NOAA Data Report, OAR AOML-75

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May 2018

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

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Abstract

This report summarizes the May 8 - May 24, 2017 cruise on the UNOLS ship R/V Endeavor from Fort Lauderdale, FL to Fort Lauderdale, FL involving full-water-column CTD and lowered ADCP profiles, along with shipboard ADCP profiles, conducted within the Northwest Providence Channel, 27°N 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 up to 24 10-liter Niskin bottles, was lowered to the bottom. This report includes a description of the calibration 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 concentrations to aid with CTD calibration. A total of 44 CTD-O2/LADCP stations were occupied. PIES/CPIES operations were conducted at 7 sites, including three successful recovery and deployments of PIES at sites A, A2, and E. There was also the recovery of a PIES at site C that is part of the Adaptable Bottom Instrument Information Shuttle System ("ABI-ISS") and the recovery of an older PIES at site A2. Mooring operations included recovery and redeployment of 3 tall moorings with a mixture of microcats and current meters and a bottom lander. A new expendable bathythermograph (XBT) recording board designed by the Atlantic Oceanographic and Meteorological Laboratory (AOML) engineering group was tested with twelve probe launches simultaneous with twelve CTD casts. Note: Bahamian clearances were obtained with a waiver of port entry before and after the cruise.

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, 47 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 May 2017 (Figure 1 and Table 2). The R/V Endeavor departed Fort Lauderdale, FL on 8 May 2017. A total of 44 LADCP/CTD/Rosette stations were occupied. Water samples (up to 24 for each station), LADCP, and 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. The cruise ended in Fort Lauderdale, FL on May 24, 2017.

Table 1: Cruise participants of R/V Endeavor Cruise AB1705.

Name	Responsibility	Affiliation	Nationality
Bill Johns	Chief Scientist	UM/RSMAS	USA
Chris Meinen	Co-Chief Scientist	NOAA/ AOML	USA
James Hooper	CTD processing	UM/CIMAS	USA
Andrew Stefanick	Salinity analysis, LADCP operations	NOAA/AOML	USA
Grant Rawson	Oxygen analysis,	UM/CIMAS	USA
Pedro Pena	Oxygen analysis, IES operations	NOAA/AOML	USA
Marc Weekley	Salinity analysis LADCP operations	UM/CIMAS,	USA
Adam Houk	LADCP processing Moorings	UM/RSMAS	USA
Mark Graham	Moorings	UM/RSMAS	
Cobi Christiansen	Moorings	UM/RSMAS	USA
Greg Koman.	Student	UM/RSMAS	
Tiago Bilo	Student	UM/RSMAS	

Table 2: Abaco Cruise – CTD Cast Summary

Station	Date	Time (GMT)	Latitude	Longitude	Depth
1	05/08/17	21:34:41	26.067N	78.850W	283
2	05/08/17	23:11:24	26.165N	78.801W	442
3	05/09/17	00:42:27	26.249N	78.765W	510
4	05/09/17	02:12:13	26.334N	78.716W	691
5	05/09/17	03:35:01	26.434N	78.667W	743
6	05/09/17	15:14:08	25.954N	76.895W	4440
7	05/09/17	23:39:37	26.525N	76.883W	447
8	05/10/17	00:53:17	26.518N	76.833W	1055
9	05/10/17	03:56:17	26.504N	76.744W	3740
10	05/10/17	08:50:27	26.505N	76.653W	4549
11	05/10/17	13:59:52	26.501N	76.566W	4848
12	05/10/17	19:26:25	26.505N	76.476W	4935
13	05/11/17	00:21:17	26.500N	76.343W	4903
14	05/11/17	05:05:31	26.500N	76.215W	4884
15	05/11/17	09:50:28	26.500N	76.085W	4866
16	05/11/17	14:37:13	26.501N	75.899W	4806
17	05/11/17	19:13:38	26.497N	75.698W	4751
18	05/12/17	00:26:09	26.498N	75.500W	4745
19	05/12/17	05:11:46	26.494N	75.301W	4678
20	05/12/17	09:55:07	26.498N	75.081W	4670
21	05/12/17	15:02:01	26.497N	74.799W	4599
22	05/12/17	20:04:04	26.501N	74.516W	4553
23	05/13/17	00:55:31	26.500N	74.231W	4602
24	05/13/17	06:10:54	26.496N	73.865W	4841
25	05/13/17	11:30:19	26.501N	73.499W	5042
26	05/13/17	16:55:32	26.500N	73.134W	5116
27	05/13/17	22:17:18	26.499N	72.767W	5179
28	05/14/17	03:49:37	26.499N	72.383W	5276
29	05/14/17	09:10:40	26.500N	71.990W	5372
30	05/14/17	15:36:34	26.499N	71.499W	5511
31	05/14/17	21:25:49	26.498N	70.997W	5576
32	05/15/17	03:35:19	26.497N	70.497W	5572
33	05/15/17	10:00:08	26.500N	69.999W	5576
34	05/15/17	16:08:58	26.499N	69.499W	5409
35	05/19/17	19:21:19	26.502N	76.472W	4936
36	05/23/17	12:16:50	26.999N	79.202W	468
37	05/23/17	13:26:56	27.000N	79.283W	596
38	05/23/17	15:03:33	27.000N	79.382W	670
39	05/23/17	16:29:38	27.002N	79.502W	746
40	05/23/17	18:04:40	27.003N	79.616W	634
41	05/23/17	19:22:54	27.001N	79.685W	518
42	05/23/17	21:02:23	27.004N	79.790W	360
43	05/23/17	22:26:23	27.003N	79.867W	253
44	05/24/17	00:05:58	27.002N	79.932W	137

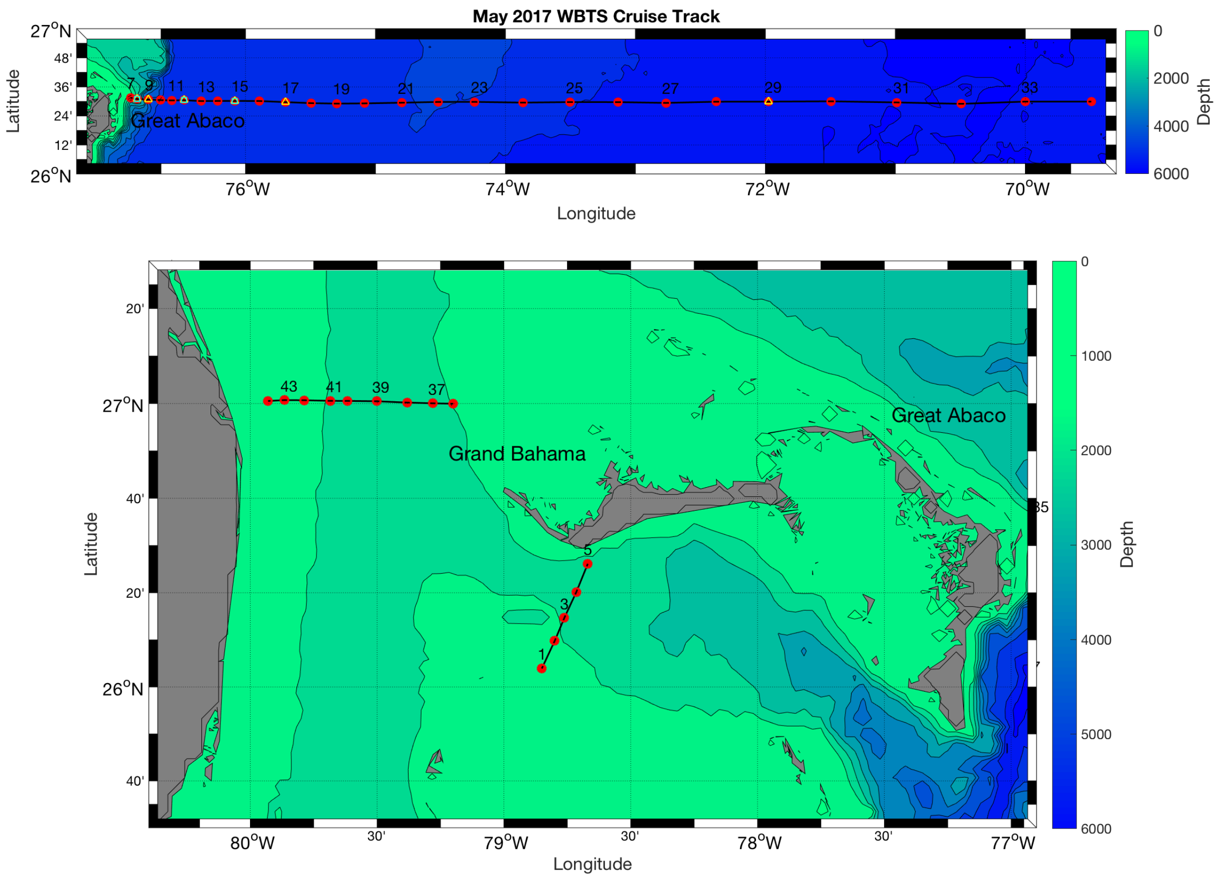

Figure 1: Abaco CTD station locations. The landmasses are shaded and the bathymetry is contoured at 1000 m intervals. The red dots are the CTD stations, the cyan squares are the mooring operations, and the yellow triangles are the IES operations.

2 Cruise Narrative

The following section based on a personal communication with Bill Johns.

The cruise departed from Port Everglades (Ft. Lauderdale), FL on May 8 at 0900 local time. The ship steamed to the first station of the Northwest Providence Channel (NWP) section, arriving there at 1630 local. A port call waiver had been requested and was graciously granted by the Bahamian Ministry of Agriculture and Marine Resources prior to the cruise, which allowed the ship to proceed directly to scientific operations without having to first check in at a Bahamian port, thereby saving valuable time for research. The NOAA/AOML CTD/LADCP system was used throughout for all CTD/LADCP stations, with a hybrid 150/300 kHz LADCP system using a NOAA 300 kHz Workhorse ADCP looking upward from the CTD frame and a NOAA 150 kHz ADCP looking downward. Unless otherwise noted, the NOAA/AOML CTD/LADCP system included two rings of 12 Niskin bottles each on the frame. There were some minor problems with the CTD system on the first cast, which were corrected by replacing the primary channel pump and backflushing the system. The NWP section was successfully completed at 0015 local on May 9th.

After steaming the length of NW Providence Channel and through Hole-in-the-wall, the ship stopped in deep water to do a calibration CTD ("cal-dip") cast (CTD006). This caldip cast, and another one later in the cruise (CTD035), were done to obtain in-situ calibration data for all the Seabird microcat instruments to be deployed on, and recovered from, the moorings. As usual for these casts, the outer ring of Niskin bottles was removed and small airplane straps were put on the frame so that the microcats could be clamped on. Twelve bottle stops were each maintained for 10 minutes on this cast to obtain additional data for the microcat calibrations and to examine the temporal drift characteristics of the microcats. During this cast, it was found that the level wind on winch #1 (the vessel's normal CTD winch) was not working properly, and after an attempt to fix it yielded no improvement, it was decided to switch the CTD system over to winch #2 (the Markey winch) for the remainder of the cruise. The switch-over was done during the steam up to the Abaco line, and additionally the outer ring of Niskin bottles was added back on the rosette.

The Abaco 26.5°N CTD/LADCP section was commenced at 1930 local on May 9th, and completed at 1200 local on May15th (stations 007 to 034). On the first three casts (CTDs 007-009) there were intermittent problems with the secondary channel (all variables) and so the secondary pump and then the cable for temperature sensor were changed out on successive casts, finally solving the problem by station 010. Also the master (150 kHz) LADCP stopped operating near the end of the downcast on station 008, and it was found that the LADCP battery pack was drained and had apparently not been properly recharging. The LADCP battery was swapped out but further charging problems resulted in another power failure of the 150 kHz LADCP on station 012. It was finally determined that the charging problem was due to a mis-wired (reversed polarity) charging cable that had also burned out the diodes in the star cable. The charging cable was fixed and the star cable was swapped out before cast 016. Thereafter the LADCP system worked well except for station 023 where the charger was switched off accidentally at some point before that cast and the battery failed again, causing loss of data on LADCP on cast 023. Obviously these were self-inflicted problems and greater diligence is needed in the set up and monitoring the LADCP charging system on future cruises. Note: Since the completion of the cruise new deck lead cables have been made with the ability to monitor the charging status of the ADCP battery pack. During the Abaco CTD section, acoustic telemetry was performed at several of the PIES sites (PIES sites B, C, D, and E) while doing CTD stations near the sites using the hullmounted 12 kHz transducer, and this worked well in all cases.

After the Abaco CTD line was completed, mooring-servicing operations began, proceeding westward along the Abaco line. All planned PIES and current meter mooring operations (Tables 1, 2 and 3) were successfully completed between May 16-21, beginning at PIES-E and finishing at mooring WB0. The current meter mooring operations all went relatively smoothly except that there were several tangles in the moorings when they came up, mainly at the deep float clusters on mooring WB3 and WBC, and at all float clusters on mooring WB0. Two glass floats were imploded (one on WB3 and one on WBC, at depths of 4000-4500 m), and one glass float was flooded at 2000 m on WB3. The uppermost wire segment on WB0 was also badly chafed at approximately 400 m depth, with bare wire showing in a few spots. The cause of this was unknown but did not appear to be shark bite.

Acoustic communications with the moorings were very good using the hull-mounted 12 kHz transducer during the cruise, undoubtedly helped by the mild weather conditions that persisted for the entire cruise. All acoustic releases were heard clearly and responded correctly to the commands sent to them, and releases from the bottom were immediate after release commands were sent. The radios, strobes, and Argos beacons on all of the current meter moorings generally worked well, except on mooring WBC where there was relatively thick marine growth on the top float at 150 m and on the radio and strobe as well, and neither came on prior to recovery. Once the fouling was wiped away from the glass separator on the radio and strobe, both came on immediately. This same behavior has now been seen several times with this new line of XEOS radios/strobes and indicates that sufficient fouling can cause the conductivity bridge activation mechanism to fail, until either the fouling is wiped off or "dries off". The Argos transmitter on WBC had less fouling on it and was left outside without wiping it off, and sent its first message within an hour of recovery.

The instrument records from the moorings were mostly complete and of good quality, except for the upward-looking ADCPs on moorings WB3 and WBC which both had short records and drained batteries. This is highly unusual, and suggests that the battery packs were probably defective to begin with. Another problem seen on one of the Nortek Aquadopp records on mooring WBC was highly elevated and spiky backscatter signal, causing bad velocity data for about the middle two-thirds of the record. This has also been seen in some previous deployments - although usually for shorter periods of time - and is believed to be due to be some kind of jetsam becoming stuck on the mooring just below the Aquadopp transducers and causing large backscatter and consequently bad Doppler velocity data. For the remaining moorings the cotter pins were double crimped below the Aquadopps to try to reduce the possibility of hooking any flotsam in the transducer paths, although this is only a partial solution.

Following recovery of mooring WB3, another "cal-dip" CTD cast (CTD035) was done near the site of PIES-B to provide post-deployment calibration data for all of the Sea-Bird microcats deployed on WB3. Only the four deepest bottle stops were maintained for 10 minutes on this cast; the other stops were maintained for 5 minutes. Two of the microcats stopped sampling shortly after the cast began, for unknown reasons, and therefore no post calibration data will be available for those instruments. In between the current meter mooring recoveries and redeployments, several PIES recoveries and redeployments were also done as detailed in Table 3.

After completing the mooring operations at site WB0 at 1300 local on May 21, and having had no weather delays thus far, there was sufficient time left in the cruise to perform a shipboard ADCP survey of the upper ocean circulation in the vicinity of the Abaco line. A trackline was drawn up for this based on near real-time satellite altimetry and the data collected on the cruise thus far, focused on the region north of the Abaco line and the possible pathways of the Antilles Current after it passes through 26.5°N. The ADCP survey was completed at 2200 local on May 22 and the ship then headed around the northwest corner of Little Bahama Bank to the Florida Current section at 27°N.

The Florida Current section (stations 036 to 044) was successfully completed at 2025 on May 23. Strong southerly winds that were building during the section caused some station keeping problems and large wire angles on a few of the casts. The scientific work of the cruise was finished with one day to spare, which was fortunate as 30 kt winds were forecast in the Straits of Florida for the following day that would have made work in the Straits very difficult. The ship arrived at the Port Everglades sea buoy at approximately 0400 local May 24th. Berthed by 0840. The cruise was very successful and all planned operations were accomplished.

3 Inverted Echo-Sounder Operations

Three recoveries and deployments were done on this cruise at sites A, A2 and E. At two sites, A2 and C-ABIISS, PIES were recovered. A2 was an older PIES thought to be lost due to failure to respond to release commands on the previous cruise and the PIES at C-ABIIS was part of the prototype 'data-pod' satellite data transmission device at the end of the 18-month ABIIS test project. Telemetry at the six main mooring sites and one at the UK PIES site, WBAL6, was conducted (see Table 3). This maintenance consisted of acoustic download of the last 15 months of data.

Table 3: Inverted echo-sounder locations and operation.

IES Site	Type	Latitude	Longitude	Date	Operation
A	PIES	026°30.938′ N	076°50.036′ W	5/20/17	Telemetry (failed)/Recovered
A		026°30.945′ N	076°50.044′	5/20/17	Deployed
A2	PIES	026°30.062′ N	076°44.775′ W	5/19/17	Telemetry (failed)/Recovered
A2	PIES	026°30.078′ N	076°44.779′ W	5/21/17	Deployed
A2	PIES	026°30.062′ N	076°44.775′ W	5/21/17	Recovered older
B	PIES	026°29.480′ N	076°28.160′ W	5/10/17	Telemetry
C	PIES	026°30.000′ N	076°05.600′ W	5/11/17	Telemetry
C -ABIISS	PIES	026°30.040′ N	076°05.550′ W	5/17/17	Recovered
D	PIES	026°30.130′ N	075°42.330′ W	5/11/17	Telemetry
E	PIES	026°30.0′ N	071°59.998′ W	5/16/17	Telemetry/Recovered
E	PIES	026°30.067′ N	072°00.0′ W	5/16/17	Deployed
WBAL6	PIES	026°31.451′ N	076°52.510′ W	5/21/17	Telemetry(failed)

4 Mooring Operations

Four 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	M439	26° 30.52'	76° 50.47'	1006	5/20/2017
WB3	M440	26° 29.61'	76° 29.74'	4842	5/19/2017
WBC	M442	26° 30.76'	76° 06.35'	4819	5/17/2017
WBL3	M441	26° 28.89'	76° 28.86'	4845	5/18/2017

Table 5: Summary of mooring deployment operations.

Mooring Site	Mooring Number	Latitude (N)	Longitude (W)	Depth	Date of Deployment
WB0	M459	26° 30.66'	76° 50.46'	1004	5/21/2017
WB3	M460	26° 29.69'	76° 29.66'	4840	5/20/2017
WBC	M462	26° 30.73'	76° 06.26'	4814	5/18/2017
WBL3	M461	26° 28.97'	76° 28.84'	4846	5/18/2017

5 Expendable Bathythermographs

During the cruise, a new expendable bathythermograph (XBT) recording board was tested during twelve probe launches simultaneous with twelve of the CTD casts. These tests were completed to evaluate whether the new AOML-designed recording board (”AXR” - AOML XBT recorder) is properly measuring the thermistor changes at the appropriate frequency. These tests were at the request of the NOAA-AOML High Density XBT project. Deployment locations for these probes are shown in Table 6.

Table 6: Summary of simultaneous XBT deployments

Date #	Time (GMT)	Latitude (N)	Longitude (W)	CTD Cast	Probe Type	Probe S/N
05/11/17	19:16	26° 29.83’	75° 41.84’	17	Deep Blue	1245189
05/12/17	00:43	26° 29.75’	75° 29.97’	18	Deep Blue	1245190
05/12/17	05:25	26° 29.56’	75° 18.02’	19	Deep Blue	1245191
05/12/17	10:07	26° 2977’	75° 04.85’	20	Deep Blue	1245192
05/12/17	15:04	26° 29.82’	74° 47.96’	21	Deep Blue	1245193
05/12/17	20:10	26° 30.03’	74° 30.92’	22	Deep Blue	1245194
05/13/17	06:13	26° 29.72’	73° 51.92’	24	Deep Blue	1245195
05/13/17	11:42	26° 30.01’	73° 30.03’	25	Deep Blue	1245196
05/13/17	17:12	26° 29.93’	73° 08.06’	26	Deep Blue	1245197
05/13/17	22:31	26° 29.84’	72° 46.03’	27	Deep Blue	1245199
05/14/17	09:19	26° 29.98’	71° 59.20’	29	Deep Blue	1245200
05/14/17	15:38	26° 29.94’	71° 29.94’	30	Deep Blue	1245198

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 7.26.6.26).

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 9plus 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 reference temperature sensor is mounted to the SBE 9plus. A list of sensors used during the cruise can be seen in Table 7.

Table 7: Equipment used during AB1705

Instrument	SN	Stations	Sensor Position	Comment
Sea-Bird SBE 32 24-palce Carousel Water Sampler	32 - 1079	1-44		
Sea-Bird SBE9plus CTD	1292	1-44		
Paroscientific Digiquartz Pressure Sensor	136924	1-44		
Sea-Bird SBE3plus Temperature Sensor	5237	1-44	Primary	
Sea-Bird SBE3plus Temperature Sensor	5236	1-44	Secondary	
Sea-Bird SBE35 Reference Temperature Sensor	0083	1-44		
Sea-Bird SBE4C Conductivity Sensor	3860	1-44	Primary	
Sea-Bird SBE4C Conductivity Sensor	3833	1-44	Secondary	
Sea-Bird SBE43 Dissolved Oxygen Sensor	2949	1-44	Primary	
Sea-Bird SBE43 Dissolved Oxygen Sensor	0154	1-44	Secondary	
Sea-Bird SBE5T Pump	7268	1-44	Primary	
Sea-Bird SBE5T Pump	1072	1-8	Secondary	
Sea-Bird SBE5T Pump	7738	9-44	Secondary	
Vale port VA 500 Altimeter	48592	1-44		Scale 15.0 Range - 100 m
Simrad 807 Altimeter (gold)	9608	10-11	Didn't Work No Signal	Scale 15.0 Range - 250 m
Benthos PSA-916 Altimeter	52304	12-44		Scale 15.0 Range - 100 m
RDI LADCP - 150 kHz Broad Band (AOML)	18145	1-44	Downward	
RDI LADCP - 300 kHz Workhorse (AOML)	13493	1-21	Upward	Removed to test repaired 300 (s/n 24472)
RDI LADCP - 300 kHz Workhorse (AOML)	24472	22-44	Upward	

6.1 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 sensor utilized during AB1705was s/n 1292. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington. The calibration date and coefficients in Table 8 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 8: Pressure Calibration Date & Coefficients.

s/n 1292 September 14, 2016
c_1 = -4.247898e+04
c_2 = -1.618984e-01
c_3 = 1.460220e-02
d_1 = 3.536900e-02
d_2 = 0.000000e+00
t_1 = 2.992804e+01
t_2 = -3.156950e-04
t_3 = 4.144500e-06
t_4 = 3.229580e-09
t_5 = 0.000000e+00
Slope = 1.00000000
Offset = -0.24000
AD590M = 1.279960e-02
AD590B = -9.151060e+00

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 AB1705, serial numbers (s/n) 5237 and 5236. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington. The calibration dates and coefficients in 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: Temperature Pre-Cruise Calibration Dates & Coefficients.

s/n 5237 March 4, 2017	s/n 5236 March 9, 2017
g = 4.40970622e-03	g = 4.39565236e-03
h = 6.79031364e-04	h = 6.78221788e-04
i = 2.79308079e-05	i = 2.77810625e-05
j = 2.07121126e-06	j = 2.07312092e-06
f_0 = 1000.0	f_0 = 1000.0

6.3 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.

Two conductivity sensors were used during AB1705, serial numbers (s/n) 3860 and 3833. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington. The calibration dates and coefficients shown in Table 10 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 10: Conductivity Pre-Cruise Calibration Dates & Coefficients.

s/n 3860 March 8, 2017	s/n 3833 March 9, 2017
g = -1.03279592e+01	g = -1.04867330e+01
h = 1.48515534e+00	h = 1.37223319e+00
i = -1.19451927e-03	i = -9.05513561e-04
j = 1.68498282e-04	j = 1.34575578e-04
CPcor = -9.5700e-08	CPcor = -9.5700e-08
CTcor = 3.2500e-06	CTcor = 3.2500e-06

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 2949 and 0154 were used during AB1705. The calibration dates and coefficients in Table 8.5 were entered into SEASAVE® using the configuration file.

Table 11: Oxygen Pre-Cruise Calibration Dates & Coefficients.

s/n 2949 March 18, 2017	s/n 0154 April 5, 2017
Soc = 0.41848	Soc = 0.44652
Voffset = -0.5278	Voffset = -0.5223
Tau20 = 1.28	Tau20 = 1.13
A = -4.1790e-03	A = -4.3209e-03
B = 2.4978e-04	B = 2.3538e-04
C = -3.4514e-06	C = -3.2773e-06
$E_{nominal}$ = 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

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

SEASAVE® automatically implements this equation.

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

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

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

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

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

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

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.

6.5 Reference Temperature

The SBE 35RT is an accurate, ocean-range temperature sensor that is capable of measuring temperature in the ocean to depths of 6800 meters (22,300 ft). The SBE 35RT communicates via a standard RS-232 interface at 300 baud, 8 data bits, no parity. The SBE 35RT makes a temperature measurement each time a bottle fire confirmation is received, and stores the value in EEPROM. Each stored value contains the time and bottle position in addition to the temperature data, allowing comparison of the SBE 35RT record with CTD and water bottle data. Using one SBE 35RT eliminates the need for reversing thermometers, and provides higher accuracy temperature readings at lower cost. Calibration coefficients stored in EEPROM allow the SBE 35RT to transmit data in engineering units (Table 12). When configured in a real-time system, the SBE 35RT can use the system modem channel for two-way communications; it is not necessary to change cable connections to communicate with and retrieve data from the SBE 35RT. Retrieved from http://www.seabird.com/sites/default/files/documents/35RT_013.pdf (2015, February 12).

The sensor measurement ranges from -5 to 35°C. The SBE 35RT digital reversing thermometer has a typical accuracy/stability of ±0.001°C per year and resolution of 0.000025°C.

Table 12: Reference Temperature Calibration Date & Coefficients.

s/n 0083 August 21, 2014
A0 = 5.106189e-03
A1 = -1.397178e-03
A2 = 2.043958e-04
A3 = -1.128435e-05
A4 = -2.384084e-07
Slope = 1.0000
Offset = 0.0000

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), reference temperature (SBE35), and dual altimeters, a Valeport VA500 and a Benthos PSA-916. The other underwater electronic components consisted of two RDI LADCPs. A total of 44 CTD/rosette casts were made, usually to within 20 m of the bottom.

The CTD's supplied a standard Sea-Bird format data stream at a data rate of 24 frames/second. The SBE9 plus CTD was connected to the SBE32 24-place pylon providing for single-conductor sea cable operations. Power to the SBE9plus 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 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 two altimeters were mounted on the inside of the support struts 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. Both of the R/V Endeavor's CTD winches were used on the starboard J-frame with the 24-place10-liter rosette. Winch 1 (forward winch), the primary winch, was used through station 6 until a level wind issue was discovered. Winch 2 (aft winch) was switched to for the remaining stations.

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 primary pump was replaced at station 1 after bad values in the subsurface soak before the start of the cast. During the cast at station 6, it was found that the level wind on Winch 1 (forward winch) was not working properly. The problem could not be fixed and Winch 2 (aft winch) was used the remainder of the cruise. Stations 7 and 8 had bad upcasts in the secondary sensors and the secondary pump was swapped out after station 8. During the station 9 cast the secondary temperature sensory lost communication at approximately 2600 dbar during the downcast. The secondary temperature cable was replaced after station 9.

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 computer room. SBE Seasave software version 7.26.6.26 was used for data acquisition and to close bottles on the rosette.

The deck watch prepared the rosette typically after sampling the previous cast. All valves, vents, and lanyards were checked for proper orientation. The bottles were cocked and all hardware and connections rechecked. Fifteen minutes or so prior to station the deck unit was powered on and an on-deck pre-cast pressure was obtained. Once on station, the syringes were removed from the CTD sensor intake ports. Tag lines were necessary for both deployments and recoveries during this cruise. As soon as it was in the water, the CTD deck unit was powered on and the data acquisition system started. As directed by the deck watch leader, the CTD was taken down to 10 m for 2 minutes to remove any air bubble from the sensor lines and to make sure the sensors were behaving appropriately. The CTD was brought back to just below the surface with the console operator hitting "Mark Scan" before beginning the descent. The profiling rate was no more than 30 m/min to 50 m, 45 m/min to 200 m, and no more than 60 m/min deeper than 200 m. Upon recovery, the CTD deck unit was turned off just before recovery. The rosette was left on deck for sampling. The bottles and rosette were examined before samples were taken and anything unusual noted on the sample log.

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 10 m.

On the up cast, the winch operator stopped at each bottle trip depth using a remote depth display located in the winch house. The CTD console operator waited 30 seconds before tripping a bottle using a "point and click" graphical trip button and 5 seconds after to allow the reference temperature sensor to sample. 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.

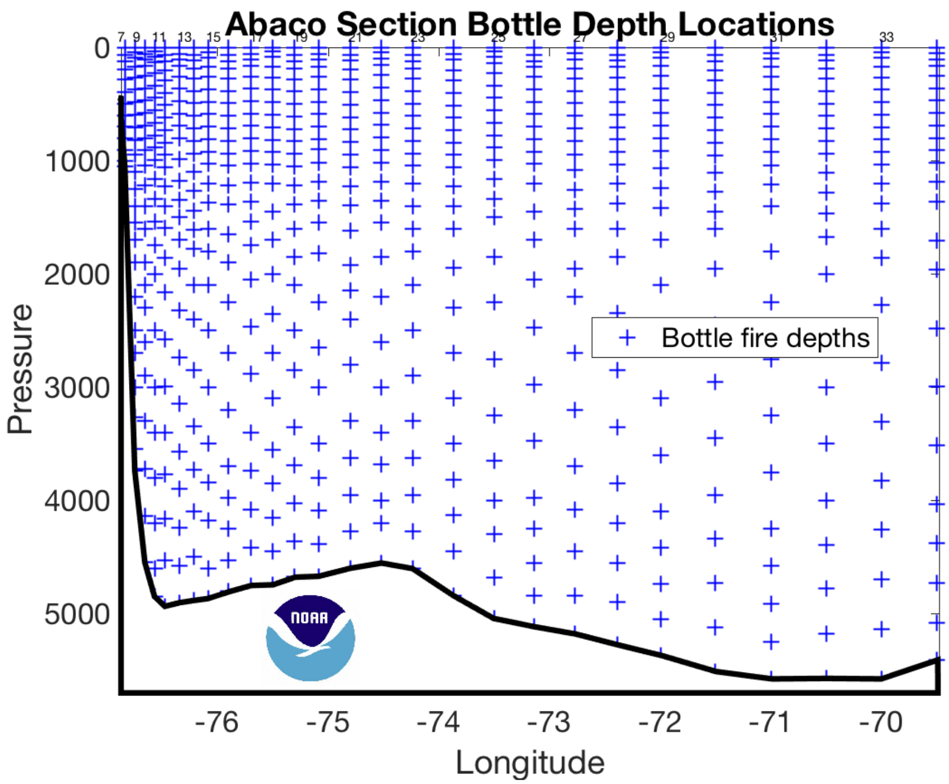

Figure 2: Bottle locations for 26.5°N Deep Western Boundary Current section east of Abaco Island.

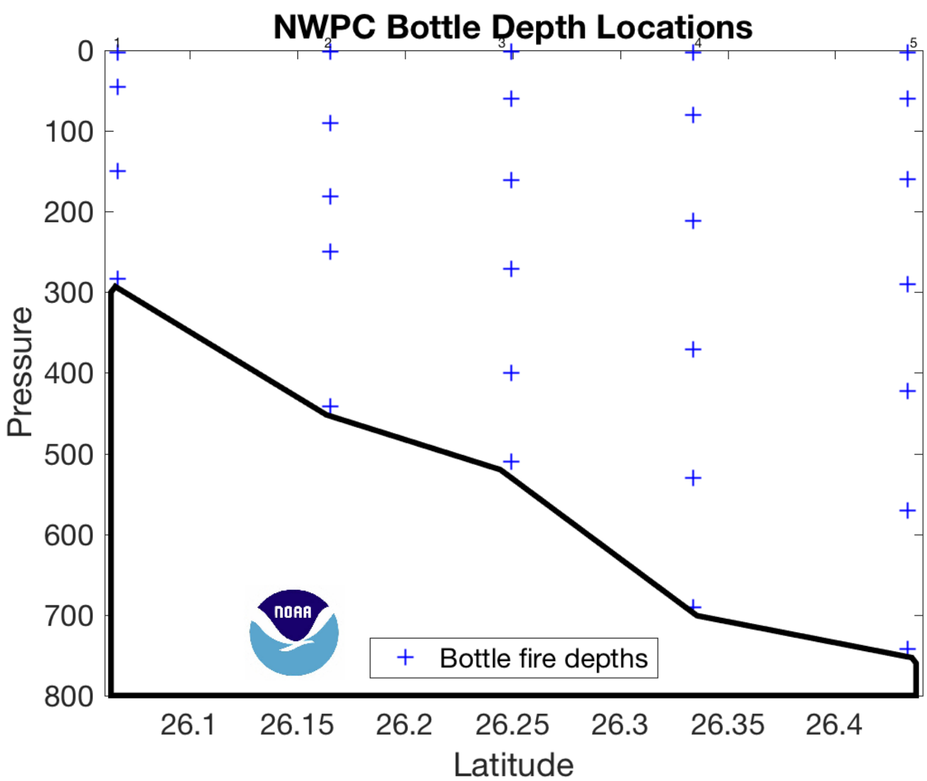

Figure 3: Bottle locations for along the Northwest Providence Channel section.

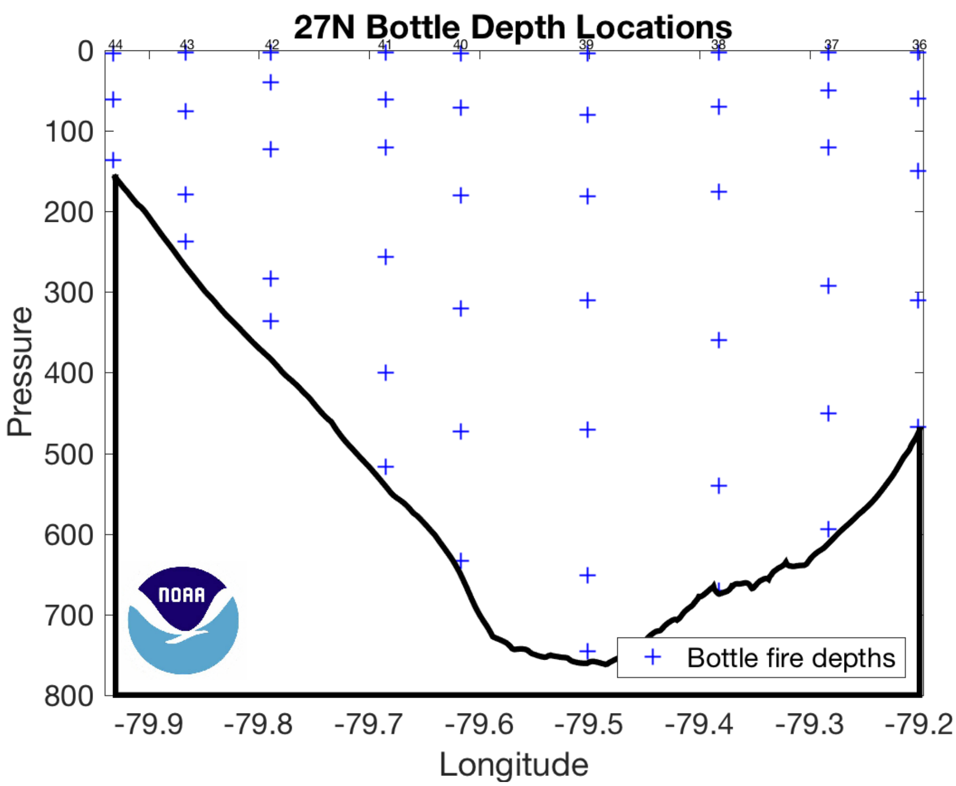

Figure 4: Bottle locations for 27°N section in the Florida Straits.

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 7.25.0.319 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/m, c1 S/m, salinity (PSU), salinity 2 (PSU), oxygen voltage V, oxygen 2 voltage V, altimeter, oxygen umol/kg, oxygen 2 umol/kg, oxygen mll/l, oxygen 2 ml/l, oxygen dv/dt, oxygen dv/dt 2, latitude, and longitude. The scan range offset is 0 seconds and the scan range duration is 5.5 seconds. 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. Primary and secondary conductivity are automatically advanced by 0.073 seconds. After initial processing analysis an additional advance value of -0.04 was applied for a total of 0.033. Both oxygen are advanced by 1.073 seconds.

3. 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).

4. 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.

5. 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.

6. 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.

7. 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.

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.

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 44 casts were processed.

7.4 CTD Calibration Procedures

Laboratory calibrations of the CTD pressure, temperature, conductivity, and oxygen sensors were all performed at Sea-Bird Electronics, Inc. in Bellevue, Washington. 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 temperature, conductivity and oxygen sensors behaved more stably during the cruise. In-situ salinity and dissolved O2 bottle samples collected during each cast were used to calibrate the conductivity and dissolved O2 sensors.

7.4.1 Salinity Analysis

A model 8400B Guildline Autosal, s/n 71011, owned by AOML located in the forward starboard lab, was used for all salinity measurements. 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. The temperature was used to gauge the stability of the room temperature and 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 group 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.

IAPSO Standard Seawater Batch P-158 was used to standardize all casts (Table 13).

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

P-158
Use By: March 2018
K15: 0.99970
Salinity: 34.988

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. 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 - AB1705, 784 salinity measurements were taken, including 53 duplicates, and approximately 40 vials of standard seawater (SSW) were used. Up to two duplicate samples were drawn from most casts to determine total analytical precision.

The running standard calibration values are shown in Figure 5. Through the course of the cruise, the autosal standards changed by 1.80 · 10-4 in conductivity ratio (about 0.0035 in salinity). The precision of the salinity measurements during the cruise were estimated by using the duplicate samples. From the 53 duplicate samples (Table 14), which corresponds to 6.7% of the total samples collected during this cruise, the average residual for the duplicates was 1.84 · 10-4 PSU with and standard deviation of 0.0013 PSU (Figure 5).

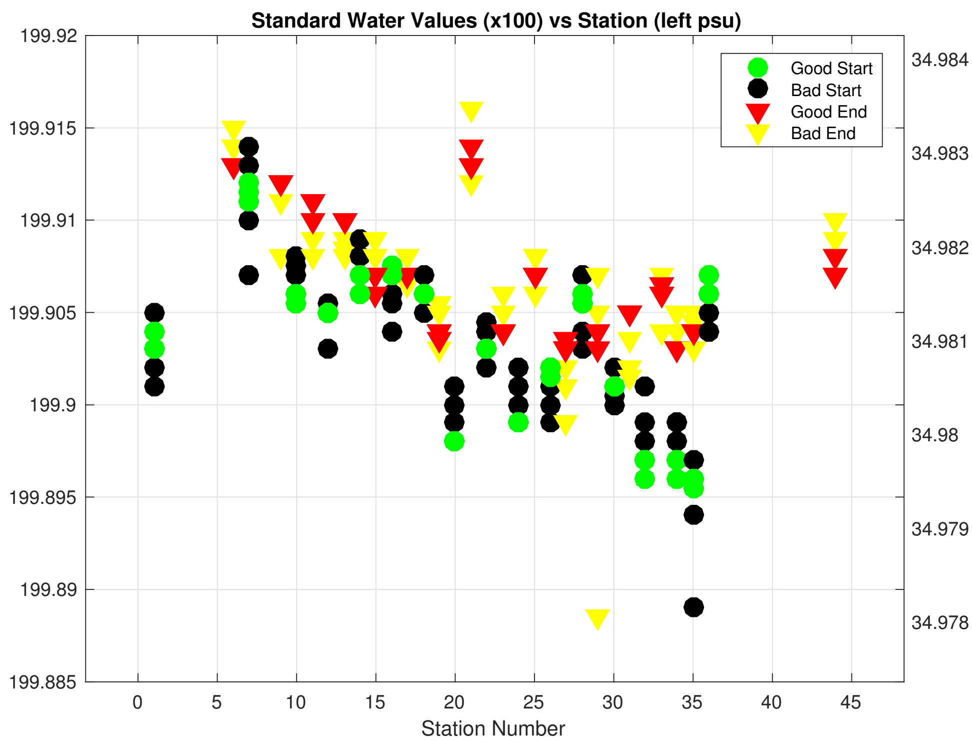

Figure 5: Standard vial calibrations throughout the cruise.

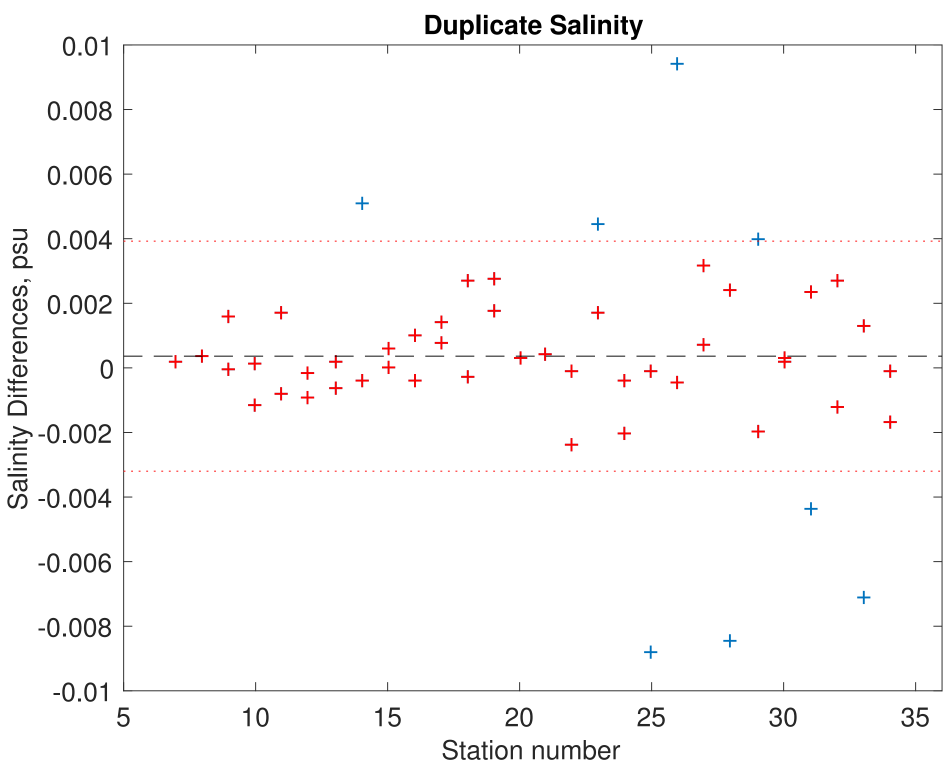

Figure 6: Salinity residuals of the duplicate samples.

Table 14: Duplicate salinity samples collected during the ABACO cruise.

Station	Niskin	Salinity1	Salinity2	Differences
7	4	36.769	36.769	-0.000
8	1	35.060	35.060	-0.000
9	4	34.932	34.932	0.000
9	22	36.864	36.866	-0.002
10	7	34.953	34.953	-0.000
10	9	34.968	34.967	0.001
11	5	34.913	34.915	-0.002
11	23	36.856	36.856	0.001
12	3	34.893	34.892	0.001
12	10	34.990	34.990	0.000
13	7	34.938	34.937	0.001
13	19	36.582	36.582	-0.000
14	7	34.950	34.949	0.000
14	13	35.071	35.076	-0.005
15	17	36.410	36.410	-0.001
15	22	36.826	36.826	0.000
16	14	35.271	35.271	0.000
16	23	36.876	36.877	-0.001
17	2	34.885	34.886	-0.001
17	17	36.494	36.496	-0.001
18	5	34.902	34.901	0.000
18	9	34.967	34.969	-0.003
19	6	34.926	34.928	-0.002
19	9	34.974	34.976	-0.003
20	7	34.937	34.938	-0.000
21	7	34.953	34.941	0.012
21	13	35.098	35.099	-0.000
22	15	35.529	35.529	0.000
22	21	36.815	36.813	0.002
23	17	36.115	36.117	-0.002
23	22	36.809	36.813	-0.004
24	21	36.647	36.647	0.000
24	24	36.910	36.908	0.002
25	5	34.912	34.903	0.009
25	9	34.980	34.980	0.000
26	6	34.909	34.909	0.000
26	12	35.069	35.079	-0.009
27	9	34.972	34.973	-0.001
27	22	36.783	36.786	-0.003
28	7	34.942	34.934	0.008
28	22	36.783	36.786	-0.002
29	3	34.887	34.885	0.002
29	13	35.084	35.088	-0.004
30	2	34.877	34.877	-0.000
30	14	35.135	35.136	-0.000
31	5	34.897	34.893	0.004
31	21	36.767	36.770	-0.002
32	10	35.002	35.004	-0.003
32	24	36.856	36.854	0.001
33	6	34.922	34.915	0.007
33	17	35.980	35.981	-0.001
34	9	34.973	34.972	0.002
34	23	36.842	36.842	0.000

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 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 757 including 53 duplicate samples, up to two taken at random every cast. The samples were stored in the lab in plastic totes at room temperature for 1.5 hours before analysis. The data was incorporated into the cruise database shortly after analysis. Thiosulfate normality was calculated from the laboratory temperature for each sample run.

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

The precision of the oxygen measurements during the cruise were estimated by using the duplicate samples. From the 53 duplicate samples (15), which corresponds to 7.0% of the total samples collected during this cruise, the average residual for the duplicates was 0.019 $umol/kg$ with and standard deviation of 0.28 $umol/kg$ (7).

Oxygen titration system calibrations were performed at the beginning of the cruise, before analyzing station 19 and before beginning the 27N transect samples at station 36. Overall, the oxygen system performed very well for the duration of the cruise. No issues arose while running samples and no components or equipment needed to be changed.

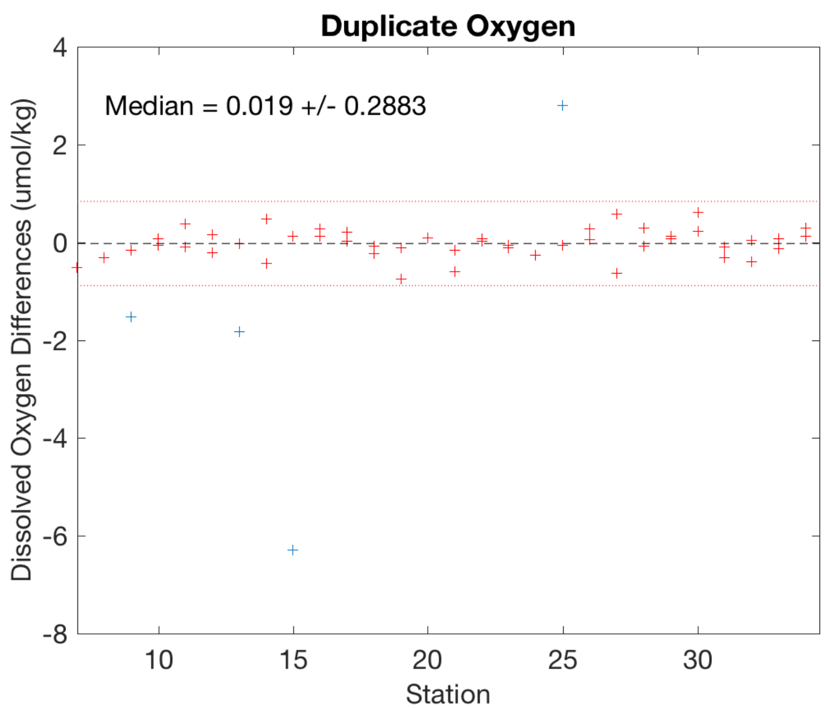

Figure 7: Oxygen residuals of the duplicate samples .

Table 15: Duplicate dissolved oxygen samples collected during the ABACO cruise (values in *umol/kg*).

Station	Niskin	Oxygen1	Oxygen2	Differences
7	2	192.2	191.7	0.506
8	9	197.3	197.0	0.308
9	2	274.9	274.8	0.161
9	6	271.5	270.0	1.514
10	4	274.3	274.4	-0.070
10	12	242.2	242.1	0.060
11	16	160.6	161.0	-0.380
11	18	190.8	190.7	0.095
12	9	266.6	266.4	0.211
12	18	186.0	186.2	-0.156
13	1	262.0	260.2	1.817
13	11	259.2	259.1	0.021
14	3	272.2	272.7	-0.471
14	9	265.3	264.9	0.426
15	5	275.7	275.8	-0.132
15	15	157.9	151.6	6.302
16	16	174.6	174.8	-0.282
16	19	204.8	204.9	-0.126
17	5	275.2	275.4	-0.203
17	14	145.1	145.2	-0.019
18	3	271.0	270.9	0.076
18	13	157.3	157.1	0.234
19	6	272.3	271.6	0.749
19	16	171.3	171.2	0.111
20	2	266.1	266.2	-0.096
20	21	208.6	208.7	-0.090
21	9	268.5	268.4	0.153
21	22	215.3	214.7	0.596
22	7	272.4	272.5	-0.025
22	19	189.2	189.3	-0.079
23	8	268.6	268.5	0.101
23	21	207.3	207.3	0.052
24	1	263.3	263.0	0.253
25	4	272.6	275.4	-2.805
25	22	211.6	211.6	0.058
26	7	267.4	267.4	-0.063
26	19	190.7	191.0	-0.276
27	12	239.9	239.3	0.629
27	20	196.4	196.9	-0.572
28	4	271.7	272.0	-0.289
28	14	153.9	153.9	0.072
29	2	264.7	264.8	-0.121
29	15	145.5	145.6	-0.079
30	11	223.7	224.3	-0.610
30	19	188.7	188.9	-0.232
31	3	268.5	268.1	0.304
31	21	202.4	202.3	0.085
32	5	272.7	272.3	0.392
32	16	153.6	153.6	-0.035
33	8	266.6	266.6	-0.076
33	11	249.4	249.2	0.125
34	7	269.9	270.2	-0.300
34	23	215.5	215.6	-0.133

8 Post-Cruise Calibrations

Post cruise sensor calibrations were done at Sea-Bird Electronics, Inc. Secondary temperature, conductivity and dissolved oxygen sensors served as calibration checks for the reported primary sensors. In-situ salinity and dissolved oxygen samples collected during each cast were used to calibrate the conductivity and dissolved oxygen sensors. The digital reverse thermometer was used to monitor the temperature sensors for pressure dependencies or offsets. Primary TC pair T5237/C3860 was selected for final data reduction. Primary oxygen sensor, s/n 2949, was used for the final data reduction.

8.1 CTD Data Processing

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.

- 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 temperature, salinity and oxygen data. 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 $N^2 \leq -1.0\ e\ -05\ s^{-2}$.

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

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 8 and Table 16). Pressure sensor s/n 1292 was used for all stations of the cruise with an

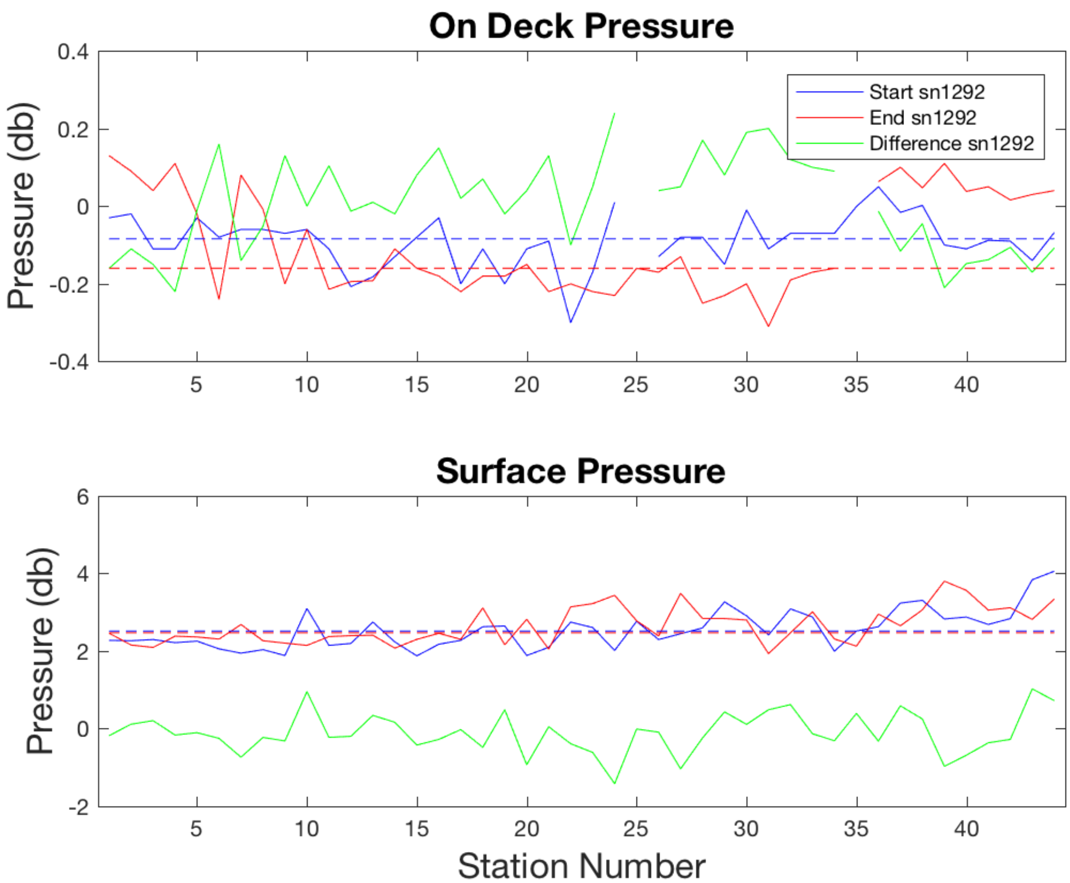

Figure 8: Top panel are the pressures measured on deck before the cast (blue), at the end of the upcast (red) and the difference (green) for s/n 1292. Bottom panel are the near sea surface pressure values measured at the start of the downcast (blue), at the end of the upcast (red) and the difference (green) for s/n 1292.

initial pressure offset of -0.24 dbar applied to the configuration file for a total offset of -0.24. On deck pressures before the start of each cast were recorded and plotted in Figure 8. The on deck pressures before and after the cast were stable at -0.08 ± 0.07 dbar and -0.16 ± 0.13 dbar (median ± standard deviation). No offset correction was necessary.

Near surface pressure values (which is taken as the near-surface pressure at the markscan and the last fired bottle pressure) showed no remarkable trends throughout the cruise. Pressure sensor, s/n 1292, was stable with near surface pressures of 2.51 ± 0.50 dbar before and 2.47 ± 0.47 dbar (median ± standard deviation).

Table 16: 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	6020	-0.0300	0.1300	2.2700	2.4540
2	6466	-0.0200	0.0900	2.2600	2.1490
3	5321	-0.1100	0.0400	2.2900	2.0880
4	5092	-0.1100	0.1100	2.2100	2.3780
5	5775	-0.0300	-0.0200	2.2500	2.3570
6	5628	-0.0800	-0.2400	2.0500	2.3030
7	5926	-0.0600	0.0800	1.9400	2.6780
8	5325	-0.0600	-0.0080	2.0300	2.2600
9	5517	-0.0700	-0.2000	1.8800	2.1990
10	5027	-0.0600	-0.0600	3.0900	2.1400
11	4686	-0.1100	-0.2140	2.1400	2.3670
12	410	-0.2070	-0.1940	2.1900	2.3910
13	4565	-0.1820	-0.1920	2.7400	2.4010
14	4349	-0.1300	-0.1100	2.2300	2.0700
15	3705	-0.0800	-0.1600	1.8700	2.2960
16	4510	-0.0300	-0.1800	2.1700	2.4510
17	4085	-0.2000	-0.2200	2.2700	2.2970
18	4692	-0.1100	-0.1800	2.6200	3.1050
19	6561	-0.2000	-0.1800	2.6400	2.1560
20	4675	-0.1100	-0.1500	1.8800	2.8110
21	5008	-0.0900	-0.2200	2.0900	2.0440
22	4224	-0.3000	-0.2000	2.7400	3.1320
23	5386	-0.1700	-0.2200	2.6000	3.2150
24	4596	0.0100	-0.2300	2.0100	3.4300
25	4887	-999	-0.1600	2.7600	2.7730
26	5063	-0.1300	-0.1700	2.2900	2.3840
27	4382	-0.0800	-0.1300	2.4400	3.4790
28	4684	-0.0800	-0.2500	2.5900	2.8320
29	5024	-0.1500	-0.2300	3.2600	2.8320
30	3673	-0.0100	-0.2000	2.9000	2.7930
31	5041	-0.1100	-0.3100	2.4100	1.9270
32	4744	-0.0700	-0.1900	3.0800	2.4650
33	4639	-0.0700	-0.1700	2.8700	3.0050
34	4570	-0.0700	-0.1600	1.9900	2.3050
35	4472	-0.0010	-999	2.5100	2.1200
36	4865	0.0500	0.0630	2.6200	2.9460
37	5464	-0.0160	0.1000	3.2300	2.6450
38	4648	0.0020	0.0470	3.3000	3.0550
39	3980	-0.1000	0.1100	2.8200	3.7930
40	4037	-0.1100	0.0380	2.8700	3.5570
41	4849	-0.0880	0.0500	2.6800	3.0480
42	4354	-0.0900	0.0160	2.8300	3.1100
43	4294	-0.1400	0.0300	3.8300	2.8090
44	4436	-0.0680	0.0400	4.0500	3.3330

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 comparing the differences between the two different temperature sensors over a range of pressures (bottle trip locations) for each cast. These comparisons are summarized in Figure 9, which shows a median temperature difference between the two sensors of 0.0 °C (0.0 °C below 1000 m) and a standard deviation of 0.015 °C (0.0009 °C below 1000 m). The sensors behaved well compared to each other with minimal offset or pressure dependence.

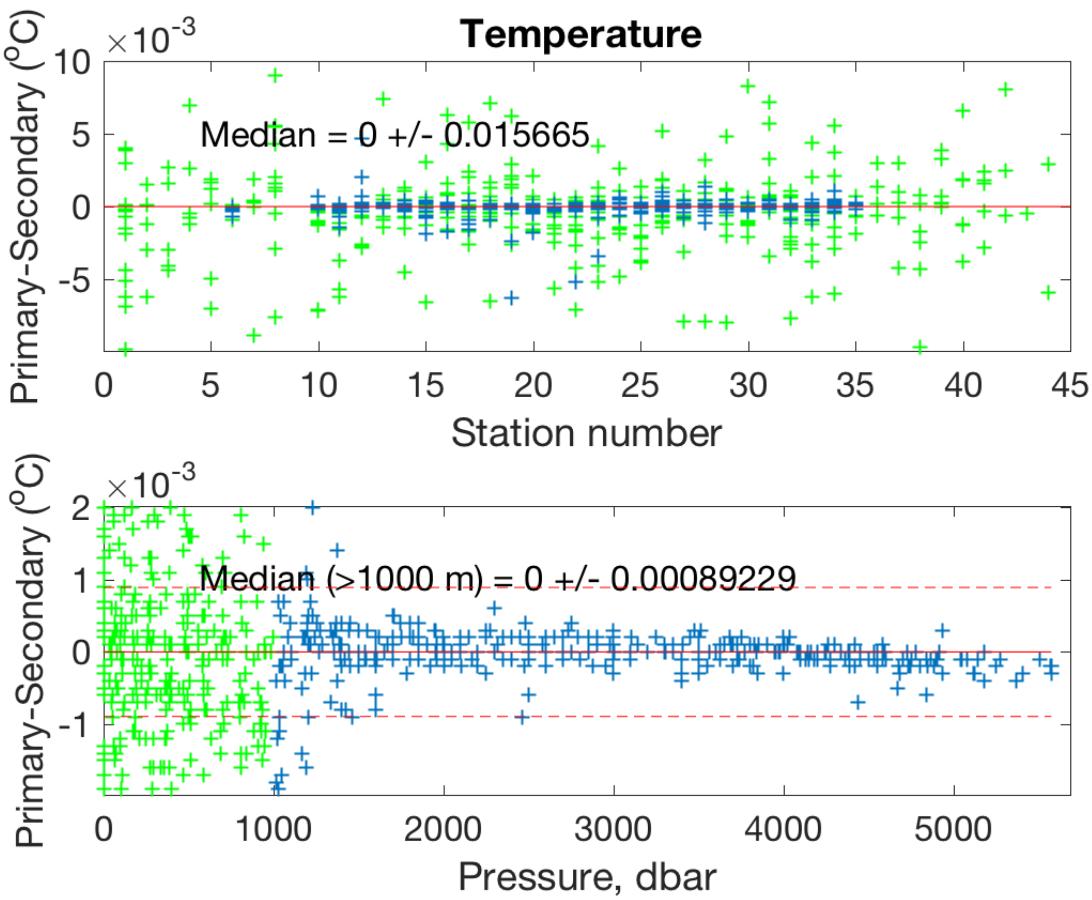

Figure 9: Temperature differences (before corrections) between sensors by station number (top) and pressure (bottom). The green represents the surface data down to 1000 dbar. The blue represents data below 1000 dbar. The red solid line represents the median with the red dashed representing the standard deviation (same for top and bottom).

A SBE 35RT reference temperature was used during the cruise as a check to monitor the behavior of the primary and secondary temperature sensors. This allows for corrections to be made if there is any significant pressure dependence or offset seen in the sensors throughout the cruise. The bottle and instrument differences are compared to a normal distribution using 2.8 * standard deviation to find clear outliers. After these procedures 651 data points (88.5 %) were used in the final calculations. Both primary and secondary sensors had a strong pressure dependence approximately 0.0018 °C at 5500 dbar (Figure 10). Both temperature sensors were corrected for by using the reference temperature. The primary temperature sensor, s/n 5237, was used for all the final data values.

In order to calibrate the CTD temperature data against the reference temperature 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

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

with

	Primary - s/n 5237 Sta 1-44
m	1.00000125
p_1	1.89765003e-06
b	-0.00011885
$pcor$	-2.53754946e-07

where T_{CTD} is pre-cruise calibrated CTD temperature (°C), m is the temperature slope, b is the offset (°C), 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. Two temperature coefficients were used for each sensor (Table 8.3). From the Abaco line, stations 9-34 were used to derive the coefficients, but were applied to all stations. The corrected primary temperature sensor is summarized in Figures 11 - 14, which shows a median temperature difference between the two sensors of -1.86 · 10-5 °C (-1.08 · 10-5 °C below 1000 m) and a standard deviation of 0.0009 °C (0.0002 °C below 1000 m). Also, 93.2% of the residuals for the data are within the confidence limits determined by the WOCE standard (± 0.002 psu) and this number increases to 100.0% if we consider only the data below 1000 dbar.

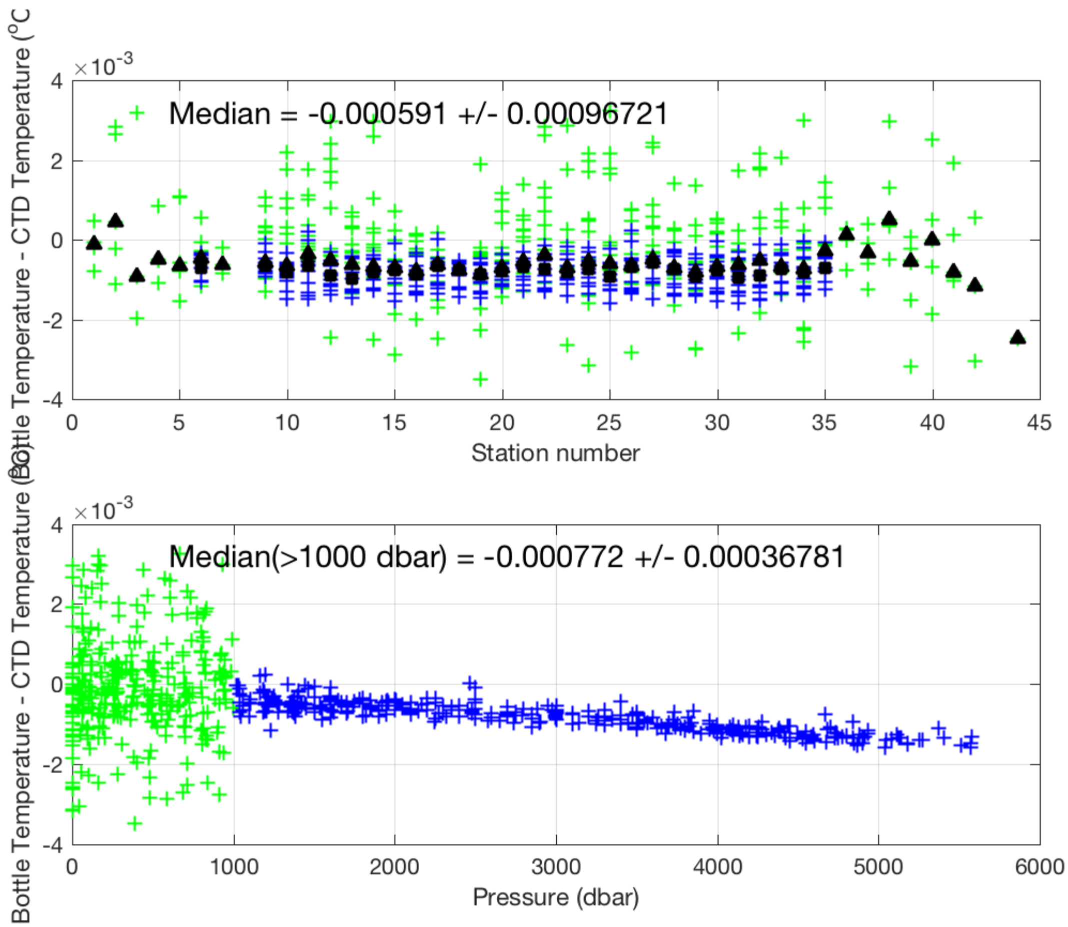

Figure 10: Bottle and uncalibrated primary CTD temperature differences plotted against pressure. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar.

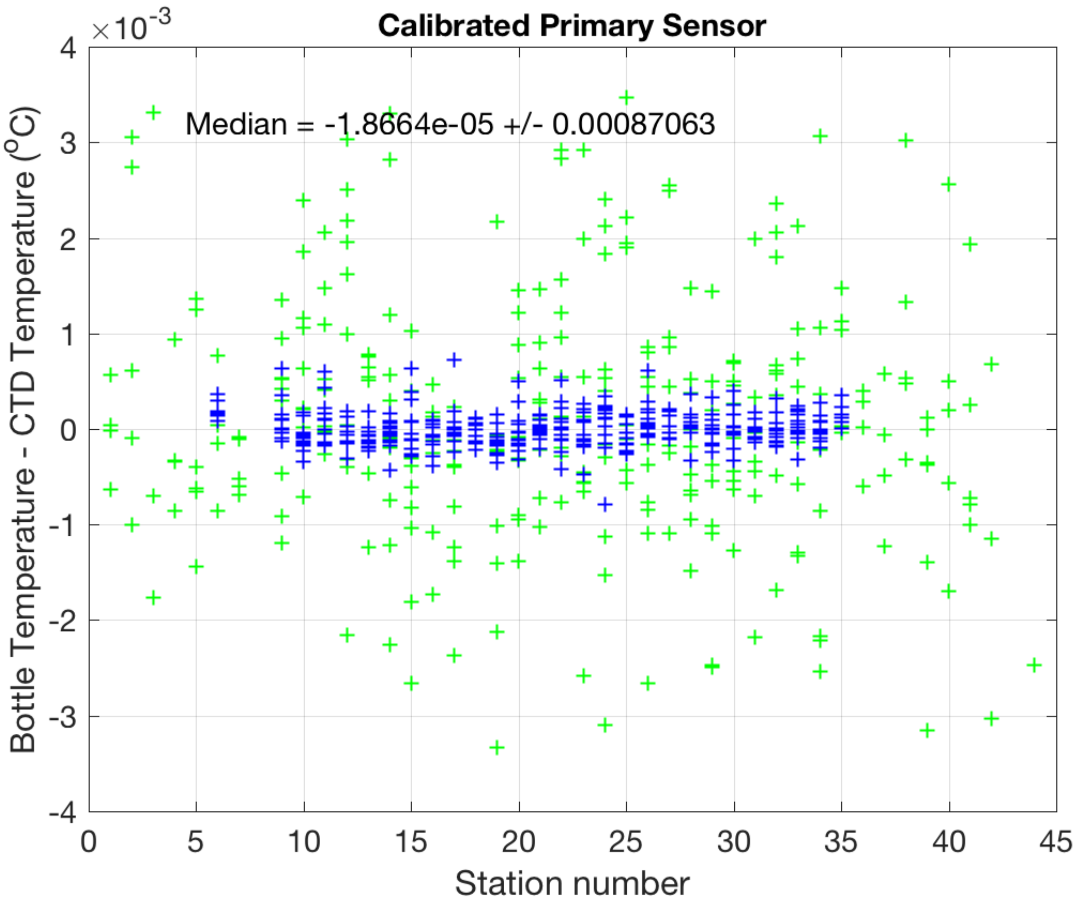

Figure 11: Reference temperature and calibrated primary CTD temperature differences plotted vs. station.

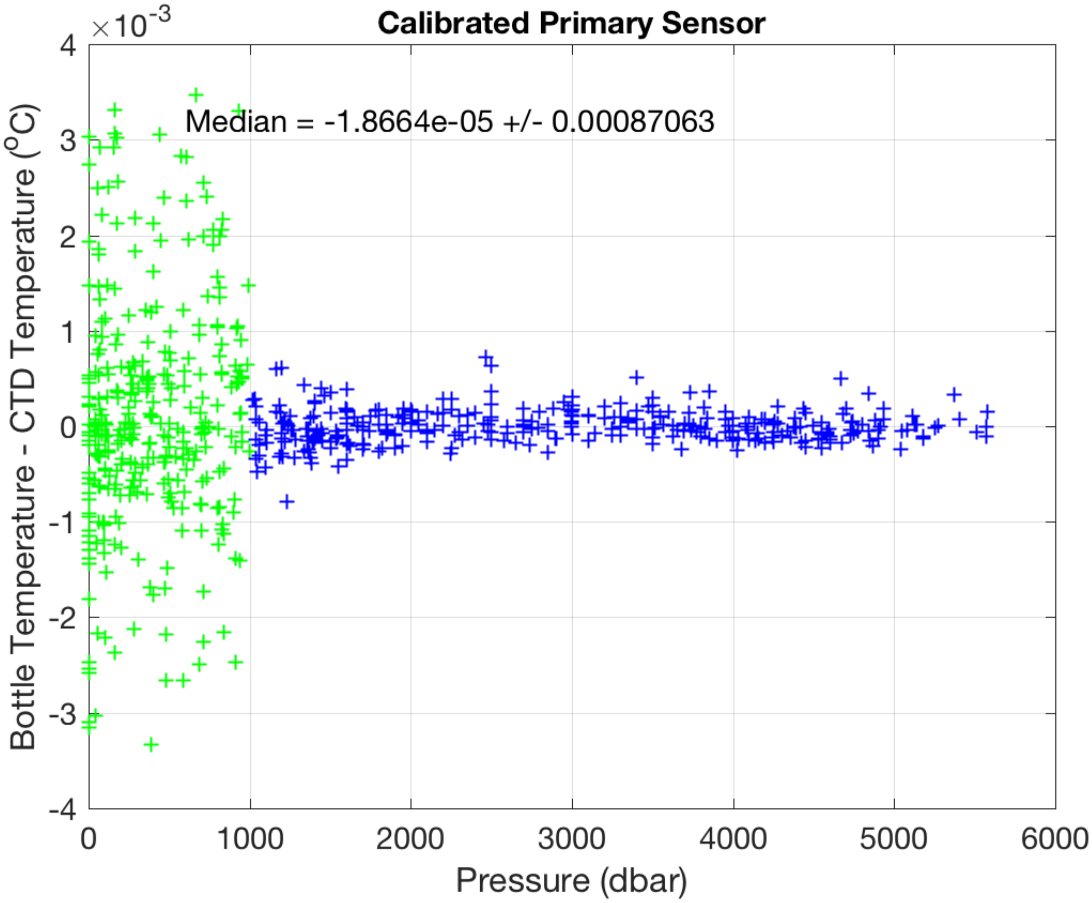

Figure 12: Reference temperature and calibrated primary CTD temperature differences plotted vs. pressure.

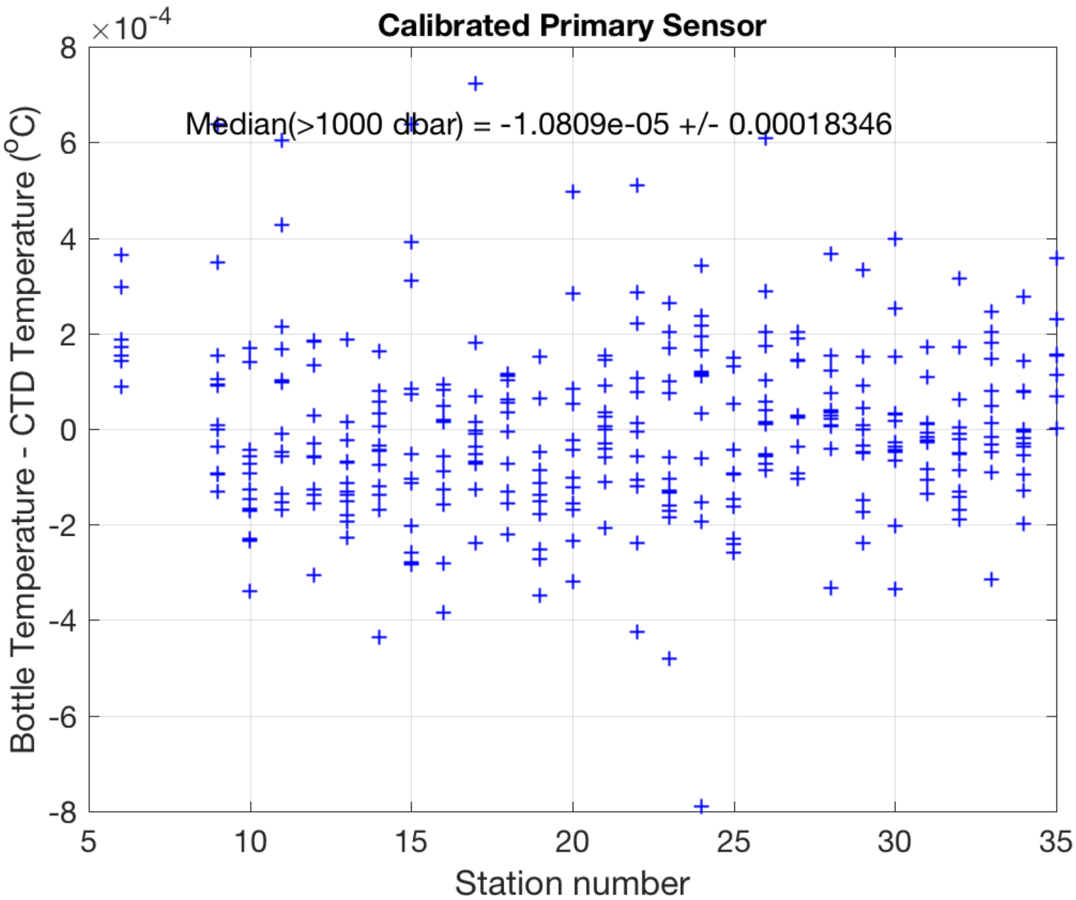

Figure 13: Reference temperature and calibrated primary CTD temperature differences plotted vs. station below 1000 dbar.

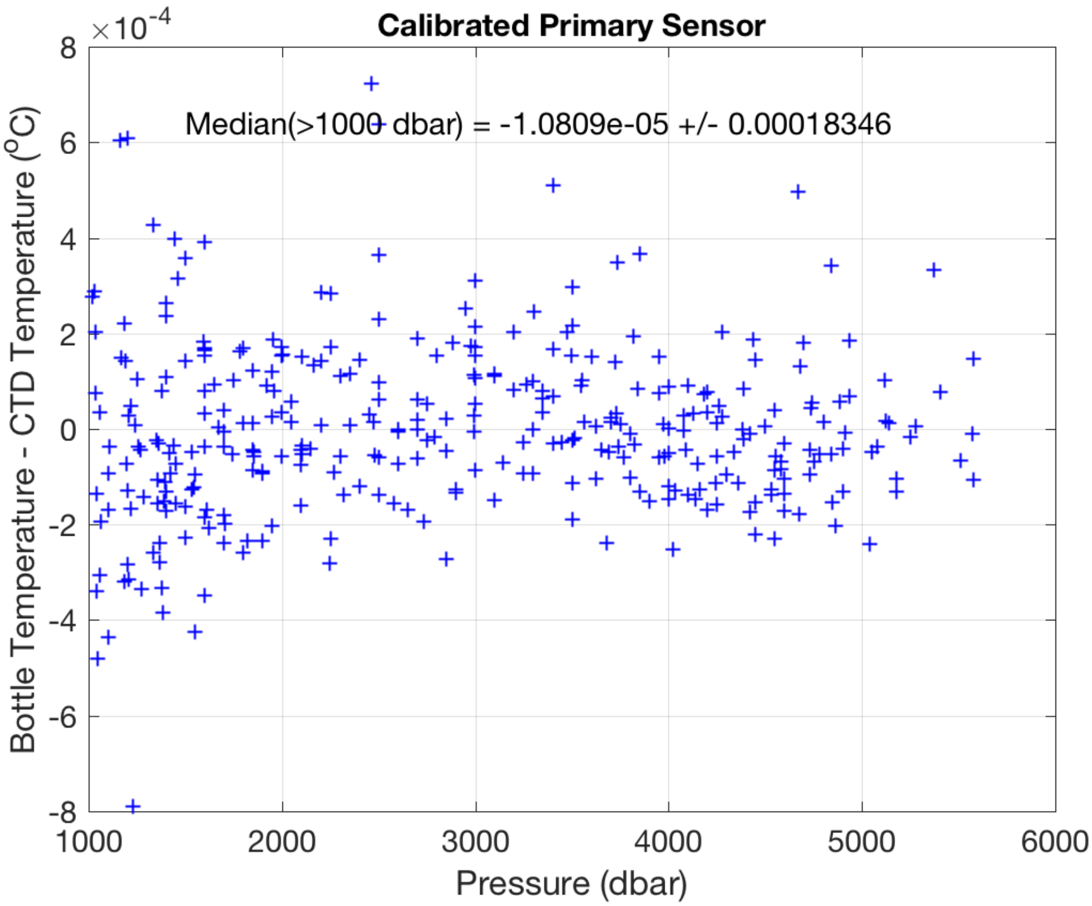

Figure 14: Reference temperature and calibrated primary CTD temperature differences plotted vs. pressure below 1000 dbar.

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 15 to help identify sensor drift. The sensors show a median difference of -1.84 · 10-3 mS/cm (-1.73 · 10-3 mS/cm for the data below 1000 dbar) and a standard deviation of 0.03 mS/cm (0.0018 mS/cm for the data below 1000 dbar). The uncalibrated primary sensor comparison with the bottle salinities show a better residual with a median of 5.34 · 10-4 psu and a standard deviation of 0.002 psu (Figure 16). Therefore the primary sensor, s/n 3860, was used for all the final data values. The bottle and instrument differences are compared to a normal distribution using 2.8 * standard deviation to find clear outliers. Salts for stations 43 were determined to be bad from the initial comparison with the sensors and manually flagged as 4. After these procedures 664 data points (90.83 %) were used in the final calculations.

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

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

with

Primary - s/n 3860 Stations 1-44	
m	0.9999595
p_1	-2.1294982e-05
b	0.0036291
$pcor$	-4.8338786e-07

where C_{CTD} is pre-cruise calibrated CTD conductivity (mS/cm), m is the conductivity slope, b is the offset (mS/cm), 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 stations used are chosen by looking at residual trends between the sensor and bottle data. From the Abaco line, stations 9-34 were used to derive the coefficients, but were applied to all stations.

The coefficients estimated by the equation above were then applied to the CTD conductivities and the final results (Figure 17 to Figure 20) show a residual of -4.42 · 10-5 psu

(-4.18 · 10-5 psu for the data below 1000 dbar) and a standard deviation of 0.002 psu (0.0009 psu for the data below 1000 dbar). Also, 79.52% of the residuals for the data are within the confidence limits determined by the WOCE standard (± 0.002 psu) and this number increases to 96.55% 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 21 and Figure 22). 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.

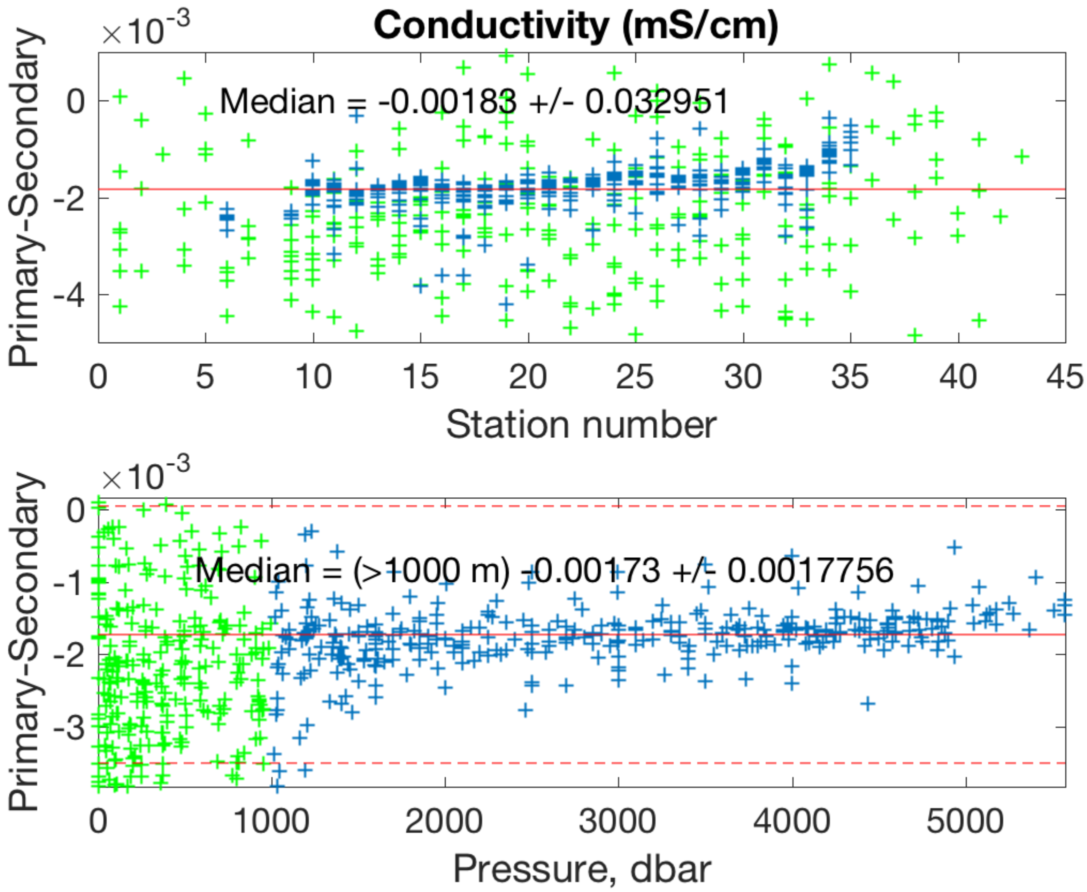

Figure 15: Conductivity (mS/cm) differences between sensors by station (top) and pressure (bottom). The red solid line represents the median with the red dashed representing the standard deviation.

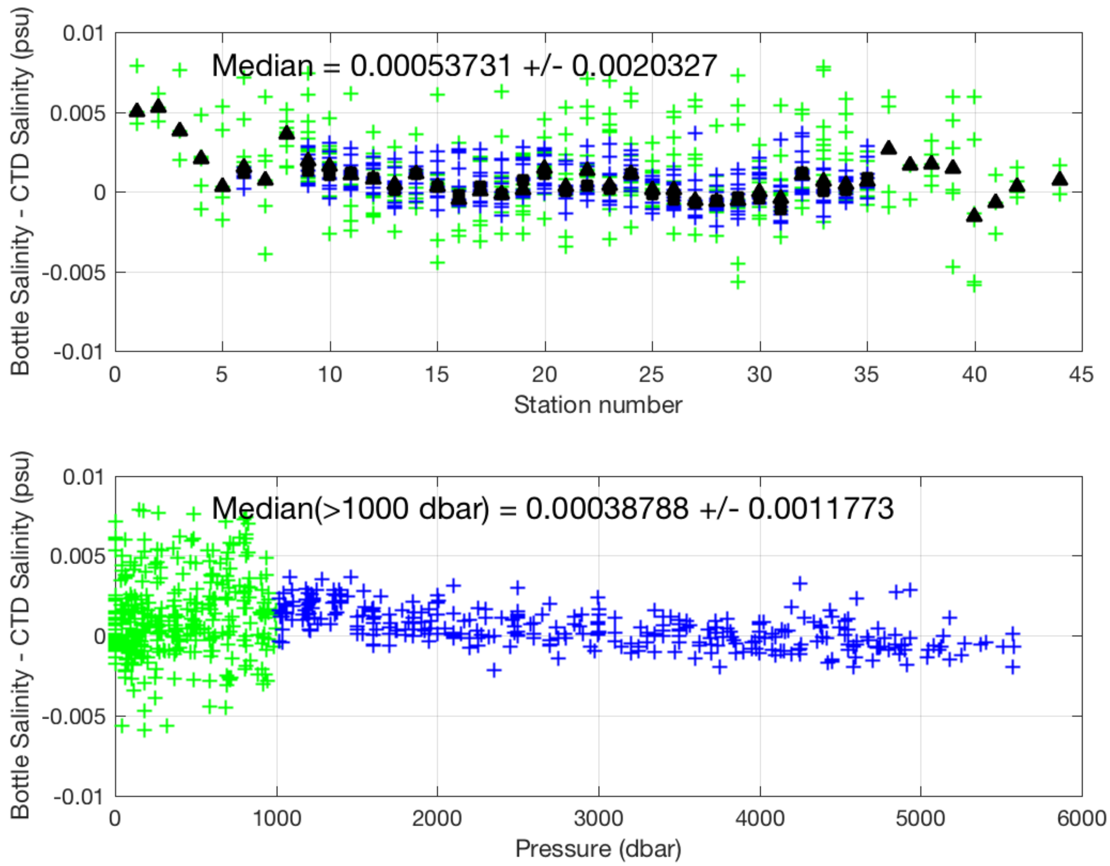

Figure 16: Bottle and uncalibrated primary CTD salinity differences plotted against pressure. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar.

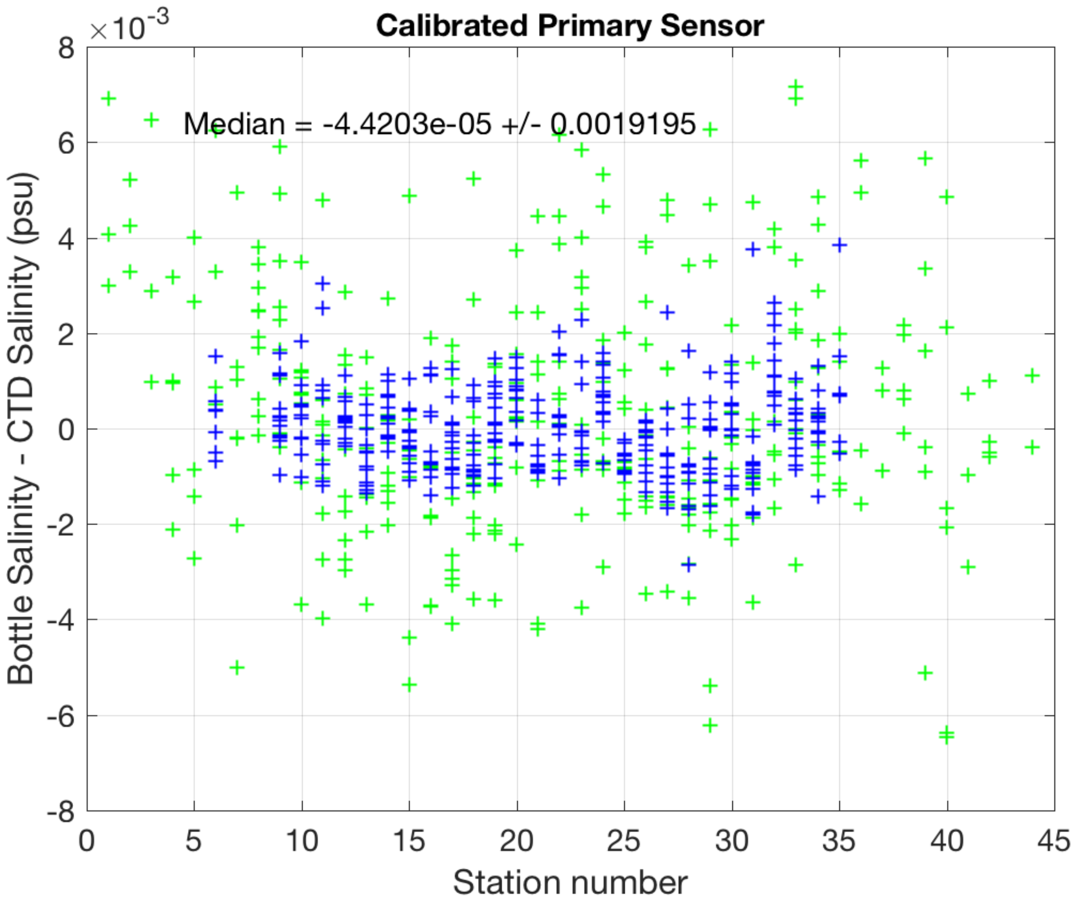

Figure 17: Bottle and calibrated primary CTD salinity differences plotted vs. station.

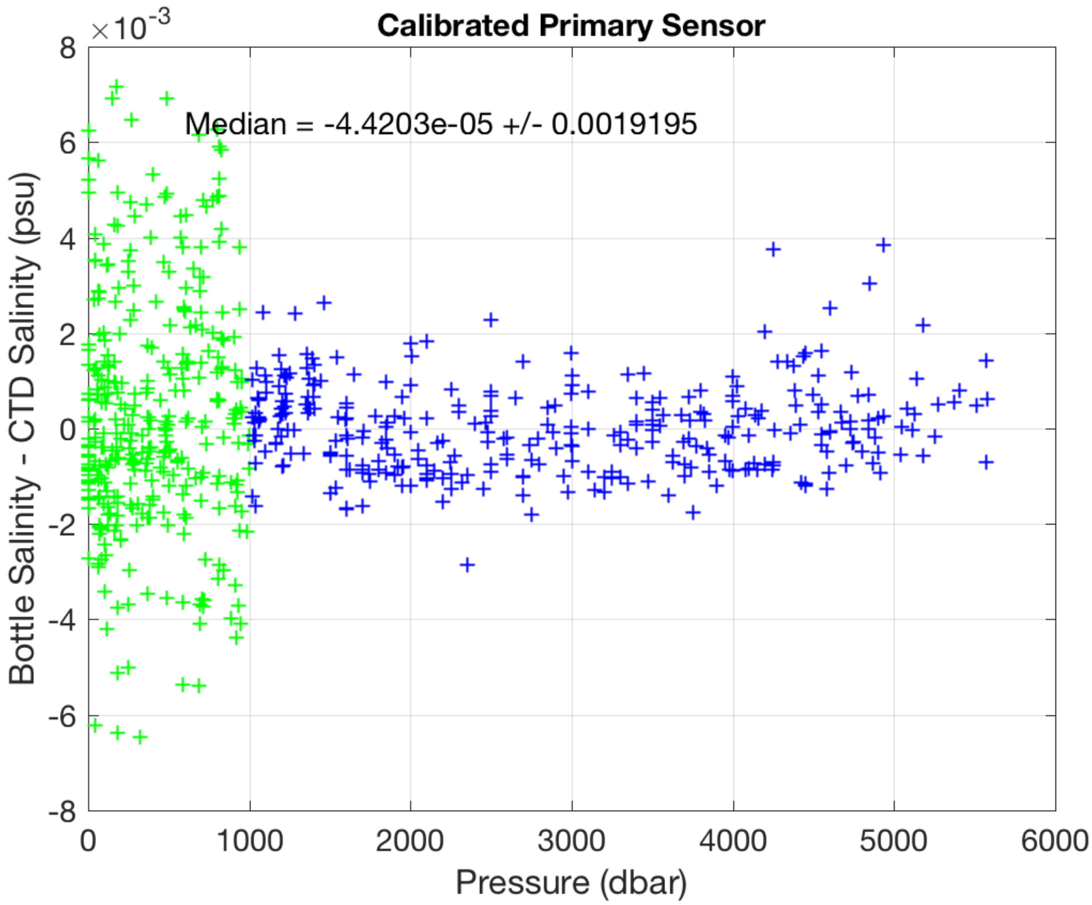

Figure 18: Bottle and calibrated primary CTD salinity differences plotted vs. pressure.

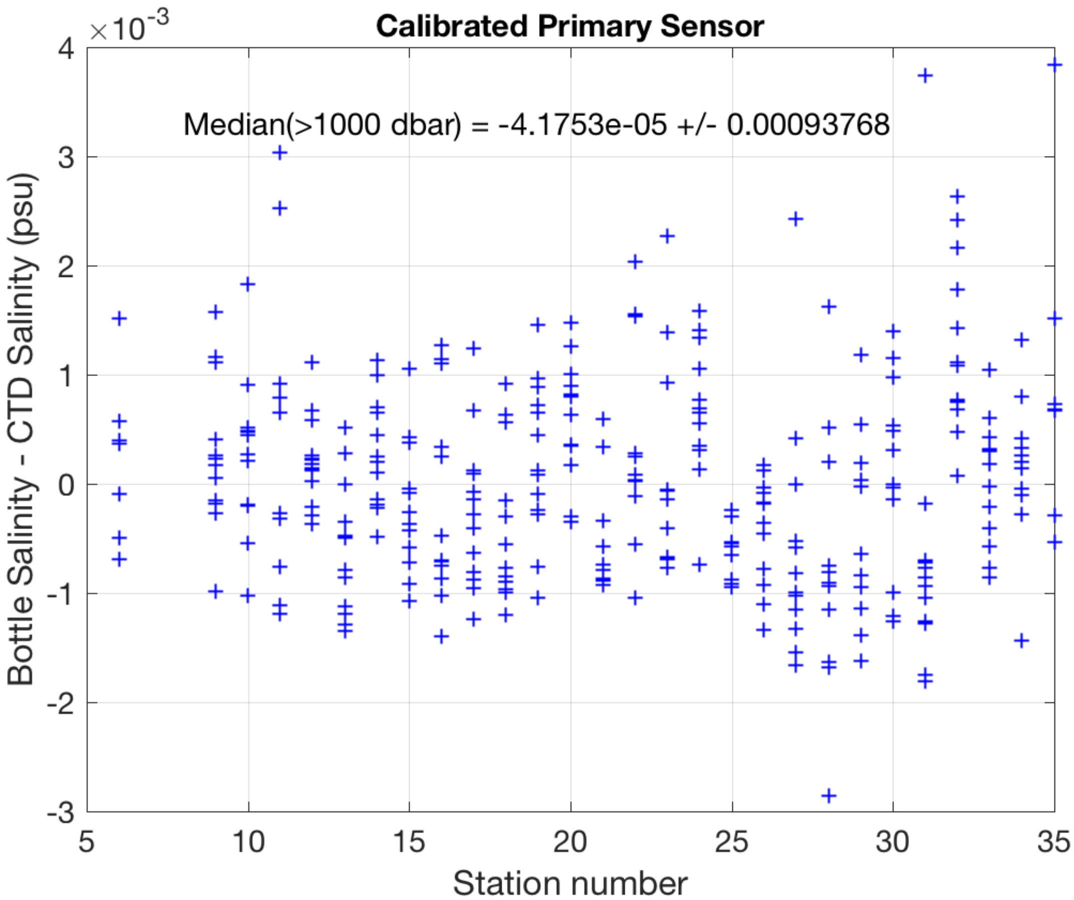

Figure 19: Bottle and calibrated primary CTD salinity differences plotted vs. station below 1000 dbar.

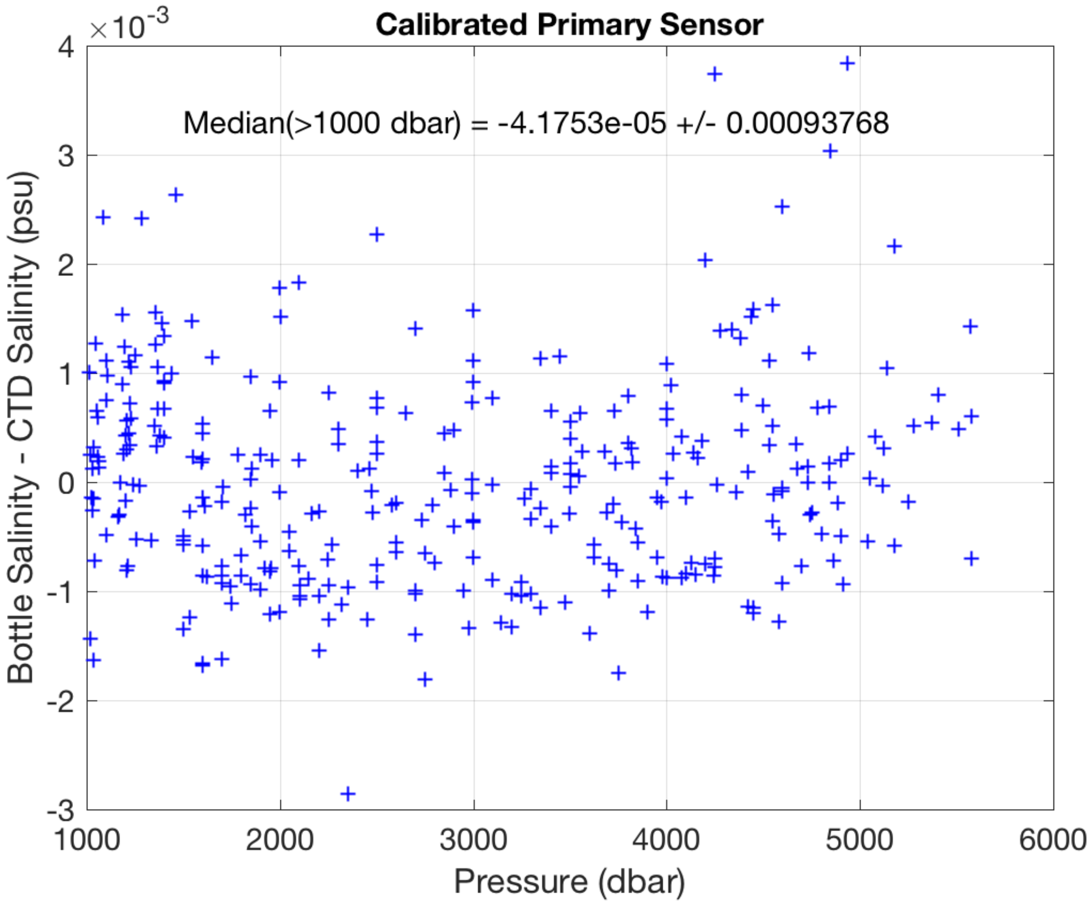

Figure 20: Bottle and calibrated primary CTD salinity differences plotted vs. pressure below 1000 dbar.

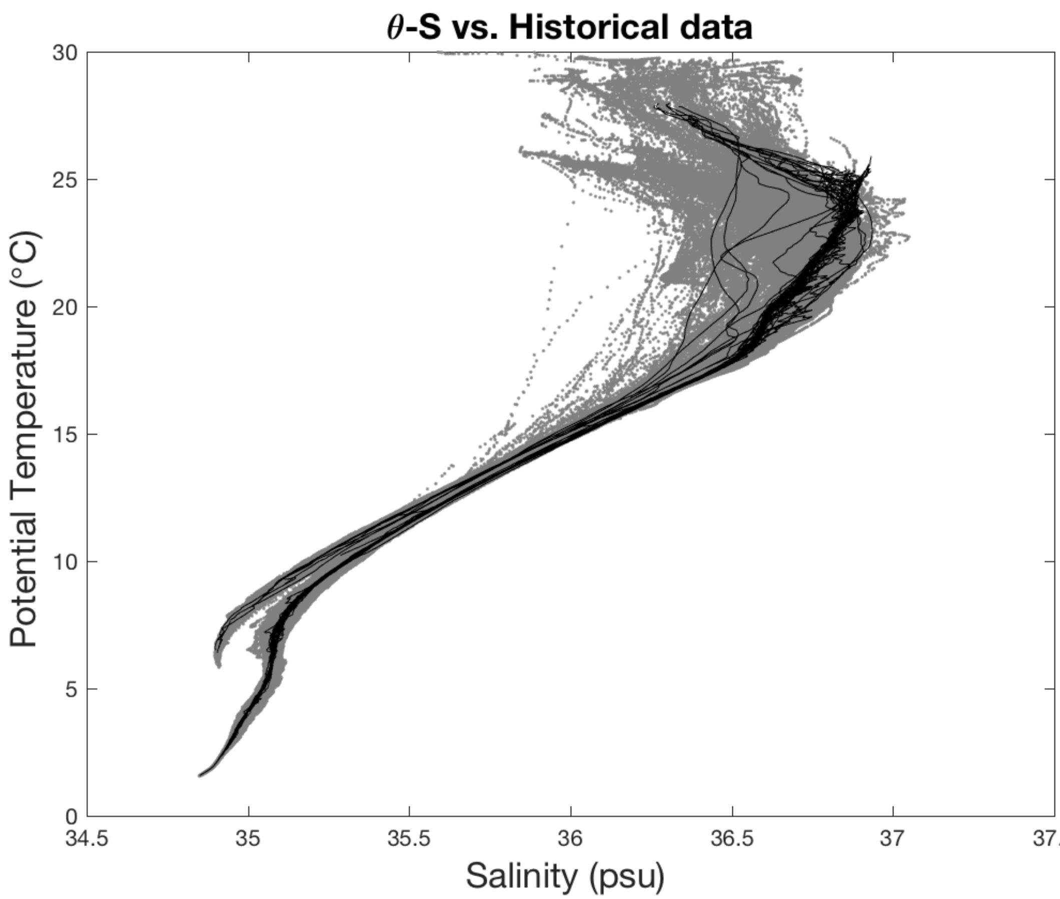

Figure 21: Potential Temperature - Salinity diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

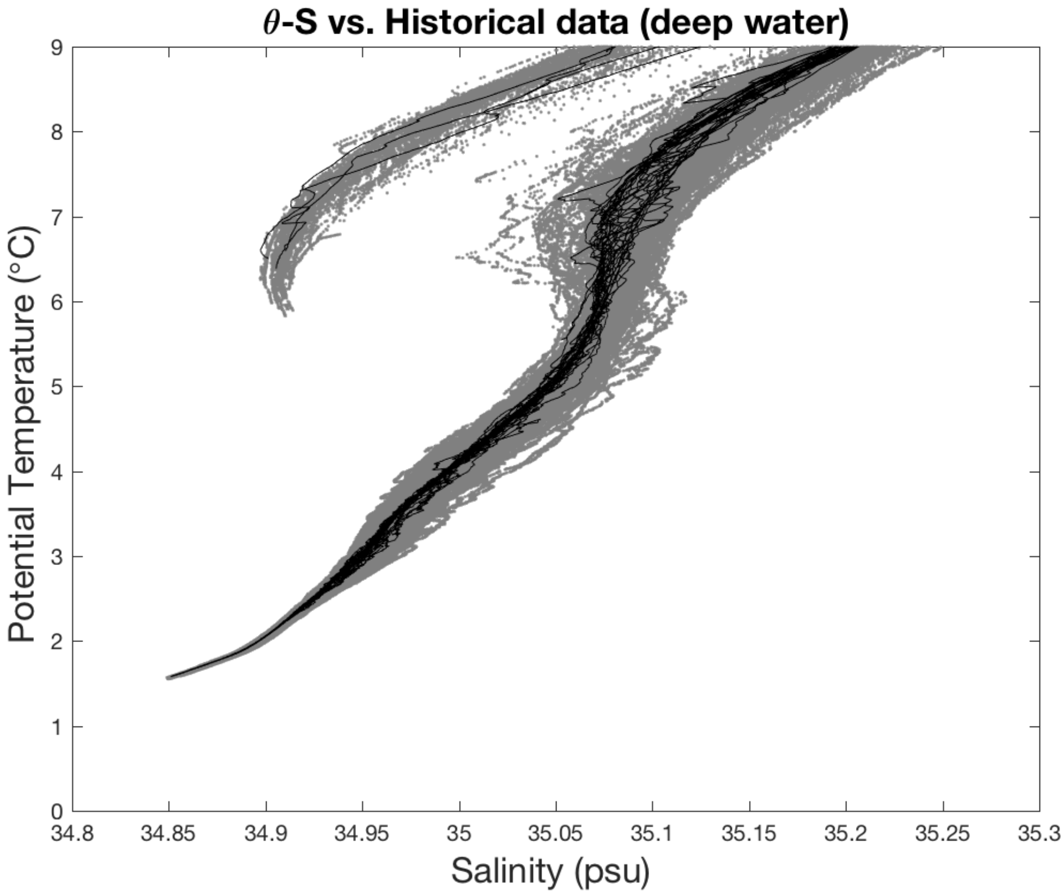

Figure 22: Potential Temperature - Salinity diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

8.5 Dissolved Oxygen

Oxygen sensor calibration coefficients derived from the pre-cruise calibrations were applied to raw primary and secondary conductivities. 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 non-linear least squares regression using the Gauss-Newton algorithm with Levenberg-Marquardt modifications for global convergence is used to profiles to the bottle data. 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

Primary - s/n 2949 Stations 1-44	
Soc	0.4270726
V_offset	-0.5204967
tau	1.42
A	-0.0056772
B	0.0003528
C	-0.0000054
E	0.0389197
$p1$	0.0000391

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 23) was evaluated. The sensors show a median difference of 1.79 $umol/kg$ and a standard deviation of 5.48

umol/kg. The the primary sensor, s/n 2949, was used for all the final data values (Figure 24).

The oxygen coefficients used to correct the primary oxygen are shown in Table 8.5. For the Abaco line, stations 9-34 were used to derive the coefficients and were applied to stations all stations. Also, analogous to the conductivity, the data is compared with a normal distribution using 2.8 * standard deviation to remove outliers. After these procedures 590 data points (77.1%) 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 25 to Figure 28). The residual is -0.05 *umol/kg* (-0.04 *umol/kg* for the data below 1000 dbar) and the standard deviation 0.82 *umol/kg* (0.66 *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 (± 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 29 & Figure 30). Again by investigating water mass properties, particularly for deeper layers of the ocean, we can have an estimative of the quality of these data.

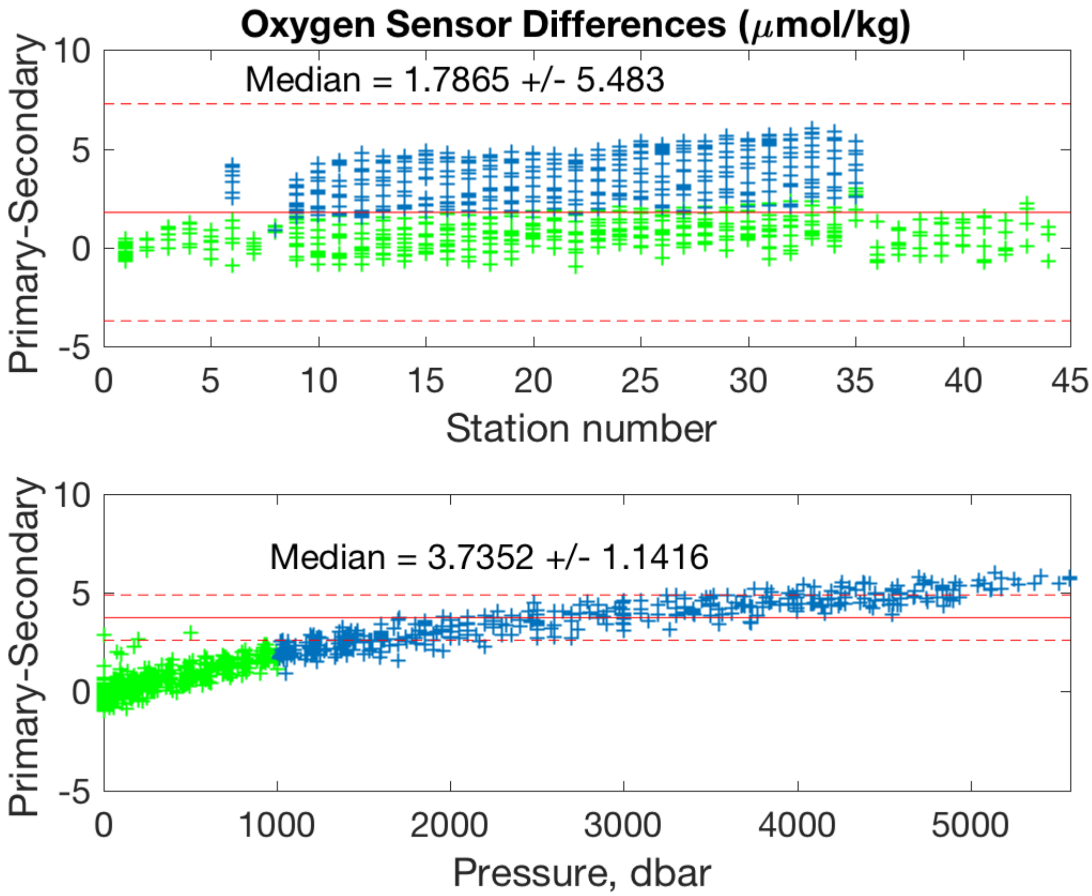

Figure 23: Dissolved oxygen differences between sensors by station (top) and by pressure (bottom). The red solid line represents the median with the red dashed representing the standard deviation.

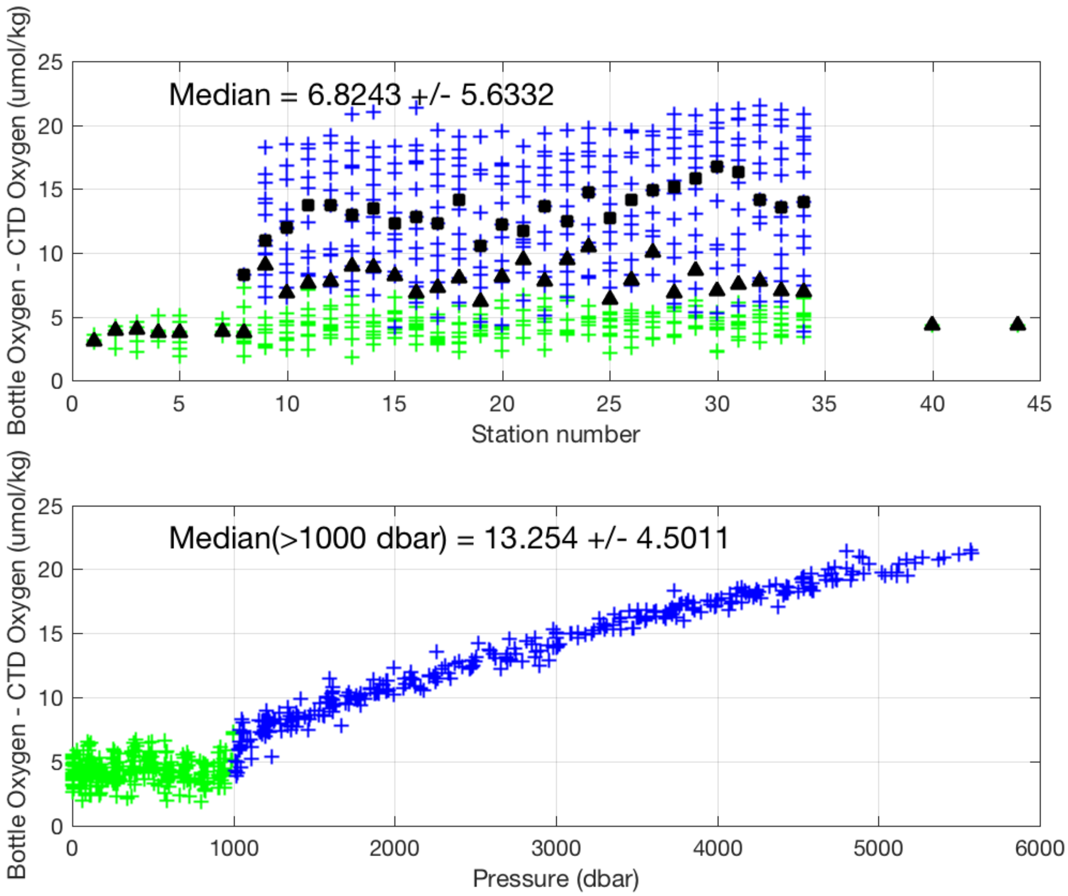

Figure 24: Bottle and uncalibrated primary CTD oxygen differences plotted against station number. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar.

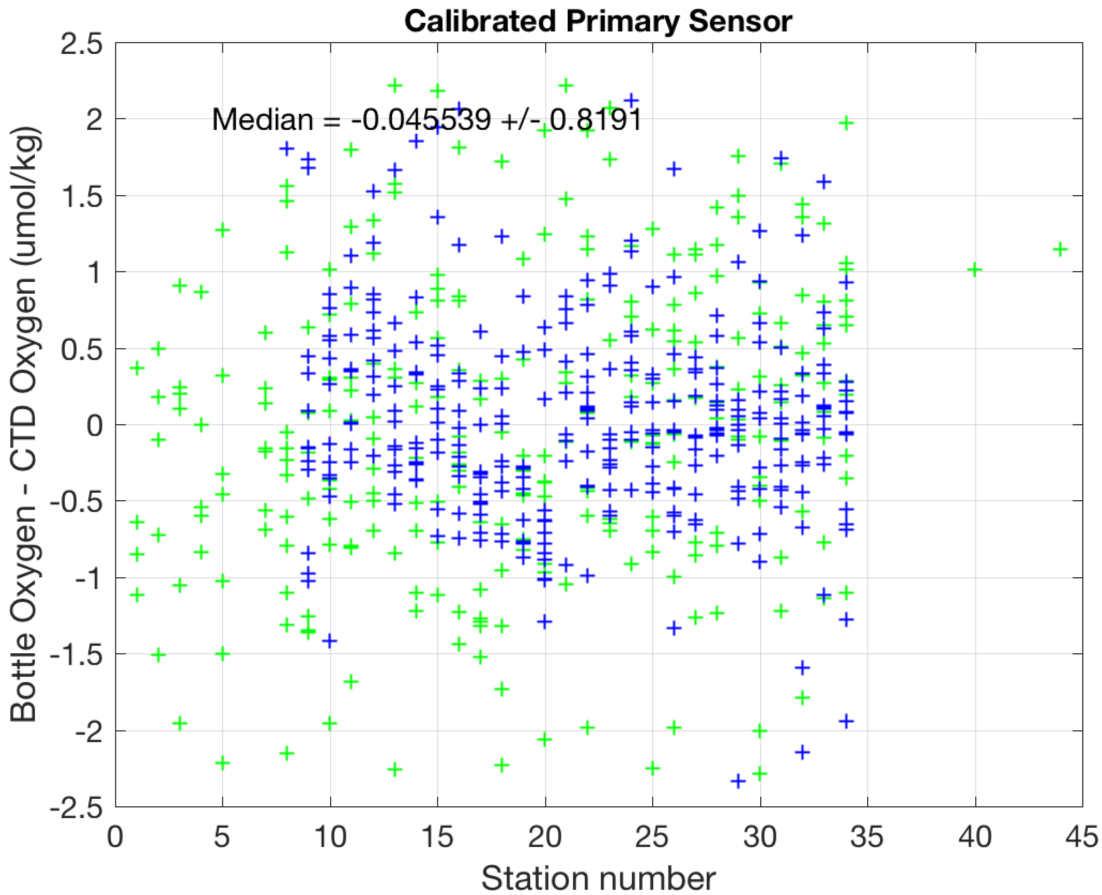

Figure 25: Bottle and calibrated primary CTD oxygen differences plotted vs. station.

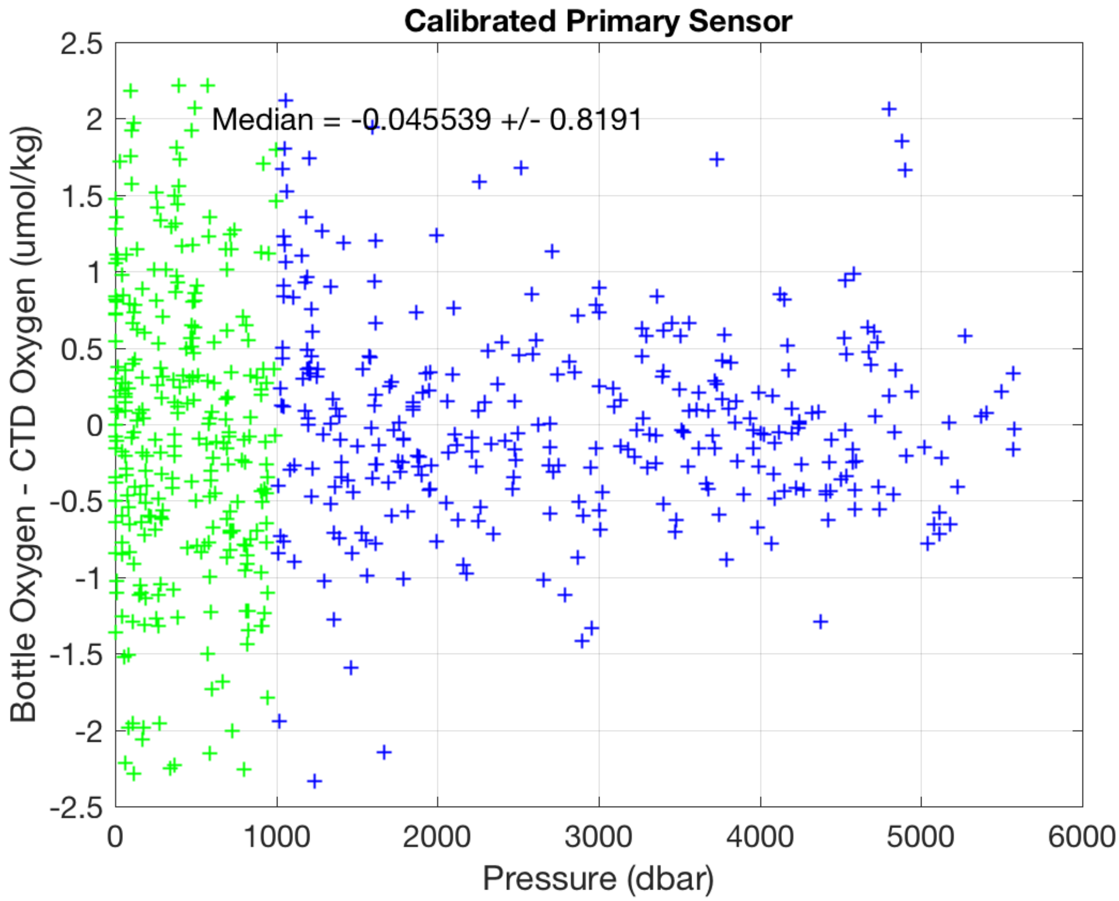

Figure 26: Bottle and calibrated primary CTD oxygen differences plotted vs. pressure.

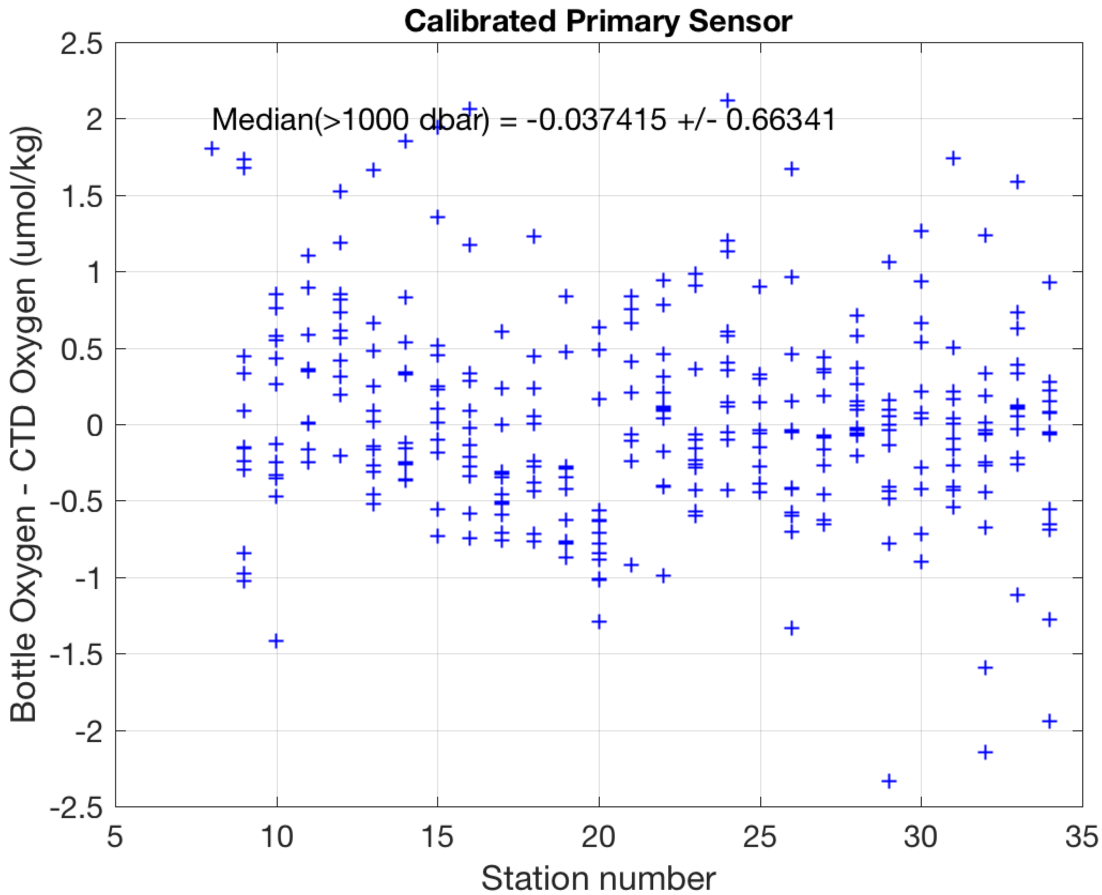

Figure 27: Bottle and calibrated primary CTD oxygen differences plotted vs. station below 1000 dbar.

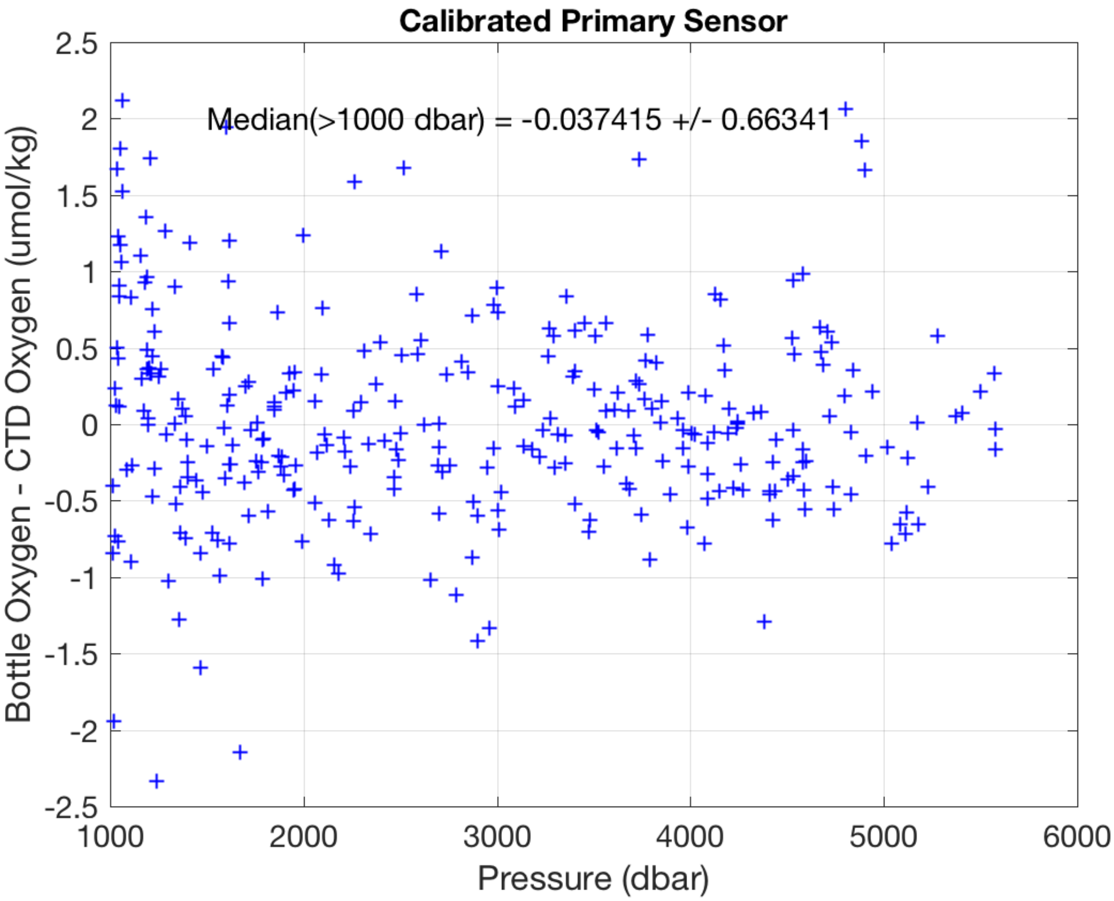

Figure 28: Bottle and calibrated primary CTD oxygen differences plotted vs. pressure below 1000 dbar.

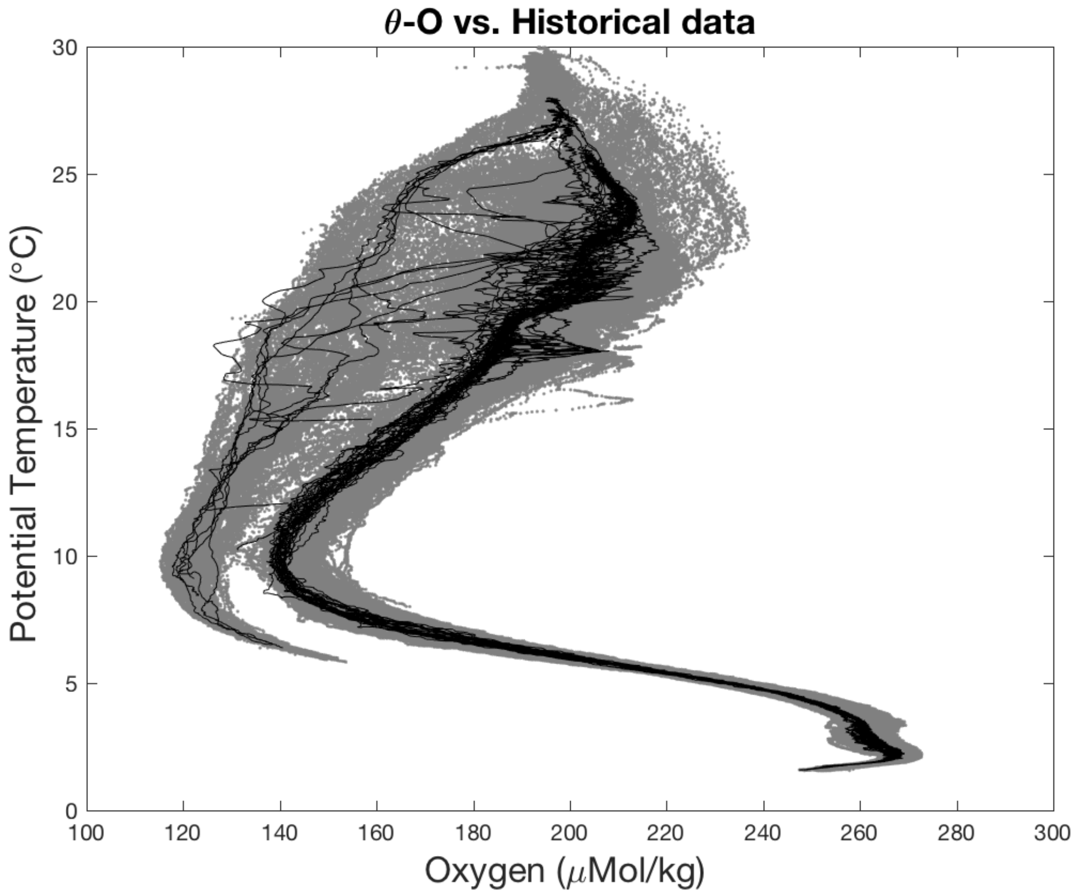

Figure 29: Potential Temperature - Oxygen diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

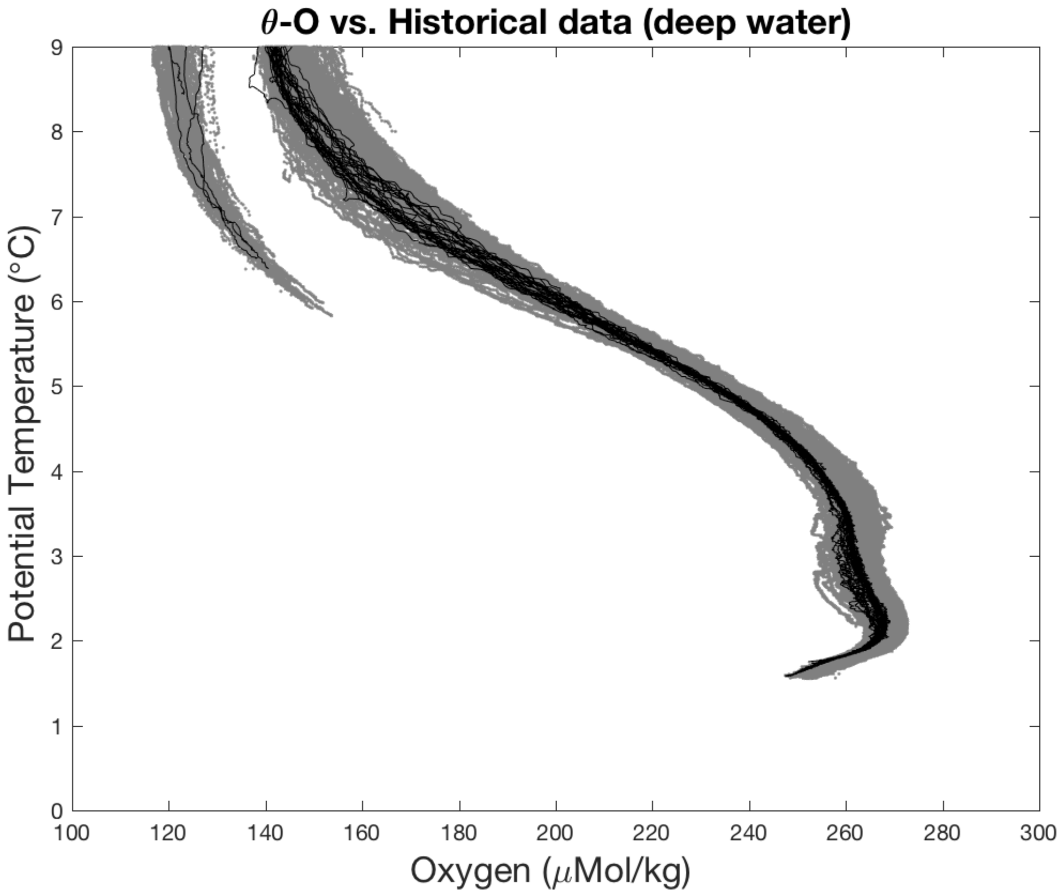

Figure 30: Potential Temperature - Oxygen diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

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 31 to Figure 34). 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 35 to Figure 38). For the Northwest Providence Channel Sections latitude is used as horizontal axis (Figure 39 to Figure 42).

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).

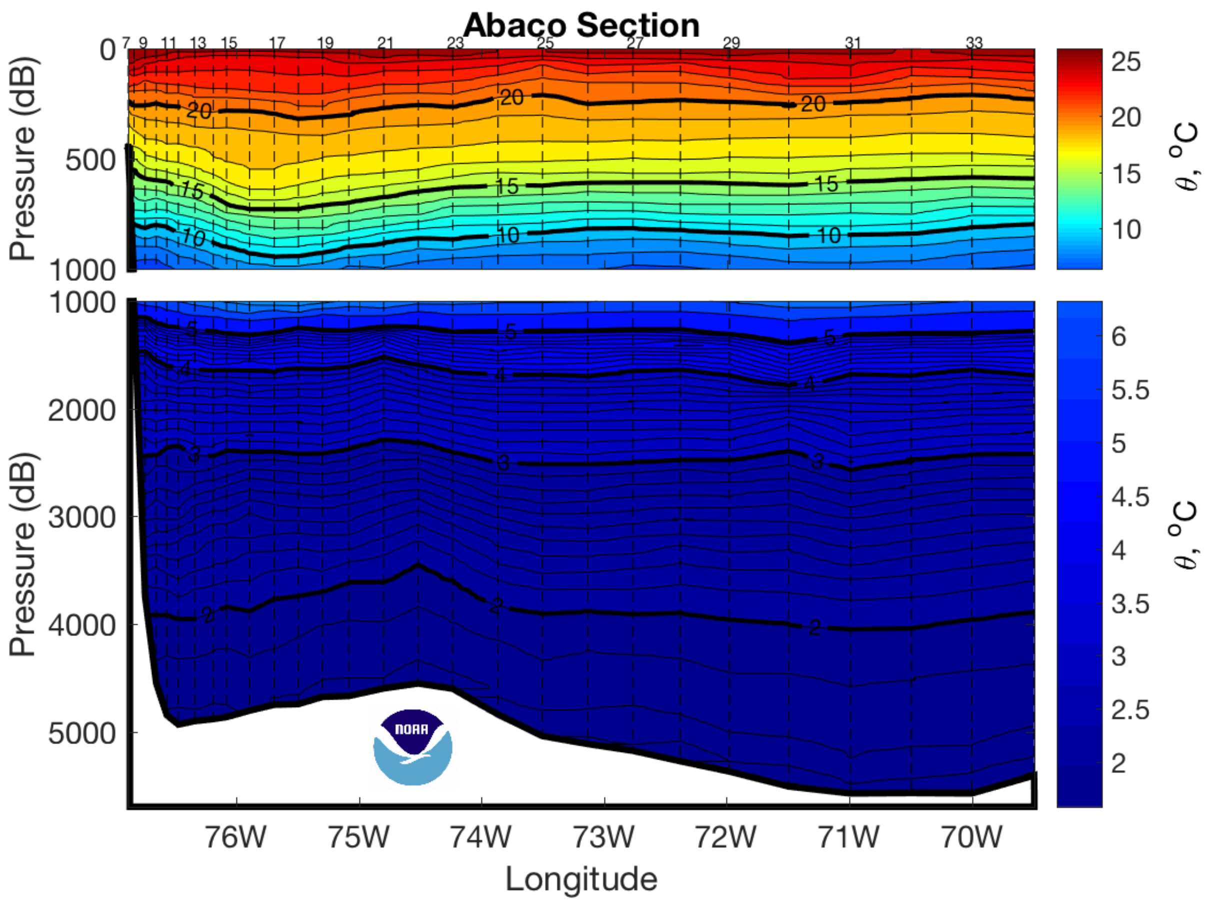

Figure 31: Potential Temperature (°C) section for the Abaco Section. Dashed vertical lines are the CTD station locations.

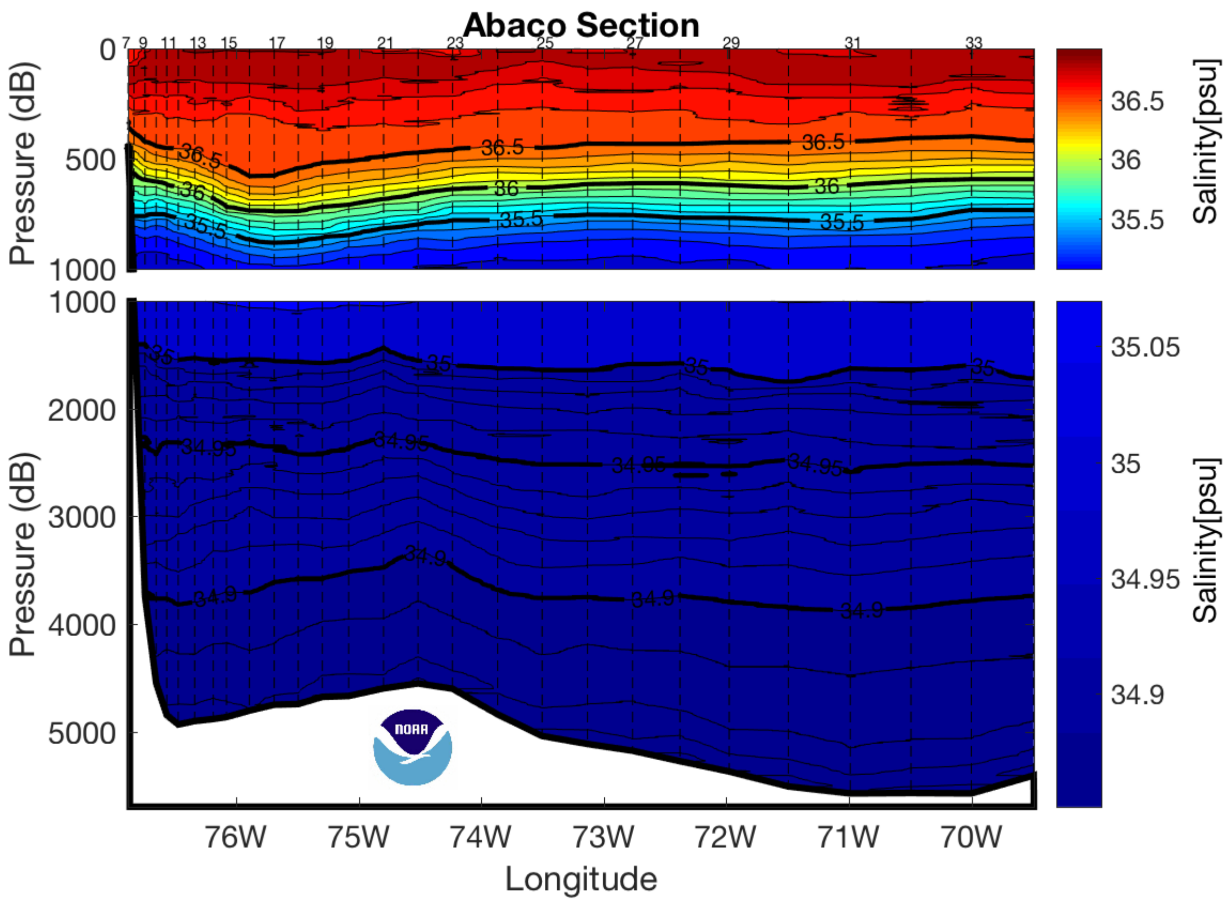

Figure 32: Salinity (PSS 78) section for the Abaco section. Dashed vertical lines are the CTD station locations.

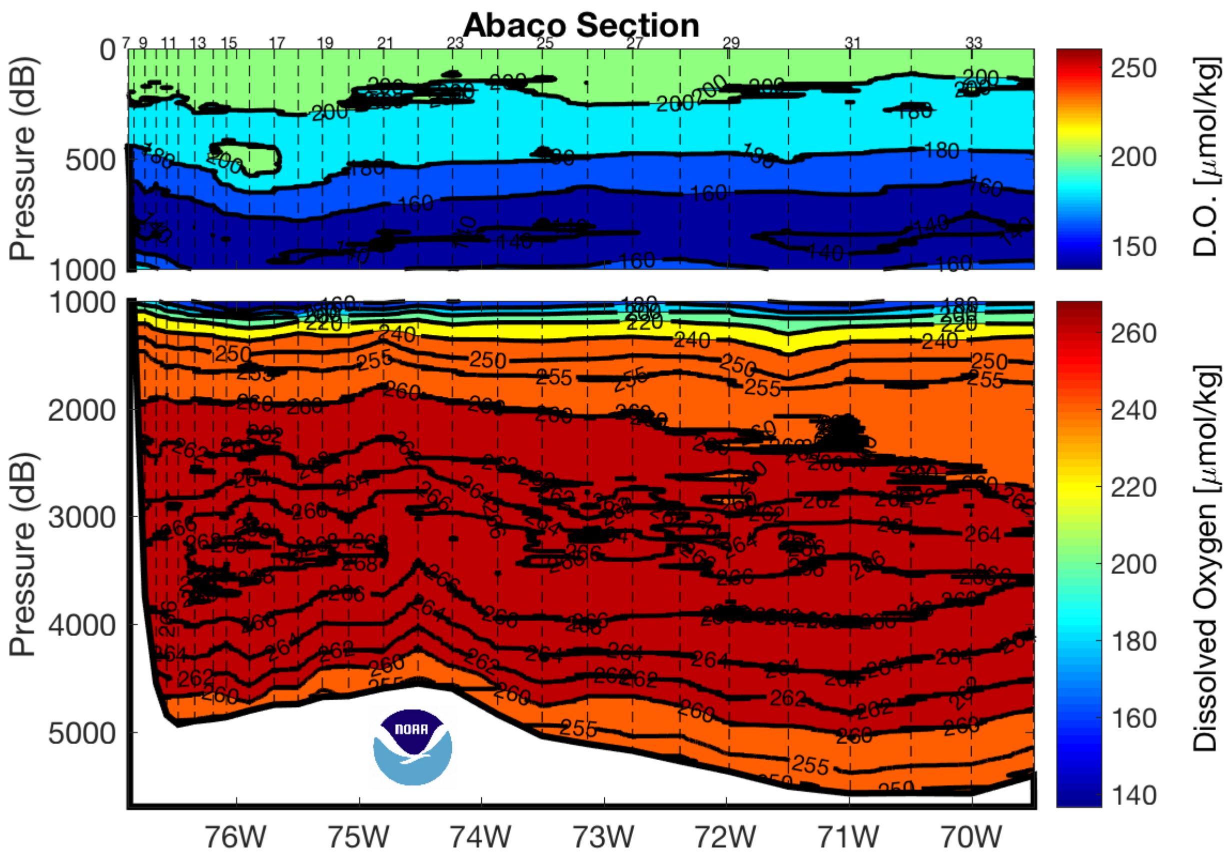

Figure 33: Dissolved Oxygen ($umol/kg$) section for the Abaco Section. Dashed vertical lines are the CTD station locations.

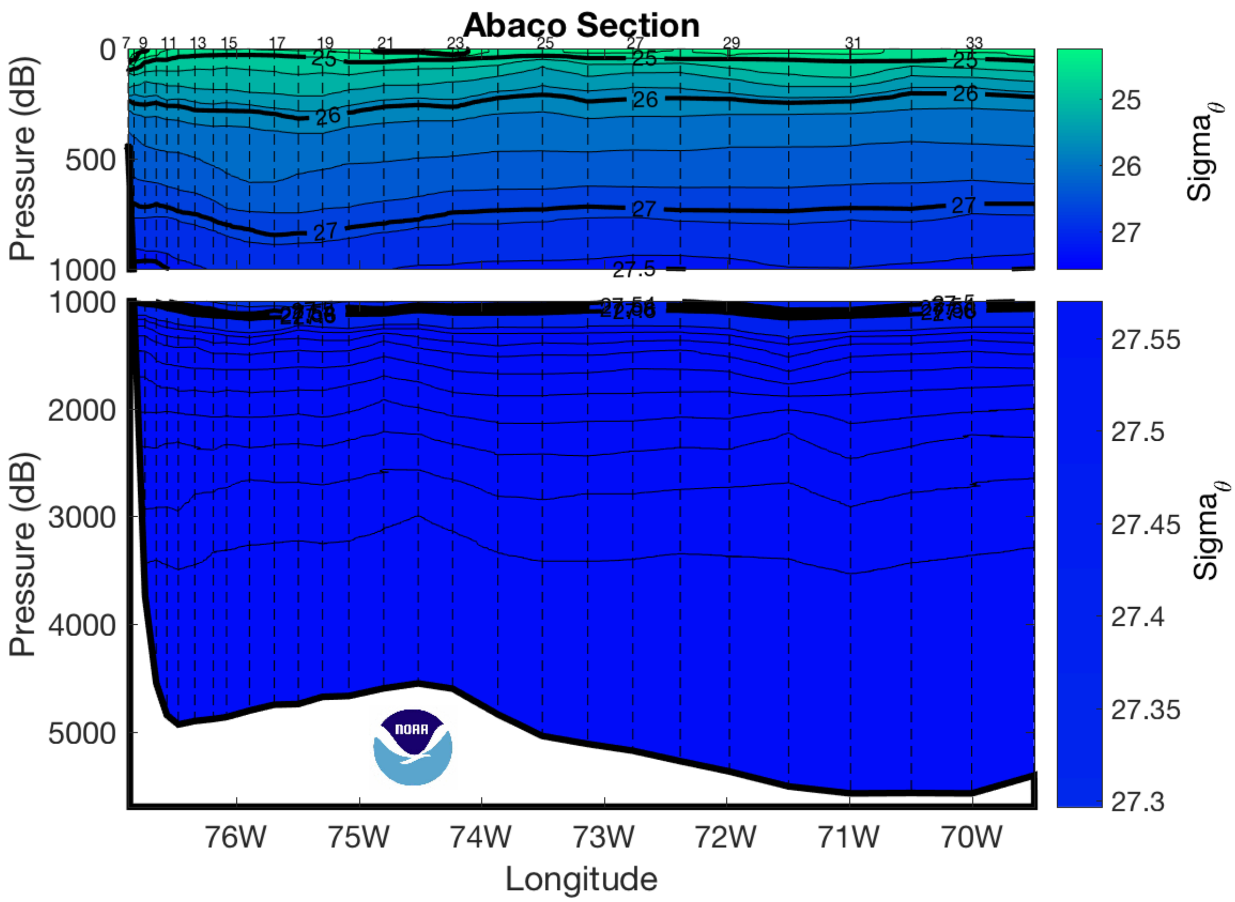

Figure 34: Neutral density (kg/m3) section for the Abaco Section. Dashed vertical lines are the CTD station locations.

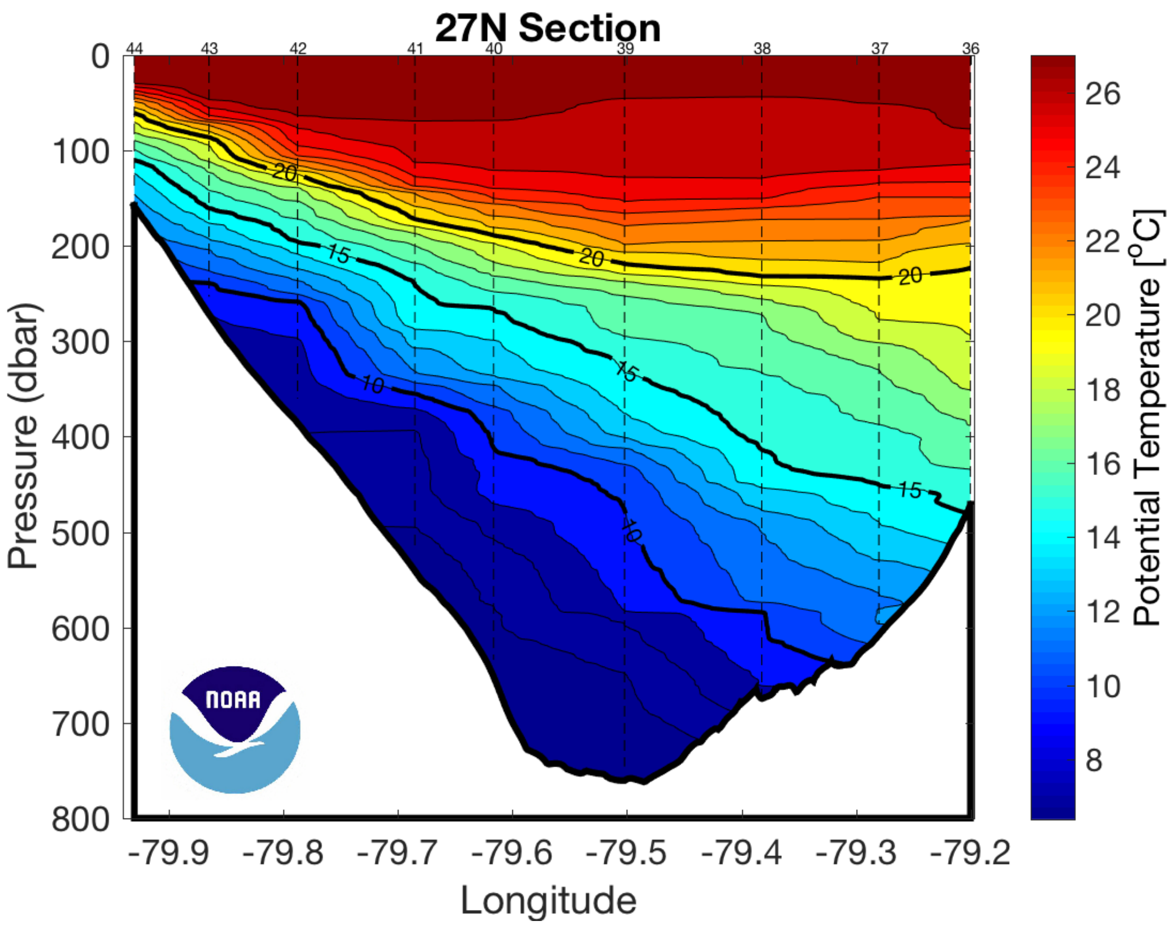

Figure 35: Potential Temperature (°C) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

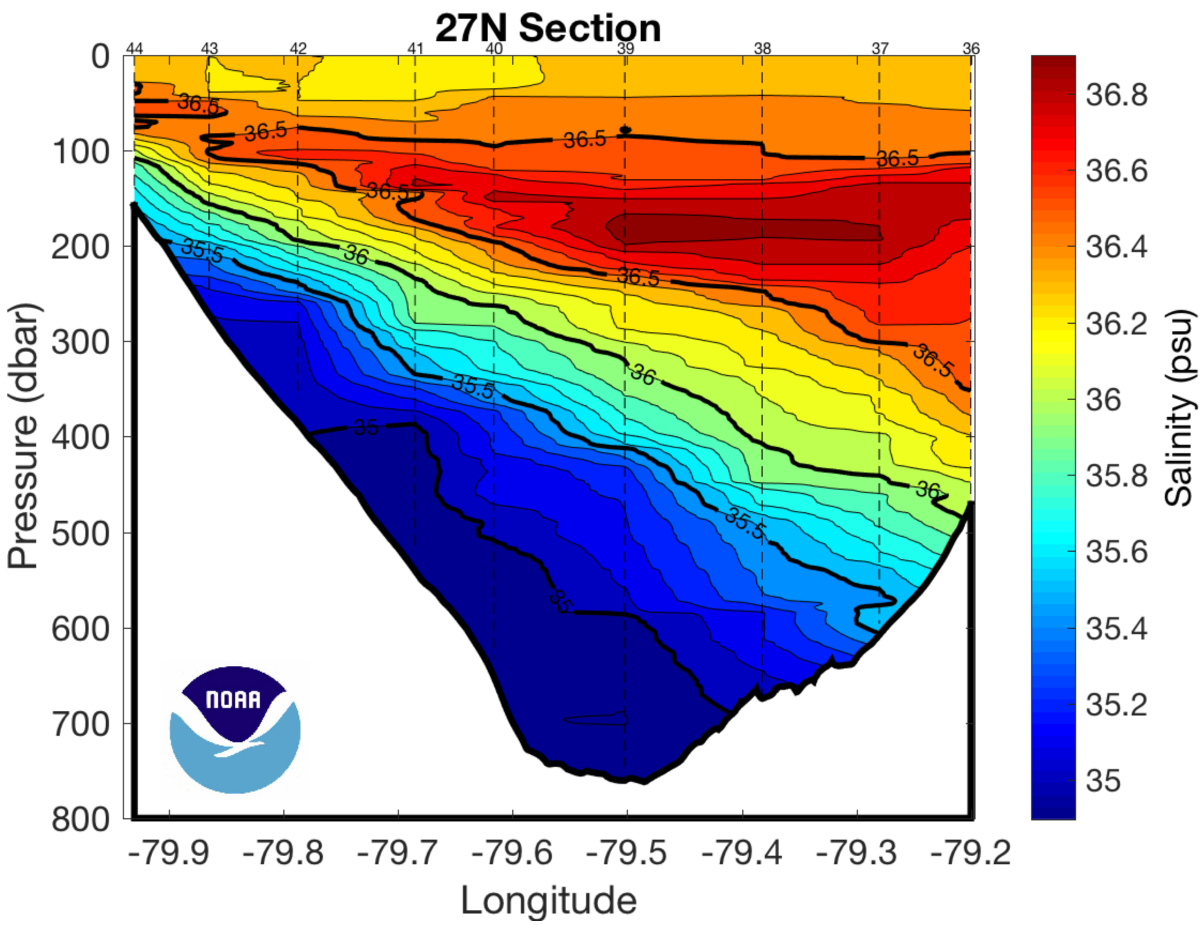

Figure 36: Salinity (PSS 78) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

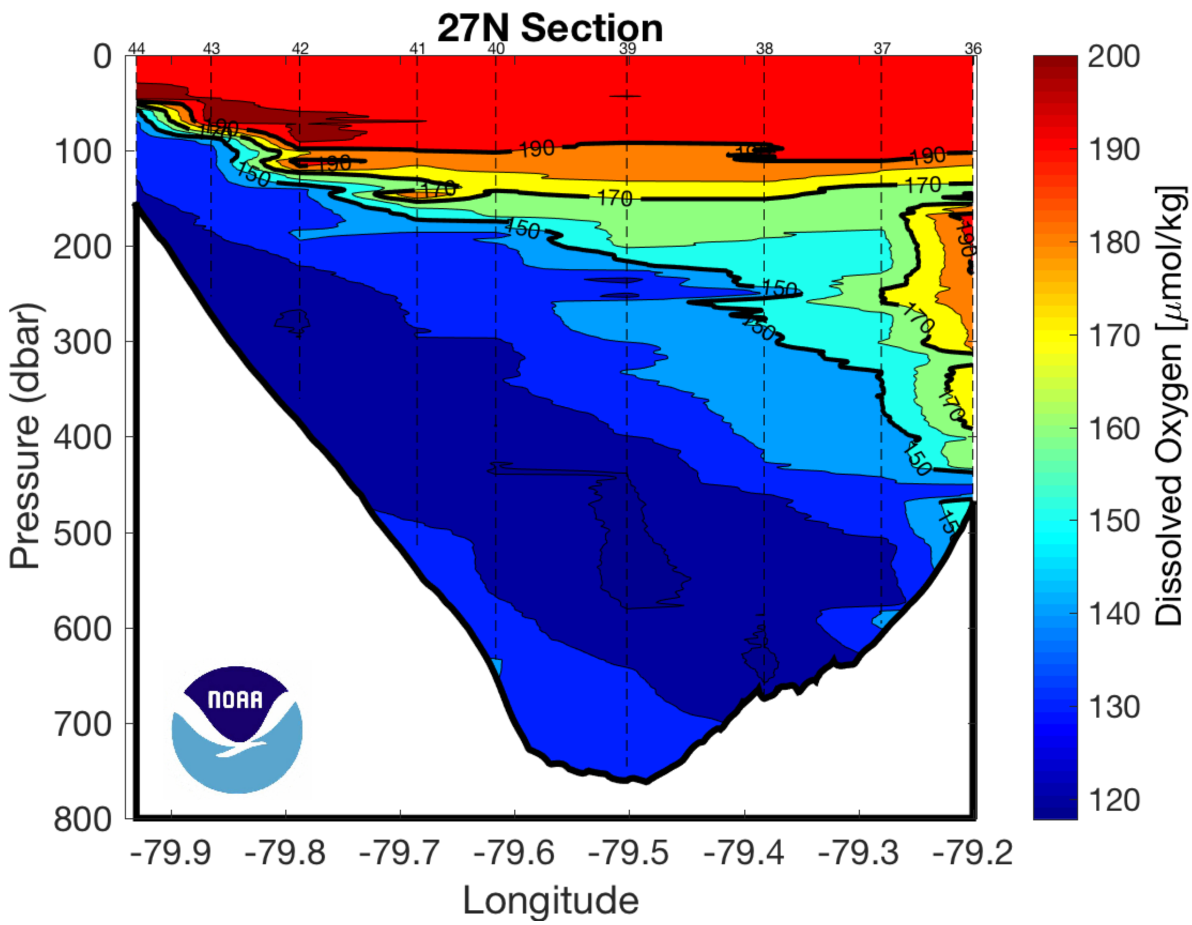

Figure 37: Dissolved Oxygen ($umol/kg$) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

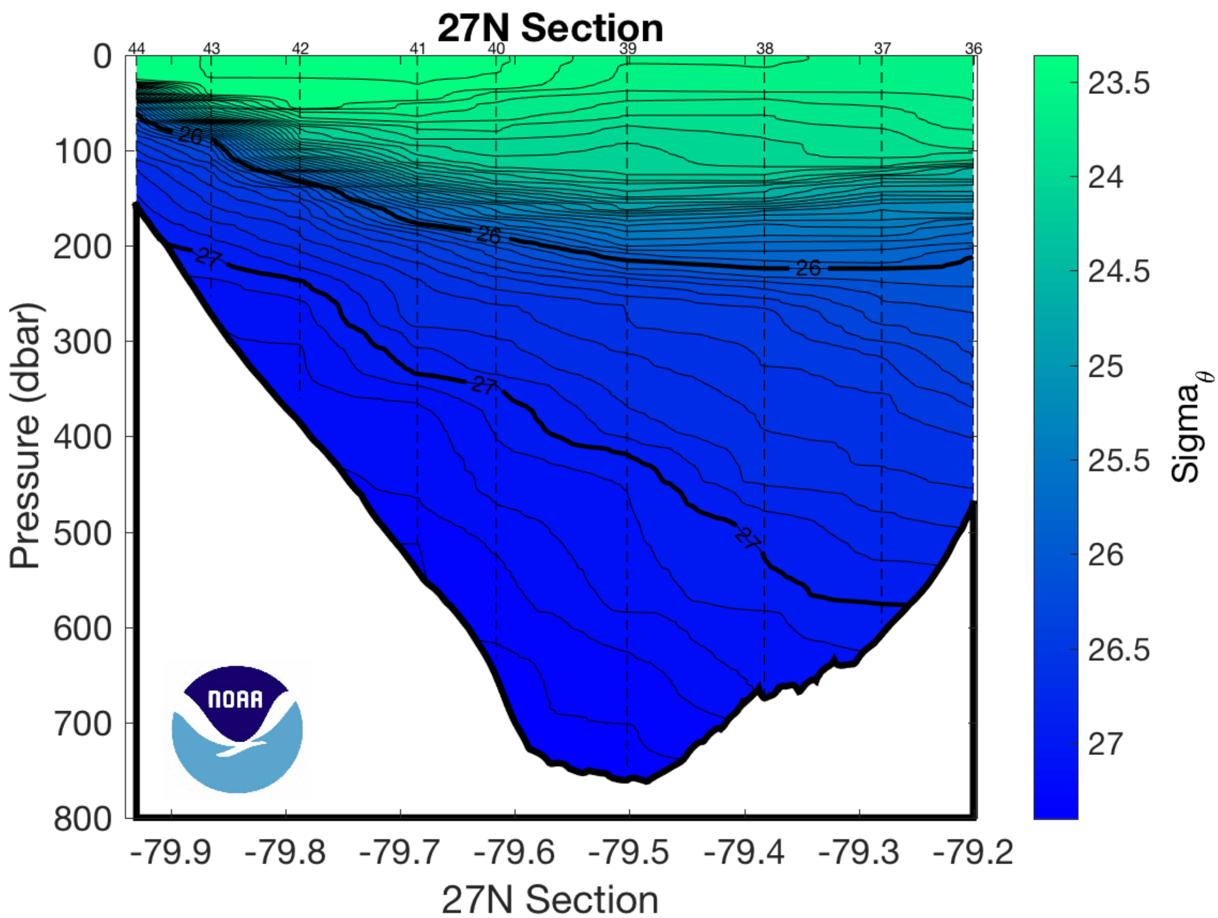

Figure 38: Neutral density (kg/m3) section for the Florida Current North section. Dashed vertical lines are the CTD station locations.

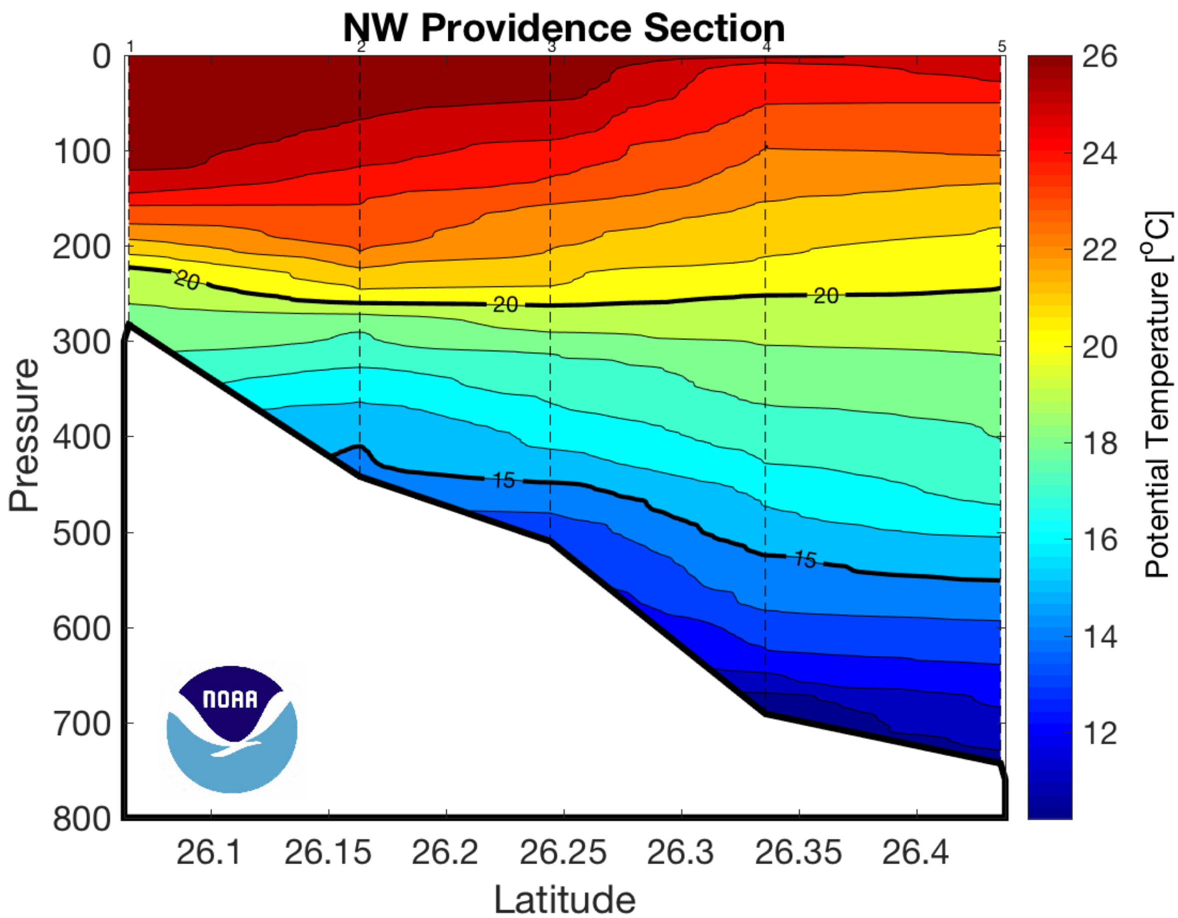

Figure 39: Potential Temperature (°C) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

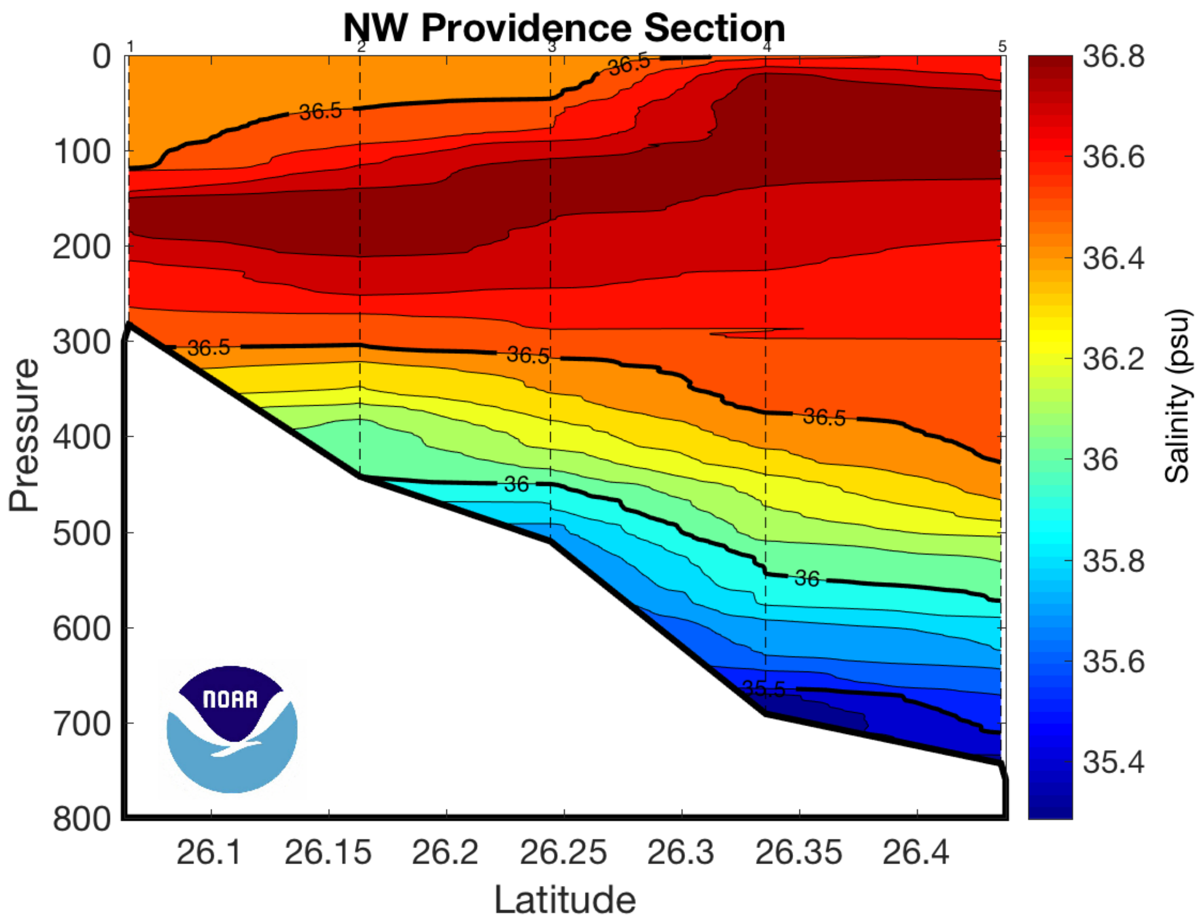

Figure 40: Salinity (PSS 78) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

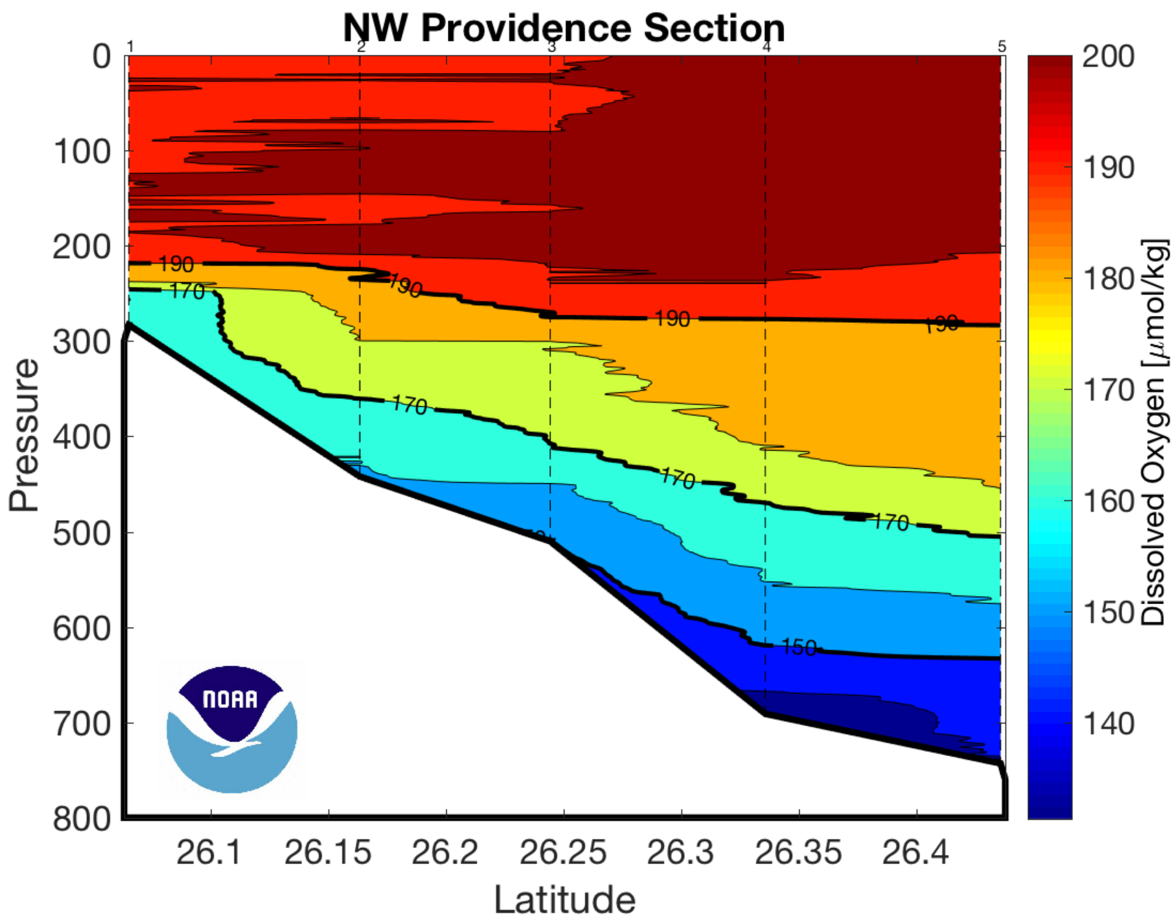

Figure 41: Dissolved Oxygen ($umol/kg$) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

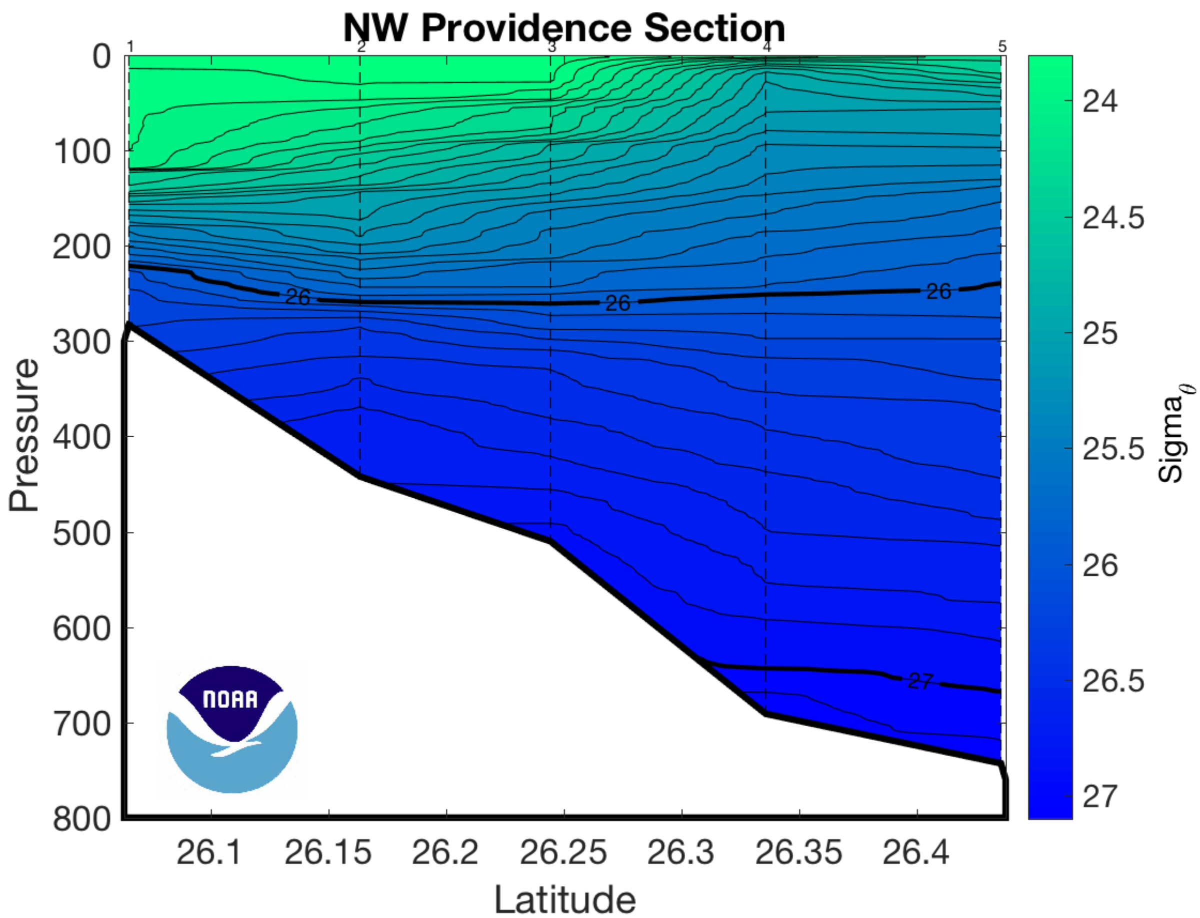

Figure 42: Neutral density (kg/m3) section for the Northwest Providence Channel section. Dashed vertical lines are the CTD station locations.

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 14 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.

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11 References

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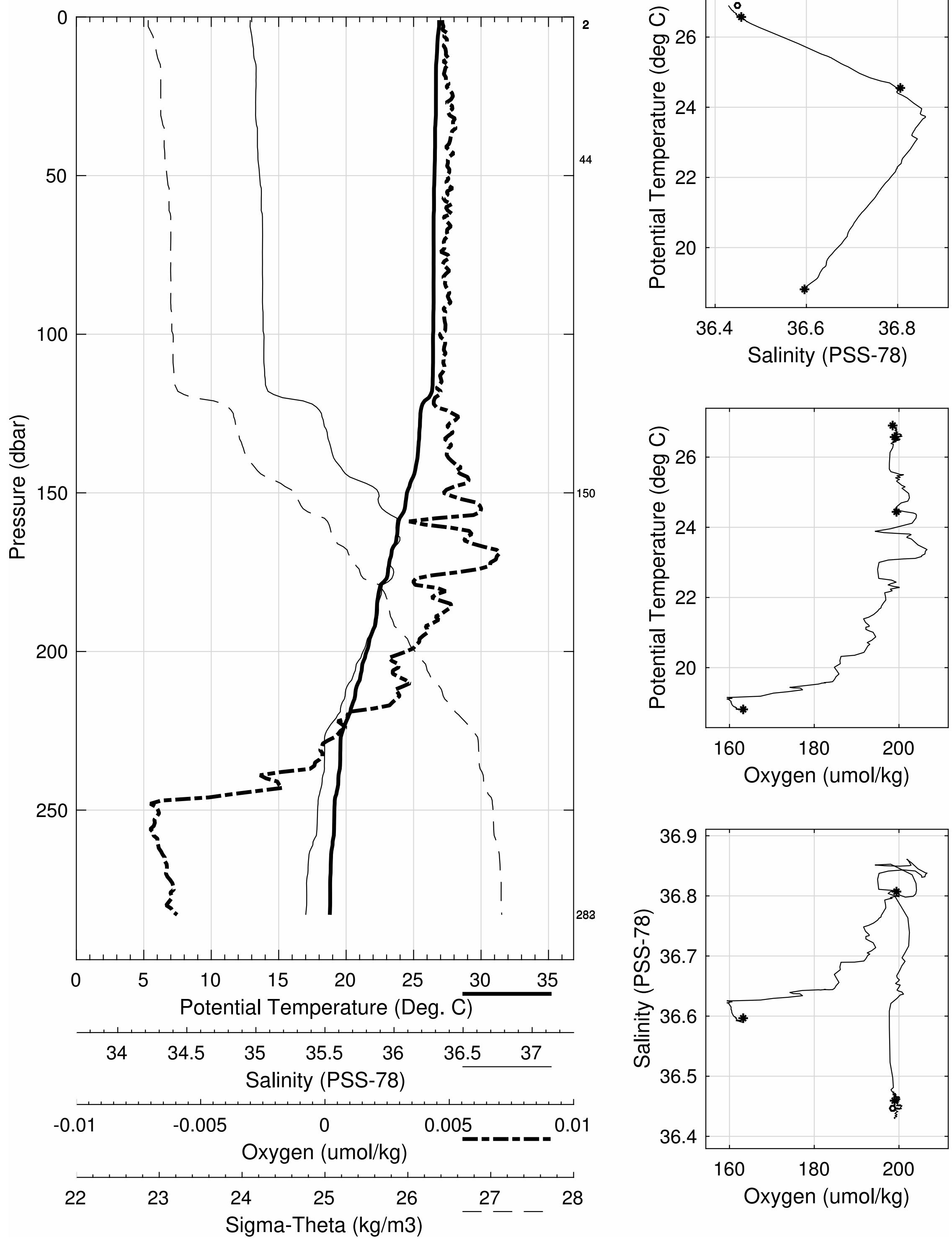
A Hydrographic - CTD Data

Abaco May 2017 R/V Endeavor
CTD Station 1 (CTD001)
Latitude 26.065N Longitude 78.851W
08-May-2017 21:33Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$	DynHt $m^2 \cdot s^{-2}$	SigT $kg \cdot m^{-3}$
1	26.892	26.892	36.430	198.9	0.004	23.830
10	26.751	26.748	36.440	199.3	0.040	23.883
20	26.663	26.658	36.447	199.4	0.080	23.917
30	26.662	26.655	36.446	199.7	0.120	23.917
50	26.559	26.548	36.457	199.5	0.200	23.960
75	26.504	26.487	36.465	199.6	0.299	23.986
100	26.466	26.443	36.469	198.5	0.397	24.003
125	25.532	25.504	36.635	200.3	0.494	24.422
150	24.537	24.505	36.799	199.0	0.580	24.853
200	21.553	21.514	36.755	194.0	0.716	25.688
250	19.174	19.129	36.624	160.5	0.820	26.230

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$
283	1	18.864	18.813	36.595	163.4
283	2	18.854	19.119	−999.000	−999.0
150	3	24.571	24.539	36.807	199.3
150	4	24.610	24.708	−999.000	−999.0
45	5	26.576	26.565	36.459	198.8
45	6	26.581	26.606	−999.000	−999.0
2	7	26.890	26.889	36.447	198.3
3	8	26.892	26.893	−999.000	−999.0
2	9	26.866	26.868	−999.000	−999.0
2	10	26.851	26.853	−999.000	−999.0
2	11	26.881	26.882	−999.000	−999.0
2	12	26.911	26.912	−999.000	−999.0
2	13	26.932	26.933	−999.000	−999.0
2	14	26.929	26.931	−999.000	−999.0
2	15	26.922	26.924	−999.000	−999.0
2	16	26.882	26.884	−999.000	−999.0
2	17	26.885	26.886	−999.000	−999.0
2	18	26.857	26.859	−999.000	−999.0
2	19	26.851	26.852	−999.000	−999.0
2	20	26.860	26.862	−999.000	−999.0
2	21	26.863	26.865	−999.000	−999.0
2	22	26.868	26.869	−999.000	−999.0
2	23	26.871	26.872	−999.000	−999.0
2	24	26.875	26.877	−999.000	−999.0

Abaco May 2017 R/V Endeavor
CTD Station 1 (CTD001)
Latitude 26.065 N Longitude 78.851 W
08-May-2017 21:33 Z

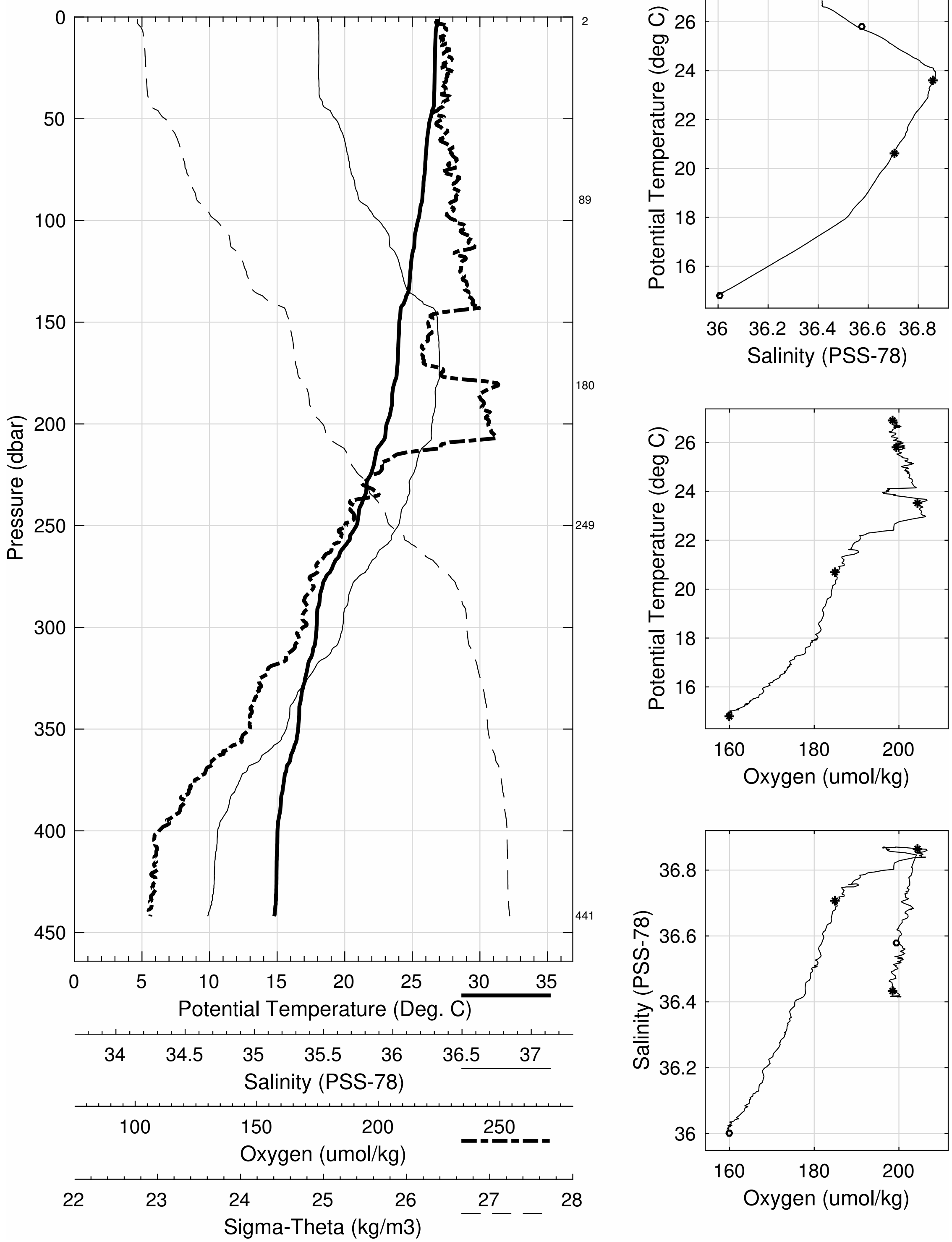


Abaco May 2017 R/V Endeavor
CTD Station 2 (CTD002)
Latitude 26.163N Longitude 78.799W
08-May-2017 23:10Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	26.873	26.873	36.417	198.3	0.004	23.826
10	26.720	26.718	36.416	198.6	0.040	23.875
20	26.680	26.675	36.417	200.2	0.081	23.889
30	26.653	26.646	36.416	199.5	0.121	23.898
50	26.337	26.325	36.478	199.2	0.200	24.047
75	25.948	25.931	36.536	199.8	0.295	24.214
100	25.441	25.419	36.641	200.8	0.386	24.453
125	24.879	24.852	36.728	201.4	0.471	24.693
150	24.065	24.033	36.862	197.1	0.550	25.041
200	23.145	23.104	36.841	205.2	0.695	25.300
250	20.911	20.863	36.715	186.1	0.819	25.838
300	17.966	17.914	36.505	180.2	0.912	26.447
400	15.086	15.025	36.037	160.7	1.065	26.766

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
442	1	14.828	14.761	36.004	160.0
250	2	20.677	20.629	36.706	185.1
181	3	23.646	23.608	36.862	204.4
90	4	25.797	25.777	36.578	199.3
2	5	27.117	27.117	36.432	198.5

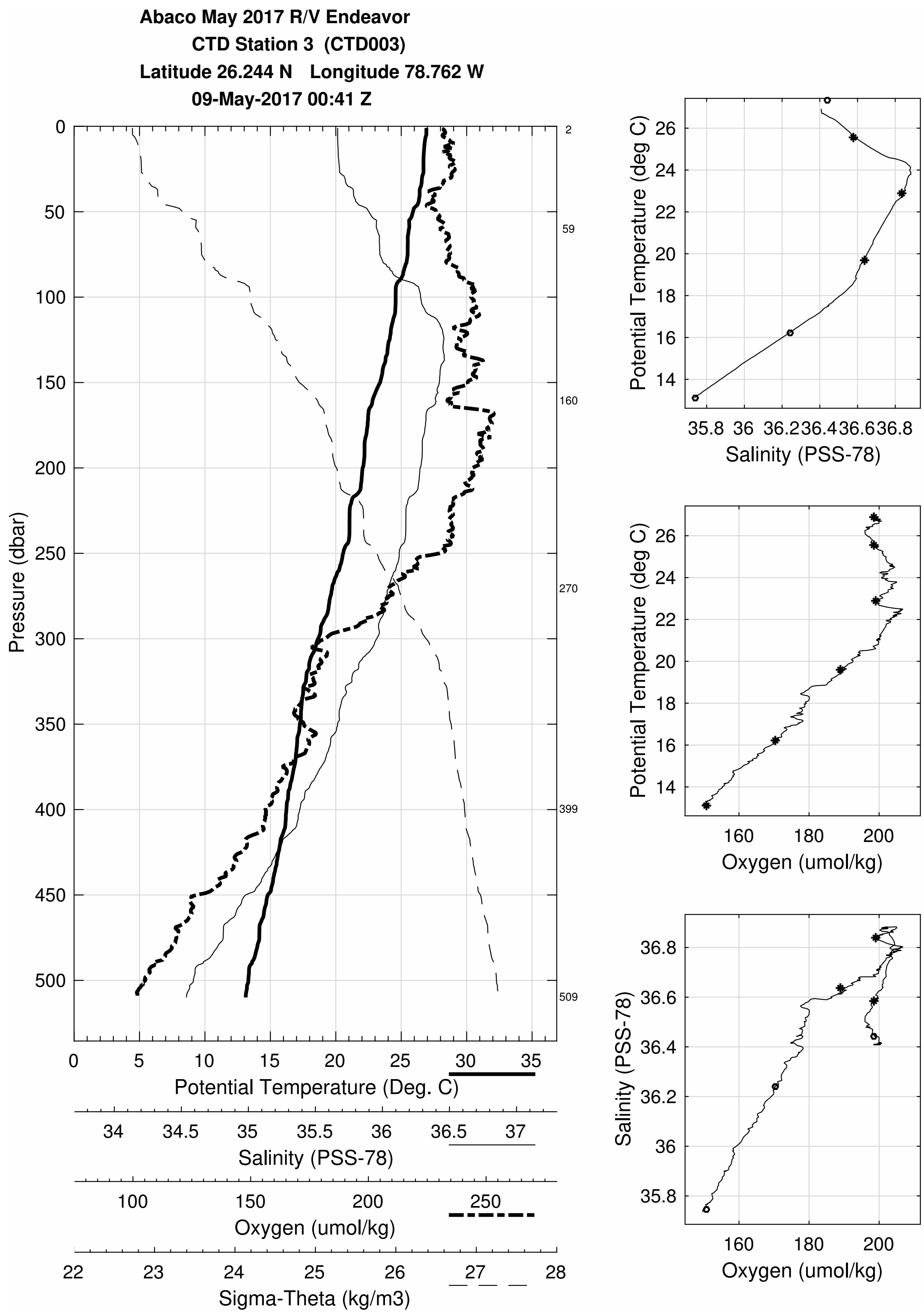
Abaco May 2017 R/V Endeavor
CTD Station 2 (CTD002)
Latitude 26.163 N Longitude 78.799 W
08-May-2017 23:10 Z



Abaco May 2017 R/V Endeavor
CTD Station 3 (CTD003)
Latitude 26.244N Longitude 78.762W
09-May-2017 00:41Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	26.922	26.922	36.409	198.8	0.004	23.804
10	26.788	26.785	36.409	200.4	0.041	23.848
20	26.705	26.701	36.413	200.3	0.081	23.878
30	26.598	26.592	36.439	199.9	0.121	23.933
50	25.907	25.896	36.547	197.5	0.199	24.234
75	25.509	25.493	36.596	199.6	0.288	24.396
100	24.596	24.575	36.777	203.1	0.372	24.815
125	24.138	24.111	36.881	201.5	0.449	25.033
150	23.417	23.386	36.861	202.5	0.521	25.233
200	22.091	22.051	36.775	203.3	0.651	25.553
250	20.610	20.562	36.682	198.0	0.768	25.894
300	18.704	18.650	36.582	179.8	0.869	26.320
400	16.288	16.223	36.240	170.2	1.031	26.650
500	13.386	13.315	35.766	151.1	1.172	26.923

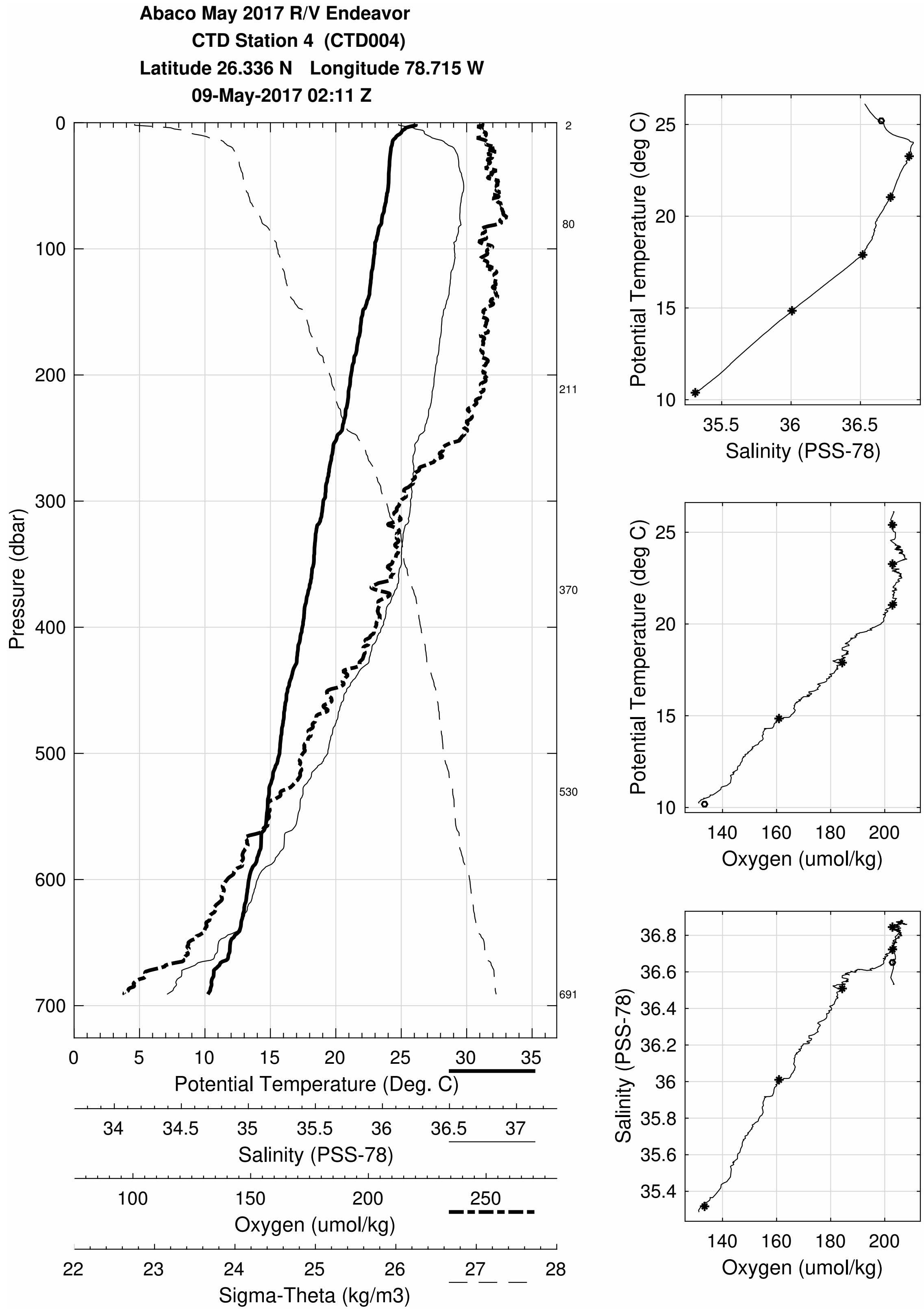
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
510	1	13.194	13.122	35.744	150.7
400	2	16.245	16.181	36.241	170.4
271	3	19.697	19.647	36.635	188.7
160	4	22.955	22.922	36.837	198.8
60	5	25.606	25.593	36.583	198.6
2	6	27.346	27.345	36.440	198.8


Abaco May 2017 R/V Endeavor
CTD Station 3 (CTD003)
Latitude 26.244 N Longitude 78.762 W
09-May-2017 00:41 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
2
59
160
270
399
509
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 4 (CTD004)
Latitude 26.336N Longitude 78.715W
09-May-2017 02:11Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	26.119	26.119	36.532	203.1	0.004	24.152
10	24.721	24.719	36.686	203.9	0.035	24.702
20	24.222	24.217	36.828	205.8	0.065	24.961
30	24.118	24.112	36.854	204.4	0.095	25.012
50	24.021	24.011	36.882	205.9	0.154	25.063
75	23.549	23.533	36.860	208.2	0.225	25.189
100	22.994	22.974	36.830	204.5	0.293	25.330
125	22.695	22.670	36.809	205.9	0.360	25.402
150	22.096	22.066	36.772	203.4	0.424	25.547
200	21.202	21.163	36.725	204.4	0.544	25.763
250	20.115	20.068	36.639	199.0	0.656	25.994
300	19.095	19.040	36.595	186.8	0.756	26.231
400	17.511	17.442	36.441	181.7	0.932	26.514
500	15.784	15.704	36.151	167.1	1.088	26.701
600	13.446	13.359	35.772	151.9	1.229	26.918

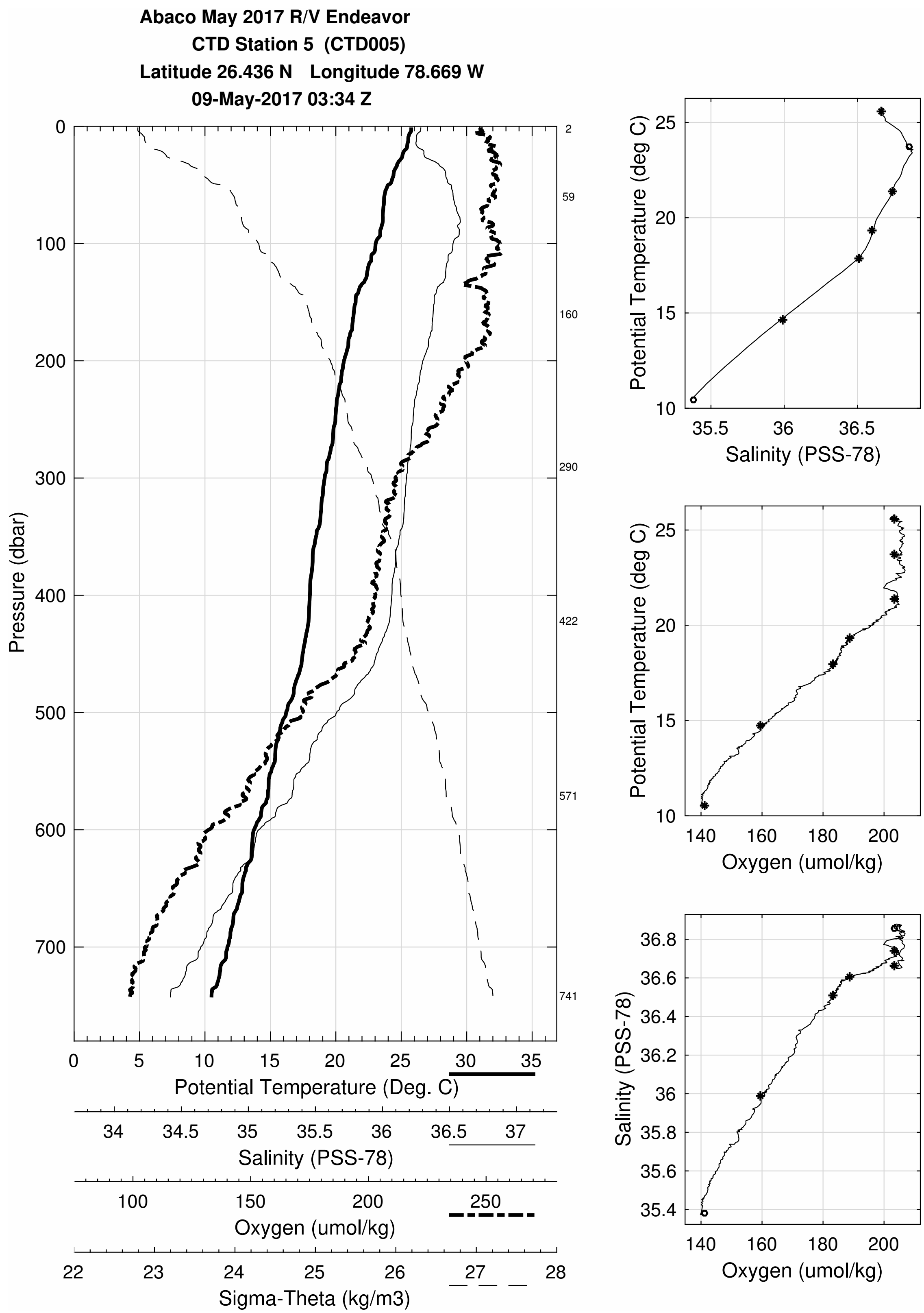
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
691	1	10.449	10.365	35.313	133.6
530	2	14.931	14.849	36.009	161.0
371	3	17.967	17.902	36.512	184.1
211	4	21.079	21.038	36.720	202.8
80	5	23.296	23.279	36.849	203.1
2	6	25.230	25.229	36.654	202.9


Abaco May 2017 R/V Endeavor
CTD Station 4 (CTD004)
Latitude 26.336 N Longitude 78.715 W
09-May-2017 02:11 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
2
80
211
370
530
691
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 5 (CTD005)
Latitude 26.436N Longitude 78.669W
09-May-2017 03:34Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.763	25.763	36.673	203.2	0.004	24.371
10	25.537	25.535	36.650	205.0	0.035	24.424
20	25.303	25.298	36.682	204.7	0.070	24.522
30	24.814	24.807	36.746	205.6	0.103	24.720
50	24.001	23.990	36.831	205.0	0.165	25.031
75	23.605	23.590	36.868	203.3	0.236	25.178
100	23.061	23.041	36.840	206.5	0.306	25.318
125	22.416	22.391	36.802	204.1	0.371	25.477
150	21.542	21.513	36.743	204.6	0.432	25.680
200	20.652	20.614	36.684	200.6	0.547	25.882
250	20.011	19.964	36.633	195.4	0.653	26.018
300	19.202	19.147	36.599	187.7	0.753	26.206
400	18.088	18.018	36.523	184.2	0.935	26.435
500	16.289	16.207	36.236	170.9	1.102	26.651
600	13.835	13.748	35.832	154.0	1.247	26.884
700	11.806	11.714	35.530	142.6	1.374	27.056

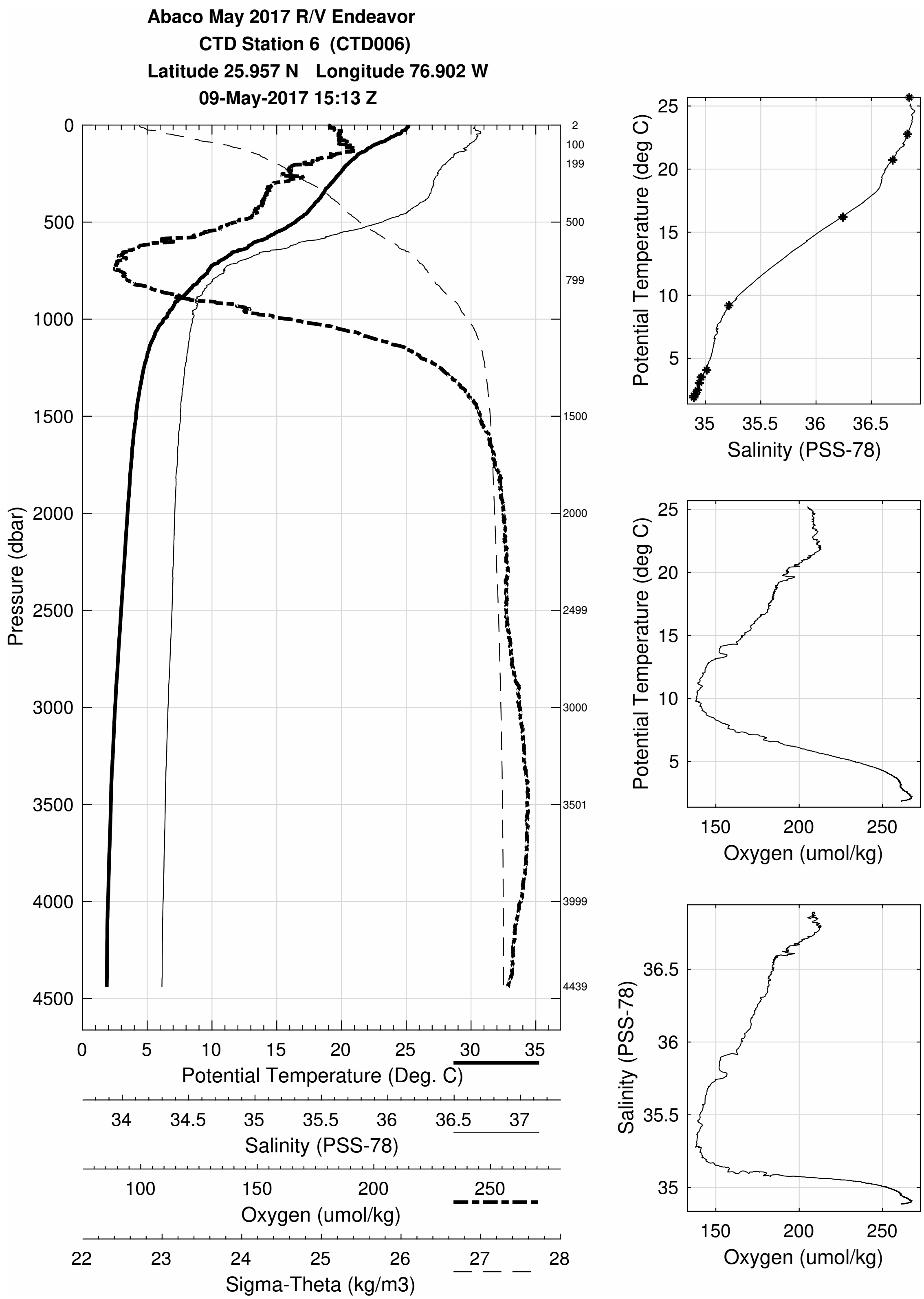
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
742	1	10.562	10.470	35.380	141.1
571	2	14.766	14.678	35.987	159.4
422	3	17.974	17.901	36.511	183.2
290	4	19.345	19.292	36.604	188.6
160	5	21.436	21.404	36.736	203.4
60	6	23.747	23.734	36.856	203.6
2	7	25.603	25.602	36.667	203.7


Abaco May 2017 R/V Endeavor
CTD Station 5 (CTD005)
Latitude 26.436 N Longitude 78.669 W
09-May-2017 03:34 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
2
59
160
290
422
571
741
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 6 (CTD006)
Latitude 25.957N Longitude 76.902W
09-May-2017 15:13Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.180	25.180	36.857	205.0	0.003	24.690
10	25.142	25.140	36.855	205.4	0.032	24.701
20	24.996	24.991	36.857	206.0	0.065	24.748
30	24.710	24.704	36.879	208.5	0.096	24.852
50	24.240	24.230	36.867	208.4	0.157	24.986
75	23.530	23.514	36.860	207.7	0.229	25.194
100	22.608	22.588	36.821	209.8	0.297	25.434
125	21.980	21.956	36.791	213.0	0.359	25.592
150	21.323	21.294	36.723	205.3	0.419	25.725
200	20.548	20.510	36.674	198.2	0.531	25.902
250	19.895	19.849	36.624	191.5	0.637	26.041
300	19.247	19.192	36.595	187.6	0.737	26.191
400	18.042	17.972	36.510	184.8	0.919	26.436
500	16.515	16.432	36.272	176.1	1.086	26.626
600	13.572	13.486	35.787	156.6	1.232	26.903
700	10.691	10.604	35.377	139.1	1.351	27.140
800	9.108	9.017	35.205	142.1	1.453	27.276
900	7.478	7.387	35.098	161.5	1.541	27.441
1000	6.384	6.290	35.078	192.8	1.613	27.577
1100	5.563	5.464	35.060	219.2	1.674	27.668
1200	5.052	4.949	35.041	234.0	1.728	27.714
1300	4.701	4.591	35.025	243.5	1.779	27.742
1400	4.446	4.330	35.012	249.0	1.828	27.760
1500	4.263	4.139	35.005	252.3	1.876	27.775
1750	3.898	3.755	34.983	257.3	1.994	27.798
2000	3.642	3.480	34.967	260.0	2.110	27.813
2500	3.191	2.988	34.950	260.6	2.338	27.846
3000	2.765	2.519	34.925	265.0	2.559	27.868
3500	2.483	2.191	34.907	267.4	2.775	27.882
4000	2.309	1.966	34.894	265.3	2.991	27.889

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
4439	1	2.273	1.880	34.888	−999.0
4000	2	2.327	1.984	34.896	−999.0
3501	4	2.478	2.186	34.908	−999.0
3001	6	2.791	2.544	34.926	−999.0
2499	8	3.203	3.000	34.951	−999.0
2001	10	3.642	3.480	34.968	−999.0
1500	13	4.268	4.145	35.004	−999.0
800	15	9.232	9.140	35.217	−999.0
500	17	16.302	16.220	36.240	−999.0
200	19	20.686	20.648	36.686	−999.0
100	21	22.831	22.811	36.832	−999.0
2	23	25.638	25.638	36.849	−999.0

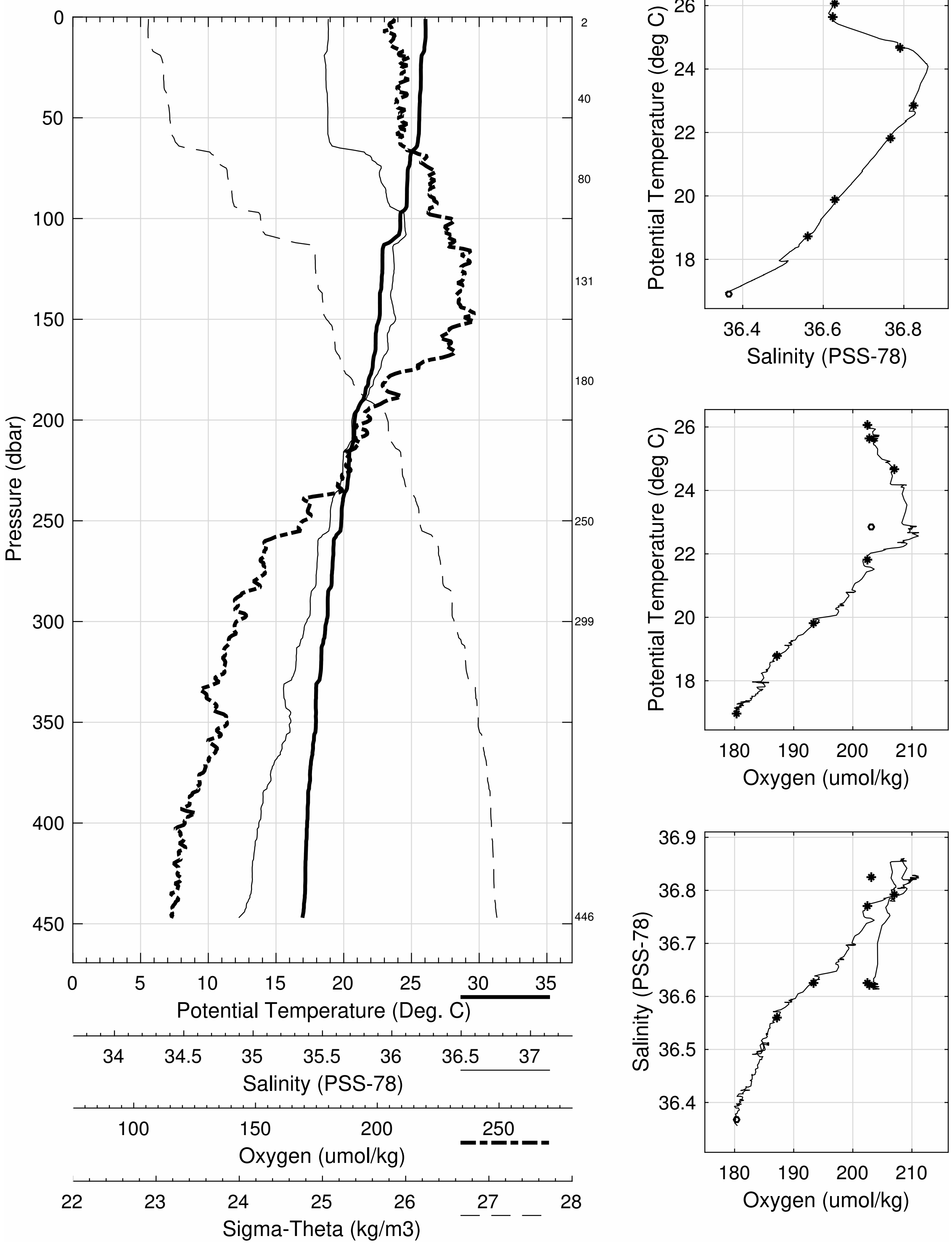

Abaco May 2017 R/V Endeavor
CTD Station 6 (CTD006)
Latitude 25.957 N Longitude 76.902 W
09-May-2017 15:13 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 7 (CTD007)
Latitude 26.526N Longitude 76.884W
09-May-2017 23:38Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	26.038	26.038	36.626	202.7	0.004	24.249
10	26.048	26.046	36.626	202.9	0.037	24.246
20	25.742	25.738	36.614	204.5	0.073	24.334
30	25.705	25.699	36.618	203.7	0.109	24.349
50	25.590	25.579	36.624	203.3	0.180	24.391
75	24.769	24.752	36.785	206.6	0.266	24.767
100	24.196	24.174	36.855	208.7	0.345	24.994
125	22.883	22.857	36.824	209.7	0.415	25.360
150	22.645	22.614	36.829	210.5	0.480	25.433
200	20.843	20.805	36.697	200.4	0.603	25.840
250	19.871	19.824	36.631	193.6	0.710	26.053
300	18.789	18.735	36.561	186.7	0.806	26.283
400	17.362	17.294	36.416	181.5	0.977	26.531

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
447	1	16.995	16.920	36.368	180.4
300	2	18.794	18.740	36.561	187.0
250	3	19.906	19.860	36.627	193.4
181	4	21.868	21.832	36.769	202.6
131	5	22.882	22.855	36.825	203.3
80	6	24.701	24.684	36.791	207.1
41	7	25.630	25.621	36.623	203.0
3	8	26.068	26.067	36.627	202.5

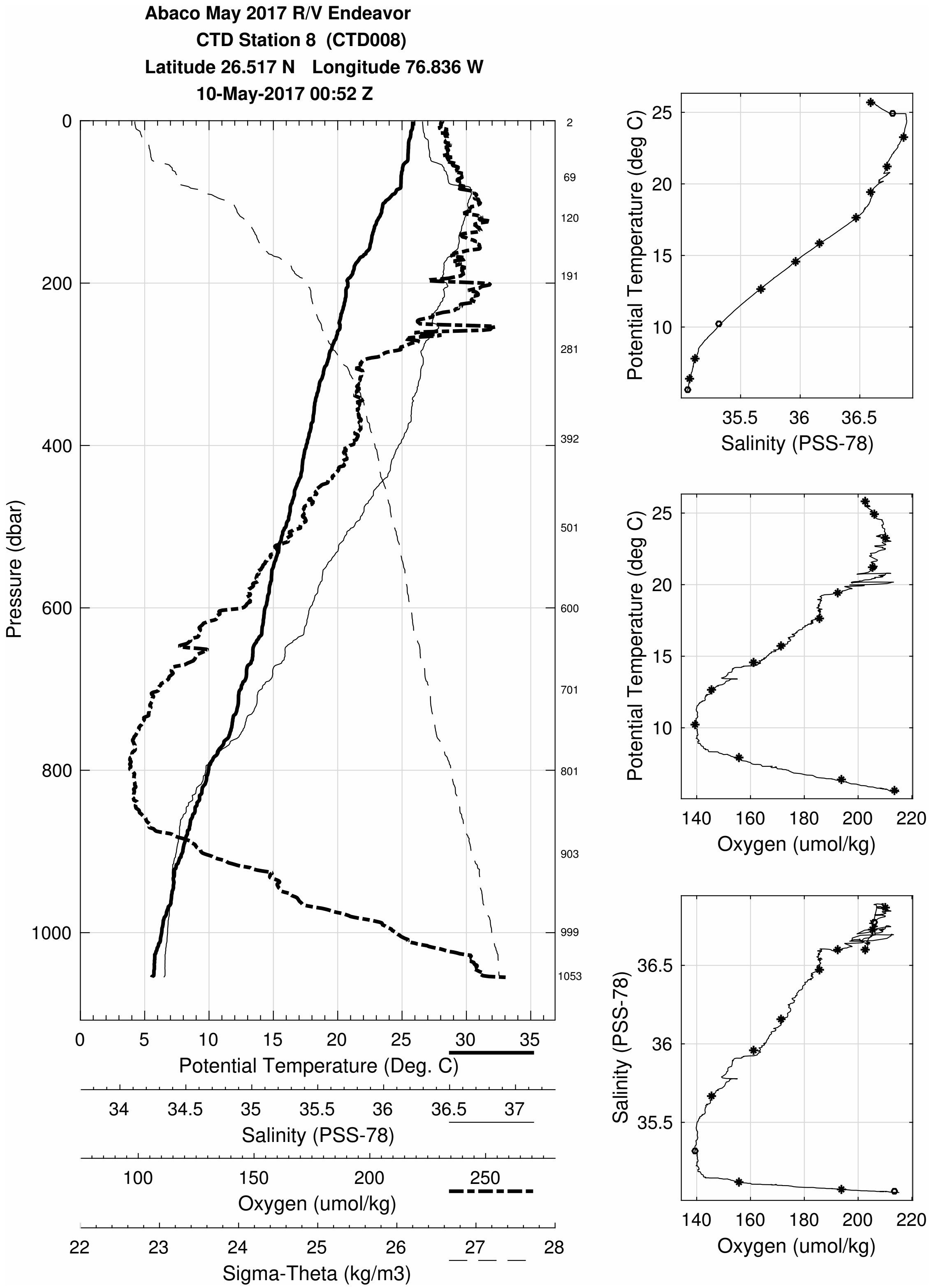
Abaco May 2017 R/V Endeavor
CTD Station 7 (CTD007)
Latitude 26.526 N Longitude 76.884 W
09-May-2017 23:38 Z



Abaco May 2017 R/V Endeavor
CTD Station 8 (CTD008)
Latitude 26.517N Longitude 76.836W
10-May-2017 00:52Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.830	25.830	36.601	202.5	0.004	24.295
10	25.803	25.801	36.604	203.0	0.036	24.306
20	25.658	25.654	36.613	203.4	0.072	24.359
30	25.512	25.505	36.636	204.3	0.107	24.423
50	25.410	25.399	36.656	203.5	0.177	24.470
75	24.936	24.919	36.755	206.1	0.260	24.693
100	23.724	23.703	36.876	209.7	0.337	25.151
125	23.040	23.014	36.845	211.1	0.406	25.330
150	22.611	22.580	36.819	209.0	0.472	25.435
200	20.832	20.794	36.745	210.5	0.591	25.880
250	20.185	20.138	36.674	197.8	0.699	26.002
300	19.205	19.151	36.604	185.9	0.800	26.209
400	17.624	17.555	36.457	183.8	0.977	26.498
500	16.054	15.973	36.190	173.8	1.137	26.670
600	14.450	14.360	35.928	162.1	1.283	26.827
700	12.566	12.470	35.637	145.1	1.417	26.993
800	10.054	9.958	35.304	139.6	1.534	27.196
900	8.059	7.964	35.128	153.7	1.630	27.380
1000	6.415	6.320	35.075	193.0	1.706	27.570

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
1054	1	5.652	5.558	35.060	213.2
999	2	6.424	6.330	35.074	193.9
903	3	7.937	7.842	35.124	155.8
801	4	10.309	10.211	35.317	139.3
701	5	12.749	12.652	35.668	145.8
601	6	14.658	14.567	35.962	160.8
502	7	15.878	15.798	36.160	171.2
392	8	17.701	17.634	36.475	185.8
282	9	19.479	19.428	36.595	192.1
192	10	21.211	21.173	36.725	205.2
120	11	23.247	23.222	36.863	210.3
70	12	24.944	24.929	36.774	205.8
2	13	25.713	25.713	36.597	202.3

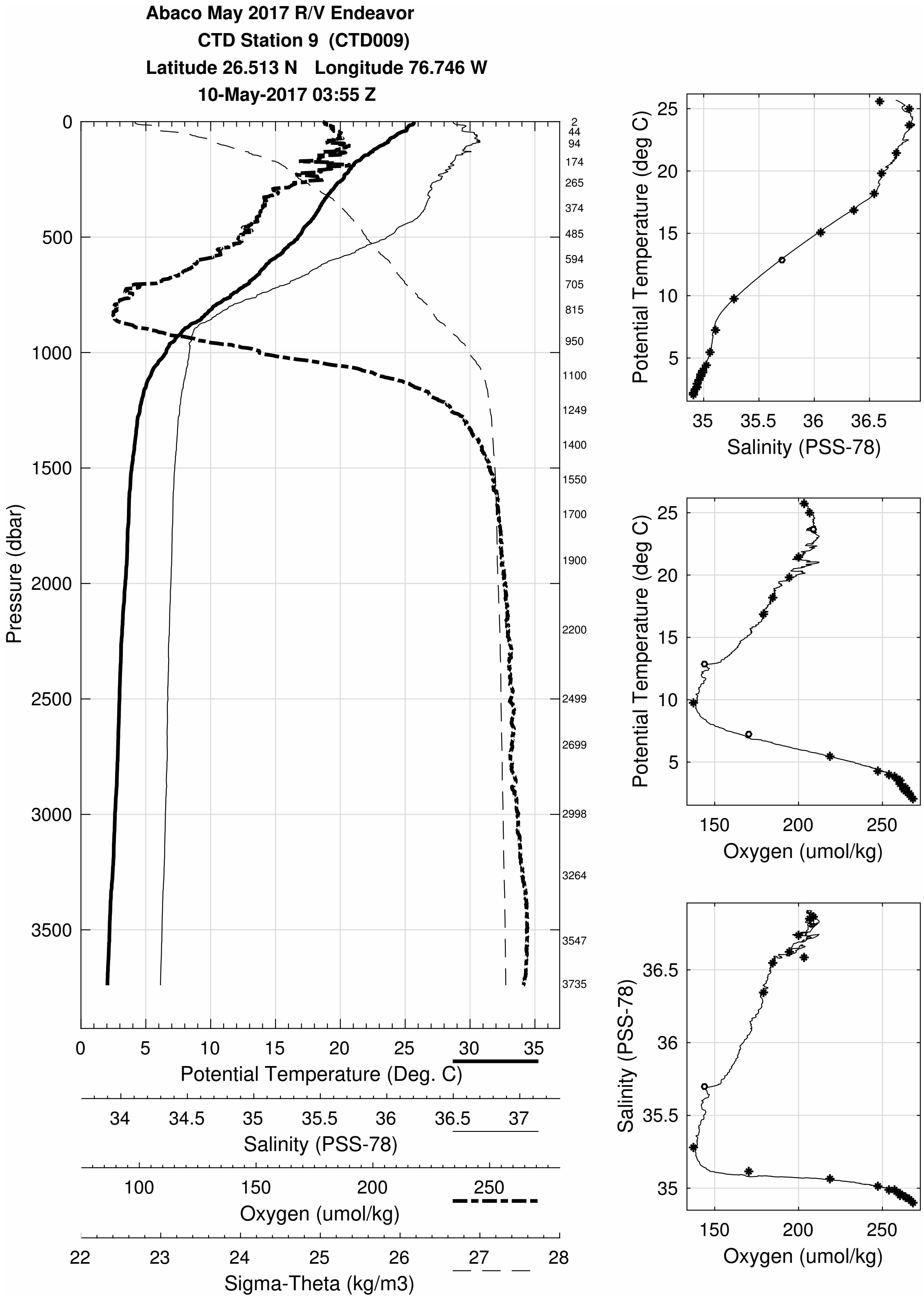


Abaco May 2017 R/V Endeavor
CTD Station 8 (CTD008)
Latitude 26.517 N Longitude 76.836 W
10-May-2017 00:52 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 9 (CTD009)
Latitude 26.513N Longitude 76.746W
10-May-2017 03:55Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.661	25.661	36.741	203.8	0.003	24.453
10	25.639	25.637	36.751	204.7	0.035	24.469
20	25.257	25.252	36.817	206.6	0.068	24.638
30	25.145	25.138	36.798	207.1	0.101	24.658
50	24.565	24.554	36.874	209.7	0.166	24.894
75	23.848	23.832	36.890	208.3	0.240	25.123
100	23.344	23.324	36.856	210.1	0.310	25.248
125	22.552	22.526	36.801	208.7	0.376	25.437
150	21.809	21.779	36.755	204.2	0.439	25.615
200	20.869	20.831	36.720	206.8	0.555	25.851
250	20.218	20.171	36.663	203.4	0.663	25.985
300	19.339	19.284	36.593	189.5	0.765	26.166
400	18.187	18.117	36.536	183.9	0.949	26.420
500	16.808	16.725	36.322	177.3	1.117	26.595
600	14.761	14.669	35.975	165.0	1.270	26.797
700	13.061	12.962	35.710	152.1	1.407	26.951
800	10.320	10.222	35.334	139.6	1.526	27.174
900	8.054	7.958	35.112	149.8	1.625	27.368
1000	6.652	6.555	35.081	183.9	1.702	27.544
1100	5.453	5.355	35.054	221.3	1.764	27.676
1200	4.809	4.708	35.026	239.1	1.816	27.730
1300	4.442	4.335	35.009	248.5	1.865	27.758
1400	4.242	4.128	35.000	252.9	1.912	27.772
1500	4.031	3.910	34.988	256.0	1.959	27.786
1750	3.779	3.639	34.975	258.9	2.072	27.803
2000	3.576	3.415	34.964	260.8	2.187	27.817
2500	3.177	2.974	34.946	262.2	2.411	27.844
3000	2.868	2.621	34.930	264.7	2.637	27.863
3500	2.498	2.206	34.908	267.4	2.857	27.882

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
3735	1	2.354	2.039	34.899	268.2
3547	2	2.462	2.165	34.906	267.4
3265	3	2.703	2.431	34.920	266.2
2999	4	2.892	2.644	34.932	264.1
2699	5	3.077	2.856	34.946	262.6
2500	6	3.154	2.952	34.943	264.2
2201	7	3.375	3.198	34.955	260.7
1901	8	3.656	3.503	34.967	260.2
1700	9	3.767	3.631	34.974	258.8
1550	10	3.926	3.802	34.983	257.6
1401	11	4.102	3.989	34.992	254.4
1250	12	4.477	4.374	35.017	247.5
1100	13	5.542	5.444	35.059	219.1
951	14	7.393	7.296	35.112	170.5
816	15	9.836	9.739	35.279	137.3
705	16	12.915	12.816	35.701	144.3
595	17	15.203	15.110	36.050	98.3
485	18	16.945	16.864	36.351	178.7
375	19	18.277	18.211	36.546	184.6
265	20	19.841	19.792	36.617	194.9
175	21	21.420	21.386	36.743	200.3
95	22	23.653	23.633	36.865	208.5
45	23	24.961	24.951	36.854	206.3
2	24	25.647	25.646	36.589	202.8

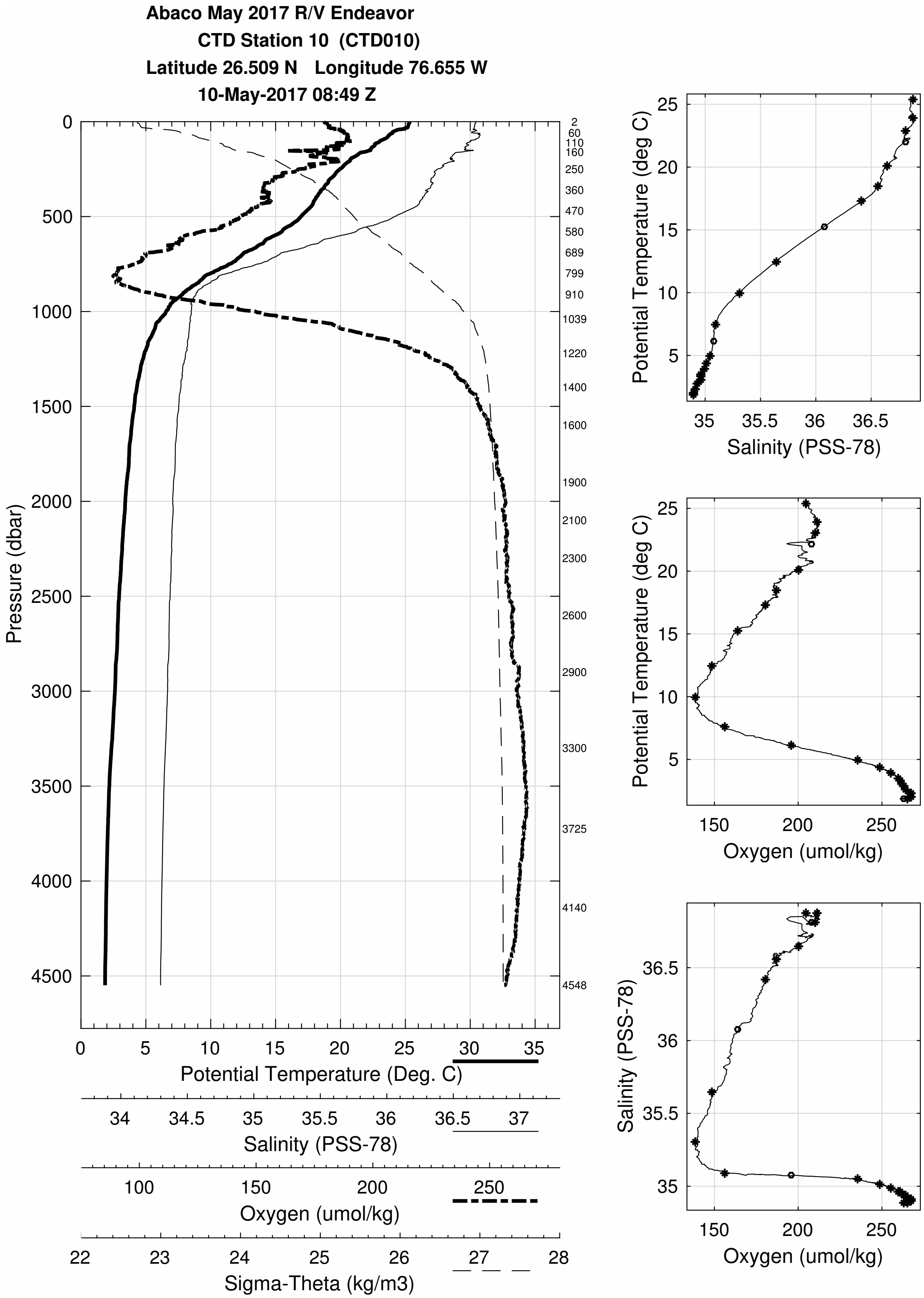


Abaco May 2017 R/V Endeavor
CTD Station 9 (CTD009)
Latitude 26.513 N Longitude 76.746 W
10-May-2017 03:55 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
2
44
94
174
265
374
485
594
705
815
950
1100
1249
1400
1550
1700
1900
2200
2499
2699
2998
3264
3547
3735
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 10 (CTD010)
Latitude 26.509N Longitude 76.655W
10-May-2017 08:49Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$	DynHt $m^2 \cdot s^{-2}$	SigT $kg \cdot m^{-3}$
1	25.317	25.317	36.869	204.4	0.003	24.657
10	25.273	25.270	36.862	205.6	0.033	24.666
20	25.237	25.233	36.861	205.8	0.065	24.677
30	25.192	25.185	36.857	205.9	0.098	24.688
50	24.158	24.147	36.861	210.4	0.160	25.007
75	23.728	23.713	36.892	211.9	0.232	25.160
100	23.100	23.079	36.836	210.7	0.302	25.304
125	22.673	22.648	36.819	209.5	0.368	25.416
150	22.292	22.262	36.806	206.8	0.432	25.516
200	20.775	20.737	36.712	206.6	0.549	25.870
250	19.999	19.952	36.627	196.7	0.656	26.016
300	19.287	19.233	36.587	189.9	0.757	26.174
400	18.185	18.115	36.531	184.7	0.941	26.417
500	17.040	16.956	36.358	178.7	1.111	26.568
600	15.003	14.911	36.018	161.2	1.267	26.777
700	12.548	12.452	35.633	148.8	1.402	26.993
800	10.053	9.957	35.303	139.4	1.519	27.196
900	7.999	7.904	35.111	149.5	1.615	27.375
1000	6.656	6.559	35.078	183.0	1.693	27.540
1100	5.728	5.629	35.065	212.2	1.756	27.651
1200	5.120	5.016	35.052	232.0	1.811	27.715
1300	4.699	4.590	35.025	244.1	1.862	27.742
1400	4.422	4.306	35.013	249.1	1.911	27.764
1500	4.226	4.103	35.000	253.2	1.959	27.775
1750	3.858	3.716	34.978	257.8	2.076	27.798
2000	3.580	3.418	34.963	261.2	2.191	27.816
2500	3.139	2.937	34.945	262.2	2.416	27.847
3000	2.864	2.616	34.930	264.7	2.639	27.864
3500	2.479	2.188	34.908	267.3	2.858	27.882
4000	2.317	1.973	34.895	265.3	3.074	27.890
4500	2.261	1.861	34.886	261.6	3.297	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$
4549	1	2.265	1.859	34.886	263.5
4140	2	2.295	1.937	34.892	265.7
3725	3	2.382	2.068	34.900	266.9
3301	4	2.628	2.354	34.916	266.9
2900	5	2.920	2.681	34.934	263.8
2601	6	3.072	2.861	34.940	263.4
2300	7	3.280	3.095	34.953	261.5
2100	8	3.481	3.311	34.962	261.3
1900	9	3.684	3.530	34.967	260.2
1600	10	4.056	3.925	34.991	255.4
1400	11	4.415	4.299	35.013	249.1
1220	12	5.008	4.903	35.046	235.6
1040	13	6.188	6.090	35.079	196.2
910	14	7.619	7.525	35.094	155.7
800	15	10.077	9.980	35.307	138.7
690	16	12.609	12.514	35.642	148.1
580	17	15.296	15.206	36.081	163.9
471	18	17.342	17.262	36.415	180.8
360	19	18.604	18.540	36.561	186.5
251	20	20.152	20.105	36.642	200.1
161	21	22.080	22.048	36.807	207.8
111	22	22.947	22.924	36.817	209.7
60	23	23.940	23.928	36.875	211.6
2	24	25.338	25.337	36.872	205.1

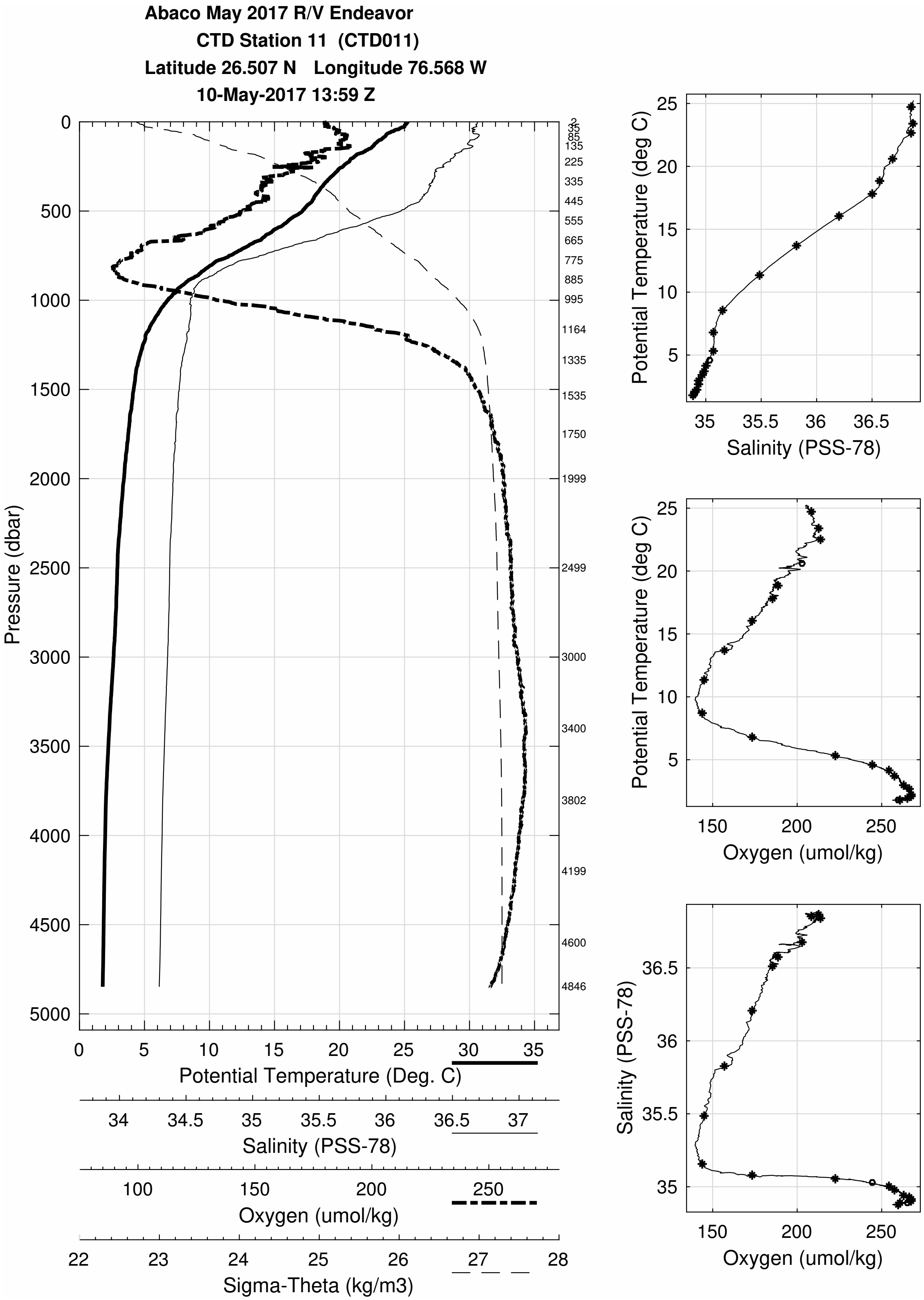


Abaco May 2017 R/V Endeavor
CTD Station 10 (CTD010)
Latitude 26.509 N Longitude 76.655 W
10-May-2017 08:49 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 11 (CTD011)
Latitude 26.507N Longitude 76.568W
10-May-2017 13:59Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.244	25.244	36.874	205.3	0.003	24.683
10	25.161	25.158	36.871	205.1	0.032	24.708
20	25.023	25.019	36.867	206.7	0.065	24.747
30	24.881	24.875	36.855	207.7	0.096	24.782
50	24.195	24.184	36.842	209.8	0.158	24.981
75	23.594	23.579	36.885	212.3	0.230	25.195
100	23.216	23.195	36.850	211.6	0.299	25.281
125	22.726	22.700	36.812	209.8	0.366	25.396
150	22.378	22.348	36.810	209.5	0.430	25.495
200	21.116	21.078	36.725	205.7	0.550	25.786
250	20.320	20.273	36.662	192.3	0.661	25.957
300	19.552	19.497	36.606	191.2	0.764	26.121
400	18.342	18.272	36.551	183.6	0.952	26.393
500	17.240	17.156	36.394	180.1	1.124	26.547
600	15.197	15.104	36.045	169.6	1.281	26.755
700	12.952	12.854	35.694	148.8	1.420	26.960
800	10.304	10.207	35.339	141.6	1.538	27.181
900	8.281	8.184	35.125	146.4	1.636	27.345
1000	6.871	6.773	35.074	172.2	1.718	27.508
1100	5.914	5.813	35.072	204.0	1.785	27.633
1200	5.174	5.070	35.050	231.2	1.841	27.707
1300	4.813	4.702	35.032	241.0	1.894	27.735
1400	4.465	4.349	35.010	250.0	1.944	27.757
1500	4.291	4.167	35.003	252.7	1.992	27.771
1750	3.893	3.751	34.980	257.7	2.111	27.796
2000	3.582	3.421	34.964	260.7	2.226	27.816
2500	3.121	2.919	34.943	262.9	2.449	27.847
3000	2.868	2.620	34.929	265.0	2.673	27.863
3500	2.513	2.220	34.910	267.1	2.893	27.881
4000	2.323	1.979	34.895	265.5	3.109	27.889
4500	2.261	1.861	34.886	261.9	3.332	27.891

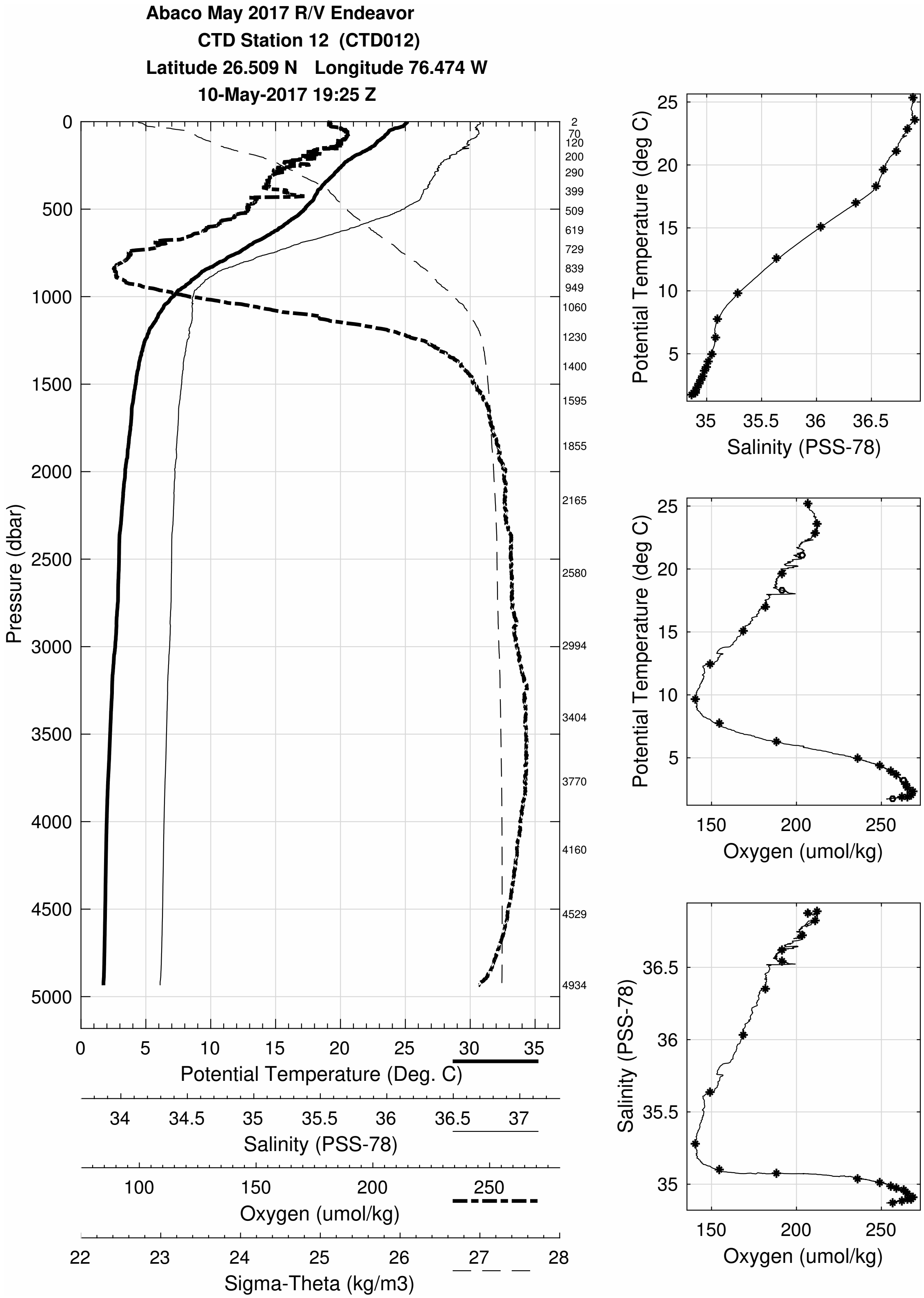
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4847	1	2.227	1.786	34.880	259.4
4600	2	2.257	1.845	34.886	260.9
4200	3	2.290	1.924	34.895	264.9
3802	4	2.370	2.047	34.900	267.7
3401	5	2.581	2.297	34.914	267.8
3000	6	2.872	2.624	34.931	265.9
2500	7	3.132	2.929	34.943	262.8
2000	8	3.575	3.414	34.964	282.0
1750	9	3.878	3.736	34.979	258.0
1535	10	4.230	4.104	34.998	253.8
1335	11	4.665	4.553	35.029	244.7
1165	12	5.455	5.352	35.060	222.0
995	13	6.896	6.798	35.074	173.5
885	14	8.726	8.628	35.159	143.3
776	15	11.424	11.323	35.486	145.3
665	16	13.815	13.717	35.824	156.6
555	17	16.146	16.056	36.204	173.5
445	18	17.935	17.858	36.506	185.8
335	19	18.891	18.831	36.571	188.5
225	20	20.647	20.604	36.681	203.4
135	21	22.617	22.590	36.845	213.3
85	22	23.408	23.391	36.866	212.2
35	23	24.789	24.782	36.856	208.5
2	24	25.596	25.597	−999.000	−999.0


Abaco May 2017 R/V Endeavor
CTD Station 11 (CTD011)
Latitude 26.507 N Longitude 76.568 W
10-May-2017 13:59 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 May 2017 R/V Endeavor
CTD Station 12 (CTD012)
Latitude 26.509N Longitude 76.474W
10-May-2017 19:25Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.139	25.138	36.891	206.9	0.003	24.729
10	25.034	25.032	36.895	206.8	0.032	24.764
20	24.911	24.907	36.875	207.5	0.064	24.787
30	24.665	24.658	36.868	208.3	0.095	24.858
50	23.810	23.799	36.883	212.4	0.154	25.127
75	23.503	23.487	36.877	212.9	0.225	25.215
100	23.143	23.122	36.836	211.2	0.293	25.292
125	22.768	22.742	36.811	210.8	0.360	25.383
150	22.295	22.265	36.780	206.2	0.425	25.496
200	21.070	21.031	36.702	199.3	0.546	25.782
250	20.197	20.150	36.636	197.6	0.655	25.970
300	19.571	19.516	36.609	190.1	0.759	26.117
400	18.310	18.240	36.535	193.0	0.947	26.389
500	17.321	17.236	36.407	182.3	1.119	26.538
600	15.585	15.490	36.111	170.3	1.279	26.719
700	13.272	13.172	35.741	155.2	1.421	26.932
800	10.857	10.756	35.409	143.0	1.543	27.138
900	8.758	8.658	35.168	143.0	1.646	27.304
1000	7.191	7.090	35.078	163.9	1.732	27.467
1100	6.088	5.986	35.073	199.4	1.802	27.612
1200	5.336	5.231	35.056	227.0	1.862	27.693
1300	4.854	4.743	35.032	240.8	1.915	27.730
1400	4.554	4.437	35.016	247.9	1.965	27.752
1500	4.343	4.219	35.007	251.7	2.014	27.768
1750	3.952	3.809	34.983	257.3	2.133	27.792
2000	3.571	3.410	34.964	261.2	2.250	27.818
2500	3.135	2.933	34.943	263.1	2.472	27.846
3000	2.886	2.638	34.931	264.5	2.698	27.862
3500	2.540	2.247	34.911	267.5	2.917	27.880
4000	2.327	1.983	34.895	265.7	3.136	27.889
4500	2.267	1.867	34.886	262.1	3.359	27.891

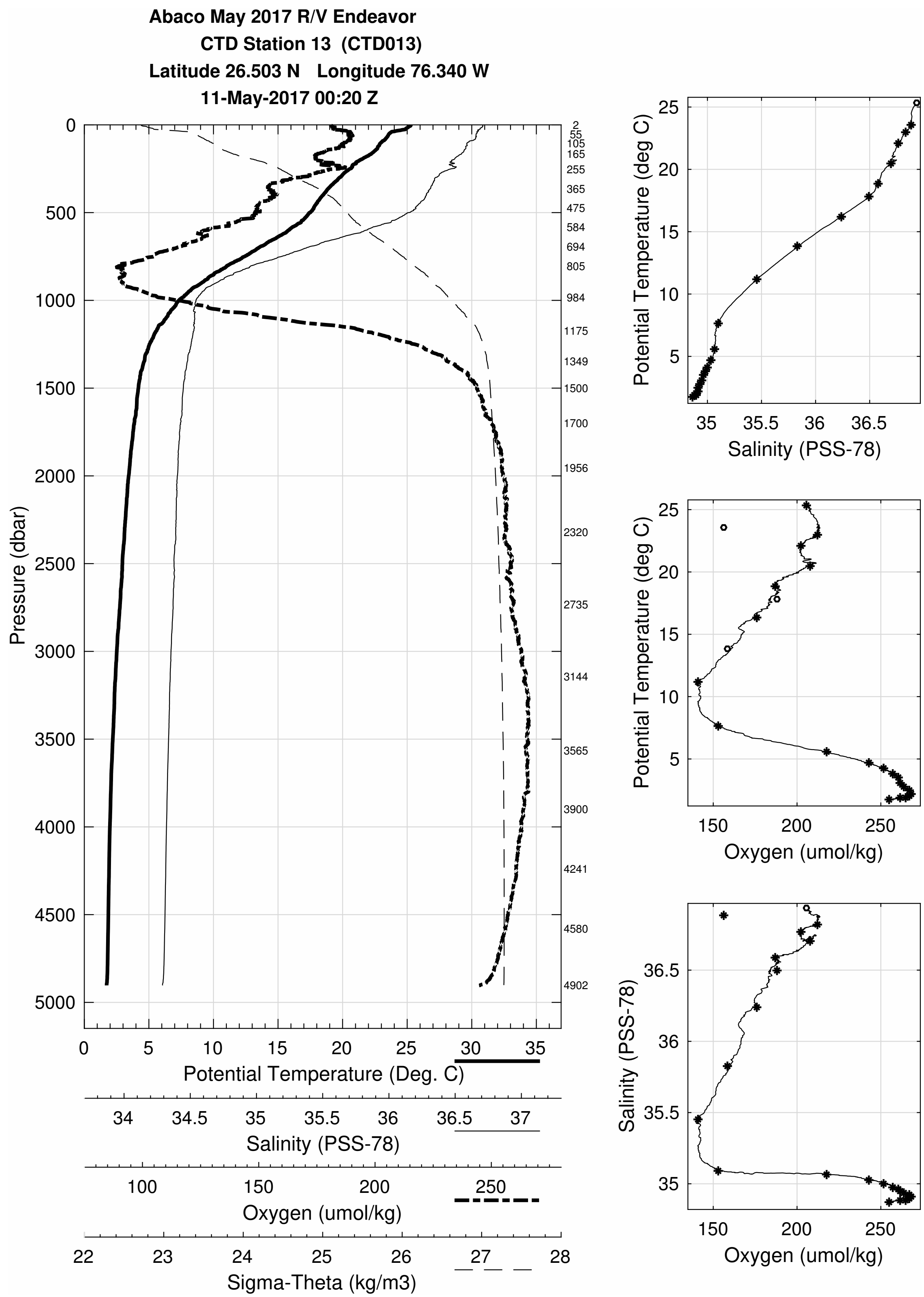
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
4935	1	2.186	1.736	34.871	256.2
4530	2	2.263	1.860	34.886	262.3
4160	3	2.301	1.940	34.892	265.6
3771	4	2.408	2.088	34.902	267.6
3405	5	2.587	2.302	34.914	268.0
2995	6	2.882	2.634	34.930	265.5
2581	7	3.112	2.902	34.942	263.9
2165	8	3.390	3.216	34.957	263.3
1855	9	3.777	3.627	34.976	259.3
1596	10	4.084	3.954	34.990	255.6
1400	11	4.513	4.396	35.015	249.4
1230	12	5.044	4.938	35.043	235.8
1060	13	6.424	6.323	35.074	187.8
950	14	7.827	7.727	35.102	154.2
840	15	9.840	9.740	35.280	140.9
730	16	12.623	12.522	35.642	149.4
620	17	15.149	15.053	36.038	168.5
510	18	17.039	16.954	36.358	181.3
400	19	18.360	18.289	36.542	191.4
291	20	19.732	19.678	36.616	191.7
200	21	21.204	21.165	36.723	203.5
121	22	22.928	22.903	36.823	211.4
70	23	23.603	23.588	36.888	212.4
2	24	25.314	25.314	36.876	206.5


Abaco May 2017 R/V Endeavor
CTD Station 12 (CTD012)
Latitude 26.509 N Longitude 76.474 W
10-May-2017 19:25 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 13 (CTD013)
Latitude 26.503N Longitude 76.340W
11-May-2017 00:20Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$	DynHt $m^2 \cdot s^{-2}$	SigT $kg \cdot m^{-3}$
1	25.281	25.281	36.918	206.7	0.003	24.705
10	25.127	25.125	36.916	207.0	0.032	24.752
20	24.916	24.912	36.900	207.0	0.064	24.805
30	24.535	24.529	36.886	209.8	0.095	24.911
50	23.616	23.606	36.877	213.3	0.152	25.180
75	23.391	23.376	36.872	212.2	0.222	25.245
100	23.012	22.991	36.822	211.3	0.290	25.319
125	22.749	22.724	36.809	209.1	0.356	25.386
150	22.486	22.456	36.796	205.0	0.422	25.454
200	21.376	21.337	36.721	202.9	0.546	25.712
250	20.625	20.578	36.718	209.3	0.658	25.918
300	19.817	19.762	36.616	196.6	0.765	26.058
400	18.553	18.482	36.556	188.1	0.958	26.343
500	17.535	17.450	36.442	182.9	1.133	26.513
600	15.920	15.824	36.172	168.0	1.297	26.690
700	13.602	13.500	35.791	158.7	1.442	26.903
800	11.225	11.122	35.447	142.1	1.568	27.101
900	9.191	9.088	35.213	142.1	1.675	27.271
1000	7.427	7.325	35.083	159.1	1.765	27.439
1100	6.437	6.332	35.075	188.4	1.839	27.569
1200	5.489	5.382	35.063	223.0	1.901	27.680
1300	4.907	4.796	35.037	238.9	1.955	27.728
1400	4.531	4.414	35.016	247.8	2.006	27.755
1500	4.311	4.187	35.003	252.3	2.055	27.769
1750	3.915	3.773	34.978	258.0	2.174	27.792
2000	3.595	3.433	34.964	260.4	2.290	27.815
2500	3.152	2.950	34.943	263.0	2.516	27.845
3000	2.760	2.514	34.924	266.1	2.737	27.868
3500	2.497	2.204	34.908	268.0	2.953	27.882
4000	2.323	1.979	34.895	266.2	3.170	27.889
4500	2.262	1.862	34.886	262.1	3.393	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$
4902	1	2.177	1.730	34.869	254.9
4580	2	2.255	1.846	34.883	261.0
4241	3	2.287	1.917	34.890	264.4
3901	4	2.355	2.022	34.897	266.5
3566	5	2.468	2.170	34.907	268.5
3145	6	2.679	2.421	34.918	267.2
2735	7	3.006	2.783	34.937	263.3
2321	8	3.290	3.102	34.950	261.8
1956	9	3.652	3.494	34.967	259.9
1701	10	3.985	3.847	34.981	257.1
1501	11	4.301	4.177	35.000	252.1
1349	12	4.777	4.662	35.031	242.3
1176	13	5.674	5.568	35.069	217.2
985	14	7.712	7.609	35.092	153.3
805	15	11.284	11.180	35.455	140.4
695	16	13.891	13.788	35.830	158.1
585	17	16.362	16.266	36.239	176.3
475	18	17.895	17.813	36.498	188.6
366	19	18.932	18.866	36.582	186.6
255	20	20.512	20.464	36.698	207.3
166	21	22.111	22.078	36.768	202.2
106	22	22.990	22.968	36.825	212.3
55	23	23.633	23.621	36.887	156.6
2	24	25.321	25.320	36.936	205.9

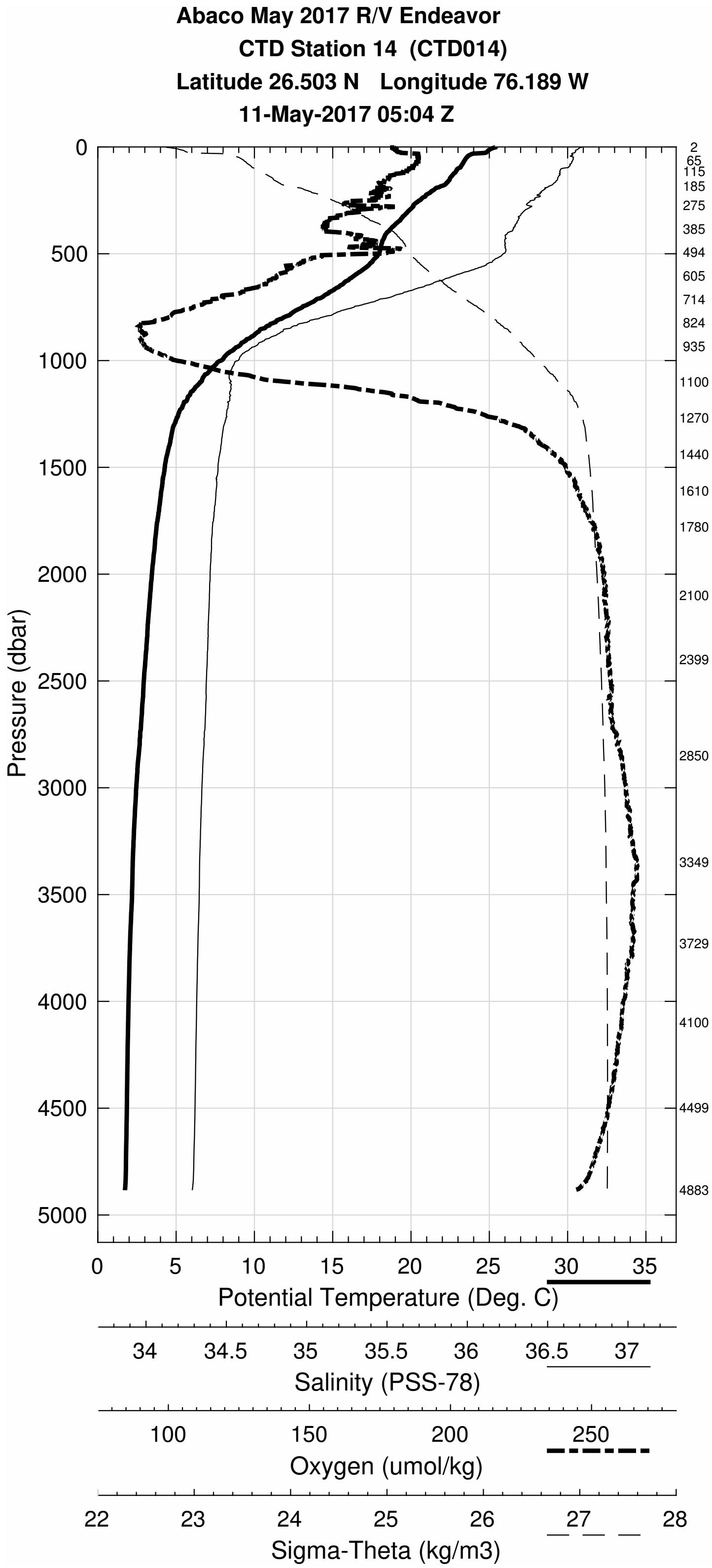


Abaco May 2017 R/V Endeavor
CTD Station 13 (CTD013)
Latitude 26.503 N Longitude 76.340 W
11-May-2017 00:20 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
2
55
105
165
255
365
475
584
694
805
984
1175
1349
1500
1700
1956
2320
2735
3144
3565
3900
4241
4580
4902
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

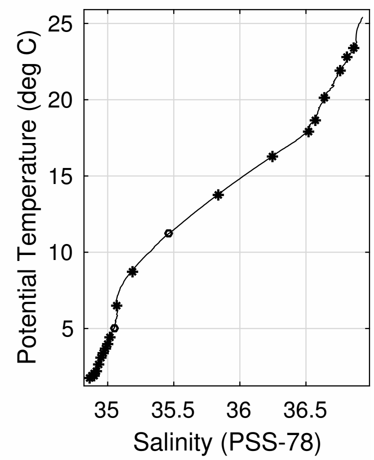
Abaco May 2017 R/V Endeavor
CTD Station 14 (CTD014)
Latitude 26.503N Longitude 76.189W
11-May-2017 05:04Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.408	25.408	36.931	206.4	0.003	24.676
10	25.077	25.075	36.911	207.3	0.032	24.763
20	24.898	24.893	36.900	206.8	0.064	24.810
30	24.260	24.254	36.880	210.2	0.095	24.990
50	23.552	23.542	36.887	212.9	0.151	25.207
75	23.349	23.334	36.877	212.5	0.220	25.261
100	23.039	23.019	36.830	210.4	0.288	25.317
125	22.752	22.726	36.812	207.1	0.354	25.388
150	22.506	22.475	36.804	205.3	0.419	25.454
200	21.519	21.480	36.733	204.2	0.545	25.681
250	20.602	20.554	36.670	201.6	0.659	25.887
300	19.898	19.842	36.626	196.5	0.766	26.045
400	18.537	18.465	36.541	192.1	0.961	26.336
500	18.010	17.922	36.515	200.6	1.140	26.452
600	16.521	16.422	36.266	175.7	1.309	26.623
700	14.496	14.390	35.929	161.8	1.462	26.822
800	11.923	11.816	35.547	148.0	1.595	27.050
900	9.609	9.503	35.257	140.8	1.707	27.237
1000	7.993	7.886	35.113	150.2	1.802	27.379
1100	6.672	6.565	35.074	179.0	1.881	27.537
1200	5.605	5.497	35.062	218.5	1.946	27.665
1300	4.992	4.880	35.039	237.0	2.001	27.720
1400	4.676	4.557	35.022	245.2	2.053	27.743
1500	4.400	4.275	35.006	250.8	2.103	27.762
1750	3.956	3.813	34.983	257.0	2.224	27.792
2000	3.617	3.455	34.965	260.5	2.340	27.814
2500	3.139	2.937	34.945	262.3	2.567	27.847
3000	2.699	2.455	34.921	266.3	2.785	27.871
3500	2.476	2.185	34.907	268.0	2.998	27.882
4000	2.306	1.963	34.894	265.7	3.213	27.890
4500	2.253	1.854	34.885	261.7	3.435	27.891

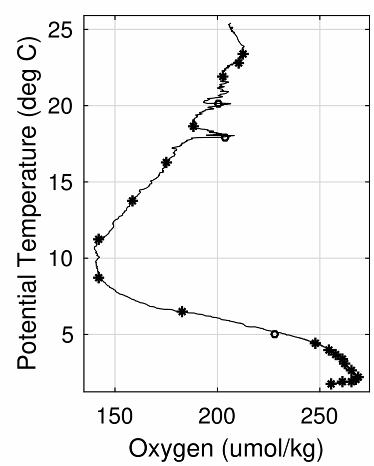
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4884	1	2.181	1.737	34.870	255.0
4500	2	2.253	1.854	34.886	261.4
4100	3	2.293	1.939	34.892	265.1
3730	4	2.378	2.064	34.901	267.9
3350	5	2.507	2.230	34.911	268.7
2850	6	2.837	2.605	34.929	265.3
2400	7	3.237	3.043	34.950	262.2
2100	8	3.521	3.351	34.962	260.9
1781	9	3.894	3.749	34.978	257.9
1610	10	4.176	4.044	34.996	253.9
1441	11	4.521	4.400	35.014	248.0
1271	12	5.094	4.983	35.048	227.7
1101	13	6.605	6.498	35.071	182.7
935	14	8.873	8.768	35.180	141.6
825	15	11.322	11.215	35.469	141.6
714	16	13.887	13.781	35.833	158.5
605	17	16.414	16.315	36.247	175.6
495	18	18.021	17.934	36.514	203.7
385	19	18.682	18.613	36.564	188.8
275	20	20.139	20.087	36.648	200.7
185	21	21.894	21.857	36.755	202.4
115	22	22.893	22.869	36.818	210.8
65	23	23.391	23.378	36.866	212.9
2	24	25.381	25.382	−999.000	−999.0



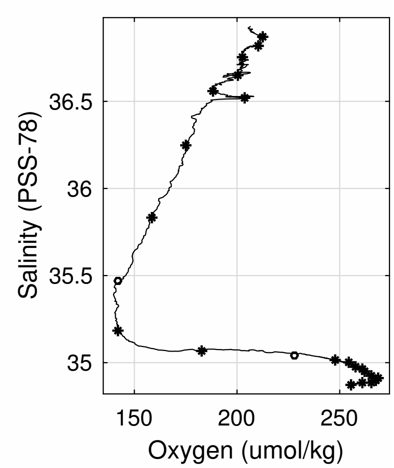
Abaco May 2017 R/V Endeavor
CTD Station 14 (CTD014)
Latitude 26.503 N Longitude 76.189 W
11-May-2017 05:04 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)



Potential Temperature (deg C)
Salinity (PSS-78)



Potential Temperature (deg C)
Oxygen (umol/kg)

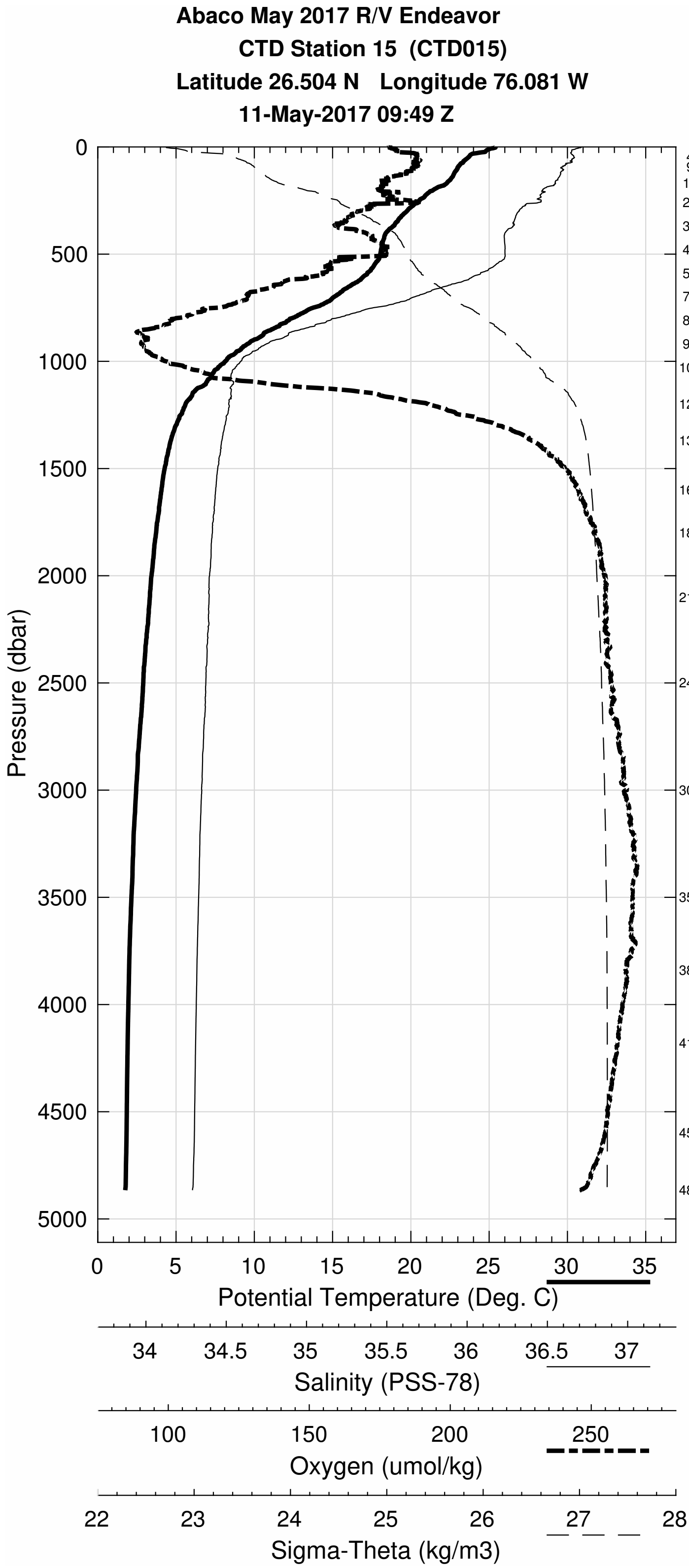


Salinity (PSS-78)
Oxygen (umol/kg)

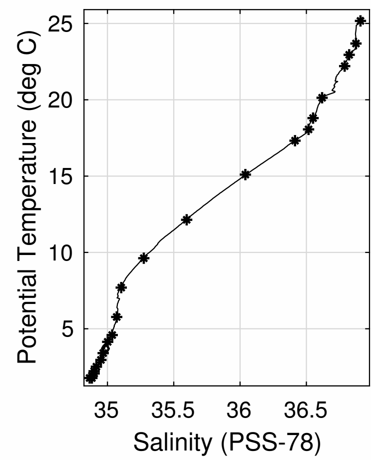
Abaco May 2017 R/V Endeavor
CTD Station 15 (CTD015)
Latitude 26.504N Longitude 76.081W
11-May-2017 09:49Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	25.408	25.408	36.926	204.7	0.003	24.672
10	25.020	25.018	36.895	205.8	0.032	24.769
20	24.789	24.785	36.876	206.7	0.064	24.826
30	24.088	24.082	36.873	211.2	0.094	25.035
50	23.652	23.641	36.890	211.6	0.151	25.180
75	23.275	23.259	36.859	212.5	0.220	25.269
100	23.000	22.980	36.825	211.4	0.287	25.324
125	22.784	22.758	36.818	209.0	0.354	25.383
150	22.579	22.549	36.803	204.1	0.419	25.432
200	21.485	21.445	36.723	202.3	0.545	25.683
250	20.597	20.549	36.715	210.4	0.658	25.923
300	19.789	19.734	36.596	197.0	0.765	26.050
400	18.485	18.414	36.524	198.7	0.959	26.336
500	18.136	18.048	36.524	204.0	1.139	26.428
600	17.145	17.044	36.365	186.5	1.314	26.552
700	15.188	15.078	36.042	169.1	1.474	26.758
800	12.451	12.341	35.621	149.4	1.613	27.005
900	10.079	9.970	35.311	141.7	1.731	27.200
1000	8.246	8.138	35.128	147.0	1.829	27.353
1100	7.036	6.926	35.090	172.0	1.913	27.500
1200	5.714	5.605	35.065	215.2	1.979	27.654
1300	5.089	4.976	35.044	233.4	2.036	27.713
1400	4.691	4.572	35.023	244.4	2.088	27.743
1500	4.394	4.270	35.007	250.6	2.138	27.763
1750	3.937	3.794	34.981	257.3	2.259	27.793
2000	3.593	3.431	34.963	261.0	2.375	27.815
2500	3.108	2.906	34.944	262.3	2.599	27.849
3000	2.698	2.454	34.922	266.4	2.816	27.872
3500	2.441	2.150	34.906	267.9	3.028	27.884
4000	2.299	1.956	34.893	265.4	3.242	27.890
4500	2.253	1.853	34.885	261.4	3.464	27.891

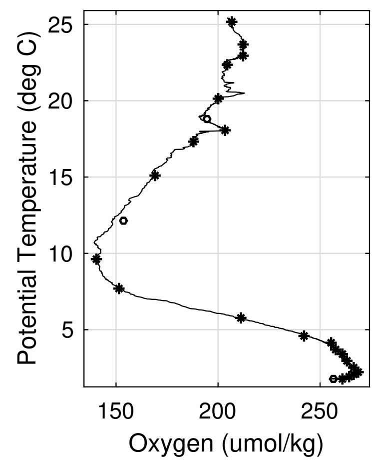
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
4866	1	2.201	1.758	34.873	256.9
4600	2	2.251	1.839	34.883	260.5
4181	3	2.272	1.909	34.890	264.5
3841	4	2.323	1.998	34.896	266.3
3500	5	2.439	2.148	34.906	268.3
3000	6	2.693	2.449	34.921	266.3
2500	7	3.102	2.901	34.943	262.9
2101	8	3.533	3.363	34.961	260.9
1801	9	3.886	3.739	34.981	258.0
1600	10	4.205	4.073	34.996	255.8
1371	11	4.772	4.655	35.029	242.2
1201	12	5.868	5.758	35.073	211.5
1031	13	7.826	7.717	35.101	151.7
921	14	9.760	9.651	35.268	140.0
811	15	12.275	12.164	35.600	153.8
700	16	15.221	15.111	36.046	169.1
590	17	17.436	17.335	36.410	188.1
480	18	18.181	18.097	36.523	203.8
370	19	18.842	18.776	36.549	194.2
260	20	20.210	20.161	36.624	200.1
170	21	22.303	22.268	36.790	204.1
95	22	23.000	22.980	36.826	212.7
45	23	23.704	23.695	36.875	212.7
2	24	25.135	25.135	36.911	206.6



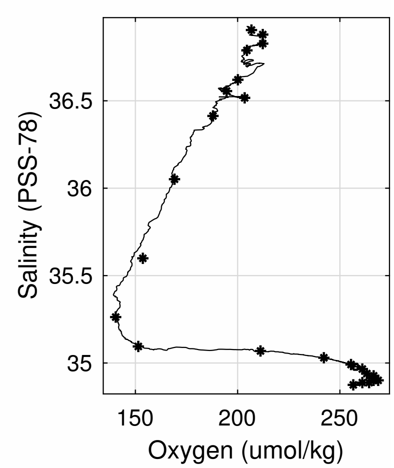
Abaco May 2017 R/V Endeavor
CTD Station 15 (CTD015)
Latitude 26.504 N Longitude 76.081 W
11-May-2017 09:49 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)



Potential Temperature (deg C)
Salinity (PSS-78)



Potential Temperature (deg C)
Oxygen (umol/kg)

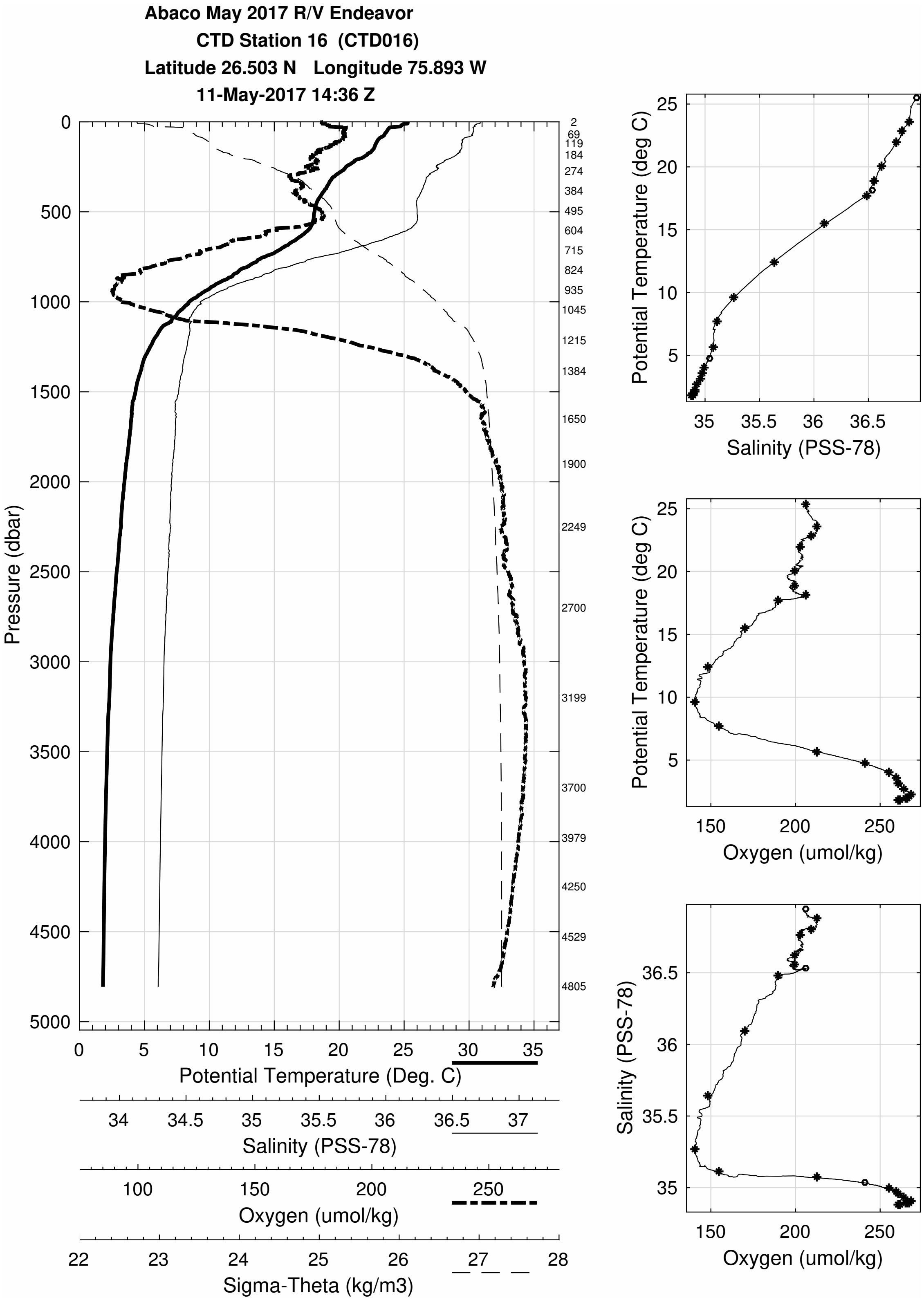


Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 16 (CTD016)
Latitude 26.503N Longitude 75.893W
11-May-2017 14:36Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.290	25.290	36.927	205.5	0.003	24.709
10	25.240	25.238	36.923	205.3	0.032	24.723
20	24.775	24.771	36.889	207.5	0.064	24.840
30	24.081	24.075	36.881	211.9	0.094	25.044
50	23.703	23.692	36.885	212.4	0.151	25.160
75	23.481	23.465	36.878	212.6	0.221	25.222
100	23.004	22.983	36.811	211.6	0.289	25.313
125	22.831	22.805	36.809	209.0	0.356	25.363
150	22.685	22.654	36.806	206.0	0.422	25.404
200	21.814	21.775	36.742	201.9	0.549	25.606
250	20.573	20.526	36.648	200.0	0.665	25.878
300	19.737	19.682	36.596	195.4	0.772	26.064
400	18.744	18.673	36.545	198.0	0.968	26.286
500	18.180	18.092	36.525	204.7	1.150	26.418
600	17.725	17.621	36.465	191.8	1.329	26.488
700	15.750	15.638	36.134	172.3	1.496	26.703
800	13.142	13.028	35.721	153.8	1.641	26.946
900	10.672	10.559	35.382	142.1	1.764	27.153
1000	8.567	8.456	35.149	143.5	1.867	27.321
1100	7.214	7.103	35.075	163.0	1.955	27.464
1200	5.924	5.813	35.071	208.2	2.024	27.633
1300	5.189	5.075	35.048	231.3	2.083	27.705
1400	4.767	4.647	35.029	242.5	2.136	27.739
1500	4.433	4.308	35.009	250.2	2.186	27.760
1750	3.995	3.852	34.986	256.6	2.307	27.791
2000	3.624	3.462	34.965	260.7	2.424	27.813
2500	3.062	2.861	34.941	263.0	2.649	27.851
3000	2.627	2.385	34.917	267.9	2.862	27.874
3500	2.424	2.133	34.904	268.4	3.073	27.884
4000	2.312	1.969	34.895	266.1	3.288	27.890
4500	2.272	1.871	34.886	262.8	3.510	27.891

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4805	1	2.249	1.812	34.880	260.3
4530	2	2.268	1.865	34.886	262.2
4250	3	2.283	1.912	34.889	264.5
3980	4	2.312	1.971	34.894	266.0
3700	5	2.361	2.051	34.899	267.7
3200	6	2.549	2.288	34.912	268.0
2700	7	2.865	2.648	34.931	264.0
2250	8	3.363	3.181	34.957	260.6
1900	9	3.779	3.624	34.974	259.2
1650	10	4.167	4.031	34.998	254.7
1385	11	4.848	4.729	35.041	240.4
1216	12	5.809	5.698	35.070	212.4
1045	13	7.851	7.740	35.112	155.0
936	14	9.779	9.667	35.271	140.4
825	15	12.571	12.457	35.637	148.6
716	16	15.559	15.445	36.099	170.2
605	17	17.821	17.716	36.479	189.8
495	18	18.188	18.101	36.538	205.8
385	19	18.928	18.859	36.555	199.6
275	20	20.070	20.019	36.618	200.0
185	21	22.053	22.016	36.759	202.8
120	22	22.860	22.835	36.809	209.7
70	23	23.555	23.541	36.876	212.8
2	24	25.432	25.432	36.940	206.2

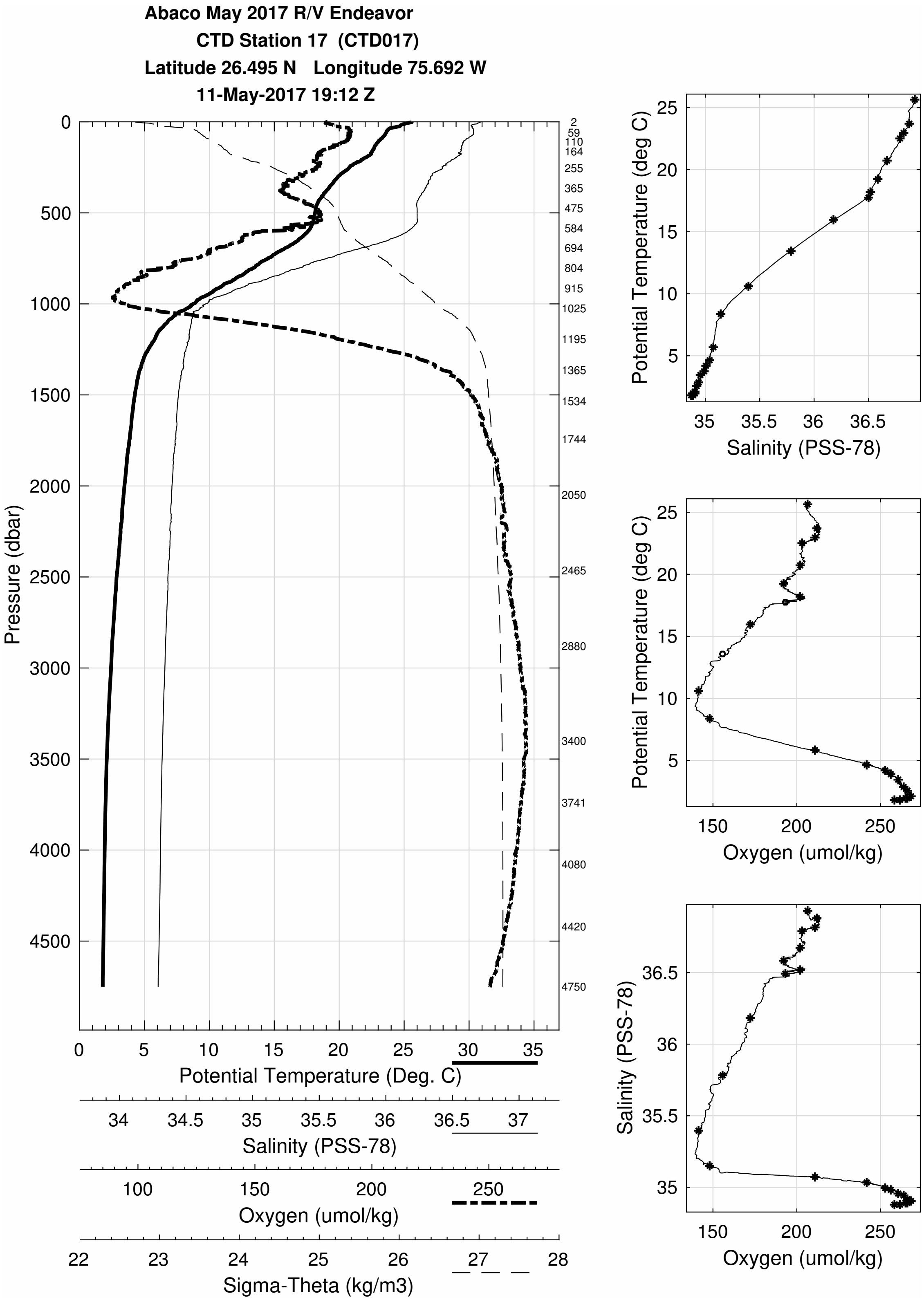


Abaco May 2017 R/V Endeavor
CTD Station 16 (CTD016)
Latitude 26.503 N Longitude 75.893 W
11-May-2017 14:36 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 17 (CTD017)
Latitude 26.495N Longitude 75.692W
11-May-2017 19:12Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.588	25.588	36.926	206.1	0.003	24.616
10	25.080	25.078	36.907	207.1	0.032	24.759
20	24.725	24.721	36.867	208.3	0.064	24.838
30	24.308	24.301	36.876	211.5	0.094	24.972
50	23.682	23.672	36.883	214.2	0.152	25.165
75	23.494	23.478	36.873	212.6	0.221	25.215
100	23.151	23.130	36.831	211.9	0.290	25.285
125	22.860	22.834	36.813	209.8	0.357	25.357
150	22.682	22.652	36.804	206.7	0.424	25.403
200	21.949	21.909	36.765	203.3	0.552	25.585
250	20.833	20.785	36.684	202.7	0.670	25.836
300	19.974	19.918	36.611	198.2	0.780	26.013
400	18.866	18.794	36.552	194.5	0.980	26.260
500	18.229	18.141	36.524	203.8	1.164	26.405
600	17.710	17.607	36.465	185.3	1.342	26.492
700	15.841	15.729	36.147	170.3	1.509	26.693
800	13.607	13.491	35.790	157.2	1.656	26.905
900	11.115	10.999	35.437	143.6	1.784	27.116
1000	8.861	8.748	35.179	143.9	1.891	27.299
1100	6.884	6.775	35.090	180.3	1.976	27.521
1200	5.861	5.751	35.072	211.6	2.042	27.642
1300	5.059	4.947	35.041	234.9	2.100	27.714
1400	4.638	4.520	35.022	246.1	2.151	27.748
1500	4.394	4.269	35.007	251.1	2.201	27.763
1750	3.981	3.838	34.985	256.7	2.321	27.791
2000	3.622	3.460	34.966	260.7	2.438	27.814
2500	3.062	2.861	34.940	263.7	2.663	27.850
3000	2.671	2.428	34.920	266.6	2.878	27.873
3500	2.393	2.103	34.903	267.8	3.088	27.886
4000	2.284	1.942	34.892	265.4	3.301	27.890
4500	2.243	1.843	34.884	261.3	3.522	27.891

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
4751	1	2.221	1.792	34.877	258.1
4420	2	2.249	1.859	34.885	261.8
4080	3	2.273	1.922	34.890	264.6
3741	4	2.322	2.008	34.896	266.4
3401	5	2.434	2.154	34.905	267.8
2881	6	2.740	2.507	34.924	265.5
2465	7	3.100	2.902	34.941	263.2
2050	8	3.551	3.386	34.962	260.5
1744	9	3.952	3.810	34.983	256.4
1535	10	4.275	4.148	34.999	252.8
1365	11	4.786	4.670	35.036	241.4
1195	12	5.857	5.747	35.071	211.0
1025	13	8.406	8.294	35.145	148.2
915	14	10.774	10.658	35.389	141.3
805	15	13.607	13.490	35.786	155.3
695	16	16.072	15.959	36.183	172.6
585	17	17.900	17.798	36.495	192.7
476	18	18.333	18.249	36.522	202.2
366	19	19.257	19.190	36.579	192.4
256	20	20.741	20.692	36.673	202.1
165	21	22.546	22.512	36.787	203.7
110	22	23.007	22.985	36.816	210.5
60	23	23.651	23.638	36.882	212.4
2	24	25.633	25.632	36.930	205.9

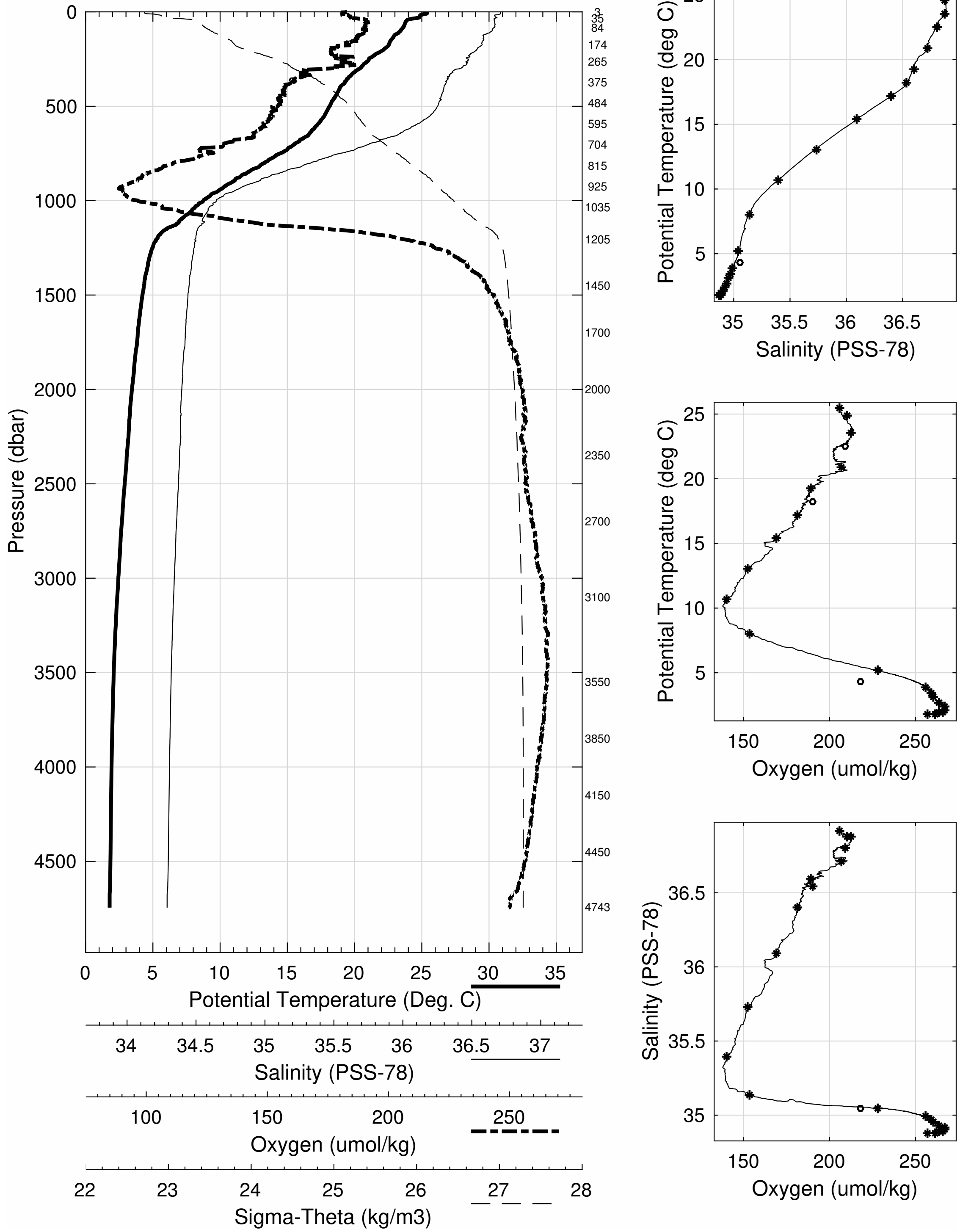

Abaco May 2017 R/V Endeavor
CTD Station 17 (CTD017)
Latitude 26.495 N Longitude 75.692 W
11-May-2017 19:12 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Oxygen (umol/kg)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 18 (CTD018)
Latitude 26.489N Longitude 75.495W
12-May-2017 00:25Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.409	25.409	36.925	206.7	0.003	24.671
10	25.334	25.332	36.924	206.2	0.033	24.694
20	24.863	24.859	36.889	207.7	0.064	24.813
30	24.810	24.803	36.903	208.1	0.095	24.840
50	23.838	23.827	36.887	213.3	0.154	25.122
75	23.690	23.675	36.889	213.3	0.225	25.169
100	23.446	23.426	36.873	212.3	0.295	25.230
125	22.979	22.954	36.816	210.4	0.363	25.325
150	22.742	22.712	36.820	209.8	0.430	25.398
200	22.208	22.168	36.778	202.3	0.560	25.522
250	21.120	21.071	36.726	205.1	0.681	25.789
300	20.447	20.390	36.675	202.1	0.793	25.936
400	18.989	18.917	36.576	188.0	0.997	26.248
500	18.225	18.137	36.538	186.0	1.183	26.416
600	17.316	17.214	36.402	183.1	1.358	26.539
700	15.654	15.543	36.117	169.8	1.522	26.712
800	13.420	13.304	35.760	154.4	1.668	26.920
900	11.028	10.913	35.426	143.0	1.794	27.123
1000	8.875	8.762	35.179	143.8	1.901	27.297
1100	7.217	7.105	35.095	171.7	1.989	27.479
1200	5.447	5.340	35.052	222.8	2.055	27.676
1300	4.848	4.737	35.032	240.5	2.108	27.731
1400	4.555	4.438	35.016	247.8	2.159	27.752
1500	4.351	4.227	35.005	252.0	2.208	27.766
1750	3.964	3.821	34.987	257.1	2.328	27.794
2000	3.605	3.443	34.966	260.5	2.444	27.816
2500	3.104	2.902	34.946	261.6	2.668	27.851
3000	2.673	2.430	34.920	266.8	2.883	27.872
3500	2.375	2.085	34.902	268.0	3.093	27.886
4000	2.266	1.924	34.891	264.8	3.305	27.890
4500	2.241	1.842	34.884	261.2	3.525	27.891

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4743	1	2.210	1.783	34.876	257.0
4451	2	2.246	1.852	34.883	261.6
4151	3	2.254	1.895	34.888	263.6
3851	4	2.288	1.963	34.893	265.8
3550	5	2.363	2.069	34.901	267.5
3101	6	2.610	2.357	34.916	266.9
2700	7	2.914	2.696	34.934	263.2
2351	8	3.257	3.067	34.953	260.4
2000	9	3.615	3.453	34.968	259.7
1700	10	4.026	3.887	34.989	256.0
1450	11	4.458	4.337	35.051	217.7
1206	12	5.251	5.146	35.045	228.2
1036	13	8.152	8.040	35.135	153.0
925	14	10.815	10.698	35.392	139.7
815	15	13.196	13.079	35.731	152.5
705	16	15.486	15.374	36.088	169.4
595	17	17.313	17.211	36.400	181.4
485	18	18.325	18.239	36.541	189.9
375	19	19.396	19.327	36.599	188.7
265	20	20.866	20.814	36.714	207.2
175	21	22.530	22.495	36.804	209.5
85	22	23.547	23.529	36.878	212.1
35	23	24.629	24.621	36.881	209.7
3	24	25.282	25.281	36.915	206.2

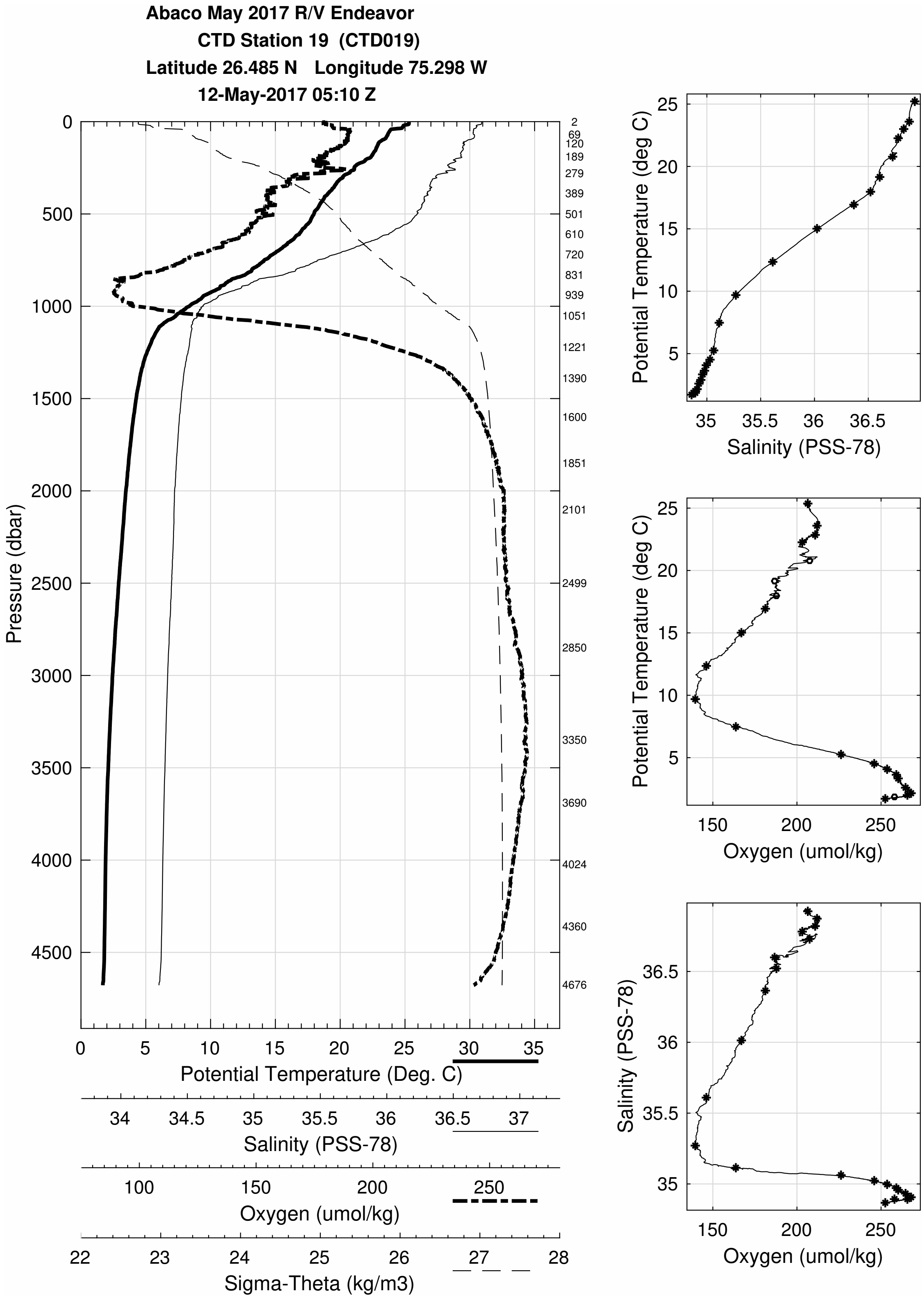
Abaco May 2017 R/V Endeavor
CTD Station 18 (CTD018)
Latitude 26.489 N Longitude 75.495 W
12-May-2017 00:25 Z



Abaco May 2017 R/V Endeavor
CTD Station 19 (CTD019)
Latitude 26.485N Longitude 75.298W
12-May-2017 05:10Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.299	25.299	36.933	205.6	0.003	24.711
10	25.311	25.309	36.933	205.8	0.032	24.708
20	24.932	24.927	36.901	207.6	0.064	24.801
30	24.822	24.816	36.900	207.9	0.096	24.834
50	23.834	23.824	36.880	212.8	0.155	25.118
75	23.646	23.630	36.887	212.9	0.226	25.181
100	23.262	23.241	36.845	212.7	0.295	25.263
125	22.942	22.917	36.823	210.7	0.363	25.342
150	22.781	22.750	36.816	207.0	0.430	25.384
200	22.163	22.122	36.770	202.9	0.560	25.529
250	21.130	21.082	36.734	205.5	0.680	25.792
300	20.257	20.200	36.640	197.4	0.792	25.960
400	18.994	18.921	36.583	186.9	0.995	26.252
500	18.059	17.972	36.521	188.9	1.179	26.445
600	17.039	16.938	36.355	181.8	1.351	26.570
700	15.321	15.211	36.063	169.1	1.511	26.745
800	13.316	13.201	35.745	155.3	1.655	26.929
900	10.837	10.723	35.394	140.8	1.780	27.132
1000	8.463	8.353	35.147	146.1	1.883	27.336
1100	6.354	6.250	35.076	192.7	1.963	27.580
1200	5.510	5.402	35.061	221.9	2.024	27.676
1300	4.948	4.836	35.037	238.0	2.079	27.724
1400	4.634	4.517	35.020	246.1	2.130	27.747
1500	4.385	4.261	35.008	250.8	2.180	27.764
1750	3.960	3.817	34.984	257.1	2.300	27.793
2000	3.631	3.468	34.966	261.2	2.417	27.813
2500	3.111	2.909	34.946	262.3	2.642	27.850
3000	2.677	2.434	34.921	266.6	2.859	27.872
3500	2.396	2.106	34.903	267.7	3.070	27.886
4000	2.245	1.903	34.890	263.7	3.281	27.891
4500	2.199	1.801	34.879	258.5	3.500	27.891

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4677	1	2.106	1.690	34.865	252.3
4360	2	2.213	1.831	34.883	−999.0
4024	3	2.240	1.897	34.890	257.7
3690	4	2.317	2.008	34.897	265.9
3351	5	2.454	2.179	34.907	268.1
2851	6	2.786	2.556	34.927	264.6
2500	7	3.121	2.919	34.945	282.8
2101	8	3.488	3.319	34.960	260.4
1851	9	3.779	3.629	34.975	258.8
1601	10	4.159	4.027	34.995	253.8
1391	11	4.624	4.507	35.021	245.8
1222	12	5.336	5.228	35.057	226.5
1051	13	7.537	7.429	35.109	164.1
940	14	9.798	9.686	35.268	139.8
831	15	12.403	12.289	35.609	145.9
721	16	15.062	14.950	36.016	166.8
610	17	17.079	16.976	36.362	180.7
501	18	18.127	18.039	36.524	187.3
390	19	19.272	19.201	36.600	187.2
280	20	20.873	20.819	36.728	207.5
190	21	22.244	22.206	36.785	203.1
120	22	22.960	22.935	36.827	211.1
70	23	23.600	23.585	36.877	212.3
2	24	25.196	25.196	36.927	206.4

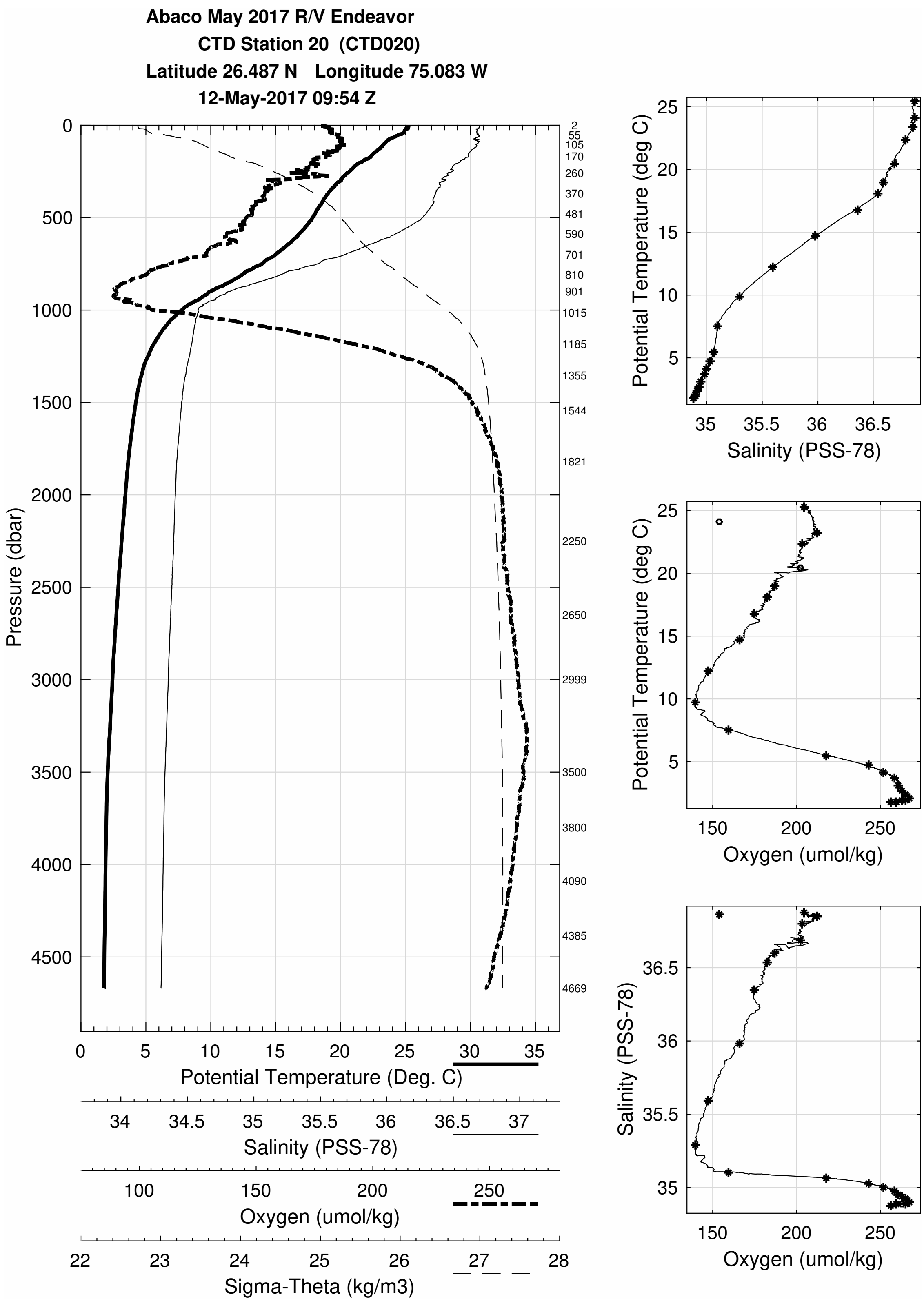


Abaco May 2017 R/V Endeavor
CTD Station 19 (CTD019)
Latitude 26.485 N Longitude 75.298 W
12-May-2017 05:10 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 20 (CTD020)
Latitude 26.487N Longitude 75.083W
12-May-2017 09:54Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.231	25.230	36.869	205.7	0.003	24.683
10	25.225	25.223	36.867	205.3	0.033	24.684
20	25.000	24.995	36.845	206.9	0.065	24.738
30	24.927	24.921	36.852	207.1	0.097	24.766
50	24.515	24.504	36.860	208.9	0.160	24.898
75	23.775	23.759	36.845	210.7	0.234	25.110
100	23.393	23.372	36.853	210.9	0.305	25.231
125	23.072	23.046	36.836	209.5	0.373	25.313
150	22.622	22.591	36.804	205.3	0.439	25.421
200	21.602	21.563	36.742	202.2	0.565	25.665
250	20.735	20.687	36.698	198.5	0.680	25.873
300	20.085	20.029	36.654	188.8	0.788	26.016
400	18.777	18.705	36.577	187.0	0.985	26.302
500	17.915	17.828	36.510	181.0	1.164	26.472
600	16.750	16.650	36.314	175.0	1.333	26.607
700	15.089	14.980	36.024	168.5	1.491	26.767
800	12.703	12.592	35.650	150.4	1.631	26.978
900	10.030	9.921	35.298	140.9	1.750	27.199
1000	7.879	7.774	35.107	152.1	1.848	27.392
1100	6.475	6.369	35.083	190.6	1.924	27.570
1200	5.581	5.473	35.064	218.8	1.987	27.669
1300	4.975	4.863	35.039	237.6	2.042	27.722
1400	4.609	4.492	35.019	246.5	2.093	27.748
1500	4.339	4.215	35.005	251.8	2.143	27.767
1750	3.892	3.750	34.980	257.9	2.262	27.796
2000	3.584	3.423	34.965	260.7	2.377	27.817
2500	3.078	2.876	34.944	262.5	2.600	27.851
3000	2.670	2.427	34.921	265.7	2.814	27.873
3500	2.345	2.056	34.900	267.2	3.024	27.887
4000	2.236	1.895	34.889	264.1	3.233	27.891
4500	2.198	1.800	34.879	258.2	3.452	27.891

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
4670	1	2.187	1.769	34.875	256.1
4386	2	2.207	1.823	34.882	258.9
4090	3	2.233	1.882	34.893	262.5
3800	4	2.269	1.949	34.894	264.4
3500	5	2.359	2.070	34.901	266.6
3000	6	2.668	2.425	34.920	265.0
2651	7	2.937	2.723	34.937	262.3
2250	8	3.304	3.123	34.956	260.1
1821	9	3.826	3.679	34.976	257.8
1545	10	4.280	4.153	35.002	251.9
1355	11	4.770	4.655	35.028	242.4
1185	12	5.634	5.527	35.066	217.6
1016	13	7.622	7.517	35.104	159.4
901	14	9.946	9.838	35.289	139.4
811	15	12.301	12.190	35.593	147.4
701	16	14.812	14.705	35.983	166.1
590	17	16.930	16.831	36.349	174.6
481	18	18.136	18.051	36.537	182.5
371	19	19.106	19.038	36.594	186.8
260	20	20.519	20.470	36.685	202.7
170	21	22.351	22.317	36.794	203.5
106	22	23.360	23.338	36.855	212.3
55	23	24.120	24.108	36.867	153.9
3	24	25.452	25.452	36.873	204.3

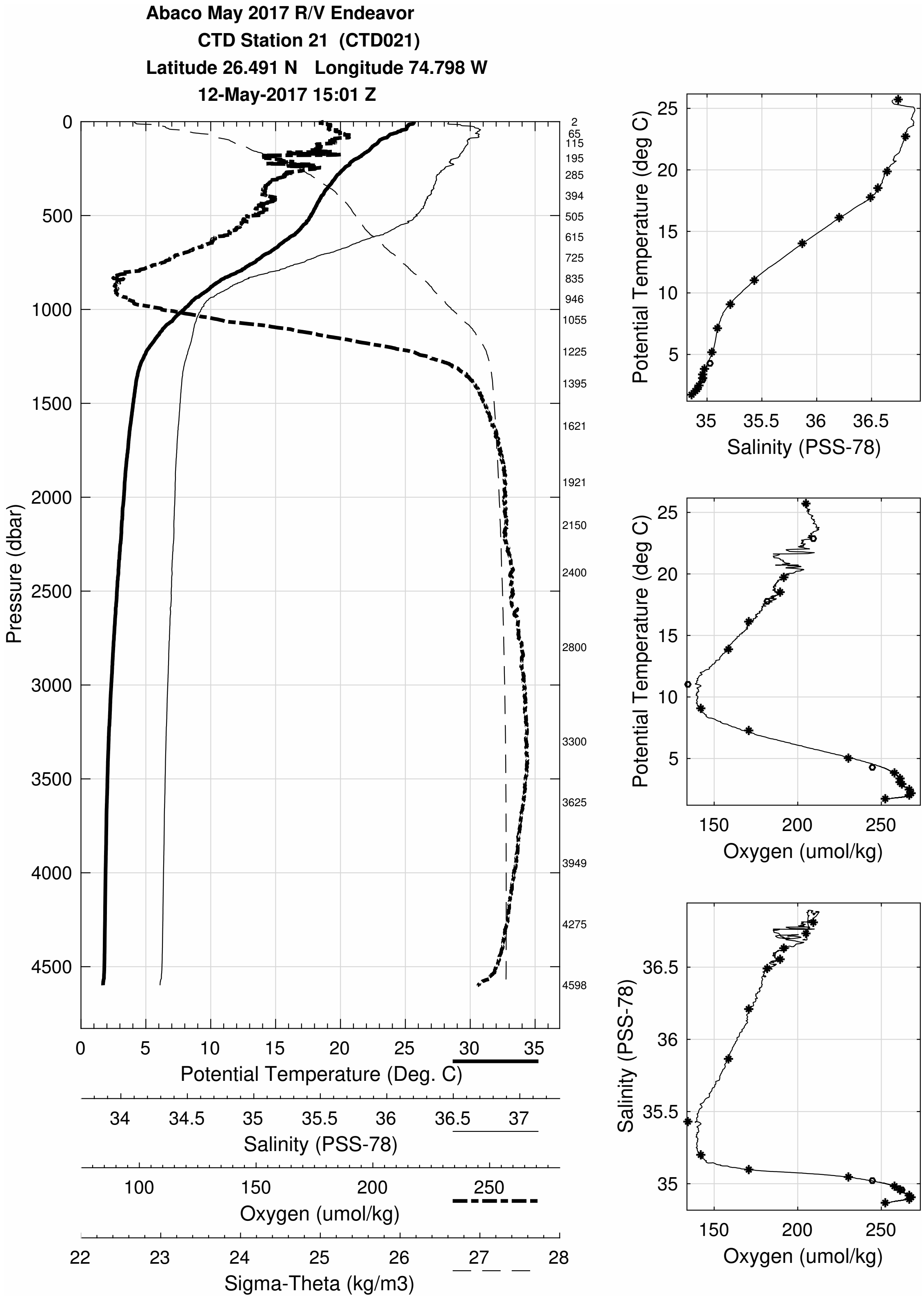


Abaco May 2017 R/V Endeavor
CTD Station 20 (CTD020)
Latitude 26.487 N Longitude 75.083 W
12-May-2017 09:54 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
2
55
105
170
260
370
481
590
701
810
901
1015
1185
1355
1544
1821
2250
2650
2999
3500
3800
4090
4385
4669
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 21 (CTD021)
Latitude 26.491N Longitude 74.798W
12-May-2017 15:01Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.670	25.670	36.692	204.1	0.004	24.414
10	25.612	25.610	36.688	204.3	0.035	24.430
20	25.244	25.240	36.773	206.4	0.069	24.608
30	25.135	25.128	36.856	206.4	0.102	24.706
50	24.670	24.659	36.886	208.2	0.165	24.871
75	23.742	23.726	36.880	212.5	0.239	25.147
100	23.029	23.009	36.810	206.7	0.308	25.304
125	22.635	22.610	36.806	202.6	0.375	25.417
150	22.280	22.250	36.788	203.5	0.439	25.506
200	21.174	21.135	36.713	189.9	0.560	25.762
250	20.332	20.285	36.666	202.0	0.670	25.957
300	19.649	19.594	36.615	190.6	0.774	26.101
400	18.566	18.495	36.558	188.5	0.966	26.341
500	17.826	17.739	36.494	182.9	1.144	26.481
600	16.597	16.498	36.281	174.6	1.312	26.617
700	14.548	14.442	35.939	160.9	1.465	26.818
800	12.179	12.070	35.566	143.7	1.599	27.015
900	9.829	9.721	35.275	139.5	1.713	27.214
1000	8.050	7.943	35.126	153.8	1.809	27.382
1100	6.482	6.376	35.081	191.6	1.888	27.568
1200	5.387	5.281	35.053	224.9	1.950	27.684
1300	4.662	4.553	35.019	244.8	2.002	27.742
1400	4.341	4.227	35.003	251.8	2.051	27.765
1500	4.147	4.025	34.994	255.1	2.098	27.779
1750	3.747	3.606	34.973	259.5	2.213	27.805
2000	3.461	3.301	34.961	260.9	2.324	27.826
2500	2.969	2.770	34.938	263.7	2.541	27.857
3000	2.576	2.334	34.916	267.2	2.751	27.877
3500	2.329	2.041	34.899	267.6	2.957	27.888
4000	2.237	1.896	34.889	263.9	3.166	27.891
4500	2.199	1.801	34.879	258.6	3.385	27.890

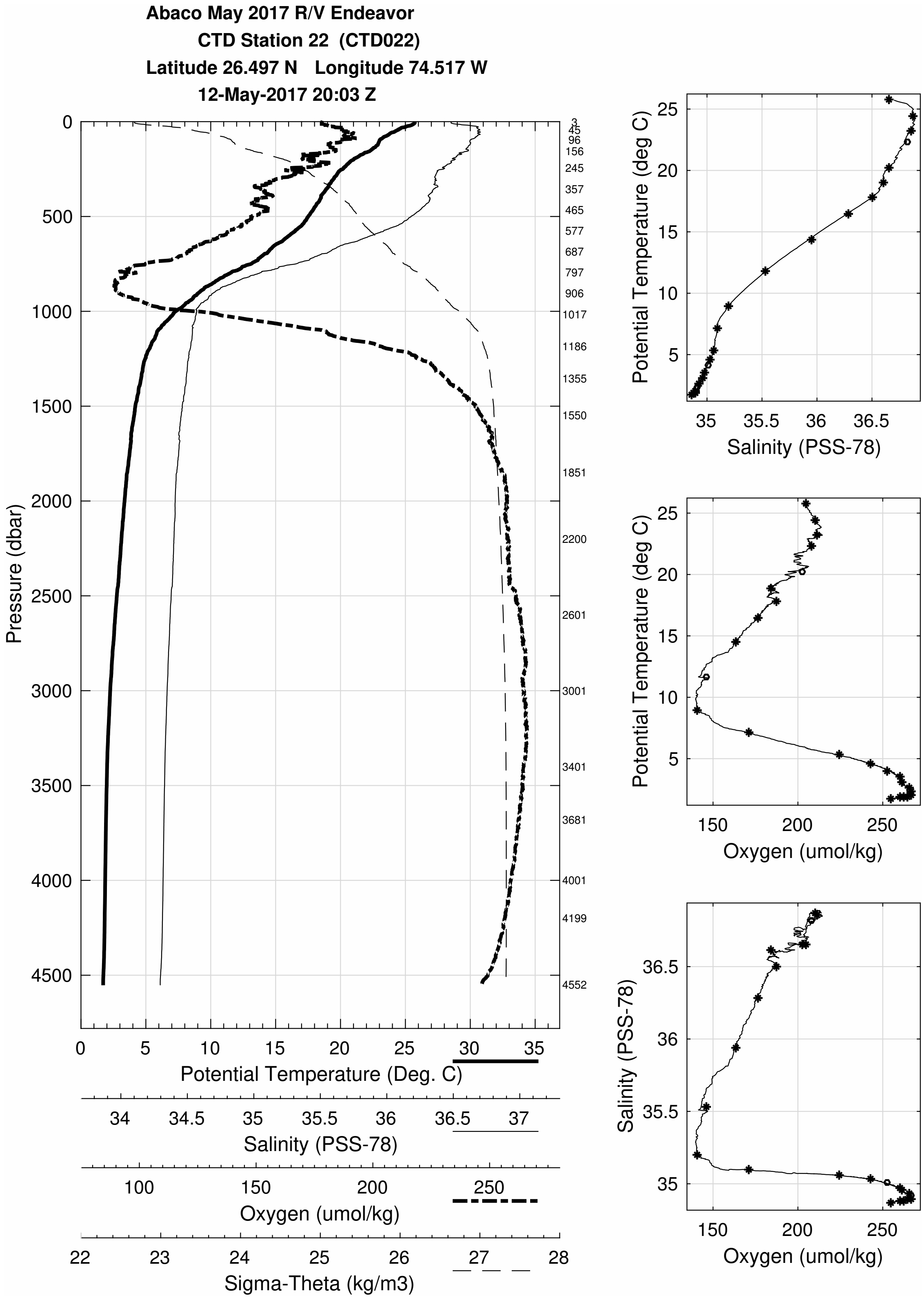
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
4598	1	2.112	1.705	34.866	252.6
4275	2	2.219	8.194	−999.000	−999.0
3950	3	2.245	7.867	−999.000	−999.0
3625	4	2.295	1.994	34.896	267.2
3301	5	2.391	2.123	34.904	268.0
2801	6	2.706	2.482	34.922	266.9
2401	7	3.055	2.863	34.953	262.7
2150	8	3.302	3.131	34.954	261.0
1921	9	3.537	3.383	34.963	261.2
1622	10	3.930	3.799	34.981	257.9
1396	11	4.405	4.290	35.019	244.9
1226	12	5.213	5.106	35.046	230.5
1056	13	7.300	7.193	35.099	170.4
946	14	9.182	9.074	35.205	141.5
836	15	11.159	11.052	35.425	134.2
726	16	14.079	13.971	35.863	158.3
615	17	16.209	16.109	36.213	170.8
506	18	17.845	17.757	36.496	181.9
395	19	18.606	18.535	36.558	189.1
286	20	19.881	19.828	36.634	191.7
195	21	21.355	21.514	−999.000	−999.0
116	22	22.793	22.769	36.804	209.6
65	23	24.099	24.144	−999.000	−999.0
2	24	25.671	25.671	36.736	205.1


Abaco May 2017 R/V Endeavor
CTD Station 21 (CTD021)
Latitude 26.491 N Longitude 74.798 W
12-May-2017 15:01 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 May 2017 R/V Endeavor
CTD Station 22 (CTD022)
Latitude 26.497N Longitude 74.517W
12-May-2017 20:03Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.725	25.724	36.705	203.9	0.004	24.406
10	25.678	25.676	36.715	204.1	0.035	24.429
20	25.406	25.402	36.821	205.6	0.069	24.595
30	24.872	24.866	36.867	207.8	0.102	24.794
50	24.229	24.219	36.870	210.5	0.163	24.993
75	23.566	23.550	36.870	211.2	0.234	25.191
100	23.023	23.002	36.823	210.0	0.303	25.317
125	22.832	22.807	36.817	206.1	0.369	25.369
150	22.393	22.363	36.813	208.4	0.435	25.493
200	21.047	21.008	36.727	199.5	0.554	25.807
250	20.216	20.169	36.656	199.1	0.663	25.980
300	19.558	19.503	36.608	190.8	0.766	26.120
400	18.580	18.508	36.570	186.1	0.956	26.348
500	17.598	17.512	36.451	182.2	1.132	26.505
600	16.154	16.057	36.203	173.4	1.297	26.660
700	14.219	14.114	35.883	161.6	1.446	26.846
800	11.571	11.466	35.492	145.5	1.578	27.072
900	9.212	9.109	35.209	141.4	1.687	27.264
1000	7.395	7.293	35.097	164.8	1.777	27.454
1100	6.060	5.957	35.072	204.0	1.848	27.615
1200	5.351	5.245	35.057	225.1	1.907	27.691
1300	4.876	4.765	35.039	238.7	1.960	27.733
1400	4.581	4.463	35.024	245.3	2.011	27.755
1500	4.310	4.186	35.007	251.1	2.060	27.772
1750	3.887	3.745	34.984	257.1	2.178	27.800
2000	3.522	3.362	34.963	261.0	2.292	27.821
2500	2.963	2.764	34.937	263.7	2.510	27.857
3000	2.490	2.251	34.911	266.1	2.717	27.880
3500	2.272	1.985	34.895	265.8	2.919	27.889
4000	2.206	1.866	34.886	262.0	3.126	27.891
4500	2.122	1.727	34.870	255.0	3.343	27.889

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4552	1	2.113	1.711	34.868	254.5
4200	2	2.190	1.828	34.884	260.3
4001	3	2.207	1.867	34.886	262.5
3682	4	2.235	1.929	34.892	264.6
3401	5	2.291	2.015	34.898	266.3
3002	6	2.506	2.266	34.917	266.8
2601	7	2.865	2.658	34.931	265.1
2200	8	3.284	3.108	34.953	261.4
1851	9	3.714	3.565	34.973	259.6
1550	10	4.204	4.076	35.004	252.9
1355	11	4.717	4.602	35.033	242.4
1186	12	5.391	5.286	35.060	223.9
1017	13	7.214	7.112	35.094	170.9
907	14	9.125	9.021	35.200	140.9
797	15	11.863	11.757	35.529	146.1
687	16	14.537	14.433	35.942	163.7
577	17	16.572	16.476	36.280	176.7
466	18	17.871	17.790	36.497	187.3
357	19	19.022	18.957	36.608	184.4
246	20	20.256	20.210	36.654	202.6
157	21	22.387	22.355	36.814	208.5
96	22	23.275	23.255	36.852	211.4
45	23	24.377	24.367	36.868	210.2
3	24	25.752	25.751	36.656	204.7

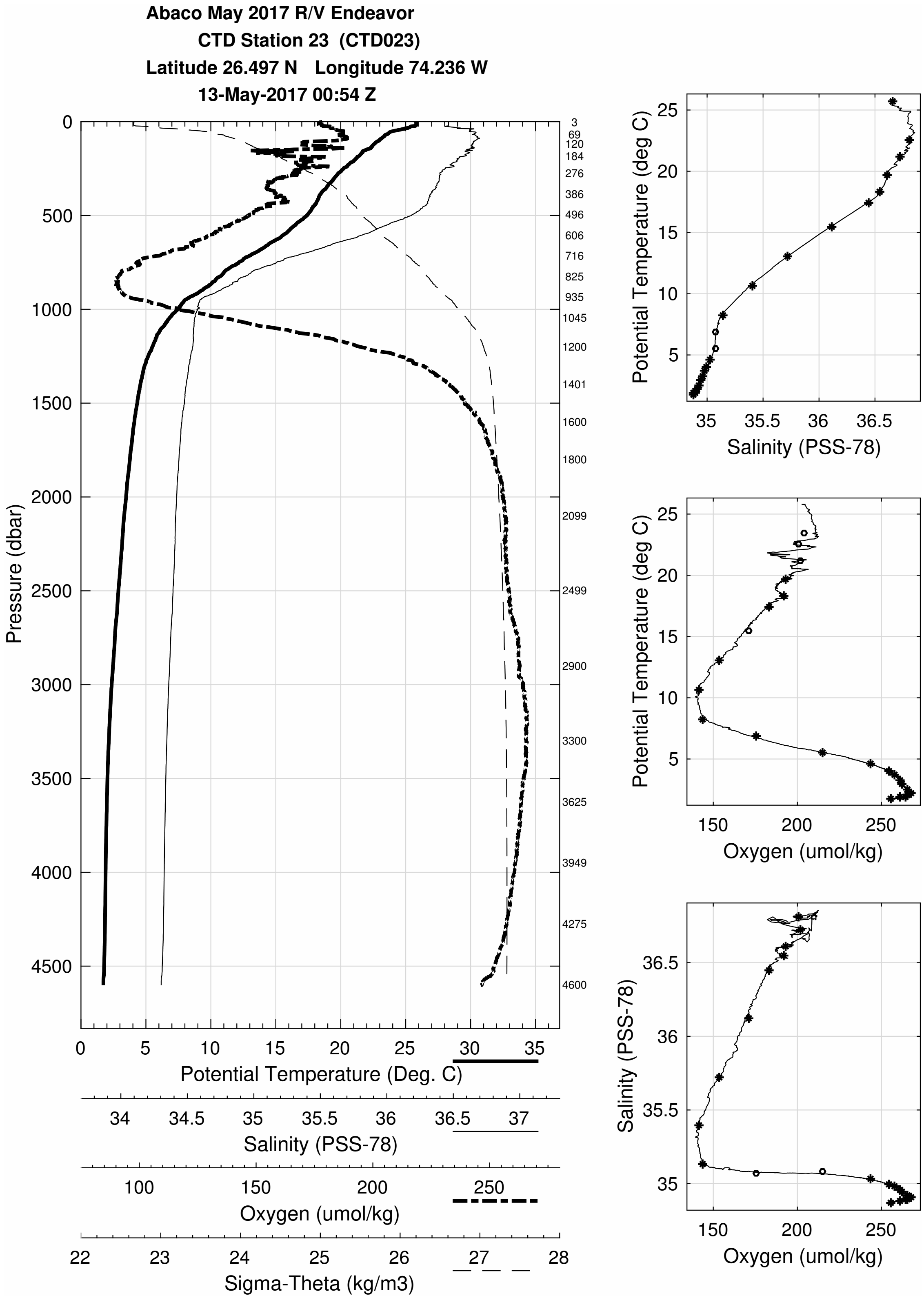


Abaco May 2017 R/V Endeavor
CTD Station 22 (CTD022)
Latitude 26.497 N Longitude 74.517 W
12-May-2017 20:03 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 23 (CTD023)
Latitude 26.497N Longitude 74.236W
13-May-2017 00:54Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$	DynHt $m^2 \cdot s^{-2}$	SigT $kg \cdot m^{-3}$
1	25.800	25.800	36.663	203.9	0.004	24.351
10	25.809	25.807	36.662	203.7	0.036	24.348
20	25.809	25.805	36.661	204.3	0.071	24.349
30	25.324	25.317	36.695	207.1	0.106	24.526
50	24.052	24.041	36.795	211.0	0.170	24.989
75	23.407	23.391	36.831	210.3	0.241	25.209
100	22.983	22.962	36.832	209.1	0.309	25.335
125	22.511	22.486	36.805	199.5	0.375	25.452
150	21.982	21.952	36.784	193.5	0.438	25.588
200	21.171	21.132	36.718	198.8	0.556	25.766
250	20.270	20.223	36.643	197.5	0.666	25.957
300	19.567	19.512	36.605	192.4	0.770	26.115
400	18.401	18.330	36.545	190.1	0.959	26.373
500	17.491	17.406	36.430	181.5	1.134	26.514
600	15.739	15.644	36.133	170.6	1.295	26.702
700	13.480	13.379	35.770	155.9	1.439	26.912
800	11.142	11.039	35.436	142.1	1.563	27.108
900	9.372	9.267	35.232	141.8	1.672	27.257
1000	7.588	7.484	35.099	159.1	1.762	27.428
1100	6.316	6.212	35.073	189.7	1.836	27.583
1200	5.601	5.493	35.066	216.0	1.898	27.669
1300	5.015	4.902	35.042	235.4	1.954	27.720
1400	4.696	4.577	35.027	243.7	2.005	27.745
1500	4.466	4.340	35.015	248.6	2.056	27.762
1750	3.982	3.839	34.985	257.0	2.177	27.791
2000	3.637	3.475	34.967	260.4	2.294	27.813
2500	3.082	2.881	34.944	262.4	2.518	27.851
3000	2.607	2.365	34.917	266.7	2.732	27.876
3500	2.327	2.039	34.899	266.9	2.938	27.888
4000	2.237	1.896	34.889	264.1	3.147	27.891
4500	2.179	1.782	34.877	257.8	3.366	27.890

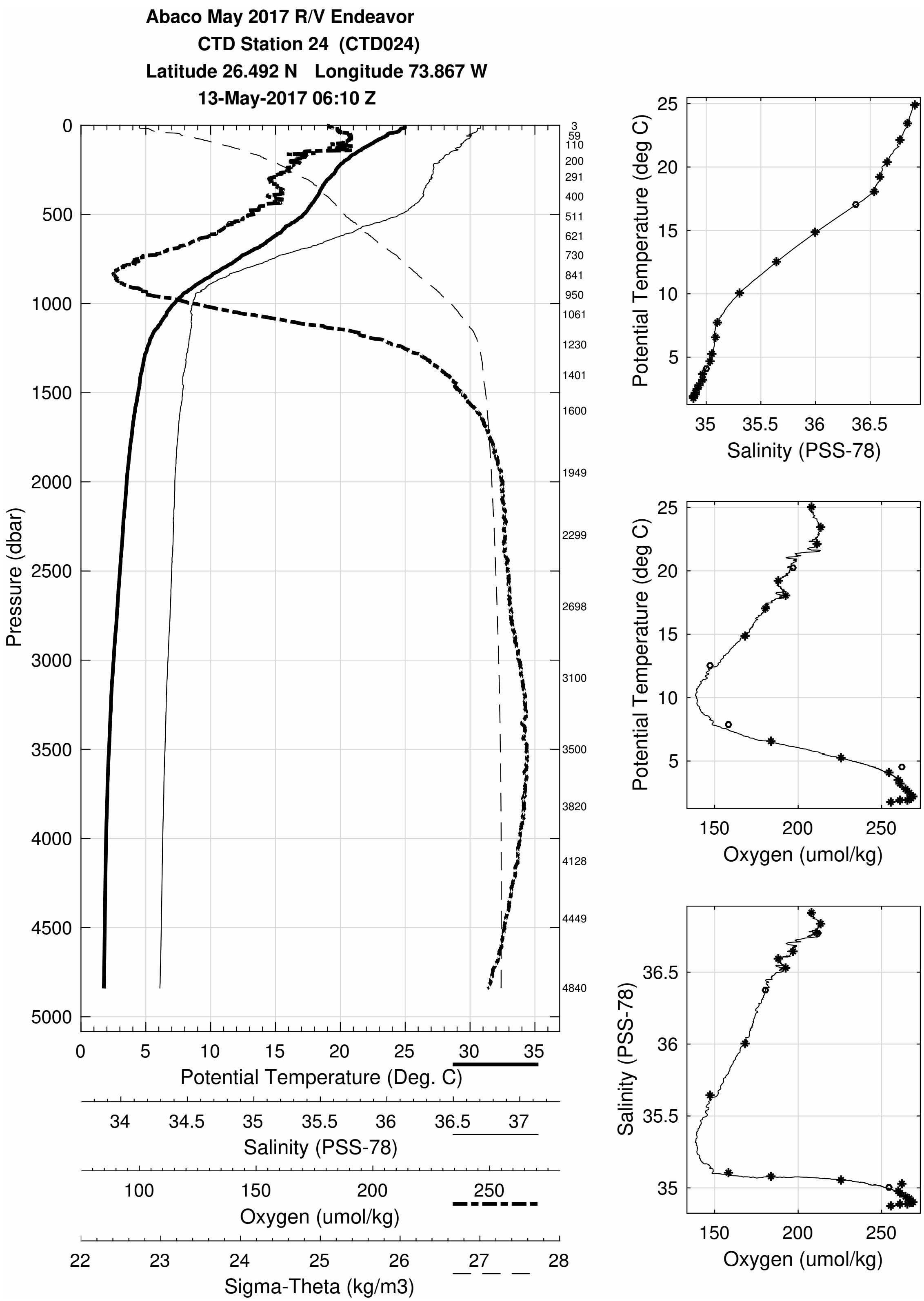
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$
4601	1	2.136	1.728	34.870	255.4
4275	2	2.220	1.848	34.886	261.2
3950	3	2.240	1.905	34.889	264.0
3625	4	2.295	1.994	34.895	265.9
3300	5	2.415	2.146	34.905	267.5
2901	6	2.698	2.464	34.922	265.1
2500	7	3.096	2.894	34.947	261.9
2100	8	3.478	3.309	34.959	261.3
1800	9	3.889	3.742	34.979	257.7
1600	10	4.192	4.060	34.996	254.1
1401	11	4.704	4.585	35.028	243.5
1201	12	5.660	5.551	35.080	214.8
1046	13	6.910	6.807	35.072	175.2
936	14	8.409	8.307	35.136	144.1
826	15	10.781	10.677	35.401	141.4
716	16	13.120	13.019	35.720	153.3
607	17	15.618	15.521	36.116	171.6
496	18	17.554	17.469	36.446	183.7
387	19	18.399	18.331	36.549	191.6
277	20	19.722	19.671	36.606	193.4
185	21	21.201	21.165	36.719	202.1
120	22	22.573	22.549	36.809	200.9
70	23	23.458	23.508	−999.000	−999.0
3	24	25.759	25.759	36.653	−999.0


Abaco May 2017 R/V Endeavor
CTD Station 23 (CTD023)
Latitude 26.497 N Longitude 74.236 W
13-May-2017 00:54 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)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)

Abaco May 2017 R/V Endeavor
CTD Station 24 (CTD024)
Latitude 26.492N Longitude 73.867W
13-May-2017 06:10Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	24.970	24.970	36.909	205.8	0.003	24.794
10	24.978	24.976	36.908	206.6	0.031	24.792
20	24.656	24.652	36.886	208.8	0.063	24.874
30	24.569	24.563	36.887	209.4	0.093	24.901
50	23.642	23.631	36.835	212.6	0.152	25.141
75	23.152	23.136	36.835	213.4	0.222	25.286
100	22.531	22.510	36.794	210.7	0.288	25.436
125	21.884	21.859	36.763	209.8	0.350	25.598
150	21.339	21.309	36.718	198.9	0.410	25.717
200	20.340	20.302	36.644	194.3	0.521	25.936
250	19.712	19.666	36.608	192.5	0.626	26.077
300	19.142	19.087	36.595	187.6	0.724	26.218
400	18.282	18.211	36.543	187.1	0.908	26.401
500	17.237	17.152	36.393	182.6	1.079	26.548
600	15.523	15.428	36.098	171.6	1.237	26.723
700	13.364	13.264	35.755	155.3	1.379	26.924
800	11.078	10.976	35.424	141.0	1.503	27.110
900	8.903	8.802	35.180	143.0	1.609	27.291
1000	7.309	7.207	35.083	163.7	1.696	27.455
1100	6.304	6.200	35.072	193.7	1.768	27.583
1200	5.445	5.339	35.060	221.8	1.829	27.682
1300	5.014	4.901	35.041	235.4	1.884	27.720
1400	4.726	4.607	35.022	242.9	1.936	27.737
1500	4.535	4.408	35.018	247.3	1.987	27.757
1750	4.042	3.898	34.988	256.3	2.110	27.787
2000	3.683	3.521	34.969	260.2	2.228	27.810
2500	3.208	3.005	34.949	262.1	2.458	27.844
3000	2.763	2.517	34.925	265.4	2.679	27.869
3500	2.460	2.168	34.907	267.8	2.893	27.883
4000	2.279	1.936	34.892	265.6	3.107	27.890
4500	2.232	1.833	34.883	260.8	3.328	27.891

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
4840	1	2.200	1.761	34.875	256.0
4449	2	2.235	1.842	34.885	261.2
4129	3	2.267	1.910	34.890	265.1
3820	4	2.327	2.004	34.897	267.5
3501	5	2.452	2.161	34.907	268.3
3100	6	2.682	2.428	34.922	266.5
2699	7	3.022	2.802	34.942	264.0
2300	8	3.401	3.213	34.959	261.3
1950	9	3.748	3.589	34.974	259.4
1601	10	4.270	4.137	35.004	253.9
1401	11	4.745	4.626	35.032	261.9
1231	12	5.340	5.231	35.058	226.0
1061	13	6.703	6.600	35.081	183.5
951	14	7.896	7.796	35.101	158.3
841	15	10.145	10.042	35.308	−999.0
730	16	12.626	12.525	35.650	146.9
621	17	14.921	14.825	36.001	167.8
512	18	17.061	16.975	36.371	180.7
401	19	18.143	18.073	36.535	192.2
291	20	19.229	19.176	36.595	188.2
200	21	20.361	20.323	36.647	197.3
110	22	22.135	22.113	36.778	211.3
60	23	23.518	23.506	36.841	213.1
3	24	24.918	24.918	36.909	207.5

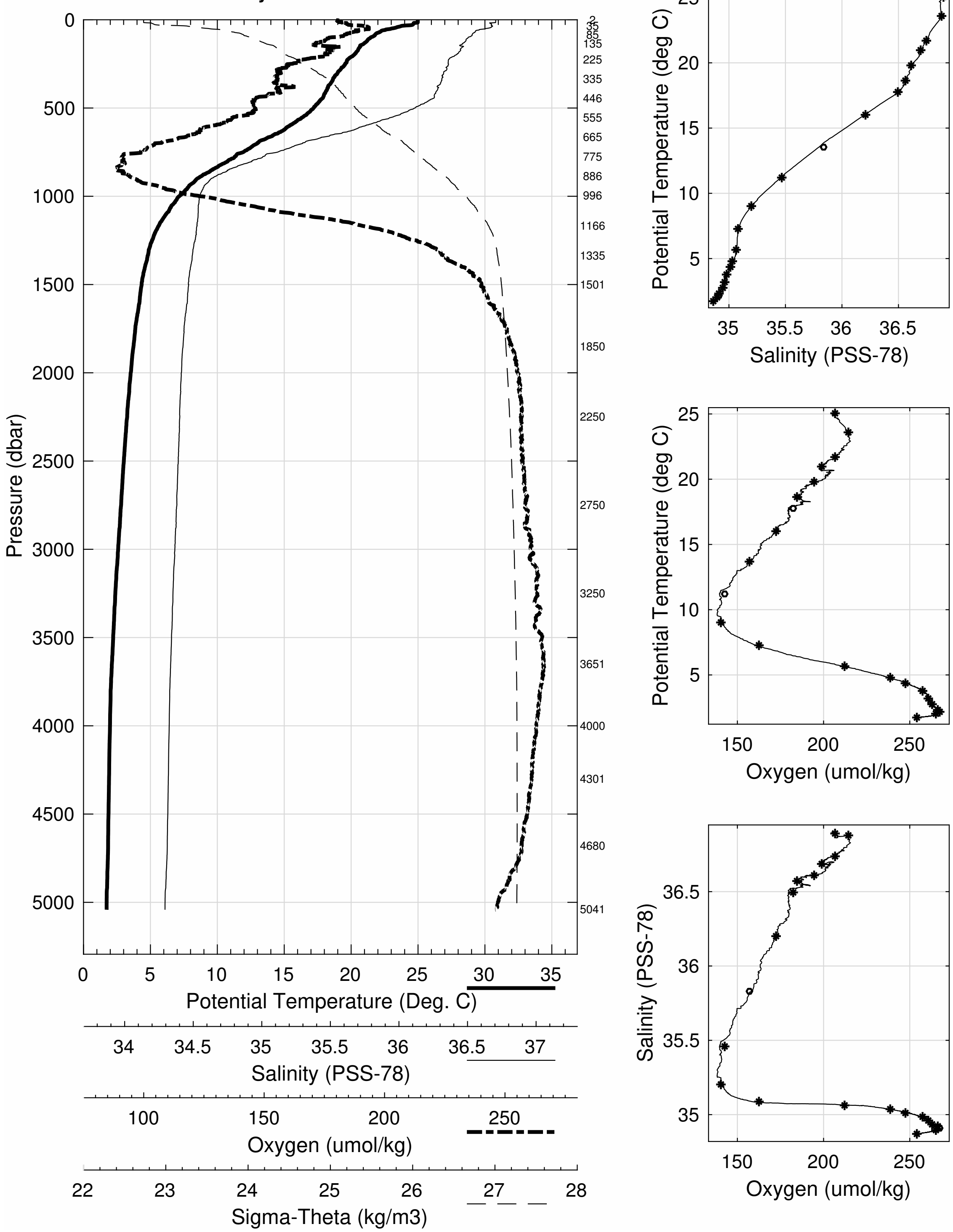

Abaco May 2017 R/V Endeavor
CTD Station 24 (CTD024)
Latitude 26.492 N Longitude 73.867 W
13-May-2017 06:10 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 25 (CTD025)
Latitude 26.496N Longitude 73.504W
13-May-2017 11:29Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$	DynHt $m^2 \cdot s^{-2}$	SigT $kg \cdot m^{-3}$
1	24.979	24.979	36.899	204.7	0.003	24.784
10	24.987	24.985	36.898	205.3	0.032	24.781
20	24.676	24.672	36.864	208.2	0.063	24.851
30	24.516	24.509	36.873	209.3	0.094	24.907
50	23.012	23.002	36.836	214.8	0.150	25.326
75	21.947	21.932	36.762	209.3	0.213	25.576
100	21.482	21.463	36.730	203.1	0.272	25.683
125	21.147	21.123	36.710	200.1	0.330	25.762
150	20.721	20.692	36.698	202.7	0.386	25.871
200	20.231	20.193	36.653	200.8	0.493	25.971
250	19.595	19.549	36.609	191.0	0.595	26.109
300	19.056	19.002	36.580	188.1	0.692	26.229
400	18.245	18.175	36.540	187.8	0.874	26.408
500	17.271	17.186	36.401	180.1	1.045	26.545
600	15.505	15.410	36.099	167.1	1.205	26.728
700	13.095	12.996	35.714	149.8	1.346	26.947
800	10.877	10.776	35.402	139.8	1.467	27.129
900	8.592	8.492	35.153	143.5	1.570	27.318
1000	7.256	7.155	35.082	163.5	1.656	27.461
1100	6.274	6.170	35.072	192.1	1.729	27.588
1200	5.493	5.385	35.060	220.7	1.790	27.677
1300	5.001	4.889	35.041	235.0	1.845	27.721
1400	4.711	4.592	35.026	242.9	1.897	27.743
1500	4.474	4.349	35.015	248.9	1.947	27.761
1750	4.013	3.870	34.986	256.4	2.069	27.789
2000	3.690	3.527	34.970	259.8	2.188	27.810
2500	3.218	3.014	34.951	261.2	2.417	27.845
3000	2.836	2.589	34.930	263.7	2.641	27.866
3500	2.510	2.217	34.909	267.3	2.859	27.881
4000	2.323	1.980	34.895	265.5	3.075	27.889
4500	2.268	1.868	34.887	262.7	3.298	27.891
5000	2.188	1.729	34.870	253.8	3.530	27.889

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$
5041	1	2.192	1.727	34.869	253.6
4681	2	2.258	8.638	−999.000	−999.0
4301	3	2.283	8.274	−999.000	−999.0
4001	4	2.320	1.977	34.894	265.2
3651	5	2.417	2.110	34.912	267.2
3250	6	2.656	2.386	34.918	265.8
2750	7	3.032	2.806	34.940	262.6
2251	8	3.446	3.263	34.958	260.8
1851	9	3.888	3.737	34.980	257.9
1502	10	4.510	4.384	35.015	247.9
1336	11	4.914	4.799	35.036	238.6
1167	12	5.761	5.655	35.067	212.0
997	13	7.321	7.220	35.082	162.1
887	14	9.081	8.980	35.198	140.9
776	15	11.308	11.208	35.464	143.0
666	16	13.702	13.605	35.834	156.6
556	17	16.121	16.031	36.202	172.1
446	18	17.849	17.771	36.499	182.0
336	19	18.690	18.630	36.568	184.9
226	20	19.812	19.770	36.611	194.7
136	21	20.958	20.932	36.693	198.9
85	22	21.697	21.680	36.744	206.3
36	23	23.619	23.611	36.878	214.3
3	24	25.099	25.099	36.890	206.5

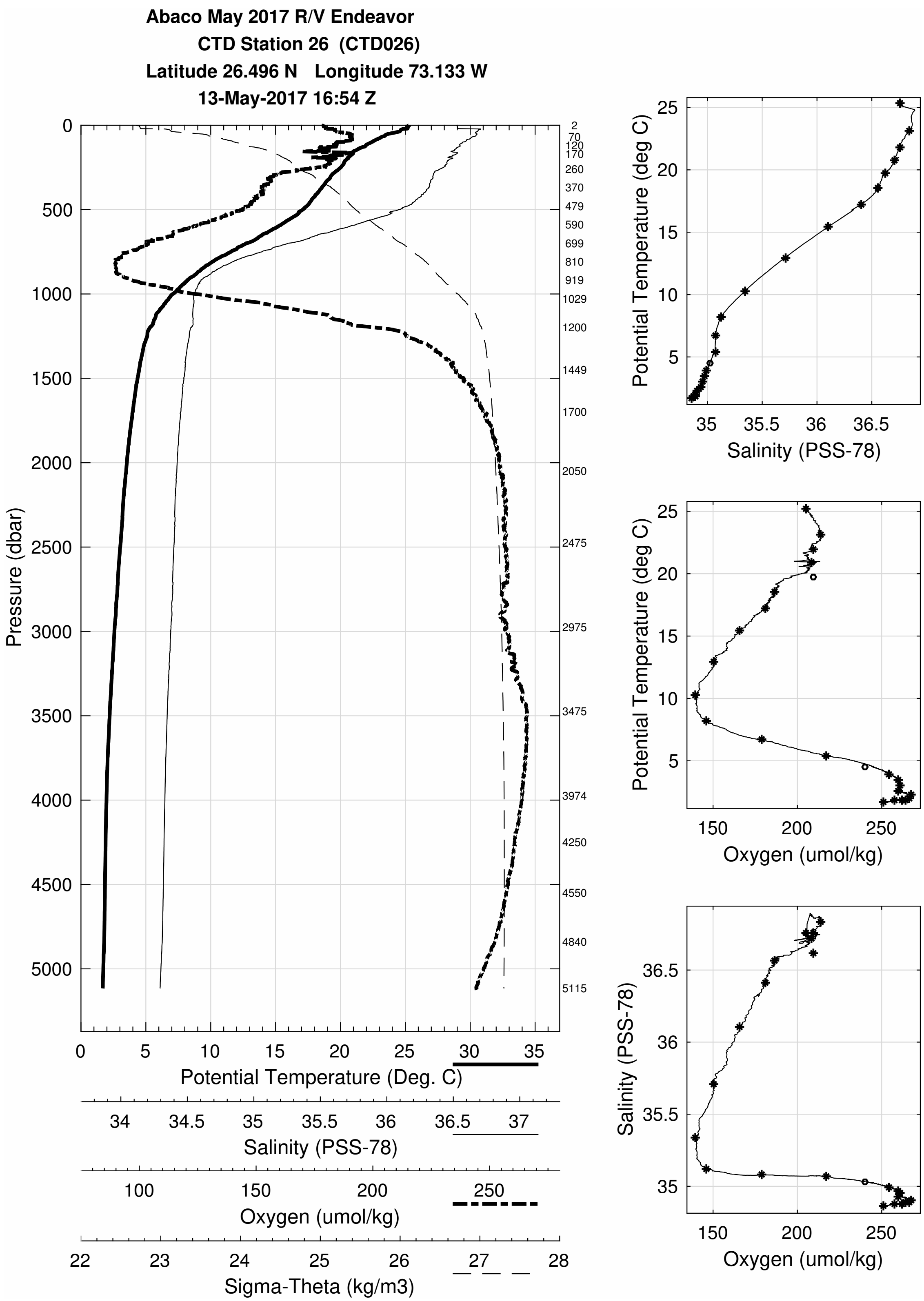
Abaco May 2017 R/V Endeavor
CTD Station 25 (CTD025)
Latitude 26.496 N Longitude 73.504 W
13-May-2017 11:29 Z



Abaco May 2017 R/V Endeavor
CTD Station 26 (CTD026)
Latitude 26.496N Longitude 73.133W
13-May-2017 16:54Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.293	25.293	36.745	204.2	0.003	24.571
10	25.196	25.194	36.746	205.6	0.033	24.602
20	25.171	25.166	36.751	205.6	0.067	24.614
30	24.633	24.627	36.878	208.8	0.098	24.875
50	23.775	23.764	36.868	212.6	0.158	25.126
75	23.073	23.058	36.832	213.6	0.227	25.307
100	22.416	22.396	36.779	208.9	0.292	25.458
125	21.926	21.901	36.762	208.9	0.354	25.586
150	21.182	21.152	36.725	206.9	0.413	25.766
200	20.531	20.493	36.699	206.6	0.523	25.926
250	20.072	20.025	36.657	202.5	0.629	26.020
300	19.320	19.266	36.591	189.2	0.730	26.169
400	18.322	18.251	36.535	186.2	0.917	26.386
500	17.174	17.089	36.376	179.8	1.089	26.549
600	15.288	15.194	36.062	164.3	1.246	26.748
700	12.814	12.716	35.672	150.3	1.385	26.970
800	10.426	10.327	35.347	139.9	1.503	27.166
900	8.617	8.517	35.149	142.9	1.604	27.311
1000	7.178	7.077	35.080	165.0	1.689	27.471
1100	6.134	6.031	35.072	197.9	1.760	27.606
1200	5.405	5.299	35.058	221.2	1.820	27.686
1300	4.983	4.871	35.039	237.0	1.874	27.721
1400	4.703	4.585	35.023	243.8	1.926	27.741
1500	4.489	4.364	35.015	248.2	1.977	27.759
1750	4.043	3.899	34.990	255.5	2.099	27.789
2000	3.700	3.537	34.972	259.3	2.217	27.811
2500	3.230	3.026	34.951	261.1	2.447	27.844
3000	2.823	2.576	34.931	261.8	2.669	27.868
3500	2.503	2.211	34.909	267.7	2.887	27.882
4000	2.312	1.969	34.894	266.2	3.103	27.890
4500	2.250	1.850	34.885	262.0	3.325	27.891
5000	2.179	1.721	34.869	254.3	3.557	27.889

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
5115	1	2.151	1.679	34.864	251.4
4840	2	2.230	1.789	34.878	257.9
4550	3	2.250	1.845	34.884	262.0
4250	4	2.273	1.902	34.888	263.7
3975	5	2.318	1.978	34.895	266.3
3475	6	2.514	2.224	34.909	267.1
2976	7	2.864	2.619	34.933	260.1
2476	8	3.272	3.069	34.954	260.4
2050	9	3.638	3.471	34.969	259.8
1701	10	4.099	3.959	34.992	254.3
1450	11	4.594	4.472	35.031	239.9
1200	12	5.542	5.434	35.069	217.6
1030	13	6.773	6.672	35.079	179.2
920	14	8.277	8.178	35.122	146.0
810	15	10.296	10.197	35.335	139.4
700	16	13.067	12.968	35.708	150.1
590	17	15.519	15.425	36.108	165.8
480	18	17.353	17.271	36.407	180.6
370	19	18.625	18.559	36.563	186.0
260	20	19.814	19.766	36.615	209.2
171	21	20.853	20.820	36.715	208.5
121	22	21.847	21.823	36.761	209.7
70	23	23.191	23.177	36.838	213.9
2	24	25.422	25.422	36.752	205.1

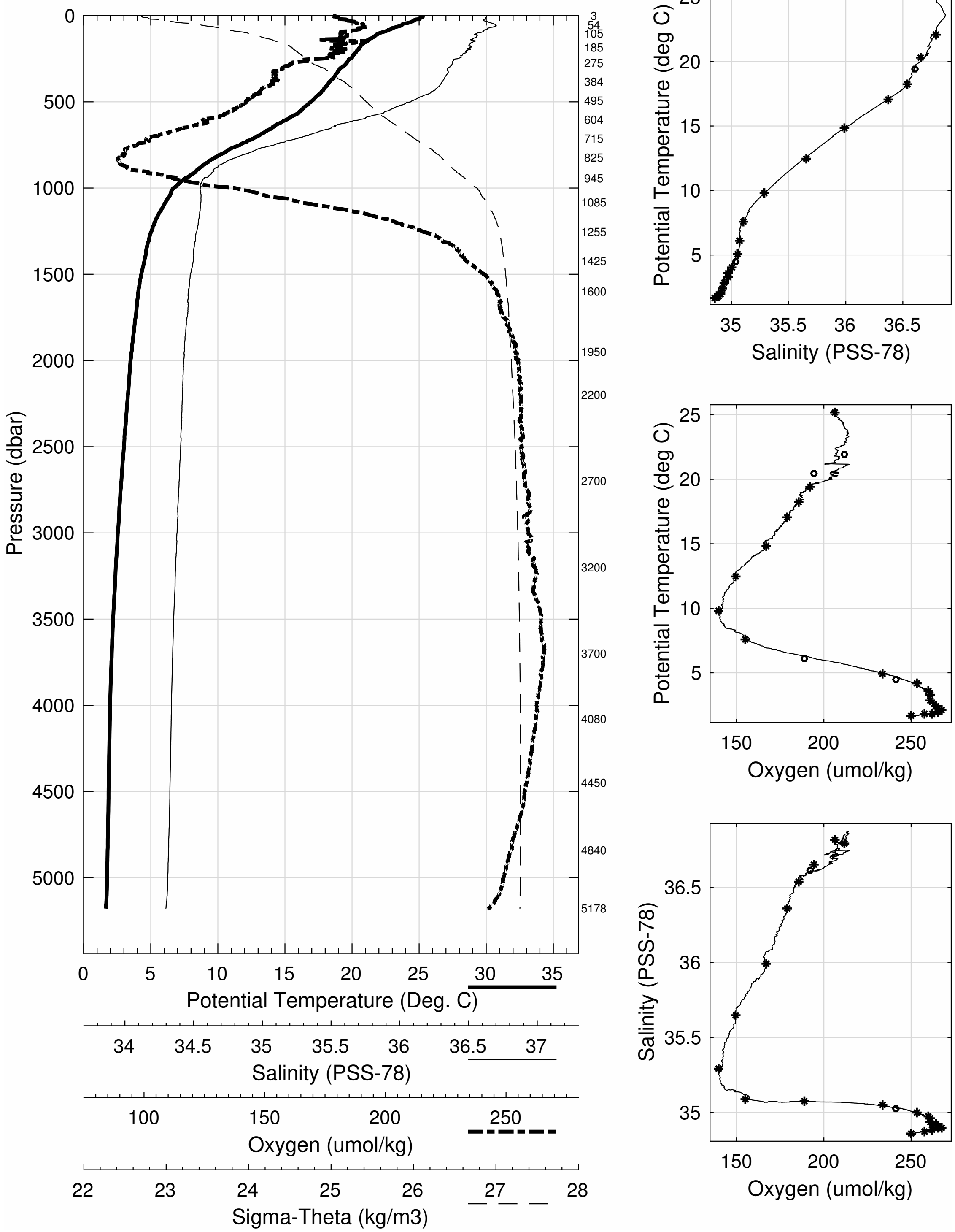

Abaco May 2017 R/V Endeavor
CTD Station 26 (CTD026)
Latitude 26.496 N Longitude 73.133 W
13-May-2017 16:54 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Oxygen (umol/kg)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)

Abaco May 2017 R/V Endeavor
CTD Station 27 (CTD027)
Latitude 26.490N Longitude 72.766W
13-May-2017 22:16Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.276	25.276	36.815	205.4	0.003	24.629
10	25.220	25.218	36.810	205.9	0.033	24.643
20	25.022	25.018	36.807	206.6	0.066	24.702
30	24.583	24.577	36.800	209.4	0.097	24.831
50	23.761	23.750	36.864	213.1	0.157	25.128
75	22.965	22.950	36.821	211.7	0.226	25.330
100	22.107	22.087	36.762	207.8	0.291	25.533
125	21.600	21.576	36.750	208.4	0.351	25.668
150	21.127	21.098	36.738	212.3	0.409	25.791
200	20.448	20.410	36.697	204.9	0.518	25.947
250	19.933	19.886	36.637	200.5	0.622	26.041
300	19.314	19.259	36.589	189.8	0.723	26.169
400	18.251	18.180	36.533	185.9	0.908	26.402
500	17.043	16.959	36.352	178.0	1.079	26.562
600	15.301	15.207	36.058	166.4	1.236	26.742
700	13.030	12.931	35.704	150.5	1.376	26.952
800	10.454	10.355	35.355	142.0	1.495	27.168
900	8.492	8.394	35.151	146.9	1.594	27.333
1000	6.791	6.694	35.069	174.9	1.676	27.516
1100	6.078	5.976	35.071	199.9	1.744	27.612
1200	5.414	5.307	35.059	223.2	1.804	27.685
1300	4.972	4.860	35.041	236.7	1.858	27.724
1400	4.698	4.579	35.028	243.5	1.909	27.746
1500	4.416	4.291	35.010	249.6	1.959	27.763
1750	4.009	3.866	34.989	255.5	2.079	27.791
2000	3.657	3.495	34.968	259.7	2.197	27.813
2500	3.203	3.000	34.951	261.2	2.426	27.846
3000	2.795	2.548	34.929	262.8	2.647	27.869
3500	2.486	2.194	34.908	266.7	2.864	27.882
4000	2.313	1.970	34.894	265.4	3.080	27.889
4500	2.255	1.855	34.885	261.9	3.302	27.891
5000	2.202	1.743	34.872	255.4	3.534	27.889

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
5179	1	2.127	1.648	34.859	250.2
4841	2	2.227	1.787	34.877	257.6
4450	3	2.263	1.869	34.885	262.2
4080	4	2.304	1.952	34.893	265.5
3700	5	2.402	2.090	34.901	267.5
3200	6	2.671	2.406	34.919	264.4
2700	7	3.043	2.822	34.942	261.4
2201	8	3.467	3.288	34.960	260.7
1951	9	3.731	3.572	34.973	259.4
1600	10	4.237	4.105	34.998	253.2
1426	11	4.608	4.487	35.031	241.7
1256	12	5.109	5.000	35.046	233.1
1085	13	6.223	6.121	35.075	189.1
946	14	7.686	7.587	35.095	155.3
826	15	9.901	9.802	35.288	139.4
715	16	12.615	12.516	35.647	149.5
605	17	14.918	14.825	35.990	167.4
495	18	17.114	17.031	36.365	179.3
385	19	18.358	18.290	36.541	185.6
275	20	19.493	19.442	36.609	191.6
185	21	20.369	20.334	36.653	193.9
105	22	22.031	22.010	36.784	211.9
55	23	23.565	23.604	−999.000	−999.0
3	24	25.181	25.180	36.815	206.6

Abaco May 2017 R/V Endeavor
CTD Station 27 (CTD027)
Latitude 26.490 N Longitude 72.766 W
13-May-2017 22:16 Z

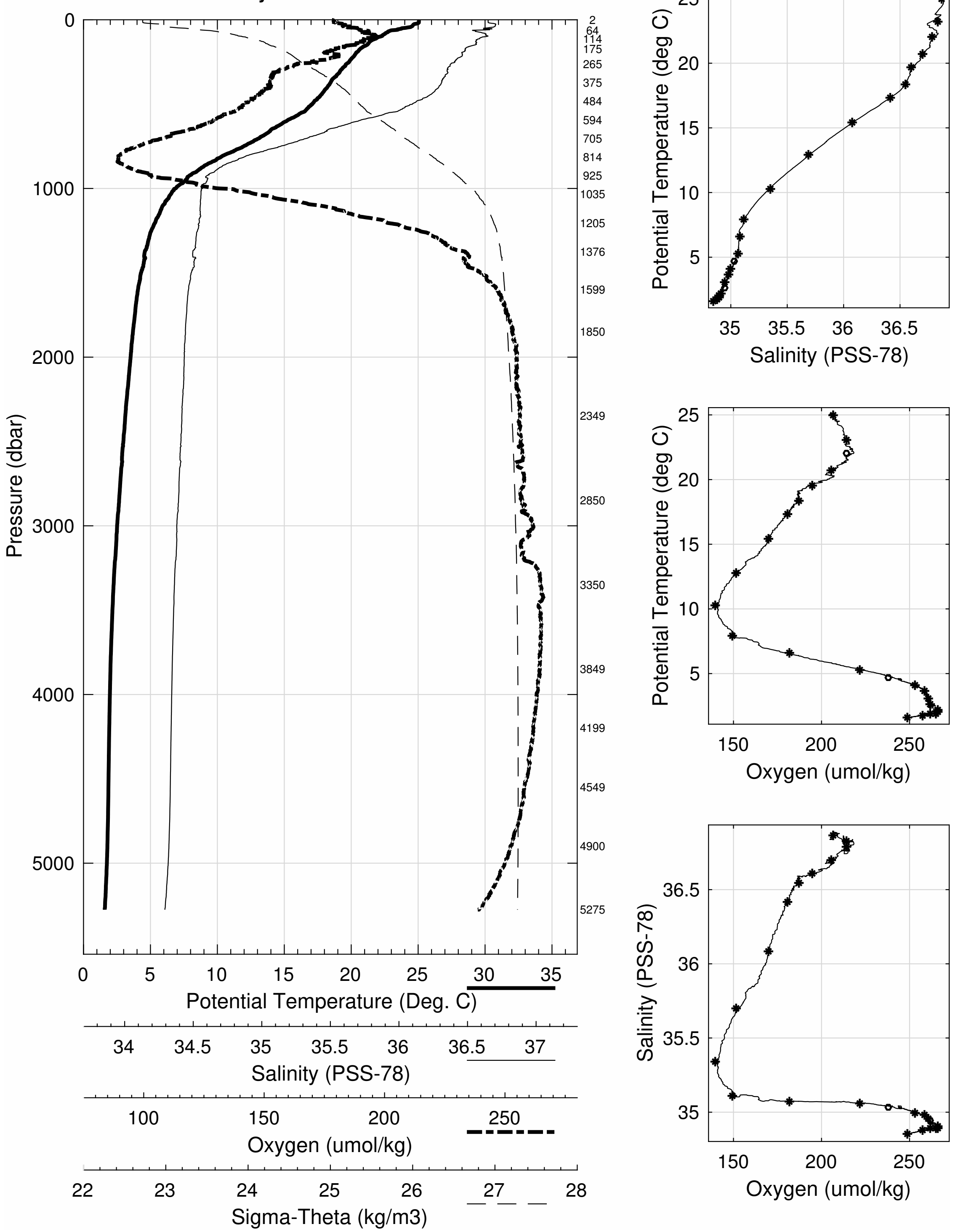


Abaco May 2017 R/V Endeavor
CTD Station 28 (CTD028)
Latitude 26.498N Longitude 72.379W
14-May-2017 03:48Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.057	25.057	36.839	205.1	0.003	24.714
10	25.061	25.059	36.838	205.4	0.032	24.713
20	25.001	24.997	36.855	206.2	0.064	24.744
30	24.634	24.628	36.883	208.7	0.096	24.879
50	23.796	23.785	36.810	212.2	0.156	25.076
75	22.687	22.671	36.796	214.0	0.225	25.391
100	22.185	22.165	36.823	218.1	0.288	25.557
125	21.486	21.461	36.765	213.4	0.347	25.710
150	21.183	21.154	36.753	210.4	0.405	25.787
200	20.381	20.343	36.679	204.3	0.514	25.951
250	19.885	19.839	36.634	198.7	0.618	26.052
300	19.252	19.197	36.587	189.2	0.718	26.184
400	18.282	18.212	36.534	186.8	0.903	26.395
500	17.184	17.099	36.374	179.0	1.075	26.546
600	15.269	15.175	36.042	169.2	1.233	26.736
700	13.254	13.154	35.731	155.2	1.374	26.928
800	10.664	10.564	35.374	141.9	1.496	27.145
900	8.547	8.448	35.158	147.7	1.597	27.329
1000	6.966	6.867	35.084	171.3	1.680	27.504
1100	6.044	5.942	35.070	200.8	1.748	27.615
1200	5.479	5.372	35.064	220.8	1.808	27.682
1300	4.986	4.874	35.043	235.6	1.862	27.724
1400	4.649	4.531	35.024	245.3	1.913	27.748
1500	4.426	4.300	35.015	248.8	1.963	27.766
1750	3.979	3.836	34.985	256.9	2.084	27.791
2000	3.680	3.517	34.972	259.5	2.201	27.813
2500	3.180	2.976	34.951	260.5	2.428	27.848
3000	2.755	2.510	34.925	264.4	2.648	27.870
3500	2.450	2.159	34.906	266.6	2.862	27.884
4000	2.314	1.971	34.894	265.4	3.077	27.889
4500	2.270	1.870	34.886	262.4	3.300	27.891
5000	2.206	1.747	34.873	256.0	3.533	27.890

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
5276	1	2.078	1.588	34.853	248.7
4900	2	2.229	1.781	34.877	257.5
4550	3	2.270	1.864	34.888	261.9
4200	4	2.291	1.926	34.890	264.4
3850	5	2.339	2.012	34.896	266.5
3350	6	2.524	2.247	34.910	266.4
2850	7	2.876	2.643	34.942	261.9
2350	8	3.289	3.098	34.953	260.7
1851	9	3.847	3.696	34.978	258.4
1600	10	4.218	4.086	34.997	253.2
1376	11	4.756	4.639	35.035	238.1
1206	12	5.453	5.346	35.063	221.4
1036	13	6.640	6.540	35.073	181.6
925	14	7.996	7.897	35.110	149.8
815	15	10.419	10.318	35.343	140.1
706	16	12.967	12.868	35.693	151.8
595	17	15.510	15.416	36.080	169.8
485	18	17.435	17.352	36.420	181.2
375	19	18.455	18.389	36.547	187.2
265	20	19.659	19.610	36.605	195.1
175	21	20.739	20.705	36.704	205.9
114	22	21.988	21.965	36.784	214.4
65	23	23.264	23.251	36.828	213.9
3	24	25.012	25.012	36.871	206.4

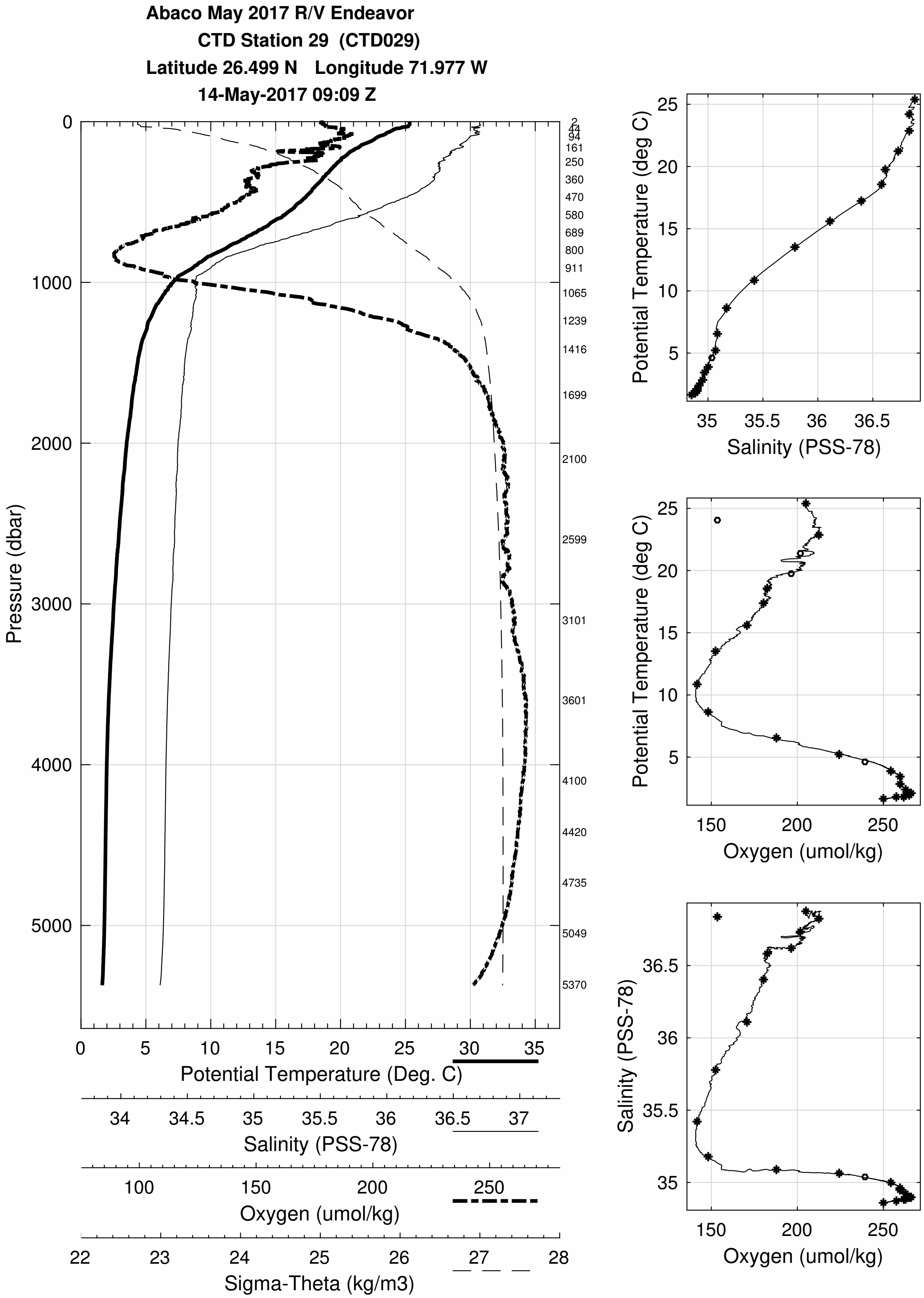
Abaco May 2017 R/V Endeavor
CTD Station 28 (CTD028)
Latitude 26.498 N Longitude 72.379 W
14-May-2017 03:48 Z



Abaco May 2017 R/V Endeavor
CTD Station 29 (CTD029)
Latitude 26.499N Longitude 71.977W
14-May-2017 09:09Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.331	25.331	36.878	204.5	0.003	24.659
10	25.327	25.325	36.877	204.5	0.033	24.661
20	25.303	25.299	36.882	204.9	0.066	24.673
30	25.224	25.217	36.866	204.7	0.098	24.686
50	24.060	24.050	36.841	210.5	0.160	25.021
75	23.491	23.475	36.868	210.1	0.231	25.212
100	22.785	22.765	36.811	211.0	0.299	25.376
125	22.258	22.233	36.782	205.7	0.363	25.507
150	21.578	21.548	36.758	205.6	0.424	25.681
200	20.605	20.567	36.690	201.7	0.538	25.899
250	19.876	19.829	36.624	196.7	0.643	26.047
300	19.281	19.226	36.625	183.2	0.743	26.205
400	18.127	18.057	36.540	181.4	0.925	26.438
500	17.005	16.921	36.342	178.1	1.094	26.564
600	15.424	15.329	36.086	165.1	1.252	26.736
700	13.316	13.216	35.748	151.7	1.393	26.929
800	10.984	10.883	35.413	141.8	1.516	27.119
900	8.836	8.735	35.186	147.1	1.619	27.307
1000	7.182	7.081	35.077	165.5	1.705	27.468
1100	6.272	6.168	35.082	200.1	1.776	27.596
1200	5.591	5.483	35.065	217.4	1.837	27.669
1300	5.141	5.028	35.054	231.0	1.893	27.715
1400	4.727	4.608	35.026	243.4	1.945	27.741
1500	4.493	4.367	35.014	248.2	1.996	27.758
1750	4.048	3.904	34.994	255.1	2.118	27.791
2000	3.685	3.522	34.972	259.4	2.236	27.812
2500	3.186	2.982	34.952	260.3	2.464	27.848
3000	2.781	2.535	34.929	262.1	2.683	27.870
3500	2.490	2.198	34.909	265.3	2.900	27.883
4000	2.331	1.988	34.896	265.6	3.116	27.889
4500	2.295	1.894	34.888	263.2	3.340	27.891
5000	2.265	1.803	34.879	259.0	3.575	27.891

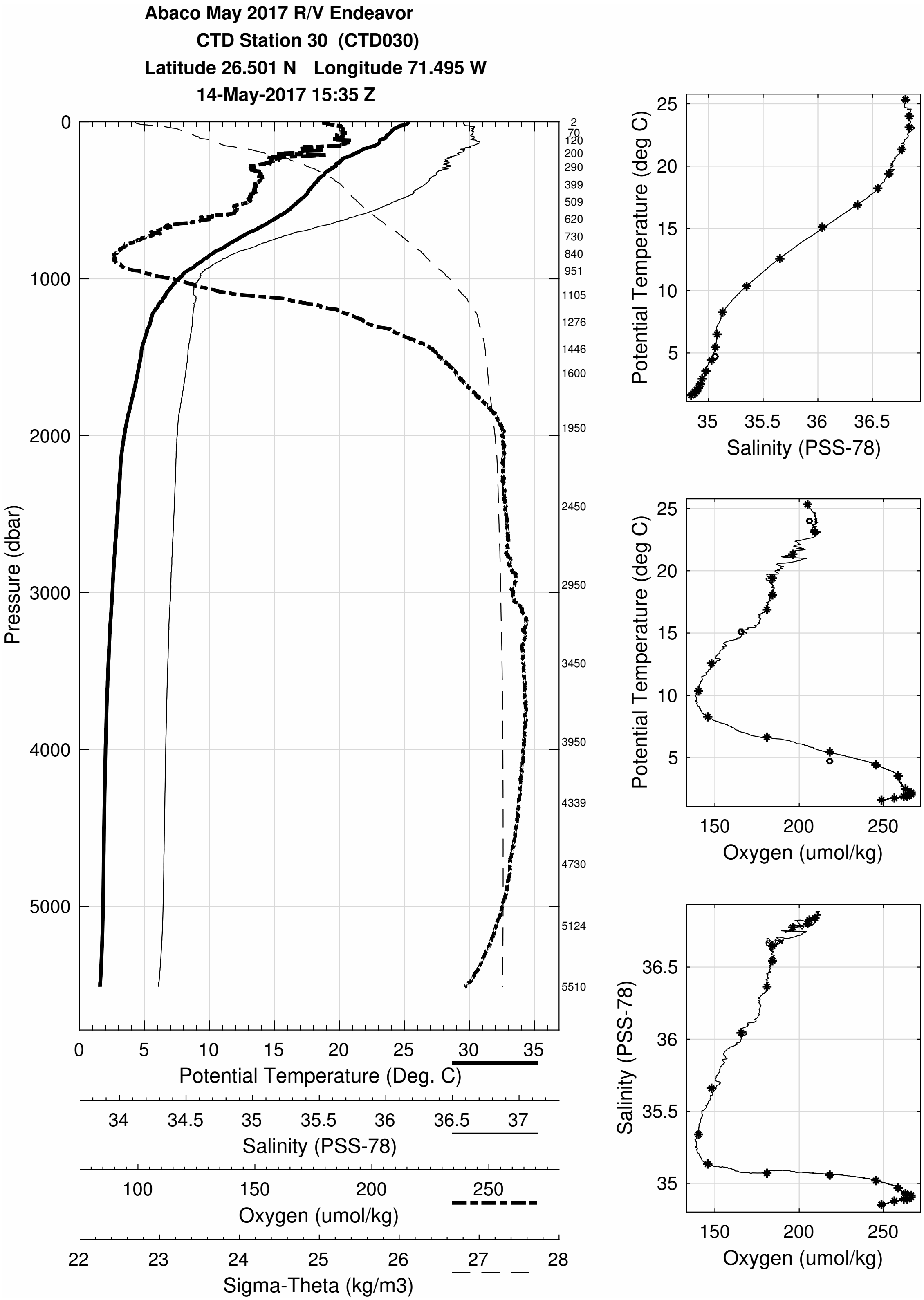
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
5371	1	2.141	1.636	34.859	250.0
5050	2	2.258	1.790	34.878	257.5
4735	3	2.284	1.855	34.886	261.5
4421	4	2.298	1.906	34.888	263.3
4100	5	2.323	1.968	34.893	264.9
3601	6	2.435	2.134	34.903	266.3
3102	7	2.698	2.444	34.923	262.7
2600	8	3.091	2.879	34.948	259.3
2101	9	3.558	3.387	34.967	259.6
1700	10	4.089	3.949	34.996	254.7
1416	11	4.672	4.552	35.035	239.0
1240	12	5.383	5.272	35.065	223.8
1066	13	6.595	6.492	35.084	188.2
911	14	8.711	8.610	35.175	148.1
800	15	10.977	10.876	35.419	141.7
690	16	13.580	13.480	35.783	152.5
581	17	15.649	15.557	36.107	171.2
470	18	17.345	17.265	36.399	180.8
360	19	18.560	18.496	36.586	182.3
250	20	19.773	19.727	36.614	195.9
161	21	21.326	21.294	36.729	201.5
95	22	22.902	22.883	36.824	213.0
45	23	24.145	24.136	36.838	153.9
3	24	25.375	25.374	36.875	204.6


Abaco May 2017 R/V Endeavor
CTD Station 29 (CTD029)
Latitude 26.499 N Longitude 71.977 W
14-May-2017 09:09 Z
Pressure (dbar)
0
1000
2000
3000
4000
5000
2
44
94
161
250
360
470
580
689
800
911
1065
1239
1416
1699
2100
2599
3101
3601
4100
4420
4735
5049
5370
0 5 10 15 20 25 30 35
Potential Temperature (Deg. C)
34 34.5 35 35.5 36 36.5 37
Salinity (PSS-78)
100 150 200 250
Oxygen (umol/kg)
22 23 24 25 26 27 28
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
25 20 15 10 5
35 35.5 36 36.5
Salinity (PSS-78)
Potential Temperature (deg C)
25 20 15 10 5
150 200 250
Oxygen (umol/kg)
Salinity (PSS-78)
36.5 36 35.5 35
150 200 250
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 30 (CTD030)
Latitude 26.501N Longitude 71.495W
14-May-2017 15:35Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.280	25.280	36.782	204.6	0.003	24.603
10	25.246	25.243	36.782	205.7	0.033	24.614
20	24.949	24.945	36.789	206.9	0.066	24.711
30	24.585	24.578	36.836	209.2	0.098	24.858
50	24.140	24.129	36.838	209.4	0.158	24.995
75	23.855	23.839	36.835	209.8	0.232	25.080
100	23.579	23.558	36.848	209.2	0.303	25.172
125	23.115	23.089	36.872	210.8	0.372	25.328
150	22.810	22.780	36.846	209.0	0.439	25.398
200	21.272	21.233	36.747	192.3	0.561	25.761
250	20.156	20.109	36.678	188.0	0.670	26.013
300	19.445	19.390	36.679	180.7	0.770	26.204
400	18.102	18.032	36.534	182.5	0.952	26.440
500	17.022	16.938	36.364	180.9	1.121	26.576
600	15.455	15.361	36.100	169.9	1.278	26.740
700	13.281	13.181	35.742	150.7	1.419	26.931
800	11.200	11.097	35.445	141.6	1.543	27.105
900	9.299	9.195	35.214	139.7	1.650	27.254
1000	7.757	7.652	35.110	157.2	1.742	27.412
1100	6.746	6.638	35.071	176.9	1.821	27.525
1200	5.917	5.806	35.071	208.1	1.888	27.634
1300	5.501	5.383	35.064	219.3	1.948	27.680
1400	5.072	4.949	35.048	232.5	2.004	27.719
1500	4.832	4.702	35.035	240.0	2.057	27.737
1750	4.233	4.086	35.000	251.7	2.187	27.777
2000	3.599	3.438	34.969	259.1	2.306	27.819
2500	3.121	2.919	34.949	260.5	2.527	27.852
3000	2.774	2.529	34.928	262.5	2.745	27.870
3500	2.493	2.201	34.909	265.8	2.961	27.882
4000	2.344	2.000	34.896	265.7	3.178	27.889
4500	2.291	1.890	34.888	263.6	3.402	27.891
5000	2.273	1.811	34.880	259.3	3.637	27.890
5500	2.101	1.581	34.851	248.0	3.881	27.885

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
5510	1	2.103	1.581	34.851	248.4
5124	2	2.258	1.781	34.877	256.9
4730	3	2.284	1.855	34.884	262.2
4339	4	2.310	1.927	34.892	264.5
3951	5	2.359	2.020	34.898	266.0
3450	6	2.511	2.224	34.911	266.5
2951	7	2.795	2.554	34.928	262.8
2451	8	3.167	2.968	34.950	281.4
1951	9	3.693	3.534	34.970	258.8
1601	10	4.586	4.449	35.022	245.9
1447	11	4.906	4.781	35.055	217.9
1276	12	5.542	5.427	35.063	218.2
1105	13	6.635	6.528	35.071	180.8
951	14	8.391	8.287	35.135	146.2
840	15	10.414	10.310	35.343	139.9
731	16	12.722	12.620	35.658	148.5
621	17	15.133	15.037	36.046	165.5
510	18	16.982	16.896	36.360	180.7
400	19	18.211	18.141	36.547	184.0
290	20	19.425	19.372	36.643	183.6
200	21	21.433	21.394	36.773	196.6
120	22	23.158	23.134	36.842	209.7
71	23	24.012	23.997	36.829	206.0
3	24	25.380	25.379	36.794	205.3

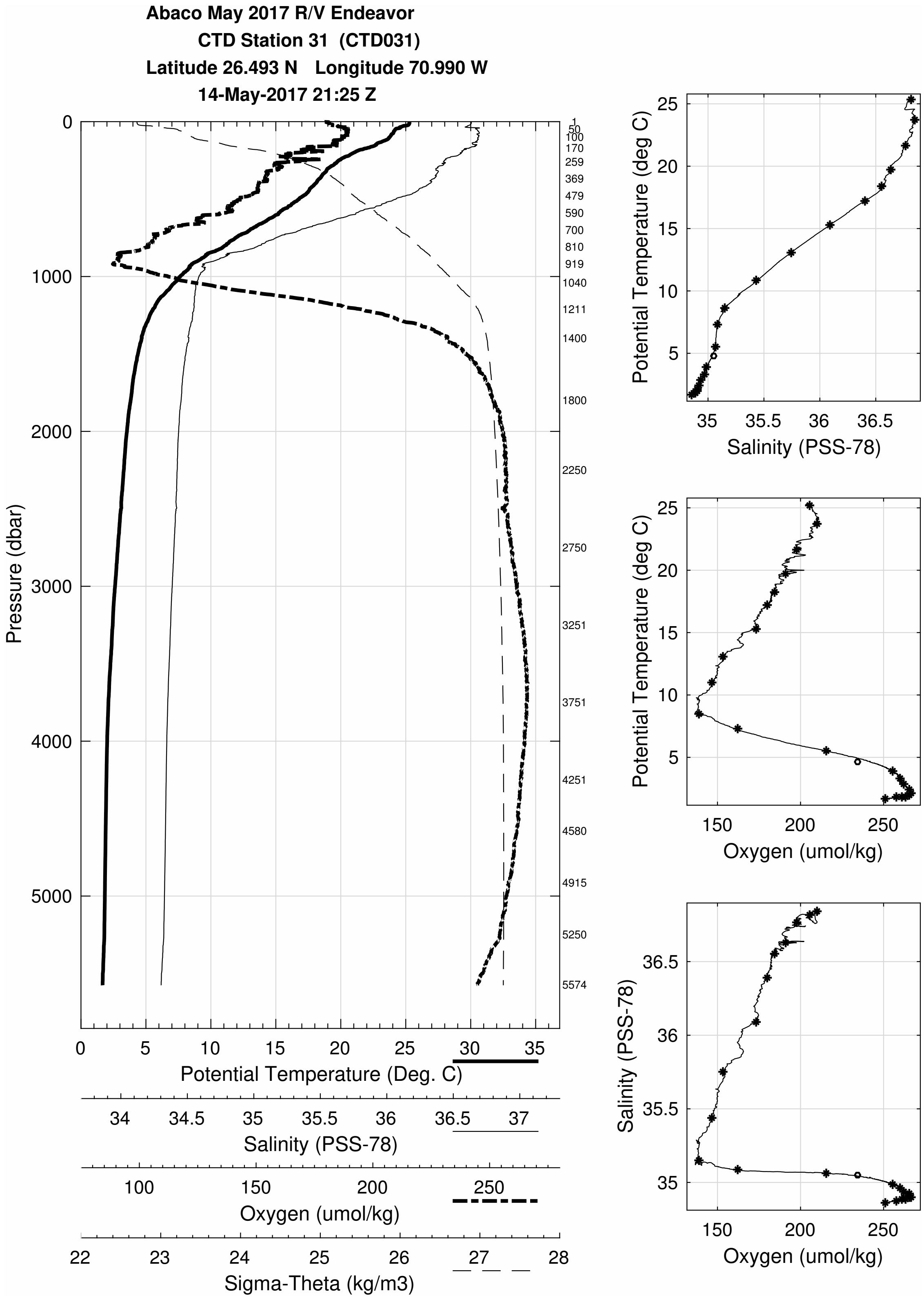


Abaco May 2017 R/V Endeavor
CTD Station 30 (CTD030)
Latitude 26.501 N Longitude 71.495 W
14-May-2017 15:35 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 31 (CTD031)
Latitude 26.493N Longitude 70.990W
14-May-2017 21:25Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	25.289	25.289	36.798	203.5	0.003	24.612
10	25.281	25.279	36.796	204.7	0.033	24.614
20	25.236	25.231	36.790	205.6	0.066	24.624
30	24.764	24.757	36.771	207.2	0.099	24.755
50	24.200	24.190	36.832	209.8	0.161	24.972
75	24.049	24.033	36.847	210.1	0.235	25.030
100	23.778	23.757	36.842	209.5	0.308	25.109
125	23.311	23.285	36.831	206.9	0.379	25.240
150	22.750	22.720	36.827	206.8	0.446	25.401
200	21.049	21.011	36.731	195.0	0.568	25.809
250	19.886	19.840	36.628	197.6	0.676	26.046
300	19.100	19.046	36.582	188.0	0.775	26.219
400	18.106	18.036	36.535	182.6	0.956	26.440
500	16.872	16.789	36.328	176.6	1.124	26.584
600	15.210	15.116	36.064	169.3	1.278	26.767
700	13.096	12.997	35.730	154.4	1.416	26.959
800	11.198	11.095	35.474	147.6	1.536	27.127
900	9.088	8.986	35.191	138.4	1.642	27.271
1000	7.741	7.637	35.099	154.0	1.733	27.406
1100	6.662	6.554	35.074	179.8	1.812	27.538
1200	5.779	5.670	35.068	210.4	1.877	27.648
1300	5.167	5.053	35.049	231.1	1.934	27.708
1400	4.789	4.670	35.034	241.5	1.987	27.740
1500	4.511	4.385	35.016	247.7	2.038	27.757
1750	4.051	3.907	34.990	255.1	2.160	27.788
2000	3.704	3.541	34.971	259.1	2.278	27.810
2500	3.293	3.087	34.957	259.3	2.510	27.842
3000	2.871	2.624	34.931	263.6	2.736	27.864
3500	2.560	2.266	34.912	266.4	2.957	27.879
4000	2.362	2.018	34.897	266.1	3.177	27.888
4500	2.315	1.913	34.890	264.1	3.402	27.890
5000	2.299	1.836	34.883	260.4	3.638	27.891
5500	2.204	1.680	34.864	252.8	3.886	27.887

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
5575	1	2.199	1.666	34.861	251.0
5251	2	2.296	1.801	34.878	258.0
4915	3	2.297	1.845	34.882	261.0
4581	4	2.309	1.898	34.887	263.1
4251	5	2.333	1.960	34.897	264.9
3751	6	2.426	2.108	34.901	266.6
3251	7	2.687	2.417	34.919	265.5
2750	8	3.066	2.839	34.941	261.7
2251	9	3.466	3.282	34.961	259.8
1801	10	3.989	3.841	34.986	255.9
1400	11	4.847	4.727	35.044	234.0
1211	12	5.696	5.586	35.065	215.0
1041	13	7.343	7.237	35.083	162.0
920	14	8.773	8.670	35.154	138.3
810	15	10.960	10.857	35.432	146.6
700	16	13.211	13.111	35.747	153.6
590	17	15.433	15.340	36.094	173.6
480	18	17.252	17.171	36.397	180.4
370	19	18.397	18.331	36.556	184.6
260	20	19.748	19.700	36.628	191.6
170	21	21.728	21.695	36.768	197.3
101	22	23.689	23.668	36.845	209.5
50	23	24.198	24.233	−999.000	−999.0
2	24	25.315	25.314	36.818	204.9

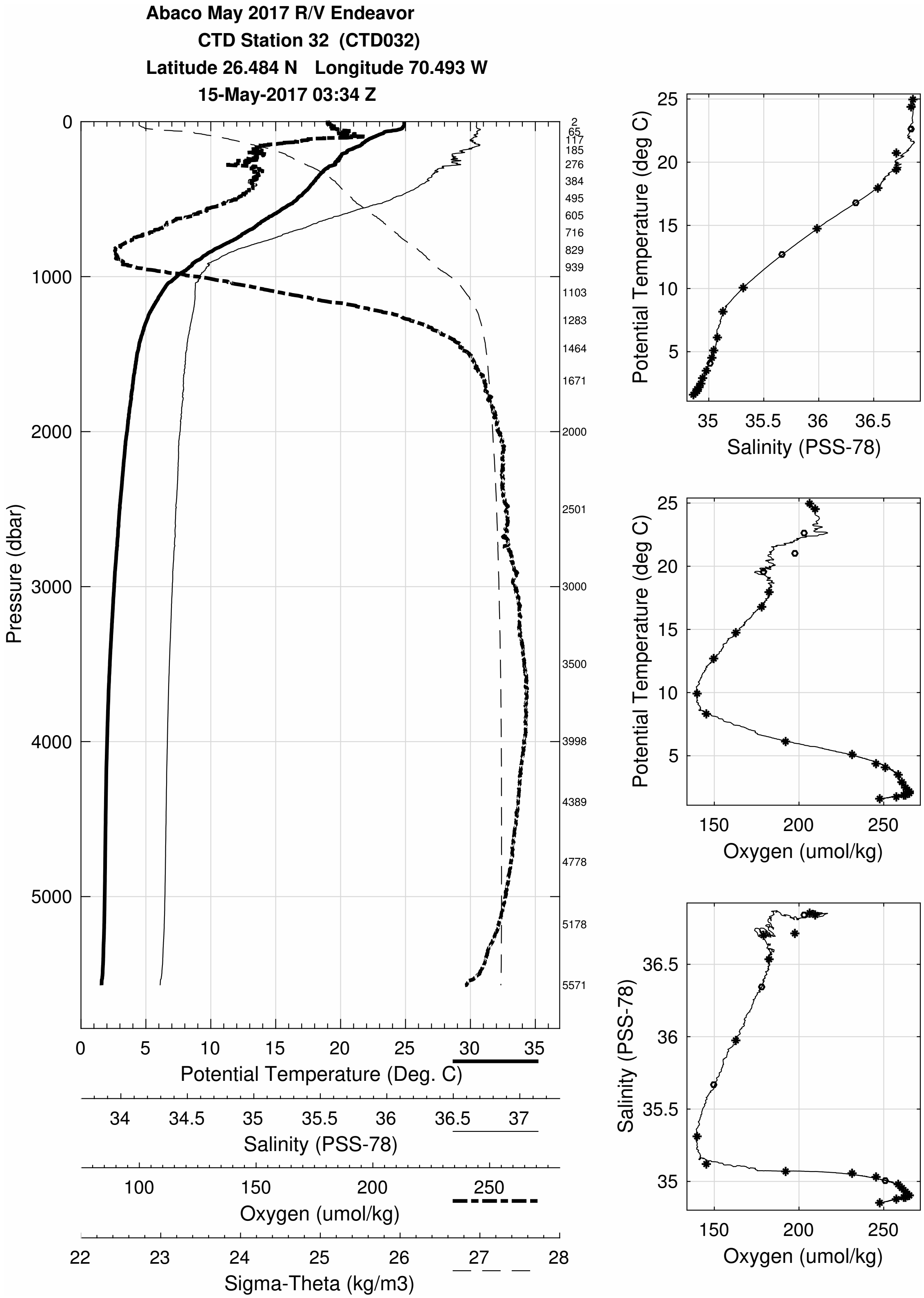


Abaco May 2017 R/V Endeavor
CTD Station 31 (CTD031)
Latitude 26.493 N Longitude 70.990 W
14-May-2017 21:25 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 32 (CTD032)
Latitude 26.484N Longitude 70.493W
15-May-2017 03:34Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$	DynHt $m^2 \cdot s^{-2}$	SigT $kg \cdot m^{-3}$
1	24.898	24.897	36.850	205.1	0.003	24.771
10	24.898	24.896	36.849	205.2	0.032	24.771
20	24.902	24.898	36.849	205.7	0.063	24.771
30	24.852	24.846	36.848	207.5	0.095	24.786
50	24.531	24.520	36.874	207.7	0.158	24.904
75	23.302	23.286	36.850	208.1	0.229	25.254
100	22.533	22.513	36.833	214.1	0.295	25.465
125	21.956	21.931	36.814	196.6	0.357	25.617
150	21.609	21.579	36.871	187.0	0.416	25.759
200	20.469	20.431	36.766	180.3	0.525	25.994
250	19.865	19.819	36.733	180.9	0.626	26.132
300	19.063	19.009	36.642	182.0	0.722	26.275
400	17.908	17.839	36.514	181.7	0.898	26.472
500	16.743	16.660	36.315	176.7	1.063	26.606
600	14.931	14.839	36.002	163.3	1.216	26.780
700	13.050	12.951	35.709	151.4	1.354	26.952
800	10.982	10.881	35.417	141.1	1.476	27.122
900	8.960	8.858	35.185	141.7	1.581	27.286
1000	7.490	7.387	35.109	164.9	1.670	27.450
1100	6.343	6.238	35.071	189.7	1.743	27.578
1200	5.630	5.521	35.065	215.7	1.806	27.664
1300	5.093	4.980	35.045	233.2	1.862	27.713
1400	4.725	4.606	35.026	243.2	1.914	27.741
1500	4.449	4.324	35.013	248.8	1.964	27.762
1750	4.042	3.897	34.994	254.5	2.086	27.792
2000	3.713	3.549	34.977	257.8	2.204	27.814
2500	3.182	2.979	34.951	260.3	2.431	27.848
3000	2.802	2.556	34.928	262.9	2.652	27.868
3500	2.516	2.224	34.910	265.6	2.869	27.881
4000	2.356	2.012	34.897	265.4	3.088	27.888
4500	2.302	1.901	34.889	263.2	3.312	27.890
5000	2.289	1.826	34.882	259.9	3.548	27.891
5500	2.187	1.664	34.861	251.8	3.794	27.887

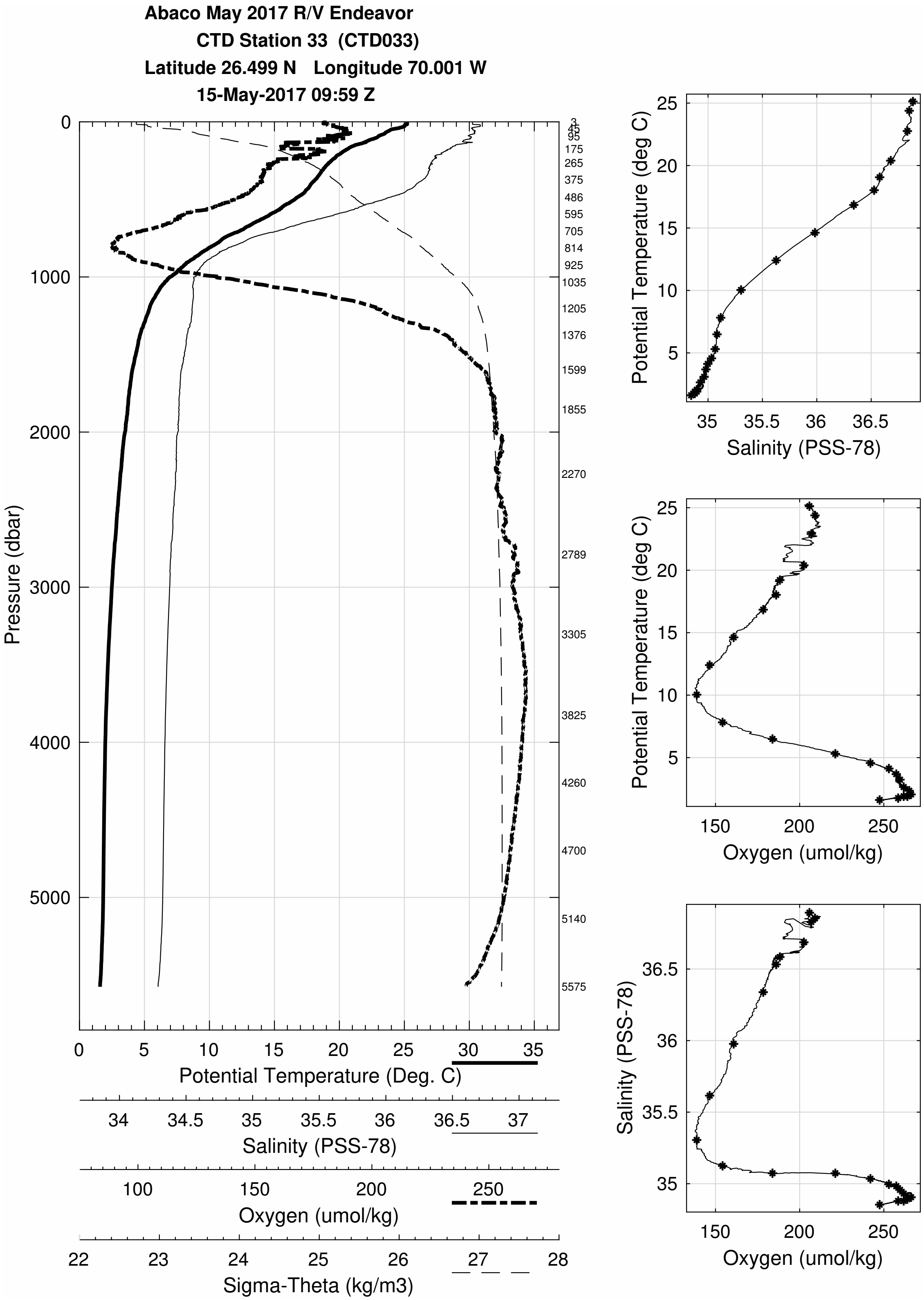
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$
5571	1	2.117	1.587	34.853	248.1
5179	2	2.277	1.793	34.880	258.0
4778	3	2.294	1.860	34.885	261.6
4390	4	2.302	1.914	34.890	263.4
3998	5	2.358	2.014	34.897	265.1
3501	6	2.512	2.219	34.910	265.6
3000	7	2.789	2.543	34.929	262.8
2502	8	3.177	2.974	34.951	260.3
2001	9	3.707	3.543	34.977	258.7
1671	10	4.168	4.030	35.003	251.4
1464	11	4.570	4.447	35.026	245.2
1284	12	5.149	5.037	35.050	231.5
1104	13	6.258	6.154	35.072	192.4
939	14	8.268	8.166	35.122	145.0
830	15	10.097	9.997	35.312	139.5
716	16	12.732	12.632	35.670	149.6
605	17	14.783	14.691	35.980	162.8
495	18	16.831	16.749	36.338	178.0
384	19	18.013	17.946	36.532	182.2
276	20	19.490	19.439	36.704	178.9
185	21	20.790	20.754	36.709	198.0
117	22	22.626	22.602	36.837	202.9
66	23	24.359	24.345	36.841	209.2
2	24	24.906	24.906	36.855	206.1


Abaco May 2017 R/V Endeavor
CTD Station 32 (CTD032)
Latitude 26.484 N Longitude 70.493 W
15-May-2017 03:34 Z
Pressure (dbar)
0
1000
2000
3000
4000
5000
2
65
117
185
276
384
495
605
716
829
939
1103
1283
1464
1671
2000
2501
3000
3500
3998
4389
4778
5178
5571
0 5 10 15 20 25 30 35
Potential Temperature (Deg. C)
34 34.5 35 35.5 36 36.5 37
Salinity (PSS-78)
100 150 200 250
Oxygen (umol/kg)
22 23 24 25 26 27 28
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
25 20 15 10 5
35 35.5 36 36.5
Salinity (PSS-78)
Potential Temperature (deg C)
25 20 15 10 5
150 200 250
Oxygen (umol/kg)
Salinity (PSS-78)
36.5 36 35.5 35
150 200 250
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 33 (CTD033)
Latitude 26.499N Longitude 70.001W
15-May-2017 09:59Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.217	25.217	36.853	203.9	0.003	24.675
10	25.218	25.216	36.852	204.1	0.033	24.675
20	25.048	25.044	36.901	205.4	0.065	24.765
30	24.999	24.992	36.899	206.7	0.097	24.780
50	23.991	23.980	36.853	209.7	0.158	25.051
75	23.515	23.499	36.867	210.8	0.229	25.204
100	22.933	22.912	36.845	206.4	0.297	25.359
125	22.144	22.119	36.790	207.3	0.361	25.545
150	21.225	21.196	36.742	192.3	0.420	25.767
200	20.176	20.138	36.654	201.6	0.529	25.987
250	19.437	19.391	36.599	190.2	0.630	26.142
300	18.846	18.792	36.573	186.7	0.726	26.278
400	17.897	17.827	36.496	183.6	0.903	26.461
500	16.649	16.567	36.289	176.0	1.069	26.607
600	14.703	14.612	35.971	160.2	1.221	26.806
700	12.492	12.396	35.622	147.6	1.355	26.995
800	10.330	10.232	35.331	138.9	1.470	27.170
900	8.525	8.426	35.157	147.0	1.570	27.332
1000	7.063	6.964	35.081	170.4	1.654	27.487
1100	6.107	6.004	35.075	199.2	1.723	27.612
1200	5.507	5.400	35.069	220.0	1.782	27.682
1300	5.081	4.968	35.057	231.9	1.837	27.724
1400	4.705	4.587	35.033	242.8	1.889	27.749
1500	4.461	4.336	35.020	248.0	1.938	27.766
1750	3.969	3.826	34.989	255.6	2.058	27.796
2000	3.663	3.500	34.977	257.3	2.175	27.819
2500	3.134	2.932	34.950	259.7	2.398	27.851
3000	2.733	2.488	34.926	262.3	2.615	27.872
3500	2.477	2.185	34.907	266.0	2.830	27.882
4000	2.328	1.985	34.895	265.2	3.046	27.889
4500	2.291	1.890	34.888	262.8	3.270	27.890
5000	2.288	1.825	34.881	259.6	3.506	27.890
5500	2.164	1.642	34.859	250.8	3.751	27.887

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
5575	1	2.120	1.590	34.853	247.7
5140	2	2.280	1.800	34.879	258.1
4700	3	2.291	1.866	34.885	262.0
4261	4	2.306	1.933	34.891	263.8
3825	5	2.374	2.049	34.900	266.3
3305	6	2.587	2.314	34.922	265.3
2790	7	2.890	2.664	34.935	261.9
2271	8	3.332	3.148	34.960	259.4
1855	9	3.840	3.688	34.982	257.2
1600	10	4.185	4.053	34.998	253.4
1376	11	4.730	4.613	35.035	242.6
1205	12	5.479	5.371	35.069	220.8
1036	13	6.529	6.430	35.074	184.0
926	14	7.958	7.860	35.121	154.2
815	15	10.125	10.027	35.306	138.6
705	16	12.451	12.355	35.619	146.9
596	17	14.746	14.655	35.981	160.2
486	18	16.897	16.816	36.341	178.7
375	19	18.159	18.093	36.530	185.7
266	20	19.176	19.128	36.584	188.5
175	21	20.419	20.386	36.683	202.7
95	22	22.785	22.766	36.825	207.4
45	23	24.344	24.334	36.855	209.6
3	24	25.140	25.139	36.891	205.6

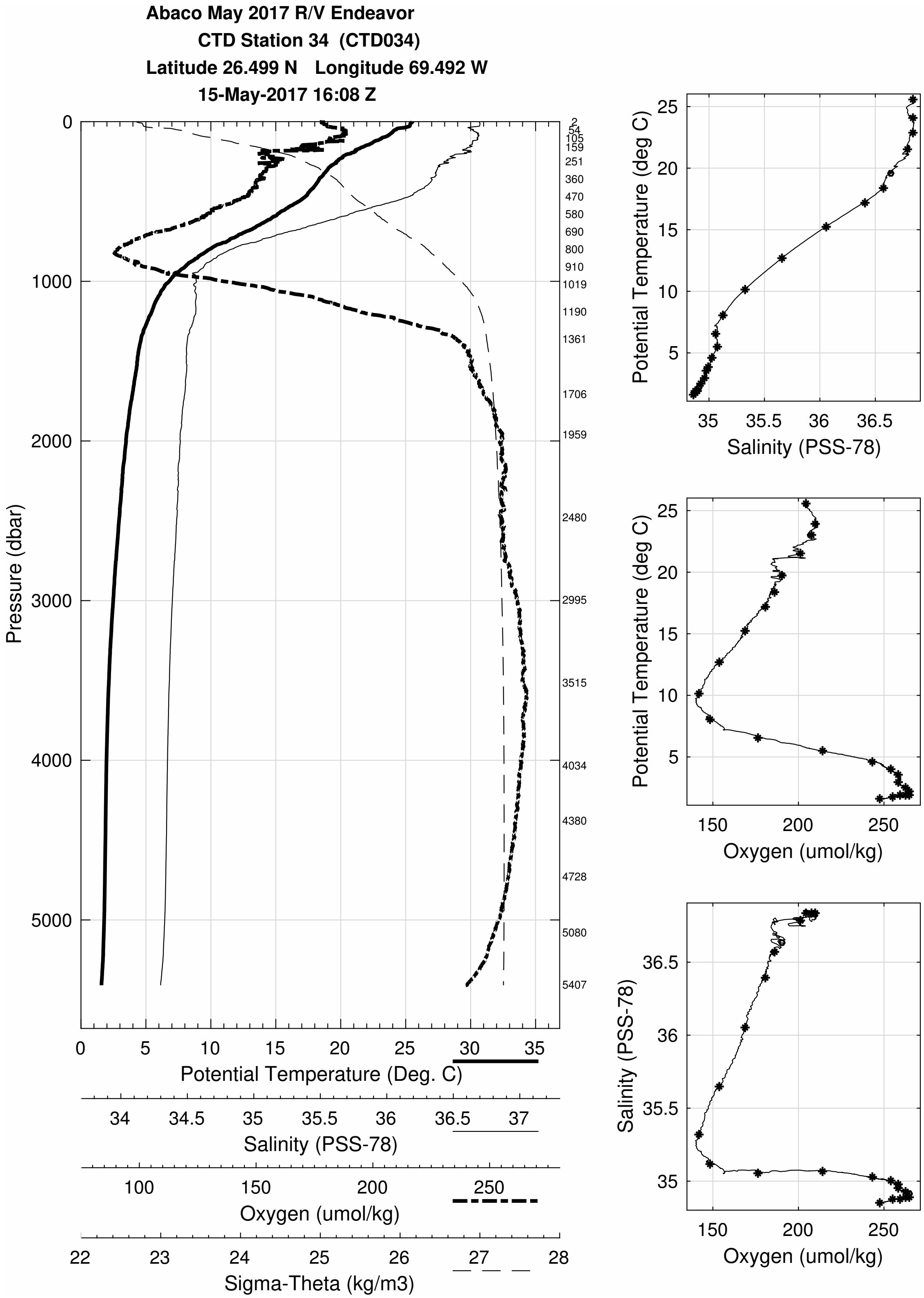


Abaco May 2017 R/V Endeavor
CTD Station 33 (CTD033)
Latitude 26.499 N Longitude 70.001 W
15-May-2017 09:59 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 34 (CTD034)
Latitude 26.499N Longitude 69.492W
15-May-2017 16:08Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$	DynHt $m^2 \cdot s^{-2}$	SigT $kg \cdot m^{-3}$
1	25.522	25.522	36.853	203.4	0.003	24.582
10	25.371	25.368	36.855	203.8	0.033	24.631
20	25.341	25.336	36.854	205.2	0.066	24.640
30	25.271	25.265	36.841	205.1	0.099	24.652
50	24.273	24.262	36.812	209.6	0.162	24.935
75	23.852	23.836	36.840	211.3	0.236	25.084
100	23.229	23.208	36.839	206.1	0.307	25.268
125	22.582	22.557	36.810	204.9	0.374	25.435
150	21.948	21.918	36.789	199.4	0.437	25.601
200	20.779	20.741	36.761	184.7	0.552	25.906
250	19.723	19.677	36.631	191.1	0.655	26.092
300	19.039	18.985	36.587	186.0	0.753	26.239
400	18.094	18.025	36.522	183.0	0.933	26.432
500	16.829	16.746	36.313	176.8	1.101	26.584
600	14.819	14.727	35.968	166.9	1.255	26.779
700	12.521	12.425	35.619	151.8	1.391	26.987
800	9.978	9.882	35.293	141.2	1.506	27.201
900	8.204	8.107	35.127	147.8	1.602	27.357
1000	6.889	6.791	35.076	173.4	1.683	27.508
1100	6.032	5.930	35.075	200.9	1.751	27.621
1200	5.504	5.397	35.071	216.8	1.810	27.685
1300	4.958	4.846	35.035	238.1	1.865	27.721
1400	4.637	4.519	35.015	246.8	1.916	27.742
1500	4.460	4.335	35.014	249.1	1.967	27.761
1750	4.010	3.866	34.995	254.7	2.088	27.796
2000	3.633	3.470	34.975	258.4	2.203	27.820
2500	3.129	2.926	34.952	258.7	2.427	27.853
3000	2.725	2.481	34.925	263.2	2.643	27.871
3500	2.443	2.152	34.906	264.7	2.856	27.884
4000	2.309	1.966	34.894	264.3	3.071	27.890
4500	2.284	1.883	34.888	262.2	3.293	27.891
5000	2.244	1.783	34.877	257.6	3.528	27.890

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu mol \cdot kg^{-1}$
5408	1	2.090	1.583	34.852	247.9
5080	2	2.226	1.756	34.874	255.6
4729	3	2.269	1.841	34.883	259.8
4380	4	2.286	1.899	34.890	262.7
4034	5	2.304	1.957	34.894	264.2
3515	6	2.430	2.138	34.909	265.2
2996	7	2.719	2.475	34.925	262.8
2480	8	3.156	2.955	34.953	258.4
1960	9	3.670	3.512	34.972	258.8
1706	10	4.065	3.925	34.998	254.0
1361	11	4.777	4.661	35.026	243.2
1191	12	5.604	5.497	35.073	214.6
1019	13	6.642	6.543	35.057	176.8
910	14	8.134	8.036	35.123	148.9
801	15	10.174	10.077	35.321	142.2
691	16	12.729	12.633	35.652	153.8
580	17	15.319	15.228	36.051	169.2
470	18	17.312	17.232	36.398	180.5
360	19	18.494	18.430	36.565	185.6
251	20	19.637	19.591	36.637	190.0
160	21	21.541	21.509	36.784	201.5
106	22	22.947	22.925	36.837	207.9
55	23	24.047	24.035	36.842	210.3
2	24	25.635	25.634	36.832	204.2

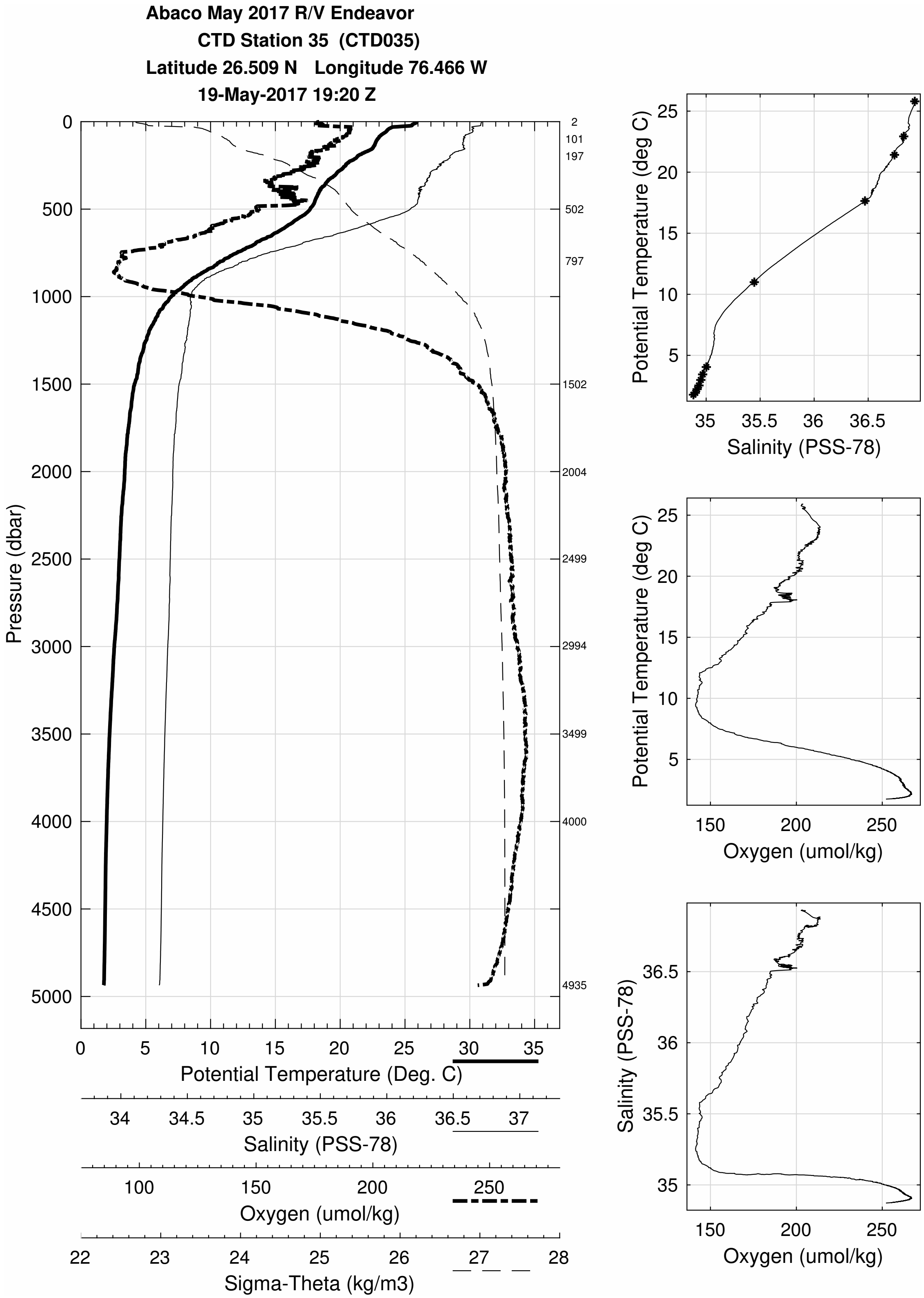


Abaco May 2017 R/V Endeavor
CTD Station 34 (CTD034)
Latitude 26.499 N Longitude 69.492 W
15-May-2017 16:08 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 35 (CTD035)
Latitude 26.509N Longitude 76.466W
19-May-2017 19:20Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	25.904	25.903	36.932	203.3	0.003	24.522
10	25.756	25.754	36.930	202.8	0.034	24.567
20	25.552	25.548	36.928	204.4	0.067	24.630
30	24.170	24.164	36.873	212.9	0.099	25.011
50	23.635	23.624	36.877	212.9	0.156	25.175
75	23.188	23.172	36.832	212.7	0.225	25.273
100	22.891	22.871	36.819	209.2	0.292	25.352
125	22.724	22.698	36.813	207.4	0.358	25.397
150	22.563	22.533	36.820	206.7	0.423	25.450
200	21.355	21.316	36.730	200.5	0.546	25.724
250	20.463	20.415	36.673	202.4	0.659	25.927
300	19.729	19.674	36.606	192.9	0.764	26.074
400	18.450	18.379	36.539	191.6	0.955	26.357
500	17.763	17.677	36.478	185.5	1.132	26.484
600	15.928	15.831	36.165	171.5	1.297	26.683
700	13.518	13.417	35.779	156.8	1.442	26.911
800	10.813	10.712	35.402	143.3	1.564	27.141
900	8.659	8.559	35.163	144.2	1.667	27.316
1000	7.066	6.966	35.075	167.2	1.752	27.483
1100	6.034	5.932	35.070	202.3	1.821	27.617
1200	5.352	5.246	35.053	225.3	1.881	27.689
1300	4.931	4.819	35.038	237.5	1.934	27.726
1400	4.557	4.439	35.019	246.1	1.985	27.754
1500	4.247	4.124	35.000	251.5	2.034	27.773
1750	3.803	3.662	34.976	258.1	2.150	27.802
2000	3.536	3.376	34.960	260.7	2.264	27.817
2500	3.165	2.962	34.943	262.4	2.488	27.843
3000	2.823	2.576	34.928	264.4	2.713	27.866
3500	2.501	2.209	34.909	266.7	2.931	27.882
4000	2.330	1.987	34.896	265.5	3.148	27.889
4500	2.267	1.867	34.886	261.4	3.371	27.891

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
4936	1	2.201	1.750	34.876	−999.0
4000	2	2.322	1.978	34.896	−999.0
3499	4	2.500	2.208	34.909	−999.0
2995	6	2.839	2.592	34.929	−999.0
2499	8	3.175	2.972	34.945	−999.0
2005	10	3.538	3.377	34.961	−999.0
1503	13	4.199	4.077	34.997	−999.0
797	15	11.117	11.015	35.440	−999.0
502	17	17.760	17.673	36.476	−999.0
197	19	21.476	21.437	36.742	−999.0
101	21	22.954	22.933	36.822	−999.0
2	23	25.779	25.778	36.928	−999.0

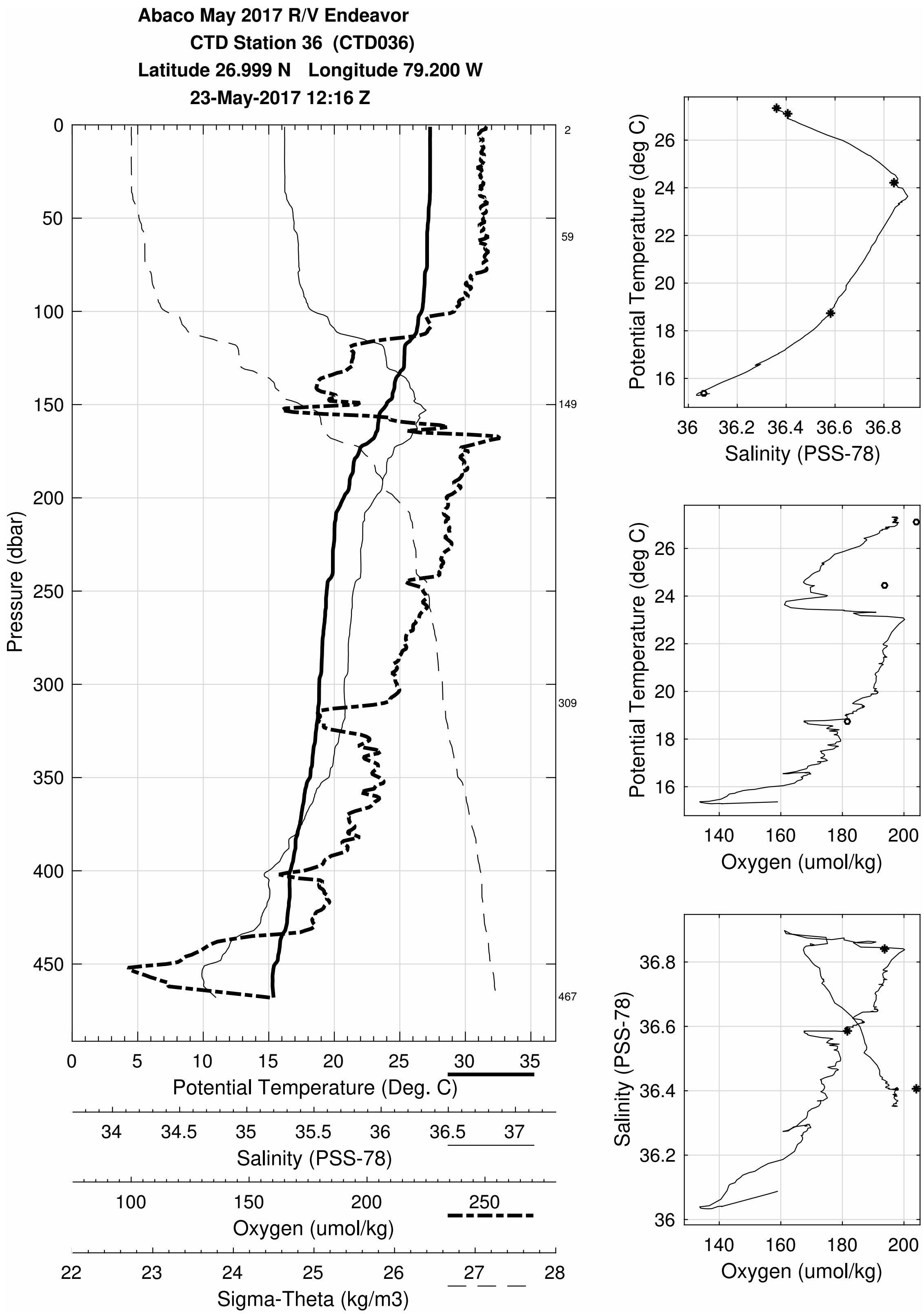


Abaco May 2017 R/V Endeavor
CTD Station 35 (CTD035)
Latitude 26.509 N Longitude 76.466 W
19-May-2017 19:20 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 36 (CTD036)
Latitude 26.999N Longitude 79.200W
23-May-2017 12:16Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	27.310	27.310	36.352	197.4	0.004	23.637
10	27.311	27.308	36.352	196.9	0.042	23.638
20	27.315	27.311	36.352	197.1	0.085	23.637
30	27.315	27.308	36.353	197.5	0.128	23.638
50	27.198	27.187	36.386	197.3	0.212	23.702
75	27.096	27.079	36.407	197.4	0.317	23.753
100	26.683	26.660	36.463	192.1	0.419	23.929
125	25.368	25.341	36.744	173.9	0.512	24.555
150	24.012	23.980	36.876	174.7	0.592	25.069
200	20.754	20.715	36.702	190.6	0.718	25.868
250	19.462	19.416	36.617	186.4	0.821	26.149
300	18.903	18.849	36.582	181.8	0.917	26.270
400	16.707	16.640	36.290	165.1	1.090	26.591

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
467	1	15.426	15.353	36.062	127.5
310	2	18.828	18.772	36.585	181.5
150	3	24.247	24.215	36.838	193.7
60	4	27.099	27.086	36.406	203.9
3	5	27.312	27.311	36.359	205.6

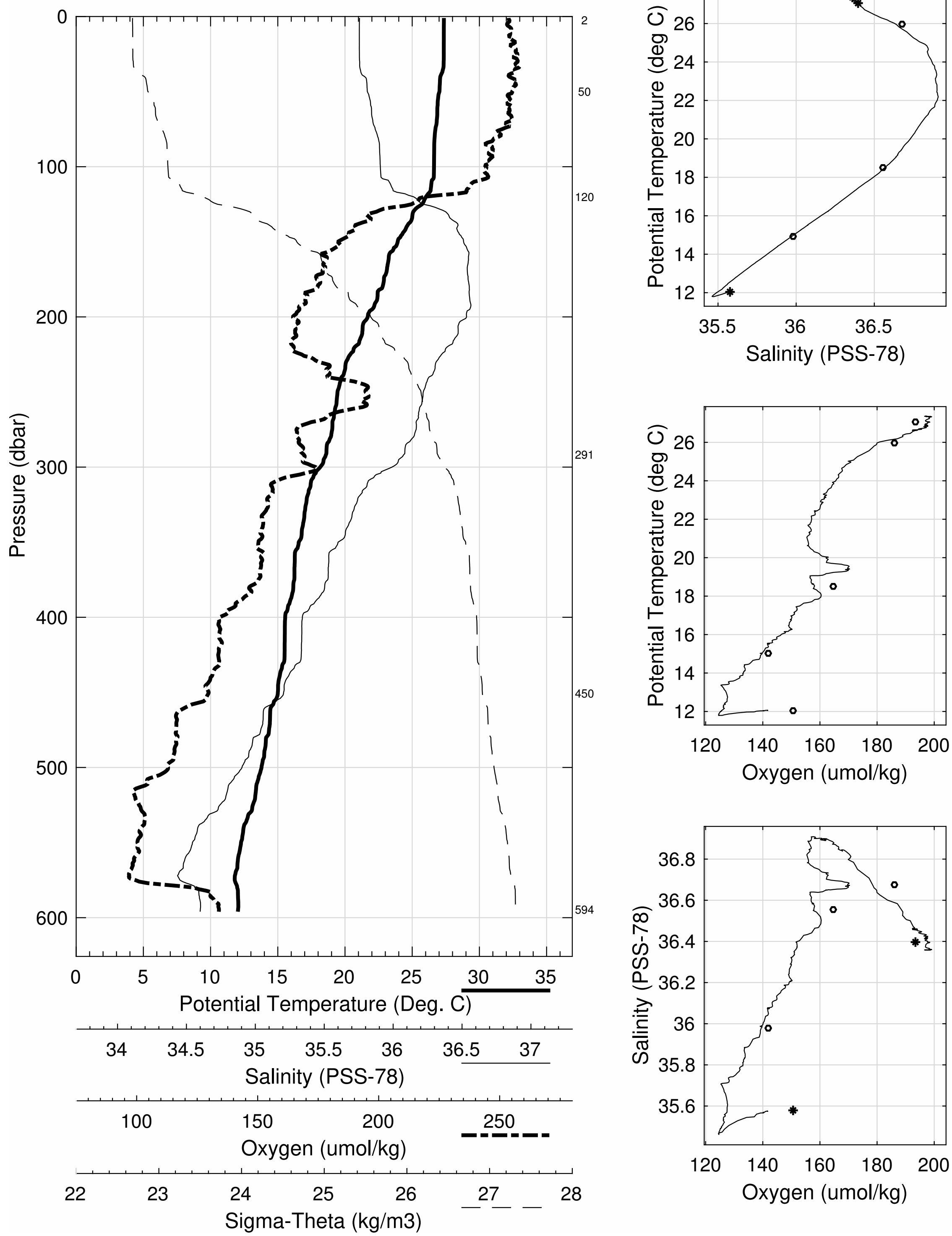

Abaco May 2017 R/V Endeavor
CTD Station 36 (CTD036)
Latitude 26.999 N Longitude 79.200 W
23-May-2017 12:16 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
2
59
149
309
467
Potential Temperature (deg C)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 37 (CTD037)
Latitude 27.001N Longitude 79.280W
23-May-2017 13:26Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	27.358	27.358	36.359	197.0	0.004	23.627
10	27.354	27.352	36.358	197.2	0.043	23.628
20	27.354	27.350	36.358	197.7	0.085	23.629
30	27.347	27.340	36.360	198.8	0.128	23.633
50	27.037	27.026	36.398	197.6	0.212	23.763
75	26.745	26.728	36.437	195.7	0.314	23.887
100	26.644	26.621	36.462	192.7	0.414	23.941
125	25.762	25.734	36.674	178.5	0.511	24.380
150	23.951	23.919	36.873	164.4	0.591	25.084
200	21.732	21.692	36.888	155.8	0.722	25.740
250	19.488	19.442	36.674	169.7	0.827	26.186
300	18.210	18.157	36.520	160.2	0.919	26.397
400	15.612	15.549	36.077	141.8	1.077	26.680
500	13.862	13.789	35.779	132.0	1.221	26.834

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
595	1	12.122	12.042	35.574	150.7
451	2	14.973	14.904	35.977	142.1
292	3	18.514	18.462	36.555	164.8
120	4	26.003	25.976	36.674	186.4
50	5	27.055	27.043	36.398	193.5
3	6	27.365	27.364	36.358	208.3

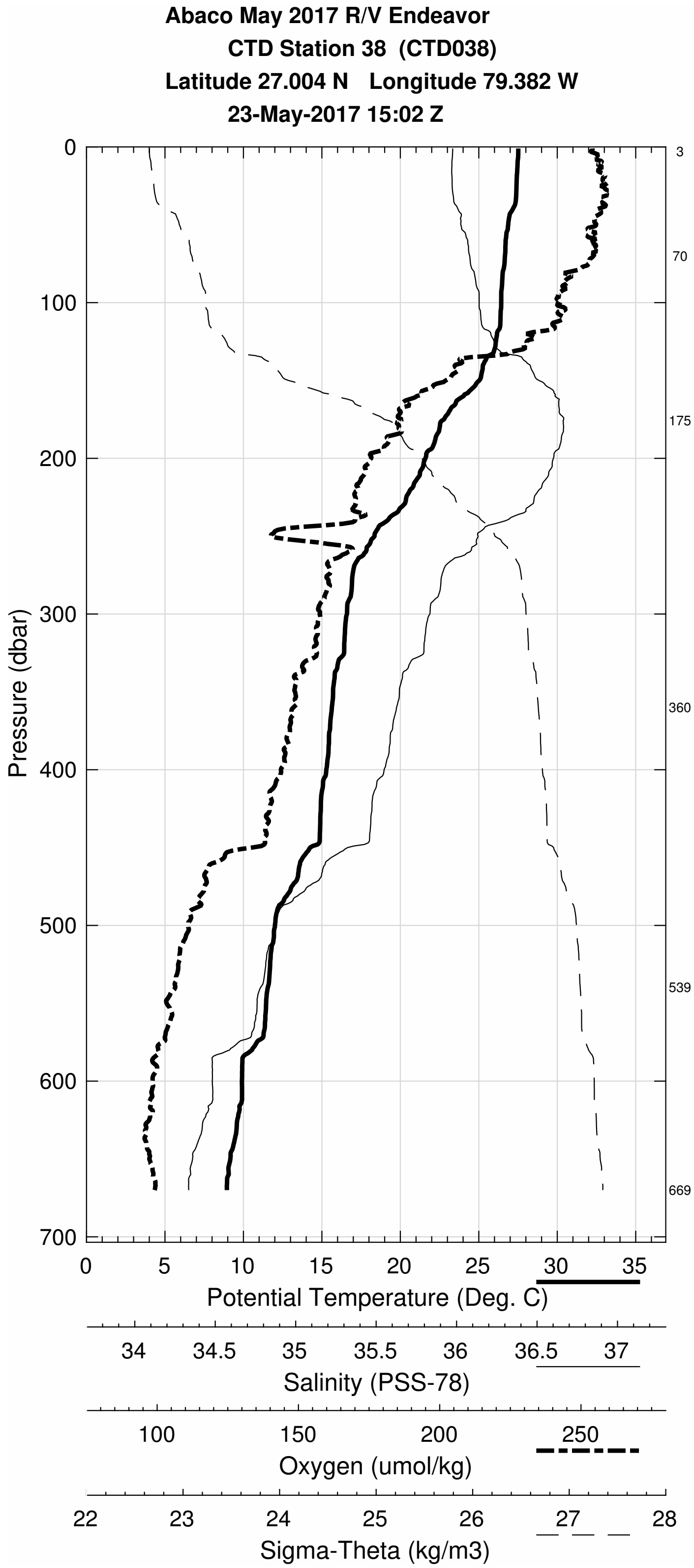
Abaco May 2017 R/V Endeavor
CTD Station 37 (CTD037)
Latitude 27.001 N Longitude 79.280 W
23-May-2017 13:26 Z



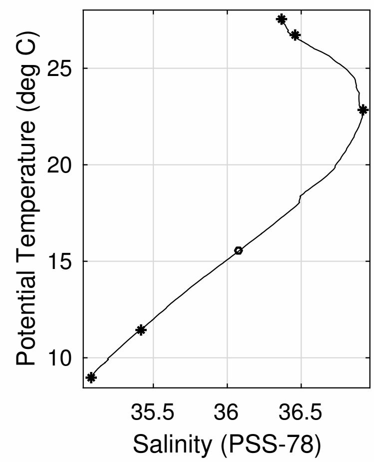
Abaco May 2017 R/V Endeavor
CTD Station 38 (CTD038)
Latitude 27.004N Longitude 79.382W
23-May-2017 15:02Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	27.517	27.517	36.371	195.7	0.004	23.584
10	27.473	27.471	36.367	197.4	0.043	23.596
20	27.424	27.419	36.367	197.4	0.086	23.613
30	27.394	27.387	36.372	198.0	0.129	23.626
50	26.886	26.874	36.411	196.4	0.212	23.821
75	26.651	26.634	36.458	195.0	0.313	23.933
100	26.452	26.429	36.500	190.1	0.412	24.031
125	26.118	26.089	36.574	184.3	0.508	24.193
150	25.061	25.028	36.793	170.4	0.596	24.689
200	21.633	21.593	36.864	157.5	0.730	25.749
250	18.398	18.354	36.495	140.2	0.833	26.329
300	16.647	16.598	36.259	148.6	0.914	26.577
400	15.344	15.281	36.035	142.0	1.064	26.707
500	12.072	12.006	35.501	125.9	1.200	26.978
600	9.975	9.904	35.193	119.8	1.316	27.119

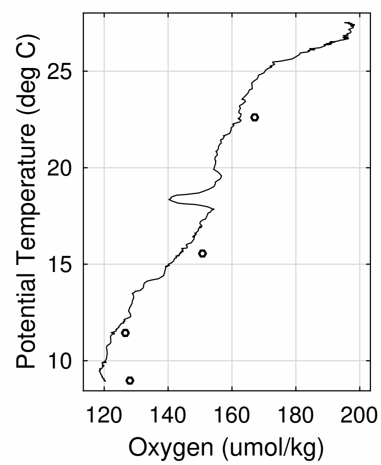
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
670	1	9.001	8.926	35.077	127.9
540	2	11.523	11.453	35.414	126.9
360	3	15.624	15.567	36.074	150.5
176	4	22.826	22.790	36.913	166.8
70	5	26.683	26.667	36.455	−999.0
3	6	27.564	27.563	36.369	208.0



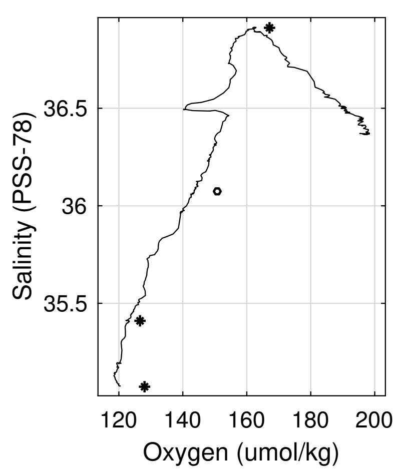
Abaco May 2017 R/V Endeavor
CTD Station 38 (CTD038)
Latitude 27.004 N Longitude 79.382 W
23-May-2017 15:02 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)



Potential Temperature (deg C)
Salinity (PSS-78)



Potential Temperature (deg C)
Oxygen (umol/kg)

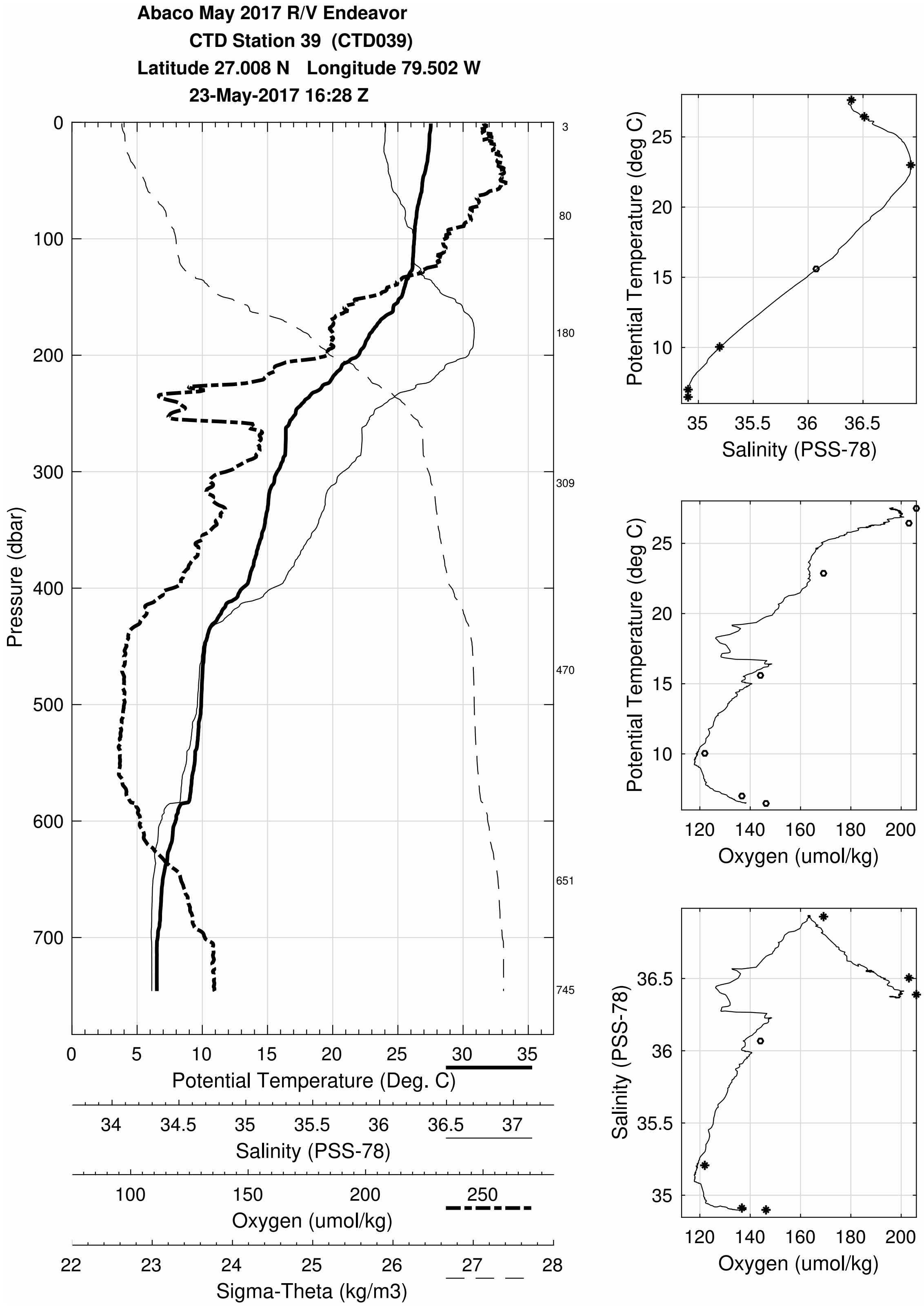


Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 39 (CTD039)
Latitude 27.008N Longitude 79.502W
23-May-2017 16:28Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	27.524	27.523	36.377	196.1	0.004	23.586
10	27.435	27.433	36.373	197.8	0.043	23.612
20	27.396	27.392	36.367	198.1	0.086	23.622
30	27.298	27.291	36.377	199.7	0.128	23.661
50	26.915	26.904	36.410	199.6	0.212	23.811
75	26.499	26.482	36.499	193.3	0.312	24.012
100	26.284	26.261	36.557	187.8	0.409	24.127
125	26.149	26.121	36.592	183.9	0.504	24.197
150	25.302	25.269	36.774	171.2	0.594	24.600
200	22.010	21.970	36.898	162.5	0.734	25.670
250	17.198	17.156	36.302	129.0	0.831	26.477
300	15.795	15.748	36.107	140.8	0.908	26.658
400	13.140	13.084	35.662	129.3	1.046	26.889
500	9.974	9.915	35.189	118.9	1.156	27.114
600	8.002	7.939	34.958	122.6	1.258	27.250
700	6.643	6.577	34.898	136.2	1.342	27.396

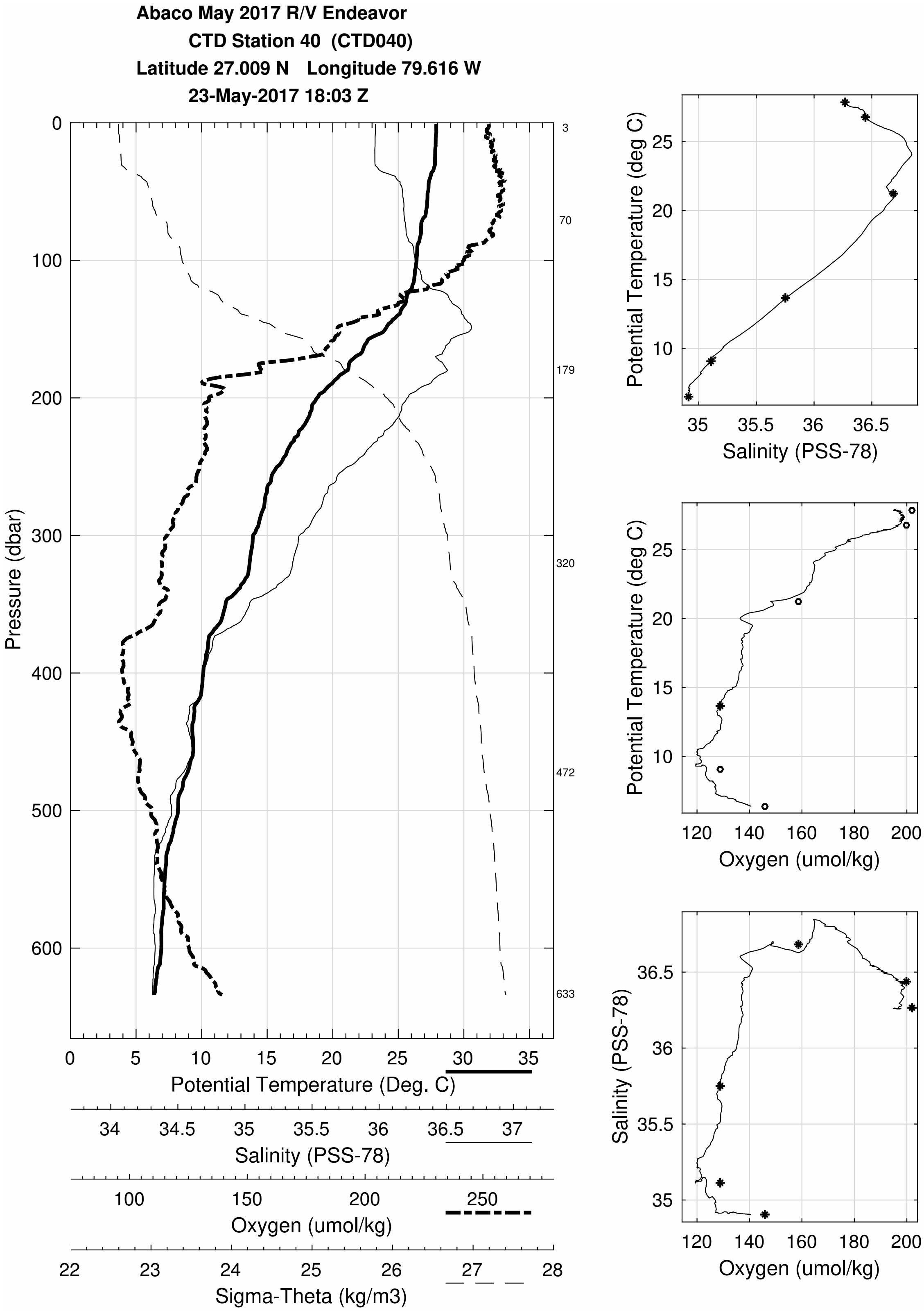
Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
745	1	6.578	6.508	34.903	146.1
651	2	7.030	6.967	34.912	136.5
471	3	10.098	10.042	35.202	121.8
310	4	15.632	15.583	36.067	144.2
181	5	22.983	22.945	36.931	169.2
80	6	26.453	26.435	36.504	203.2
4	7	27.688	27.687	36.388	205.7


Abaco May 2017 R/V Endeavor
CTD Station 39 (CTD039)
Latitude 27.008 N Longitude 79.502 W
23-May-2017 16:28 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 May 2017 R/V Endeavor
CTD Station 40 (CTD040)
Latitude 27.009N Longitude 79.616W
23-May-2017 18:03Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	27.895	27.895	36.263	195.7	0.004	23.379
10	27.861	27.859	36.260	194.9	0.045	23.389
20	27.819	27.814	36.258	197.1	0.090	23.402
30	27.803	27.796	36.259	197.5	0.135	23.409
50	27.282	27.271	36.427	198.2	0.221	23.706
75	26.764	26.747	36.446	195.9	0.324	23.888
100	26.420	26.397	36.503	190.5	0.424	24.043
125	25.713	25.685	36.701	177.3	0.518	24.416
150	24.044	24.012	36.845	164.4	0.601	25.035
200	18.843	18.807	36.456	137.8	0.720	26.184
250	15.795	15.756	36.093	135.9	0.804	26.645
300	13.971	13.927	35.798	129.2	0.873	26.819
400	10.175	10.127	35.215	120.0	0.991	27.098
500	8.242	8.190	35.019	126.1	1.088	27.260
600	6.982	6.925	34.921	133.8	1.172	27.367

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
633	1	6.492	6.433	34.908	146.0
472	2	9.055	9.003	35.110	128.6
320	3	13.743	13.697	35.755	129.1
180	4	21.215	21.180	36.687	158.4
71	5	26.817	26.801	36.439	199.5
4	6	27.896	27.896	36.261	202.3

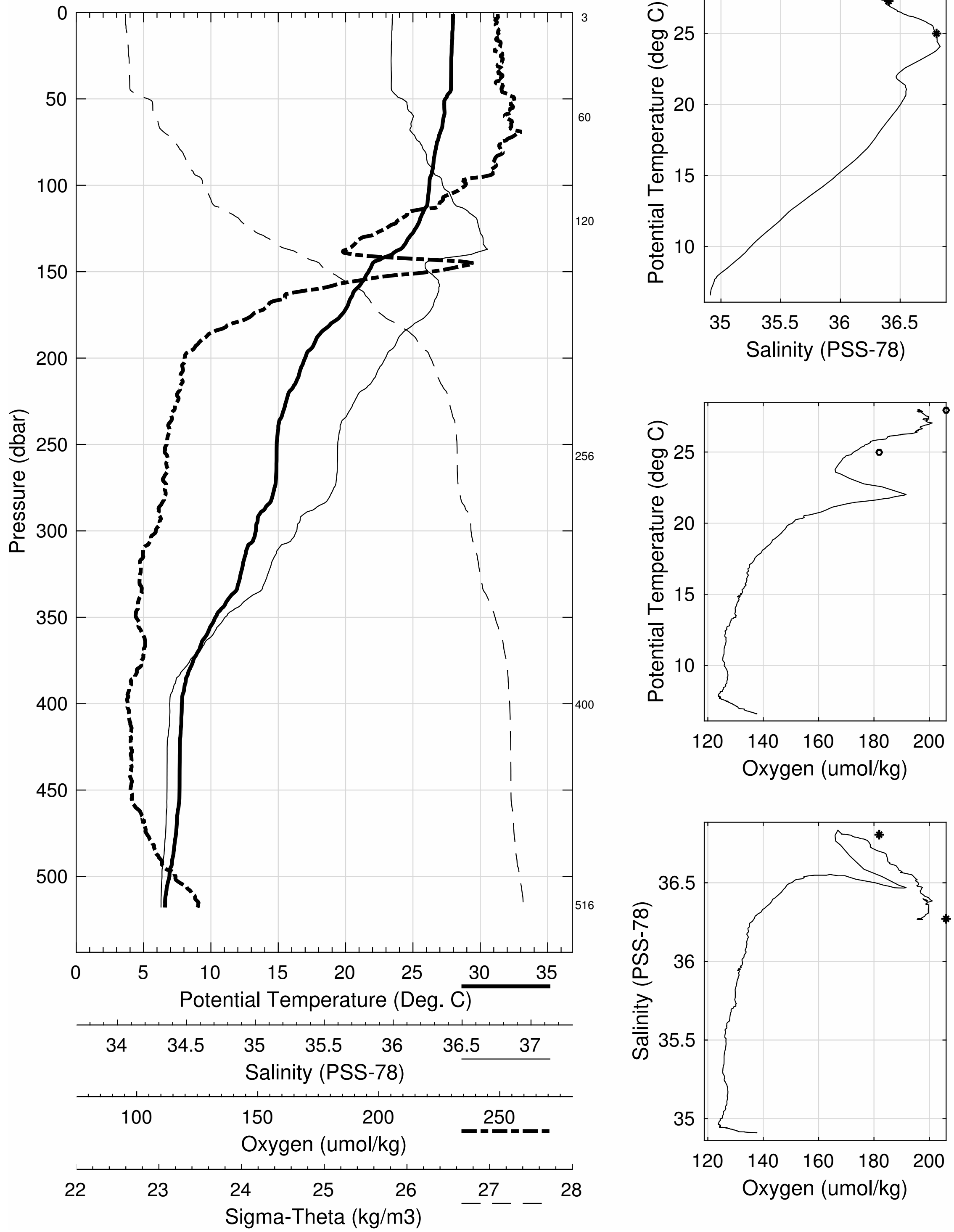

Abaco May 2017 R/V Endeavor
CTD Station 40 (CTD040)
Latitude 27.009 N Longitude 79.616 W
23-May-2017 18:03 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
3
70
179
320
472
633
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 41 (CTD041)
Latitude 27.009N Longitude 79.685W
23-May-2017 19:22Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	27.977	27.977	36.274	196.4	0.005	23.361
10	27.950	27.947	36.272	196.6	0.045	23.369
20	27.882	27.878	36.268	196.9	0.090	23.389
30	27.849	27.842	36.267	196.5	0.135	23.399
50	27.411	27.399	36.332	199.6	0.224	23.593
75	26.799	26.782	36.436	196.8	0.330	23.870
100	26.242	26.220	36.570	190.1	0.428	24.150
125	25.220	25.192	36.786	174.5	0.518	24.633
150	21.741	21.712	36.485	183.4	0.592	25.428
200	17.025	16.992	36.233	135.0	0.695	26.463
250	14.924	14.886	35.952	131.5	0.769	26.731
300	13.383	13.340	35.710	129.3	0.836	26.874
400	7.880	7.840	34.961	123.9	0.940	27.267
500	6.968	6.921	34.916	133.2	1.025	27.364

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
517	1	6.640	7.429	−999.000	−999.0
401	2	7.897	8.488	−999.000	−999.0
257	3	14.926	15.217	−999.000	−999.0
121	4	24.981	24.954	36.801	181.7
61	5	27.232	27.218	36.398	207.6
3	6	27.959	27.958	36.271	206.1

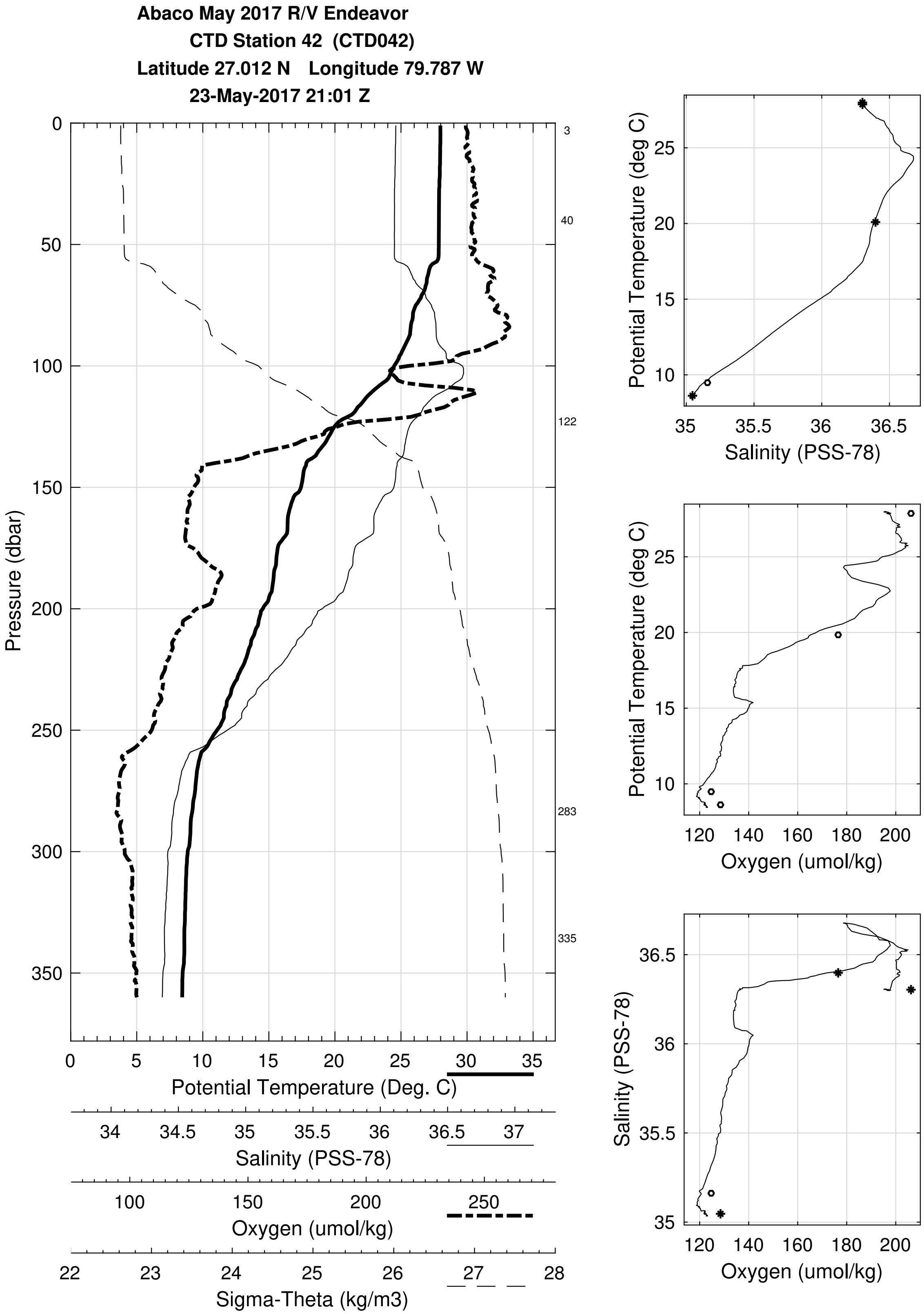
Abaco May 2017 R/V Endeavor
CTD Station 41 (CTD041)
Latitude 27.009 N Longitude 79.685 W
23-May-2017 19:22 Z



Abaco May 2017 R/V Endeavor
CTD Station 42 (CTD042)
Latitude 27.012N Longitude 79.787W
23-May-2017 21:01Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	27.982	27.982	36.308	195.4	0.004	23.385
10	27.968	27.966	36.305	195.2	0.045	23.388
20	27.945	27.941	36.303	196.9	0.090	23.395
30	27.889	27.882	36.300	197.1	0.135	23.412
50	27.874	27.862	36.300	196.7	0.224	23.418
75	26.138	26.121	36.502	202.4	0.329	24.129
100	24.503	24.482	36.671	182.8	0.418	24.762
125	19.987	19.964	36.382	167.2	0.487	25.826
150	17.454	17.428	36.297	135.7	0.534	26.407
200	14.571	14.541	35.906	136.3	0.607	26.771
250	11.105	11.073	35.387	126.4	0.666	27.064
300	8.890	8.857	35.064	120.5	0.715	27.191

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
336	1	8.643	8.607	35.045	128.6
283	2	9.530	9.498	35.159	124.5
123	3	20.130	20.107	36.396	176.3
40	4	27.878	27.868	36.299	206.3
3	5	27.961	27.960	36.305	210.3

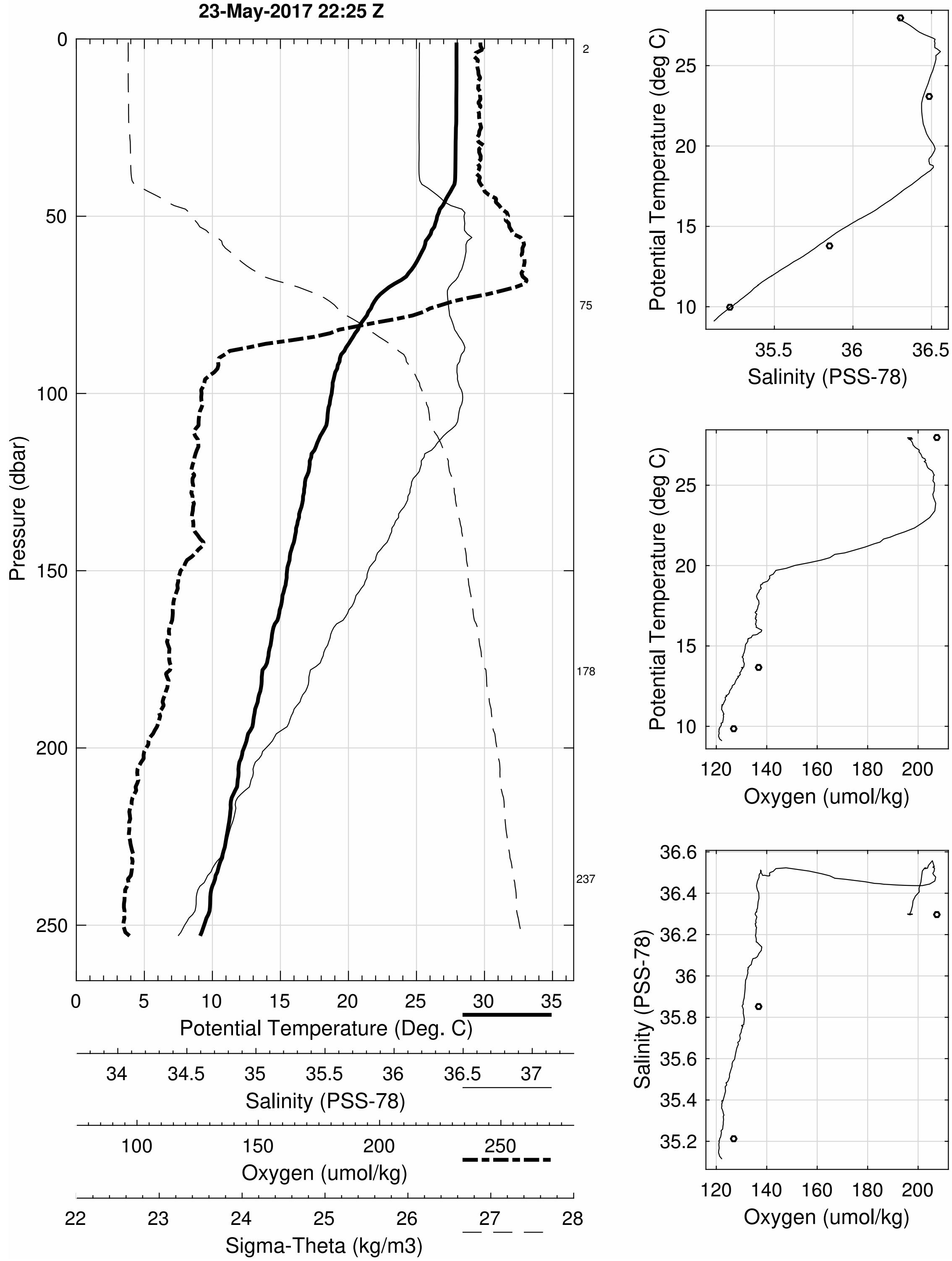

Abaco May 2017 R/V Endeavor
CTD Station 42 (CTD042)
Latitude 27.012 N Longitude 79.787 W
23-May-2017 21:01 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Abaco May 2017 R/V Endeavor
CTD Station 43 (CTD043)
Latitude 27.012N Longitude 79.865W
23-May-2017 22:25Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	μmol·kg^{-1}	m^2·s^{-2}	kg·m^{-3}
1	27.944	27.944	36.300	197.1	0.004	23.391
10	27.946	27.943	36.299	196.7	0.045	23.391
20	27.935	27.930	36.298	196.5	0.090	23.394
30	27.885	27.878	36.298	197.8	0.135	23.411
50	26.535	26.523	36.518	203.0	0.221	24.014
75	21.778	21.763	36.442	188.9	0.305	25.381
100	18.788	18.770	36.511	137.6	0.358	26.236
125	16.826	16.805	36.261	135.7	0.399	26.529
150	15.511	15.488	36.048	133.1	0.436	26.671
200	12.350	12.323	35.546	125.8	0.500	26.951
250	9.419	9.391	35.146	120.9	0.553	27.169

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	μmol·kg^{-1}
237	1	9.980	9.952	35.211	126.8
178	2	13.757	13.732	35.855	137.0
75	3	23.049	23.034	36.484	214.6
3	4	27.930	27.929	36.300	207.5

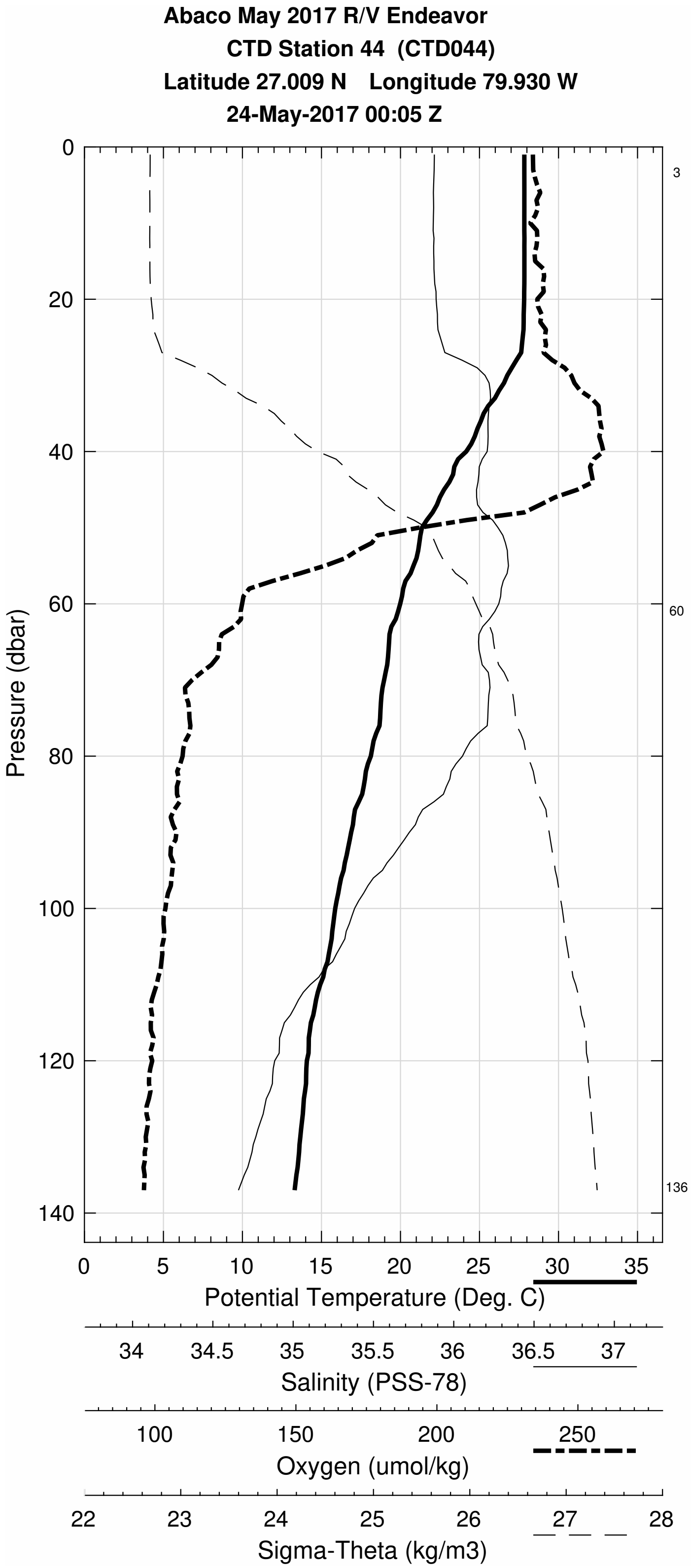
Abaco May 2017 R/V Endeavor
CTD Station 43 (CTD043)
Latitude 27.012 N Longitude 79.865 W
23-May-2017 22:25 Z



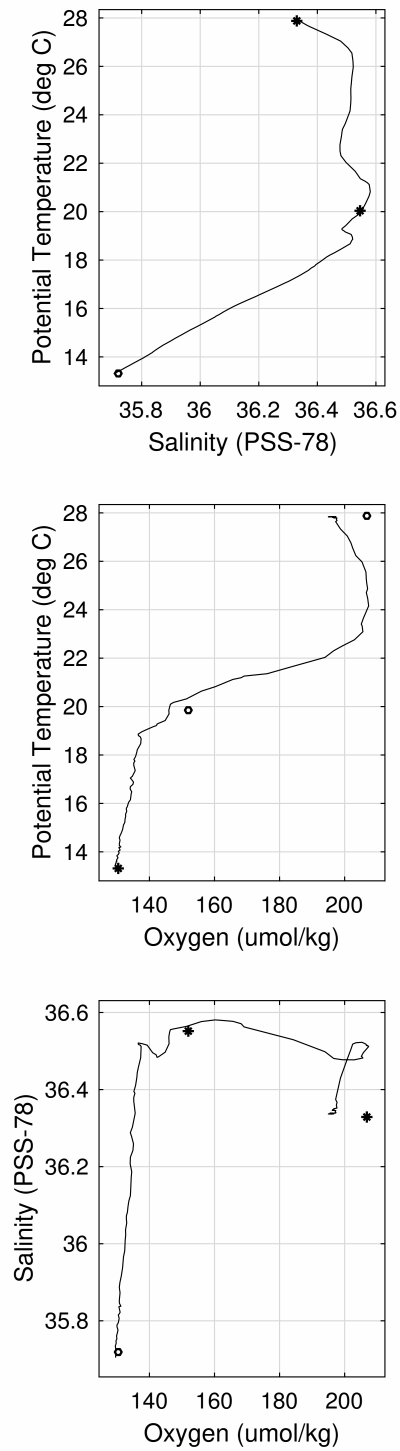
Abaco May 2017 R/V Endeavor
CTD Station 44 (CTD044)
Latitude 27.009N Longitude 79.930W
24-May-2017 00:05Z

Pressure	Temp90	PoTemp90	Salinity	Oxygen	DynHt	SigT
dbar	°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$	$m^2 \cdot s^{-2}$	$kg \cdot m^{-3}$
1	27.837	27.837	36.340	195.4	0.004	23.456
10	27.839	27.837	36.337	195.0	0.044	23.454
20	27.832	27.827	36.346	196.2	0.089	23.464
30	26.766	26.760	36.505	201.9	0.132	23.929
50	21.367	21.357	36.547	176.2	0.195	25.574
75	18.726	18.712	36.514	137.3	0.246	26.252
100	15.888	15.872	36.081	133.2	0.285	26.609
125	13.905	13.887	35.795	130.4	0.319	26.825

Pressure	Niskin	Temp90	PoTemp90	Salinity	Oxygen
dbar		°C	°C	PSS-78	$\mu mol \cdot kg^{-1}$
137	1	13.359	13.340	35.720	130.8
61	2	20.010	19.998	36.549	151.8
3	3	27.841	27.841	36.330	207.1



Abaco May 2017 R/V Endeavor
CTD Station 44 (CTD044)
Latitude 27.009 N Longitude 79.930 W
24-May-2017 00:05 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)

B WOCE Summary File

Table 17: Abaco Cruise – 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
WBTSEN	AB1705	1	1	ROS	05082013	2133	BE	26.067N	78.850W	GPS							
WBTSEN	AB1705	1	1	ROS	05082013	2133	BO	26.064N	78.851W	GPS	281	18	281	283	24	1,2	
WBTSEN	AB1705	1	1	ROS	05082013	2205	EN	26.060N	78.852W	GPS							
WBTSEN	AB1705	2	1	ROS	05082013	2310	BE	26.165N	78.801W	GPS							
WBTSEN	AB1705	2	1	ROS	05082013	2310	BO	26.161N	78.799W	GPS	438	21	445	442	5	1,2	
WBTSEN	AB1705	2	1	ROS	05082013	2346	EN	26.158N	78.801W	GPS							
WBTSEN	AB1705	3	1	ROS	05092013	0041	BE	26.249N	78.765W	GPS							
WBTSEN	AB1705	3	1	ROS	05092013	0041	BO	26.242N	78.760W	GPS	506	19	677	510	6	1,2	niskin 3 vent cap open
WBTSEN	AB1705	3	1	ROS	05092013	0123	EN	26.235N	78.760W	GPS							
WBTSEN	AB1705	4	1	ROS	05092013	0211	BE	26.334N	78.716W	GPS							
WBTSEN	AB1705	4	1	ROS	05092013	0211	BO	26.337N	78.714W	GPS	686	19	689	691	6	1,2	
WBTSEN	AB1705	4	1	ROS	05092013	0250	EN	26.340N	78.713W	GPS							
WBTSEN	AB1705	5	1	ROS	05092013	0334	BE	26.434N	78.667W	GPS							
WBTSEN	AB1705	5	1	ROS	05092013	0334	BO	26.437N	78.671W	GPS	736	21	756	743	7	1,2	niskin 3 vent cap open/changed
WBTSEN	AB1705	5	1	ROS	05092013	0418	EN	26.441N	78.678W	GPS							
WBTSEN	AB1705	6	1	ROS	05092013	1513	BE	25.954N	76.895W	GPS							
WBTSEN	AB1705	6	1	ROS	05092013	1513	BO	25.960N	76.906W	GPS	198	82	4380	4440	12	1,2	
WBTSEN	AB1705	6	1	ROS	05092013	2004	EN	25.962N	76.924W	GPS							
WBTSEN	AB1705	7	1	ROS	05092013	2338	BE	26.525N	76.883W	GPS							
WBTSEN	AB1705	7	1	ROS	05092013	2338	BO	26.525N	76.884W	GPS	443	20	441	447	8	1,2	
WBTSEN	AB1705	7	1	ROS	05102013	0013	EN	26.525N	76.885W	GPS							
WBTSEN	AB1705	8	1	ROS	05102013	0052	BE	26.518N	76.833W	GPS							
WBTSEN	AB1705	8	1	ROS	05102013	0052	BO	26.517N	76.837W	GPS	1044	25	1092	1055	13	1,2	
WBTSEN	AB1705	8	1	ROS	05102013	0156	EN	26.524N	76.844W	GPS							
WBTSEN	AB1705	9	1	ROS	05102013	0355	BE	26.504N	76.744W	GPS							
WBTSEN	AB1705	9	1	ROS	05102013	0355	BO	26.519N	76.748W	GPS	94	85	3756	3740	24	1,2	niskin 9 leaking bottom cap
WBTSEN	AB1705	9	1	ROS	05102013	0716	EN	26.544N	76.760W	GPS							
WBTSEN	AB1705	10	1	ROS	05102013	0849	BE	26.505N	76.653W	GPS							
WBTSEN	AB1705	10	1	ROS	05102013	0849	BO	26.512N	76.656W	GPS	4471	26	4460	4549	24	1,2	niskin 10 vent cap open
WBTSEN	AB1705	10	1	ROS	05102013	1226	EN	26.522N	76.660W	GPS							
WBTSEN	AB1705	11	1	ROS	05102013	1359	BE	26.501N	76.566W	GPS							
WBTSEN	AB1705	11	1	ROS	05102013	1359	BO	26.512N	76.570W	GPS	4761	100	4772	4848	24	1,2	niskin 3 vent cap open
WBTSEN	AB1705	11	1	ROS	05102013	1723	EN	26.522N	76.579W	GPS							
WBTSEN	AB1705	12	1	ROS	05102013	1925	BE	26.505N	76.476W	GPS							
WBTSEN	AB1705	12	1	ROS	05102013	1925	BO	26.510N	76.473W	GPS	4846	28	4839	4935	24	1,2	
WBTSEN	AB1705	12	1	ROS	05102013	2247	EN	26.514N	76.474W	GPS							
WBTSEN	AB1705	13	1	ROS	05112013	0020	BE	26.500N	76.343W	GPS							
WBTSEN	AB1705	13	1	ROS	05112013	0020	BO	26.505N	76.337W	GPS	4815	21	4863	4903	24	1,2	
WBTSEN	AB1705	13	1	ROS	05112013	0349	EN	26.511N	76.332W	GPS							
WBTSEN	AB1705	14	1	ROS	05112013	0504	BE	26.500N	76.215W	GPS							
WBTSEN	AB1705	14	1	ROS	05112013	0504	BO	26.506N	76.215W	GPS	4797	18	4804	4884	24	1,2	niskin 24 lanyard caught/no sample
WBTSEN	AB1705	14	1	ROS	05112013	0839	EN	26.512N	76.214W	GPS							
WBTSEN	AB1705	15	1	ROS	05112013	0949	BE	26.500N	76.085W	GPS							
WBTSEN	AB1705	15	1	ROS	05112013	0949	BO	26.505N	76.077W	GPS	4779	21	4786	4866	24	1,2	
WBTSEN	AB1705	15	1	ROS	05112013	1308	EN	26.508N	76.066W	GPS							
WBTSEN	AB1705	16	1	ROS	05112013	1436	BE	26.501N	75.899W	GPS							
WBTSEN	AB1705	16	1	ROS	05112013	1436	BO	26.503N	75.889W	GPS	4721	22	4710	4806	24	1,2	
WBTSEN	AB1705	16	1	ROS	05112013	1753	EN	26.501N	75.872W	GPS							
WBTSEN	AB1705	17	1	ROS	05112013	1912	BE	26.497N	75.698W	GPS							
WBTSEN	AB1705	17	1	ROS	05112013	1912	BO	26.492N	75.689W	GPS	4668	20	4661	4751	24	1,2	
WBTSEN	AB1705	17	1	ROS	05112013	2225	EN	26.486N	75.682W	GPS							
WBTSEN	AB1705	18	1	ROS	05122013	0025	BE	26.498N	75.500W	GPS							
WBTSEN	AB1705	18	1	ROS	05122013	0025	BO	26.482N	75.493W	GPS	4661	20	4664	4745	24	1,2	
WBTSEN	AB1705	18	1	ROS	05122013	0331	EN	26.467N	75.487W	GPS							
WBTSEN	AB1705	19	1	ROS	05122013	0510	BE	26.494N	75.301W	GPS							
WBTSEN	AB1705	19	1	ROS	05122013	0510	BO	26.477N	75.297W	GPS	4596	21	4624	4678	24	1,2	
WBTSEN	AB1705	19	1	ROS	05122013	0829	EN	26.453N	75.297W	GPS							
WBTSEN	AB1705	20	1	ROS	05122013	0954	BE	26.498N	75.081W	GPS							
WBTSEN	AB1705	20	1	ROS	05122013	0954	BO	26.482N	75.087W	GPS	4589	20	4604	4670	24	1,2	
WBTSEN	AB1705	20	1	ROS	05122013	1305	EN	26.469N	75.097W	GPS							
WBTSEN	AB1705	21	1	ROS	05122013	1501	BE	26.497N	74.799W	GPS							
WBTSEN	AB1705	21	1	ROS	05122013	1501	BO	26.489N	74.798W	GPS	4519	20	4532	4599	24	1,2	niskin 2,3,21,23 lanyard caught/no sample

WBTSEN	AB1705	21	1	ROS	05122013	1806	EN	26.486N	74.807W	GPS							
WBTSEN	AB1705	22	1	ROS	05122013	2003	BE	26.501N	74.516W	GPS							
WBTSEN	AB1705	22	1	ROS	05122013	2003	BO	26.494N	74.520W	GPS	4474	36		4538	4553	24	1,2
WBTSEN	AB1705	22	1	ROS	05122013	2308	EN	26.490N	74.533W	GPS							
WBTSEN	AB1705	23	1	ROS	05132013	0054	BE	26.500N	74.231W	GPS							
WBTSEN	AB1705	23	1	ROS	05132013	0054	BO	26.495N	74.240W	GPS	4522	20		4531	4602	24	1,2	niskin 23 leaking bottom cap/no sample
WBTSEN	AB1705	23	1	ROS	05132013	0355	EN	26.489N	74.252W	GPS							
WBTSEN	AB1705	24	1	ROS	05132013	0610	BE	26.496N	73.865W	GPS							
WBTSEN	AB1705	24	1	ROS	05132013	0610	BO	26.489N	73.867W	GPS	4755	26		4734	4841	24	1,2	
WBTSEN	AB1705	24	1	ROS	05132013	0918	EN	26.480N	73.878W	GPS							
WBTSEN	AB1705	25	1	ROS	05132013	1129	BE	26.501N	73.499W	GPS							
WBTSEN	AB1705	25	1	ROS	05132013	1129	BO	26.492N	73.505W	GPS	4950	17		4960	5042	24	1,2	niskin 2,3 landyard caught/no sample
WBTSEN	AB1705	25	1	ROS	05132013	1446	EN	26.477N	73.507W	GPS							
WBTSEN	AB1705	26	1	ROS	05132013	1654	BE	26.500N	73.134W	GPS							
WBTSEN	AB1705	26	1	ROS	05132013	1654	BO	26.493N	73.132W	GPS	5022	19		5015	5116	24	1,2	
WBTSEN	AB1705	26	1	ROS	05132013	2012	EN	26.484N	73.132W	GPS							
WBTSEN	AB1705	27	1	ROS	05132013	2216	BE	26.499N	72.767W	GPS							
WBTSEN	AB1705	27	1	ROS	05132013	2216	BO	26.485N	72.763W	GPS	5083	26		5101	5179	24	1,2	niskin 23 leaking bottom cap/no sample
WBTSEN	AB1705	27	1	ROS	05142013	0137	EN	26.473N	72.758W	GPS							
WBTSEN	AB1705	28	1	ROS	05142013	0348	BE	26.499N	72.383W	GPS							
WBTSEN	AB1705	28	1	ROS	05142013	0348	BO	26.497N	72.377W	GPS	5177	76		5164	5276	24	1,2	
WBTSEN	AB1705	28	1	ROS	05142013	0709	EN	26.493N	72.363W	GPS							
WBTSEN	AB1705	29	1	ROS	05142013	0909	BE	26.500N	71.990W	GPS							
WBTSEN	AB1705	29	1	ROS	05142013	0909	BO	26.500N	71.972W	GPS	5270	25		5288	5372	24	1,2	
WBTSEN	AB1705	29	1	ROS	05142013	1240	EN	26.506N	71.958W	GPS							
WBTSEN	AB1705	30	1	ROS	05142013	1535	BE	26.499N	71.499W	GPS							
WBTSEN	AB1705	30	1	ROS	05142013	1535	BO	26.500N	71.491W	GPS	5405	20		5410	5511	24	1,2	
WBTSEN	AB1705	30	1	ROS	05142013	1900	EN	26.500N	71.478W	GPS							
WBTSEN	AB1705	31	1	ROS	05142013	2125	BE	26.498N	70.997W	GPS							
WBTSEN	AB1705	31	1	ROS	05142013	2125	BO	26.490N	70.986W	GPS	5467	21		5471	5576	24	1,2	niskin 23 leaking bottom cap/no sample
WBTSEN	AB1705	31	1	ROS	05152013	0103	EN	26.484N	70.976W	GPS							
WBTSEN	AB1705	32	1	ROS	05152013	0334	BE	26.497N	70.497W	GPS							
WBTSEN	AB1705	32	1	ROS	05152013	0334	BO	26.473N	70.492W	GPS	5464	28		5618	5572	24	1,2	
WBTSEN	AB1705	32	1	ROS	05152013	0715	EN	26.434N	70.485W	GPS							
WBTSEN	AB1705	33	1	ROS	05152013	0959	BE	26.500N	69.999W	GPS							
WBTSEN	AB1705	33	1	ROS	05152013	0959	BO	26.498N	69.998W	GPS	5468	24		5456	5576	24	1,2	
WBTSEN	AB1705	33	1	ROS	05152013	1333	EN	26.486N	69.990W	GPS							
WBTSEN	AB1705	34	1	ROS	05152013	1608	BE	26.499N	69.499W	GPS							
WBTSEN	AB1705	34	1	ROS	05152013	1608	BO	26.497N	69.485W	GPS	5306	20		5323	5409	24	1,2	
WBTSEN	AB1705	34	1	ROS	05152013	1938	EN	26.496N	69.468W	GPS							
WBTSEN	AB1705	35	1	ROS	05192013	1920	BE	26.502N	76.472W	GPS							
WBTSEN	AB1705	35	1	ROS	05192013	1920	BO	26.512N	76.466W	GPS	4848	26		4837	4936	12	1,2	
WBTSEN	AB1705	35	1	ROS	05192013	2337	EN	26.527N	76.472W	GPS							
WBTSEN	AB1705	36	1	ROS	05232013	1216	BE	26.999N	79.202W	GPS							
WBTSEN	AB1705	36	1	ROS	05232013	1216	BO	26.999N	79.199W	GPS	464	13		468	468	5	1,2	
WBTSEN	AB1705	36	1	ROS	05232013	1247	EN	27.000N	79.196W	GPS							
WBTSEN	AB1705	37	1	ROS	05232013	1326	BE	27.000N	79.283W	GPS							
WBTSEN	AB1705	37	1	ROS	05232013	1326	BO	27.001N	79.279W	GPS	590	21		604	596	6	1,2	
WBTSEN	AB1705	37	1	ROS	05232013	1400	EN	27.007N	79.275W	GPS							
WBTSEN	AB1705	38	1	ROS	05232013	1502	BE	27.000N	79.382W	GPS							
WBTSEN	AB1705	38	1	ROS	05232013	1502	BO	27.006N	79.382W	GPS	665	26		662	670	6	1,2	
WBTSEN	AB1705	38	1	ROS	05232013	1538	EN	27.012N	79.382W	GPS							
WBTSEN	AB1705	39	1	ROS	05232013	1628	BE	27.002N	79.502W	GPS							
WBTSEN	AB1705	39	1	ROS	05232013	1628	BO	27.012N	79.502W	GPS	739	20		743	746	7	1,2	
WBTSEN	AB1705	39	1	ROS	05232013	1707	EN	27.025N	79.504W	GPS							
WBTSEN	AB1705	40	1	ROS	05232013	1803	BE	27.003N	79.616W	GPS							
WBTSEN	AB1705	40	1	ROS	05232013	1803	BO	27.013N	79.616W	GPS	628	20		635	634	6	1,2	
WBTSEN	AB1705	40	1	ROS	05232013	1839	EN	27.026N	79.616W	GPS							
WBTSEN	AB1705	41	1	ROS	05232013	1922	BE	27.001N	79.685W	GPS							
WBTSEN	AB1705	41	1	ROS	05232013	1922	BO	27.017N	79.684W	GPS	513	18		610	518	6	1,2	Niskin 1,2,3 lanyard caught/no sample
WBTSEN	AB1705	41	1	ROS	05232013	1959	EN	27.031N	79.679W	GPS							
WBTSEN	AB1705	42	1	ROS	05232013	2101	BE	27.004N	79.790W	GPS							
WBTSEN	AB1705	42	1	ROS	05232013	2101	BO	27.017N	79.786W	GPS	122	85		522	360	5	1,2	
WBTSEN	AB1705	42	1	ROS	05232013	2134	EN	27.033N	79.781W	GPS							
WBTSEN	AB1705	43	1	ROS	05232013	2225	BE	27.003N	79.867W	GPS							
WBTSEN	AB1705	43	1	ROS	05232013	2225	BO	27.017N	79.863W	GPS	3	38		356	253	4	1,2	CTD vertical motion (+/- 40m) by current

WBTSEN	AB1705	43	1	ROS	05232013	2258	EN	27.041N	79.858W	GPS						
WBTSEN	AB1705	44	1	ROS	05242013	0005	BE	27.002N	79.932W	GPS						
WBTSEN	AB1705	44	1	ROS	05242013	0005	BO	27.011N	79.929W	GPS	136	18	150	137	3	1,2
WBTSEN	AB1705	44	1	ROS	05242013	0020	EN	27.015N	79.927W	GPS						

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

C WOCE Bottle Summary File

Table 18: Abaco Cruise – 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
WBTSEN	AB1705	1	1	1	2	20170508	2148	26.067N	78.850W	281	283	18.864	36.592	2	36.595	2	163.0	2	163.4	2
WBTSEN	AB1705	1	1	2	2	20170508	2148	26.067N	78.850W	281	283	18.854	36.590	2	-999.000	9	158.3	2	-999.0	9
WBTSEN	AB1705	1	1	3	2	20170508	2148	26.067N	78.850W	149	150	24.571	36.800	2	36.807	2	200.5	2	199.3	2
WBTSEN	AB1705	1	1	4	2	20170508	2148	26.067N	78.850W	149	150	24.610	36.797	2	-999.000	9	195.7	2	-999.0	9
WBTSEN	AB1705	1	1	5	2	20170508	2148	26.067N	78.850W	45	45	26.576	36.455	2	36.459	2	199.6	2	198.8	2
WBTSEN	AB1705	1	1	6	2	20170508	2148	26.067N	78.850W	45	45	26.581	36.453	2	-999.000	9	195.8	2	-999.0	9
WBTSEN	AB1705	1	1	7	2	20170508	2148	26.067N	78.850W	2	2	26.890	36.434	2	36.447	4	199.0	2	198.3	2
WBTSEN	AB1705	1	1	8	2	20170508	2148	26.067N	78.850W	2	3	26.892	36.435	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	9	2	20170508	2148	26.067N	78.850W	2	2	26.866	36.434	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	10	2	20170508	2148	26.067N	78.850W	2	2	26.851	36.433	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	11	2	20170508	2148	26.067N	78.850W	2	2	26.881	36.434	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	12	2	20170508	2148	26.067N	78.850W	2	2	26.911	36.434	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	13	2	20170508	2148	26.067N	78.850W	2	2	26.932	36.435	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	14	2	20170508	2148	26.067N	78.850W	2	2	26.929	36.435	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	15	2	20170508	2148	26.067N	78.850W	2	2	26.922	36.434	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	16	2	20170508	2148	26.067N	78.850W	2	2	26.882	36.432	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	17	2	20170508	2148	26.067N	78.850W	2	2	26.885	36.433	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	18	2	20170508	2148	26.067N	78.850W	2	2	26.857	36.433	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	19	2	20170508	2148	26.067N	78.850W	2	2	26.851	36.433	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	20	2	20170508	2148	26.067N	78.850W	2	2	26.860	36.431	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	21	2	20170508	2148	26.067N	78.850W	2	2	26.863	36.431	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	22	2	20170508	2148	26.067N	78.850W	2	2	26.868	36.431	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	23	2	20170508	2148	26.067N	78.850W	2	2	26.871	36.431	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	1	1	24	2	20170508	2148	26.067N	78.850W	2	2	26.875	36.430	2	-999.000	9	195.2	2	-999.0	9
WBTSEN	AB1705	2	1	1	2	20170508	2331	26.165N	78.801W	438	442	14.828	35.993	2	36.004	4	159.5	2	160.0	2
WBTSEN	AB1705	2	1	2	2	20170508	2331	26.165N	78.801W	248	250	20.677	36.703	2	36.706	2	185.2	2	185.1	2
WBTSEN	AB1705	2	1	3	2	20170508	2331	26.165N	78.801W	180	181	23.646	36.858	2	36.862	2	205.1	2	204.4	2
WBTSEN	AB1705	2	1	4	2	20170508	2331	26.165N	78.801W	89	90	25.797	36.558	2	36.578	4	200.8	2	199.3	2
WBTSEN	AB1705	2	1	5	2	20170508	2331	26.165N	78.801W	2	2	27.117	36.427	2	36.432	2	198.3	2	198.5	2
WBTSEN	AB1705	2	1	6	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	7	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	8	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	9	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	10	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	11	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	12	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	13	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	14	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	15	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	16	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	17	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	18	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	19	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	20	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	21	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	22	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	23	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	2	1	24	2	20170508	2331	26.165N	78.801W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	1	2	20170509	0101	26.249N	78.765W	506	510	13.194	35.734	2	35.744	4	149.8	2	150.7	2
WBTSEN	AB1705	3	1	2	2	20170509	0101	26.249N	78.765W	397	400	16.245	36.231	2	36.241	4	170.2	2	170.4	2
WBTSEN	AB1705	3	1	3	2	20170509	0101	26.249N	78.765W	269	271	19.697	36.629	2	36.635	2	190.6	2	188.7	2
WBTSEN	AB1705	3	1	4	2	20170509	0101	26.249N	78.765W	159	160	22.955	36.836	2	36.837	2	199.8	2	198.8	2
WBTSEN	AB1705	3	1	5	2	20170509	0101	26.249N	78.765W	60	60	25.606	36.580	2	36.583	2	198.4	2	198.6	2
WBTSEN	AB1705	3	1	6	2	20170509	0101	26.249N	78.765W	2	2	27.346	36.431	2	36.440	4	198.7	2	198.8	2
WBTSEN	AB1705	3	1	7	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	8	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	9	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	10	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	11	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	12	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	13	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	14	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

WBTSEN	AB1705	3	1	15	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	16	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	17	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	18	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	19	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	20	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	21	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	22	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	23	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	3	1	24	2	20170509	0101	26.249N	78.765W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	1	2	20170509	0231	26.334N	78.716W	686	691	10.449	35.310	2	35.313	2	121.8	2	133.6	4
WBTSEN	AB1705	4	1	2	2	20170509	0231	26.334N	78.716W	526	530	14.931	36.010	2	36.009	2	161.8	2	161.0	2
WBTSEN	AB1705	4	1	3	2	20170509	0231	26.334N	78.716W	368	371	17.967	36.511	2	36.512	2	183.2	2	184.1	2
WBTSEN	AB1705	4	1	4	2	20170509	0231	26.334N	78.716W	210	211	21.079	36.719	2	36.720	2	203.4	2	202.8	2
WBTSEN	AB1705	4	1	5	2	20170509	0231	26.334N	78.716W	80	80	23.296	36.851	2	36.849	2	203.7	2	203.1	2
WBTSEN	AB1705	4	1	6	2	20170509	0231	26.334N	78.716W	2	2	25.230	36.641	2	36.654	4	202.9	2	202.9	2
WBTSEN	AB1705	4	1	7	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	8	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	9	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	10	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	11	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	12	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	13	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	14	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	15	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	16	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	17	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	18	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	19	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	20	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	21	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	22	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	23	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	4	1	24	2	20170509	0231	26.334N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	1	2	20170509	0354	26.434N	78.666W	736	742	10.562	35.368	2	35.380	4	139.9	2	141.1	2
WBTSEN	AB1705	5	1	2	2	20170509	0354	26.434N	78.666W	567	571	14.766	35.983	2	35.987	2	160.9	2	159.4	2
WBTSEN	AB1705	5	1	3	2	20170509	0354	26.434N	78.666W	419	422	17.974	36.508	2	36.511	2	182.8	2	183.2	2
WBTSEN	AB1705	5	1	4	2	20170509	0354	26.434N	78.666W	288	290	19.345	36.605	2	36.604	2	189.0	2	188.6	2
WBTSEN	AB1705	5	1	5	2	20170509	0354	26.434N	78.666W	159	160	21.436	36.738	2	36.736	2	203.9	2	203.4	2
WBTSEN	AB1705	5	1	6	2	20170509	0354	26.434N	78.666W	60	60	23.747	36.837	2	36.856	4	205.8	2	203.6	2
WBTSEN	AB1705	5	1	7	2	20170509	0354	26.434N	78.666W	2	2	25.603	36.670	2	36.667	2	204.7	2	203.7	2
WBTSEN	AB1705	5	1	8	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	9	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	10	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	11	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	12	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	13	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	14	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	15	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	16	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	17	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	18	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	19	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	20	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	21	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	22	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	23	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	5	1	24	2	20170509	0354	26.434N	78.666W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	1	2	20170509	1643	25.954N	76.895W	4365	4439	2.273	34.887	2	34.888	2	243.1	2	-999.0	9
WBTSEN	AB1705	6	1	2	2	20170509	1643	25.954N	76.895W	3937	4000	2.327	34.895	2	34.896	2	248.6	2	-999.0	9
WBTSEN	AB1705	6	1	3	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	4	2	20170509	1643	25.954N	76.895W	3450	3501	2.478	34.907	2	34.908	2	251.5	2	-999.0	9
WBTSEN	AB1705	6	1	5	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	6	2	20170509	1643	25.954N	76.895W	2960	3001	2.791	34.926	2	34.926	2	250.5	2	-999.0	9
WBTSEN	AB1705	6	1	7	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	8	2	20170509	1643	25.954N	76.895W	2469	2499	3.203	34.950	2	34.951	2	248.4	2	-999.0	9

WBTSEN	AB1705	6	1	9	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	10	2	20170509	1643	25.954N	76.895W	1978	2001	3.642	34.968	2	34.968	2	248.9	2	-999.0	9
WBTSEN	AB1705	6	1	11	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	12	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	13	2	20170509	1643	25.954N	76.895W	1485	1500	4.268	35.004	2	35.004	2	243.5	2	-999.0	9
WBTSEN	AB1705	6	1	14	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	15	2	20170509	1643	25.954N	76.895W	793	800	9.232	35.216	2	35.217	2	138.1	2	-999.0	9
WBTSEN	AB1705	6	1	16	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	17	2	20170509	1643	25.954N	76.895W	496	500	16.302	36.237	2	36.240	2	169.9	2	-999.0	9
WBTSEN	AB1705	6	1	18	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	19	2	20170509	1643	25.954N	76.895W	198	200	20.686	36.686	2	36.686	2	195.2	2	-999.0	9
WBTSEN	AB1705	6	1	20	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	21	2	20170509	1643	25.954N	76.895W	99	100	22.831	36.831	2	36.832	2	203.8	2	-999.0	9
WBTSEN	AB1705	6	1	22	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	6	1	23	2	20170509	1643	25.954N	76.895W	2	2	25.638	36.843	2	36.849	2	201.0	2	-999.0	9
WBTSEN	AB1705	6	1	24	2	20170509	1643	25.954N	76.895W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	1	2	20170509	2354	26.525N	76.883W	443	447	16.995	36.354	2	36.368	4	180.3	2	180.4	2
WBTSEN	AB1705	7	1	2	2	20170509	2354	26.525N	76.883W	298	300	18.794	36.563	2	36.561	2	187.6	2	187.0	2
WBTSEN	AB1705	7	1	3	2	20170509	2354	26.525N	76.883W	248	250	19.906	36.632	2	36.627	2	194.1	2	193.4	2
WBTSEN	AB1705	7	1	4	2	20170509	2354	26.525N	76.883W	179	181	21.868	36.764	2	36.769	6	202.0	2	202.6	2
WBTSEN	AB1705	7	1	5	2	20170509	2354	26.525N	76.883W	130	131	22.882	36.824	2	36.825	2	205.4	2	203.3	4
WBTSEN	AB1705	7	1	6	2	20170509	2354	26.525N	76.883W	80	80	24.701	36.790	2	36.791	2	206.9	2	207.1	2
WBTSEN	AB1705	7	1	7	2	20170509	2354	26.525N	76.883W	40	41	25.630	36.624	2	36.623	2	203.1	2	203.0	2
WBTSEN	AB1705	7	1	8	2	20170509	2354	26.525N	76.883W	3	3	26.068	36.627	2	36.627	2	202.6	2	202.5	2
WBTSEN	AB1705	7	1	9	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	10	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	11	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	12	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	13	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	14	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	15	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	16	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	17	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	18	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	19	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	20	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	21	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	22	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	23	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	7	1	24	2	20170509	2354	26.525N	76.883W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	1	2	20170510	0118	26.518N	76.833W	1044	1054	5.652	35.054	2	35.060	4	211.4	2	213.2	2
WBTSEN	AB1705	8	1	2	2	20170510	0118	26.518N	76.833W	990	999	6.424	35.074	2	35.074	2	192.4	2	193.9	2
WBTSEN	AB1705	8	1	3	2	20170510	0118	26.518N	76.833W	895	903	7.937	35.122	2	35.124	2	154.7	2	155.8	2
WBTSEN	AB1705	8	1	4	2	20170510	0118	26.518N	76.833W	795	801	10.309	35.329	2	35.317	4	139.5	2	139.3	2
WBTSEN	AB1705	8	1	5	2	20170510	0118	26.518N	76.833W	695	701	12.749	35.664	2	35.668	2	145.9	2	145.8	2
WBTSEN	AB1705	8	1	6	2	20170510	0118	26.518N	76.833W	596	601	14.658	35.960	2	35.962	2	163.0	2	160.8	2
WBTSEN	AB1705	8	1	7	2	20170510	0118	26.518N	76.833W	498	502	15.878	36.160	2	36.160	2	172.0	2	171.2	2
WBTSEN	AB1705	8	1	8	2	20170510	0118	26.518N	76.833W	389	392	17.701	36.473	2	36.475	2	184.3	2	185.8	2
WBTSEN	AB1705	8	1	9	2	20170510	0118	26.518N	76.833W	280	282	19.479	36.593	2	36.595	2	192.7	2	192.1	2
WBTSEN	AB1705	8	1	10	2	20170510	0118	26.518N	76.833W	190	192	21.211	36.723	2	36.725	2	206.5	2	205.2	2
WBTSEN	AB1705	8	1	11	2	20170510	0118	26.518N	76.833W	119	120	23.247	36.859	2	36.863	2	210.3	2	210.3	2
WBTSEN	AB1705	8	1	12	2	20170510	0118	26.518N	76.833W	69	70	24.944	36.757	2	36.774	4	206.1	2	205.8	2
WBTSEN	AB1705	8	1	13	2	20170510	0118	26.518N	76.833W	2	2	25.713	36.596	2	36.597	2	203.4	2	202.3	2
WBTSEN	AB1705	8	1	14	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	15	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	16	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	17	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	18	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	19	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	20	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	21	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	22	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	23	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	8	1	24	2	20170510	0118	26.518N	76.833W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	9	1	1	2	20170510	0507	26.504N	76.744W	3678	3735	2.354	34.899	2	34.899	2	266.5	2	268.2	2
WBTSEN	AB1705	9	1	2	2	20170510	0507	26.504N	76.744W	3495	3547	2.462	34.906	2	34.906	2	267.3	2	267.4	2

WBTSEN	AB1705	9	1	3	2	20170510	0507	26.504N	76.744W	3219	3265	2.703	34.920	2	34.920	2	265.8	2	266.2	2
WBTSEN	AB1705	9	1	4	2	20170510	0507	26.504N	76.744W	2958	2999	2.892	34.931	2	34.932	6	264.3	2	264.1	2
WBTSEN	AB1705	9	1	5	2	20170510	0507	26.504N	76.744W	2665	2699	3.077	34.939	2	34.946	4	262.7	2	262.6	2
WBTSEN	AB1705	9	1	6	2	20170510	0507	26.504N	76.744W	2469	2500	3.154	34.942	2	34.943	2	262.5	2	264.2	2
WBTSEN	AB1705	9	1	7	2	20170510	0507	26.504N	76.744W	2175	2201	3.375	34.955	2	34.955	2	261.7	2	260.7	2
WBTSEN	AB1705	9	1	8	2	20170510	0507	26.504N	76.744W	1880	1901	3.656	34.968	2	34.967	2	259.9	2	260.2	2
WBTSEN	AB1705	9	1	9	2	20170510	0507	26.504N	76.744W	1682	1700	3.767	34.974	2	34.974	2	259.0	2	258.8	2
WBTSEN	AB1705	9	1	10	2	20170510	0507	26.504N	76.744W	1535	1550	3.926	34.983	2	34.983	2	257.1	2	257.6	2
WBTSEN	AB1705	9	1	11	2	20170510	0507	26.504N	76.744W	1387	1401	4.102	34.991	2	34.992	2	255.2	2	254.4	2
WBTSEN	AB1705	9	1	12	2	20170510	0507	26.504N	76.744W	1238	1250	4.477	35.016	2	35.017	2	248.5	2	247.5	2
WBTSEN	AB1705	9	1	13	2	20170510	0507	26.504N	76.744W	1090	1100	5.542	35.058	2	35.059	2	219.3	2	219.1	2
WBTSEN	AB1705	9	1	14	2	20170510	0507	26.504N	76.744W	942	951	7.393	35.111	2	35.112	2	160.0	2	170.5	4
WBTSEN	AB1705	9	1	15	2	20170510	0507	26.504N	76.744W	809	816	9.836	35.273	2	35.279	2	138.6	2	137.3	2
WBTSEN	AB1705	9	1	16	2	20170510	0507	26.504N	76.744W	699	705	12.915	35.689	2	35.701	4	141.6	2	144.3	4
WBTSEN	AB1705	9	1	17	2	20170510	0507	26.504N	76.744W	590	595	15.203	36.048	2	36.050	2	165.1	2	98.3	4
WBTSEN	AB1705	9	1	18	2	20170510	0507	26.504N	76.744W	481	485	16.945	36.346	2	36.351	2	178.1	2	178.7	2
WBTSEN	AB1705	9	1	19	2	20170510	0507	26.504N	76.744W	372	375	18.277	36.545	2	36.546	2	184.5	2	184.6	2
WBTSEN	AB1705	9	1	20	2	20170510	0507	26.504N	76.744W	263	265	19.841	36.615	2	36.617	2	195.4	2	194.9	2
WBTSEN	AB1705	9	1	21	2	20170510	0507	26.504N	76.744W	174	175	21.420	36.743	2	36.743	2	200.5	2	200.3	2
WBTSEN	AB1705	9	1	22	2	20170510	0507	26.504N	76.744W	94	95	23.653	36.865	2	36.865	6	201.6	2	208.5	4
WBTSEN	AB1705	9	1	23	2	20170510	0507	26.504N	76.744W	45	45	24.961	36.850	2	36.854	2	207.6	2	206.3	2
WBTSEN	AB1705	9	1	24	2	20170510	0507	26.504N	76.744W	2	2	25.647	36.587	2	36.589	2	204.1	2	202.8	2
WBTSEN	AB1705	10	1	1	2	20170510	1013	26.505N	76.653W	4471	4549	2.265	34.886	2	34.886	2	242.6	2	263.5	4
WBTSEN	AB1705	10	1	2	2	20170510	1013	26.505N	76.653W	4074	4140	2.295	34.892	2	34.892	2	264.8	2	265.7	2
WBTSEN	AB1705	10	1	3	2	20170510	1013	26.505N	76.653W	3669	3725	2.382	34.901	2	34.900	2	266.7	2	266.9	2
WBTSEN	AB1705	10	1	4	2	20170510	1013	26.505N	76.653W	3254	3301	2.628	34.917	2	34.916	2	266.3	2	266.9	2
WBTSEN	AB1705	10	1	5	2	20170510	1013	26.505N	76.653W	2861	2900	2.920	34.933	2	34.934	2	265.2	2	263.8	2
WBTSEN	AB1705	10	1	6	2	20170510	1013	26.505N	76.653W	2568	2601	3.072	34.941	2	34.940	2	262.8	2	263.4	2
WBTSEN	AB1705	10	1	7	2	20170510	1013	26.505N	76.653W	2273	2300	3.280	34.953	2	34.953	6	261.6	2	261.5	2
WBTSEN	AB1705	10	1	8	2	20170510	1013	26.505N	76.653W	2076	2100	3.481	34.960	2	34.962	2	260.5	2	261.3	2
WBTSEN	AB1705	10	1	9	2	20170510	1013	26.505N	76.653W	1879	1900	3.684	34.968	2	34.967	6	260.5	2	260.2	2
WBTSEN	AB1705	10	1	10	2	20170510	1013	26.505N	76.653W	1584	1600	4.056	34.991	2	34.991	2	255.7	2	255.4	2
WBTSEN	AB1705	10	1	11	2	20170510	1013	26.505N	76.653W	1386	1400	4.415	35.012	2	35.013	2	249.4	2	249.1	2
WBTSEN	AB1705	10	1	12	2	20170510	1013	26.505N	76.653W	1209	1220	5.008	35.046	2	35.046	2	236.1	2	235.6	2
WBTSEN	AB1705	10	1	13	2	20170510	1013	26.505N	76.653W	1031	1040	6.188	35.070	2	35.079	4	195.8	2	196.2	2
WBTSEN	AB1705	10	1	14	2	20170510	1013	26.505N	76.653W	902	910	7.619	35.093	2	35.094	2	156.1	2	155.7	2
WBTSEN	AB1705	10	1	15	2	20170510	1013	26.505N	76.653W	793	800	10.077	35.306	2	35.307	2	139.5	2	138.7	2
WBTSEN	AB1705	10	1	16	2	20170510	1013	26.505N	76.653W	684	690	12.609	35.641	2	35.642	2	148.7	2	148.1	2
WBTSEN	AB1705	10	1	17	2	20170510	1013	26.505N	76.653W	575	580	15.296	36.068	2	36.081	4	164.2	2	163.9	2
WBTSEN	AB1705	10	1	18	2	20170510	1013	26.505N	76.653W	467	471	17.342	36.412	2	36.415	2	180.5	2	180.8	2
WBTSEN	AB1705	10	1	19	2	20170510	1013	26.505N	76.653W	358	360	18.604	36.560	2	36.561	2	186.2	2	186.5	2
WBTSEN	AB1705	10	1	20	2	20170510	1013	26.505N	76.653W	249	251	20.152	36.646	2	36.642	2	199.0	2	200.1	2
WBTSEN	AB1705	10	1	21	2	20170510	1013	26.505N	76.653W	160	161	22.080	36.789	2	36.807	4	190.3	2	207.8	4
WBTSEN	AB1705	10	1	22	2	20170510	1013	26.505N	76.653W	110	111	22.947	36.817	2	36.817	2	211.6	2	209.7	2
WBTSEN	AB1705	10	1	23	2	20170510	1013	26.505N	76.653W	60	60	23.940	36.874	2	36.875	2	211.6	2	211.6	2
WBTSEN	AB1705	10	1	24	2	20170510	1013	26.505N	76.653W	2	2	25.338	36.873	2	36.872	2	204.4	2	205.1	2
WBTSEN	AB1705	11	1	1	2	20170510	1526	26.501N	76.566W	4761	4847	2.227	34.877	2	34.880	2	237.3	2	259.4	4
WBTSEN	AB1705	11	1	2	2	20170510	1526	26.501N	76.566W	4521	4600	2.257	34.884	2	34.886	2	261.2	2	260.9	2
WBTSEN	AB1705	11	1	3	2	20170510	1526	26.501N	76.566W	4132	4200	2.290	34.891	2	34.895	4	264.6	2	264.9	2
WBTSEN	AB1705	11	1	4	2	20170510	1526	26.501N	76.566W	3744	3802	2.370	34.900	2	34.900	2	267.1	2	267.7	2
WBTSEN	AB1705	11	1	5	2	20170510	1526	26.501N	76.566W	3351	3401	2.581	34.913	2	34.914	6	267.5	2	267.8	2
WBTSEN	AB1705	11	1	6	2	20170510	1526	26.501N	76.566W	2960	3000	2.872	34.930	2	34.931	2	265.0	2	265.9	2
WBTSEN	AB1705	11	1	7	2	20170510	1526	26.501N	76.566W	2469	2500	3.132	34.943	2	34.943	2	263.0	2	262.8	2
WBTSEN	AB1705	11	1	8	2	20170510	1526	26.501N	76.566W	1977	2000	3.575	34.965	2	34.964	2	249.8	2	282.0	4
WBTSEN	AB1705	11	1	9	2	20170510	1526	26.501N	76.566W	1732	1750	3.878	34.980	2	34.979	2	258.0	2	258.0	2
WBTSEN	AB1705	11	1	10	2	20170510	1526	26.501N	76.566W	1519	1535	4.230	34.998	2	34.998	2	253.5	2	253.8	2
WBTSEN	AB1705	11	1	11	2	20170510	1526	26.501N	76.566W	1322	1335	4.665	35.020	2	35.029	4	244.7	2	244.7	2
WBTSEN	AB1705	11	1	12	2	20170510	1526	26.501N	76.566W	1154	1165	5.455	35.061	2	35.060	2	220.9	2	222.0	2
WBTSEN	AB1705	11	1	13	2	20170510	1526	26.501N	76.566W	986	995	6.896	35.075	2	35.074	2	171.7	2	173.5	2
WBTSEN	AB1705	11	1	14	2	20170510	1526	26.501N	76.566W	877	885	8.726	35.163	2	35.159	2	143.0	2	143.3	2
WBTSEN	AB1705	11	1	15	2	20170510	1526	26.501N	76.566W	769	776	11.424	35.481	2	35.486	2	145.8	2	145.3	2
WBTSEN	AB1705	11	1	16	2	20170510	1526	26.501N	76.566W	660	665	13.815	35.825	2	35.824	2	158.3	2	156.6	2
WBTSEN	AB1705	11	1	17	2	20170510	1526	26.501N	76.566W	551	555	16.146	36.205	2	36.204	2	174.3	2	173.5	2
WBTSEN	AB1705	11	1	18	2	20170510	1526	26.501N	76.566W	442	445	17.935	36.506	2	36.506	2	186.6	2	185.8	2
WBTSEN	AB1705	11	1	19	2	20170510	1526	26.501N	76.566W	333	335	18.891	36.571	2	36.571	2	187.3	2	188.5	2
WBTSEN	AB1705	11	1	20	2	20170510	1526	26.501N	76.566W	224	225	20.647	36.681	2	36.681	2	195.6	2	203.4	4

WBTSEN	AB1705	11	1	21	2	20170510	1526	26.501N	76.566W	134	135	22.617	36.847	2	36.845	2	213.3	2	213.3	2
WBTSEN	AB1705	11	1	22	2	20170510	1526	26.501N	76.566W	85	85	23.408	36.869	2	36.866	2	211.4	2	212.2	2
WBTSEN	AB1705	11	1	23	2	20170510	1526	26.501N	76.566W	35	35	24.789	36.856	2	36.856	6	208.2	2	208.5	2
WBTSEN	AB1705	11	1	24	2	20170510	1526	26.501N	76.566W	2	2	25.596	36.870	2	-999.000	9	201.4	2	-999.0	9
WBTSEN	AB1705	12	1	1	2	20170510	2054	26.505N	76.476W	4846	4935	2.186	34.870	2	34.871	2	234.4	2	256.2	4
WBTSEN	AB1705	12	1	2	2	20170510	2054	26.505N	76.476W	4453	4530	2.263	34.885	2	34.886	2	261.8	2	262.3	2
WBTSEN	AB1705	12	1	3	2	20170510	2054	26.505N	76.476W	4093	4160	2.301	34.892	2	34.892	6	264.8	2	265.6	2
WBTSEN	AB1705	12	1	4	2	20170510	2054	26.505N	76.476W	3713	3771	2.408	34.902	2	34.902	2	267.2	2	267.6	2
WBTSEN	AB1705	12	1	5	2	20170510	2054	26.505N	76.476W	3356	3405	2.587	34.914	2	34.914	2	267.4	2	268.0	2
WBTSEN	AB1705	12	1	6	2	20170510	2054	26.505N	76.476W	2954	2995	2.882	34.930	2	34.930	2	264.7	2	265.5	2
WBTSEN	AB1705	12	1	7	2	20170510	2054	26.505N	76.476W	2548	2581	3.112	34.942	2	34.942	2	263.0	2	263.9	2
WBTSEN	AB1705	12	1	8	2	20170510	2054	26.505N	76.476W	2140	2165	3.390	34.958	2	34.957	2	249.4	2	263.3	4
WBTSEN	AB1705	12	1	9	2	20170510	2054	26.505N	76.476W	1835	1855	3.777	34.975	2	34.976	2	259.5	2	259.3	2
WBTSEN	AB1705	12	1	10	2	20170510	2054	26.505N	76.476W	1579	1596	4.084	34.989	2	34.990	6	255.4	2	255.6	2
WBTSEN	AB1705	12	1	11	2	20170510	2054	26.505N	76.476W	1386	1400	4.513	35.015	2	35.015	2	248.2	2	249.4	2
WBTSEN	AB1705	12	1	12	2	20170510	2054	26.505N	76.476W	1219	1230	5.044	35.042	2	35.043	2	235.5	2	235.8	2
WBTSEN	AB1705	12	1	13	2	20170510	2054	26.505N	76.476W	1051	1060	6.424	35.074	2	35.074	2	186.3	2	187.8	2
WBTSEN	AB1705	12	1	14	2	20170510	2054	26.505N	76.476W	941	950	7.827	35.104	2	35.102	2	153.1	2	154.2	2
WBTSEN	AB1705	12	1	15	2	20170510	2054	26.505N	76.476W	833	840	9.840	35.283	2	35.280	2	140.9	2	140.9	2
WBTSEN	AB1705	12	1	16	2	20170510	2054	26.505N	76.476W	724	730	12.623	35.645	2	35.642	2	150.1	2	149.4	2
WBTSEN	AB1705	12	1	17	2	20170510	2054	26.505N	76.476W	615	620	15.149	36.037	2	36.038	2	169.0	2	168.5	2
WBTSEN	AB1705	12	1	18	2	20170510	2054	26.505N	76.476W	506	510	17.039	36.359	2	36.358	2	181.4	2	181.3	2
WBTSEN	AB1705	12	1	19	2	20170510	2054	26.505N	76.476W	397	400	18.360	36.543	2	36.542	2	189.3	2	191.4	4
WBTSEN	AB1705	12	1	20	2	20170510	2054	26.505N	76.476W	289	291	19.732	36.615	2	36.616	2	190.4	2	191.7	2
WBTSEN	AB1705	12	1	21	2	20170510	2054	26.505N	76.476W	199	200	21.204	36.726	2	36.723	2	194.2	2	203.5	4
WBTSEN	AB1705	12	1	22	2	20170510	2054	26.505N	76.476W	120	121	22.928	36.822	2	36.823	2	211.0	2	211.4	2
WBTSEN	AB1705	12	1	23	2	20170510	2054	26.505N	76.476W	70	70	23.603	36.885	2	36.888	2	212.7	2	212.4	2
WBTSEN	AB1705	12	1	24	2	20170510	2054	26.505N	76.476W	2	2	25.314	36.874	2	36.876	2	207.0	2	206.5	2
WBTSEN	AB1705	13	1	1	2	20170511	0146	26.500N	76.343W	4815	4902	2.177	34.870	2	34.869	2	253.2	2	254.9	2
WBTSEN	AB1705	13	1	2	2	20170511	0146	26.500N	76.343W	4502	4580	2.255	34.884	2	34.883	2	261.2	2	261.0	2
WBTSEN	AB1705	13	1	3	2	20170511	0146	26.500N	76.343W	4172	4241	2.287	34.890	2	34.890	2	264.4	2	264.4	2
WBTSEN	AB1705	13	1	4	2	20170511	0146	26.500N	76.343W	3840	3901	2.355	34.898	2	34.897	2	267.0	2	266.5	2
WBTSEN	AB1705	13	1	5	2	20170511	0146	26.500N	76.343W	3513	3566	2.468	34.907	2	34.907	2	267.8	2	268.5	2
WBTSEN	AB1705	13	1	6	2	20170511	0146	26.500N	76.343W	3101	3145	2.679	34.919	2	34.918	2	267.3	2	267.2	2
WBTSEN	AB1705	13	1	7	2	20170511	0146	26.500N	76.343W	2700	2735	3.006	34.938	2	34.937	6	263.6	2	263.3	2
WBTSEN	AB1705	13	1	8	2	20170511	0146	26.500N	76.343W	2293	2321	3.290	34.951	2	34.950	2	261.4	2	261.8	2
WBTSEN	AB1705	13	1	9	2	20170511	0146	26.500N	76.343W	1935	1956	3.652	34.968	2	34.967	2	260.2	2	259.9	2
WBTSEN	AB1705	13	1	10	2	20170511	0146	26.500N	76.343W	1683	1701	3.985	34.982	2	34.981	2	256.8	2	257.1	2
WBTSEN	AB1705	13	1	11	2	20170511	0146	26.500N	76.343W	1486	1501	4.301	35.001	2	35.000	2	252.3	2	252.1	2
WBTSEN	AB1705	13	1	12	2	20170511	0146	26.500N	76.343W	1336	1349	4.777	35.030	2	35.031	2	242.9	2	242.3	2
WBTSEN	AB1705	13	1	13	2	20170511	0146	26.500N	76.343W	1165	1176	5.674	35.069	2	35.069	2	217.1	2	217.2	2
WBTSEN	AB1705	13	1	14	2	20170511	0146	26.500N	76.343W	976	985	7.712	35.095	2	35.092	2	152.9	2	153.3	2
WBTSEN	AB1705	13	1	15	2	20170511	0146	26.500N	76.343W	799	805	11.284	35.454	2	35.455	2	142.6	2	140.4	2
WBTSEN	AB1705	13	1	16	2	20170511	0146	26.500N	76.343W	689	695	13.891	35.834	2	35.830	2	156.3	2	158.1	4
WBTSEN	AB1705	13	1	17	2	20170511	0146	26.500N	76.343W	580	585	16.362	36.240	2	36.239	2	174.1	2	176.3	2
WBTSEN	AB1705	13	1	18	2	20170511	0146	26.500N	76.343W	471	475	17.895	36.498	2	36.498	2	178.9	2	188.6	4
WBTSEN	AB1705	13	1	19	2	20170511	0146	26.500N	76.343W	363	366	18.932	36.581	2	36.582	6	186.8	2	186.6	2
WBTSEN	AB1705	13	1	20	2	20170511	0146	26.500N	76.343W	253	255	20.512	36.698	2	36.698	2	205.8	2	207.3	2
WBTSEN	AB1705	13	1	21	2	20170511	0146	26.500N	76.343W	165	166	22.111	36.769	2	36.768	2	201.9	2	202.2	2
WBTSEN	AB1705	13	1	22	2	20170511	0146	26.500N	76.343W	105	106	22.990	36.825	2	36.825	2	210.7	2	212.3	2
WBTSEN	AB1705	13	1	23	2	20170511	0146	26.500N	76.343W	55	55	23.633	36.886	2	36.887	2	208.7	2	156.6	4
WBTSEN	AB1705	13	1	24	2	20170511	0146	26.500N	76.343W	2	2	25.321	36.919	2	36.936	4	206.7	2	205.9	2
WBTSEN	AB1705	14	1	1	2	20170511	0636	26.500N	76.215W	4797	4884	2.181	34.871	2	34.870	2	253.2	2	255.0	2
WBTSEN	AB1705	14	1	2	2	20170511	0636	26.500N	76.215W	4424	4500	2.253	34.885	2	34.886	2	261.7	2	261.4	2
WBTSEN	AB1705	14	1	3	2	20170511	0636	26.500N	76.215W	4034	4100	2.293	34.892	2	34.892	2	265.2	2	265.1	2
WBTSEN	AB1705	14	1	4	2	20170511	0636	26.500N	76.215W	3673	3730	2.378	34.901	2	34.901	2	268.1	2	267.9	2
WBTSEN	AB1705	14	1	5	2	20170511	0636	26.500N	76.215W	3302	3350	2.507	34.909	2	34.911	2	268.9	2	268.7	2
WBTSEN	AB1705	14	1	6	2	20170511	0636	26.500N	76.215W	2812	2850	2.837	34.929	2	34.929	2	264.9	2	265.3	2
WBTSEN	AB1705	14	1	7	2	20170511	0636	26.500N	76.215W	2371	2400	3.237	34.949	2	34.950	6	261.7	2	262.2	2
WBTSEN	AB1705	14	1	8	2	20170511	0636	26.500N	76.215W	2076	2100	3.521	34.962	2	34.962	2	260.6	2	260.9	2
WBTSEN	AB1705	14	1	9	2	20170511	0636	26.500N	76.215W	1761	1781	3.894	34.977	2	34.978	2	258.2	2	257.9	2
WBTSEN	AB1705	14	1	10	2	20170511	0636	26.500N	76.215W	1594	1610	4.176	34.997	2	34.996	2	254.2	2	253.9	2
WBTSEN	AB1705	14	1	11	2	20170511	0636	26.500N	76.215W	1427	1441	4.521	35.013	2	35.014	2	248.3	2	248.0	2
WBTSEN	AB1705	14	1	12	2	20170511	0636	26.500N	76.215W	1258	1271	5.094	35.043	2	35.048	4	225.8	2	227.7	4
WBTSEN	AB1705	14	1	13	2	20170511	0636	26.500N	76.215W	1091	1101	6.605	35.072	2	35.071	2	181.9	2	182.7	2
WBTSEN	AB1705	14	1	14	2	20170511	0636	26.500N	76.215W	927	935	8.873	35.180	2	35.180	2	142.7	2	141.6	2

WBTSEN	AB1705	14	1	15	2	20170511	0636	26.500N	76.215W	818	825	11.322	35.460	2	35.469	4	142.8	2	141.6	2
WBTSEN	AB1705	14	1	16	2	20170511	0636	26.500N	76.215W	708	714	13.887	35.834	2	35.833	2	159.2	2	158.5	2
WBTSEN	AB1705	14	1	17	2	20170511	0636	26.500N	76.215W	600	605	16.414	36.249	2	36.247	2	175.8	2	175.6	2
WBTSEN	AB1705	14	1	18	2	20170511	0636	26.500N	76.215W	491	495	18.021	36.516	2	36.514	2	196.5	2	203.7	4
WBTSEN	AB1705	14	1	19	2	20170511	0636	26.500N	76.215W	382	385	18.682	36.564	2	36.564	2	188.7	2	188.8	2
WBTSEN	AB1705	14	1	20	2	20170511	0636	26.500N	76.215W	273	275	20.139	36.647	2	36.648	2	201.7	2	200.7	4
WBTSEN	AB1705	14	1	21	2	20170511	0636	26.500N	76.215W	184	185	21.894	36.757	2	36.755	2	202.9	2	202.4	2
WBTSEN	AB1705	14	1	22	2	20170511	0636	26.500N	76.215W	114	115	22.893	36.819	2	36.818	2	210.1	2	210.8	2
WBTSEN	AB1705	14	1	23	2	20170511	0636	26.500N	76.215W	65	65	23.391	36.863	2	36.866	2	212.7	2	212.9	2
WBTSEN	AB1705	14	1	24	2	20170511	0636	26.500N	76.215W	2	2	25.381	36.942	2	-999.000	9	202.4	2	-999.0	9
WBTSEN	AB1705	15	1	1	2	20170511	1119	26.500N	76.085W	4779	4866	2.201	34.873	2	34.873	2	235.2	2	256.9	4
WBTSEN	AB1705	15	1	2	2	20170511	1119	26.500N	76.085W	4521	4600	2.251	34.883	2	34.883	2	261.1	2	260.5	2
WBTSEN	AB1705	15	1	3	2	20170511	1119	26.500N	76.085W	4113	4181	2.272	34.890	2	34.890	2	264.0	2	264.5	2
WBTSEN	AB1705	15	1	4	2	20170511	1119	26.500N	76.085W	3781	3841	2.323	34.896	2	34.896	2	266.3	2	266.3	2
WBTSEN	AB1705	15	1	5	2	20170511	1119	26.500N	76.085W	3449	3500	2.439	34.906	2	34.906	2	268.0	2	268.3	2
WBTSEN	AB1705	15	1	6	2	20170511	1119	26.500N	76.085W	2960	3000	2.693	34.922	2	34.921	2	266.0	2	266.3	2
WBTSEN	AB1705	15	1	7	2	20170511	1119	26.500N	76.085W	2469	2500	3.102	34.944	2	34.943	2	262.4	2	262.9	2
WBTSEN	AB1705	15	1	8	2	20170511	1119	26.500N	76.085W	2077	2101	3.533	34.962	2	34.961	2	261.1	2	260.9	2
WBTSEN	AB1705	15	1	9	2	20170511	1119	26.500N	76.085W	1782	1801	3.886	34.977	2	34.981	4	258.1	2	258.0	2
WBTSEN	AB1705	15	1	10	2	20170511	1119	26.500N	76.085W	1584	1600	4.205	34.996	2	34.996	2	253.8	2	255.8	2
WBTSEN	AB1705	15	1	11	2	20170511	1119	26.500N	76.085W	1357	1371	4.772	35.028	2	35.029	2	242.1	2	242.2	2
WBTSEN	AB1705	15	1	12	2	20170511	1119	26.500N	76.085W	1189	1201	5.868	35.072	2	35.073	2	210.1	2	211.5	2
WBTSEN	AB1705	15	1	13	2	20170511	1119	26.500N	76.085W	1022	1031	7.826	35.101	2	35.101	2	152.5	2	151.7	2
WBTSEN	AB1705	15	1	14	2	20170511	1119	26.500N	76.085W	913	921	9.760	35.272	2	35.268	2	140.5	2	140.0	2
WBTSEN	AB1705	15	1	15	2	20170511	1119	26.500N	76.085W	804	811	12.275	35.595	2	35.600	2	144.2	2	153.8	4
WBTSEN	AB1705	15	1	16	2	20170511	1119	26.500N	76.085W	694	700	15.221	36.047	2	36.046	2	169.0	2	169.1	2
WBTSEN	AB1705	15	1	17	2	20170511	1119	26.500N	76.085W	585	590	17.436	36.415	2	36.410	6	188.9	2	188.1	2
WBTSEN	AB1705	15	1	18	2	20170511	1119	26.500N	76.085W	476	480	18.181	36.524	2	36.523	2	203.2	2	203.8	2
WBTSEN	AB1705	15	1	19	2	20170511	1119	26.500N	76.085W	367	370	18.842	36.550	2	36.549	2	187.2	2	194.2	4
WBTSEN	AB1705	15	1	20	2	20170511	1119	26.500N	76.085W	258	260	20.210	36.624	2	36.624	2	201.2	2	200.1	2
WBTSEN	AB1705	15	1	21	2	20170511	1119	26.500N	76.085W	169	170	22.303	36.791	2	36.790	2	203.2	2	204.1	2
WBTSEN	AB1705	15	1	22	2	20170511	1119	26.500N	76.085W	94	95	23.000	36.826	2	36.826	6	210.6	2	212.7	2
WBTSEN	AB1705	15	1	23	2	20170511	1119	26.500N	76.085W	45	45	23.704	36.875	2	36.875	2	211.7	2	212.7	2
WBTSEN	AB1705	15	1	24	2	20170511	1119	26.500N	76.085W	2	2	25.135	36.911	2	36.911	2	205.8	2	206.6	2
WBTSEN	AB1705	16	1	1	2	20170511	1600	26.501N	75.899W	4721	4805	2.249	34.880	2	34.880	2	258.3	2	260.3	2
WBTSEN	AB1705	16	1	2	2	20170511	1600	26.501N	75.899W	4453	4530	2.268	34.886	2	34.886	2	262.5	2	262.2	2
WBTSEN	AB1705	16	1	3	2	20170511	1600	26.501N	75.899W	4180	4250	2.283	34.890	2	34.889	2	264.5	2	264.5	2
WBTSEN	AB1705	16	1	4	2	20170511	1600	26.501N	75.899W	3917	3980	2.312	34.894	2	34.894	2	266.3	2	266.0	2
WBTSEN	AB1705	16	1	5	2	20170511	1600	26.501N	75.899W	3644	3700	2.361	34.900	2	34.899	2	267.4	2	267.7	2
WBTSEN	AB1705	16	1	6	2	20170511	1600	26.501N	75.899W	3155	3200	2.549	34.913	2	34.912	2	268.2	2	268.0	2
WBTSEN	AB1705	16	1	7	2	20170511	1600	26.501N	75.899W	2665	2700	2.865	34.932	2	34.931	2	264.6	2	264.0	2
WBTSEN	AB1705	16	1	8	2	20170511	1600	26.501N	75.899W	2223	2250	3.363	34.958	2	34.957	2	260.6	2	260.6	2
WBTSEN	AB1705	16	1	9	2	20170511	1600	26.501N	75.899W	1879	1900	3.779	34.974	2	34.974	2	259.4	2	259.2	2
WBTSEN	AB1705	16	1	10	2	20170511	1600	26.501N	75.899W	1633	1650	4.167	34.996	2	34.998	2	254.8	2	254.7	2
WBTSEN	AB1705	16	1	11	2	20170511	1600	26.501N	75.899W	1371	1385	4.848	35.036	2	35.041	4	241.2	2	240.4	2
WBTSEN	AB1705	16	1	12	2	20170511	1600	26.501N	75.899W	1204	1216	5.809	35.069	2	35.070	2	212.1	2	212.4	2
WBTSEN	AB1705	16	1	13	2	20170511	1600	26.501N	75.899W	1036	1045	7.851	35.110	2	35.112	2	153.8	2	155.0	2
WBTSEN	AB1705	16	1	14	2	20170511	1600	26.501N	75.899W	927	936	9.779	35.275	2	35.271	6	140.6	2	140.4	2
WBTSEN	AB1705	16	1	15	2	20170511	1600	26.501N	75.899W	818	825	12.571	35.635	2	35.637	2	150.0	2	148.6	2
WBTSEN	AB1705	16	1	16	2	20170511	1600	26.501N	75.899W	710	716	15.559	36.102	2	36.099	2	170.2	2	170.2	2
WBTSEN	AB1705	16	1	17	2	20170511	1600	26.501N	75.899W	600	605	17.821	36.481	2	36.479	2	191.1	2	189.8	2
WBTSEN	AB1705	16	1	18	2	20170511	1600	26.501N	75.899W	491	495	18.188	36.524	2	36.538	4	205.0	2	205.8	2
WBTSEN	AB1705	16	1	19	2	20170511	1600	26.501N	75.899W	382	385	18.928	36.557	2	36.555	2	197.8	2	199.6	2
WBTSEN	AB1705	16	1	20	2	20170511	1600	26.501N	75.899W	273	275	20.070	36.619	2	36.618	2	200.2	2	200.0	2
WBTSEN	AB1705	16	1	21	2	20170511	1600	26.501N	75.899W	184	185	22.053	36.761	2	36.759	2	203.1	2	202.8	2
WBTSEN	AB1705	16	1	22	2	20170511	1600	26.501N	75.899W	119	120	22.860	36.810	2	36.809	2	210.1	2	209.7	2
WBTSEN	AB1705	16	1	23	2	20170511	1600	26.501N	75.899W	69	70	23.555	36.877	2	36.876	6	212.5	2	212.8	2
WBTSEN	AB1705	16	1	24	2	20170511	1600	26.501N	75.899W	2	2	25.432	36.921	2	36.940	4	205.3	2	206.2	2
WBTSEN	AB1705	17	1	1	2	20170511	2039	26.497N	75.698W	4668	4751	2.221	34.877	2	34.877	2	257.5	2	258.1	2
WBTSEN	AB1705	17	1	2	2	20170511	2039	26.497N	75.698W	4346	4420	2.249	34.885	2	34.885	6	262.3	2	261.8	2
WBTSEN	AB1705	17	1	3	2	20170511	2039	26.497N	75.698W	4015	4080	2.273	34.891	2	34.890	2	264.9	2	264.6	2
WBTSEN	AB1705	17	1	4	2	20170511	2039	26.497N	75.698W	3684	3741	2.322	34.897	2	34.896	2	267.0	2	266.4	2
WBTSEN	AB1705	17	1	5	2	20170511	2039	26.497N	75.698W	3352	3401	2.434	34.906	2	34.905	2	268.3	2	267.8	2
WBTSEN	AB1705	17	1	6	2	20170511	2039	26.497N	75.698W	2842	2881	2.740	34.924	2	34.924	2	266.0	2	265.5	2
WBTSEN	AB1705	17	1	7	2	20170511	2039	26.497N	75.698W	2435	2465	3.100	34.941	2	34.941	2	263.6	2	263.2	2
WBTSEN	AB1705	17	1	8	2	20170511	2039	26.497N	75.698W	2027	2050	3.551	34.962	2	34.962	2	261.0	2	260.5	2

WBTSEN	AB1705	17	1	9	2	20170511	2039	26.497N	75.698W	1726	1744	3.952	34.984	2	34.983	2	256.8	2	256.4	2
WBTSEN	AB1705	17	1	10	2	20170511	2039	26.497N	75.698W	1519	1535	4.275	35.000	2	34.999	2	253.6	2	252.8	2
WBTSEN	AB1705	17	1	11	2	20170511	2039	26.497N	75.698W	1352	1365	4.786	35.035	2	35.036	2	242.1	2	241.4	2
WBTSEN	AB1705	17	1	12	2	20170511	2039	26.497N	75.698W	1184	1195	5.857	35.070	2	35.071	2	211.0	2	211.0	2
WBTSEN	AB1705	17	1	13	2	20170511	2039	26.497N	75.698W	1016	1025	8.406	35.145	2	35.145	2	148.0	2	148.2	2
WBTSEN	AB1705	17	1	14	2	20170511	2039	26.497N	75.698W	907	915	10.774	35.393	2	35.389	2	142.6	2	141.3	2
WBTSEN	AB1705	17	1	15	2	20170511	2039	26.497N	75.698W	798	805	13.607	35.789	2	35.786	2	153.9	2	155.3	4
WBTSEN	AB1705	17	1	16	2	20170511	2039	26.497N	75.698W	689	695	16.072	36.187	2	36.183	2	172.4	2	172.6	2
WBTSEN	AB1705	17	1	17	2	20170511	2039	26.497N	75.698W	580	585	17.900	36.494	2	36.495	6	190.4	2	192.7	4
WBTSEN	AB1705	17	1	18	2	20170511	2039	26.497N	75.698W	472	476	18.333	36.522	2	36.522	2	201.9	2	202.2	2
WBTSEN	AB1705	17	1	19	2	20170511	2039	26.497N	75.698W	363	366	19.257	36.577	2	36.579	2	193.5	2	192.4	2
WBTSEN	AB1705	17	1	20	2	20170511	2039	26.497N	75.698W	254	256	20.741	36.676	2	36.673	2	203.4	2	202.1	2
WBTSEN	AB1705	17	1	21	2	20170511	2039	26.497N	75.698W	164	165	22.546	36.785	2	36.787	2	204.3	2	203.7	2
WBTSEN	AB1705	17	1	22	2	20170511	2039	26.497N	75.698W	109	110	23.007	36.819	2	36.816	2	211.8	2	210.5	2
WBTSEN	AB1705	17	1	23	2	20170511	2039	26.497N	75.698W	60	60	23.651	36.883	2	36.882	2	213.9	2	212.4	2
WBTSEN	AB1705	17	1	24	2	20170511	2039	26.497N	75.698W	2	2	25.633	36.931	2	36.930	2	206.2	2	205.9	2
WBTSEN	AB1705	18	1	1	2	20170512	0146	26.498N	75.500W	4661	4743	2.210	34.876	2	34.876	2	256.9	2	257.0	2
WBTSEN	AB1705	18	1	2	2	20170512	0146	26.498N	75.500W	4376	4451	2.246	34.885	2	34.883	2	262.0	2	261.6	2
WBTSEN	AB1705	18	1	3	2	20170512	0146	26.498N	75.500W	4084	4151	2.254	34.889	2	34.888	2	264.1	2	263.6	2
WBTSEN	AB1705	18	1	4	2	20170512	0146	26.498N	75.500W	3791	3851	2.288	34.894	2	34.893	2	266.0	2	265.8	2
WBTSEN	AB1705	18	1	5	2	20170512	0146	26.498N	75.500W	3498	3550	2.363	34.901	2	34.901	6	267.7	2	267.5	2
WBTSEN	AB1705	18	1	6	2	20170512	0146	26.498N	75.500W	3058	3101	2.610	34.917	2	34.916	2	266.7	2	266.9	2
WBTSEN	AB1705	18	1	7	2	20170512	0146	26.498N	75.500W	2666	2700	2.914	34.935	2	34.934	2	263.2	2	263.2	2
WBTSEN	AB1705	18	1	8	2	20170512	0146	26.498N	75.500W	2322	2351	3.257	34.954	2	34.953	2	261.1	2	260.4	2
WBTSEN	AB1705	18	1	9	2	20170512	0146	26.498N	75.500W	1978	2000	3.615	34.967	2	34.968	6	260.5	2	259.7	2
WBTSEN	AB1705	18	1	10	2	20170512	0146	26.498N	75.500W	1682	1700	4.026	34.990	2	34.989	2	256.4	2	256.0	2
WBTSEN	AB1705	18	1	11	2	20170512	0146	26.498N	75.500W	1436	1450	4.458	35.009	2	35.051	4	239.9	2	217.7	4
WBTSEN	AB1705	18	1	12	2	20170512	0146	26.498N	75.500W	1194	1206	5.251	35.044	2	35.045	2	227.7	2	228.2	2
WBTSEN	AB1705	18	1	13	2	20170512	0146	26.498N	75.500W	1026	1036	8.152	35.135	2	35.135	2	151.8	2	153.0	2
WBTSEN	AB1705	18	1	14	2	20170512	0146	26.498N	75.500W	917	925	10.815	35.394	2	35.392	2	141.0	2	139.7	2
WBTSEN	AB1705	18	1	15	2	20170512	0146	26.498N	75.500W	808	815	13.196	35.726	2	35.731	2	153.5	2	152.5	2
WBTSEN	AB1705	18	1	16	2	20170512	0146	26.498N	75.500W	699	705	15.486	36.091	2	36.088	2	169.5	2	169.4	2
WBTSEN	AB1705	18	1	17	2	20170512	0146	26.498N	75.500W	591	595	17.313	36.403	2	36.400	2	183.1	2	181.4	2
WBTSEN	AB1705	18	1	18	2	20170512	0146	26.498N	75.500W	481	485	18.325	36.541	2	36.541	2	181.8	2	189.9	4
WBTSEN	AB1705	18	1	19	2	20170512	0146	26.498N	75.500W	372	375	19.396	36.601	2	36.599	2	191.0	2	188.7	2
WBTSEN	AB1705	18	1	20	2	20170512	0146	26.498N	75.500W	263	265	20.866	36.715	2	36.714	2	208.5	2	207.2	2
WBTSEN	AB1705	18	1	21	2	20170512	0146	26.498N	75.500W	173	175	22.530	36.804	2	36.804	2	201.5	2	209.5	4
WBTSEN	AB1705	18	1	22	2	20170512	0146	26.498N	75.500W	84	85	23.547	36.879	2	36.878	2	212.8	2	212.1	2
WBTSEN	AB1705	18	1	23	2	20170512	0146	26.498N	75.500W	35	35	24.629	36.879	2	36.881	2	207.9	2	209.7	2
WBTSEN	AB1705	18	1	24	2	20170512	0146	26.498N	75.500W	3	3	25.282	36.915	2	36.915	2	205.9	2	206.2	2
WBTSEN	AB1705	19	1	1	2	20170512	0638	26.494N	75.301W	4596	4677	2.106	34.865	2	34.865	2	251.8	2	252.3	2
WBTSEN	AB1705	19	1	2	2	20170512	0638	26.494N	75.301W	4288	4360	2.213	34.883	2	34.883	2	242.3	2	-999.0	9
WBTSEN	AB1705	19	1	3	2	20170512	0638	26.494N	75.301W	3960	4024	2.240	34.889	2	34.890	2	246.3	2	257.7	4
WBTSEN	AB1705	19	1	4	2	20170512	0638	26.494N	75.301W	3635	3690	2.317	34.897	2	34.897	2	266.4	2	265.9	2
WBTSEN	AB1705	19	1	5	2	20170512	0638	26.494N	75.301W	3302	3351	2.454	34.907	2	34.907	2	267.3	2	268.1	2
WBTSEN	AB1705	19	1	6	2	20170512	0638	26.494N	75.301W	2813	2851	2.786	34.927	2	34.927	6	265.4	2	264.6	2
WBTSEN	AB1705	19	1	7	2	20170512	0638	26.494N	75.301W	2469	2500	3.121	34.946	2	34.945	2	249.1	2	282.8	4
WBTSEN	AB1705	19	1	8	2	20170512	0638	26.494N	75.301W	2077	2101	3.488	34.961	2	34.960	2	261.0	2	260.4	2
WBTSEN	AB1705	19	1	9	2	20170512	0638	26.494N	75.301W	1831	1851	3.779	34.974	2	34.975	6	259.1	2	258.8	2
WBTSEN	AB1705	19	1	10	2	20170512	0638	26.494N	75.301W	1584	1601	4.159	34.995	2	34.995	2	254.6	2	253.8	2
WBTSEN	AB1705	19	1	11	2	20170512	0638	26.494N	75.301W	1377	1391	4.624	35.020	2	35.021	2	246.1	2	245.8	2
WBTSEN	AB1705	19	1	12	2	20170512	0638	26.494N	75.301W	1210	1222	5.336	35.056	2	35.057	2	226.7	2	226.5	2
WBTSEN	AB1705	19	1	13	2	20170512	0638	26.494N	75.301W	1042	1051	7.537	35.108	2	35.109	2	164.9	2	164.1	2
WBTSEN	AB1705	19	1	14	2	20170512	0638	26.494N	75.301W	932	940	9.798	35.270	2	35.268	2	140.3	2	139.8	2
WBTSEN	AB1705	19	1	15	2	20170512	0638	26.494N	75.301W	824	831	12.403	35.608	2	35.609	2	146.6	2	145.9	2
WBTSEN	AB1705	19	1	16	2	20170512	0638	26.494N	75.301W	715	721	15.062	36.020	2	36.016	2	167.6	2	166.8	2
WBTSEN	AB1705	19	1	17	2	20170512	0638	26.494N	75.301W	605	610	17.079	36.361	2	36.362	2	181.1	2	180.7	2
WBTSEN	AB1705	19	1	18	2	20170512	0638	26.494N	75.301W	497	501	18.127	36.526	2	36.524	2	180.0	2	187.3	4
WBTSEN	AB1705	19	1	19	2	20170512	0638	26.494N	75.301W	387	390	19.272	36.600	2	36.600	2	185.4	2	187.2	4
WBTSEN	AB1705	19	1	20	2	20170512	0638	26.494N	75.301W	278	280	20.873	36.729	2	36.728	2	200.2	2	207.5	4
WBTSEN	AB1705	19	1	21	2	20170512	0638	26.494N	75.301W	189	190	22.244	36.785	2	36.785	2	203.4	2	203.1	2
WBTSEN	AB1705	19	1	22	2	20170512	0638	26.494N	75.301W	119	120	22.960	36.829	2	36.827	2	210.7	2	211.1	2
WBTSEN	AB1705	19	1	23	2	20170512	0638	26.494N	75.301W	69	70	23.600	36.880	2	36.877	2	212.7	2	212.3	2
WBTSEN	AB1705	19	1	24	2	20170512	0638	26.494N	75.301W	2	2	25.196	36.928	2	36.927	2	205.3	2	206.4	2
WBTSEN	AB1705	20	1	1	2	20170512	1121	26.498N	75.081W	4589	4670	2.187	34.875	2	34.875	2	255.5	2	256.1	2
WBTSEN	AB1705	20	1	2	2	20170512	1121	26.498N	75.081W	4313	4386	2.207	34.882	2	34.882	2	260.2	2	258.9	2

WBTSEN	AB1705	20	1	3	2	20170512	1121	26.498N	75.081W	4025	4090	2.233	34.888	2	34.893	4	263.3	2	262.5	2
WBTSEN	AB1705	20	1	4	2	20170512	1121	26.498N	75.081W	3742	3800	2.269	34.893	2	34.894	2	265.3	2	264.4	2
WBTSEN	AB1705	20	1	5	2	20170512	1121	26.498N	75.081W	3449	3500	2.359	34.901	2	34.901	2	267.2	2	266.6	2
WBTSEN	AB1705	20	1	6	2	20170512	1121	26.498N	75.081W	2959	3000	2.668	34.921	2	34.920	2	265.6	2	265.0	2
WBTSEN	AB1705	20	1	7	2	20170512	1121	26.498N	75.081W	2617	2651	2.937	34.937	2	34.937	6	263.3	2	262.3	2
WBTSEN	AB1705	20	1	8	2	20170512	1121	26.498N	75.081W	2224	2250	3.304	34.955	2	34.956	2	260.7	2	260.1	2
WBTSEN	AB1705	20	1	9	2	20170512	1121	26.498N	75.081W	1801	1821	3.826	34.977	2	34.976	2	258.8	2	257.8	2
WBTSEN	AB1705	20	1	10	2	20170512	1121	26.498N	75.081W	1529	1545	4.280	35.001	2	35.002	2	252.6	2	251.9	2
WBTSEN	AB1705	20	1	11	2	20170512	1121	26.498N	75.081W	1342	1355	4.770	35.027	2	35.028	2	242.2	2	242.4	2
WBTSEN	AB1705	20	1	12	2	20170512	1121	26.498N	75.081W	1174	1185	5.634	35.065	2	35.066	2	217.1	2	217.6	2
WBTSEN	AB1705	20	1	13	2	20170512	1121	26.498N	75.081W	1006	1016	7.622	35.103	2	35.104	2	160.2	2	159.4	2
WBTSEN	AB1705	20	1	14	2	20170512	1121	26.498N	75.081W	893	901	9.946	35.288	2	35.289	2	140.3	2	139.4	2
WBTSEN	AB1705	20	1	15	2	20170512	1121	26.498N	75.081W	804	811	12.301	35.592	2	35.593	2	148.3	2	147.4	2
WBTSEN	AB1705	20	1	16	2	20170512	1121	26.498N	75.081W	695	701	14.812	35.980	2	35.983	2	164.8	2	166.1	2
WBTSEN	AB1705	20	1	17	2	20170512	1121	26.498N	75.081W	586	590	16.930	36.348	2	36.349	2	175.1	2	174.6	2
WBTSEN	AB1705	20	1	18	2	20170512	1121	26.498N	75.081W	478	481	18.136	36.537	2	36.537	2	182.9	2	182.5	2
WBTSEN	AB1705	20	1	19	2	20170512	1121	26.498N	75.081W	368	371	19.106	36.594	2	36.594	2	187.0	2	186.8	2
WBTSEN	AB1705	20	1	20	2	20170512	1121	26.498N	75.081W	258	260	20.519	36.681	2	36.685	2	197.3	2	202.7	4
WBTSEN	AB1705	20	1	21	2	20170512	1121	26.498N	75.081W	169	170	22.351	36.793	2	36.794	2	205.5	2	203.5	2
WBTSEN	AB1705	20	1	22	2	20170512	1121	26.498N	75.081W	105	106	23.360	36.857	2	36.855	2	210.4	2	212.3	2
WBTSEN	AB1705	20	1	23	2	20170512	1121	26.498N	75.081W	55	55	24.120	36.866	2	36.867	2	205.4	2	153.9	4
WBTSEN	AB1705	20	1	24	2	20170512	1121	26.498N	75.081W	3	3	25.452	36.874	2	36.873	2	204.6	2	204.3	2
WBTSEN	AB1705	21	1	1	2	20170512	1617	26.497N	74.799W	4519	4598	2.112	34.867	2	34.866	2	252.9	2	252.6	2
WBTSEN	AB1705	21	1	2	2	20170512	1617	26.497N	74.799W	4205	4275	2.219	34.884	2	-999.000	9	243.6	2	-999.0	9
WBTSEN	AB1705	21	1	3	2	20170512	1617	26.497N	74.799W	3888	3950	2.245	34.890	2	-999.000	9	247.3	2	-999.0	9
WBTSEN	AB1705	21	1	4	2	20170512	1617	26.497N	74.799W	3571	3625	2.295	34.896	2	34.896	2	267.0	2	267.2	2
WBTSEN	AB1705	21	1	5	2	20170512	1617	26.497N	74.799W	3254	3301	2.391	34.904	2	34.904	2	268.1	2	268.0	2
WBTSEN	AB1705	21	1	6	2	20170512	1617	26.497N	74.799W	2764	2801	2.706	34.923	2	34.922	2	266.5	2	266.9	2
WBTSEN	AB1705	21	1	7	2	20170512	1617	26.497N	74.799W	2372	2401	3.055	34.941	2	34.953	4	262.8	2	262.7	2
WBTSEN	AB1705	21	1	8	2	20170512	1617	26.497N	74.799W	2125	2150	3.302	34.955	2	34.954	2	262.0	2	261.0	2
WBTSEN	AB1705	21	1	9	2	20170512	1617	26.497N	74.799W	1900	1921	3.537	34.963	2	34.963	2	261.0	2	261.2	2
WBTSEN	AB1705	21	1	10	2	20170512	1617	26.497N	74.799W	1605	1622	3.930	34.982	2	34.981	2	257.3	2	257.9	2
WBTSEN	AB1705	21	1	11	2	20170512	1617	26.497N	74.799W	1382	1396	4.405	35.005	2	35.019	4	241.5	2	244.9	4
WBTSEN	AB1705	21	1	12	2	20170512	1617	26.497N	74.799W	1214	1226	5.213	35.046	2	35.046	2	229.8	2	230.5	2
WBTSEN	AB1705	21	1	13	2	20170512	1617	26.497N	74.799W	1046	1056	7.300	35.098	2	35.099	6	169.6	2	170.4	2
WBTSEN	AB1705	21	1	14	2	20170512	1617	26.497N	74.799W	938	946	9.182	35.209	2	35.205	2	141.7	2	141.5	2
WBTSEN	AB1705	21	1	15	2	20170512	1617	26.497N	74.799W	829	836	11.159	35.423	2	35.425	2	134.7	2	134.2	4
WBTSEN	AB1705	21	1	16	2	20170512	1617	26.497N	74.799W	720	726	14.079	35.863	2	35.863	2	158.0	2	158.3	2
WBTSEN	AB1705	21	1	17	2	20170512	1617	26.497N	74.799W	610	615	16.209	36.211	2	36.213	2	170.6	2	170.8	2
WBTSEN	AB1705	21	1	18	2	20170512	1617	26.497N	74.799W	502	506	17.845	36.495	2	36.496	2	180.0	2	181.9	4
WBTSEN	AB1705	21	1	19	2	20170512	1617	26.497N	74.799W	392	395	18.606	36.560	2	36.558	2	186.9	2	189.1	2
WBTSEN	AB1705	21	1	20	2	20170512	1617	26.497N	74.799W	284	286	19.881	36.630	2	36.634	2	192.7	2	191.7	2
WBTSEN	AB1705	21	1	21	2	20170512	1617	26.497N	74.799W	194	195	21.355	36.741	2	-999.000	9	182.3	2	-999.0	9
WBTSEN	AB1705	21	1	22	2	20170512	1617	26.497N	74.799W	115	116	22.793	36.808	2	36.804	2	200.8	2	209.6	4
WBTSEN	AB1705	21	1	23	2	20170512	1617	26.497N	74.799W	65	65	24.099	36.852	2	-999.000	9	205.3	2	-999.0	9
WBTSEN	AB1705	21	1	24	2	20170512	1617	26.497N	74.799W	2	2	25.671	36.736	2	36.736	2	203.6	2	205.1	2
WBTSEN	AB1705	22	1	1	2	20170512	2126	26.501N	74.516W	4474	4552	2.113	34.868	2	34.868	2	253.5	2	254.5	2
WBTSEN	AB1705	22	1	2	2	20170512	2126	26.501N	74.516W	4131	4200	2.190	34.882	2	34.884	2	260.2	2	260.3	2
WBTSEN	AB1705	22	1	3	2	20170512	2126	26.501N	74.516W	3938	4001	2.207	34.886	2	34.886	2	262.3	2	262.5	2
WBTSEN	AB1705	22	1	4	2	20170512	2126	26.501N	74.516W	3626	3682	2.235	34.891	2	34.892	2	264.6	2	264.6	2
WBTSEN	AB1705	22	1	5	2	20170512	2126	26.501N	74.516W	3352	3401	2.291	34.898	2	34.898	2	266.0	2	266.3	2
WBTSEN	AB1705	22	1	6	2	20170512	2126	26.501N	74.516W	2961	3002	2.506	34.912	2	34.917	4	266.0	2	266.8	2
WBTSEN	AB1705	22	1	7	2	20170512	2126	26.501N	74.516W	2568	2601	2.865	34.932	2	34.931	2	264.6	2	265.1	2
WBTSEN	AB1705	22	1	8	2	20170512	2126	26.501N	74.516W	2175	2200	3.284	34.954	2	34.953	2	261.6	2	261.4	2
WBTSEN	AB1705	22	1	9	2	20170512	2126	26.501N	74.516W	1831	1851	3.714	34.973	2	34.973	2	259.5	2	259.6	2
WBTSEN	AB1705	22	1	10	2	20170512	2126	26.501N	74.516W	1534	1550	4.204	35.000	2	35.004	4	253.8	2	252.9	2
WBTSEN	AB1705	22	1	11	2	20170512	2126	26.501N	74.516W	1342	1355	4.717	35.031	2	35.033	2	242.8	2	242.4	2
WBTSEN	AB1705	22	1	12	2	20170512	2126	26.501N	74.516W	1175	1186	5.391	35.059	2	35.060	2	223.8	2	223.9	2
WBTSEN	AB1705	22	1	13	2	20170512	2126	26.501N	74.516W	1008	1017	7.214	35.093	2	35.094	2	171.3	2	170.9	2
WBTSEN	AB1705	22	1	14	2	20170512	2126	26.501N	74.516W	899	907	9.125	35.200	2	35.200	2	141.4	2	140.9	2
WBTSEN	AB1705	22	1	15	2	20170512	2126	26.501N	74.516W	790	797	11.863	35.528	2	35.529	6	137.4	2	146.1	4
WBTSEN	AB1705	22	1	16	2	20170512	2126	26.501N	74.516W	681	687	14.537	35.936	2	35.942	2	162.5	2	163.7	2
WBTSEN	AB1705	22	1	17	2	20170512	2126	26.501N	74.516W	573	577	16.572	36.276	2	36.280	2	175.5	2	176.7	2
WBTSEN	AB1705	22	1	18	2	20170512	2126	26.501N	74.516W	462	466	17.871	36.495	2	36.497	2	185.4	2	187.3	2
WBTSEN	AB1705	22	1	19	2	20170512	2126	26.501N	74.516W	355	357	19.022	36.609	2	36.608	2	184.8	2	184.4	2
WBTSEN	AB1705	22	1	20	2	20170512	2126	26.501N	74.516W	244	246	20.256	36.654	2	36.654	2	191.0	2	202.6	4

WBTSEN	AB1705	22	1	21	2	20170512	2126	26.501N	74.516W	156	157	22.387	36.803	2	36.814	4	208.5	2	208.5	2
WBTSEN	AB1705	22	1	22	2	20170512	2126	26.501N	74.516W	96	96	23.275	36.848	2	36.852	2	213.4	2	211.4	2
WBTSEN	AB1705	22	1	23	2	20170512	2126	26.501N	74.516W	45	45	24.377	36.869	2	36.868	2	210.8	2	210.2	2
WBTSEN	AB1705	22	1	24	2	20170512	2126	26.501N	74.516W	3	3	25.752	36.655	2	36.656	2	203.9	2	204.7	2
WBTSEN	AB1705	23	1	1	2	20170513	0214	26.500N	74.231W	4522	4601	2.136	34.870	2	34.870	2	254.4	2	255.4	2
WBTSEN	AB1705	23	1	2	2	20170513	0214	26.500N	74.231W	4205	4275	2.220	34.884	2	34.886	2	261.7	2	261.2	2
WBTSEN	AB1705	23	1	3	2	20170513	0214	26.500N	74.231W	3888	3950	2.240	34.890	2	34.889	2	264.2	2	264.0	2
WBTSEN	AB1705	23	1	4	2	20170513	0214	26.500N	74.231W	3571	3625	2.295	34.896	2	34.895	2	266.1	2	265.9	2
WBTSEN	AB1705	23	1	5	2	20170513	0214	26.500N	74.231W	3253	3300	2.415	34.906	2	34.905	2	267.8	2	267.5	2
WBTSEN	AB1705	23	1	6	2	20170513	0214	26.500N	74.231W	2862	2901	2.698	34.923	2	34.922	2	265.7	2	265.1	2
WBTSEN	AB1705	23	1	7	2	20170513	0214	26.500N	74.231W	2469	2500	3.096	34.944	2	34.947	2	262.2	2	261.9	2
WBTSEN	AB1705	23	1	8	2	20170513	0214	26.500N	74.231W	2076	2100	3.478	34.960	2	34.959	2	261.4	2	261.3	2
WBTSEN	AB1705	23	1	9	2	20170513	0214	26.500N	74.231W	1781	1800	3.889	34.980	2	34.979	2	258.3	2	257.7	2
WBTSEN	AB1705	23	1	10	2	20170513	0214	26.500N	74.231W	1584	1600	4.192	34.996	2	34.996	2	254.4	2	254.1	2
WBTSEN	AB1705	23	1	11	2	20170513	0214	26.500N	74.231W	1387	1401	4.704	35.027	2	35.028	2	243.6	2	243.5	2
WBTSEN	AB1705	23	1	12	2	20170513	0214	26.500N	74.231W	1189	1201	5.660	35.067	2	35.080	4	214.5	2	214.8	2
WBTSEN	AB1705	23	1	13	2	20170513	0214	26.500N	74.231W	1036	1046	6.910	35.078	2	35.072	4	174.3	2	175.2	2
WBTSEN	AB1705	23	1	14	2	20170513	0214	26.500N	74.231W	928	936	8.409	35.133	2	35.136	2	144.8	2	144.1	2
WBTSEN	AB1705	23	1	15	2	20170513	0214	26.500N	74.231W	819	826	10.781	35.395	2	35.401	2	140.9	2	141.4	2
WBTSEN	AB1705	23	1	16	2	20170513	0214	26.500N	74.231W	710	716	13.120	35.717	2	35.720	2	154.0	2	153.3	2
WBTSEN	AB1705	23	1	17	2	20170513	0214	26.500N	74.231W	602	607	15.618	36.113	2	36.116	6	164.4	2	171.6	4
WBTSEN	AB1705	23	1	18	2	20170513	0214	26.500N	74.231W	492	496	17.554	36.445	2	36.446	2	181.6	2	183.7	2
WBTSEN	AB1705	23	1	19	2	20170513	0214	26.500N	74.231W	384	387	18.399	36.545	2	36.549	2	189.8	2	191.6	2
WBTSEN	AB1705	23	1	20	2	20170513	0214	26.500N	74.231W	275	277	19.722	36.607	2	36.606	2	194.1	2	193.4	2
WBTSEN	AB1705	23	1	21	2	20170513	0214	26.500N	74.231W	183	185	21.201	36.723	2	36.719	2	194.9	2	202.1	4
WBTSEN	AB1705	23	1	22	2	20170513	0214	26.500N	74.231W	119	120	22.573	36.810	2	36.809	2	193.3	2	200.9	4
WBTSEN	AB1705	23	1	23	2	20170513	0214	26.500N	74.231W	69	70	23.458	36.833	2	-999.000	9	206.3	2	204.5	4
WBTSEN	AB1705	23	1	24	2	20170513	0214	26.500N	74.231W	3	3	25.759	36.654	2	36.653	2	199.7	2	-999.0	9
WBTSEN	AB1705	24	1	1	2	20170513	0734	26.496N	73.865W	4755	4840	2.200	34.874	2	34.875	2	255.6	2	256.0	2
WBTSEN	AB1705	24	1	2	2	20170513	0734	26.496N	73.865W	4374	4449	2.235	34.884	2	34.885	2	261.3	2	261.2	2
WBTSEN	AB1705	24	1	3	2	20170513	0734	26.496N	73.865W	4062	4129	2.267	34.890	2	34.890	2	265.1	2	265.1	2
WBTSEN	AB1705	24	1	4	2	20170513	0734	26.496N	73.865W	3762	3820	2.327	34.897	2	34.897	2	267.1	2	267.5	2
WBTSEN	AB1705	24	1	5	2	20170513	0734	26.496N	73.865W	3449	3501	2.452	34.906	2	34.907	2	267.8	2	268.3	2
WBTSEN	AB1705	24	1	6	2	20170513	0734	26.496N	73.865W	3058	3100	2.682	34.921	2	34.922	2	266.4	2	266.5	2
WBTSEN	AB1705	24	1	7	2	20170513	0734	26.496N	73.865W	2664	2699	3.022	34.940	2	34.942	2	262.9	2	264.0	2
WBTSEN	AB1705	24	1	8	2	20170513	0734	26.496N	73.865W	2272	2300	3.401	34.959	2	34.959	2	261.1	2	261.3	2
WBTSEN	AB1705	24	1	9	2	20170513	0734	26.496N	73.865W	1928	1950	3.748	34.973	2	34.974	2	259.8	2	259.4	2
WBTSEN	AB1705	24	1	10	2	20170513	0734	26.496N	73.865W	1584	1601	4.270	35.000	2	35.004	4	252.7	2	253.9	2
WBTSEN	AB1705	24	1	11	2	20170513	0734	26.496N	73.865W	1387	1401	4.745	35.030	2	35.032	2	235.4	2	261.9	4
WBTSEN	AB1705	24	1	12	2	20170513	0734	26.496N	73.865W	1219	1231	5.340	35.057	2	35.058	2	225.4	2	226.0	2
WBTSEN	AB1705	24	1	13	2	20170513	0734	26.496N	73.865W	1052	1061	6.703	35.081	2	35.081	2	181.4	2	183.5	2
WBTSEN	AB1705	24	1	14	2	20170513	0734	26.496N	73.865W	942	951	7.896	35.100	2	35.101	2	145.7	2	158.3	4
WBTSEN	AB1705	24	1	15	2	20170513	0734	26.496N	73.865W	834	841	10.145	35.306	2	35.308	2	134.8	2	-999.0	9
WBTSEN	AB1705	24	1	16	2	20170513	0734	26.496N	73.865W	724	730	12.626	35.645	2	35.650	2	147.2	2	146.9	4
WBTSEN	AB1705	24	1	17	2	20170513	0734	26.496N	73.865W	616	621	14.921	36.000	2	36.001	2	167.9	2	167.8	2
WBTSEN	AB1705	24	1	18	2	20170513	0734	26.496N	73.865W	508	512	17.061	36.362	2	36.371	4	180.4	2	180.7	2
WBTSEN	AB1705	24	1	19	2	20170513	0734	26.496N	73.865W	398	401	18.143	36.530	2	36.535	2	191.0	2	192.2	2
WBTSEN	AB1705	24	1	20	2	20170513	0734	26.496N	73.865W	289	291	19.229	36.595	2	36.595	2	187.5	2	188.2	2
WBTSEN	AB1705	24	1	21	2	20170513	0734	26.496N	73.865W	199	200	20.361	36.647	2	36.647	6	190.0	2	197.3	4
WBTSEN	AB1705	24	1	22	2	20170513	0734	26.496N	73.865W	109	110	22.135	36.778	2	36.778	2	212.2	2	211.3	2
WBTSEN	AB1705	24	1	23	2	20170513	0734	26.496N	73.865W	60	60	23.518	36.844	2	36.841	2	213.0	2	213.1	2
WBTSEN	AB1705	24	1	24	2	20170513	0734	26.496N	73.865W	3	3	24.918	36.909	2	36.909	6	206.7	2	207.5	2
WBTSEN	AB1705	25	1	1	2	20170513	1258	26.501N	73.499W	4950	5041	2.192	34.869	2	34.869	2	253.7	2	253.6	2
WBTSEN	AB1705	25	1	2	2	20170513	1258	26.501N	73.499W	4600	4681	2.258	34.884	2	-999.000	9	241.7	2	-999.0	9
WBTSEN	AB1705	25	1	3	2	20170513	1258	26.501N	73.499W	4230	4301	2.283	34.890	2	-999.000	9	245.6	2	-999.0	9
WBTSEN	AB1705	25	1	4	2	20170513	1258	26.501N	73.499W	3937	4001	2.320	34.895	2	34.894	2	265.3	2	265.2	2
WBTSEN	AB1705	25	1	5	2	20170513	1258	26.501N	73.499W	3596	3651	2.417	34.903	2	34.912	4	267.6	2	267.2	2
WBTSEN	AB1705	25	1	6	2	20170513	1258	26.501N	73.499W	3204	3250	2.656	34.919	2	34.918	2	265.9	2	265.8	2
WBTSEN	AB1705	25	1	7	2	20170513	1258	26.501N	73.499W	2715	2750	3.032	34.940	2	34.940	2	262.2	2	262.6	2
WBTSEN	AB1705	25	1	8	2	20170513	1258	26.501N	73.499W	2224	2251	3.446	34.959	2	34.958	2	261.1	2	260.8	2
WBTSEN	AB1705	25	1	9	2	20170513	1258	26.501N	73.499W	1831	1851	3.888	34.980	2	34.980	6	257.8	2	257.9	2
WBTSEN	AB1705	25	1	10	2	20170513	1258	26.501N	73.499W	1486	1502	4.510	35.015	2	35.015	2	248.3	2	247.9	2
WBTSEN	AB1705	25	1	11	2	20170513	1258	26.501N	73.499W	1323	1336	4.914	35.037	2	35.036	2	237.7	2	238.6	2
WBTSEN	AB1705	25	1	12	2	20170513	1258	26.501N	73.499W	1156	1167	5.761	35.067	2	35.067	2	211.7	2	212.0	2
WBTSEN	AB1705	25	1	13	2	20170513	1258	26.501N	73.499W	988	997	7.321	35.083	2	35.082	2	162.2	2	162.1	2
WBTSEN	AB1705	25	1	14	2	20170513	1258	26.501N	73.499W	879	887	9.081	35.199	2	35.198	2	141.6	2	140.9	2

WBTSEN	AB1705	25	1	15	2	20170513	1258	26.501N	73.499W	769	776	11.308	35.462	2	35.464	2	135.6	2	143.0	4
WBTSEN	AB1705	25	1	16	2	20170513	1258	26.501N	73.499W	660	666	13.702	35.805	2	35.834	4	156.7	2	156.6	2
WBTSEN	AB1705	25	1	17	2	20170513	1258	26.501N	73.499W	551	556	16.121	36.203	2	36.202	2	172.2	2	172.1	2
WBTSEN	AB1705	25	1	18	2	20170513	1258	26.501N	73.499W	443	446	17.849	36.500	2	36.499	2	175.3	2	182.0	4
WBTSEN	AB1705	25	1	19	2	20170513	1258	26.501N	73.499W	333	336	18.690	36.570	2	36.568	2	187.2	2	184.9	2
WBTSEN	AB1705	25	1	20	2	20170513	1258	26.501N	73.499W	224	226	19.812	36.611	2	36.611	2	195.3	2	194.7	2
WBTSEN	AB1705	25	1	21	2	20170513	1258	26.501N	73.499W	135	136	20.958	36.694	2	36.693	2	198.3	2	198.9	2
WBTSEN	AB1705	25	1	22	2	20170513	1258	26.501N	73.499W	84	85	21.697	36.744	2	36.744	2	207.1	2	206.3	2
WBTSEN	AB1705	25	1	23	2	20170513	1258	26.501N	73.499W	35	36	23.619	36.877	2	36.878	2	214.0	2	214.3	2
WBTSEN	AB1705	25	1	24	2	20170513	1258	26.501N	73.499W	3	3	25.099	36.892	2	36.890	2	205.2	2	206.5	2
WBTSEN	AB1705	26	1	1	2	20170513	1822	26.500N	73.134W	5022	5115	2.151	34.864	2	34.864	2	252.0	2	251.4	2
WBTSEN	AB1705	26	1	2	2	20170513	1822	26.500N	73.134W	4755	4840	2.230	34.877	2	34.878	2	258.0	2	257.9	2
WBTSEN	AB1705	26	1	3	2	20170513	1822	26.500N	73.134W	4473	4550	2.250	34.884	2	34.884	2	261.6	2	262.0	2
WBTSEN	AB1705	26	1	4	2	20170513	1822	26.500N	73.134W	4180	4250	2.273	34.889	2	34.888	2	264.1	2	263.7	2
WBTSEN	AB1705	26	1	5	2	20170513	1822	26.500N	73.134W	3912	3975	2.318	34.895	2	34.895	2	266.3	2	266.3	2
WBTSEN	AB1705	26	1	6	2	20170513	1822	26.500N	73.134W	3424	3475	2.514	34.910	2	34.909	6	267.8	2	267.1	2
WBTSEN	AB1705	26	1	7	2	20170513	1822	26.500N	73.134W	2936	2976	2.864	34.935	2	34.933	2	261.5	2	260.1	2
WBTSEN	AB1705	26	1	8	2	20170513	1822	26.500N	73.134W	2445	2476	3.272	34.954	2	34.954	2	260.9	2	260.4	2
WBTSEN	AB1705	26	1	9	2	20170513	1822	26.500N	73.134W	2027	2050	3.638	34.969	2	34.969	2	259.7	2	259.8	2
WBTSEN	AB1705	26	1	10	2	20170513	1822	26.500N	73.134W	1683	1701	4.099	34.993	2	34.992	2	254.9	2	254.3	2
WBTSEN	AB1705	26	1	11	2	20170513	1822	26.500N	73.134W	1435	1450	4.594	35.020	2	35.031	4	236.6	2	239.9	4
WBTSEN	AB1705	26	1	12	2	20170513	1822	26.500N	73.134W	1189	1200	5.542	35.070	2	35.069	2	216.6	2	217.6	2
WBTSEN	AB1705	26	1	13	2	20170513	1822	26.500N	73.134W	1020	1030	6.773	35.079	2	35.079	2	177.6	2	179.2	2
WBTSEN	AB1705	26	1	14	2	20170513	1822	26.500N	73.134W	912	920	8.277	35.122	2	35.122	2	145.6	2	146.0	2
WBTSEN	AB1705	26	1	15	2	20170513	1822	26.500N	73.134W	803	810	10.296	35.331	2	35.335	2	139.6	2	139.4	2
WBTSEN	AB1705	26	1	16	2	20170513	1822	26.500N	73.134W	694	700	13.067	35.709	2	35.708	2	149.5	2	150.1	2
WBTSEN	AB1705	26	1	17	2	20170513	1822	26.500N	73.134W	586	590	15.519	36.104	2	36.108	2	166.8	2	165.8	2
WBTSEN	AB1705	26	1	18	2	20170513	1822	26.500N	73.134W	476	480	17.353	36.407	2	36.407	2	180.4	2	180.6	2
WBTSEN	AB1705	26	1	19	2	20170513	1822	26.500N	73.134W	368	370	18.625	36.566	2	36.563	2	186.0	2	186.0	2
WBTSEN	AB1705	26	1	20	2	20170513	1822	26.500N	73.134W	258	260	19.814	36.615	2	36.615	2	191.8	2	209.2	4
WBTSEN	AB1705	26	1	21	2	20170513	1822	26.500N	73.134W	169	171	20.853	36.712	2	36.715	2	210.5	2	208.5	2
WBTSEN	AB1705	26	1	22	2	20170513	1822	26.500N	73.134W	120	121	21.847	36.763	2	36.761	2	208.9	2	209.7	2
WBTSEN	AB1705	26	1	23	2	20170513	1822	26.500N	73.134W	70	70	23.191	36.840	2	36.838	2	212.7	2	213.9	2
WBTSEN	AB1705	26	1	24	2	20170513	1822	26.500N	73.134W	2	2	25.422	36.750	2	36.752	2	204.5	2	205.1	2
WBTSEN	AB1705	27	1	1	2	20170513	2348	26.498N	72.767W	5083	5179	2.127	34.860	2	34.859	2	250.8	2	250.2	2
WBTSEN	AB1705	27	1	2	2	20170513	2348	26.498N	72.767W	4755	4841	2.227	34.877	2	34.877	2	258.0	2	257.6	2
WBTSEN	AB1705	27	1	3	2	20170513	2348	26.498N	72.767W	4375	4450	2.263	34.886	2	34.885	2	262.8	2	262.2	2
WBTSEN	AB1705	27	1	4	2	20170513	2348	26.498N	72.767W	4015	4080	2.304	34.893	2	34.893	2	265.3	2	265.5	2
WBTSEN	AB1705	27	1	5	2	20170513	2348	26.498N	72.767W	3644	3700	2.402	34.902	2	34.901	2	267.6	2	267.5	2
WBTSEN	AB1705	27	1	6	2	20170513	2348	26.498N	72.767W	3156	3200	2.671	34.921	2	34.919	2	264.6	2	264.4	2
WBTSEN	AB1705	27	1	7	2	20170513	2348	26.498N	72.767W	2666	2700	3.043	34.943	2	34.942	2	261.7	2	261.4	2
WBTSEN	AB1705	27	1	8	2	20170513	2348	26.498N	72.767W	2175	2201	3.467	34.962	2	34.960	2	260.8	2	260.7	2
WBTSEN	AB1705	27	1	9	2	20170513	2348	26.498N	72.767W	1929	1951	3.731	34.974	2	34.973	6	259.0	2	259.4	2
WBTSEN	AB1705	27	1	10	2	20170513	2348	26.498N	72.767W	1584	1600	4.237	35.000	2	34.998	2	252.8	2	253.2	2
WBTSEN	AB1705	27	1	11	2	20170513	2348	26.498N	72.767W	1411	1426	4.608	35.024	2	35.031	4	236.5	2	241.7	4
WBTSEN	AB1705	27	1	12	2	20170513	2348	26.498N	72.767W	1244	1256	5.109	35.046	2	35.046	2	232.8	2	233.1	2
WBTSEN	AB1705	27	1	13	2	20170513	2348	26.498N	72.767W	1075	1085	6.223	35.073	2	35.075	2	187.8	2	189.1	4
WBTSEN	AB1705	27	1	14	2	20170513	2348	26.498N	72.767W	937	946	7.686	35.095	2	35.095	2	156.1	2	155.3	2
WBTSEN	AB1705	27	1	15	2	20170513	2348	26.498N	72.767W	819	826	9.901	35.287	2	35.288	2	140.2	2	139.4	2
WBTSEN	AB1705	27	1	16	2	20170513	2348	26.498N	72.767W	709	715	12.615	35.642	2	35.647	2	148.3	2	149.5	2
WBTSEN	AB1705	27	1	17	2	20170513	2348	26.498N	72.767W	600	605	14.918	35.986	2	35.990	2	166.9	2	167.4	2
WBTSEN	AB1705	27	1	18	2	20170513	2348	26.498N	72.767W	491	495	17.114	36.364	2	36.365	2	178.5	2	179.3	2
WBTSEN	AB1705	27	1	19	2	20170513	2348	26.498N	72.767W	382	385	18.358	36.542	2	36.541	2	186.9	2	185.6	2
WBTSEN	AB1705	27	1	20	2	20170513	2348	26.498N	72.767W	273	275	19.493	36.600	2	36.609	4	191.5	2	191.6	2
WBTSEN	AB1705	27	1	21	2	20170513	2348	26.498N	72.767W	184	185	20.369	36.654	2	36.653	2	203.7	2	193.9	4
WBTSEN	AB1705	27	1	22	2	20170513	2348	26.498N	72.767W	105	105	22.031	36.788	2	36.784	6	202.7	2	211.9	4
WBTSEN	AB1705	27	1	23	2	20170513	2348	26.498N	72.767W	55	55	23.565	36.865	2	-999.000	9	208.8	2	-999.0	9
WBTSEN	AB1705	27	1	24	2	20170513	2348	26.498N	72.767W	3	3	25.181	36.817	2	36.815	2	205.5	2	206.6	2
WBTSEN	AB1705	28	1	1	2	20170514	0518	26.499N	72.383W	5177	5276	2.078	34.852	2	34.853	2	248.1	2	248.7	2
WBTSEN	AB1705	28	1	2	2	20170514	0518	26.499N	72.383W	4813	4900	2.229	34.877	2	34.877	2	257.7	2	257.5	2
WBTSEN	AB1705	28	1	3	2	20170514	0518	26.499N	72.383W	4472	4550	2.270	34.886	2	34.888	2	262.0	2	261.9	2
WBTSEN	AB1705	28	1	4	2	20170514	0518	26.499N	72.383W	4131	4200	2.291	34.891	2	34.890	2	264.5	2	264.4	2
WBTSEN	AB1705	28	1	5	2	20170514	0518	26.499N	72.383W	3790	3850	2.339	34.897	2	34.896	2	266.3	2	266.5	2
WBTSEN	AB1705	28	1	6	2	20170514	0518	26.499N	72.383W	3302	3350	2.524	34.912	2	34.910	2	266.5	2	266.4	2
WBTSEN	AB1705	28	1	7	2	20170514	0518	26.499N	72.383W	2813	2850	2.876	34.934	2	34.942	4	261.2	2	261.9	2
WBTSEN	AB1705	28	1	8	2	20170514	0518	26.499N	72.383W	2321	2350	3.289	34.956	2	34.953	2	260.4	2	260.7	2

WBTSEN	AB1705	28	1	9	2	20170514	0518	26.499N	72.383W	1831	1851	3.847	34.979	2	34.978	2	258.4	2	258.4	2
WBTSEN	AB1705	28	1	10	2	20170514	0518	26.499N	72.383W	1583	1600	4.218	34.998	2	34.997	2	253.3	2	253.2	2
WBTSEN	AB1705	28	1	11	2	20170514	0518	26.499N	72.383W	1363	1376	4.756	35.027	2	35.035	4	232.3	2	238.1	4
WBTSEN	AB1705	28	1	12	2	20170514	0518	26.499N	72.383W	1194	1206	5.453	35.064	2	35.063	2	221.0	2	221.4	2
WBTSEN	AB1705	28	1	13	2	20170514	0518	26.499N	72.383W	1026	1036	6.640	35.074	2	35.073	2	181.5	2	181.6	2
WBTSEN	AB1705	28	1	14	2	20170514	0518	26.499N	72.383W	917	925	7.996	35.111	2	35.110	2	151.0	2	149.8	2
WBTSEN	AB1705	28	1	15	2	20170514	0518	26.499N	72.383W	808	815	10.419	35.345	2	35.343	2	140.9	2	140.1	2
WBTSEN	AB1705	28	1	16	2	20170514	0518	26.499N	72.383W	700	706	12.967	35.693	2	35.693	2	152.5	2	151.8	2
WBTSEN	AB1705	28	1	17	2	20170514	0518	26.499N	72.383W	590	595	15.510	36.082	2	36.080	2	169.8	2	169.8	2
WBTSEN	AB1705	28	1	18	2	20170514	0518	26.499N	72.383W	481	485	17.435	36.423	2	36.420	2	180.0	2	181.2	2
WBTSEN	AB1705	28	1	19	2	20170514	0518	26.499N	72.383W	372	375	18.455	36.547	2	36.547	2	186.2	2	187.2	2
WBTSEN	AB1705	28	1	20	2	20170514	0518	26.499N	72.383W	263	265	19.659	36.607	2	36.605	2	193.6	2	195.1	2
WBTSEN	AB1705	28	1	21	2	20170514	0518	26.499N	72.383W	174	175	20.739	36.706	2	36.704	2	205.8	2	205.9	2
WBTSEN	AB1705	28	1	22	2	20170514	0518	26.499N	72.383W	113	114	21.988	36.781	2	36.784	6	212.6	2	214.4	4
WBTSEN	AB1705	28	1	23	2	20170514	0518	26.499N	72.383W	64	65	23.264	36.831	2	36.828	2	213.8	2	213.9	2
WBTSEN	AB1705	28	1	24	2	20170514	0518	26.499N	72.383W	3	3	25.012	36.873	2	36.871	2	206.0	2	206.4	2
WBTSEN	AB1705	29	1	1	2	20170514	1046	26.500N	71.990W	5270	5371	2.141	34.858	2	34.859	2	249.9	2	250.0	2
WBTSEN	AB1705	29	1	2	2	20170514	1046	26.500N	71.990W	4958	5050	2.258	34.878	2	34.878	2	258.3	2	257.5	2
WBTSEN	AB1705	29	1	3	2	20170514	1046	26.500N	71.990W	4653	4735	2.284	34.885	2	34.886	6	261.9	2	261.5	2
WBTSEN	AB1705	29	1	4	2	20170514	1046	26.500N	71.990W	4347	4421	2.298	34.889	2	34.888	2	263.7	2	263.3	2
WBTSEN	AB1705	29	1	5	2	20170514	1046	26.500N	71.990W	4035	4100	2.323	34.894	2	34.893	2	265.4	2	264.9	2
WBTSEN	AB1705	29	1	6	2	20170514	1046	26.500N	71.990W	3547	3601	2.435	34.905	2	34.903	2	266.2	2	266.3	2
WBTSEN	AB1705	29	1	7	2	20170514	1046	26.500N	71.990W	3059	3102	2.698	34.923	2	34.923	2	262.6	2	262.7	2
WBTSEN	AB1705	29	1	8	2	20170514	1046	26.500N	71.990W	2567	2600	3.091	34.949	2	34.948	2	259.3	2	259.3	2
WBTSEN	AB1705	29	1	9	2	20170514	1046	26.500N	71.990W	2077	2101	3.558	34.968	2	34.967	2	259.8	2	259.6	2
WBTSEN	AB1705	29	1	10	2	20170514	1046	26.500N	71.990W	1682	1700	4.089	34.997	2	34.996	2	254.8	2	254.7	2
WBTSEN	AB1705	29	1	11	2	20170514	1046	26.500N	71.990W	1402	1416	4.672	35.022	2	35.035	4	235.9	2	239.0	4
WBTSEN	AB1705	29	1	12	2	20170514	1046	26.500N	71.990W	1228	1240	5.383	35.065	2	35.065	2	226.1	2	223.8	2
WBTSEN	AB1705	29	1	13	2	20170514	1046	26.500N	71.990W	1056	1066	6.595	35.084	2	35.084	2	187.2	2	188.2	2
WBTSEN	AB1705	29	1	14	2	20170514	1046	26.500N	71.990W	903	911	8.711	35.177	2	35.175	2	147.9	2	148.1	2
WBTSEN	AB1705	29	1	15	2	20170514	1046	26.500N	71.990W	794	800	10.977	35.413	2	35.419	2	141.8	2	141.7	2
WBTSEN	AB1705	29	1	16	2	20170514	1046	26.500N	71.990W	684	690	13.580	35.788	2	35.783	2	152.5	2	152.5	2
WBTSEN	AB1705	29	1	17	2	20170514	1046	26.500N	71.990W	576	581	15.649	36.108	2	36.107	2	169.8	2	171.2	2
WBTSEN	AB1705	29	1	18	2	20170514	1046	26.500N	71.990W	467	470	17.345	36.401	2	36.399	2	180.3	2	180.8	2
WBTSEN	AB1705	29	1	19	2	20170514	1046	26.500N	71.990W	358	360	18.560	36.581	2	36.586	2	180.8	2	182.3	2
WBTSEN	AB1705	29	1	20	2	20170514	1046	26.500N	71.990W	248	250	19.773	36.610	2	36.614	2	188.7	2	195.9	4
WBTSEN	AB1705	29	1	21	2	20170514	1046	26.500N	71.990W	160	161	21.326	36.731	2	36.729	2	205.2	2	201.5	4
WBTSEN	AB1705	29	1	22	2	20170514	1046	26.500N	71.990W	94	95	22.902	36.825	2	36.824	2	211.2	2	213.0	2
WBTSEN	AB1705	29	1	23	2	20170514	1046	26.500N	71.990W	44	45	24.145	36.844	2	36.838	2	205.6	2	153.9	4
WBTSEN	AB1705	29	1	24	2	20170514	1046	26.500N	71.990W	3	3	25.375	36.876	2	36.875	2	204.6	2	204.6	2
WBTSEN	AB1705	30	1	1	2	20170514	1706	26.499N	71.499W	5405	5510	2.103	34.851	2	34.851	2	248.2	2	248.4	2
WBTSEN	AB1705	30	1	2	2	20170514	1706	26.499N	71.499W	5030	5124	2.258	34.876	2	34.877	6	257.6	2	256.9	2
WBTSEN	AB1705	30	1	3	2	20170514	1706	26.499N	71.499W	4648	4730	2.284	34.884	2	34.884	2	261.6	2	262.2	2
WBTSEN	AB1705	30	1	4	2	20170514	1706	26.499N	71.499W	4268	4339	2.310	34.891	2	34.892	2	264.4	2	264.5	2
WBTSEN	AB1705	30	1	5	2	20170514	1706	26.499N	71.499W	3889	3951	2.359	34.898	2	34.898	2	266.0	2	266.0	2
WBTSEN	AB1705	30	1	6	2	20170514	1706	26.499N	71.499W	3400	3450	2.511	34.910	2	34.911	2	265.8	2	266.5	2
WBTSEN	AB1705	30	1	7	2	20170514	1706	26.499N	71.499W	2911	2951	2.795	34.929	2	34.928	2	263.1	2	262.8	2
WBTSEN	AB1705	30	1	8	2	20170514	1706	26.499N	71.499W	2420	2451	3.167	34.951	2	34.950	2	247.4	2	281.4	4
WBTSEN	AB1705	30	1	9	2	20170514	1706	26.499N	71.499W	1929	1951	3.693	34.971	2	34.970	2	259.2	2	258.8	2
WBTSEN	AB1705	30	1	10	2	20170514	1706	26.499N	71.499W	1584	1601	4.586	35.021	2	35.022	2	245.0	2	245.9	2
WBTSEN	AB1705	30	1	11	2	20170514	1706	26.499N	71.499W	1432	1447	4.906	35.037	2	35.055	4	229.0	2	217.9	4
WBTSEN	AB1705	30	1	12	2	20170514	1706	26.499N	71.499W	1264	1276	5.542	35.063	2	35.063	2	216.9	2	218.2	2
WBTSEN	AB1705	30	1	13	2	20170514	1706	26.499N	71.499W	1095	1105	6.635	35.070	2	35.071	2	181.8	2	180.8	2
WBTSEN	AB1705	30	1	14	2	20170514	1706	26.499N	71.499W	943	951	8.391	35.135	2	35.135	6	146.5	2	146.2	2
WBTSEN	AB1705	30	1	15	2	20170514	1706	26.499N	71.499W	833	840	10.414	35.343	2	35.343	2	140.0	2	139.9	2
WBTSEN	AB1705	30	1	16	2	20170514	1706	26.499N	71.499W	725	731	12.722	35.658	2	35.658	2	150.5	2	148.5	2
WBTSEN	AB1705	30	1	17	2	20170514	1706	26.499N	71.499W	616	621	15.133	36.047	2	36.046	2	163.9	2	165.5	4
WBTSEN	AB1705	30	1	18	2	20170514	1706	26.499N	71.499W	506	510	16.982	36.358	2	36.360	2	181.2	2	180.7	2
WBTSEN	AB1705	30	1	19	2	20170514	1706	26.499N	71.499W	397	400	18.211	36.548	2	36.547	2	183.0	2	184.0	2
WBTSEN	AB1705	30	1	20	2	20170514	1706	26.499N	71.499W	288	290	19.425	36.643	2	36.643	2	183.3	2	183.6	2
WBTSEN	AB1705	30	1	21	2	20170514	1706	26.499N	71.499W	199	200	21.433	36.775	2	36.773	2	197.1	2	196.6	2
WBTSEN	AB1705	30	1	22	2	20170514	1706	26.499N	71.499W	119	120	23.158	36.840	2	36.842	2	212.0	2	209.7	2
WBTSEN	AB1705	30	1	23	2	20170514	1706	26.499N	71.499W	70	71	24.012	36.831	2	36.829	2	205.7	2	206.0	4
WBTSEN	AB1705	30	1	24	2	20170514	1706	26.499N	71.499W	3	3	25.380	36.796	2	36.794	2	204.6	2	205.3	2
WBTSEN	AB1705	31	1	1	2	20170514	2304	26.498N	70.997W	5467	5575	2.199	34.862	2	34.861	2	251.2	2	251.0	2
WBTSEN	AB1705	31	1	2	2	20170514	2304	26.498N	70.997W	5153	5251	2.296	34.878	2	34.878	2	258.4	2	258.0	2

WBTSEN	AB1705	31	1	3	2	20170514	2304	26.498N	70.997W	4828	4915	2.297	34.883	2	34.882	2	260.8	2	261.0	2
WBTSEN	AB1705	31	1	4	2	20170514	2304	26.498N	70.997W	4502	4581	2.309	34.889	2	34.887	2	263.6	2	263.1	2
WBTSEN	AB1705	31	1	5	2	20170514	2304	26.498N	70.997W	4182	4251	2.333	34.893	2	34.897	2	264.9	2	264.9	2
WBTSEN	AB1705	31	1	6	2	20170514	2304	26.498N	70.997W	3694	3751	2.426	34.903	2	34.901	2	266.5	2	266.6	2
WBTSEN	AB1705	31	1	7	2	20170514	2304	26.498N	70.997W	3205	3251	2.687	34.920	2	34.919	2	265.4	2	265.5	2
WBTSEN	AB1705	31	1	8	2	20170514	2304	26.498N	70.997W	2715	2750	3.066	34.942	2	34.941	2	261.9	2	261.7	2
WBTSEN	AB1705	31	1	9	2	20170514	2304	26.498N	70.997W	2224	2251	3.466	34.962	2	34.961	2	260.3	2	259.8	2
WBTSEN	AB1705	31	1	10	2	20170514	2304	26.498N	70.997W	1781	1801	3.989	34.987	2	34.986	2	256.0	2	255.9	2
WBTSEN	AB1705	31	1	11	2	20170514	2304	26.498N	70.997W	1386	1400	4.847	35.038	2	35.044	4	232.9	2	234.0	4
WBTSEN	AB1705	31	1	12	2	20170514	2304	26.498N	70.997W	1200	1211	5.696	35.066	2	35.065	2	213.3	2	215.0	2
WBTSEN	AB1705	31	1	13	2	20170514	2304	26.498N	70.997W	1031	1041	7.343	35.084	2	35.083	2	161.5	2	162.0	2
WBTSEN	AB1705	31	1	14	2	20170514	2304	26.498N	70.997W	912	920	8.773	35.156	2	35.154	2	136.6	2	138.3	2
WBTSEN	AB1705	31	1	15	2	20170514	2304	26.498N	70.997W	803	810	10.960	35.433	2	35.432	2	147.8	2	146.6	2
WBTSEN	AB1705	31	1	16	2	20170514	2304	26.498N	70.997W	694	700	13.211	35.746	2	35.747	2	154.5	2	153.6	2
WBTSEN	AB1705	31	1	17	2	20170514	2304	26.498N	70.997W	586	590	15.433	36.098	2	36.094	2	173.6	2	173.6	2
WBTSEN	AB1705	31	1	18	2	20170514	2304	26.498N	70.997W	476	480	17.252	36.397	2	36.397	2	179.9	2	180.4	2
WBTSEN	AB1705	31	1	19	2	20170514	2304	26.498N	70.997W	367	370	18.397	36.558	2	36.556	2	184.5	2	184.6	2
WBTSEN	AB1705	31	1	20	2	20170514	2304	26.498N	70.997W	258	260	19.748	36.623	2	36.628	2	191.3	2	191.6	2
WBTSEN	AB1705	31	1	21	2	20170514	2304	26.498N	70.997W	169	170	21.728	36.768	2	36.768	6	197.2	2	197.3	2
WBTSEN	AB1705	31	1	22	2	20170514	2304	26.498N	70.997W	100	101	23.689	36.846	2	36.845	2	208.8	2	209.5	2
WBTSEN	AB1705	31	1	23	2	20170514	2304	26.498N	70.997W	50	50	24.198	36.827	2	-999.000	9	205.6	2	-999.0	9
WBTSEN	AB1705	31	1	24	2	20170514	2304	26.498N	70.997W	2	2	25.315	36.818	2	36.818	2	205.0	2	204.9	2
WBTSEN	AB1705	32	1	1	2	20170515	0511	26.497N	70.497W	5464	5571	2.117	34.852	2	34.853	2	247.7	2	248.1	2
WBTSEN	AB1705	32	1	2	2	20170515	0511	26.497N	70.497W	5084	5179	2.277	34.877	2	34.880	2	257.9	2	258.0	2
WBTSEN	AB1705	32	1	3	2	20170515	0511	26.497N	70.497W	4694	4778	2.294	34.885	2	34.885	2	261.4	2	261.6	2
WBTSEN	AB1705	32	1	4	2	20170515	0511	26.497N	70.497W	4317	4390	2.302	34.890	2	34.890	2	263.7	2	263.4	2
WBTSEN	AB1705	32	1	5	2	20170515	0511	26.497N	70.497W	3935	3998	2.358	34.896	2	34.897	2	265.8	2	265.1	2
WBTSEN	AB1705	32	1	6	2	20170515	0511	26.497N	70.497W	3449	3501	2.512	34.909	2	34.910	2	265.6	2	265.6	2
WBTSEN	AB1705	32	1	7	2	20170515	0511	26.497N	70.497W	2959	3000	2.789	34.928	2	34.929	2	263.3	2	262.8	2
WBTSEN	AB1705	32	1	8	2	20170515	0511	26.497N	70.497W	2470	2502	3.177	34.950	2	34.951	2	260.3	2	260.3	2
WBTSEN	AB1705	32	1	9	2	20170515	0511	26.497N	70.497W	1978	2001	3.707	34.975	2	34.977	2	257.5	2	258.7	2
WBTSEN	AB1705	32	1	10	2	20170515	0511	26.497N	70.497W	1654	1671	4.168	34.998	2	35.003	4	253.5	2	251.4	2
WBTSEN	AB1705	32	1	11	2	20170515	0511	26.497N	70.497W	1449	1464	4.570	35.024	2	35.026	2	246.8	2	245.2	2
WBTSEN	AB1705	32	1	12	2	20170515	0511	26.497N	70.497W	1271	1284	5.149	35.048	2	35.050	2	231.6	2	231.5	2
WBTSEN	AB1705	32	1	13	2	20170515	0511	26.497N	70.497W	1094	1104	6.258	35.072	2	35.072	2	192.7	2	192.4	2
WBTSEN	AB1705	32	1	14	2	20170515	0511	26.497N	70.497W	931	939	8.268	35.118	2	35.122	2	146.8	2	145.0	2
WBTSEN	AB1705	32	1	15	2	20170515	0511	26.497N	70.497W	822	830	10.097	35.308	2	35.312	2	139.2	2	139.5	2
WBTSEN	AB1705	32	1	16	2	20170515	0511	26.497N	70.497W	710	716	12.732	35.660	2	35.670	4	150.1	2	149.6	2
WBTSEN	AB1705	32	1	17	2	20170515	0511	26.497N	70.497W	601	605	14.783	35.980	2	35.980	2	163.5	2	162.8	2
WBTSEN	AB1705	32	1	18	2	20170515	0511	26.497N	70.497W	492	495	16.831	36.327	2	36.338	4	177.5	2	178.0	2
WBTSEN	AB1705	32	1	19	2	20170515	0511	26.497N	70.497W	382	384	18.013	36.532	2	36.532	2	180.8	2	182.2	2
WBTSEN	AB1705	32	1	20	2	20170515	0511	26.497N	70.497W	274	276	19.490	36.705	2	36.704	2	169.8	2	178.9	4
WBTSEN	AB1705	32	1	21	2	20170515	0511	26.497N	70.497W	184	185	20.790	36.708	2	36.709	2	179.4	2	198.0	4
WBTSEN	AB1705	32	1	22	2	20170515	0511	26.497N	70.497W	116	117	22.626	36.846	2	36.837	4	210.7	2	202.9	4
WBTSEN	AB1705	32	1	23	2	20170515	0511	26.497N	70.497W	65	66	24.359	36.842	2	36.841	2	208.3	2	209.2	2
WBTSEN	AB1705	32	1	24	2	20170515	0511	26.497N	70.497W	2	2	24.906	36.855	2	36.855	6	204.7	2	206.1	2
WBTSEN	AB1705	33	1	1	2	20170515	1137	26.500N	69.999W	5468	5575	2.120	34.852	2	34.853	2	247.8	2	247.7	2
WBTSEN	AB1705	33	1	2	2	20170515	1137	26.500N	69.999W	5046	5140	2.280	34.878	2	34.879	2	258.4	2	258.1	2
WBTSEN	AB1705	33	1	3	2	20170515	1137	26.500N	69.999W	4618	4700	2.291	34.886	2	34.885	2	261.6	2	262.0	2
WBTSEN	AB1705	33	1	4	2	20170515	1137	26.500N	69.999W	4191	4261	2.306	34.891	2	34.891	2	264.1	2	263.8	2
WBTSEN	AB1705	33	1	5	2	20170515	1137	26.500N	69.999W	3766	3825	2.374	34.900	2	34.900	2	266.2	2	266.3	2
WBTSEN	AB1705	33	1	6	2	20170515	1137	26.500N	69.999W	3258	3305	2.587	34.915	2	34.922	4	264.7	2	265.3	2
WBTSEN	AB1705	33	1	7	2	20170515	1137	26.500N	69.999W	2753	2790	2.890	34.935	2	34.935	2	263.0	2	261.9	2
WBTSEN	AB1705	33	1	8	2	20170515	1137	26.500N	69.999W	2244	2271	3.332	34.961	2	34.960	2	257.8	2	259.4	2
WBTSEN	AB1705	33	1	9	2	20170515	1137	26.500N	69.999W	1835	1855	3.840	34.983	2	34.982	2	256.5	2	257.2	2
WBTSEN	AB1705	33	1	10	2	20170515	1137	26.500N	69.999W	1583	1600	4.185	34.999	2	34.998	2	253.3	2	253.4	2
WBTSEN	AB1705	33	1	11	2	20170515	1137	26.500N	69.999W	1363	1376	4.730	35.034	2	35.035	2	242.5	2	242.6	2
WBTSEN	AB1705	33	1	12	2	20170515	1137	26.500N	69.999W	1194	1205	5.479	35.069	2	35.069	2	220.5	2	220.8	2
WBTSEN	AB1705	33	1	13	2	20170515	1137	26.500N	69.999W	1026	1036	6.529	35.074	2	35.074	2	183.9	2	184.0	2
WBTSEN	AB1705	33	1	14	2	20170515	1137	26.500N	69.999W	917	926	7.958	35.120	2	35.121	2	153.9	2	154.2	2
WBTSEN	AB1705	33	1	15	2	20170515	1137	26.500N	69.999W	808	815	10.125	35.308	2	35.306	2	138.0	2	138.6	2
WBTSEN	AB1705	33	1	16	2	20170515	1137	26.500N	69.999W	699	705	12.451	35.616	2	35.619	2	147.2	2	146.9	2
WBTSEN	AB1705	33	1	17	2	20170515	1137	26.500N	69.999W	591	596	14.746	35.978	2	35.981	6	160.2	2	160.2	2
WBTSEN	AB1705	33	1	18	2	20170515	1137	26.500N	69.999W	483	486	16.897	36.334	2	36.341	2	177.9	2	178.7	2
WBTSEN	AB1705	33	1	19	2	20170515	1137	26.500N	69.999W	372	375	18.159	36.530	2	36.530	2	184.4	2	185.7	2
WBTSEN	AB1705	33	1	20	2	20170515	1137	26.500N	69.999W	264	266	19.176	36.584	2	36.584	2	188.0	2	188.5	2

WBTSEN	AB1705	33	1	21	2	20170515	1137	26.500N	69.999W	174	175	20.419	36.676	2	36.683	2	203.8	2	202.7	2
WBTSEN	AB1705	33	1	22	2	20170515	1137	26.500N	69.999W	95	95	22.785	36.823	2	36.825	2	207.5	2	207.4	2
WBTSEN	AB1705	33	1	23	2	20170515	1137	26.500N	69.999W	45	45	24.344	36.851	2	36.855	2	210.4	2	209.6	2
WBTSEN	AB1705	33	1	24	2	20170515	1137	26.500N	69.999W	3	3	25.140	36.890	2	36.891	2	205.5	2	205.6	2
WBTSEN	AB1705	34	1	1	2	20170515	1742	26.499N	69.499W	5306	5408	2.090	34.851	2	34.852	2	247.8	2	247.9	2
WBTSEN	AB1705	34	1	2	2	20170515	1742	26.499N	69.499W	4988	5080	2.226	34.873	2	34.874	2	256.2	2	255.6	2
WBTSEN	AB1705	34	1	3	2	20170515	1742	26.499N	69.499W	4646	4729	2.269	34.883	2	34.883	2	260.4	2	259.8	2
WBTSEN	AB1705	34	1	4	2	20170515	1742	26.499N	69.499W	4307	4380	2.286	34.889	2	34.890	2	262.7	2	262.7	2
WBTSEN	AB1705	34	1	5	2	20170515	1742	26.499N	69.499W	3970	4034	2.304	34.893	2	34.894	2	264.3	2	264.2	2
WBTSEN	AB1705	34	1	6	2	20170515	1742	26.499N	69.499W	3464	3515	2.430	34.905	2	34.909	4	265.3	2	265.2	2
WBTSEN	AB1705	34	1	7	2	20170515	1742	26.499N	69.499W	2955	2996	2.719	34.925	2	34.925	2	263.5	2	262.8	2
WBTSEN	AB1705	34	1	8	2	20170515	1742	26.499N	69.499W	2450	2480	3.156	34.953	2	34.953	2	258.2	2	258.4	2
WBTSEN	AB1705	34	1	9	2	20170515	1742	26.499N	69.499W	1938	1960	3.670	34.972	2	34.972	6	258.5	2	258.8	2
WBTSEN	AB1705	34	1	10	2	20170515	1742	26.499N	69.499W	1688	1706	4.065	34.998	2	34.998	2	253.7	2	254.0	2
WBTSEN	AB1705	34	1	11	2	20170515	1742	26.499N	69.499W	1348	1361	4.777	35.025	2	35.026	2	244.5	2	243.2	2
WBTSEN	AB1705	34	1	12	2	20170515	1742	26.499N	69.499W	1179	1191	5.604	35.073	2	35.073	2	213.7	2	214.6	2
WBTSEN	AB1705	34	1	13	2	20170515	1742	26.499N	69.499W	1010	1019	6.642	35.059	2	35.057	2	178.7	2	176.8	2
WBTSEN	AB1705	34	1	14	2	20170515	1742	26.499N	69.499W	902	910	8.134	35.123	2	35.123	2	148.7	2	148.9	2
WBTSEN	AB1705	34	1	15	2	20170515	1742	26.499N	69.499W	794	801	10.174	35.316	2	35.321	2	141.5	2	142.2	2
WBTSEN	AB1705	34	1	16	2	20170515	1742	26.499N	69.499W	685	691	12.729	35.649	2	35.652	2	152.7	2	153.8	2
WBTSEN	AB1705	34	1	17	2	20170515	1742	26.499N	69.499W	576	580	15.319	36.050	2	36.051	2	169.0	2	169.2	2
WBTSEN	AB1705	34	1	18	2	20170515	1742	26.499N	69.499W	467	470	17.312	36.399	2	36.398	2	179.9	2	180.5	2
WBTSEN	AB1705	34	1	19	2	20170515	1742	26.499N	69.499W	358	360	18.494	36.566	2	36.565	2	185.9	2	185.6	2
WBTSEN	AB1705	34	1	20	2	20170515	1742	26.499N	69.499W	250	251	19.637	36.626	2	36.637	4	189.1	2	190.0	2
WBTSEN	AB1705	34	1	21	2	20170515	1742	26.499N	69.499W	159	160	21.541	36.780	2	36.784	2	202.6	2	201.5	2
WBTSEN	AB1705	34	1	22	2	20170515	1742	26.499N	69.499W	105	106	22.947	36.835	2	36.837	2	205.9	2	207.9	2
WBTSEN	AB1705	34	1	23	2	20170515	1742	26.499N	69.499W	54	55	24.047	36.843	2	36.842	6	210.5	2	210.3	2
WBTSEN	AB1705	34	1	24	2	20170515	1742	26.499N	69.499W	2	2	25.635	36.832	2	36.832	2	203.2	2	204.2	2
WBTSEN	AB1705	35	1	1	2	20170519	2057	26.502N	76.472W	4848	4936	2.201	34.872	2	34.876	2	232.5	2	-999.0	9
WBTSEN	AB1705	35	1	2	2	20170519	2057	26.502N	76.472W	3937	4000	2.322	34.895	2	34.896	2	247.1	2	-999.0	9
WBTSEN	AB1705	35	1	3	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	4	2	20170519	2057	26.502N	76.472W	3448	3499	2.500	34.909	2	34.909	2	250.3	2	-999.0	9
WBTSEN	AB1705	35	1	5	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	6	2	20170519	2057	26.502N	76.472W	2954	2995	2.839	34.929	2	34.929	2	249.7	2	-999.0	9
WBTSEN	AB1705	35	1	7	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	8	2	20170519	2057	26.502N	76.472W	2468	2499	3.175	34.944	2	34.945	2	249.4	2	-999.0	9
WBTSEN	AB1705	35	1	9	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	10	2	20170519	2057	26.502N	76.472W	1982	2005	3.538	34.959	2	34.961	2	249.6	2	-999.0	9
WBTSEN	AB1705	35	1	11	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	12	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	13	2	20170519	2057	26.502N	76.472W	1487	1503	4.199	34.997	2	34.997	2	243.2	2	-999.0	9
WBTSEN	AB1705	35	1	14	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	15	2	20170519	2057	26.502N	76.472W	791	797	11.117	35.441	2	35.440	2	139.3	2	-999.0	9
WBTSEN	AB1705	35	1	16	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	17	2	20170519	2057	26.502N	76.472W	498	502	17.760	36.476	2	36.476	2	180.7	2	-999.0	9
WBTSEN	AB1705	35	1	18	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	19	2	20170519	2057	26.502N	76.472W	196	197	21.476	36.740	2	36.742	2	197.4	2	-999.0	9
WBTSEN	AB1705	35	1	20	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	21	2	20170519	2057	26.502N	76.472W	100	101	22.954	36.821	2	36.822	2	206.1	2	-999.0	9
WBTSEN	AB1705	35	1	22	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	35	1	23	2	20170519	2057	26.502N	76.472W	2	2	25.779	36.929	2	36.928	2	199.0	2	-999.0	9
WBTSEN	AB1705	35	1	24	2	20170519	2057	26.502N	76.472W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	1	2	20170523	1232	26.999N	79.202W	464	467	15.426	36.079	2	36.062	4	153.4	2	127.5	4
WBTSEN	AB1705	36	1	2	2	20170523	1232	26.999N	79.202W	308	310	18.828	36.586	2	36.585	2	164.4	2	181.5	4
WBTSEN	AB1705	36	1	3	2	20170523	1232	26.999N	79.202W	149	150	24.247	36.839	2	36.838	2	166.8	2	193.7	4
WBTSEN	AB1705	36	1	4	2	20170523	1232	26.999N	79.202W	60	60	27.099	36.401	2	36.406	2	193.0	2	203.9	4
WBTSEN	AB1705	36	1	5	2	20170523	1232	26.999N	79.202W	3	3	27.312	36.354	2	36.359	2	192.3	2	205.6	4
WBTSEN	AB1705	36	1	6	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	7	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	8	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	9	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	10	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	11	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	12	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	13	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	14	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

WBTSEN	AB1705	36	1	15	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	16	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	17	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	18	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	19	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	20	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	21	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	22	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	23	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	36	1	24	2	20170523	1232	26.999N	79.202W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	1	2	20170523	1343	27.000N	79.283W	590	595	12.122	35.574	2	35.574	2	137.7	2	150.7	4
WBTSEN	AB1705	37	1	2	2	20170523	1343	27.000N	79.283W	447	451	14.973	35.966	2	35.977	4	136.0	2	142.1	4
WBTSEN	AB1705	37	1	3	2	20170523	1343	27.000N	79.283W	290	292	18.514	36.562	2	36.555	4	154.2	2	164.8	4
WBTSEN	AB1705	37	1	4	2	20170523	1343	27.000N	79.283W	120	120	26.003	36.640	2	36.674	4	176.6	2	186.4	4
WBTSEN	AB1705	37	1	5	2	20170523	1343	27.000N	79.283W	50	50	27.055	36.397	2	36.398	2	193.8	2	193.5	4
WBTSEN	AB1705	37	1	6	2	20170523	1343	27.000N	79.283W	3	3	27.365	36.359	2	36.358	2	193.1	2	208.3	4
WBTSEN	AB1705	37	1	7	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	8	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	9	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	10	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	11	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	12	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	13	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	14	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	15	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	16	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	17	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	18	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	19	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	20	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	21	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	22	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	23	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	37	1	24	2	20170523	1343	27.000N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	1	2	20170523	1520	27.000N	79.382W	665	670	9.001	35.075	2	35.077	2	116.4	2	127.9	4
WBTSEN	AB1705	38	1	2	2	20170523	1520	27.000N	79.382W	536	540	11.523	35.413	2	35.414	2	118.7	2	126.9	4
WBTSEN	AB1705	38	1	3	2	20170523	1520	27.000N	79.382W	357	360	15.624	36.083	2	36.074	4	140.0	2	150.5	4
WBTSEN	AB1705	38	1	4	2	20170523	1520	27.000N	79.382W	175	176	22.826	36.913	2	36.913	2	158.8	2	166.8	4
WBTSEN	AB1705	38	1	5	2	20170523	1520	27.000N	79.382W	70	70	26.683	36.453	2	36.455	2	191.9	2	-999.0	9
WBTSEN	AB1705	38	1	6	2	20170523	1520	27.000N	79.382W	3	3	27.564	36.369	2	36.369	2	192.1	2	208.0	4
WBTSEN	AB1705	38	1	7	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	8	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	9	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	10	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	11	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	12	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	13	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	14	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	15	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	16	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	17	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	18	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	19	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	20	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	21	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	22	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	23	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	38	1	24	2	20170523	1520	27.000N	79.382W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	1	2	20170523	1646	27.002N	79.502W	739	745	6.578	34.901	2	34.903	2	133.8	2	146.1	4
WBTSEN	AB1705	39	1	2	2	20170523	1646	27.002N	79.502W	646	651	7.030	34.909	2	34.912	2	127.0	2	136.5	4
WBTSEN	AB1705	39	1	3	2	20170523	1646	27.002N	79.502W	467	471	10.098	35.203	2	35.202	2	115.6	2	121.8	4
WBTSEN	AB1705	39	1	4	2	20170523	1646	27.002N	79.502W	308	310	15.632	36.078	2	36.067	4	134.2	2	144.2	4
WBTSEN	AB1705	39	1	5	2	20170523	1646	27.002N	79.502W	180	181	22.983	36.936	2	36.931	2	159.8	2	169.2	4
WBTSEN	AB1705	39	1	6	2	20170523	1646	27.002N	79.502W	80	80	26.453	36.505	2	36.504	2	188.9	2	203.2	4
WBTSEN	AB1705	39	1	7	2	20170523	1646	27.002N	79.502W	4	4	27.688	36.383	2	36.388	2	192.3	2	205.7	4
WBTSEN	AB1705	39	1	8	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

WBTSEN	AB1705	39	1	9	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	10	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	11	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	12	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	13	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	14	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	15	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	16	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	17	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	18	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	19	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	20	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	21	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	22	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	23	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	39	1	24	2	20170523	1646	27.002N	79.502W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	1	2	20170523	1821	27.003N	79.616W	628	633	6.492	34.906	2	34.908	2	135.9	2	146.0	4
WBTSEN	AB1705	40	1	2	2	20170523	1821	27.003N	79.616W	469	472	9.055	35.105	2	35.110	2	120.0	2	128.6	4
WBTSEN	AB1705	40	1	3	2	20170523	1821	27.003N	79.616W	318	320	13.743	35.762	2	35.755	2	128.1	2	129.1	2
WBTSEN	AB1705	40	1	4	2	20170523	1821	27.003N	79.616W	178	180	21.215	36.693	2	36.687	2	144.9	2	158.4	4
WBTSEN	AB1705	40	1	5	2	20170523	1821	27.003N	79.616W	71	71	26.817	36.441	2	36.439	2	191.8	2	199.5	4
WBTSEN	AB1705	40	1	6	2	20170523	1821	27.003N	79.616W	4	4	27.896	36.262	2	36.261	2	191.7	2	202.3	4
WBTSEN	AB1705	40	1	7	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	8	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	9	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	10	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	11	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	12	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	13	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	14	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	15	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	16	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	17	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	18	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	19	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	20	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	21	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	22	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	23	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	40	1	24	2	20170523	1821	27.003N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	1	2	20170523	1942	27.001N	79.684W	513	517	6.640	34.909	2	-999.000	9	133.5	2	-999.0	9
WBTSEN	AB1705	41	1	2	2	20170523	1942	27.001N	79.684W	397	401	7.897	34.964	2	-999.000	9	120.2	2	-999.0	9
WBTSEN	AB1705	41	1	3	2	20170523	1942	27.001N	79.684W	255	257	14.926	35.950	2	-999.000	9	127.8	2	-999.0	9
WBTSEN	AB1705	41	1	4	2	20170523	1942	27.001N	79.684W	120	121	24.981	36.800	2	36.801	2	168.9	2	181.7	4
WBTSEN	AB1705	41	1	5	2	20170523	1942	27.001N	79.684W	60	61	27.232	36.400	2	36.398	2	195.0	2	207.6	4
WBTSEN	AB1705	41	1	6	2	20170523	1942	27.001N	79.684W	3	3	27.959	36.272	2	36.271	2	192.5	2	206.1	4
WBTSEN	AB1705	41	1	7	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	8	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	9	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	10	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	11	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	12	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	13	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	14	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	15	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	16	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	17	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	18	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	19	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	20	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	21	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	22	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	23	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	41	1	24	2	20170523	1942	27.001N	79.684W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	1	2	20170523	2118	27.003N	79.790W	333	336	8.643	35.046	2	35.045	2	118.6	2	128.6	4
WBTSEN	AB1705	42	1	2	2	20170523	2118	27.003N	79.790W	281	283	9.530	35.131	2	35.159	4	116.0	2	124.5	4

WBTSEN	AB1705	42	1	3	2	20170523	2118	27.003N	79.790W	122	123	20.130	36.395	2	36.396	2	161.9	2	176.3	4
WBTSEN	AB1705	42	1	4	2	20170523	2118	27.003N	79.790W	40	40	27.878	36.299	2	36.299	2	193.0	2	206.3	4
WBTSEN	AB1705	42	1	5	2	20170523	2118	27.003N	79.790W	3	3	27.961	36.305	2	36.305	2	191.9	2	210.3	4
WBTSEN	AB1705	42	1	6	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	7	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	8	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	9	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	10	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	11	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	12	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	13	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	14	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	15	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	16	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	17	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	18	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	19	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	20	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	21	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	22	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	23	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	42	1	24	2	20170523	2118	27.003N	79.790W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	1	2	20170523	2239	27.003N	79.867W	235	237	9.980	35.214	2	35.211	4	118.1	2	126.8	4
WBTSEN	AB1705	43	1	2	2	20170523	2239	27.003N	79.867W	177	178	13.757	35.773	2	35.855	4	127.1	2	137.0	4
WBTSEN	AB1705	43	1	3	2	20170523	2239	27.003N	79.867W	75	75	23.049	36.461	2	36.484	4	198.8	2	214.6	4
WBTSEN	AB1705	43	1	4	2	20170523	2239	27.003N	79.867W	3	3	27.930	36.301	2	36.300	4	192.7	2	207.5	4
WBTSEN	AB1705	43	1	5	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	6	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	7	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	8	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	9	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	10	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	11	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	12	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	13	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	14	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	15	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	16	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	17	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	18	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	19	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	20	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	21	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	22	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	23	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	43	1	24	2	20170523	2239	27.003N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	1	2	20170524	0013	27.002N	79.932W	136	137	13.359	35.710	2	35.720	4	129.6	2	130.8	2
WBTSEN	AB1705	44	1	2	2	20170524	0013	27.002N	79.932W	61	61	20.010	36.548	2	36.549	2	142.7	2	151.8	4
WBTSEN	AB1705	44	1	3	2	20170524	0013	27.002N	79.932W	3	3	27.841	36.331	2	36.330	2	191.6	2	207.1	4
WBTSEN	AB1705	44	1	4	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	5	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	6	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	7	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	8	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	9	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	10	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	11	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	12	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	13	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	14	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	15	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	16	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	17	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	18	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	19	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	20	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

WBTSEN	AB1705	44	1	21	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	22	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	23	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSEN	AB1705	44	1	24	2	20170524	0013	27.002N	79.932W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9