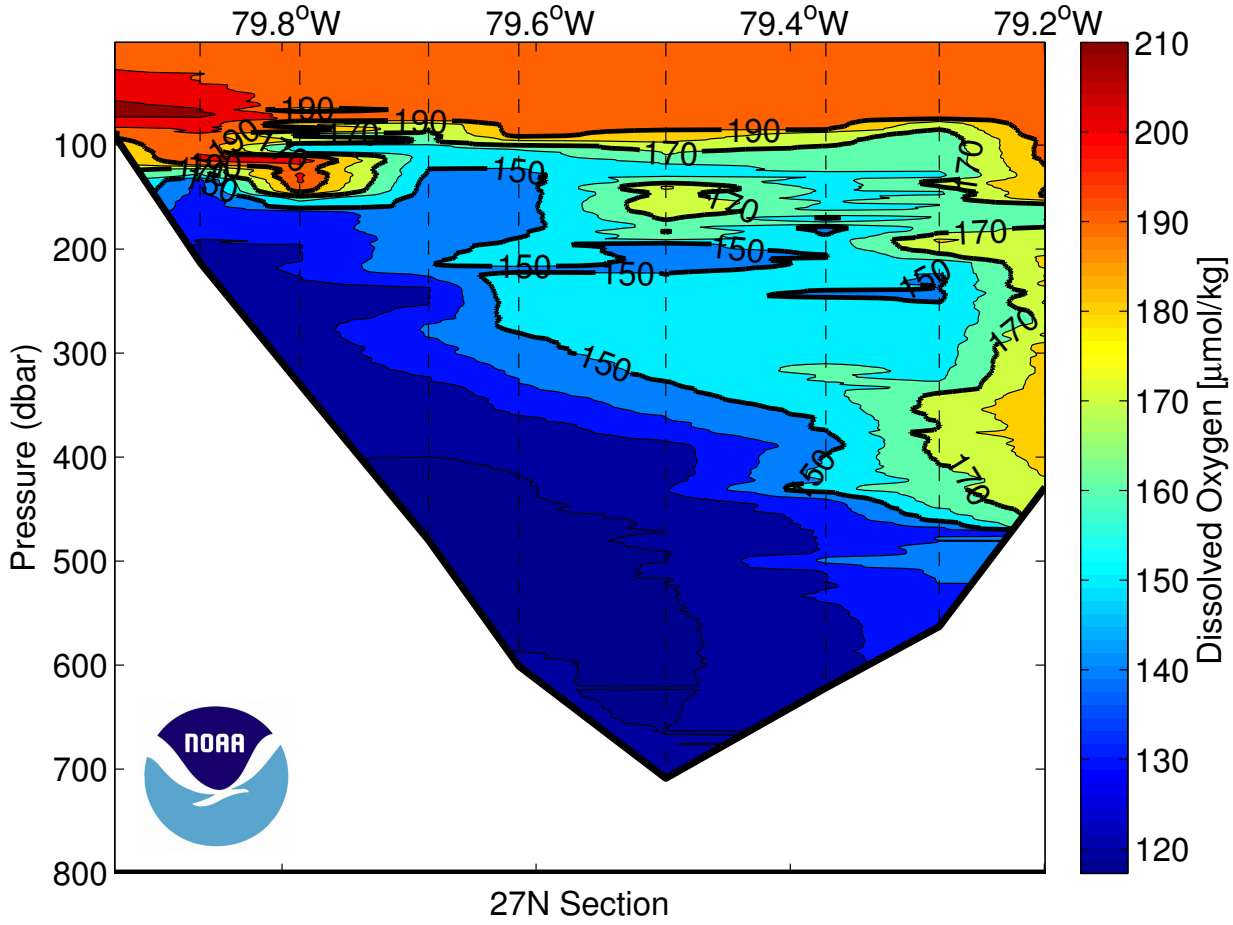


Figure 36: Dissolved Oxygen ($umol/kg$) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

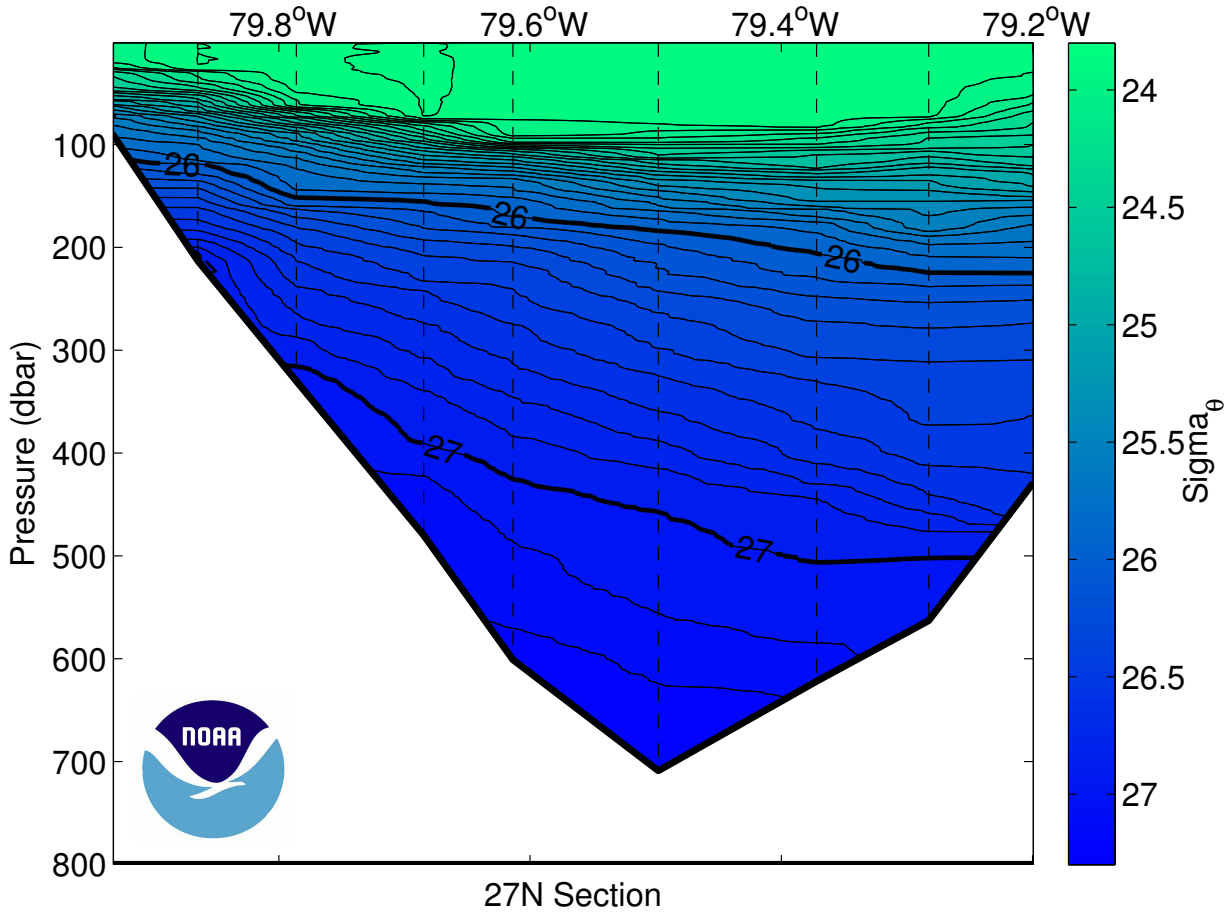


Figure 37: Neutral density (kg/m3) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

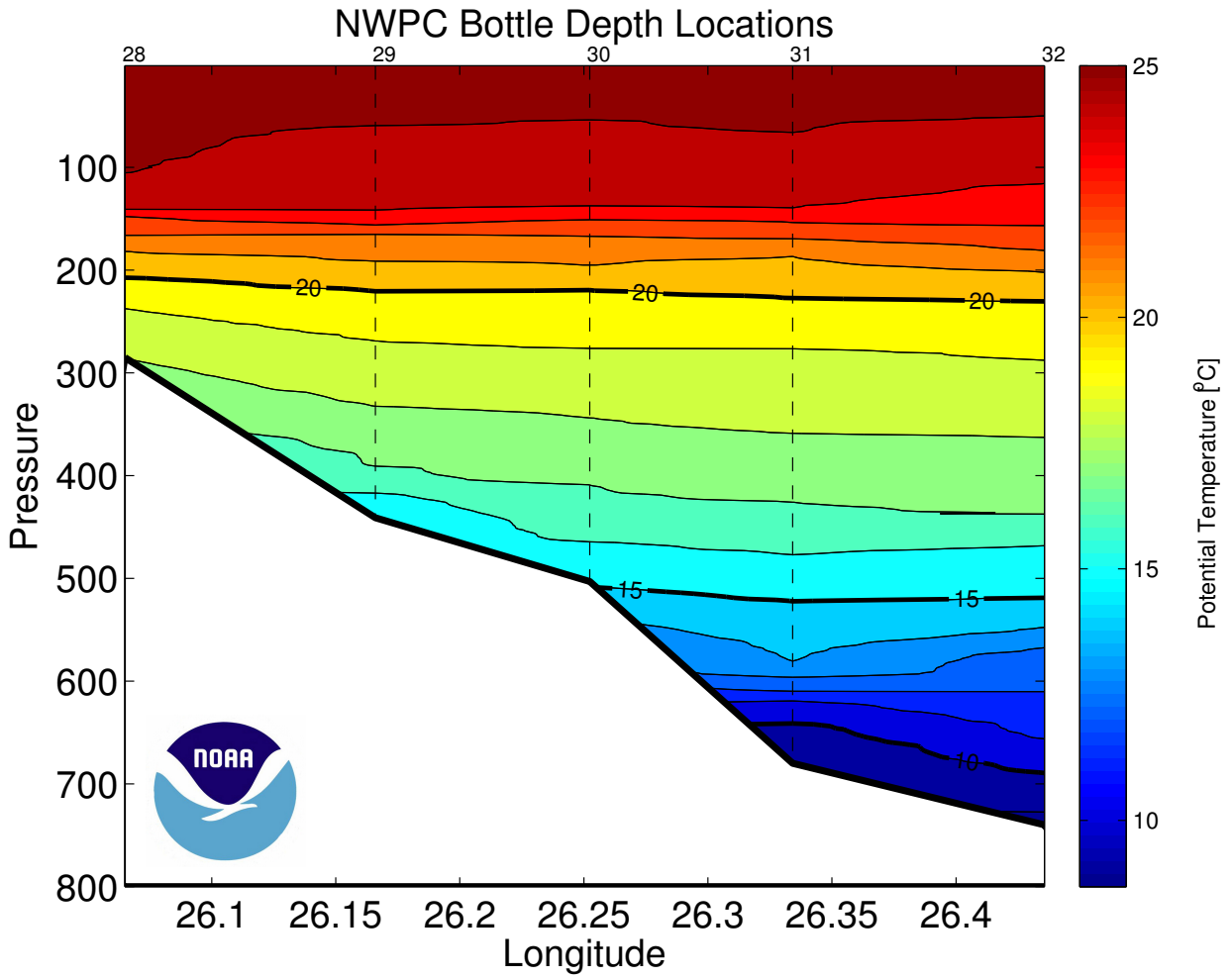


Figure 38: Potential Temperature (°C) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

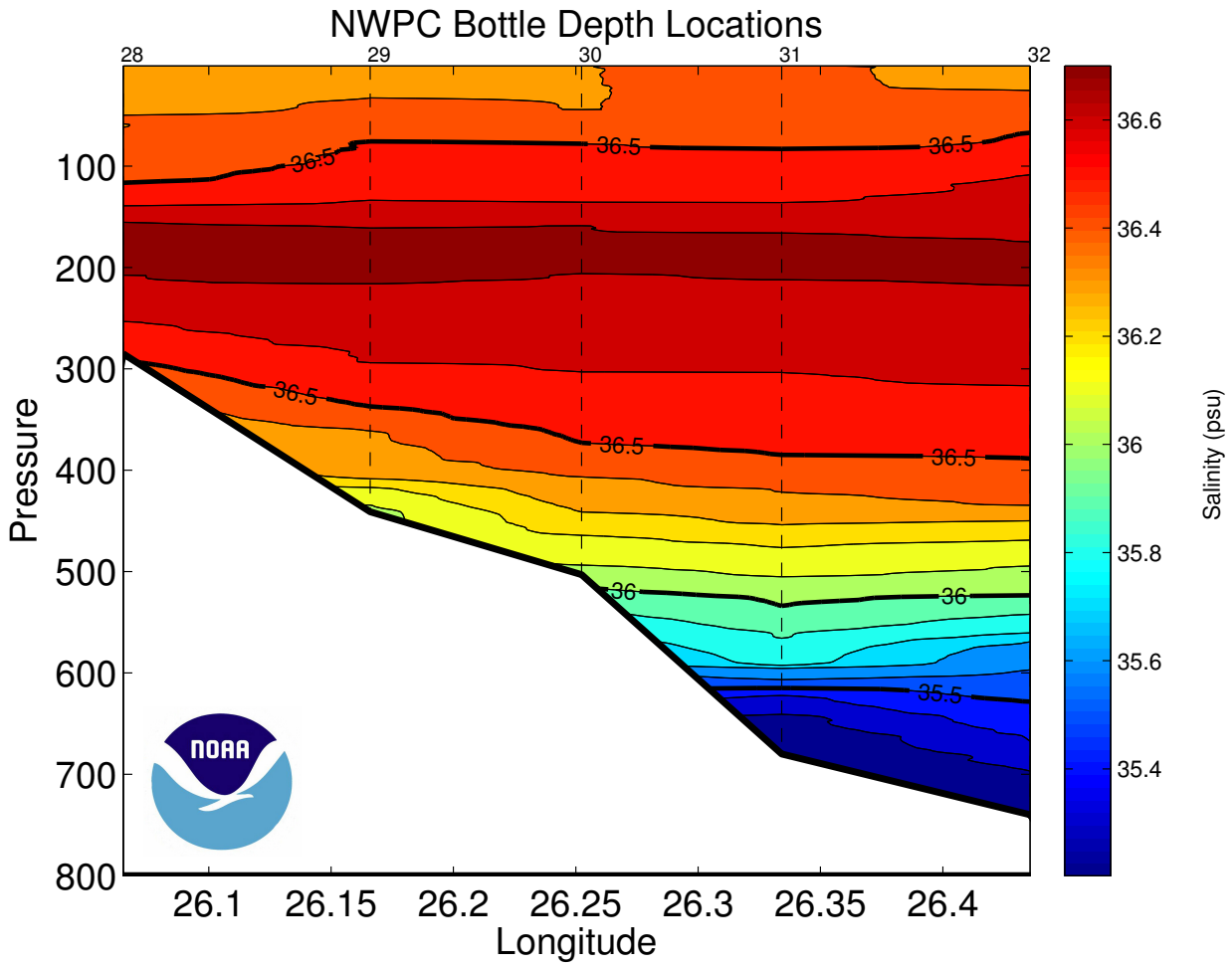


Figure 39: Salinity (PSS 78) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

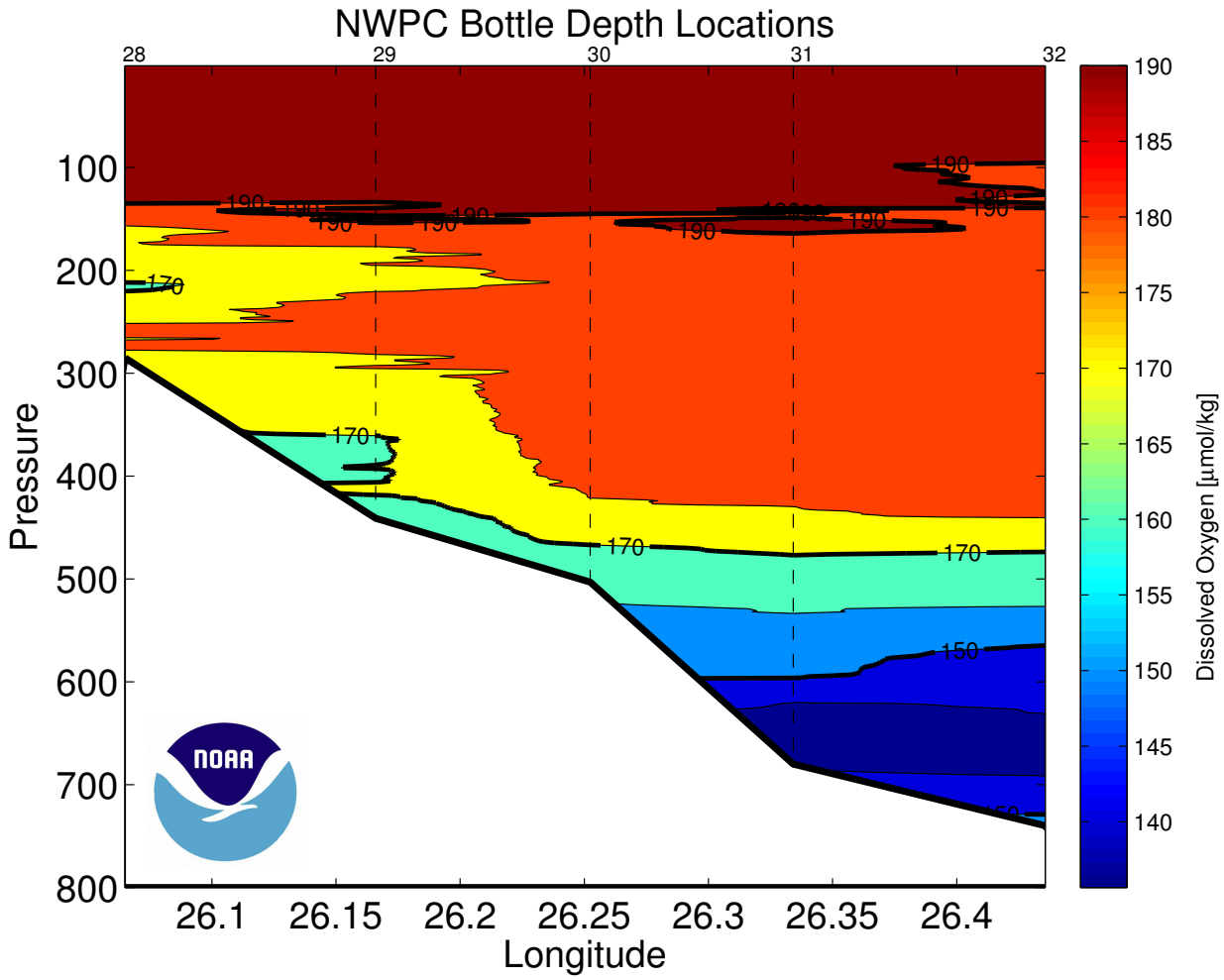


Figure 40: Dissolved Oxygen ($umol/kg$) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

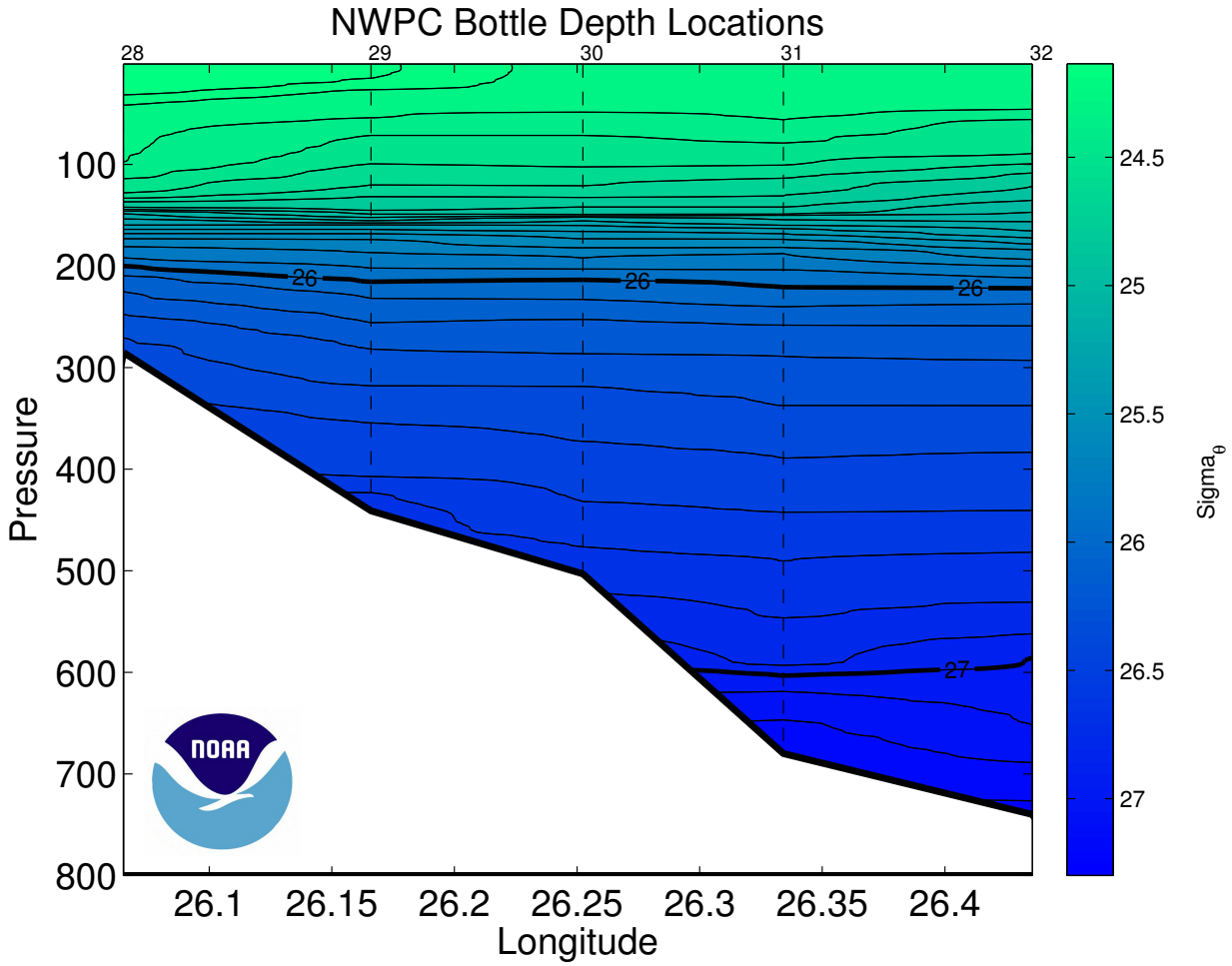


Figure 41: Neutral density (kg/m3) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

10 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.

11 References

Bacon, S., F. Culkin, N. Higgs, P. Ridout, 2007: IAPSO standard seawater: Definition of the uncertainty in the calibration procedure, and stability of recent batches, *J. Atmos. Ocean. Technol.*, **24**, 1785-1799.

Carpenter, J. H., 1965a: The accuracy of the Winkler method for dissolved oxygen analysis, *Limnology and Oceanography*, **10**, 135-140.

Carpenter, J. H., 1965b: The Chesapeake Bay Institute Technique for the Winkler dissolved oxygen method, *Limnology and Oceanography*, **10**, 141-143.

Culberson, C. H., G. Knapp, M. C. Stalcup, R. T. Williams, and F. Zemlyak, 1991: A Comparison of methods for the determination of dissolved oxygen in seawater. *Woods Hole Oceanogr. Inst. WHPO*, **91-2**, 77p.

Friederich, G., L. A. Codispoti, and C. M. Carole, 1991: An easy-to-construct automated Winkler titration system, *Monterey Bay Aquarium Research Institute Technical Report*, **91**, 31.

Kawano, T., M. Aoyama, T. Joyce, H. Uchida, Y. Takatsuki, and M. Fukasawa, 2006: The latest batch-to-batch difference table of standard seawater and its application to the WOCE onetime sections, *J. Oceanogr.*, **62**, 777-792.

Landgdon, C., 2010: Determination of dissolved oxygen in seawater by Winkler titration using the amperometric technique, *IOCCP Report*, **14-134**, 18p.

Latif, M., and T. P. Barnett, 1996: Decadal climate variability over the North Pacific and North America: Dynamics and predictability, *J. Climate*, **9**, 2407-2423.

Molinari, R. L., R. A. Fine, W. D. Wilson, R. G. Curry, J. Abell, and M. S. McCartney, 1998: The arrival of recently formed Labrador Sea Water in the Deep Western Boundary Current at 26.5°N, *Geophys. Res. Lett.*, **25**, 2249-2252.

van Sebille, E., M. O. Baringer, W. E. Johns, C. S. Meinen, L. M. Beal, M. F. de Jong, and H. M. van Aken, 2011: Propagation pathways of classical Labrador Sea water from its source region to 26Â°N, *J. Geophys. Res.*, **116**, C12027

Vaughan, S. L., and R. L. Molinari, 1997: Temperature and salinity variability in deep western boundary current, *J. Phys. Oceanogr.*, **27**, 749-761.

Weiss, R. F., 1970: The solubility of nitrogen, oxygen and argon in water and seawater, *Deep-Sea Res.*, **17**, **4**, Pages 721-735.

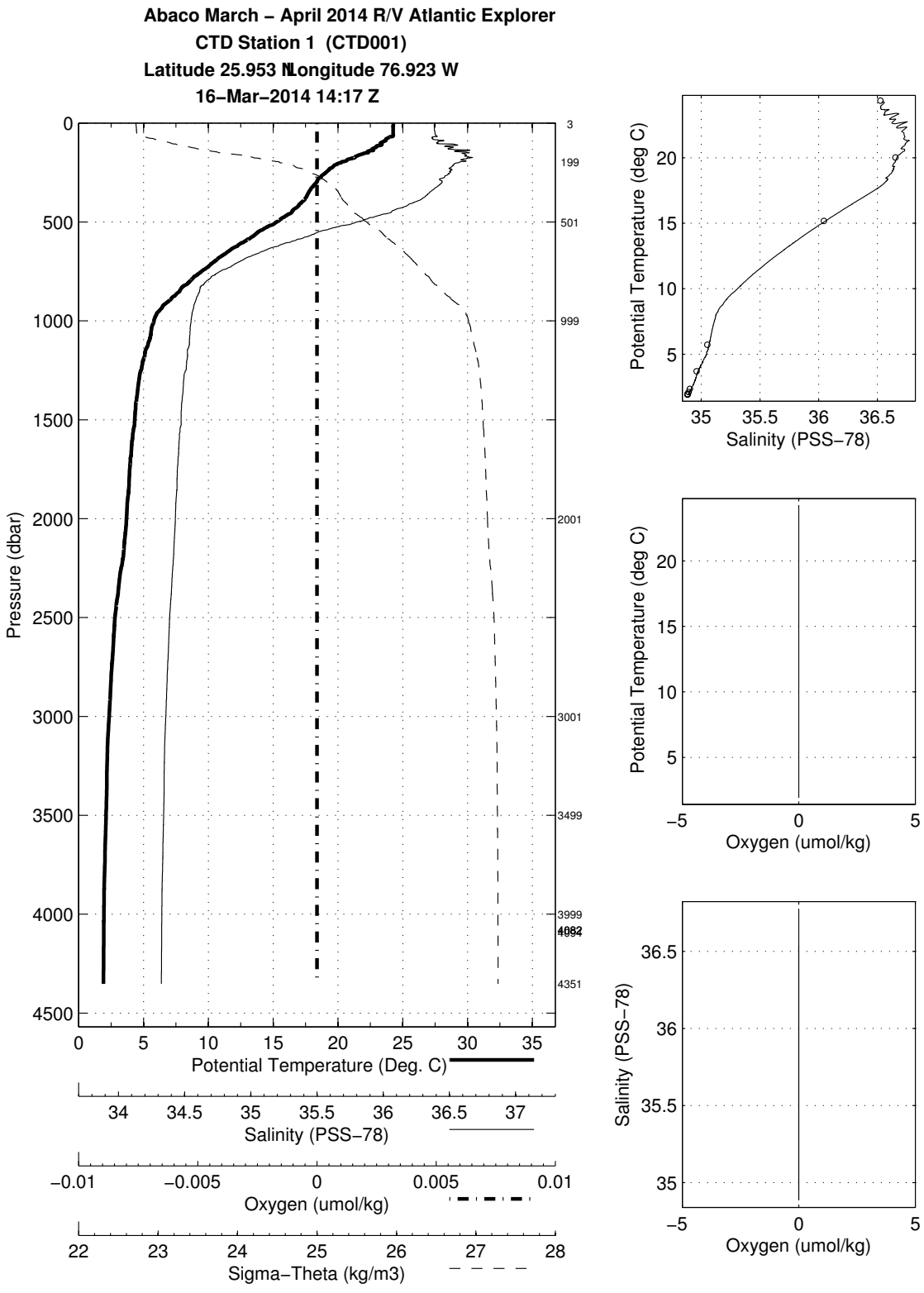
Sea-Bird Electronics, Inc., 2010: Application Note No. 31: Computing temperature and conductivity slope and offset correction coefficients from laboratory calibrations and salinity bottle samples. Retrieved from http://www.seabird.com/application_notes/AN31.htm.

A Hydrographic - CTD Data

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 1 (CTD001)
Latitude 25.953N Longitude 76.923W
16-Mar-2014 14:17Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.277	24.277	36.541	−9	0.003	24.726
10	24.275	24.273	36.540	−9	0.032	24.726
20	24.269	24.265	36.541	−9	0.064	24.729
30	24.269	24.263	36.541	−9	0.096	24.730
50	24.275	24.265	36.545	−9	0.161	24.732
75	23.902	23.886	36.529	−9	0.241	24.833
100	23.322	23.302	36.553	−9	0.317	25.024
125	22.850	22.825	36.640	−9	0.389	25.229
150	22.375	22.345	36.752	−9	0.456	25.451
200	20.289	20.251	36.687	−9	0.571	25.982
250	19.125	19.080	36.635	−9	0.669	26.251
300	18.393	18.340	36.585	−9	0.758	26.402
400	17.272	17.204	36.417	−9	0.925	26.553
500	15.336	15.258	36.070	−9	1.080	26.740
600	12.843	12.760	35.671	−9	1.215	26.961
700	10.566	10.480	35.361	−9	1.331	27.150
800	8.650	8.562	35.157	−9	1.431	27.311
900	7.027	6.938	35.093	−9	1.513	27.501
1000	5.898	5.807	35.067	−9	1.578	27.630
1100	5.557	5.459	35.057	−9	1.636	27.665
1200	5.079	4.976	35.041	−9	1.691	27.711
1300	4.761	4.651	35.022	−9	1.742	27.733
1400	4.579	4.461	35.013	−9	1.793	27.747
1500	4.452	4.326	35.007	−9	1.843	27.757
1750	4.082	3.938	34.985	−9	1.966	27.780
2000	3.852	3.686	34.972	−9	2.088	27.796
2500	2.996	2.796	34.937	−9	2.320	27.854
3000	2.594	2.352	34.915	−9	2.531	27.875
3500	2.404	2.114	34.902	−9	2.740	27.884
4000	2.284	1.941	34.891	−9	2.953	27.889

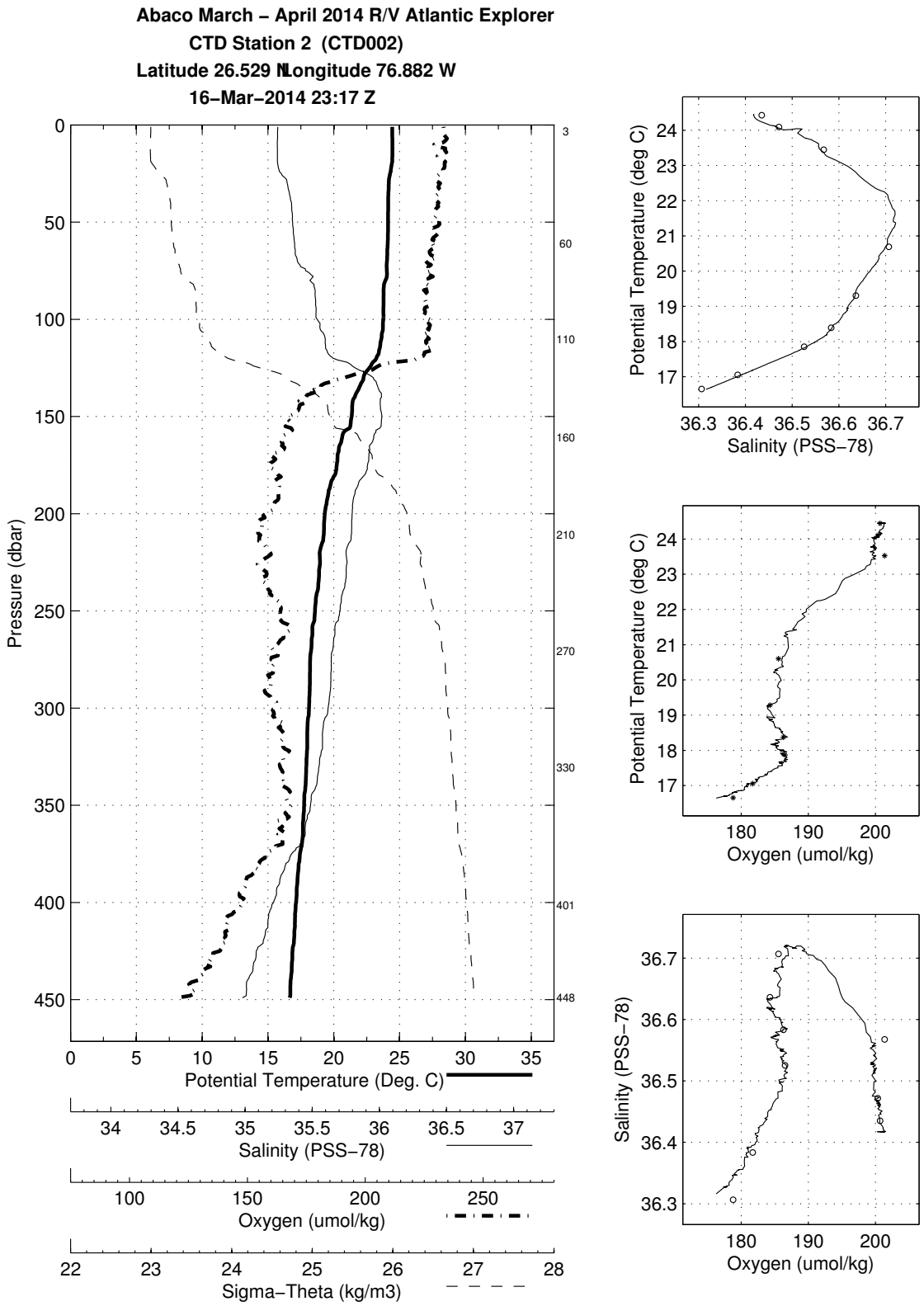
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4351	2	2.289	1.906	34.884	−9
4082	4	2.285	1.934	34.884	−9
4083	6	2.285	1.934	34.885	−9
4095	8	2.286	1.933	34.882	−9
4000	10	2.283	1.941	34.882	−9
3499	12	2.397	2.107	34.892	−9
3001	13	2.584	2.343	34.902	−9
2001	15	3.859	3.694	34.960	−9
1000	17	5.808	5.717	35.052	−9
501	19	15.264	15.186	36.044	−9
200	21	20.064	20.026	36.655	−9
4	23	24.376	24.375	36.527	−9


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 1 (CTD001)
Latitude 25.953 NLongitude 76.923 W
16–Mar–2014 14:17 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 2 (CTD002)
Latitude 26.529N Longitude 76.882W
16-Mar-2014 23:17Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.447	24.447	36.419	201.2	0.003	24.582
10	24.451	24.449	36.417	200.3	0.033	24.580
20	24.383	24.379	36.419	201.4	0.067	24.602
30	24.189	24.183	36.445	200.9	0.100	24.682
50	24.136	24.125	36.461	200.7	0.165	24.711
75	24.044	24.028	36.500	200.1	0.246	24.769
100	23.782	23.760	36.533	199.9	0.324	24.874
125	22.740	22.715	36.642	194.7	0.399	25.262
150	21.387	21.358	36.720	186.6	0.461	25.705
200	19.349	19.313	36.632	184.5	0.565	26.188
250	18.619	18.575	36.598	185.9	0.656	26.352
300	18.168	18.116	36.563	185.4	0.742	26.441
400	17.205	17.138	36.405	182.3	0.908	26.560

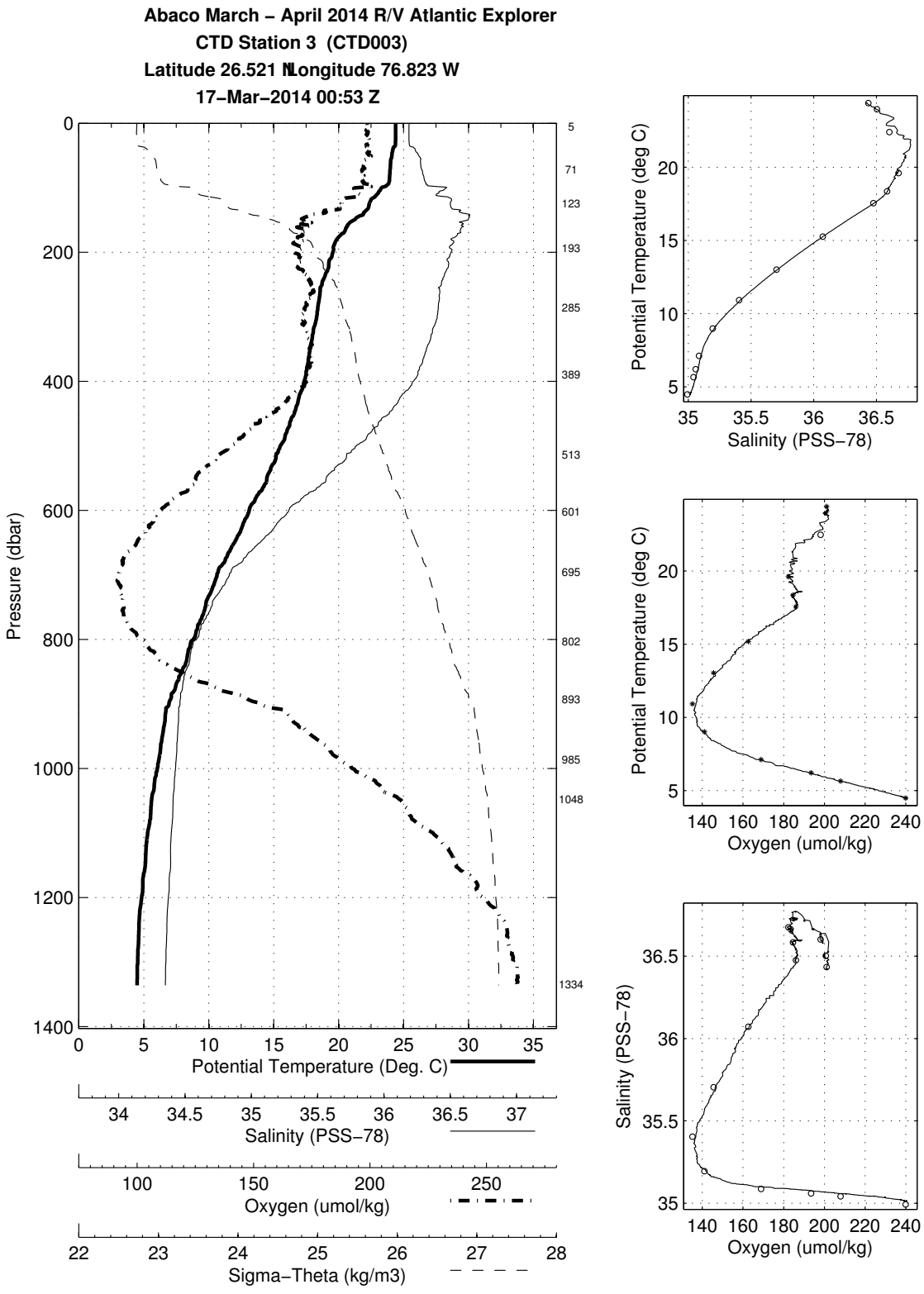
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
449	1	16.728	16.654	36.307	178.8
401	2	17.124	17.057	36.384	181.7
330	3	17.912	17.854	36.525	186.5
271	4	18.441	18.393	36.583	186.3
211	5	19.342	19.304	36.636	184.3
161	6	20.719	20.689	36.707	185.6
110	7	23.471	23.448	36.568	201.4
61	8	24.104	24.091	36.472	200.4
3	9	24.426	24.425	36.435	200.7


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 2 (CTD002)
Latitude 26.529 N Longitude 76.882 W
16–Mar–2014 23:17 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 3 (CTD003)
Latitude 26.521N Longitude 76.823W
17-Mar-2014 00:53Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	24.389	24.389	36.422	201.1	0.003	24.602
10	24.394	24.392	36.421	200.9	0.033	24.600
20	24.397	24.392	36.421	200.7	0.067	24.600
30	24.387	24.381	36.422	201.2	0.100	24.605
50	24.117	24.107	36.476	202.0	0.166	24.728
75	23.969	23.953	36.499	199.3	0.246	24.791
100	23.406	23.385	36.616	197.7	0.324	25.048
125	22.386	22.360	36.659	194.5	0.394	25.377
150	21.221	21.192	36.762	184.5	0.456	25.783
200	19.595	19.558	36.663	182.0	0.558	26.148
250	18.763	18.718	36.606	186.4	0.652	26.322
300	18.368	18.315	36.583	184.4	0.739	26.406
400	17.417	17.349	36.444	185.4	0.906	26.539
500	15.602	15.523	36.115	165.4	1.063	26.715
600	13.201	13.116	35.724	147.2	1.203	26.931
700	10.725	10.638	35.380	136.2	1.323	27.137
800	8.925	8.835	35.193	142.0	1.425	27.296
900	7.030	6.941	35.095	173.5	1.508	27.502
1000	6.135	6.042	35.070	197.2	1.575	27.603
1100	5.391	5.294	35.046	218.3	1.634	27.677
1200	4.941	4.839	35.030	231.4	1.688	27.718
1300	4.645	4.536	35.015	239.2	1.738	27.740

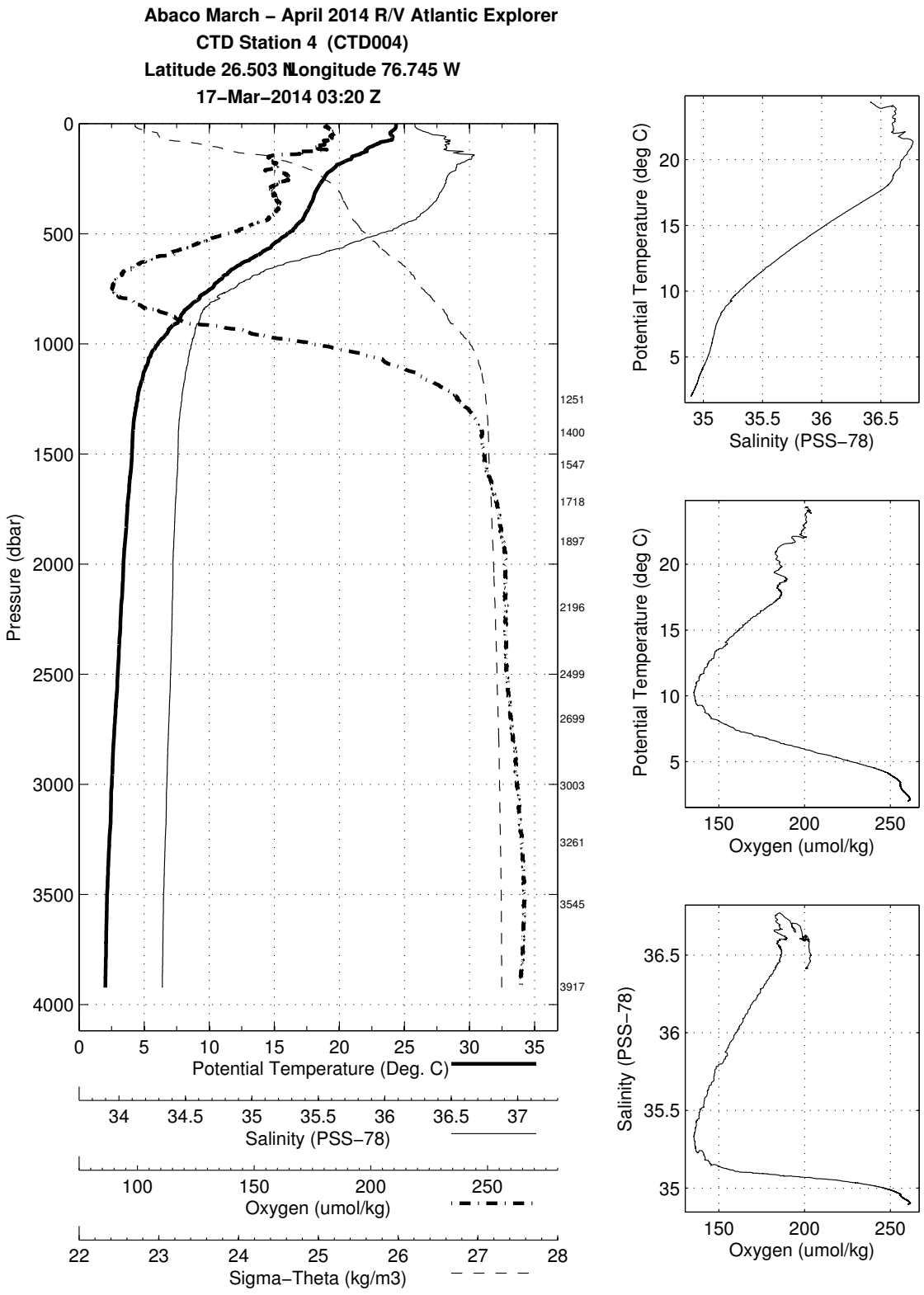
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
1334	1	4.600	4.488	34.993	239.9
1048	2	5.765	5.670	35.042	208.0
986	3	6.298	6.205	35.060	193.4
893	4	7.206	7.117	35.087	168.8
802	5	9.076	8.985	35.195	141.0
695	6	11.012	10.924	35.405	135.2
601	7	13.098	13.014	35.704	145.6
513	8	15.342	15.261	36.072	162.6
389	9	17.613	17.546	36.475	186.0
285	10	18.408	18.358	36.584	184.5
193	11	19.635	19.599	36.675	182.3
124	12	22.425	22.400	36.602	198.1
71	13	23.977	23.962	36.503	200.7
5	14	24.379	24.378	36.434	201.0


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 3 (CTD003)
Latitude 26.521 NLongitude 76.823 W
17–Mar–2014 00:53 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 4 (CTD004)
Latitude 26.503N Longitude 76.745W
17-Mar-2014 03:20Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.358	24.358	36.416	200.8	0.003	24.607
10	24.356	24.354	36.417	201.7	0.033	24.608
20	24.323	24.319	36.423	201.3	0.066	24.624
30	24.156	24.150	36.450	202.7	0.099	24.695
50	23.960	23.950	36.522	202.8	0.163	24.809
75	24.011	23.995	36.619	201.7	0.241	24.869
100	22.622	22.601	36.600	199.4	0.313	25.263
125	22.117	22.092	36.685	197.4	0.379	25.472
150	21.010	20.981	36.757	183.4	0.439	25.837
200	19.658	19.621	36.661	185.4	0.543	26.130
250	18.858	18.813	36.605	189.1	0.637	26.297
300	18.304	18.251	36.578	184.0	0.725	26.418
400	17.571	17.503	36.471	185.5	0.893	26.522
500	16.091	16.010	36.201	170.1	1.054	26.669
600	13.676	13.589	35.798	151.6	1.198	26.891
700	11.099	11.010	35.427	137.0	1.319	27.106
800	9.236	9.145	35.224	141.1	1.424	27.270
900	7.702	7.608	35.115	157.7	1.512	27.423
1000	6.168	6.075	35.072	197.1	1.583	27.600
1100	5.272	5.176	35.044	222.0	1.641	27.690
1200	4.735	4.635	35.020	237.0	1.693	27.733
1300	4.452	4.346	35.005	244.7	1.742	27.753
1400	4.248	4.134	34.992	248.5	1.789	27.766
1500	4.186	4.064	34.990	249.3	1.837	27.772
1750	3.855	3.713	34.973	253.5	1.955	27.795
2000	3.574	3.413	34.960	255.8	2.070	27.814
2500	3.176	2.973	34.946	256.2	2.298	27.844
3000	2.764	2.519	34.924	259.4	2.518	27.867
3500	2.442	2.151	34.904	261.5	2.734	27.883

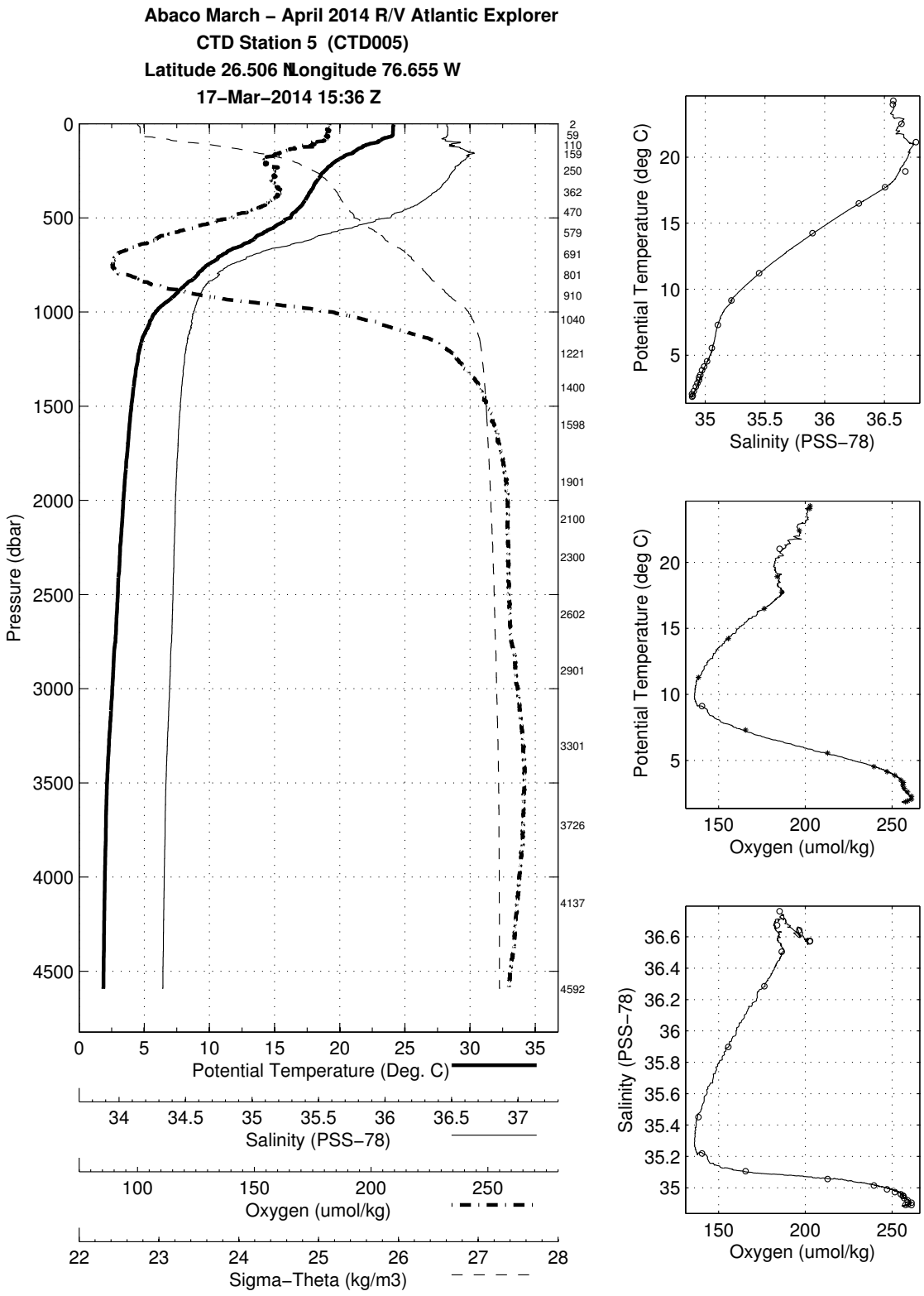
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
3918	1	2.358	7.927	−999.000	NaN
3545	2	2.431	7.572	−999.000	NaN
3261	3	2.590	7.376	−999.000	NaN
3003	4	2.747	7.202	−999.000	NaN
2700	5	2.987	7.036	−999.000	NaN
2499	6	3.187	6.958	−999.000	NaN
2196	7	3.424	6.774	−999.000	NaN
1898	8	3.666	6.592	−999.000	NaN
1718	9	3.907	6.565	−999.000	NaN
1548	10	4.132	6.536	−999.000	NaN
1400	11	4.252	6.438	−999.000	NaN
1251	12	4.551	6.504	−999.000	NaN


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 4 (CTD004)
Latitude 26.503 N Longitude 76.745 W
17–Mar–2014 03:20 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 5 (CTD005)
Latitude 26.506N Longitude 76.655W
17-Mar-2014 15:36Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.147	24.146	36.583	201.7	0.003	24.796
10	24.121	24.119	36.581	201.1	0.031	24.803
20	24.095	24.091	36.587	201.8	0.063	24.817
30	24.093	24.087	36.587	201.4	0.094	24.818
50	24.092	24.081	36.586	201.5	0.157	24.819
75	23.485	23.469	36.565	200.8	0.235	24.984
100	22.785	22.764	36.648	195.5	0.307	25.252
125	21.754	21.730	36.652	192.3	0.372	25.550
150	21.088	21.059	36.716	187.6	0.431	25.785
200	19.685	19.648	36.670	182.1	0.535	26.129
250	18.904	18.859	36.620	184.9	0.629	26.296
300	18.353	18.300	36.583	183.9	0.717	26.410
400	17.479	17.411	36.455	185.2	0.885	26.532
500	16.306	16.225	36.239	172.3	1.044	26.649
600	13.669	13.582	35.799	150.1	1.189	26.892
700	11.005	10.916	35.414	136.9	1.312	27.114
800	9.223	9.132	35.223	139.2	1.415	27.271
900	7.588	7.496	35.111	159.8	1.504	27.436
1000	5.948	5.857	35.068	202.5	1.574	27.625
1100	5.216	5.121	35.045	224.0	1.630	27.696
1200	4.744	4.643	35.024	237.3	1.681	27.735
1300	4.480	4.373	35.007	242.5	1.730	27.752
1400	4.281	4.167	34.996	247.3	1.778	27.765
1500	4.138	4.016	34.990	249.9	1.825	27.777
1750	3.833	3.691	34.973	253.9	1.942	27.796
2000	3.557	3.396	34.960	255.6	2.057	27.815
2500	3.175	2.971	34.946	256.0	2.283	27.844
3000	2.788	2.542	34.925	258.9	2.505	27.866
3500	2.435	2.145	34.904	260.8	2.721	27.883
4000	2.321	1.978	34.894	259.2	2.937	27.888
4500	2.280	1.879	34.886	256.4	3.160	27.890

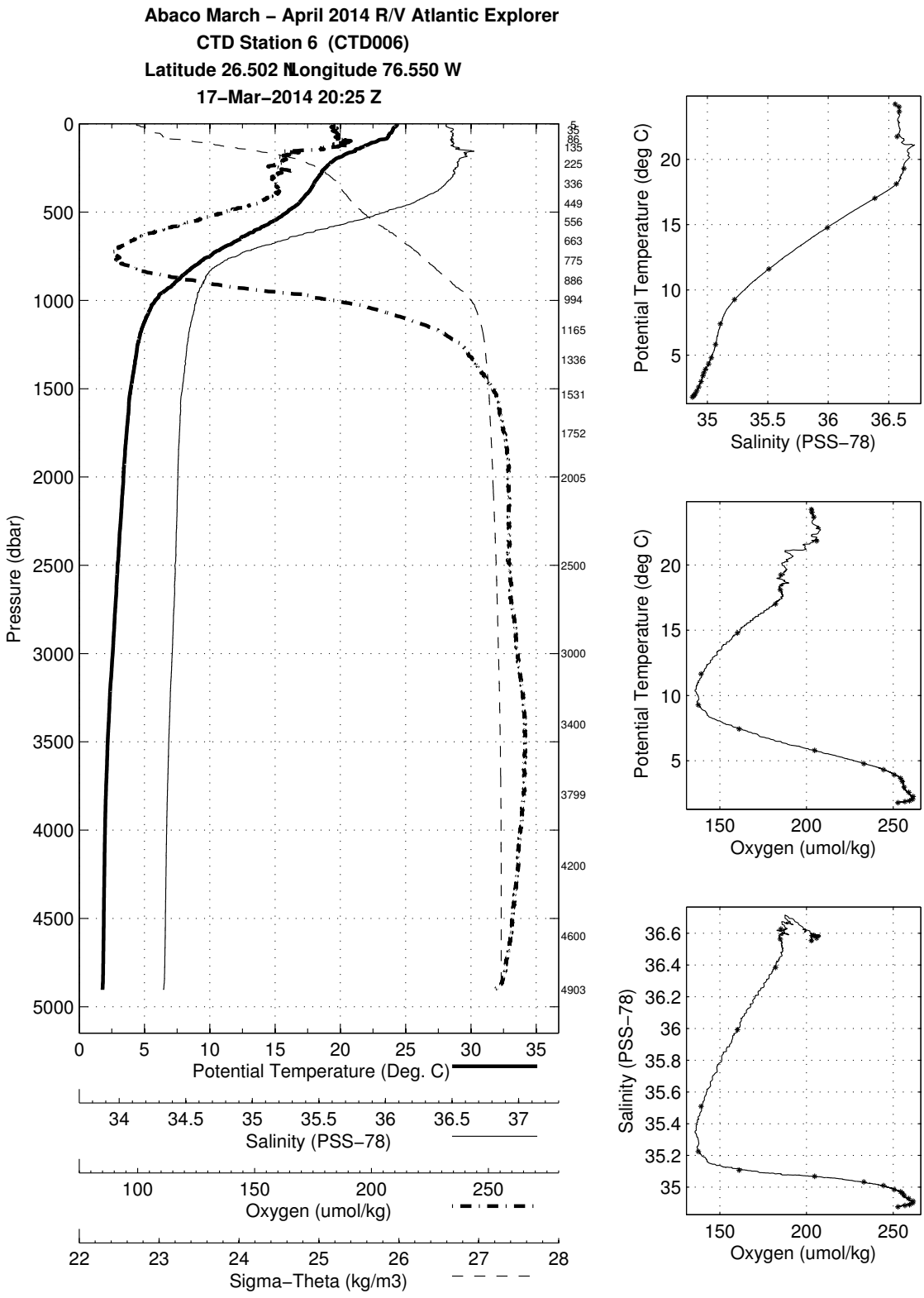
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4593	1	2.277	1.865	34.890	257.7
4138	2	2.305	1.946	34.895	259.2
3726	3	2.366	2.053	34.889	261.2
3301	4	2.555	2.283	34.904	261.2
2901	5	2.857	2.620	34.920	258.9
2603	6	3.097	2.885	34.934	257.0
2301	7	3.317	3.131	34.948	256.2
2100	8	3.497	3.327	34.949	256.5
1902	9	3.661	3.508	34.958	255.0
1599	10	3.990	3.861	34.972	251.7
1401	11	4.258	4.144	34.990	247.1
1221	12	4.646	4.545	35.014	239.5
1040	13	5.635	5.542	35.055	212.9
911	14	7.391	7.298	35.106	165.5
801	15	9.237	9.145	35.219	140.4
691	16	11.298	11.209	35.450	138.4
579	17	14.336	14.249	35.898	155.6
471	18	16.580	16.502	36.286	176.3
362	19	17.785	17.722	36.505	186.4
250	20	18.966	18.921	36.674	183.8
160	21	21.170	21.139	36.763	185.1
111	22	22.544	22.521	36.642	196.5
60	23	24.008	23.995	36.571	202.6
2	24	24.277	24.277	36.574	202.7


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 5 (CTD005)
Latitude 26.506 N Longitude 76.655 W
17–Mar–2014 15:36 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 6 (CTD006)
Latitude 26.502N Longitude 76.550W
17-Mar-2014 20:25Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.354	24.354	36.551	202.6	0.003	24.710
10	24.289	24.287	36.549	202.9	0.032	24.729
20	24.131	24.126	36.562	203.3	0.064	24.787
30	24.047	24.041	36.592	203.6	0.095	24.835
50	23.927	23.917	36.585	203.4	0.158	24.867
75	23.654	23.639	36.580	203.2	0.234	24.945
100	22.790	22.770	36.582	206.7	0.307	25.200
125	21.904	21.879	36.591	202.9	0.374	25.462
150	21.171	21.142	36.672	193.4	0.435	25.728
200	19.654	19.617	36.625	188.1	0.541	26.103
250	18.875	18.830	36.601	186.7	0.636	26.289
300	18.400	18.347	36.586	184.0	0.724	26.400
400	17.438	17.370	36.447	184.4	0.892	26.536
500	16.011	15.931	36.185	169.7	1.051	26.676
600	13.604	13.518	35.789	150.9	1.195	26.898
700	11.132	11.042	35.431	137.6	1.318	27.103
800	8.994	8.904	35.193	139.9	1.422	27.285
900	7.414	7.322	35.107	164.7	1.508	27.457
1000	5.915	5.824	35.067	203.8	1.577	27.628
1100	5.219	5.123	35.044	224.2	1.633	27.695
1200	4.742	4.642	35.023	237.1	1.684	27.734
1300	4.489	4.382	35.009	243.4	1.733	27.753
1400	4.295	4.181	35.000	247.2	1.781	27.767
1500	4.076	3.955	34.986	250.6	1.828	27.780
1750	3.770	3.630	34.969	254.4	1.943	27.800
2000	3.549	3.388	34.960	255.6	2.057	27.816
2500	3.140	2.937	34.943	256.3	2.283	27.845
3000	2.814	2.567	34.927	258.5	2.505	27.866
3500	2.476	2.184	34.906	260.7	2.722	27.882
4000	2.321	1.978	34.894	259.3	2.939	27.889
4500	2.284	1.883	34.887	256.8	3.162	27.890

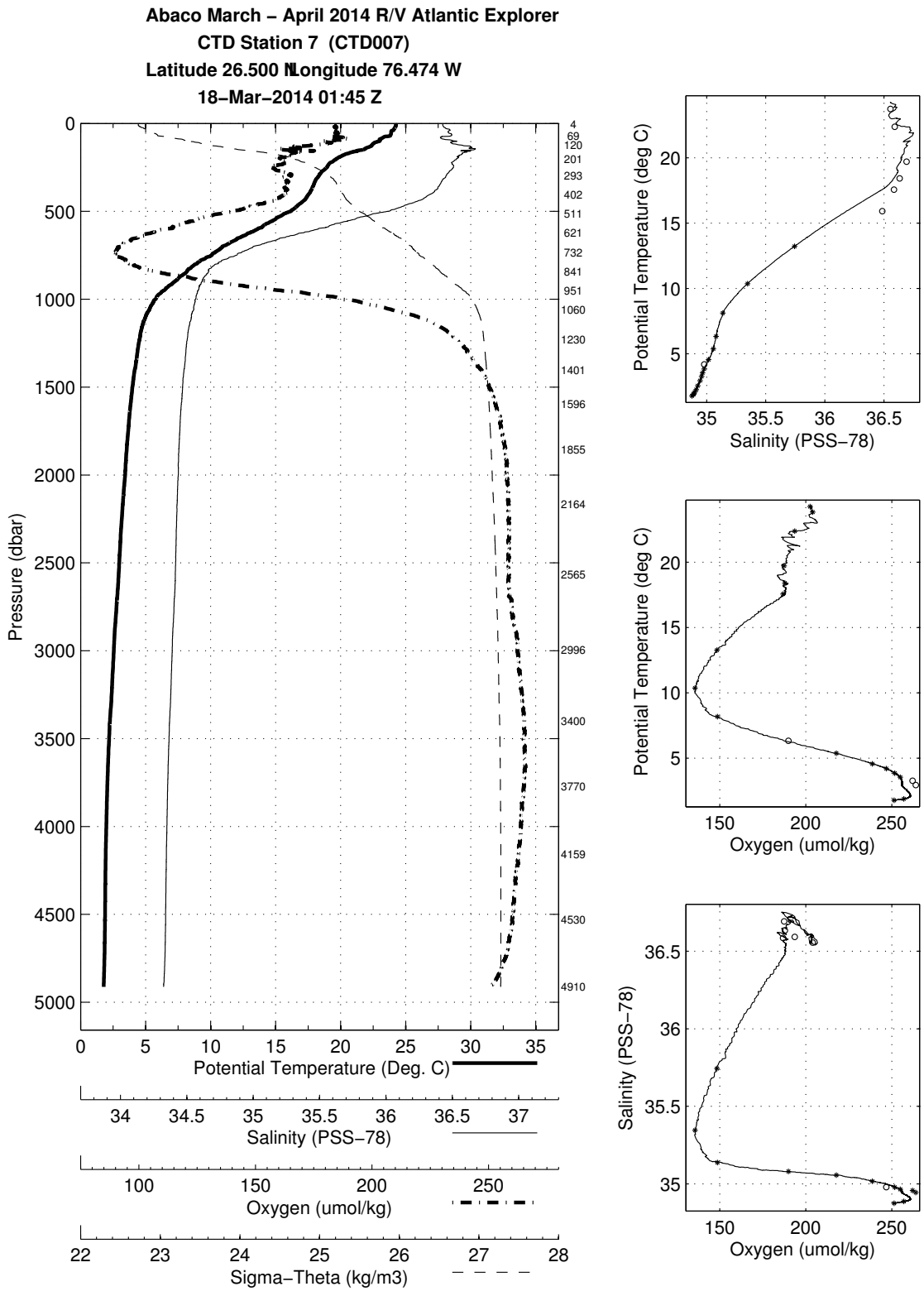
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4903	1	2.233	1.785	34.876	252.7
4601	2	2.280	1.868	34.885	256.8
4201	3	2.299	1.933	34.890	259.4
3800	4	2.369	2.047	34.900	261.2
3401	5	2.546	2.263	34.912	261.5
3001	6	2.819	2.572	34.928	259.0
2500	7	3.180	2.977	34.947	256.3
2005	8	3.573	3.411	34.963	255.3
1753	9	3.793	3.652	34.971	254.2
1532	10	4.051	3.928	34.985	250.6
1337	11	4.431	4.321	35.009	244.4
1166	12	4.894	4.796	35.033	233.0
995	13	5.902	5.811	35.068	204.7
886	14	7.490	7.399	35.107	161.1
775	15	9.351	9.262	35.225	137.5
663	16	11.687	11.599	35.509	139.2
556	17	14.855	14.770	35.993	160.1
449	18	17.092	17.016	36.385	182.1
336	19	18.177	18.118	36.563	184.8
226	20	19.337	19.296	36.627	185.2
135	21	21.770	21.743	36.569	205.8
86	22	23.675	23.657	36.588	204.2
35	23	24.031	24.023	36.586	203.1
5	24	24.227	24.226	36.554	202.8


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 6 (CTD006)
Latitude 26.502 N Longitude 76.550 W
17–Mar–2014 20:25 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 7 (CTD007)
Latitude 26.500N Longitude 76.474W
18-Mar-2014 01:45Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.253	24.252	36.556	203.2	0.003	24.745
10	24.257	24.255	36.555	202.7	0.032	24.743
20	24.205	24.201	36.562	203.3	0.064	24.764
30	24.128	24.122	36.580	203.4	0.095	24.801
50	23.891	23.881	36.587	203.6	0.158	24.879
75	23.406	23.391	36.550	203.8	0.234	24.996
100	23.022	23.001	36.636	199.3	0.307	25.175
125	22.429	22.404	36.675	195.6	0.375	25.376
150	21.710	21.681	36.739	187.3	0.438	25.630
200	19.719	19.682	36.638	186.4	0.545	26.096
250	18.988	18.943	36.618	183.7	0.640	26.273
300	18.345	18.292	36.572	188.5	0.729	26.403
400	17.634	17.565	36.484	187.7	0.898	26.517
500	16.237	16.156	36.226	172.5	1.059	26.655
600	13.710	13.623	35.804	151.3	1.202	26.888
700	10.985	10.896	35.412	137.7	1.325	27.115
800	8.992	8.902	35.197	141.5	1.429	27.288
900	7.309	7.218	35.105	166.8	1.514	27.470
1000	5.854	5.763	35.066	204.9	1.581	27.635
1100	5.100	5.006	35.042	228.2	1.636	27.708
1200	4.692	4.592	35.019	238.6	1.686	27.737
1300	4.483	4.376	35.008	243.1	1.735	27.752
1400	4.277	4.163	34.997	247.4	1.783	27.766
1500	4.105	3.983	34.988	249.8	1.830	27.779
1750	3.801	3.661	34.971	253.8	1.946	27.798
2000	3.586	3.424	34.962	255.3	2.060	27.814
2500	3.173	2.970	34.946	255.8	2.287	27.845
3000	2.801	2.554	34.926	258.7	2.509	27.866
3500	2.488	2.196	34.907	260.5	2.727	27.881
4000	2.320	1.977	34.894	259.7	2.943	27.889
4500	2.282	1.882	34.887	257.1	3.166	27.890

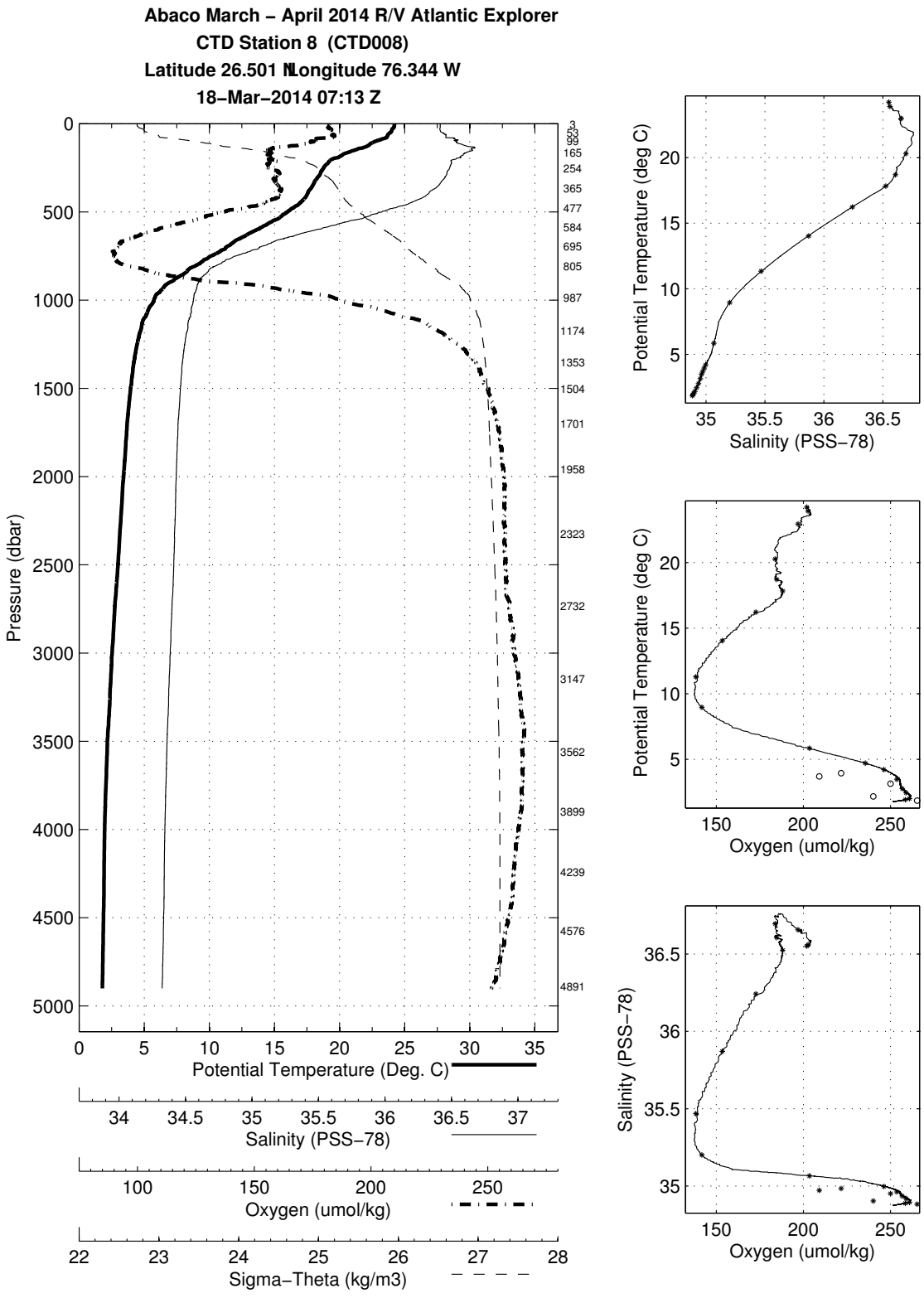
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4911	1	2.222	1.774	34.876	251.3
4530	2	2.283	1.879	34.888	256.9
4159	3	2.291	1.930	34.891	347.0
3771	4	2.377	2.058	34.899	368.6
3401	5	2.542	2.259	34.913	NaN
2996	6	2.799	2.553	34.926	107.8
2566	7	3.147	2.938	34.945	263.9
2165	8	3.448	3.273	34.957	262.0
1856	9	3.686	3.537	34.966	254.9
1597	10	3.964	3.836	34.979	251.7
1402	11	4.299	4.185	34.979	246.8
1230	12	4.654	4.551	35.017	238.7
1061	13	5.463	5.369	35.056	217.8
951	14	6.421	6.331	35.080	189.9
842	15	8.204	8.114	35.138	148.6
732	16	10.450	10.361	35.346	135.6
622	17	13.312	13.223	35.745	148.3
512	18	16.002	15.919	36.486	NaN
402	19	17.627	17.557	36.585	186.8
294	20	18.468	18.416	36.633	187.9
201	21	19.738	19.700	36.692	187.4
120	22	22.392	22.367	36.592	193.6
70	23	23.756	23.742	36.556	204.0
5	24	24.244	24.247	−999.000	NaN


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 7 (CTD007)
Latitude 26.500 NLongitude 76.474 W
18–Mar–2014 01:45 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 8 (CTD008)
Latitude 26.501N Longitude 76.344W
18-Mar-2014 07:13Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.219	24.218	36.554	202.7	0.003	24.753
10	24.215	24.213	36.553	202.6	0.032	24.754
20	24.179	24.175	36.553	202.4	0.064	24.765
30	24.038	24.032	36.551	203.3	0.095	24.806
50	23.912	23.901	36.565	203.3	0.158	24.856
75	23.669	23.653	36.587	203.5	0.234	24.947
100	22.754	22.734	36.648	197.1	0.307	25.261
125	22.159	22.133	36.708	191.4	0.373	25.479
150	21.215	21.186	36.746	183.8	0.433	25.773
200	19.514	19.477	36.646	184.5	0.537	26.156
250	18.812	18.767	36.608	184.4	0.630	26.311
300	18.417	18.364	36.582	187.2	0.719	26.393
400	17.589	17.520	36.476	187.2	0.888	26.521
500	16.101	16.020	36.202	170.3	1.048	26.668
600	13.757	13.669	35.808	151.1	1.193	26.882
700	11.364	11.274	35.461	139.7	1.317	27.084
800	9.139	9.048	35.209	140.9	1.423	27.274
900	7.024	6.935	35.094	171.7	1.508	27.502
1000	5.841	5.750	35.064	206.4	1.572	27.635
1100	5.101	5.007	35.039	226.9	1.628	27.706
1200	4.707	4.606	35.020	237.6	1.678	27.736
1300	4.438	4.332	35.006	244.3	1.727	27.755
1400	4.239	4.125	34.995	248.2	1.774	27.769
1500	4.081	3.960	34.986	250.6	1.821	27.779
1750	3.790	3.650	34.971	254.0	1.936	27.799
2000	3.582	3.420	34.961	255.4	2.051	27.814
2500	3.192	2.989	34.947	255.8	2.278	27.844
3000	2.782	2.536	34.926	258.5	2.500	27.867
3500	2.465	2.174	34.906	261.2	2.717	27.882
4000	2.307	1.964	34.893	259.9	2.933	27.889
4500	2.274	1.874	34.886	256.6	3.156	27.890

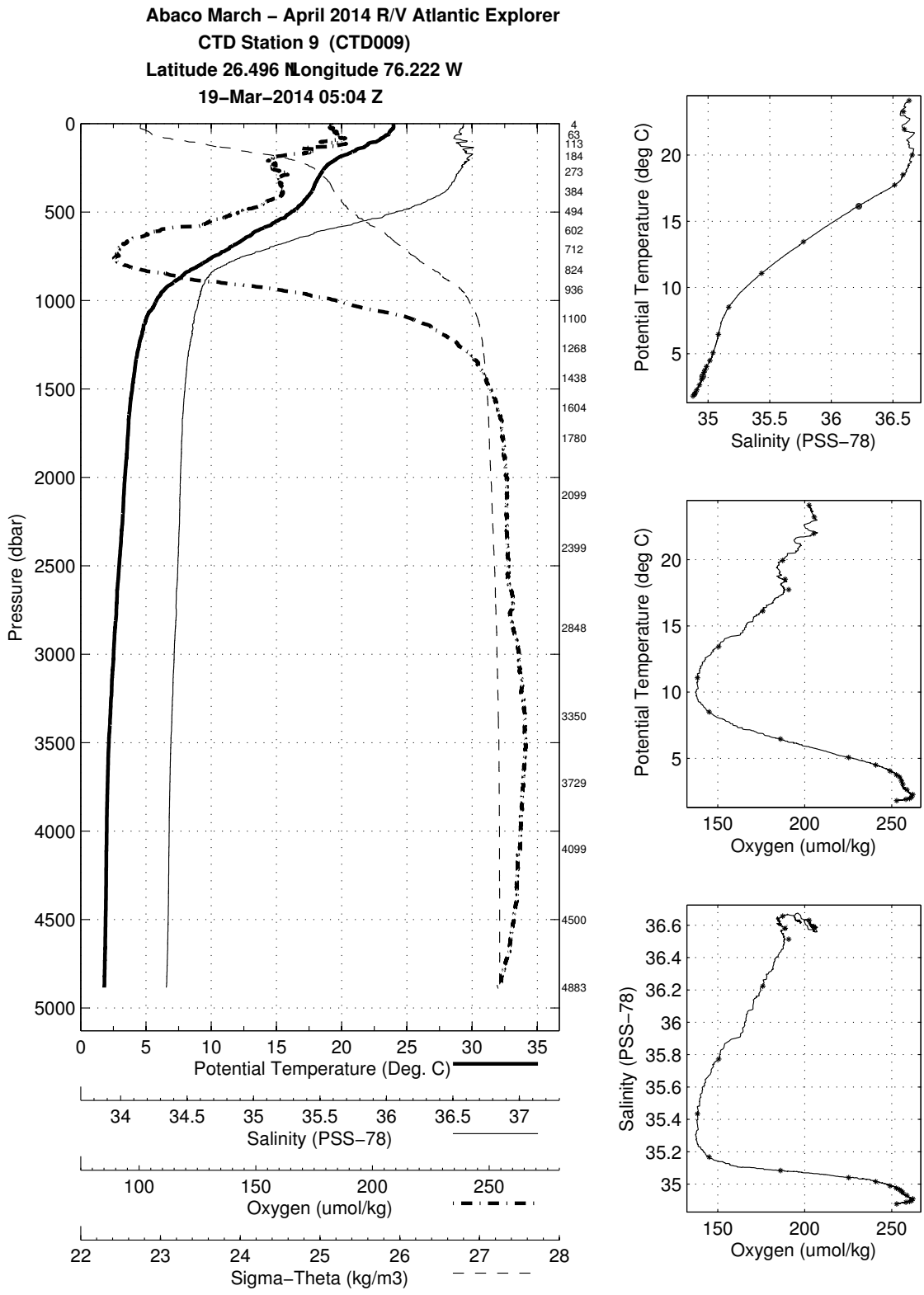
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4892	1	2.236	8.825	−999.000	NaN
4577	2	2.265	1.856	34.884	265.3
4239	3	2.294	1.924	34.889	258.5
3899	4	2.342	2.009	34.895	260.9
3563	5	2.470	2.171	34.904	240.1
3147	6	2.716	2.456	34.920	259.0
2733	7	2.989	2.766	34.936	256.8
2323	8	3.331	3.142	34.951	250.1
1959	9	3.626	3.468	34.963	253.6
1702	10	3.835	3.698	34.972	209.1
1505	11	4.072	3.950	34.985	221.7
1353	12	4.311	4.201	34.997	246.2
1174	13	4.803	4.708	33.067	235.6
987	14	5.930	5.840	35.066	203.4
805	15	9.031	8.940	35.201	141.7
695	16	11.425	11.335	35.468	138.2
585	17	14.110	14.024	35.871	153.4
478	18	16.311	16.233	36.242	172.7
365	19	17.893	17.830	36.525	188.1
255	20	18.746	18.701	36.607	184.6
165	21	20.344	20.313	36.696	183.7
100	22	23.006	22.985	36.657	196.9
54	23	23.909	23.898	36.560	202.6
4	24	24.227	24.226	36.552	201.9


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 8 (CTD008)
Latitude 26.501 NLongitude 76.344 W
18–Mar–2014 07:13 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 9 (CTD009)
Latitude 26.496N Longitude 76.222W
19-Mar-2014 05:04Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	23.972	23.971	36.618	202.9	0.003	24.875
10	23.979	23.977	36.615	202.9	0.031	24.872
20	23.976	23.972	36.612	202.2	0.061	24.871
30	23.888	23.881	36.598	203.2	0.092	24.887
50	23.657	23.646	36.590	203.8	0.153	24.951
75	23.240	23.225	36.563	205.2	0.228	25.054
100	22.731	22.711	36.636	201.3	0.299	25.258
125	21.902	21.877	36.595	204.1	0.365	25.465
150	21.104	21.075	36.616	198.1	0.426	25.704
200	19.640	19.604	36.633	185.3	0.533	26.113
250	18.751	18.707	36.603	184.7	0.626	26.322
300	18.325	18.272	36.571	187.6	0.714	26.408
400	17.604	17.535	36.479	187.9	0.882	26.520
500	16.217	16.136	36.217	175.4	1.043	26.653
600	13.776	13.689	35.810	151.5	1.190	26.879
700	11.514	11.423	35.480	139.2	1.315	27.072
800	9.226	9.135	35.218	140.3	1.422	27.267
900	7.182	7.092	35.100	169.6	1.508	27.485
1000	5.899	5.808	35.065	204.3	1.573	27.629
1100	5.120	5.026	35.039	226.6	1.629	27.703
1200	4.771	4.671	35.027	237.4	1.680	27.735
1300	4.437	4.330	35.005	244.6	1.729	27.755
1400	4.248	4.134	34.995	248.3	1.776	27.768
1500	4.067	3.946	34.986	250.7	1.823	27.781
1750	3.773	3.632	34.970	254.2	1.938	27.800
2000	3.547	3.387	34.959	255.9	2.052	27.816
2500	3.152	2.949	34.945	256.3	2.278	27.846
3000	2.766	2.521	34.923	259.5	2.499	27.867
3500	2.450	2.158	34.904	261.5	2.714	27.882
4000	2.338	1.994	34.894	260.0	2.930	27.888
4500	2.310	1.909	34.888	257.8	3.156	27.890

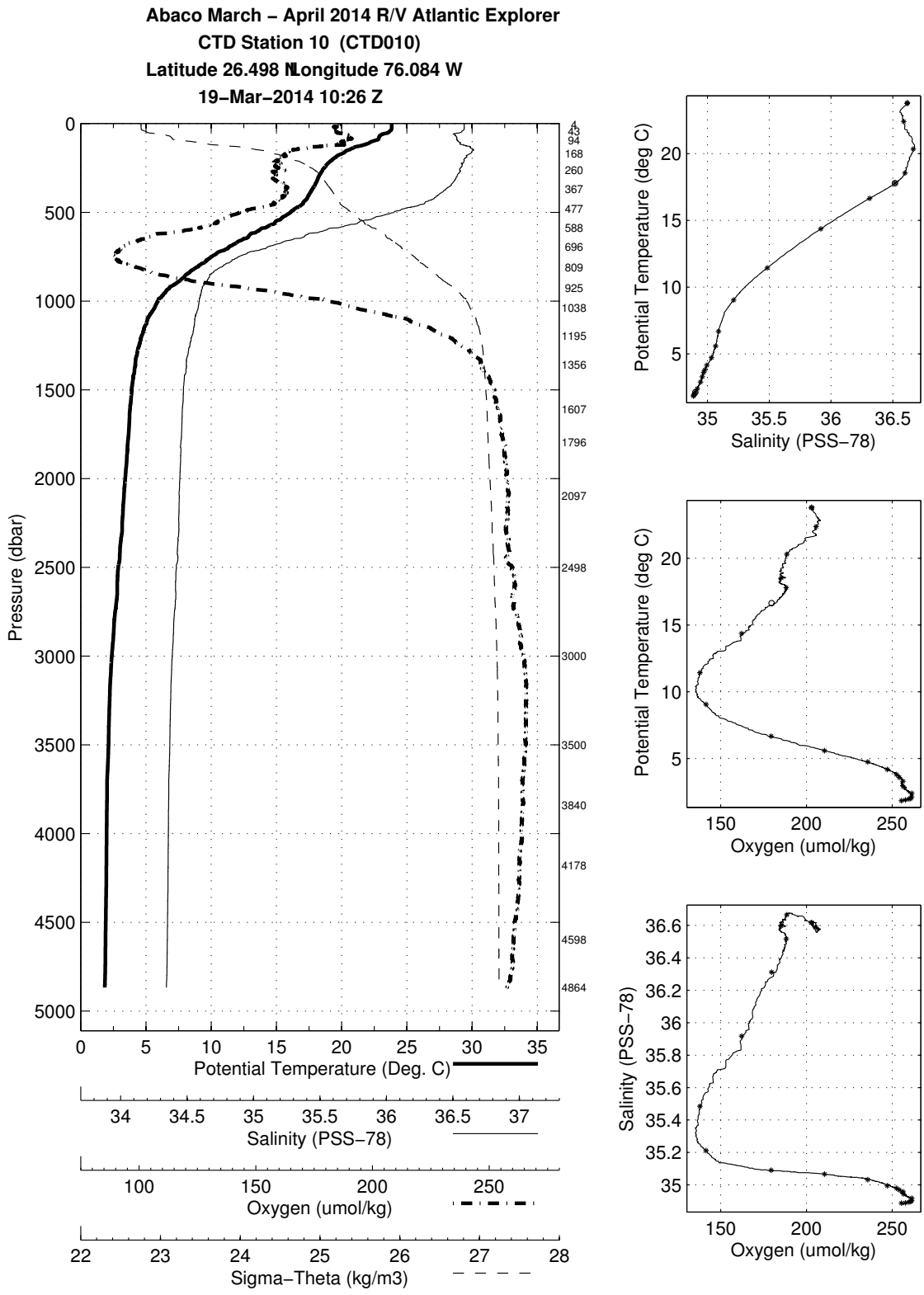
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4883	1	2.244	1.797	34.878	252.9
4500	2	2.308	1.907	34.888	258.2
4100	3	2.322	1.968	34.893	260.3
3730	4	2.383	2.069	34.898	261.4
3351	5	2.539	2.262	34.909	262.2
2849	6	2.874	2.642	34.930	258.7
2400	7	3.235	3.040	34.948	256.4
2099	8	3.455	3.286	34.956	255.6
1780	9	3.733	3.590	34.966	254.5
1605	10	3.879	3.750	34.975	252.7
1439	11	4.152	4.036	34.988	249.1
1269	12	4.596	4.491	35.015	240.8
1100	13	5.161	5.066	35.040	225.3
936	14	6.545	6.456	35.084	186.1
825	15	8.606	8.515	35.167	145.1
713	16	11.158	11.067	35.434	138.4
602	17	13.539	13.452	35.773	150.5
495	18	16.215	16.134	36.223	175.9
384	19	17.810	17.744	36.514	190.7
274	20	18.561	18.512	36.581	188.8
184	21	20.042	20.008	36.656	187.4
114	22	21.971	21.948	36.593	205.3
64	23	23.298	23.285	36.585	205.5
4	24	24.113	24.113	36.630	202.6


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 9 (CTD009)
Latitude 26.496 N Longitude 76.222 W
19–Mar–2014 05:04 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 10 (CTD010)
Latitude 26.498N Longitude 76.084W
19-Mar-2014 10:26Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	23.834	23.834	36.623	204.2	0.003	24.920
10	23.833	23.831	36.622	203.5	0.030	24.920
20	23.834	23.830	36.622	203.2	0.061	24.920
30	23.833	23.826	36.621	203.2	0.091	24.921
50	23.608	23.598	36.602	203.9	0.151	24.974
75	22.896	22.881	36.576	207.6	0.223	25.164
100	22.353	22.333	36.586	205.1	0.293	25.329
125	21.475	21.451	36.628	199.0	0.357	25.610
150	20.509	20.481	36.675	189.7	0.414	25.911
200	19.372	19.336	36.621	186.5	0.514	26.174
250	18.710	18.666	36.599	185.5	0.606	26.330
300	18.300	18.247	36.578	183.9	0.693	26.419
400	17.585	17.516	36.474	187.5	0.861	26.521
500	16.168	16.087	36.209	173.9	1.022	26.658
600	13.790	13.703	35.812	157.6	1.168	26.878
700	11.387	11.297	35.463	137.6	1.293	27.082
800	9.161	9.070	35.214	140.9	1.398	27.274
900	7.382	7.291	35.107	164.5	1.485	27.462
1000	6.015	5.923	35.074	201.4	1.553	27.621
1100	5.212	5.117	35.047	224.8	1.610	27.699
1200	4.758	4.657	35.030	237.5	1.661	27.739
1300	4.427	4.320	35.008	244.8	1.709	27.759
1400	4.226	4.112	34.996	248.6	1.756	27.771
1500	4.035	3.915	34.982	251.8	1.803	27.781
1750	3.813	3.673	34.971	253.9	1.918	27.797
2000	3.579	3.418	34.961	255.7	2.033	27.814
2500	3.082	2.880	34.941	257.3	2.259	27.849
3000	2.627	2.385	34.917	260.8	2.475	27.873
3500	2.427	2.136	34.903	261.3	2.685	27.883
4000	2.335	1.992	34.894	260.1	2.899	27.888
4500	2.324	1.922	34.890	258.0	3.125	27.889

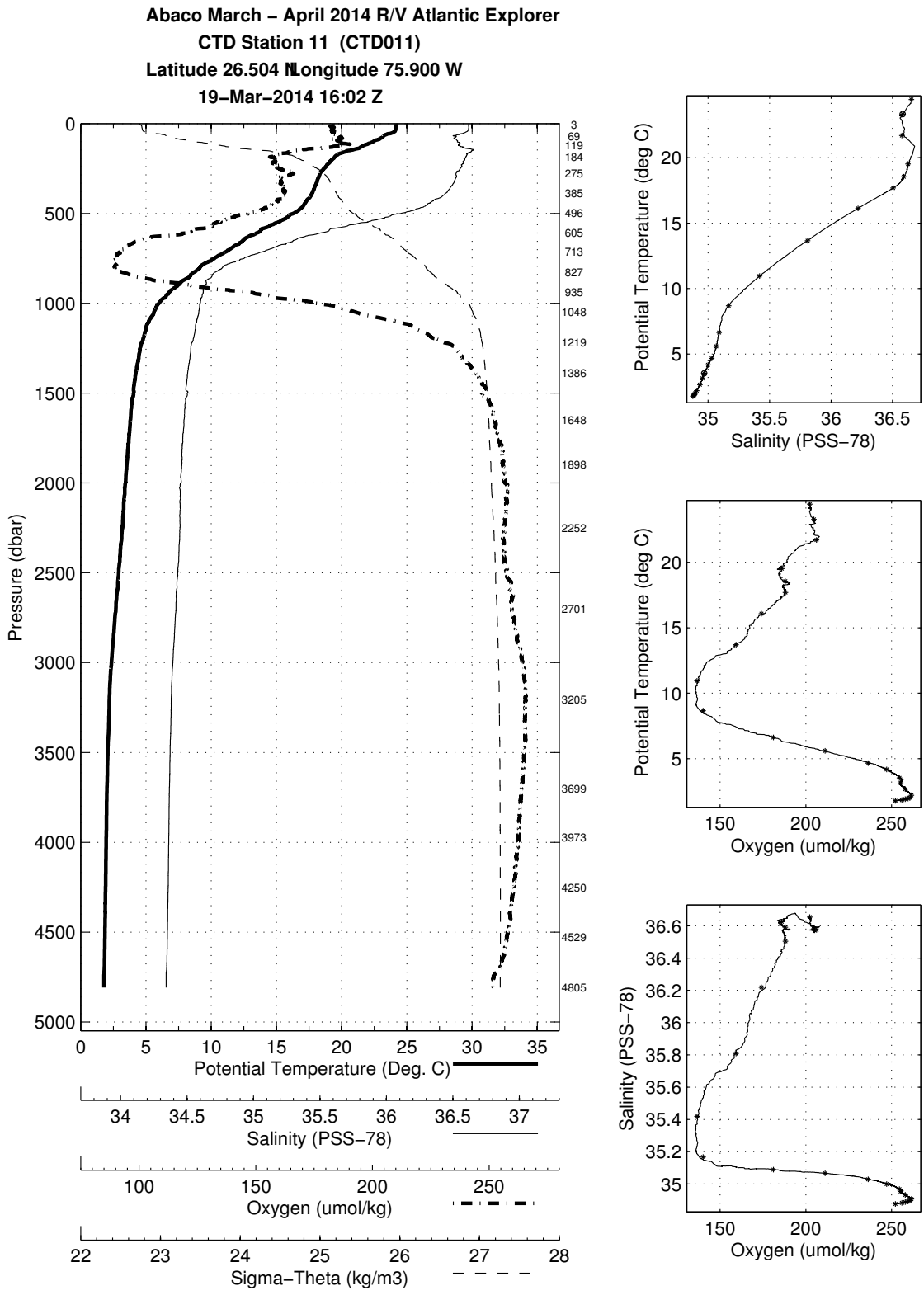
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4864	1	2.293	1.848	34.887	255.3
4599	2	2.313	1.900	34.889	257.7
4178	3	2.334	1.970	34.893	259.7
3840	4	2.329	2.004	34.896	260.7
3500	5	2.416	2.125	34.902	261.3
3000	6	2.639	2.396	34.918	261.4
2499	7	3.095	2.894	34.944	256.5
2098	8	3.456	3.287	34.958	256.3
1796	9	3.748	3.603	34.969	254.1
1608	10	3.934	3.805	34.979	252.4
1356	11	4.261	4.151	34.995	247.1
1196	12	4.811	4.711	35.032	235.7
1038	13	5.689	5.596	35.066	210.5
926	14	6.775	6.685	35.090	179.5
809	15	9.122	9.030	35.211	141.5
696	16	11.529	11.438	35.485	138.0
588	17	14.455	14.367	35.918	162.2
478	18	16.728	16.648	36.312	179.7
368	19	17.850	17.786	36.517	188.2
260	20	18.594	18.548	36.598	185.3
168	21	20.373	20.342	36.666	188.6
94	22	22.422	22.403	36.589	205.6
43	23	23.766	23.757	36.616	202.8
4	24	23.808	23.807	36.618	203.0


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 10 (CTD010)
Latitude 26.498 N Longitude 76.084 W
19–Mar–2014 10:26 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 11 (CTD011)
Latitude 26.504N Longitude 75.900W
19-Mar-2014 16:02Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.217	24.217	36.649	202.7	0.003	24.825
10	24.173	24.171	36.649	202.8	0.031	24.839
20	24.160	24.156	36.649	203.0	0.062	24.844
30	24.147	24.141	36.648	201.9	0.093	24.847
50	23.949	23.939	36.626	202.9	0.155	24.891
75	23.146	23.131	36.574	204.9	0.229	25.090
100	22.444	22.423	36.584	204.7	0.299	25.301
125	21.610	21.585	36.599	203.9	0.364	25.550
150	20.518	20.490	36.669	190.9	0.423	25.904
200	19.317	19.280	36.623	185.0	0.522	26.190
250	18.699	18.654	36.598	186.4	0.614	26.332
300	18.301	18.248	36.575	187.0	0.701	26.417
400	17.713	17.644	36.498	187.9	0.870	26.508
500	16.392	16.310	36.251	177.0	1.032	26.638
600	13.842	13.754	35.821	159.2	1.178	26.874
700	11.515	11.423	35.479	138.6	1.303	27.071
800	9.237	9.145	35.206	136.1	1.410	27.256
900	7.535	7.442	35.104	159.2	1.500	27.438
1000	6.091	5.998	35.074	197.5	1.569	27.611
1100	5.329	5.233	35.055	221.9	1.627	27.692
1200	4.881	4.779	35.035	234.6	1.679	27.728
1300	4.561	4.453	35.016	242.3	1.729	27.750
1400	4.303	4.188	35.000	247.0	1.777	27.766
1500	4.173	4.051	35.000	248.2	1.824	27.781
1750	3.842	3.701	34.974	253.5	1.940	27.796
2000	3.591	3.430	34.962	255.3	2.055	27.814
2500	3.114	2.912	34.944	255.9	2.281	27.849
3000	2.603	2.361	34.916	260.6	2.496	27.875
3500	2.369	2.080	34.900	261.2	2.703	27.885
4000	2.296	1.954	34.892	259.3	2.916	27.889
4500	2.257	1.857	34.884	256.2	3.138	27.890

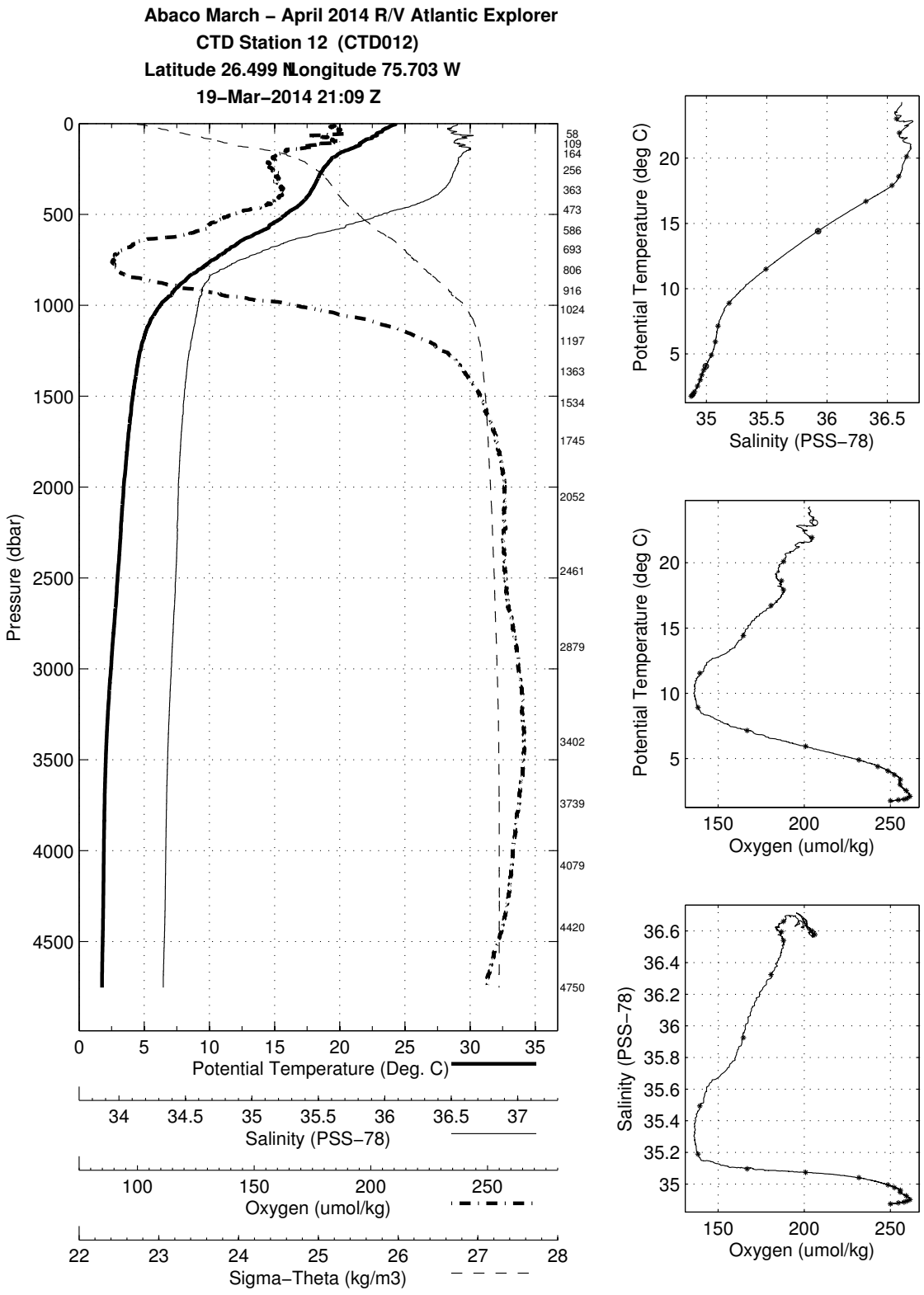
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4806	1	2.225	1.790	34.876	252.2
4529	2	2.253	1.850	34.883	256.0
4250	3	2.282	1.911	34.888	258.0
3973	4	2.296	1.956	34.891	259.6
3700	5	2.326	2.016	34.896	260.7
3205	6	2.469	2.209	34.907	261.5
2702	7	2.888	2.670	34.933	257.9
2253	8	3.328	3.146	34.954	255.3
1898	9	3.686	3.532	34.968	254.6
1649	10	3.916	6.477	−999.000	NaN
1387	11	4.294	4.181	34.999	247.1
1219	12	4.779	4.677	35.029	236.3
1048	13	5.679	5.585	35.066	211.2
936	14	6.733	6.643	35.089	181.1
828	15	8.778	8.686	35.167	140.1
714	16	11.044	10.953	35.419	136.5
606	17	13.742	13.654	35.809	159.3
497	18	16.199	16.118	36.219	174.1
386	19	17.746	17.679	36.505	188.1
275	20	18.589	18.540	36.591	188.0
185	21	19.545	19.511	36.626	186.0
120	22	21.708	21.684	36.575	206.2
69	23	23.333	23.319	36.581	204.7
4	24	24.430	24.429	36.654	202.2


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 11 (CTD011)
Latitude 26.504 N Longitude 75.900 W
19–Mar–2014 16:02 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 12 (CTD012)
Latitude 26.499N Longitude 75.703W
19-Mar-2014 21:09Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.277	24.276	36.620	203.2	0.003	24.786
10	24.037	24.035	36.614	203.4	0.031	24.853
20	23.764	23.759	36.585	203.2	0.062	24.914
30	23.452	23.446	36.562	205.5	0.092	24.989
50	22.984	22.974	36.588	204.9	0.150	25.146
75	22.486	22.471	36.644	201.7	0.218	25.334
100	21.776	21.756	36.600	204.2	0.283	25.503
125	21.342	21.318	36.638	195.2	0.344	25.654
150	20.445	20.416	36.672	188.8	0.400	25.926
200	19.367	19.331	36.622	185.3	0.500	26.176
250	18.764	18.719	36.603	184.8	0.592	26.319
300	18.392	18.339	36.582	186.8	0.680	26.399
400	17.608	17.540	36.478	186.8	0.850	26.518
500	15.937	15.857	36.169	172.2	1.009	26.681
600	13.847	13.759	35.818	160.7	1.154	26.871
700	11.354	11.264	35.459	138.4	1.278	27.085
800	9.403	9.310	35.224	137.4	1.386	27.243
900	7.669	7.576	35.106	156.1	1.476	27.420
1000	6.317	6.223	35.078	191.1	1.549	27.585
1100	5.497	5.400	35.060	217.0	1.608	27.675
1200	4.970	4.867	35.036	232.4	1.662	27.719
1300	4.664	4.555	35.019	240.3	1.713	27.742
1400	4.457	4.341	35.008	244.4	1.762	27.756
1500	4.251	4.128	34.997	247.8	1.810	27.771
1750	3.879	3.737	34.976	253.2	1.929	27.794
2000	3.585	3.423	34.962	255.5	2.045	27.814
2500	3.158	2.955	34.946	255.8	2.272	27.846
3000	2.689	2.445	34.920	259.8	2.491	27.871
3500	2.339	2.051	34.898	261.1	2.700	27.886
4000	2.243	1.902	34.888	258.1	2.910	27.889
4500	2.212	1.814	34.879	253.5	3.130	27.890

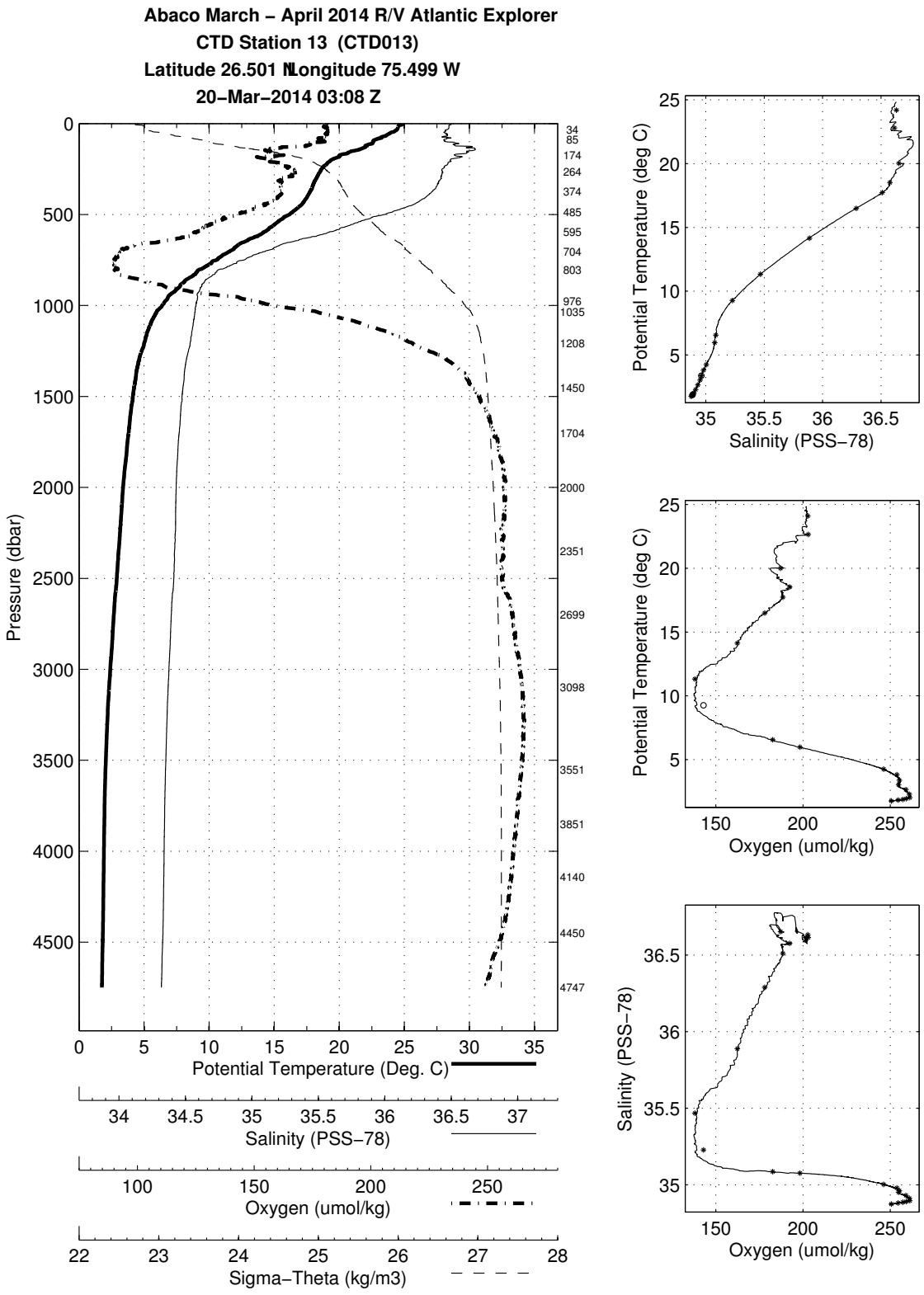
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4750	1	2.193	1.765	34.874	250.0
4421	2	2.219	1.830	34.882	254.6
4079	3	2.237	1.887	34.886	257.9
3739	4	2.270	1.957	34.893	259.7
3402	5	2.383	2.104	34.902	261.4
2880	6	2.777	2.544	34.926	259.2
2462	7	3.213	3.013	34.949	255.6
2053	8	3.557	3.391	34.961	255.8
1745	9	3.894	3.752	34.978	252.3
1534	10	4.187	4.061	34.995	248.6
1364	11	4.500	4.391	33.052	242.6
1197	12	5.009	4.906	35.040	231.7
1024	13	6.030	5.935	35.074	200.8
917	14	7.229	7.137	35.096	166.9
807	15	8.986	8.895	35.189	138.3
694	16	11.589	11.498	35.494	139.4
586	17	14.490	14.402	35.926	164.7
474	18	16.771	16.692	36.324	180.7
364	19	17.973	17.910	36.539	187.9
256	20	18.653	18.607	36.595	186.8
164	21	20.154	20.123	36.660	187.9
110	22	21.954	21.932	36.600	204.5
58	23	23.030	23.018	36.576	206.1


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 12 (CTD012)
Latitude 26.499 N Longitude 75.703 W
19–Mar–2014 21:09 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 13 (CTD013)
Latitude 26.501N Longitude 75.499W
20-Mar-2014 03:08Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.815	24.815	36.632	201.9	0.003	24.632
10	24.582	24.580	36.617	201.5	0.033	24.692
20	24.510	24.506	36.616	202.1	0.065	24.714
30	24.469	24.463	36.611	201.9	0.097	24.723
50	23.947	23.937	36.588	202.0	0.161	24.863
75	23.245	23.229	36.588	201.9	0.236	25.071
100	22.625	22.605	36.600	201.0	0.307	25.262
125	22.148	22.122	36.746	195.2	0.373	25.511
150	21.104	21.075	36.734	184.3	0.432	25.794
200	19.424	19.388	36.623	185.2	0.536	26.162
250	18.668	18.623	36.574	192.3	0.628	26.322
300	18.319	18.266	36.568	188.2	0.716	26.407
400	17.615	17.547	36.479	187.3	0.884	26.518
500	16.251	16.170	36.224	175.0	1.046	26.651
600	14.212	14.122	35.877	162.4	1.192	26.839
700	11.713	11.621	35.505	140.2	1.320	27.054
800	9.443	9.350	35.227	139.1	1.429	27.239
900	7.793	7.699	35.111	153.7	1.520	27.406
1000	6.481	6.385	35.080	186.2	1.595	27.566
1100	5.592	5.494	35.064	212.5	1.656	27.667
1200	5.145	5.041	35.047	226.7	1.711	27.708
1300	4.720	4.611	35.023	238.2	1.762	27.738
1400	4.466	4.350	35.009	244.2	1.812	27.756
1500	4.258	4.135	34.997	247.8	1.860	27.769
1750	3.865	3.723	34.975	253.5	1.979	27.795
2000	3.546	3.385	34.961	255.3	2.094	27.818
2500	3.112	2.910	34.948	254.7	2.317	27.852
3000	2.643	2.400	34.918	260.2	2.532	27.873
3500	2.347	2.058	34.899	261.0	2.740	27.886
4000	2.252	1.911	34.888	258.3	2.951	27.889
4500	2.213	1.815	34.879	254.0	3.171	27.890

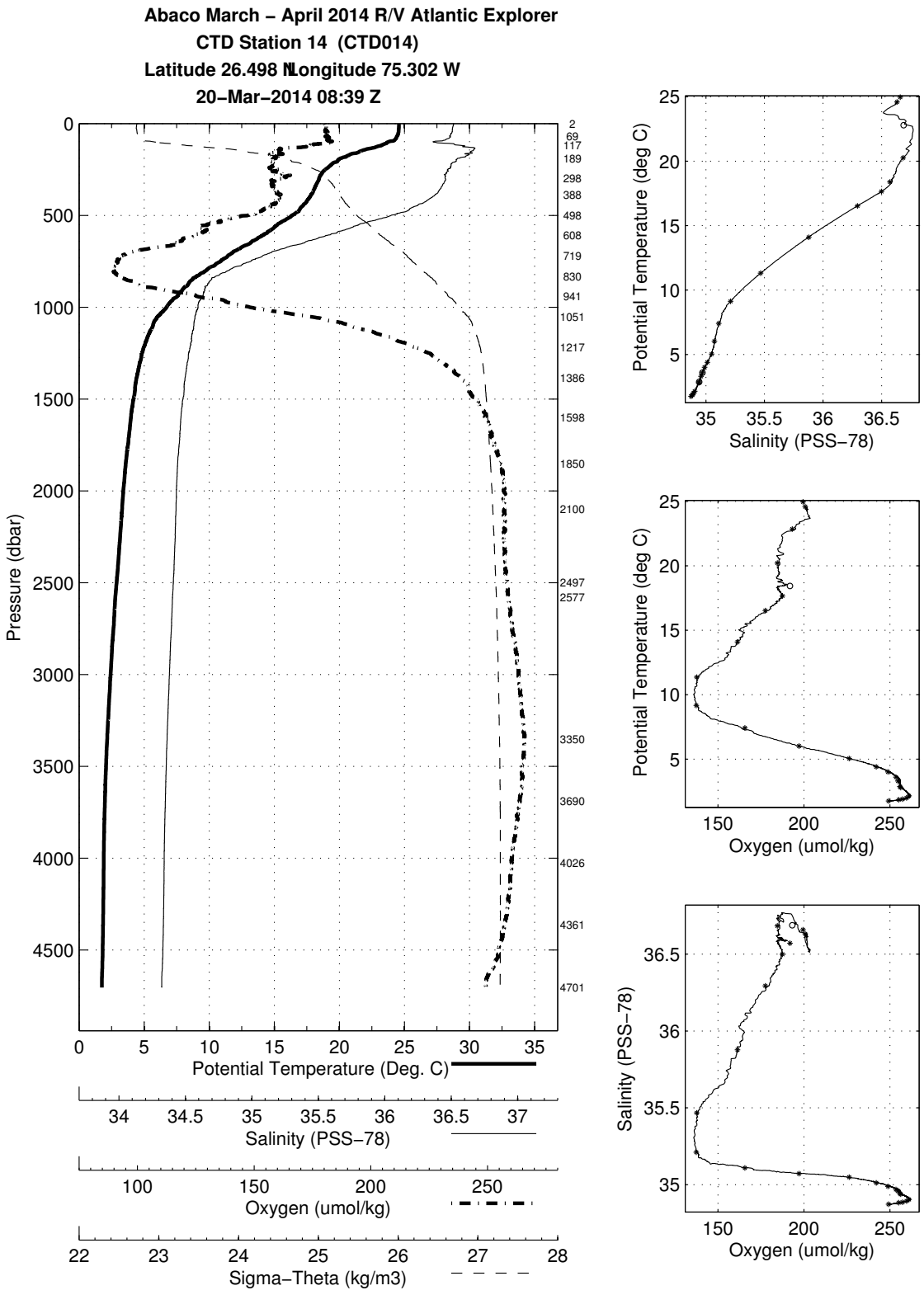
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4748	1	2.189	1.761	34.874	250.6
4451	2	2.224	1.831	34.882	254.5
4140	3	2.241	1.884	34.887	257.2
3851	4	2.261	1.937	34.891	259.2
3552	5	2.317	2.023	34.897	261.2
3099	6	2.547	2.296	34.913	261.0
2700	7	2.870	2.652	34.931	259.0
2351	8	3.231	3.041	34.952	254.8
2000	9	3.542	3.381	34.962	255.3
1704	10	3.947	3.808	34.980	253.8
1451	11	4.363	4.243	35.004	246.2
1208	12	5.079	6.939	−999.000	NaN
1035	13	6.067	5.971	35.076	198.2
976	14	6.655	6.561	35.086	182.6
803	15	9.368	9.276	35.228	142.9
704	16	11.419	11.328	35.468	138.0
596	17	14.247	14.158	35.888	162.3
485	18	16.568	16.488	36.289	178.0
374	19	17.798	17.733	36.511	188.4
265	20	18.561	18.514	36.576	192.3
175	21	20.057	20.025	36.653	187.1
86	22	22.813	22.796	36.614	203.0
34	23	24.198	24.191	36.633	202.7


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 13 (CTD013)
Latitude 26.501 N Longitude 75.499 W
20–Mar–2014 03:08 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 14 (CTD014)
Latitude 26.498N Longitude 75.302W
20-Mar-2014 08:39Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.580	24.580	36.641	200.8	0.003	24.710
10	24.580	24.578	36.638	201.1	0.032	24.708
20	24.580	24.576	36.635	201.3	0.065	24.706
30	24.569	24.562	36.632	201.6	0.097	24.709
50	24.549	24.538	36.629	201.8	0.162	24.714
75	24.418	24.402	36.619	201.1	0.243	24.747
100	23.779	23.758	36.515	203.2	0.323	24.861
125	22.919	22.893	36.695	195.0	0.396	25.250
150	21.673	21.643	36.747	186.3	0.460	25.646
200	19.924	19.887	36.654	184.7	0.569	26.054
250	18.961	18.916	36.603	186.5	0.665	26.269
300	18.495	18.442	36.589	187.3	0.755	26.379
400	17.795	17.726	36.509	187.6	0.926	26.497
500	16.437	16.355	36.258	177.3	1.089	26.634
600	14.359	14.269	35.900	163.1	1.238	26.825
700	11.930	11.837	35.537	141.2	1.369	27.038
800	9.852	9.756	35.274	136.6	1.481	27.208
900	8.102	8.006	35.131	149.9	1.575	27.376
1000	6.824	6.726	35.091	178.1	1.654	27.528
1100	5.790	5.690	35.067	208.4	1.718	27.645
1200	5.179	5.075	35.047	226.2	1.775	27.704
1300	4.792	4.682	35.027	236.6	1.827	27.734
1400	4.502	4.386	35.012	243.3	1.877	27.755
1500	4.316	4.192	35.001	246.9	1.926	27.766
1750	3.900	3.758	34.977	252.7	2.045	27.793
2000	3.563	3.402	34.961	255.5	2.161	27.816
2500	3.091	2.889	34.943	256.5	2.385	27.850
3000	2.666	2.423	34.919	260.2	2.600	27.872
3500	2.361	2.072	34.900	261.2	2.810	27.886
4000	2.239	1.898	34.887	258.0	3.021	27.890
4500	2.216	1.818	34.880	253.9	3.241	27.890

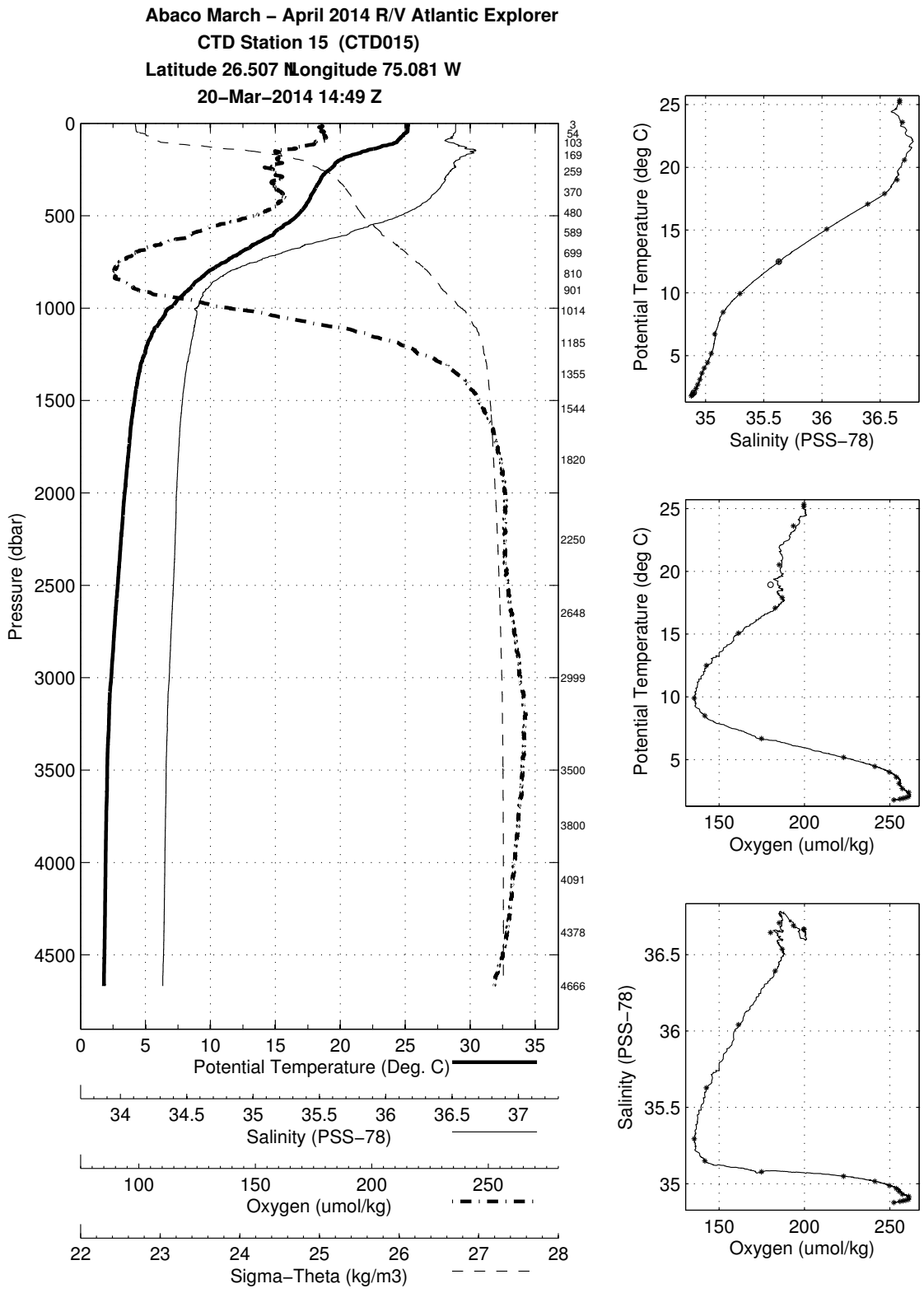
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4702	1	2.180	1.759	34.873	249.2
4362	2	2.229	1.847	34.883	255.2
4026	3	2.240	1.896	34.886	257.4
3690	4	2.295	1.987	34.893	259.7
3351	5	2.424	2.149	34.904	261.1
2578	6	2.999	2.791	34.938	256.3
2498	7	3.078	2.877	34.943	255.9
2100	8	3.478	3.309	34.959	254.7
1851	9	3.743	3.593	34.969	253.5
1599	10	4.135	4.004	34.989	248.9
1387	11	4.508	4.393	35.012	242.0
1218	12	5.141	5.035	35.049	226.3
1051	13	6.129	6.031	35.072	197.2
941	14	7.510	7.413	35.109	165.6
830	15	9.228	9.133	35.211	137.3
719	16	11.408	11.314	35.467	137.6
609	17	14.189	14.098	35.878	161.4
499	18	16.606	16.524	36.295	177.6
388	19	17.719	17.652	36.500	187.5
298	20	18.447	18.394	36.572	191.8
190	21	20.293	20.257	36.685	184.6
118	22	22.813	22.788	36.689	193.2
70	23	24.608	24.593	36.632	200.8
2	24	24.959	24.959	36.660	199.4


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 14 (CTD014)
Latitude 26.498 N Longitude 75.302 W
20–Mar–2014 08:39 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 15 (CTD015)
Latitude 26.507N Longitude 75.081W
20-Mar-2014 14:49Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.216	25.216	36.661	199.0	0.003	24.531
10	25.215	25.212	36.660	199.1	0.034	24.531
20	25.207	25.203	36.659	198.6	0.068	24.533
30	25.203	25.197	36.659	199.5	0.102	24.535
50	25.078	25.068	36.655	200.3	0.170	24.572
75	24.655	24.639	36.628	200.6	0.253	24.682
100	24.378	24.356	36.611	197.6	0.335	24.755
125	23.195	23.169	36.710	193.5	0.411	25.182
150	21.935	21.905	36.766	185.1	0.477	25.587
200	20.008	19.971	36.667	186.0	0.587	26.042
250	19.242	19.197	36.633	184.4	0.685	26.219
300	18.547	18.494	36.591	187.0	0.775	26.367
400	17.769	17.700	36.506	187.8	0.947	26.501
500	16.731	16.648	36.315	178.6	1.111	26.608
600	14.946	14.854	36.002	159.3	1.263	26.778
700	12.392	12.296	35.602	142.2	1.398	26.999
800	10.009	9.913	35.289	135.3	1.513	27.193
900	8.404	8.306	35.137	142.9	1.611	27.335
1000	6.922	6.823	35.076	171.4	1.693	27.503
1100	5.974	5.873	35.070	202.8	1.760	27.624
1200	5.241	5.136	35.047	224.0	1.818	27.697
1300	4.756	4.646	35.024	237.6	1.870	27.735
1400	4.491	4.375	35.010	243.7	1.920	27.754
1500	4.269	4.146	34.996	247.9	1.969	27.768
1750	3.870	3.728	34.974	253.5	2.088	27.794
2000	3.562	3.401	34.960	256.0	2.204	27.815
2500	3.060	2.859	34.942	256.3	2.426	27.851
3000	2.603	2.361	34.916	260.6	2.639	27.875
3500	2.340	2.052	34.898	261.1	2.846	27.885
4000	2.271	1.929	34.890	258.6	3.058	27.889
4500	2.238	1.839	34.882	255.2	3.279	27.890

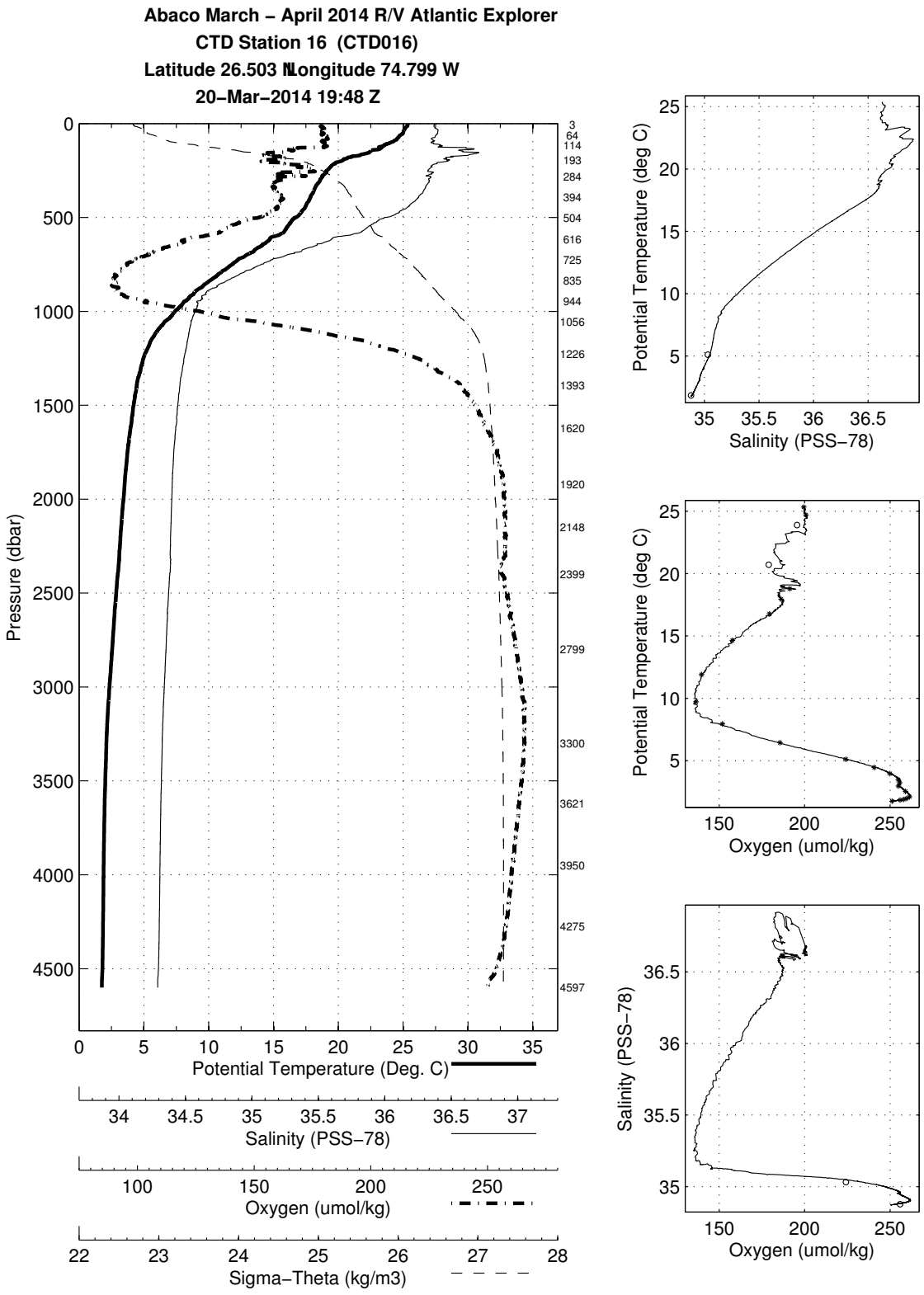
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4667	1	2.215	1.797	34.877	252.4
4379	2	2.247	1.862	34.884	256.0
4091	3	2.263	1.911	34.888	257.8
3801	4	2.289	1.970	34.893	259.4
3500	5	2.340	2.052	34.897	261.0
3000	6	2.631	2.388	34.917	261.1
2649	7	2.911	2.698	34.931	257.4
2251	8	3.279	3.099	34.951	255.5
1821	9	3.744	3.597	34.968	253.8
1545	10	4.129	4.003	34.988	249.8
1355	11	4.563	4.450	35.016	241.2
1185	12	5.275	5.172	35.049	223.0
1014	13	6.813	6.714	35.078	174.8
902	14	8.563	8.464	35.149	141.6
811	15	10.037	9.940	35.294	135.4
700	16	12.578	12.482	35.628	142.5
590	17	15.173	15.081	36.041	161.3
480	18	17.154	17.073	36.393	182.8
370	19	17.964	17.899	36.536	187.0
259	20	19.052	19.005	36.644	180.1
170	21	20.617	20.585	36.708	185.2
104	22	23.611	23.590	36.691	193.5
55	23	25.200	25.188	36.666	199.6
4	24	25.340	25.340	36.667	199.6


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 15 (CTD015)
Latitude 26.507 N Longitude 75.081 W
20–Mar–2014 14:49 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 16 (CTD016)
Latitude 26.503N Longitude 74.799W
20-Mar-2014 19:48Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.371	25.371	36.634	199.5	0.003	24.463
10	25.345	25.343	36.631	198.6	0.035	24.469
20	25.215	25.211	36.634	199.9	0.069	24.512
30	25.124	25.118	36.651	200.3	0.103	24.553
50	25.009	24.998	36.654	200.1	0.170	24.592
75	24.630	24.614	36.627	201.0	0.253	24.689
100	24.068	24.047	36.614	199.9	0.334	24.850
125	23.145	23.119	36.655	200.6	0.409	25.154
150	22.450	22.419	36.811	188.6	0.476	25.476
200	20.241	20.203	36.713	181.8	0.589	26.015
250	19.165	19.119	36.591	197.5	0.688	26.207
300	18.658	18.604	36.598	187.4	0.779	26.344
400	17.865	17.796	36.521	187.8	0.952	26.489
500	16.755	16.672	36.315	180.4	1.117	26.602
600	15.211	15.117	36.041	163.3	1.273	26.749
700	13.006	12.907	35.692	146.5	1.412	26.948
800	10.888	10.787	35.395	136.4	1.534	27.122
900	8.994	8.892	35.178	136.4	1.639	27.275
1000	7.509	7.406	35.109	162.1	1.729	27.447
1100	6.178	6.075	35.073	195.6	1.801	27.601
1200	5.365	5.259	35.052	220.0	1.861	27.686
1300	4.879	4.768	35.030	234.2	1.915	27.726
1400	4.563	4.446	35.013	242.4	1.965	27.749
1500	4.342	4.217	35.001	246.6	2.015	27.764
1750	3.874	3.733	34.974	253.4	2.134	27.794
2000	3.599	3.437	34.963	255.5	2.250	27.814
2500	3.071	2.870	34.942	256.4	2.474	27.851
3000	2.590	2.348	34.915	261.0	2.687	27.875
3500	2.314	2.027	34.897	261.1	2.893	27.887
4000	2.230	1.889	34.887	257.8	3.102	27.890
4500	2.201	1.803	34.878	253.1	3.321	27.889

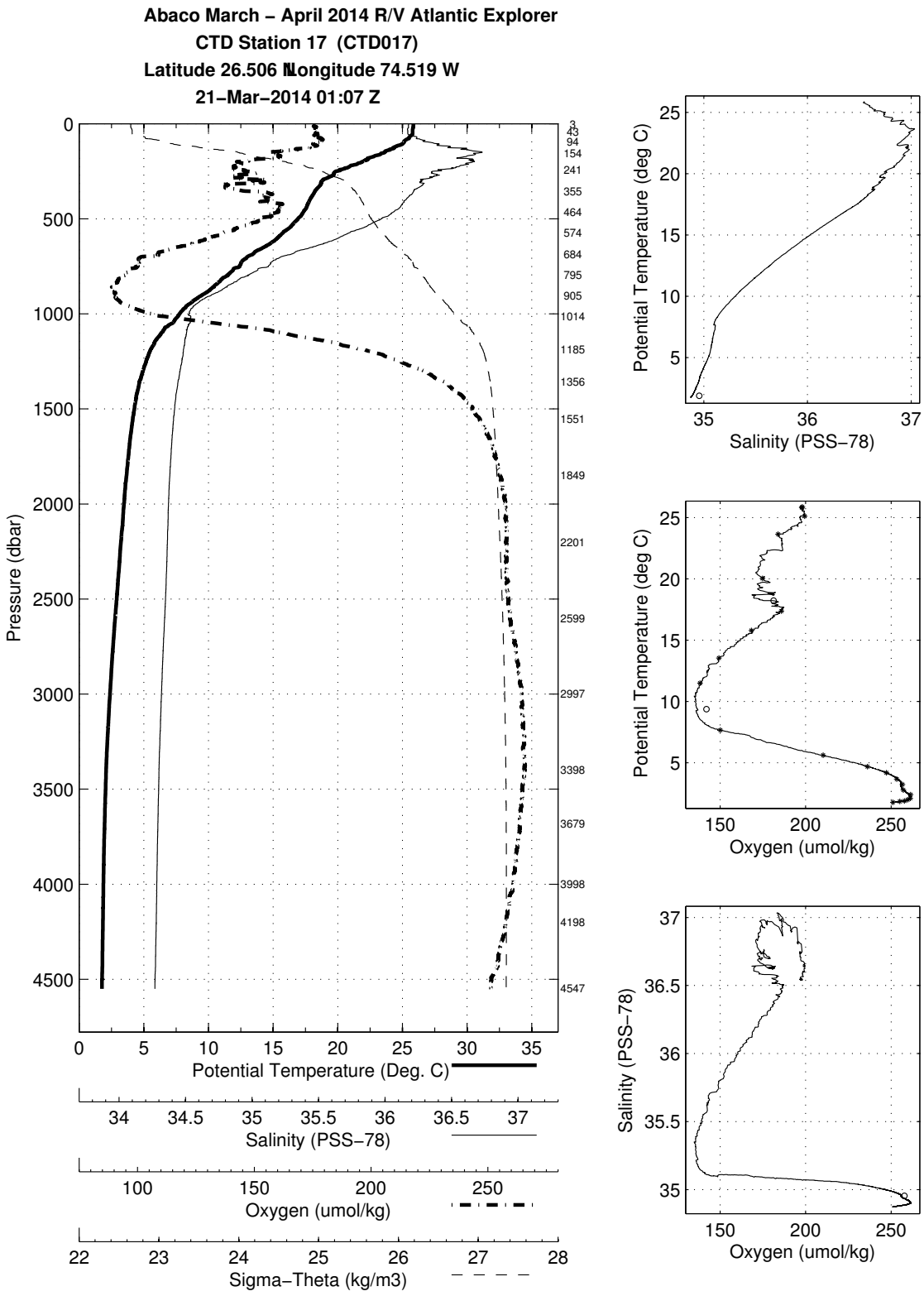
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4598	1	2.174	8.486	−999.000	NaN
4276	2	2.221	1.849	34.877	255.9
3950	3	2.233	7.858	−999.000	NaN
3621	4	2.272	7.523	−999.000	NaN
3301	5	2.379	7.242	−999.000	NaN
2800	6	2.763	6.964	−999.000	NaN
2400	7	3.167	6.812	−999.000	NaN
2148	8	3.405	6.694	−999.000	NaN
1920	9	3.644	6.603	−999.000	NaN
1620	10	4.091	6.599	−999.000	NaN
1394	11	4.583	6.737	−999.000	NaN
1226	12	5.221	5.114	35.032	224.2
1056	13	6.534	8.100	−999.000	NaN
944	14	8.044	9.385	−999.000	NaN
836	15	9.857	10.977	−999.000	NaN
725	16	12.043	12.945	−999.000	NaN
617	17	14.717	15.408	−999.000	NaN
504	18	16.839	17.355	−999.000	NaN
394	19	18.022	18.405	−999.000	NaN
284	20	18.776	19.043	−999.000	NaN
193	21	21.104	21.265	−999.000	NaN
114	22	24.479	24.555	−999.000	NaN
64	23	24.779	24.821	−999.000	NaN
3	24	25.326	25.328	−999.000	NaN


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 16 (CTD016)
Latitude 26.503 N Longitude 74.799 W
20–Mar–2014 19:48 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 17 (CTD017)
Latitude 26.506N Longitude 74.519W
21-Mar-2014 01:07Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.845	25.844	36.548	196.7	0.004	24.250
10	25.849	25.847	36.546	197.0	0.037	24.248
20	25.847	25.842	36.547	197.1	0.073	24.250
30	25.801	25.795	36.540	197.7	0.110	24.260
50	25.802	25.791	36.541	197.3	0.183	24.262
75	25.541	25.525	36.600	199.0	0.274	24.390
100	25.132	25.110	36.705	197.3	0.360	24.597
125	24.349	24.323	36.805	195.5	0.441	24.912
150	23.673	23.642	37.031	183.2	0.514	25.287
200	21.927	21.887	36.971	173.2	0.641	25.749
250	19.909	19.862	36.707	175.8	0.749	26.101
300	18.832	18.778	36.625	178.9	0.844	26.321
400	17.924	17.854	36.527	183.4	1.019	26.478
500	17.010	16.926	36.366	181.8	1.185	26.581
600	15.442	15.347	36.084	165.6	1.342	26.730
700	13.111	13.012	35.704	143.8	1.484	26.936
800	11.520	11.416	35.480	138.7	1.609	27.073
900	9.623	9.517	35.245	136.1	1.721	27.225
1000	7.859	7.754	35.098	147.2	1.816	27.388
1100	6.454	6.349	35.080	187.4	1.893	27.571
1200	5.577	5.469	35.061	214.5	1.956	27.667
1300	5.058	4.945	35.039	230.6	2.012	27.713
1400	4.650	4.532	35.018	240.0	2.064	27.743
1500	4.404	4.279	35.004	245.2	2.114	27.759
1750	3.953	3.810	34.979	252.2	2.235	27.789
2000	3.630	3.468	34.963	255.3	2.352	27.811
2500	3.114	2.912	34.944	256.5	2.579	27.848
3000	2.633	2.390	34.917	260.4	2.794	27.873
3500	2.338	2.049	34.899	260.8	3.001	27.887
4000	2.221	1.881	34.886	258.0	3.210	27.890
4500	2.172	1.775	34.875	251.2	3.429	27.889

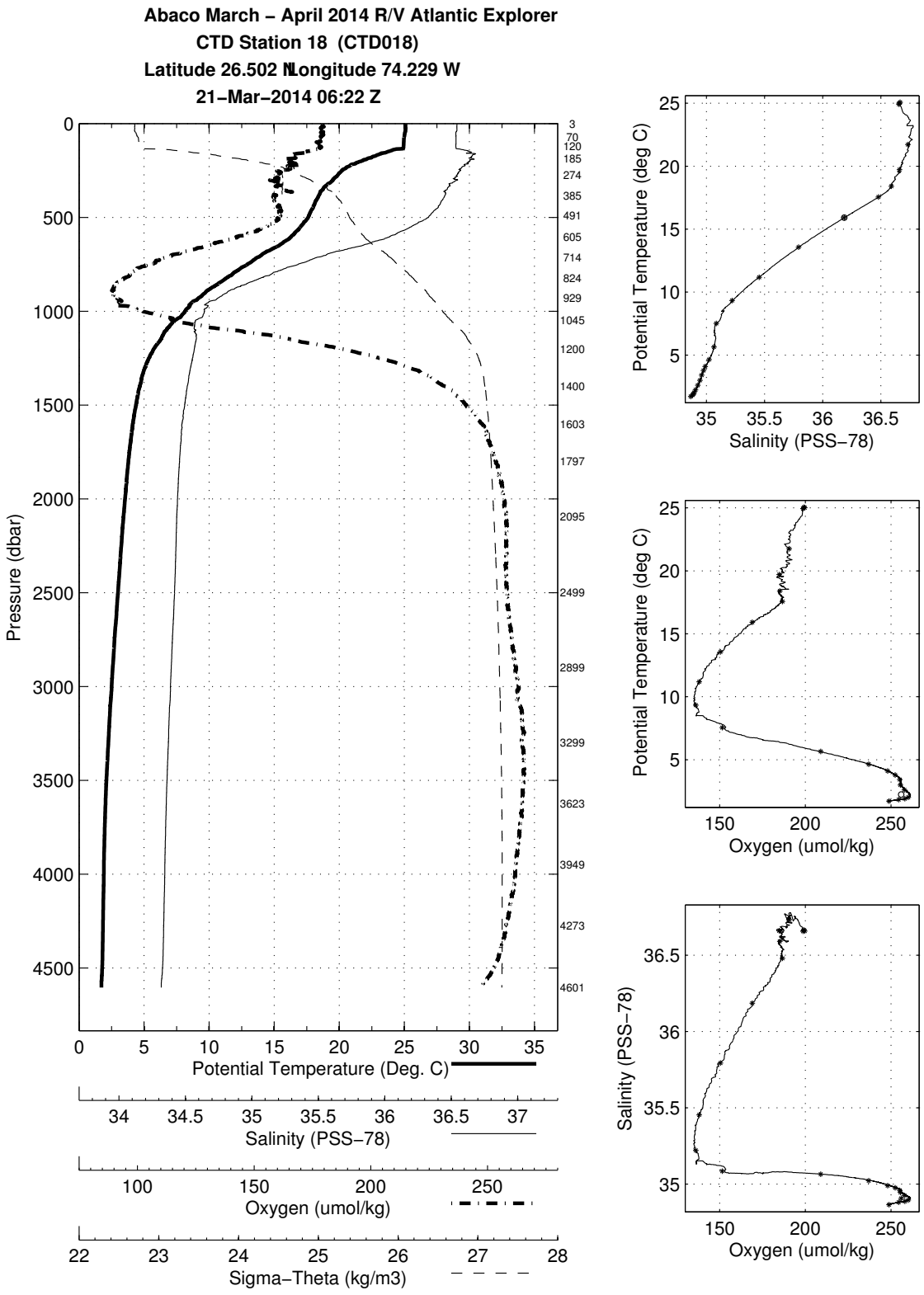
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4548	1	2.174	8.437	−999.000	NaN
4199	2	2.206	8.102	−999.000	NaN
3999	3	2.224	1.883	34.955	257.8
3679	4	2.284	7.599	−999.000	NaN
3399	5	2.377	7.355	−999.000	NaN
2998	6	2.641	7.103	−999.000	NaN
2599	7	2.986	6.908	−999.000	NaN
2201	8	3.395	6.755	−999.000	NaN
1850	9	3.809	6.657	−999.000	NaN
1551	10	4.299	6.695	−999.000	NaN
1356	11	4.796	6.883	−999.000	NaN
1185	12	5.698	7.490	−999.000	NaN
1015	13	7.756	9.205	−999.000	NaN
906	14	9.480	10.706	−999.000	NaN
795	15	11.537	12.541	−999.000	NaN
684	16	13.608	14.408	−999.000	NaN
574	17	15.925	16.536	−999.000	NaN
465	18	17.436	17.899	−999.000	NaN
356	19	18.295	18.636	−999.000	NaN
241	20	20.119	20.331	−999.000	NaN
155	21	23.666	23.775	−999.000	NaN
94	22	25.153	25.213	−999.000	NaN
44	23	25.820	25.847	−999.000	NaN
3	24	25.864	25.866	−999.000	NaN


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 17 (CTD017)
Latitude 26.506 N Longitude 74.519 W
21–Mar–2014 01:07 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 18 (CTD018)
Latitude 26.502N Longitude 74.229W
21-Mar-2014 06:22Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.093	25.092	36.667	199.4	0.003	24.573
10	25.091	25.089	36.665	199.3	0.034	24.573
20	25.097	25.092	36.666	199.2	0.067	24.572
30	25.099	25.092	36.665	199.4	0.101	24.572
50	25.047	25.036	36.659	199.4	0.168	24.585
75	24.988	24.972	36.660	199.3	0.252	24.605
100	24.977	24.956	36.660	198.0	0.336	24.610
125	24.965	24.938	36.659	198.7	0.421	24.615
150	23.738	23.707	36.745	194.4	0.500	25.051
200	21.746	21.706	36.742	189.8	0.634	25.625
250	20.261	20.214	36.685	186.0	0.746	25.991
300	19.595	19.540	36.669	183.9	0.848	26.157
400	18.375	18.304	36.581	184.7	1.033	26.407
500	17.695	17.609	36.489	186.0	1.206	26.510
600	16.436	16.337	36.260	173.8	1.371	26.639
700	14.134	14.030	35.868	153.2	1.523	26.852
800	11.927	11.819	35.538	140.4	1.654	27.041
900	9.818	9.710	35.266	135.2	1.768	27.209
1000	8.265	8.157	35.129	144.3	1.866	27.352
1100	6.838	6.729	35.075	171.2	1.950	27.516
1200	5.862	5.751	35.067	205.1	2.017	27.638
1300	5.183	5.069	35.045	225.3	2.075	27.703
1400	4.797	4.677	35.025	236.9	2.129	27.732
1500	4.497	4.371	35.009	243.3	2.180	27.754
1750	4.010	3.866	34.982	251.6	2.303	27.786
2000	3.701	3.538	34.966	255.0	2.422	27.806
2500	3.200	2.997	34.948	256.0	2.652	27.844
3000	2.745	2.500	34.923	259.5	2.873	27.868
3500	2.395	2.106	34.902	260.9	3.086	27.885
4000	2.246	1.905	34.889	258.4	3.297	27.890
4500	2.175	1.778	34.875	251.9	3.516	27.889

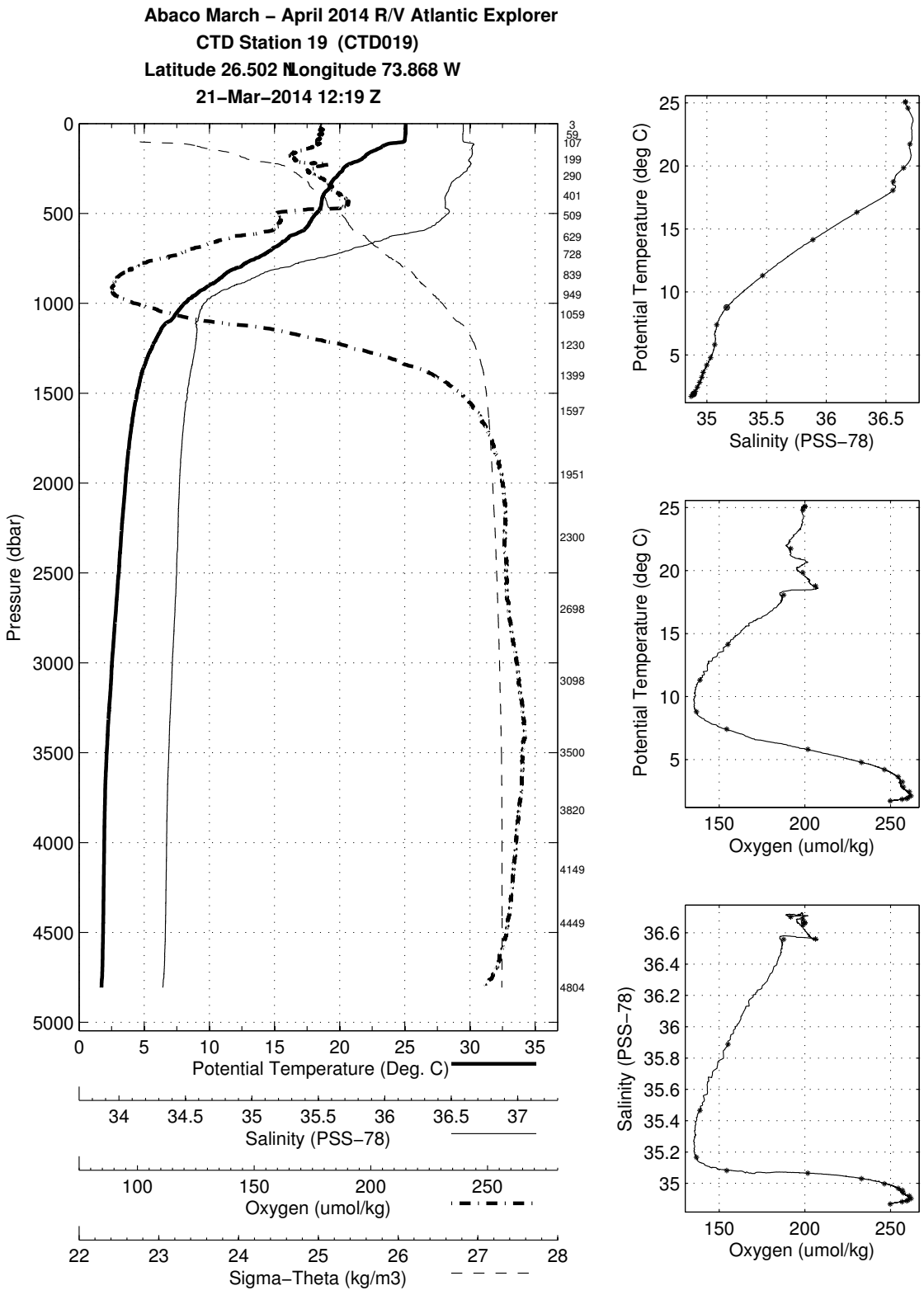
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4602	1	2.125	1.717	34.865	248.9
4274	2	2.208	1.837	34.881	254.5
3949	3	2.243	1.907	34.888	258.1
3624	4	2.322	2.020	34.895	260.1
3300	5	2.503	2.232	34.907	256.0
2900	6	2.838	2.601	34.926	257.9
2499	7	3.194	2.991	34.945	255.5
2096	8	3.584	3.414	34.959	255.1
1798	9	3.927	3.780	34.976	252.4
1604	10	4.227	4.095	34.990	248.0
1401	11	4.763	4.643	35.023	237.0
1200	12	5.758	5.648	35.065	209.0
1046	13	7.628	7.519	35.085	151.5
929	14	9.444	9.335	35.221	136.1
825	15	11.286	11.179	35.454	138.0
714	16	13.675	13.571	35.793	150.4
605	17	16.010	15.912	36.186	169.1
492	18	17.645	17.560	36.480	186.6
386	19	18.472	18.404	36.591	185.1
275	20	19.777	19.726	36.660	184.7
186	21	21.756	21.720	36.734	190.6
121	22	24.951	24.925	36.657	198.7
70	23	25.026	25.011	36.658	199.7
3	24	25.076	25.075	36.666	199.1


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 18 (CTD018)
Latitude 26.502 N Longitude 74.229 W
21–Mar–2014 06:22 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 19 (CTD019)
Latitude 26.502N Longitude 73.868W
21-Mar-2014 12:19Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.066	25.066	36.664	198.9	0.003	24.579
10	25.065	25.063	36.663	199.2	0.034	24.579
20	25.069	25.065	36.663	199.2	0.067	24.579
30	25.068	25.062	36.663	199.2	0.101	24.580
50	25.070	25.060	36.662	199.6	0.168	24.580
75	25.038	25.021	36.659	199.1	0.252	24.590
100	24.960	24.938	36.664	198.9	0.337	24.618
125	23.349	23.323	36.717	197.0	0.413	25.142
150	22.654	22.624	36.715	192.9	0.482	25.344
200	21.678	21.638	36.695	191.1	0.610	25.608
250	20.316	20.268	36.686	197.0	0.722	25.977
300	19.762	19.706	36.631	198.9	0.826	26.085
400	18.806	18.734	36.556	205.1	1.023	26.279
500	18.313	18.225	36.573	185.4	1.209	26.421
600	17.144	17.043	36.387	182.7	1.382	26.569
700	14.909	14.801	35.995	159.3	1.539	26.783
800	12.347	12.238	35.592	143.1	1.677	27.003
900	10.103	9.994	35.295	135.6	1.793	27.184
1000	8.203	8.095	35.114	142.0	1.893	27.349
1100	7.038	6.928	35.068	164.8	1.978	27.482
1200	6.005	5.893	35.066	197.4	2.047	27.619
1300	5.368	5.253	35.050	219.4	2.108	27.685
1400	4.901	4.780	35.030	233.6	2.163	27.725
1500	4.589	4.462	35.014	241.4	2.215	27.748
1750	4.050	3.906	34.984	251.2	2.339	27.784
2000	3.726	3.563	34.967	254.8	2.459	27.805
2500	3.252	3.047	34.951	255.6	2.691	27.841
3000	2.769	2.524	34.924	259.2	2.914	27.867
3500	2.411	2.121	34.903	261.1	3.129	27.884
4000	2.276	1.934	34.890	258.9	3.342	27.889
4500	2.245	1.846	34.883	256.0	3.563	27.890

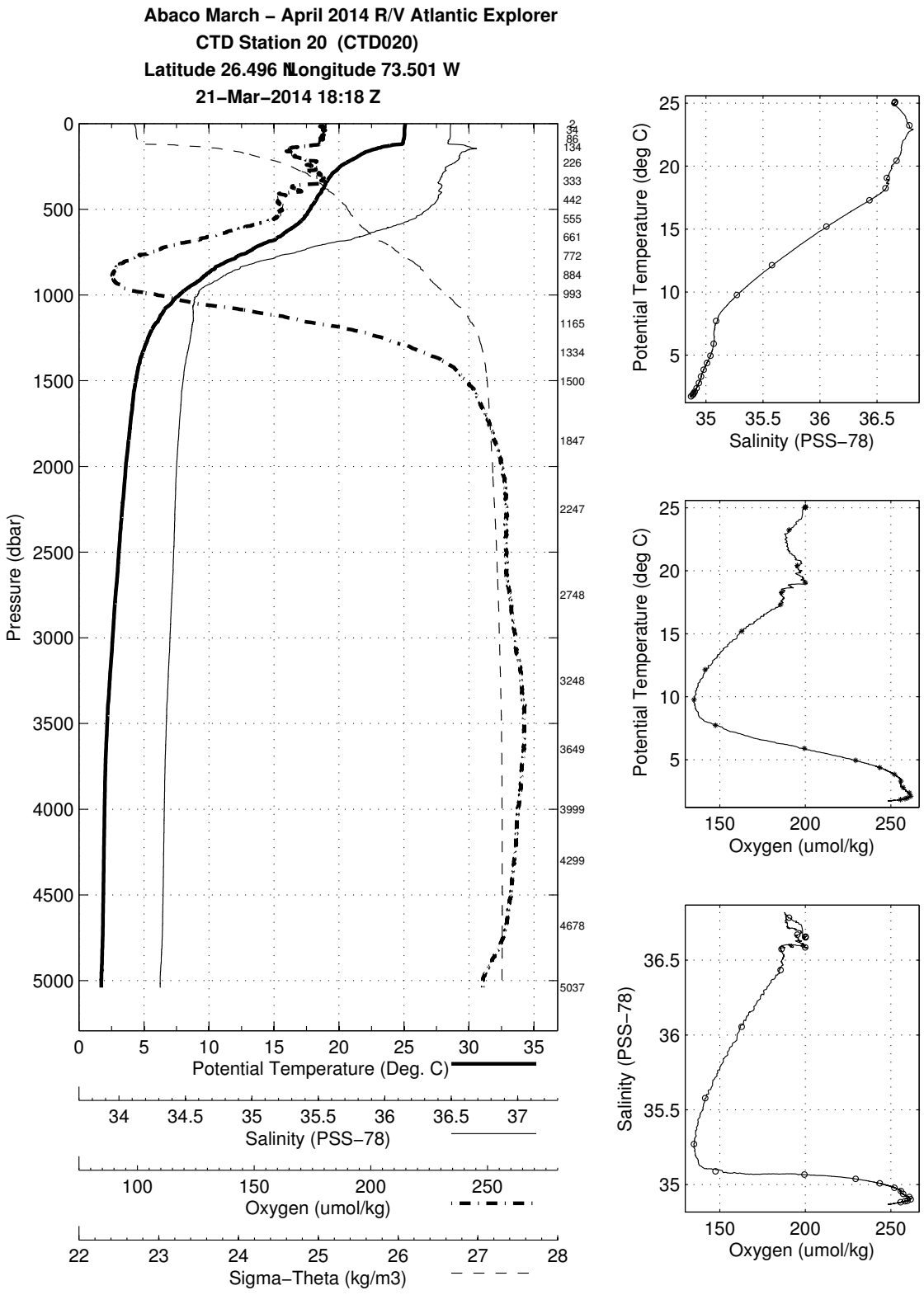
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4805	1	2.150	1.716	34.868	249.9
4449	2	2.244	1.851	34.883	256.7
4149	3	2.265	1.906	34.889	259.4
3821	4	2.299	1.976	34.893	260.2
3500	5	2.415	2.125	34.903	261.9
3099	6	2.710	2.455	34.920	260.9
2698	7	3.053	2.832	34.940	257.5
2301	8	3.417	3.229	34.957	256.9
1951	9	3.790	3.631	34.968	254.5
1597	10	4.336	4.203	34.998	246.4
1400	11	4.904	4.783	35.030	233.1
1231	12	5.930	5.816	35.065	201.7
1059	13	7.504	7.394	35.082	154.4
950	14	8.883	8.775	35.166	136.7
840	15	11.407	11.297	35.466	138.7
729	16	14.255	14.145	35.888	155.1
630	17	16.425	16.322	36.256	NaN
509	18	18.150	18.060	36.557	187.5
402	19	18.830	18.758	36.561	206.2
291	20	19.894	19.840	36.648	198.8
200	21	21.765	21.725	36.701	191.7
107	22	24.603	24.580	36.684	198.8
59	23	25.065	25.052	36.662	199.9
4	24	25.094	25.093	36.664	200.1


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 19 (CTD019)
Latitude 26.502 N Longitude 73.868 W
21–Mar–2014 12:19 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 20 (CTD020)
Latitude 26.496N Longitude 73.501W
21-Mar-2014 18:18Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.093	25.093	36.660	200.6	0.003	24.568
10	25.076	25.074	36.658	199.8	0.034	24.572
20	25.060	25.055	36.657	199.8	0.067	24.577
30	25.050	25.044	36.656	199.5	0.101	24.580
50	25.047	25.036	36.656	199.2	0.168	24.582
75	25.038	25.022	36.656	199.2	0.252	24.587
100	24.961	24.939	36.642	199.3	0.337	24.601
125	24.102	24.075	36.739	196.6	0.420	24.936
150	22.678	22.648	36.770	188.8	0.491	25.379
200	21.313	21.274	36.713	192.2	0.615	25.723
250	20.152	20.105	36.636	196.0	0.726	25.982
300	19.477	19.422	36.605	198.8	0.828	26.139
400	18.720	18.649	36.603	190.2	1.018	26.337
500	17.857	17.770	36.517	186.7	1.195	26.492
600	16.661	16.561	36.299	176.1	1.363	26.616
700	14.294	14.189	35.894	155.3	1.517	26.838
800	11.603	11.498	35.493	139.9	1.648	27.068
900	9.577	9.471	35.239	135.2	1.759	27.228
1000	7.844	7.739	35.099	148.6	1.854	27.391
1100	6.570	6.464	35.071	178.8	1.932	27.548
1200	5.718	5.608	35.061	207.6	1.998	27.650
1300	5.184	5.069	35.043	226.0	2.055	27.701
1400	4.764	4.645	35.023	237.2	2.109	27.734
1500	4.487	4.361	35.008	243.5	2.160	27.754
1750	4.098	3.953	34.985	250.6	2.284	27.780
2000	3.757	3.593	34.968	254.5	2.405	27.802
2500	3.268	3.064	34.950	256.0	2.640	27.839
3000	2.829	2.582	34.927	258.7	2.866	27.865
3500	2.457	2.166	34.906	261.2	3.083	27.883
4000	2.305	1.962	34.893	259.4	3.298	27.889
4500	2.270	1.870	34.885	257.2	3.521	27.890
5000	2.176	1.717	34.867	248.6	3.753	27.887

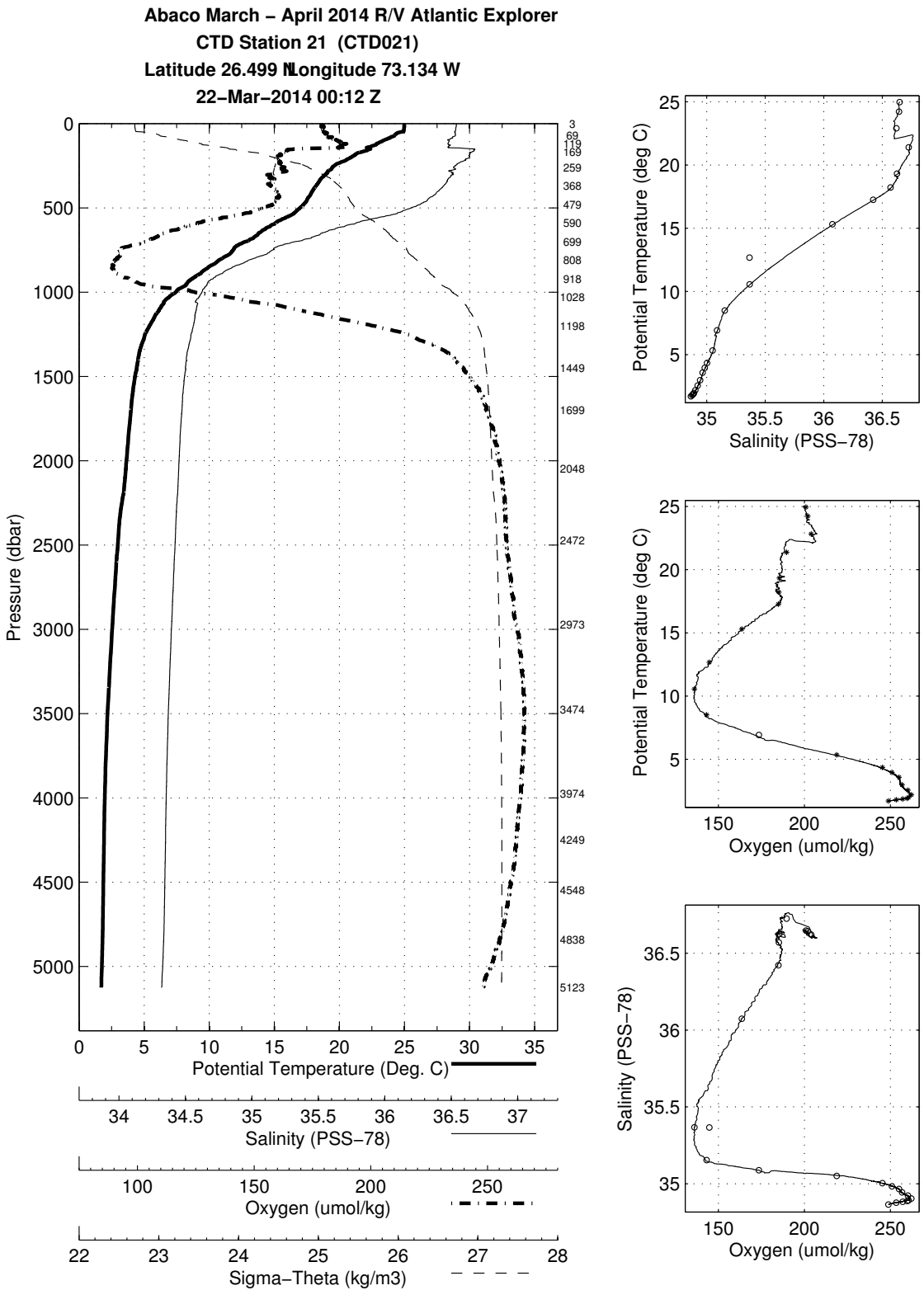
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
5037	1	2.178	1.715	34.868	NaN
4678	2	2.257	1.836	34.882	255.7
4299	3	2.283	1.906	34.889	258.3
3999	4	2.309	1.966	34.892	259.8
3649	5	2.399	2.093	34.902	261.6
3248	6	2.640	2.372	34.917	260.8
2749	7	3.012	2.787	34.938	257.2
2247	8	3.474	3.291	34.957	255.8
1847	9	3.982	3.829	34.979	252.1
1500	10	4.502	4.376	35.009	243.6
1334	11	5.057	4.941	35.038	229.4
1166	12	6.007	5.898	35.068	199.5
993	13	7.812	7.708	35.089	147.5
884	14	9.872	9.766	35.271	134.9
773	15	12.245	12.140	35.578	141.4
661	16	15.312	15.208	36.056	162.8
556	17	17.383	17.288	36.434	185.5
443	18	18.329	18.251	36.575	186.0
333	19	19.126	19.066	36.586	199.9
226	20	20.481	20.438	36.671	195.3
134	21	23.265	23.237	36.784	190.5
86	22	25.027	25.008	36.652	200.1
34	23	25.052	25.045	36.656	200.1
2	24	25.115	25.115	36.658	200.1


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 20 (CTD020)
Latitude 26.496 N Longitude 73.501 W
21–Mar–2014 18:18 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 21 (CTD021)
Latitude 26.499N Longitude 73.134W
22-Mar-2014 00:12Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.987	24.987	36.652	199.5	0.003	24.594
10	24.985	24.983	36.650	200.1	0.033	24.594
20	24.990	24.985	36.650	200.1	0.067	24.593
30	24.976	24.969	36.647	200.0	0.100	24.596
50	24.742	24.731	36.640	200.2	0.167	24.663
75	24.162	24.146	36.638	201.7	0.247	24.838
100	23.417	23.396	36.605	204.2	0.323	25.036
125	22.855	22.830	36.601	206.1	0.395	25.198
150	22.409	22.378	36.748	192.9	0.462	25.439
200	20.926	20.887	36.728	186.0	0.581	25.841
250	19.649	19.603	36.641	185.6	0.686	26.119
300	19.023	18.969	36.627	185.0	0.782	26.274
400	17.994	17.924	36.539	186.4	0.958	26.471
500	17.053	16.969	36.374	181.4	1.126	26.577
600	14.918	14.826	35.997	160.2	1.281	26.780
700	12.890	12.792	35.674	146.1	1.418	26.957
800	11.094	10.991	35.422	137.4	1.540	27.106
900	9.181	9.078	35.204	138.2	1.647	27.265
1000	7.550	7.446	35.109	161.0	1.737	27.441
1100	6.274	6.170	35.075	191.3	1.810	27.590
1200	5.510	5.402	35.056	215.6	1.872	27.672
1300	4.979	4.867	35.034	232.0	1.927	27.718
1400	4.647	4.529	35.014	240.5	1.978	27.740
1500	4.425	4.300	35.004	244.7	2.029	27.757
1750	4.072	3.928	34.984	250.9	2.152	27.781
2000	3.808	3.643	34.971	253.7	2.273	27.800
2500	3.177	2.974	34.947	256.2	2.506	27.845
3000	2.792	2.546	34.925	259.3	2.727	27.866
3500	2.479	2.187	34.906	261.5	2.945	27.882
4000	2.321	1.978	34.894	260.3	3.161	27.888
4500	2.268	1.868	34.885	257.2	3.385	27.890
5000	2.214	1.754	34.872	251.3	3.618	27.889

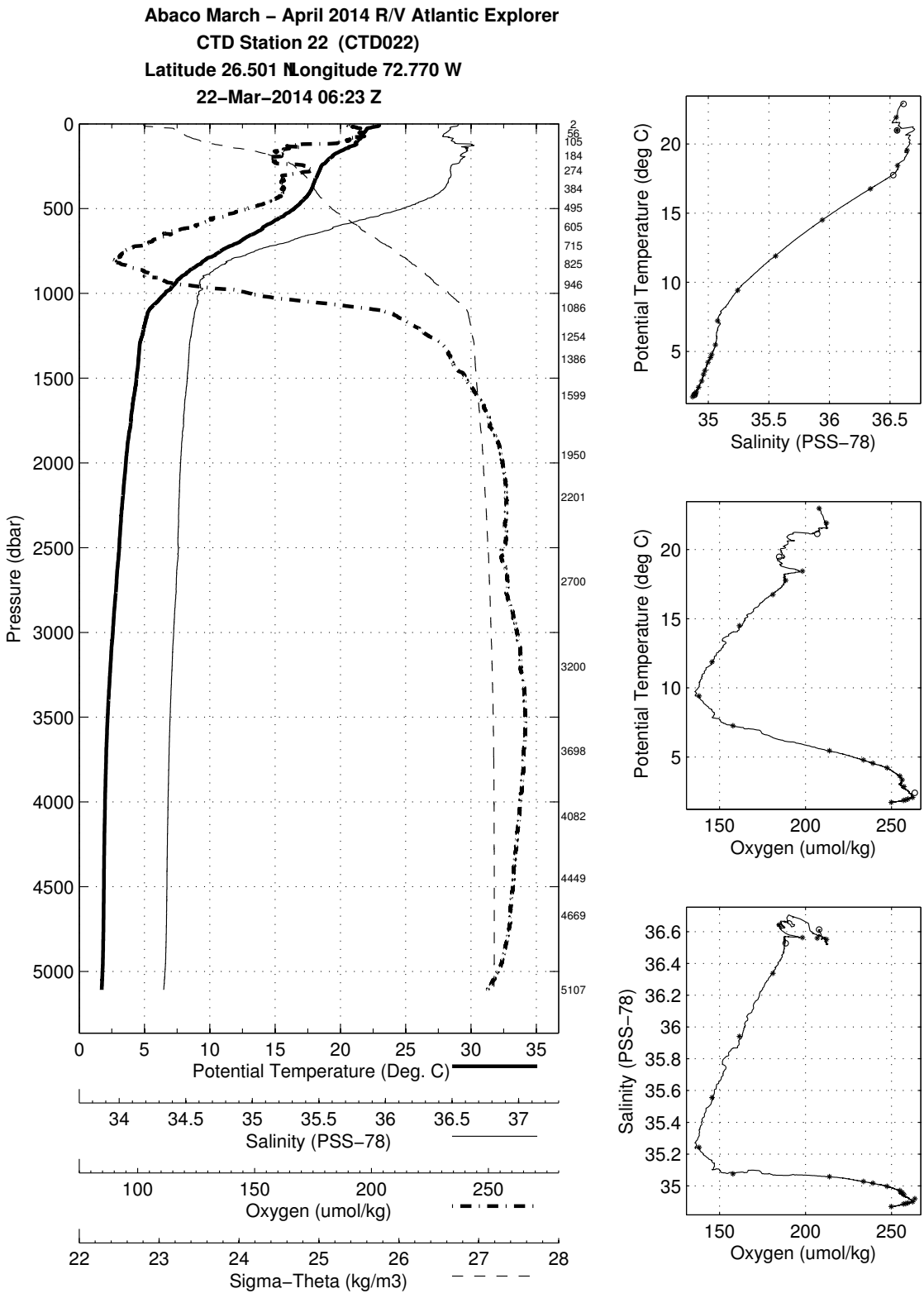
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
5123	1	2.180	1.706	34.865	248.8
4839	2	2.244	1.804	34.876	253.4
4548	3	2.266	1.860	34.882	257.1
4249	4	2.292	1.921	34.888	259.7
3974	5	2.323	1.982	34.892	260.5
3474	6	2.483	2.193	34.904	262.1
2973	7	2.800	2.556	34.923	260.2
2472	8	3.182	2.981	34.944	256.8
2049	9	3.748	3.579	34.965	255.0
1700	10	4.105	3.965	34.983	250.9
1450	11	4.472	4.351	35.003	245.3
1198	12	5.446	5.339	35.051	218.7
1028	13	7.029	6.926	35.088	173.5
919	14	8.601	8.499	35.154	143.1
809	15	10.668	10.567	35.367	136.0
699	16	12.781	12.684	35.366	144.7
591	17	15.411	15.318	36.074	163.6
479	18	17.333	17.252	36.422	184.9
368	19	18.289	18.224	36.571	185.2
260	20	19.373	19.326	36.626	185.4
170	21	21.443	21.409	36.726	189.6
120	22	22.937	22.913	36.621	203.9
70	23	24.241	24.226	36.643	202.0
3	24	24.976	24.975	36.648	200.9


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 21 (CTD021)
Latitude 26.499 N Longitude 73.134 W
22–Mar–2014 00:12 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 22 (CTD022)
Latitude 26.501N Longitude 72.770W
22-Mar-2014 06:23Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	22.972	22.972	36.613	208.2	0.003	25.165
10	22.962	22.960	36.608	207.9	0.028	25.166
20	22.418	22.414	36.564	210.1	0.055	25.289
30	22.032	22.026	36.565	211.0	0.082	25.400
50	21.858	21.848	36.542	211.9	0.133	25.433
75	21.532	21.517	36.518	212.3	0.196	25.507
100	21.335	21.316	36.570	208.0	0.257	25.602
125	21.142	21.118	36.695	192.1	0.316	25.753
150	20.348	20.320	36.663	188.0	0.371	25.946
200	19.270	19.233	36.636	183.8	0.470	26.212
250	18.578	18.533	36.566	195.0	0.561	26.338
300	18.317	18.264	36.567	190.1	0.648	26.406
400	17.752	17.683	36.505	187.6	0.818	26.504
500	16.526	16.444	36.276	176.7	0.981	26.626
600	14.383	14.293	35.905	161.3	1.131	26.825
700	12.299	12.204	35.592	147.1	1.263	27.009
800	9.793	9.698	35.267	136.1	1.376	27.212
900	7.933	7.839	35.102	145.9	1.470	27.378
1000	6.685	6.588	35.074	177.8	1.549	27.534
1100	5.441	5.344	35.053	217.7	1.611	27.677
1200	5.061	4.957	35.035	228.6	1.665	27.708
1300	4.748	4.638	35.020	236.9	1.717	27.733
1400	4.650	4.532	35.015	239.3	1.768	27.740
1500	4.511	4.385	35.007	243.5	1.819	27.750
1750	4.099	3.954	34.986	250.6	1.944	27.780
2000	3.739	3.575	34.968	254.7	2.065	27.804
2500	3.267	3.062	34.954	255.0	2.298	27.842
3000	2.823	2.576	34.927	259.2	2.522	27.865
3500	2.469	2.178	34.906	261.7	2.740	27.882
4000	2.322	1.978	34.893	260.2	2.956	27.888
4500	2.291	1.890	34.887	258.1	3.180	27.890
5000	2.244	1.783	34.876	253.5	3.415	27.889

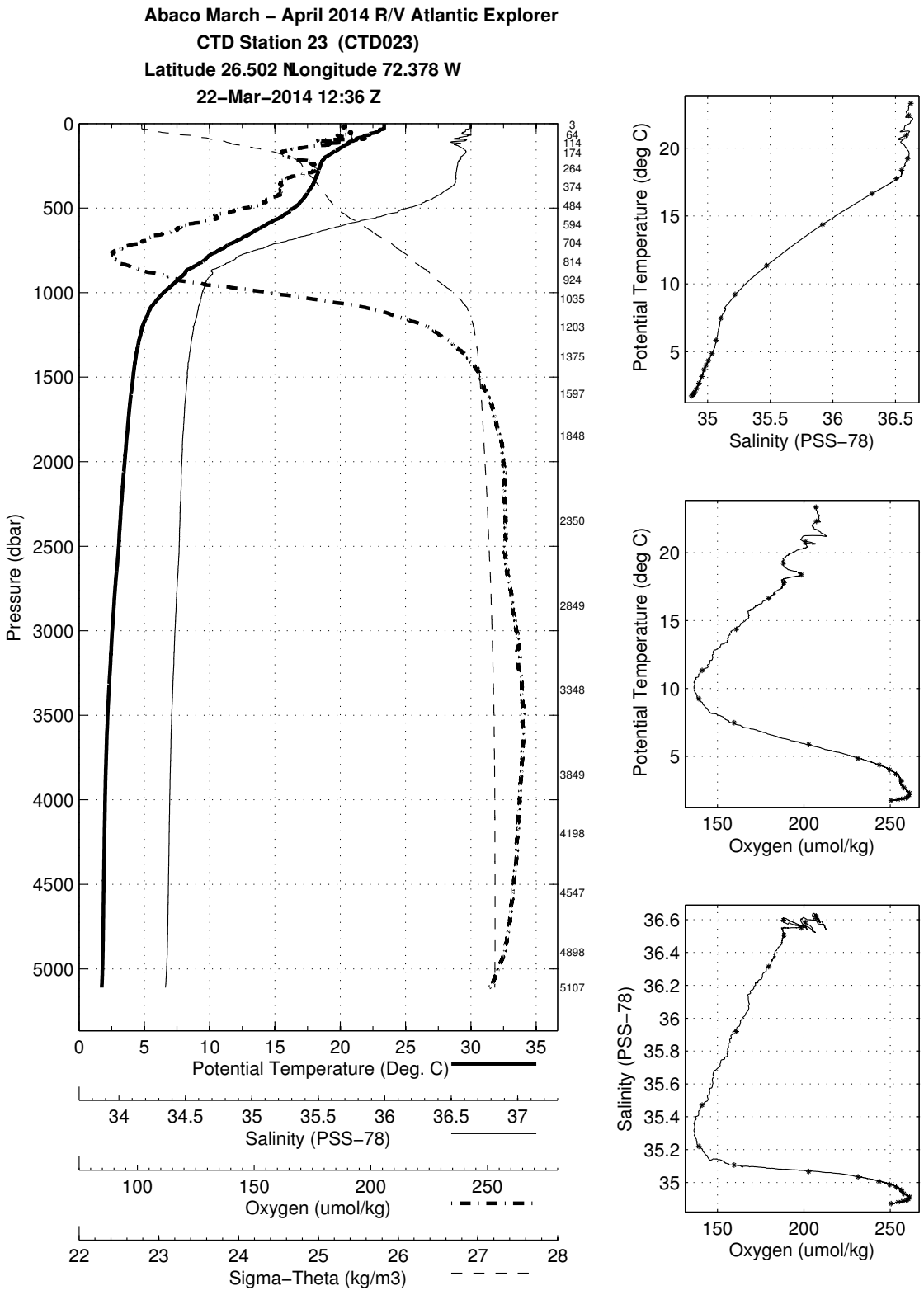
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
5107	1	2.195	1.723	34.870	249.8
4670	2	2.287	1.865	34.886	257.0
4449	3	2.289	1.894	34.888	258.2
4082	4	2.316	1.963	34.893	259.5
3699	5	2.389	2.078	34.900	262.3
3200	6	2.673	2.409	34.919	263.5
2700	7	3.077	2.855	34.944	257.2
2201	8	3.519	3.339	34.959	256.2
1950	9	3.777	3.617	34.971	254.9
1600	10	4.343	4.209	34.997	247.4
1387	11	4.662	4.545	35.017	239.1
1255	12	4.878	4.772	35.028	233.7
1086	13	5.568	5.471	35.059	213.9
946	14	7.311	7.216	35.075	157.8
825	15	9.514	9.417	35.243	138.2
716	16	11.997	11.901	35.556	145.6
606	17	14.593	14.501	35.941	161.6
496	18	16.836	16.753	36.338	181.0
385	19	17.816	17.750	36.527	188.5
275	20	18.486	18.437	36.563	198.2
185	21	19.577	19.543	36.642	184.7
105	22	21.000	20.980	36.559	206.8
57	23	21.930	21.919	36.551	212.2
3	24	22.900	22.900	36.613	207.9


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 22 (CTD022)
Latitude 26.501 N Longitude 72.770 W
22–Mar–2014 06:23 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 23 (CTD023)
Latitude 26.502N Longitude 72.378W
22-Mar-2014 12:36Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	23.362	23.362	36.630	207.1	0.003	25.065
10	23.364	23.362	36.630	206.6	0.029	25.064
20	23.364	23.360	36.630	206.5	0.058	25.065
30	23.364	23.358	36.630	206.7	0.087	25.066
50	22.789	22.779	36.601	209.0	0.143	25.212
75	21.826	21.811	36.611	205.4	0.209	25.496
100	21.070	21.050	36.603	198.8	0.270	25.701
125	20.457	20.434	36.541	202.0	0.326	25.822
150	19.908	19.880	36.593	191.2	0.380	26.010
200	18.867	18.831	36.574	190.1	0.476	26.268
250	18.512	18.468	36.558	198.2	0.565	26.348
300	18.302	18.249	36.550	194.3	0.652	26.397
400	17.616	17.547	36.481	187.6	0.822	26.519
500	16.510	16.428	36.269	176.3	0.984	26.625
600	14.382	14.292	35.903	159.2	1.134	26.823
700	12.007	11.914	35.549	145.5	1.265	27.032
800	9.811	9.716	35.274	136.9	1.376	27.214
900	8.023	7.927	35.131	152.7	1.470	27.388
1000	6.569	6.473	35.082	184.1	1.547	27.555
1100	5.534	5.437	35.059	215.9	1.609	27.670
1200	4.946	4.843	35.030	232.0	1.663	27.717
1300	4.659	4.550	35.018	239.5	1.713	27.741
1400	4.427	4.311	35.005	244.8	1.763	27.757
1500	4.265	4.141	34.996	247.8	1.811	27.768
1750	3.923	3.781	34.977	252.9	1.931	27.791
2000	3.659	3.496	34.965	255.0	2.048	27.810
2500	3.245	3.040	34.950	255.7	2.278	27.841
3000	2.785	2.539	34.925	259.1	2.501	27.867
3500	2.482	2.190	34.907	261.2	2.718	27.882
4000	2.337	1.994	34.895	260.1	2.935	27.888
4500	2.294	1.893	34.888	258.4	3.160	27.890
5000	2.254	1.793	34.877	253.7	3.395	27.889

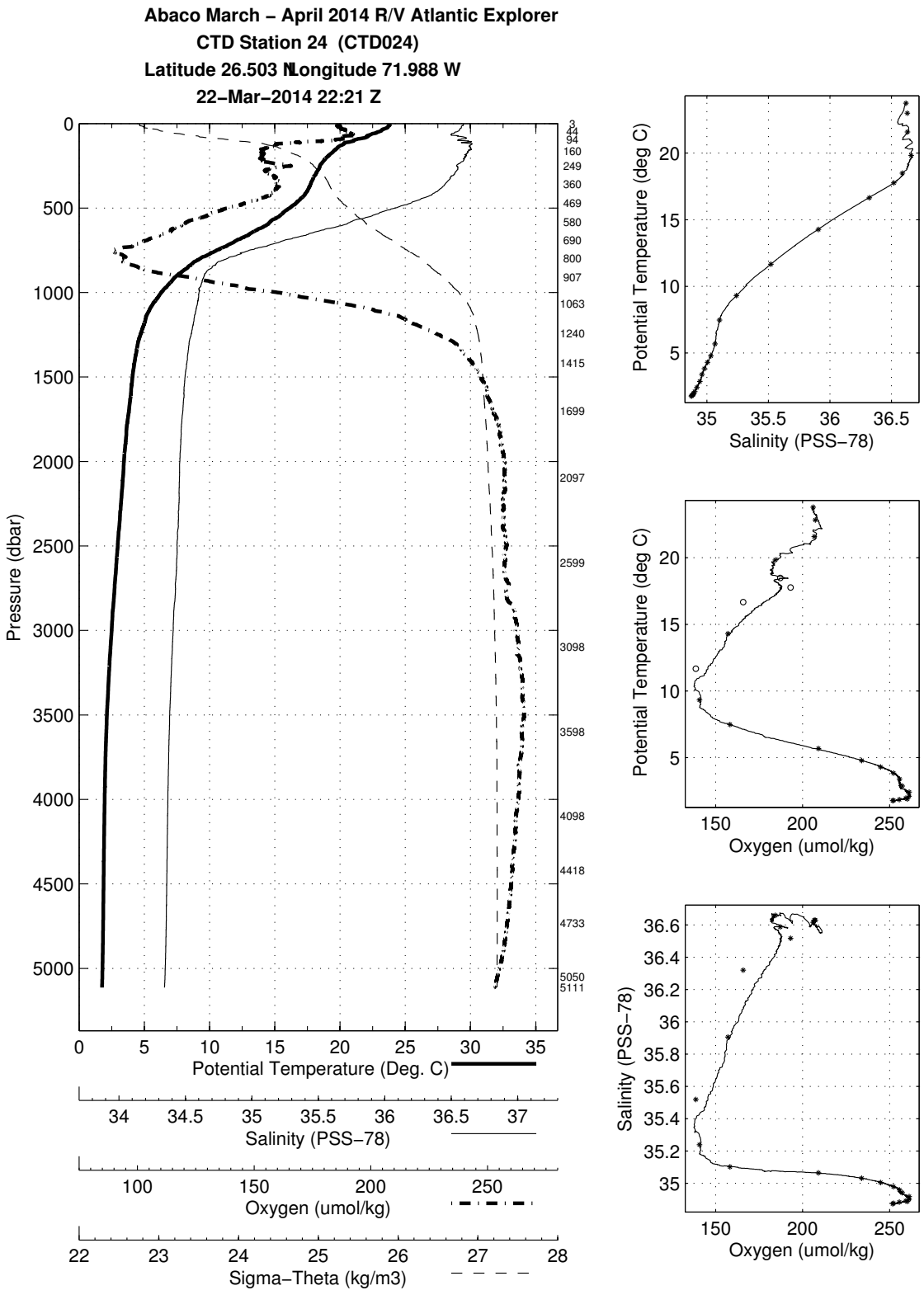
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
5108	1	2.215	1.741	34.871	250.5
4899	2	2.273	1.824	34.881	254.5
4548	3	2.290	1.883	34.887	257.3
4198	4	2.314	1.948	34.892	259.3
3850	5	2.369	2.041	34.898	260.4
3349	6	2.570	2.292	34.912	261.1
2849	7	2.923	2.690	34.932	257.9
2350	8	3.368	3.177	34.954	256.4
1848	9	3.835	3.685	34.971	253.5
1598	10	4.131	4.000	34.988	249.6
1375	11	4.468	4.354	35.007	243.7
1204	12	4.964	4.862	35.034	231.4
1035	13	5.932	5.837	35.067	202.8
925	14	7.559	7.464	35.107	159.7
815	15	9.319	9.225	35.220	139.2
705	16	11.431	11.340	35.472	141.1
594	17	14.463	14.373	35.919	161.0
484	18	16.732	16.651	36.314	179.6
375	19	17.816	17.751	36.506	188.5
264	20	18.419	18.372	36.550	198.5
175	21	19.263	19.231	36.597	188.2
114	22	20.971	20.949	36.586	200.8
64	23	22.428	22.415	36.608	207.3
4	24	23.300	23.299	36.623	207.0


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 23 (CTD023)
Latitude 26.502 N Longitude 72.378 W
22–Mar–2014 12:36 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 24 (CTD024)
Latitude 26.503N Longitude 71.988W
22-Mar-2014 22:21Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	23.801	23.801	36.622	206.1	0.003	24.929
10	23.800	23.798	36.621	206.0	0.030	24.929
20	23.661	23.656	36.610	206.1	0.060	24.963
30	23.433	23.427	36.603	206.0	0.090	25.025
50	22.893	22.882	36.576	208.3	0.147	25.163
75	22.063	22.048	36.596	207.3	0.215	25.417
100	21.030	21.011	36.587	204.6	0.276	25.700
125	20.206	20.183	36.664	186.8	0.330	25.983
150	19.722	19.694	36.661	183.5	0.380	26.110
200	19.005	18.969	36.627	182.4	0.475	26.273
250	18.505	18.461	36.580	191.4	0.563	26.367
300	18.196	18.144	36.568	185.2	0.649	26.438
400	17.551	17.483	36.469	186.4	0.816	26.525
500	16.204	16.122	36.218	172.6	0.976	26.657
600	14.454	14.363	35.916	158.6	1.125	26.817
700	11.986	11.892	35.548	146.1	1.256	27.036
800	9.350	9.257	35.235	141.1	1.365	27.260
900	7.573	7.481	35.103	157.3	1.455	27.432
1000	6.381	6.287	35.074	187.4	1.528	27.574
1100	5.499	5.402	35.057	216.1	1.589	27.672
1200	5.021	4.918	35.038	230.4	1.643	27.715
1300	4.618	4.510	35.016	241.0	1.693	27.744
1400	4.400	4.285	35.006	245.3	1.742	27.761
1500	4.219	4.096	34.993	248.8	1.790	27.770
1750	3.871	3.729	34.974	253.3	1.909	27.794
2000	3.601	3.440	34.962	255.9	2.025	27.813
2500	3.165	2.962	34.946	256.4	2.252	27.846
3000	2.746	2.500	34.924	259.1	2.472	27.869
3500	2.426	2.135	34.904	261.8	2.686	27.883
4000	2.305	1.962	34.893	260.0	2.900	27.889
4500	2.281	1.881	34.886	257.9	3.123	27.890
5000	2.255	1.794	34.877	254.3	3.358	27.889

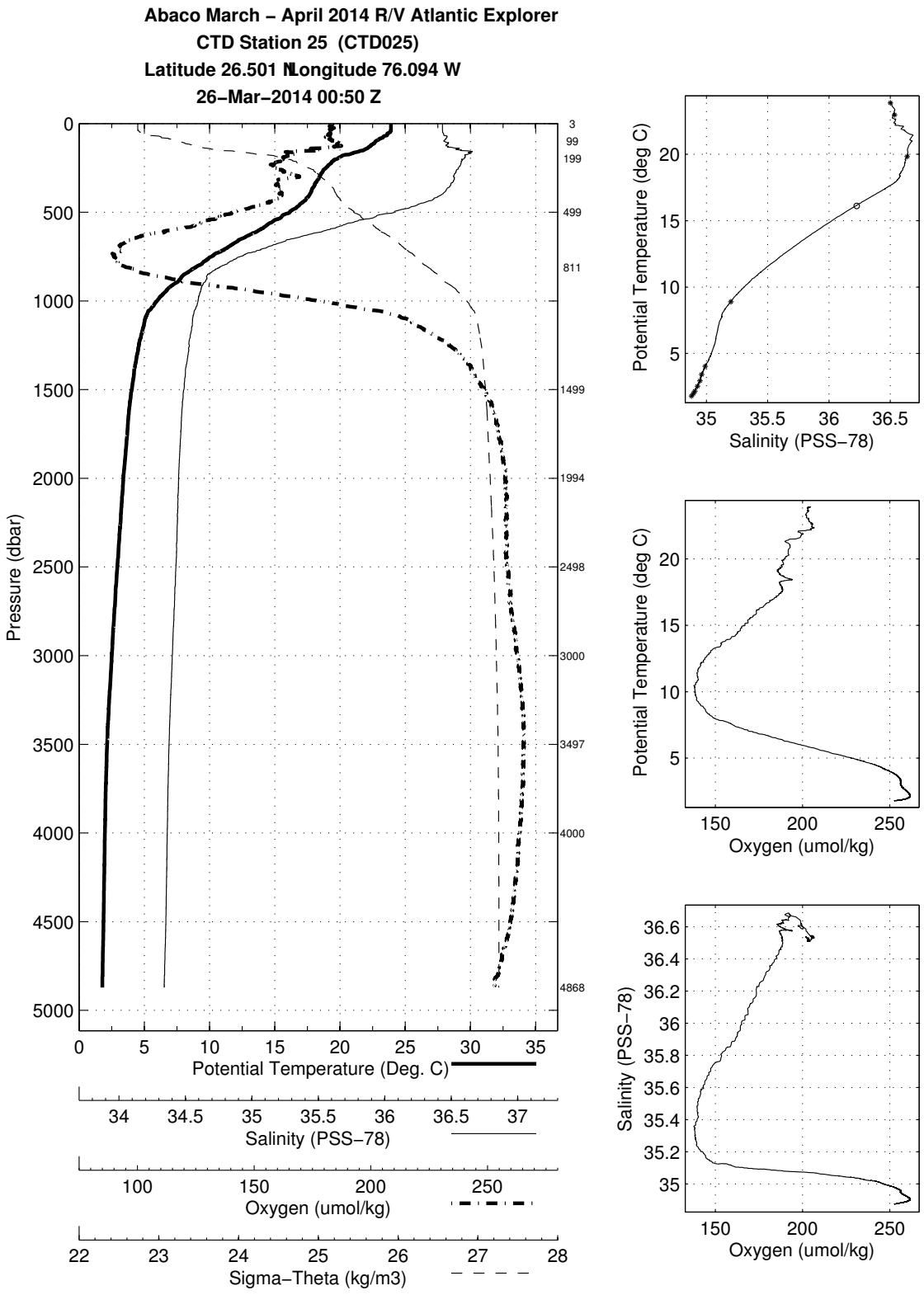
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
5111	1	2.237	1.762	34.874	251.7
5051	2	2.251	1.784	34.877	252.2
4734	3	2.277	1.849	34.884	255.6
4418	4	2.284	1.893	34.888	260.2
4099	5	2.300	1.946	34.892	259.3
3599	6	2.401	2.100	34.902	261.2
3099	7	2.667	2.413	34.919	261.2
2599	8	3.066	2.855	34.943	257.2
2098	9	3.553	3.382	34.959	255.6
1700	10	3.957	3.819	34.980	252.2
1416	11	4.404	4.287	35.005	244.7
1241	12	4.882	4.777	35.032	233.9
1064	13	5.773	5.677	35.065	209.0
908	14	7.562	7.468	35.102	158.3
800	15	9.390	9.297	35.240	140.8
690	16	11.746	11.655	35.519	138.7
580	17	14.352	14.265	35.906	157.1
470	18	16.729	16.651	36.320	165.9
360	19	17.823	17.761	36.518	193.1
250	20	18.538	18.494	36.588	187.2
160	21	19.847	19.817	36.659	184.3
94	22	21.600	21.582	36.630	206.6
45	23	23.010	23.000	36.629	207.3
3	24	23.744	23.743	36.617	206.1


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 24 (CTD024)
Latitude 26.503 N Longitude 71.988 W
22–Mar–2014 22:21 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 25 (CTD025)
Latitude 26.501N Longitude 76.094W
26-Mar-2014 00:50Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	23.911	23.911	36.511	204.0	0.003	24.812
10	23.916	23.914	36.509	203.3	0.031	24.810
20	23.917	23.913	36.509	203.2	0.063	24.810
30	23.919	23.913	36.509	203.2	0.094	24.810
50	23.829	23.818	36.510	202.7	0.157	24.839
75	23.328	23.313	36.535	202.0	0.233	25.007
100	22.747	22.726	36.520	205.1	0.306	25.166
125	22.386	22.361	36.529	206.7	0.375	25.278
150	21.828	21.798	36.620	199.4	0.441	25.506
200	19.805	19.768	36.632	188.7	0.552	26.069
250	18.967	18.922	36.601	186.6	0.647	26.265
300	18.493	18.440	36.574	194.0	0.737	26.368
400	17.750	17.681	36.504	188.7	0.907	26.504
500	16.244	16.163	36.225	173.9	1.069	26.653
600	13.903	13.815	35.830	155.7	1.214	26.868
700	11.466	11.375	35.474	139.6	1.339	27.076
800	9.250	9.158	35.218	140.5	1.445	27.263
900	7.455	7.363	35.104	161.9	1.533	27.449
1000	6.053	5.961	35.073	199.8	1.602	27.616
1100	5.160	5.065	35.041	226.2	1.659	27.701
1200	4.851	4.750	35.028	235.2	1.710	27.726
1300	4.571	4.463	35.016	242.2	1.760	27.749
1400	4.332	4.217	35.000	246.2	1.808	27.763
1500	4.170	4.048	34.991	249.4	1.856	27.774
1750	3.838	3.696	34.973	254.0	1.972	27.796
2000	3.556	3.395	34.960	256.0	2.088	27.816
2500	3.135	2.932	34.944	256.7	2.313	27.847
3000	2.752	2.506	34.923	259.8	2.533	27.868
3500	2.446	2.155	34.904	261.6	2.748	27.883
4000	2.324	1.981	34.894	260.2	2.964	27.888
4500	2.276	1.876	34.886	257.5	3.187	27.890

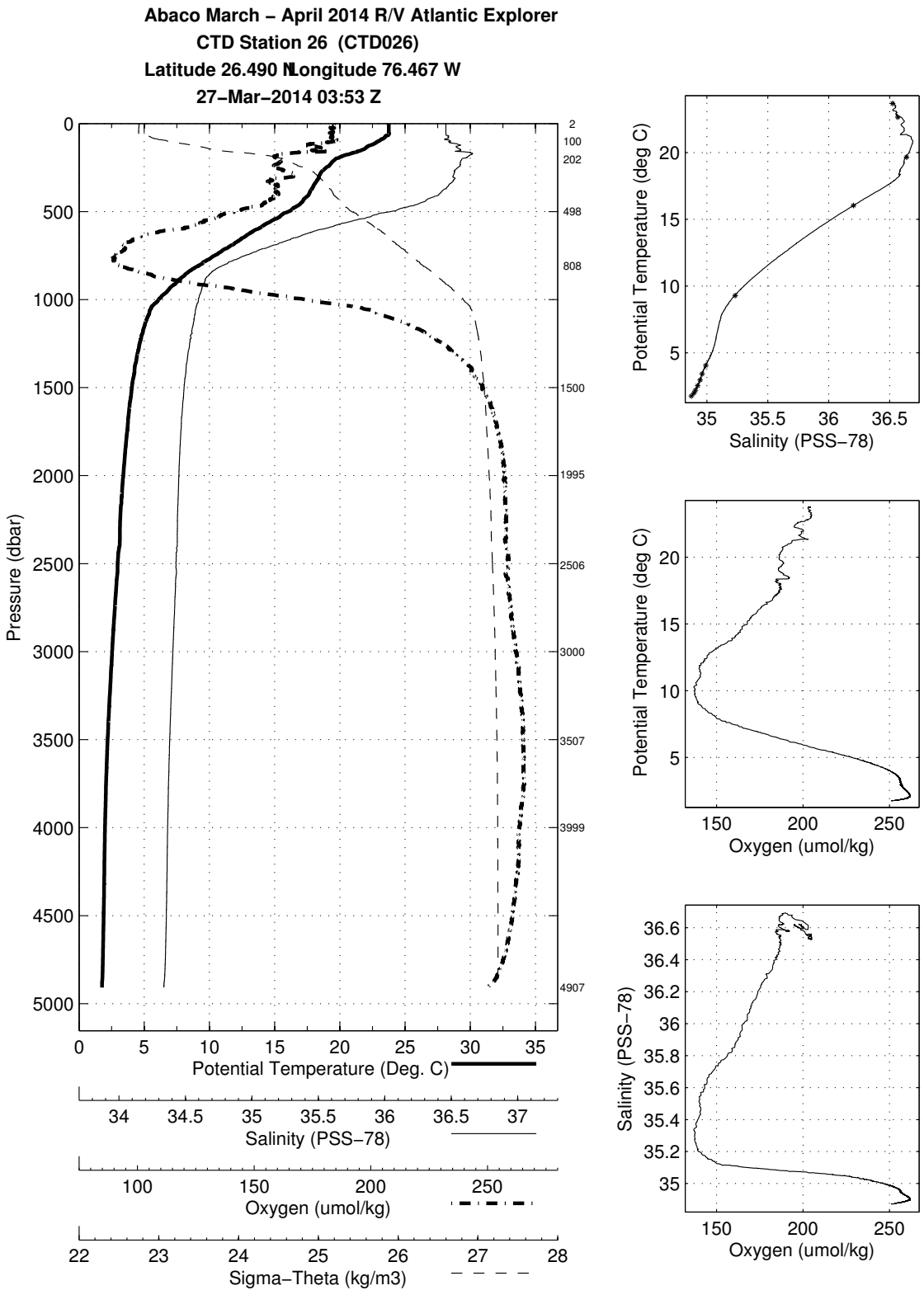
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4869	2	2.233	1.789	34.877	NaN
4001	4	2.321	1.978	34.894	NaN
3498	6	2.456	2.165	34.905	NaN
3001	8	2.782	2.536	34.927	NaN
2498	10	3.145	2.943	34.948	NaN
1995	12	3.575	3.414	34.961	NaN
1499	13	4.147	4.025	34.989	NaN
811	15	8.991	8.900	35.199	NaN
500	17	16.190	16.109	36.226	NaN
199	19	19.870	19.833	36.638	NaN
100	21	22.989	22.968	36.536	NaN
3	23	23.880	23.880	36.501	NaN


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 25 (CTD025)
Latitude 26.501 N Longitude 76.094 W
26–Mar–2014 00:50 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 26 (CTD026)
Latitude 26.490N Longitude 76.467W
27-Mar-2014 03:53Z

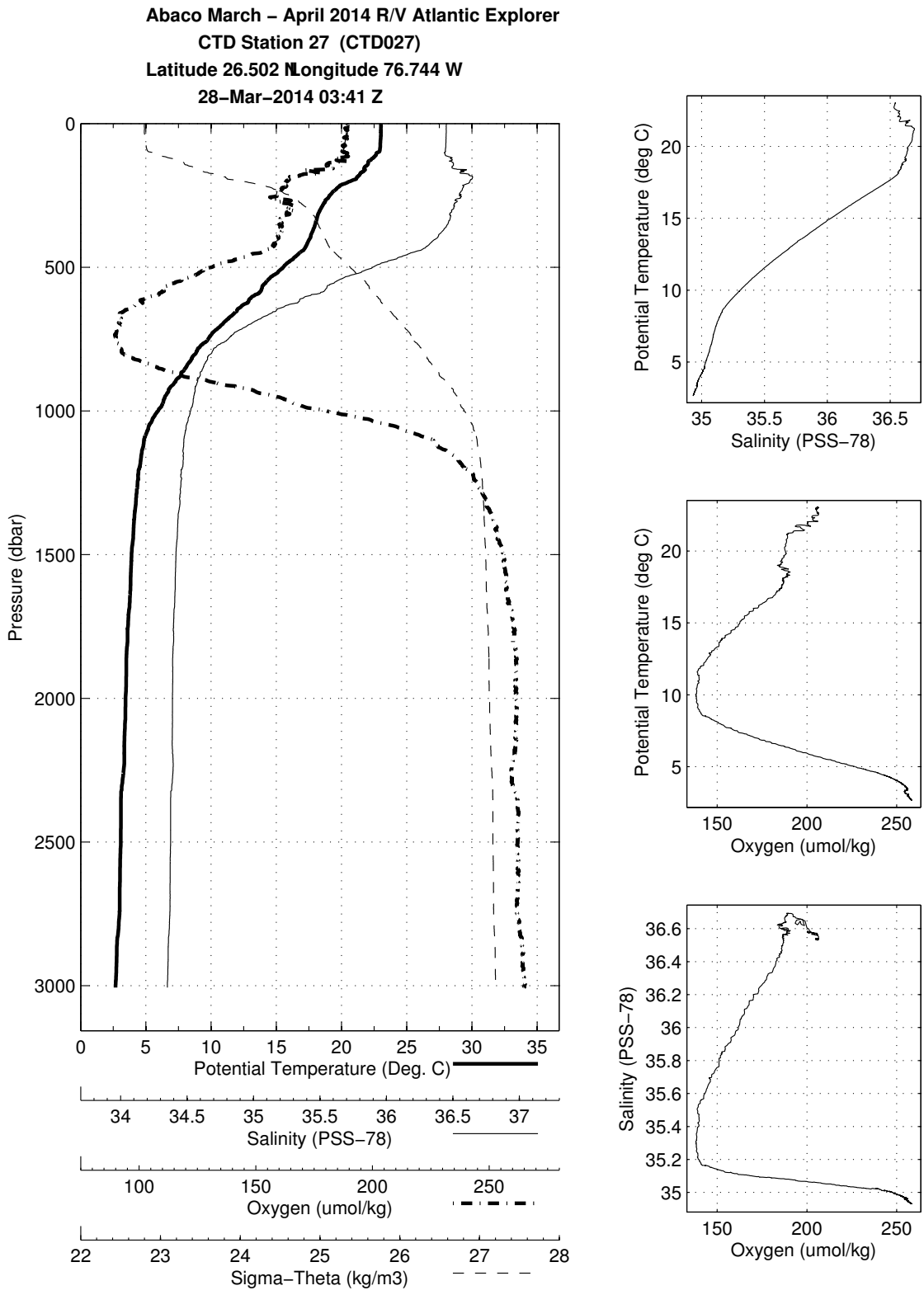
Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	23.746	23.746	36.535	204.1	0.003	24.879
10	23.744	23.742	36.534	204.3	0.031	24.879
20	23.750	23.746	36.533	203.2	0.061	24.878
30	23.759	23.752	36.533	203.7	0.092	24.876
50	23.761	23.750	36.533	203.6	0.154	24.877
75	23.481	23.466	36.547	203.2	0.230	24.971
100	23.015	22.994	36.559	204.7	0.304	25.118
125	22.272	22.247	36.611	194.9	0.373	25.373
150	21.726	21.696	36.618	198.2	0.438	25.533
200	19.713	19.677	36.628	188.1	0.549	26.090
250	18.993	18.948	36.603	186.3	0.645	26.260
300	18.454	18.401	36.574	191.9	0.734	26.377
400	17.691	17.622	36.492	187.4	0.904	26.509
500	16.137	16.057	36.205	174.2	1.066	26.662
600	13.751	13.664	35.805	156.4	1.210	26.880
700	11.601	11.509	35.492	140.5	1.335	27.065
800	9.418	9.325	35.230	138.6	1.444	27.245
900	7.587	7.494	35.110	159.3	1.533	27.435
1000	6.208	6.114	35.075	195.7	1.604	27.597
1100	5.348	5.252	35.050	220.8	1.662	27.685
1200	4.916	4.814	35.031	233.0	1.715	27.721
1300	4.609	4.501	35.014	240.6	1.765	27.744
1400	4.369	4.254	35.002	246.2	1.814	27.761
1500	4.171	4.049	34.991	249.4	1.862	27.774
1750	3.828	3.687	34.972	254.1	1.979	27.796
2000	3.557	3.396	34.960	255.8	2.094	27.816
2500	3.163	2.961	34.943	257.4	2.320	27.843
3000	2.780	2.534	34.925	259.6	2.542	27.867
3500	2.482	2.190	34.906	261.6	2.759	27.881
4000	2.332	1.989	34.894	260.5	2.976	27.888
4500	2.288	1.887	34.887	258.5	3.201	27.890

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4907	2	2.208	1.760	34.873	NaN
4000	4	2.335	1.992	34.894	NaN
3507	6	2.493	2.200	34.908	NaN
3000	8	2.779	2.533	34.925	NaN
2507	10	3.168	2.964	34.946	NaN
1995	12	3.585	3.424	34.961	NaN
1500	13	4.176	4.054	34.991	NaN
808	15	9.380	9.286	35.232	NaN
499	17	16.114	16.034	36.204	NaN
203	19	19.689	19.652	36.639	NaN
100	21	22.672	22.652	36.567	NaN
3	23	23.674	23.673	36.524	NaN


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 26 (CTD026)
Latitude 26.490 N Longitude 76.467 W
27–Mar–2014 03:53 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 27 (CTD027)
Latitude 26.502N Longitude 76.744W
28-Mar-2014 03:41Z

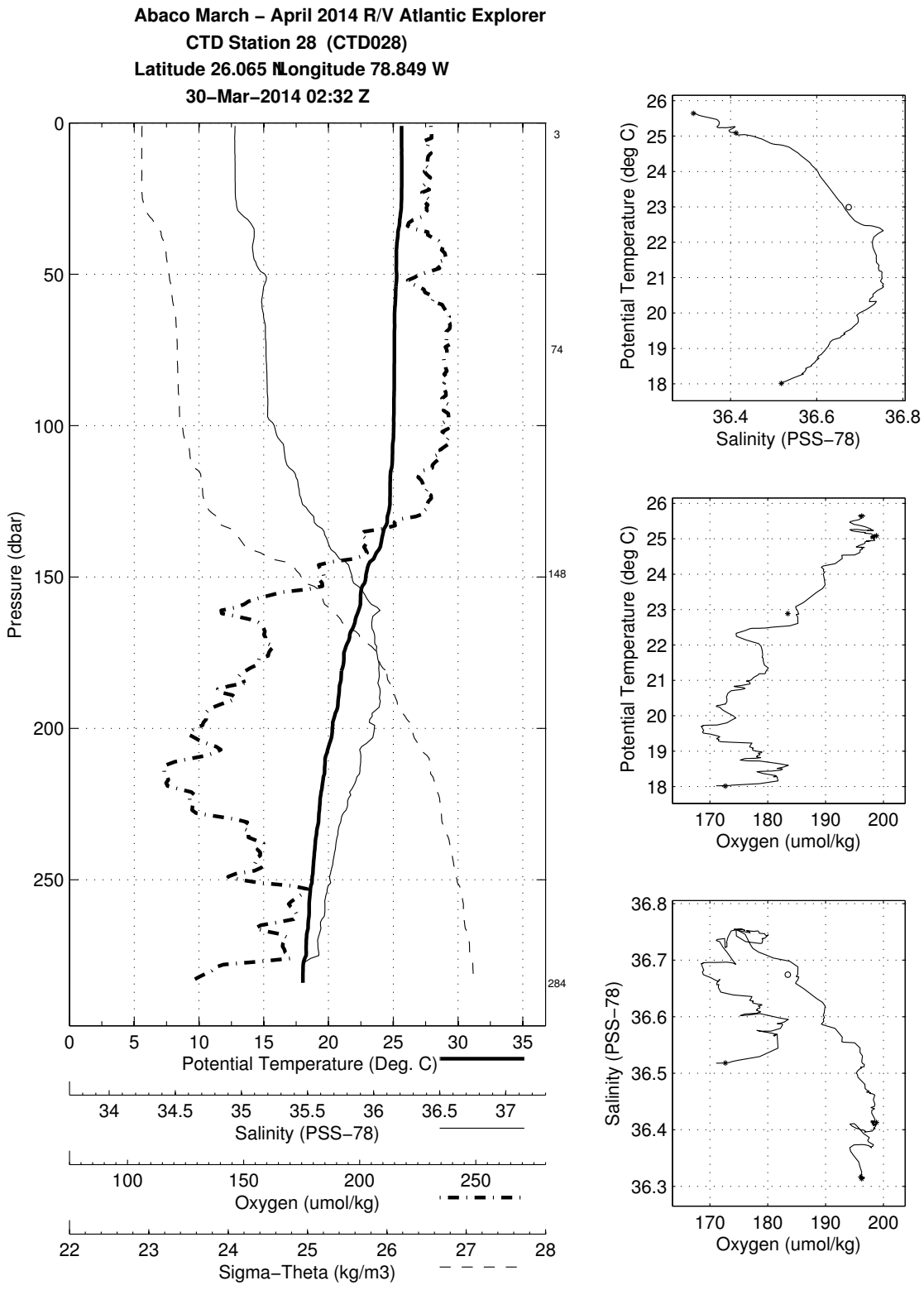
Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	23.023	23.023	36.542	206.2	0.003	25.097
10	23.026	23.024	36.541	206.2	0.029	25.096
20	23.025	23.021	36.541	206.0	0.057	25.096
30	23.030	23.024	36.541	206.0	0.086	25.096
50	23.011	23.001	36.540	205.6	0.143	25.102
75	22.982	22.966	36.538	205.1	0.215	25.111
100	22.837	22.817	36.533	205.1	0.287	25.150
125	22.302	22.277	36.575	203.4	0.356	25.336
150	21.820	21.790	36.575	201.1	0.422	25.474
200	20.752	20.714	36.678	188.7	0.542	25.851
250	19.111	19.065	36.614	185.4	0.643	26.239
300	18.414	18.361	36.572	189.1	0.733	26.386
400	17.637	17.568	36.482	185.9	0.902	26.515
500	15.600	15.521	36.114	166.4	1.061	26.714
600	13.347	13.261	35.742	148.8	1.200	26.914
700	10.905	10.817	35.400	139.7	1.321	27.120
800	8.908	8.819	35.184	140.5	1.422	27.291
900	7.312	7.221	35.103	166.8	1.508	27.469
1000	6.019	5.928	35.065	200.2	1.576	27.613
1100	4.945	4.852	35.026	231.2	1.631	27.713
1200	4.592	4.493	35.017	240.9	1.681	27.746
1300	4.367	4.261	35.004	246.5	1.728	27.762
1400	4.176	4.063	34.991	249.7	1.775	27.772
1500	4.019	3.898	34.981	251.9	1.822	27.782
1750	3.764	3.623	34.967	254.9	1.937	27.799
2000	3.604	3.443	34.961	255.6	2.052	27.811
2500	3.284	3.078	34.950	256.1	2.282	27.838
3000	2.925	2.676	34.932	258.2	2.513	27.860


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 27 (CTD027)
Latitude 26.502 N Longitude 76.744 W
28–Mar–2014 03:41 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 28 (CTD028)
Latitude 26.065N Longitude 78.849W
30-Mar-2014 02:32Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.649	25.649	36.316	196.6	0.004	24.136
10	25.653	25.651	36.315	196.7	0.038	24.135
20	25.656	25.651	36.316	196.1	0.076	24.135
30	25.568	25.561	36.334	196.0	0.113	24.177
50	25.275	25.264	36.405	195.5	0.186	24.323
75	25.101	25.085	36.409	198.3	0.276	24.380
100	25.061	25.039	36.434	198.0	0.365	24.414
125	24.775	24.748	36.517	196.4	0.452	24.565
150	22.906	22.876	36.668	185.4	0.531	25.236
200	20.334	20.296	36.735	171.7	0.649	26.006
250	18.773	18.729	36.601	176.5	0.744	26.315

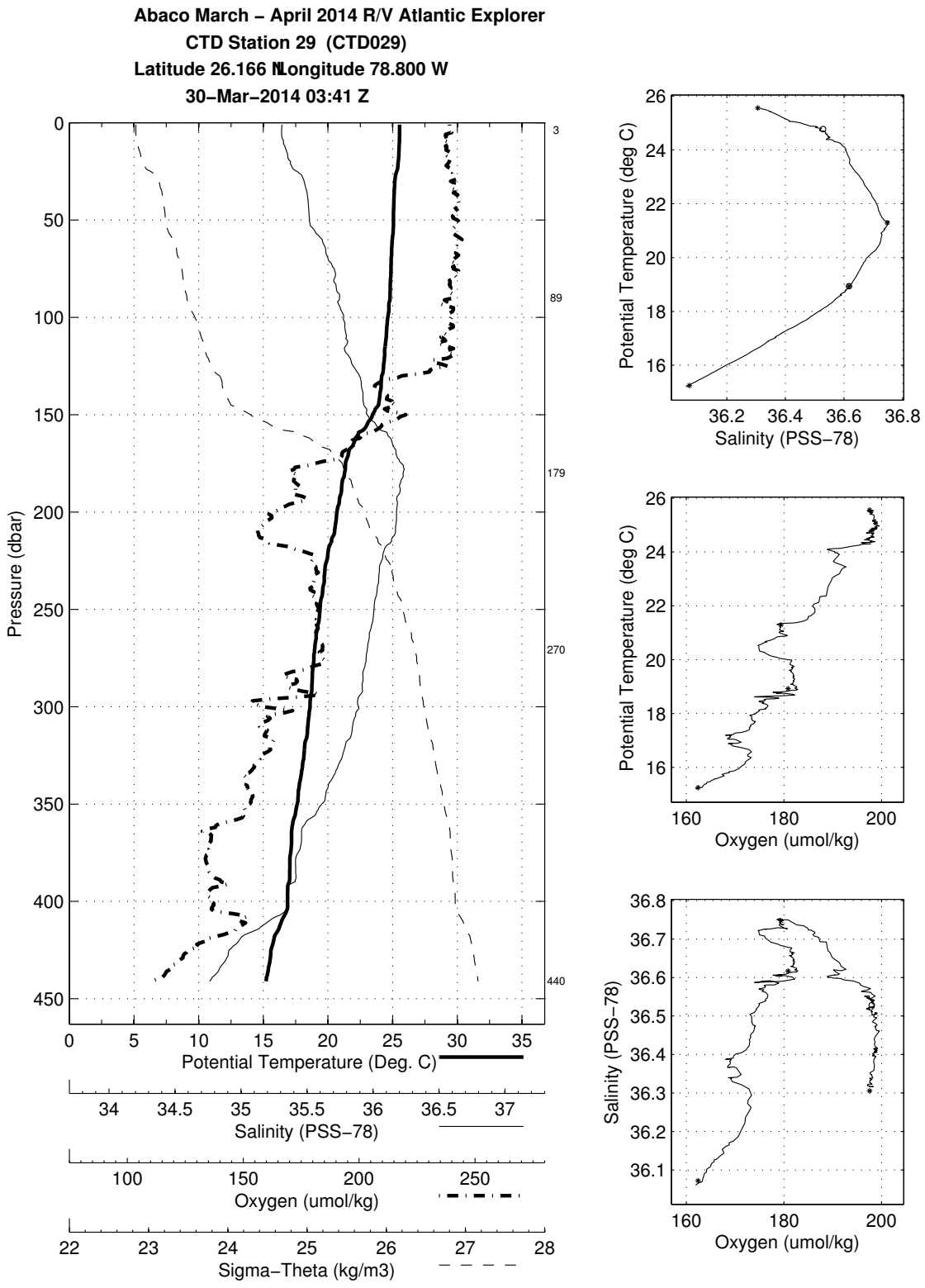
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
284	2	18.063	18.014	36.518	172.7
149	4	23.019	22.989	36.674	183.5
75	6	25.104	25.087	36.413	198.8
4	8	25.644	25.643	36.313	196.3


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 28 (CTD028)
Latitude 26.065 N Longitude 78.849 W
30–Mar–2014 02:32 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 29 (CTD029)
Latitude 26.166N Longitude 78.800W
30-Mar-2014 03:41Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.537	25.537	36.318	198.0	0.004	24.172
10	25.521	25.519	36.323	198.1	0.037	24.182
20	25.428	25.424	36.349	198.0	0.074	24.231
30	25.177	25.171	36.396	198.1	0.111	24.345
50	25.073	25.062	36.416	199.0	0.182	24.393
75	24.890	24.874	36.504	198.5	0.269	24.517
100	24.655	24.633	36.537	198.2	0.355	24.615
125	24.327	24.300	36.570	197.8	0.437	24.741
150	23.477	23.446	36.621	192.7	0.516	25.033
200	20.734	20.696	36.724	176.7	0.638	25.890
250	19.426	19.381	36.644	182.1	0.740	26.179
300	18.666	18.612	36.589	175.4	0.832	26.335
400	16.942	16.875	36.338	169.0	1.000	26.571

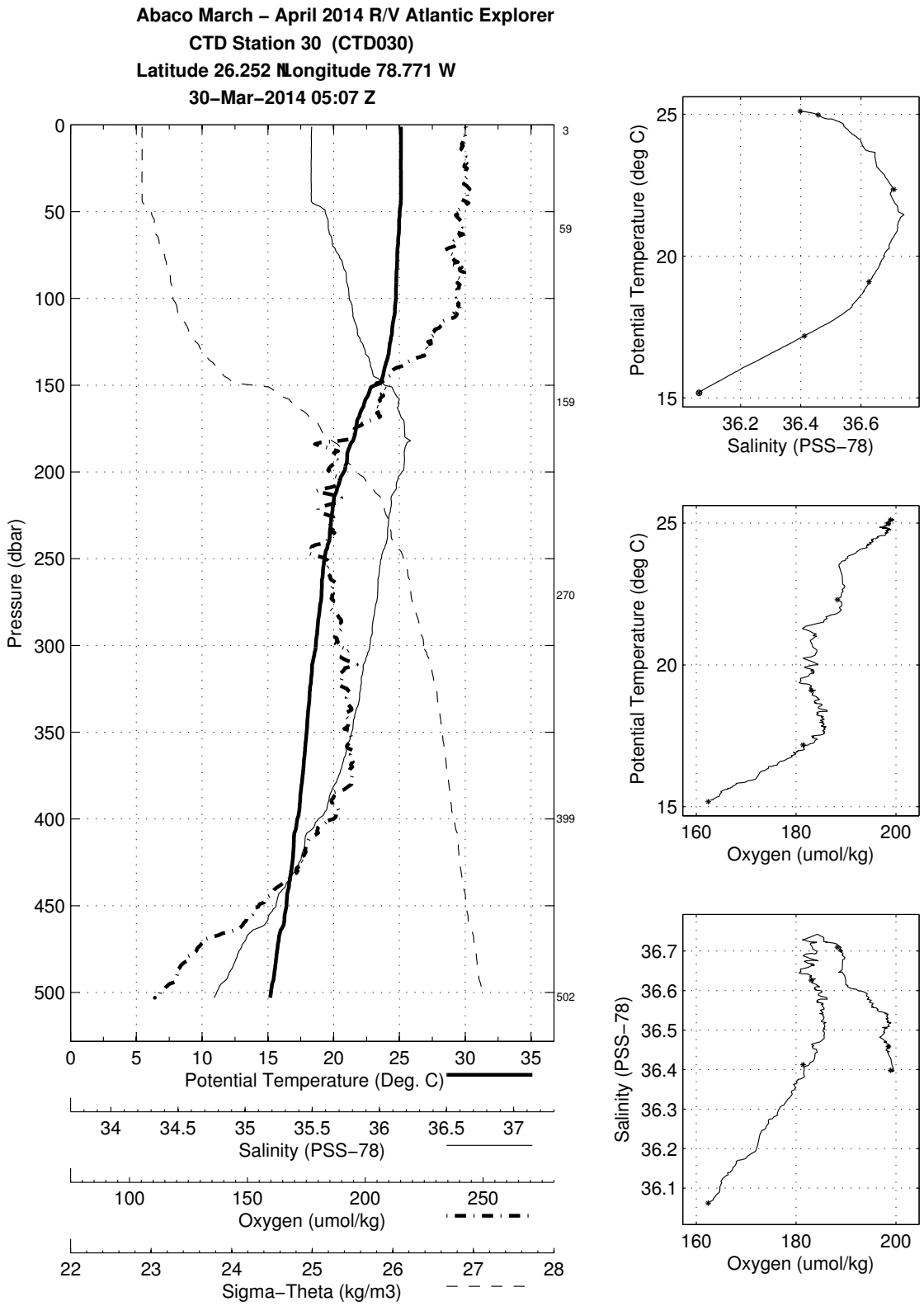
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
441	2	15.314	15.246	36.072	162.4
271	4	18.984	18.935	36.617	180.8
180	6	21.321	21.286	36.748	179.4
90	8	24.790	24.771	36.528	198.0
4	10	25.561	25.560	36.306	197.6


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 29 (CTD029)
Latitude 26.166 N Longitude 78.800 W
30–Mar–2014 03:41 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 30 (CTD030)
Latitude 26.252N Longitude 78.771W
30-Mar-2014 05:07Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.116	25.116	36.398	199.2	0.004	24.363
10	25.118	25.116	36.397	198.8	0.036	24.362
20	25.115	25.111	36.397	198.9	0.071	24.363
30	25.121	25.114	36.396	199.3	0.107	24.362
50	25.036	25.025	36.445	198.7	0.178	24.426
75	24.852	24.835	36.493	197.8	0.265	24.521
100	24.753	24.732	36.529	198.4	0.350	24.579
125	24.334	24.307	36.570	194.7	0.434	24.738
150	23.173	23.142	36.655	189.2	0.512	25.148
200	20.805	20.767	36.711	183.1	0.634	25.861
250	19.365	19.320	36.639	182.5	0.736	26.192
300	18.696	18.643	36.599	184.0	0.829	26.336
400	17.311	17.244	36.420	183.5	0.998	26.546
500	15.309	15.230	36.065	162.9	1.153	26.742

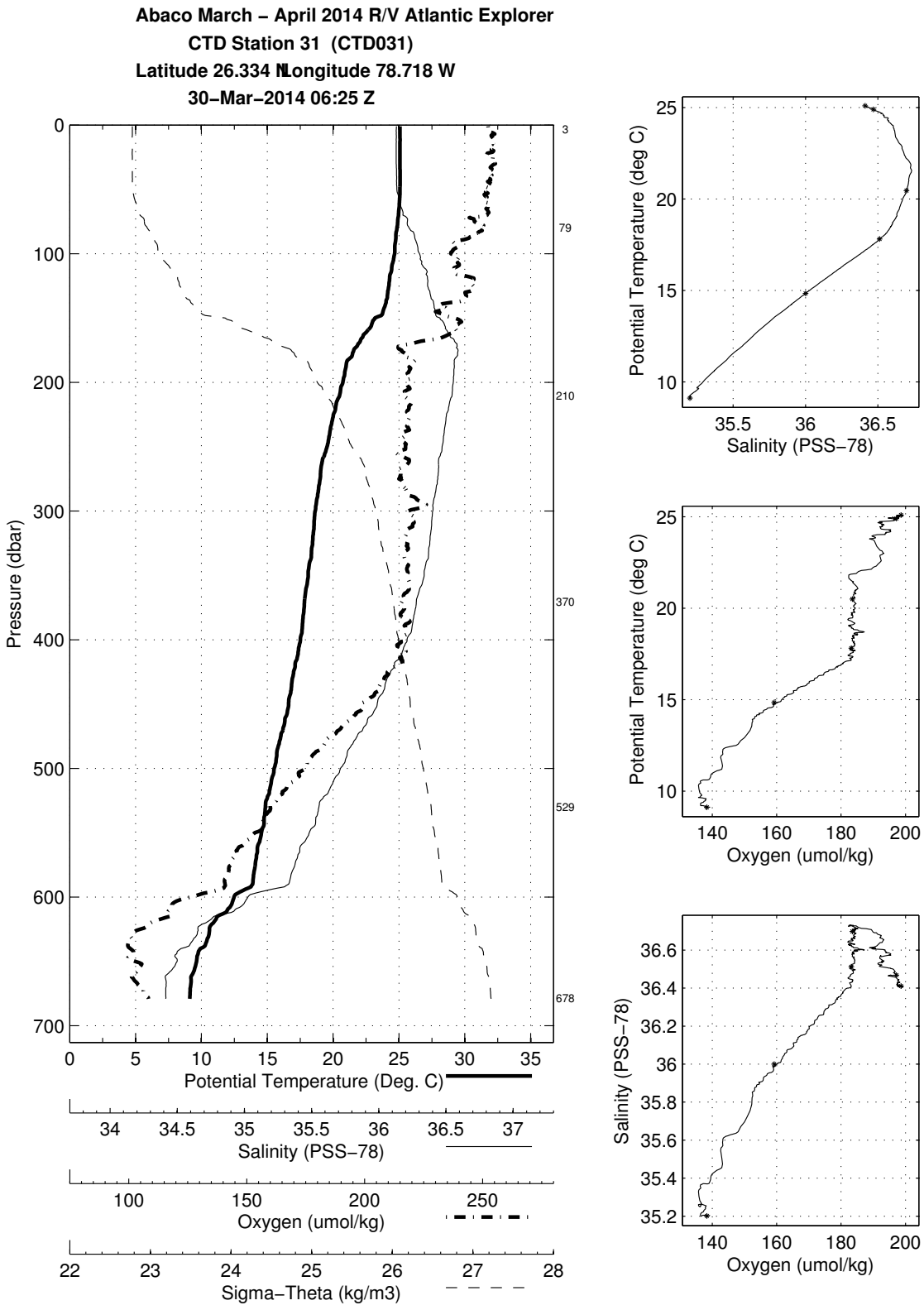
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
502	2	15.255	15.176	36.063	162.4
400	4	17.246	17.179	36.412	181.4
271	6	19.142	19.093	36.626	183.0
160	8	22.378	22.345	36.710	188.3
60	10	24.992	24.979	36.458	198.5
3	12	25.111	25.110	36.398	198.9


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 30 (CTD030)
Latitude 26.252 N Longitude 78.771 W
30–Mar–2014 05:07 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 31 (CTD031)
Latitude 26.334N Longitude 78.718W
30-Mar-2014 06:25Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.076	25.075	36.410	197.9	0.004	24.385
10	25.080	25.078	36.410	198.7	0.035	24.383
20	25.081	25.077	36.409	198.8	0.071	24.383
30	25.082	25.075	36.409	199.1	0.106	24.384
50	25.090	25.079	36.412	197.6	0.177	24.385
75	24.923	24.906	36.468	195.5	0.265	24.480
100	24.699	24.677	36.530	191.5	0.351	24.597
125	24.259	24.232	36.573	195.4	0.433	24.763
150	23.200	23.169	36.637	192.1	0.511	25.127
200	20.776	20.738	36.706	183.8	0.635	25.865
250	19.586	19.540	36.648	183.6	0.738	26.141
300	18.695	18.642	36.598	184.1	0.831	26.335
400	17.581	17.513	36.465	182.8	1.003	26.515
500	15.600	15.520	36.115	166.2	1.161	26.715
600	12.556	12.473	35.628	146.6	1.301	26.985

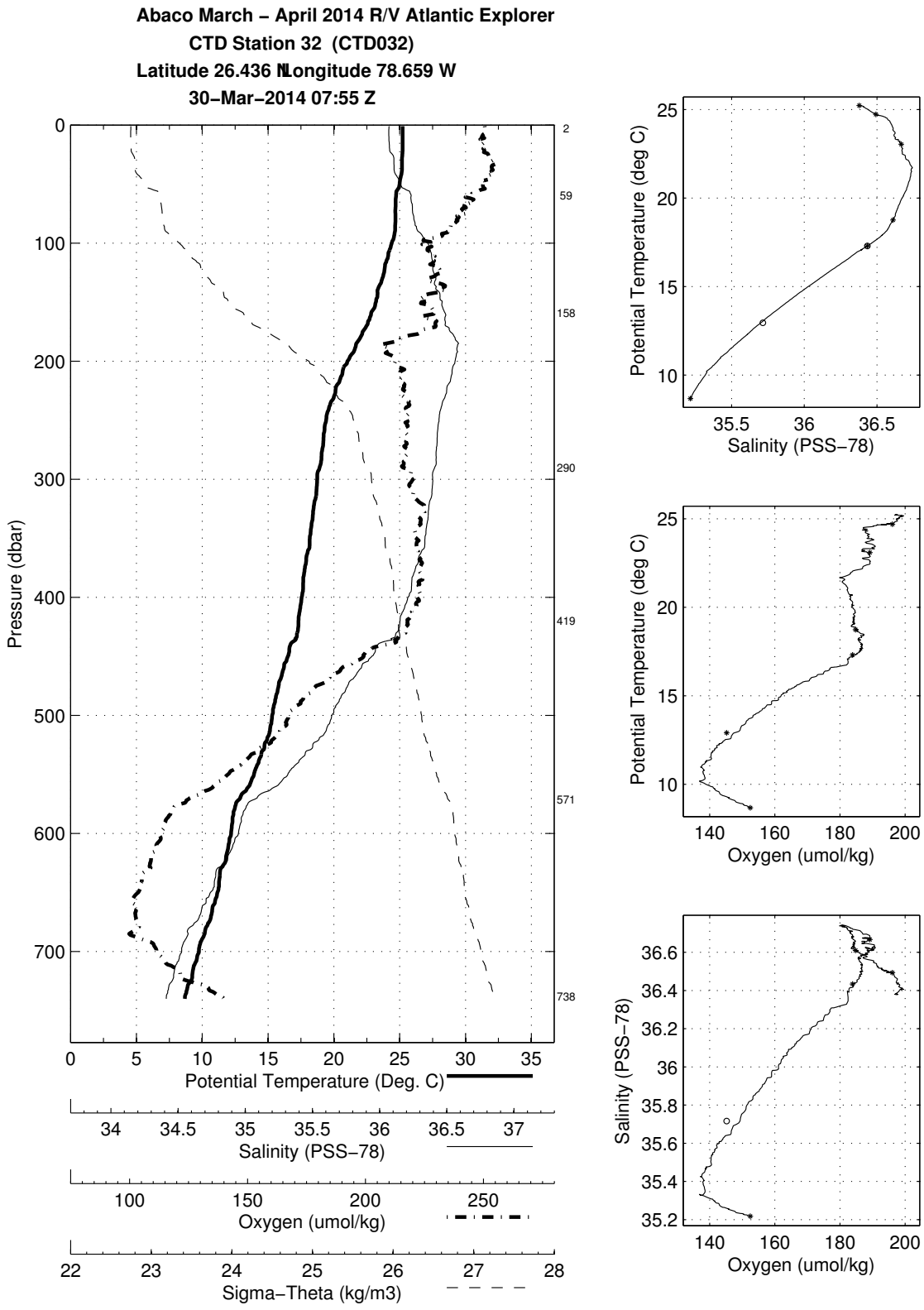
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
679	2	9.190	9.113	35.201	138.3
530	4	14.923	14.842	36.000	159.2
370	6	17.878	17.814	36.512	183.2
210	8	20.502	20.462	36.698	183.5
80	10	24.914	24.897	36.469	197.2
3	12	25.093	25.092	36.411	198.6


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 31 (CTD031)
Latitude 26.334 N Longitude 78.718 W
30–Mar–2014 06:25 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 32 (CTD032)
Latitude 26.436N Longitude 78.659W
30-Mar-2014 07:55Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.215	25.215	36.381	197.6	0.004	24.319
10	25.222	25.220	36.380	197.1	0.036	24.317
20	25.223	25.219	36.383	197.3	0.072	24.320
30	25.181	25.175	36.405	198.9	0.108	24.350
50	25.005	24.995	36.439	197.3	0.179	24.431
75	24.692	24.675	36.505	194.3	0.264	24.578
100	24.417	24.395	36.581	188.0	0.348	24.720
125	23.837	23.811	36.613	190.3	0.427	24.919
150	23.215	23.184	36.657	186.8	0.501	25.137
200	21.067	21.029	36.723	182.3	0.631	25.798
250	19.458	19.412	36.639	184.3	0.735	26.168
300	18.788	18.734	36.607	185.3	0.829	26.318
400	17.618	17.549	36.477	186.0	1.002	26.515
500	15.395	15.317	36.079	164.1	1.158	26.734
600	12.279	12.198	35.592	142.2	1.292	27.011
700	9.833	9.751	35.295	141.5	1.404	27.225

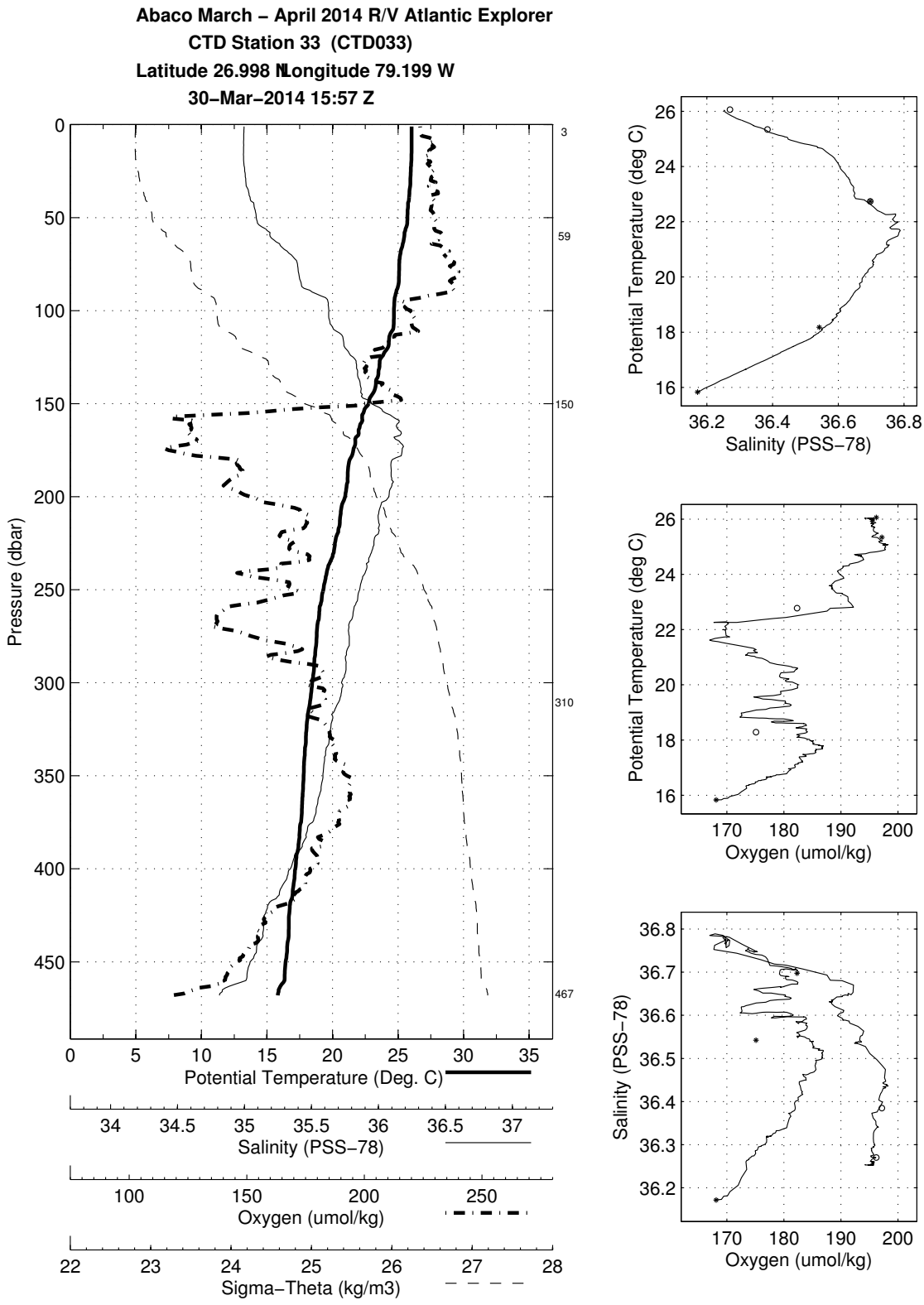
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
738	2	8.759	8.678	35.218	152.5
572	4	13.036	12.956	35.716	145.2
420	6	17.370	17.299	36.434	183.9
290	8	18.813	18.761	36.610	184.8
159	10	23.073	23.041	36.667	189.1
59	12	24.743	24.730	36.493	196.1
3	13	25.230	25.230	36.379	NaN


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 32 (CTD032)
Latitude 26.436 N Longitude 78.659 W
30–Mar–2014 07:55 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 33 (CTD033)
Latitude 26.998N Longitude 79.199W
30-Mar-2014 15:57Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	26.032	26.032	36.254	194.2	0.004	23.970
10	26.034	26.031	36.253	195.0	0.039	23.969
20	26.013	26.009	36.253	195.3	0.079	23.976
30	25.944	25.937	36.260	195.3	0.118	24.004
50	25.730	25.719	36.294	195.6	0.195	24.098
75	25.108	25.092	36.432	197.8	0.287	24.396
100	24.706	24.685	36.537	193.2	0.374	24.600
125	23.767	23.741	36.620	188.9	0.456	24.945
150	22.799	22.769	36.680	188.1	0.529	25.275
200	20.994	20.955	36.738	176.2	0.649	25.830
250	19.353	19.307	36.640	181.0	0.753	26.196
300	18.501	18.448	36.579	182.6	0.844	26.370
400	17.236	17.168	36.408	182.5	1.012	26.555

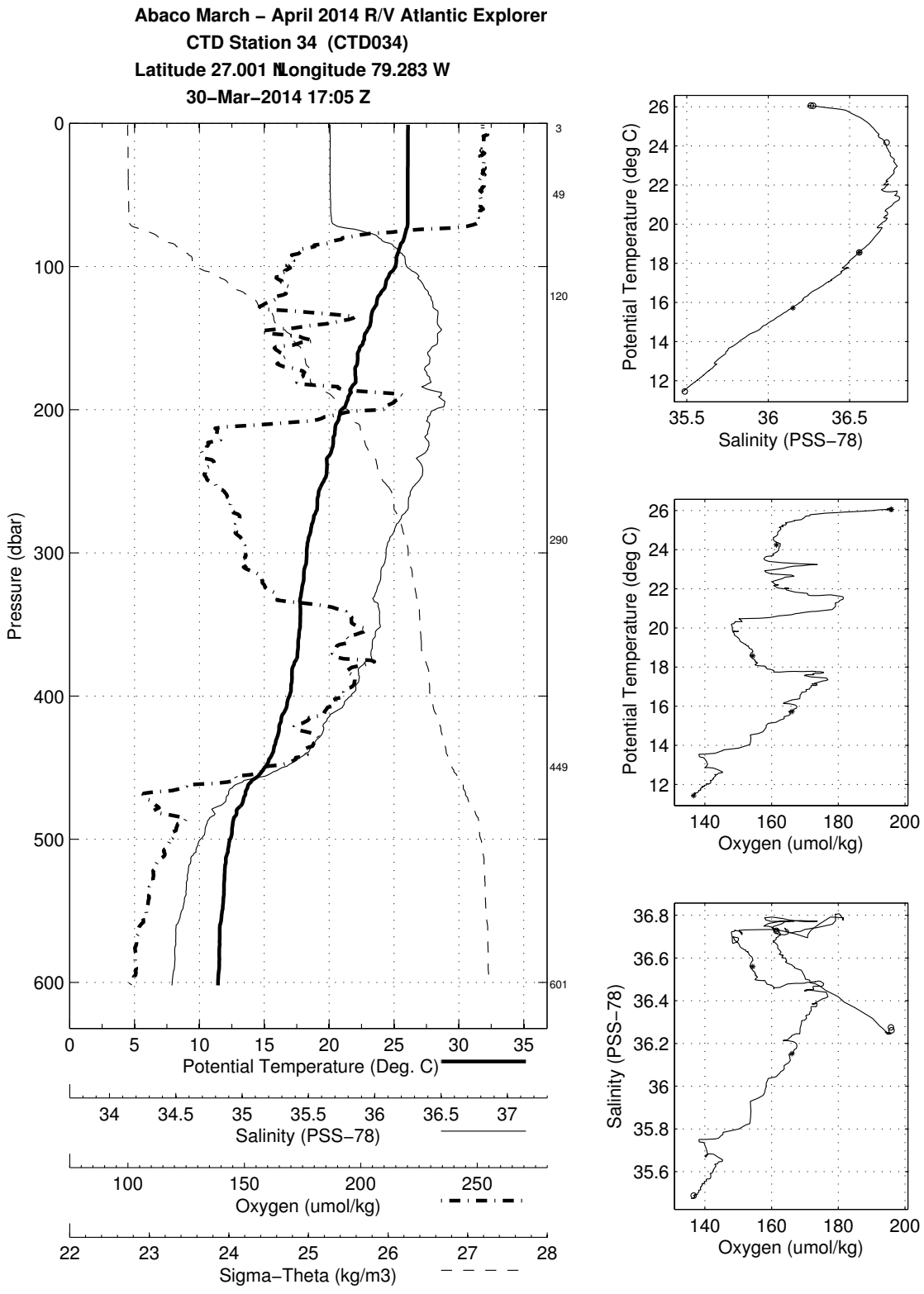
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
467	2	15.906	15.831	36.172	168.1
311	4	18.234	18.179	36.542	175.1
150	6	22.769	22.738	36.697	182.3
60	8	25.352	25.339	36.385	197.2
4	10	26.060	26.059	36.270	196.2


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 33 (CTD033)
Latitude 26.998 N Longitude 79.199 W
30–Mar–2014 15:57 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 34 (CTD034)
Latitude 27.001N Longitude 79.283W
30-Mar-2014 17:05Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	26.078	26.078	36.247	195.0	0.004	23.950
10	26.077	26.075	36.247	195.3	0.040	23.951
20	26.070	26.066	36.246	195.0	0.079	23.953
30	26.072	26.065	36.247	195.1	0.119	23.954
50	26.069	26.058	36.248	195.2	0.198	23.957
75	25.934	25.917	36.402	181.9	0.297	24.118
100	25.142	25.120	36.620	162.6	0.386	24.530
125	23.698	23.672	36.745	159.0	0.465	25.061
150	22.742	22.711	36.770	165.0	0.535	25.360
200	20.975	20.936	36.755	178.2	0.659	25.848
250	19.635	19.589	36.677	149.3	0.764	26.150
300	18.328	18.276	36.518	155.2	0.855	26.366
400	17.012	16.945	36.347	171.5	1.024	26.562
500	12.427	12.359	35.610	142.7	1.165	26.993
600	11.513	11.435	35.473	136.2	1.281	27.064

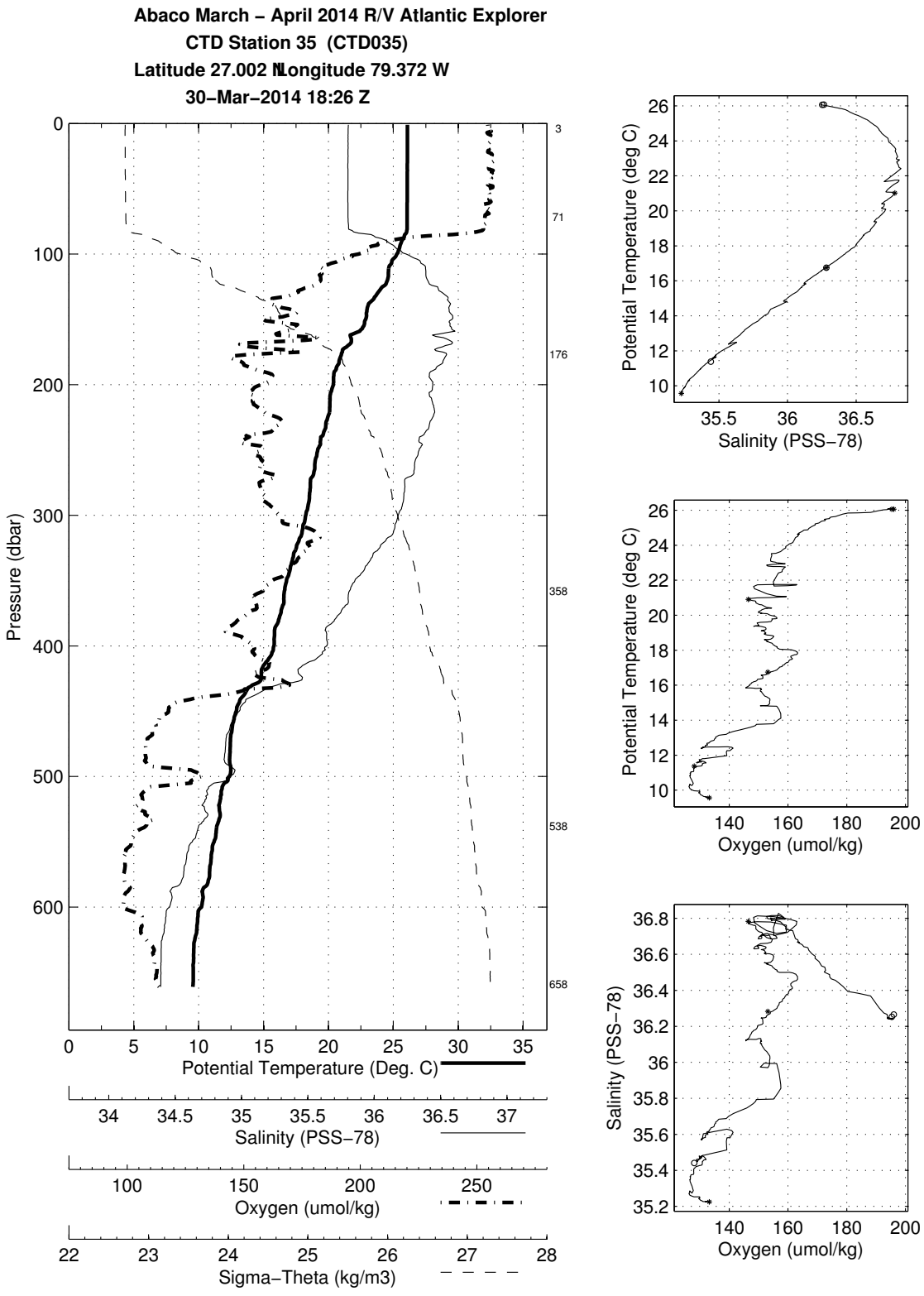
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
601	2	11.531	11.453	35.488	136.6
449	4	15.792	15.721	36.152	166.1
291	6	18.611	18.559	36.559	154.4
120	8	24.196	24.170	36.727	161.4
50	10	26.069	26.058	36.275	195.8
3	12	26.067	26.067	36.261	196.0


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 34 (CTD034)
Latitude 27.001 N Longitude 79.283 W
30–Mar–2014 17:05 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 35 (CTD035)
Latitude 27.002N Longitude 79.372W
30-Mar-2014 18:26Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	26.084	26.084	36.246	194.7	0.004	23.947
10	26.086	26.084	36.244	195.2	0.040	23.946
20	26.086	26.081	36.244	195.0	0.079	23.947
30	26.085	26.078	36.243	195.4	0.119	23.947
50	26.084	26.073	36.243	195.0	0.198	23.949
75	26.079	26.062	36.245	194.5	0.298	23.953
100	25.289	25.267	36.561	170.5	0.392	24.440
125	24.172	24.146	36.732	161.6	0.474	24.910
150	22.899	22.868	36.811	152.7	0.545	25.346
200	20.411	20.373	36.705	152.2	0.661	25.963
250	19.221	19.175	36.630	152.3	0.761	26.223
300	18.298	18.246	36.516	155.6	0.852	26.372
400	15.867	15.803	36.125	150.8	1.014	26.659
500	12.369	12.301	35.587	141.3	1.144	26.987
600	10.301	10.228	35.270	126.2	1.258	27.124

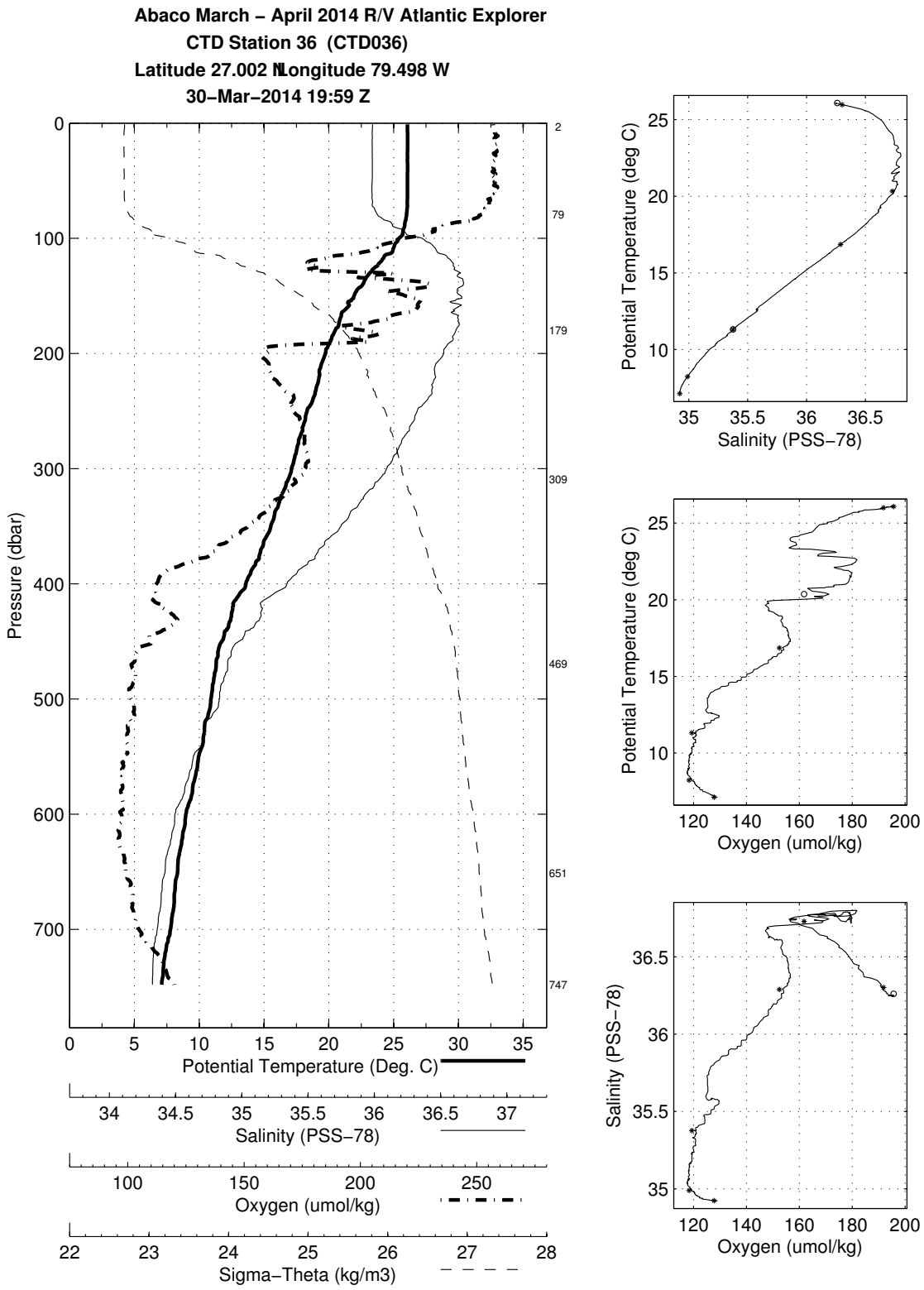
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
659	2	9.643	9.567	35.225	133.2
538	4	11.450	11.380	35.441	128.1
358	6	16.812	16.753	36.283	153.1
177	8	21.052	21.018	36.783	146.5
72	10	26.077	26.061	36.253	195.4
3	12	26.072	26.071	36.265	196.0


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 35 (CTD035)
Latitude 27.002 N Longitude 79.372 W
30–Mar–2014 18:26 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 36 (CTD036)
Latitude 27.002N Longitude 79.498W
30-Mar-2014 19:59Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.062	26.062	36.252	194.7	0.004	23.959
10	26.076	26.074	36.249	195.1	0.039	23.953
20	26.078	26.074	36.249	194.7	0.079	23.953
30	26.080	26.073	36.249	195.2	0.119	23.953
50	26.079	26.068	36.249	195.4	0.198	23.955
75	26.052	26.035	36.265	193.1	0.297	23.977
100	25.421	25.399	36.551	176.1	0.393	24.391
125	23.595	23.569	36.744	159.0	0.474	25.090
150	21.960	21.930	36.786	176.6	0.540	25.595
200	19.765	19.727	36.678	147.8	0.649	26.115
250	18.366	18.322	36.519	153.8	0.742	26.355
300	17.167	17.116	36.334	155.9	0.826	26.511
400	13.674	13.617	35.734	125.3	0.974	26.835
500	10.969	10.906	35.324	120.1	1.094	27.045
600	9.044	8.977	35.057	118.1	1.202	27.166
700	7.852	7.780	34.951	121.7	1.299	27.268

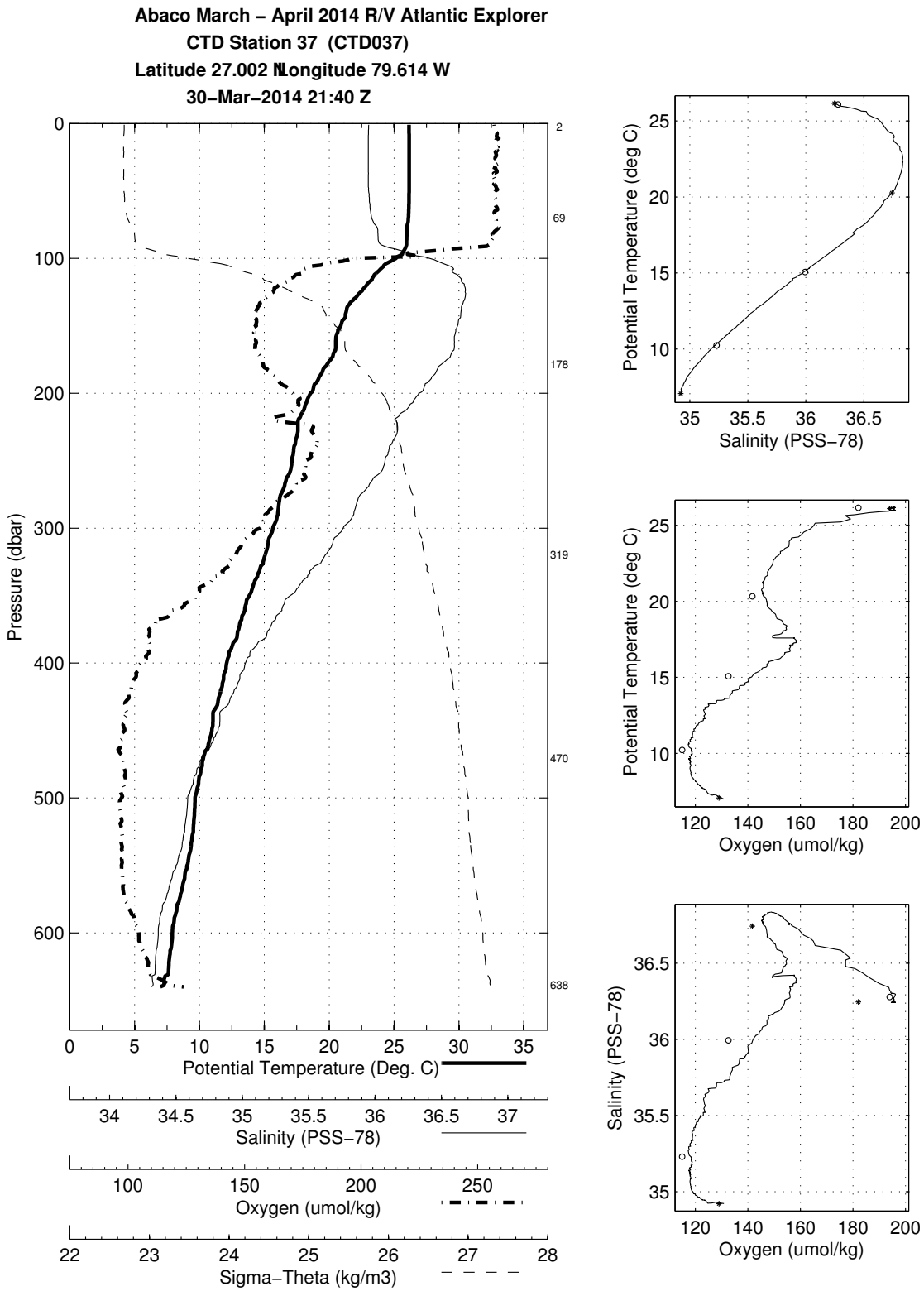
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
748	2	7.196	7.122	34.923	127.8
651	4	8.301	8.232	34.990	118.3
470	6	11.372	11.311	35.376	119.3
309	8	16.904	16.852	36.289	152.4
180	10	20.361	20.328	36.729	161.8
79	12	25.992	25.974	36.301	191.8
3	13	26.076	26.075	36.261	195.7


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 36 (CTD036)
Latitude 27.002 N Longitude 79.498 W
30–Mar–2014 19:59 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 37 (CTD037)
Latitude 27.002N Longitude 79.614W
30-Mar-2014 21:40Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.151	26.151	36.245	195.2	0.004	23.926
10	26.165	26.162	36.243	195.6	0.040	23.920
20	26.169	26.165	36.242	195.8	0.080	23.919
30	26.167	26.160	36.243	195.9	0.119	23.921
50	26.170	26.159	36.245	195.4	0.199	23.923
75	26.038	26.021	36.283	195.9	0.299	23.995
100	25.174	25.152	36.615	165.6	0.395	24.516
125	22.436	22.410	36.831	149.4	0.467	25.493
150	20.924	20.895	36.785	145.9	0.524	25.883
200	18.589	18.553	36.550	153.5	0.624	26.321
250	17.174	17.132	36.343	156.0	0.707	26.514
300	15.710	15.663	36.086	146.7	0.783	26.661
400	12.173	12.120	35.495	122.0	0.917	26.951
500	9.719	9.661	35.140	118.0	1.029	27.119
600	7.972	7.910	34.961	121.6	1.130	27.257

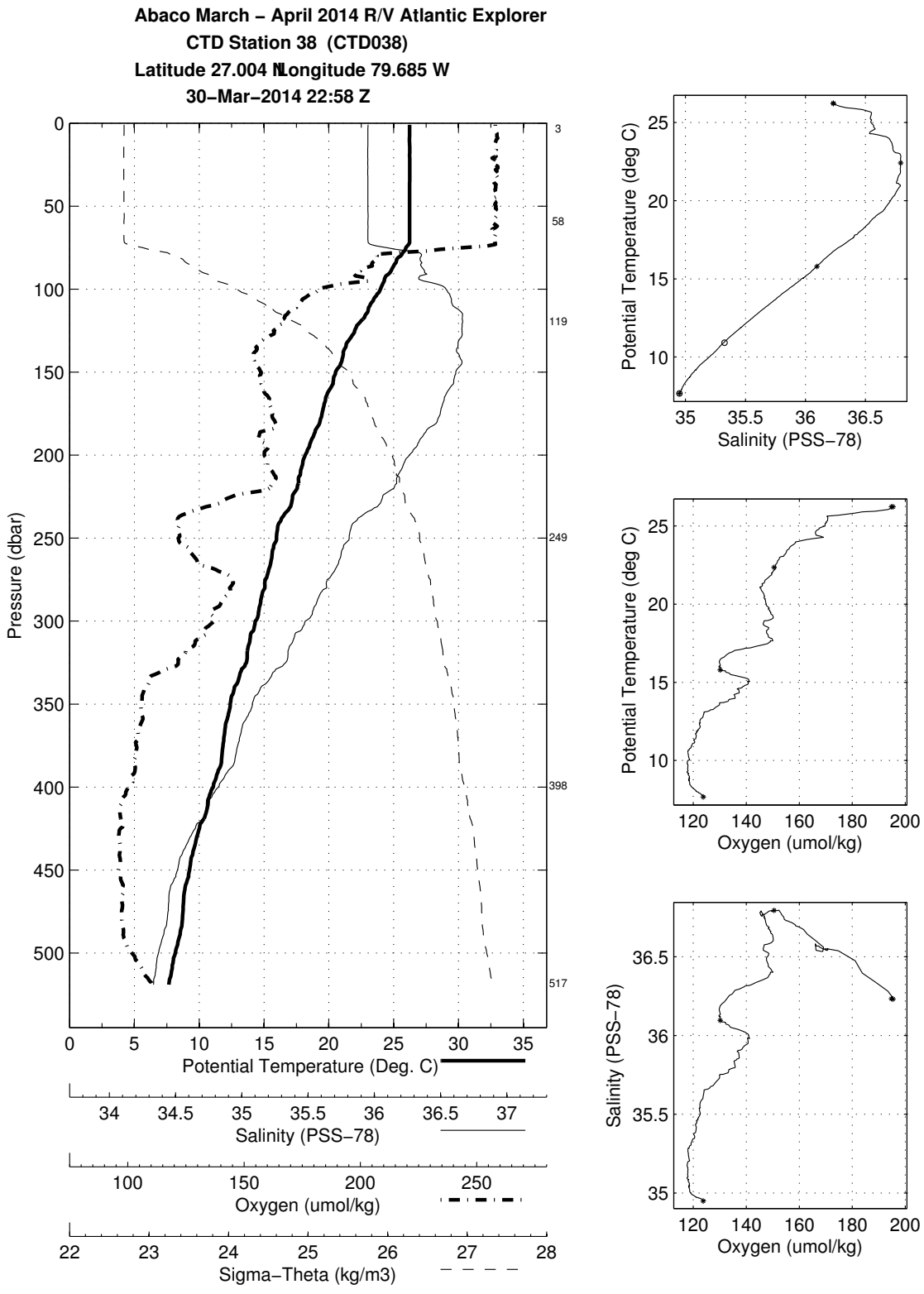
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
639	2	7.129	7.067	34.922	129.0
470	4	10.290	10.234	35.230	115.0
320	6	15.112	15.063	35.994	132.6
178	8	20.308	20.274	36.743	141.7
70	10	26.102	26.086	36.278	194.0
2	12	26.154	26.153	36.245	182.1


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 37 (CTD037)
Latitude 27.002 N Longitude 79.614 W
30–Mar–2014 21:40 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 38 (CTD038)
Latitude 27.004N Longitude 79.685W
30-Mar-2014 22:58Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	26.229	26.228	36.231	195.1	0.004	23.891
10	26.218	26.216	36.230	195.3	0.040	23.894
20	26.237	26.233	36.229	195.2	0.080	23.888
30	26.241	26.234	36.229	194.6	0.120	23.888
50	26.243	26.232	36.230	195.2	0.201	23.889
75	25.966	25.949	36.338	188.6	0.302	24.059
100	24.006	23.985	36.695	158.6	0.387	24.930
125	22.016	21.991	36.788	149.5	0.455	25.580
150	20.543	20.514	36.752	147.0	0.511	25.961
200	18.205	18.170	36.474	147.6	0.607	26.359
250	16.005	15.965	36.116	129.9	0.688	26.615
300	14.374	14.330	35.855	137.4	0.759	26.778
400	11.121	11.071	35.337	119.7	0.882	27.025
500	8.212	8.159	34.981	120.4	0.983	27.234

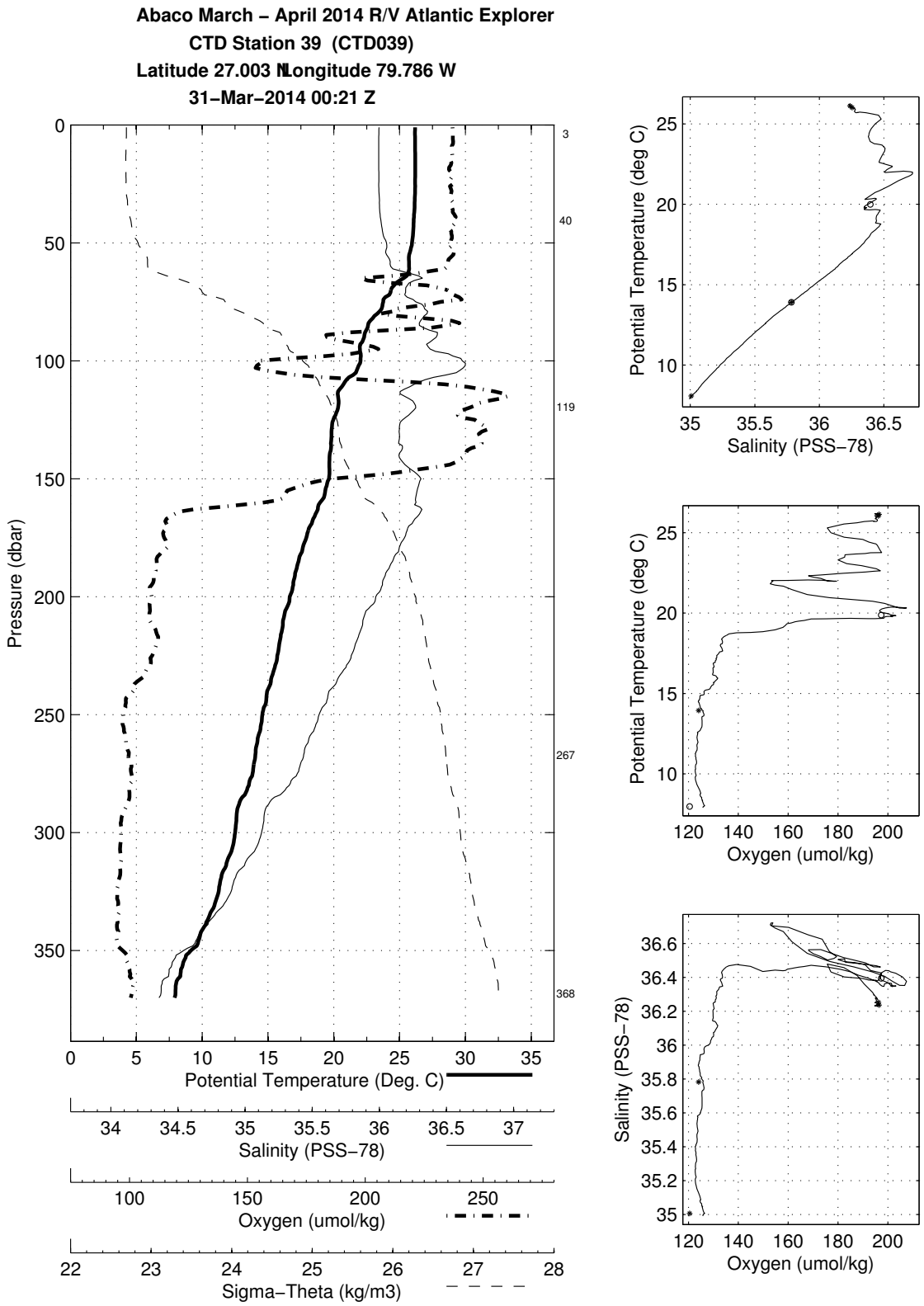
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
518	2	7.718	7.665	34.950	123.7
399	4	10.961	10.912	35.326	110.9
250	6	15.835	15.795	36.096	130.2
119	8	22.439	22.415	36.794	150.5
59	10	26.240	26.227	36.231	195.4
3	12	26.221	26.220	36.233	194.8


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 38 (CTD038)
Latitude 27.004 N Longitude 79.685 W
30–Mar–2014 22:58 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 39 (CTD039)
Latitude 27.003N Longitude 79.786W
31-Mar-2014 00:21Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.171	26.171	36.234	195.5	0.004	23.911
10	26.178	26.176	36.233	195.4	0.040	23.909
20	26.187	26.183	36.233	195.2	0.080	23.907
30	26.176	26.170	36.235	195.1	0.120	23.912
50	25.951	25.939	36.276	195.1	0.199	24.016
75	23.772	23.756	36.440	193.0	0.290	24.804
100	22.049	22.029	36.703	153.3	0.359	25.504
125	19.996	19.973	36.367	200.3	0.418	25.813
150	19.663	19.636	36.470	169.2	0.472	25.980
200	16.690	16.657	36.214	130.3	0.560	26.528
250	14.614	14.577	35.893	124.1	0.633	26.754
300	12.544	12.503	35.568	123.7	0.697	26.932

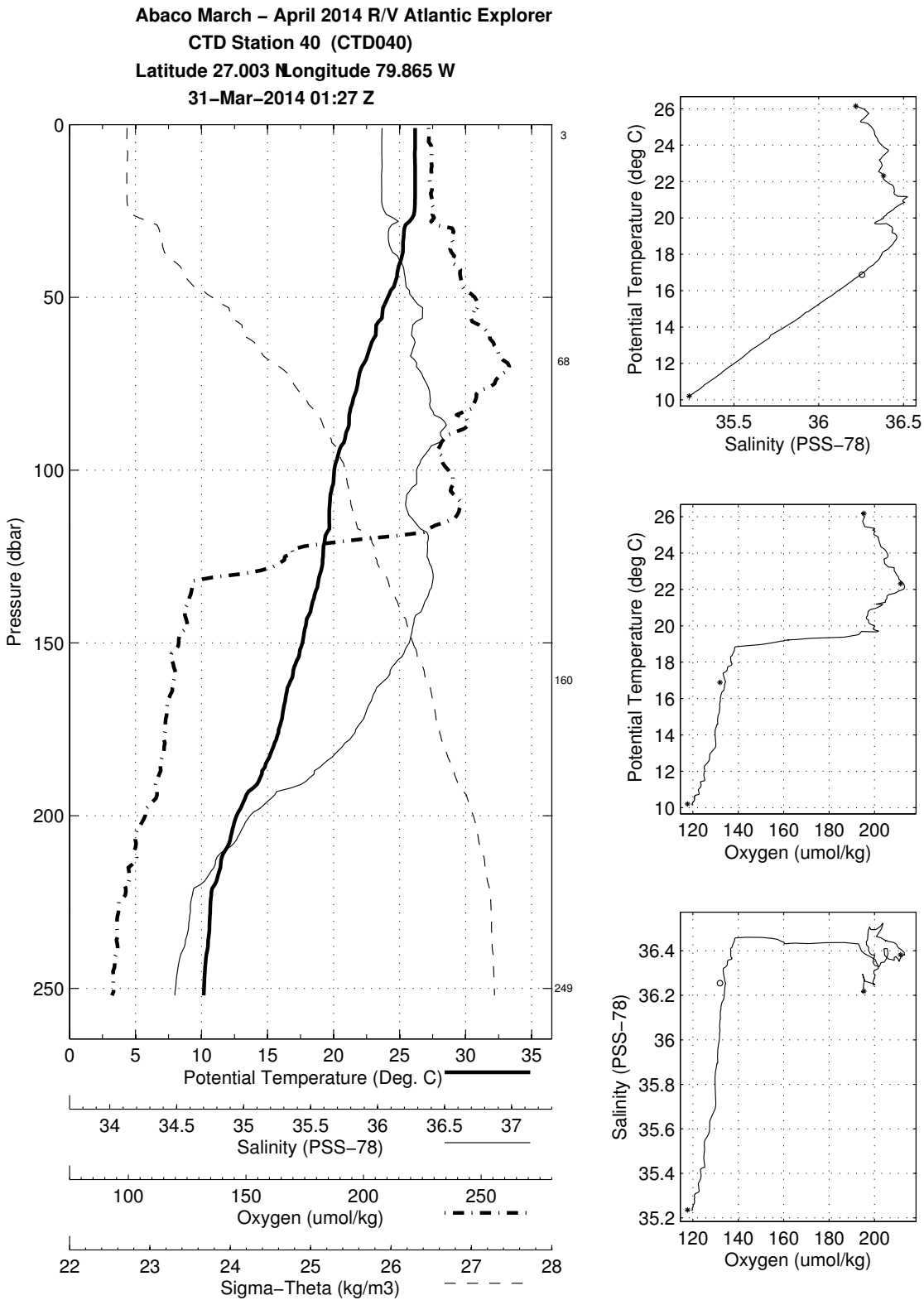
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
368	2	8.119	8.081	35.007	120.5
267	4	13.942	13.903	35.783	124.1
119	6	20.015	19.993	36.395	197.3
40	8	26.020	26.011	36.254	196.2
4	10	26.125	26.124	36.237	196.5


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 39 (CTD039)
Latitude 27.003 N Longitude 79.786 W
31–Mar–2014 00:21 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 40 (CTD040)
Latitude 27.003N Longitude 79.865W
31-Mar-2014 01:27Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	26.173	26.173	36.218	194.2	0.004	23.898
10	26.166	26.164	36.217	194.7	0.040	23.900
20	26.175	26.170	36.216	194.7	0.080	23.897
30	25.372	25.366	36.250	199.8	0.119	24.174
50	24.123	24.112	36.358	205.1	0.191	24.636
75	21.850	21.835	36.427	209.8	0.265	25.349
100	20.069	20.051	36.379	198.9	0.325	25.800
125	19.223	19.200	36.433	160.3	0.378	26.065
150	17.662	17.637	36.345	135.2	0.424	26.392
200	12.679	12.652	35.587	127.3	0.496	26.918
250	10.219	10.190	35.235	119.9	0.549	27.103

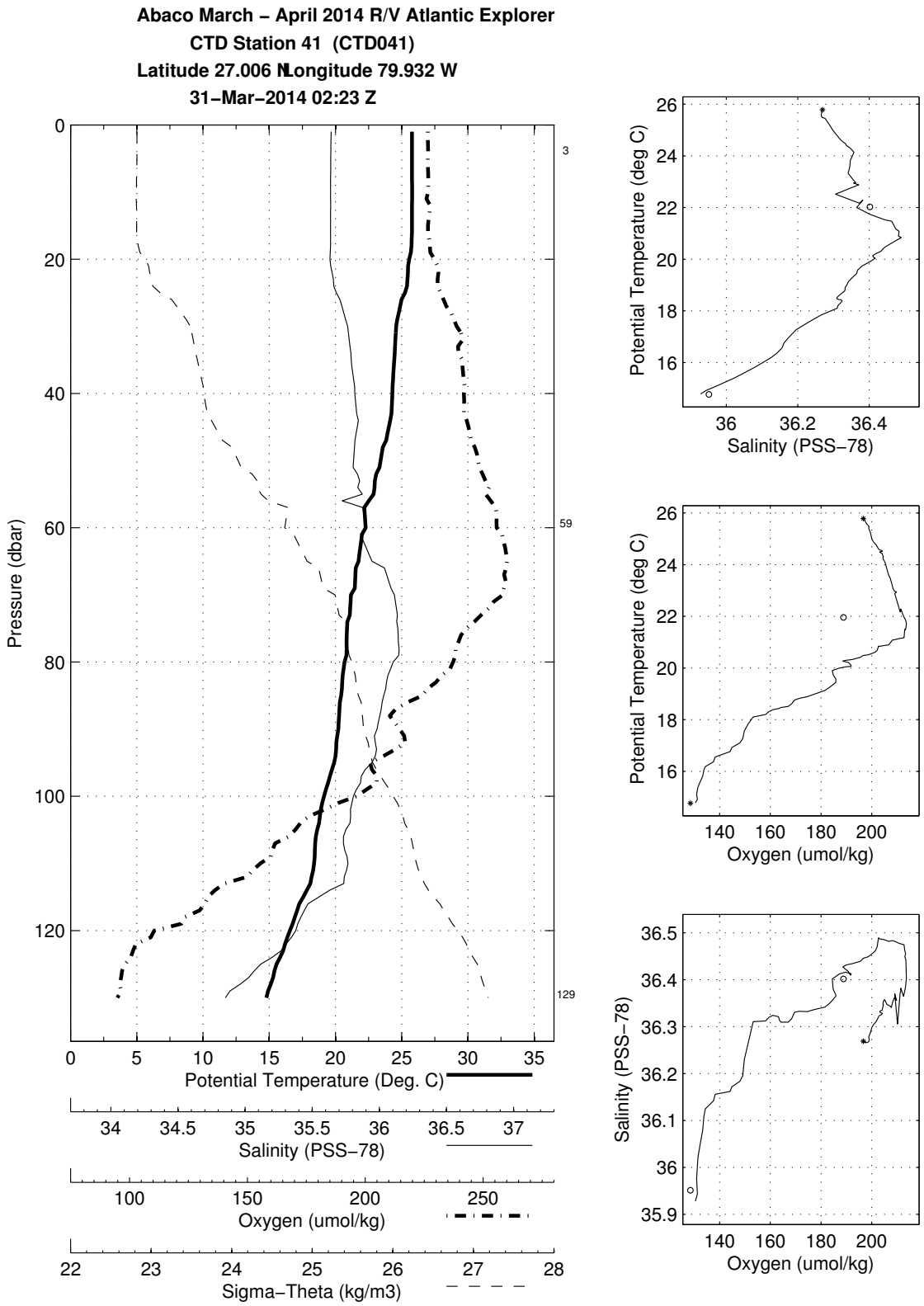
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
250	2	10.229	10.199	35.235	117.7
161	4	16.907	16.880	36.254	132.0
68	6	22.339	22.325	36.382	211.5
3	8	26.151	26.150	36.218	195.3


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 40 (CTD040)
Latitude 27.003 N Longitude 79.865 W
31–Mar–2014 01:27 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

Abaco March - April 2014 R/V Atlantic Explorer
CTD Station 41 (CTD041)
Latitude 27.006N Longitude 79.932W
31-Mar-2014 02:23Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.771	25.771	36.270	196.7	0.004	24.063
10	25.787	25.785	36.268	196.8	0.038	24.058
20	25.534	25.530	36.267	198.2	0.077	24.136
30	24.588	24.581	36.322	202.9	0.113	24.468
50	23.400	23.390	36.346	207.5	0.180	24.841
75	20.943	20.928	36.480	204.7	0.247	25.641
100	19.155	19.137	36.340	181.6	0.303	26.010
125	15.572	15.553	36.040	132.1	0.347	26.650

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
129	2	14.787	14.768	35.951	128.5
59	4	22.037	22.026	36.402	188.8
4	6	25.783	25.782	36.269	196.7


Abaco March – April 2014 R/V Atlantic Explorer
CTD Station 41 (CTD041)
Latitude 27.006 N Longitude 79.932 W
31–Mar–2014 02:23 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS–78)
Oxygen (umol/kg)
Sigma–Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS–78)
Oxygen (umol/kg)

B WOCE Summary File

Table 18: Ab1403 – WOCE Summary File

SHIP/CRS EXPOCODE	WOCE SECT	STN	CAST	CAST TYPE	CAST DATE	UTC TIME	EVENT CODE	LAT	LON	NAV	UNC DPH	HT ABV BTM	WIRE OUT	MAX PRS	NO. BTLS	PARA-METERS	COMMENTS
WBTSAE	AB1403	1	1	ROS	03162013	1417	BE	25.953N	76.919W	GPS							
WBTSAE	AB1403	1	1	ROS	03162013	1417	BO	25.953N	76.922W	GPS	4279	0	4329	4352	12	1,2	mistrips on nisks 4,6,8
WBTSAE	AB1403	1	1	ROS	03162013	1832	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	2	1	ROS	03162013	2317	BE	26.528N	76.884W	GPS							
WBTSAE	AB1403	2	1	ROS	03162013	2317	BO	26.531N	76.880W	GPS	445	22	452	449	9	1,2	nisk 4 leaking bottom o-ring
WBTSAE	AB1403	2	1	ROS	03162013	2357	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	3	1	ROS	03172013	0053	BE	26.520N	76.826W	GPS							
WBTSAE	AB1403	3	1	ROS	03172013	0053	BO	26.521N	76.820W	GPS	1321	21	1358	1336	14	1,2	nisks 2,4,7 leaking at top, 14 bottom leal
WBTSAE	AB1403	3	1	ROS	03172013	0211	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	4	1	ROS	03172013	0320	BE	26.498N	76.745W	GPS							
WBTSAE	AB1403	4	1	ROS	03172013	0320	BO	26.514N	76.743W	GPS	3857	25	4016	3922	12	1,2	nisk 6 bad vent cap, petcock leak,22 ope
WBTSAE	AB1403	4	1	ROS	03172013	1118	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	5	1	ROS	03172013	1536	BE	26.499N	76.657W	GPS							
WBTSAE	AB1403	5	1	ROS	03172013	1536	BO	26.505N	76.649W	GPS	4514	24	4622	4593	24	1,2	
WBTSAE	AB1403	5	1	ROS	03172013	1913	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	6	1	ROS	03172013	2025	BE	26.504N	76.557W	GPS							
WBTSAE	AB1403	6	1	ROS	03172013	2025	BO	26.499N	76.551W	GPS	4816	23	4894	4904	24	1,2	
WBTSAE	AB1403	6	1	ROS	03182013	0025	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	7	1	ROS	03182013	0145	BE	26.504N	76.475W	GPS							
WBTSAE	AB1403	7	1	ROS	03182013	0145	BO	26.496N	76.470W	GPS	4823	21	4928	4912	24	1,2	loose vent cap, leaking petcock
WBTSAE	AB1403	7	1	ROS	03182013	0537	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	8	1	ROS	03182013	0713	BE	26.503N	76.347W	GPS							
WBTSAE	AB1403	8	1	ROS	03182013	0713	BO	26.498N	76.337W	GPS	4805	27	4965	4900	24	1,2	nisking 1 petcock broken during recovery
WBTSAE	AB1403	8	1	ROS	03182013	1113	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	9	1	ROS	03192013	0504	BE	26.497N	76.221W	GPS							
WBTSAE	AB1403	9	1	ROS	03192013	0504	BO	26.497N	76.222W	GPS	4796	20	4858	4884	24	1,2	
WBTSAE	AB1403	9	1	ROS	03192013	0853	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	10	1	ROS	03192013	1026	BE	26.500N	76.081W	GPS							
WBTSAE	AB1403	10	1	ROS	03192013	1026	BO	26.496N	76.087W	GPS	4778	21	4889	4867	24	1,2	nisk 1 bad vent cap seal
WBTSAE	AB1403	10	1	ROS	03192013	1412	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	11	1	ROS	03192013	1602	BE	26.502N	75.902W	GPS							
WBTSAE	AB1403	11	1	ROS	03192013	1602	BO	26.502N	75.901W	GPS	4721	20	4872	4808	24	1,2	nisk 10 lanyard caught in bottom
WBTSAE	AB1403	11	1	ROS	03192013	1946	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	12	1	ROS	03192013	2109	BE	26.499N	75.706W	GPS							
WBTSAE	AB1403	12	1	ROS	03192013	2109	BO	26.499N	75.703W	GPS	4667	22	4773	4753	23	1,2	nisk 24 not fired
WBTSAE	AB1403	12	1	ROS	03202013	0055	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	13	1	ROS	03202013	0308	BE	26.500N	75.500W	GPS							
WBTSAE	AB1403	13	1	ROS	03202013	0308	BO	26.504N	75.498W	GPS	4665	20	4765	4749	23	1,2	nisk 12 bad bottom leak
WBTSAE	AB1403	13	1	ROS	03202013	0659	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	14	1	ROS	03202013	0839	BE	26.501N	75.303W	GPS							
WBTSAE	AB1403	14	1	ROS	03202013	0839	BO	26.500N	75.301W	GPS	4620	15	4712	4704	24	1,2	
WBTSAE	AB1403	14	1	ROS	03202013	1222	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	15	1	ROS	03202013	1449	BE	26.500N	75.083W	GPS							
WBTSAE	AB1403	15	1	ROS	03202013	1449	BO	26.508N	75.079W	GPS	4586	20	4647	4668	24	1,2	nisk 6 bottom cap leak
WBTSAE	AB1403	15	1	ROS	03202013	1818	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	16	1	ROS	03202013	1948	BE	26.502N	74.800W	GPS							
WBTSAE	AB1403	16	1	ROS	03202013	1948	BO	26.501N	74.798W	GPS	4519	18	4596	4600	24	1,2	nisk 6 bottom cap leak
WBTSAE	AB1403	16	1	ROS	03202013	2322	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	17	1	ROS	03212013	0107	BE	26.500N	74.520W	GPS							
WBTSAE	AB1403	17	1	ROS	03212013	0107	BO	26.512N	74.518W	GPS	4470	20	4571	4550	24	1,2	nisk 6 bottom cap leak
WBTSAE	AB1403	17	1	ROS	03212013	0437	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	18	1	ROS	03212013	0622	BE	26.501N	74.231W	GPS							
WBTSAE	AB1403	18	1	ROS	03212013	0622	BO	26.502N	74.230W	GPS	4523	23	4593	4604	24	1,2	nisk 6 bottom cap leak, o-ring replaced
WBTSAE	AB1403	18	1	ROS	03212013	0959	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	19	1	ROS	03212013	1219	BE	26.499N	73.867W	GPS							
WBTSAE	AB1403	19	1	ROS	03212013	1219	BO	26.504N	73.871W	GPS	4720	20	4791	4806	24	1,2	
WBTSAE	AB1403	19	1	ROS	03212013	1602	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	20	1	ROS	03212013	1818	BE	26.497N	73.500W	GPS							
WBTSAE	AB1403	20	1	ROS	03212013	1818	BO	26.496N	73.500W	GPS	4946	22	5012	5040	24	1,2	
WBTSAE	AB1403	20	1	ROS	03212013	2206	EN	-999.000N	-999.000W	GPS							
WBTSAE	AB1403	21	1	ROS	03222013	0012	BE	26.498N	73.136W	GPS							
WBTSAE	AB1403	21	1	ROS	03222013	0012	BO	26.500N	73.133W	GPS	5030	20	5097	5125	24	1,2	

WBTSAE	AB1403	21	1	ROS	03222013	0407	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	22	1	ROS	03222013	0623	BE	26.502N	72.767W	GPS						
WBTSAE	AB1403	22	1	ROS	03222013	0623	BO	26.498N	72.769W	GPS	5014	118	5099	5108	24	1,2
WBTSAE	AB1403	22	1	ROS	03222013	1023	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	23	1	ROS	03222013	1236	BE	26.500N	72.384W	GPS						
WBTSAE	AB1403	23	1	ROS	03222013	1236	BO	26.504N	72.373W	GPS	5015	172	5099	5110	24	1,2
WBTSAE	AB1403	23	1	ROS	03222013	1629	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	24	1	ROS	03222013	2221	BE	26.502N	71.990W	GPS						
WBTSAE	AB1403	24	1	ROS	03222013	2221	BO	26.505N	71.983W	GPS	5018	259	5100	5113	24	1,2
WBTSAE	AB1403	24	1	ROS	03232013	0408	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	25	1	ROS	03262013	0050	BE	26.498N	76.092W	GPS						
WBTSAE	AB1403	25	1	ROS	03262013	0050	BO	26.501N	76.094W	GPS	4782	21	4850	4871	12	1,2
WBTSAE	AB1403	25	1	ROS	03262013	0526	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	26	1	ROS	03272013	0353	BE	26.485N	76.461W	GPS						
WBTSAE	AB1403	26	1	ROS	03272013	0353	BO	26.496N	76.473W	GPS	4820	17	4931	4908	12	1,2
WBTSAE	AB1403	26	1	ROS	03272013	0836	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	27	1	ROS	03282013	0341	BE	26.502N	76.748W	GPS						
WBTSAE	AB1403	27	1	ROS	03282013	0341	BO	26.501N	76.740W	GPS	282	19	3013	3006	4	1,2
WBTSAE	AB1403	27	1	ROS	03282013	0543	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	28	1	ROS	03302013	0232	BE	26.066N	78.849W	GPS						
WBTSAE	AB1403	28	1	ROS	03302013	0232	BO	26.065N	78.850W	GPS	437	19	282	284	5	1,2
WBTSAE	AB1403	28	1	ROS	03302013	0256	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	29	1	ROS	03302013	0341	BE	26.166N	78.799W	GPS						
WBTSAE	AB1403	29	1	ROS	03302013	0341	BO	26.166N	78.800W	GPS	499	18	440	441	6	1,2
WBTSAE	AB1403	29	1	ROS	03302013	0416	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	30	1	ROS	03302013	0507	BE	26.251N	78.770W	GPS						
WBTSAE	AB1403	30	1	ROS	03302013	0507	BO	26.253N	78.772W	GPS	673	19	505	503	6	1,2
WBTSAE	AB1403	30	1	ROS	03302013	0538	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	31	1	ROS	03302013	0625	BE	26.333N	78.719W	GPS						
WBTSAE	AB1403	31	1	ROS	03302013	0625	BO	26.335N	78.718W	GPS	732	20	682	679	7	1,2
WBTSAE	AB1403	31	1	ROS	03302013	0703	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	32	1	ROS	03302013	0755	BE	26.434N	78.661W	GPS						
WBTSAE	AB1403	32	1	ROS	03302013	0755	BO	26.437N	78.657W	GPS	464	21	758	740	5	1,2
WBTSAE	AB1403	32	1	ROS	03302013	0838	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	33	1	ROS	03302013	1557	BE	26.998N	79.198W	GPS						
WBTSAE	AB1403	33	1	ROS	03302013	1557	BO	26.998N	79.201W	GPS	596	19	472	468	6	1,2
WBTSAE	AB1403	33	1	ROS	03302013	1628	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	34	1	ROS	03302013	1705	BE	27.000N	79.281W	GPS						
WBTSAE	AB1403	34	1	ROS	03302013	1705	BO	27.003N	79.285W	GPS	654	21	609	602	6	1,2
WBTSAE	AB1403	34	1	ROS	03302013	1745	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	35	1	ROS	03302013	1826	BE	26.997N	79.372W	GPS						
WBTSAE	AB1403	35	1	ROS	03302013	1826	BO	27.005N	79.372W	GPS	742	20	670	661	7	1,2
WBTSAE	AB1403	35	1	ROS	03302013	1908	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	36	1	ROS	03302013	1959	BE	26.997N	79.497W	GPS						
WBTSAE	AB1403	36	1	ROS	03302013	1959	BO	27.006N	79.499W	GPS	634	20	765	748	6	1,2
WBTSAE	AB1403	36	1	ROS	03302013	2046	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	37	1	ROS	03302013	2140	BE	26.998N	79.613W	GPS						
WBTSAE	AB1403	37	1	ROS	03302013	2140	BO	27.007N	79.614W	GPS	514	20	651	640	6	1,2
WBTSAE	AB1403	37	1	ROS	03302013	2220	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	38	1	ROS	03302013	2258	BE	27.000N	79.685W	GPS						
WBTSAE	AB1403	38	1	ROS	03302013	2258	BO	27.008N	79.685W	GPS	366	20	520	519	5	1,2
WBTSAE	AB1403	38	1	ROS	03302013	2333	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	39	1	ROS	03312013	0021	BE	27.001N	79.786W	GPS						
WBTSAE	AB1403	39	1	ROS	03312013	0021	BO	27.005N	79.786W	GPS	248	22	368	370	4	1,2
WBTSAE	AB1403	39	1	ROS	03312013	0049	EN	-999.000N	-999.000W	GPS						
WBTSAE	AB1403	40	1	ROS	03312013	0127	BE	27.001N	79.865W	GPS						
WBTSAE	AB1403	40	1	ROS	03312013	0127	BO	27.005N	79.865W	GPS	129	20	260	252	3	1,2
WBTSAE	AB1403	40	1	ROS	03312013	0147	EN	-999.000N	-999.000W	GPS						

C WOCE Bottle Summary File

Table 19: Ab1403 – WOCE Bottle Summary File

SHIP/CRS EXPOCODE	WOCE SECT	STN	CAST	BTL#	BTL# Flag	DATE	UTC TIME	LAT	LON	DEPTH	CTD PRS	CTD TMP	CTD SAL	SAL FLAG	BTL SAL	SAL FLAG	CTD OXY	OXY FLAG	BTL OXY	OXY FLAG
WBTSAE	AB1403	1	1	1	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	2	2	20140316	1602	25.953N	76.921W	4279	4351	2.290	34.889	2	34.884	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	3	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	4	2	20140316	1602	25.953N	76.921W	4017	4082	2.286	34.891	2	34.884	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	5	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	6	2	20140316	1602	25.953N	76.921W	4018	4083	2.286	34.891	2	34.885	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	7	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	8	2	20140316	1602	25.953N	76.921W	4029	4095	2.287	34.891	2	34.882	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	9	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	10	2	20140316	1602	25.953N	76.921W	3937	4000	2.284	34.892	2	34.882	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	11	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	12	2	20140316	1602	25.953N	76.921W	3448	3499	2.398	34.903	2	34.892	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	13	2	20140316	1602	25.953N	76.921W	2961	3001	2.585	34.916	2	34.902	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	14	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	15	2	20140316	1602	25.953N	76.921W	1979	2001	3.860	34.973	2	34.960	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	16	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	17	2	20140316	1602	25.953N	76.921W	991	1000	5.808	35.064	2	35.052	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	18	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	19	2	20140316	1602	25.953N	76.921W	497	501	15.264	36.060	2	36.044	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	20	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	21	2	20140316	1602	25.953N	76.921W	198	200	20.064	36.667	2	36.655	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	22	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	23	2	20140316	1602	25.953N	76.921W	4	4	24.376	36.538	2	36.527	4	-999.0	9	-999.0	9
WBTSAE	AB1403	1	1	24	2	20140316	1602	25.953N	76.921W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	1	2	20140316	2336	26.527N	76.884W	445	449	16.729	36.318	2	36.307	4	176.4	2	178.8	2
WBTSAE	AB1403	2	1	2	2	20140316	2336	26.527N	76.884W	398	401	17.122	36.391	2	36.384	4	180.8	2	181.7	2
WBTSAE	AB1403	2	1	3	2	20140316	2336	26.527N	76.884W	328	330	17.913	36.530	2	36.525	4	186.3	2	186.5	2
WBTSAE	AB1403	2	1	4	2	20140316	2336	26.527N	76.884W	269	271	18.443	36.587	2	36.583	4	186.6	2	186.3	6
WBTSAE	AB1403	2	1	5	2	20140316	2336	26.527N	76.884W	209	211	19.346	36.636	2	36.636	4	184.0	2	184.3	2
WBTSAE	AB1403	2	1	6	2	20140316	2336	26.527N	76.884W	160	161	20.733	36.704	2	36.707	4	186.1	2	185.6	2
WBTSAE	AB1403	2	1	7	2	20140316	2336	26.527N	76.884W	110	110	23.478	36.562	2	36.568	4	199.8	2	201.4	2
WBTSAE	AB1403	2	1	8	2	20140316	2336	26.527N	76.884W	60	61	24.104	36.465	2	36.472	4	200.2	2	200.4	2
WBTSAE	AB1403	2	1	9	2	20140316	2336	26.527N	76.884W	3	3	24.428	36.425	2	36.435	4	201.0	2	200.7	2
WBTSAE	AB1403	2	1	10	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	11	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	12	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	13	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	14	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	15	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	16	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	17	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	18	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	19	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	20	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	21	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	22	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	23	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	2	1	24	2	20140316	2336	26.527N	76.884W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	3	1	1	2	20140317	0127	26.519N	76.828W	1321	1334	4.601	35.013	2	34.993	4	240.3	2	239.9	2
WBTSAE	AB1403	3	1	2	2	20140317	0127	26.519N	76.828W	1039	1048	5.766	35.059	2	35.042	4	207.4	2	208.0	6
WBTSAE	AB1403	3	1	3	2	20140317	0127	26.519N	76.828W	977	986	6.290	35.075	2	35.060	4	192.5	2	193.4	2
WBTSAE	AB1403	3	1	4	2	20140317	0127	26.519N	76.828W	885	893	7.205	35.099	2	35.087	4	169.0	2	168.8	2
WBTSAE	AB1403	3	1	5	2	20140317	0127	26.519N	76.828W	796	802	9.086	35.204	2	35.195	4	140.8	2	141.0	2
WBTSAE	AB1403	3	1	6	2	20140317	0127	26.519N	76.828W	690	695	11.013	35.414	2	35.405	4	136.9	2	135.2	2
WBTSAE	AB1403	3	1	7	2	20140317	0127	26.519N	76.828W	597	601	13.097	35.711	2	35.704	4	146.9	2	145.6	2
WBTSAE	AB1403	3	1	8	2	20140317	0127	26.519N	76.828W	509	513	15.344	36.074	2	36.072	4	162.7	2	162.6	2
WBTSAE	AB1403	3	1	9	2	20140317	0127	26.519N	76.828W	387	389	17.613	36.480	2	36.475	4	185.5	2	186.0	2
WBTSAE	AB1403	3	1	10	2	20140317	0127	26.519N	76.828W	283	285	18.409	36.586	2	36.584	4	183.8	2	184.5	2
WBTSAE	AB1403	3	1	11	2	20140317	0127	26.519N	76.828W	192	193	19.640	36.672	2	36.675	4	182.6	2	182.3	2
WBTSAE	AB1403	3	1	12	2	20140317	0127	26.519N	76.828W	123	124	22.428	36.602	2	36.602	4	195.6	2	198.1	4
WBTSAE	AB1403	3	1	13	2	20140317	0127	26.519N	76.828W	71	71	23.978	36.497	2	36.503	4	199.8	2	200.7	6
WBTSAE	AB1403	3	1	14	2	20140317	0127	26.519N	76.828W	5	5	24.379	36.423	2	36.434	4	201.7	2	201.0	2

WBTSAE	AB1403	3	1	15	2	20140317	0127	26.519N	76.828W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	3	1	16	2	20140317	0127	26.519N	76.828W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	3	1	17	2	20140317	0127	26.519N	76.828W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	3	1	18	2	20140317	0127	26.519N	76.828W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	3	1	19	2	20140317	0127	26.519N	76.828W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	3	1	20	2	20140317	0127	26.519N	76.828W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	3	1	21	2	20140317	0127	26.519N	76.828W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	3	1	22	2	20140317	0127	26.519N	76.828W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	3	1	23	2	20140317	0127	26.519N	76.828W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	3	1	24	2	20140317	0127	26.519N	76.828W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	1	2	20140317	0526	26.499N	76.746W	3857	3918	2.359	34.897	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	2	2	20140317	0526	26.499N	76.746W	3493	3545	2.433	34.904	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	3	2	20140317	0526	26.499N	76.746W	3215	3261	2.590	34.914	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	4	2	20140317	0526	26.499N	76.746W	2963	3003	2.748	34.923	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	5	2	20140317	0526	26.499N	76.746W	2665	2700	2.987	34.937	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	6	2	20140317	0526	26.499N	76.746W	2468	2499	3.188	34.947	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	7	2	20140317	0526	26.499N	76.746W	2170	2196	3.424	34.957	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	8	2	20140317	0526	26.499N	76.746W	1877	1898	3.667	34.965	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	9	2	20140317	0526	26.499N	76.746W	1700	1718	3.907	34.977	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	10	2	20140317	0526	26.499N	76.746W	1532	1548	4.132	34.988	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	11	2	20140317	0526	26.499N	76.746W	1386	1400	4.253	34.993	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	12	2	20140317	0526	26.499N	76.746W	1239	1251	4.552	35.012	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	13	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	14	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	15	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	16	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	17	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	18	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	19	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	20	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	21	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	22	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	23	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	4	1	24	2	20140317	0526	26.499N	76.746W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	5	1	1	2	20140317	1707	26.499N	76.657W	4514	4593	2.278	34.886	2	34.890	4	255.8	2	257.7	2
WBTSAE	AB1403	5	1	2	2	20140317	1707	26.499N	76.657W	4071	4138	2.306	34.892	2	34.895	4	258.6	2	259.2	2
WBTSAE	AB1403	5	1	3	2	20140317	1707	26.499N	76.657W	3670	3726	2.367	34.899	2	34.889	4	260.4	2	261.2	2
WBTSAE	AB1403	5	1	4	2	20140317	1707	26.499N	76.657W	3254	3301	2.556	34.912	2	34.904	4	260.6	2	261.2	6
WBTSAE	AB1403	5	1	5	2	20140317	1707	26.499N	76.657W	2863	2901	2.858	34.930	2	34.920	4	258.1	2	258.9	2
WBTSAE	AB1403	5	1	6	2	20140317	1707	26.499N	76.657W	2570	2603	3.098	34.942	2	34.934	4	256.4	2	257.0	2
WBTSAE	AB1403	5	1	7	2	20140317	1707	26.499N	76.657W	2273	2301	3.317	34.952	2	34.948	4	255.8	2	256.2	6
WBTSAE	AB1403	5	1	8	2	20140317	1707	26.499N	76.657W	2076	2100	3.498	34.958	2	34.949	4	255.7	2	256.5	2
WBTSAE	AB1403	5	1	9	2	20140317	1707	26.499N	76.657W	1881	1902	3.663	34.965	2	34.958	4	255.1	2	255.0	2
WBTSAE	AB1403	5	1	10	2	20140317	1707	26.499N	76.657W	1582	1599	3.991	34.981	2	34.972	4	251.8	2	251.7	2
WBTSAE	AB1403	5	1	11	2	20140317	1707	26.499N	76.657W	1387	1401	4.258	34.996	2	34.990	4	247.8	2	247.1	2
WBTSAE	AB1403	5	1	12	2	20140317	1707	26.499N	76.657W	1210	1221	4.647	35.018	2	35.014	4	240.1	2	239.5	2
WBTSAE	AB1403	5	1	13	2	20140317	1707	26.499N	76.657W	1031	1040	5.632	35.059	2	35.055	4	211.7	2	212.9	2
WBTSAE	AB1403	5	1	14	2	20140317	1707	26.499N	76.657W	903	911	7.391	35.106	2	35.106	4	164.0	2	165.5	2
WBTSAE	AB1403	5	1	15	2	20140317	1707	26.499N	76.657W	795	801	9.236	35.223	2	35.219	4	137.7	2	140.4	4
WBTSAE	AB1403	5	1	16	2	20140317	1707	26.499N	76.657W	685	691	11.296	35.454	2	35.450	4	138.1	2	138.4	2
WBTSAE	AB1403	5	1	17	2	20140317	1707	26.499N	76.657W	575	579	14.335	35.906	2	35.898	4	155.9	2	155.6	2
WBTSAE	AB1403	5	1	18	2	20140317	1707	26.499N	76.657W	467	471	16.580	36.291	2	36.286	4	176.8	2	176.3	2
WBTSAE	AB1403	5	1	19	2	20140317	1707	26.499N	76.657W	359	362	17.785	36.510	2	36.505	4	187.7	2	186.4	2
WBTSAE	AB1403	5	1	20	2	20140317	1707	26.499N	76.657W	248	250	18.971	36.626	2	36.674	4	184.3	2	183.8	6
WBTSAE	AB1403	5	1	21	2	20140317	1707	26.499N	76.657W	159	160	21.152	36.765	2	36.763	4	188.8	2	185.1	4
WBTSAE	AB1403	5	1	22	2	20140317	1707	26.499N	76.657W	110	111	22.557	36.647	2	36.642	4	196.1	2	196.5	2
WBTSAE	AB1403	5	1	23	2	20140317	1707	26.499N	76.657W	59	60	24.015	36.577	2	36.571	4	201.1	2	202.6	2
WBTSAE	AB1403	5	1	24	2	20140317	1707	26.499N	76.657W	2	2	24.276	36.575	2	36.574	4	203.3	2	202.7	2
WBTSAE	AB1403	6	1	1	2	20140317	2204	26.503N	76.559W	4816	4903	2.234	34.876	2	34.876	2	251.2	2	252.7	2
WBTSAE	AB1403	6	1	2	2	20140317	2204	26.503N	76.559W	4522	4601	2.281	34.885	2	34.885	2	256.5	2	256.8	2
WBTSAE	AB1403	6	1	3	2	20140317	2204	26.503N	76.559W	4133	4201	2.300	34.891	2	34.890	2	258.7	2	259.4	2
WBTSAE	AB1403	6	1	4	2	20140317	2204	26.503N	76.559W	3741	3800	2.370	34.899	2	34.900	2	260.2	2	261.2	2
WBTSAE	AB1403	6	1	5	2	20140317	2204	26.503N	76.559W	3352	3401	2.547	34.911	2	34.912	2	260.5	2	261.5	6
WBTSAE	AB1403	6	1	6	2	20140317	2204	26.503N	76.559W	2960	3001	2.820	34.927	2	34.928	2	258.4	2	259.0	2
WBTSAE	AB1403	6	1	7	2	20140317	2204	26.503N	76.559W	2469	2500	3.180	34.947	2	34.947	2	255.7	2	256.3	2
WBTSAE	AB1403	6	1	8	2	20140317	2204	26.503N	76.559W	1983	2005	3.574	34.962	2	34.963	2	255.6	2	255.3	2

WBTSAE	AB1403	6	1	9	2	20140317	2204	26.503N	76.559W	1734	1753	3.793	34.971	2	34.971	2	254.1	2	254.2	2
WBTSAE	AB1403	6	1	10	2	20140317	2204	26.503N	76.559W	1516	1532	4.052	34.985	2	34.985	2	251.3	2	250.6	2
WBTSAE	AB1403	6	1	11	2	20140317	2204	26.503N	76.559W	1324	1337	4.431	35.008	2	35.009	2	244.8	2	244.4	2
WBTSAE	AB1403	6	1	12	2	20140317	2204	26.503N	76.559W	1155	1166	4.895	35.033	2	35.033	2	233.8	2	233.0	2
WBTSAE	AB1403	6	1	13	2	20140317	2204	26.503N	76.559W	986	995	5.902	35.067	2	35.068	2	204.0	2	204.7	2
WBTSAE	AB1403	6	1	14	2	20140317	2204	26.503N	76.559W	879	886	7.491	35.106	2	35.107	2	162.4	2	161.1	2
WBTSAE	AB1403	6	1	15	2	20140317	2204	26.503N	76.559W	769	775	9.351	35.224	2	35.225	2	137.8	2	137.5	2
WBTSAE	AB1403	6	1	16	2	20140317	2204	26.503N	76.559W	658	663	11.687	35.509	2	35.509	2	140.0	2	139.2	2
WBTSAE	AB1403	6	1	17	2	20140317	2204	26.503N	76.559W	552	556	14.857	35.991	2	35.993	2	160.1	2	160.1	2
WBTSAE	AB1403	6	1	18	2	20140317	2204	26.503N	76.559W	446	449	17.092	36.385	2	36.385	2	181.4	2	182.1	2
WBTSAE	AB1403	6	1	19	2	20140317	2204	26.503N	76.559W	334	336	18.178	36.564	2	36.563	2	185.0	2	184.8	6
WBTSAE	AB1403	6	1	20	2	20140317	2204	26.503N	76.559W	224	226	19.340	36.626	2	36.627	2	187.3	2	185.2	2
WBTSAE	AB1403	6	1	21	2	20140317	2204	26.503N	76.559W	134	135	21.770	36.571	2	36.569	2	204.4	2	205.8	2
WBTSAE	AB1403	6	1	22	2	20140317	2204	26.503N	76.559W	86	86	23.674	36.587	2	36.588	2	204.2	2	204.2	2
WBTSAE	AB1403	6	1	23	2	20140317	2204	26.503N	76.559W	35	35	24.033	36.583	2	36.586	2	203.4	2	203.1	2
WBTSAE	AB1403	6	1	24	2	20140317	2204	26.503N	76.559W	5	5	24.227	36.552	2	36.554	2	203.4	2	202.8	2
WBTSAE	AB1403	7	1	1	2	20140318	0323	26.503N	76.475W	4823	4911	2.224	34.875	2	34.876	2	250.7	2	251.3	2
WBTSAE	AB1403	7	1	2	2	20140318	0323	26.503N	76.475W	4453	4530	2.284	34.887	2	34.888	2	257.1	2	256.9	2
WBTSAE	AB1403	7	1	3	2	20140318	0323	26.503N	76.475W	4092	4159	2.292	34.891	2	34.891	2	258.1	2	347.0	4
WBTSAE	AB1403	7	1	4	2	20140318	0323	26.503N	76.475W	3713	3771	2.378	34.899	2	34.899	2	261.6	2	368.6	4
WBTSAE	AB1403	7	1	5	2	20140318	0323	26.503N	76.475W	3352	3401	2.543	34.911	2	34.913	2	-999.0	9	-999.0	9
WBTSAE	AB1403	7	1	6	2	20140318	0323	26.503N	76.475W	2956	2996	2.800	34.926	2	34.926	2	259.9	2	107.8	4
WBTSAE	AB1403	7	1	7	2	20140318	0323	26.503N	76.475W	2533	2566	3.147	34.945	2	34.945	2	258.1	2	263.9	4
WBTSAE	AB1403	7	1	8	2	20140318	0323	26.503N	76.475W	2140	2165	3.449	34.958	2	34.957	2	259.6	2	262.0	4
WBTSAE	AB1403	7	1	9	2	20140318	0323	26.503N	76.475W	1835	1856	3.687	34.966	2	34.966	2	254.8	2	254.9	2
WBTSAE	AB1403	7	1	10	2	20140318	0323	26.503N	76.475W	1580	1597	3.965	34.980	2	34.979	2	251.9	2	251.7	2
WBTSAE	AB1403	7	1	11	2	20140318	0323	26.503N	76.475W	1388	1402	4.300	34.998	2	34.979	4	247.3	2	246.8	2
WBTSAE	AB1403	7	1	12	2	20140318	0323	26.503N	76.475W	1219	1230	4.654	35.017	2	35.017	2	239.3	2	238.7	6
WBTSAE	AB1403	7	1	13	2	20140318	0323	26.503N	76.475W	1051	1061	5.464	35.056	2	35.056	2	217.4	2	217.8	6
WBTSAE	AB1403	7	1	14	2	20140318	0323	26.503N	76.475W	943	951	6.422	35.080	2	35.080	2	192.3	2	189.9	4
WBTSAE	AB1403	7	1	15	2	20140318	0323	26.503N	76.475W	834	842	8.210	35.136	2	35.138	2	148.4	2	148.6	2
WBTSAE	AB1403	7	1	16	2	20140318	0323	26.503N	76.475W	726	732	10.453	35.345	2	35.346	2	135.9	2	135.6	2
WBTSAE	AB1403	7	1	17	2	20140318	0323	26.503N	76.475W	617	622	13.316	35.745	2	35.745	2	147.8	2	148.3	6
WBTSAE	AB1403	7	1	18	2	20140318	0323	26.503N	76.475W	508	512	16.009	36.188	2	36.486	4	-999.0	9	-999.0	9
WBTSAE	AB1403	7	1	19	2	20140318	0323	26.503N	76.475W	399	402	17.629	36.485	2	36.585	4	187.8	2	186.8	2
WBTSAE	AB1403	7	1	20	2	20140318	0323	26.503N	76.475W	292	294	18.470	36.586	2	36.633	4	189.2	2	187.9	2
WBTSAE	AB1403	7	1	21	2	20140318	0323	26.503N	76.475W	200	201	19.742	36.635	2	36.692	4	186.3	2	187.4	2
WBTSAE	AB1403	7	1	22	2	20140318	0323	26.503N	76.475W	119	120	22.393	36.699	2	36.592	4	194.8	2	193.6	2
WBTSAE	AB1403	7	1	23	2	20140318	0323	26.503N	76.475W	69	70	23.756	36.597	2	36.556	4	203.7	2	204.0	2
WBTSAE	AB1403	7	1	24	2	20140318	0323	26.503N	76.475W	5	5	24.244	36.557	2	-999.000	9	202.8	2	202.5	2
WBTSAE	AB1403	8	1	1	2	20140318	0853	26.503N	76.349W	4805	4892	2.237	34.878	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	8	1	2	2	20140318	0853	26.503N	76.349W	4499	4577	2.266	34.884	2	34.884	2	254.6	2	265.3	4
WBTSAE	AB1403	8	1	3	2	20140318	0853	26.503N	76.349W	4170	4239	2.295	34.890	2	34.889	2	258.7	2	258.5	6
WBTSAE	AB1403	8	1	4	2	20140318	0853	26.503N	76.349W	3839	3899	2.343	34.896	2	34.895	2	260.8	2	260.9	2
WBTSAE	AB1403	8	1	5	2	20140318	0853	26.503N	76.349W	3510	3563	2.471	34.906	2	34.904	2	262.7	2	240.1	4
WBTSAE	AB1403	8	1	6	2	20140318	0853	26.503N	76.349W	3103	3147	2.717	34.921	2	34.920	2	259.5	2	259.0	2
WBTSAE	AB1403	8	1	7	2	20140318	0853	26.503N	76.349W	2698	2733	2.990	34.937	2	34.936	2	257.1	2	256.8	2
WBTSAE	AB1403	8	1	8	2	20140318	0853	26.503N	76.349W	2295	2323	3.332	34.952	2	34.951	2	259.1	2	250.1	4
WBTSAE	AB1403	8	1	9	2	20140318	0853	26.503N	76.349W	1937	1959	3.627	34.963	2	34.963	2	255.2	2	253.6	2
WBTSAE	AB1403	8	1	10	2	20140318	0853	26.503N	76.349W	1684	1702	3.836	34.973	2	34.972	2	257.9	2	209.1	4
WBTSAE	AB1403	8	1	11	2	20140318	0853	26.503N	76.349W	1490	1505	4.072	34.986	2	34.985	2	255.1	2	221.7	4
WBTSAE	AB1403	8	1	12	2	20140318	0853	26.503N	76.349W	1340	1353	4.312	34.998	2	34.997	2	247.0	2	246.2	2
WBTSAE	AB1403	8	1	13	2	20140318	0853	26.503N	76.349W	1163	1174	4.803	35.027	2	33.067	4	235.7	2	235.6	2
WBTSAE	AB1403	8	1	14	2	20140318	0853	26.503N	76.349W	978	987	5.930	35.066	2	35.066	2	203.2	2	203.4	2
WBTSAE	AB1403	8	1	15	2	20140318	0853	26.503N	76.349W	799	805	9.032	35.201	2	35.201	2	141.7	2	141.7	2
WBTSAE	AB1403	8	1	16	2	20140318	0853	26.503N	76.349W	689	695	11.424	35.470	2	35.468	2	139.6	2	138.2	2
WBTSAE	AB1403	8	1	17	2	20140318	0853	26.503N	76.349W	580	585	14.114	35.867	2	35.871	2	153.1	2	153.4	2
WBTSAE	AB1403	8	1	18	2	20140318	0853	26.503N	76.349W	474	478	16.313	36.241	2	36.242	2	174.1	2	172.7	2
WBTSAE	AB1403	8	1	19	2	20140318	0853	26.503N	76.349W	363	365	17.893	36.526	2	36.525	2	188.2	2	188.1	2
WBTSAE	AB1403	8	1	20	2	20140318	0853	26.503N	76.349W	253	255	18.746	36.604	2	36.607	2	185.2	2	184.6	2
WBTSAE	AB1403	8	1	21	2	20140318	0853	26.503N	76.349W	164	165	20.343	36.695	2	36.696	2	184.8	2	183.7	2
WBTSAE	AB1403	8	1	22	2	20140318	0853	26.503N	76.349W	99	100	23.012	36.658	2	36.657	2	198.6	2	196.9	2
WBTSAE	AB1403	8	1	23	2	20140318	0853	26.503N	76.349W	53	54	23.911	36.560	2	36.560	2	203.4	2	202.6	2
WBTSAE	AB1403	8	1	24	2	20140318	0853	26.503N	76.349W	4	4	24.227	36.554	2	36.552	2	202.4	2	201.9	2
WBTSAE	AB1403	9	1	1	2	20140319	0641	26.497N	76.221W	4796	4883	2.244	34.877	2	34.878	2	252.2	2	252.9	6
WBTSAE	AB1403	9	1	2	2	20140319	0641	26.497N	76.221W	4424	4500	2.309	34.888	2	34.888	2	258.0	2	258.2	2

WBTSAE	AB1403	9	1	3	2	20140319	0641	26.497N	76.221W	4034	4100	2.323	34.893	2	34.893	2	259.5	2	260.3	6
WBTSAE	AB1403	9	1	4	2	20140319	0641	26.497N	76.221W	3673	3730	2.384	34.899	2	34.898	2	260.8	2	261.4	2
WBTSAE	AB1403	9	1	5	2	20140319	0641	26.497N	76.221W	3302	3351	2.540	34.910	2	34.909	2	261.4	2	262.2	2
WBTSAE	AB1403	9	1	6	2	20140319	0641	26.497N	76.221W	2811	2849	2.876	34.931	2	34.930	2	257.7	2	258.7	2
WBTSAE	AB1403	9	1	7	2	20140319	0641	26.497N	76.221W	2370	2400	3.234	34.949	2	34.948	2	256.2	2	256.4	2
WBTSAE	AB1403	9	1	8	2	20140319	0641	26.497N	76.221W	2075	2099	3.455	34.957	2	34.956	6	256.3	2	255.6	2
WBTSAE	AB1403	9	1	9	2	20140319	0641	26.497N	76.221W	1761	1780	3.734	34.968	2	34.966	2	254.6	2	254.5	2
WBTSAE	AB1403	9	1	10	2	20140319	0641	26.497N	76.221W	1588	1605	3.879	34.976	2	34.975	2	253.5	2	252.7	2
WBTSAE	AB1403	9	1	11	2	20140319	0641	26.497N	76.221W	1425	1439	4.153	34.989	2	34.988	2	249.6	2	249.1	2
WBTSAE	AB1403	9	1	12	2	20140319	0641	26.497N	76.221W	1256	1269	4.596	35.015	2	35.015	2	240.9	2	240.8	2
WBTSAE	AB1403	9	1	13	2	20140319	0641	26.497N	76.221W	1090	1100	5.162	35.040	2	35.040	2	225.3	2	225.3	2
WBTSAE	AB1403	9	1	14	2	20140319	0641	26.497N	76.221W	928	936	6.548	35.084	2	35.084	2	185.6	2	186.1	2
WBTSAE	AB1403	9	1	15	2	20140319	0641	26.497N	76.221W	818	825	8.607	35.166	2	35.167	2	145.0	2	145.1	2
WBTSAE	AB1403	9	1	16	2	20140319	0641	26.497N	76.221W	707	713	11.158	35.435	2	35.434	2	138.6	2	138.4	2
WBTSAE	AB1403	9	1	17	2	20140319	0641	26.497N	76.221W	597	602	13.538	35.775	2	35.773	2	150.8	2	150.5	2
WBTSAE	AB1403	9	1	18	2	20140319	0641	26.497N	76.221W	491	495	16.226	36.220	2	36.223	6	175.0	2	175.9	2
WBTSAE	AB1403	9	1	19	2	20140319	0641	26.497N	76.221W	381	384	17.811	36.514	2	36.514	2	188.5	2	190.7	2
WBTSAE	AB1403	9	1	20	2	20140319	0641	26.497N	76.221W	272	274	18.561	36.584	2	36.581	2	187.2	2	188.8	2
WBTSAE	AB1403	9	1	21	2	20140319	0641	26.497N	76.221W	183	184	20.041	36.655	2	36.656	2	186.9	2	187.4	2
WBTSAE	AB1403	9	1	22	2	20140319	0641	26.497N	76.221W	113	114	21.972	36.594	2	36.593	2	205.4	2	205.3	2
WBTSAE	AB1403	9	1	23	2	20140319	0641	26.497N	76.221W	63	64	23.300	36.585	2	36.585	2	205.3	2	205.5	2
WBTSAE	AB1403	9	1	24	2	20140319	0641	26.497N	76.221W	4	4	24.114	36.632	2	36.630	2	202.9	2	202.6	2
WBTSAE	AB1403	10	1	1	2	20140319	1202	26.500N	76.082W	4778	4864	2.295	34.883	2	34.887	2	255.6	2	255.3	2
WBTSAE	AB1403	10	1	2	2	20140319	1202	26.500N	76.082W	4520	4599	2.314	34.888	2	34.889	2	257.6	2	257.7	2
WBTSAE	AB1403	10	1	3	2	20140319	1202	26.500N	76.082W	4110	4178	2.335	34.893	2	34.893	2	259.6	2	259.7	6
WBTSAE	AB1403	10	1	4	2	20140319	1202	26.500N	76.082W	3781	3840	2.330	34.895	2	34.896	2	260.4	2	260.7	2
WBTSAE	AB1403	10	1	5	2	20140319	1202	26.500N	76.082W	3449	3500	2.417	34.902	2	34.902	6	261.2	2	261.3	2
WBTSAE	AB1403	10	1	6	2	20140319	1202	26.500N	76.082W	2960	3000	2.640	34.917	2	34.918	2	260.6	2	261.4	2
WBTSAE	AB1403	10	1	7	2	20140319	1202	26.500N	76.082W	2468	2499	3.096	34.943	2	34.944	2	257.0	2	256.5	2
WBTSAE	AB1403	10	1	8	2	20140319	1202	26.500N	76.082W	2074	2098	3.457	34.957	2	34.958	2	255.8	2	256.3	6
WBTSAE	AB1403	10	1	9	2	20140319	1202	26.500N	76.082W	1777	1796	3.748	34.968	2	34.969	2	255.1	2	254.1	2
WBTSAE	AB1403	10	1	10	2	20140319	1202	26.500N	76.082W	1591	1608	3.935	34.978	2	34.979	2	252.6	2	252.4	2
WBTSAE	AB1403	10	1	11	2	20140319	1202	26.500N	76.082W	1343	1356	4.261	34.994	2	34.995	2	247.6	2	247.1	2
WBTSAE	AB1403	10	1	12	2	20140319	1202	26.500N	76.082W	1184	1196	4.811	35.031	2	35.032	2	234.9	2	235.7	2
WBTSAE	AB1403	10	1	13	2	20140319	1202	26.500N	76.082W	1029	1038	5.690	35.065	2	35.066	2	210.3	2	210.5	2
WBTSAE	AB1403	10	1	14	2	20140319	1202	26.500N	76.082W	918	926	6.776	35.089	2	35.090	2	177.9	2	179.5	2
WBTSAE	AB1403	10	1	15	2	20140319	1202	26.500N	76.082W	803	809	9.122	35.210	2	35.211	2	141.1	2	141.5	2
WBTSAE	AB1403	10	1	16	2	20140319	1202	26.500N	76.082W	691	696	11.529	35.483	2	35.485	2	138.2	2	138.0	2
WBTSAE	AB1403	10	1	17	2	20140319	1202	26.500N	76.082W	583	588	14.453	35.919	2	35.918	2	162.8	2	162.2	2
WBTSAE	AB1403	10	1	18	2	20140319	1202	26.500N	76.082W	474	478	16.726	36.312	2	36.312	2	181.9	2	179.7	4
WBTSAE	AB1403	10	1	19	2	20140319	1202	26.500N	76.082W	365	368	17.851	36.519	2	36.517	6	188.4	2	188.2	2
WBTSAE	AB1403	10	1	20	2	20140319	1202	26.500N	76.082W	258	260	18.595	36.598	2	36.598	2	187.6	2	185.3	2
WBTSAE	AB1403	10	1	21	2	20140319	1202	26.500N	76.082W	167	168	20.373	36.667	2	36.666	2	189.1	2	188.6	2
WBTSAE	AB1403	10	1	22	2	20140319	1202	26.500N	76.082W	94	94	22.428	36.587	2	36.589	2	205.3	2	205.6	2
WBTSAE	AB1403	10	1	23	2	20140319	1202	26.500N	76.082W	43	43	23.765	36.616	2	36.616	2	203.5	2	202.8	2
WBTSAE	AB1403	10	1	24	2	20140319	1202	26.500N	76.082W	4	4	23.806	36.619	2	36.618	2	203.1	2	203.0	2
WBTSAE	AB1403	11	1	1	2	20140319	1737	26.502N	75.902W	4721	4806	2.227	34.877	2	34.876	2	252.0	2	252.2	2
WBTSAE	AB1403	11	1	2	2	20140319	1737	26.502N	75.902W	4452	4529	2.254	34.883	2	34.883	2	255.9	2	256.0	2
WBTSAE	AB1403	11	1	3	2	20140319	1737	26.502N	75.902W	4181	4250	2.283	34.889	2	34.888	2	258.2	2	258.0	2
WBTSAE	AB1403	11	1	4	2	20140319	1737	26.502N	75.902W	3910	3973	2.296	34.892	2	34.891	2	259.5	2	259.6	2
WBTSAE	AB1403	11	1	5	2	20140319	1737	26.502N	75.902W	3644	3700	2.327	34.896	2	34.896	2	260.5	2	260.7	2
WBTSAE	AB1403	11	1	6	2	20140319	1737	26.502N	75.902W	3160	3205	2.470	34.907	2	34.907	2	261.7	2	261.5	6
WBTSAE	AB1403	11	1	7	2	20140319	1737	26.502N	75.902W	2667	2702	2.889	34.933	2	34.933	2	257.5	2	257.9	2
WBTSAE	AB1403	11	1	8	2	20140319	1737	26.502N	75.902W	2226	2253	3.329	34.953	2	34.954	2	255.0	2	255.3	2
WBTSAE	AB1403	11	1	9	2	20140319	1737	26.502N	75.902W	1877	1898	3.686	34.969	2	34.968	6	254.7	2	254.6	2
WBTSAE	AB1403	11	1	10	2	20140319	1737	26.502N	75.902W	1632	1649	3.917	34.976	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	11	1	11	2	20140319	1737	26.502N	75.902W	1373	1387	4.295	35.000	2	34.999	2	247.1	2	247.1	2
WBTSAE	AB1403	11	1	12	2	20140319	1737	26.502N	75.902W	1208	1219	4.780	35.028	2	35.029	2	237.1	2	236.3	2
WBTSAE	AB1403	11	1	13	2	20140319	1737	26.502N	75.902W	1039	1048	5.681	35.066	2	35.066	2	210.7	2	211.2	2
WBTSAE	AB1403	11	1	14	2	20140319	1737	26.502N	75.902W	928	936	6.736	35.089	2	35.089	2	180.5	2	181.1	2
WBTSAE	AB1403	11	1	15	2	20140319	1737	26.502N	75.902W	821	828	8.781	35.165	2	35.167	2	138.3	2	140.1	2
WBTSAE	AB1403	11	1	16	2	20140319	1737	26.502N	75.902W	708	714	11.046	35.418	2	35.419	2	137.6	2	136.5	2
WBTSAE	AB1403	11	1	17	2	20140319	1737	26.502N	75.902W	601	606	13.742	35.805	2	35.809	2	159.4	2	159.3	2
WBTSAE	AB1403	11	1	18	2	20140319	1737	26.502N	75.902W	493	497	16.200	36.217	2	36.219	2	175.7	2	174.1	6
WBTSAE	AB1403	11	1	19	2	20140319	1737	26.502N	75.902W	383	386	17.747	36.505	2	36.505	2	187.9	2	188.1	2
WBTSAE	AB1403	11	1	20	2	20140319	1737	26.502N	75.902W	273	275	18.590	36.592	2	36.591	2	187.3	2	188.0	2

WBTSAE	AB1403	11	1	21	2	20140319	1737	26.502N	75.902W	183	185	19.546	36.627	2	36.626	2	184.4	2	186.0	2
WBTSAE	AB1403	11	1	22	2	20140319	1737	26.502N	75.902W	119	120	21.707	36.578	2	36.575	2	204.4	2	206.2	2
WBTSAE	AB1403	11	1	23	2	20140319	1737	26.502N	75.902W	69	69	23.331	36.584	2	36.581	6	205.0	2	204.7	2
WBTSAE	AB1403	11	1	24	2	20140319	1737	26.502N	75.902W	4	4	24.445	36.654	2	36.654	2	202.7	2	202.2	2
WBTSAE	AB1403	12	1	1	2	20140319	2245	26.499N	75.705W	4667	4750	2.195	34.873	2	34.874	2	250.6	2	250.0	2
WBTSAE	AB1403	12	1	2	2	20140319	2245	26.499N	75.705W	4347	4421	2.220	34.881	2	34.882	2	254.8	2	254.6	2
WBTSAE	AB1403	12	1	3	2	20140319	2245	26.499N	75.705W	4014	4079	2.238	34.887	2	34.886	2	257.8	2	257.9	2
WBTSAE	AB1403	12	1	4	2	20140319	2245	26.499N	75.705W	3682	3739	2.271	34.892	2	34.893	2	259.8	2	259.7	2
WBTSAE	AB1403	12	1	5	2	20140319	2245	26.499N	75.705W	3353	3402	2.384	34.902	2	34.902	2	261.4	2	261.4	2
WBTSAE	AB1403	12	1	6	2	20140319	2245	26.499N	75.705W	2841	2880	2.778	34.925	2	34.926	2	259.1	2	259.2	2
WBTSAE	AB1403	12	1	7	2	20140319	2245	26.499N	75.705W	2431	2462	3.213	34.949	2	34.949	2	255.4	2	255.6	6
WBTSAE	AB1403	12	1	8	2	20140319	2245	26.499N	75.705W	2029	2053	3.558	34.961	2	34.961	2	255.4	2	255.8	2
WBTSAE	AB1403	12	1	9	2	20140319	2245	26.499N	75.705W	1727	1745	3.894	34.977	2	34.978	2	253.0	2	252.3	2
WBTSAE	AB1403	12	1	10	2	20140319	2245	26.499N	75.705W	1519	1534	4.188	34.994	2	34.995	6	249.1	2	248.6	2
WBTSAE	AB1403	12	1	11	2	20140319	2245	26.499N	75.705W	1350	1364	4.500	35.010	2	33.052	4	243.6	2	242.6	2
WBTSAE	AB1403	12	1	12	2	20140319	2245	26.499N	75.705W	1186	1197	5.009	35.039	2	35.040	2	231.6	2	231.7	2
WBTSAE	AB1403	12	1	13	2	20140319	2245	26.499N	75.705W	1015	1024	6.031	35.073	2	35.074	2	200.0	2	200.8	2
WBTSAE	AB1403	12	1	14	2	20140319	2245	26.499N	75.705W	909	917	7.230	35.096	2	35.096	2	168.6	2	166.9	2
WBTSAE	AB1403	12	1	15	2	20140319	2245	26.499N	75.705W	800	807	8.992	35.187	2	35.189	2	138.5	2	138.3	6
WBTSAE	AB1403	12	1	16	2	20140319	2245	26.499N	75.705W	688	694	11.583	35.490	2	35.494	2	140.0	2	139.4	2
WBTSAE	AB1403	12	1	17	2	20140319	2245	26.499N	75.705W	581	586	14.495	35.923	2	35.926	6	164.8	2	164.7	2
WBTSAE	AB1403	12	1	18	2	20140319	2245	26.499N	75.705W	470	474	16.769	36.322	2	36.324	2	181.1	2	180.7	2
WBTSAE	AB1403	12	1	19	2	20140319	2245	26.499N	75.705W	361	364	17.974	36.539	2	36.539	2	188.1	2	187.9	2
WBTSAE	AB1403	12	1	20	2	20140319	2245	26.499N	75.705W	254	256	18.652	36.594	2	36.595	2	185.3	2	186.8	2
WBTSAE	AB1403	12	1	21	2	20140319	2245	26.499N	75.705W	163	164	20.160	36.658	2	36.660	2	187.4	2	187.9	2
WBTSAE	AB1403	12	1	22	2	20140319	2245	26.499N	75.705W	109	110	21.956	36.602	2	36.600	2	203.3	2	204.5	2
WBTSAE	AB1403	12	1	23	2	20140319	2245	26.499N	75.705W	58	58	23.030	36.575	2	36.576	2	206.3	2	206.1	4
WBTSAE	AB1403	12	1	24	2	20140319	2245	26.499N	75.705W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	13	1	1	2	20140320	0443	26.500N	75.501W	4665	4748	2.190	34.873	2	34.874	2	250.1	2	250.6	2
WBTSAE	AB1403	13	1	2	2	20140320	0443	26.500N	75.501W	4376	4451	2.225	34.881	2	34.882	2	254.7	2	254.5	2
WBTSAE	AB1403	13	1	3	2	20140320	0443	26.500N	75.501W	4073	4140	2.241	34.886	2	34.887	6	257.7	2	257.2	2
WBTSAE	AB1403	13	1	4	2	20140320	0443	26.500N	75.501W	3792	3851	2.262	34.891	2	34.891	2	259.0	2	259.2	2
WBTSAE	AB1403	13	1	5	2	20140320	0443	26.500N	75.501W	3499	3552	2.318	34.896	2	34.897	2	260.6	2	261.2	6
WBTSAE	AB1403	13	1	6	2	20140320	0443	26.500N	75.501W	3056	3099	2.547	34.912	2	34.913	2	261.0	2	261.0	6
WBTSAE	AB1403	13	1	7	2	20140320	0443	26.500N	75.501W	2665	2700	2.870	34.931	2	34.931	2	258.1	2	259.0	2
WBTSAE	AB1403	13	1	8	2	20140320	0443	26.500N	75.501W	2323	2351	3.232	34.952	2	34.952	2	255.2	2	254.8	2
WBTSAE	AB1403	13	1	9	2	20140320	0443	26.500N	75.501W	1978	2000	3.543	34.961	2	34.962	6	255.4	2	255.3	2
WBTSAE	AB1403	13	1	10	2	20140320	0443	26.500N	75.501W	1686	1704	3.947	34.979	2	34.980	2	252.1	2	253.8	2
WBTSAE	AB1403	13	1	11	2	20140320	0443	26.500N	75.501W	1436	1451	4.362	35.003	2	35.004	2	245.8	2	246.2	2
WBTSAE	AB1403	13	1	12	2	20140320	0443	26.500N	75.501W	1197	1208	5.080	35.044	2	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	13	1	13	2	20140320	0443	26.500N	75.501W	1026	1035	6.069	35.075	2	35.076	2	198.7	2	198.2	2
WBTSAE	AB1403	13	1	14	2	20140320	0443	26.500N	75.501W	968	976	6.658	35.085	2	35.086	2	181.9	2	182.6	2
WBTSAE	AB1403	13	1	15	2	20140320	0443	26.500N	75.501W	796	803	9.359	35.223	2	35.228	2	138.0	2	142.9	4
WBTSAE	AB1403	13	1	16	2	20140320	0443	26.500N	75.501W	698	704	11.419	35.468	2	35.468	2	138.8	2	138.0	2
WBTSAE	AB1403	13	1	17	2	20140320	0443	26.500N	75.501W	591	596	14.246	35.884	2	35.888	2	162.4	2	162.3	2
WBTSAE	AB1403	13	1	18	2	20140320	0443	26.500N	75.501W	481	485	16.565	36.283	2	36.289	2	178.5	2	178.0	2
WBTSAE	AB1403	13	1	19	2	20140320	0443	26.500N	75.501W	371	374	17.797	36.511	2	36.511	2	188.0	2	188.4	2
WBTSAE	AB1403	13	1	20	2	20140320	0443	26.500N	75.501W	263	265	18.562	36.577	2	36.576	2	193.1	2	192.3	2
WBTSAE	AB1403	13	1	21	2	20140320	0443	26.500N	75.501W	174	175	20.059	36.653	2	36.653	2	187.4	2	187.1	2
WBTSAE	AB1403	13	1	22	2	20140320	0443	26.500N	75.501W	85	86	22.813	36.617	2	36.614	2	201.9	2	203.0	2
WBTSAE	AB1403	13	1	23	2	20140320	0443	26.500N	75.501W	34	34	24.198	36.634	2	36.633	2	202.2	2	202.7	2
WBTSAE	AB1403	13	1	24	2	20140320	0443	26.500N	75.501W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	14	1	1	2	20140320	1015	26.500N	75.303W	4620	4702	2.182	34.872	2	34.873	2	250.2	2	249.2	2
WBTSAE	AB1403	14	1	2	2	20140320	1015	26.500N	75.303W	4289	4362	2.230	34.883	2	34.883	2	256.0	2	255.2	2
WBTSAE	AB1403	14	1	3	2	20140320	1015	26.500N	75.303W	3962	4026	2.241	34.887	2	34.886	2	257.9	2	257.4	6
WBTSAE	AB1403	14	1	4	2	20140320	1015	26.500N	75.303W	3635	3690	2.296	34.894	2	34.893	2	260.5	2	259.7	2
WBTSAE	AB1403	14	1	5	2	20140320	1015	26.500N	75.303W	3303	3351	2.425	34.904	2	34.904	2	261.8	2	261.1	2
WBTSAE	AB1403	14	1	6	2	20140320	1015	26.500N	75.303W	2545	2578	2.999	34.938	2	34.938	2	257.0	2	256.3	2
WBTSAE	AB1403	14	1	7	2	20140320	1015	26.500N	75.303W	2467	2498	3.078	34.942	2	34.943	6	256.6	2	255.9	6
WBTSAE	AB1403	14	1	8	2	20140320	1015	26.500N	75.303W	2076	2100	3.479	34.959	2	34.959	2	255.9	2	254.7	2
WBTSAE	AB1403	14	1	9	2	20140320	1015	26.500N	75.303W	1831	1851	3.743	34.969	2	34.969	6	254.4	2	253.5	2
WBTSAE	AB1403	14	1	10	2	20140320	1015	26.500N	75.303W	1582	1599	4.135	34.989	2	34.989	2	250.0	2	248.9	2
WBTSAE	AB1403	14	1	11	2	20140320	1015	26.500N	75.303W	1373	1387	4.508	35.012	2	35.012	2	242.9	2	242.0	2
WBTSAE	AB1403	14	1	12	2	20140320	1015	26.500N	75.303W	1206	1218	5.141	35.046	2	35.049	2	226.9	2	226.3	2
WBTSAE	AB1403	14	1	13	2	20140320	1015	26.500N	75.303W	1042	1051	6.125	35.075	2	35.072	2	197.0	2	197.2	2
WBTSAE	AB1403	14	1	14	2	20140320	1015	26.500N	75.303W	933	941	7.508	35.115	2	35.109	2	163.8	2	165.6	2

WBTSAE	AB1403	14	1	15	2	20140320	1015	26.500N	75.303W	823	830	9.228	35.210	2	35.211	2	137.8	2	137.3	2
WBTSAE	AB1403	14	1	16	2	20140320	1015	26.500N	75.303W	713	719	11.407	35.466	2	35.467	2	138.4	2	137.6	2
WBTSAE	AB1403	14	1	17	2	20140320	1015	26.500N	75.303W	604	609	14.195	35.875	2	35.878	2	161.4	2	161.4	2
WBTSAE	AB1403	14	1	18	2	20140320	1015	26.500N	75.303W	495	499	16.602	36.290	2	36.295	2	179.1	2	177.6	2
WBTSAE	AB1403	14	1	19	2	20140320	1015	26.500N	75.303W	385	388	17.719	36.499	2	36.500	2	186.8	2	187.5	2
WBTSAE	AB1403	14	1	20	2	20140320	1015	26.500N	75.303W	296	298	18.447	36.576	2	36.572	2	187.9	2	191.8	4
WBTSAE	AB1403	14	1	21	2	20140320	1015	26.500N	75.303W	188	190	20.298	36.686	2	36.685	2	185.8	2	184.6	2
WBTSAE	AB1403	14	1	22	2	20140320	1015	26.500N	75.303W	117	118	22.812	36.699	2	36.689	4	195.1	2	193.2	2
WBTSAE	AB1403	14	1	23	2	20140320	1015	26.500N	75.303W	69	70	24.608	36.635	2	36.632	2	201.2	2	200.8	2
WBTSAE	AB1403	14	1	24	2	20140320	1015	26.500N	75.303W	2	2	24.960	36.660	2	36.660	2	200.1	2	199.4	2
WBTSAE	AB1403	15	1	1	2	20140320	1617	26.500N	75.083W	4586	4667	2.216	34.877	2	34.877	2	252.7	2	252.4	2
WBTSAE	AB1403	15	1	2	2	20140320	1617	26.500N	75.083W	4306	4379	2.248	34.884	2	34.884	2	256.4	2	256.0	2
WBTSAE	AB1403	15	1	3	2	20140320	1617	26.500N	75.083W	4026	4091	2.264	34.888	2	34.888	2	258.1	2	257.8	2
WBTSAE	AB1403	15	1	4	2	20140320	1617	26.500N	75.083W	3742	3801	2.290	34.893	2	34.893	2	259.8	2	259.4	2
WBTSAE	AB1403	15	1	5	2	20140320	1617	26.500N	75.083W	3449	3500	2.341	34.898	2	34.897	6	261.4	2	261.0	2
WBTSAE	AB1403	15	1	6	2	20140320	1617	26.500N	75.083W	2959	3000	2.632	34.918	2	34.917	2	260.3	2	261.1	2
WBTSAE	AB1403	15	1	7	2	20140320	1617	26.500N	75.083W	2615	2649	2.912	34.933	2	34.931	2	257.7	2	257.4	2
WBTSAE	AB1403	15	1	8	2	20140320	1617	26.500N	75.083W	2224	2251	3.280	34.952	2	34.951	2	256.0	2	255.5	6
WBTSAE	AB1403	15	1	9	2	20140320	1617	26.500N	75.083W	1801	1821	3.744	34.968	2	34.968	2	254.5	2	253.8	2
WBTSAE	AB1403	15	1	10	2	20140320	1617	26.500N	75.083W	1529	1545	4.130	34.989	2	34.988	2	249.9	2	249.8	2
WBTSAE	AB1403	15	1	11	2	20140320	1617	26.500N	75.083W	1342	1355	4.563	35.013	2	35.016	2	242.0	2	241.2	2
WBTSAE	AB1403	15	1	12	2	20140320	1617	26.500N	75.083W	1174	1185	5.275	35.049	2	35.049	2	223.1	2	223.0	2
WBTSAE	AB1403	15	1	13	2	20140320	1617	26.500N	75.083W	1005	1014	6.813	35.079	2	35.078	2	173.4	2	174.8	6
WBTSAE	AB1403	15	1	14	2	20140320	1617	26.500N	75.083W	894	902	8.563	35.150	2	35.149	2	141.5	2	141.6	2
WBTSAE	AB1403	15	1	15	2	20140320	1617	26.500N	75.083W	804	811	10.037	35.294	2	35.294	2	135.9	2	135.4	2
WBTSAE	AB1403	15	1	16	2	20140320	1617	26.500N	75.083W	694	700	12.579	35.628	2	35.628	6	143.5	2	142.5	2
WBTSAE	AB1403	15	1	17	2	20140320	1617	26.500N	75.083W	585	590	15.173	36.040	2	36.041	2	162.5	2	161.3	2
WBTSAE	AB1403	15	1	18	2	20140320	1617	26.500N	75.083W	477	480	17.154	36.394	2	36.393	2	183.1	2	182.8	2
WBTSAE	AB1403	15	1	19	2	20140320	1617	26.500N	75.083W	367	370	17.964	36.537	2	36.536	2	187.2	2	187.0	2
WBTSAE	AB1403	15	1	20	2	20140320	1617	26.500N	75.083W	258	259	19.050	36.645	2	36.644	2	185.9	2	180.1	4
WBTSAE	AB1403	15	1	21	2	20140320	1617	26.500N	75.083W	169	170	20.616	36.709	2	36.708	2	186.7	2	185.2	2
WBTSAE	AB1403	15	1	22	2	20140320	1617	26.500N	75.083W	103	104	23.606	36.694	2	36.691	2	195.2	2	193.5	2
WBTSAE	AB1403	15	1	23	2	20140320	1617	26.500N	75.083W	54	55	25.200	36.665	2	36.666	2	199.4	2	199.6	2
WBTSAE	AB1403	15	1	24	2	20140320	1617	26.500N	75.083W	4	4	25.340	36.666	2	36.667	2	199.9	2	199.6	2
WBTSAE	AB1403	16	1	1	2	20140320	2121	26.501N	74.800W	4519	4598	2.175	34.874	2	-999.000	9	250.8	2	251.2	2
WBTSAE	AB1403	16	1	2	2	20140320	2121	26.501N	74.800W	4205	4276	2.222	34.884	2	34.877	4	256.1	2	255.9	2
WBTSAE	AB1403	16	1	3	2	20140320	2121	26.501N	74.800W	3888	3950	2.234	34.888	2	-999.000	9	258.2	2	258.0	2
WBTSAE	AB1403	16	1	4	2	20140320	2121	26.501N	74.800W	3567	3621	2.272	34.894	2	-999.000	9	260.2	2	259.7	2
WBTSAE	AB1403	16	1	5	2	20140320	2121	26.501N	74.800W	3254	3301	2.380	34.902	2	-999.000	9	261.8	2	261.3	2
WBTSAE	AB1403	16	1	6	2	20140320	2121	26.501N	74.800W	2763	2800	2.763	34.925	2	-999.000	9	259.4	2	259.0	2
WBTSAE	AB1403	16	1	7	2	20140320	2121	26.501N	74.800W	2371	2400	3.167	34.950	2	-999.000	9	255.3	2	254.9	2
WBTSAE	AB1403	16	1	8	2	20140320	2121	26.501N	74.800W	2123	2148	3.406	34.956	2	-999.000	9	255.8	2	255.5	6
WBTSAE	AB1403	16	1	9	2	20140320	2121	26.501N	74.800W	1899	1920	3.645	34.964	2	-999.000	9	255.3	2	254.8	2
WBTSAE	AB1403	16	1	10	2	20140320	2121	26.501N	74.800W	1604	1620	4.091	34.986	2	-999.000	9	250.4	2	249.9	2
WBTSAE	AB1403	16	1	11	2	20140320	2121	26.501N	74.800W	1380	1394	4.583	35.014	2	-999.000	9	241.6	2	240.7	2
WBTSAE	AB1403	16	1	12	2	20140320	2121	26.501N	74.800W	1214	1226	5.221	35.046	2	35.032	4	224.3	2	224.2	2
WBTSAE	AB1403	16	1	13	2	20140320	2121	26.501N	74.800W	1046	1056	6.536	35.081	2	-999.000	9	184.7	2	185.6	2
WBTSAE	AB1403	16	1	14	2	20140320	2121	26.501N	74.800W	936	944	8.043	35.131	2	-999.000	9	150.1	2	151.9	6
WBTSAE	AB1403	16	1	15	2	20140320	2121	26.501N	74.800W	829	836	9.857	35.277	2	-999.000	9	135.8	2	136.5	2
WBTSAE	AB1403	16	1	16	2	20140320	2121	26.501N	74.800W	719	725	12.045	35.555	2	-999.000	9	140.1	2	139.6	2
WBTSAE	AB1403	16	1	17	2	20140320	2121	26.501N	74.800W	612	617	14.718	35.964	2	-999.000	9	157.1	2	157.8	2
WBTSAE	AB1403	16	1	18	2	20140320	2121	26.501N	74.800W	500	504	16.843	36.337	2	-999.000	9	180.6	2	179.4	2
WBTSAE	AB1403	16	1	19	2	20140320	2121	26.501N	74.800W	391	394	18.023	36.544	2	-999.000	9	186.4	2	186.3	2
WBTSAE	AB1403	16	1	20	2	20140320	2121	26.501N	74.800W	282	284	18.776	36.587	2	-999.000	9	189.6	2	191.4	2
WBTSAE	AB1403	16	1	21	2	20140320	2121	26.501N	74.800W	192	193	21.104	36.818	2	-999.000	9	189.3	2	179.0	4
WBTSAE	AB1403	16	1	22	2	20140320	2121	26.501N	74.800W	114	114	24.470	36.871	2	-999.000	9	203.0	2	195.6	4
WBTSAE	AB1403	16	1	23	2	20140320	2121	26.501N	74.800W	64	64	24.778	36.654	2	-999.000	9	200.6	2	200.8	2
WBTSAE	AB1403	16	1	24	2	20140320	2121	26.501N	74.800W	3	3	25.323	36.638	2	-999.000	9	198.9	2	199.6	2
WBTSAE	AB1403	17	1	1	2	20140321	0235	26.499N	74.520W	4470	4548	2.176	34.875	2	-999.000	9	251.3	2	251.0	2
WBTSAE	AB1403	17	1	2	2	20140321	0235	26.499N	74.520W	4131	4199	2.207	34.883	2	-999.000	9	255.8	2	255.0	6
WBTSAE	AB1403	17	1	3	2	20140321	0235	26.499N	74.520W	3935	3999	2.225	34.887	2	34.955	4	258.0	2	257.8	2
WBTSAE	AB1403	17	1	4	2	20140321	0235	26.499N	74.520W	3624	3679	2.285	34.894	2	-999.000	9	260.0	2	259.6	2
WBTSAE	AB1403	17	1	5	2	20140321	0235	26.499N	74.520W	3350	3399	2.378	34.902	2	-999.000	9	261.4	2	261.2	2
WBTSAE	AB1403	17	1	6	2	20140321	0235	26.499N	74.520W	2957	2998	2.642	34.918	2	-999.000	9	260.5	2	261.3	2
WBTSAE	AB1403	17	1	7	2	20140321	0235	26.499N	74.520W	2567	2599	2.987	34.938	2	-999.000	9	256.9	2	257.0	2
WBTSAE	AB1403	17	1	8	2	20140321	0235	26.499N	74.520W	2175	2201	3.395	34.955	2	-999.000	9	255.9	2	256.5	2

WBTSAE	AB1403	17	1	9	2	20140321	0235	26.499N	74.520W	1830	1850	3.809	34.971	2	-999.000	9	253.9	2	253.2	2
WBTSAE	AB1403	17	1	10	2	20140321	0235	26.499N	74.520W	1535	1551	4.300	34.997	2	-999.000	9	247.0	2	247.2	2
WBTSAE	AB1403	17	1	11	2	20140321	0235	26.499N	74.520W	1343	1356	4.797	35.026	2	-999.000	9	236.5	2	236.1	2
WBTSAE	AB1403	17	1	12	2	20140321	0235	26.499N	74.520W	1174	1185	5.701	35.063	2	-999.000	9	209.9	2	210.2	2
WBTSAE	AB1403	17	1	13	2	20140321	0235	26.499N	74.520W	1006	1015	7.757	35.095	2	-999.000	9	148.6	2	150.1	2
WBTSAE	AB1403	17	1	14	2	20140321	0235	26.499N	74.520W	898	906	9.479	35.233	2	-999.000	9	136.3	2	142.0	4
WBTSAE	AB1403	17	1	15	2	20140321	0235	26.499N	74.520W	788	795	11.535	35.483	2	-999.000	9	138.7	2	138.2	2
WBTSAE	AB1403	17	1	16	2	20140321	0235	26.499N	74.520W	679	684	13.601	35.783	2	-999.000	9	149.3	2	149.3	2
WBTSAE	AB1403	17	1	17	2	20140321	0235	26.499N	74.520W	570	574	15.926	36.171	2	-999.000	9	169.5	2	168.3	2
WBTSAE	AB1403	17	1	18	2	20140321	0235	26.499N	74.520W	461	465	17.435	36.448	2	-999.000	9	185.9	2	185.9	2
WBTSAE	AB1403	17	1	19	2	20140321	0235	26.499N	74.520W	353	356	18.294	36.581	2	-999.000	9	181.4	2	181.3	4
WBTSAE	AB1403	17	1	20	2	20140321	0235	26.499N	74.520W	239	241	20.129	36.759	2	-999.000	9	175.6	2	174.8	2
WBTSAE	AB1403	17	1	21	2	20140321	0235	26.499N	74.520W	154	155	23.661	37.026	2	-999.000	9	183.5	2	183.9	2
WBTSAE	AB1403	17	1	22	2	20140321	0235	26.499N	74.520W	94	94	25.153	36.660	2	-999.000	9	199.3	2	199.5	2
WBTSAE	AB1403	17	1	23	2	20140321	0235	26.499N	74.520W	44	44	25.820	36.541	2	-999.000	9	197.5	2	197.7	2
WBTSAE	AB1403	17	1	24	2	20140321	0235	26.499N	74.520W	3	3	25.864	36.545	2	-999.000	9	197.9	2	198.0	2
WBTSAE	AB1403	18	1	1	2	20140321	0753	26.501N	74.232W	4523	4602	2.126	34.867	2	34.865	2	248.5	2	248.9	2
WBTSAE	AB1403	18	1	2	2	20140321	0753	26.501N	74.232W	4203	4274	2.209	34.882	2	34.881	2	255.7	2	254.5	2
WBTSAE	AB1403	18	1	3	2	20140321	0753	26.501N	74.232W	3887	3949	2.244	34.889	2	34.888	2	258.4	2	258.1	2
WBTSAE	AB1403	18	1	4	2	20140321	0753	26.501N	74.232W	3570	3624	2.322	34.897	2	34.895	2	260.5	2	260.1	2
WBTSAE	AB1403	18	1	5	2	20140321	0753	26.501N	74.232W	3253	3300	2.503	34.910	2	34.907	2	254.7	2	256.0	4
WBTSAE	AB1403	18	1	6	2	20140321	0753	26.501N	74.232W	2861	2900	2.838	34.929	2	34.926	2	258.5	2	257.9	2
WBTSAE	AB1403	18	1	7	2	20140321	0753	26.501N	74.232W	2468	2499	3.195	34.948	2	34.945	2	256.0	2	255.5	2
WBTSAE	AB1403	18	1	8	2	20140321	0753	26.501N	74.232W	2072	2096	3.584	34.961	2	34.959	2	255.7	2	255.1	6
WBTSAE	AB1403	18	1	9	2	20140321	0753	26.501N	74.232W	1778	1798	3.928	34.978	2	34.976	2	252.7	2	252.4	2
WBTSAE	AB1403	18	1	10	2	20140321	0753	26.501N	74.232W	1587	1604	4.228	34.992	2	34.990	2	248.5	2	248.0	2
WBTSAE	AB1403	18	1	11	2	20140321	0753	26.501N	74.232W	1387	1401	4.763	35.024	2	35.023	2	237.6	2	237.0	2
WBTSAE	AB1403	18	1	12	2	20140321	0753	26.501N	74.232W	1189	1200	5.758	35.065	2	35.065	2	208.5	2	209.0	2
WBTSAE	AB1403	18	1	13	2	20140321	0753	26.501N	74.232W	1036	1046	7.631	35.085	2	35.085	2	153.4	2	151.5	2
WBTSAE	AB1403	18	1	14	2	20140321	0753	26.501N	74.232W	921	929	9.429	35.224	2	35.221	2	135.3	2	136.1	2
WBTSAE	AB1403	18	1	15	2	20140321	0753	26.501N	74.232W	818	825	11.293	35.452	2	35.454	2	138.5	2	138.0	2
WBTSAE	AB1403	18	1	16	2	20140321	0753	26.501N	74.232W	708	714	13.672	35.794	2	35.793	2	150.2	2	150.4	2
WBTSAE	AB1403	18	1	17	2	20140321	0753	26.501N	74.232W	601	605	16.010	36.185	2	36.186	6	168.9	2	169.1	2
WBTSAE	AB1403	18	1	18	2	20140321	0753	26.501N	74.232W	488	492	17.645	36.481	2	36.480	2	185.7	2	186.6	2
WBTSAE	AB1403	18	1	19	2	20140321	0753	26.501N	74.232W	383	386	18.467	36.590	2	36.591	2	184.7	2	185.1	2
WBTSAE	AB1403	18	1	20	2	20140321	0753	26.501N	74.232W	273	275	19.775	36.660	2	36.660	2	185.2	2	184.7	2
WBTSAE	AB1403	18	1	21	2	20140321	0753	26.501N	74.232W	184	186	21.750	36.737	2	36.734	2	190.2	2	190.6	2
WBTSAE	AB1403	18	1	22	2	20140321	0753	26.501N	74.232W	120	121	24.951	36.659	2	36.657	2	198.9	2	198.7	2
WBTSAE	AB1403	18	1	23	2	20140321	0753	26.501N	74.232W	70	70	25.026	36.661	2	36.658	2	199.3	2	199.7	2
WBTSAE	AB1403	18	1	24	2	20140321	0753	26.501N	74.232W	3	3	25.075	36.667	2	36.666	2	199.6	2	199.1	2
WBTSAE	AB1403	19	1	1	2	20140321	1354	26.498N	73.867W	4720	4805	2.151	34.867	2	34.868	2	248.7	2	249.9	2
WBTSAE	AB1403	19	1	2	2	20140321	1354	26.498N	73.867W	4374	4449	2.245	34.883	2	34.883	2	256.4	2	256.7	2
WBTSAE	AB1403	19	1	3	2	20140321	1354	26.498N	73.867W	4082	4149	2.266	34.888	2	34.889	6	258.2	2	259.4	2
WBTSAE	AB1403	19	1	4	2	20140321	1354	26.498N	73.867W	3762	3821	2.299	34.894	2	34.893	2	259.9	2	260.2	2
WBTSAE	AB1403	19	1	5	2	20140321	1354	26.498N	73.867W	3449	3500	2.416	34.903	2	34.903	2	261.1	2	261.9	2
WBTSAE	AB1403	19	1	6	2	20140321	1354	26.498N	73.867W	3056	3099	2.710	34.920	2	34.920	2	259.9	2	260.9	2
WBTSAE	AB1403	19	1	7	2	20140321	1354	26.498N	73.867W	2664	2698	3.054	34.940	2	34.940	2	256.7	2	257.5	2
WBTSAE	AB1403	19	1	8	2	20140321	1354	26.498N	73.867W	2273	2301	3.417	34.957	2	34.957	2	255.3	2	256.9	2
WBTSAE	AB1403	19	1	9	2	20140321	1354	26.498N	73.867W	1929	1951	3.791	34.970	2	34.968	2	254.4	2	254.5	6
WBTSAE	AB1403	19	1	10	2	20140321	1354	26.498N	73.867W	1581	1597	4.337	35.000	2	34.998	2	246.8	2	246.4	2
WBTSAE	AB1403	19	1	11	2	20140321	1354	26.498N	73.867W	1386	1400	4.904	35.030	2	35.030	2	233.1	2	233.1	6
WBTSAE	AB1403	19	1	12	2	20140321	1354	26.498N	73.867W	1219	1231	5.932	35.065	2	35.065	2	200.4	2	201.7	2
WBTSAE	AB1403	19	1	13	2	20140321	1354	26.498N	73.867W	1050	1059	7.505	35.082	2	35.082	2	153.8	2	154.4	2
WBTSAE	AB1403	19	1	14	2	20140321	1354	26.498N	73.867W	941	950	8.874	35.164	2	35.166	6	136.7	2	136.7	2
WBTSAE	AB1403	19	1	15	2	20140321	1354	26.498N	73.867W	833	840	11.404	35.466	2	35.466	2	138.6	2	138.7	2
WBTSAE	AB1403	19	1	16	2	20140321	1354	26.498N	73.867W	723	729	14.250	35.887	2	35.888	2	155.3	2	155.1	2
WBTSAE	AB1403	19	1	17	2	20140321	1354	26.498N	73.867W	625	630	16.422	36.257	2	36.256	2	-999.0	9	-999.0	9
WBTSAE	AB1403	19	1	18	2	20140321	1354	26.498N	73.867W	505	509	18.149	36.558	2	36.557	2	185.8	2	187.5	2
WBTSAE	AB1403	19	1	19	2	20140321	1354	26.498N	73.867W	399	402	18.831	36.559	2	36.561	2	204.8	2	206.2	2
WBTSAE	AB1403	19	1	20	2	20140321	1354	26.498N	73.867W	289	291	19.895	36.648	2	36.648	2	197.5	2	198.8	2
WBTSAE	AB1403	19	1	21	2	20140321	1354	26.498N	73.867W	198	200	21.762	36.701	2	36.701	2	190.9	2	191.7	2
WBTSAE	AB1403	19	1	22	2	20140321	1354	26.498N	73.867W	106	107	24.608	36.686	2	36.684	2	198.0	2	198.8	2
WBTSAE	AB1403	19	1	23	2	20140321	1354	26.498N	73.867W	59	59	25.066	36.662	2	36.662	2	199.2	2	199.9	2
WBTSAE	AB1403	19	1	24	2	20140321	1354	26.498N	73.867W	4	4	25.091	36.664	2	36.664	2	199.6	2	200.1	2
WBTSAE	AB1403	20	1	1	2	20140321	1958	26.498N	73.500W	4946	5037	2.179	34.868	2	34.868	4	-999.0	9	-999.0	9
WBTSAE	AB1403	20	1	2	2	20140321	1958	26.498N	73.500W	4597	4678	2.258	34.883	2	34.882	4	255.9	2	255.7	2

WBTSAE	AB1403	20	1	3	2	20140321	1958	26.498N	73.500W	4229	4299	2.284	34.889	2	34.889	4	258.3	2	258.3	2
WBTSAE	AB1403	20	1	4	2	20140321	1958	26.498N	73.500W	3936	3999	2.310	34.893	2	34.892	4	259.7	2	259.8	2
WBTSAE	AB1403	20	1	5	2	20140321	1958	26.498N	73.500W	3595	3649	2.400	34.902	2	34.902	4	261.1	2	261.6	2
WBTSAE	AB1403	20	1	6	2	20140321	1958	26.498N	73.500W	3202	3248	2.641	34.917	2	34.917	4	260.3	2	260.8	2
WBTSAE	AB1403	20	1	7	2	20140321	1958	26.498N	73.500W	2713	2749	3.015	34.938	2	34.938	4	257.0	2	257.2	2
WBTSAE	AB1403	20	1	8	2	20140321	1958	26.498N	73.500W	2221	2247	3.474	34.957	2	34.957	4	255.8	2	255.8	2
WBTSAE	AB1403	20	1	9	2	20140321	1958	26.498N	73.500W	1827	1847	3.981	34.979	2	34.979	4	252.0	2	252.1	2
WBTSAE	AB1403	20	1	10	2	20140321	1958	26.498N	73.500W	1485	1500	4.502	35.009	2	35.009	4	243.2	2	243.6	6
WBTSAE	AB1403	20	1	11	2	20140321	1958	26.498N	73.500W	1322	1334	5.057	35.037	2	35.038	4	228.8	2	229.4	6
WBTSAE	AB1403	20	1	12	2	20140321	1958	26.498N	73.500W	1155	1166	6.007	35.067	2	35.068	4	198.0	2	199.5	2
WBTSAE	AB1403	20	1	13	2	20140321	1958	26.498N	73.500W	985	993	7.815	35.089	2	35.089	4	148.0	2	147.5	2
WBTSAE	AB1403	20	1	14	2	20140321	1958	26.498N	73.500W	877	884	9.881	35.273	2	35.271	4	135.0	2	134.9	2
WBTSAE	AB1403	20	1	15	2	20140321	1958	26.498N	73.500W	766	773	12.250	35.585	2	35.578	4	142.2	2	141.4	2
WBTSAE	AB1403	20	1	16	2	20140321	1958	26.498N	73.500W	656	661	15.317	36.065	2	36.056	4	162.3	2	162.8	2
WBTSAE	AB1403	20	1	17	2	20140321	1958	26.498N	73.500W	551	556	17.384	36.435	2	36.434	4	185.1	2	185.5	2
WBTSAE	AB1403	20	1	18	2	20140321	1958	26.498N	73.500W	440	443	18.332	36.577	2	36.575	4	185.3	2	186.0	2
WBTSAE	AB1403	20	1	19	2	20140321	1958	26.498N	73.500W	331	333	19.126	36.588	2	36.586	4	200.0	2	199.9	2
WBTSAE	AB1403	20	1	20	2	20140321	1958	26.498N	73.500W	225	226	20.479	36.672	2	36.671	4	196.2	2	195.3	2
WBTSAE	AB1403	20	1	21	2	20140321	1958	26.498N	73.500W	133	134	23.264	36.788	2	36.784	4	190.1	2	190.5	2
WBTSAE	AB1403	20	1	22	2	20140321	1958	26.498N	73.500W	86	86	25.027	36.655	2	36.652	4	199.1	2	200.1	2
WBTSAE	AB1403	20	1	23	2	20140321	1958	26.498N	73.500W	34	34	25.052	36.659	2	36.656	4	199.7	2	200.1	2
WBTSAE	AB1403	20	1	24	2	20140321	1958	26.498N	73.500W	2	2	25.116	36.660	2	36.658	4	200.5	2	200.1	2
WBTSAE	AB1403	21	1	1	2	20140322	0153	26.498N	73.136W	5030	5123	2.179	34.867	2	34.865	4	248.6	2	248.8	2
WBTSAE	AB1403	21	1	2	2	20140322	0153	26.498N	73.136W	4753	4839	2.245	34.879	2	34.876	4	254.0	2	253.4	2
WBTSAE	AB1403	21	1	3	2	20140322	0153	26.498N	73.136W	4471	4548	2.267	34.885	2	34.882	4	257.0	2	257.1	2
WBTSAE	AB1403	21	1	4	2	20140322	0153	26.498N	73.136W	4180	4249	2.293	34.890	2	34.888	4	259.2	2	259.7	6
WBTSAE	AB1403	21	1	5	2	20140322	0153	26.498N	73.136W	3912	3974	2.324	34.895	2	34.892	4	260.4	2	260.5	2
WBTSAE	AB1403	21	1	6	2	20140322	0153	26.498N	73.136W	3423	3474	2.483	34.907	2	34.904	4	261.5	2	262.1	2
WBTSAE	AB1403	21	1	7	2	20140322	0153	26.498N	73.136W	2933	2973	2.801	34.926	2	34.923	4	259.4	2	260.2	2
WBTSAE	AB1403	21	1	8	2	20140322	0153	26.498N	73.136W	2442	2472	3.182	34.947	2	34.944	4	256.1	2	256.8	2
WBTSAE	AB1403	21	1	9	2	20140322	0153	26.498N	73.136W	2025	2049	3.748	34.968	2	34.965	4	254.4	2	255.0	2
WBTSAE	AB1403	21	1	10	2	20140322	0153	26.498N	73.136W	1682	1700	4.105	34.987	2	34.983	4	250.2	2	250.9	2
WBTSAE	AB1403	21	1	11	2	20140322	0153	26.498N	73.136W	1435	1450	4.472	35.006	2	35.003	4	243.6	2	245.3	2
WBTSAE	AB1403	21	1	12	2	20140322	0153	26.498N	73.136W	1187	1198	5.446	35.054	2	35.051	4	217.1	2	218.7	6
WBTSAE	AB1403	21	1	13	2	20140322	0153	26.498N	73.136W	1019	1028	7.026	35.092	2	35.088	4	171.0	2	173.5	4
WBTSAE	AB1403	21	1	14	2	20140322	0153	26.498N	73.136W	911	919	8.596	35.157	2	35.154	4	142.3	2	143.1	2
WBTSAE	AB1403	21	1	15	2	20140322	0153	26.498N	73.136W	802	809	10.661	35.369	2	35.367	4	136.5	2	136.0	2
WBTSAE	AB1403	21	1	16	2	20140322	0153	26.498N	73.136W	694	699	12.785	35.662	2	35.366	4	145.0	2	144.7	2
WBTSAE	AB1403	21	1	17	2	20140322	0153	26.498N	73.136W	586	591	15.411	36.082	2	36.074	4	164.1	2	163.6	2
WBTSAE	AB1403	21	1	18	2	20140322	0153	26.498N	73.136W	476	479	17.333	36.428	2	36.422	4	185.0	2	184.9	2
WBTSAE	AB1403	21	1	19	2	20140322	0153	26.498N	73.136W	366	368	18.289	36.577	2	36.571	4	183.9	2	185.2	2
WBTSAE	AB1403	21	1	20	2	20140322	0153	26.498N	73.136W	258	260	19.375	36.632	2	36.626	4	184.8	2	185.4	2
WBTSAE	AB1403	21	1	21	2	20140322	0153	26.498N	73.136W	168	170	21.447	36.726	2	36.726	4	188.0	2	189.6	2
WBTSAE	AB1403	21	1	22	2	20140322	0153	26.498N	73.136W	119	120	22.935	36.638	2	36.621	4	206.3	2	203.9	2
WBTSAE	AB1403	21	1	23	2	20140322	0153	26.498N	73.136W	69	70	24.245	36.647	2	36.643	4	202.0	2	202.0	2
WBTSAE	AB1403	21	1	24	2	20140322	0153	26.498N	73.136W	3	3	24.975	36.655	2	36.648	4	200.0	2	200.9	2
WBTSAE	AB1403	22	1	1	2	20140322	0804	26.501N	72.767W	5014	5107	2.196	34.868	2	34.870	2	250.3	2	249.8	2
WBTSAE	AB1403	22	1	2	2	20140322	0804	26.501N	72.767W	4589	4670	2.288	34.885	2	34.886	6	257.4	2	257.0	2
WBTSAE	AB1403	22	1	3	2	20140322	0804	26.501N	72.767W	4375	4449	2.290	34.887	2	34.888	2	258.1	2	258.2	2
WBTSAE	AB1403	22	1	4	2	20140322	0804	26.501N	72.767W	4017	4082	2.316	34.893	2	34.893	2	260.1	2	259.5	2
WBTSAE	AB1403	22	1	5	2	20140322	0804	26.501N	72.767W	3643	3699	2.390	34.900	2	34.900	2	261.4	2	262.3	2
WBTSAE	AB1403	22	1	6	2	20140322	0804	26.501N	72.767W	3155	3200	2.674	34.918	2	34.919	2	254.2	2	263.5	4
WBTSAE	AB1403	22	1	7	2	20140322	0804	26.501N	72.767W	2666	2700	3.077	34.943	2	34.944	2	256.2	2	257.2	2
WBTSAE	AB1403	22	1	8	2	20140322	0804	26.501N	72.767W	2176	2201	3.520	34.959	2	34.959	2	255.8	2	256.2	2
WBTSAE	AB1403	22	1	9	2	20140322	0804	26.501N	72.767W	1929	1950	3.777	34.970	2	34.971	2	254.5	2	254.9	2
WBTSAE	AB1403	22	1	10	2	20140322	0804	26.501N	72.767W	1583	1600	4.343	34.997	2	34.997	2	246.9	2	247.4	6
WBTSAE	AB1403	22	1	11	2	20140322	0804	26.501N	72.767W	1373	1387	4.662	35.015	2	35.017	2	239.0	2	239.1	2
WBTSAE	AB1403	22	1	12	2	20140322	0804	26.501N	72.767W	1243	1255	4.878	35.027	2	35.028	2	233.3	2	233.7	6
WBTSAE	AB1403	22	1	13	2	20140322	0804	26.501N	72.767W	1076	1086	5.568	35.058	2	35.059	2	212.4	2	213.9	2
WBTSAE	AB1403	22	1	14	2	20140322	0804	26.501N	72.767W	938	946	7.312	35.076	2	35.075	2	158.0	2	157.8	2
WBTSAE	AB1403	22	1	15	2	20140322	0804	26.501N	72.767W	818	825	9.514	35.242	2	35.243	2	136.8	2	138.2	2
WBTSAE	AB1403	22	1	16	2	20140322	0804	26.501N	72.767W	710	716	11.993	35.550	2	35.556	2	146.5	2	145.6	2
WBTSAE	AB1403	22	1	17	2	20140322	0804	26.501N	72.767W	601	606	14.591	35.939	2	35.941	2	163.2	2	161.6	2
WBTSAE	AB1403	22	1	18	2	20140322	0804	26.501N	72.767W	492	496	16.834	36.335	2	36.338	2	180.4	2	181.0	2
WBTSAE	AB1403	22	1	19	2	20140322	0804	26.501N	72.767W	382	385	17.815	36.517	2	36.527	4	188.2	2	188.5	2
WBTSAE	AB1403	22	1	20	2	20140322	0804	26.501N	72.767W	273	275	18.485	36.563	2	36.563	2	196.5	2	198.2	2

WBTSAE	AB1403	22	1	21	2	20140322	0804	26.501N	72.767W	184	185	19.577	36.642	2	36.642	2	189.5	2	184.7	4
WBTSAE	AB1403	22	1	22	2	20140322	0804	26.501N	72.767W	104	105	21.000	36.563	2	36.559	6	205.3	2	206.8	4
WBTSAE	AB1403	22	1	23	2	20140322	0804	26.501N	72.767W	57	57	21.927	36.551	2	36.551	2	211.3	2	212.2	2
WBTSAE	AB1403	22	1	24	2	20140322	0804	26.501N	72.767W	3	3	22.899	36.602	2	36.613	4	207.5	2	207.9	2
WBTSAE	AB1403	23	1	1	2	20140322	1414	26.500N	72.384W	5015	5108	2.216	34.871	2	34.871	2	250.9	2	250.5	2
WBTSAE	AB1403	23	1	2	2	20140322	1414	26.500N	72.384W	4812	4899	2.274	34.881	2	34.881	2	255.6	2	254.5	2
WBTSAE	AB1403	23	1	3	2	20140322	1414	26.500N	72.384W	4470	4548	2.291	34.887	2	34.887	2	258.0	2	257.3	2
WBTSAE	AB1403	23	1	4	2	20140322	1414	26.500N	72.384W	4130	4198	2.315	34.892	2	34.892	2	259.5	2	259.3	2
WBTSAE	AB1403	23	1	5	2	20140322	1414	26.500N	72.384W	3790	3850	2.370	34.898	2	34.898	2	260.8	2	260.4	2
WBTSAE	AB1403	23	1	6	2	20140322	1414	26.500N	72.384W	3301	3349	2.571	34.912	2	34.912	2	260.8	2	261.1	2
WBTSAE	AB1403	23	1	7	2	20140322	1414	26.500N	72.384W	2812	2849	2.924	34.933	2	34.932	2	258.0	2	257.9	6
WBTSAE	AB1403	23	1	8	2	20140322	1414	26.500N	72.384W	2322	2350	3.369	34.954	2	34.954	2	256.0	2	256.4	2
WBTSAE	AB1403	23	1	9	2	20140322	1414	26.500N	72.384W	1828	1848	3.836	34.972	2	34.971	2	253.8	2	253.5	2
WBTSAE	AB1403	23	1	10	2	20140322	1414	26.500N	72.384W	1581	1598	4.131	34.988	2	34.988	2	249.8	2	249.6	2
WBTSAE	AB1403	23	1	11	2	20140322	1414	26.500N	72.384W	1362	1375	4.468	35.006	2	35.007	2	243.7	2	243.7	6
WBTSAE	AB1403	23	1	12	2	20140322	1414	26.500N	72.384W	1192	1204	4.964	35.034	2	35.034	2	232.0	2	231.4	2
WBTSAE	AB1403	23	1	13	2	20140322	1414	26.500N	72.384W	1026	1035	5.931	35.068	2	35.067	2	202.7	2	202.8	2
WBTSAE	AB1403	23	1	14	2	20140322	1414	26.500N	72.384W	916	925	7.559	35.106	2	35.107	2	158.3	2	159.7	2
WBTSAE	AB1403	23	1	15	2	20140322	1414	26.500N	72.384W	808	815	9.319	35.221	2	35.220	2	138.6	2	139.2	2
WBTSAE	AB1403	23	1	16	2	20140322	1414	26.500N	72.384W	699	705	11.431	35.470	2	35.472	2	141.3	2	141.1	2
WBTSAE	AB1403	23	1	17	2	20140322	1414	26.500N	72.384W	589	594	14.466	35.919	2	35.919	2	158.8	2	161.0	2
WBTSAE	AB1403	23	1	18	2	20140322	1414	26.500N	72.384W	480	484	16.734	36.316	2	36.314	2	178.7	2	179.6	2
WBTSAE	AB1403	23	1	19	2	20140322	1414	26.500N	72.384W	372	375	17.816	36.508	2	36.506	2	188.0	2	188.5	2
WBTSAE	AB1403	23	1	20	2	20140322	1414	26.500N	72.384W	262	264	18.420	36.551	2	36.550	2	198.3	2	198.5	2
WBTSAE	AB1403	23	1	21	2	20140322	1414	26.500N	72.384W	173	175	19.263	36.597	2	36.597	2	187.9	2	188.2	2
WBTSAE	AB1403	23	1	22	2	20140322	1414	26.500N	72.384W	113	114	20.969	36.589	2	36.586	2	201.8	2	200.8	2
WBTSAE	AB1403	23	1	23	2	20140322	1414	26.500N	72.384W	64	64	22.427	36.608	2	36.608	2	209.0	2	207.3	2
WBTSAE	AB1403	23	1	24	2	20140322	1414	26.500N	72.384W	4	4	23.299	36.623	2	36.623	2	206.7	2	207.0	2
WBTSAE	AB1403	24	1	1	2	20140323	0022	26.502N	71.990W	5018	5111	2.238	34.873	2	34.874	2	252.8	2	251.7	2
WBTSAE	AB1403	24	1	2	2	20140323	0022	26.502N	71.990W	4959	5051	2.252	34.876	2	34.877	2	253.9	2	252.2	2
WBTSAE	AB1403	24	1	3	2	20140323	0022	26.502N	71.990W	4651	4734	2.278	34.883	2	34.884	2	256.9	2	255.6	2
WBTSAE	AB1403	24	1	4	2	20140323	0022	26.502N	71.990W	4344	4418	2.285	34.888	2	34.888	2	258.3	2	260.2	6
WBTSAE	AB1403	24	1	5	2	20140323	0022	26.502N	71.990W	4033	4099	2.301	34.892	2	34.892	2	259.5	2	259.3	2
WBTSAE	AB1403	24	1	6	2	20140323	0022	26.502N	71.990W	3545	3599	2.402	34.902	2	34.902	2	261.3	2	261.2	2
WBTSAE	AB1403	24	1	7	2	20140323	0022	26.502N	71.990W	3056	3099	2.668	34.919	2	34.919	2	260.2	2	261.2	2
WBTSAE	AB1403	24	1	8	2	20140323	0022	26.502N	71.990W	2566	2599	3.067	34.943	2	34.943	2	255.9	2	257.2	6
WBTSAE	AB1403	24	1	9	2	20140323	0022	26.502N	71.990W	2074	2098	3.553	34.960	2	34.959	2	255.9	2	255.6	2
WBTSAE	AB1403	24	1	10	2	20140323	0022	26.502N	71.990W	1682	1700	3.958	34.979	2	34.980	2	252.1	2	252.2	2
WBTSAE	AB1403	24	1	11	2	20140323	0022	26.502N	71.990W	1402	1416	4.405	35.005	2	35.005	2	245.2	2	244.7	2
WBTSAE	AB1403	24	1	12	2	20140323	0022	26.502N	71.990W	1229	1241	4.882	35.031	2	35.032	2	234.3	2	233.9	2
WBTSAE	AB1403	24	1	13	2	20140323	0022	26.502N	71.990W	1054	1064	5.773	35.065	2	35.065	2	206.8	2	209.0	2
WBTSAE	AB1403	24	1	14	2	20140323	0022	26.502N	71.990W	900	908	7.562	35.102	2	35.102	2	157.6	2	158.3	2
WBTSAE	AB1403	24	1	15	2	20140323	0022	26.502N	71.990W	793	800	9.389	35.239	2	35.240	2	141.1	2	140.8	2
WBTSAE	AB1403	24	1	16	2	20140323	0022	26.502N	71.990W	684	690	11.741	35.516	2	35.519	2	145.3	2	138.7	4
WBTSAE	AB1403	24	1	17	2	20140323	0022	26.502N	71.990W	576	580	14.350	35.900	2	35.906	2	158.4	2	157.1	2
WBTSAE	AB1403	24	1	18	2	20140323	0022	26.502N	71.990W	466	470	16.723	36.314	2	36.320	2	178.4	2	165.9	4
WBTSAE	AB1403	24	1	19	2	20140323	0022	26.502N	71.990W	357	360	17.822	36.517	2	36.518	2	189.0	2	193.1	4
WBTSAE	AB1403	24	1	20	2	20140323	0022	26.502N	71.990W	248	250	18.538	36.587	2	36.588	2	192.5	2	187.2	4
WBTSAE	AB1403	24	1	21	2	20140323	0022	26.502N	71.990W	159	160	19.845	36.661	2	36.659	2	184.3	2	184.3	2
WBTSAE	AB1403	24	1	22	2	20140323	0022	26.502N	71.990W	93	94	21.597	36.626	2	36.630	2	207.7	2	206.6	2
WBTSAE	AB1403	24	1	23	2	20140323	0022	26.502N	71.990W	45	45	23.008	36.628	2	36.629	2	208.7	2	207.3	2
WBTSAE	AB1403	24	1	24	2	20140323	0022	26.502N	71.990W	3	3	23.745	36.616	2	36.617	2	205.7	2	206.1	2
WBTSAE	AB1403	25	1	1	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	2	2	20140326	0233	26.497N	76.092W	4782	4869	2.234	34.876	2	34.877	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	3	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	4	2	20140326	0233	26.497N	76.092W	3937	4001	2.322	34.894	2	34.894	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	5	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	6	2	20140326	0233	26.497N	76.092W	3446	3498	2.457	34.905	2	34.905	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	7	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	8	2	20140326	0233	26.497N	76.092W	2960	3001	2.783	34.925	2	34.927	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	9	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	10	2	20140326	0233	26.497N	76.092W	2467	2498	3.146	34.945	2	34.948	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	11	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	12	2	20140326	0233	26.497N	76.092W	1972	1995	3.576	34.961	2	34.961	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	13	2	20140326	0233	26.497N	76.092W	1484	1499	4.148	34.990	2	34.989	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	14	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

WBTSAE	AB1403	25	1	15	2	20140326	0233	26.497N	76.092W	805	811	8.995	35.198	2	35.199	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	16	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	17	2	20140326	0233	26.497N	76.092W	496	500	16.189	36.217	2	36.226	4	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	18	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	19	2	20140326	0233	26.497N	76.092W	198	199	19.869	36.635	2	36.638	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	20	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	21	2	20140326	0233	26.497N	76.092W	99	100	22.991	36.538	2	36.536	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	22	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	23	2	20140326	0233	26.497N	76.092W	3	3	23.880	36.502	2	36.501	2	-999.0	9	-999.0	9
WBTSAE	AB1403	25	1	24	2	20140326	0233	26.497N	76.092W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	1	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	2	2	20140327	0537	26.484N	76.460W	4820	4907	2.209	34.872	2	34.873	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	3	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	4	2	20140327	0537	26.484N	76.460W	3936	4000	2.336	34.894	2	34.894	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	5	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	6	2	20140327	0537	26.484N	76.460W	3456	3507	2.494	34.907	2	34.908	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	7	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	8	2	20140327	0537	26.484N	76.460W	2960	3000	2.779	34.925	2	34.925	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	9	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	10	2	20140327	0537	26.484N	76.460W	2475	2507	3.169	34.945	2	34.946	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	11	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	12	2	20140327	0537	26.484N	76.460W	1973	1995	3.586	34.961	2	34.961	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	13	2	20140327	0537	26.484N	76.460W	1485	1500	4.177	34.991	2	34.991	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	14	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	15	2	20140327	0537	26.484N	76.460W	801	808	9.383	35.232	2	35.232	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	16	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	17	2	20140327	0537	26.484N	76.460W	495	499	16.110	36.202	2	36.204	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	18	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	19	2	20140327	0537	26.484N	76.460W	201	203	19.692	36.639	2	36.639	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	20	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	21	2	20140327	0537	26.484N	76.460W	100	100	22.671	36.567	2	36.567	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	22	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	23	2	20140327	0537	26.484N	76.460W	3	3	23.674	36.524	2	36.524	2	-999.0	9	-999.0	9
WBTSAE	AB1403	26	1	24	2	20140327	0537	26.484N	76.460W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	1	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	2	2	20140330	0244	26.066N	78.849W	282	284	18.069	36.514	2	36.518	2	171.6	2	172.7	2
WBTSAE	AB1403	28	1	3	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	4	2	20140330	0244	26.066N	78.849W	148	149	23.020	36.665	2	36.674	4	185.3	2	183.5	6
WBTSAE	AB1403	28	1	5	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	6	2	20140330	0244	26.066N	78.849W	74	75	25.103	36.407	2	36.413	2	198.7	2	198.8	2
WBTSAE	AB1403	28	1	7	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	8	2	20140330	0244	26.066N	78.849W	4	4	25.646	36.312	2	36.313	2	196.3	2	196.3	2
WBTSAE	AB1403	28	1	9	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	10	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	11	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	12	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	13	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	14	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	15	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	16	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	17	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	18	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	19	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	20	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	21	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	22	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	23	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	28	1	24	2	20140330	0244	26.066N	78.849W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	1	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	2	2	20140330	0400	26.166N	78.800W	437	441	15.311	36.066	2	36.072	2	162.2	2	162.4	6
WBTSAE	AB1403	29	1	3	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	4	2	20140330	0400	26.166N	78.800W	269	271	18.986	36.618	2	36.617	6	182.5	2	180.8	2
WBTSAE	AB1403	29	1	5	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	6	2	20140330	0400	26.166N	78.800W	179	180	21.321	36.745	2	36.748	2	178.9	2	179.4	2
WBTSAE	AB1403	29	1	7	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	8	2	20140330	0400	26.166N	78.800W	89	90	24.791	36.523	2	36.528	4	198.5	2	198.0	2

WBTSAE	AB1403	29	1	9	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	10	2	20140330	0400	26.166N	78.800W	4	4	25.559	36.305	2	36.306	2	197.2	2	197.6	2
WBTSAE	AB1403	29	1	11	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	12	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	13	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	14	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	15	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	16	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	17	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	18	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	19	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	20	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	21	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	22	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	23	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	29	1	24	2	20140330	0400	26.166N	78.800W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	1	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	2	2	20140330	0522	26.250N	78.769W	499	502	15.261	36.058	2	36.063	6	162.5	2	162.4	2
WBTSAE	AB1403	30	1	3	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	4	2	20140330	0522	26.250N	78.769W	397	400	17.249	36.410	2	36.412	2	182.3	2	181.4	6
WBTSAE	AB1403	30	1	5	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	6	2	20140330	0522	26.250N	78.769W	269	271	19.142	36.626	2	36.626	2	183.4	2	183.0	2
WBTSAE	AB1403	30	1	7	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	8	2	20140330	0522	26.250N	78.769W	158	160	22.379	36.705	2	36.710	2	188.5	2	188.3	2
WBTSAE	AB1403	30	1	9	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	10	2	20140330	0522	26.250N	78.769W	59	60	24.991	36.456	2	36.458	2	198.7	2	198.5	2
WBTSAE	AB1403	30	1	11	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	12	2	20140330	0522	26.250N	78.769W	3	3	25.111	36.397	2	36.398	2	199.1	2	198.9	2
WBTSAE	AB1403	30	1	13	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	14	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	15	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	16	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	17	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	18	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	19	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	20	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	21	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	22	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	23	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	30	1	24	2	20140330	0522	26.250N	78.769W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	1	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	2	2	20140330	0644	26.332N	78.719W	673	679	9.193	35.201	2	35.201	2	139.6	2	138.3	2
WBTSAE	AB1403	31	1	3	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	4	2	20140330	0644	26.332N	78.719W	526	530	14.925	36.000	2	36.000	2	160.4	2	159.2	2
WBTSAE	AB1403	31	1	5	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	6	2	20140330	0644	26.332N	78.719W	368	370	17.878	36.511	2	36.512	2	182.9	2	183.2	6
WBTSAE	AB1403	31	1	7	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	8	2	20140330	0644	26.332N	78.719W	209	210	20.502	36.698	2	36.698	2	183.7	2	183.5	2
WBTSAE	AB1403	31	1	9	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	10	2	20140330	0644	26.332N	78.719W	79	80	24.915	36.463	2	36.469	2	195.5	2	197.2	2
WBTSAE	AB1403	31	1	11	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	12	2	20140330	0644	26.332N	78.719W	3	3	25.090	36.411	2	36.411	2	199.1	2	198.6	2
WBTSAE	AB1403	31	1	13	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	14	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	15	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	16	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	17	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	18	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	19	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	20	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	21	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	22	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	23	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	31	1	24	2	20140330	0644	26.332N	78.719W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	1	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	2	2	20140330	0816	26.434N	78.662W	732	738	8.763	35.216	2	35.218	2	152.9	2	152.5	6

WBTSAE	AB1403	32	1	3	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	4	2	20140330	0816	26.434N	78.662W	567	572	13.039	35.702	2	35.716	4	147.7	2	145.2	2
WBTSAE	AB1403	32	1	5	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	6	2	20140330	0816	26.434N	78.662W	417	420	17.370	36.433	2	36.434	6	184.4	2	183.9	2
WBTSAE	AB1403	32	1	7	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	8	2	20140330	0816	26.434N	78.662W	288	290	18.813	36.608	2	36.610	2	185.5	2	184.8	2
WBTSAE	AB1403	32	1	9	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	10	2	20140330	0816	26.434N	78.662W	158	159	23.082	36.665	2	36.667	2	188.4	2	189.1	2
WBTSAE	AB1403	32	1	11	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	12	2	20140330	0816	26.434N	78.662W	59	59	24.742	36.493	2	36.493	2	195.7	2	196.1	6
WBTSAE	AB1403	32	1	13	2	20140330	0816	26.434N	78.662W	3	3	25.233	36.378	2	36.379	2	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	14	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	15	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	16	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	17	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	18	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	19	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	20	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	21	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	22	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	23	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	32	1	24	2	20140330	0816	26.434N	78.662W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	1	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	2	2	20140330	1613	26.998N	79.198W	464	467	15.908	36.171	2	36.172	2	167.9	2	168.1	2
WBTSAE	AB1403	33	1	3	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	4	2	20140330	1613	26.998N	79.198W	308	311	18.236	36.538	2	36.542	2	184.2	2	175.1	4
WBTSAE	AB1403	33	1	5	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	6	2	20140330	1613	26.998N	79.198W	149	150	22.769	36.695	2	36.697	6	188.4	2	182.3	4
WBTSAE	AB1403	33	1	7	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	8	2	20140330	1613	26.998N	79.198W	59	60	25.353	36.378	2	36.385	4	196.1	2	197.2	2
WBTSAE	AB1403	33	1	9	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	10	2	20140330	1613	26.998N	79.198W	4	4	26.060	36.252	2	36.270	4	195.2	2	196.2	2
WBTSAE	AB1403	33	1	11	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	12	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	13	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	14	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	15	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	16	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	17	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	18	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	19	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	20	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	21	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	22	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	23	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	33	1	24	2	20140330	1613	26.998N	79.198W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	1	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	2	2	20140330	1727	27.000N	79.280W	596	601	11.532	35.475	2	35.488	4	136.0	2	136.6	2
WBTSAE	AB1403	34	1	3	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	4	2	20140330	1727	27.000N	79.280W	446	449	15.796	36.148	2	36.152	2	165.2	2	166.1	2
WBTSAE	AB1403	34	1	5	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	6	2	20140330	1727	27.000N	79.280W	289	291	18.612	36.557	2	36.559	6	153.8	2	154.4	2
WBTSAE	AB1403	34	1	7	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	8	2	20140330	1727	27.000N	79.280W	120	120	24.201	36.717	2	36.727	4	162.6	2	161.4	6
WBTSAE	AB1403	34	1	9	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	10	2	20140330	1727	27.000N	79.280W	49	50	26.069	36.252	2	36.275	4	195.0	2	195.8	2
WBTSAE	AB1403	34	1	11	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	12	2	20140330	1727	27.000N	79.280W	3	3	26.066	36.254	2	36.261	4	195.0	2	196.0	2
WBTSAE	AB1403	34	1	13	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	14	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	15	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	16	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	17	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	18	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	19	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	20	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

WBTSAE	AB1403	34	1	21	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	22	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	23	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	34	1	24	2	20140330	1727	27.000N	79.280W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	1	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	2	2	20140330	1846	26.995N	79.372W	654	659	9.644	35.223	2	35.225	2	132.9	2	133.2	2
WBTSAE	AB1403	35	1	3	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	4	2	20140330	1846	26.995N	79.372W	534	538	11.451	35.426	2	35.441	4	129.6	2	128.1	6
WBTSAE	AB1403	35	1	5	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	6	2	20140330	1846	26.995N	79.372W	356	358	16.815	36.277	2	36.283	6	154.1	2	153.1	2
WBTSAE	AB1403	35	1	7	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	8	2	20140330	1846	26.995N	79.372W	175	177	21.054	36.782	2	36.783	2	146.6	2	146.5	2
WBTSAE	AB1403	35	1	9	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	10	2	20140330	1846	26.995N	79.372W	71	72	26.077	36.246	2	36.253	4	194.7	2	195.4	2
WBTSAE	AB1403	35	1	11	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	12	2	20140330	1846	26.995N	79.372W	3	3	26.071	36.247	2	36.265	4	194.0	2	196.0	2
WBTSAE	AB1403	35	1	13	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	14	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	15	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	16	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	17	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	18	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	19	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	20	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	21	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	22	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	23	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	35	1	24	2	20140330	1846	26.995N	79.372W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	1	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	2	2	20140330	2023	26.996N	79.496W	742	748	7.198	34.922	2	34.923	2	129.0	2	127.8	2
WBTSAE	AB1403	36	1	3	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	4	2	20140330	2023	26.996N	79.496W	646	651	8.312	34.989	2	34.990	2	119.3	2	118.3	2
WBTSAE	AB1403	36	1	5	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	6	2	20140330	2023	26.996N	79.496W	466	470	11.372	35.377	2	35.376	6	120.5	2	119.3	2
WBTSAE	AB1403	36	1	7	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	8	2	20140330	2023	26.996N	79.496W	307	309	16.903	36.290	2	36.289	2	153.8	2	152.4	2
WBTSAE	AB1403	36	1	9	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	10	2	20140330	2023	26.996N	79.496W	178	180	20.362	36.727	2	36.729	2	170.6	2	161.8	4
WBTSAE	AB1403	36	1	11	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	12	2	20140330	2023	26.996N	79.496W	79	79	25.992	36.294	2	36.301	2	192.3	2	191.8	2
WBTSAE	AB1403	36	1	13	2	20140330	2023	26.996N	79.496W	3	3	26.075	36.250	2	36.261	4	195.0	2	195.7	2
WBTSAE	AB1403	36	1	14	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	15	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	16	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	17	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	18	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	19	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	20	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	21	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	22	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	23	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	36	1	24	2	20140330	2023	26.996N	79.496W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	1	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	2	2	20140330	2200	26.996N	79.613W	634	639	7.129	34.924	2	34.922	2	130.6	2	129.0	6
WBTSAE	AB1403	37	1	3	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	4	2	20140330	2200	26.996N	79.613W	467	470	10.291	35.214	2	35.230	4	116.8	2	115.0	4
WBTSAE	AB1403	37	1	5	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	6	2	20140330	2200	26.996N	79.613W	318	320	15.112	35.982	2	35.994	4	140.5	2	132.6	4
WBTSAE	AB1403	37	1	7	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	8	2	20140330	2200	26.996N	79.613W	177	178	20.305	36.743	2	36.743	2	145.3	2	141.7	4
WBTSAE	AB1403	37	1	9	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	10	2	20140330	2200	26.996N	79.613W	70	70	26.103	36.272	2	36.278	4	195.6	2	194.0	2
WBTSAE	AB1403	37	1	11	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	12	2	20140330	2200	26.996N	79.613W	2	2	26.154	36.243	2	36.245	2	197.7	2	182.1	4
WBTSAE	AB1403	37	1	13	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	14	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

WBTSAE	AB1403	37	1	15	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	16	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	17	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	18	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	19	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	20	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	21	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	22	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	23	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	37	1	24	2	20140330	2200	26.996N	79.613W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	1	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	2	2	20140330	2316	26.998N	79.684W	514	518	7.721	34.952	2	34.950	6	124.5	2	123.7	2
WBTSAE	AB1403	38	1	3	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	4	2	20140330	2316	26.998N	79.684W	396	399	10.966	35.319	2	35.326	4	117.3	2	110.9	4
WBTSAE	AB1403	38	1	5	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	6	2	20140330	2316	26.998N	79.684W	248	250	15.839	36.092	2	36.096	2	130.7	2	130.2	2
WBTSAE	AB1403	38	1	7	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	8	2	20140330	2316	26.998N	79.684W	118	119	22.436	36.795	2	36.794	2	151.2	2	150.5	2
WBTSAE	AB1403	38	1	9	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	10	2	20140330	2316	26.998N	79.684W	58	59	26.241	36.231	2	36.231	2	194.6	2	195.4	2
WBTSAE	AB1403	38	1	11	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	12	2	20140330	2316	26.998N	79.684W	3	3	26.221	36.231	2	36.233	2	195.2	2	194.8	2
WBTSAE	AB1403	38	1	13	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	14	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	15	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	16	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	17	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	18	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	19	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	20	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	21	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	22	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	23	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	38	1	24	2	20140330	2316	26.998N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	1	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	2	2	20140331	0036	26.999N	79.786W	366	368	8.114	35.012	2	35.007	2	124.0	2	120.5	4
WBTSAE	AB1403	39	1	3	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	4	2	20140331	0036	26.999N	79.786W	265	267	13.945	35.784	2	35.783	6	125.8	2	124.1	2
WBTSAE	AB1403	39	1	5	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	6	2	20140331	0036	26.999N	79.786W	119	119	20.028	36.383	2	36.395	4	202.0	2	197.3	4
WBTSAE	AB1403	39	1	7	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	8	2	20140331	0036	26.999N	79.786W	40	40	26.020	36.257	2	36.254	2	195.0	2	196.2	2
WBTSAE	AB1403	39	1	9	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	10	2	20140331	0036	26.999N	79.786W	4	4	26.124	36.237	2	36.237	2	195.7	2	196.5	2
WBTSAE	AB1403	39	1	11	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	12	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	13	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	14	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	15	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	16	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	17	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	18	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	19	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	20	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	21	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	22	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	23	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	39	1	24	2	20140331	0036	26.999N	79.786W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	1	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	2	2	20140331	0138	26.997N	79.865W	248	250	10.232	35.236	2	35.235	2	119.5	2	117.7	6
WBTSAE	AB1403	40	1	3	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	4	2	20140331	0138	26.997N	79.865W	160	161	16.911	36.248	2	36.254	4	134.3	2	132.0	2
WBTSAE	AB1403	40	1	5	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	6	2	20140331	0138	26.997N	79.865W	68	68	22.383	36.378	2	36.382	2	212.5	2	211.5	2
WBTSAE	AB1403	40	1	7	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	8	2	20140331	0138	26.997N	79.865W	3	3	26.136	36.217	2	36.218	2	194.8	2	195.3	2

WBTSAE	AB1403	40	1	9	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	10	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	11	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	12	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	13	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	14	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	15	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	16	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	17	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	18	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	19	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	20	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	21	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	22	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	23	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	40	1	24	2	20140331	0138	26.997N	79.865W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	1	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	2	2	20140331	0232	27.001N	79.932W	129	129	14.801	35.927	2	35.951	4	129.5	2	128.5	2
WBTSAE	AB1403	41	1	3	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	4	2	20140331	0232	27.001N	79.932W	59	59	21.997	36.392	2	36.402	4	212.9	2	188.8	4
WBTSAE	AB1403	41	1	5	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	6	2	20140331	0232	27.001N	79.932W	4	4	25.779	36.269	2	36.269	2	196.6	2	196.7	2
WBTSAE	AB1403	41	1	7	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	8	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	9	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	10	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	11	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	12	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	13	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	14	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	15	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	16	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	17	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	18	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	19	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	20	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	21	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	22	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	23	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSAE	AB1403	41	1	24	2	20140331	0232	27.001N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9