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Hydrographic Measurements Collected in 2019 During Western Boundary Time Series Cruises in the Florida Current aboard the Research Vessel R/V *Walton Smith*, (FC1902, FC1904, FC1906, FC1907, FC1910)

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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 presents final calibrated conductivity, temperature, depth (CTD) data collected in the Florida Straits during five Western Boundary Time Series project (WBTS) research cruises conducted in 2019. These cruises took place aboard the UNOLS ship R/V *F. G. Walton Smith* (FC1902, FC1904, FC1906, FC1907, FC1910). Funded through the Climate Program Office (CPO) of the National Oceanic and Atmospheric Administration (NOAA), these WBTS surveys were completed as part of a long term effort to monitor the strength and water mass properties of the Florida Current at 27°N in the Florida Straits.

1 Introduction

In 1982, NOAA began to regularly monitor the Florida Current across 27°N in the Florida Straits in an effort to develop a long-term record of the current's transport and water mass properties. As a leg of the Gulf Stream system in the North Atlantic Ocean, the Florida Current is the last component of this important western boundary current which is constrained by shallow channel bathymetry, as it flows through the Straits of Florida, making the section at 27°N an ideal location for a monitoring program.

It was recognized that a better understanding of the current's behavior and characteristics, including temporal and spatial modes of variability, is critical to determining the strength and variability of the North Atlantic Subtropical Gyre. The powerful Gulf Stream system transports heat and salt from lower latitudes poleward in the North Atlantic Ocean. The flow is comprised of water recirculating within the Subtropical Gyre as well as components from farther regions of the global ocean. For this reason, documenting the natural variations and characteristics of the current helps scientists to gain a better understanding of variations in the earth's climate and can potentially provide an early warning to anomalous changes.

NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) in Miami, Florida, manages the WBTS project and monitors the Florida Current using a submarine cable, running across the Straits of Florida, which provides daily transport estimates of the current; regular small boat cruises at 27°N, which measure the current transport using a GPS dropsonde device, and regular hydrographic surveys at 27°N using larger research vessels. Moored instruments have also been used to estimate current transport over portions of the project's history.

This report documents final CTD data collected during WBTS hydrographic surveys of 27°N in 2019. It also provides some additional details regarding other measurements conducted during these research cruises. In 2019, five hydrographic surveys were completed. These were conducted using the University of Miami's R/V *F. G. Walton Smith* (FC1902, FC1904, FC1906, FC1907, FC1910).

On each survey, a CTD package, equipped with sensors designed to measure pressure, temperature, conductivity (to derive salinity), dissolved oxygen, and water velocity (via an attached lowered acoustic Doppler profiler, LADCP, system), was lowered from the surface to 10-20 m above the sea floor, at 9 historical locations extending across the Florida Straits between West Palm Beach, Florida and the Bahamas (Figure 1 and Tables 1 - 5). During each CTD cast, water samples were also collected at various depths. Of these, samples collected for salinity and dissolved oxygen analysis were used to calibrate CTD sensor data to a final state. These methods are detailed further in subsequent sections of this report.

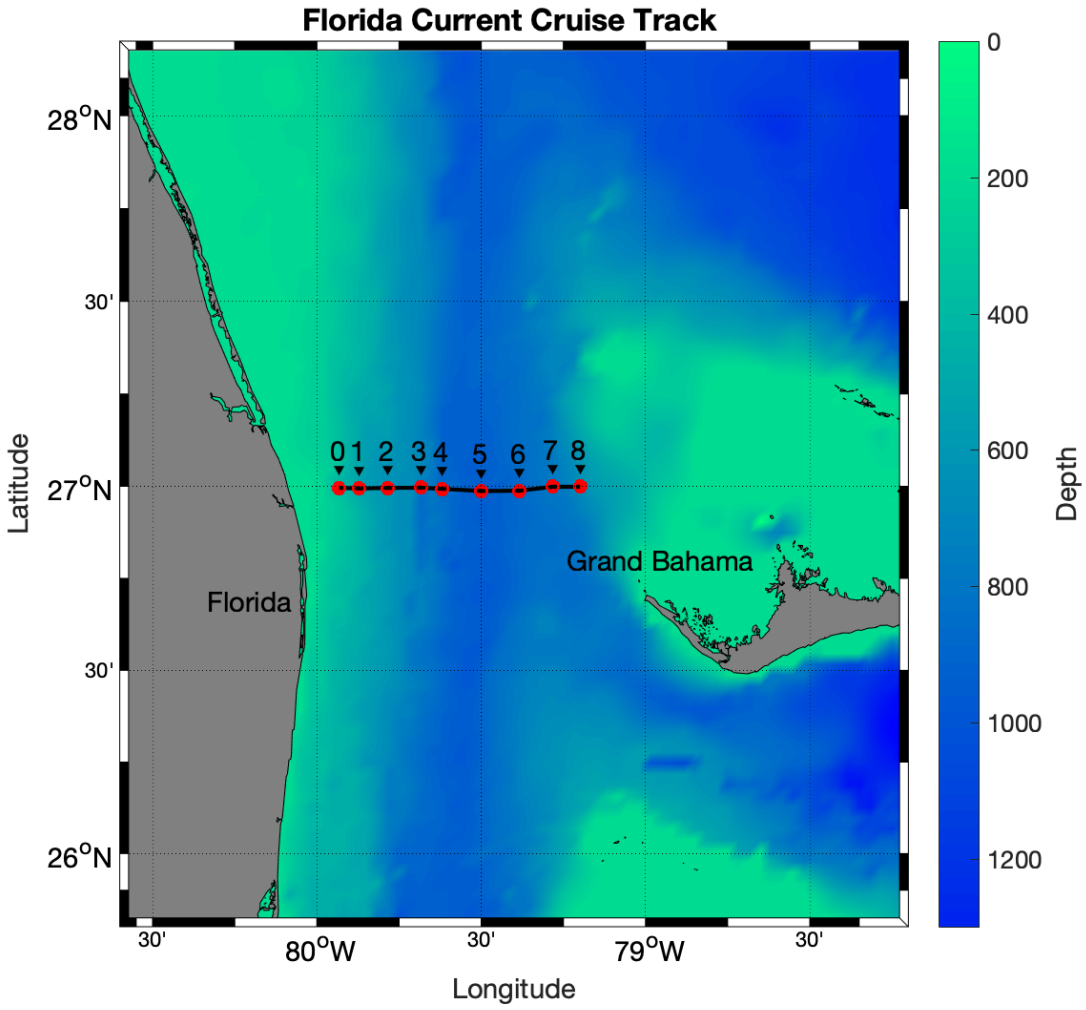


Figure 1: Historical sampling stations across the Straits of Florida at 27°N are shown above (red dots). CTD casts were conducted at each location (0-8) during each research cruise.

Table 1: Florida Current (FC1902) – CTD Cast Summary

Station	Date	Time (GMT)	Latitude	Longitude	Pressure
0	02/13/20	10:51:05	26.998N	79.930W	134
1	02/13/20	09:48:37	26.998N	79.867W	247
2	02/13/20	08:13:14	26.997N	79.781W	377
3	02/13/20	06:40:47	26.998N	79.683W	524
4	02/13/20	05:09:05	27.003N	79.615W	637
5	02/13/20	03:19:07	26.998N	79.497W	744
6	02/13/20	01:32:56	27.002N	79.380W	676
7	02/12/20	23:42:33	26.994N	79.285W	606
8	02/12/20	22:20:14	27.004N	79.199W	461

Table 2: Florida Current (FC1904) – CTD Cast Summary

Station	Date	Time (GMT)	Latitude	Longitude	Pressure
0	04/24/20	08:30:40	26.995N	79.929W	145
1	04/24/20	07:36:16	26.998N	79.865W	261
2	04/24/20	06:17:59	27.001N	79.782W	383
3	04/24/20	04:57:34	26.992N	NaNW	537
4	04/24/20	03:44:02	26.999N	79.618W	636
5	04/24/20	02:12:50	26.989N	79.500W	756
6	04/24/20	00:43:23	26.998N	79.387W	693
7	04/23/20	23:20:33	26.997N	79.282W	610
8	04/23/20	21:59:45	26.998N	79.199W	477

Table 3: Florida Current (FC1906) – CTD Cast Summary

Station	Date	Time (GMT)	Latitude	Longitude	Pressure
0	06/04/20	08:26:19	26.996N	79.930W	146
1	06/04/20	07:22:59	26.994N	79.866W	258
2	06/04/20	06:08:01	26.996N	79.784W	381
3	06/04/20	04:28:39	27.003N	79.683W	532
4	06/04/20	03:01:41	27.002N	79.616W	643
5	06/04/20	01:25:47	26.998N	79.504W	757
6	06/03/20	23:52:22	26.997N	79.383W	686
7	06/03/20	22:24:51	27.002N	79.282W	612
8	06/03/20	20:59:52	26.999N	79.199W	470

Table 4: Florida Current (FC1907) – CTD Cast Summary

Station	Date	Time (GMT)	Latitude	Longitude	Pressure
0	07/25/20	09:59:49	26.996N	79.932W	140
1	07/25/20	08:33:48	27.008N	79.866W	258
2	07/25/20	07:12:32	27.001N	79.783W	385
3	07/25/20	05:47:40	27.002N	79.682W	537
4	07/25/20	04:29:43	27.003N	79.615W	644
5	07/25/20	02:50:06	26.991N	79.498W	757
6	07/25/20	01:08:31	26.998N	79.377W	669
7	07/24/20	23:29:05	27.002N	79.277W	607
8	07/24/20	21:49:50	27.001N	79.202W	481

Table 5: Florida Current (FC1910) – CTD Cast Summary

Station	Date	Time (GMT)	Latitude	Longitude	Pressure
0	10/06/20	20:54:43	26.997N	79.927W	142
1	10/06/20	19:57:39	26.998N	79.866W	243
2	10/06/20	18:55:55	26.999N	79.784W	374
3	10/06/20	17:44:07	26.990N	79.687W	537
4	10/06/20	16:28:36	27.005N	79.626W	617
5	10/06/20	15:01:22	26.992N	79.497W	758
6	10/06/20	13:31:23	26.996N	79.387W	686
7	10/06/20	12:08:47	27.000N	79.289W	625
8	10/06/20	10:45:30	26.997N	79.206W	488

2 Additional Sampling

Discrete nutrient and dissolved inorganic carbon samples were taken during the 2019 Florida Current cruises. Tables 6-10 summarize the bottle trip locations for each cruise.

Table 6: FC1902: Discrete Carbon and Nutrient Sampling positions.

Niskin	Station								
	0	1	2	3	4	5	6	7	8
1	C,N(d)	C,N		C,N	C,N	C,N	C,N	C,N	C,N
2	C,N	C,N		C,N	C,N(d)	C,N	C,N	C,N	C,N
3	C,N	C,N		C,N	C,N	C,N(d)	C,N	C,N	C,N
4	C,N(d)	C,N(d)		C,N	C,N	C,N	C,N	C,N(d)	C,N
5		C,N	C,N	C,N	C,N	C,N(d)	C,N	C,N	C,N(d)
6				C,N(d)	C,N(d)	C,N	C,N	C,N(d)	C,N
7			C,N	C,N	C,N	C,N	C,N(d)	C,N	
13			C,N				C,N		
14			C,N						
15			C,N(d)						

C - carbon sample, N - nutrient sample, (d) - nutrient duplicate sample

Table 7: FC1904: Discrete Carbon and Nutrient Sampling positions.

Niskin	Station								
	0	1	2	3	4	5	6	7	8
1	C,N(d)	C,N	C,N	C,N	C,N	C,N	C,N	C,N	C,N
2	C,N	C,N	C,N(d)	C,N	C,N(d)	C,N	C,N	C,N	C,N
3	C,N	C,N	C,N	C,N	C,N	C,N(d)	C,N	C,N	C,N
4	C,N(d)	C,N(d)	C,N	C,N	C,N	C,N	C,N	C,N(d)	C,N
5		C,N	C,N	C,N	C,N(d)	C,N(d)	C,N	C,N	C,N(d)
6			C,N(d)	C,N(d)	C,N	C,N	C,N	C,N(d)	C,N
7				C,N	C,N	C,N	C,N(d)	C,N	
13						C,N	C,N		

C - carbon sample, N - nutrient sample, (d) - nutrient duplicate sample

Table 8: FC1906: Discrete Carbon and Nutrient Sampling positions.

Niskin	Station								
	0	1	2	3	4	5	6	7	8
1	C,N(d)	C,N	C,N	C,N	C,N	C,N	C,N	C,N	C,N
2	C,N	C,N	C,N(d)	C,N	C,N(d)			C,N	C,N
3	C,N	C,N	C,N	C,N	C,N	C,N		C,N	C,N
4	C,N(d)	C,N(d)	C,N	C,N	C,N	C,N(d)	C,N	C,N(d)	C,N
5		C,N	C,N	C,N	C,N(d)	C,N	C,N	C,N	C,N(d)
6			C,N(d)	C,N(d)	C,N	C,N(d)	C,N	C,N(d)	C,N
7				C,N	C,N		C,N	C,N	
13						C,N			
14						C,N	C,N		
15						C,N	C,N(d)		
16							C,N		

C - carbon sample, N - nutrient sample, (d) - nutrient duplicate sample

Table 9: FC1907: Discrete Carbon and Nutrient Sampling positions.

Niskin	Station								
	0	1	2	3	4	5	6	7	8
1	C,N(d)	C,N	C,N	C,N	C,N	C,N	C,N	C,N	C,N
2	C,N	C,N	C,N(d)	C,N	C,N(d)	C,N	C,N	C,N	C,N
3	C,N	C,N	C,N	C,N	C,N	C,N(d)	C,N	C,N	C,N
4	C,N(d)	C,N(d)	C,N	C,N	C,N	C,N	C,N	C,N(d)	C,N
5		C,N	C,N	C,N	C,N(d)	C,N(d)	C,N	C,N	C,N(d)
6			C,N(d)	C,N(d)	C,N	C,N	C,N	C,N(d)	C,N
7				C,N	C,N	C,N	C,N(d)	C,N	
13						C,N	C,N		

C - carbon sample, N - nutrient sample, (d) - nutrient duplicate sample

Table 10: FC1910: Discrete Carbon and Nutrient Sampling positions.

Niskin	Station								
	0	1	2	3	4	5	6	7	8
1	C,N(d)	C,N	C,N	C,N	C,N	C,N	C,N	C,N	C,N
2		C,N	C,N(d)	C,N	C,N(d)	C,N	C,N	C,N	C,N
3	C,N	C,N	C,N	C,N	C,N	C,N(d)	C,N	C,N	C,N
4		C,N(d)	C,N	C,N	C,N	C,N	C,N	C,N(d)	C,N
5	C,N	C,N	C,N	C,N	C,N(d)	C,N(d)	C,N	C,N	C,N(d)
6			C,N(d)	C,N(d)	C,N	C,N	C,N	C,N(d)	C,N
7	C,N(d)			C,N	C,N	C,N	C,N(d)	C,N	
13						C,N	C,N		

C - carbon sample, N - nutrient sample, (d) - nutrient duplicate sample

3 Standards and Pre-Cruise Calibrations

The CTD 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 SBE11plus 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 networked Windows computer for display and data storage using Sea-Bird Seasave software.

The SBE911plus system transmits data from primary, secondary 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 SBE911plus 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 SBE9plus underwater unit is configured with dual standard modular temperature (SBE3plus) and conductivity (SBE4) 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 (SBE43) are added to the pumped sensor configuration following the temperature-conductivity (TC) pair. A reference temperature sensor is mounted to the SBE9plus. A list of sensors used during the cruise can be seen in Table 11.

Table 11: FC2019 - Equipment used during CTD casts.

Instrument	SN	Stations	Use	Comment
AOML orange frame		0-8		FC1902, 1904, 1906, 1907, 1910
Sea-Bird SBE 32 24-palce Carousel Water Sampler	32 - 0980	0-8		FC1902, 1904, 1906, 1907, 1910
Sea-Bird SBE9plus CTD	0957	0-8		FC1902, 1904, 1906, 1907, 1910
Paroscientific Digiquartz Pressure Sensor	92973	0-8		
Sea-Bird SBE3plus Temperature Sensor	1692	0-8	Primary	FC1902, 1904, 1906, 1907, 1910
Sea-Bird SBE3plus Temperature Sensor	5140	0-8	Secondary	FC1902, 1904, 1906, 1907, 1910
Sea-Bird SBE4C Conductivity Sensor	1374	0-8	Primary	FC1902, 1904, 1906, 1907, 1910
Sea-Bird SBE4C Conductivity Sensor	2980	0-8	Secondary	FC1902, 1904, 1906, 1907, 1910
Sea-Bird SBE43 Dissolved Oxygen Sensor	2712	0-8	Primary	FC1902, 1904, 1906, 1907, 1910
Sea-Bird SBE43 Dissolved Oxygen Sensor	2085	0-8	Secondary	FC1902, 1904, 1906, 1907, 1910
Simrad 807 Altimeter	gold	0-8	scale: 15.0	FC1902, 1904, 1906, 1907, 1910
RDI LADCP - 300 kHz Workhorse (AOML)	13493	0-8	Upward	FC1902, 1904, 1906, 1907, 1910
RDI LADCP - 300 kHz Workhorse (AOML)	20550	0-8	Downward	FC1902, 1904, 1906, 1907, 1910

3.1 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 $\pm$ 50 ppm/°C.

The pressure sensor utilized during the Florida Straits cruises was s/n 0957. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington. The calibration date and coefficients in Table 12 were entered into SEASAVE R 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 R automatically implements this equation.

Table 12: FC2019 – Pressure Calibration Date and Coefficients.

s/n 0957 October 09, 2014
c_1 = -4.701953e+04
c_2 = -3.199230e-01
c_3 = 1.464100e-02
d_1 = 3.748600e-02
d_2 = 0.000000e+00
t_1 = 3.002465e+01
t_2 = -3.417080e-04
t_3 = 4.277270e-06
t_4 = 2.793720e-09
t_5 = 0.000000e+00
Slope = 0.99996
Offset = -2.7284
AD590M = 1.28150e-02
AD590B = -9.22501e+000

3.2 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 SBE3plus thermometer has a typical accuracy/stability of ±0.004°C per year and resolution of 0.0003°C at 24 samples per second. The SBE3plus thermometer has a fast response time of 0.070 seconds.

Two temperature sensors were used during the 2019 Florida Straits cruises, s/n 1692 and 5140. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington. The calibration dates and coefficients in Table 13 were entered into SEASAVE R using the configuration file. SEASAVE R 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 13: FC2019 – Temperature Calibration Dates and Coefficients.

s/n 1692	s/n 5140
October 4, 2018	October 3, 2018
g = 4.80189711e-03	g = 4.36459163e-03
h = 6.71909476e-04	h = 6.40779154e-04
i = 2.55735477e-05	i = 2.21464332e-05
j = 2.01679234e-06	j = 2.04182462e-06
f_0 = 1000.0	f_0 = 1000.0

3.3 Conductivity

The flow-through conductivity-sensing element is a glass tube (cell) with three platinum electrodes (SBE4). 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 SBE4 has a typical accuracy/stability of ±0.0003 $S{\cdot}m^{-1}$/month and resolution of 0.00004 $S{\cdot}m^{-1}$ at 24 scans per second.

Two conductivity sensors were used during the 2019 Florida Straits cruises, s/n 1374 and 2980. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington. The calibration dates and coefficients shown in Table 14 were entered into Seasave R 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 R automatically implements this equation.

Table 14: FC2019 – Conductivity Calibration Dates and Coefficients.

s/n 1374 October 4, 2018	s/n 2980 October 4, 2018
g = -4.08219231e+00	g = -1.01328733e+01
h = 4.98277134e-01	h = 1.38372060e+00
i = -7.33477707e-05	i = 2.68719561e-04
j = 3.21762964e-05	j = 5.51784825e-05
CPcor = -9.5700e-08	CPcor = -9.5700e-08
CTcor = 3.2500e-06	CTcor = 3.2500e-06

3.4 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.

Two oxygen sensors were used during the 2019 Florida Straits cruises, s/n 2712 and 2085. The calibration dates and coefficients in Table 15 were entered into SEASAVE R using the

configuration file.

Table 15: FC2019 – Oxygen Calibration Dates and Coefficients.

s/n 2712	s/n 2085
February 17, 2018	October 20, 2018
Soc = 0.46967	Soc = 0.43506
Voffset = -0.5231	Voffset = -0.5002
Tau20 = 1.29	Tau20 = 1.34
A = -3.6450e-03	A = -3.9532e-03
B = 1.5286e-04	B = 1.7866e-04
C = -2.2433e-06	C = -2.4546e-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

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

SEASAVE R 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.

4 CTD Data Acquisition

CTD casts were performed with a package consisting of a 24-place, 10-liter rosette frame (AOML's orange frame), a 24-place water sampler pylon (SBE32) and 24, 10-liter Bullister-style Niskin bottles. This package was deployed on all casts. Underwater electronic components consisted of a SBE9plus CTD with dual pumps and the following sensors: dual temperature (SBE3plus), dual conductivity (SBE4), dual dissolved oxygen (SBE43) and an altimeter. The additional underwater electronic components consisted of two RDI 300 kHz LADCPs, one upward facing instrument and one downward facing instrument to measure water velocities. A total of 45 CTD casts were conducted during the four cruises usually to within 10-20 m of the bottom.

The CTD's supplied a standard Sea-Bird format data stream at a data rate of 24 frames/second. The SBE9plus 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 SBE11plus deck unit in the computer lab. The CTD frame 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 SBE3plus 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 altimeter was 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 300 kHz pointing down, the other 300 kHz transducer pointing up. The R/V *Walton Smith's* stern A-frame CTD winch was used with the 24-place 10-liter rosette for all station/casts during FC1902, FC1904, FC1906, FC1907 and FC1910. However, at most 23 water samples are collected due to the presence of an upward looking ADCP in place of one Niskin bottle. O-rings were changed as necessary and Niskin bottle maintenance was performed each day to insure proper closure and sealing. Valves were inspected for leaks and repaired or replaced as needed.

4.1 CTD Operations

Prior to each cast, the deck watch prepared the CTD rosette for sampling. All valves, vents, and lanyards were checked for proper orientation. Niskin 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 used if necessary for both deployments and recoveries during the cruises. As directed by the deck watch leader, the CTD was lowered to 10 m for a 2-minute soak to remove any air bubble from the sensor

lines and to make sure the sensors were behaving appropriately. The CTD was then brought back to just below the surface, with the console operator recording a Mark Scan just prior to beginning the descent. The profiling rate was no more than 30 m/min to 100 m and no more than 60 m/min deeper than 100 m. Upon recovery, the CTD deck unit was turned off once the on-deck pressure was recorded. The CTD frame was left on deck for sampling. The bottles and rosette were examined before samples were taken and anything unusual was noted on the sample log.

A console operator monitored the progress of the deployment and quality of the CTD data through interactive graphics and operational displays of the Seasave software. Additionally, the operator created a sample log for each cast, to be used 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 CTD package from the bottom, usually allowing a safe approach to within 10-20 m.

On the up-cast, the winch operator stopped at each predetermined bottle trip depth following instructions from the CTD console operator. The CTD console operator then waited 30 seconds before closing a bottle. 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 operator then directed the winch operator to raise the package up to the next bottle trip location. After the last bottle was tripped, the console operator directed the deck watch to bring the CTD package back on deck.

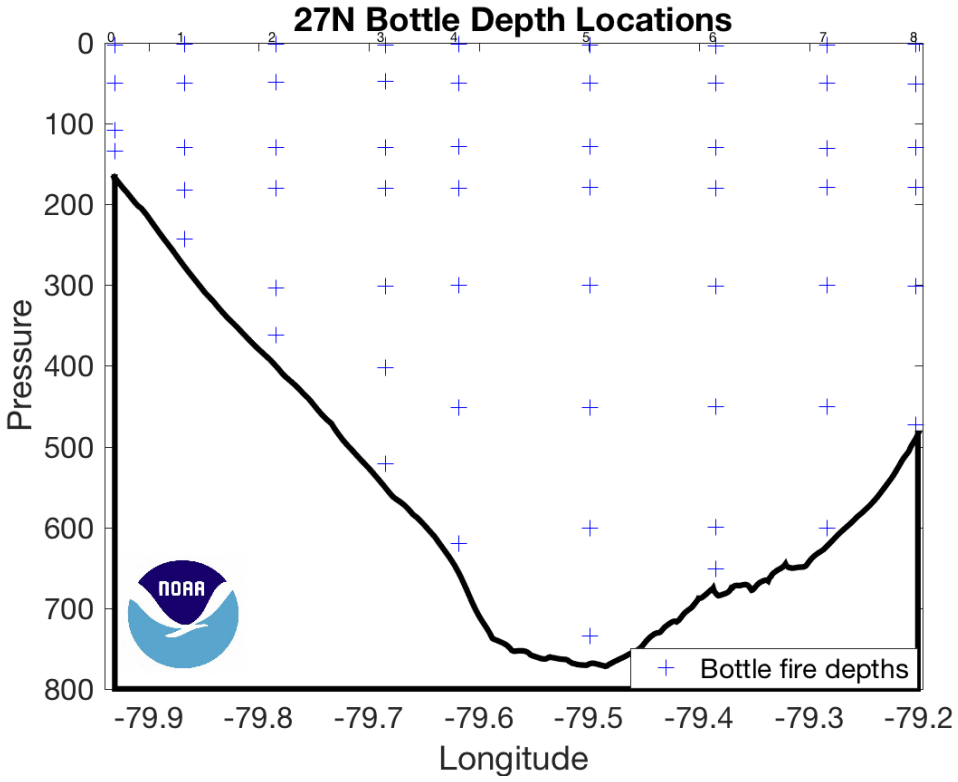


Figure 2: Nominal bottle locations for 27°N section in the Florida Straits.

4.2 Shipboard CTD Data Processing

Shipboard CTD data processing was performed automatically at the end of each deployment using SEABIRD SBE Data Processing version 7.26.7.114 and AOML Matlab processing software. The raw CTD data and bottle trips acquired by SBE Seasave on the Windows 10 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 R 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 R processing module sequence and specifications for calibrated data (1 dbar averages) 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, optical sensor, oxygen umol/kg, oxygen 2 umol/kg, oxygen ml/l, oxygen 2 ml/l, oxygen dv/dt, oxygen dv/dt 2, latitude, and longitude. MARKSCAN was used to determine the number of scans acquired on deck and while priming the system to exclude these scans from processing.

2. ALIGNCTD aligns temperature, conductivity, and oxygen measurements in time relative to pressure to ensure that derived parameters are made using measurements from the same parcel of water. Primary and secondary conductivity were automatically advanced by 0.073 seconds. Primary and secondary oxygen were advanced by 1.073.

3. 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.

4. 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.

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. 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.

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 pressure, temperature, and conductivity to compute primary and secondary salinities, potential temperatures and densities. 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. TRANS converts the binary data file into ASCII format.

11. 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 45 casts were processed.

4.3 CTD Calibration Procedures

Laboratory calibrations of the CTD pressure, temperature, conductivity, and oxygen sensors were all performed at SBE. The calibration dates are listed in Table 11.

A dual sensor configuration was employed on the CTD for temperature (T), conductivity (C), and dissolved oxygen (DO2). The secondary sensor set served as a calibration check for the primary sensors. During every cast, in-situ salinity and DO2 bottle samples were

collected for use in calibrating both the primary and secondary C and O2 sensors. During this particular cruise, it was determined that the secondary temperature, conductivity and dissolved oxygen sensors each behaved more stably than their primary counterparts.

4.3.1 Salinity Analysis

A Guildline Autosal, model 8400B laboratory salinometer, located in the climate-controlled salt van outside of AOML was used to determine the salinity of all water samples collected. Salinometer data output was logged to a computer file using Ocean Scientific International's (OSI) logging hardware and software interface. As a standard operating practice, the Autosal's water bath temperature was maintained at 24°C. In conjunction with this, to help further stabilize the Autosal and to improve measurement accuracy, the climate-controlled laboratory temperature was maintained at 1 to 2 degrees below 24°C. Salinity analyses were performed after samples had equilibrated to laboratory temperature, usually within a couple days after collection. The salinometer was routinely *standardized* for each group of salinity samples analyzed (up to 58 samples) using two bottles of standard seawater: one at the beginning, and one at the end of each group of samples. For each calibration standard, the salinometer cell was initially flushed 6 times before a set of conductivity ratio reading was taken. For each salinity sample, the salinometer cell was initially flushed at least 3 times before a set of conductivity ratio readings were taken. The analyst flushed the cell of the Autosal and changed samples as prompted by the OSI software. Before each analysis session (or *run*) a sub-standard flush of the Autosal, with approximately 200 ml of seawater, was performed prior to the standardization mentioned above. This assured that any deionized water that may have been stored in the cell of the Autosal between extended periods of inactivity was completely flushed from the system.

IAPSO Standard Seawater Batch P-160 (FC1902, FC1904, FC1906, FC1907) and P-161 (FC1910) were used to standardize all casts (Tables 16 & 17).

Table 16: FC2019 - Nominal values for the batches of IAPSO standard seawater.

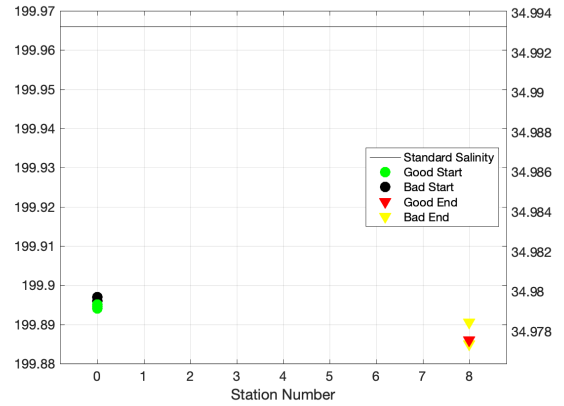
P-160
Use By: July 2019
K15: 0.99983
Salinity: 34.993

Table 17: FC2019 - Nominal values for the batches of IAPSO standard seawater.

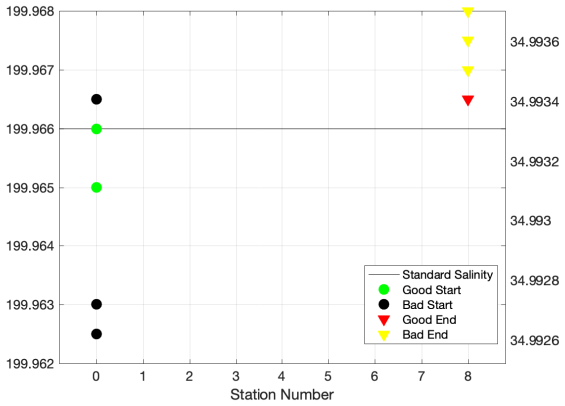
P-161
Use By: May 2020
K15: 0.99987
Salinity: 34.995

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 polypropylene screw caps fitted with *Polyseal* poly cone inserts to prevent sample evaporation. 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 dataset. When duplicate measurements were deemed to have been collected and run properly, they were averaged and submitted with a quality flag of 6. On the four Florida Straits cruises, a total of 288 salinity measurements were taken.

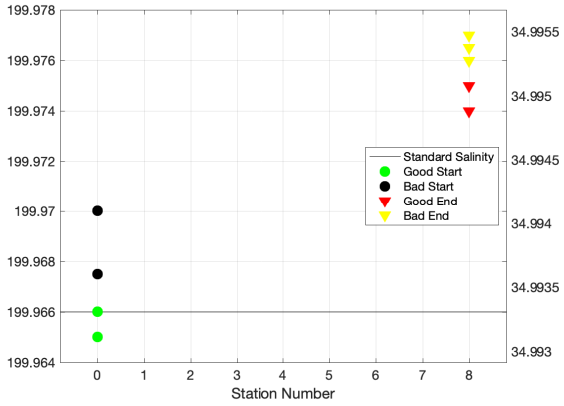
The running standard calibration values are shown in Figure . For FC1902, FC1906 and FC1910 the autosal standards drift were minimal (about 0.001 in salinity). For FC1904 and FC1907 the autosal standards drift was negligible.



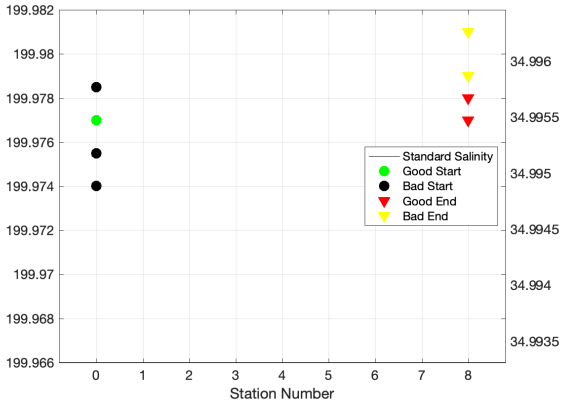
(a) FC1902



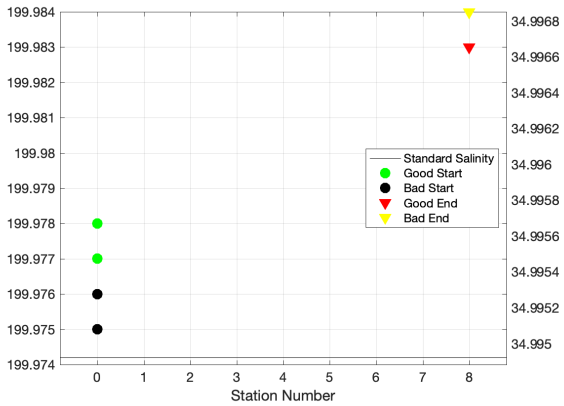
(b) FC1904



(c) FC1906



(d) FC1907



(e) FC1910

Figure 3: Standard vial calibrations throughout the cruise before and after each Autosal run. The green dots and red triangles are the good values used before and after each run to calculate salinity and drift corrections, respectively. The black dots and yellow triangles are the bad values not used.

4.3.2 Oxygen Analysis

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 via the tubing, overflowing three volumes while taking care not to entrain any bubbles. 1 ml of $MnCl_2$ and 1 ml of $NaOH/NaI$ were added immediately after drawing the sample was concluded using a ThermoScientific REPIPET II. The flasks were then stoppered and well shaken. Deionized water was added to the neck of each flask to create a water seal. 324 oxygen samples were collected during the 3 cruises, including 52 duplicate samples (up to two duplicates taken randomly during each cast). Samples were stored on the ship in plastic totes and brought back to the AOML oxygen lab for analysis.

Dissolved oxygen analyses were performed with an automated titrator using amperometric end-point detection (Langdon, 2010). The titrator was interfaced with a computer running LabView software customized by Ulises Rivero (NOAA/AOML). The software handled the sample titration and data logging; it also provided a graphical display of the data for the analyst. Thiosulfate (17.5 g per 500 ml) was dispensed by a 2 ml Gilmont burette driven with a stepper motor controlled by the titrator. The titration methodology follows techniques outlined by Carpenter (1965) and Culberson et al. (1991). Four replicate 10 ml iodate standards were run initially or once the thiosulfate bottle had reached half its volume, which ever came first. The reagent blank (the difference between thiosulfate volumes required to titrate two 1 ml aliquots of the iodate standard) was determined at the lab prior to running the oxygen samples. 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 immediately prior to the cruise. Oxygen flask volumes were also determined gravimetrically with degassed deionized water at AOML prior to use.

The data collected from the oxygen titrations performed were incorporated into the cruise dataset shortly after analysis.

5 Post-Cruise Calibrations

Post cruise sensor calibrations were not 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 same pressure sensor as well as primary and secondary temperature, conductivity and oxygen sensors were used during the cruises as listed in Table 11. For all Florida Current cruises in 2019 the primary T, C, and O were selected for final data reduction.

5.1 CTD Data Processing

In addition to the Seasave R processing modules, a group of Matlab script files collectively referred to as the AOML/CTDCAL Toolbox were used. These scripts are based on earlier work of different groups and 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, temperature, oxygen and oxygen current back to the surface. The program then calculated potential 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.
- CTD 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 Seasave R 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, PSS-78 salinity, and oxygen are computed, and WOCE quality flags are created (these flags and other CTD processing standards were established during the World Ocean Circulation Experiment in the 1990's).

5.2 CTD Pressure

The Seabird pre-cruise pressure sensor calibration coefficients 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 4 and Tables 18 - 22. All cruises used pressure sensor s/n 0957. Prior to each cruise a pressure offset of -0.948 was applied to the original offset, -2.7284, in the pressure configuration file for a total pressure offset of -3.6764. On deck pressures recorded before and after each cast are plotted in Figure 4.

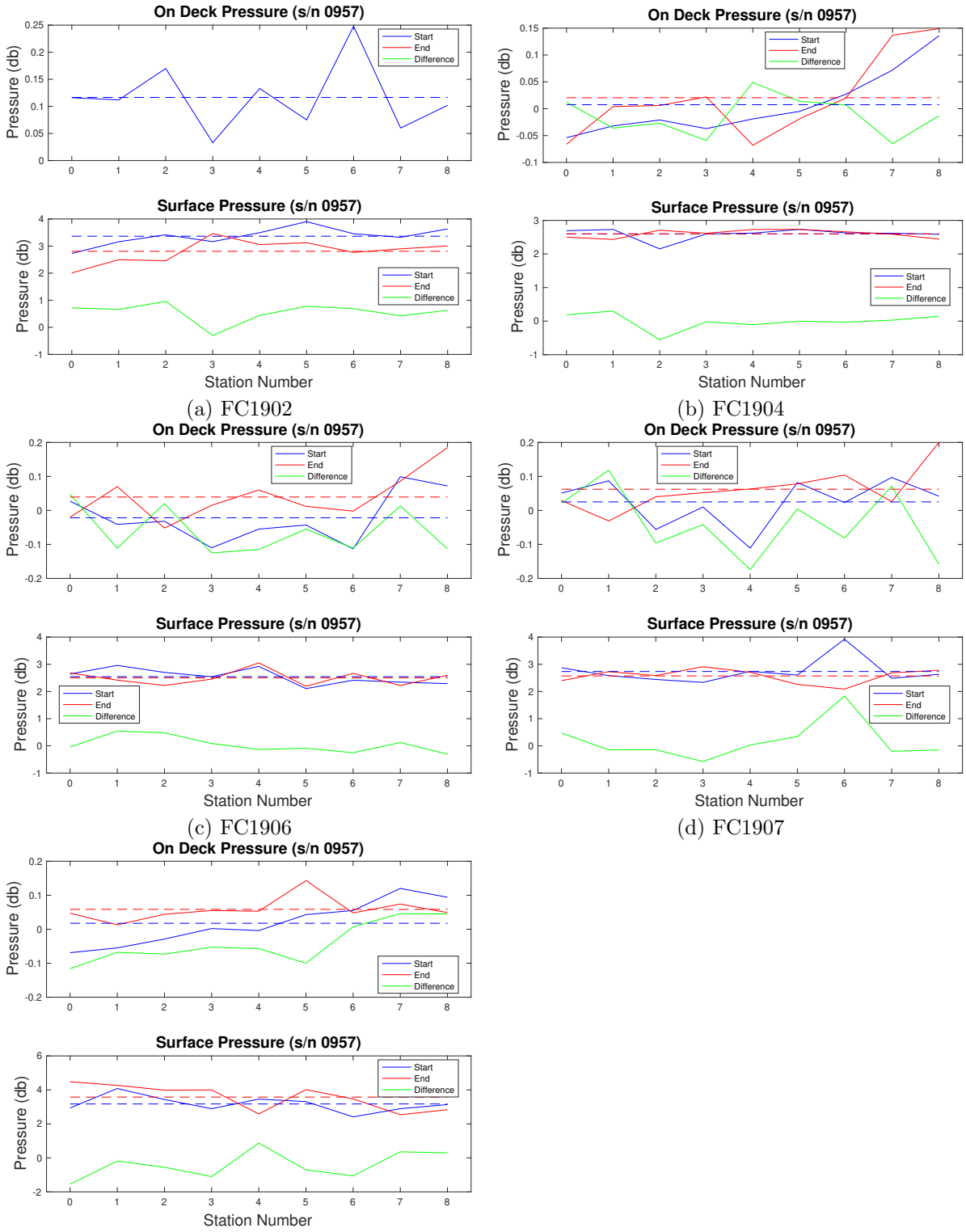
For FC1902 the on deck pressure before the cast was stable at 0.12 ± 0.06 dbar (median ± standard deviation). No pressure correction offset was necessary before final calibration of the data. Near surface pressure values (which is taken as the near-surface pressure at the markscan and the last fired bottle pressure) showed little variability over the cruise (3.36 ± 0.33 dbar before and 2.81 ± 0.43 dbar after).

For FC1904 the on deck pressure before and after the cast was stable at 0.01 ± 0.06 dbar and 0.02 ± 0.01 dbar, respectively. No pressure correction offset was necessary before final calibration of the data. Near surface pressure values showed a little variability over the cruise between the start and end surface pressure (2.60 ± 0.17 dbar before and 2.60 ± 0.12 dbar after).

For FC1906 the on deck pressure before and after the cast was stable at -0.02 ± 0.07 dbar and 0.04 ± 0.07 dbar, respectively. No pressure correction offset was necessary before final calibration of the data. Near surface pressure values showed little variability over the cruise between the start and end surface pressure (2.55 ± 0.29 dbar before and 2.50 ± 0.28 dbar after).

For FC1907 the on deck pressure before and after the cast were stable at 0.03 ± 0.07 dbar and 0.06 ± 0.06 dbar, respectively. No pressure correction offset was necessary before final calibration of the data. Near surface pressure values showed little variability over the cruise between the start and end surface pressure (2.73 ± 0.47 dbar before and 2.57 ± 0.27 dbar after).

For FC1910 the on deck pressure before and after the cast were stable at 0.02 ± 0.07 dbar and 0.06 ± 0.04 dbar, respectively. No pressure correction offset was necessary before final calibration of the data. Near surface pressure values showed little variability over the cruise between the start and end surface pressure (3.17 ± 0.47 dbar before and 3.57 ± 0.75 dbar after).



(a) FC1902

(b) FC1904

(c) FC1906

(d) FC1907

(e) FC1910

Figure 4: Top panel are the pressures (s/n 0957) measured on deck before the cast (blue), at the end of the upcast (red) and differences (green). 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).

Table 18: FC1902 - Near surface Pressure values and scan number used to remove surface soak and on-deck values (-999s are data no recorded).

Station	Markscan	Deck Prs Start	Deck Prs End	Sfc Prs Start	Sfc Prs End
0	2588	0.1160	-999.0000	2.7284	2.0090
1	2767	0.1120	-999.0000	3.1605	2.4970
2	3099	0.1700	-999.0000	3.4151	2.4580
3	2598	0.0330	-999.0000	3.1644	3.4630
4	4110	0.1330	-999.0000	3.4949	3.0550
5	2816	0.0750	-999.0000	3.9004	3.1230
6	3079	0.2480	-999.0000	3.4542	2.7670
7	3817	0.0600	-999.0000	3.3237	2.8970
8	3334	0.1020	-999.0000	3.6325	3.0050

Table 19: FC1904 - Near surface Pressure values and scan number used to remove surface soak and on-deck values (-999s are data no recorded).

Station	Markscan	Deck Prs Start	Deck Prs End	Sfc Prs Start	Sfc Prs End
0	3180	-0.0540	-0.0660	2.6920	2.5020
1	3662	-0.0320	0.0040	2.7300	2.4320
2	3668	-0.0210	0.0060	2.1520	2.7070
3	3748	-0.0370	0.0220	2.5960	2.6160
4	4147	-0.0190	-0.0680	2.6220	2.7300
5	4153	-0.0050	-0.0190	2.7310	2.7330
6	4198	0.0270	0.0200	2.6300	2.6600
7	4070	0.0720	0.1370	2.6160	2.5870
8	3911	0.1360	0.1490	2.5860	2.4420

Table 20: FC1906 - Near surface Pressure values and scan number used to remove surface soak and on-deck values (-999s are data no recorded).

Station	Markscan	Deck Prs Start	Deck Prs End	Sfc Prs Start	Sfc Prs End
0	4605	0.0270	-0.0200	2.6436	2.6820
1	4596	-0.0410	0.0700	2.9600	2.4170
2	4270	-0.0320	-0.0520	2.7016	2.2210
3	4911	-0.1100	0.0150	2.5423	2.4550
4	3929	-0.0550	0.0600	2.9219	3.0530
5	4016	-0.0430	0.0120	2.1047	2.1910
6	4904	-0.1130	-0.0020	2.4146	2.6660
7	4557	0.0990	0.0860	2.3434	2.2210
8	4621	0.0720	0.1850	2.2892	2.5960

Table 21: FC1907 - Near surface Pressure values and scan number used to remove surface soak and on-deck values (-999s are data no recorded).

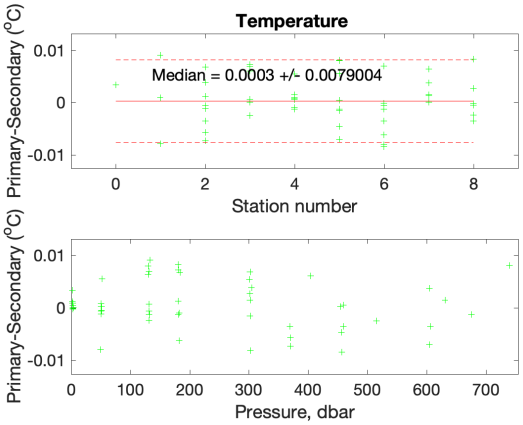
Station	Markscan	Deck Prs Start	Deck Prs End	Sfc Prs Start	Sfc Prs End
0	3161	0.0510	0.0290	2.8720	2.3990
1	3955	0.0870	-0.0310	2.5816	2.7280
2	4097	-0.0560	0.0400	2.4422	2.5850
3	3982	0.0100	0.0520	2.3351	2.9100
4	4393	-0.1110	0.0630	2.7393	2.7070
5	3614	0.0820	0.0780	2.6030	2.2610
6	6005	0.0230	0.1040	3.9239	2.0880
7	4663	0.0970	0.0260	2.4856	2.6850
8	4896	0.0420	0.2000	2.6303	2.7810

Table 22: FC1910 - Near surface Pressure values and scan number used to remove surface soak and on-deck values (-999s are data no recorded).

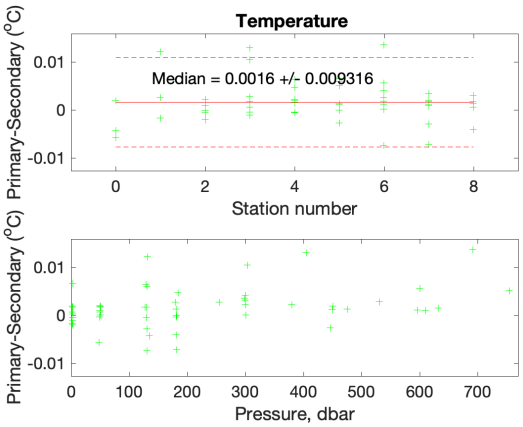
Station	Markscan	Deck Prs Start	Deck Prs End	Sfc Prs Start	Sfc Prs End
0	3198	-0.0690	0.0470	2.9360	4.4794
1	4139	-0.0550	0.0130	4.0800	4.2650
2	3938	-0.0290	0.0440	3.4360	3.9868
3	3861	0.0020	0.0550	2.8930	3.9964
4	4633	-0.0040	0.0530	3.4570	2.5858
5	3668	0.0430	0.1430	3.3110	4.0153
6	4126	0.0550	0.0480	2.4140	3.4704
7	4293	0.1200	0.0740	2.8940	2.5384
8	6328	0.0940	0.0490	3.1350	2.8362

5.3 CTD Temperature

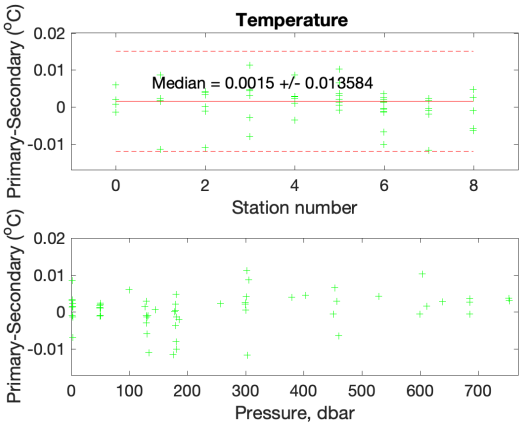
Temperature sensor calibration coefficients derived from the pre-cruise calibrations were applied to raw primary and secondary temperature data during each cast. Data accuracy, reproducibility and stability were examined by tabulating the difference between the two different temperature sensors over a range of pressures (bottle trip locations) for each cast. These comparisons are summarized in Figure 5, which shows the median temperature difference between the two sensors. For FC1902 there was a median of 0.0003 °C and a standard deviation of 0.008 °C. For FC1904 there was a median of 0.0016 °C and a standard deviation of 0.009 °C. For FC1906 there was a median of 0.0015 °C and a standard deviation of 0.01 °C. For FC1907 there was a median of 0.0022 °C and a standard deviation of 0.02 °C. For FC1910 there was a median of 0.0017 °C and a standard deviation of 0.007 °C. The primary sensor, s/n 1692, was used for all cruises.



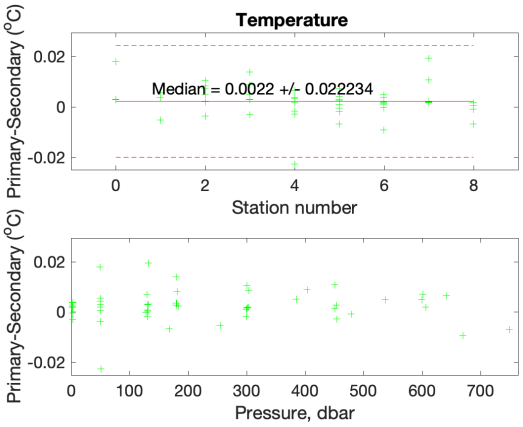
(a) FC1902



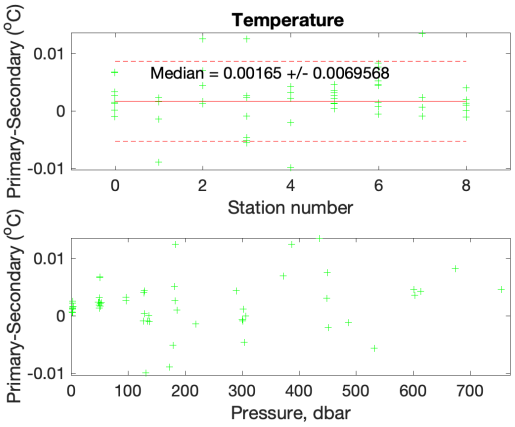
(b) FC1904



(c) FC1906



(d) FC1907



(e) FC1910

Figure 5: Temperature differences between sensors by station number (top) and pressure (bottom). The green represents all the cruise data. The red solid line represents the median with the red dashed representing the standard deviation (same for top and bottom).

5.4 Conductivity

The Seabird pre-cruise conductivity sensor calibration coefficients were applied to raw primary and secondary conductivity data during each cast. 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 6 to help identify sensor drift. The AOML/CTDCAL Toolbox automatically applies a quality control to the data based on comparison with a normal distribution.

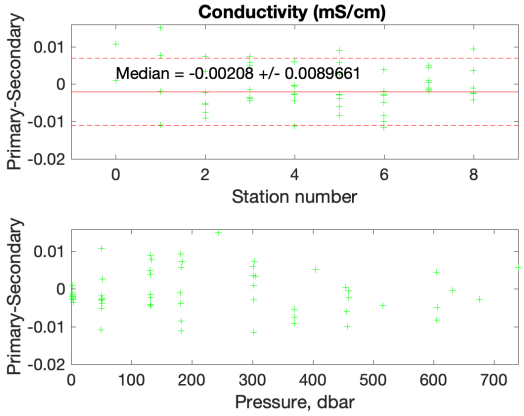
For FC1902 the sensors show a median difference of -0.002 mS/cm and a standard deviation of 0.009 mS/cm (Figure 6). Both sensors showed reasonable values for the residuals. The primary sensor, s/n 1692, was used for all the final data values (Figure 7).

For FC1904 the sensors show a median difference of -0.002 mS/cm and a standard deviation of 0.01 mS/cm (Figure 6). Both sensors showed reasonable values for the residuals. The primary sensor, s/n 1692, was used for all the final data values (Figure 7).

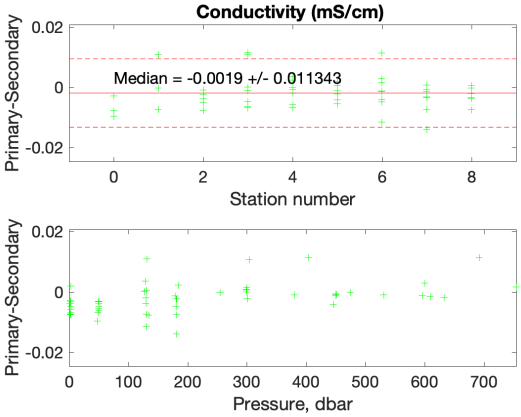
For FC1906 the sensors show a median difference of -0.004 mS/cm and a standard deviation of 0.01 mS/cm (Figure 6). Both sensors showed reasonable values for the residuals. The primary sensor, s/n 1692, was used for all the final data values (Figure 7).

For FC1907 the sensors show a median difference of -0.004 mS/cm and a standard deviation of 0.03 mS/cm (Figure 6). Both sensors showed reasonable values for the residuals. The primary sensor, s/n 1692, was used for all the final data values (Figure 7).

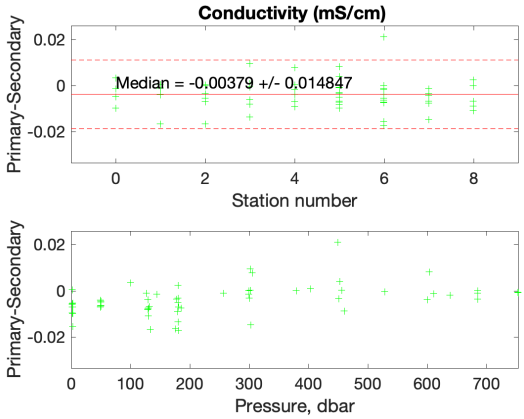
For FC1910 the sensors show a median difference of -0.007 mS/cm and a standard deviation of 0.009 mS/cm (Figure 6). Both sensors showed reasonable values for the residuals. The primary sensor, s/n 1692, was used for all the final data values (Figure 7).



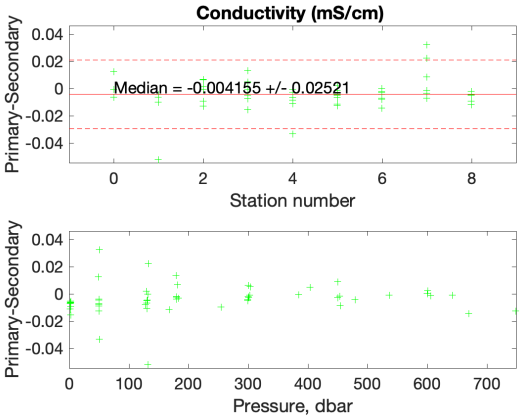
(a) FC1902



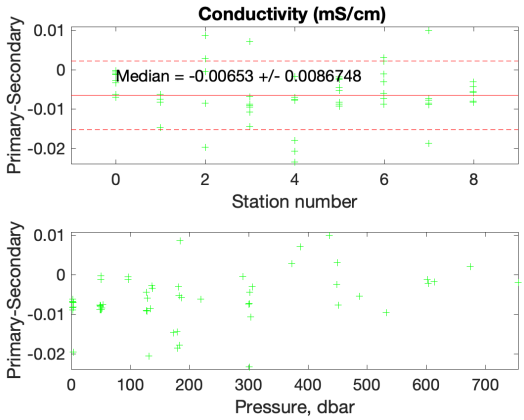
(b) FC1904



(c) FC1906



(d) FC1907



(e) FC1910

Figure 6: Conductivity upcast bottle stop (mS/cm) differences between sensors by station (top) and pressure (bottom). The green represents all the cruise data. The red solid line represents the median with the red dashed representing the standard deviation.

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

FC1902 s/n 1692	FC1904 s/n 1692	FC1906 s/n 1692
m= 9.992122185E-01	m= 9.994462578E-01	m= 1.000180260E+00
p_1= 0	p_1= 0	p_1= 0
b= 5.051516329E-02	b= 3.285487718E-02	b= -1.822353481E-03
$pcor$= -2.001631833E-05	$pcor$= -8.065469888E-06	$pcor$= 4.456093824E-06

FC1907 s/n 1692	FC1910 s/n 1692
m= 9.997457356E-01	m= 9.994349132E-01
p_1= 0	p_1= 0
b= 2.833514010E-02	b= 4.107676120E-02
$pcor$= -1.736766981E-05	$pcor$= -2.280017893E-05

Table 23: Conductivity calibration coefficients applied for final calibration.

where C_{bottle} is bottle conductivity (S/m), C_{CTD} is pre-cruise calibrated CTD conductivity (S/m), m is the conductivity slope, b is the offset (S/m), P is the pressure, $pcor$ is the pressure correction coefficient, $station$ is the station number and p_1 is the polynomial coefficient. The fit is also weighted in such way that the final solution is preferentially forced to fit the data below a specified depth, in this case 1000 dbar. Final calibration coefficients are listed in Tables 23.

For FC1902 the coefficients estimated by the equation above were then applied to the CTD conductivities and the final results (Figure 8 to Figure 9) show a median of -1.7 · 10-3 psu and a standard deviation of 0.007 psu. After data reduction 51 data points (91.1 %) were used in the final calculations.

For FC1904 the coefficients estimated by the equation above were then applied to the CTD conductivities and the final results (Figure 8 to Figure 9) show a median of -6.5 · 10-4 psu and a standard deviation of 0.009 psu. After data reduction 57 data points (98.3 %) were used in the final calculations.

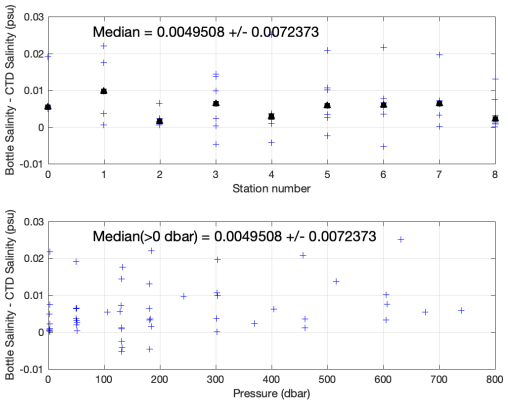
For FC1906 the coefficients estimated by the equation above were then applied to the CTD conductivities and the final results (Figure 8 to Figure 9) show a median of 7.1 · 10-5

psu and a standard deviation of 0.008 psu. After data reduction 53 data points (91.4 %) were used in the final calculations.

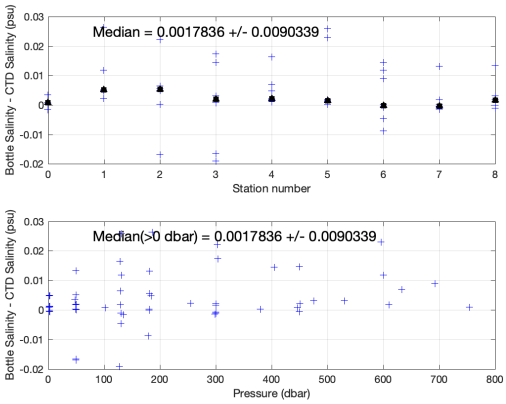
For FC1907 the coefficients estimated by the equation above were then applied to the CTD conductivities and the final results (Figure 8 to Figure 9) show a median of -5.2 · 10-4 psu and a standard deviation of 0.01 psu. After data reduction 55 data points (94.8 %) were used in the final calculations.

For FC1910 the coefficients estimated by the equation above were then applied to the CTD conductivities and the final results (Figure 8 to Figure 9) show a median of -8.7 · 10-5 psu and a standard deviation of 0.007 psu. After data reduction 51 data points (87.9 %) were used in the final calculations.

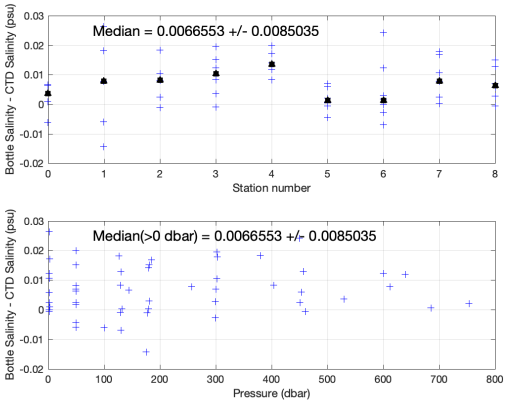
A final verification about the quality of the data was made by comparing the results of this cruise with some historical data (Figure 10 & 11).



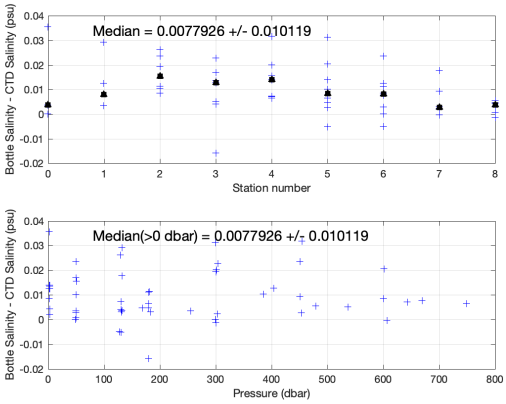
(a) FC1902



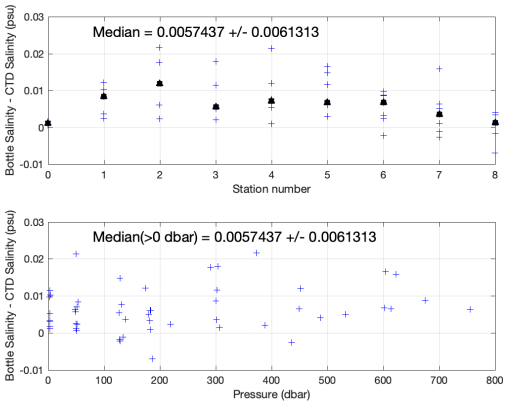
(b) FC1904



(c) FC1906

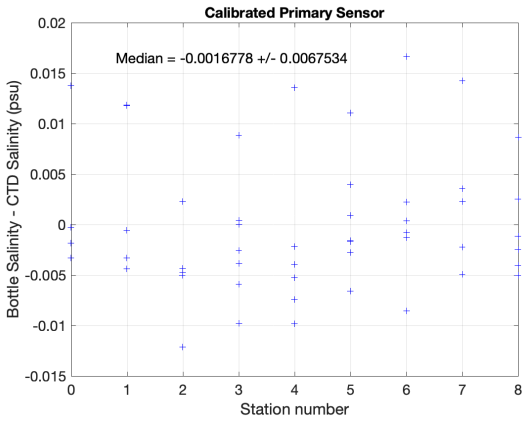


(d) FC1907

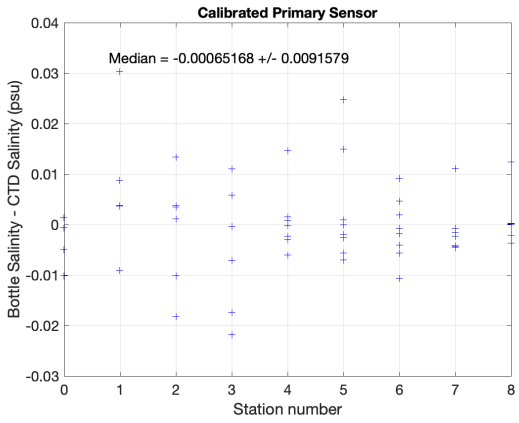


(e) FC1910

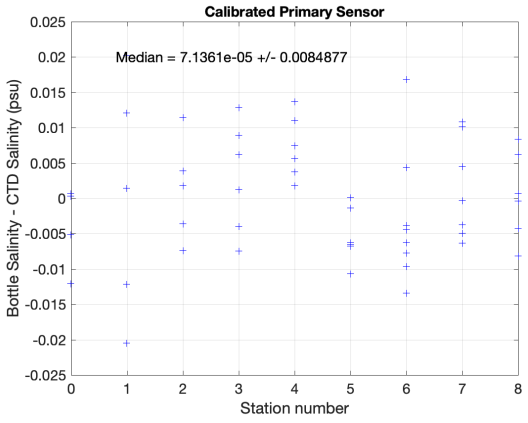
Figure 7: Bottle and uncalibrated CTD salinity differences plotted by station and pressure. The blue crosses represent all data points and the black square represent the median for each station. The overall median and standard deviation was calculated using all data points.



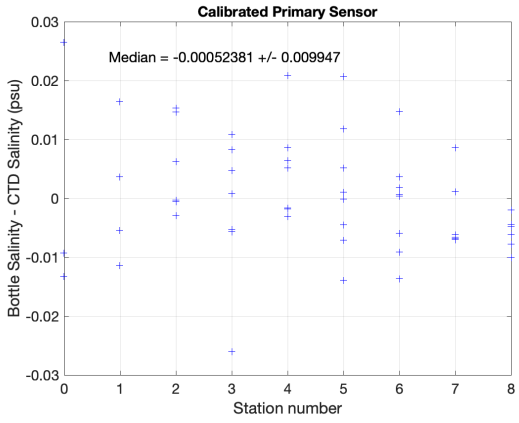
(a) FC1902



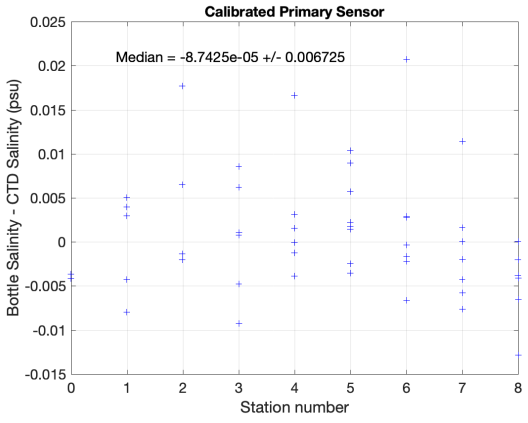
(b) FC1904



(c) FC1906

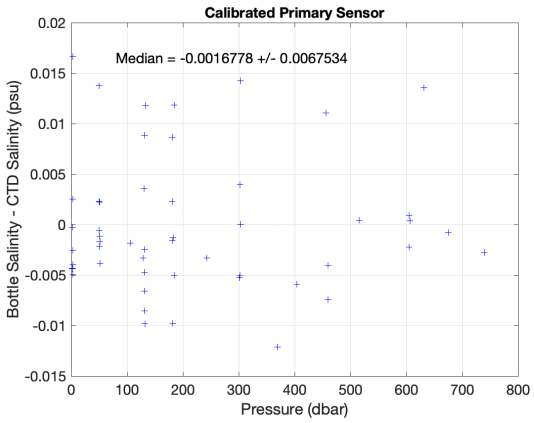


(d) FC1907

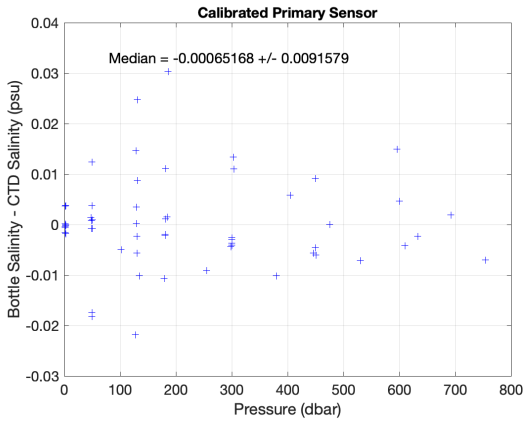


(e) FC1910

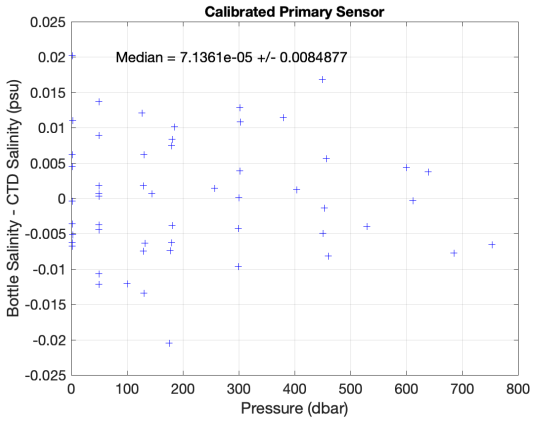
Figure 8: Bottle and calibrated CTD salinity differences plotted vs. station. The blue crosses represent all data points. The median values shown were calculated using all data.



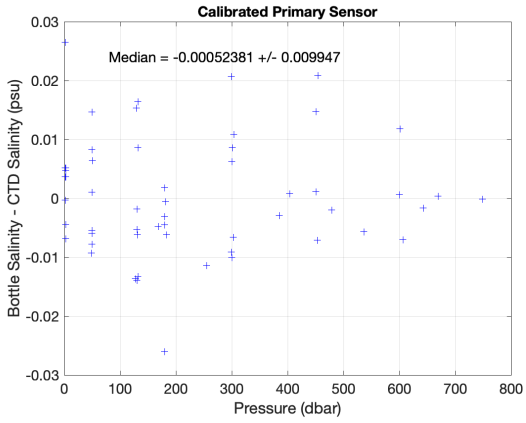
(a) FC1902



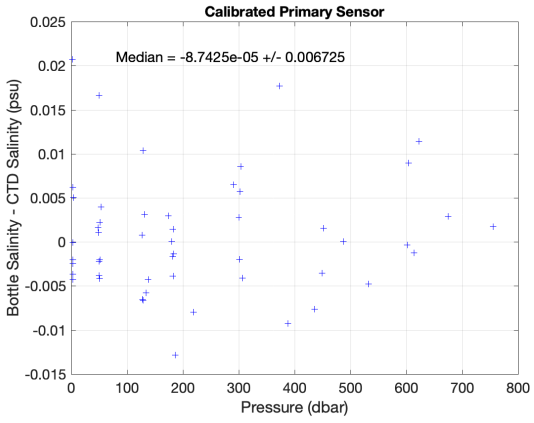
(b) FC1904



(c) FC1906

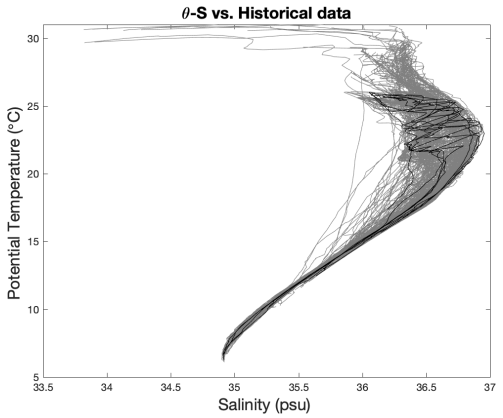


(d) FC1907

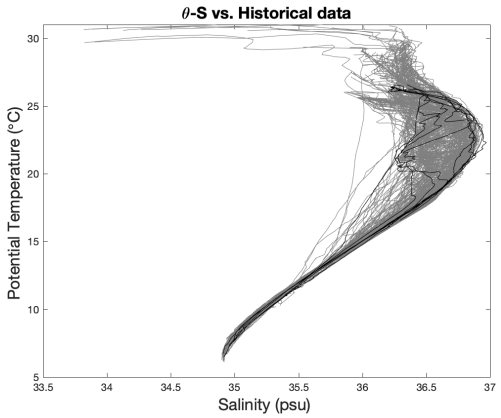


(e) FC1910

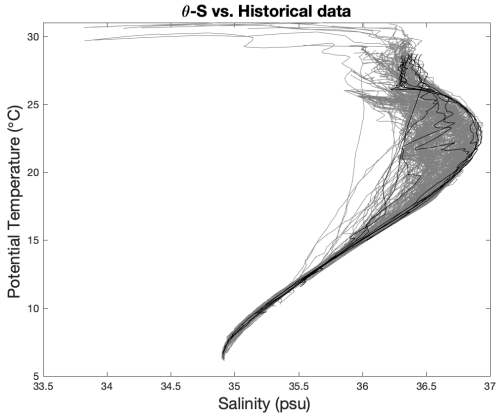
Figure 9: Bottle and calibrated CTD salinity differences plotted vs. pressure. The blue crosses represent all data points. The median values shown were calculated using all data.



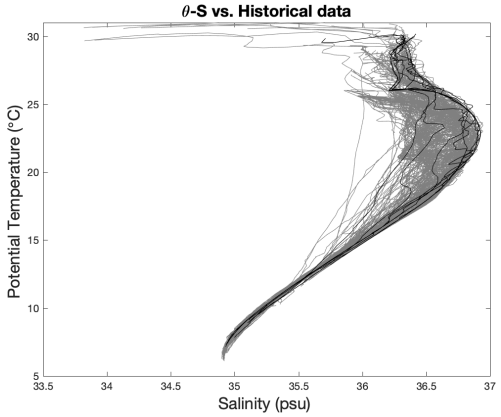
(a) FC1902



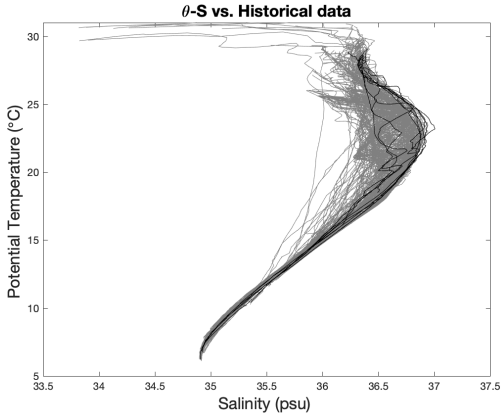
(b) FC1904



(c) FC1906

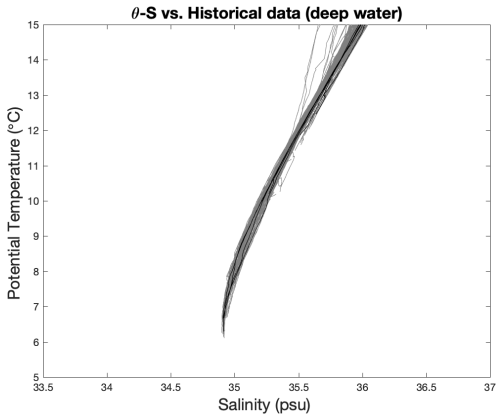


(d) FC1907

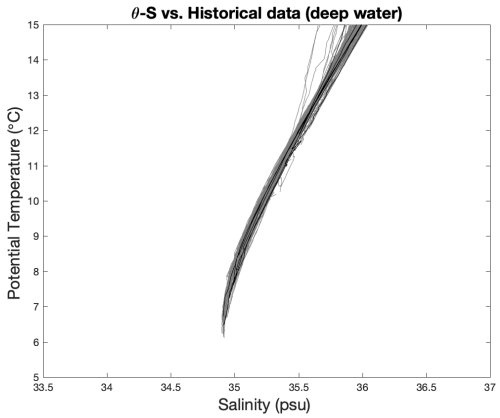


(e) FC1910

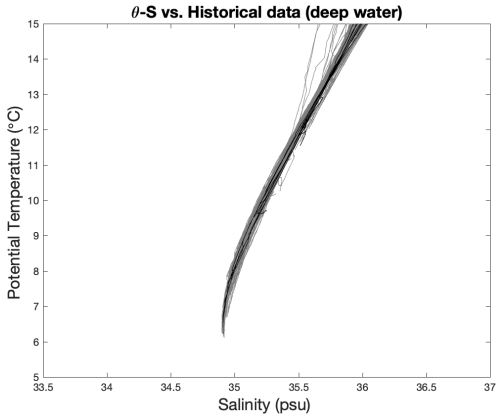
Figure 10: Potential Temperature (θ) - Salinity diagram for all stations. The solid black lines are the data collected during the 2019 cruises. Solid gray lines are historical data collected during the project.



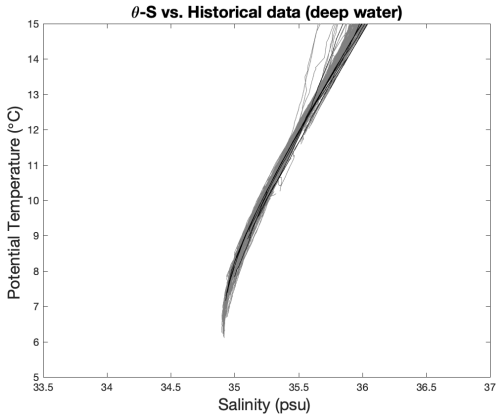
(a) FC1902



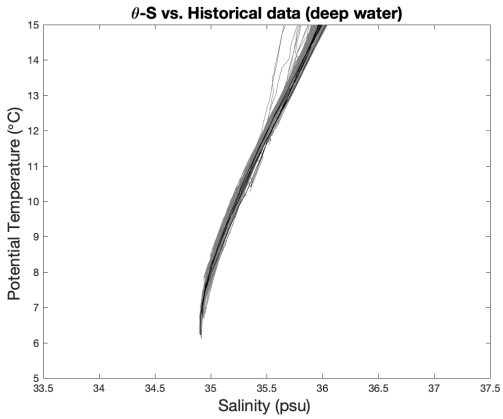
(b) FC1904



(c) FC1906



(d) FC1907



(e) FC1910

Figure 11: Potential Temperature (θ) - Salinity diagram for all stations (deep water). The solid black lines are the data collected during the 2019 cruises. Solid gray lines are historical data collected during the project.

5.5 Dissolved Oxygen

Three SBE43 dissolved O_2 (DO) sensors were used these four cruises (Table 11). Due to a hysteresis problem with the oxygen sensors, the oxygen sensors were calibrated to dissolved O_2 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

	FC1902 S/N 2712	FC1904 S/N 2712	FC1906 S/N 2712	FC1907 S/N 2712	FC1910 S/N 2712
Soc	0.46111121	0.470006562	0.466451452	0.482604864	0.485693364
V_offset	-0.480031248	-0.512032267	-0.505766387	-0.506119525	-0.530296627
A	-0.001542243	0.001052082	-0.001725353	-0.005186393	-0.002107093
B	0.000298364	-4.14059E-05	1.02793E-04	0.000334546	8.64854E-05
C	-7.33138E-06	1.33319E-06	-1.62050E-06	-6.19989E-06	-1.19610E-06
E	0.045548419	0.04955842	0.045664489	0.044222851	0.045030083
tau	2.183423388	-0.121046179	0.364827214	1.893759144	0.356561802
$p1$	0	0	0	0	0

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.

For FC1902 a comparison between the primary and secondary sensors (Figure 12) was evaluated. The sensors show a median difference of -1.48 $umol/kg$ and a standard deviation of 0.41 $umol/kg$. The primary sensor was used for all the final data values (Figure 13). After

data reduction 48 data points (77.42%) 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 14 to Figure 15). The median is -0.01 $umol/kg$ and the standard deviation 0.97 $umol/kg$.

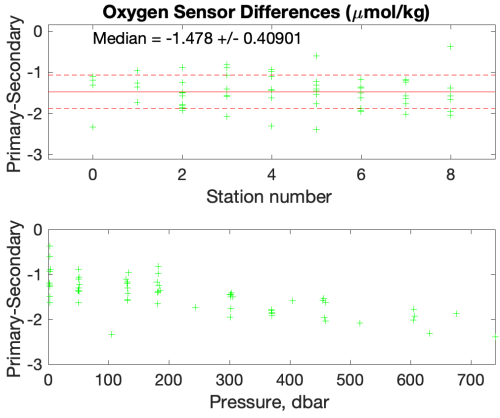
For FC1904 a comparison between the primary and secondary sensors (Figure 12) was evaluated. The sensors show a median difference of 2.05 $umol/kg$ and a standard deviation of 0.97 $umol/kg$. The primary sensor was used for all the final data values (Figure 13). After data reduction 48 data points (82.76%) 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 14 to Figure 15). The median is -0.056 $umol/kg$ and the standard deviation 0.86 $umol/kg$.

For FC1906 a comparison between the primary and secondary sensors (Figure 12) was evaluated. The sensors show a median difference of 1.31 $umol/kg$ and a standard deviation of 0.6 $umol/kg$. The primary sensor was used for all the final data values (Figure 13). After data reduction 56 data points (86.15%) 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 14 to Figure 15). The median is 0.044 $umol/kg$ and the standard deviation 0.55 $umol/kg$.

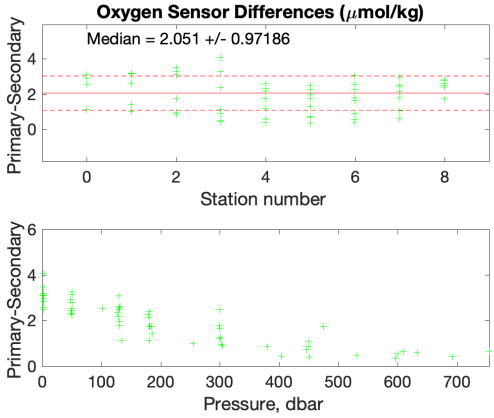
For FC1907 a comparison between the primary and secondary sensors (Figure 12) was evaluated. The sensors show a median difference of 3.04 $umol/kg$ and a standard deviation of 1.08 $umol/kg$. The primary sensor was used for all the final data values (Figure 13). After data reduction 53 data points (91.38%) 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 14 to Figure 15). The median is -0.044 $umol/kg$ and the standard deviation 0.88 $umol/kg$.

For FC1910 a comparison between the primary and secondary sensors (Figure 12) was evaluated. The sensors show a median difference of 4.18 $umol/kg$ and a standard deviation of 1.20 $umol/kg$. The primary sensor, s/n 2712, was used for all the final data values (Figure 13). After data reduction 52 data points (83.87%) 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 14 to Figure 15). The median is -0.048 $umol/kg$ and the standard deviation 0.51 $umol/kg$.

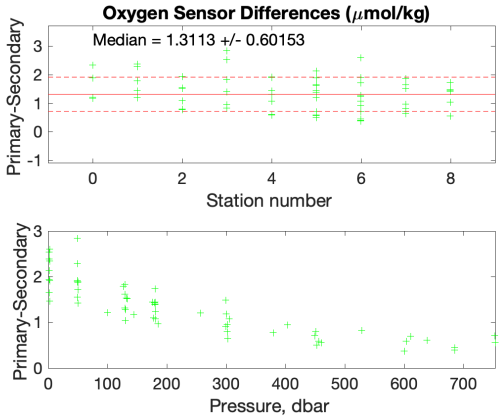
A final verification about the quality of the data, like in the salinity data, was made by comparing the results of this cruise with some historical data available at the location of the Florida Straits section (Figure 16 & 17).



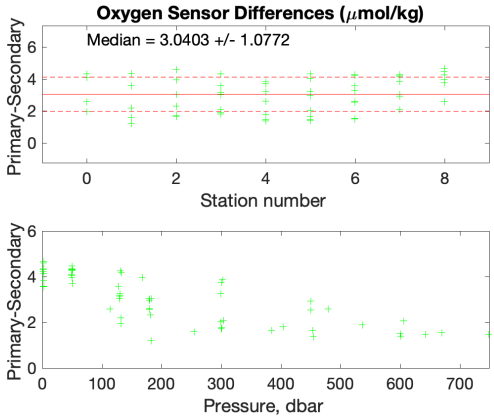
(a) FC1902



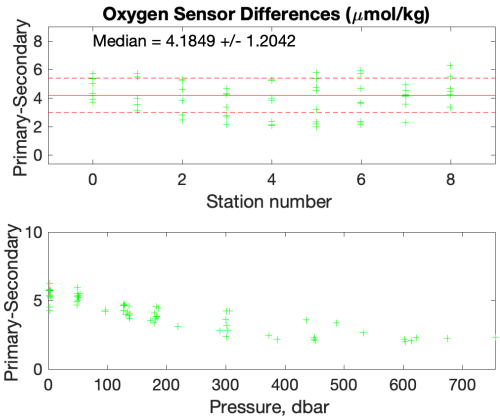
(b) FC1904



(c) FC1906

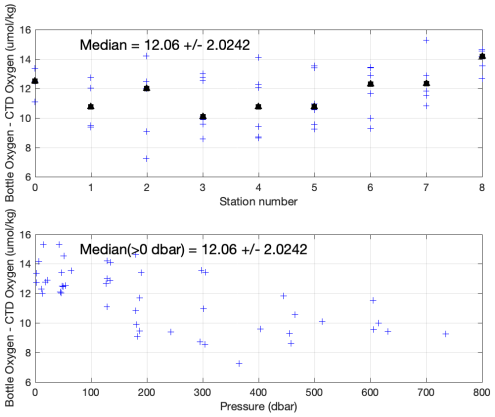


(d) FC1907

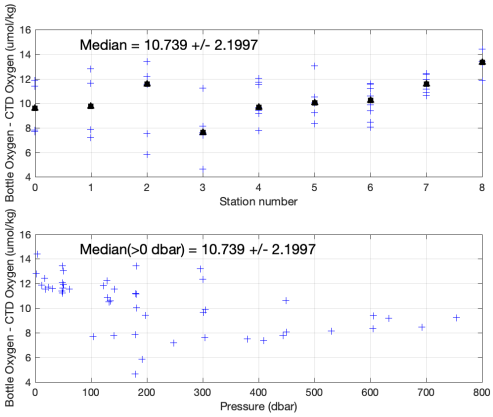


(e) FC1910

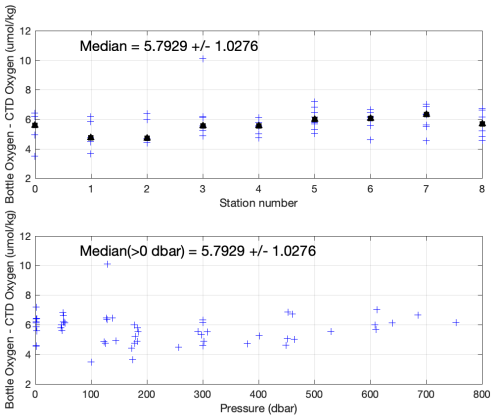
Figure 12: Dissolved oxygen upcast bottle stop differences between sensors by station (top) and pressure (bottom). The green represents all the cruise data. The red solid line represents the median with the red dashed representing the standard deviation.



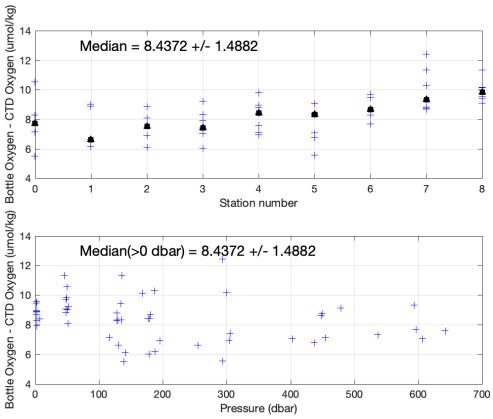
(a) FC1902



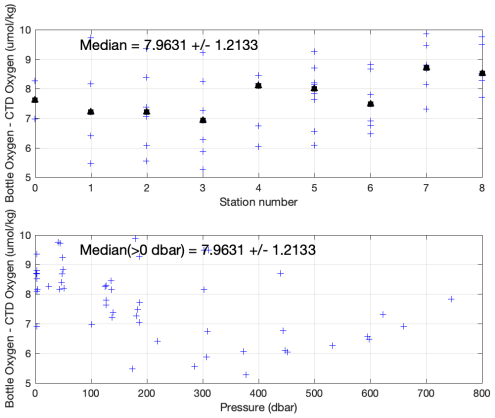
(b) FC1904



(c) FC1906

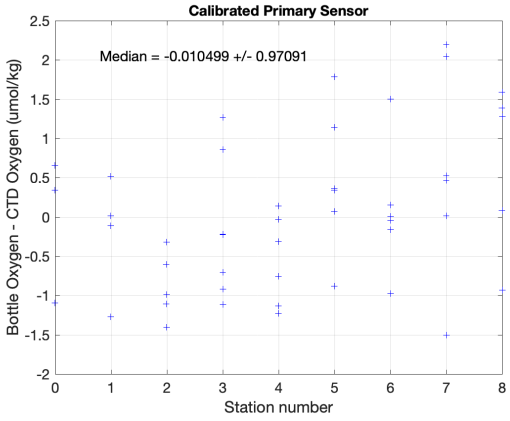


(d) FC1907

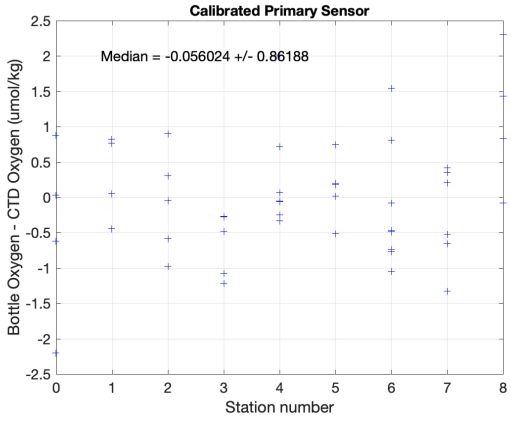


(e) FC1910

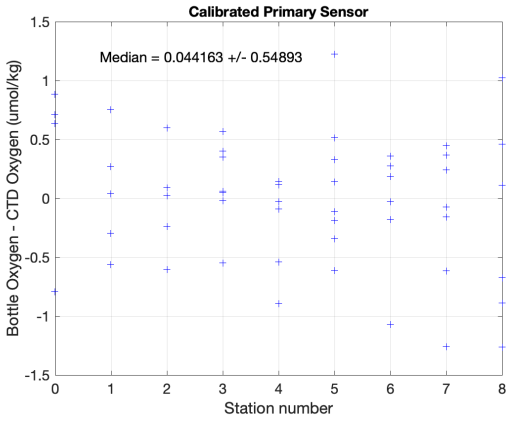
Figure 13: Bottle and uncalibrated CTD oxygen differences plotted by station and pressure. The blue crosses represent all data points and the black square represent the median for each station. The overall median and standard deviation was calculated using all data points.



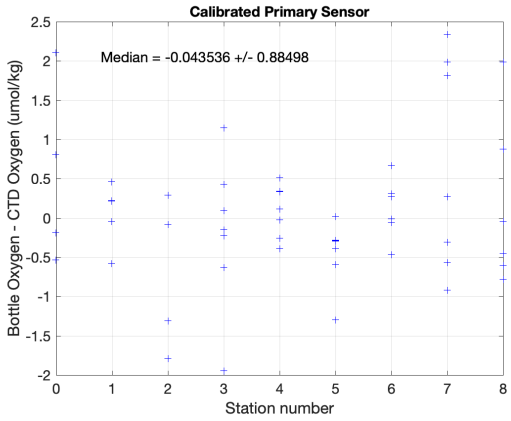
(a) FC1902



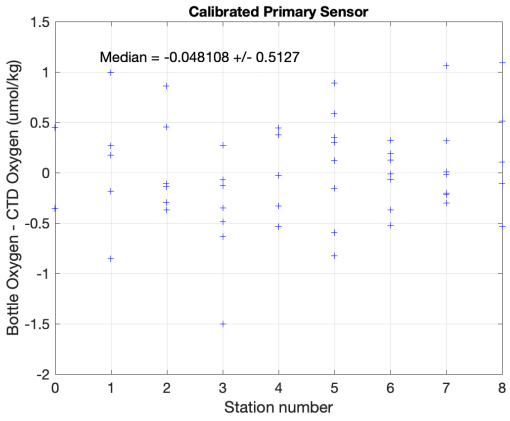
(b) FC1904



(c) FC1906

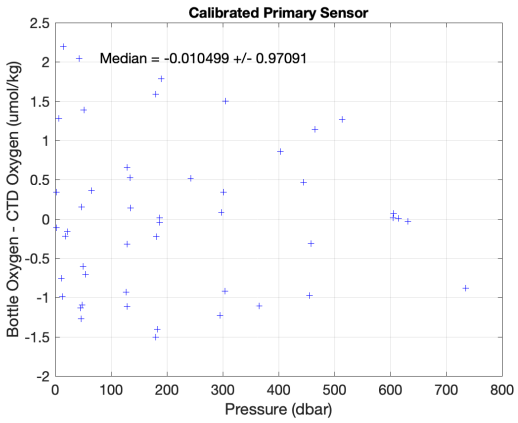


(d) FC1907

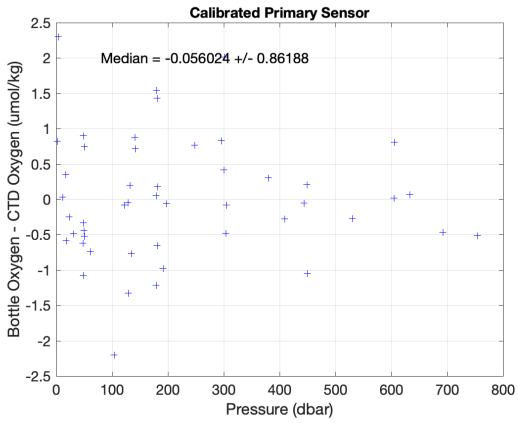


(e) FC1910

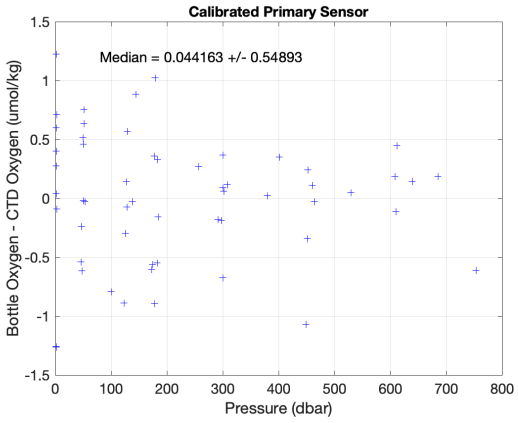
Figure 14: Bottle and calibrated CTD oxygen differences plotted vs. station. The blue crosses represent all data points. The median values shown were calculated using all data.



(a) FC1902



(b) FC1904



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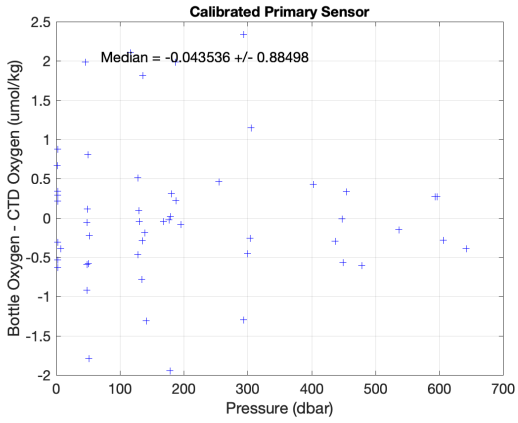
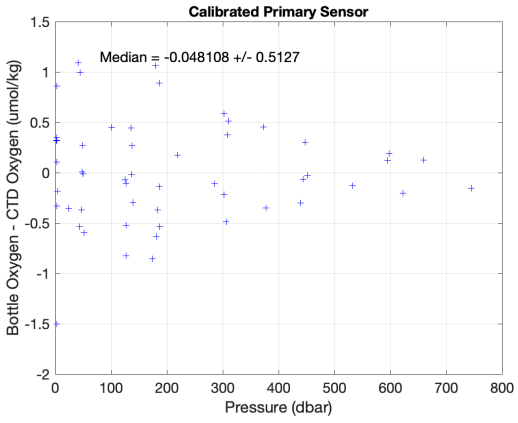
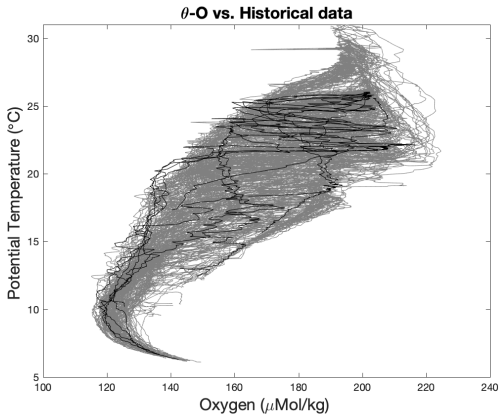


(d) FC1907

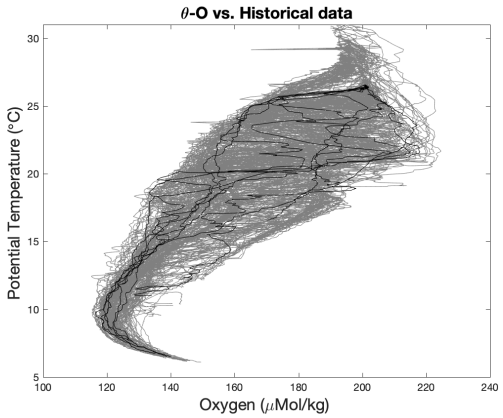


(e) FC1910

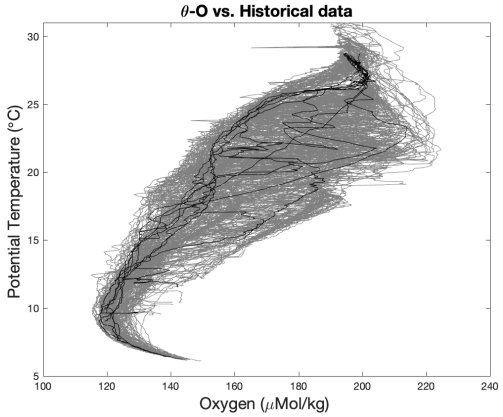
Figure 15: Bottle and calibrated CTD oxygen differences plotted vs. pressure. The blue crosses represent all data points. The median values shown were calculated using all data.



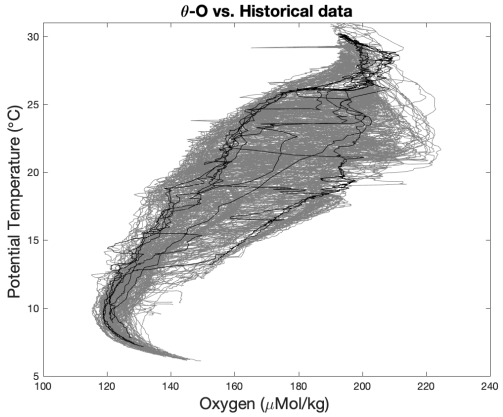
(a) FC1902



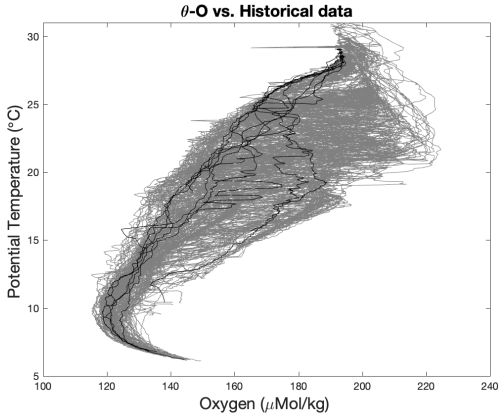
(b) FC1904



(c) FC1906

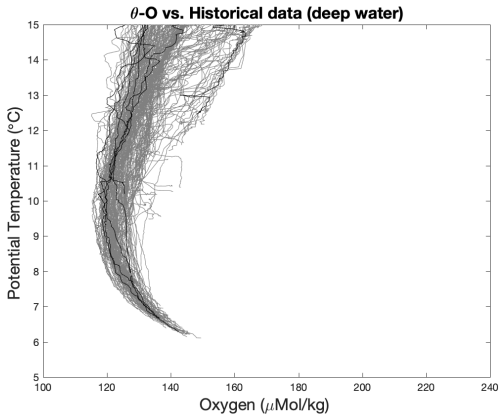


(d) FC1907

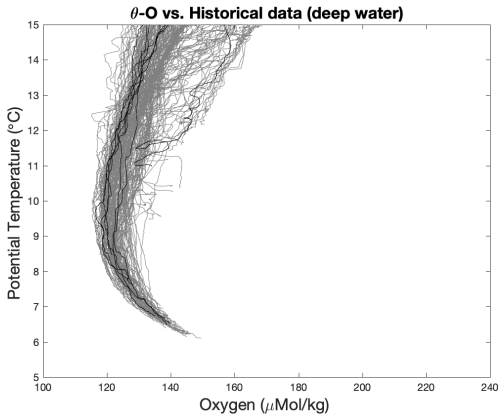


(e) FC1910

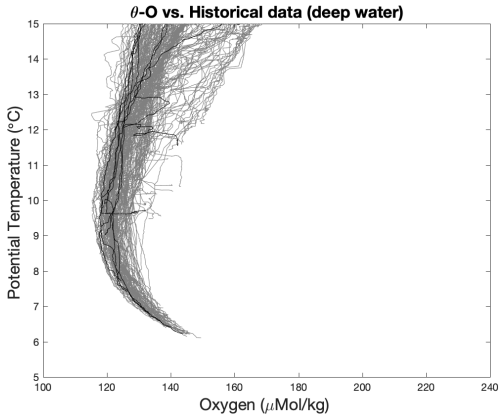
Figure 16: Potential Temperature (θ) - Oxygen diagram for all stations. The solid black lines are the data collected during the 2019 cruises. Solid gray lines are historical data collected during the project.



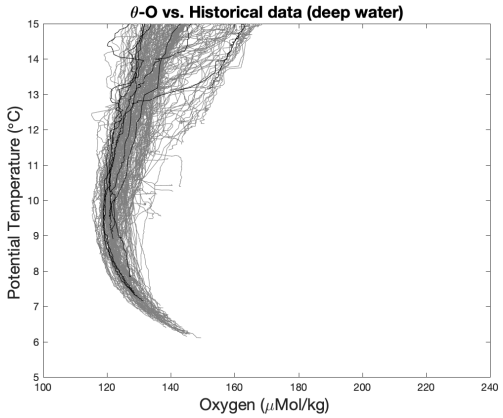
(a) FC1902



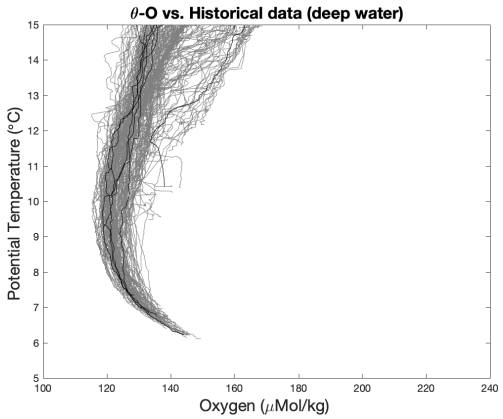
(b) FC1904



(c) FC1906



(d) FC1907



(e) FC1910

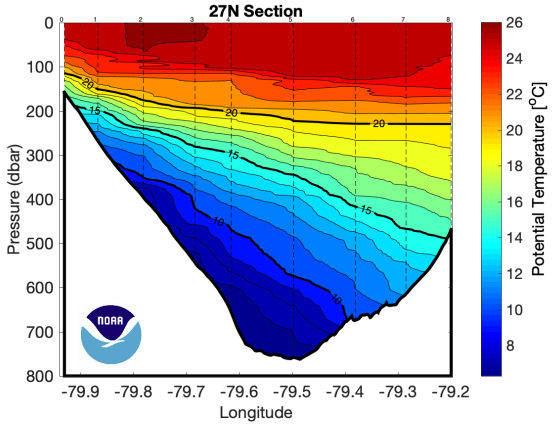
Figure 17: Potential Temperature (θ) - Oxygen diagram for all stations (deep water). The solid black lines are the data collected during the 2019 cruises. Solid gray lines are historical data collected during the project.

6 Final CTD Data Presentation

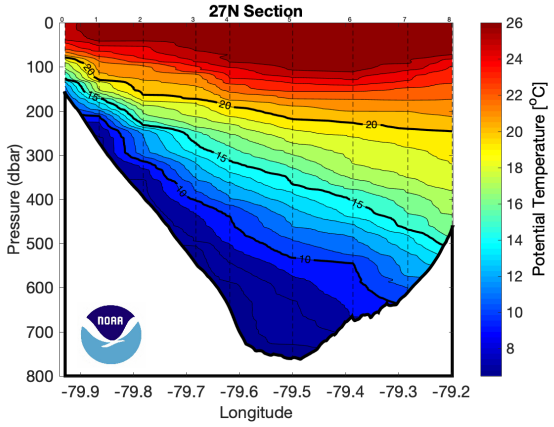
Post-cruise calibrations, determined from bottle data, were applied to CTD data associated with bottle data using Matlab sub-routines (`apply_calibration.m`). WOCE quality flags were appended to bottle data records. "bad values" (WOCE quality control value = 4) were flagged if the bottle samples failed the initial quality control and were not used for the calibration (which meant they fell outside 2.57 standard deviations of the difference between samples and uncalibrated CTD values). A second pass was 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".

The final calibrated CTD data files were used to produce the section plots that follow and the tables and station profile plots presented in the appendices. Vertical sections of potential temperature, CTD salinity, potential density, and CTD oxygen are contoured with pressure as the vertical axis. The Florida Current Section uses longitude as the horizontal axis (Figure 18 to Figure 21).

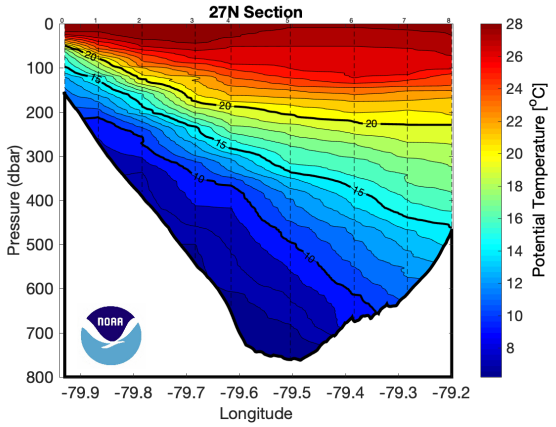
In Appendix A, for each CTD station, the upper table presents "standard depths" of the CTD cast, while the lower table lists the bottle CTD trip depths for the cast. Following the two tables, a page of 4 plots illustrate the data collected of the stations. Niskin bottle depths are indicated on the right side of the larger profile plot and bottle salinity and oxygen values are plotted as points in the three smaller plots. A WOCE formatted CTD cast summary file is shown in Appendix B. It lists information regarding the beginning, middle (bottom of the cast), and end of each CTD cast. Finally, a bottle summary file (WOCE formatted) is presented in Appendix C. This table lists the specific details associated with each Niskin bottle trip over the course of the entire cruise. The -999's in the tables represent missing data.



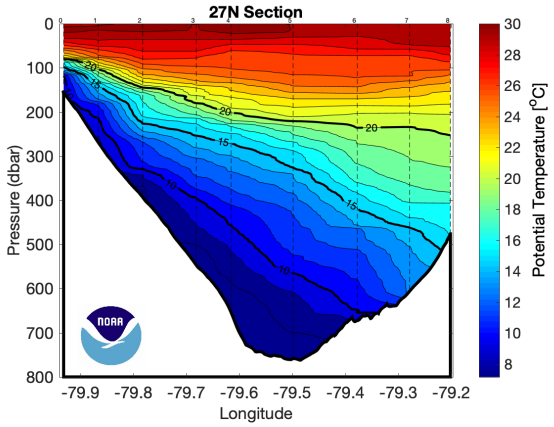
(a) FC1902



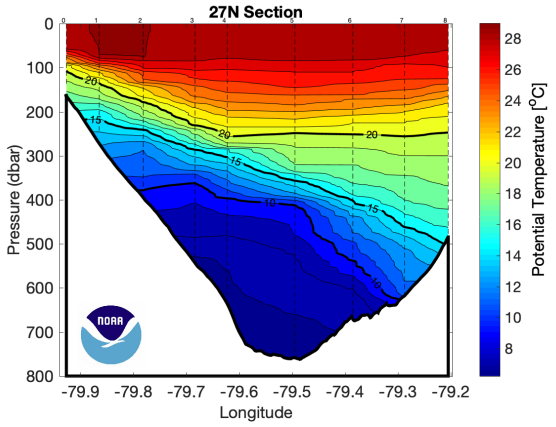
(b) FC1904



(c) FC1906

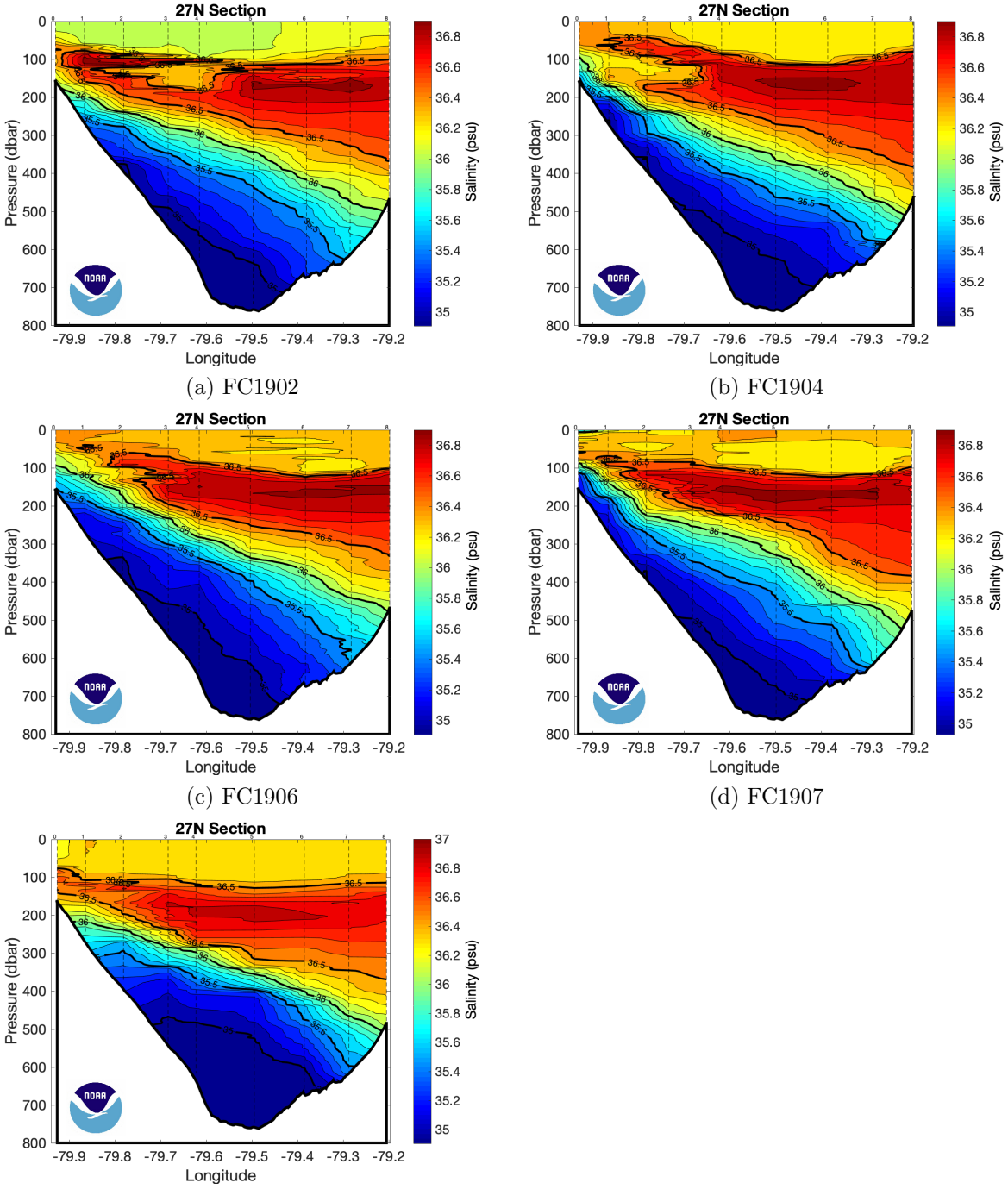


(d) FC1907



(e) FC1910

Figure 18: Potential Temperature (°C) for the 27°N section. Dashed vertical lines are the CTD station locations.



(a) FC1902

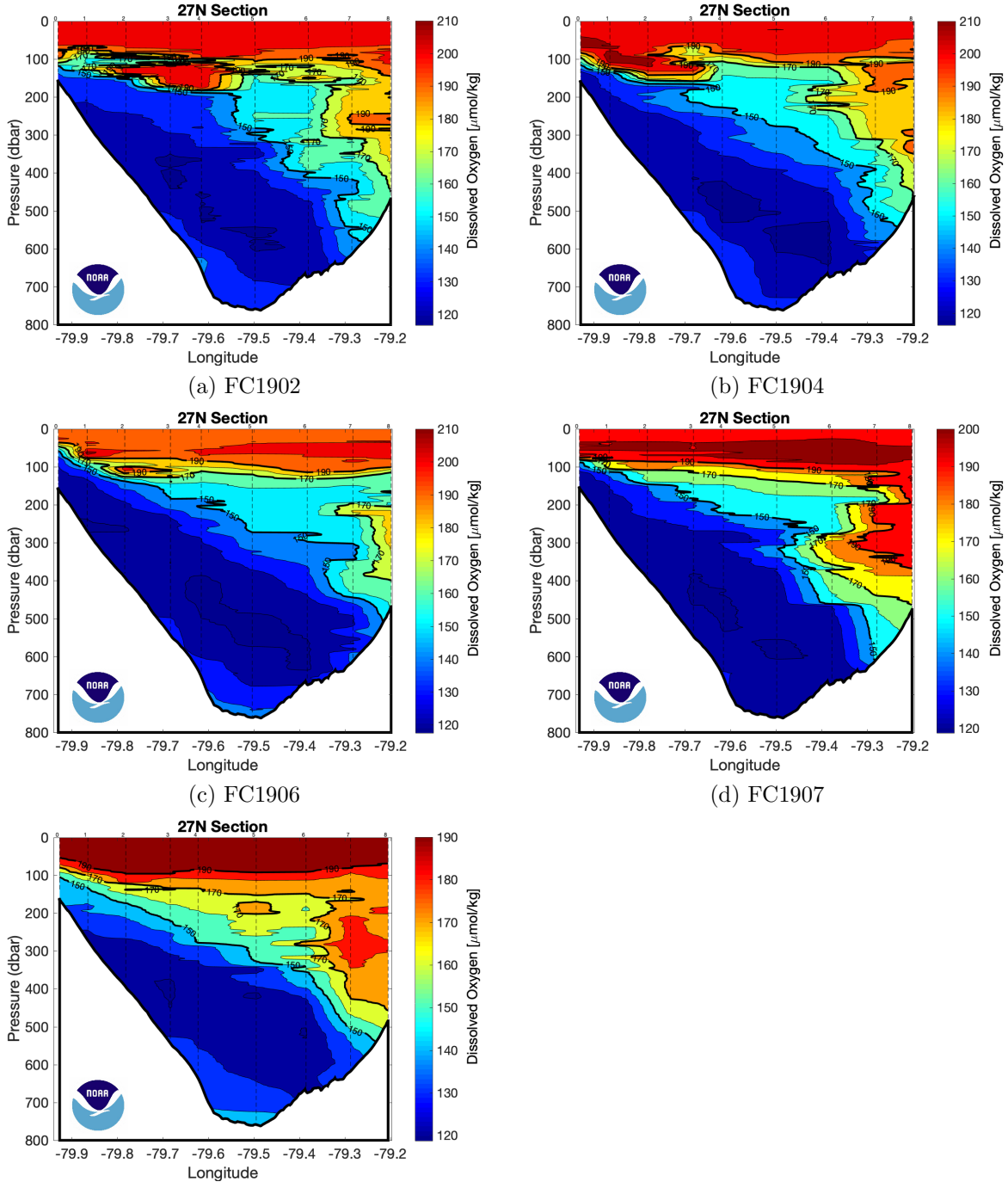
(b) FC1904

(c) FC1906

(d) FC1907

(e) FC1910

Figure 19: Salinity (PSS 78) for the 27°N section. Dashed vertical lines are the CTD station locations.



(a) FC1902

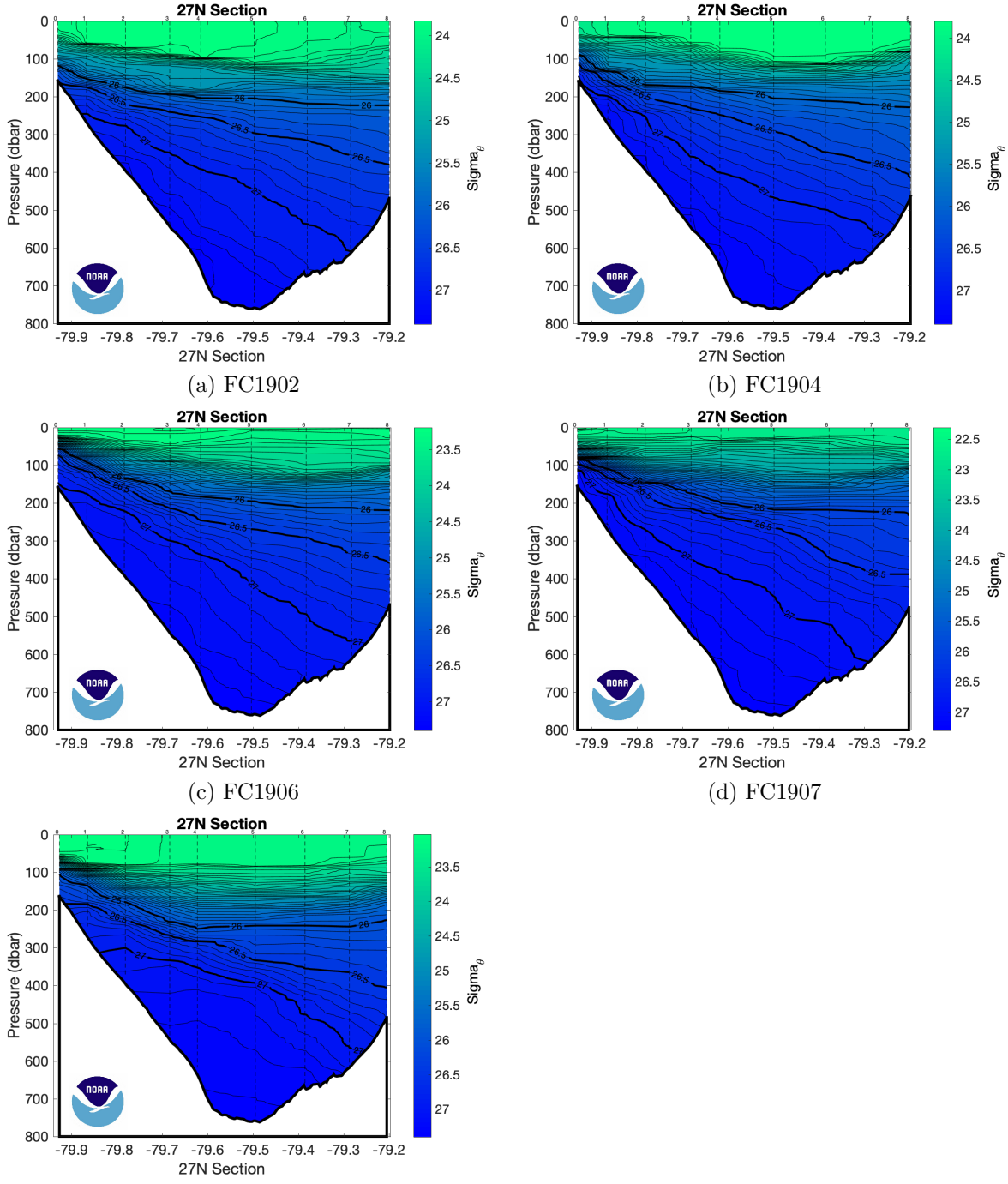
(b) FC1904

(c) FC1906

(d) FC1907

(e) FC1910

Figure 20: Dissolved Oxygen (μmol/kg) for the 27°N section. Dashed vertical lines are the CTD station locations.



(a) FC1902

(b) FC1904

(c) FC1906

(d) FC1907

(e) FC1910

Figure 21: Neutral density (kg/m3) for the 27°N section. Dashed vertical lines are the CTD station locations.

7 Acknowledgements

The successful completion of the cruise relied on dedicated assistance from many individuals on shore and at sea. Western Boundary Time Series project members were instrumental in planning and executing the cruise, and we offer special thanks to our research cruise participants in 2019: Andrew Stefanick, Diego Ugaz, Ulises Rivero, Grant Rawson, Alyssa Thompson and Heidi VanBuskirk. Additionally we would like to thank the officers and crew of the R/V *F. G. Walton Smith*, who exhibited a high degree of professionalism and assistance to accomplish our work, while at the same time making us feel at home during the voyages. We also thank NOAA program managers for their continued support of our efforts. This research was also made possible with support of the Cooperative Institute for Marine and Atmospheric Studies (CIMAS), a Cooperative Institute of the University of Miami and NOAA via cooperative agreement #NA15OAR4320064. Additional support was provided by OAR's Atlantic Oceanographic and Meteorological Laboratory. SPECIAL NOTE: A portion of this research was conducted within the jurisdictional waters of the Bahamas. Bahamian research clearance was obtained prior to conducting the research outlined in this report. We thank the Bahamian government for granting our request to conduct research in Bahamian waters.

8 References

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

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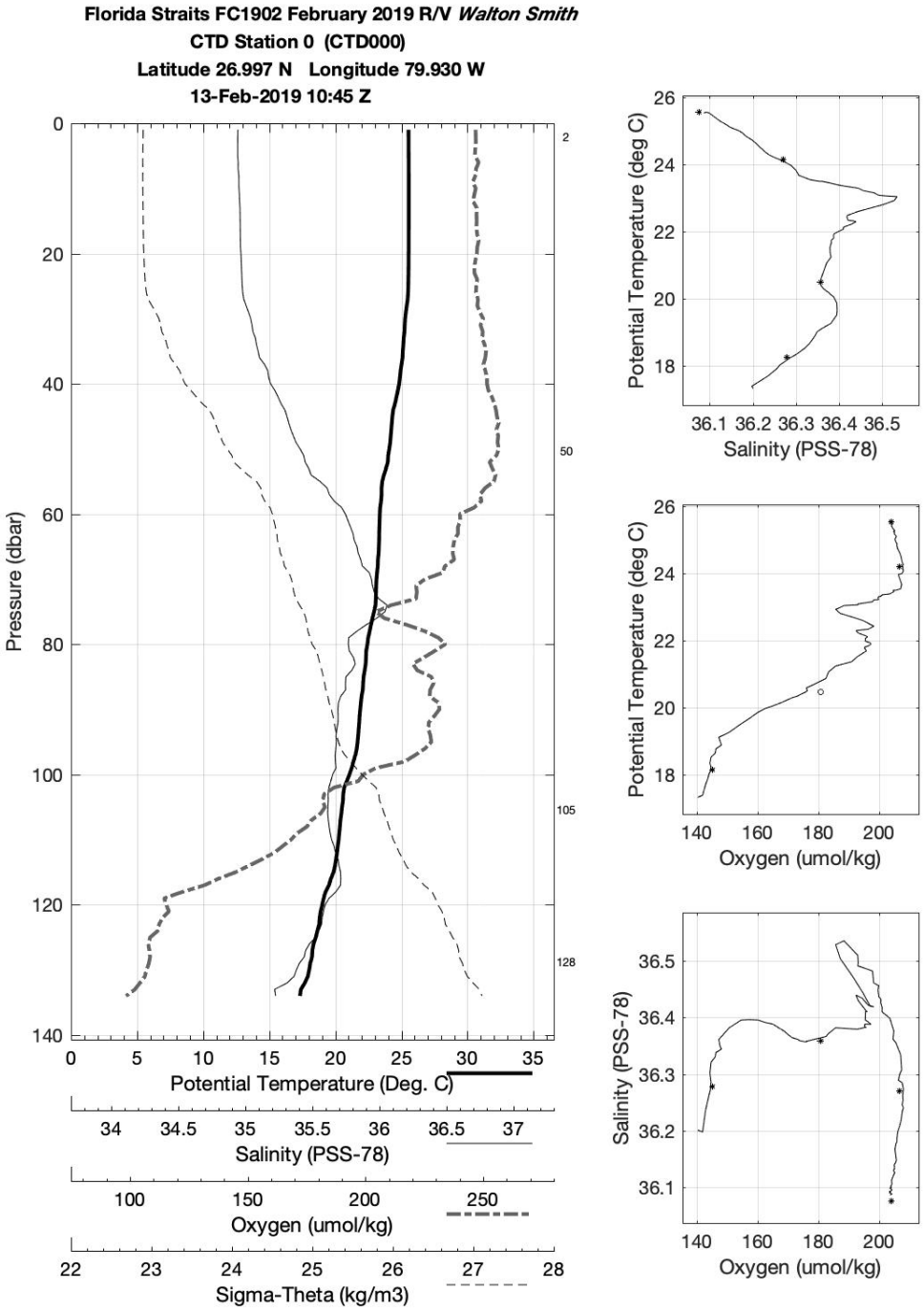
A Hydrographic - CTD Data

A.1 FC1902 - February 2019

Florida Straits FC1902 February 2019 R/V *Walton Smith*
CTD Station 0 (CTD000)
Latitude 26.997N Longitude 79.930W
13-Feb-2019 10:45Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	25.543	25.543	36.087	203.8	0.004	23.996
10	25.561	25.559	36.091	203.8	0.039	23.994
20	25.553	25.548	36.097	204.0	0.078	24.002
30	25.288	25.282	36.126	205.2	0.117	24.106
50	24.093	24.082	36.274	208.0	0.189	24.582
75	22.944	22.929	36.529	185.7	0.266	25.114
100	21.088	21.068	36.372	183.4	0.334	25.520
125	18.549	18.527	36.321	144.6	0.388	26.152

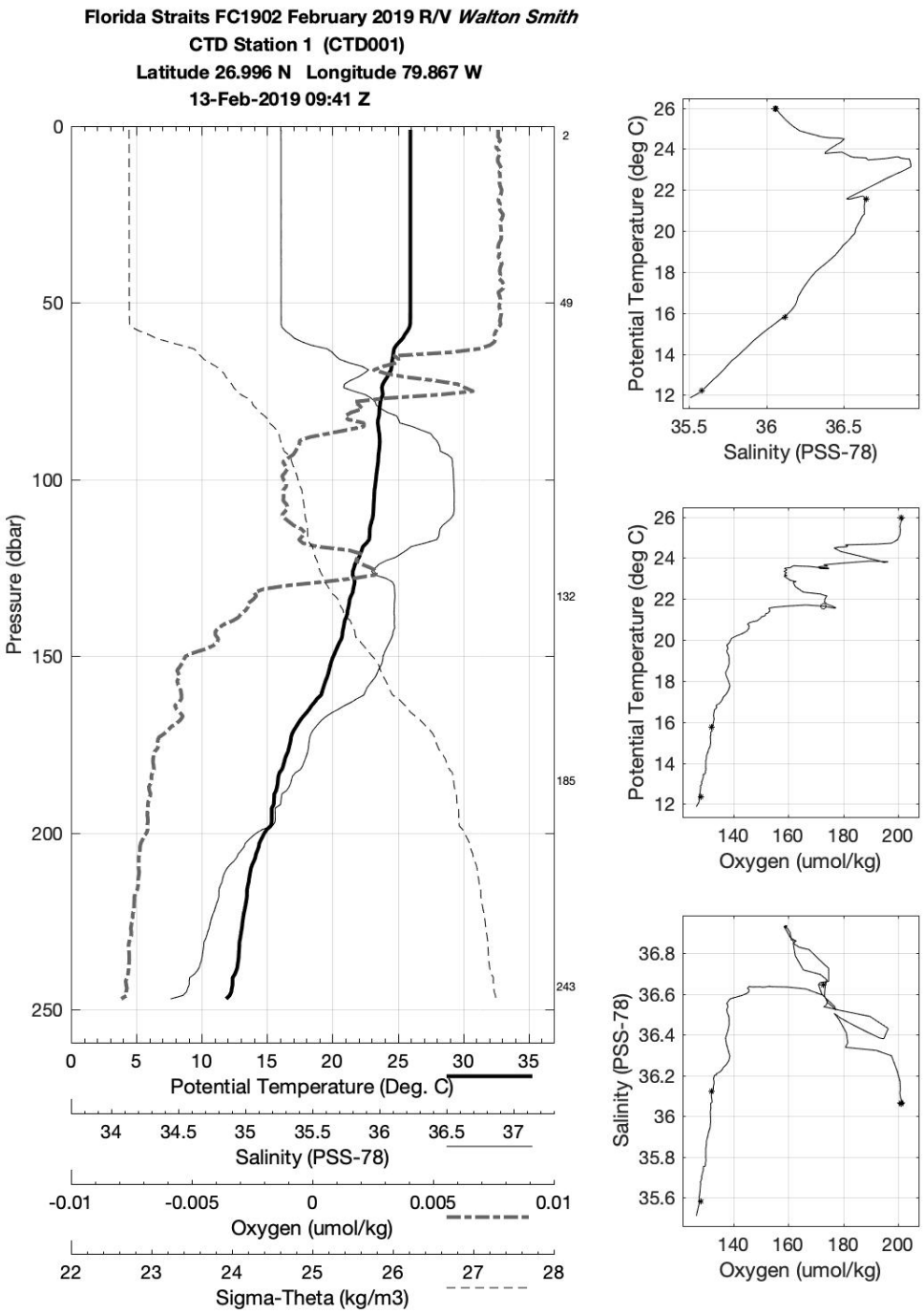
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
129	1	18.288	18.266	36.278	145.1
105	2	20.528	20.508	36.358	180.8
50	3	24.175	24.164	36.270	206.8
2	4	25.565	25.565	36.076	204.2


Florida Straits FC1902 February 2019 R/V Walton Smith
CTD Station 0 (CTD000)
Latitude 26.997 N Longitude 79.930 W
13-Feb-2019 10:45 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1902 February 2019 R/V *Walton Smith*
CTD Station 1 (CTD001)
Latitude 26.996N Longitude 79.867W
13-Feb-2019 09:41Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	25.964	25.964	36.065	201.4	0.004	23.848
10	25.965	25.963	36.065	201.3	0.040	23.848
20	25.967	25.963	36.065	201.7	0.081	23.849
30	25.969	25.962	36.065	202.0	0.122	23.849
50	25.971	25.960	36.065	201.8	0.203	23.850
75	23.835	23.819	36.429	196.4	0.294	24.778
100	23.349	23.328	36.931	158.7	0.366	25.303
125	21.674	21.650	36.537	176.0	0.432	25.485
150	20.104	20.076	36.577	139.3	0.490	25.945
200	14.834	14.803	35.942	131.5	0.572	26.742

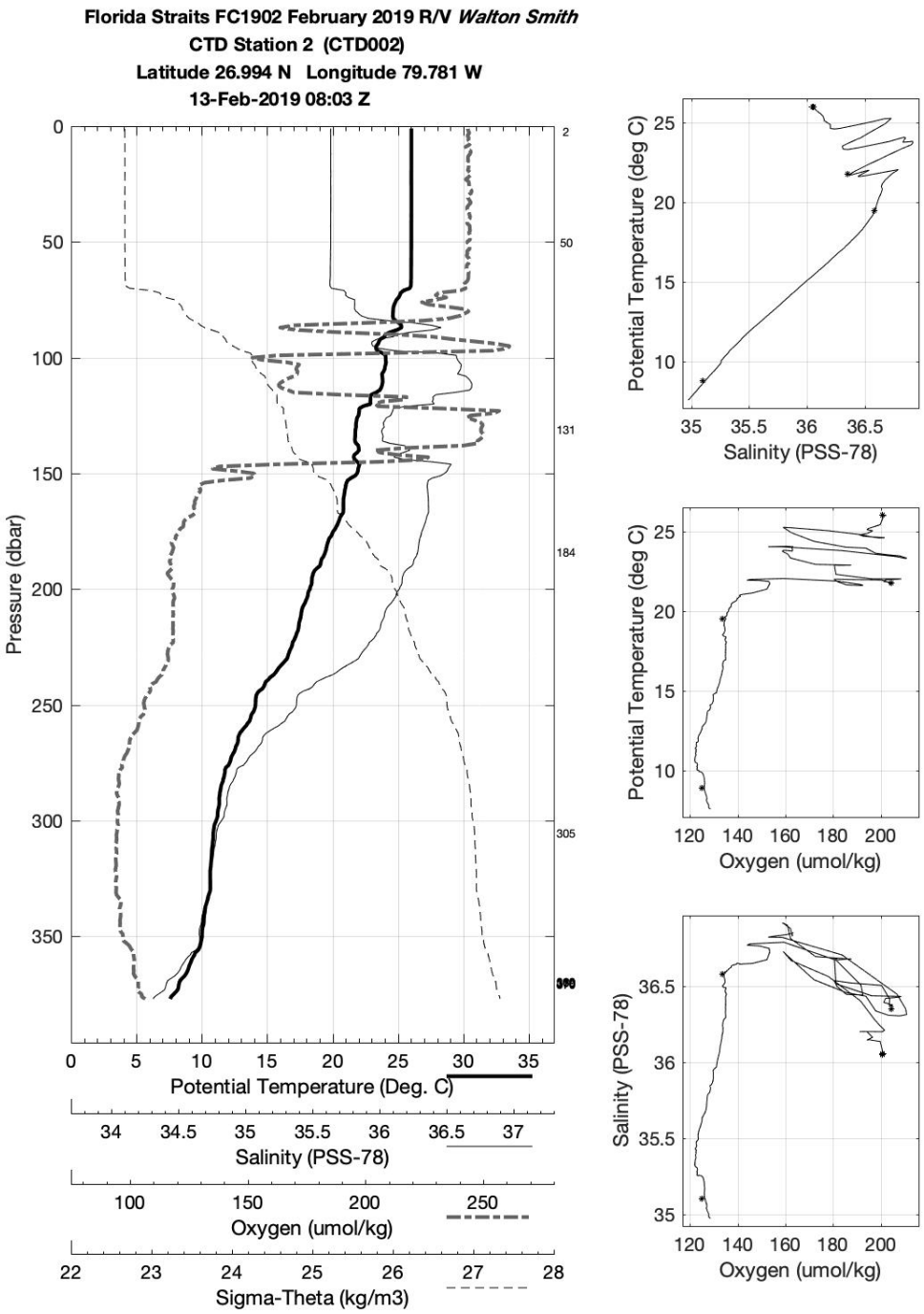
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
243	1	12.255	12.223	35.581	128.0
185	2	15.825	15.796	36.120	132.0
133	3	21.602	21.576	36.645	172.8
50	4	25.952	25.941	36.063	201.1
2	5	25.963	25.963	36.059	201.3


Florida Straits FC1902 February 2019 R/V *Walton Smith*
CTD Station 1 (CTD001)
Latitude 26.996 N Longitude 79.867 W
13-Feb-2019 09:41 Z
Pressure (dbar)
0
50
100
150
200
250
2
49
132
185
243
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)
-0.01 -0.005 0 0.005 0.01
Oxygen (umol/kg)
22 23 24 25 26 27 28
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
26 24 22 20 18 16 14 12
35.5 36 36.5
Salinity (PSS-78)
Potential Temperature (deg C)
26 24 22 20 18 16 14 12
140 160 180 200
Oxygen (umol/kg)
Salinity (PSS-78)
36.8 36.6 36.4 36.2 36 35.8 35.6
140 160 180 200
Oxygen (umol/kg)

Florida Straits FC1902 February 2019 R/V *Walton Smith*
CTD Station 2 (CTD002)
Latitude 26.994N Longitude 79.781W
13-Feb-2019 08:03Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.027	26.026	36.058	201.5	0.004	23.823
10	26.026	26.024	36.058	201.6	0.041	23.824
20	26.027	26.023	36.058	202.0	0.081	23.825
30	26.032	26.026	36.058	201.3	0.122	23.824
50	26.034	26.023	36.058	201.2	0.204	23.824
75	24.901	24.885	36.204	194.2	0.305	24.286
100	24.077	24.056	36.826	152.8	0.388	25.007
125	22.007	21.982	36.423	202.0	0.459	25.304
150	21.898	21.868	36.751	153.2	0.525	25.586
200	18.304	18.269	36.476	134.7	0.628	26.336
250	14.140	14.104	35.849	128.3	0.705	26.821
300	11.132	11.094	35.392	122.3	0.763	27.063

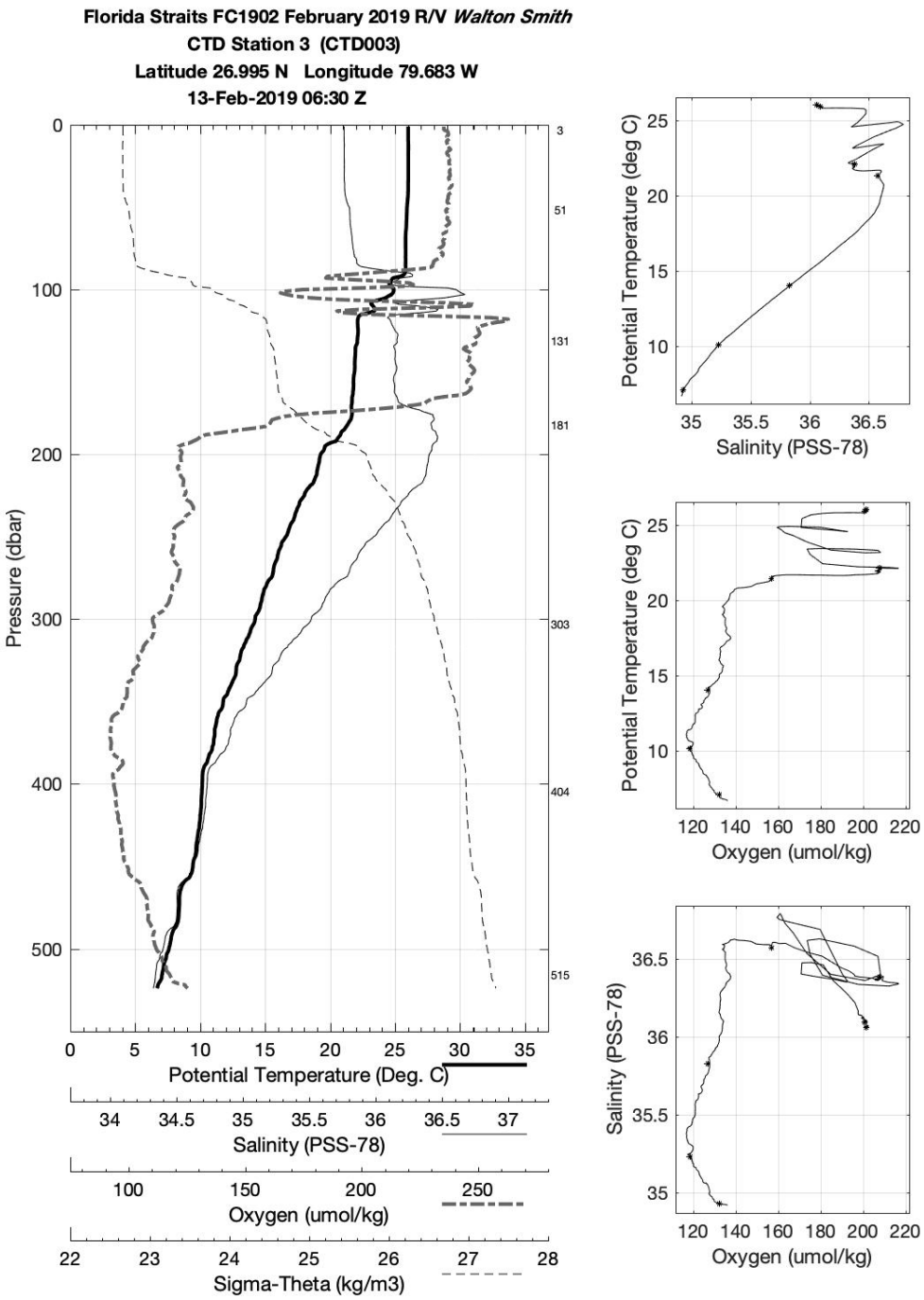
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
371	1	8.553	9.088	−999.000	−999.0
370	2	8.645	9.178	−999.000	−999.0
370	3	8.726	9.258	−999.000	−999.0
370	4	8.767	9.297	−999.000	−999.0
370	5	8.823	8.783	35.102	124.9
306	6	10.831	11.239	−999.000	−999.0
184	7	19.535	19.501	36.583	133.5
131	13	21.784	21.758	36.353	204.3
50	14	26.031	26.020	36.057	200.7
2	15	26.020	26.019	36.053	200.8


Florida Straits FC1902 February 2019 R/V Walton Smith
CTD Station 2 (CTD002)
Latitude 26.994 N Longitude 79.781 W
13-Feb-2019 08:03 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)

Florida Straits FC1902 February 2019 R/V *Walton Smith*
CTD Station 3 (CTD003)
Latitude 26.995N Longitude 79.683W
13-Feb-2019 06:30Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.014	26.014	36.064	200.4	0.004	23.832
10	26.021	26.019	36.064	201.0	0.041	23.830
20	26.026	26.021	36.064	201.2	0.081	23.830
30	26.030	26.023	36.064	201.9	0.122	23.829
50	25.934	25.923	36.096	201.3	0.203	23.884
75	25.831	25.815	36.117	199.1	0.304	23.935
100	24.929	24.907	36.737	164.8	0.398	24.683
125	22.182	22.157	36.371	209.1	0.472	25.216
150	21.908	21.879	36.376	208.0	0.541	25.298
200	19.305	19.269	36.576	134.5	0.664	26.157
250	16.627	16.586	36.241	132.8	0.751	26.566
300	14.278	14.234	35.866	127.2	0.822	26.807
400	10.206	10.158	35.240	117.6	0.938	27.112
500	7.640	7.589	34.975	128.2	1.034	27.315

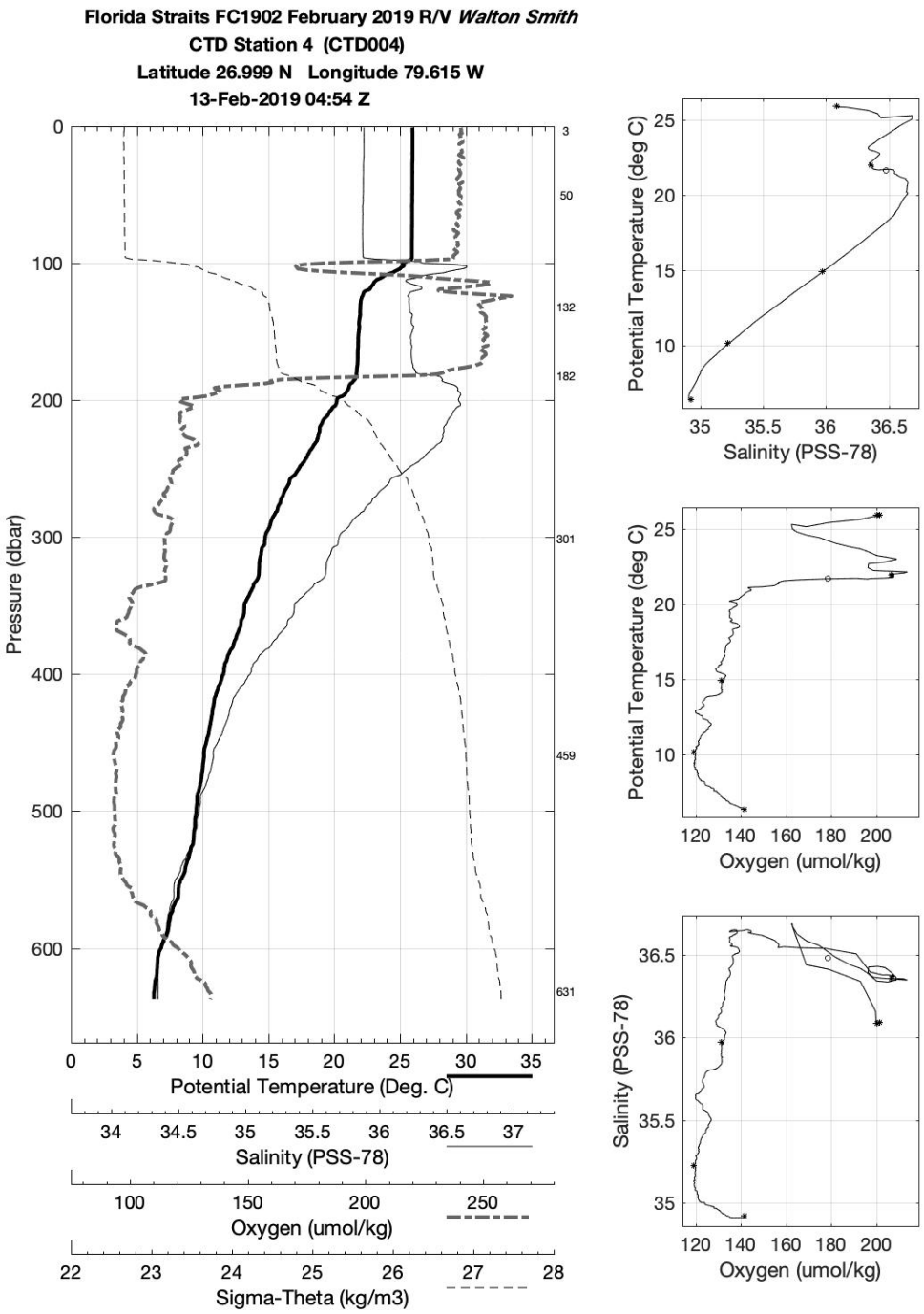
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
516	1	7.133	7.084	34.928	132.1
404	2	10.164	10.116	35.226	118.5
303	3	14.049	14.004	35.826	126.7
182	4	21.335	21.300	36.572	156.6
131	5	22.128	22.102	36.383	207.4
51	6	25.921	25.910	36.092	200.7
3	7	26.015	26.014	36.060	201.3


Florida Straits FC1902 February 2019 R/V Walton Smith
CTD Station 3 (CTD003)
Latitude 26.995 N Longitude 79.683 W
13-Feb-2019 06:30 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)

Florida Straits FC1902 February 2019 R/V *Walton Smith*
CTD Station 4 (CTD004)
Latitude 26.999N Longitude 79.615W
13-Feb-2019 04:54Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	25.945	25.945	36.095	201.7	0.004	23.877
10	25.957	25.955	36.094	201.9	0.040	23.873
20	25.956	25.952	36.094	201.6	0.081	23.874
30	25.947	25.940	36.091	201.5	0.121	23.876
50	25.945	25.934	36.090	201.3	0.202	23.877
75	25.931	25.914	36.086	200.0	0.303	23.880
100	25.186	25.164	36.437	169.1	0.403	24.378
125	22.106	22.081	36.353	212.1	0.480	25.223
150	21.902	21.872	36.372	206.6	0.549	25.297
200	20.240	20.203	36.637	134.9	0.678	25.957
250	17.352	17.309	36.347	133.9	0.771	26.474
300	14.803	14.757	35.952	131.6	0.845	26.760
400	11.632	11.581	35.440	124.6	0.971	27.011
500	9.575	9.518	35.146	119.5	1.077	27.148
600	6.897	6.840	34.920	134.6	1.171	27.378

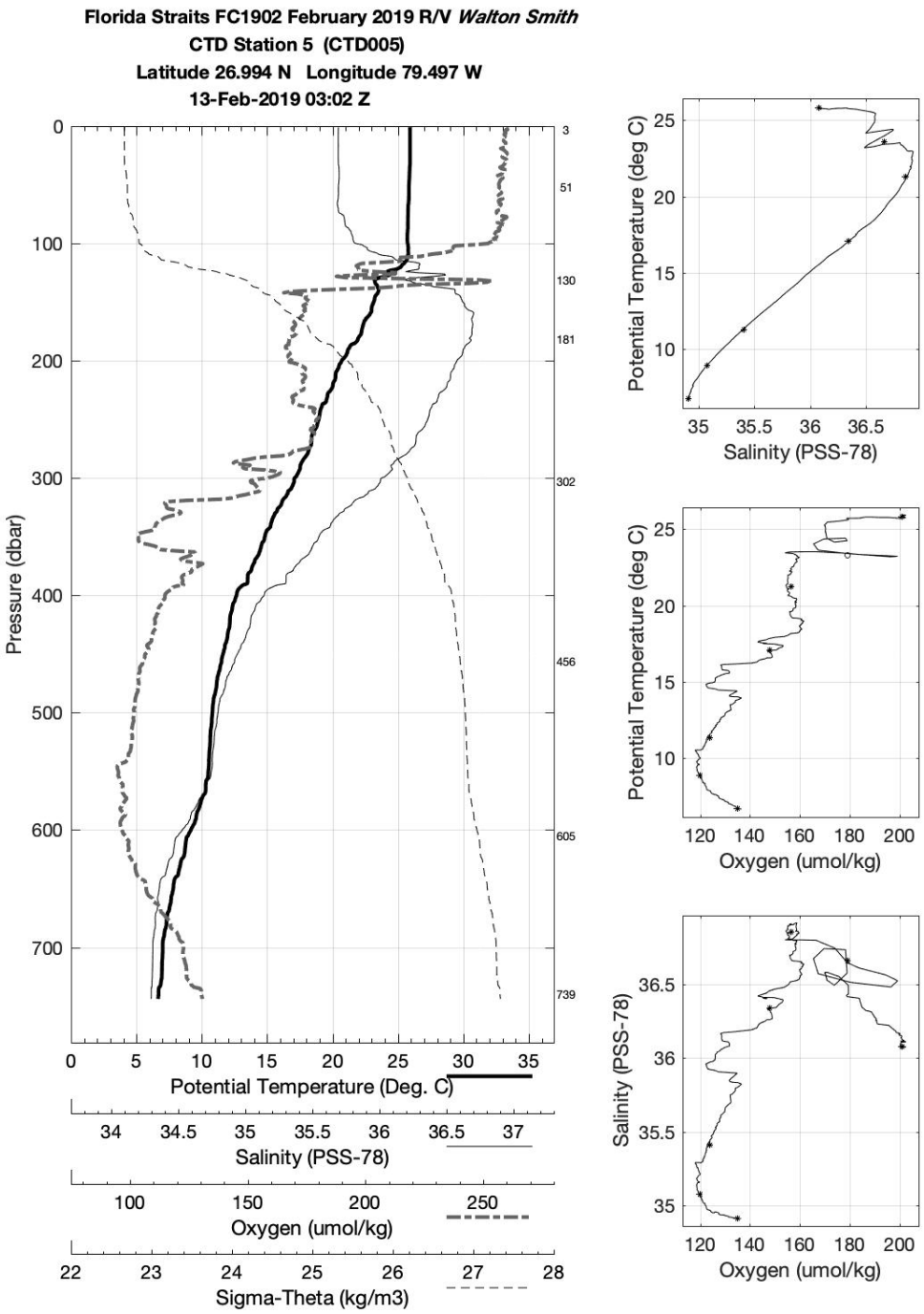
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
632	1	6.393	6.335	34.925	141.9
459	2	10.176	10.121	35.223	119.0
301	3	14.976	14.930	35.970	131.4
182	4	21.685	21.649	36.479	178.6
132	5	22.008	21.982	36.353	206.6
51	6	25.937	25.926	36.084	200.5
3	7	25.950	25.949	36.089	201.5


Florida Straits FC1902 February 2019 R/V Walton Smith
CTD Station 4 (CTD004)
Latitude 26.999 N Longitude 79.615 W
13-Feb-2019 04:54 Z
Pressure (dbar)
0
100
200
300
400
500
600
3
50
132
182
301
459
631
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
35 35.5 36 36.5
Salinity (PSS-78)
Potential Temperature (deg C)
25
20
15
10
120 140 160 180 200
Oxygen (umol/kg)
Salinity (PSS-78)
36.5
36
35.5
35
120 140 160 180 200
Oxygen (umol/kg)

Florida Straits FC1902 February 2019 R/V *Walton Smith*
CTD Station 5 (CTD005)
Latitude 26.994N Longitude 79.497W
13-Feb-2019 03:02Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	25.921	25.921	36.076	202.3	0.004	23.870
10	25.930	25.927	36.075	201.5	0.040	23.868
20	25.930	25.925	36.075	201.6	0.081	23.868
30	25.931	25.924	36.076	202.4	0.121	23.869
50	25.855	25.843	36.077	200.6	0.202	23.895
75	25.787	25.770	36.097	200.3	0.302	23.933
100	25.764	25.742	36.184	198.3	0.401	24.007
125	24.273	24.246	36.579	178.9	0.493	24.763
150	23.174	23.143	36.853	159.6	0.566	25.298
200	20.736	20.697	36.817	155.3	0.687	25.960
250	18.984	18.939	36.634	161.1	0.785	26.286
300	17.141	17.091	36.345	150.5	0.871	26.525
400	12.714	12.659	35.613	128.3	1.012	26.936
500	10.871	10.809	35.325	121.7	1.128	27.063
600	9.232	9.164	35.103	118.9	1.237	27.172
700	7.081	7.013	34.919	132.3	1.329	27.353

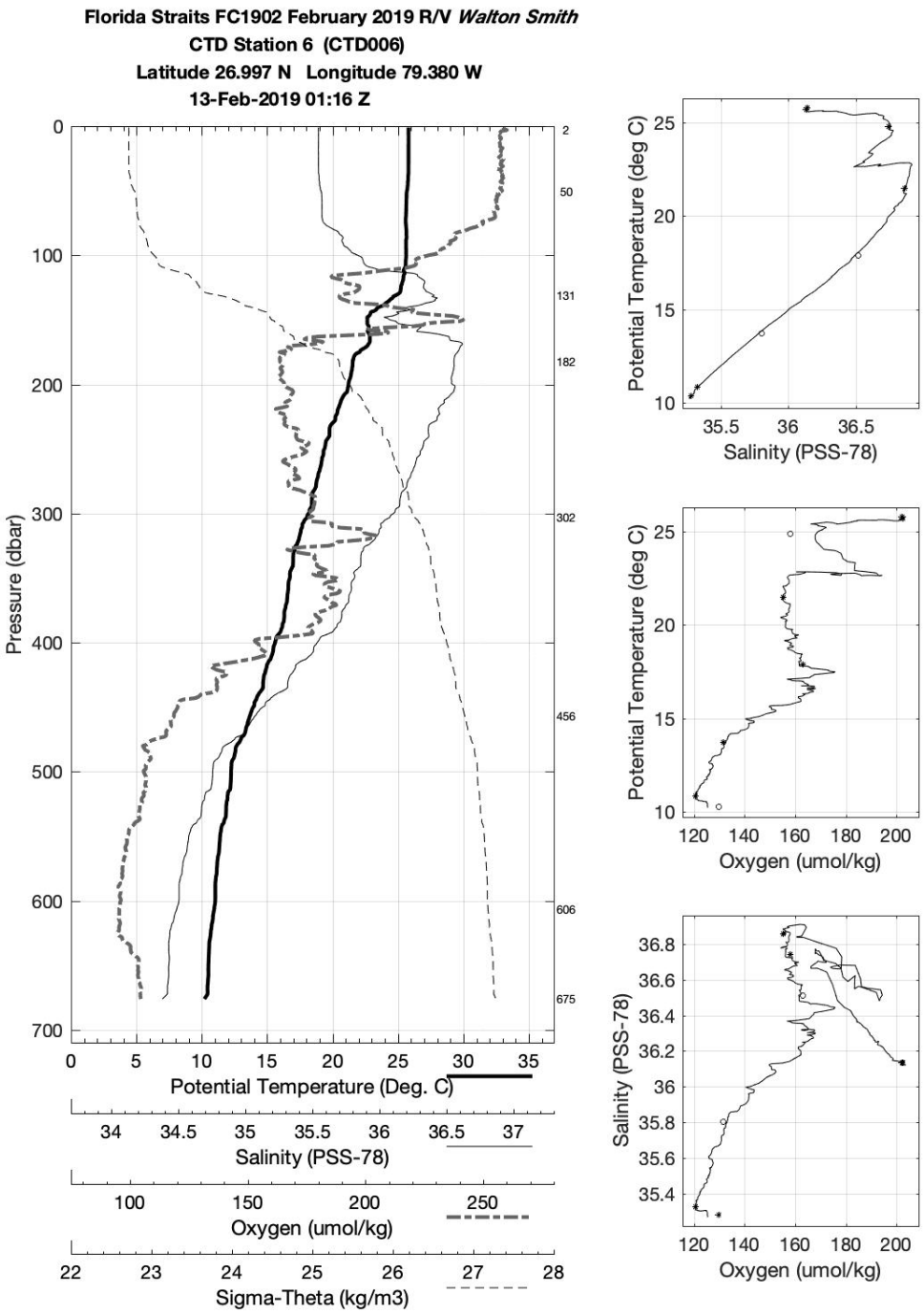
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
740	1	6.854	6.783	34.907	134.9
605	2	9.006	8.938	35.075	120.0
456	3	11.373	11.314	35.409	124.1
303	4	17.117	17.066	36.339	147.9
181	5	21.352	21.316	36.857	156.4
131	6	23.600	23.572	36.662	179.0
52	7	25.824	25.812	36.076	200.9
3	13	25.923	25.925	−999.000	−999.0


Florida Straits FC1902 February 2019 R/V Walton Smith
CTD Station 5 (CTD005)
Latitude 26.994 N Longitude 79.497 W
13-Feb-2019 03:02 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)

Florida Straits FC1902 February 2019 R/V *Walton Smith*
CTD Station 6 (CTD006)
Latitude 26.997N Longitude 79.380W
13-Feb-2019 01:16Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	25.803	25.803	36.122	203.0	0.004	23.942
10	25.808	25.805	36.122	202.4	0.040	23.941
20	25.807	25.802	36.122	202.4	0.079	23.942
30	25.808	25.802	36.122	202.4	0.119	23.942
50	25.694	25.683	36.136	202.7	0.198	23.989
75	25.607	25.591	36.152	198.6	0.296	24.030
100	25.642	25.620	36.336	186.9	0.392	24.160
125	25.252	25.225	36.697	172.2	0.483	24.555
150	22.686	22.656	36.512	194.4	0.560	25.181
200	21.251	21.212	36.856	156.0	0.683	25.849
250	19.416	19.370	36.689	160.1	0.785	26.217
300	18.217	18.164	36.533	162.0	0.876	26.406
400	15.661	15.597	36.115	150.1	1.033	26.698
500	12.306	12.239	35.543	126.1	1.167	26.965
600	11.098	11.022	35.358	121.2	1.285	27.051

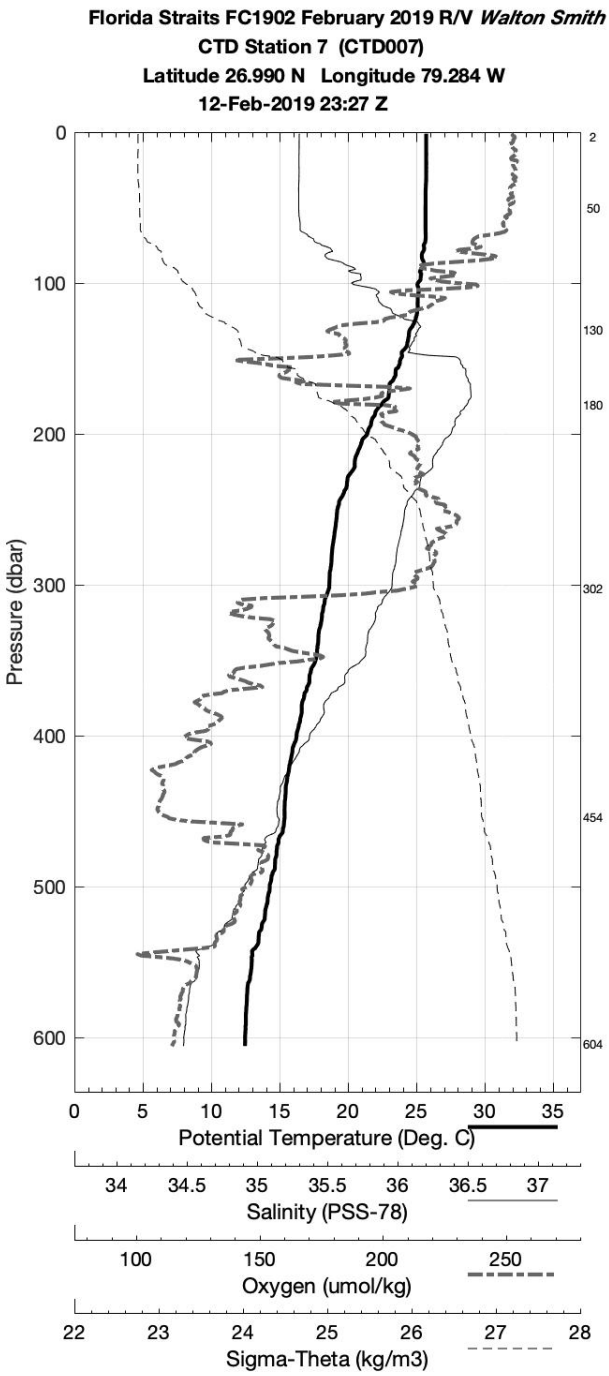
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
675	1	10.426	10.343	35.282	129.7
607	2	10.887	10.811	35.326	120.8
457	3	13.781	13.715	35.802	131.6
303	4	17.926	17.873	36.512	163.1
182	5	21.520	21.484	36.859	155.2
131	6	24.830	24.802	36.742	158.1
51	7	25.724	25.713	36.133	202.6
3	13	25.797	25.796	36.136	202.2

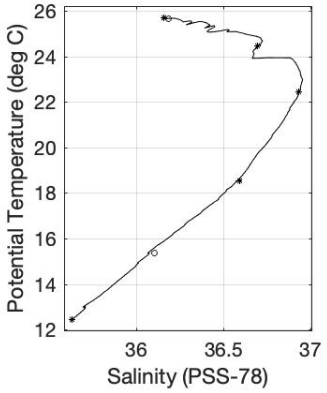

Florida Straits FC1902 February 2019 R/V Walton Smith
CTD Station 6 (CTD006)
Latitude 26.997 N Longitude 79.380 W
13-Feb-2019 01:16 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

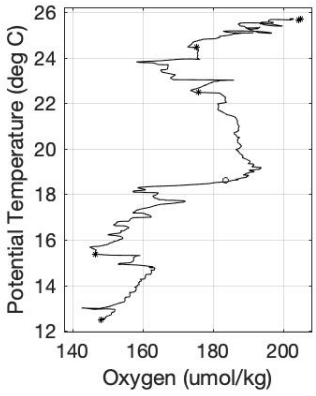
Florida Straits FC1902 February 2019 R/V *Walton Smith*
CTD Station 7 (CTD007)
Latitude 26.990N Longitude 79.284W
12-Feb-2019 23:27Z

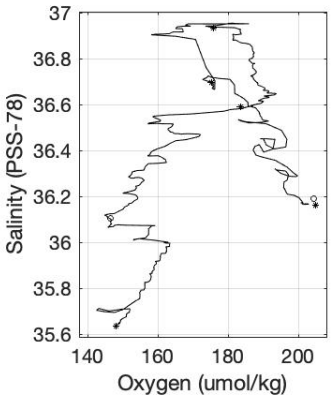
Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	25.703	25.703	36.168	202.4	0.004	24.007
10	25.704	25.702	36.167	202.1	0.039	24.007
20	25.709	25.705	36.166	202.8	0.078	24.006
30	25.707	25.700	36.166	202.7	0.117	24.007
50	25.667	25.656	36.165	202.0	0.195	24.020
75	25.527	25.510	36.270	196.8	0.292	24.145
100	25.116	25.094	36.406	193.1	0.385	24.376
125	24.912	24.885	36.685	181.9	0.472	24.650
150	23.892	23.860	36.898	165.1	0.551	25.121
200	21.442	21.403	36.863	186.1	0.679	25.801
250	19.268	19.222	36.652	191.1	0.782	26.227
300	18.677	18.623	36.593	187.1	0.873	26.336
400	16.299	16.234	36.215	150.5	1.039	26.629
500	14.348	14.273	35.918	160.3	1.184	26.838
600	12.552	12.470	35.638	148.5	1.312	26.993

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
605	1	12.540	12.457	35.633	148.4
454	2	15.435	15.364	36.106	146.6
303	3	18.586	18.532	36.592	183.5
181	4	22.491	22.455	36.934	175.8
131	5	24.501	24.473	36.697	175.2
50	6	25.671	25.659	36.188	204.3
3	7	25.693	25.692	36.161	204.8


Florida Straits FC1902 February 2019 R/V Walton Smith
CTD Station 7 (CTD007)
Latitude 26.990 N Longitude 79.284 W
12-Feb-2019 23:27 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)


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

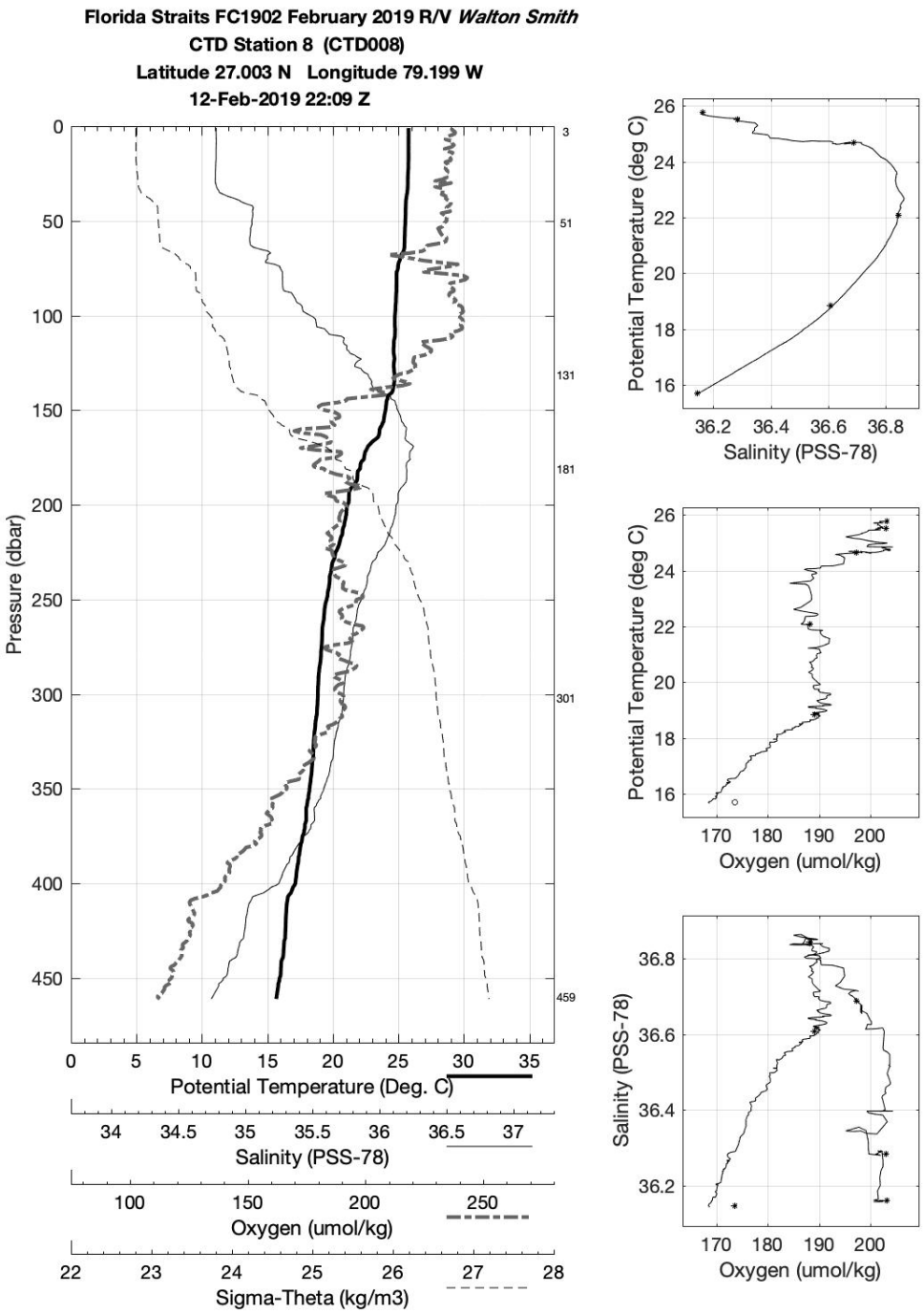

Potential Temperature (deg C)
Oxygen (umol/kg)


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

Florida Straits FC1902 February 2019 R/V *Walton Smith*
CTD Station 8 (CTD008)
Latitude 27.003N Longitude 79.199W
12-Feb-2019 22:09Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	25.772	25.772	36.161	202.5	0.004	23.981
10	25.771	25.769	36.161	202.8	0.039	23.982
20	25.760	25.755	36.160	202.0	0.078	23.985
30	25.722	25.716	36.158	202.5	0.118	23.996
50	25.535	25.524	36.288	202.0	0.194	24.154
75	24.987	24.970	36.389	201.0	0.287	24.401
100	24.758	24.737	36.496	203.2	0.374	24.553
125	24.681	24.654	36.659	198.1	0.458	24.701
150	24.042	24.010	36.808	187.8	0.537	25.008
200	21.139	21.100	36.803	190.2	0.666	25.839
250	19.568	19.522	36.679	191.5	0.770	26.169
300	18.901	18.847	36.616	189.8	0.863	26.296
400	17.192	17.125	36.384	176.0	1.037	26.547

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
460	1	15.778	15.705	36.146	173.7
302	2	18.898	18.844	36.608	189.1
181	3	22.116	22.080	36.845	188.2
131	4	24.728	24.700	36.689	197.3
51	5	25.523	25.512	36.284	203.0
3	6	25.762	25.761	36.162	203.1

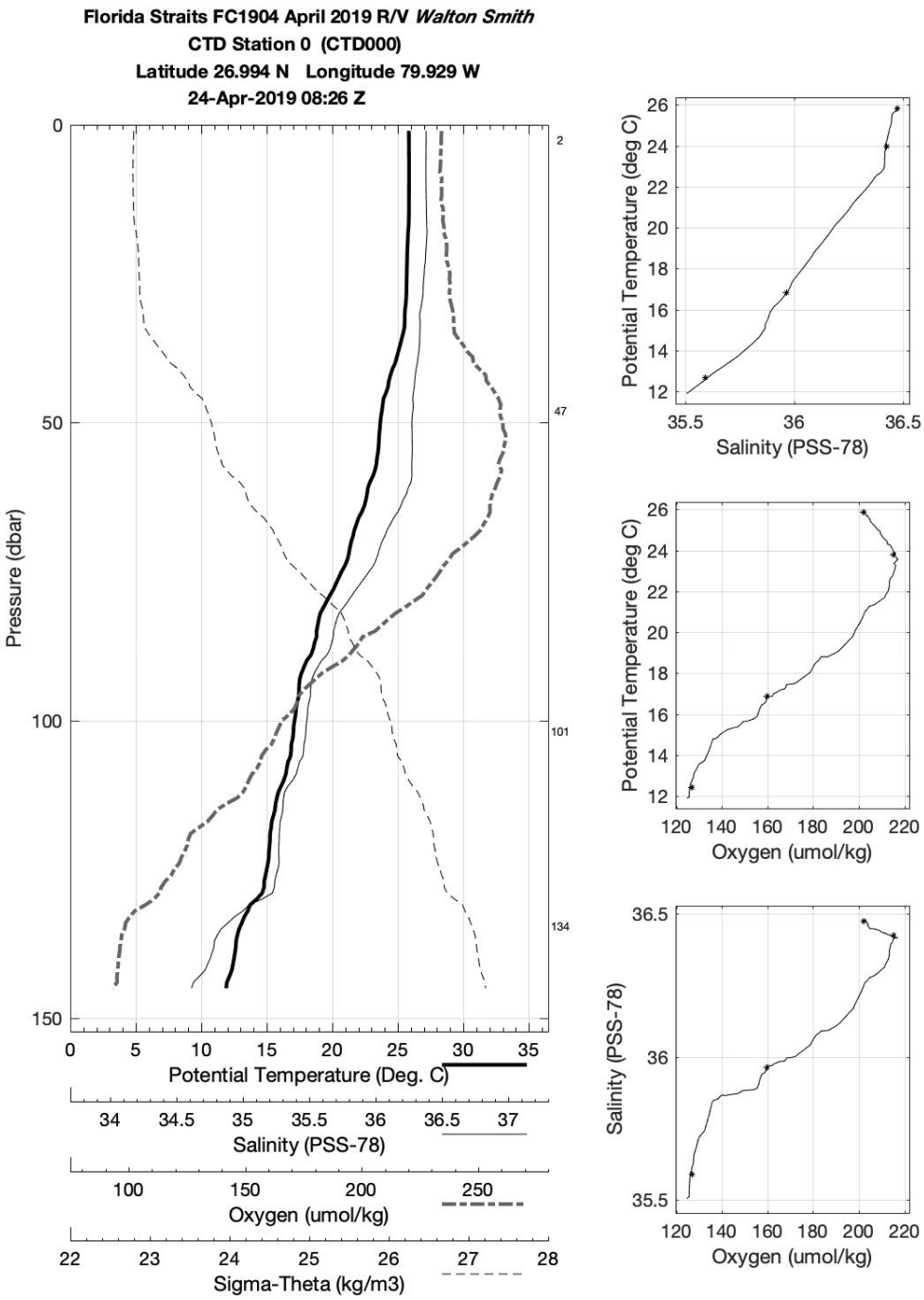

Florida Straits FC1902 February 2019 R/V Walton Smith
CTD Station 8 (CTD008)
Latitude 27.003 N Longitude 79.199 W
12-Feb-2019 22:09 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

A.2 FC1904 - April 2019

Florida Straits FC1904 April 2019 R/V *Walton Smith*
CTD Station 0 (CTD000)
Latitude 26.994N Longitude 79.929W
24-Apr-2019 08:26Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	25.844	25.843	36.474	202.1	0.004	24.195
10	25.859	25.857	36.474	202.0	0.037	24.191
20	25.754	25.750	36.475	203.2	0.074	24.225
30	25.617	25.611	36.456	204.3	0.111	24.254
50	23.670	23.660	36.415	216.5	0.180	24.814
75	20.728	20.714	36.239	201.7	0.251	25.515
100	17.137	17.120	35.982	164.6	0.302	26.239
125	15.020	15.001	35.862	139.2	0.343	26.636

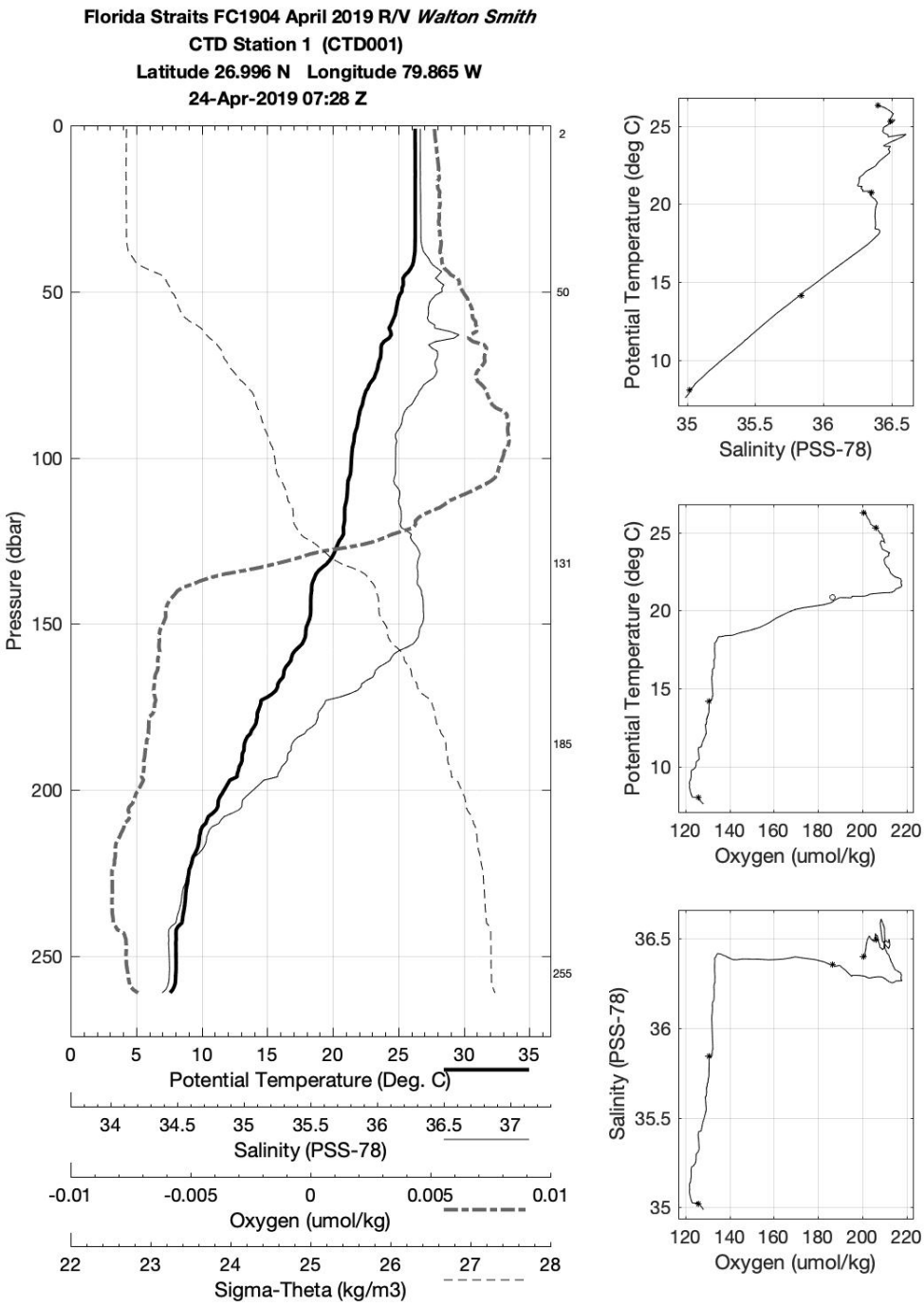
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
135	1	12.699	12.680	35.590	126.9
102	2	16.840	16.823	35.964	159.9
48	3	23.968	23.958	36.425	215.2
3	4	25.831	25.830	36.474	202.1


Florida Straits FC1904 April 2019 R/V Walton Smith
CTD Station 0 (CTD000)
Latitude 26.994 N Longitude 79.929 W
24-Apr-2019 08:26 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1904 April 2019 R/V *Walton Smith*
CTD Station 1 (CTD001)
Latitude 26.996N Longitude 79.865W
24-Apr-2019 07:28Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.283	26.283	36.399	199.9	0.004	24.000
10	26.294	26.292	36.398	200.7	0.039	23.997
20	26.298	26.294	36.400	201.3	0.078	23.997
30	26.297	26.290	36.402	201.1	0.117	24.000
50	25.294	25.283	36.518	206.8	0.193	24.402
75	23.261	23.245	36.483	210.0	0.274	24.987
100	21.452	21.433	36.263	216.4	0.344	25.336
125	20.524	20.501	36.353	186.0	0.408	25.660
150	18.111	18.085	36.409	134.2	0.456	26.330
200	11.738	11.712	35.485	128.2	0.525	27.021
250	8.068	8.043	35.025	125.2	0.571	27.287

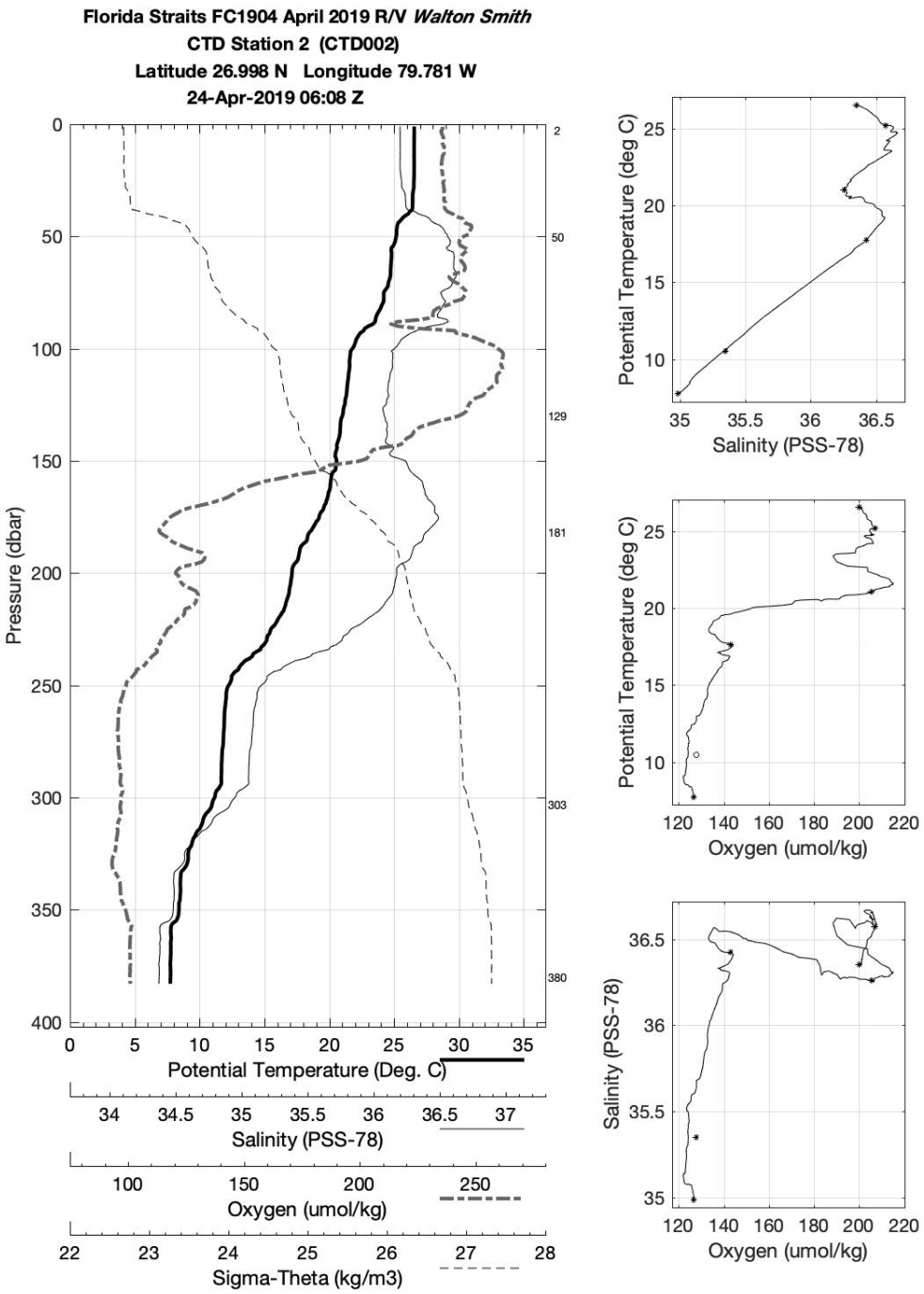
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
255	1	8.116	8.090	35.019	126.1
186	2	14.173	14.146	35.842	130.9
132	3	20.778	20.753	36.355	186.5
50	4	25.322	25.310	36.491	206.2
2	5	26.289	26.288	36.400	200.8


Florida Straits FC1904 April 2019 R/V Walton Smith
CTD Station 1 (CTD001)
Latitude 26.996 N Longitude 79.865 W
24-Apr-2019 07:28 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)

Florida Straits FC1904 April 2019 R/V *Walton Smith*
CTD Station 2 (CTD002)
Latitude 26.998N Longitude 79.781W
24-Apr-2019 06:08Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.554	26.553	36.351	200.7	0.004	23.878
10	26.549	26.547	36.351	201.1	0.040	23.880
20	26.553	26.549	36.351	200.5	0.080	23.880
30	26.471	26.464	36.374	201.0	0.121	23.924
50	25.177	25.166	36.618	205.6	0.195	24.514
75	24.221	24.205	36.578	206.2	0.278	24.775
100	21.797	21.777	36.318	213.8	0.352	25.283
125	21.218	21.194	36.271	206.9	0.418	25.408
150	20.597	20.568	36.380	181.1	0.481	25.663
200	17.156	17.123	36.331	137.2	0.577	26.507
250	12.274	12.241	35.569	125.5	0.647	26.984
300	11.204	11.166	35.422	124.3	0.702	27.074

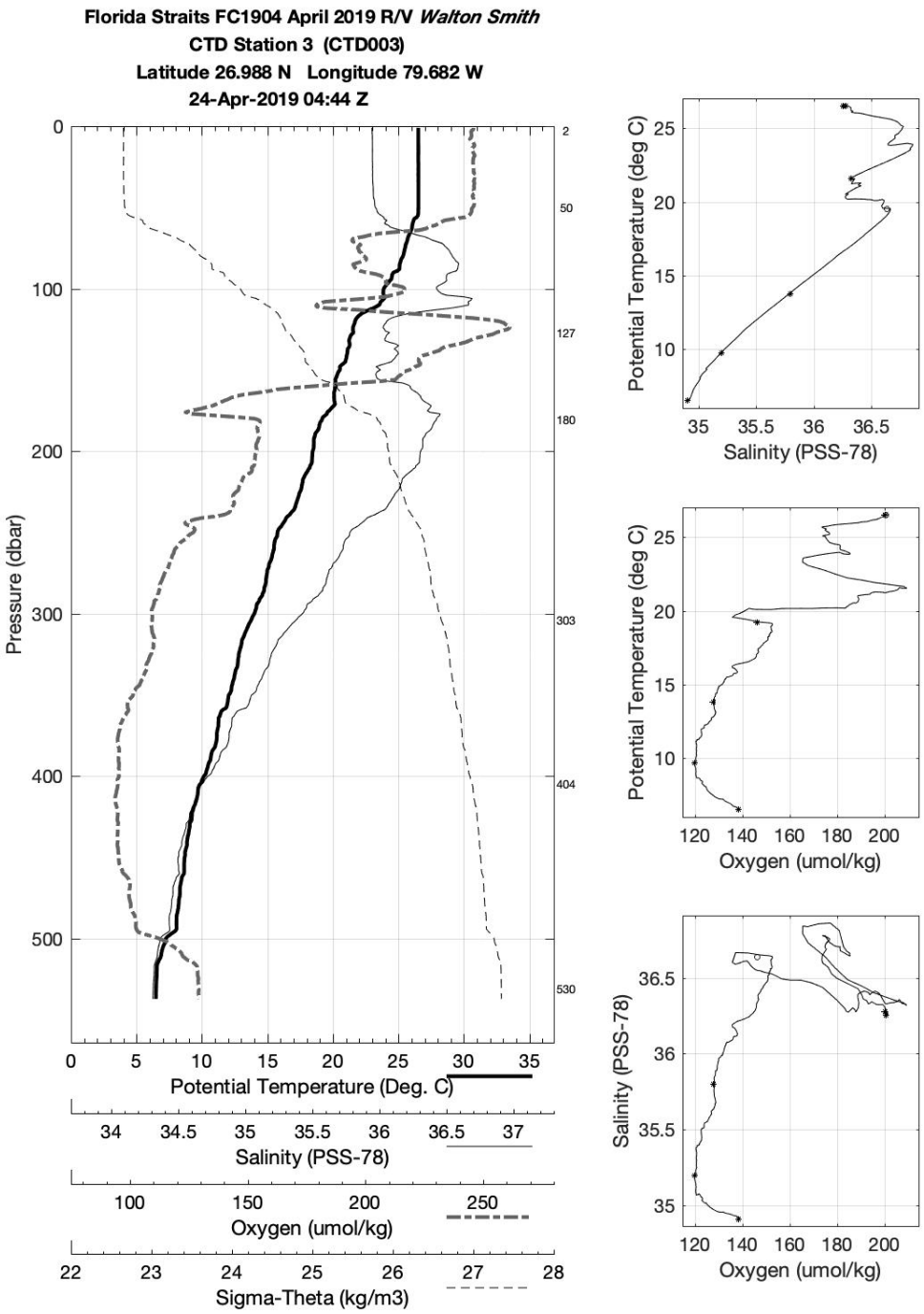
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
380	1	7.794	7.755	34.983	126.7
303	2	10.576	10.539	35.349	127.9
182	3	17.773	17.742	36.424	143.0
130	4	21.031	21.006	36.260	205.6
50	5	25.220	25.209	36.573	207.1
3	6	26.530	26.529	36.354	199.9


Florida Straits FC1904 April 2019 R/V *Walton Smith*
CTD Station 2 (CTD002)
Latitude 26.998 N Longitude 79.781 W
24-Apr-2019 06:08 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)

Florida Straits FC1904 April 2019 R/V *Walton Smith*
CTD Station 3 (CTD003)
Latitude 26.988N Longitude 79.682W
24-Apr-2019 04:44Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.515	26.515	36.251	201.1	0.004	23.815
10	26.518	26.516	36.253	201.0	0.041	23.816
20	26.521	26.517	36.253	201.1	0.082	23.816
30	26.527	26.520	36.254	201.0	0.123	23.816
50	26.534	26.523	36.271	200.9	0.204	23.828
75	25.514	25.498	36.709	174.8	0.300	24.480
100	23.889	23.868	36.645	185.5	0.381	24.927
125	21.553	21.528	36.327	208.9	0.452	25.359
150	20.553	20.525	36.302	186.5	0.515	25.615
200	18.489	18.453	36.548	151.7	0.615	26.344
250	15.802	15.762	36.115	137.4	0.696	26.661
300	14.036	13.992	35.825	128.0	0.765	26.827
400	10.191	10.144	35.248	120.6	0.881	27.121
500	7.281	7.232	34.956	129.8	0.974	27.351

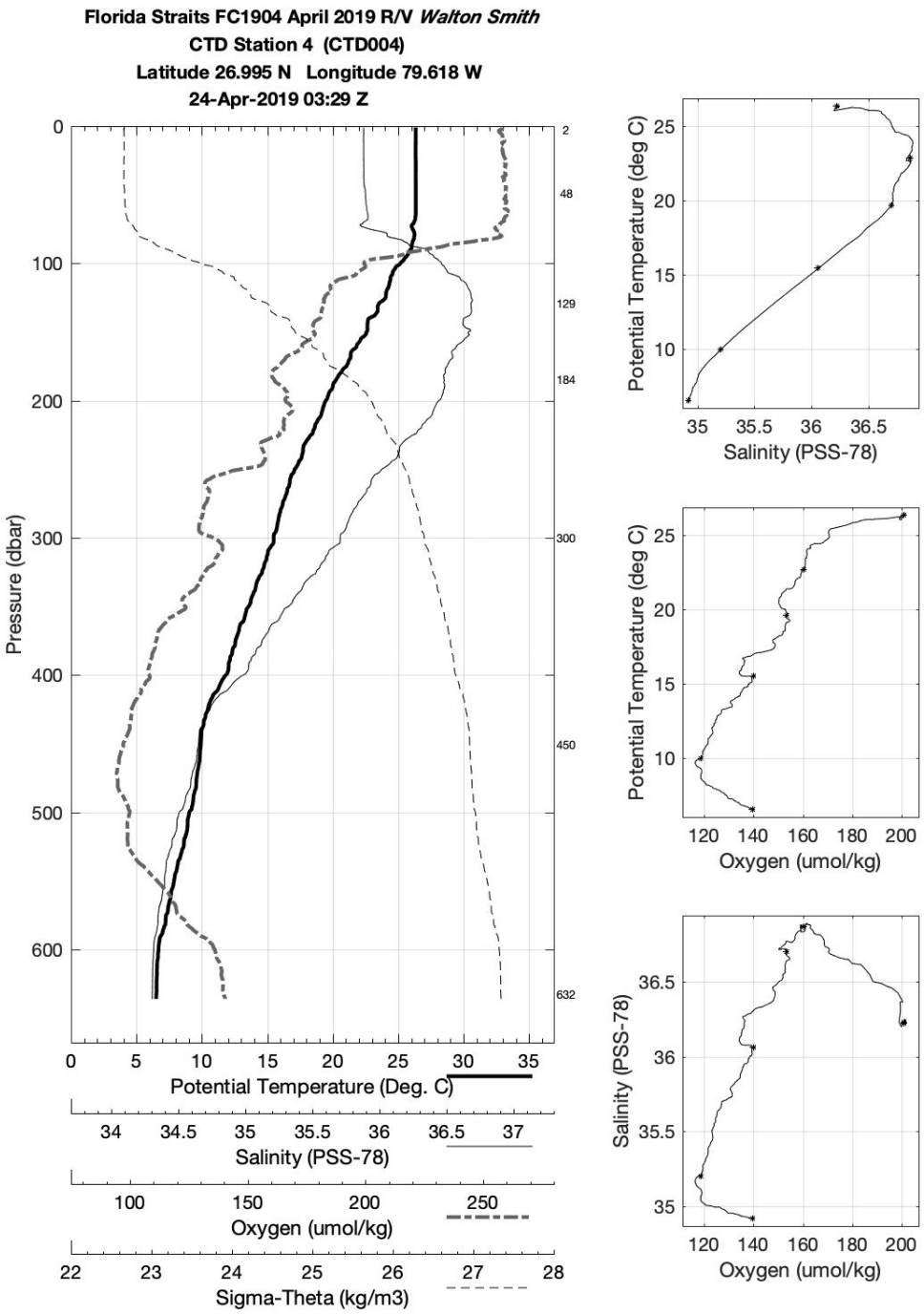
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
531	1	6.542	6.493	34.906	138.4
405	2	9.762	9.715	35.197	119.7
304	3	13.797	13.753	35.797	127.6
181	4	19.544	19.510	36.634	146.1
127	5	21.591	21.566	36.326	217.7
50	6	26.511	26.500	36.275	200.1
3	7	26.502	26.501	36.253	200.4


Florida Straits FC1904 April 2019 R/V Walton Smith
CTD Station 3 (CTD003)
Latitude 26.988 N Longitude 79.682 W
24-Apr-2019 04:44 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)

Florida Straits FC1904 April 2019 R/V *Walton Smith*
CTD Station 4 (CTD004)
Latitude 26.995N Longitude 79.618W
24-Apr-2019 03:29Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.347	26.346	36.221	200.6	0.004	23.846
10	26.344	26.342	36.221	200.7	0.040	23.847
20	26.339	26.335	36.221	200.7	0.081	23.850
30	26.351	26.344	36.222	201.3	0.122	23.847
50	26.358	26.347	36.233	201.3	0.203	23.855
75	26.119	26.102	36.258	199.2	0.304	23.950
100	25.197	25.175	36.700	170.3	0.397	24.573
125	24.067	24.040	36.885	161.8	0.475	25.057
150	22.608	22.578	36.864	159.5	0.543	25.471
200	19.500	19.463	36.684	153.1	0.653	26.189
250	17.134	17.092	36.332	143.4	0.740	26.515
300	15.535	15.488	36.077	137.5	0.816	26.693
400	11.880	11.827	35.479	123.3	0.944	26.995
500	9.095	9.039	35.086	119.0	1.049	27.179
600	6.747	6.691	34.928	137.7	1.137	27.405

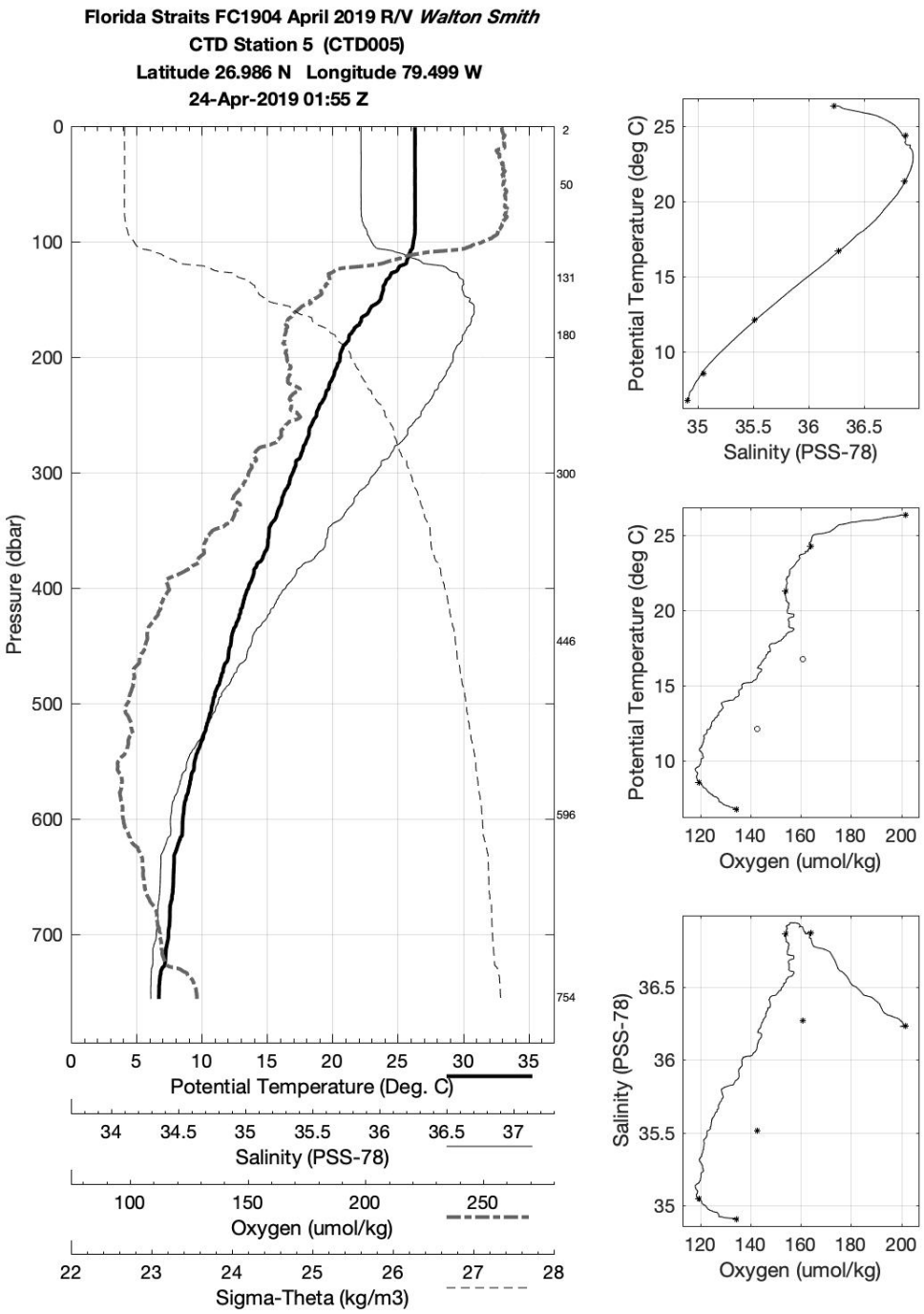
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
633	1	6.568	6.509	34.917	139.7
451	2	10.019	9.966	35.200	118.5
300	3	15.469	15.422	36.059	140.0
185	4	19.666	19.632	36.702	153.4
129	5	22.886	22.859	36.867	160.4
49	6	26.353	26.342	36.227	200.9
3	7	26.332	26.332	36.225	200.9


Florida Straits FC1904 April 2019 R/V Walton Smith
CTD Station 4 (CTD004)
Latitude 26.995 N Longitude 79.618 W
24-Apr-2019 03:29 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)

Florida Straits FC1904 April 2019 R/V *Walton Smith*
CTD Station 5 (CTD005)
Latitude 26.986N Longitude 79.499W
24-Apr-2019 01:55Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.317	26.317	36.229	200.7	0.004	23.862
10	26.322	26.319	36.229	201.1	0.040	23.860
20	26.321	26.316	36.229	200.1	0.081	23.861
30	26.323	26.316	36.229	200.5	0.121	23.862
50	26.331	26.320	36.229	201.0	0.202	23.860
75	26.338	26.321	36.231	201.5	0.304	23.861
100	26.220	26.198	36.295	196.6	0.405	23.949
125	24.987	24.959	36.786	164.8	0.498	24.704
150	23.715	23.683	36.915	160.0	0.572	25.186
200	20.632	20.594	36.808	154.5	0.690	25.982
250	18.831	18.786	36.605	157.0	0.788	26.303
300	17.018	16.967	36.321	146.3	0.872	26.536
400	13.633	13.576	35.757	129.0	1.016	26.861
500	10.904	10.842	35.331	120.1	1.137	27.062
600	8.616	8.551	35.034	119.2	1.240	27.216
700	7.524	7.453	34.945	127.2	1.332	27.311

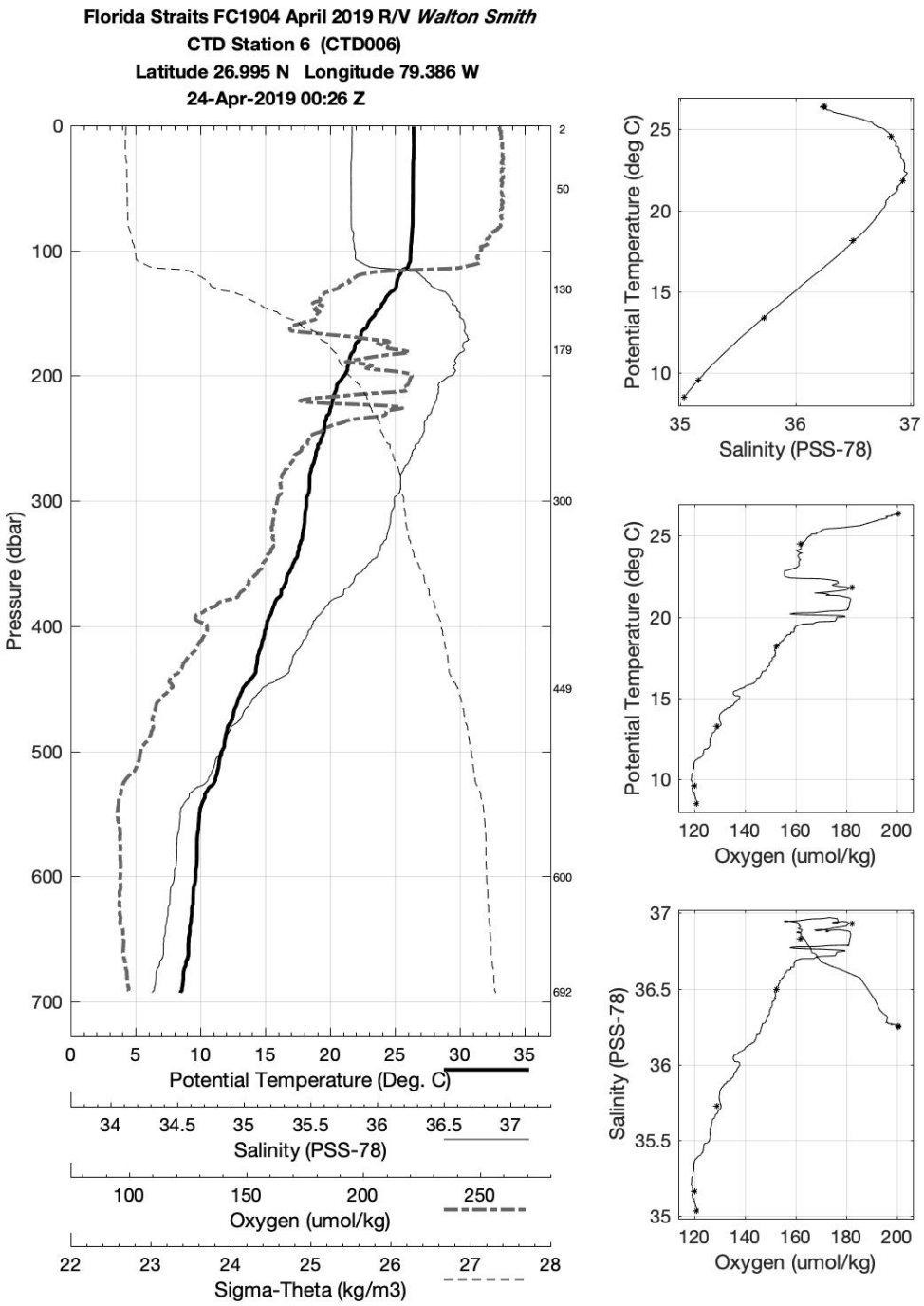
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
755	1	6.811	6.738	34.902	134.6
596	2	8.586	8.522	35.047	119.5
446	3	12.141	12.081	35.512	142.5
301	4	16.745	16.696	36.270	160.7
181	5	21.367	21.332	36.865	154.2
131	6	24.388	24.360	36.872	163.9
51	7	26.335	26.324	36.229	201.7
3	13	26.317	26.316	36.230	−999.0


Florida Straits FC1904 April 2019 R/V Walton Smith
CTD Station 5 (CTD005)
Latitude 26.986 N Longitude 79.499 W
24-Apr-2019 01:55 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1904 April 2019 R/V *Walton Smith*
CTD Station 6 (CTD006)
Latitude 26.995N Longitude 79.386W
24-Apr-2019 00:26Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.431	26.431	36.257	200.5	0.004	23.847
10	26.444	26.441	36.256	200.9	0.041	23.842
20	26.449	26.445	36.256	201.2	0.081	23.841
30	26.400	26.394	36.250	200.9	0.122	23.853
50	26.392	26.380	36.251	201.0	0.203	23.857
75	26.378	26.361	36.251	201.1	0.304	23.864
100	26.233	26.211	36.275	196.5	0.406	23.929
125	25.180	25.153	36.717	168.6	0.499	24.593
150	23.540	23.508	36.917	161.6	0.576	25.239
200	21.120	21.081	36.862	181.9	0.697	25.890
250	19.376	19.330	36.676	159.9	0.797	26.218
300	18.234	18.181	36.515	153.0	0.887	26.388
400	15.156	15.094	36.010	137.9	1.049	26.730
500	11.707	11.642	35.448	123.8	1.179	27.006
600	9.709	9.639	35.169	119.4	1.288	27.145

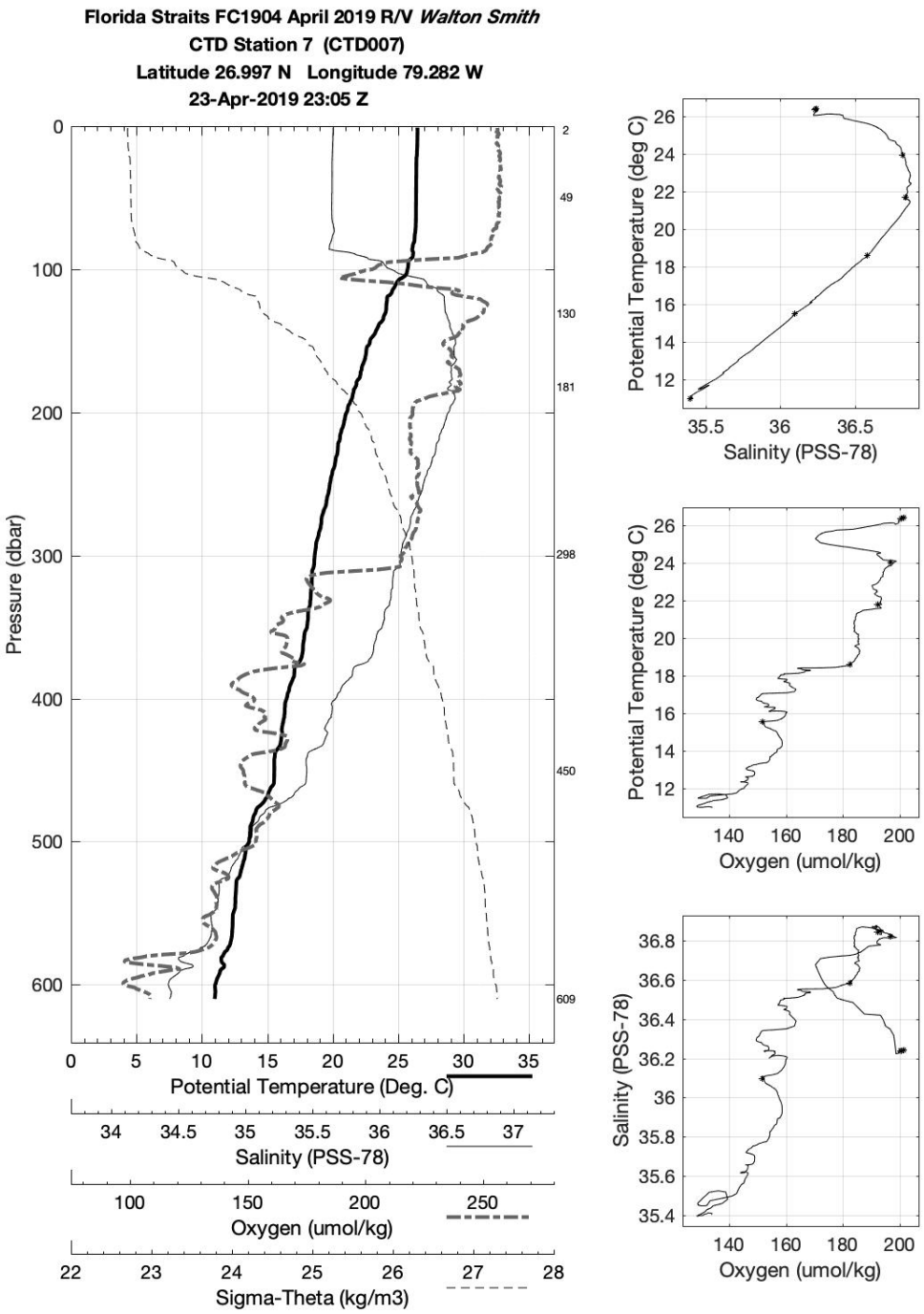
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
692	1	8.542	8.467	35.036	121.0
601	2	9.617	9.547	35.160	120.2
450	3	13.428	13.363	35.728	129.1
300	4	18.173	18.120	36.496	152.5
179	5	21.860	21.825	36.928	182.2
131	6	24.589	24.561	36.830	162.0
51	7	26.378	26.367	36.248	200.5
3	13	26.411	26.411	36.253	200.8


Florida Straits FC1904 April 2019 R/V Walton Smith
CTD Station 6 (CTD006)
Latitude 26.995 N Longitude 79.386 W
24-Apr-2019 00:26 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1904 April 2019 R/V *Walton Smith*
CTD Station 7 (CTD007)
Latitude 26.997N Longitude 79.282W
23-Apr-2019 23:05Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.466	26.465	36.243	200.8	0.004	23.825
10	26.457	26.455	36.241	200.9	0.041	23.827
20	26.419	26.415	36.239	201.3	0.081	23.838
30	26.382	26.375	36.237	201.5	0.122	23.849
50	26.369	26.358	36.236	201.1	0.203	23.854
75	26.288	26.271	36.245	199.9	0.305	23.888
100	25.731	25.709	36.540	176.6	0.402	24.286
125	24.115	24.089	36.817	198.8	0.484	24.992
150	22.866	22.835	36.873	190.7	0.555	25.402
200	21.100	21.061	36.837	184.4	0.676	25.876
250	19.818	19.771	36.708	185.3	0.780	26.126
300	18.669	18.615	36.591	182.1	0.874	26.336
400	16.538	16.472	36.256	153.9	1.045	26.604
500	13.682	13.610	35.817	154.2	1.190	26.901
600	11.085	11.009	35.394	128.8	1.311	27.081

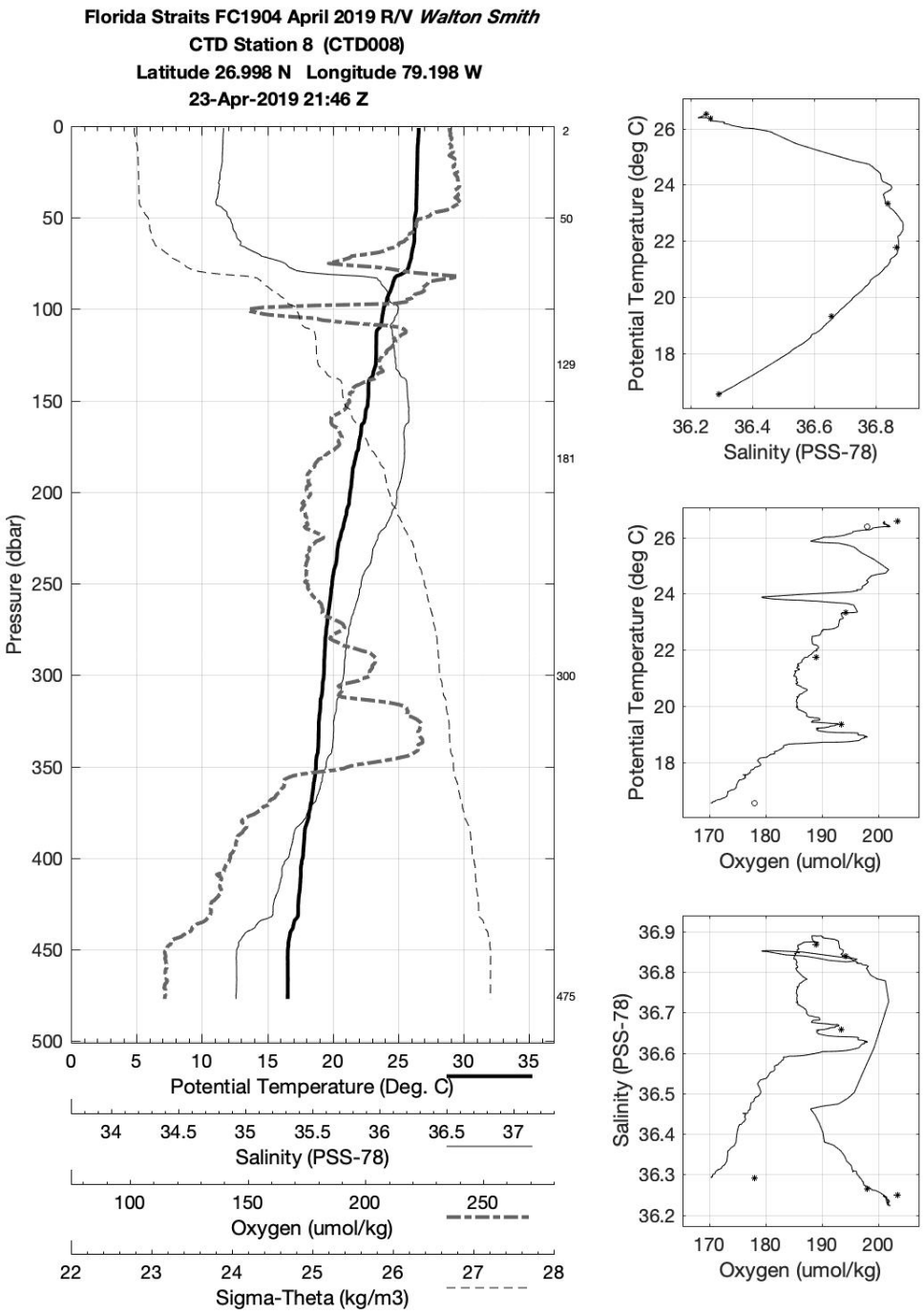
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
610	1	11.047	10.970	35.397	−999.0
450	2	15.578	15.507	36.095	151.7
299	3	18.663	18.610	36.583	182.5
182	4	21.756	21.720	36.843	192.4
131	5	23.973	23.945	36.822	196.8
49	6	26.372	26.361	36.237	200.6
3	7	26.437	26.437	36.242	201.3


Florida Straits FC1904 April 2019 R/V Walton Smith
CTD Station 7 (CTD007)
Latitude 26.997 N Longitude 79.282 W
23-Apr-2019 23:05 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1904 April 2019 R/V *Walton Smith*
CTD Station 8 (CTD008)
Latitude 26.998N Longitude 79.198W
23-Apr-2019 21:46Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	26.566	26.566	36.249	200.9	0.004	23.798
10	26.500	26.498	36.247	201.0	0.041	23.817
20	26.463	26.458	36.244	201.4	0.082	23.828
30	26.426	26.419	36.233	201.8	0.122	23.832
50	26.279	26.268	36.268	198.3	0.204	23.906
75	25.883	25.867	36.462	187.9	0.302	24.178
100	23.905	23.884	36.852	179.3	0.383	25.079
125	23.340	23.314	36.840	193.7	0.453	25.238
150	22.713	22.683	36.886	190.2	0.520	25.457
200	21.371	21.332	36.847	185.9	0.640	25.809
250	19.997	19.951	36.724	185.6	0.746	26.091
300	19.367	19.312	36.664	192.4	0.844	26.213
400	17.772	17.703	36.472	177.4	1.025	26.474

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
475	1	16.634	16.556	36.292	178.0
300	2	19.365	19.310	36.657	193.4
181	3	21.790	21.754	36.868	188.9
130	4	23.341	23.314	36.840	194.2
50	5	26.363	26.351	36.264	198.0
2	6	26.524	26.523	36.249	203.3

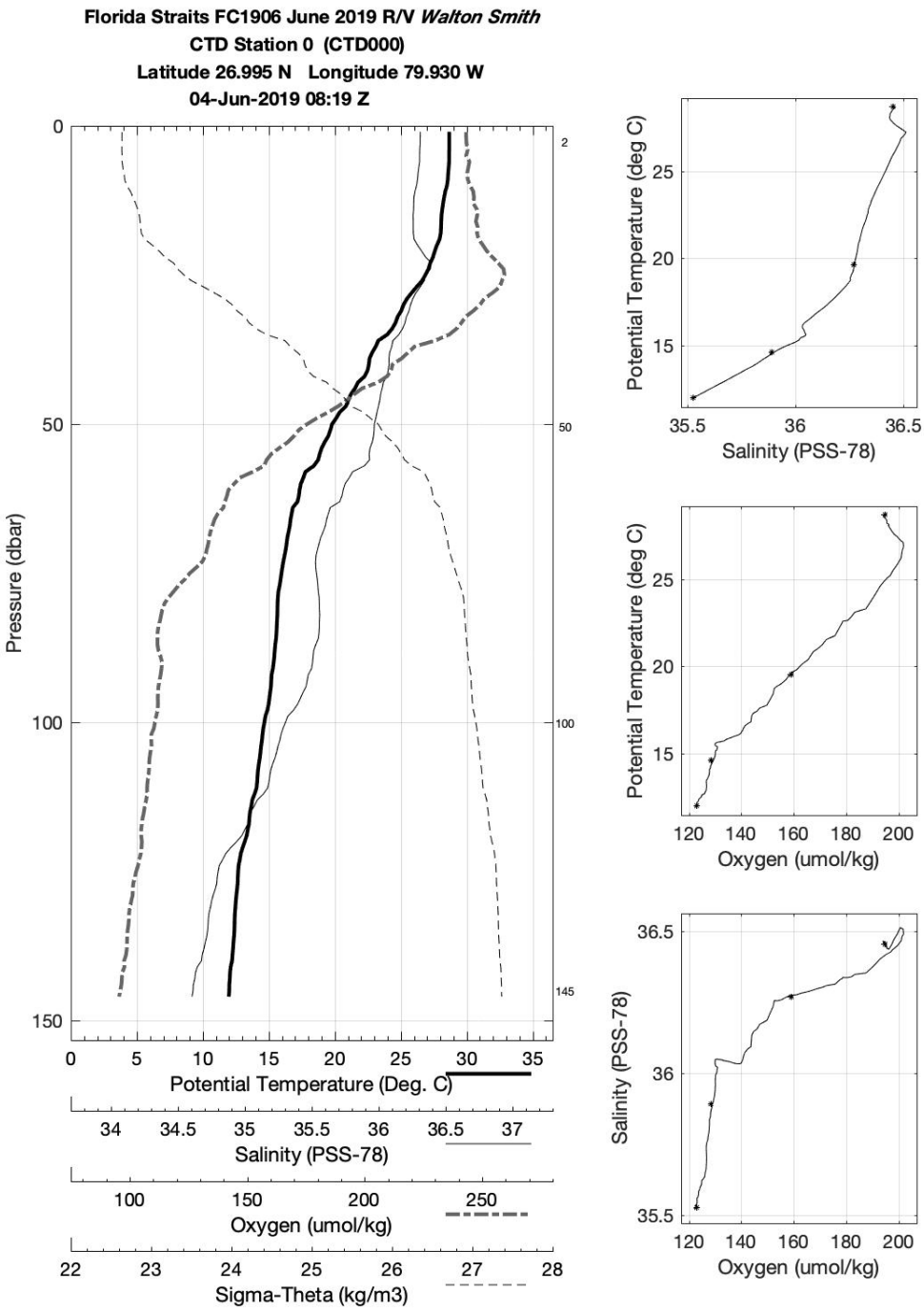

Florida Straits FC1904 April 2019 R/V Walton Smith
CTD Station 8 (CTD008)
Latitude 26.998 N Longitude 79.198 W
23-Apr-2019 21:46 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

A.3 FC1906 - June 2019

Florida Straits FC1906 June 2019 R/V *Walton Smith*
CTD Station 0 (CTD000)
Latitude 26.995N Longitude 79.930W
04-Jun-2019 08:19Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.672	28.672	36.465	194.0	0.005	23.275
10	28.504	28.502	36.450	194.8	0.046	23.319
20	27.746	27.741	36.454	197.5	0.090	23.573
30	25.211	25.205	36.425	196.9	0.130	24.356
50	19.805	19.795	36.275	161.1	0.187	25.789
75	15.972	15.960	36.037	136.8	0.231	26.555
100	14.679	14.664	35.909	129.5	0.266	26.747
125	12.695	12.678	35.631	125.6	0.296	26.946

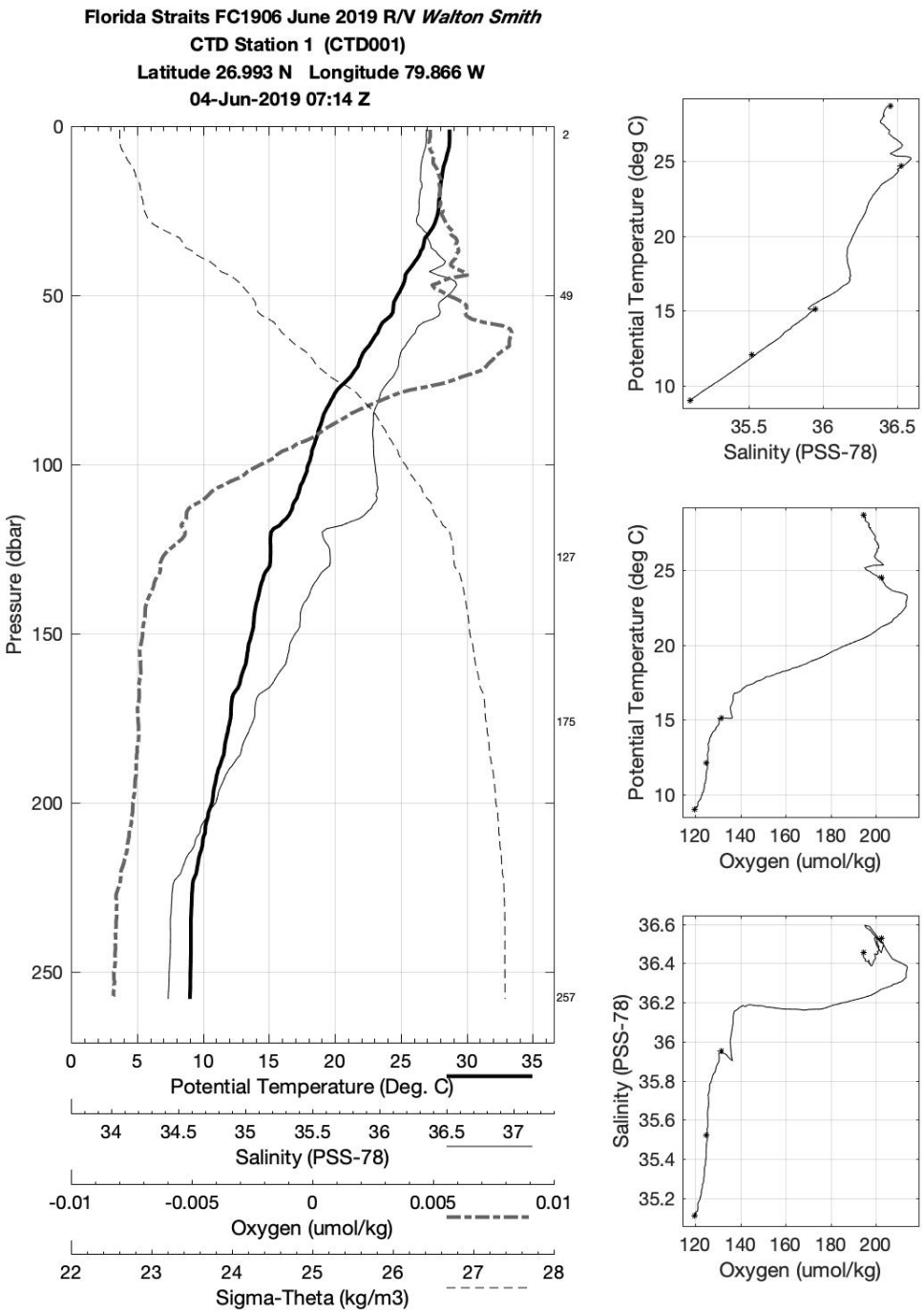
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
145	1	12.029	12.010	35.527	123.2
100	2	14.658	14.643	35.892	128.7
50	3	19.631	19.622	36.269	159.1
3	4	28.662	28.662	36.453	194.8


Florida Straits FC1906 June 2019 R/V Walton Smith
CTD Station 0 (CTD000)
Latitude 26.995 N Longitude 79.930 W
04-Jun-2019 08:19 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1906 June 2019 R/V *Walton Smith*
CTD Station 0 (CTD000)
Latitude 26.995N Longitude 79.930W
04-Jun-2019 08:19Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.672	28.672	36.465	194.0	0.005	23.275
10	28.504	28.502	36.450	194.8	0.046	23.319
20	27.746	27.741	36.454	197.5	0.090	23.573
30	25.211	25.205	36.425	196.9	0.130	24.356
50	19.805	19.795	36.275	161.1	0.187	25.789
75	15.972	15.960	36.037	136.8	0.231	26.555
100	14.679	14.664	35.909	129.5	0.266	26.747
125	12.695	12.678	35.631	125.6	0.296	26.946

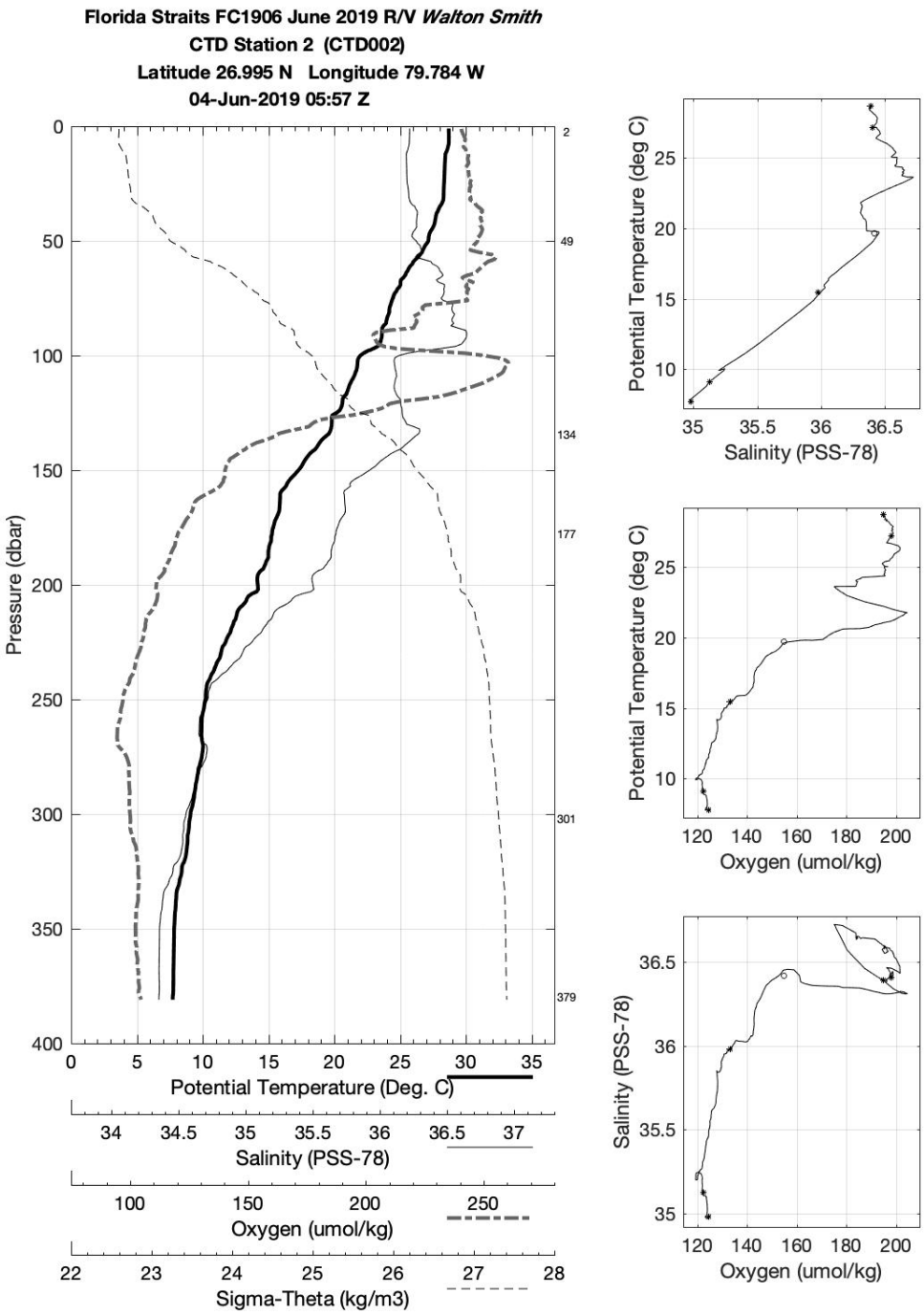
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
145	1	12.029	12.010	35.527	123.2
100	2	14.658	14.643	35.892	128.7
50	3	19.631	19.622	36.269	159.1
3	4	28.662	28.662	36.453	194.8


Florida Straits FC1906 June 2019 R/V Walton Smith
CTD Station 1 (CTD001)
Latitude 26.993 N Longitude 79.866 W
04-Jun-2019 07:14 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)

Florida Straits FC1906 June 2019 R/V *Walton Smith*
CTD Station 2 (CTD002)
Latitude 26.995N Longitude 79.784W
04-Jun-2019 05:57Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.699	28.699	36.399	194.2	0.005	23.216
10	28.601	28.598	36.389	195.1	0.046	23.242
20	28.381	28.376	36.382	195.7	0.092	23.310
30	28.314	28.307	36.394	195.8	0.138	23.342
50	27.159	27.147	36.436	197.7	0.224	23.753
75	24.466	24.449	36.578	195.1	0.316	24.702
100	22.003	21.983	36.338	199.0	0.391	25.240
125	20.193	20.169	36.356	172.8	0.455	25.751
150	17.309	17.284	36.171	142.7	0.504	26.345
200	14.212	14.182	35.848	127.8	0.576	26.804
250	10.248	10.218	35.248	120.5	0.631	27.108
300	9.108	9.075	35.124	122.1	0.680	27.204

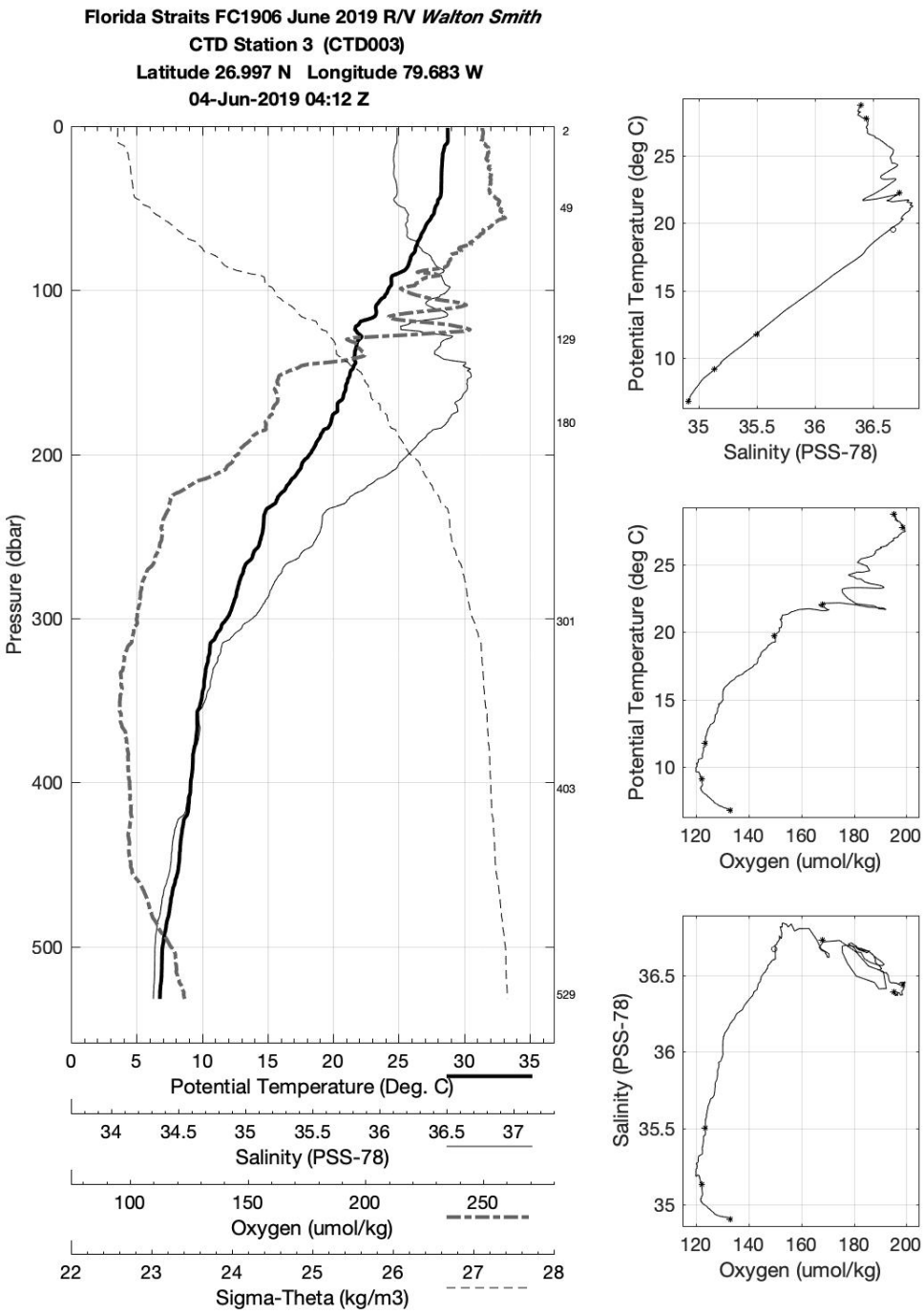
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
380	1	7.763	7.724	34.981	124.3
302	2	9.103	9.070	35.127	122.2
178	3	15.473	15.446	35.980	133.2
134	4	19.669	19.644	36.417	154.9
50	5	27.143	27.132	36.406	198.0
2	6	28.661	28.661	36.389	194.8


Florida Straits FC1906 June 2019 R/V Walton Smith
CTD Station 2 (CTD002)
Latitude 26.995 N Longitude 79.784 W
04-Jun-2019 05:57 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1906 June 2019 R/V *Walton Smith*
CTD Station 3 (CTD003)
Latitude 26.997N Longitude 79.683W
04-Jun-2019 04:12Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.746	28.745	36.390	194.9	0.005	23.193
10	28.733	28.731	36.388	194.7	0.047	23.197
20	28.341	28.337	36.368	195.5	0.093	23.312
30	28.276	28.269	36.370	196.7	0.138	23.336
50	27.790	27.778	36.437	198.8	0.228	23.548
75	26.292	26.275	36.538	190.0	0.331	24.108
100	24.200	24.179	36.698	178.5	0.417	24.874
125	21.811	21.786	36.524	191.2	0.489	25.437
150	21.337	21.308	36.832	154.4	0.550	25.804
200	18.251	18.216	36.459	144.4	0.650	26.336
250	14.563	14.526	35.905	128.7	0.725	26.774
300	11.948	11.909	35.512	123.4	0.786	27.005
400	9.173	9.129	35.131	122.0	0.886	27.200
500	7.040	6.992	34.920	130.4	0.975	27.357

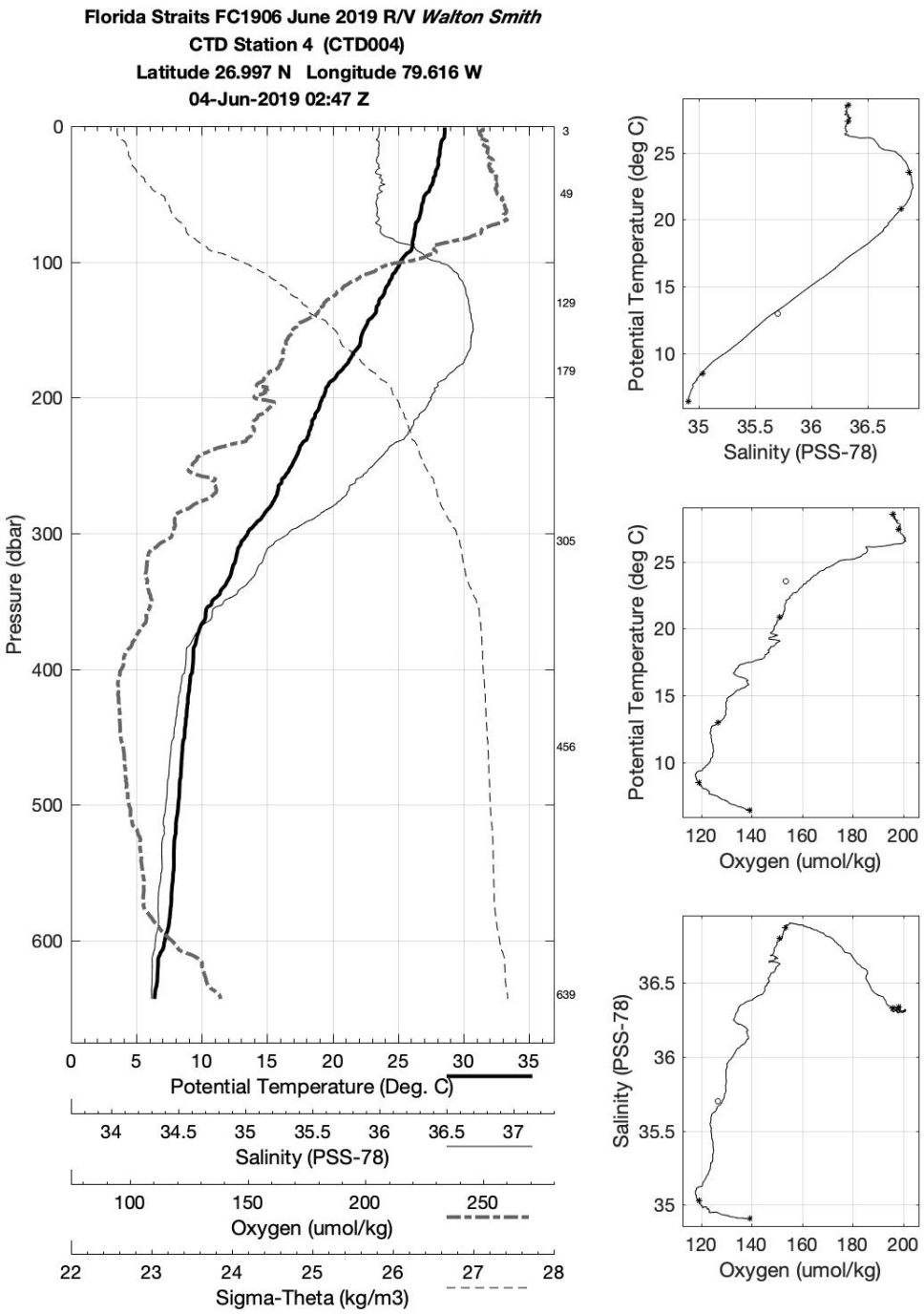
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
529	1	6.838	6.788	34.906	133.2
404	2	9.187	9.142	35.134	122.3
302	3	11.777	11.738	35.502	123.6
181	4	19.569	19.536	36.670	149.6
130	5	22.248	22.222	36.727	168.0
50	6	27.764	27.752	36.439	198.6
2	7	28.740	28.739	36.392	195.3


Florida Straits FC1906 June 2019 R/V Walton Smith
CTD Station 3 (CTD003)
Latitude 26.997 N Longitude 79.683 W
04-Jun-2019 04:12 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1906 June 2019 R/V *Walton Smith*
CTD Station 4 (CTD004)
Latitude 26.997N Longitude 79.616W
04-Jun-2019 02:47Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.564	28.564	36.321	195.9	0.005	23.202
10	28.381	28.379	36.302	196.3	0.047	23.249
20	28.195	28.190	36.317	197.0	0.092	23.323
30	28.037	28.029	36.314	197.3	0.138	23.374
50	27.122	27.111	36.312	199.0	0.225	23.671
75	26.325	26.308	36.332	196.1	0.328	23.941
100	25.193	25.171	36.699	179.1	0.423	24.573
125	23.864	23.838	36.865	164.0	0.500	25.102
150	22.416	22.385	36.905	155.2	0.568	25.557
200	19.249	19.213	36.638	146.8	0.677	26.219
250	16.916	16.874	36.283	133.6	0.763	26.529
300	13.546	13.504	35.756	129.5	0.834	26.875
400	9.321	9.276	35.115	118.4	0.943	27.163
500	8.248	8.195	34.995	120.0	1.037	27.241
600	7.231	7.172	34.931	129.2	1.126	27.340

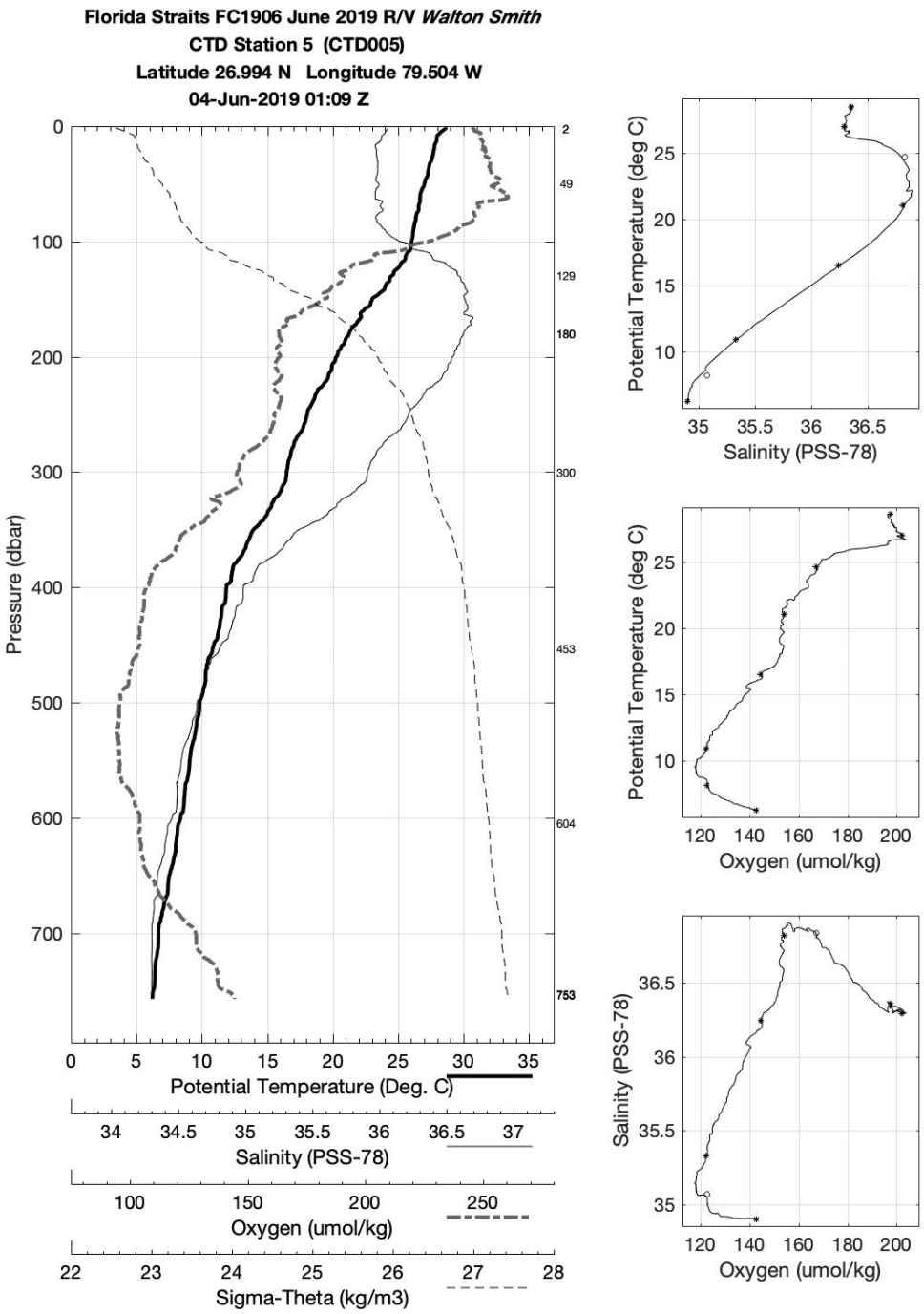
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
639	1	6.485	6.426	34.910	139.3
457	2	8.540	8.492	35.031	119.0
305	3	13.029	12.987	35.703	126.5
180	4	20.822	20.787	36.799	151.2
130	5	23.579	23.552	36.872	153.5
50	6	27.379	27.367	36.335	198.1
3	7	28.544	28.543	36.327	195.9


Florida Straits FC1906 June 2019 R/V Walton Smith
CTD Station 4 (CTD004)
Latitude 26.997 N Longitude 79.616 W
04-Jun-2019 02:47 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)

Florida Straits FC1906 June 2019 R/V *Walton Smith*
CTD Station 5 (CTD005)
Latitude 26.994N Longitude 79.504W
04-Jun-2019 01:09Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.634	28.633	36.373	196.2	0.005	23.218
10	27.968	27.966	36.333	197.7	0.045	23.409
20	27.765	27.760	36.303	198.3	0.090	23.454
30	27.555	27.548	36.307	200.1	0.134	23.525
50	27.024	27.012	36.316	201.5	0.220	23.706
75	26.469	26.452	36.320	196.3	0.323	23.887
100	26.064	26.041	36.446	186.3	0.422	24.112
125	24.801	24.774	36.793	168.3	0.511	24.766
150	23.046	23.015	36.850	163.3	0.585	25.333
200	20.317	20.280	36.772	153.7	0.701	26.039
250	18.098	18.054	36.501	152.3	0.794	26.409
300	16.534	16.485	36.246	144.2	0.875	26.594
400	11.937	11.884	35.476	124.1	1.009	26.981
500	9.892	9.833	35.188	118.3	1.120	27.127
600	8.437	8.372	35.034	122.7	1.220	27.243
700	6.758	6.692	34.908	135.0	1.307	27.389

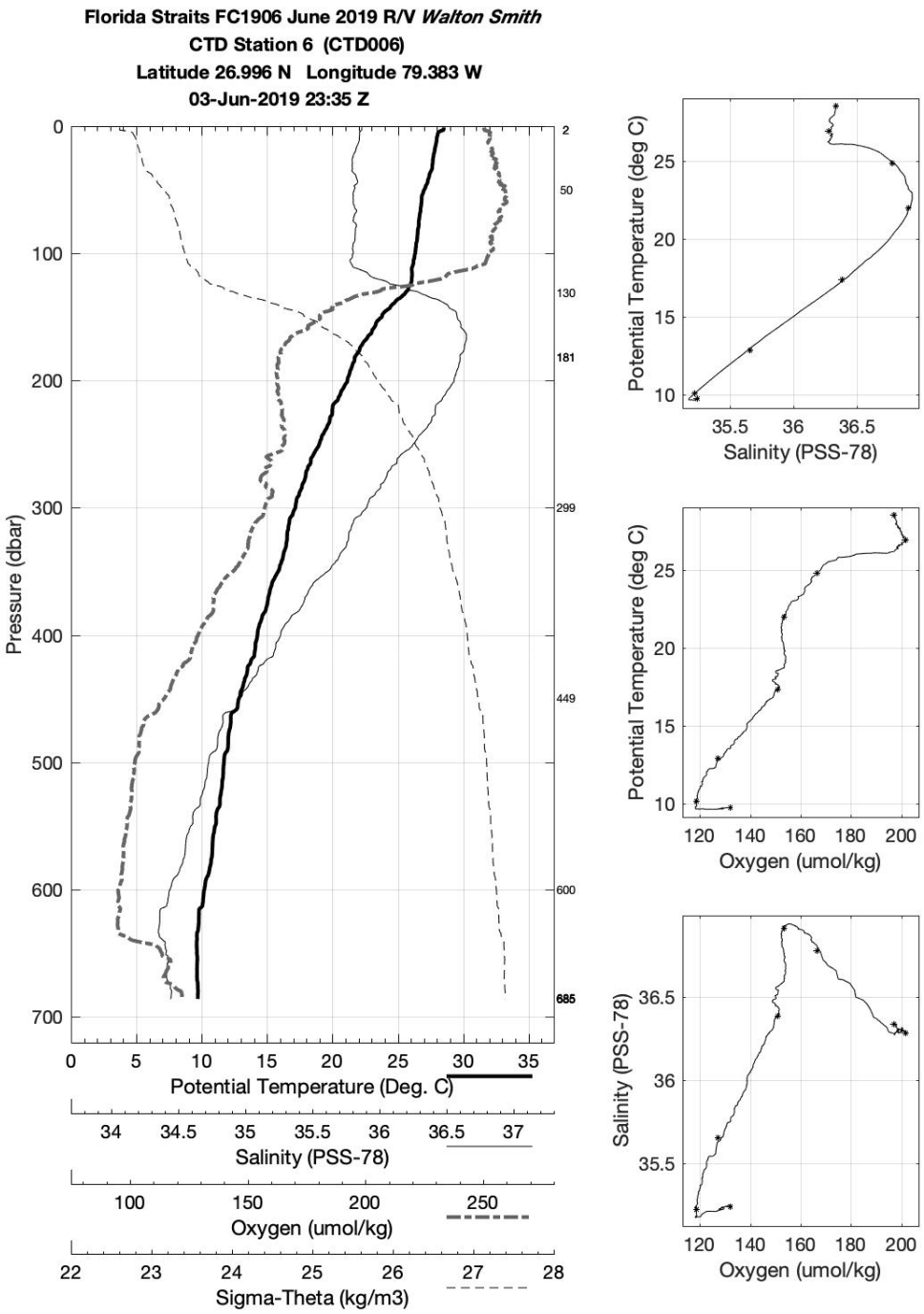
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
754	1	6.301	6.232	34.902	142.6
753	2	6.302	7.448	−999.000	−999.0
604	3	8.261	8.197	35.074	122.6
453	4	10.921	10.865	35.330	122.1
301	5	16.539	16.490	36.242	144.4
180	6	21.072	21.037	36.816	154.1
180	7	21.074	21.224	−999.000	−999.0
130	13	24.700	24.672	36.832	167.1
50	14	27.015	27.004	36.290	202.1
2	15	28.517	28.517	36.356	197.5
2	16	28.516	28.517	−999.000	−999.0


Florida Straits FC1906 June 2019 R/V Walton Smith
CTD Station 5 (CTD005)
Latitude 26.994 N Longitude 79.504 W
04-Jun-2019 01:09 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1906 June 2019 R/V *Walton Smith*
CTD Station 6 (CTD006)
Latitude 26.996N Longitude 79.383W
03-Jun-2019 23:35Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.512	28.512	36.337	196.8	0.005	23.232
10	27.980	27.978	36.323	198.1	0.045	23.397
20	27.814	27.809	36.300	198.3	0.090	23.435
30	27.657	27.650	36.282	199.4	0.134	23.473
50	27.027	27.016	36.294	201.2	0.221	23.688
75	26.620	26.603	36.288	199.8	0.325	23.816
100	26.352	26.329	36.289	198.1	0.427	23.903
125	25.977	25.949	36.538	181.4	0.525	24.210
150	23.802	23.770	36.884	161.5	0.607	25.137
200	21.184	21.145	36.865	152.5	0.729	25.875
250	19.036	18.990	36.631	153.9	0.829	26.271
300	17.205	17.155	36.365	149.7	0.914	26.525
400	14.323	14.264	35.873	135.4	1.062	26.806
500	11.760	11.695	35.460	121.9	1.188	27.005
600	10.274	10.202	35.240	118.3	1.302	27.105

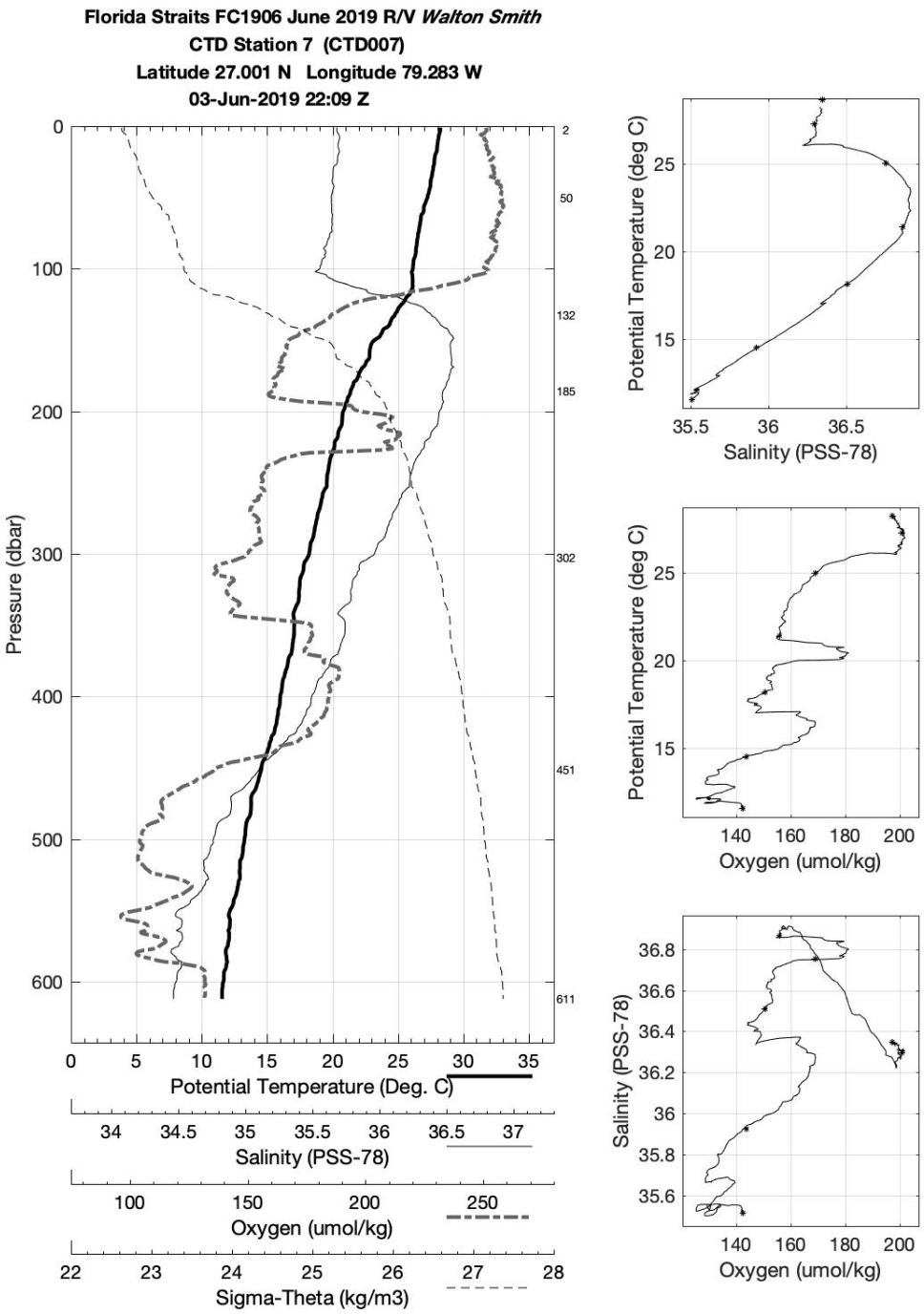
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
685	1	9.785	9.704	35.239	132.1
686	2	9.786	10.717	−999.000	−999.0
686	3	9.781	10.711	−999.000	−999.0
600	4	10.120	10.048	35.222	118.5
450	5	12.911	12.849	35.653	127.3
300	6	17.399	17.348	36.382	150.9
181	7	22.003	21.967	36.905	153.4
182	13	21.985	22.128	−999.000	−999.0
131	14	24.864	24.836	36.775	166.6
50	15	26.934	26.922	36.278	201.7
3	16	28.497	28.497	36.332	197.1
3	17	28.475	28.476	−999.000	−999.0


Florida Straits FC1906 June 2019 R/V Walton Smith
CTD Station 6 (CTD006)
Latitude 26.996 N Longitude 79.383 W
03-Jun-2019 23:35 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)

Florida Straits FC1906 June 2019 R/V *Walton Smith*
CTD Station 7 (CTD007)
Latitude 27.001N Longitude 79.283W
03-Jun-2019 22:09Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.238	28.238	36.330	198.5	0.005	23.317
10	28.065	28.063	36.340	198.4	0.045	23.382
20	27.860	27.856	36.337	198.9	0.090	23.448
30	27.694	27.687	36.311	200.0	0.134	23.484
50	27.270	27.259	36.302	201.6	0.221	23.616
75	26.558	26.541	36.296	199.4	0.325	23.841
100	26.165	26.142	36.245	198.5	0.427	23.928
125	25.289	25.262	36.726	171.4	0.522	24.566
150	23.231	23.200	36.908	158.9	0.599	25.323
200	20.844	20.805	36.842	173.1	0.718	25.951
250	19.604	19.558	36.694	153.5	0.819	26.171
300	18.256	18.203	36.517	150.5	0.911	26.384
400	16.059	15.995	36.204	167.0	1.072	26.675
500	13.337	13.266	35.712	129.2	1.211	26.891
600	11.725	11.646	35.526	142.1	1.334	27.065

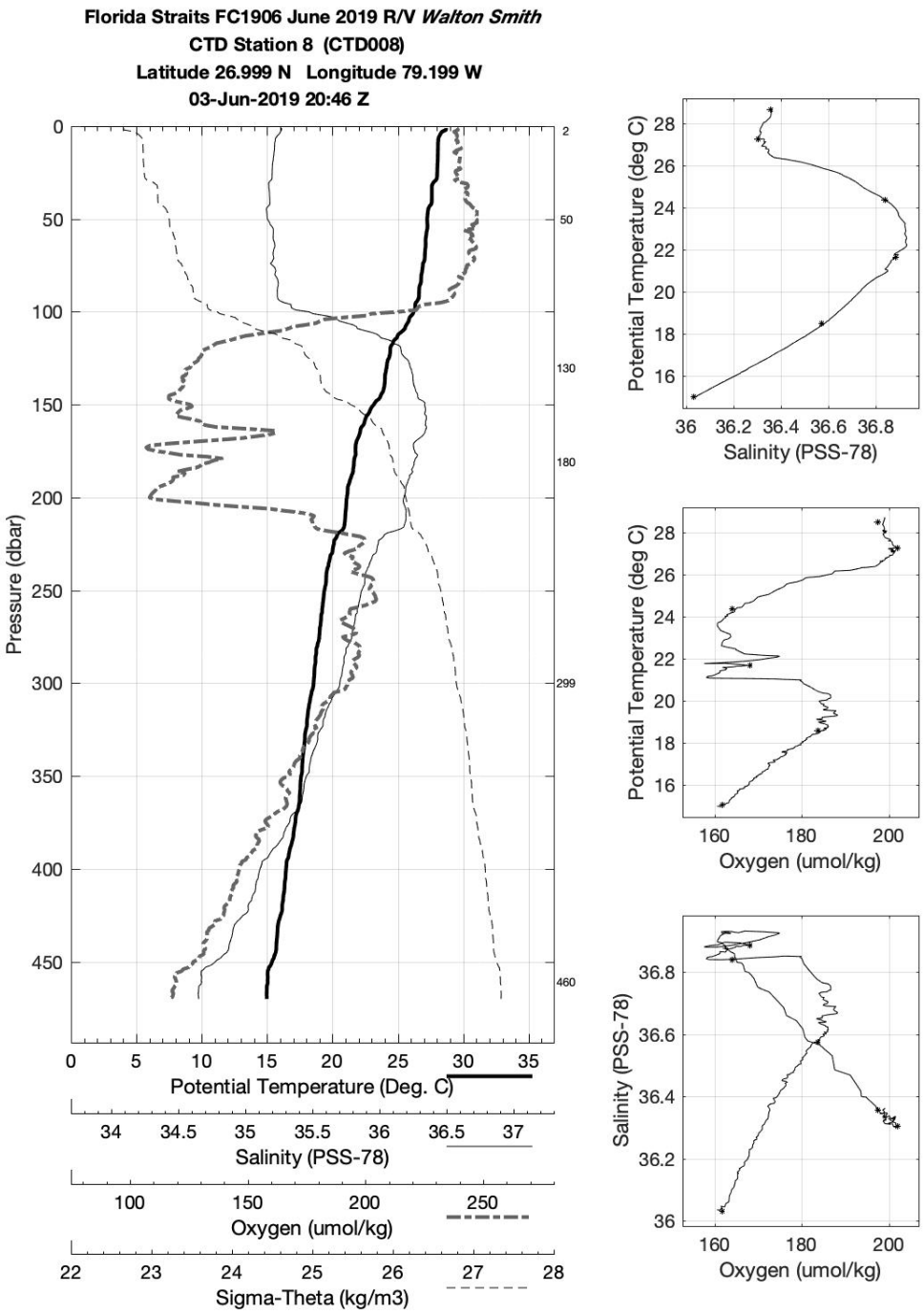
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
612	1	11.631	11.551	35.513	142.5
451	2	14.553	14.485	35.924	143.9
303	3	18.172	18.119	36.511	150.8
186	4	21.454	21.417	36.867	155.8
132	5	25.067	25.038	36.754	169.2
50	6	27.274	27.262	36.295	200.9
2	7	28.651	28.650	36.348	197.3


Florida Straits FC1906 June 2019 R/V Walton Smith
CTD Station 7 (CTD007)
Latitude 27.001 N Longitude 79.283 W
03-Jun-2019 22:09 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1906 June 2019 R/V *Walton Smith*
CTD Station 8 (CTD008)
Latitude 26.999N Longitude 79.199W
03-Jun-2019 20:46Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.689	28.689	36.362	198.9	0.005	23.191
10	28.076	28.073	36.334	199.2	0.046	23.374
20	28.040	28.035	36.326	199.2	0.091	23.381
30	27.763	27.756	36.313	199.1	0.135	23.462
50	27.254	27.242	36.306	201.9	0.222	23.624
75	26.931	26.914	36.326	200.2	0.328	23.745
100	26.220	26.197	36.469	191.2	0.430	24.080
125	24.335	24.309	36.849	164.6	0.514	24.950
150	23.190	23.159	36.924	163.6	0.587	25.347
200	21.140	21.101	36.843	158.1	0.705	25.869
250	19.431	19.386	36.677	187.5	0.808	26.203
300	18.607	18.553	36.590	184.4	0.900	26.352
400	16.515	16.449	36.277	170.0	1.066	26.626

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
461	1	15.071	15.000	36.030	161.8
300	2	18.537	18.484	36.573	183.7
181	3	21.690	21.654	36.884	168.2
130	4	24.405	24.377	36.838	164.1
50	5	27.265	27.254	36.304	202.1
3	6	28.639	28.638	36.355	197.5

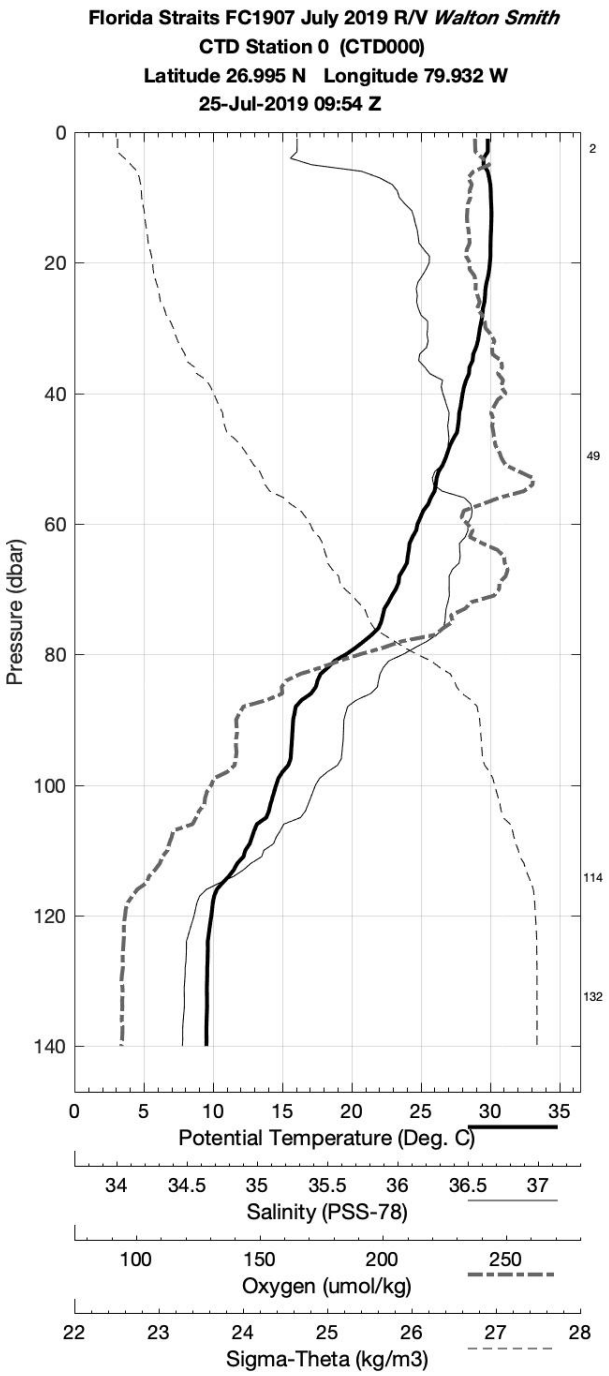

Florida Straits FC1906 June 2019 R/V Walton Smith
CTD Station 8 (CTD008)
Latitude 26.999 N Longitude 79.199 W
03-Jun-2019 20:46 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

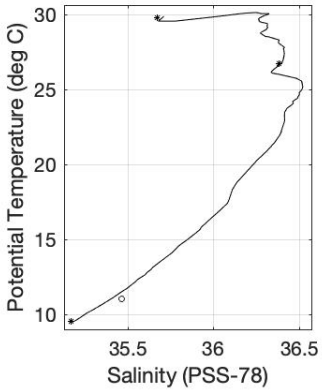
A.4 FC1907 - July 2019

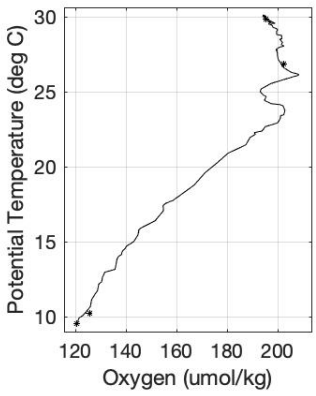
Florida Straits FC1907 July 2019 R/V *Walton Smith*
CTD Station 0 (CTD000)
Latitude 26.995N Longitude 79.932W
25-Jul-2019 09:54Z

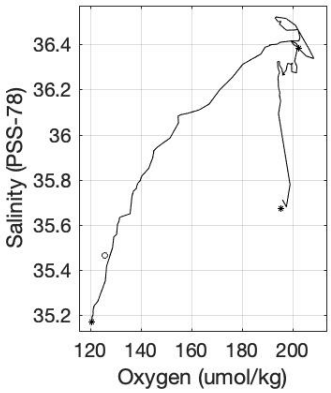
Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	29.851	29.851	35.712	196.0	0.006	22.311
10	30.074	30.071	36.184	195.0	0.054	22.590
20	30.008	30.003	36.323	194.9	0.106	22.718
30	29.291	29.283	36.316	198.2	0.156	22.957
50	26.802	26.790	36.402	201.6	0.246	23.841
75	22.171	22.156	36.396	191.2	0.330	25.235
100	14.583	14.568	35.797	139.8	0.374	26.681
125	9.648	9.634	35.199	121.1	0.401	27.170

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
132	1	9.590	9.575	35.171	120.6
114	2	11.101	11.086	35.465	125.9
50	3	26.723	26.712	36.382	202.3
2	4	29.783	29.783	35.673	195.5


Florida Straits FC1907 July 2019 R/V *Walton Smith*
CTD Station 0 (CTD000)
Latitude 26.995 N Longitude 79.932 W
25-Jul-2019 09:54 Z
Pressure (dbar)
0
20
40
60
80
100
120
140
2
49
114
132
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)
30
25
20
15
10
35.5 36 36.5
Salinity (PSS-78)

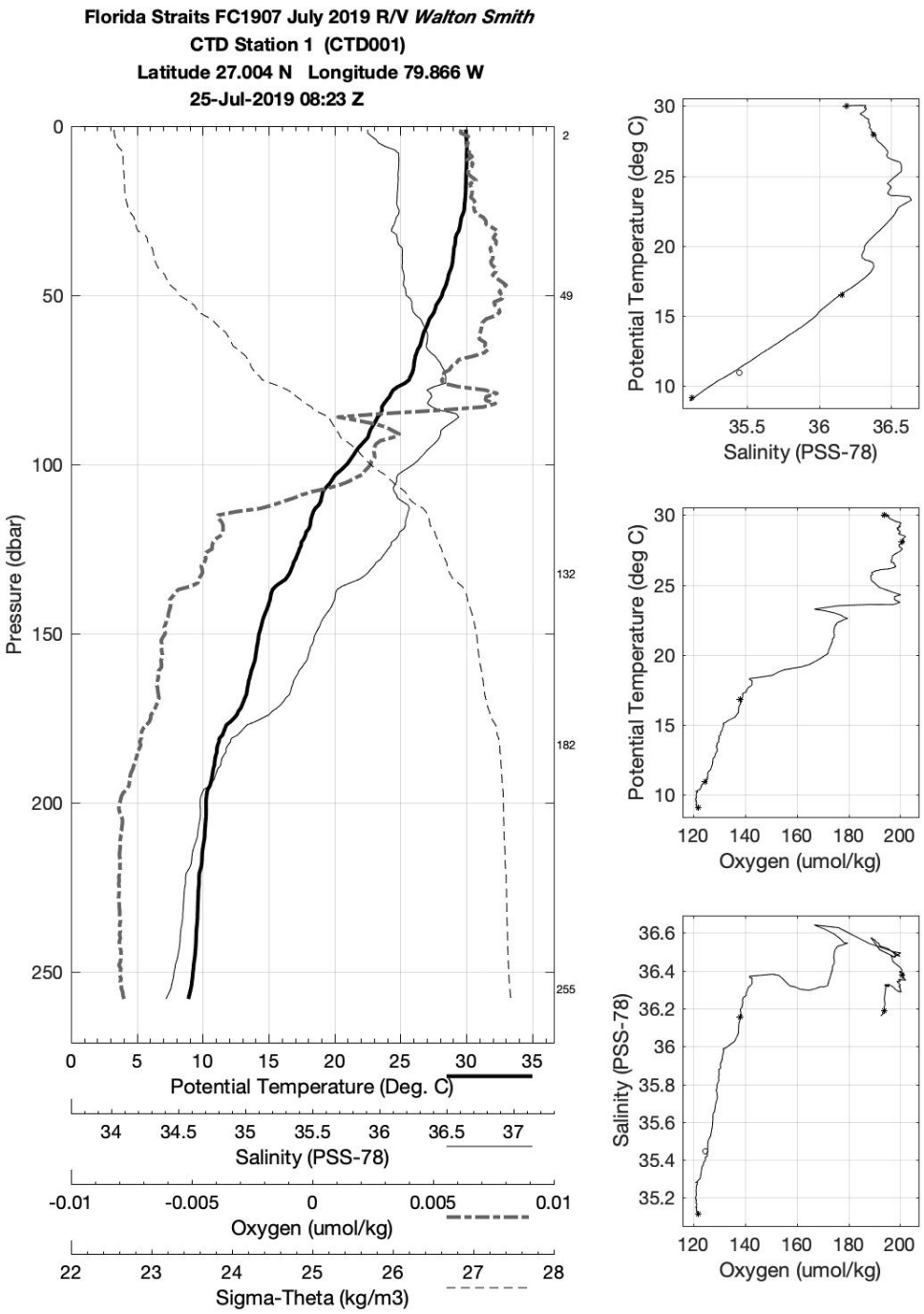

Potential Temperature (deg C)
30
25
20
15
10
120 140 160 180 200
Oxygen (umol/kg)


Salinity (PSS-78)
36.4
36.2
36
35.8
35.6
35.4
35.2
120 140 160 180 200
Oxygen (umol/kg)

Florida Straits FC1907 July 2019 R/V *Walton Smith*
CTD Station 1 (CTD001)
Latitude 27.004N Longitude 79.866W
25-Jul-2019 08:23Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	29.970	29.969	36.162	192.8	0.005	22.608
10	30.027	30.024	36.326	193.9	0.052	22.712
20	29.946	29.941	36.317	195.0	0.103	22.734
30	29.502	29.494	36.291	199.3	0.154	22.867
50	28.172	28.160	36.364	201.3	0.249	23.368
75	25.672	25.655	36.572	188.6	0.349	24.328
100	20.949	20.929	36.402	173.7	0.421	25.581
125	17.354	17.332	36.269	140.4	0.470	26.409
150	14.298	14.276	35.888	130.6	0.506	26.815
200	10.274	10.251	35.280	121.0	0.561	27.127
250	9.281	9.253	35.143	121.1	0.609	27.189

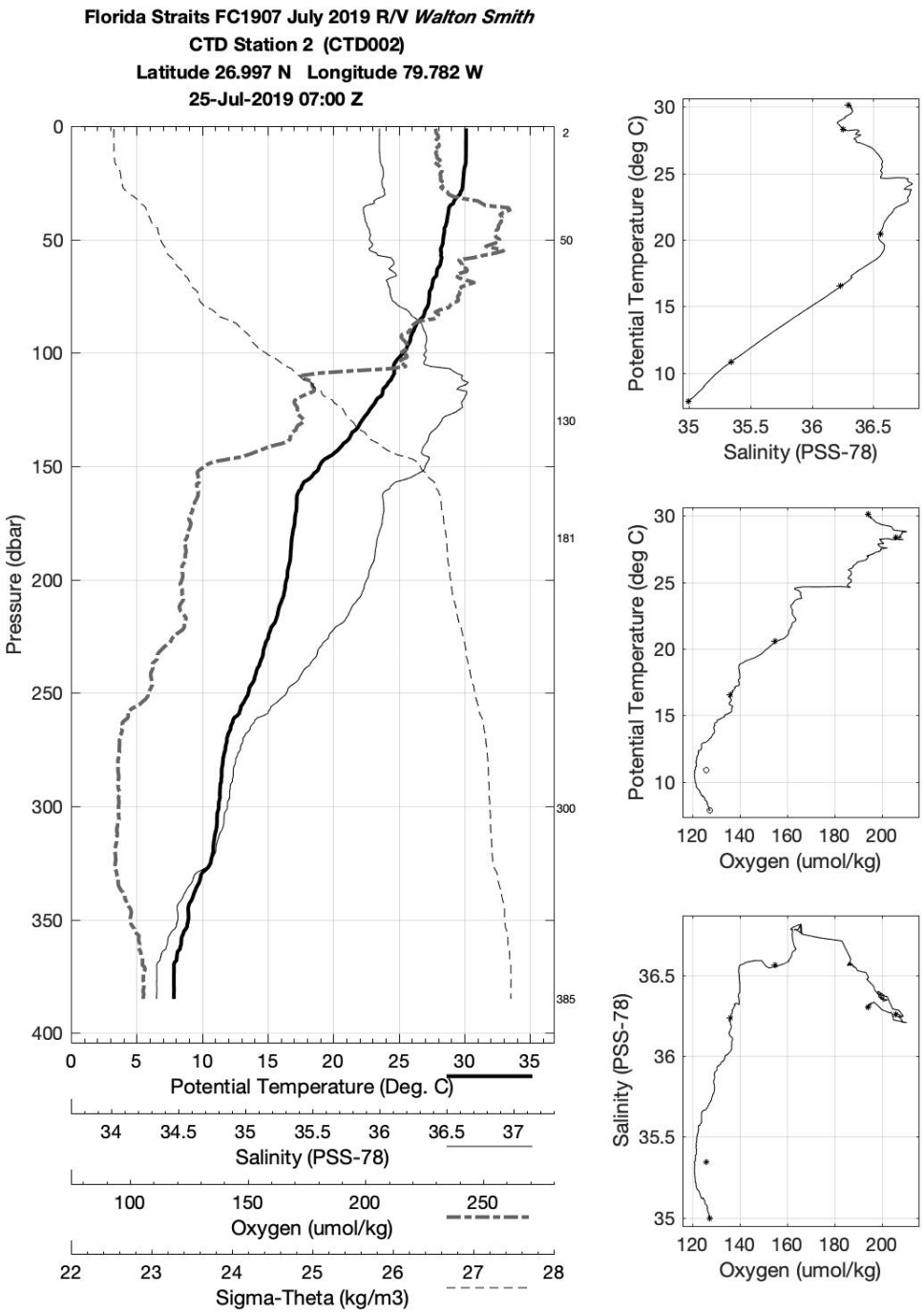
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
255	1	9.142	9.114	35.114	121.8
183	2	10.954	10.932	35.446	124.5
132	3	16.550	16.529	36.157	138.1
50	4	27.987	27.976	36.379	200.7
3	5	29.970	29.969	36.190	194.0


Florida Straits FC1907 July 2019 R/V Walton Smith
CTD Station 1 (CTD001)
Latitude 27.004 N Longitude 79.866 W
25-Jul-2019 08:23 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1907 July 2019 R/V *Walton Smith*
CTD Station 2 (CTD002)
Latitude 26.997N Longitude 79.782W
25-Jul-2019 07:00Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	30.125	30.125	36.301	193.7	0.005	22.659
10	30.123	30.120	36.300	193.4	0.052	22.660
20	29.968	29.963	36.323	195.1	0.103	22.731
30	29.674	29.666	36.334	196.6	0.154	22.841
50	28.389	28.377	36.242	208.2	0.250	23.205
75	27.349	27.331	36.366	198.7	0.362	23.641
100	25.324	25.302	36.567	185.7	0.460	24.433
125	22.809	22.784	36.767	162.2	0.536	25.338
150	18.961	18.934	36.568	141.3	0.594	26.237
200	16.464	16.431	36.227	136.0	0.674	26.591
250	13.558	13.523	35.757	128.5	0.743	26.872
300	11.302	11.264	35.412	121.6	0.799	27.048

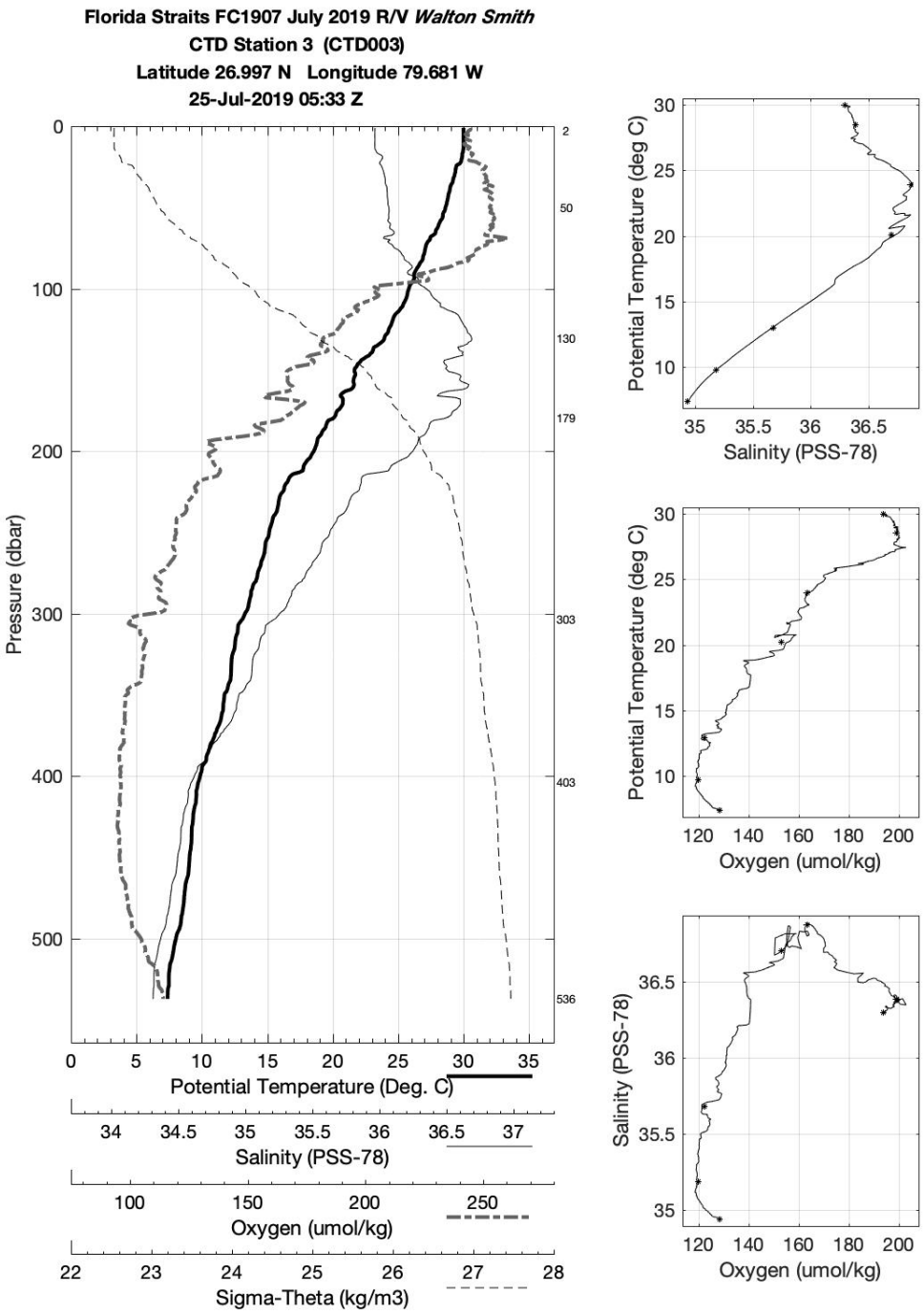
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
385	1	7.887	7.848	34.995	127.5
301	2	10.839	10.802	35.345	125.9
182	3	16.544	16.514	36.233	136.0
130	4	20.433	20.408	36.563	154.7
50	5	28.310	28.298	36.256	206.1
3	6	30.134	30.133	36.302	194.1


Florida Straits FC1907 July 2019 R/V Walton Smith
CTD Station 2 (CTD002)
Latitude 26.997 N Longitude 79.782 W
25-Jul-2019 07:00 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)

Florida Straits FC1907 July 2019 R/V *Walton Smith*
CTD Station 3 (CTD003)
Latitude 26.997N Longitude 79.681W
25-Jul-2019 05:33Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	29.986	29.986	36.295	194.9	0.005	22.702
10	29.984	29.982	36.294	194.4	0.051	22.703
20	29.851	29.846	36.339	195.0	0.103	22.783
30	29.315	29.307	36.352	198.1	0.152	22.976
50	28.619	28.607	36.380	199.0	0.247	23.232
75	27.091	27.073	36.414	196.9	0.358	23.760
100	25.835	25.813	36.606	175.0	0.456	24.305
125	24.305	24.279	36.853	166.2	0.540	24.962
150	21.694	21.664	36.733	155.7	0.608	25.630
200	18.582	18.547	36.525	139.3	0.711	26.303
250	15.175	15.136	36.020	131.4	0.788	26.728
300	13.329	13.287	35.714	125.9	0.854	26.887
400	9.903	9.857	35.193	119.3	0.967	27.128
500	8.063	8.011	34.989	123.9	1.064	27.264

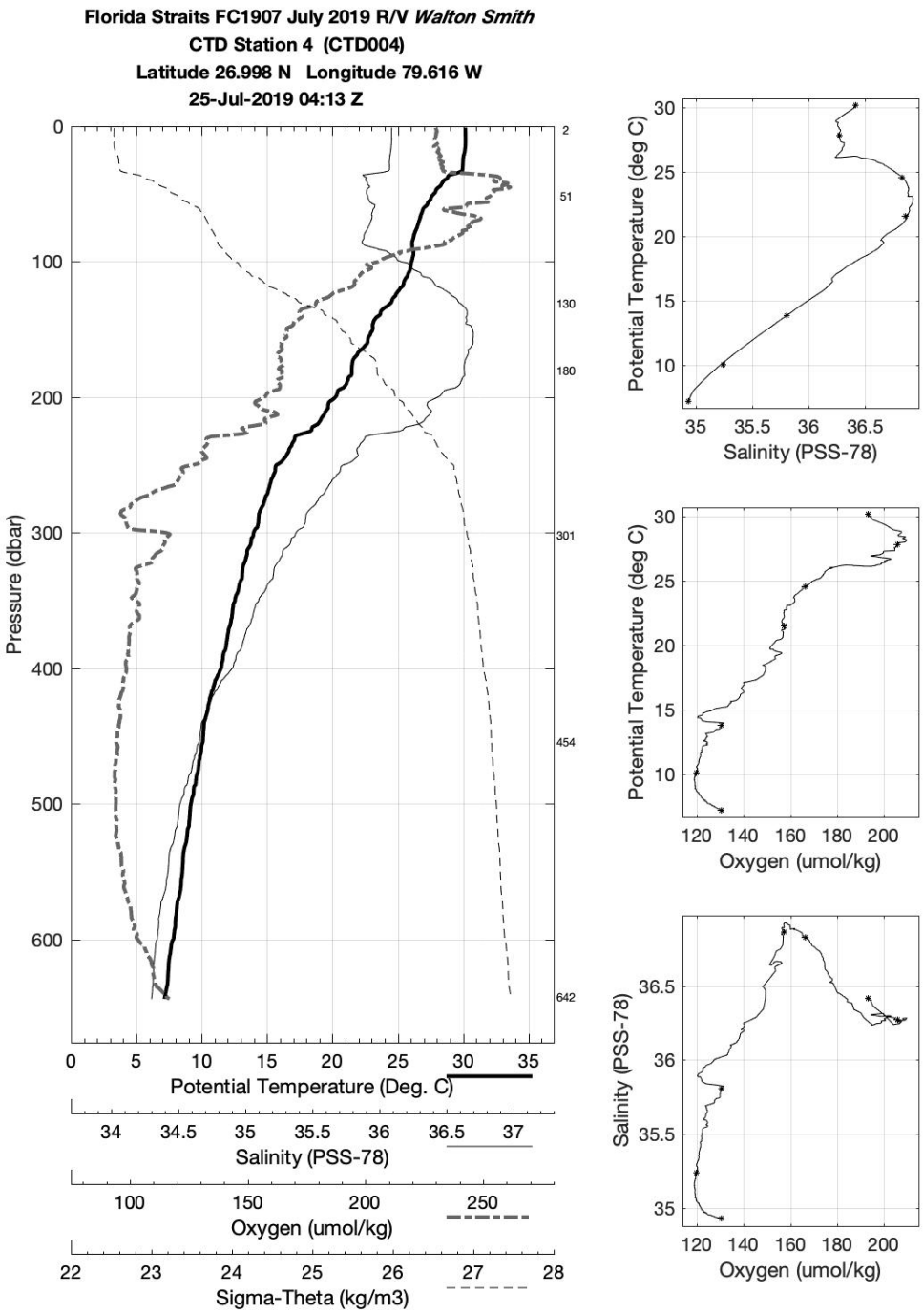
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
537	1	7.436	7.383	34.937	128.4
404	2	9.818	9.771	35.183	119.9
304	3	13.037	12.994	35.677	122.5
180	4	20.122	20.089	36.702	153.3
131	5	23.962	23.934	36.873	163.5
50	6	28.488	28.476	36.386	199.1
3	7	29.994	29.993	36.299	193.9


Florida Straits FC1907 July 2019 R/V Walton Smith
CTD Station 3 (CTD003)
Latitude 26.997 N Longitude 79.681 W
25-Jul-2019 05:33 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)

Florida Straits FC1907 July 2019 R/V *Walton Smith*
CTD Station 4 (CTD004)
Latitude 26.998N Longitude 79.616W
25-Jul-2019 04:13Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	30.163	30.163	36.419	192.9	0.005	22.735
10	30.175	30.172	36.419	192.5	0.051	22.731
20	30.081	30.076	36.411	193.6	0.102	22.758
30	29.965	29.958	36.406	194.5	0.153	22.795
50	27.753	27.741	36.264	206.0	0.248	23.430
75	26.476	26.459	36.273	200.7	0.353	23.850
100	26.069	26.047	36.480	179.5	0.452	24.135
125	24.855	24.827	36.791	168.5	0.541	24.748
150	23.102	23.071	36.921	158.4	0.613	25.371
200	20.254	20.216	36.705	153.3	0.730	26.005
250	15.750	15.710	36.118	136.8	0.817	26.674
300	14.016	13.973	35.826	130.6	0.886	26.831
400	11.529	11.477	35.431	121.5	1.006	27.023
500	9.224	9.168	35.106	119.1	1.111	27.174
600	7.881	7.820	34.964	124.1	1.206	27.273

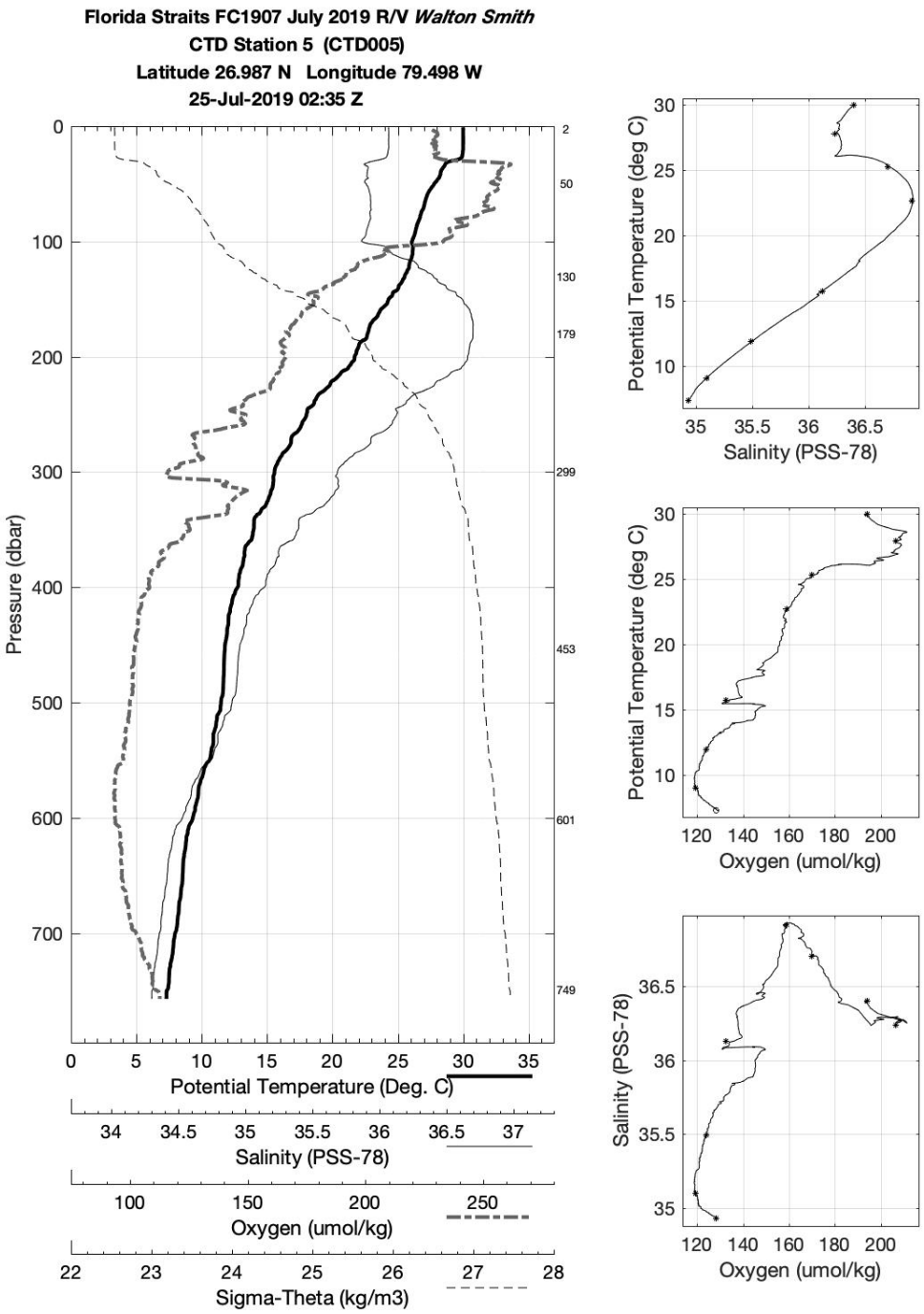
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
643	1	7.255	7.192	34.929	130.4
454	2	10.075	10.021	35.236	119.5
302	3	13.861	13.817	35.804	130.3
180	4	21.553	21.517	36.865	157.3
131	5	24.553	24.525	36.825	166.5
51	6	27.795	27.783	36.269	206.1
3	7	30.170	30.169	36.415	193.3


Florida Straits FC1907 July 2019 R/V Walton Smith
CTD Station 4 (CTD004)
Latitude 26.998 N Longitude 79.616 W
25-Jul-2019 04:13 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1907 July 2019 R/V *Walton Smith*
CTD Station 5 (CTD005)
Latitude 26.987N Longitude 79.498W
25-Jul-2019 02:35Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	29.991	29.990	36.400	*NaN*	0.005	22.780
10	29.993	29.991	36.401	194.4	0.051	22.780
20	29.992	29.987	36.400	194.0	0.101	22.781
30	29.180	29.173	36.313	198.8	0.152	22.992
50	27.784	27.772	36.263	207.3	0.244	23.419
75	26.799	26.782	36.285	204.5	0.352	23.756
100	26.093	26.071	36.233	195.7	0.454	23.942
125	25.754	25.726	36.625	174.3	0.549	24.345
150	24.323	24.291	36.857	165.9	0.633	24.961
200	21.730	21.690	36.890	159.0	0.765	25.742
250	18.058	18.014	36.451	149.5	0.865	26.380
300	15.605	15.558	36.083	131.3	0.943	26.682
400	12.794	12.739	35.629	127.0	1.075	26.933
500	11.536	11.471	35.429	122.4	1.193	27.023
600	9.384	9.315	35.122	118.9	1.302	27.162
700	8.037	7.963	34.980	123.9	1.400	27.264

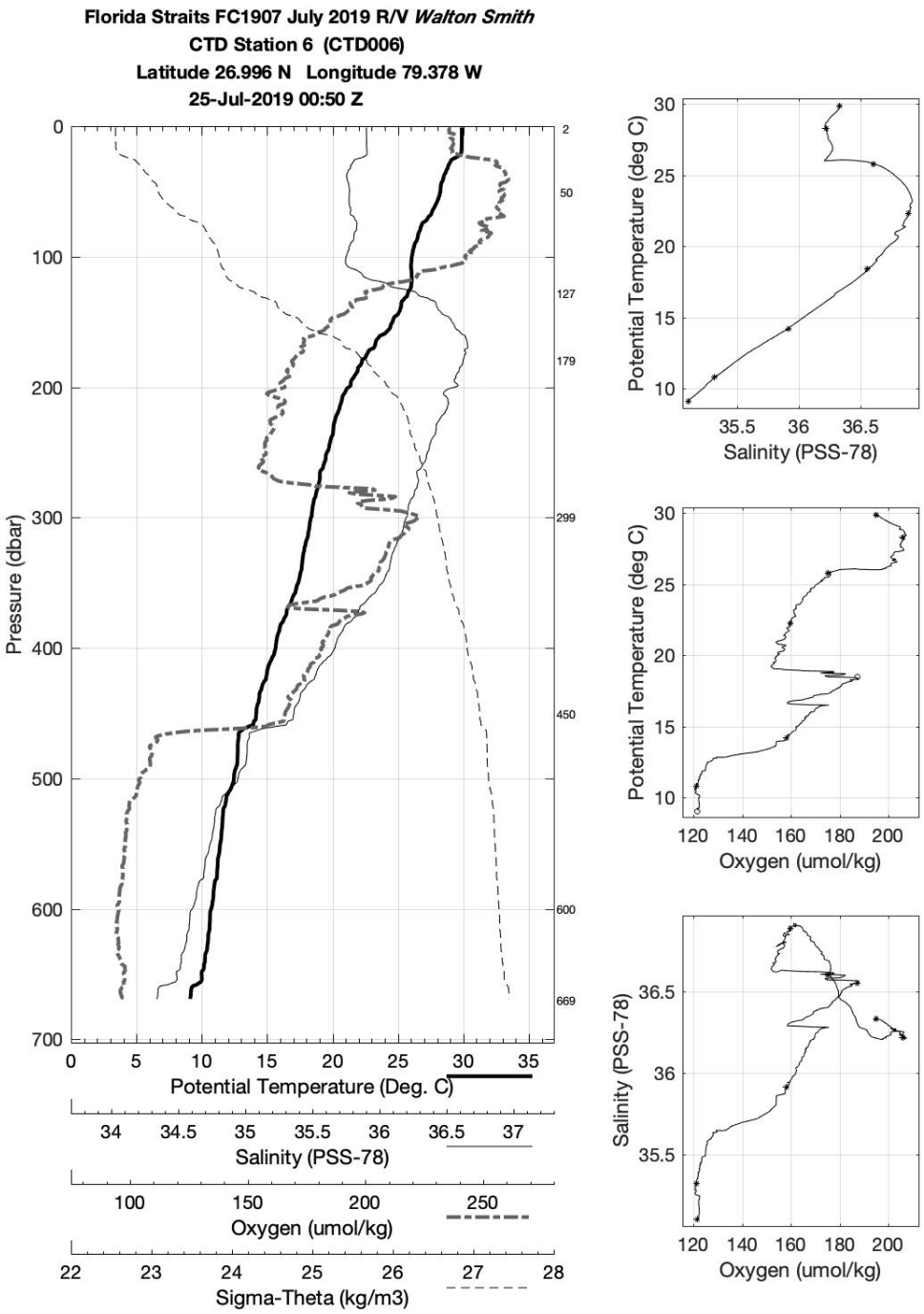
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
749	1	7.453	7.377	34.936	128.1
602	2	9.148	9.080	35.104	119.3
454	3	11.988	11.928	35.492	124.0
300	4	15.761	15.714	36.125	132.7
180	5	22.697	22.660	36.912	159.1
130	6	25.274	25.246	36.699	170.1
50	7	27.824	27.812	36.236	206.6
2	13	29.975	29.975	36.401	193.9


Florida Straits FC1907 July 2019 R/V Walton Smith
CTD Station 5 (CTD005)
Latitude 26.987 N Longitude 79.498 W
25-Jul-2019 02:35 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)

Florida Straits FC1907 July 2019 R/V *Walton Smith*
CTD Station 6 (CTD006)
Latitude 26.996N Longitude 79.378W
25-Jul-2019 00:50Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	29.878	29.878	36.328	194.1	0.005	22.764
10	29.882	29.879	36.329	195.1	0.051	22.765
20	29.846	29.841	36.333	194.9	0.102	22.780
30	28.865	28.858	36.237	204.4	0.151	23.041
50	28.257	28.245	36.231	205.3	0.245	23.240
75	26.860	26.843	36.273	201.1	0.357	23.727
100	26.083	26.061	36.211	197.6	0.460	23.928
125	25.954	25.926	36.551	178.4	0.558	24.227
150	24.624	24.591	36.826	168.1	0.643	24.846
200	21.285	21.246	36.844	157.9	0.774	25.831
250	19.618	19.572	36.683	153.7	0.877	26.160
300	18.397	18.344	36.560	187.7	0.969	26.381
400	15.708	15.645	36.145	165.8	1.130	26.711
500	12.519	12.450	35.581	125.8	1.263	26.953
600	10.797	10.723	35.315	121.1	1.380	27.071

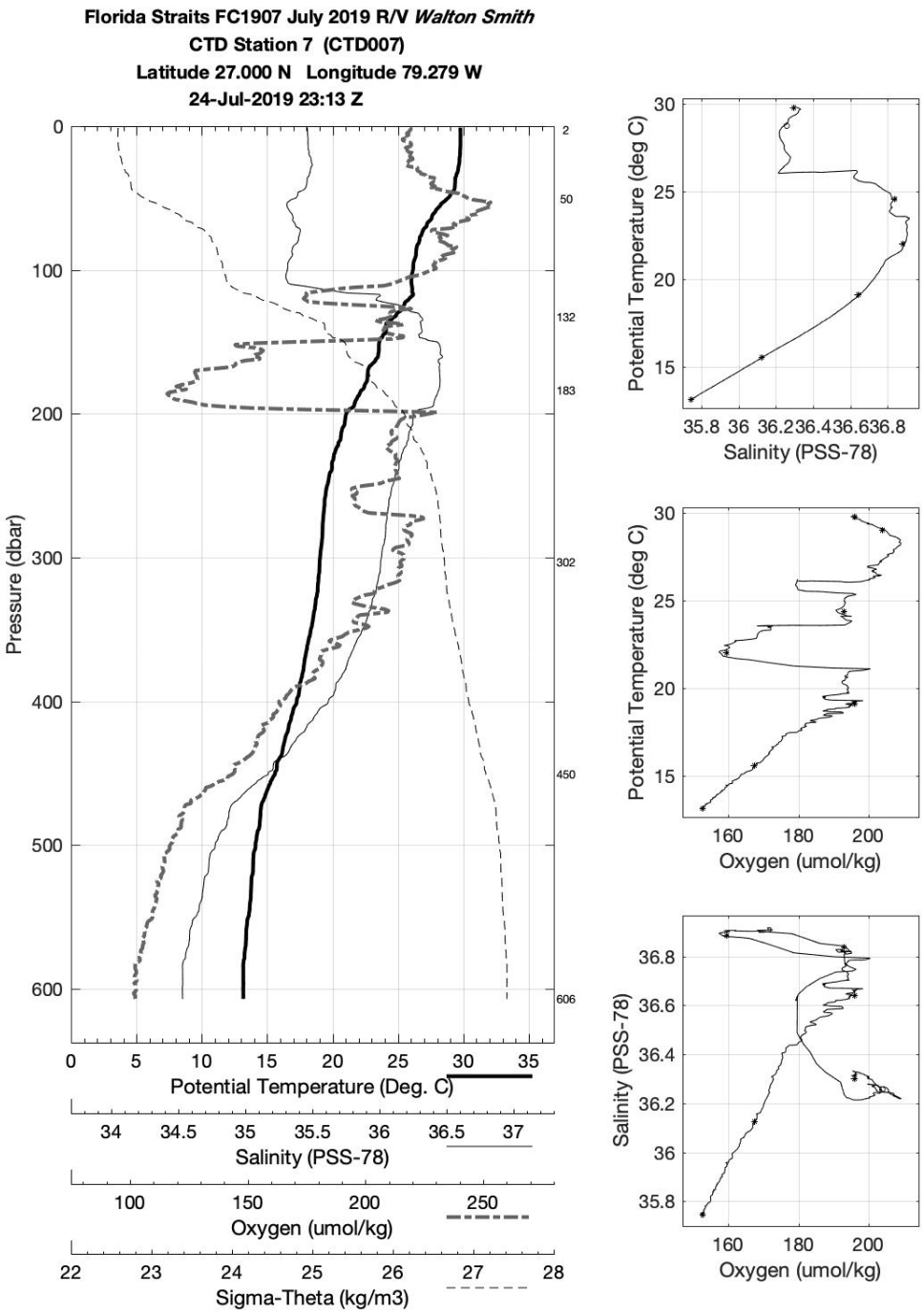
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
670	1	9.135	9.059	35.104	121.7
600	2	10.839	10.764	35.320	121.2
451	3	14.225	14.158	35.916	158.2
299	4	18.480	18.427	36.555	187.2
180	5	22.319	22.282	36.887	159.8
128	6	25.793	25.765	36.601	175.3
50	7	28.261	28.249	36.221	206.0
2	13	29.879	29.878	36.331	195.0


Florida Straits FC1907 July 2019 R/V Walton Smith
CTD Station 6 (CTD006)
Latitude 26.996 N Longitude 79.378 W
25-Jul-2019 00:50 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1907 July 2019 R/V *Walton Smith*
CTD Station 7 (CTD007)
Latitude 27.000N Longitude 79.279W
24-Jul-2019 23:13Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	29.769	29.769	36.310	196.2	0.005	22.788
10	29.777	29.775	36.313	195.1	0.051	22.788
20	29.752	29.747	36.318	196.4	0.101	22.801
30	29.609	29.602	36.324	197.4	0.151	22.855
50	28.840	28.828	36.259	205.5	0.250	23.067
75	26.832	26.815	36.275	201.5	0.362	23.738
100	26.169	26.147	36.220	199.9	0.464	23.908
125	25.452	25.425	36.735	190.7	0.560	24.523
150	23.605	23.574	36.892	178.1	0.637	25.201
200	21.083	21.045	36.786	199.2	0.765	25.842
250	19.636	19.590	36.692	189.0	0.869	26.161
300	19.100	19.046	36.643	195.3	0.964	26.266
400	17.323	17.255	36.404	175.3	1.140	26.531
500	14.180	14.106	35.896	157.8	1.287	26.857
600	13.254	13.168	35.749	152.3	1.418	26.939

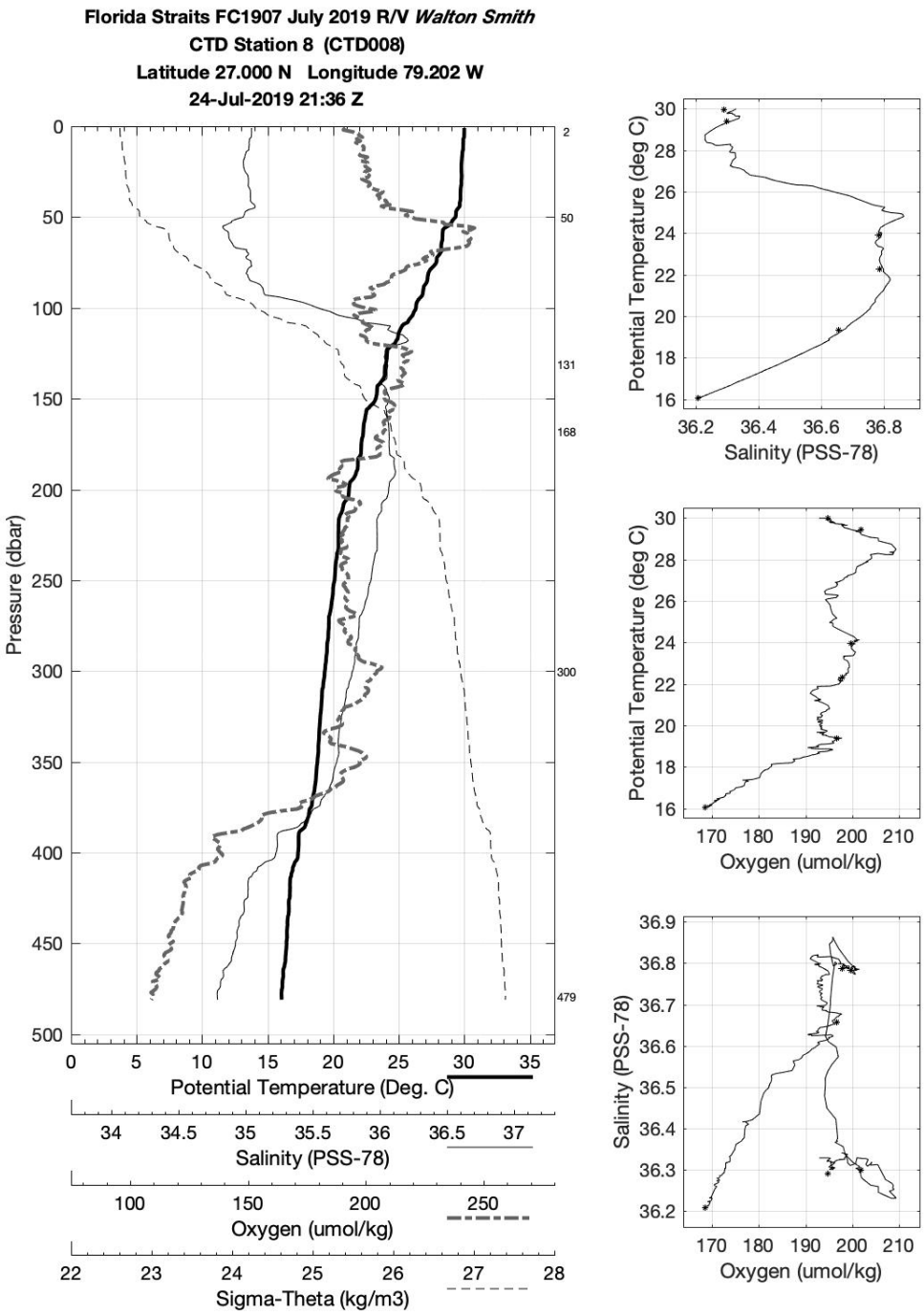
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
607	1	13.262	13.175	35.743	152.5
451	2	15.610	15.539	36.123	167.5
303	3	19.169	19.114	36.641	196.1
184	4	22.052	22.016	36.883	159.6
133	5	24.579	24.551	36.838	192.9
51	6	28.762	28.750	36.256	203.9
3	7	29.760	29.760	36.299	195.9


Florida Straits FC1907 July 2019 R/V Walton Smith
CTD Station 7 (CTD007)
Latitude 27.000 N Longitude 79.279 W
24-Jul-2019 23:13 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1907 July 2019 R/V *Walton Smith*
CTD Station 8 (CTD008)
Latitude 27.000N Longitude 79.202W
24-Jul-2019 21:36Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	29.991	29.991	36.328	193.2	0.005	22.725
10	29.915	29.912	36.320	195.1	0.051	22.746
20	29.786	29.781	36.300	196.0	0.102	22.776
30	29.773	29.766	36.317	195.7	0.153	22.794
50	29.343	29.331	36.299	201.5	0.253	22.928
75	27.872	27.854	36.326	202.8	0.370	23.440
100	26.325	26.302	36.554	195.6	0.474	24.111
125	24.132	24.106	36.785	201.1	0.558	24.962
150	23.274	23.243	36.799	198.1	0.631	25.228
200	21.234	21.195	36.797	191.9	0.756	25.809
250	20.142	20.095	36.736	193.6	0.861	26.062
300	19.407	19.352	36.673	197.1	0.960	26.210
400	17.384	17.315	36.411	177.6	1.141	26.522

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
479	1	16.125	16.048	36.206	168.5
300	2	19.390	19.335	36.657	196.7
168	3	22.302	22.268	36.786	197.9
131	4	23.925	23.897	36.783	199.7
50	5	29.402	29.390	36.298	201.9
3	6	29.940	29.939	36.289	194.7

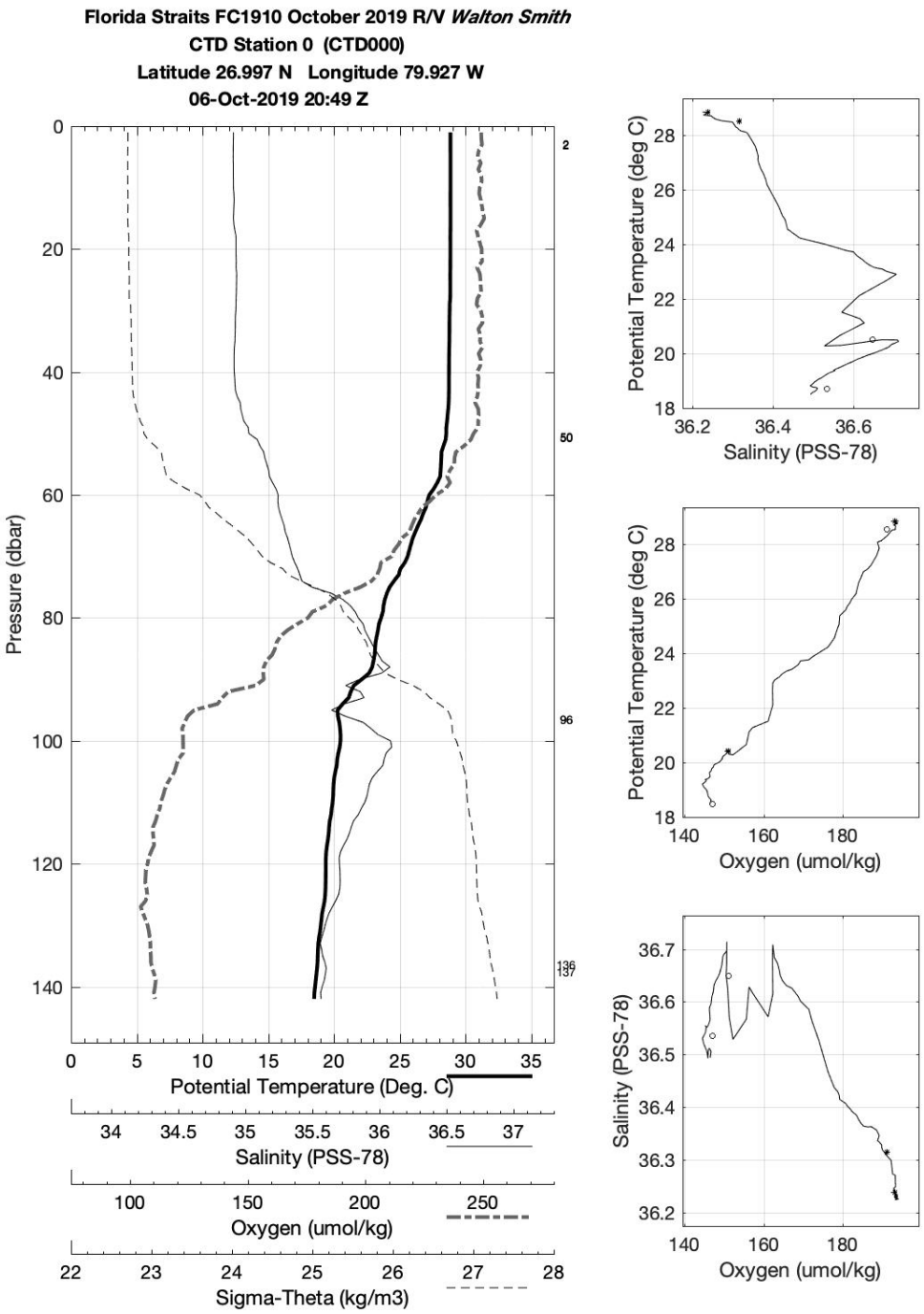

Florida Straits FC1907 July 2019 R/V Walton Smith
CTD Station 8 (CTD008)
Latitude 27.000 N Longitude 79.202 W
24-Jul-2019 21:36 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Potential Temperature (deg C)
Oxygen (umol/kg)
Salinity (PSS-78)
Oxygen (umol/kg)

A.5 FC1910 - October 2019

Florida Straits FC1910 October 2019 R/V *Walton Smith*
CTD Station 0 (CTD000)
Latitude 26.997N Longitude 79.927W
06-Oct-2019 20:49Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.852	28.852	36.226	193.6	0.005	23.034
10	28.857	28.855	36.225	193.4	0.048	23.033
20	28.851	28.846	36.233	193.6	0.097	23.042
30	28.801	28.794	36.233	193.5	0.145	23.059
50	28.545	28.533	36.273	192.5	0.241	23.176
75	24.243	24.227	36.467	176.2	0.343	24.685
100	20.508	20.489	36.710	150.7	0.408	25.936
125	19.352	19.329	36.550	145.6	0.458	26.121

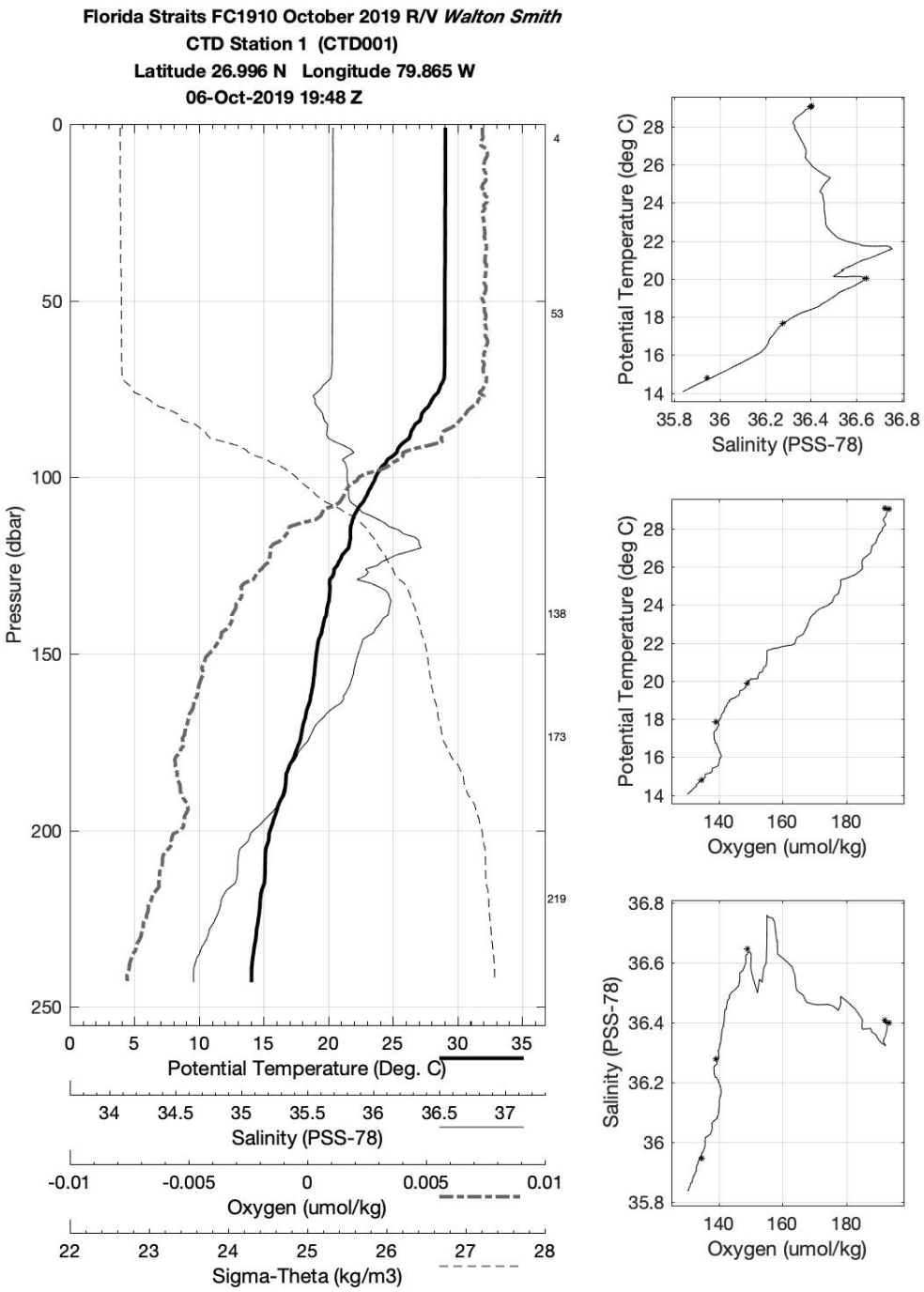
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
138	1	18.721	18.697	36.536	147.2
136	2	18.787	18.916	−999.000	−999.0
97	3	20.524	20.506	36.649	151.2
97	4	20.526	20.609	−999.000	−999.0
51	5	28.535	28.522	36.315	191.0
51	6	28.527	28.551	−999.000	−999.0
3	7	28.846	28.845	36.238	193.1
3	13	28.847	28.849	−999.000	−999.0


Florida Straits FC1910 October 2019 R/V Walton Smith
CTD Station 0 (CTD000)
Latitude 26.997 N Longitude 79.927 W
06-Oct-2019 20:49 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Oxygen (umol/kg)

Florida Straits FC1910 October 2019 R/V *Walton Smith*
CTD Station 1 (CTD001)
Latitude 26.996N Longitude 79.865W
06-Oct-2019 19:48Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	29.062	29.062	36.402	192.2	0.005	23.097
10	29.064	29.062	36.402	192.7	0.048	23.096
20	29.065	29.060	36.401	192.5	0.095	23.097
30	29.055	29.048	36.401	192.6	0.143	23.100
50	29.032	29.020	36.400	192.3	0.239	23.109
75	28.624	28.606	36.352	192.3	0.358	23.212
100	23.673	23.652	36.459	170.5	0.456	24.850
125	20.726	20.702	36.581	154.0	0.521	25.780
150	19.103	19.076	36.504	144.3	0.572	26.152
200	15.524	15.493	36.079	139.3	0.657	26.694

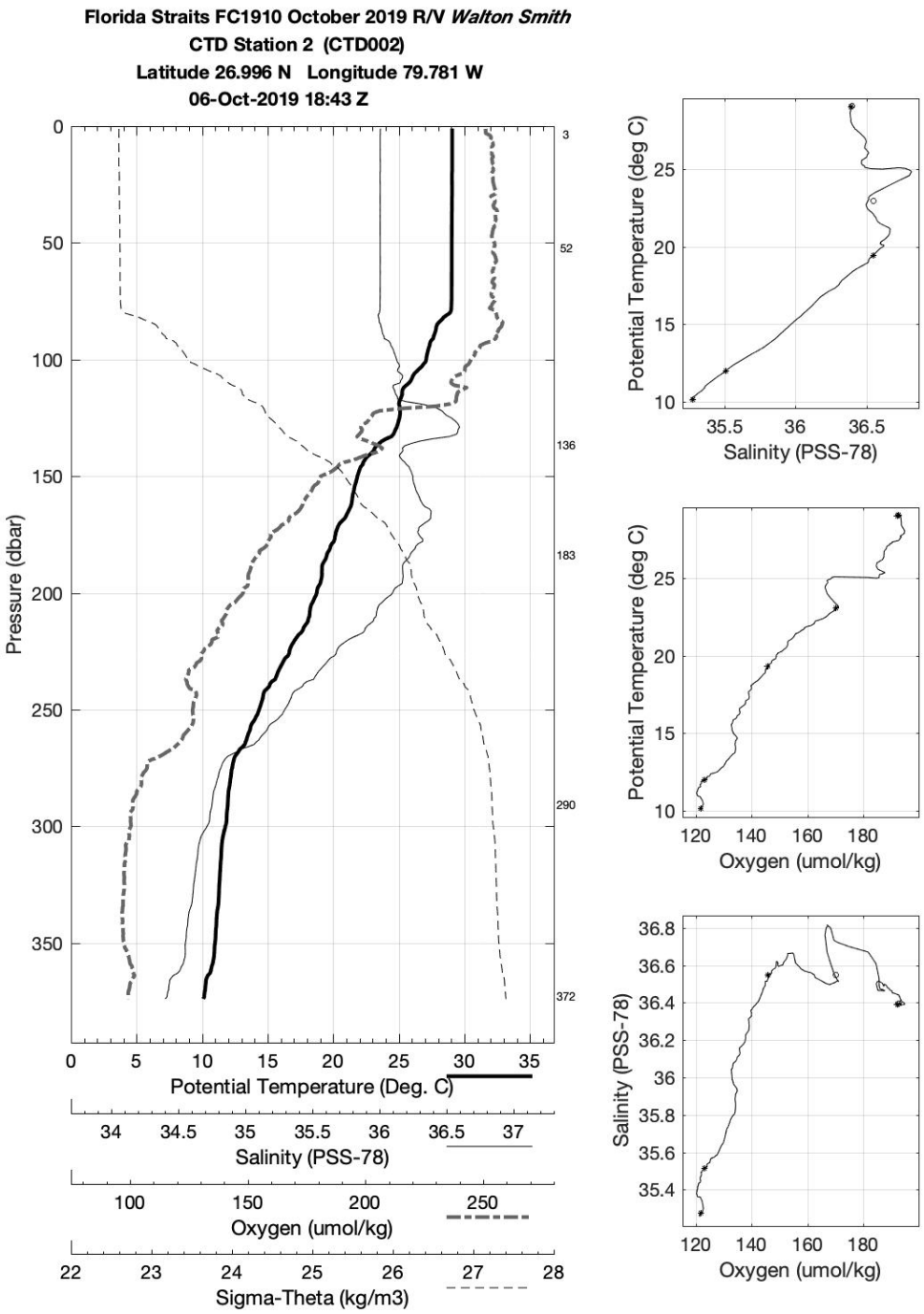
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
219	1	14.806	14.773	35.944	134.6
174	2	17.671	17.641	36.278	138.8
139	3	20.017	19.991	36.644	149.0
54	4	29.032	29.019	36.399	193.6
4	5	29.058	29.057	36.406	192.1


Florida Straits FC1910 October 2019 R/V Walton Smith
CTD Station 1 (CTD001)
Latitude 26.996 N Longitude 79.865 W
06-Oct-2019 19:48 Z
Pressure (dbar)
0
50
100
150
200
250
4
53
138
173
219
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)
-0.01 -0.005 0 0.005 0.01
Oxygen (umol/kg)
22 23 24 25 26 27 28
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
14 16 18 20 22 24 26 28
35.8 36 36.2 36.4 36.6 36.8
Salinity (PSS-78)
Potential Temperature (deg C)
14 16 18 20 22 24 26 28
140 160 180
Oxygen (umol/kg)
Salinity (PSS-78)
35.8 36 36.2 36.4 36.6 36.8
140 160 180
Oxygen (umol/kg)

Florida Straits FC1910 October 2019 R/V *Walton Smith*
CTD Station 2 (CTD002)
Latitude 26.996N Longitude 79.781W
06-Oct-2019 18:43Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	29.065	29.064	36.396	191.4	0.005	23.091
10	29.068	29.066	36.395	192.8	0.048	23.090
20	29.056	29.051	36.395	192.6	0.095	23.094
30	29.062	29.054	36.395	192.4	0.143	23.094
50	29.044	29.032	36.395	193.1	0.239	23.101
75	29.035	29.016	36.395	193.1	0.359	23.106
100	27.102	27.079	36.482	188.5	0.469	23.809
125	25.082	25.054	36.772	168.7	0.561	24.665
150	21.863	21.833	36.569	159.1	0.634	25.457
200	18.774	18.739	36.461	143.9	0.743	26.206
250	14.385	14.348	35.889	134.0	0.823	26.800
300	11.811	11.772	35.477	121.9	0.882	27.003

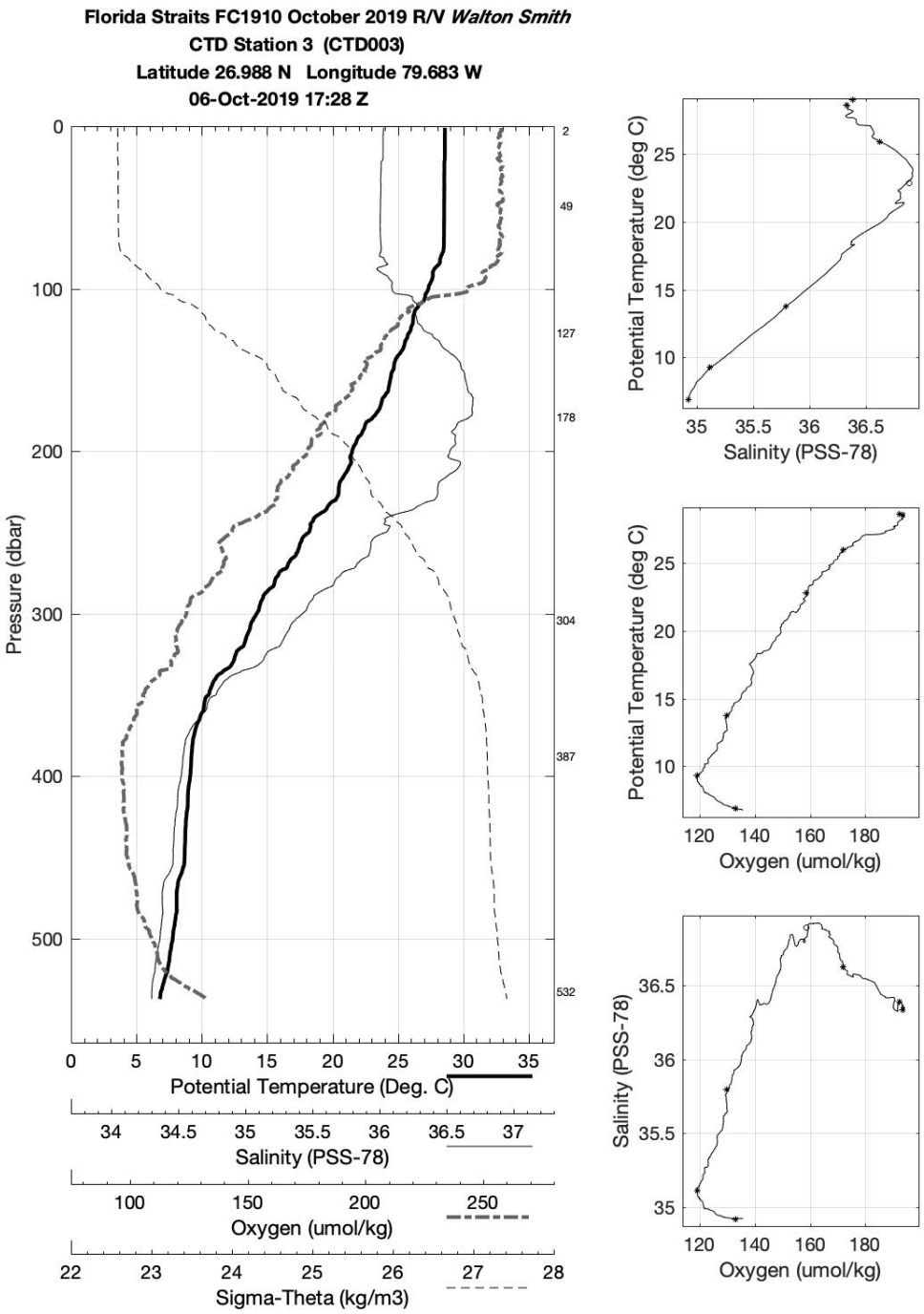
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
373	1	10.212	10.168	35.276	121.8
291	2	12.043	12.005	35.513	122.9
184	3	19.465	19.431	36.546	145.8
136	4	22.981	22.953	36.547	170.3
52	5	29.041	29.029	36.390	192.2
3	6	29.067	29.066	36.394	192.7


Florida Straits FC1910 October 2019 R/V Walton Smith
CTD Station 2 (CTD002)
Latitude 26.996 N Longitude 79.781 W
06-Oct-2019 18:43 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)

Florida Straits FC1910 October 2019 R/V *Walton Smith*
CTD Station 3 (CTD003)
Latitude 26.988N Longitude 79.683W
06-Oct-2019 17:28Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.591	28.590	36.362	193.9	0.005	23.224
10	28.588	28.586	36.359	193.8	0.046	23.224
20	28.588	28.583	36.359	193.1	0.093	23.224
30	28.550	28.542	36.345	194.1	0.139	23.228
50	28.543	28.531	36.343	194.1	0.233	23.229
75	28.512	28.494	36.348	193.5	0.349	23.246
100	27.353	27.330	36.415	187.2	0.461	23.678
125	26.004	25.976	36.608	172.3	0.559	24.255
150	24.667	24.635	36.851	166.7	0.644	24.852
200	21.533	21.494	36.773	155.6	0.782	25.708
250	18.218	18.174	36.375	140.5	0.887	26.283
300	14.232	14.188	35.859	131.6	0.964	26.811
400	9.153	9.108	35.108	118.8	1.071	27.186
500	7.824	7.773	34.977	124.8	1.164	27.289

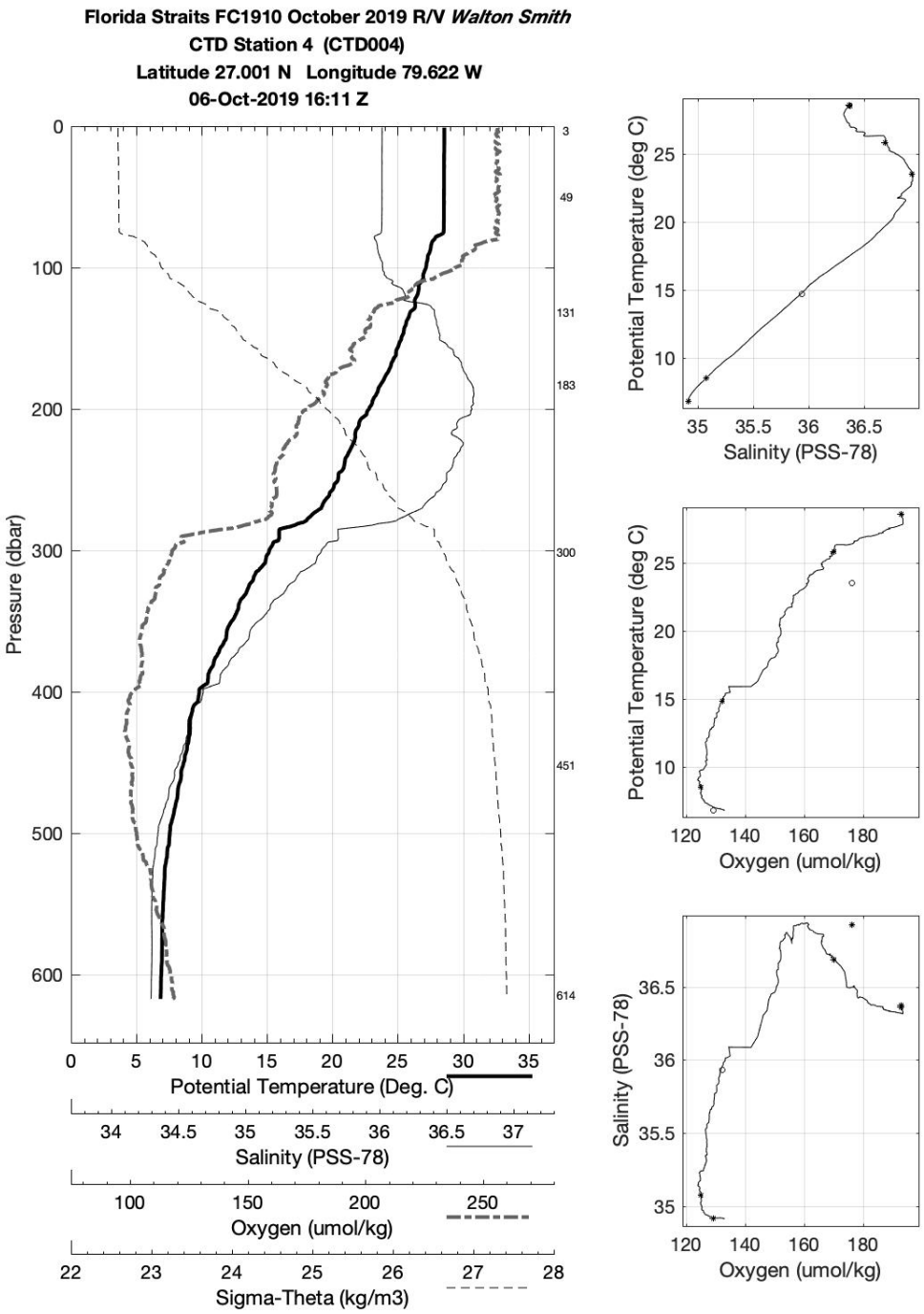
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
532	1	6.931	6.880	34.924	133.1
388	2	9.333	9.290	35.116	119.2
304	3	13.799	13.755	35.794	129.9
179	4	22.885	22.848	36.885	158.5
127	5	25.901	25.873	36.621	172.0
49	6	28.591	28.580	36.330	193.6
3	7	28.964	28.964	36.388	192.5


Florida Straits FC1910 October 2019 R/V Walton Smith
CTD Station 3 (CTD003)
Latitude 26.988 N Longitude 79.683 W
06-Oct-2019 17:28 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)

Florida Straits FC1910 October 2019 R/V *Walton Smith*
CTD Station 4 (CTD004)
Latitude 27.001N Longitude 79.622W
06-Oct-2019 16:11Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.557	28.557	36.362	193.5	0.005	23.235
10	28.560	28.558	36.362	193.1	0.046	23.235
20	28.546	28.542	36.361	193.3	0.093	23.240
30	28.546	28.539	36.361	193.7	0.139	23.241
50	28.541	28.529	36.362	193.1	0.232	23.244
75	28.525	28.507	36.358	193.1	0.348	23.249
100	27.178	27.155	36.366	185.4	0.457	23.697
125	26.349	26.320	36.601	173.8	0.558	24.141
150	25.305	25.271	36.722	168.3	0.648	24.560
200	22.839	22.798	36.926	158.1	0.798	25.454
250	20.472	20.424	36.766	151.9	0.914	25.996
300	15.210	15.164	35.983	132.7	1.002	26.694
400	9.857	9.810	35.243	125.3	1.119	27.175
500	7.600	7.550	34.960	126.1	1.210	27.309
600	6.961	6.903	34.919	132.4	1.292	27.369

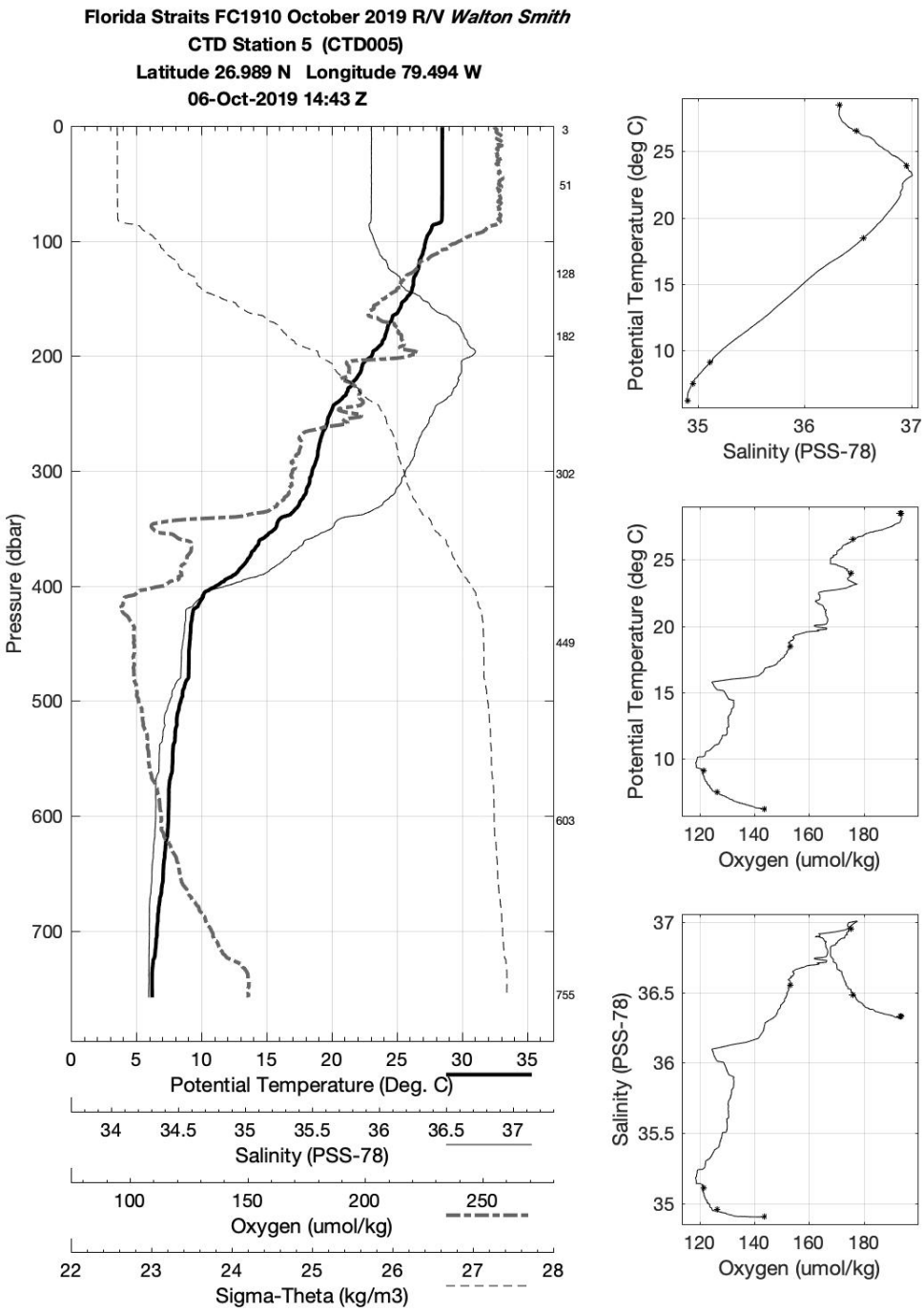
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
614	1	6.925	6.866	34.915	129.3
452	2	8.590	8.541	35.077	125.1
301	3	14.734	14.689	35.934	132.4
183	4	23.577	23.538	36.923	176.3
132	5	25.842	25.813	36.687	170.2
50	6	28.538	28.526	36.374	193.0
3	7	28.570	28.569	36.361	193.1


Florida Straits FC1910 October 2019 R/V Walton Smith
CTD Station 4 (CTD004)
Latitude 27.001 N Longitude 79.622 W
06-Oct-2019 16:11 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)

Florida Straits FC1910 October 2019 R/V *Walton Smith*
CTD Station 5 (CTD005)
Latitude 26.989N Longitude 79.494W
06-Oct-2019 14:43Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.491	28.491	36.336	193.0	0.005	23.237
10	28.495	28.493	36.338	193.7	0.046	23.238
20	28.494	28.489	36.337	193.4	0.093	23.239
30	28.495	28.488	36.337	193.6	0.139	23.239
50	28.502	28.490	36.338	193.9	0.232	23.239
75	28.496	28.478	36.336	194.0	0.348	23.242
100	27.249	27.226	36.356	186.0	0.460	23.667
125	26.654	26.625	36.455	177.2	0.564	23.934
150	25.779	25.746	36.658	171.2	0.660	24.364
200	23.114	23.072	36.982	175.9	0.814	25.417
250	19.935	19.888	36.731	164.8	0.928	26.112
300	18.566	18.513	36.556	152.7	1.023	26.335
400	11.185	11.134	35.401	127.0	1.170	27.064
500	8.477	8.423	35.039	121.9	1.268	27.240
600	7.537	7.477	34.949	126.5	1.356	27.311
700	6.666	6.599	34.908	136.5	1.439	27.401

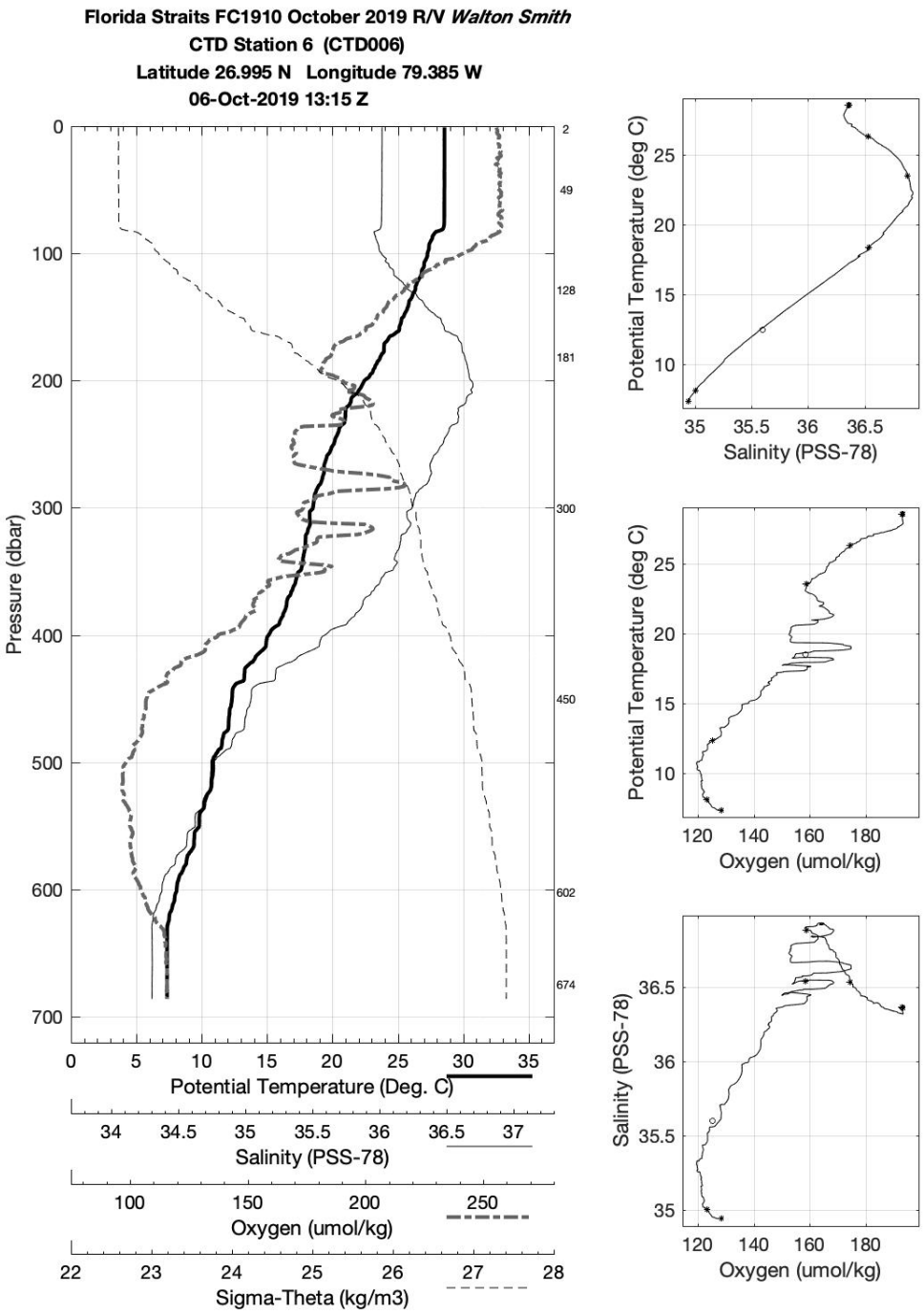
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
755	1	6.299	6.229	34.906	143.8
604	2	7.539	7.478	34.956	126.4
449	3	9.137	9.087	35.114	121.4
302	4	18.527	18.474	36.553	153.2
183	5	23.957	23.918	36.950	175.4
129	6	26.549	26.519	36.483	176.0
51	7	28.489	28.477	36.330	193.4
3	13	28.493	28.493	36.328	193.8


Florida Straits FC1910 October 2019 R/V Walton Smith
CTD Station 5 (CTD005)
Latitude 26.989 N Longitude 79.494 W
06-Oct-2019 14:43 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)

Florida Straits FC1910 October 2019 R/V *Walton Smith*
CTD Station 6 (CTD006)
Latitude 26.995N Longitude 79.385W
06-Oct-2019 13:15Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.566	28.565	36.366	192.8	0.005	23.235
10	28.563	28.561	36.365	193.2	0.046	23.237
20	28.570	28.565	36.365	193.6	0.093	23.235
30	28.571	28.564	36.364	192.5	0.139	23.235
50	28.566	28.554	36.364	193.3	0.232	23.237
75	28.567	28.549	36.362	193.5	0.349	23.238
100	27.285	27.262	36.361	186.2	0.460	23.659
125	26.425	26.397	36.506	175.5	0.562	24.045
150	25.448	25.415	36.710	169.4	0.655	24.506
200	22.479	22.438	36.918	162.6	0.805	25.551
250	20.141	20.094	36.740	153.1	0.916	26.064
300	18.549	18.495	36.551	155.0	1.010	26.336
400	15.182	15.121	36.011	138.2	1.175	26.725
500	10.871	10.809	35.328	120.3	1.299	27.066
600	8.142	8.079	35.003	123.1	1.402	27.264

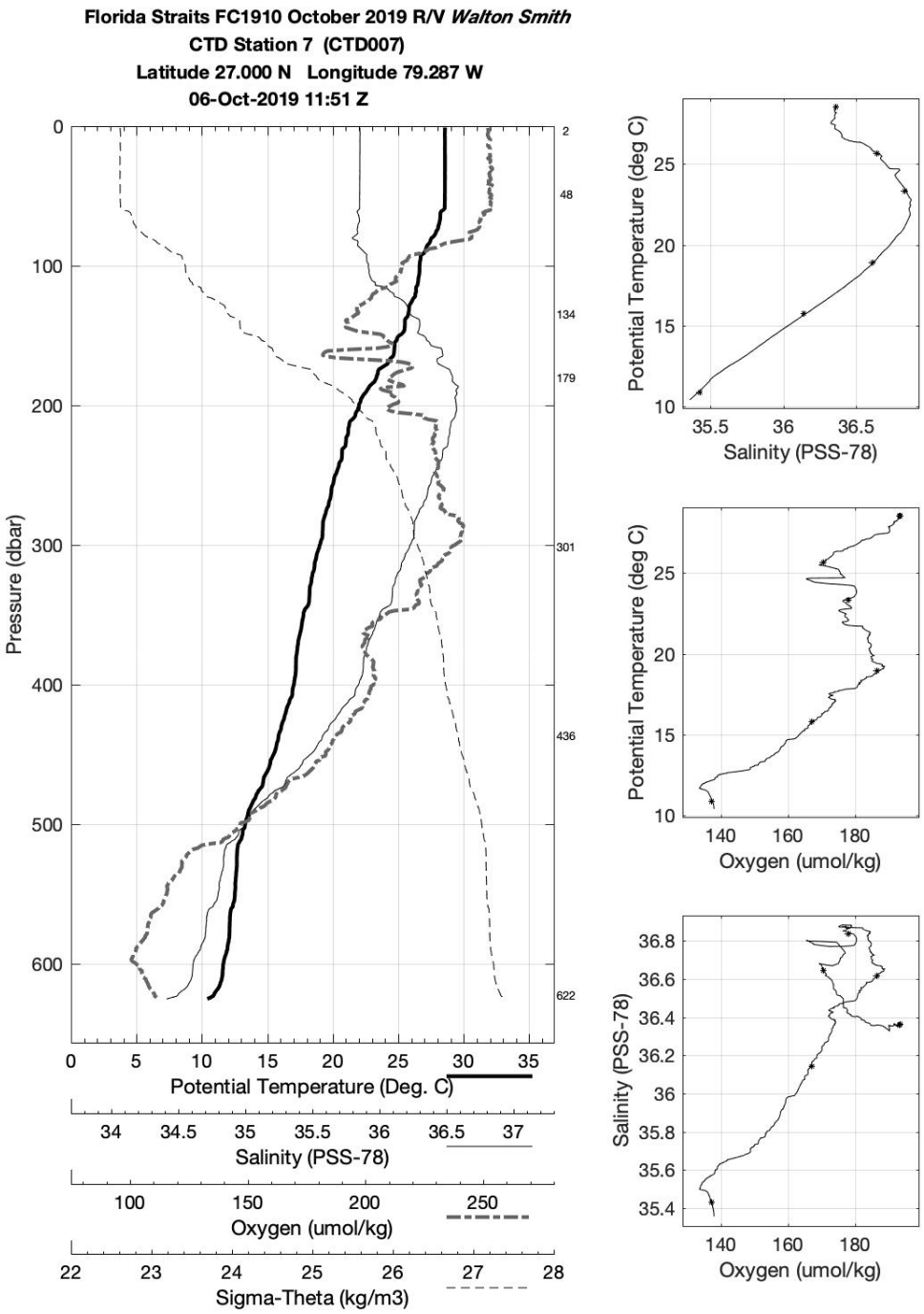
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
675	1	7.411	7.344	34.944	128.5
602	2	8.170	8.107	35.003	123.3
450	3	12.518	12.457	35.595	125.1
301	4	18.451	18.397	36.537	158.6
182	5	23.569	23.531	36.877	159.0
129	6	26.384	26.355	36.528	174.4
50	7	28.570	28.558	36.357	193.3
2	13	28.562	28.561	36.365	193.1


Florida Straits FC1910 October 2019 R/V Walton Smith
CTD Station 6 (CTD006)
Latitude 26.995 N Longitude 79.385 W
06-Oct-2019 13:15 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)

Florida Straits FC1910 October 2019 R/V *Walton Smith*
CTD Station 7 (CTD007)
Latitude 27.000N Longitude 79.287W
06-Oct-2019 11:51Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.568	28.568	36.368	192.9	0.005	23.237
10	28.568	28.566	36.368	193.3	0.046	23.237
20	28.570	28.565	36.368	193.3	0.093	23.237
30	28.574	28.567	36.368	193.6	0.139	23.236
50	28.570	28.558	36.367	193.5	0.232	23.239
75	27.934	27.916	36.355	190.6	0.347	23.442
100	26.651	26.628	36.413	178.5	0.452	23.901
125	26.092	26.064	36.594	173.1	0.551	24.217
150	25.091	25.058	36.702	175.5	0.640	24.610
200	22.036	21.996	36.873	176.9	0.785	25.643
250	20.223	20.176	36.751	184.4	0.895	26.051
300	19.047	18.993	36.631	187.4	0.993	26.270
400	17.091	17.023	36.361	173.9	1.164	26.554
500	13.372	13.300	35.765	151.7	1.309	26.924
600	11.710	11.631	35.496	134.5	1.431	27.044

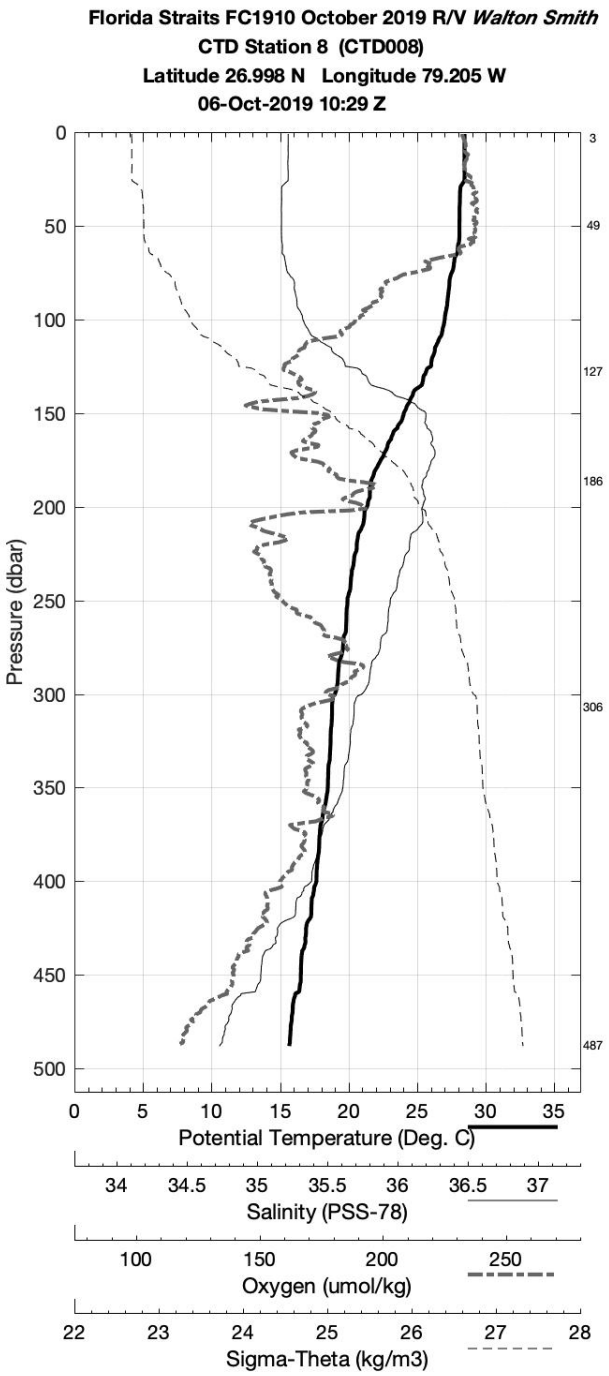
Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
622	1	10.976	10.897	35.428	137.3
436	2	15.830	15.760	36.143	167.0
301	3	18.972	18.918	36.615	186.6
180	4	23.370	23.332	36.838	177.9
134	5	25.694	25.664	36.644	170.4
48	6	28.577	28.565	36.364	193.3
3	7	28.570	28.569	36.361	193.3

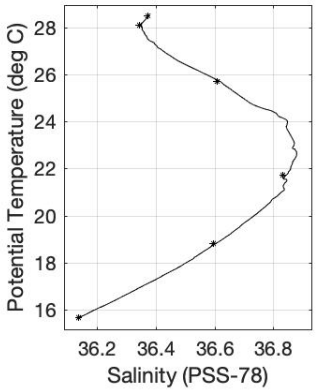

Florida Straits FC1910 October 2019 R/V Walton Smith
CTD Station 7 (CTD007)
Latitude 27.000 N Longitude 79.287 W
06-Oct-2019 11:51 Z
Pressure (dbar)
Potential Temperature (Deg. C)
Salinity (PSS-78)
Oxygen (umol/kg)
Sigma-Theta (kg/m3)
Potential Temperature (deg C)
Salinity (PSS-78)
Oxygen (umol/kg)

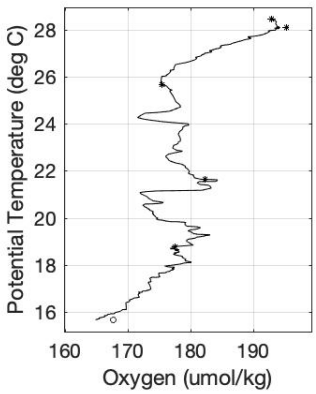
Florida Straits FC1910 October 2019 R/V *Walton Smith*
CTD Station 8 (CTD008)
Latitude 26.998N Longitude 79.205W
06-Oct-2019 10:29Z

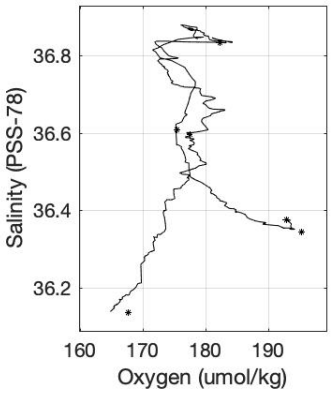
Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}	DynHt m^2·s^{-2}	SigT kg·m^{-3}
1	28.451	28.451	36.374	192.8	0.005	23.280
10	28.448	28.446	36.374	193.0	0.046	23.281
20	28.447	28.443	36.374	193.1	0.092	23.282
30	28.147	28.140	36.351	193.9	0.138	23.365
50	28.088	28.076	36.351	193.7	0.228	23.386
75	27.537	27.519	36.372	188.0	0.339	23.584
100	27.028	27.005	36.424	182.3	0.445	23.790
125	26.037	26.009	36.571	175.5	0.543	24.216
150	24.052	24.020	36.848	178.7	0.626	25.035
200	21.386	21.347	36.837	183.2	0.754	25.798
250	19.956	19.910	36.726	175.2	0.859	26.103
300	19.055	19.001	36.628	179.4	0.956	26.266
400	17.717	17.648	36.455	175.0	1.134	26.474

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen μmol·kg^{-1}
487	1	15.729	15.651	36.136	167.7
307	2	18.845	18.790	36.596	177.6
186	3	21.760	21.723	36.834	182.4
128	4	25.720	25.691	36.608	175.5
50	5	28.100	28.088	36.344	195.3
3	6	28.476	28.475	36.375	193.0


Florida Straits FC1910 October 2019 R/V Walton Smith
CTD Station 8 (CTD008)
Latitude 26.998 N Longitude 79.205 W
06-Oct-2019 10:29 Z
Pressure (dbar)
0
50
100
150
200
250
300
350
400
450
500
3
49
127
186
306
487
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)
28
26
24
22
20
18
16
36.2 36.4 36.6 36.8
Salinity (PSS-78)


Potential Temperature (deg C)
28
26
24
22
20
18
16
160 170 180 190
Oxygen (umol/kg)


Salinity (PSS-78)
36.8
36.6
36.4
36.2
160 170 180 190
Oxygen (umol/kg)

B WOCE Summary File

B.1 FC1902 - February 2019

Table 24: FC1902 – 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	MAX PRS	NO. BTLS	PARA-METERS
FCTSWS	FC1902	0	1	ROS	02/13/2019	10:45:46	BE	26.995N	79.930W	GPS					
FCTSWS	FC1902	0	1	ROS	02/13/2019	10:51:05	BO	26.998N	79.930W	GPS	128	25	134	4	1,2
FCTSWS	FC1902	0	1	ROS	02/13/2019	10:59:24	EN	27.004N	79.930W	GPS					
FCTSWS	FC1902	1	1	ROS	02/13/2019	09:41:30	BE	26.992N	79.867W	GPS					
FCTSWS	FC1902	1	1	ROS	02/13/2019	09:48:37	BO	26.998N	79.867W	GPS	242	24	247	5	1,2
FCTSWS	FC1902	1	1	ROS	02/13/2019	09:59:45	EN	27.008N	79.867W	GPS					
FCTSWS	FC1902	2	1	ROS	02/13/2019	08:03:51	BE	26.988N	79.781W	GPS					
FCTSWS	FC1902	2	1	ROS	02/13/2019	08:13:14	BO	26.997N	79.781W	GPS	368	25	377	10	1,2
FCTSWS	FC1902	2	1	ROS	02/13/2019	08:30:40	EN	27.012N	79.781W	GPS					
FCTSWS	FC1902	3	1	ROS	02/13/2019	06:30:44	BE	26.991N	79.683W	GPS					
FCTSWS	FC1902	3	1	ROS	02/13/2019	06:40:47	BO	26.998N	79.683W	GPS	512	27	524	7	1,2
FCTSWS	FC1902	3	1	ROS	02/13/2019	06:58:59	EN	27.013N	79.683W	GPS					
FCTSWS	FC1902	4	1	ROS	02/13/2019	04:54:49	BE	26.992N	79.616W	GPS					
FCTSWS	FC1902	4	1	ROS	02/13/2019	05:09:05	BO	27.003N	79.615W	GPS	626	24	637	7	1,2
FCTSWS	FC1902	4	1	ROS	02/13/2019	05:35:38	EN	27.023N	79.613W	GPS					
FCTSWS	FC1902	5	1	ROS	02/13/2019	03:03:06	BE	26.988N	79.498W	GPS					
FCTSWS	FC1902	5	1	ROS	02/13/2019	03:19:07	BO	26.998N	79.497W	GPS	734	24	744	8	1,2
FCTSWS	FC1902	5	1	ROS	02/13/2019	03:44:49	EN	27.015N	79.495W	GPS					
FCTSWS	FC1902	6	1	ROS	02/13/2019	01:16:22	BE	26.991N	79.381W	GPS					
FCTSWS	FC1902	6	1	ROS	02/13/2019	01:32:56	BO	27.002N	79.380W	GPS	670	12	676	8	1,2
FCTSWS	FC1902	6	1	ROS	02/13/2019	01:55:38	EN	27.015N	79.379W	GPS					
FCTSWS	FC1902	7	1	ROS	02/12/2019	23:27:56	BE	26.986N	79.284W	GPS					
FCTSWS	FC1902	7	1	ROS	02/12/2019	23:42:33	BO	26.994N	79.285W	GPS	600	19	606	7	1,2
FCTSWS	FC1902	7	1	ROS	02/13/2019	00:02:35	EN	27.005N	79.285W	GPS					
FCTSWS	FC1902	8	1	ROS	02/12/2019	22:09:55	BE	27.000N	79.200W	GPS					
FCTSWS	FC1902	8	1	ROS	02/12/2019	22:20:14	BO	27.004N	79.199W	GPS	456	20	461	6	1,2
FCTSWS	FC1902	8	1	ROS	02/12/2019	22:36:10	EN	27.010N	79.200W	GPS					

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

B.2 FC1904 - April 2019

Table 25: FC1904 – 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	MAX PRS	NO. BTLS	PARA-METERS
FCTSWS	FC1904	0	1	ROS	04/24/2019	08:26:21	BE	26.992N	79.929W	GPS					
FCTSWS	FC1904	0	1	ROS	04/24/2019	08:30:40	BO	26.995N	79.929W	GPS	134	22	145	4	1,2
FCTSWS	FC1904	0	1	ROS	04/24/2019	08:41:20	EN	27.003N	79.930W	GPS					
FCTSWS	FC1904	1	1	ROS	04/24/2019	07:29:13	BE	26.993N	79.864W	GPS					
FCTSWS	FC1904	1	1	ROS	04/24/2019	07:36:16	BO	26.998N	79.865W	GPS	253	16	261	5	1,2
FCTSWS	FC1904	1	1	ROS	04/24/2019	07:47:36	EN	27.007N	79.865W	GPS					
FCTSWS	FC1904	2	1	ROS	04/24/2019	06:08:22	BE	26.993N	79.781W	GPS					
FCTSWS	FC1904	2	1	ROS	04/24/2019	06:17:59	BO	27.001N	79.782W	GPS	377	13	383	6	1,2
FCTSWS	FC1904	2	1	ROS	04/24/2019	06:33:32	EN	27.013N	79.782W	GPS					
FCTSWS	FC1904	3	1	ROS	04/24/2019	04:44:39	BE	26.982N	79.681W	GPS					
FCTSWS	FC1904	3	1	ROS	04/24/2019	04:57:34	BO	26.992N	NaNW	GPS	527	17	537	7	1,2
FCTSWS	FC1904	3	1	ROS	04/24/2019	05:17:52	EN	27.006N	79.684W	GPS					
FCTSWS	FC1904	4	1	ROS	04/24/2019	03:29:33	BE	26.989N	79.616W	GPS					
FCTSWS	FC1904	4	1	ROS	04/24/2019	03:44:02	BO	26.999N	79.618W	GPS	628	14	636	7	1,2
FCTSWS	FC1904	4	1	ROS	04/24/2019	04:06:12	EN	27.015N	79.623W	GPS					
FCTSWS	FC1904	5	1	ROS	04/24/2019	01:55:47	BE	26.981N	79.498W	GPS					
FCTSWS	FC1904	5	1	ROS	04/24/2019	02:12:50	BO	26.989N	79.500W	GPS	748	13	756	8	1,2
FCTSWS	FC1904	5	1	ROS	04/24/2019	02:39:22	EN	27.003N	79.505W	GPS					
FCTSWS	FC1904	6	1	ROS	04/24/2019	00:26:45	BE	26.992N	79.383W	GPS					
FCTSWS	FC1904	6	1	ROS	04/24/2019	00:43:23	BO	26.998N	79.387W	GPS	686	9	693	8	1,2
FCTSWS	FC1904	6	1	ROS	04/24/2019	01:06:42	EN	27.004N	79.389W	GPS					
FCTSWS	FC1904	7	1	ROS	04/23/2019	23:06:00	BE	26.996N	79.281W	GPS					
FCTSWS	FC1904	7	1	ROS	04/23/2019	23:20:33	BO	26.997N	79.282W	GPS	605	10	610	7	1,2
FCTSWS	FC1904	7	1	ROS	04/23/2019	23:40:33	EN	27.000N	79.285W	GPS					
FCTSWS	FC1904	8	1	ROS	04/23/2019	21:46:42	BE	26.998N	79.197W	GPS					
FCTSWS	FC1904	8	1	ROS	04/23/2019	21:59:45	BO	26.998N	79.199W	GPS	472	7	477	6	1,2
FCTSWS	FC1904	8	1	ROS	04/23/2019	22:16:59	EN	26.999N	79.200W	GPS					

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

B.3 FC1906 - June 2019

Table 26: FC1906 – 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	MAX PRS	NO. BTLS	PARA-METERS
FCTSWS	FC1906	0	1	ROS	06/04/2019	08:19:48	BE	26.992N	79.929W	GPS					
FCTSWS	FC1906	0	1	ROS	06/04/2019	08:26:19	BO	26.996N	79.930W	GPS	144	11	146	4	1,2
FCTSWS	FC1906	0	1	ROS	06/04/2019	08:34:59	EN	26.998N	79.929W	GPS					
FCTSWS	FC1906	1	1	ROS	06/04/2019	07:14:28	BE	26.989N	79.866W	GPS					
FCTSWS	FC1906	1	1	ROS	06/04/2019	07:22:59	BO	26.994N	79.866W	GPS	256	11	258	5	1,2
FCTSWS	FC1906	1	1	ROS	06/04/2019	07:34:25	EN	27.002N	79.863W	GPS					
FCTSWS	FC1906	2	1	ROS	06/04/2019	05:57:39	BE	26.990N	79.784W	GPS					
FCTSWS	FC1906	2	1	ROS	06/04/2019	06:08:01	BO	26.996N	79.784W	GPS	377	11	381	6	1,2
FCTSWS	FC1906	2	1	ROS	06/04/2019	06:22:59	EN	27.002N	79.783W	GPS					
FCTSWS	FC1906	3	1	ROS	06/04/2019	04:12:55	BE	26.988N	79.682W	GPS					
FCTSWS	FC1906	3	1	ROS	06/04/2019	04:28:39	BO	27.003N	79.683W	GPS	525	13	532	7	1,2
FCTSWS	FC1906	3	1	ROS	06/04/2019	04:50:50	EN	27.019N	79.683W	GPS					
FCTSWS	FC1906	4	1	ROS	06/04/2019	02:47:35	BE	26.990N	79.614W	GPS					
FCTSWS	FC1906	4	1	ROS	06/04/2019	03:01:41	BO	27.002N	79.616W	GPS	634	13	643	7	1,2
FCTSWS	FC1906	4	1	ROS	06/04/2019	03:22:49	EN	27.016N	79.615W	GPS					
FCTSWS	FC1906	5	1	ROS	06/04/2019	01:09:58	BE	26.987N	79.503W	GPS					
FCTSWS	FC1906	5	1	ROS	06/04/2019	01:25:47	BO	26.998N	79.504W	GPS	747	11	757	11	1,2
FCTSWS	FC1906	5	1	ROS	06/04/2019	01:49:50	EN	27.012N	79.504W	GPS					
FCTSWS	FC1906	6	1	ROS	06/03/2019	23:35:21	BE	26.995N	79.384W	GPS					
FCTSWS	FC1906	6	1	ROS	06/03/2019	23:52:22	BO	26.997N	79.383W	GPS	680	8	686	12	1,2
FCTSWS	FC1906	6	1	ROS	06/04/2019	00:15:26	EN	27.000N	79.383W	GPS					
FCTSWS	FC1906	7	1	ROS	06/03/2019	22:09:33	BE	27.000N	79.284W	GPS					
FCTSWS	FC1906	7	1	ROS	06/03/2019	22:24:51	BO	27.002N	79.282W	GPS	607	9	612	7	1,2
FCTSWS	FC1906	7	1	ROS	06/03/2019	22:44:56	EN	27.003N	79.279W	GPS					
FCTSWS	FC1906	8	1	ROS	06/03/2019	20:46:47	BE	26.999N	79.200W	GPS					
FCTSWS	FC1906	8	1	ROS	06/03/2019	20:59:52	BO	26.999N	79.199W	GPS	457	18	470	6	1,2
FCTSWS	FC1906	8	1	ROS	06/03/2019	21:19:07	EN	27.001N	79.197W	GPS					

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

B.4 FC1907 - July 2019

Table 27: FC1907 – 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	MAX PRS	NO. BTLS	PARA-METERS
FCTSWS	FC1907	0	1	ROS	07/25/2019	09:54:23	BE	26.990N	79.931W	GPS					
FCTSWS	FC1907	0	1	ROS	07/25/2019	09:59:49	BO	26.996N	79.932W	GPS	132	21	140	4	1,2
FCTSWS	FC1907	0	1	ROS	07/25/2019	10:09:01	EN	27.006N	79.933W	GPS					
FCTSWS	FC1907	1	1	ROS	07/25/2019	08:23:54	BE	26.996N	79.866W	GPS					
FCTSWS	FC1907	1	1	ROS	07/25/2019	08:33:48	BO	27.008N	79.866W	GPS	253	58	258	5	1,2
FCTSWS	FC1907	1	1	ROS	07/25/2019	08:47:40	EN	27.021N	79.866W	GPS					
FCTSWS	FC1907	2	1	ROS	07/25/2019	07:01:07	BE	26.990N	79.781W	GPS					
FCTSWS	FC1907	2	1	ROS	07/25/2019	07:12:32	BO	27.001N	79.783W	GPS	382	7	385	6	1,2
FCTSWS	FC1907	2	1	ROS	07/25/2019	07:27:18	EN	27.013N	79.782W	GPS					
FCTSWS	FC1907	3	1	ROS	07/25/2019	05:33:23	BE	26.989N	79.680W	GPS					
FCTSWS	FC1907	3	1	ROS	07/25/2019	05:47:40	BO	27.002N	79.682W	GPS	533	9	537	7	1,2
FCTSWS	FC1907	3	1	ROS	07/25/2019	06:06:17	EN	27.013N	79.682W	GPS					
FCTSWS	FC1907	4	1	ROS	07/25/2019	04:14:13	BE	26.991N	79.617W	GPS					
FCTSWS	FC1907	4	1	ROS	07/25/2019	04:29:43	BO	27.003N	79.615W	GPS	637	11	644	7	1,2
FCTSWS	FC1907	4	1	ROS	07/25/2019	04:50:46	EN	27.014N	79.616W	GPS					
FCTSWS	FC1907	5	1	ROS	07/25/2019	02:35:39	BE	26.983N	79.499W	GPS					
FCTSWS	FC1907	5	1	ROS	07/25/2019	02:50:06	BO	26.991N	79.498W	GPS	743	16	757	8	1,2
FCTSWS	FC1907	5	1	ROS	07/25/2019	03:12:36	EN	27.003N	79.496W	GPS					
FCTSWS	FC1907	6	1	ROS	07/25/2019	00:50:45	BE	26.992N	79.380W	GPS					
FCTSWS	FC1907	6	1	ROS	07/25/2019	01:08:31	BO	26.998N	79.377W	GPS	664	6	669	8	1,2
FCTSWS	FC1907	6	1	ROS	07/25/2019	01:29:10	EN	27.006N	79.375W	GPS					
FCTSWS	FC1907	7	1	ROS	07/24/2019	23:13:17	BE	26.996N	79.283W	GPS					
FCTSWS	FC1907	7	1	ROS	07/24/2019	23:29:05	BO	27.002N	79.277W	GPS	602	8	607	7	1,2
FCTSWS	FC1907	7	1	ROS	07/24/2019	23:48:32	EN	27.007N	79.271W	GPS					
FCTSWS	FC1907	8	1	ROS	07/24/2019	21:36:56	BE	26.999N	79.201W	GPS					
FCTSWS	FC1907	8	1	ROS	07/24/2019	21:49:50	BO	27.001N	79.202W	GPS	476	10	481	6	1,2
FCTSWS	FC1907	8	1	ROS	07/24/2019	22:08:18	EN	27.004N	79.197W	GPS					

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

B.5 FC1910 - October 2019

Table 28: FC1910 – 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	MAX PRS	NO. BTLS	PARA-METERS
FCTSWS	FC1910	0	1	ROS	10/06/2019	20:49:34	BE	26.995N	79.925W	GPS					
FCTSWS	FC1910	0	1	ROS	10/06/2019	20:54:43	BO	26.997N	79.927W	GPS	137	22	142	8	1,2
FCTSWS	FC1910	0	1	ROS	10/06/2019	21:07:51	EN	27.003N	79.933W	GPS					
FCTSWS	FC1910	1	1	ROS	10/06/2019	19:48:53	BE	26.993N	79.862W	GPS					
FCTSWS	FC1910	1	1	ROS	10/06/2019	19:57:39	BO	26.998N	79.866W	GPS	53	200	243	5	1,2
FCTSWS	FC1910	1	1	ROS	10/06/2019	20:15:10	EN	27.010N	79.875W	GPS					
FCTSWS	FC1910	2	1	ROS	10/06/2019	18:43:50	BE	26.992N	79.777W	GPS					
FCTSWS	FC1910	2	1	ROS	10/06/2019	18:55:55	BO	26.999N	79.784W	GPS	370	20	374	6	1,2
FCTSWS	FC1910	2	1	ROS	10/06/2019	19:13:55	EN	27.009N	79.792W	GPS					
FCTSWS	FC1910	3	1	ROS	10/06/2019	17:29:02	BE	26.984N	79.679W	GPS					
FCTSWS	FC1910	3	1	ROS	10/06/2019	17:44:07	BO	26.990N	79.687W	GPS	528	13	537	7	1,2
FCTSWS	FC1910	3	1	ROS	10/06/2019	18:03:15	EN	26.998N	79.693W	GPS					
FCTSWS	FC1910	4	1	ROS	10/06/2019	16:11:23	BE	26.997N	79.616W	GPS					
FCTSWS	FC1910	4	1	ROS	10/06/2019	16:28:36	BO	27.005N	79.626W	GPS	609	19	617	7	1,2
FCTSWS	FC1910	4	1	ROS	10/06/2019	16:54:07	EN	27.018N	79.637W	GPS					
FCTSWS	FC1910	5	1	ROS	10/06/2019	14:43:32	BE	26.986N	79.491W	GPS					
FCTSWS	FC1910	5	1	ROS	10/06/2019	15:01:22	BO	26.992N	79.497W	GPS	749	12	758	8	1,2
FCTSWS	FC1910	5	1	ROS	10/06/2019	15:24:37	EN	27.002N	79.507W	GPS					
FCTSWS	FC1910	6	1	ROS	10/06/2019	13:15:30	BE	26.993N	79.382W	GPS					
FCTSWS	FC1910	6	1	ROS	10/06/2019	13:31:23	BO	26.996N	79.387W	GPS	669	28	686	8	1,2
FCTSWS	FC1910	6	1	ROS	10/06/2019	13:59:15	EN	27.005N	79.397W	GPS					
FCTSWS	FC1910	7	1	ROS	10/06/2019	11:51:22	BE	27.001N	79.284W	GPS					
FCTSWS	FC1910	7	1	ROS	10/06/2019	12:08:47	BO	27.000N	79.289W	GPS	617	4	625	7	1,2
FCTSWS	FC1910	7	1	ROS	10/06/2019	12:31:30	EN	27.000N	79.295W	GPS					
FCTSWS	FC1910	8	1	ROS	10/06/2019	10:29:51	BE	27.000N	79.201W	GPS					
FCTSWS	FC1910	8	1	ROS	10/06/2019	10:45:30	BO	26.997N	79.206W	GPS	484	6	488	6	1,2
FCTSWS	FC1910	8	1	ROS	10/06/2019	11:03:34	EN	26.994N	79.210W	GPS					

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

C WOCE Bottle Summary File

C.1 FC1902 - February 2019

Table 29: FC1902 – 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
FCTSWS	FC1902	0	1	1	2	20190213	1053	26.993N	79.930W	128	129	18.288	36.282	2	36.278	2	144.5	2	145.1	2
FCTSWS	FC1902	0	1	2	2	20190213	1053	26.993N	79.930W	105	105	20.528	36.360	2	36.358	2	164.0	2	180.8	4
FCTSWS	FC1902	0	1	3	2	20190213	1053	26.993N	79.930W	50	50	24.175	36.256	2	36.270	2	207.9	2	206.8	2
FCTSWS	FC1902	0	1	4	2	20190213	1053	26.993N	79.930W	2	2	25.565	36.076	2	36.076	2	203.8	2	204.2	2
FCTSWS	FC1902	0	1	5	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	6	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	7	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	8	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	9	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	10	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	11	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	12	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	13	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	14	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	15	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	16	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	17	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	18	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	19	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	20	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	21	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	22	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	23	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	0	1	24	2	20190213	1053	26.993N	79.930W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	1	2	20190213	0950	26.991N	79.867W	242	243	12.255	35.585	2	35.581	2	127.5	2	128.0	2
FCTSWS	FC1902	1	1	2	2	20190213	0950	26.991N	79.867W	184	185	15.825	36.108	2	36.120	2	132.0	2	132.0	2
FCTSWS	FC1902	1	1	3	2	20190213	0950	26.991N	79.867W	132	133	21.602	36.634	2	36.645	2	148.5	2	172.8	4
FCTSWS	FC1902	1	1	4	2	20190213	0950	26.991N	79.867W	49	50	25.952	36.063	2	36.063	2	202.4	2	201.1	2
FCTSWS	FC1902	1	1	5	2	20190213	0950	26.991N	79.867W	2	2	25.963	36.064	2	36.059	2	201.4	2	201.3	2
FCTSWS	FC1902	1	1	6	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	7	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	8	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	9	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	10	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	11	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	12	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	13	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	14	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	15	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	16	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	17	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	18	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	19	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	20	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	21	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	22	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	23	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	1	1	24	2	20190213	0950	26.991N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	1	2	20190213	0815	26.987N	79.781W	368	371	8.553	35.071	2	-999.000	9	118.7	2	-999.0	9
FCTSWS	FC1902	2	1	2	2	20190213	0815	26.987N	79.781W	368	370	8.645	35.082	2	-999.000	9	118.2	2	-999.0	9
FCTSWS	FC1902	2	1	3	2	20190213	0815	26.987N	79.781W	367	370	8.726	35.090	2	-999.000	9	117.7	2	-999.0	9
FCTSWS	FC1902	2	1	4	2	20190213	0815	26.987N	79.781W	367	370	8.767	35.095	2	-999.000	9	117.6	2	-999.0	9
FCTSWS	FC1902	2	1	5	2	20190213	0815	26.987N	79.781W	367	370	8.823	35.114	2	35.102	2	126.0	2	124.9	2
FCTSWS	FC1902	2	1	6	2	20190213	0815	26.987N	79.781W	303	306	10.831	35.333	2	-999.000	9	113.5	2	-999.0	9
FCTSWS	FC1902	2	1	7	2	20190213	0815	26.987N	79.781W	183	184	19.535	36.588	2	36.583	2	134.9	2	133.5	2
FCTSWS	FC1902	2	1	8	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	9	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	10	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	11	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	12	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	13	2	20190213	0815	26.987N	79.781W	130	131	21.784	36.357	2	36.353	2	204.6	2	204.3	2

FCTSWS	FC1902	2	1	14	2	20190213	0815	26.987N	79.781W	50	50	26.031	36.055	2	36.057	2	201.3	2	200.7	2
FCTSWS	FC1902	2	1	15	2	20190213	0815	26.987N	79.781W	2	2	26.020	36.058	2	36.053	2	201.8	2	200.8	2
FCTSWS	FC1902	2	1	16	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	17	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	18	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	19	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	20	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	21	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	22	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	23	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	2	1	24	2	20190213	0815	26.987N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	1	2	20190213	0642	26.989N	79.683W	512	516	7.133	34.928	2	34.928	2	130.9	2	132.1	2
FCTSWS	FC1902	3	1	2	2	20190213	0642	26.989N	79.683W	401	404	10.164	35.232	2	35.226	2	117.7	2	118.5	2
FCTSWS	FC1902	3	1	3	2	20190213	0642	26.989N	79.683W	301	303	14.049	35.826	2	35.826	2	127.6	2	126.7	2
FCTSWS	FC1902	3	1	4	2	20190213	0642	26.989N	79.683W	181	182	21.335	36.582	2	36.572	2	156.8	2	156.6	2
FCTSWS	FC1902	3	1	5	2	20190213	0642	26.989N	79.683W	130	131	22.128	36.374	2	36.383	2	208.6	2	207.4	2
FCTSWS	FC1902	3	1	6	2	20190213	0642	26.989N	79.683W	51	51	25.921	36.095	2	36.092	2	201.4	2	200.7	2
FCTSWS	FC1902	3	1	7	2	20190213	0642	26.989N	79.683W	3	3	26.015	36.062	2	36.060	2	201.6	2	201.3	2
FCTSWS	FC1902	3	1	8	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	9	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	10	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	11	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	12	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	13	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	14	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	15	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	16	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	17	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	18	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	19	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	20	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	21	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	22	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	23	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	3	1	24	2	20190213	0642	26.989N	79.683W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	1	2	20190213	0511	26.991N	79.616W	627	632	6.393	34.911	2	34.925	2	141.9	2	141.9	2
FCTSWS	FC1902	4	1	2	2	20190213	0511	26.991N	79.616W	456	459	10.176	35.230	2	35.223	2	119.3	2	119.0	2
FCTSWS	FC1902	4	1	3	2	20190213	0511	26.991N	79.616W	299	301	14.976	35.976	2	35.970	2	132.7	2	131.4	2
FCTSWS	FC1902	4	1	4	2	20190213	0511	26.991N	79.616W	181	182	21.685	36.510	2	36.479	4	180.4	2	178.6	4
FCTSWS	FC1902	4	1	5	2	20190213	0511	26.991N	79.616W	131	132	22.008	36.363	2	36.353	2	206.4	2	206.6	2
FCTSWS	FC1902	4	1	6	2	20190213	0511	26.991N	79.616W	50	51	25.937	36.086	2	36.084	2	201.6	2	200.5	2
FCTSWS	FC1902	4	1	7	2	20190213	0511	26.991N	79.616W	3	3	25.950	36.093	2	36.089	2	202.2	2	201.5	2
FCTSWS	FC1902	4	1	8	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	9	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	10	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	11	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	12	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	13	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	14	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	15	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	16	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	17	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	18	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	19	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	20	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	21	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	22	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	23	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	4	1	24	2	20190213	0511	26.991N	79.616W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	1	2	20190213	0321	26.987N	79.499W	734	740	6.854	34.910	2	34.907	2	135.8	2	134.9	2
FCTSWS	FC1902	5	1	2	2	20190213	0321	26.987N	79.499W	600	605	9.006	35.074	2	35.075	2	119.9	2	120.0	2
FCTSWS	FC1902	5	1	3	2	20190213	0321	26.987N	79.499W	453	456	11.373	35.398	2	35.409	2	122.9	2	124.1	2
FCTSWS	FC1902	5	1	4	2	20190213	0321	26.987N	79.499W	300	303	17.117	36.335	2	36.339	2	147.6	2	147.9	2
FCTSWS	FC1902	5	1	5	2	20190213	0321	26.987N	79.499W	180	181	21.352	36.859	2	36.857	2	154.6	2	156.4	2
FCTSWS	FC1902	5	1	6	2	20190213	0321	26.987N	79.499W	130	131	23.600	36.668	2	36.662	2	174.6	2	179.0	4
FCTSWS	FC1902	5	1	7	2	20190213	0321	26.987N	79.499W	52	52	25.824	36.078	2	36.076	2	200.5	2	200.9	2

FCTSWS	FC1902	5	1	8	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	9	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	10	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	11	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	12	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	13	2	20190213	0321	26.987N	79.499W	3	3	25.923	36.072	2	-999.000	9	189.2	2	-999.0	9
FCTSWS	FC1902	5	1	14	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	15	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	16	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	17	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	18	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	19	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	20	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	21	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	22	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	23	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	5	1	24	2	20190213	0321	26.987N	79.499W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	1	2	20190213	0134	26.990N	79.381W	670	675	10.426	35.282	2	35.282	2	115.1	2	129.7	4
FCTSWS	FC1902	6	1	2	2	20190213	0134	26.990N	79.381W	602	607	10.887	35.326	2	35.326	2	120.8	2	120.8	2
FCTSWS	FC1902	6	1	3	2	20190213	0134	26.990N	79.381W	453	457	13.781	35.781	2	35.802	4	132.6	2	131.6	2
FCTSWS	FC1902	6	1	4	2	20190213	0134	26.990N	79.381W	300	303	17.926	36.480	2	36.512	4	161.6	2	163.1	2
FCTSWS	FC1902	6	1	5	2	20190213	0134	26.990N	79.381W	181	182	21.520	36.860	2	36.859	2	155.3	2	155.2	2
FCTSWS	FC1902	6	1	6	2	20190213	0134	26.990N	79.381W	130	131	24.830	36.750	2	36.742	2	156.7	2	158.1	4
FCTSWS	FC1902	6	1	7	2	20190213	0134	26.990N	79.381W	50	51	25.724	36.131	2	36.133	2	202.4	2	202.6	2
FCTSWS	FC1902	6	1	8	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	9	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	10	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	11	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	12	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	13	2	20190213	0134	26.990N	79.381W	3	3	25.797	36.120	2	36.136	2	202.4	2	202.2	2
FCTSWS	FC1902	6	1	14	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	15	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	16	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	17	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	18	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	19	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	20	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	21	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	22	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	23	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	6	1	24	2	20190213	0134	26.990N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	1	2	20190212	2343	26.985N	79.284W	600	605	12.540	35.636	2	35.633	2	148.4	2	148.4	2
FCTSWS	FC1902	7	1	2	2	20190212	2343	26.985N	79.284W	451	454	15.435	36.059	2	36.106	4	146.2	2	146.6	2
FCTSWS	FC1902	7	1	3	2	20190212	2343	26.985N	79.284W	300	303	18.586	36.578	2	36.592	2	173.0	2	183.5	4
FCTSWS	FC1902	7	1	4	2	20190212	2343	26.985N	79.284W	179	181	22.491	36.931	2	36.934	2	177.3	2	175.8	2
FCTSWS	FC1902	7	1	5	2	20190212	2343	26.985N	79.284W	130	131	24.501	36.693	2	36.697	2	174.7	2	175.2	2
FCTSWS	FC1902	7	1	6	2	20190212	2343	26.985N	79.284W	50	50	25.671	36.164	2	36.188	4	202.2	2	204.3	2
FCTSWS	FC1902	7	1	7	2	20190212	2343	26.985N	79.284W	3	3	25.693	36.166	2	36.161	2	202.6	2	204.8	2
FCTSWS	FC1902	7	1	8	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	9	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	10	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	11	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	12	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	13	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	14	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	15	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	16	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	17	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	18	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	19	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	20	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	21	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	22	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	23	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	7	1	24	2	20190212	2343	26.985N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	1	2	20190212	2221	27.000N	79.200W	456	460	15.778	36.150	2	36.146	2	155.9	2	173.7	4

FCTSWS	FC1902	8	1	2	2	20190212	2221	27.000N	79.200W	300	302	18.898	36.613	2	36.608	2	189.1	2	189.1	2
FCTSWS	FC1902	8	1	3	2	20190212	2221	27.000N	79.200W	180	181	22.116	36.836	2	36.845	2	186.6	2	188.2	2
FCTSWS	FC1902	8	1	4	2	20190212	2221	27.000N	79.200W	130	131	24.728	36.691	2	36.689	2	198.3	2	197.3	2
FCTSWS	FC1902	8	1	5	2	20190212	2221	27.000N	79.200W	51	51	25.523	36.285	2	36.284	2	201.6	2	203.0	2
FCTSWS	FC1902	8	1	6	2	20190212	2221	27.000N	79.200W	3	3	25.762	36.160	2	36.162	2	201.8	2	203.1	2
FCTSWS	FC1902	8	1	7	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	8	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	9	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	10	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	11	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	12	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	13	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	14	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	15	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	16	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	17	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	18	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	19	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	20	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	21	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	22	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	23	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1902	8	1	24	2	20190212	2221	27.000N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

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Table 30: FC1904 – 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
FCTSWS	FC1904	0	1	1	2	20190424	0832	26.991N	79.929W	134	135	12.699	35.600	2	35.590	2	126.0	2	126.9	2
FCTSWS	FC1904	0	1	2	2	20190424	0832	26.991N	79.929W	101	102	16.840	35.969	2	35.964	2	162.1	2	159.9	2
FCTSWS	FC1904	0	1	3	2	20190424	0832	26.991N	79.929W	48	48	23.968	36.423	2	36.425	2	215.8	2	215.2	2
FCTSWS	FC1904	0	1	4	2	20190424	0832	26.991N	79.929W	2	3	25.831	36.475	2	36.474	2	202.1	2	202.1	2
FCTSWS	FC1904	0	1	5	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	6	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	7	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	8	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	9	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	10	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	11	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	12	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	13	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	14	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	15	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	16	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	17	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	18	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	19	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	20	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	21	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	22	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	23	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	0	1	24	2	20190424	0832	26.991N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	1	2	20190424	0738	26.991N	79.864W	253	255	8.116	35.028	2	35.019	2	125.3	2	126.1	2
FCTSWS	FC1904	1	1	2	2	20190424	0738	26.991N	79.864W	185	186	14.173	35.812	2	35.842	2	130.8	2	130.9	2
FCTSWS	FC1904	1	1	3	2	20190424	0738	26.991N	79.864W	131	132	20.778	36.346	2	36.355	2	183.1	2	186.5	4
FCTSWS	FC1904	1	1	4	2	20190424	0738	26.991N	79.864W	50	50	25.322	36.487	2	36.491	2	206.6	2	206.2	2
FCTSWS	FC1904	1	1	5	2	20190424	0738	26.991N	79.864W	2	2	26.289	36.397	2	36.400	2	200.0	2	200.8	2
FCTSWS	FC1904	1	1	6	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	7	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	8	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	9	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	10	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	11	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	12	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	13	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	14	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	15	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	16	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	17	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	18	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	19	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	20	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	21	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	22	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	23	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	1	1	24	2	20190424	0738	26.991N	79.864W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	1	2	20190424	0619	26.991N	79.780W	377	380	7.794	34.993	2	34.983	2	126.4	2	126.7	2
FCTSWS	FC1904	2	1	2	2	20190424	0619	26.991N	79.780W	301	303	10.576	35.335	2	35.349	2	116.6	2	127.9	4
FCTSWS	FC1904	2	1	3	2	20190424	0619	26.991N	79.780W	180	182	17.773	36.422	2	36.424	2	143.9	2	143.0	2
FCTSWS	FC1904	2	1	4	2	20190424	0619	26.991N	79.780W	129	130	21.031	36.257	2	36.260	2	205.6	2	205.6	2
FCTSWS	FC1904	2	1	5	2	20190424	0619	26.991N	79.780W	50	50	25.220	36.591	2	36.573	2	206.2	2	207.1	2
FCTSWS	FC1904	2	1	6	2	20190424	0619	26.991N	79.780W	3	3	26.530	36.350	2	36.354	2	200.5	2	199.9	2
FCTSWS	FC1904	2	1	7	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	8	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	9	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	10	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	11	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	12	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	13	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

FCTSWS	FC1904	2	1	14	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	15	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	16	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	17	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	18	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	19	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	20	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	21	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	22	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	23	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	2	1	24	2	20190424	0619	26.991N	79.780W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	1	2	20190424	0459	26.982N	79.680W	527	531	6.542	34.913	2	34.906	2	138.7	2	138.4	2
FCTSWS	FC1904	3	1	2	2	20190424	0459	26.982N	79.680W	402	405	9.762	35.191	2	35.197	2	120.0	2	119.7	2
FCTSWS	FC1904	3	1	3	2	20190424	0459	26.982N	79.680W	302	304	13.797	35.786	2	35.797	2	128.1	2	127.6	2
FCTSWS	FC1904	3	1	4	2	20190424	0459	26.982N	79.680W	179	181	19.544	36.665	2	36.634	4	147.4	2	146.1	2
FCTSWS	FC1904	3	1	5	2	20190424	0459	26.982N	79.680W	127	127	21.591	36.348	2	36.326	2	197.6	2	217.7	4
FCTSWS	FC1904	3	1	6	2	20190424	0459	26.982N	79.680W	50	50	26.511	36.292	2	36.275	2	201.2	2	200.1	2
FCTSWS	FC1904	3	1	7	2	20190424	0459	26.982N	79.680W	3	3	26.502	36.253	2	36.253	2	191.6	2	200.4	4
FCTSWS	FC1904	3	1	8	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	9	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	10	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	11	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	12	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	13	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	14	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	15	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	16	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	17	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	18	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	19	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	20	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	21	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	22	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	23	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	3	1	24	2	20190424	0459	26.982N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	1	2	20190424	0346	26.988N	79.615W	628	633	6.568	34.920	2	34.917	2	139.6	2	139.7	2
FCTSWS	FC1904	4	1	2	2	20190424	0346	26.988N	79.615W	447	451	10.019	35.206	2	35.200	2	118.6	2	118.5	2
FCTSWS	FC1904	4	1	3	2	20190424	0346	26.988N	79.615W	298	300	15.469	36.062	2	36.059	2	138.0	2	140.0	2
FCTSWS	FC1904	4	1	4	2	20190424	0346	26.988N	79.615W	183	185	19.666	36.700	2	36.702	2	153.4	2	153.4	2
FCTSWS	FC1904	4	1	5	2	20190424	0346	26.988N	79.615W	128	129	22.886	36.852	2	36.867	2	159.7	2	160.4	2
FCTSWS	FC1904	4	1	6	2	20190424	0346	26.988N	79.615W	49	49	26.353	36.226	2	36.227	2	201.1	2	200.9	2
FCTSWS	FC1904	4	1	7	2	20190424	0346	26.988N	79.615W	3	3	26.332	36.225	2	36.225	2	201.2	2	200.9	2
FCTSWS	FC1904	4	1	8	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	9	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	10	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	11	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	12	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	13	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	14	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	15	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	16	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	17	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	18	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	19	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	20	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	21	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	22	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	23	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	4	1	24	2	20190424	0346	26.988N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	1	2	20190424	0214	26.980N	79.497W	748	755	6.811	34.909	2	34.902	2	135.1	2	134.6	2
FCTSWS	FC1904	5	1	2	2	20190424	0214	26.980N	79.497W	592	596	8.586	35.032	2	35.047	2	119.5	2	119.5	2
FCTSWS	FC1904	5	1	3	2	20190424	0214	26.980N	79.497W	443	446	12.141	35.517	2	35.512	2	115.0	2	142.5	4
FCTSWS	FC1904	5	1	4	2	20190424	0214	26.980N	79.497W	299	301	16.745	36.273	2	36.270	2	136.0	2	160.7	4
FCTSWS	FC1904	5	1	5	2	20190424	0214	26.980N	79.497W	179	181	21.367	36.867	2	36.865	2	154.0	2	154.2	2
FCTSWS	FC1904	5	1	6	2	20190424	0214	26.980N	79.497W	130	131	24.388	36.847	2	36.872	2	163.7	2	163.9	2
FCTSWS	FC1904	5	1	7	2	20190424	0214	26.980N	79.497W	50	51	26.335	36.228	2	36.229	2	200.9	2	201.7	2

FCTSWS	FC1904	5	1	8	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	9	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	10	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	11	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	12	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	13	2	20190424	0214	26.980N	79.497W	3	3	26.317	36.230	2	36.230	2	189.0	2	-999.0	9
FCTSWS	FC1904	5	1	14	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	15	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	16	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	17	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	18	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	19	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	20	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	21	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	22	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	23	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	5	1	24	2	20190424	0214	26.980N	79.497W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	1	2	20190424	0044	26.992N	79.383W	686	692	8.542	35.034	2	35.036	2	121.4	2	121.0	2
FCTSWS	FC1904	6	1	2	2	20190424	0044	26.992N	79.383W	596	601	9.617	35.156	2	35.160	2	119.4	2	120.2	2
FCTSWS	FC1904	6	1	3	2	20190424	0044	26.992N	79.383W	446	450	13.428	35.719	2	35.728	2	130.1	2	129.1	2
FCTSWS	FC1904	6	1	4	2	20190424	0044	26.992N	79.383W	298	300	18.173	36.501	2	36.496	2	152.6	2	152.5	2
FCTSWS	FC1904	6	1	5	2	20190424	0044	26.992N	79.383W	178	179	21.860	36.939	2	36.928	2	180.7	2	182.2	2
FCTSWS	FC1904	6	1	6	2	20190424	0044	26.992N	79.383W	130	131	24.589	36.836	2	36.830	2	162.8	2	162.0	2
FCTSWS	FC1904	6	1	7	2	20190424	0044	26.992N	79.383W	50	51	26.378	36.249	2	36.248	2	201.3	2	200.5	2
FCTSWS	FC1904	6	1	8	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	9	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	10	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	11	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	12	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	13	2	20190424	0044	26.992N	79.383W	3	3	26.411	36.255	2	36.253	2	201.3	2	200.8	2
FCTSWS	FC1904	6	1	14	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	15	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	16	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	17	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	18	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	19	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	20	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	21	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	22	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	23	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	6	1	24	2	20190424	0044	26.992N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	1	2	20190423	2321	26.996N	79.281W	605	610	11.047	35.401	2	35.397	2	124.2	2	-999.0	9
FCTSWS	FC1904	7	1	2	2	20190423	2321	26.996N	79.281W	447	450	15.578	36.100	2	36.095	2	151.5	2	151.7	2
FCTSWS	FC1904	7	1	3	2	20190423	2321	26.996N	79.281W	297	299	18.663	36.587	2	36.583	2	182.1	2	182.5	2
FCTSWS	FC1904	7	1	4	2	20190423	2321	26.996N	79.281W	181	182	21.756	36.831	2	36.843	2	193.1	2	192.4	2
FCTSWS	FC1904	7	1	5	2	20190423	2321	26.996N	79.281W	130	131	23.973	36.824	2	36.822	2	198.1	2	196.8	2
FCTSWS	FC1904	7	1	6	2	20190423	2321	26.996N	79.281W	49	49	26.372	36.238	2	36.237	2	201.2	2	200.6	2
FCTSWS	FC1904	7	1	7	2	20190423	2321	26.996N	79.281W	3	3	26.437	36.244	2	36.242	2	201.0	2	201.3	2
FCTSWS	FC1904	7	1	8	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	9	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	10	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	11	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	12	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	13	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	14	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	15	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	16	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	17	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	18	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	19	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	20	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	21	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	22	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	23	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	7	1	24	2	20190423	2321	26.996N	79.281W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	1	2	20190423	2200	26.998N	79.197W	472	475	16.634	36.292	2	36.292	2	158.7	2	178.0	4

FCTSWS	FC1904	8	1	2	2	20190423	2200	26.998N	79.197W	298	300	19.365	36.661	2	36.657	2	192.6	2	193.4	2
FCTSWS	FC1904	8	1	3	2	20190423	2200	26.998N	79.197W	180	181	21.790	36.871	2	36.868	2	187.5	2	188.9	2
FCTSWS	FC1904	8	1	4	2	20190423	2200	26.998N	79.197W	129	130	23.341	36.839	2	36.840	2	194.3	2	194.2	2
FCTSWS	FC1904	8	1	5	2	20190423	2200	26.998N	79.197W	50	50	26.363	36.252	2	36.264	2	188.6	2	198.0	4
FCTSWS	FC1904	8	1	6	2	20190423	2200	26.998N	79.197W	2	2	26.524	36.249	2	36.249	2	201.0	2	203.3	2
FCTSWS	FC1904	8	1	7	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	8	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	9	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	10	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	11	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	12	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	13	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	14	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	15	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	16	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	17	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	18	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	19	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	20	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	21	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	22	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	23	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1904	8	1	24	2	20190423	2200	26.998N	79.197W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

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Table 31: FC1906 – 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
FCTSWS	FC1906	0	1	1	2	20190604	0828	26.992N	79.929W	144	145	12.029	35.527	2	35.527	2	122.3	2	123.2	2
FCTSWS	FC1906	0	1	2	2	20190604	0828	26.992N	79.929W	100	100	14.658	35.904	2	35.892	2	129.5	2	128.7	2
FCTSWS	FC1906	0	1	3	2	20190604	0828	26.992N	79.929W	50	50	19.631	36.269	2	36.269	2	158.5	2	159.1	2
FCTSWS	FC1906	0	1	4	2	20190604	0828	26.992N	79.929W	3	3	28.662	36.458	2	36.453	2	194.1	2	194.8	2
FCTSWS	FC1906	0	1	5	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	6	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	7	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	8	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	9	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	10	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	11	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	12	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	13	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	14	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	15	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	16	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	17	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	18	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	19	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	20	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	21	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	22	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	23	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	0	1	24	2	20190604	0828	26.992N	79.929W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	1	2	20190604	0724	26.988N	79.867W	256	257	9.046	35.108	2	35.109	2	119.4	2	119.7	2
FCTSWS	FC1906	1	1	2	2	20190604	0724	26.988N	79.867W	175	176	12.076	35.541	2	35.520	2	125.2	2	124.7	2
FCTSWS	FC1906	1	1	3	2	20190604	0724	26.988N	79.867W	126	127	15.146	35.937	2	35.949	2	131.8	2	131.5	2
FCTSWS	FC1906	1	1	4	2	20190604	0724	26.988N	79.867W	50	50	24.661	36.540	2	36.527	2	201.7	2	202.5	2
FCTSWS	FC1906	1	1	5	2	20190604	0724	26.988N	79.867W	2	2	28.703	36.434	2	36.454	2	194.6	2	194.7	2
FCTSWS	FC1906	1	1	6	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	7	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	8	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	9	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	10	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	11	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	12	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	13	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	14	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	15	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	16	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	17	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	18	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	19	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	20	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	21	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	22	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	23	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	1	1	24	2	20190604	0724	26.988N	79.867W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	1	2	20190604	0610	26.989N	79.784W	377	380	7.763	34.970	2	34.981	2	124.3	2	124.3	2
FCTSWS	FC1906	2	1	2	2	20190604	0610	26.989N	79.784W	300	302	9.103	35.123	2	35.127	2	122.1	2	122.2	2
FCTSWS	FC1906	2	1	3	2	20190604	0610	26.989N	79.784W	177	178	15.473	35.987	2	35.980	2	133.8	2	133.2	2
FCTSWS	FC1906	2	1	4	2	20190604	0610	26.989N	79.784W	133	134	19.669	36.445	2	36.417	4	150.5	2	154.9	4
FCTSWS	FC1906	2	1	5	2	20190604	0610	26.989N	79.784W	50	50	27.143	36.404	2	36.406	2	198.3	2	198.0	2
FCTSWS	FC1906	2	1	6	2	20190604	0610	26.989N	79.784W	2	2	28.661	36.392	2	36.389	2	194.2	2	194.8	2
FCTSWS	FC1906	2	1	7	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	8	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	9	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	10	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	11	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	12	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	13	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

FCTSWS	FC1906	2	1	14	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	15	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	16	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	17	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	18	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	19	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	20	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	21	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	22	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	23	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	2	1	24	2	20190604	0610	26.989N	79.784W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	1	2	20190604	0430	26.986N	79.682W	525	529	6.838	34.910	2	34.906	2	133.1	2	133.2	2
FCTSWS	FC1906	3	1	2	2	20190604	0430	26.986N	79.682W	401	404	9.187	35.133	2	35.134	2	121.9	2	122.3	2
FCTSWS	FC1906	3	1	3	2	20190604	0430	26.986N	79.682W	300	302	11.777	35.489	2	35.502	2	123.5	2	123.6	2
FCTSWS	FC1906	3	1	4	2	20190604	0430	26.986N	79.682W	180	181	19.569	36.632	2	36.670	4	150.2	2	149.6	2
FCTSWS	FC1906	3	1	5	2	20190604	0430	26.986N	79.682W	129	130	22.248	36.734	2	36.727	2	167.4	2	168.0	2
FCTSWS	FC1906	3	1	6	2	20190604	0430	26.986N	79.682W	49	50	27.764	36.430	2	36.439	2	198.6	2	198.6	2
FCTSWS	FC1906	3	1	7	2	20190604	0430	26.986N	79.682W	2	2	28.740	36.386	2	36.392	2	194.9	2	195.3	2
FCTSWS	FC1906	3	1	8	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	9	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	10	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	11	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	12	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	13	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	14	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	15	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	16	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	17	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	18	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	19	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	20	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	21	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	22	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	23	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	3	1	24	2	20190604	0430	26.986N	79.682W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	1	2	20190604	0303	26.989N	79.614W	634	639	6.485	34.907	2	34.910	2	139.2	2	139.3	2
FCTSWS	FC1906	4	1	2	2	20190604	0303	26.989N	79.614W	453	457	8.540	35.026	2	35.031	2	119.0	2	119.0	2
FCTSWS	FC1906	4	1	3	2	20190604	0303	26.989N	79.614W	303	305	13.029	35.658	2	35.703	4	126.4	2	126.5	2
FCTSWS	FC1906	4	1	4	2	20190604	0303	26.989N	79.614W	179	180	20.822	36.792	2	36.799	2	152.1	2	151.2	2
FCTSWS	FC1906	4	1	5	2	20190604	0303	26.989N	79.614W	129	130	23.579	36.870	2	36.872	2	156.1	2	153.5	4
FCTSWS	FC1906	4	1	6	2	20190604	0303	26.989N	79.614W	49	50	27.379	36.321	2	36.335	2	198.6	2	198.1	2
FCTSWS	FC1906	4	1	7	2	20190604	0303	26.989N	79.614W	3	3	28.544	36.316	2	36.327	2	196.0	2	195.9	2
FCTSWS	FC1906	4	1	8	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	9	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	10	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	11	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	12	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	13	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	14	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	15	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	16	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	17	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	18	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	19	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	20	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	21	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	22	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	23	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	4	1	24	2	20190604	0303	26.989N	79.614W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	1	2	20190604	0127	26.986N	79.503W	747	754	6.301	34.909	2	34.902	2	143.2	2	142.6	2
FCTSWS	FC1906	5	1	2	2	20190604	0127	26.986N	79.503W	747	753	6.302	34.904	2	-999.000	9	136.4	2	-999.0	9
FCTSWS	FC1906	5	1	3	2	20190604	0127	26.986N	79.503W	600	604	8.261	35.007	2	35.074	4	122.7	2	122.6	2
FCTSWS	FC1906	5	1	4	2	20190604	0127	26.986N	79.503W	450	453	10.921	35.331	2	35.330	2	122.4	2	122.1	2
FCTSWS	FC1906	5	1	5	2	20190604	0127	26.986N	79.503W	298	301	16.539	36.242	2	36.242	2	144.6	2	144.4	2
FCTSWS	FC1906	5	1	6	2	20190604	0127	26.986N	79.503W	179	180	21.072	36.822	2	36.816	2	153.8	2	154.1	2
FCTSWS	FC1906	5	1	7	2	20190604	0127	26.986N	79.503W	179	180	21.074	36.820	2	-999.000	9	148.3	2	-999.0	9

FCTSWS	FC1906	5	1	8	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	9	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	10	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	11	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	12	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	13	2	20190604	0127	26.986N	79.503W	129	130	24.700	36.795	2	36.832	4	166.9	2	167.1	2
FCTSWS	FC1906	5	1	14	2	20190604	0127	26.986N	79.503W	49	50	27.015	36.301	2	36.290	2	201.6	2	202.1	2
FCTSWS	FC1906	5	1	15	2	20190604	0127	26.986N	79.503W	2	2	28.517	36.363	2	36.356	2	196.3	2	197.5	2
FCTSWS	FC1906	5	1	16	2	20190604	0127	26.986N	79.503W	2	2	28.516	36.363	2	-999.000	9	190.3	2	-999.0	9
FCTSWS	FC1906	5	1	17	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	18	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	19	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	20	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	21	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	22	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	23	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	5	1	24	2	20190604	0127	26.986N	79.503W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	1	2	20190603	2353	26.994N	79.383W	680	685	9.785	35.246	2	35.239	2	131.9	2	132.1	2
FCTSWS	FC1906	6	1	2	2	20190603	2353	26.994N	79.383W	680	686	9.786	35.242	2	-999.000	9	125.4	2	-999.0	9
FCTSWS	FC1906	6	1	3	2	20190603	2353	26.994N	79.383W	680	686	9.781	35.241	2	-999.000	9	125.3	2	-999.0	9
FCTSWS	FC1906	6	1	4	2	20190603	2353	26.994N	79.383W	596	600	10.120	35.218	2	35.222	2	118.3	2	118.5	2
FCTSWS	FC1906	6	1	5	2	20190603	2353	26.994N	79.383W	446	450	12.911	35.637	2	35.653	2	128.3	2	127.3	2
FCTSWS	FC1906	6	1	6	2	20190603	2353	26.994N	79.383W	298	300	17.399	36.391	2	36.382	2	151.1	2	150.9	2
FCTSWS	FC1906	6	1	7	2	20190603	2353	26.994N	79.383W	180	181	22.003	36.909	2	36.905	2	153.1	2	153.4	2
FCTSWS	FC1906	6	1	8	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	9	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	10	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	11	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	12	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	13	2	20190603	2353	26.994N	79.383W	180	182	21.985	36.907	2	-999.000	9	147.5	2	-999.0	9
FCTSWS	FC1906	6	1	14	2	20190603	2353	26.994N	79.383W	130	131	24.864	36.789	2	36.775	2	166.6	2	166.6	2
FCTSWS	FC1906	6	1	15	2	20190603	2353	26.994N	79.383W	50	50	26.934	36.283	2	36.278	2	201.7	2	201.7	2
FCTSWS	FC1906	6	1	16	2	20190603	2353	26.994N	79.383W	3	3	28.497	36.338	2	36.332	2	196.8	2	197.1	2
FCTSWS	FC1906	6	1	17	2	20190603	2353	26.994N	79.383W	3	3	28.475	36.337	2	-999.000	9	190.9	2	-999.0	9
FCTSWS	FC1906	6	1	18	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	19	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	20	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	21	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	22	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	23	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	6	1	24	2	20190603	2353	26.994N	79.383W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	1	2	20190603	2226	26.999N	79.284W	607	612	11.631	35.513	2	35.513	2	142.1	2	142.5	2
FCTSWS	FC1906	7	1	2	2	20190603	2226	26.999N	79.284W	448	451	14.553	35.928	2	35.924	2	143.6	2	143.9	2
FCTSWS	FC1906	7	1	3	2	20190603	2226	26.999N	79.284W	301	303	18.172	36.500	2	36.511	2	150.4	2	150.8	2
FCTSWS	FC1906	7	1	4	2	20190603	2226	26.999N	79.284W	184	186	21.454	36.857	2	36.867	2	156.0	2	155.8	2
FCTSWS	FC1906	7	1	5	2	20190603	2226	26.999N	79.284W	131	132	25.067	36.760	2	36.754	2	169.3	2	169.2	2
FCTSWS	FC1906	7	1	6	2	20190603	2226	26.999N	79.284W	50	50	27.274	36.299	2	36.295	2	201.6	2	200.9	2
FCTSWS	FC1906	7	1	7	2	20190603	2226	26.999N	79.284W	2	2	28.651	36.343	2	36.348	2	198.6	2	197.3	2
FCTSWS	FC1906	7	1	8	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	9	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	10	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	11	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	12	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	13	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	14	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	15	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	16	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	17	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	18	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	19	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	20	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	21	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	22	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	23	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	7	1	24	2	20190603	2226	26.999N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	1	2	20190603	2102	26.999N	79.200W	457	461	15.071	36.038	2	36.030	2	161.6	2	161.8	2

FCTSWS	FC1906	8	1	2	2	20190603	2102	26.999N	79.200W	297	300	18.537	36.578	2	36.573	2	184.4	2	183.7	2
FCTSWS	FC1906	8	1	3	2	20190603	2102	26.999N	79.200W	179	181	21.690	36.876	2	36.884	2	167.2	2	168.2	2
FCTSWS	FC1906	8	1	4	2	20190603	2102	26.999N	79.200W	129	130	24.405	36.832	2	36.838	2	165.0	2	164.1	2
FCTSWS	FC1906	8	1	5	2	20190603	2102	26.999N	79.200W	50	50	27.265	36.303	2	36.304	2	201.6	2	202.1	2
FCTSWS	FC1906	8	1	6	2	20190603	2102	26.999N	79.200W	3	3	28.639	36.355	2	36.355	2	198.8	2	197.5	2
FCTSWS	FC1906	8	1	7	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	8	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	9	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	10	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	11	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	12	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	13	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	14	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	15	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	16	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	17	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	18	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	19	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	20	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	21	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	22	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	23	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1906	8	1	24	2	20190603	2102	26.999N	79.200W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

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Table 32: FC1907 – 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
FCTSWS	FC1907	0	1	1	2	20190725	1001	26.988N	79.931W	132	132	9.590	35.184	2	35.171	2	120.8	2	120.6	2
FCTSWS	FC1907	0	1	2	2	20190725	1001	26.988N	79.931W	113	114	11.101	35.376	2	35.465	4	123.8	2	125.9	2
FCTSWS	FC1907	0	1	3	2	20190725	1001	26.988N	79.931W	49	50	26.723	36.391	2	36.382	2	201.5	2	202.3	2
FCTSWS	FC1907	0	1	4	2	20190725	1001	26.988N	79.931W	2	2	29.783	35.647	2	35.673	2	196.0	2	195.5	2
FCTSWS	FC1907	0	1	5	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	6	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	7	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	8	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	9	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	10	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	11	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	12	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	13	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	14	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	15	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	16	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	17	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	18	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	19	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	20	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	21	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	22	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	23	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	0	1	24	2	20190725	1001	26.988N	79.931W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	1	2	20190725	0835	26.994N	79.866W	253	255	9.142	35.125	2	35.114	2	121.4	2	121.8	2
FCTSWS	FC1907	1	1	2	2	20190725	0835	26.994N	79.866W	181	183	10.954	35.392	2	35.446	4	124.3	2	124.5	2
FCTSWS	FC1907	1	1	3	2	20190725	0835	26.994N	79.866W	131	132	16.550	36.141	2	36.157	2	138.2	2	138.1	2
FCTSWS	FC1907	1	1	4	2	20190725	0835	26.994N	79.866W	50	50	27.987	36.384	2	36.379	2	201.3	2	200.7	2
FCTSWS	FC1907	1	1	5	2	20190725	0835	26.994N	79.866W	3	3	29.970	36.186	2	36.190	2	193.8	2	194.0	2
FCTSWS	FC1907	1	1	6	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	7	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	8	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	9	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	10	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	11	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	12	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	13	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	14	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	15	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	16	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	17	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	18	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	19	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	20	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	21	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	22	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	23	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	1	1	24	2	20190725	0835	26.994N	79.866W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	1	2	20190725	0713	26.988N	79.781W	382	385	7.887	34.998	2	34.995	2	118.4	2	127.5	4
FCTSWS	FC1907	2	1	2	2	20190725	0713	26.988N	79.781W	299	301	10.839	35.339	2	35.345	2	114.5	2	125.9	4
FCTSWS	FC1907	2	1	3	2	20190725	0713	26.988N	79.781W	180	182	16.544	36.234	2	36.233	2	136.1	2	136.0	2
FCTSWS	FC1907	2	1	4	2	20190725	0713	26.988N	79.781W	129	130	20.433	36.548	2	36.563	2	156.1	2	154.7	2
FCTSWS	FC1907	2	1	5	2	20190725	0713	26.988N	79.781W	50	50	28.310	36.241	2	36.256	2	207.9	2	206.1	2
FCTSWS	FC1907	2	1	6	2	20190725	0713	26.988N	79.781W	3	3	30.134	36.302	2	36.302	2	193.8	2	194.1	2
FCTSWS	FC1907	2	1	7	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	8	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	9	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	10	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	11	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	12	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	13	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

FCTSWS	FC1907	2	1	14	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	15	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	16	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	17	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	18	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	19	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	20	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	21	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	22	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	23	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	2	1	24	2	20190725	0713	26.988N	79.781W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	1	2	20190725	0548	26.987N	79.680W	533	537	7.436	34.943	2	34.937	2	128.6	2	128.4	2
FCTSWS	FC1907	3	1	2	2	20190725	0548	26.987N	79.680W	401	404	9.818	35.182	2	35.183	2	119.5	2	119.9	2
FCTSWS	FC1907	3	1	3	2	20190725	0548	26.987N	79.680W	301	304	13.037	35.666	2	35.677	2	121.3	2	122.5	2
FCTSWS	FC1907	3	1	4	2	20190725	0548	26.987N	79.680W	178	180	20.122	36.728	2	36.702	2	155.3	2	153.3	2
FCTSWS	FC1907	3	1	5	2	20190725	0548	26.987N	79.680W	130	131	23.962	36.878	2	36.873	2	163.4	2	163.5	2
FCTSWS	FC1907	3	1	6	2	20190725	0548	26.987N	79.680W	50	50	28.488	36.378	2	36.386	2	199.3	2	199.1	2
FCTSWS	FC1907	3	1	7	2	20190725	0548	26.987N	79.680W	3	3	29.994	36.294	2	36.299	2	194.5	2	193.9	2
FCTSWS	FC1907	3	1	8	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	9	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	10	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	11	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	12	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	13	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	14	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	15	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	16	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	17	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	18	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	19	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	20	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	21	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	22	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	23	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	3	1	24	2	20190725	0548	26.987N	79.680W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	1	2	20190725	0431	26.989N	79.617W	637	643	7.255	34.930	2	34.929	2	130.8	2	130.4	2
FCTSWS	FC1907	4	1	2	2	20190725	0431	26.989N	79.617W	451	454	10.075	35.215	2	35.236	2	119.2	2	119.5	2
FCTSWS	FC1907	4	1	3	2	20190725	0431	26.989N	79.617W	299	302	13.861	35.795	2	35.804	2	130.6	2	130.3	2
FCTSWS	FC1907	4	1	4	2	20190725	0431	26.989N	79.617W	179	180	21.553	36.868	2	36.865	2	157.3	2	157.3	2
FCTSWS	FC1907	4	1	5	2	20190725	0431	26.989N	79.617W	130	131	24.553	36.827	2	36.825	2	165.9	2	166.5	2
FCTSWS	FC1907	4	1	6	2	20190725	0431	26.989N	79.617W	51	51	27.795	36.263	2	36.269	2	206.0	2	206.1	2
FCTSWS	FC1907	4	1	7	2	20190725	0431	26.989N	79.617W	3	3	30.170	36.410	2	36.415	2	193.0	2	193.3	2
FCTSWS	FC1907	4	1	8	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	9	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	10	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	11	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	12	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	13	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	14	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	15	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	16	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	17	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	18	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	19	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	20	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	21	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	22	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	23	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	4	1	24	2	20190725	0431	26.989N	79.617W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	1	2	20190725	0252	26.982N	79.500W	743	749	7.453	34.936	2	34.936	2	118.6	2	128.1	4
FCTSWS	FC1907	5	1	2	2	20190725	0252	26.982N	79.500W	597	602	9.148	35.092	2	35.104	2	119.6	2	119.3	2
FCTSWS	FC1907	5	1	3	2	20190725	0252	26.982N	79.500W	450	454	11.988	35.499	2	35.492	2	124.3	2	124.0	2
FCTSWS	FC1907	5	1	4	2	20190725	0252	26.982N	79.500W	297	300	15.761	36.105	2	36.125	2	134.0	2	132.7	2
FCTSWS	FC1907	5	1	5	2	20190725	0252	26.982N	79.500W	179	180	22.697	36.916	2	36.912	2	159.1	2	159.1	2
FCTSWS	FC1907	5	1	6	2	20190725	0252	26.982N	79.500W	129	130	25.274	36.713	2	36.699	2	170.4	2	170.1	2
FCTSWS	FC1907	5	1	7	2	20190725	0252	26.982N	79.500W	50	50	27.824	36.235	2	36.236	2	207.2	2	206.6	2

FCTSWS	FC1907	5	1	8	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	9	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	10	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	11	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	12	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	13	2	20190725	0252	26.982N	79.500W	2	2	29.975	36.396	2	36.401	2	194.3	2	193.9	2
FCTSWS	FC1907	5	1	14	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	15	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	16	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	17	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	18	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	19	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	20	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	21	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	22	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	23	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	5	1	24	2	20190725	0252	26.982N	79.500W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	1	2	20190725	0109	26.991N	79.380W	664	670	9.135	35.104	2	35.104	2	94.5	2	121.7	4
FCTSWS	FC1907	6	1	2	2	20190725	0109	26.991N	79.380W	595	600	10.839	35.320	2	35.320	2	120.9	2	121.2	2
FCTSWS	FC1907	6	1	3	2	20190725	0109	26.991N	79.380W	447	451	14.225	35.901	2	35.916	2	158.2	2	158.2	2
FCTSWS	FC1907	6	1	4	2	20190725	0109	26.991N	79.380W	297	299	18.480	36.564	2	36.555	2	172.0	2	187.2	4
FCTSWS	FC1907	6	1	5	2	20190725	0109	26.991N	79.380W	179	180	22.319	36.885	2	36.887	2	159.5	2	159.8	2
FCTSWS	FC1907	6	1	6	2	20190725	0109	26.991N	79.380W	127	128	25.793	36.615	2	36.601	2	175.7	2	175.3	2
FCTSWS	FC1907	6	1	7	2	20190725	0109	26.991N	79.380W	50	50	28.261	36.226	2	36.221	2	206.1	2	206.0	2
FCTSWS	FC1907	6	1	8	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	9	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	10	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	11	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	12	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	13	2	20190725	0109	26.991N	79.380W	2	2	29.879	36.328	2	36.331	2	194.3	2	195.0	2
FCTSWS	FC1907	6	1	14	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	15	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	16	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	17	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	18	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	19	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	20	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	21	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	22	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	23	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	6	1	24	2	20190725	0109	26.991N	79.380W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	1	2	20190724	2330	26.996N	79.283W	602	607	13.262	35.750	2	35.743	2	152.3	2	152.5	2
FCTSWS	FC1907	7	1	2	2	20190724	2330	26.996N	79.283W	447	451	15.610	36.122	2	36.123	2	168.0	2	167.5	2
FCTSWS	FC1907	7	1	3	2	20190724	2330	26.996N	79.283W	301	303	19.169	36.648	2	36.641	2	193.8	2	196.1	2
FCTSWS	FC1907	7	1	4	2	20190724	2330	26.996N	79.283W	183	184	22.052	36.889	2	36.883	2	157.6	2	159.6	2
FCTSWS	FC1907	7	1	5	2	20190724	2330	26.996N	79.283W	132	133	24.579	36.830	2	36.838	2	191.0	2	192.9	2
FCTSWS	FC1907	7	1	6	2	20190724	2330	26.996N	79.283W	50	51	28.762	36.216	2	36.256	4	204.8	2	203.9	2
FCTSWS	FC1907	7	1	7	2	20190724	2330	26.996N	79.283W	3	3	29.760	36.305	2	36.299	2	196.2	2	195.9	2
FCTSWS	FC1907	7	1	8	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	9	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	10	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	11	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	12	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	13	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	14	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	15	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	16	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	17	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	18	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	19	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	20	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	21	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	22	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	23	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	7	1	24	2	20190724	2330	26.996N	79.283W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	1	2	20190724	2151	26.999N	79.201W	476	479	16.125	36.208	2	36.206	2	169.1	2	168.5	2

FCTSWS	FC1907	8	1	2	2	20190724	2151	26.999N	79.201W	298	300	19.390	36.667	2	36.657	2	197.1	2	196.7	2
FCTSWS	FC1907	8	1	3	2	20190724	2151	26.999N	79.201W	167	168	22.302	36.791	2	36.786	2	198.0	2	197.9	2
FCTSWS	FC1907	8	1	4	2	20190724	2151	26.999N	79.201W	130	131	23.925	36.789	2	36.783	2	200.5	2	199.7	2
FCTSWS	FC1907	8	1	5	2	20190724	2151	26.999N	79.201W	50	50	29.402	36.306	2	36.298	2	199.9	2	201.9	2
FCTSWS	FC1907	8	1	6	2	20190724	2151	26.999N	79.201W	3	3	29.940	36.293	2	36.289	2	193.8	2	194.7	2
FCTSWS	FC1907	8	1	7	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	8	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	9	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	10	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	11	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	12	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	13	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	14	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	15	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	16	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	17	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	18	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	19	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	20	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	21	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	22	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	23	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1907	8	1	24	2	20190724	2151	26.999N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

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Table 33: FC1910 – 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
FCTSWS	FC1910	0	1	1	2	20191006	2056	26.994N	79.925W	137	138	18.721	36.502	2	36.536	4	136.8	2	147.2	4
FCTSWS	FC1910	0	1	2	2	20191006	2056	26.994N	79.925W	135	136	18.787	36.495	2	-999.000	9	139.9	2	-999.0	9
FCTSWS	FC1910	0	1	3	2	20191006	2056	26.994N	79.925W	96	97	20.524	36.679	2	36.649	4	150.8	2	151.2	2
FCTSWS	FC1910	0	1	4	2	20191006	2056	26.994N	79.925W	96	97	20.526	36.684	2	-999.000	9	144.2	2	-999.0	9
FCTSWS	FC1910	0	1	5	2	20191006	2056	26.994N	79.925W	50	51	28.535	36.319	2	36.315	2	184.5	2	191.0	4
FCTSWS	FC1910	0	1	6	2	20191006	2056	26.994N	79.925W	50	51	28.527	36.321	2	-999.000	9	184.5	2	-999.0	9
FCTSWS	FC1910	0	1	7	2	20191006	2056	26.994N	79.925W	3	3	28.846	36.241	2	36.238	2	193.4	2	193.1	2
FCTSWS	FC1910	0	1	8	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	9	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	10	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	11	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	12	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	13	2	20191006	2056	26.994N	79.925W	3	3	28.847	36.242	2	-999.000	9	184.8	2	-999.0	9
FCTSWS	FC1910	0	1	14	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	15	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	16	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	17	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	18	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	19	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	20	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	21	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	22	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	23	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	0	1	24	2	20191006	2056	26.994N	79.925W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	1	2	20191006	2000	26.993N	79.861W	218	219	14.806	35.952	2	35.944	2	134.4	2	134.6	2
FCTSWS	FC1910	1	1	2	2	20191006	2000	26.993N	79.861W	172	174	17.671	36.275	2	36.278	2	139.7	2	138.8	2
FCTSWS	FC1910	1	1	3	2	20191006	2000	26.993N	79.861W	138	139	20.017	36.648	2	36.644	2	148.7	2	149.0	2
FCTSWS	FC1910	1	1	4	2	20191006	2000	26.993N	79.861W	53	54	29.032	36.396	2	36.399	2	192.6	2	193.6	2
FCTSWS	FC1910	1	1	5	2	20191006	2000	26.993N	79.861W	4	4	29.058	36.401	2	36.406	2	192.3	2	192.1	2
FCTSWS	FC1910	1	1	6	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	7	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	8	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	9	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	10	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	11	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	12	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	13	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	14	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	15	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	16	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	17	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	18	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	19	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	20	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	21	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	22	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	23	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	1	1	24	2	20191006	2000	26.993N	79.861W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	1	2	20191006	1857	26.992N	79.776W	370	373	10.212	35.259	2	35.276	2	121.4	2	121.8	2
FCTSWS	FC1910	2	1	2	2	20191006	1857	26.992N	79.776W	288	291	12.043	35.506	2	35.513	2	123.0	2	122.9	2
FCTSWS	FC1910	2	1	3	2	20191006	1857	26.992N	79.776W	183	184	19.465	36.547	2	36.546	2	145.9	2	145.8	2
FCTSWS	FC1910	2	1	4	2	20191006	1857	26.992N	79.776W	136	136	22.981	36.506	2	36.547	4	170.6	2	170.3	2
FCTSWS	FC1910	2	1	5	2	20191006	1857	26.992N	79.776W	52	52	29.041	36.392	2	36.390	2	192.6	2	192.2	2
FCTSWS	FC1910	2	1	6	2	20191006	1857	26.992N	79.776W	3	3	29.067	36.364	2	36.394	4	191.8	2	192.7	2
FCTSWS	FC1910	2	1	7	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	8	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	9	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	10	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	11	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	12	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	13	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9

FCTSWS	FC1910	2	1	14	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	15	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	16	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	17	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	18	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	19	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	20	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	21	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	22	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	23	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	2	1	24	2	20191006	1857	26.992N	79.776W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	1	2	20191006	1745	26.983N	79.678W	528	532	6.931	34.928	2	34.924	2	133.2	2	133.1	2
FCTSWS	FC1910	3	1	2	2	20191006	1745	26.983N	79.678W	385	388	9.333	35.125	2	35.116	2	119.5	2	119.2	2
FCTSWS	FC1910	3	1	3	2	20191006	1745	26.983N	79.678W	302	304	13.799	35.786	2	35.794	2	130.4	2	129.9	2
FCTSWS	FC1910	3	1	4	2	20191006	1745	26.983N	79.678W	178	179	22.885	36.853	2	36.885	4	159.1	2	158.5	2
FCTSWS	FC1910	3	1	5	2	20191006	1745	26.983N	79.678W	126	127	25.901	36.620	2	36.621	2	172.1	2	172.0	2
FCTSWS	FC1910	3	1	6	2	20191006	1745	26.983N	79.678W	49	49	28.591	36.329	2	36.330	2	193.3	2	193.6	2
FCTSWS	FC1910	3	1	7	2	20191006	1745	26.983N	79.678W	3	3	28.964	36.382	2	36.388	2	194.0	2	192.5	2
FCTSWS	FC1910	3	1	8	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	9	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	10	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	11	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	12	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	13	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	14	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	15	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	16	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	17	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	18	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	19	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	20	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	21	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	22	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	23	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	3	1	24	2	20191006	1745	26.983N	79.678W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	1	2	20191006	1630	26.996N	79.615W	609	614	6.925	34.916	2	34.915	2	126.1	2	129.3	4
FCTSWS	FC1910	4	1	2	2	20191006	1630	26.996N	79.615W	448	452	8.590	35.076	2	35.077	2	125.1	2	125.1	2
FCTSWS	FC1910	4	1	3	2	20191006	1630	26.996N	79.615W	299	301	14.734	35.915	2	35.934	4	132.0	2	132.4	2
FCTSWS	FC1910	4	1	4	2	20191006	1630	26.996N	79.615W	182	183	23.577	36.927	2	36.923	2	153.4	2	176.3	4
FCTSWS	FC1910	4	1	5	2	20191006	1630	26.996N	79.615W	131	132	25.842	36.683	2	36.687	2	169.8	2	170.2	2
FCTSWS	FC1910	4	1	6	2	20191006	1630	26.996N	79.615W	49	50	28.538	36.358	2	36.374	2	193.6	2	193.0	2
FCTSWS	FC1910	4	1	7	2	20191006	1630	26.996N	79.615W	3	3	28.570	36.361	2	36.361	2	193.5	2	193.1	2
FCTSWS	FC1910	4	1	8	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	9	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	10	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	11	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	12	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	13	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	14	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	15	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	16	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	17	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	18	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	19	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	20	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	21	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	22	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	23	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	4	1	24	2	20191006	1630	26.996N	79.615W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	1	2	20191006	1502	26.986N	79.490W	749	755	6.299	34.904	2	34.906	2	143.9	2	143.8	2
FCTSWS	FC1910	5	1	2	2	20191006	1502	26.986N	79.490W	599	604	7.539	34.947	2	34.956	2	126.3	2	126.4	2
FCTSWS	FC1910	5	1	3	2	20191006	1502	26.986N	79.490W	446	449	9.137	35.117	2	35.114	2	121.1	2	121.4	2
FCTSWS	FC1910	5	1	4	2	20191006	1502	26.986N	79.490W	300	302	18.527	36.548	2	36.553	2	152.6	2	153.2	2
FCTSWS	FC1910	5	1	5	2	20191006	1502	26.986N	79.490W	182	183	23.957	36.949	2	36.950	2	174.5	2	175.4	2
FCTSWS	FC1910	5	1	6	2	20191006	1502	26.986N	79.490W	128	129	26.549	36.472	2	36.483	2	176.8	2	176.0	2
FCTSWS	FC1910	5	1	7	2	20191006	1502	26.986N	79.490W	51	51	28.489	36.327	2	36.330	2	194.0	2	193.4	2

FCTSWS	FC1910	5	1	8	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	9	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	10	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	11	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	12	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	13	2	20191006	1502	26.986N	79.490W	3	3	28.493	36.331	2	36.328	2	193.5	2	193.8	2
FCTSWS	FC1910	5	1	14	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	15	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	16	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	17	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	18	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	19	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	20	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	21	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	22	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	23	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	5	1	24	2	20191006	1502	26.986N	79.490W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	1	2	20191006	1333	26.994N	79.381W	669	675	7.411	34.941	2	34.944	2	128.3	2	128.5	2
FCTSWS	FC1910	6	1	2	2	20191006	1333	26.994N	79.381W	597	602	8.170	35.004	2	35.003	2	123.1	2	123.3	2
FCTSWS	FC1910	6	1	3	2	20191006	1333	26.994N	79.381W	447	450	12.518	35.569	2	35.595	4	125.2	2	125.1	2
FCTSWS	FC1910	6	1	4	2	20191006	1333	26.994N	79.381W	298	301	18.451	36.534	2	36.537	2	147.1	2	158.6	4
FCTSWS	FC1910	6	1	5	2	20191006	1333	26.994N	79.381W	180	182	23.569	36.878	2	36.877	2	159.3	2	159.0	2
FCTSWS	FC1910	6	1	6	2	20191006	1333	26.994N	79.381W	128	129	26.384	36.534	2	36.528	2	174.9	2	174.4	2
FCTSWS	FC1910	6	1	7	2	20191006	1333	26.994N	79.381W	50	50	28.570	36.359	2	36.357	2	193.3	2	193.3	2
FCTSWS	FC1910	6	1	8	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	9	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	10	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	11	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	12	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	13	2	20191006	1333	26.994N	79.381W	2	2	28.562	36.344	2	36.365	2	192.8	2	193.1	2
FCTSWS	FC1910	6	1	14	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	15	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	16	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	17	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	18	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	19	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	20	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	21	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	22	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	23	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	6	1	24	2	20191006	1333	26.994N	79.381W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	1	2	20191006	1209	27.002N	79.284W	617	622	10.976	35.417	2	35.428	2	137.5	2	137.3	2
FCTSWS	FC1910	7	1	2	2	20191006	1209	27.002N	79.284W	433	436	15.830	36.151	2	36.143	2	167.3	2	167.0	2
FCTSWS	FC1910	7	1	3	2	20191006	1209	27.002N	79.284W	299	301	18.972	36.617	2	36.615	2	186.8	2	186.6	2
FCTSWS	FC1910	7	1	4	2	20191006	1209	27.002N	79.284W	179	180	23.370	36.838	2	36.838	2	176.9	2	177.9	2
FCTSWS	FC1910	7	1	5	2	20191006	1209	27.002N	79.284W	133	134	25.694	36.650	2	36.644	2	170.4	2	170.4	2
FCTSWS	FC1910	7	1	6	2	20191006	1209	27.002N	79.284W	48	48	28.577	36.362	2	36.364	2	193.3	2	193.3	2
FCTSWS	FC1910	7	1	7	2	20191006	1209	27.002N	79.284W	3	3	28.570	36.365	2	36.361	2	193.0	2	193.3	2
FCTSWS	FC1910	7	1	8	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	9	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	10	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	11	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	12	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	13	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	14	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	15	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	16	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	17	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	18	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	19	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	20	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	21	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	22	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	23	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	7	1	24	2	20191006	1209	27.002N	79.284W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	1	2	20191006	1046	27.000N	79.201W	484	487	15.729	36.136	2	36.136	2	156.1	2	167.7	4

FCTSWS	FC1910	8	1	2	2	20191006	1046	27.000N	79.201W	304	307	18.845	36.600	2	36.596	2	177.1	2	177.6	2
FCTSWS	FC1910	8	1	3	2	20191006	1046	27.000N	79.201W	185	186	21.760	36.846	2	36.834	2	182.9	2	182.4	2
FCTSWS	FC1910	8	1	4	2	20191006	1046	27.000N	79.201W	127	128	25.720	36.615	2	36.608	2	175.6	2	175.5	2
FCTSWS	FC1910	8	1	5	2	20191006	1046	27.000N	79.201W	49	50	28.100	36.348	2	36.344	2	194.2	2	195.3	2
FCTSWS	FC1910	8	1	6	2	20191006	1046	27.000N	79.201W	3	3	28.476	36.377	2	36.375	2	192.9	2	193.0	2
FCTSWS	FC1910	8	1	7	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	8	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	9	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	10	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	11	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	12	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	13	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	14	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	15	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	16	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	17	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	18	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	19	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	20	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	21	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	22	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	23	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
FCTSWS	FC1910	8	1	24	2	20191006	1046	27.000N	79.201W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9