



# **SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT**

## **SOUTH BAY WATER RECLAMATION PLANT**

NPDES Permit No. CA0109045  
SDRWQCB Order No. R9-2021-0011

## **MAY 2023**

Environmental Monitoring and Technical Services  
2392 Kincaid Road • Mail Station 45A • San Diego, CA 92101  
Tel (619) 758-2300 Fax (619) 758-2309







Public Utilities Department  
Environmental Monitoring & Technical Services Division

June 30, 2023

Mr. David W. Gibson, Executive Officer  
California Regional Water Quality Control Board  
San Diego Region  
2375 Northside Drive, Suite 100  
San Diego, CA 92108

Attention: POTW Compliance Unit

Dear Mr. Gibson:

Enclosed is the May 2023 Monthly Receiving Waters Monitoring Report for the South Bay Ocean Outfall, South Bay Water Reclamation Plant as required per Order No. R9-2021-0011, NPDES Permit No. CA0109045.

This report includes raw ocean monitoring data and summaries of water quality parameters and ocean conditions measured during the month for the South Bay outfall region. Also included are summaries of compliance with the bacterial water-contact standards specified in the California Ocean Plan. These data are also presented in the monthly report submitted by the International Boundary and Water Commission, U.S. Section for discharge from the South Bay International Wastewater Treatment Plant (Order No. R9-2021-0001, NPDES Permit No. CA0108928).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in blue ink that reads "Peter S. Vroom".

Peter S. Vroom, Ph. D.  
Deputy Director, Public Utilities Department

PV/rk

cc: U.S. Environmental Protection Agency, Region 9



## INTRODUCTION

Monthly reports of water quality and ocean conditions from Playa Blanco, Mexico to Coronado, USA are submitted to the San Diego Regional Water Quality Control Board and U.S. EPA Region 9 in accordance with Order No. R9-2021-0011, NPDES Permit No. CA0109045, for the South Bay Water Reclamation Plant (SBWRP), South Bay Ocean Outfall (SBOO). This report includes receiving waters monitoring data collected from all shore, kelp and offshore stations specified in the above order. Data for influent and effluent monitoring activities for the SBWRP are presented in separate reports.

## MATERIALS AND METHODS

### *Shore Stations*

Water quality monitoring was conducted at 11 stations located along the shore from Playa Blanca, Mexico to Coronado, USA (see station locations map). Three sites are located south of the international border (stations S0, S2, S3), while eight sites are in the United States (stations S4–S6 and S8–S12).

Seawater samples were collected from the surf zone at each station on a weekly basis. These samples were subsequently transported to the City's Marine Microbiology Laboratory and analyzed for the presence of total coliform, fecal coliform, and *Enterococcus* bacteria. Visual observations of water color and clarity, surf height, human or animal activity, and weather conditions were recorded at the time of sample collection. Wind speed and direction were measured using a hand-held anemometer with a compass.

### *Kelp Bed Stations*

Seven kelp bed and other nearshore stations (I19, I24, I25, I26, I32, I39, I40; collectively referred to as "kelp" stations herein) were sampled four times during the month according to NPDES permit specifications. Six stations (I19, I24, I25, I26, I32, I40) are located along the 9-m depth contour, and one (I39) is located along the 18-m depth contour. Three of these stations, I25, I26, and I39, were selected based on their proximity to suitable substrates for the Imperial Beach kelp bed (see station locations map); however, this kelp bed has been historically transient and variable in terms of size and density. Thus, these three stations are only occasionally located within an area where kelp is actually found.

The seven kelp stations are sampled on a weekly basis during the month. Routine monitoring at each kelp site consists of collecting seawater samples at three discrete depths for bacteriological analyses (total coliforms, fecal coliforms, and *Enterococcus* bacteria) and generating water column profiles of various physical/chemical parameters, including water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, and transmissivity. Visual observations of weather and water conditions are also recorded at all stations.

Seawater samples at the kelp bed stations are primarily collected using a CTD-integrated rosette sampler with Niskin bottles. Aliquots for bacteriological analyses were drawn from these bottles into sterile sample bottles for processing at the City's Marine Microbiology Laboratory. Water column profiles of the various physical/chemical parameters were taken using a CTD. The CTD collected these physical/chemical data at a rate  $\geq 4$  scans per second. The data were then internally averaged using the CTD proprietary software, Seasoft, to create water column profiles equivalent

to one reading per meter. Additionally, CTD profile data for each water sample depth are presented with the bacteriological data.

### ***Offshore Stations***

Quarterly offshore water quality sampling is typically conducted over three days during February, May, August, and November for a total of 40 stations during each month (see station locations map). These offshore stations (I1–I40) are arranged in a grid surrounding the discharge site, and are generally located along the 9, 19, 28, 38, and 55-m depth contours. The seven offshore sites designated as kelp bed stations (described above) are included as part of the monthly offshore water quality sampling, however the data from these seven stations are reported within the kelp bed station section of the report with the other four days of kelp bed water quality sampling. Monitoring at all sites included measurements of various physical/chemical parameters, including water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, transmissivity, and chromomorphic dissolved organic matter (CDOM). Visual observations of weather and water conditions were also recorded at all stations. Seawater samples for the analysis of indicator bacteria, suspended solids, and oil and grease concentrations were collected at 28 of the stations.

At these offshore stations, water samples for bacteriological analyses were collected using a rosette sampler with Niskin bottles. Measurements of the physical/chemical parameters listed above were taken using a Sea-Bird CTD. Additionally, CTD profile data for depths closest to those at which bacteriological samples were collected were extracted from the CTD profiles and are presented with the bacteriological data.

### ***Bacteriological Reporting and Quality Assurance***

Estimated values for bacteriological analyses are denoted by greater than (>), less than (<), or estimated (e) qualifiers and result from plates with colony counts above or below the permissible counting limits established in Bordner et al. (1978)<sup>1</sup>. This document defines membrane filtration limits of 20–80 colonies per plate for total coliforms and 20–60 colonies per plate for fecal coliforms and *Enterococcus*. No Data (ND) is reported if plate counts from all dilutions have a total colony count of >200 per plate.

Results of the bacteriological analysis of seawater samples collected from each of the shore, kelp bed, and offshore stations located within State waters are assessed relative to the water-contact standards specified in the 2019 California Ocean Plan (Ocean Plan). The six standards are defined as follows:

#### **Water-Contact Objectives**

##### **Fecal coliform:**

- (1) The 30-day geometric mean (GM) of fecal coliform density not to exceed 200 CFU/100 mL, calculated based on the five most recent samples from each site
- (2) The single sample maximum (SSM) not to exceed 400 CFU/100 mL

##### ***Enterococci:***

- (1) The six-week rolling GM of *Enterococci* not to exceed 30 CFU/100 mL, calculated weekly
- (2) The statistical threshold value (STV) of 110 CFU/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner

---

<sup>1</sup> Bordner, R., J. Winter, and P. Scarpino (eds.). (1978). Microbiological Methods for Monitoring the Environment: Water and Wastes, EPA Research and Development, EPA-600/8-78-017. 337 p.

## Shellfish Harvesting Standards

Total coliform:

- (1) The median total coliform density shall not exceed 70 CFU/100 mL
- (2) The STV of 230 CFU/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner

Compliance with the seven Ocean Plan standards are summarized below for the stations located in USA waters. In contrast, no such compliance summaries are presented for the three shore stations located in Mexican waters south of the International Border (i.e., S0, S2, and S3) since this region is not subject to the Ocean Plan standards.

Quality controls of bacteriological data include laboratory and field duplicate analyses. Laboratory duplicates are performed on approximately 10% of the water quality samples, while field duplicates are performed six times a month (see Appendix A). Laboratory duplicates represent two aliquots of the original sample that are split in the laboratory and analyzed by the same analyst using identical procedures within the same analytical run. The results of these analyses provide a measure of intra-analyst precision. In contrast, field duplicates represent two separate samples collected at the same time from the same site, which are handled under identical circumstances and treated exactly the same throughout field and lab procedures. The results of these analyses provide a measure of precision associated with sample collection, preservation, storage, and lab procedures. The sign test (see Gilbert, 1987<sup>2</sup>) is used to statistically compare both the results from the laboratory duplicates, as well as the results from the field duplicates. These data will be further analyzed in the City's 2023 Quality Assurance Report, which will be completed in March 2024.

## SUMMARY OF RESULTS

### ➤ Shoreline Water Quality Sampling

- Due to site access restrictions in Mexico, the South Bay shoreline sampling is typically carried out on the same day each week (i.e., Tuesday) to coordinate sampling between the Mexican and USA based stations. Seawater samples at the three shore stations located south of the USA/Mexico border (i.e., stations S0, S2 and S3) are presently collected by the Comisión Internacional de Límites y Aguas (CILA) and transported to the USIBWC for subsequent delivery to the City's Marine Microbiology Lab, while samples from the eight stations located in USA waters are sampled by City staff.
- During May, each of the eight shore stations located north of the border was out of compliance with the 2019 California Ocean Plan (Ocean Plan) water contact standards on one or more days as follows:
  - The 30-day running geometric mean standard for fecal coliforms was exceeded at stations S4, S5, S6, S10, S11, and S12.
  - The single sample maximum (SSM) standard for fecal coliforms was exceeded at stations S4, S5, S6, S10, S11, and S12.
  - The 6-week running geometric mean standard for *Enterococcus* was exceeded at stations S4, S5, S6, S10, S11, and S12.

---

2 Gilbert, R.O. (1987). Statistical Methods for Environmental Pollution Monitoring. Van Nostrand Reinhold Co., New York.

- The statistical threshold value (STV) standard for *Enterococcus* was exceeded at stations S4, S5, S6, S10, S11, and S12.
  - The 30-day running median standard for total coliforms was exceeded at stations S4, S5, S6, S8, S10, S11, and S12.
  - The STV standard for total coliforms was exceeded at stations S4, S5, S6, S8, S9, S10, S11, and S12.
- A sewage-like odor was observed at stations S4, S5, S6, S10, and S11 on one or more days in May.
- Historical analyses of Ocean Plan compliance rates for the South Bay outfall shore and kelp monitoring stations, combined with the results of satellite imagery data, suggest that outflows from the Tijuana River and Los Buenos Creek, as well as surface runoff during or after rain events (storms), are likely to be the cause of impacted water quality along the shore and in near shore recreational waters in the South Bay region. See the City of San Diego's most recent *Biennial Receiving Waters Monitoring and Assessment Report for the Point Loma and South Bay Ocean Outfalls* for details (<https://www.sandiego.gov/public-utilities/sustainability/ocean-monitoring/reports>).

➤ **Kelp Bed Water Quality Sampling**

- The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled on May 2, 9, 15, and 22.
- During May, six of the seven kelp bed stations were out of compliance with the various 2019 Ocean Plan water contact standards on one or more days as follows:
  - The 30-day running geometric mean standard for fecal coliforms was exceeded at stations I19 and I40.
  - The SSM standard for fecal coliforms was exceeded at stations I19, I32, and I40.
  - The 6-week running geometric mean standard for *Enterococcus* was exceeded at stations I19, I24, I32, and I40.
  - The STV standard for *Enterococcus* was exceeded at stations I19, I32, and I40.
  - The 30-day running median standard for total coliforms was exceeded at stations I19, I24, I25, I32, I39, and I40.
  - The STV standard for total coliforms was exceeded at stations I19, I32, I39, and I40.
- Water column temperatures ranged from 11.30 to 17.13°C. The difference between surface and bottom waters ranged from 0.67 to 4.78°C.
- Concentrations of chlorophyll *a* ranged from 0.66 to 14.03 µg/L at the kelp bed stations.
- A sewage-like odor was reported at stations I24, I32, and I40 on one or more days in May.

➤ **Offshore Water Quality Sampling**

- Quarterly offshore water quality sampling was conducted over three days during the month (i.e., May 16, 18, and 19).
- During May, two of the offshore stations located within State jurisdictional waters (i.e., I12, I14, I16, I18, I22, I23, I33, I36–I38) were out of compliance with the various 2019 Ocean Plan water contact standards on one or more days as follows:
  - The STV standard for fecal coliforms was exceeded at station I38.

- The STV standard for *Enterococcus* was exceeded at station I38.
- The STV standard for total coliforms was exceeded at stations I36 and I38.
- Water column temperatures ranged from 10.29 to 17.18°C at the offshore sites. The difference between surface and bottom waters ranged from 1.16 to 6.76°C.
- Chlorophyll *a* concentrations ranged from 0.27 to 16.06 µg/L at the offshore sites.
- A sewage-like odor was reported at station I36 on one or more days in May.
- CDOM data are available upon request.

This page intentionally left blank



## TABLES AND FIGURES





**Figure 1.1** Station Map



# Shore Stations



**Table 2.1**

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria at the SBOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (\*). Values >200 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 May 2023	<b>693</b>	<b>4200</b>	<b>700</b>	5	3	<b>1794</b>	<b>2883</b>	119
02 May 2023	<b>1226</b>	<b>1989</b>	<b>344</b>	4	3	<b>2624</b>	<b>1067</b>	82
03 May 2023	<b>1226</b>	<b>1989</b>	<b>344</b>	4	3	<b>2624</b>	<b>1067</b>	82
04 May 2023	<b>2191</b>	<b>3626</b>	<b>581</b>	4	2	<b>1794</b>	<b>2425</b>	105
05 May 2023	<b>2191</b>	<b>3626</b>	<b>581</b>	4	2	<b>1794</b>	<b>2425</b>	105
06 May 2023	<b>2191</b>	<b>3626</b>	<b>581</b>	4	2	<b>1794</b>	<b>2425</b>	105
07 May 2023	<b>2191</b>	<b>3626</b>	<b>581</b>	4	2	<b>1794</b>	<b>2425</b>	105
08 May 2023	<b>2191</b>	<b>3626</b>	<b>581</b>	4	2	<b>1794</b>	<b>2425</b>	105
09 May 2023	<b>2446</b>	<b>4606</b>	187	5	2	<b>2166</b>	<b>2172</b>	48
10 May 2023	<b>2446</b>	<b>4606</b>	187	5	2	<b>2166</b>	<b>2172</b>	48
11 May 2023	<b>1644</b>	<b>3626</b>	<b>237</b>	7	2	<b>1412</b>	<b>1417</b>	80
12 May 2023	<b>1644</b>	<b>3626</b>	<b>237</b>	7	2	<b>1412</b>	<b>1417</b>	80
13 May 2023	<b>1644</b>	<b>3626</b>	<b>237</b>	7	2	<b>1412</b>	<b>1417</b>	80
14 May 2023	<b>1644</b>	<b>3626</b>	<b>237</b>	7	2	<b>1412</b>	<b>1417</b>	80
15 May 2023	<b>1644</b>	<b>3626</b>	<b>237</b>	7	2	<b>1412</b>	<b>1417</b>	80
16 May 2023	<b>1004</b>	<b>4606</b>	<b>255</b>	12	3	<b>795</b>	<b>1089</b>	<b>217</b>
17 May 2023	<b>1004</b>	<b>4606</b>	<b>255</b>	12	3	<b>795</b>	<b>1089</b>	<b>217</b>
18 May 2023	<b>565</b>	<b>3626</b>	97	18	3	<b>403</b>	<b>598</b>	91
19 May 2023	<b>565</b>	<b>3626</b>	97	18	3	<b>403</b>	<b>598</b>	91
20 May 2023	<b>565</b>	<b>3626</b>	97	18	3	<b>403</b>	<b>598</b>	91
21 May 2023	<b>565</b>	<b>3626</b>	97	18	3	<b>403</b>	<b>598</b>	91
22 May 2023	<b>565</b>	<b>3626</b>	97	18	3	<b>403</b>	<b>598</b>	91
23 May 2023	<b>326</b>	<b>4606</b>	<b>255</b>	19	4	<b>266</b>	<b>1089</b>	<b>227</b>
24 May 2023	<b>326</b>	<b>4606</b>	<b>255</b>	19	4	<b>266</b>	<b>1089</b>	<b>227</b>
25 May 2023	<b>692</b>	<b>3626</b>	113	16	5	<b>685</b>	<b>598</b>	<b>248</b>
26 May 2023	<b>692</b>	<b>3626</b>	113	16	5	<b>685</b>	<b>598</b>	<b>248</b>
27 May 2023	<b>692</b>	<b>3626</b>	113	16	5	<b>685</b>	<b>598</b>	<b>248</b>
28 May 2023	<b>692</b>	<b>3626</b>	113	16	5	<b>685</b>	<b>598</b>	<b>248</b>
29 May 2023	<b>692</b>	<b>3626</b>	113	16	5	<b>685</b>	<b>598</b>	<b>248</b>
30 May 2023	<b>466</b>	<b>2802</b>	155	14	4	<b>384</b>	<b>459</b>	<b>469</b>

\* Geometric mean calculated using n<5

**Table 2.2**

Summary of compliance at the SBOO shore stations with the Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria, which states that fecal coliform density shall not exceed 400 CFU/100 mL.

Date	S4	S5	S6	S8	S9	S10	S11	S12
02 May 2023	E	IC	IC	IC	IC	E	IC	IC
09 May 2023	E	E	IC	IC	IC	E	E	IC
16 May 2023	IC	E	IC	IC	IC	IC	IC	E
23 May 2023	IC	E	E	IC	IC	IC	E	E
30 May 2023	IC	E	E	IC	IC	IC	IC	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

**Table 2.3**

Summary of compliance with the Ocean Plan's 6-week Geometric Mean standard for *Enterococcus* at the SBOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 6 weeks unless otherwise noted (\*). Values >30 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 May 2023	<b>312</b>	<b>4994</b>	<b>292</b>	17	6	<b>1449</b>	<b>1587</b>	<b>122</b>
02 May 2023	<b>475</b>	<b>2410</b>	<b>86</b>	6	4	<b>1960</b>	<b>728</b>	<b>36</b>
03 May 2023	<b>307</b>	<b>2410</b>	<b>86</b>	6	4	<b>1601</b>	<b>728</b>	<b>36</b>
04 May 2023	<b>307</b>	<b>2410</b>	<b>86</b>	6	4	<b>1601</b>	<b>728</b>	<b>36</b>
05 May 2023	<b>307</b>	<b>2410</b>	<b>86</b>	6	4	<b>1601</b>	<b>728</b>	<b>36</b>
06 May 2023	<b>307</b>	<b>2410</b>	<b>86</b>	6	4	<b>1601</b>	<b>728</b>	<b>36</b>
07 May 2023	<b>307</b>	<b>2410</b>	<b>86</b>	6	4	<b>1601</b>	<b>728</b>	<b>36</b>
08 May 2023	<b>307</b>	<b>2410</b>	<b>86</b>	6	4	<b>1601</b>	<b>728</b>	<b>36</b>
09 May 2023	<b>457</b>	<b>2410</b>	<b>44</b>	4	3	<b>1848</b>	<b>615</b>	18
10 May 2023	<b>457</b>	<b>2410</b>	<b>44</b>	4	3	<b>1848</b>	<b>615</b>	18
11 May 2023	<b>457</b>	<b>2410</b>	<b>44</b>	4	3	<b>1848</b>	<b>615</b>	18
12 May 2023	<b>457</b>	<b>2410</b>	<b>44</b>	4	3	<b>1848</b>	<b>615</b>	18
13 May 2023	<b>457</b>	<b>2410</b>	<b>44</b>	4	3	<b>1848</b>	<b>615</b>	18
14 May 2023	<b>457</b>	<b>2410</b>	<b>44</b>	4	3	<b>1848</b>	<b>615</b>	18
15 May 2023	<b>457</b>	<b>2410</b>	<b>44</b>	4	3	<b>1848</b>	<b>615</b>	18
16 May 2023	<b>440</b>	<b>4491</b>	<b>46</b>	4	3	<b>897</b>	<b>575</b>	<b>34</b>
17 May 2023	<b>440</b>	<b>4491</b>	<b>46</b>	4	3	<b>897</b>	<b>575</b>	<b>34</b>
18 May 2023	<b>440</b>	<b>4491</b>	<b>46</b>	4	3	<b>897</b>	<b>575</b>	<b>34</b>
19 May 2023	<b>440</b>	<b>4491</b>	<b>46</b>	4	3	<b>897</b>	<b>575</b>	<b>34</b>
20 May 2023	<b>440</b>	<b>4491</b>	<b>46</b>	4	3	<b>897</b>	<b>575</b>	<b>34</b>
21 May 2023	<b>440</b>	<b>4491</b>	<b>46</b>	4	3	<b>897</b>	<b>575</b>	<b>34</b>
22 May 2023	<b>440</b>	<b>4491</b>	<b>46</b>	4	3	<b>897</b>	<b>575</b>	<b>34</b>
23 May 2023	<b>171</b>	<b>4491</b>	<b>124</b>	8	3	<b>360</b>	<b>775</b>	<b>107</b>
24 May 2023	<b>171</b>	<b>4491</b>	<b>124</b>	8	3	<b>360</b>	<b>775</b>	<b>107</b>
25 May 2023	<b>171</b>	<b>4491</b>	<b>124</b>	8	3	<b>360</b>	<b>775</b>	<b>107</b>
26 May 2023	<b>171</b>	<b>4491</b>	<b>124</b>	8	3	<b>360</b>	<b>775</b>	<b>107</b>
27 May 2023	<b>171</b>	<b>4491</b>	<b>124</b>	8	3	<b>360</b>	<b>775</b>	<b>107</b>
28 May 2023	<b>171</b>	<b>4491</b>	<b>124</b>	8	3	<b>360</b>	<b>775</b>	<b>107</b>
29 May 2023	<b>171</b>	<b>4491</b>	<b>124</b>	8	3	<b>360</b>	<b>775</b>	<b>107</b>
30 May 2023	<b>95</b>	<b>2695</b>	<b>107</b>	11	3	<b>106</b>	<b>478</b>	<b>119</b>

\* Geometric mean calculated using n<5

**Table 2.4**

Summary of compliance at the SBOO shore stations with the Ocean Plan's Statistical Threshold Value standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 110 CFU/100 mL in more than 10% of samples per month.

Date	S4	S5	S6	S8	S9	S10	S11	S12
May	E	E	E	IC	IC	E	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

**Table 2.5**

Summary of compliance with the Ocean Plan's 30-day Median standard for total coliform bacteria at the SBOO shore stations. Data are based on the median of the five most recent samples from each site over the previous 30 days unless otherwise noted (\*). Values >70 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 May 2023	9900	16000	8300	140	20	16000	16000	820
02 May 2023	16000	16000	600	20	20	16000	16000	640
03 May 2023	16000	16000	600	20	20	16000	16000	640
04 May 2023	16000	16000	8190	20	20	16000	16000	530
05 May 2023	16000	16000	8190	20	20	16000	16000	530
06 May 2023	16000	16000	8190	20	20	16000	16000	530
07 May 2023	16000	16000	8190	20	20	16000	16000	530
08 May 2023	16000	16000	8190	20	20	16000	16000	530
09 May 2023	16000	16000	380	20	20	16000	16000	60
10 May 2023	16000	16000	380	20	20	16000	16000	60
11 May 2023	16000	16000	8030	20	20	16000	15500	530
12 May 2023	16000	16000	8030	20	20	16000	15500	530
13 May 2023	16000	16000	8030	20	20	16000	15500	530
14 May 2023	16000	16000	8030	20	20	16000	15500	530
15 May 2023	16000	16000	8030	20	20	16000	15500	530
16 May 2023	16000	16000	1600	20	20	16000	15000	1000
17 May 2023	16000	16000	1600	20	20	16000	15000	1000
18 May 2023	8320	16000	830	140	20	8190	8200	530
19 May 2023	8320	16000	830	140	20	8190	8200	530
20 May 2023	8320	16000	830	140	20	8190	8200	530
21 May 2023	8320	16000	830	140	20	8190	8200	530
22 May 2023	8320	16000	830	140	20	8190	8200	530
23 May 2023	640	16000	1600	200	20	380	15000	1000
24 May 2023	640	16000	1600	200	20	380	15000	1000
25 May 2023	8320	16000	830	110	20	8190	8200	8030
26 May 2023	8320	16000	830	110	20	8190	8200	8030
27 May 2023	8320	16000	830	110	20	8190	8200	8030
28 May 2023	8320	16000	830	110	20	8190	8200	8030
29 May 2023	8320	16000	830	110	20	8190	8200	8030
30 May 2023	640	16000	1600	20	20	380	1400	8200

\* Median calculated using n<5

**Table 2.6**

Summary of compliance at the SBOO shore stations with the Ocean Plan's Statistical Threshold Value for total coliform bacteria, which states that total coliform density shall not exceed 230 CFU/100 mL in more than 10% of samples per station, per month.

Date	S4	S5	S6	S8	S9	S10	S11	S12
May	E	E	E	E	E	E	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

**Table 2.7**

Summary of water quality parameters at the SBOO shore stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Entero) are reported as CFU/100 mL. Comments follow the data summary.

Station	Date	Time	Total	Fecal	Entero
S0	02 May 2023	828	>16000	>12000	>12000
S0	09 May 2023	940	>16000	3400e	3000e
S0	16 May 2023	840	2600e	420	80e
S0	23 May 2023	1200	8800	3400e	800e
S0	30 May 2023	850	6000	800e	420
S2	02 May 2023	910	5400	620	160e
S2	09 May 2023	1045	5200	540	60e
S2	16 May 2023	935	940	340e	140e
S2	23 May 2023	1255	2e	<2	<2
S2	30 May 2023	940	2600e	280e	140e
S3	02 May 2023	925	>16000	>12000	5200
S3	09 May 2023	1015	14000	1200e	420
S3	16 May 2023	920	1300	380e	240e
S3	23 May 2023	1230	1000e	300e	240e
S3	30 May 2023	925	2000e	400	200e
S4	02 May 2023	1140	>16000	>12000	6000
S4	09 May 2023	1031	>16000	3800e	1200e
S4	16 May 2023	1005	640	140e	80e
S4	23 May 2023	933	240e	36e	24e
S4	30 May 2023	958	280e	96	26e
S5	02 May 2023	956	820	100	86
S5	09 May 2023	921	>16000	>12000	>12000
S5	16 May 2023	859	>16000	>12000	4600
S5	23 May 2023	838	>16000	>12000	>12000
S5	30 May 2023	838	6000	1000e	560
S6	02 May 2023	1025	60e	20e	2e
S6	09 May 2023	940	<20	<2	<2
S6	16 May 2023	919	1600	340e	120
S6	23 May 2023	851	>16000	>12000	>12000
S6	30 May 2023	853	1800e	540	220e
S8	02 May 2023	902	<20	2e	2e
S8	09 May 2023	838	<20	14e	2e
S8	16 May 2023	808	800e	100	110
S8	23 May 2023	808	200e	24e	52
S8	30 May 2023	758	<20	8e	22e
S9	02 May 2023	841	20e	2e	<2
S9	09 May 2023	818	<20	<2	<2
S9	16 May 2023	751	<20	10e	4e
S9	23 May 2023	751	400e	<20	8e
S9	30 May 2023	741	<20	<2	4e
S10	02 May 2023	1127	>16000	>12000	>12000
S10	09 May 2023	1023	>16000	4600	1800e
S10	16 May 2023	952	380e	80	84
S10	23 May 2023	927	260e	50	50
S10	30 May 2023	943	160e	38e	8e

<b>Station</b>	<b>Date</b>	<b>Time</b>	<b>Total</b>	<b>Fecal</b>	<b>Enterο</b>
S11	02 May 2023	1014	160e	20e	26e
S11	09 May 2023	930	15000	1400e	440
S11	16 May 2023	910	1400e	380e	120
S11	23 May 2023	846	>16000	>12000	>12000
S11	30 May 2023	845	600e	160e	60
S12	02 May 2023	919	60e	18e	8e
S12	09 May 2023	859	20e	<2	<2
S12	16 May 2023	829	>16000	>12000	6200
S12	23 May 2023	824	>16000	8800	7200
S12	30 May 2023	816	8200	6000	1000e

ns = not sampled

ND = no data

**Table 2.8**

Summary of visual observations made during the month for each SBOO shore station by sample date.

Station	Date	Parameter	Value
S0	02 May 2023	Arrive Time	828
S0	02 May 2023	Weather	Cloudy
S0	02 May 2023	Wind Speed (kts)	2.1
S0	02 May 2023	Wind Dir	NW
S0	02 May 2023	Animal Life	Bird-20; Dog-2;
S0	02 May 2023	Floatables	None
S0	02 May 2023	Water Color	Green
S0	02 May 2023	Current Direction	N
S0	02 May 2023	Water Temp (C)	14
S0	02 May 2023	Wave Height Low (ft)	2
S0	02 May 2023	High Tide (ft)	4.13
S0	02 May 2023	High Tide Time	750
S0	02 May 2023	Low Tide (ft)	0.81
S0	02 May 2023	Low Tide Time	205
S0	02 May 2023	Comments	Water turbid; Trash-0; Kelp; Debris; 1 L/sec water flowing from storm drain
S0	09 May 2023	Arrive Time	940
S0	09 May 2023	Weather	Cloudy
S0	09 May 2023	Wind Speed (kts)	1.3
S0	09 May 2023	Wind Dir	NE
S0	09 May 2023	Animal Life	Bird-20; Dog-2;
S0	09 May 2023	Floatables	None
S0	09 May 2023	Water Color	Green
S0	09 May 2023	Current Direction	N, NE
S0	09 May 2023	Water Temp (C)	13
S0	09 May 2023	Wave Height Low (ft)	3
S0	09 May 2023	High Tide (ft)	2.97
S0	09 May 2023	High Tide Time	1347
S0	09 May 2023	Low Tide (ft)	-0.62
S0	09 May 2023	Low Tide Time	705
S0	09 May 2023	Comments	Water clear; Trash-0; Algae; Kelp; Person/Walker/Jogger-4; Water clear; Trash-0; Kelp; Person/Walker/Jogger-4; 0.5 L/sec water flowing from storm drain
S0	16 May 2023	Arrive Time	840
S0	16 May 2023	Weather	Cloudy
S0	16 May 2023	Wind Speed (kts)	1.9
S0	16 May 2023	Wind Dir	SW
S0	16 May 2023	Animal Life	Bird-20; Dog-2;
S0	16 May 2023	Floatables	None
S0	16 May 2023	Water Color	Green
S0	16 May 2023	Current Direction	S
S0	16 May 2023	Water Temp (C)	13.6
S0	16 May 2023	Wave Height Low (ft)	2
S0	16 May 2023	High Tide (ft)	4.17
S0	16 May 2023	High Tide Time	738
S0	16 May 2023	Low Tide (ft)	0.29
S0	16 May 2023	Low Tide Time	153
S0	16 May 2023	Comments	Water turbid; Trash-0; Kelp; Debris; 1 L/sec water flowing from storm drain
S0	23 May 2023	Arrive Time	1200
S0	23 May 2023	Weather	Cloudy
S0	23 May 2023	Wind Speed (kts)	1.6
S0	23 May 2023	Wind Dir	NE

Station	Date	Parameter	Value
S0	23 May 2023	Animal Life	Dog-2; Seagull-20;
S0	23 May 2023	Floatables	None
S0	23 May 2023	Water Color	Green
S0	23 May 2023	Current Direction	N
S0	23 May 2023	Water Temp (C)	15
S0	23 May 2023	Wave Height Low (ft)	3
S0	23 May 2023	High Tide (ft)	3.03
S0	23 May 2023	High Tide Time	1343
S0	23 May 2023	Low Tide (ft)	-0.18
S0	23 May 2023	Low Tide Time	649
S0	23 May 2023	Comments	Water clear; Trash-0; Kelp; Person/Walker/Jogger-1; 0.5 L/sec water flowing from storm drain
S0	30 May 2023	Arrive Time	850
S0	30 May 2023	Weather	Cloudy
S0	30 May 2023	Wind Speed (kts)	1.1
S0	30 May 2023	Wind Dir	SW
S0	30 May 2023	Animal Life	Bird-20; Dog-2;
S0	30 May 2023	Floatables	None
S0	30 May 2023	Water Color	Green
S0	30 May 2023	Current Direction	N
S0	30 May 2023	Water Temp (C)	14
S0	30 May 2023	Wave Height Low (ft)	2
S0	30 May 2023	High Tide (ft)	3.46
S0	30 May 2023	High Tide Time	633
S0	30 May 2023	Low Tide (ft)	1.31
S0	30 May 2023	Low Tide Time	102
S0	30 May 2023	Comments	Water turbid; Trash-0; Kelp; 1 L/sec water flowing from storm drain
S2	02 May 2023	Arrive Time	910
S2	02 May 2023	Weather	Sunny
S2	02 May 2023	Wind Speed (kts)	1.8
S2	02 May 2023	Wind Dir	NW
S2	02 May 2023	Animal Life	Bird-20; Dog-2;
S2	02 May 2023	Floatables	None
S2	02 May 2023	Water Color	Green
S2	02 May 2023	Current Direction	N
S2	02 May 2023	Water Temp (C)	14
S2	02 May 2023	Wave Height Low (ft)	2
S2	02 May 2023	High Tide (ft)	4.13
S2	02 May 2023	High Tide Time	750
S2	02 May 2023	Low Tide (ft)	0.81
S2	02 May 2023	Low Tide Time	205
S2	02 May 2023	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S2	09 May 2023	Arrive Time	1045
S2	09 May 2023	Weather	Cloudy
S2	09 May 2023	Wind Speed (kts)	1.5
S2	09 May 2023	Wind Dir	NE
S2	09 May 2023	Animal Life	Bird-20; Dog-4;, Bird-20; Dog-2;
S2	09 May 2023	Floatables	None
S2	09 May 2023	Water Color	Green
S2	09 May 2023	Current Direction	N
S2	09 May 2023	Water Temp (C)	13
S2	09 May 2023	Wave Height Low (ft)	3
S2	09 May 2023	High Tide (ft)	2.97
S2	09 May 2023	High Tide Time	1347
S2	09 May 2023	Low Tide (ft)	-0.62
S2	09 May 2023	Low Tide Time	705

Station	Date	Parameter	Value
S2	09 May 2023	Comments	Water clear; Trash-0; Algae;Kelp; Person/Walker/Jogger-8; No water flow from storm drain, Water clear; Trash-0; Kelp; Person/Walker/Jogger-8; No flow from storm drain
S2	16 May 2023	Arrive Time	935
S2	16 May 2023	Weather	Cloudy
S2	16 May 2023	Wind Speed (kts)	2.4
S2	16 May 2023	Wind Dir	SW
S2	16 May 2023	Animal Life	Bird-20; Dog-2;
S2	16 May 2023	Floatables	None
S2	16 May 2023	Water Color	Green
S2	16 May 2023	Current Direction	S
S2	16 May 2023	Water Temp (C)	14.6
S2	16 May 2023	Wave Height Low (ft)	2
S2	16 May 2023	High Tide (ft)	4.17
S2	16 May 2023	High Tide Time	738
S2	16 May 2023	Low Tide (ft)	0.29
S2	16 May 2023	Low Tide Time	153
S2	16 May 2023	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S2	23 May 2023	Arrive Time	1255
S2	23 May 2023	Weather	Cloudy
S2	23 May 2023	Wind Speed (kts)	1.3
S2	23 May 2023	Wind Dir	NE
S2	23 May 2023	Animal Life	Dog-4; Seagull-20;
S2	23 May 2023	Floatables	None
S2	23 May 2023	Water Color	Green
S2	23 May 2023	Current Direction	N
S2	23 May 2023	Water Temp (C)	15
S2	23 May 2023	Wave Height Low (ft)	3
S2	23 May 2023	High Tide (ft)	3.03
S2	23 May 2023	High Tide Time	1343
S2	23 May 2023	Low Tide (ft)	-0.18
S2	23 May 2023	Low Tide Time	649
S2	23 May 2023	Comments	Water clear; Trash-0; Kelp; Person/Walker/Jogger-6; No flow from storm drain
S2	30 May 2023	Arrive Time	940
S2	30 May 2023	Weather	Cloudy
S2	30 May 2023	Wind Speed (kts)	1.7
S2	30 May 2023	Wind Dir	SW
S2	30 May 2023	Animal Life	Bird-20; Dog-3;
S2	30 May 2023	Floatables	None
S2	30 May 2023	Water Color	Green
S2	30 May 2023	Current Direction	N
S2	30 May 2023	Water Temp (C)	15
S2	30 May 2023	Wave Height Low (ft)	2
S2	30 May 2023	High Tide (ft)	3.46
S2	30 May 2023	High Tide Time	633
S2	30 May 2023	Low Tide (ft)	1.31
S2	30 May 2023	Low Tide Time	102
S2	30 May 2023	Comments	Water clear; Trash-0; Kelp; No flow from storm drain
S3	02 May 2023	Arrive Time	925
S3	02 May 2023	Weather	Sunny
S3	02 May 2023	Wind Speed (kts)	2.5
S3	02 May 2023	Wind Dir	NW
S3	02 May 2023	Animal Life	Bird-20; Dog-2;
S3	02 May 2023	Floatables	None
S3	02 May 2023	Water Color	Green
S3	02 May 2023	Current Direction	N

Station	Date	Parameter	Value
S3	02 May 2023	Water Temp (C)	14
S3	02 May 2023	Wave Height Low (ft)	2
S3	02 May 2023	High Tide (ft)	4.13
S3	02 May 2023	High Tide Time	750
S3	02 May 2023	Low Tide (ft)	0.81
S3	02 May 2023	Low Tide Time	205
S3	02 May 2023	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S3	09 May 2023	Arrive Time	1015
S3	09 May 2023	Weather	Cloudy
S3	09 May 2023	Wind Speed (kts)	1.2
S3	09 May 2023	Wind Dir	NE
S3	09 May 2023	Animal Life	Bird-20; Dog-2;
S3	09 May 2023	Floatables	None
S3	09 May 2023	Water Color	Green
S3	09 May 2023	Current Direction	N
S3	09 May 2023	Water Temp (C)	13
S3	09 May 2023	Wave Height Low (ft)	3
S3	09 May 2023	High Tide (ft)	2.97
S3	09 May 2023	High Tide Time	1347
S3	09 May 2023	Low Tide (ft)	-0.62
S3	09 May 2023	Low Tide Time	705
S3	09 May 2023	Comments	Water clear; Trash-0; Kelp;Algae; Person/Walker/Jogger-6; No Water flow from storm drain; Sewage-like odor, Water clear; Trash-0; Kelp; Person/Walker/Jogger-6; No flow from storm drain
S3	16 May 2023	Arrive Time	920
S3	16 May 2023	Weather	Cloudy
S3	16 May 2023	Wind Speed (kts)	2.2
S3	16 May 2023	Wind Dir	SW
S3	16 May 2023	Animal Life	Bird-20;
S3	16 May 2023	Floatables	None
S3	16 May 2023	Water Color	Green
S3	16 May 2023	Current Direction	S
S3	16 May 2023	Water Temp (C)	14.4
S3	16 May 2023	Wave Height Low (ft)	2
S3	16 May 2023	High Tide (ft)	4.17
S3	16 May 2023	High Tide Time	738
S3	16 May 2023	Low Tide (ft)	0.29
S3	16 May 2023	Low Tide Time	153
S3	16 May 2023	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S3	23 May 2023	Arrive Time	1230
S3	23 May 2023	Weather	Cloudy
S3	23 May 2023	Wind Speed (kts)	1.4
S3	23 May 2023	Wind Dir	NE
S3	23 May 2023	Animal Life	Dog-2; Seagull-20;
S3	23 May 2023	Floatables	None
S3	23 May 2023	Water Color	Green
S3	23 May 2023	Current Direction	N
S3	23 May 2023	Water Temp (C)	15
S3	23 May 2023	Wave Height Low (ft)	3
S3	23 May 2023	High Tide (ft)	3.03
S3	23 May 2023	High Tide Time	1343
S3	23 May 2023	Low Tide (ft)	-0.18
S3	23 May 2023	Low Tide Time	649
S3	23 May 2023	Comments	Water clear; Trash-0; Kelp; Person/Walker/Jogger-6; No flow from storm drain
S3	30 May 2023	Arrive Time	925

Station	Date	Parameter	Value
S3	30 May 2023	Weather	Cloudy
S3	30 May 2023	Wind Speed (kts)	1.6
S3	30 May 2023	Wind Dir	SW
S3	30 May 2023	Animal Life	Bird-20;
S3	30 May 2023	Floatables	None
S3	30 May 2023	Water Color	Green
S3	30 May 2023	Current Direction	N
S3	30 May 2023	Water Temp (C)	14
S3	30 May 2023	Wave Height Low (ft)	2
S3	30 May 2023	High Tide (ft)	3.46
S3	30 May 2023	High Tide Time	633
S3	30 May 2023	Low Tide (ft)	1.31
S3	30 May 2023	Low Tide Time	102
S3	30 May 2023	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S4	02 May 2023	Arrive Time	1140
S4	02 May 2023	Weather	Sunny
S4	02 May 2023	Wind Speed (kts)	7.8
S4	02 May 2023	Wind Dir	NW
S4	02 May 2023	Animal Life	Bird-3;
S4	02 May 2023	Floatables	None
S4	02 May 2023	Water Color	Brown
S4	02 May 2023	Current Direction	S
S4	02 May 2023	Water Temp (C)	10.8
S4	02 May 2023	Wave Height Low (ft)	4
S4	02 May 2023	High Tide (ft)	4.13
S4	02 May 2023	High Tide Time	750
S4	02 May 2023	Low Tide (ft)	0.81
S4	02 May 2023	Low Tide Time	205
S4	02 May 2023	Comments	Water clear; Trash-4; Kelp;Seagrass;Debris
S4	09 May 2023	Arrive Time	1031
S4	09 May 2023	Weather	Partly cloudy
S4	09 May 2023	Wind Speed (kts)	6.4
S4	09 May 2023	Wind Dir	SW
S4	09 May 2023	Animal Life	Bird-1;
S4	09 May 2023	Floatables	None
S4	09 May 2023	Water Color	Green
S4	09 May 2023	Current Direction	S
S4	09 May 2023	Water Temp (C)	10.5
S4	09 May 2023	Wave Height Low (ft)	3
S4	09 May 2023	High Tide (ft)	2.97
S4	09 May 2023	High Tide Time	1347
S4	09 May 2023	Low Tide (ft)	-0.62
S4	09 May 2023	Low Tide Time	705
S4	09 May 2023	Comments	Water clear; Trash-1; Seagrass;Kelp
S4	16 May 2023	Arrive Time	1005
S4	16 May 2023	Weather	Foggy
S4	16 May 2023	Wind Speed (kts)	4.6
S4	16 May 2023	Wind Dir	NW
S4	16 May 2023	Animal Life	
S4	16 May 2023	Floatables	None
S4	16 May 2023	Water Color	Green
S4	16 May 2023	Current Direction	S
S4	16 May 2023	Water Temp (C)	13.6
S4	16 May 2023	Wave Height Low (ft)	4
S4	16 May 2023	High Tide (ft)	4.17
S4	16 May 2023	High Tide Time	738
S4	16 May 2023	Low Tide (ft)	0.29
S4	16 May 2023	Low Tide Time	153

Station	Date	Parameter	Value
S4	16 May 2023	Comments	Water clear; Trash-4; Kelp;Seagrass;Debris; Sewage-like odor
S4	23 May 2023	Arrive Time	933
S4	23 May 2023	Weather	Cloudy
S4	23 May 2023	Wind Speed (kts)	4.7
S4	23 May 2023	Wind Dir	SW
S4	23 May 2023	Animal Life	
S4	23 May 2023	Floatables	None
S4	23 May 2023	Water Color	Green
S4	23 May 2023	Current Direction	S
S4	23 May 2023	Water Temp (C)	15.7
S4	23 May 2023	Wave Height Low (ft)	2
S4	23 May 2023	High Tide (ft)	3.03
S4	23 May 2023	High Tide Time	1343
S4	23 May 2023	Low Tide (ft)	-0.18
S4	23 May 2023	Low Tide Time	649
S4	23 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass
S4	30 May 2023	Arrive Time	958
S4	30 May 2023	Weather	Cloudy
S4	30 May 2023	Wind Speed (kts)	7.4
S4	30 May 2023	Wind Dir	W
S4	30 May 2023	Animal Life	Bird-1;
S4	30 May 2023	Floatables	None
S4	30 May 2023	Water Color	Green
S4	30 May 2023	Current Direction	S
S4	30 May 2023	Water Temp (C)	13.1
S4	30 May 2023	Wave Height Low (ft)	3
S4	30 May 2023	High Tide (ft)	3.46
S4	30 May 2023	High Tide Time	633
S4	30 May 2023	Low Tide (ft)	1.31
S4	30 May 2023	Low Tide Time	102
S4	30 May 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S5	02 May 2023	Arrive Time	956
S5	02 May 2023	Weather	Sunny
S5	02 May 2023	Wind Speed (kts)	4.2
S5	02 May 2023	Wind Dir	NW
S5	02 May 2023	Animal Life	Bird-2;
S5	02 May 2023	Floatables	None
S5	02 May 2023	Water Color	Green
S5	02 May 2023	Current Direction	S
S5	02 May 2023	Water Temp (C)	11.5
S5	02 May 2023	Wave Height Low (ft)	3
S5	02 May 2023	High Tide (ft)	4.13
S5	02 May 2023	High Tide Time	750
S5	02 May 2023	Low Tide (ft)	0.81
S5	02 May 2023	Low Tide Time	205
S5	02 May 2023	Comments	Water clear; Trash-4; Kelp;Seagrass;Debris
S5	09 May 2023	Arrive Time	925
S5	09 May 2023	Weather	Partly cloudy
S5	09 May 2023	Wind Speed (kts)	2.3
S5	09 May 2023	Wind Dir	SW
S5	09 May 2023	Animal Life	
S5	09 May 2023	Floatables	None
S5	09 May 2023	Water Color	Green
S5	09 May 2023	Current Direction	S
S5	09 May 2023	Water Temp (C)	10
S5	09 May 2023	Wave Height Low (ft)	1

Station	Date	Parameter	Value
S5	09 May 2023	High Tide (ft)	2.97
S5	09 May 2023	High Tide Time	1347
S5	09 May 2023	Low Tide (ft)	-0.62
S5	09 May 2023	Low Tide Time	705
S5	09 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-1; Sewage-like odor
S5	16 May 2023	Arrive Time	859
S5	16 May 2023	Weather	Foggy
S5	16 May 2023	Wind Speed (kts)	5.34
S5	16 May 2023	Wind Dir	NW
S5	16 May 2023	Animal Life	Bird-7;
S5	16 May 2023	Floatables	None
S5	16 May 2023	Water Color	Green
S5	16 May 2023	Current Direction	S
S5	16 May 2023	Water Temp (C)	13
S5	16 May 2023	Wave Height Low (ft)	4
S5	16 May 2023	High Tide (ft)	4.17
S5	16 May 2023	High Tide Time	738
S5	16 May 2023	Low Tide (ft)	0.29
S5	16 May 2023	Low Tide Time	153
S5	16 May 2023	Comments	Water clear; Trash-4; Kelp;Seagrass;Debris; Sewage-like odor
S5	23 May 2023	Arrive Time	838
S5	23 May 2023	Weather	Drizzle
S5	23 May 2023	Wind Speed (kts)	3
S5	23 May 2023	Wind Dir	W
S5	23 May 2023	Animal Life	Bird-2;
S5	23 May 2023	Floatables	None
S5	23 May 2023	Water Color	Brown
S5	23 May 2023	Current Direction	S
S5	23 May 2023	Water Temp (C)	15.7
S5	23 May 2023	Wave Height Low (ft)	1
S5	23 May 2023	High Tide (ft)	3.03
S5	23 May 2023	High Tide Time	1343
S5	23 May 2023	Low Tide (ft)	-0.18
S5	23 May 2023	Low Tide Time	649
S5	23 May 2023	Comments	Water turbid; Trash-1; Kelp;Seagrass; Sewage-like odor
S5	30 May 2023	Arrive Time	838
S5	30 May 2023	Weather	Cloudy
S5	30 May 2023	Wind Speed (kts)	7.2
S5	30 May 2023	Wind Dir	NW
S5	30 May 2023	Animal Life	
S5	30 May 2023	Floatables	None
S5	30 May 2023	Water Color	Green
S5	30 May 2023	Current Direction	S
S5	30 May 2023	Water Temp (C)	13.9
S5	30 May 2023	Wave Height Low (ft)	3
S5	30 May 2023	High Tide (ft)	3.46
S5	30 May 2023	High Tide Time	633
S5	30 May 2023	Low Tide (ft)	1.31
S5	30 May 2023	Low Tide Time	102
S5	30 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S6	02 May 2023	Arrive Time	1025
S6	02 May 2023	Weather	Sunny
S6	02 May 2023	Wind Speed (kts)	7.4
S6	02 May 2023	Wind Dir	W
S6	02 May 2023	Animal Life	Bird-2;

Station	Date	Parameter	Value
S6	02 May 2023	Floatables	None
S6	02 May 2023	Water Color	Green
S6	02 May 2023	Current Direction	S
S6	02 May 2023	Water Temp (C)	11
S6	02 May 2023	Wave Height Low (ft)	3
S6	02 May 2023	High Tide (ft)	4.13
S6	02 May 2023	High Tide Time	750
S6	02 May 2023	Low Tide (ft)	0.81
S6	02 May 2023	Low Tide Time	205
S6	02 May 2023	Comments	Water clear; Trash-4; Kelp;Seagrass;Debris
S6	09 May 2023	Arrive Time	940
S6	09 May 2023	Weather	Partly cloudy
S6	09 May 2023	Wind Speed (kts)	2.8
S6	09 May 2023	Wind Dir	S
S6	09 May 2023	Animal Life	
S6	09 May 2023	Floatables	None
S6	09 May 2023	Water Color	Green
S6	09 May 2023	Current Direction	S
S6	09 May 2023	Water Temp (C)	12
S6	09 May 2023	Wave Height Low (ft)	2
S6	09 May 2023	High Tide (ft)	2.97
S6	09 May 2023	High Tide Time	1347
S6	09 May 2023	Low Tide (ft)	-0.62
S6	09 May 2023	Low Tide Time	705
S6	09 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
S6	16 May 2023	Arrive Time	919
S6	16 May 2023	Weather	Foggy
S6	16 May 2023	Wind Speed (kts)	2.8
S6	16 May 2023	Wind Dir	NW
S6	16 May 2023	Animal Life	
S6	16 May 2023	Floatables	None
S6	16 May 2023	Water Color	Green
S6	16 May 2023	Current Direction	S
S6	16 May 2023	Water Temp (C)	10.1
S6	16 May 2023	Wave Height Low (ft)	5
S6	16 May 2023	High Tide (ft)	4.17
S6	16 May 2023	High Tide Time	738
S6	16 May 2023	Low Tide (ft)	0.29
S6	16 May 2023	Low Tide Time	153
S6	16 May 2023	Comments	Water clear; Trash-4; Seagrass;Kelp;Algae;Debris
S6	23 May 2023	Arrive Time	851
S6	23 May 2023	Weather	Cloudy
S6	23 May 2023	Wind Speed (kts)	2.2
S6	23 May 2023	Wind Dir	SW
S6	23 May 2023	Animal Life	
S6	23 May 2023	Floatables	None
S6	23 May 2023	Water Color	Green
S6	23 May 2023	Current Direction	S
S6	23 May 2023	Water Temp (C)	16
S6	23 May 2023	Wave Height Low (ft)	2
S6	23 May 2023	High Tide (ft)	3.03
S6	23 May 2023	High Tide Time	1343
S6	23 May 2023	Low Tide (ft)	-0.18
S6	23 May 2023	Low Tide Time	649
S6	23 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae; Sewage-like odor
S6	30 May 2023	Arrive Time	853
S6	30 May 2023	Weather	Cloudy

Station	Date	Parameter	Value
S6	30 May 2023	Wind Speed (kts)	10.1
S6	30 May 2023	Wind Dir	NW
S6	30 May 2023	Animal Life	
S6	30 May 2023	Floating Debris	Foam
S6	30 May 2023	Water Color	Green
S6	30 May 2023	Current Direction	S
S6	30 May 2023	Water Temp (C)	14
S6	30 May 2023	Wave Height Low (ft)	3
S6	30 May 2023	High Tide (ft)	3.46
S6	30 May 2023	High Tide Time	633
S6	30 May 2023	Low Tide (ft)	1.31
S6	30 May 2023	Low Tide Time	102
S6	30 May 2023	Comments	Water clear; Trash-1; Kelp; Seagrass; Debris
S8	02 May 2023	Arrive Time	902
S8	02 May 2023	Weather	Partly cloudy
S8	02 May 2023	Wind Speed (kts)	6.6
S8	02 May 2023	Wind Dir	NW
S8	02 May 2023	Animal Life	
S8	02 May 2023	Floating Debris	None
S8	02 May 2023	Water Color	Green
S8	02 May 2023	Current Direction	S
S8	02 May 2023	Water Temp (C)	9
S8	02 May 2023	Wave Height Low (ft)	3
S8	02 May 2023	High Tide (ft)	4.13
S8	02 May 2023	High Tide Time	750
S8	02 May 2023	Low Tide (ft)	0.81
S8	02 May 2023	Low Tide Time	205
S8	02 May 2023	Comments	Water clear; Trash-3; Kelp; Seagrass; Debris
S8	09 May 2023	Arrive Time	838
S8	09 May 2023	Weather	Partly cloudy
S8	09 May 2023	Wind Speed (kts)	6.3
S8	09 May 2023	Wind Dir	SW
S8	09 May 2023	Animal Life	
S8	09 May 2023	Floating Debris	None
S8	09 May 2023	Water Color	Green
S8	09 May 2023	Current Direction	S
S8	09 May 2023	Water Temp (C)	11.2
S8	09 May 2023	Wave Height Low (ft)	3
S8	09 May 2023	High Tide (ft)	2.97
S8	09 May 2023	High Tide Time	1347
S8	09 May 2023	Low Tide (ft)	-0.62
S8	09 May 2023	Low Tide Time	705
S8	09 May 2023	Comments	Water clear; Trash-1; Seagrass; Kelp
S8	16 May 2023	Arrive Time	808
S8	16 May 2023	Weather	Foggy
S8	16 May 2023	Wind Speed (kts)	3.8
S8	16 May 2023	Wind Dir	NW
S8	16 May 2023	Animal Life	
S8	16 May 2023	Floating Debris	None
S8	16 May 2023	Water Color	Green
S8	16 May 2023	Current Direction	S
S8	16 May 2023	Water Temp (C)	12.6
S8	16 May 2023	Wave Height Low (ft)	3
S8	16 May 2023	High Tide (ft)	4.17
S8	16 May 2023	High Tide Time	738
S8	16 May 2023	Low Tide (ft)	0.29
S8	16 May 2023	Low Tide Time	153
S8	16 May 2023	Comments	Water clear; Trash-2; Kelp; Seagrass; Debris

Station	Date	Parameter	Value
S8	23 May 2023	Arrive Time	808
S8	23 May 2023	Weather	Cloudy
S8	23 May 2023	Wind Speed (kts)	3.8
S8	23 May 2023	Wind Dir	W
S8	23 May 2023	Animal Life	
S8	23 May 2023	Floatables	None
S8	23 May 2023	Water Color	Green
S8	23 May 2023	Current Direction	S
S8	23 May 2023	Water Temp (C)	13.6
S8	23 May 2023	Wave Height Low (ft)	1
S8	23 May 2023	High Tide (ft)	3.03
S8	23 May 2023	High Tide Time	1343
S8	23 May 2023	Low Tide (ft)	-0.18
S8	23 May 2023	Low Tide Time	649
S8	23 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass
S8	30 May 2023	Arrive Time	758
S8	30 May 2023	Weather	Cloudy
S8	30 May 2023	Wind Speed (kts)	1.8
S8	30 May 2023	Wind Dir	S
S8	30 May 2023	Animal Life	
S8	30 May 2023	Floatables	None
S8	30 May 2023	Water Color	Green
S8	30 May 2023	Current Direction	S
S8	30 May 2023	Water Temp (C)	12.6
S8	30 May 2023	Wave Height Low (ft)	2
S8	30 May 2023	High Tide (ft)	3.46
S8	30 May 2023	High Tide Time	633
S8	30 May 2023	Low Tide (ft)	1.31
S8	30 May 2023	Low Tide Time	102
S8	30 May 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S9	02 May 2023	Arrive Time	841
S9	02 May 2023	Weather	Sunny
S9	02 May 2023	Wind Speed (kts)	5.2
S9	02 May 2023	Wind Dir	S
S9	02 May 2023	Animal Life	
S9	02 May 2023	Floatables	None
S9	02 May 2023	Water Color	Green
S9	02 May 2023	Current Direction	S
S9	02 May 2023	Water Temp (C)	13.2
S9	02 May 2023	Wave Height Low (ft)	2
S9	02 May 2023	High Tide (ft)	4.13
S9	02 May 2023	High Tide Time	750
S9	02 May 2023	Low Tide (ft)	0.81
S9	02 May 2023	Low Tide Time	205
S9	02 May 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S9	09 May 2023	Arrive Time	818
S9	09 May 2023	Weather	Partly cloudy
S9	09 May 2023	Wind Speed (kts)	5.3
S9	09 May 2023	Wind Dir	W
S9	09 May 2023	Animal Life	
S9	09 May 2023	Floatables	None
S9	09 May 2023	Water Color	Green
S9	09 May 2023	Current Direction	S
S9	09 May 2023	Water Temp (C)	11.2
S9	09 May 2023	Wave Height Low (ft)	2
S9	09 May 2023	High Tide (ft)	2.97
S9	09 May 2023	High Tide Time	1347

Station	Date	Parameter	Value
S9	09 May 2023	Low Tide (ft)	-0.62
S9	09 May 2023	Low Tide Time	705
S9	09 May 2023	Comments	Water clear; Trash-1; Seagrass;Kelp; Person/Walker/Jogger-1
S9	16 May 2023	Arrive Time	751
S9	16 May 2023	Weather	Foggy
S9	16 May 2023	Wind Speed (kts)	3.2
S9	16 May 2023	Wind Dir	NW
S9	16 May 2023	Animal Life	
S9	16 May 2023	Floatables	None
S9	16 May 2023	Water Color	Green
S9	16 May 2023	Current Direction	S
S9	16 May 2023	Water Temp (C)	12.1
S9	16 May 2023	Wave Height Low (ft)	3
S9	16 May 2023	High Tide (ft)	4.17
S9	16 May 2023	High Tide Time	738
S9	16 May 2023	Low Tide (ft)	0.29
S9	16 May 2023	Low Tide Time	153
S9	16 May 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S9	23 May 2023	Arrive Time	751
S9	23 May 2023	Weather	Cloudy
S9	23 May 2023	Wind Speed (kts)	1.5
S9	23 May 2023	Wind Dir	NW
S9	23 May 2023	Animal Life	Bird-1;
S9	23 May 2023	Floatables	None
S9	23 May 2023	Water Color	Green
S9	23 May 2023	Current Direction	S
S9	23 May 2023	Water Temp (C)	14.8
S9	23 May 2023	Wave Height Low (ft)	1
S9	23 May 2023	High Tide (ft)	3.03
S9	23 May 2023	High Tide Time	1343
S9	23 May 2023	Low Tide (ft)	-0.18
S9	23 May 2023	Low Tide Time	649
S9	23 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-2
S9	30 May 2023	Arrive Time	741
S9	30 May 2023	Weather	Cloudy
S9	30 May 2023	Wind Speed (kts)	2.4
S9	30 May 2023	Wind Dir	SW
S9	30 May 2023	Animal Life	
S9	30 May 2023	Floatables	None
S9	30 May 2023	Water Color	Green
S9	30 May 2023	Current Direction	S
S9	30 May 2023	Water Temp (C)	11.7
S9	30 May 2023	Wave Height Low (ft)	1
S9	30 May 2023	High Tide (ft)	3.46
S9	30 May 2023	High Tide Time	633
S9	30 May 2023	Low Tide (ft)	1.31
S9	30 May 2023	Low Tide Time	102
S9	30 May 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris; Person/Walker/Jogger-3
S10	02 May 2023	Arrive Time	1127
S10	02 May 2023	Weather	Sunny
S10	02 May 2023	Wind Speed (kts)	5.2
S10	02 May 2023	Wind Dir	NW
S10	02 May 2023	Animal Life	Bird-2;
S10	02 May 2023	Floatables	None

Station	Date	Parameter	Value
S10	02 May 2023	Water Color	Brown
S10	02 May 2023	Current Direction	S
S10	02 May 2023	Water Temp (C)	12.9
S10	02 May 2023	Wave Height Low (ft)	3
S10	02 May 2023	High Tide (ft)	4.13
S10	02 May 2023	High Tide Time	750
S10	02 May 2023	Low Tide (ft)	0.81
S10	02 May 2023	Low Tide Time	205
S10	02 May 2023	Comments	Water clear; Trash-4; Kelp;Seagrass;Debris
S10	09 May 2023	Arrive Time	1025
S10	09 May 2023	Weather	Partly cloudy
S10	09 May 2023	Wind Speed (kts)	5.9
S10	09 May 2023	Wind Dir	SW
S10	09 May 2023	Animal Life	Bird-2;
S10	09 May 2023	Floatables	None
S10	09 May 2023	Water Color	Green
S10	09 May 2023	Current Direction	S
S10	09 May 2023	Water Temp (C)	12.3
S10	09 May 2023	Wave Height Low (ft)	3
S10	09 May 2023	High Tide (ft)	2.97
S10	09 May 2023	High Tide Time	1347
S10	09 May 2023	Low Tide (ft)	-0.62
S10	09 May 2023	Low Tide Time	705
S10	09 May 2023	Comments	Water clear; Trash-1; Seagrass;Kelp; Sewage-like odor
S10	16 May 2023	Arrive Time	952
S10	16 May 2023	Weather	Foggy
S10	16 May 2023	Wind Speed (kts)	4.7
S10	16 May 2023	Wind Dir	NW
S10	16 May 2023	Animal Life	
S10	16 May 2023	Floatables	None
S10	16 May 2023	Water Color	Green
S10	16 May 2023	Current Direction	S
S10	16 May 2023	Water Temp (C)	11.8
S10	16 May 2023	Wave Height Low (ft)	5
S10	16 May 2023	High Tide (ft)	4.17
S10	16 May 2023	High Tide Time	738
S10	16 May 2023	Low Tide (ft)	0.29
S10	16 May 2023	Low Tide Time	153
S10	16 May 2023	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S10	23 May 2023	Arrive Time	927
S10	23 May 2023	Weather	Cloudy
S10	23 May 2023	Wind Speed (kts)	5.2
S10	23 May 2023	Wind Dir	SW
S10	23 May 2023	Animal Life	
S10	23 May 2023	Floatables	None
S10	23 May 2023	Water Color	Green
S10	23 May 2023	Current Direction	S
S10	23 May 2023	Water Temp (C)	14.6
S10	23 May 2023	Wave Height Low (ft)	2
S10	23 May 2023	High Tide (ft)	3.03
S10	23 May 2023	High Tide Time	1343
S10	23 May 2023	Low Tide (ft)	-0.18
S10	23 May 2023	Low Tide Time	649
S10	23 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass
S10	30 May 2023	Arrive Time	943
S10	30 May 2023	Weather	Cloudy
S10	30 May 2023	Wind Speed (kts)	7.6

Station	Date	Parameter	Value
S10	30 May 2023	Wind Dir	W
S10	30 May 2023	Animal Life	
S10	30 May 2023	Floatables	None
S10	30 May 2023	Water Color	Green
S10	30 May 2023	Current Direction	S
S10	30 May 2023	Water Temp (C)	14.2
S10	30 May 2023	Wave Height Low (ft)	3
S10	30 May 2023	High Tide (ft)	3.46
S10	30 May 2023	High Tide Time	633
S10	30 May 2023	Low Tide (ft)	1.31
S10	30 May 2023	Low Tide Time	102
S10	30 May 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S11	02 May 2023	Arrive Time	1014
S11	02 May 2023	Weather	Sunny
S11	02 May 2023	Wind Speed (kts)	6.2
S11	02 May 2023	Wind Dir	W
S11	02 May 2023	Animal Life	Bird-3;
S11	02 May 2023	Floatables	None
S11	02 May 2023	Water Color	Green
S11	02 May 2023	Current Direction	S
S11	02 May 2023	Water Temp (C)	12
S11	02 May 2023	Wave Height Low (ft)	3
S11	02 May 2023	High Tide (ft)	4.13
S11	02 May 2023	High Tide Time	750
S11	02 May 2023	Low Tide (ft)	0.81
S11	02 May 2023	Low Tide Time	205
S11	02 May 2023	Comments	Water clear; Trash-4; Kelp;Seagrass;Debris
S11	09 May 2023	Arrive Time	930
S11	09 May 2023	Weather	Partly cloudy
S11	09 May 2023	Wind Speed (kts)	3
S11	09 May 2023	Wind Dir	SW
S11	09 May 2023	Animal Life	Bird-1;
S11	09 May 2023	Floatables	None
S11	09 May 2023	Water Color	Green
S11	09 May 2023	Current Direction	S
S11	09 May 2023	Water Temp (C)	11.6
S11	09 May 2023	Wave Height Low (ft)	2
S11	09 May 2023	High Tide (ft)	2.97
S11	09 May 2023	High Tide Time	1347
S11	09 May 2023	Low Tide (ft)	-0.62
S11	09 May 2023	Low Tide Time	705
S11	09 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-2
S11	16 May 2023	Arrive Time	910
S11	16 May 2023	Weather	Foggy
S11	16 May 2023	Wind Speed (kts)	5.2
S11	16 May 2023	Wind Dir	NW
S11	16 May 2023	Animal Life	
S11	16 May 2023	Floatables	None
S11	16 May 2023	Water Color	Green
S11	16 May 2023	Current Direction	S
S11	16 May 2023	Water Temp (C)	13
S11	16 May 2023	Wave Height Low (ft)	5
S11	16 May 2023	High Tide (ft)	4.17
S11	16 May 2023	High Tide Time	738
S11	16 May 2023	Low Tide (ft)	0.29
S11	16 May 2023	Low Tide Time	153
S11	16 May 2023	Comments	Water clear; Trash-4; Kelp;Seagrass;Debris

Station	Date	Parameter	Value
S11	23 May 2023	Arrive Time	846
S11	23 May 2023	Weather	Drizzle
S11	23 May 2023	Wind Speed (kts)	4.8
S11	23 May 2023	Wind Dir	W
S11	23 May 2023	Animal Life	
S11	23 May 2023	Floatables	None
S11	23 May 2023	Water Color	Green
S11	23 May 2023	Current Direction	S
S11	23 May 2023	Water Temp (C)	15.8
S11	23 May 2023	Wave Height Low (ft)	1
S11	23 May 2023	High Tide (ft)	3.03
S11	23 May 2023	High Tide Time	1343
S11	23 May 2023	Low Tide (ft)	-0.18
S11	23 May 2023	Low Tide Time	649
S11	23 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass; Sewage-like odor
S11	30 May 2023	Arrive Time	845
S11	30 May 2023	Weather	Cloudy
S11	30 May 2023	Wind Speed (kts)	8.42
S11	30 May 2023	Wind Dir	W
S11	30 May 2023	Animal Life	
S11	30 May 2023	Floatables	None
S11	30 May 2023	Water Color	Green
S11	30 May 2023	Current Direction	S
S11	30 May 2023	Water Temp (C)	15.1
S11	30 May 2023	Wave Height Low (ft)	2
S11	30 May 2023	High Tide (ft)	3.46
S11	30 May 2023	High Tide Time	633
S11	30 May 2023	Low Tide (ft)	1.31
S11	30 May 2023	Low Tide Time	102
S11	30 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S12	02 May 2023	Arrive Time	919
S12	02 May 2023	Weather	Sunny
S12	02 May 2023	Wind Speed (kts)	4.5
S12	02 May 2023	Wind Dir	NW
S12	02 May 2023	Animal Life	
S12	02 May 2023	Floatables	None
S12	02 May 2023	Water Color	Green
S12	02 May 2023	Current Direction	S
S12	02 May 2023	Water Temp (C)	12
S12	02 May 2023	Wave Height Low (ft)	3
S12	02 May 2023	High Tide (ft)	4.13
S12	02 May 2023	High Tide Time	750
S12	02 May 2023	Low Tide (ft)	0.81
S12	02 May 2023	Low Tide Time	205
S12	02 May 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S12	09 May 2023	Arrive Time	859
S12	09 May 2023	Weather	Partly cloudy
S12	09 May 2023	Wind Speed (kts)	2.3
S12	09 May 2023	Wind Dir	W
S12	09 May 2023	Animal Life	
S12	09 May 2023	Floatables	None
S12	09 May 2023	Water Color	Green
S12	09 May 2023	Current Direction	S
S12	09 May 2023	Water Temp (C)	12.3
S12	09 May 2023	Wave Height Low (ft)	3
S12	09 May 2023	High Tide (ft)	2.97
S12	09 May 2023	High Tide Time	1347

Station	Date	Parameter	Value
S12	09 May 2023	Low Tide (ft)	-0.62
S12	09 May 2023	Low Tide Time	705
S12	09 May 2023	Comments	Water clear; Trash-1; Seagrass;Kelp;Debris; Person/Walker/Jogger-1
S12	16 May 2023	Arrive Time	829
S12	16 May 2023	Weather	Foggy
S12	16 May 2023	Wind Speed (kts)	4.7
S12	16 May 2023	Wind Dir	NW
S12	16 May 2023	Animal Life	
S12	16 May 2023	Floatables	None
S12	16 May 2023	Water Color	Green
S12	16 May 2023	Current Direction	S
S12	16 May 2023	Water Temp (C)	13
S12	16 May 2023	Wave Height Low (ft)	3
S12	16 May 2023	High Tide (ft)	4.17
S12	16 May 2023	High Tide Time	738
S12	16 May 2023	Low Tide (ft)	0.29
S12	16 May 2023	Low Tide Time	153
S12	16 May 2023	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S12	23 May 2023	Arrive Time	824
S12	23 May 2023	Weather	Cloudy
S12	23 May 2023	Wind Speed (kts)	4.1
S12	23 May 2023	Wind Dir	W
S12	23 May 2023	Animal Life	
S12	23 May 2023	Floatables	None
S12	23 May 2023	Water Color	Green
S12	23 May 2023	Current Direction	S
S12	23 May 2023	Water Temp (C)	15
S12	23 May 2023	Wave Height Low (ft)	1
S12	23 May 2023	High Tide (ft)	3.03
S12	23 May 2023	High Tide Time	1343
S12	23 May 2023	Low Tide (ft)	-0.18
S12	23 May 2023	Low Tide Time	649
S12	23 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-1
S12	30 May 2023	Arrive Time	816
S12	30 May 2023	Weather	Cloudy
S12	30 May 2023	Wind Speed (kts)	8.2
S12	30 May 2023	Wind Dir	W
S12	30 May 2023	Animal Life	
S12	30 May 2023	Floatables	None
S12	30 May 2023	Water Color	Green
S12	30 May 2023	Current Direction	S
S12	30 May 2023	Water Temp (C)	14.4
S12	30 May 2023	Wave Height Low (ft)	2
S12	30 May 2023	High Tide (ft)	3.46
S12	30 May 2023	High Tide Time	633
S12	30 May 2023	Low Tide (ft)	1.31
S12	30 May 2023	Low Tide Time	102
S12	30 May 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-1



# Kelp Stations



**Table 3.1**

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria at the SBOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (\*). Values >200 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 May 2023	<b>1262</b>	126	31	6	6	6	<b>825</b>
02 May 2023	<b>1321</b>	63	22	5	7	5	<b>678</b>
03 May 2023	<b>1321</b>	63	22	5	7	5	<b>678</b>
04 May 2023	<b>1321</b>	63	22	5	7	5	<b>678</b>
05 May 2023	<b>1390</b>	83	40	6	8	6	<b>1730</b>
06 May 2023	<b>1390</b>	83	40	6	8	6	<b>1730</b>
07 May 2023	<b>1390</b>	83	40	6	8	6	<b>1730</b>
08 May 2023	<b>1390</b>	83	40	6	8	6	<b>1730</b>
09 May 2023	<b>1212</b>	39	22	5	6	5	<b>2059</b>
10 May 2023	<b>853</b>	47	36	6	8	6	<b>2062</b>
11 May 2023	<b>853</b>	47	36	6	8	6	<b>2062</b>
12 May 2023	<b>853</b>	47	36	6	8	6	<b>2062</b>
13 May 2023	<b>853</b>	47	36	6	8	6	<b>2062</b>
14 May 2023	<b>853</b>	47	36	6	8	6	<b>2062</b>
15 May 2023	<b>254</b>	33	20	5	21	9	<b>1569</b>
16 May 2023	<b>254</b>	33	20	5	21	9	<b>1569</b>
17 May 2023	<b>254</b>	33	20	5	21	9	<b>1569</b>
18 May 2023	148	18	9	6	33	14	<b>1056</b>
19 May 2023	148	18	9	6	33	14	<b>1056</b>
20 May 2023	148	18	9	6	33	14	<b>1056</b>
21 May 2023	148	18	9	6	33	14	<b>1056</b>
22 May 2023	86	12	7	5	37	9	<b>832</b>
23 May 2023	86	12	7	5	37	9	<b>832</b>
24 May 2023	86	12	7	5	37	9	<b>832</b>
25 May 2023	86	12	7	5	37	9	<b>832</b>
26 May 2023	69	3	3	2	34	5	<b>682</b>
27 May 2023	69	3	3	2	34	5	<b>682</b>
28 May 2023	69	3	3	2	34	5	<b>682</b>
29 May 2023	69	3	3	2	34	5	<b>682</b>
30 May 2023	69	3	3	2	34	5	<b>682</b>

\* Geometric mean calculated using n<5

**Table 3.2**

Summary of compliance at the SBOO kelp stations with the Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria, which states that fecal coliform density shall not exceed 400 CFU/100 mL.

Date	I19	I24	I25	I26	I32	I39	I40
02 May 2023	E	IC	IC	IC	IC	IC	E
09 May 2023	E	IC	IC	IC	IC	IC	E
15 May 2023	IC	IC	IC	IC	E	IC	E
22 May 2023	IC	IC	IC	IC	IC	IC	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

**Table 3.3**

Summary of compliance with the Ocean Plan's 6-week Geometric Mean standard for *Enterococcus* at the SBOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 6 weeks unless otherwise noted (\*). Values >30 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 May 2023	<b>370</b>	<b>49</b>	21	10	<b>33</b>	7	<b>313</b>
02 May 2023	<b>355</b>	<b>31</b>	15	8	26	6	<b>243</b>
03 May 2023	<b>355</b>	<b>31</b>	15	8	26	6	<b>243</b>
04 May 2023	<b>355</b>	<b>31</b>	15	8	26	6	<b>243</b>
05 May 2023	<b>314</b>	19	9	4	17	3	<b>198</b>
06 May 2023	<b>314</b>	19	9	4	17	3	<b>198</b>
07 May 2023	<b>314</b>	19	9	4	17	3	<b>198</b>
08 May 2023	<b>314</b>	19	9	4	17	3	<b>198</b>
09 May 2023	<b>323</b>	12	5	3	8	3	<b>270</b>
10 May 2023	<b>323</b>	12	5	3	8	3	<b>270</b>
11 May 2023	<b>323</b>	12	5	3	8	3	<b>270</b>
12 May 2023	<b>323</b>	12	5	3	8	3	<b>270</b>
13 May 2023	<b>323</b>	12	5	3	8	3	<b>270</b>
14 May 2023	<b>323</b>	12	5	3	8	3	<b>270</b>
15 May 2023	<b>163</b>	10	5	3	14	4	<b>291</b>
16 May 2023	<b>163</b>	10	5	3	14	4	<b>291</b>
17 May 2023	<b>152</b>	10	5	3	11	4	<b>405</b>
18 May 2023	<b>152</b>	10	5	3	11	4	<b>405</b>
19 May 2023	<b>152</b>	10	5	3	11	4	<b>405</b>
20 May 2023	<b>152</b>	10	5	3	11	4	<b>405</b>
21 May 2023	<b>152</b>	10	5	3	11	4	<b>405</b>
22 May 2023	<b>68</b>	8	5	3	13	4	<b>533</b>
23 May 2023	<b>68</b>	8	5	3	13	4	<b>533</b>
24 May 2023	<b>68</b>	8	5	3	13	4	<b>533</b>
25 May 2023	<b>68</b>	8	5	3	13	4	<b>533</b>
26 May 2023	<b>68</b>	8	5	3	13	4	<b>533</b>
27 May 2023	<b>68</b>	8	5	3	13	4	<b>533</b>
28 May 2023	<b>68</b>	8	5	3	13	4	<b>533</b>
29 May 2023	<b>68</b>	8	5	3	13	4	<b>533</b>
30 May 2023	<b>49</b>	7	4	4	15	5	<b>443</b>

\* Geometric mean calculated using n<5

**Table 3.4**

Summary of compliance at the SBOO kelp stations with the Ocean Plan's Statistical Threshold Value standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 110 CFU/100 mL in more than 10% of samples per month.

Date	I19	I24	I25	I26	I32	I39	I40
May	E	IC	IC	IC	E	IC	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

**Table 3.5**

Summary of compliance with the Ocean Plan's 30-day Median standard for total coliform bacteria at the SBOO kelp stations. Data are based on the median of the five most recent samples from each site and depth over the previous 30 days unless otherwise noted (\*). Values >70 CFU/100 mL exceed the standard. Median calculated using n<5

Date	2m	6m	11m	2m	6m	11m	2m	6m	9m	2m	6m	9m	2m	6m	9m	2m	6m	9m	2m	6m	9m	
01 May 2023	16000	5800	1200	1120	1340	1000	341	513	302	3	5	27	19	100	80	2	3	15	16000	3500	1950	
02 May 2023	16000	4800	1200	40	280	800	2	26	24	2	2	14	20	60	80	2	2	6	16000	2800	700	
03 May 2023	16000	4800	1200	40	280	800	2	26	24	2	2	14	20	60	80	2	2	6	16000	2800	700	
04 May 2023	16000	4800	1200	40	280	800	2	26	24	2	2	14	20	60	80	2	2	6	16000	2800	700	
05 May 2023	12200	5200	1100	1110	1340	520	341	513	302	3	2	9	20	40	70	2	3	4	16000	3500	1940	
06 May 2023	12200	5200	1100	1110	1340	520	341	513	302	3	2	9	20	40	70	2	3	4	16000	3500	1940	
07 May 2023	12200	5200	1100	1110	1340	520	341	513	302	3	2	9	20	40	70	2	3	4	16000	3500	1940	
08 May 2023	12200	5200	1100	1110	1340	520	341	513	302	3	2	9	20	40	70	2	3	4	16000	3500	1940	
09 May 2023	16000	3600	1000	20	280	240	2	26	24	2	2	4	20	60	2	2	2	16000	2800	1800		
10 May 2023	12200	2220	780	1110	1220	430	341	510	300	3	11	3	20	40	50	2	3	2	16000	1850	1240	
11 May 2023	12200	2220	780	1110	1220	430	341	510	300	3	11	3	20	40	50	2	3	2	16000	1850	1240	
12 May 2023	12200	2220	780	1110	1220	430	341	510	300	3	11	3	20	40	50	2	3	2	16000	1850	1240	
13 May 2023	12200	2220	780	1110	1220	430	341	510	300	3	11	3	20	40	50	2	3	2	16000	1850	1240	
14 May 2023	12200	2220	780	1110	1220	430	341	510	300	3	11	3	20	40	50	2	3	2	16000	1850	1240	
15 May 2023	8400	840	560	34	40	60	8	20	20	2	20	4	20	60	80	2	4	2	16000	1000	1800	
16 May 2023	8400	840	560	34	40	60	8	20	20	2	20	4	20	60	80	2	4	2	16000	1000	1800	
17 May 2023	8400	840	560	34	40	60	8	20	20	2	20	4	20	60	80	2	4	2	16000	1000	1800	
18 May 2023	6100	580	440	27	40	35	5	20	20	2	20	4	20	50	16	260	130	90	2	241	22	
19 May 2023	6100	580	440	27	40	35	5	20	20	2	20	4	20	50	16	260	130	90	2	241	22	
20 May 2023	6100	580	440	27	40	35	5	20	20	2	20	4	20	50	16	260	130	90	2	241	22	
21 May 2023	6100	580	440	27	40	35	5	20	20	2	20	4	20	50	16	260	130	90	2	241	22	
22 May 2023	3800	320	20	40	10	2	20	2	20	4	20	20	2	20	4	20	100	2	2	2	7400	
23 May 2023	3800	320	20	40	10	2	20	2	20	4	20	20	2	20	4	20	100	2	2	2	7400	
24 May 2023	3800	320	20	40	10	2	20	2	20	4	20	20	2	20	4	20	100	2	2	2	7400	
25 May 2023	3800	320	20	40	10	2	20	2	20	4	20	20	2	20	4	20	100	2	2	2	7400	
26 May 2023	4240	425	180	12	30	7	2	12	20	2	12	20	2	12	20	2	220	290	2	2	2	7200
27 May 2023	4240	425	180	12	30	7	2	12	20	2	12	20	2	12	20	2	220	290	2	2	2	7200
28 May 2023	4240	425	180	12	30	7	2	12	20	2	12	20	2	12	20	2	220	290	2	2	2	7200
29 May 2023	4240	425	180	12	30	7	2	12	20	2	12	20	2	12	20	2	220	290	2	2	2	7200
30 May 2023	4240	425	180	12	30	7	2	12	20	2	12	20	2	12	20	2	220	290	2	2	2	7200

**Table 3.6**

Summary of compliance at the SBOO kelp stations with the Ocean Plan's Statistical Threshold Value for total coliform bacteria, which states that total coliform density shall not exceed 230 CFU/100 mL in more than 10% of samples per station by depth, per month.

Date	I19			I24			I25			I26			I32			I39			I40			
	2m	6m	11m	2m	6m	11m	2m	6m	9m	2m	6m	9m	2m	6m	9m	2m	12m	18m	2m	6m	9m	
May	E	E	E	IC	IC	IC	IC	IC	IC	E	E	E	IC	E	IC	E	E	E	IC	E	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

**Table 3.7**

Summary of water quality parameters at the SBOO kelp stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Entero) bacteria are reported as CFU/100 mL; values for temperature (Temp, °C), transmissivity (XMS, %), dissolved oxygen (DO, mg/L), salinity (Sal, ppt) and pH were extracted from CTD profile data for depths closest to those at which the bacteriological samples were collected. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Entero	Temp	XMS	DO	Sal	pH
I19	02 May 2023	1048	2	8400	3800e	600	16.1	44.15	9.6	33.25	8.3
I19	02 May 2023	1048	6	3600e	820	180e	16.0	71.27	9.5	33.60	8.3
I19	02 May 2023	1048	11	1000e	140e	54	13.9	51.82	5.0	33.71	8.1
I19	09 May 2023	1041	2	>16000	2000e	480	15.1	48.28	6.8	33.49	7.9
I19	09 May 2023	1041	6	840	76	56	12.8	73.29	4.1	33.66	7.7
I19	09 May 2023	1041	11	320e	20e	20e	12.5	35.74	3.8	33.66	7.7
I19	15 May 2023	1059	2	6e	2e	4e	15.8	66.30	8.8	33.58	8.2
I19	15 May 2023	1059	6	8e	<2	2e	12.0	73.29	5.0	33.66	7.8
I19	15 May 2023	1059	11	10e	2e	<2	11.3	49.77	4.0	33.65	7.7
I19	22 May 2023	1110	2	80e	22e	44	16.7	72.64	9.2	33.56	8.2
I19	22 May 2023	1110	6	10e	2e	4e	16.1	68.21	8.2	33.56	8.2
I19	22 May 2023	1110	11	40e	6e	14e	14.5	39.92	5.7	33.57	8.0
I24	02 May 2023	1116	2	<20	4e	<2	16.1	73.50	9.6	33.58	8.3
I24	02 May 2023	1116	6	40e	<2	2e	15.8	78.10	9.2	33.60	8.3
I24	02 May 2023	1116	11	60e	6e	2e	14.1	75.33	6.6	33.67	8.0
I24	09 May 2023	1102	2	4e	<2	<2	16.6	63.52	8.8	33.61	8.3
I24	09 May 2023	1102	6	<20	<2	<2	13.2	76.70	4.6	33.64	7.8
I24	09 May 2023	1102	11	2e	<2	<2	13.1	79.17	4.6	33.64	7.8
I24	15 May 2023	1120	2	34e	10e	10e	15.5	69.91	8.5	33.59	8.1
I24	15 May 2023	1120	6	40	10e	4e	12.9	73.93	5.8	33.62	7.9
I24	15 May 2023	1120	11	10e	4e	2e	11.8	59.45	3.8	33.64	7.7
I24	22 May 2023	1135	2	4e	<2	<2	16.9	75.91	10.7	33.56	8.3
I24	22 May 2023	1135	6	<2	<2	2e	16.8	75.92	10.6	33.57	8.3
I24	22 May 2023	1135	11	4e	<2	<2	14.5	78.50	7.6	33.53	8.1
I25	02 May 2023	1125	2	<2	<2	<2	16.1	83.83	9.2	33.61	8.3
I25	02 May 2023	1125	6	<20	8e	2e	15.9	82.93	9.4	33.63	8.3
I25	02 May 2023	1125	9	<20	8e	<2	14.2	74.78	7.6	33.85	8.1
I25	09 May 2023	1111	2	<2	<2	<2	17.1	71.31	9.7	33.60	8.3
I25	09 May 2023	1111	6	<20	<2	<2	15.5	64.86	7.5	33.65	8.2
I25	09 May 2023	1111	9	<20	<2	<2	13.0	77.70	4.8	33.63	7.8
I25	15 May 2023	1128	2	8e	<2	<2	15.3	71.25	8.0	33.60	8.1
I25	15 May 2023	1128	6	4e	<2	2e	12.7	80.44	5.1	33.63	7.8
I25	15 May 2023	1128	9	20e	2e	2e	11.6	66.48	3.1	33.66	7.7
I25	22 May 2023	1142	2	<2	<2	<2	16.9	71.27	11.1	33.56	8.4
I25	22 May 2023	1142	6	<2	<2	<2	16.7	76.71	10.3	33.57	8.3
I25	22 May 2023	1142	9	<2	<2	<2	14.5	80.17	7.8	33.57	8.1
I26	02 May 2023	1134	2	<2	<2	<2	16.1	84.02	9.8	33.62	8.3
I26	02 May 2023	1134	6	2e	<2	<2	15.8	83.94	9.7	33.62	8.3
I26	02 May 2023	1134	9	4e	2e	<2	13.7	77.52	7.9	33.69	8.1

Station	Date	Time	Depth	Total	Fecal	Enter	Temp	XMS	DO	Sal	pH
I26	09 May 2023	1120	2	<2	<2	<2	17.0	67.74	9.4	33.60	8.3
I26	09 May 2023	1120	6	<20	<2	<2	13.0	74.58	4.3	33.67	7.8
I26	09 May 2023	1120	9	2e	<2	<2	12.7	79.27	3.9	33.67	7.7
I26	15 May 2023	1137	2	<2	<2	2e	15.6	73.51	8.8	33.59	8.1
I26	15 May 2023	1137	6	80e	<2	<2	12.5	72.32	4.0	33.66	7.8
I26	15 May 2023	1137	9	28e	4e	<2	11.8	74.20	3.5	33.65	7.7
I26	22 May 2023	1153	2	<2	<2	<2	16.9	71.43	11.0	33.57	8.4
I26	22 May 2023	1153	6	<2	<2	<2	16.8	74.67	10.5	33.58	8.3
I26	22 May 2023	1153	9	<2	<2	<2	14.1	80.04	7.7	33.55	8.1
I32	02 May 2023	1147	2	<20	8e	<2	16.2	58.86	11.1	33.54	8.4
I32	02 May 2023	1147	6	60e	12e	4e	15.8	62.81	10.0	33.54	8.3
I32	02 May 2023	1147	9	80e	16e	10e	15.6	64.16	8.9	33.55	8.3
I32	09 May 2023	1133	2	<20	<2	<2	16.4	58.94	8.5	33.62	8.2
I32	09 May 2023	1133	6	<20	<2	<2	13.1	59.42	3.8	33.64	7.7
I32	09 May 2023	1133	9	<20	<2	2e	13.0	51.62	3.9	33.65	7.7
I32	15 May 2023	1149	2	>16000	2200e	780	15.3	51.82	8.5	33.48	8.1
I32	15 May 2023	1149	6	1400e	420	110	15.2	73.65	6.9	33.58	8.0
I32	15 May 2023	1149	9	1000	340e	66	12.3	37.85	4.7	33.60	7.8
I32	22 May 2023	1208	2	<2	<2	<2	17.0	68.46	10.3	33.58	8.3
I32	22 May 2023	1208	6	380e	76	14e	16.8	75.75	9.5	33.57	8.3
I32	22 May 2023	1208	9	500	86	30e	15.4	55.05	7.1	33.55	8.1
I39	02 May 2023	1026	2	<2	<2	<2	15.5	84.93	9.8	33.59	8.3
I39	02 May 2023	1026	12	<2	<2	<2	15.3	85.70	9.7	33.59	8.3
I39	02 May 2023	1026	18	2e	<2	<2	13.2	85.69	6.4	33.65	8.0
I39	09 May 2023	1018	2	<2	<2	<2	16.4	76.43	9.2	33.58	8.2
I39	09 May 2023	1018	12	<2	<2	<2	12.0	89.50	4.9	33.60	7.8
I39	09 May 2023	1018	18	<2	<2	<2	11.9	87.94	4.2	33.67	7.8
I39	15 May 2023	1037	2	<2	<2	<2	15.9	76.23	8.2	33.57	8.1
I39	15 May 2023	1037	12	600	220e	42	11.4	90.44	4.9	33.58	7.8
I39	15 May 2023	1037	18	42	4e	2e	11.3	80.66	4.4	33.65	7.7
I39	22 May 2023	1046	2	<2	<2	<2	16.9	87.38	8.6	33.50	8.2
I39	22 May 2023	1046	12	<2	<2	<2	16.3	79.75	9.4	33.58	8.2
I39	22 May 2023	1046	18	2e	<2	<2	12.9	87.04	6.8	33.50	8.0
I40	02 May 2023	1104	2	180e	740	98	16.2	61.55	9.4	33.45	8.3
I40	02 May 2023	1104	6	700	140e	48	15.8	76.65	9.5	33.58	8.3
I40	02 May 2023	1104	9	220e	50	12e	14.8	62.32	6.5	33.65	8.2
I40	09 May 2023	1052	2	>16000	>12000	4400	15.6	45.95	7.0	33.33	8.0
I40	09 May 2023	1052	6	900	120e	68	13.0	65.86	3.9	33.66	7.7
I40	09 May 2023	1052	9	1800e	260e	110	12.5	68.58	4.0	33.66	7.7
I40	15 May 2023	1112	2	7400	900	1000e	15.6	51.45	8.9	33.42	8.1
I40	15 May 2023	1112	6	1000e	180e	80e	12.5	70.78	4.7	33.63	7.8
I40	15 May 2023	1112	9	2600e	500	300e	11.6	30.91	2.6	33.66	7.6
I40	22 May 2023	1123	2	7000	800e	3400e	17.1	51.64	9.0	33.30	8.2
I40	22 May 2023	1123	6	500	110	160e	15.3	78.20	7.4	33.58	8.2
I40	22 May 2023	1123	9	180e	54	96	13.9	76.07	6.5	33.53	8.0

ns = not sampled

ND = no data

**Table 3.8**

Summary of visual observations made during the month for each SBOO kelp station by sample date.

Station	Date	Parameter	Value
I19	02 May 2023	Depth (m)	12
I19	02 May 2023	Arrive Time	1048
I19	02 May 2023	Depart Time	1050
I19	02 May 2023	Air Temp (C)	14.5
I19	02 May 2023	Weather	Partly Cloudy
I19	02 May 2023	Visibility (mi)	10
I19	02 May 2023	Wind Speed (kts)	8.5
I19	02 May 2023	Wind Dir	NW
I19	02 May 2023	Water Color	Brownish-Green
I19	02 May 2023	Wave Ht Low (ft)	2
I19	02 May 2023	Wave Period (sec)	8
I19	02 May 2023	Sea State	Confused Swell
I19	02 May 2023	High Tide (ft)	4.92
I19	02 May 2023	High Tide Time	2006
I19	02 May 2023	Low Tide (ft)	0.56
I19	02 May 2023	Low Tide Time	1354
I19	02 May 2023	Comments	none
I19	09 May 2023	Depth (m)	10
I19	09 May 2023	Arrive Time	1041
I19	09 May 2023	Depart Time	1045
I19	09 May 2023	Air Temp (C)	15.5
I19	09 May 2023	Weather	Partly Cloudy
I19	09 May 2023	Visibility (mi)	10
I19	09 May 2023	Wind Speed (kts)	9.4
I19	09 May 2023	Wind Dir	SW
I19	09 May 2023	Water Color	Brownish-Green
I19	09 May 2023	Wave Ht Low (ft)	4
I19	09 May 2023	Wave Period (sec)	6
I19	09 May 2023	Sea State	Confused Swell
I19	09 May 2023	High Tide (ft)	5.53
I19	09 May 2023	High Tide Time	6
I19	09 May 2023	Low Tide (ft)	-0.79
I19	09 May 2023	Low Tide Time	654
I19	09 May 2023	Comments	none
I19	15 May 2023	Depth (m)	11
I19	15 May 2023	Arrive Time	1059
I19	15 May 2023	Depart Time	1102
I19	15 May 2023	Air Temp (C)	15.6
I19	15 May 2023	Weather	Overcast
I19	15 May 2023	Visibility (mi)	8
I19	15 May 2023	Wind Speed (kts)	4.2
I19	15 May 2023	Wind Dir	W
I19	15 May 2023	Water Color	Brownish-Green
I19	15 May 2023	Wave Ht Low (ft)	5
I19	15 May 2023	Wave Period (sec)	13
I19	15 May 2023	Sea State	Calm
I19	15 May 2023	High Tide (ft)	5.32
I19	15 May 2023	High Tide Time	1924
I19	15 May 2023	Low Tide (ft)	0.21
I19	15 May 2023	Low Tide Time	1254
I19	15 May 2023	Comments	none
I19	22 May 2023	Depth (m)	12
I19	22 May 2023	Arrive Time	1110

Station	Date	Parameter	Value
I19	22 May 2023	Depart Time	1114
I19	22 May 2023	Air Temp (C)	15.3
I19	22 May 2023	Weather	Overcast
I19	22 May 2023	Visibility (mi)	10
I19	22 May 2023	Wind Speed (kts)	5.3
I19	22 May 2023	Wind Dir	SW
I19	22 May 2023	Water Color	Green
I19	22 May 2023	Wave Ht Low (ft)	3.3
I19	22 May 2023	Wave Period (sec)	15
I19	22 May 2023	Sea State	Wind Ripples
I19	22 May 2023	High Tide (ft)	5.28
I19	22 May 2023	High Tide Time	2300
I19	22 May 2023	Low Tide (ft)	-0.63
I19	22 May 2023	Low Tide Time	554
I19	22 May 2023	Comments	none
I24	02 May 2023	Depth (m)	10
I24	02 May 2023	Arrive Time	1116
I24	02 May 2023	Depart Time	1118
I24	02 May 2023	Air Temp (C)	14.4
I24	02 May 2023	Weather	Partly Cloudy
I24	02 May 2023	Visibility (mi)	10
I24	02 May 2023	Wind Speed (kts)	8.5
I24	02 May 2023	Wind Dir	W
I24	02 May 2023	Water Color	Brownish-Green
I24	02 May 2023	Wave Ht Low (ft)	2
I24	02 May 2023	Wave Period (sec)	8
I24	02 May 2023	Sea State	Confused Swell
I24	02 May 2023	High Tide (ft)	4.92
I24	02 May 2023	High Tide Time	2006
I24	02 May 2023	Low Tide (ft)	0.56
I24	02 May 2023	Low Tide Time	1354
I24	02 May 2023	Comments	none
I24	09 May 2023	Depth (m)	10
I24	09 May 2023	Arrive Time	1102
I24	09 May 2023	Depart Time	1107
I24	09 May 2023	Air Temp (C)	15.4
I24	09 May 2023	Weather	Partly Cloudy
I24	09 May 2023	Visibility (mi)	10
I24	09 May 2023	Wind Speed (kts)	9
I24	09 May 2023	Wind Dir	SW
I24	09 May 2023	Water Color	Brownish-Green
I24	09 May 2023	Wave Ht Low (ft)	4
I24	09 May 2023	Wave Period (sec)	6
I24	09 May 2023	Sea State	Regular Swell
I24	09 May 2023	High Tide (ft)	5.53
I24	09 May 2023	High Tide Time	6
I24	09 May 2023	Low Tide (ft)	-0.79
I24	09 May 2023	Low Tide Time	654
I24	09 May 2023	Comments	none
I24	15 May 2023	Depth (m)	10
I24	15 May 2023	Arrive Time	1120
I24	15 May 2023	Depart Time	1124
I24	15 May 2023	Air Temp (C)	15.7
I24	15 May 2023	Weather	Overcast
I24	15 May 2023	Visibility (mi)	8
I24	15 May 2023	Wind Speed (kts)	6.1
I24	15 May 2023	Wind Dir	W
I24	15 May 2023	Water Color	Greenish-Brown

Station	Date	Parameter	Value
I24	15 May 2023	Wave Ht Low (ft)	5
I24	15 May 2023	Wave Period (sec)	13
I24	15 May 2023	Sea State	Calm
I24	15 May 2023	High Tide (ft)	5.32
I24	15 May 2023	High Tide Time	1924
I24	15 May 2023	Low Tide (ft)	0.21
I24	15 May 2023	Low Tide Time	1254
I24	15 May 2023	Comments	Sewage-like odor
I24	22 May 2023	Depth (m)	10
I24	22 May 2023	Arrive Time	1135
I24	22 May 2023	Depart Time	1138
I24	22 May 2023	Air Temp (C)	15.3
I24	22 May 2023	Weather	Overcast
I24	22 May 2023	Visibility (mi)	10
I24	22 May 2023	Wind Speed (kts)	5.2
I24	22 May 2023	Wind Dir	W
I24	22 May 2023	Water Color	Greenish-Blue
I24	22 May 2023	Wave Ht Low (ft)	3.3
I24	22 May 2023	Wave Period (sec)	15
I24	22 May 2023	Sea State	Wind Ripples
I24	22 May 2023	High Tide (ft)	5.28
I24	22 May 2023	High Tide Time	2300
I24	22 May 2023	Low Tide (ft)	-0.63
I24	22 May 2023	Low Tide Time	554
I24	22 May 2023	Comments	none
I25	02 May 2023	Depth (m)	9
I25	02 May 2023	Arrive Time	1125
I25	02 May 2023	Depart Time	1126
I25	02 May 2023	Air Temp (C)	14.3
I25	02 May 2023	Weather	Partly Cloudy
I25	02 May 2023	Visibility (mi)	10
I25	02 May 2023	Wind Speed (kts)	6.4
I25	02 May 2023	Wind Dir	NW
I25	02 May 2023	Water Color	Greenish-Brown
I25	02 May 2023	Wave Ht Low (ft)	2
I25	02 May 2023	Wave Period (sec)	8
I25	02 May 2023	Sea State	Confused Swell
I25	02 May 2023	High Tide (ft)	4.92
I25	02 May 2023	High Tide Time	2006
I25	02 May 2023	Low Tide (ft)	0.56
I25	02 May 2023	Low Tide Time	1354
I25	02 May 2023	Comments	none
I25	09 May 2023	Depth (m)	9
I25	09 May 2023	Arrive Time	1111
I25	09 May 2023	Depart Time	1114
I25	09 May 2023	Air Temp (C)	15.6
I25	09 May 2023	Weather	Partly Cloudy
I25	09 May 2023	Visibility (mi)	10
I25	09 May 2023	Wind Speed (kts)	9.2
I25	09 May 2023	Wind Dir	SW
I25	09 May 2023	Water Color	Brownish-Green
I25	09 May 2023	Wave Ht Low (ft)	4
I25	09 May 2023	Wave Period (sec)	6
I25	09 May 2023	Sea State	Regular Swell
I25	09 May 2023	High Tide (ft)	5.53
I25	09 May 2023	High Tide Time	6
I25	09 May 2023	Low Tide (ft)	-0.79
I25	09 May 2023	Low Tide Time	654

Station	Date	Parameter	Value
I25	09 May 2023	Comments	none
I25	15 May 2023	Depth (m)	9
I25	15 May 2023	Arrive Time	1128
I25	15 May 2023	Depart Time	1131
I25	15 May 2023	Air Temp (C)	15.7
I25	15 May 2023	Weather	Overcast
I25	15 May 2023	Visibility (mi)	8
I25	15 May 2023	Wind Speed (kts)	5.9
I25	15 May 2023	Wind Dir	W
I25	15 May 2023	Water Color	Greenish-Brown
I25	15 May 2023	Wave Ht Low (ft)	5
I25	15 May 2023	Wave Period (sec)	13
I25	15 May 2023	Sea State	Calm
I25	15 May 2023	High Tide (ft)	5.32
I25	15 May 2023	High Tide Time	1924
I25	15 May 2023	Low Tide (ft)	0.21
I25	15 May 2023	Low Tide Time	1254
I25	15 May 2023	Comments	none
I25	22 May 2023	Depth (m)	9
I25	22 May 2023	Arrive Time	1142
I25	22 May 2023	Depart Time	1150
I25	22 May 2023	Air Temp (C)	15.4
I25	22 May 2023	Weather	Overcast
I25	22 May 2023	Visibility (mi)	10
I25	22 May 2023	Wind Speed (kts)	4.9
I25	22 May 2023	Wind Dir	W
I25	22 May 2023	Water Color	Greenish-Blue
I25	22 May 2023	Wave Ht Low (ft)	3.3
I25	22 May 2023	Wave Period (sec)	15
I25	22 May 2023	Sea State	Wind Ripples
I25	22 May 2023	High Tide (ft)	5.28
I25	22 May 2023	High Tide Time	2300
I25	22 May 2023	Low Tide (ft)	-0.63
I25	22 May 2023	Low Tide Time	554
I25	22 May 2023	Comments	none
I26	02 May 2023	Depth (m)	10
I26	02 May 2023	Arrive Time	1134
I26	02 May 2023	Depart Time	1136
I26	02 May 2023	Air Temp (C)	14.2
I26	02 May 2023	Weather	Partly Cloudy
I26	02 May 2023	Visibility (mi)	10
I26	02 May 2023	Wind Speed (kts)	9.4
I26	02 May 2023	Wind Dir	NW
I26	02 May 2023	Water Color	Greenish-Brown
I26	02 May 2023	Wave Ht Low (ft)	2
I26	02 May 2023	Wave Period (sec)	8
I26	02 May 2023	Sea State	Confused Swell
I26	02 May 2023	High Tide (ft)	4.92
I26	02 May 2023	High Tide Time	2006
I26	02 May 2023	Low Tide (ft)	0.56
I26	02 May 2023	Low Tide Time	1354
I26	02 May 2023	Comments	none
I26	09 May 2023	Depth (m)	9
I26	09 May 2023	Arrive Time	1120
I26	09 May 2023	Depart Time	1124
I26	09 May 2023	Air Temp (C)	15.7
I26	09 May 2023	Weather	Partly Cloudy

Station	Date	Parameter	Value
I26	09 May 2023	Visibility (mi)	10
I26	09 May 2023	Wind Speed (kts)	8.7
I26	09 May 2023	Wind Dir	SW
I26	09 May 2023	Water Color	Brownish-Green
I26	09 May 2023	Wave Ht Low (ft)	4
I26	09 May 2023	Wave Period (sec)	6
I26	09 May 2023	Sea State	Regular Swell
I26	09 May 2023	High Tide (ft)	5.53
I26	09 May 2023	High Tide Time	6
I26	09 May 2023	Low Tide (ft)	-0.79
I26	09 May 2023	Low Tide Time	654
I26	09 May 2023	Comments	none
I26	15 May 2023	Depth (m)	9
I26	15 May 2023	Arrive Time	1137
I26	15 May 2023	Depart Time	1140
I26	15 May 2023	Air Temp (C)	15.8
I26	15 May 2023	Weather	Overcast
I26	15 May 2023	Visibility (mi)	8
I26	15 May 2023	Wind Speed (kts)	6.5
I26	15 May 2023	Wind Dir	W
I26	15 May 2023	Water Color	Brownish-Green
I26	15 May 2023	Wave Ht Low (ft)	5
I26	15 May 2023	Wave Period (sec)	13
I26	15 May 2023	Sea State	Calm
I26	15 May 2023	High Tide (ft)	5.32
I26	15 May 2023	High Tide Time	1924
I26	15 May 2023	Low Tide (ft)	0.21
I26	15 May 2023	Low Tide Time	1254
I26	15 May 2023	Comments	none
I26	22 May 2023	Depth (m)	10
I26	22 May 2023	Arrive Time	1153
I26	22 May 2023	Depart Time	1157
I26	22 May 2023	Air Temp (C)	15.4
I26	22 May 2023	Weather	Overcast
I26	22 May 2023	Visibility (mi)	10
I26	22 May 2023	Wind Speed (kts)	5.1
I26	22 May 2023	Wind Dir	W
I26	22 May 2023	Water Color	Greenish-Blue
I26	22 May 2023	Wave Ht Low (ft)	3.3
I26	22 May 2023	Wave Period (sec)	15
I26	22 May 2023	Sea State	Wind Ripples
I26	22 May 2023	High Tide (ft)	5.28
I26	22 May 2023	High Tide Time	2300
I26	22 May 2023	Low Tide (ft)	-0.63
I26	22 May 2023	Low Tide Time	554
I26	22 May 2023	Comments	none
I32	02 May 2023	Depth (m)	10
I32	02 May 2023	Arrive Time	1147
I32	02 May 2023	Depart Time	1150
I32	02 May 2023	Air Temp (C)	14.4
I32	02 May 2023	Weather	Partly Cloudy
I32	02 May 2023	Visibility (mi)	10
I32	02 May 2023	Wind Speed (kts)	8.2
I32	02 May 2023	Wind Dir	NW
I32	02 May 2023	Water Color	Reddish-Brown
I32	02 May 2023	Wave Ht Low (ft)	2
I32	02 May 2023	Wave Period (sec)	8
I32	02 May 2023	Sea State	Confused Swell

Station	Date	Parameter	Value
I32	02 May 2023	High Tide (ft)	4.92
I32	02 May 2023	High Tide Time	2006
I32	02 May 2023	Low Tide (ft)	0.56
I32	02 May 2023	Low Tide Time	1354
I32	02 May 2023	Comments	none
I32	09 May 2023	Depth (m)	11
I32	09 May 2023	Arrive Time	1133
I32	09 May 2023	Depart Time	1136
I32	09 May 2023	Air Temp (C)	15.7
I32	09 May 2023	Weather	Partly Cloudy
I32	09 May 2023	Visibility (mi)	10
I32	09 May 2023	Wind Speed (kts)	9.1
I32	09 May 2023	Wind Dir	W
I32	09 May 2023	Water Color	Brownish-Green
I32	09 May 2023	Wave Ht Low (ft)	4
I32	09 May 2023	Wave Period (sec)	6
I32	09 May 2023	Sea State	Regular Swell
I32	09 May 2023	High Tide (ft)	5.53
I32	09 May 2023	High Tide Time	6
I32	09 May 2023	Low Tide (ft)	-0.79
I32	09 May 2023	Low Tide Time	654
I32	09 May 2023	Comments	none
I32	15 May 2023	Depth (m)	9
I32	15 May 2023	Arrive Time	1149
I32	15 May 2023	Depart Time	1158
I32	15 May 2023	Air Temp (C)	15.9
I32	15 May 2023	Weather	Overcast
I32	15 May 2023	Visibility (mi)	8
I32	15 May 2023	Wind Speed (kts)	4.5
I32	15 May 2023	Wind Dir	W
I32	15 May 2023	Water Color	Brownish-Green
I32	15 May 2023	Wave Ht Low (ft)	5
I32	15 May 2023	Wave Period (sec)	13
I32	15 May 2023	Sea State	Calm
I32	15 May 2023	High Tide (ft)	5.32
I32	15 May 2023	High Tide Time	1924
I32	15 May 2023	Low Tide (ft)	0.21
I32	15 May 2023	Low Tide Time	1254
I32	15 May 2023	Comments	Sewage-like odor
I32	22 May 2023	Depth (m)	10
I32	22 May 2023	Arrive Time	1208
I32	22 May 2023	Depart Time	1221
I32	22 May 2023	Air Temp (C)	15.3
I32	22 May 2023	Weather	Overcast
I32	22 May 2023	Visibility (mi)	10
I32	22 May 2023	Wind Speed (kts)	5.9
I32	22 May 2023	Wind Dir	W
I32	22 May 2023	Water Color	Greenish-Blue
I32	22 May 2023	Wave Ht Low (ft)	3.3
I32	22 May 2023	Wave Period (sec)	15
I32	22 May 2023	Sea State	Wind Ripples
I32	22 May 2023	High Tide (ft)	5.28
I32	22 May 2023	High Tide Time	2300
I32	22 May 2023	Low Tide (ft)	-0.63
I32	22 May 2023	Low Tide Time	554
I32	22 May 2023	Comments	Bottle 2 misfire; Recast for 6m depth sample only
I39	02 May 2023	Depth (m)	20

Station	Date	Parameter	Value
I39	02 May 2023	Arrive Time	1026
I39	02 May 2023	Depart Time	1028
I39	02 May 2023	Air Temp (C)	14.3
I39	02 May 2023	Weather	Partly Cloudy
I39	02 May 2023	Visibility (mi)	10
I39	02 May 2023	Wind Speed (kts)	7.9
I39	02 May 2023	Wind Dir	NW
I39	02 May 2023	Water Color	Blueish-Green
I39	02 May 2023	Wave Ht Low (ft)	2
I39	02 May 2023	Wave Period (sec)	8
I39	02 May 2023	Sea State	Confused Swell
I39	02 May 2023	High Tide (ft)	4.92
I39	02 May 2023	High Tide Time	2006
I39	02 May 2023	Low Tide (ft)	0.56
I39	02 May 2023	Low Tide Time	1354
I39	02 May 2023	Comments	none
I39	09 May 2023	Depth (m)	19
I39	09 May 2023	Arrive Time	1018
I39	09 May 2023	Depart Time	1022
I39	09 May 2023	Air Temp (C)	15.3
I39	09 May 2023	Weather	Partly Cloudy
I39	09 May 2023	Visibility (mi)	10
I39	09 May 2023	Wind Speed (kts)	9.2
I39	09 May 2023	Wind Dir	S
I39	09 May 2023	Water Color	Blueish-Green
I39	09 May 2023	Wave Ht Low (ft)	4
I39	09 May 2023	Wave Period (sec)	6
I39	09 May 2023	Sea State	Confused Swell
I39	09 May 2023	High Tide (ft)	5.53
I39	09 May 2023	High Tide Time	6
I39	09 May 2023	Low Tide (ft)	-0.79
I39	09 May 2023	Low Tide Time	654
I39	09 May 2023	Comments	none
I39	15 May 2023	Depth (m)	18
I39	15 May 2023	Arrive Time	1037
I39	15 May 2023	Depart Time	1040
I39	15 May 2023	Air Temp (C)	15.5
I39	15 May 2023	Weather	Overcast
I39	15 May 2023	Visibility (mi)	8
I39	15 May 2023	Wind Speed (kts)	5.4
I39	15 May 2023	Wind Dir	W
I39	15 May 2023	Water Color	Blueish-Green
I39	15 May 2023	Wave Ht Low (ft)	5
I39	15 May 2023	Wave Period (sec)	13
I39	15 May 2023	Sea State	Calm
I39	15 May 2023	High Tide (ft)	5.32
I39	15 May 2023	High Tide Time	1924
I39	15 May 2023	Low Tide (ft)	0.21
I39	15 May 2023	Low Tide Time	1254
I39	15 May 2023	Comments	none
I39	22 May 2023	Depth (m)	19
I39	22 May 2023	Arrive Time	1046
I39	22 May 2023	Depart Time	1051
I39	22 May 2023	Air Temp (C)	15.2
I39	22 May 2023	Weather	Overcast
I39	22 May 2023	Visibility (mi)	10
I39	22 May 2023	Wind Speed (kts)	5.9
I39	22 May 2023	Wind Dir	W

Station	Date	Parameter	Value
I39	22 May 2023	Water Color	Blueish-Green
I39	22 May 2023	Wave Ht Low (ft)	3.3
I39	22 May 2023	Wave Period (sec)	15
I39	22 May 2023	Sea State	Wind Ripples
I39	22 May 2023	High Tide (ft)	5.28
I39	22 May 2023	High Tide Time	2300
I39	22 May 2023	Low Tide (ft)	-0.63
I39	22 May 2023	Low Tide Time	554
I39	22 May 2023	Comments	none
I40	02 May 2023	Depth (m)	10
I40	02 May 2023	Arrive Time	1104
I40	02 May 2023	Depart Time	1106
I40	02 May 2023	Air Temp (C)	14.4
I40	02 May 2023	Weather	Partly Cloudy
I40	02 May 2023	Visibility (mi)	10
I40	02 May 2023	Wind Speed (kts)	8.1
I40	02 May 2023	Wind Dir	NW
I40	02 May 2023	Water Color	Brownish-Green
I40	02 May 2023	Wave Ht Low (ft)	2
I40	02 May 2023	Wave Period (sec)	8
I40	02 May 2023	Sea State	Confused Swell
I40	02 May 2023	High Tide (ft)	4.92
I40	02 May 2023	High Tide Time	2006
I40	02 May 2023	Low Tide (ft)	0.56
I40	02 May 2023	Low Tide Time	1354
I40	02 May 2023	Comments	none
I40	09 May 2023	Depth (m)	10
I40	09 May 2023	Arrive Time	1052
I40	09 May 2023	Depart Time	1057
I40	09 May 2023	Air Temp (C)	15.6
I40	09 May 2023	Weather	Partly Cloudy
I40	09 May 2023	Visibility (mi)	10
I40	09 May 2023	Wind Speed (kts)	11.8
I40	09 May 2023	Wind Dir	SW
I40	09 May 2023	Water Color	Brownish-Green
I40	09 May 2023	Wave Ht Low (ft)	4
I40	09 May 2023	Wave Period (sec)	6
I40	09 May 2023	Sea State	Confused Swell
I40	09 May 2023	High Tide (ft)	5.53
I40	09 May 2023	High Tide Time	6
I40	09 May 2023	Low Tide (ft)	-0.79
I40	09 May 2023	Low Tide Time	654
I40	09 May 2023	Comments	Sewage-like odor
I40	15 May 2023	Depth (m)	9
I40	15 May 2023	Arrive Time	1112
I40	15 May 2023	Depart Time	1117
I40	15 May 2023	Air Temp (C)	15.7
I40	15 May 2023	Weather	Overcast
I40	15 May 2023	Visibility (mi)	8
I40	15 May 2023	Wind Speed (kts)	7.6
I40	15 May 2023	Wind Dir	W
I40	15 May 2023	Water Color	Greenish-Brown
I40	15 May 2023	Wave Ht Low (ft)	5
I40	15 May 2023	Wave Period (sec)	13
I40	15 May 2023	Sea State	Calm
I40	15 May 2023	High Tide (ft)	5.32
I40	15 May 2023	High Tide Time	1924
I40	15 May 2023	Low Tide (ft)	0.21

Station	Date	Parameter	Value
I40	15 May 2023	Low Tide Time	1254
I40	15 May 2023	Comments	Freshwater Lens, Sewage-like odor
I40	22 May 2023	Depth (m)	10
I40	22 May 2023	Arrive Time	1123
I40	22 May 2023	Depart Time	1129
I40	22 May 2023	Air Temp (C)	15.3
I40	22 May 2023	Weather	Overcast
I40	22 May 2023	Visibility (mi)	10
I40	22 May 2023	Wind Speed (kts)	6.9
I40	22 May 2023	Wind Dir	W
I40	22 May 2023	Water Color	Green
I40	22 May 2023	Wave Ht Low (ft)	3.3
I40	22 May 2023	Wave Period (sec)	15
I40	22 May 2023	Sea State	Wind Ripples
I40	22 May 2023	High Tide (ft)	5.28
I40	22 May 2023	High Tide Time	2300
I40	22 May 2023	Low Tide (ft)	-0.63
I40	22 May 2023	Low Tide Time	554
I40	22 May 2023	Comments	Strong sewage-like odor; Bottle 1 misfire and recast for surf sample only; Freshwater lense

**Table 3.9**

Summary of CTD profile data from the SBOO kelp stations for each sample date.

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I19	02 May 2023	1	16.28	44.91	10.2	33.18	8.3	24.3	10.23
	02 May 2023	2	16.09	44.15	9.6	33.25	8.3	24.4	13.25
	02 May 2023	3	15.77	44.04	8.8	33.40	8.3	24.6	12.79
	02 May 2023	4	15.84	53.36	8.9	33.48	8.3	24.6	7.97
	02 May 2023	5	16.00	62.37	9.3	33.55	8.3	24.6	5.58
	02 May 2023	6	15.96	71.27	9.5	33.60	8.3	24.7	4.08
	02 May 2023	7	15.87	79.31	9.3	33.61	8.3	24.7	3.35
	02 May 2023	8	15.66	76.66	8.8	33.62	8.3	24.8	2.93
	02 May 2023	9	15.39	66.77	7.4	33.63	8.2	24.8	2.77
	02 May 2023	10	13.94	51.82	5.0	33.71	8.1	25.2	3.55
I19	09 May 2023	1	15.16	47.72	7.0	33.48	7.9	24.8	3.79
	09 May 2023	2	15.08	48.28	6.8	33.49	7.9	24.8	4.45
	09 May 2023	3	14.43	48.46	5.4	33.58	7.9	25.0	5.69
	09 May 2023	4	13.51	59.05	4.2	33.65	7.8	25.2	4.99
	09 May 2023	5	13.19	72.32	4.1	33.67	7.8	25.3	5.19
	09 May 2023	6	12.85	73.29	4.1	33.66	7.7	25.4	5.71
	09 May 2023	7	12.80	73.14	4.0	33.65	7.7	25.4	6.12
	09 May 2023	8	12.61	69.77	3.8	33.66	7.7	25.4	8.22
	09 May 2023	9	12.48	52.54	3.8	33.66	7.7	25.5	9.95
	09 May 2023	10	12.47	35.74	3.8	33.66	7.7	25.5	6.35
I19	15 May 2023	1	15.90	66.51	9.0	33.58	8.2	24.7	8.00
	15 May 2023	2	15.81	66.30	8.8	33.58	8.2	24.7	8.90
	15 May 2023	3	15.62	66.62	8.4	33.59	8.1	24.7	7.76
	15 May 2023	4	15.30	70.56	7.4	33.59	8.1	24.8	4.81
	15 May 2023	5	13.46	75.26	6.0	33.65	8.0	25.3	3.59
	15 May 2023	6	12.01	73.29	5.0	33.66	7.8	25.5	2.88
	15 May 2023	7	11.40	75.73	4.6	33.63	7.8	25.6	2.64
	15 May 2023	8	11.31	81.32	4.3	33.63	7.8	25.7	2.24
	15 May 2023	9	11.32	74.09	4.0	33.64	7.7	25.7	1.96
	15 May 2023	10	11.32	49.77	4.0	33.65	7.7	25.7	2.14
I19	22 May 2023	1	16.87	71.53	9.5	33.54	8.3	24.4	5.68
	22 May 2023	2	16.67	72.64	9.2	33.56	8.2	24.5	6.00
	22 May 2023	3	16.61	73.71	9.2	33.56	8.2	24.5	5.85
	22 May 2023	4	16.55	74.99	9.2	33.56	8.2	24.5	5.32
	22 May 2023	5	16.27	76.73	8.7	33.57	8.2	24.6	4.58
	22 May 2023	6	16.06	68.21	8.2	33.56	8.2	24.6	4.11
	22 May 2023	7	15.72	61.55	7.5	33.57	8.1	24.7	4.23
	22 May 2023	8	15.38	53.79	6.9	33.57	8.1	24.8	4.52
	22 May 2023	9	14.86	44.75	6.2	33.57	8.0	24.9	5.45
	22 May 2023	10	14.46	39.92	5.7	33.57	8.0	25.0	5.63
I24	02 May 2023	1	16.12	72.05	9.6	33.58	8.3	24.6	1.53
	02 May 2023	2	16.11	73.50	9.6	33.58	8.3	24.6	1.65
	02 May 2023	3	16.07	75.75	9.6	33.59	8.3	24.6	1.80
	02 May 2023	4	15.93	76.83	9.5	33.59	8.3	24.7	1.96
	02 May 2023	5	15.88	78.80	9.3	33.60	8.3	24.7	1.94
	02 May 2023	6	15.79	78.10	9.2	33.60	8.3	24.7	1.89
	02 May 2023	7	15.78	76.19	9.1	33.60	8.3	24.7	1.81
	02 May 2023	8	15.77	76.24	8.3	33.60	8.3	24.7	1.86
	02 May 2023	9	14.65	77.96	7.1	33.69	8.2	25.0	1.80
	02 May 2023	10	14.06	75.33	6.6	33.67	8.0	25.1	1.57
I24	09 May 2023	1	16.83	64.70	9.5	33.60	8.3	24.5	4.20

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I24	09 May 2023	2	16.62	63.52	8.8	33.61	8.3	24.5	5.32
	09 May 2023	3	15.68	54.31	7.6	33.64	8.1	24.8	10.15
	09 May 2023	4	14.35	56.58	5.6	33.67	8.0	25.1	11.37
	09 May 2023	5	13.37	68.41	4.6	33.65	7.8	25.3	9.18
	09 May 2023	6	13.17	76.70	4.6	33.64	7.8	25.3	5.43
	09 May 2023	7	13.16	79.75	4.6	33.64	7.8	25.3	3.30
	09 May 2023	8	13.10	79.75	4.6	33.64	7.8	25.3	2.46
	09 May 2023	9	13.10	79.46	4.6	33.64	7.8	25.3	2.09
	09 May 2023	10	13.12	79.17	4.6	33.64	7.8	25.3	2.02
	15 May 2023	1	15.45	70.27	8.4	33.59	8.1	24.8	3.89
I24	15 May 2023	2	15.49	69.91	8.5	33.59	8.1	24.8	4.22
	15 May 2023	3	15.52	66.64	8.4	33.59	8.1	24.8	4.75
	15 May 2023	4	15.30	70.36	7.8	33.60	8.1	24.8	4.59
	15 May 2023	5	14.41	70.70	6.8	33.61	8.0	25.0	3.83
	15 May 2023	6	12.95	73.93	5.8	33.62	7.9	25.3	3.34
	15 May 2023	7	12.41	78.24	4.8	33.63	7.8	25.4	2.76
	15 May 2023	8	11.80	80.43	3.6	33.66	7.7	25.6	2.22
	15 May 2023	9	11.80	59.45	3.8	33.64	7.7	25.6	1.90
	22 May 2023	1	16.87	76.02	10.7	33.56	8.3	24.4	4.15
	22 May 2023	2	16.86	75.91	10.7	33.56	8.3	24.4	4.58
I24	22 May 2023	3	16.84	75.88	10.7	33.57	8.3	24.5	5.16
	22 May 2023	4	16.83	75.72	10.7	33.57	8.3	24.5	5.25
	22 May 2023	5	16.83	75.79	10.7	33.57	8.3	24.5	4.99
	22 May 2023	6	16.82	75.92	10.6	33.57	8.3	24.5	4.87
	22 May 2023	7	16.75	76.15	9.7	33.58	8.3	24.5	4.80
	22 May 2023	8	16.05	76.49	8.2	33.58	8.3	24.6	4.60
	22 May 2023	9	14.99	77.08	7.2	33.56	8.1	24.9	3.42
	22 May 2023	10	14.54	78.50	7.6	33.53	8.1	24.9	2.66
	02 May 2023	1	16.08	78.59	8.7	33.53	8.3	24.6	0.85
	02 May 2023	2	16.06	83.83	9.2	33.61	8.3	24.7	0.94
I25	02 May 2023	3	16.07	83.76	9.4	33.61	8.3	24.7	1.14
	02 May 2023	4	16.06	83.77	9.4	33.62	8.3	24.7	1.04
	02 May 2023	5	16.01	83.65	9.2	33.63	8.3	24.7	1.05
	02 May 2023	6	15.95	82.93	9.4	33.63	8.3	24.7	1.00
	02 May 2023	7	15.85	82.54	9.3	33.65	8.3	24.7	1.25
	02 May 2023	8	15.09	78.21	8.5	33.87	8.2	25.1	1.27
	02 May 2023	9	14.16	74.78	7.6	33.85	8.1	25.3	1.28
	09 May 2023	1	17.13	71.26	9.8	33.60	8.3	24.4	3.00
	09 May 2023	2	17.13	71.31	9.7	33.60	8.3	24.4	3.19
	09 May 2023	3	17.03	70.73	9.7	33.60	8.3	24.4	4.57
I25	09 May 2023	4	16.93	69.55	9.7	33.60	8.3	24.5	6.43
	09 May 2023	5	16.85	67.29	9.1	33.60	8.3	24.5	7.37
	09 May 2023	6	15.48	64.86	7.5	33.65	8.2	24.8	9.12
	09 May 2023	7	15.13	58.98	6.5	33.61	8.1	24.9	10.58
	09 May 2023	8	13.13	64.37	4.9	33.69	7.9	25.3	7.85
	09 May 2023	9	13.02	77.70	4.8	33.63	7.8	25.3	4.96
	15 May 2023	1	15.58	71.52	8.7	33.59	8.1	24.8	3.92
	15 May 2023	2	15.32	71.25	8.0	33.60	8.1	24.8	3.95
	15 May 2023	3	14.41	71.97	6.9	33.62	8.0	25.0	3.68
	15 May 2023	4	13.57	74.61	6.4	33.61	7.9	25.2	3.66
I25	15 May 2023	5	13.10	78.27	5.9	33.61	7.9	25.3	3.42
	15 May 2023	6	12.72	80.44	5.1	33.63	7.8	25.4	2.96
	15 May 2023	7	12.34	81.39	4.2	33.64	7.8	25.5	2.38
	15 May 2023	8	11.74	78.26	3.4	33.66	7.7	25.6	1.93
	15 May 2023	9	11.58	66.48	3.1	33.66	7.7	25.6	1.84

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I25	22 May 2023	1	16.93	71.40	11.1	33.56	8.4	24.4	6.00
	22 May 2023	2	16.90	71.27	11.1	33.56	8.4	24.4	7.03
	22 May 2023	3	16.89	71.48	10.9	33.56	8.4	24.4	7.26
	22 May 2023	4	16.87	72.95	10.8	33.56	8.4	24.4	6.65
	22 May 2023	5	16.81	74.38	10.5	33.57	8.3	24.5	5.14
	22 May 2023	6	16.74	76.71	10.3	33.57	8.3	24.5	4.39
	22 May 2023	7	16.64	78.43	9.6	33.57	8.3	24.5	4.21
	22 May 2023	8	15.56	79.02	8.2	33.56	8.2	24.7	3.78
	22 May 2023	9	14.51	80.17	7.8	33.57	8.1	25.0	3.01
I26	02 May 2023	1	16.06	83.73	9.7	33.62	8.3	24.7	0.91
	02 May 2023	2	16.05	84.02	9.8	33.62	8.3	24.7	0.95
	02 May 2023	3	16.01	83.93	9.8	33.62	8.3	24.7	0.98
	02 May 2023	4	15.93	83.74	9.8	33.62	8.3	24.7	1.09
	02 May 2023	5	15.87	83.90	9.8	33.62	8.3	24.7	1.15
	02 May 2023	6	15.85	83.94	9.7	33.62	8.3	24.7	1.29
	02 May 2023	7	15.75	84.13	9.2	33.62	8.3	24.7	1.44
	02 May 2023	8	14.77	83.00	8.2	33.67	8.3	25.0	1.99
	02 May 2023	9	13.70	77.52	7.9	33.69	8.1	25.2	2.19
I26	09 May 2023	1	17.05	68.05	9.6	33.60	8.3	24.4	3.14
	09 May 2023	2	16.99	67.74	9.4	33.60	8.3	24.4	3.44
	09 May 2023	3	16.53	66.17	9.1	33.61	8.2	24.6	4.94
	09 May 2023	4	15.75	64.27	7.3	33.64	8.2	24.8	6.48
	09 May 2023	5	13.75	59.61	5.2	33.67	8.0	25.2	7.55
	09 May 2023	6	12.98	74.58	4.3	33.67	7.8	25.4	5.08
	09 May 2023	7	13.01	81.94	4.3	33.65	7.8	25.3	2.84
	09 May 2023	8	12.81	81.63	4.0	33.66	7.8	25.4	1.72
	09 May 2023	9	12.74	79.27	3.9	33.67	7.7	25.4	1.21
I26	15 May 2023	1	15.70	73.58	8.8	33.58	8.1	24.7	3.26
	15 May 2023	2	15.62	73.51	8.8	33.59	8.1	24.7	3.53
	15 May 2023	3	15.43	73.52	8.5	33.59	8.1	24.8	4.15
	15 May 2023	4	15.21	74.36	7.5	33.61	8.1	24.9	4.03
	15 May 2023	5	13.67	75.50	5.3	33.69	8.0	25.2	3.11
	15 May 2023	6	12.50	72.32	4.0	33.66	7.8	25.5	2.20
	15 May 2023	7	12.37	71.00	3.8	33.64	7.7	25.5	1.84
	15 May 2023	8	11.81	72.41	3.5	33.66	7.7	25.6	1.55
	15 May 2023	9	11.75	74.20	3.5	33.65	7.7	25.6	1.44
I26	22 May 2023	1	16.89	61.90	11.0	33.57	8.4	24.4	5.29
	22 May 2023	2	16.89	71.43	11.0	33.57	8.4	24.4	5.74
	22 May 2023	3	16.87	71.75	10.9	33.58	8.4	24.5	6.25
	22 May 2023	4	16.85	72.37	10.9	33.58	8.4	24.5	6.02
	22 May 2023	5	16.81	73.42	10.7	33.58	8.3	24.5	5.56
	22 May 2023	6	16.76	74.67	10.5	33.58	8.3	24.5	5.15
	22 May 2023	7	16.67	76.53	9.7	33.58	8.3	24.5	4.75
	22 May 2023	8	15.88	78.54	8.3	33.57	8.3	24.7	4.62
	22 May 2023	9	14.07	80.04	7.7	33.55	8.1	25.0	3.54
I32	02 May 2023	1	16.21	60.16	11.2	33.55	8.4	24.6	6.77
	02 May 2023	2	16.20	58.86	11.1	33.54	8.4	24.6	7.46
	02 May 2023	3	16.06	59.84	10.9	33.54	8.4	24.6	10.75
	02 May 2023	4	16.02	57.40	10.7	33.53	8.4	24.6	13.92
	02 May 2023	5	15.85	56.44	10.3	33.54	8.3	24.7	12.42
	02 May 2023	6	15.79	62.81	10.0	33.54	8.3	24.7	9.01
	02 May 2023	7	15.80	67.44	9.8	33.53	8.3	24.7	7.89
	02 May 2023	8	15.74	68.16	9.3	33.54	8.3	24.7	6.94
	02 May 2023	9	15.61	64.16	8.9	33.55	8.3	24.7	6.78
	02 May 2023	10	15.54	56.21	8.9	33.54	8.2	24.7	6.48

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I32	09 May 2023	1	16.62	58.57	8.8	33.61	8.2	24.5	4.23
I32	09 May 2023	2	16.35	58.94	8.5	33.62	8.2	24.6	4.85
I32	09 May 2023	3	15.39	55.64	6.3	33.64	8.1	24.8	6.03
I32	09 May 2023	4	14.14	52.98	4.7	33.62	7.8	25.1	7.47
I32	09 May 2023	5	13.29	55.66	4.3	33.69	7.8	25.3	7.16
I32	09 May 2023	6	13.13	59.42	3.8	33.64	7.7	25.3	6.24
I32	09 May 2023	7	13.02	62.09	3.9	33.65	7.7	25.3	5.85
I32	09 May 2023	8	12.97	57.40	3.9	33.65	7.7	25.4	6.51
I32	09 May 2023	9	12.99	51.62	3.9	33.65	7.7	25.4	6.89
I32	09 May 2023	10	12.97	50.25	3.8	33.66	7.7	25.4	7.30
I32	15 May 2023	1	15.49	53.65	8.9	33.41	8.1	24.6	6.82
I32	15 May 2023	2	15.35	51.82	8.5	33.48	8.1	24.7	8.01
I32	15 May 2023	3	15.35	50.80	8.0	33.54	8.1	24.8	7.72
I32	15 May 2023	4	15.34	56.24	7.5	33.59	8.0	24.8	6.39
I32	15 May 2023	5	15.28	66.78	7.4	33.58	8.0	24.8	4.79
I32	15 May 2023	6	15.18	73.65	6.9	33.58	8.0	24.8	3.69
I32	15 May 2023	7	13.94	68.75	5.6	33.62	8.0	25.1	3.29
I32	15 May 2023	8	12.33	40.16	4.5	33.65	7.8	25.5	2.67
I32	15 May 2023	9	12.30	37.85	4.7	33.60	7.8	25.4	1.75
I32	22 May 2023	1	17.06	68.72	10.3	33.58	8.3	24.4	5.13
I32	22 May 2023	2	17.02	68.46	10.3	33.58	8.3	24.4	6.39
I32	22 May 2023	3	17.01	68.62	10.2	33.58	8.3	24.4	7.14
I32	22 May 2023	4	16.94	70.36	10.2	33.59	8.3	24.4	6.49
I32	22 May 2023	5	16.91	73.90	10.0	33.59	8.3	24.4	5.93
I32	22 May 2023	6	16.81	75.75	9.5	33.57	8.3	24.5	5.57
I32	22 May 2023	7	16.48	74.37	8.3	33.57	8.2	24.5	5.04
I32	22 May 2023	8	15.47	64.37	7.2	33.56	8.1	24.8	4.08
I32	22 May 2023	9	15.41	55.05	7.1	33.55	8.1	24.8	3.81
I32	22 May 2023	10	14.80	57.11	6.9	33.57	8.1	24.9	3.57
I39	02 May 2023	1	15.53	83.34	9.8	33.59	8.3	24.8	0.79
I39	02 May 2023	2	15.54	84.93	9.8	33.59	8.3	24.8	0.77
I39	02 May 2023	3	15.52	86.36	9.7	33.59	8.3	24.8	0.80
I39	02 May 2023	4	15.43	86.26	9.8	33.59	8.3	24.8	0.88
I39	02 May 2023	5	15.38	85.88	9.8	33.59	8.3	24.8	0.98
I39	02 May 2023	6	15.36	85.78	9.8	33.59	8.3	24.8	1.17
I39	02 May 2023	7	15.36	85.70	9.8	33.59	8.3	24.8	1.39
I39	02 May 2023	8	15.36	85.64	9.8	33.59	8.3	24.8	1.63
I39	02 May 2023	9	15.35	85.35	9.7	33.59	8.3	24.8	1.89
I39	02 May 2023	10	15.33	84.79	9.7	33.59	8.3	24.8	2.17
I39	02 May 2023	11	15.32	84.73	9.7	33.59	8.3	24.8	2.11
I39	02 May 2023	12	15.31	85.70	9.7	33.59	8.3	24.8	2.04
I39	02 May 2023	13	15.29	86.04	9.6	33.59	8.3	24.8	1.94
I39	02 May 2023	14	15.26	86.23	9.6	33.59	8.3	24.8	1.84
I39	02 May 2023	15	15.22	86.93	9.6	33.59	8.3	24.8	1.75
I39	02 May 2023	16	14.63	86.99	8.8	33.64	8.2	25.0	1.94
I39	02 May 2023	17	13.61	86.10	7.4	33.66	8.1	25.2	2.04
I39	02 May 2023	18	13.20	85.69	6.4	33.65	8.0	25.3	1.77
I39	09 May 2023	1	16.61	76.59	9.2	33.58	8.2	24.5	2.15
I39	09 May 2023	2	16.44	76.43	9.2	33.58	8.2	24.6	2.22
I39	09 May 2023	3	16.18	76.62	9.0	33.57	8.2	24.6	2.32
I39	09 May 2023	4	15.96	77.85	8.7	33.56	8.2	24.6	2.07
I39	09 May 2023	5	15.75	80.98	8.3	33.55	8.2	24.7	1.80
I39	09 May 2023	6	15.22	83.83	7.9	33.54	8.1	24.8	1.66
I39	09 May 2023	7	14.63	84.83	7.5	33.52	8.1	24.9	1.73
I39	09 May 2023	8	13.88	85.66	7.1	33.51	8.0	25.1	1.77
I39	09 May 2023	9	12.87	86.45	6.6	33.52	8.0	25.3	1.83
I39	09 May 2023	10	12.49	87.90	6.2	33.50	7.9	25.3	1.75

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I39	09 May 2023	11	11.83	89.11	5.5	33.54	7.9	25.5	1.59
I39	09 May 2023	12	11.96	89.50	4.9	33.60	7.8	25.5	1.26
I39	09 May 2023	13	11.94	89.85	4.6	33.65	7.8	25.6	1.09
I39	09 May 2023	14	11.96	89.19	4.6	33.64	7.8	25.5	0.91
I39	09 May 2023	15	11.86	88.58	4.2	33.67	7.8	25.6	0.75
I39	09 May 2023	16	11.86	88.21	4.1	33.67	7.8	25.6	0.75
I39	09 May 2023	17	11.87	87.94	4.2	33.67	7.8	25.6	0.68
I39	09 May 2023	18	11.86	87.94	4.2	33.67	7.8	25.6	0.66
I39	15 May 2023	1	15.97	75.68	8.4	33.57	8.1	24.7	3.31
I39	15 May 2023	2	15.88	76.23	8.2	33.57	8.1	24.7	3.13
I39	15 May 2023	3	15.47	78.33	7.4	33.58	8.1	24.8	2.78
I39	15 May 2023	4	14.34	81.45	6.7	33.60	8.1	25.0	2.54
I39	15 May 2023	5	13.34	83.38	6.1	33.59	8.0	25.2	2.22
I39	15 May 2023	6	12.49	85.30	5.6	33.59	7.9	25.4	1.90
I39	15 May 2023	7	12.12	87.26	5.3	33.56	7.9	25.4	1.55
I39	15 May 2023	8	11.84	88.56	5.2	33.56	7.8	25.5	1.61
I39	15 May 2023	9	11.73	89.80	5.1	33.56	7.8	25.5	1.59
I39	15 May 2023	10	11.60	90.02	5.1	33.58	7.8	25.6	1.35
I39	15 May 2023	11	11.43	90.39	5.0	33.58	7.8	25.6	1.75
I39	15 May 2023	12	11.38	90.44	4.9	33.58	7.8	25.6	1.46
I39	15 May 2023	13	11.35	89.79	4.7	33.61	7.8	25.6	1.59
I39	15 May 2023	14	11.34	87.13	4.5	33.62	7.8	25.6	1.57
I39	15 May 2023	15	11.33	84.71	4.4	33.63	7.8	25.6	1.52
I39	15 May 2023	16	11.32	83.81	4.4	33.63	7.7	25.7	1.46
I39	15 May 2023	17	11.30	83.27	4.4	33.64	7.7	25.7	1.65
I39	15 May 2023	18	11.30	80.66	4.4	33.65	7.7	25.7	1.49
I39	22 May 2023	1	16.91	87.24	8.6	33.50	8.2	24.4	1.30
I39	22 May 2023	2	16.90	87.38	8.6	33.50	8.2	24.4	1.35
I39	22 May 2023	3	16.85	87.03	8.8	33.51	8.2	24.4	1.87
I39	22 May 2023	4	16.84	85.98	8.8	33.51	8.2	24.4	2.27
I39	22 May 2023	5	16.82	85.17	8.8	33.51	8.2	24.4	2.76
I39	22 May 2023	6	16.82	84.56	8.8	33.51	8.2	24.4	2.98
I39	22 May 2023	7	16.81	84.11	8.9	33.51	8.2	24.4	3.17
I39	22 May 2023	8	16.74	82.39	9.1	33.52	8.2	24.4	3.61
I39	22 May 2023	9	16.73	81.09	9.2	33.53	8.2	24.4	3.88
I39	22 May 2023	10	16.71	80.53	9.2	33.53	8.2	24.5	3.86
I39	22 May 2023	11	16.64	80.46	9.3	33.54	8.2	24.5	4.03
I39	22 May 2023	12	16.31	79.75	9.4	33.58	8.2	24.6	4.45
I39	22 May 2023	13	16.13	78.38	9.0	33.57	8.2	24.6	5.24
I39	22 May 2023	14	15.38	77.94	8.4	33.58	8.2	24.8	5.36
I39	22 May 2023	15	14.66	79.97	8.3	33.55	8.2	24.9	4.61
I39	22 May 2023	16	13.87	83.43	8.1	33.51	8.1	25.1	3.80
I39	22 May 2023	17	13.32	86.06	7.6	33.48	8.0	25.2	2.93
I39	22 May 2023	18	12.91	87.04	6.8	33.50	8.0	25.2	2.20
I40	02 May 2023	1	16.25	61.75	9.5	33.44	8.3	24.5	3.93
I40	02 May 2023	2	16.21	61.55	9.4	33.45	8.3	24.5	4.25
I40	02 May 2023	3	16.12	60.61	9.1	33.47	8.3	24.5	4.89
I40	02 May 2023	4	15.78	62.61	8.7	33.53	8.3	24.7	4.68
I40	02 May 2023	5	15.85	65.89	9.4	33.57	8.3	24.7	3.39
I40	02 May 2023	6	15.83	76.65	9.5	33.58	8.3	24.7	2.57
I40	02 May 2023	7	15.70	78.84	9.0	33.60	8.3	24.7	2.11
I40	02 May 2023	8	15.59	74.73	8.1	33.61	8.3	24.8	2.00
I40	02 May 2023	9	14.80	62.32	6.5	33.65	8.2	25.0	1.96
I40	02 May 2023	10	14.41	48.74	6.2	33.66	8.0	25.1	1.88
I40	09 May 2023	1	15.61	37.76	7.1	33.27	8.0	24.5	5.43
I40	09 May 2023	2	15.60	45.95	7.0	33.33	8.0	24.6	5.41
I40	09 May 2023	3	15.09	55.70	6.2	33.63	8.0	24.9	4.79

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I40	09 May 2023	4	14.52	58.89	5.0	33.64	7.9	25.0	4.04
I40	09 May 2023	5	13.47	67.68	4.1	33.69	7.8	25.3	5.20
I40	09 May 2023	6	13.00	65.86	3.9	33.66	7.7	25.4	5.75
I40	09 May 2023	7	12.68	67.67	4.0	33.66	7.7	25.4	5.35
I40	09 May 2023	8	12.51	70.49	4.0	33.66	7.7	25.5	4.79
I40	09 May 2023	9	12.48	68.58	4.0	33.66	7.7	25.5	4.37
I40	09 May 2023	10	12.46	54.60	4.0	33.67	7.7	25.5	3.84
I40	15 May 2023	1	15.87	45.55	8.1	32.87	8.1	24.1	4.88
I40	15 May 2023	2	15.65	51.45	8.9	33.42	8.1	24.6	8.69
I40	15 May 2023	3	15.49	57.43	8.6	33.58	8.1	24.8	10.84
I40	15 May 2023	4	14.91	63.21	7.2	33.61	8.1	24.9	6.81
I40	15 May 2023	5	13.36	69.50	5.6	33.66	7.9	25.3	3.69
I40	15 May 2023	6	12.50	70.78	4.7	33.63	7.8	25.4	2.68
I40	15 May 2023	7	12.14	72.76	4.0	33.64	7.8	25.5	2.29
I40	15 May 2023	8	11.72	49.59	2.9	33.66	7.7	25.6	2.14
I40	15 May 2023	9	11.65	30.91	2.6	33.66	7.6	25.6	2.19
I40	22 May 2023	1	17.11	52.15	8.9	33.16	8.2	24.1	10.22
I40	22 May 2023	2	17.05	51.64	9.0	33.30	8.2	24.2	9.77
I40	22 May 2023	3	16.93	66.57	8.9	33.53	8.2	24.4	6.44
I40	22 May 2023	4	16.62	75.57	8.6	33.55	8.2	24.5	5.15
I40	22 May 2023	5	16.23	77.81	8.2	33.57	8.2	24.6	4.83
I40	22 May 2023	6	15.30	78.20	7.4	33.58	8.2	24.8	4.44
I40	22 May 2023	7	14.39	78.09	7.1	33.54	8.1	25.0	4.01
I40	22 May 2023	8	14.41	76.32	6.9	33.52	8.0	25.0	3.80
I40	22 May 2023	9	13.95	76.07	6.5	33.53	8.0	25.1	3.28
I40	22 May 2023	10	13.94	69.98	6.5	33.53	8.0	25.1	3.02

NA = not available

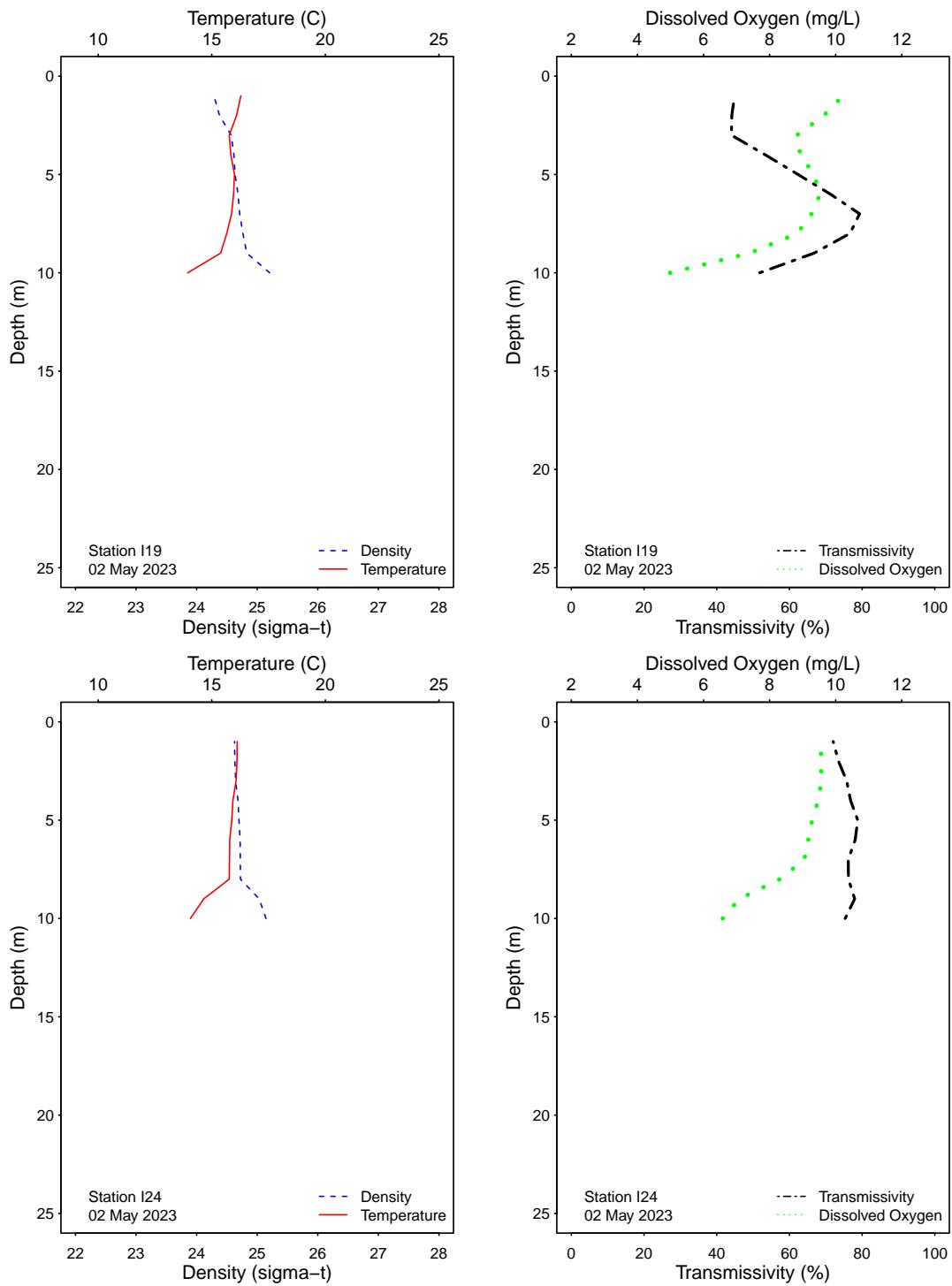


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

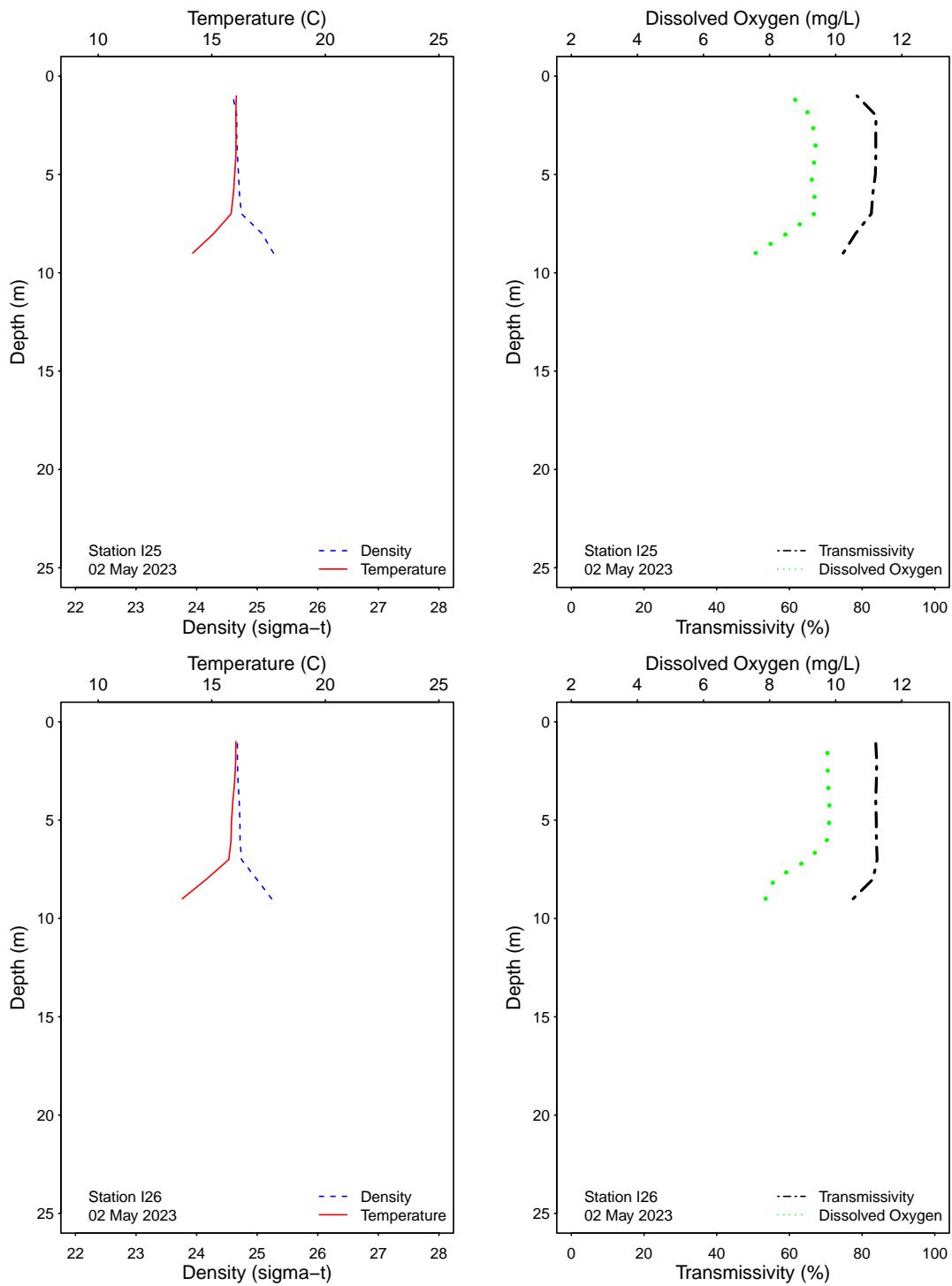


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

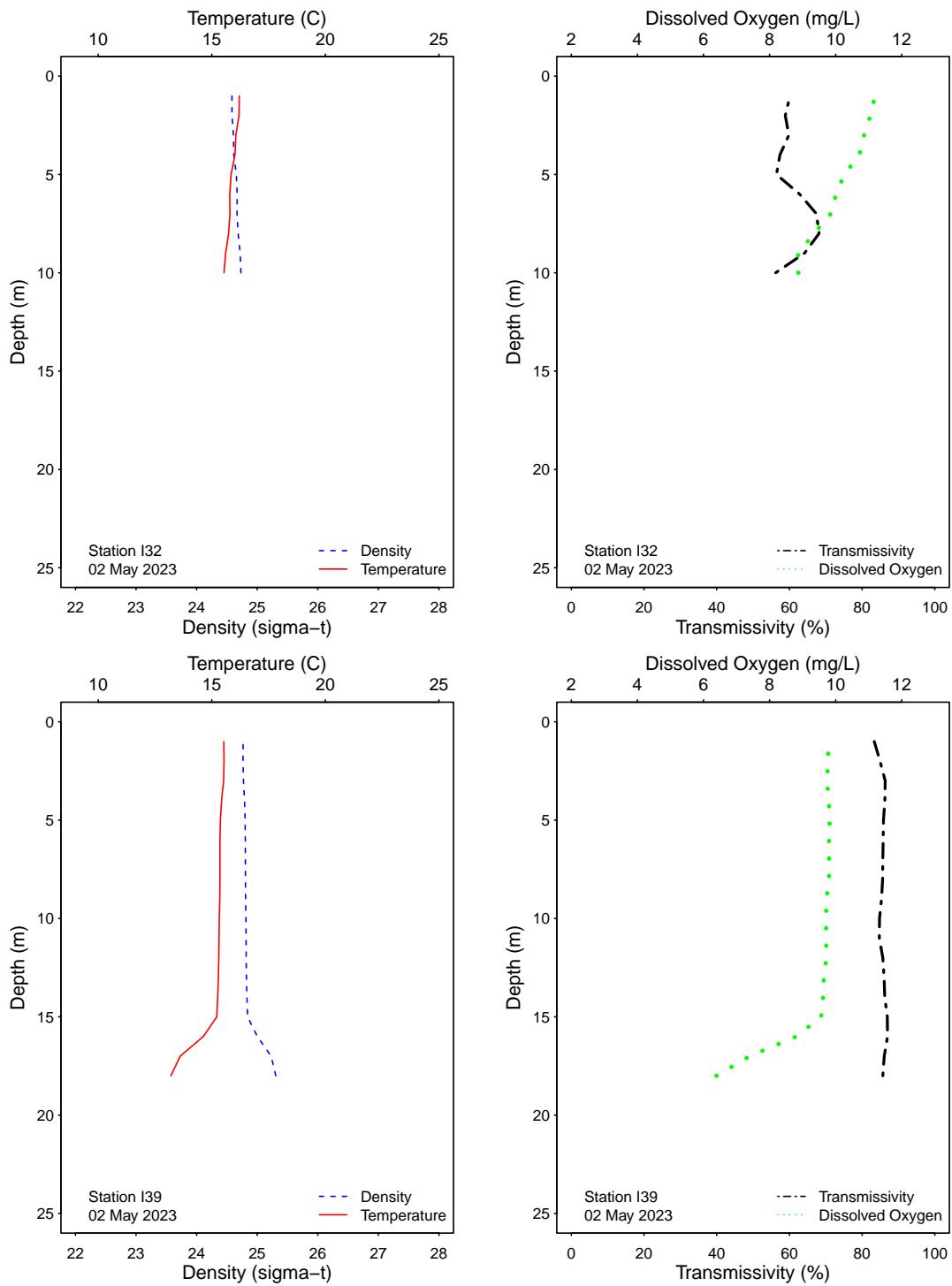


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

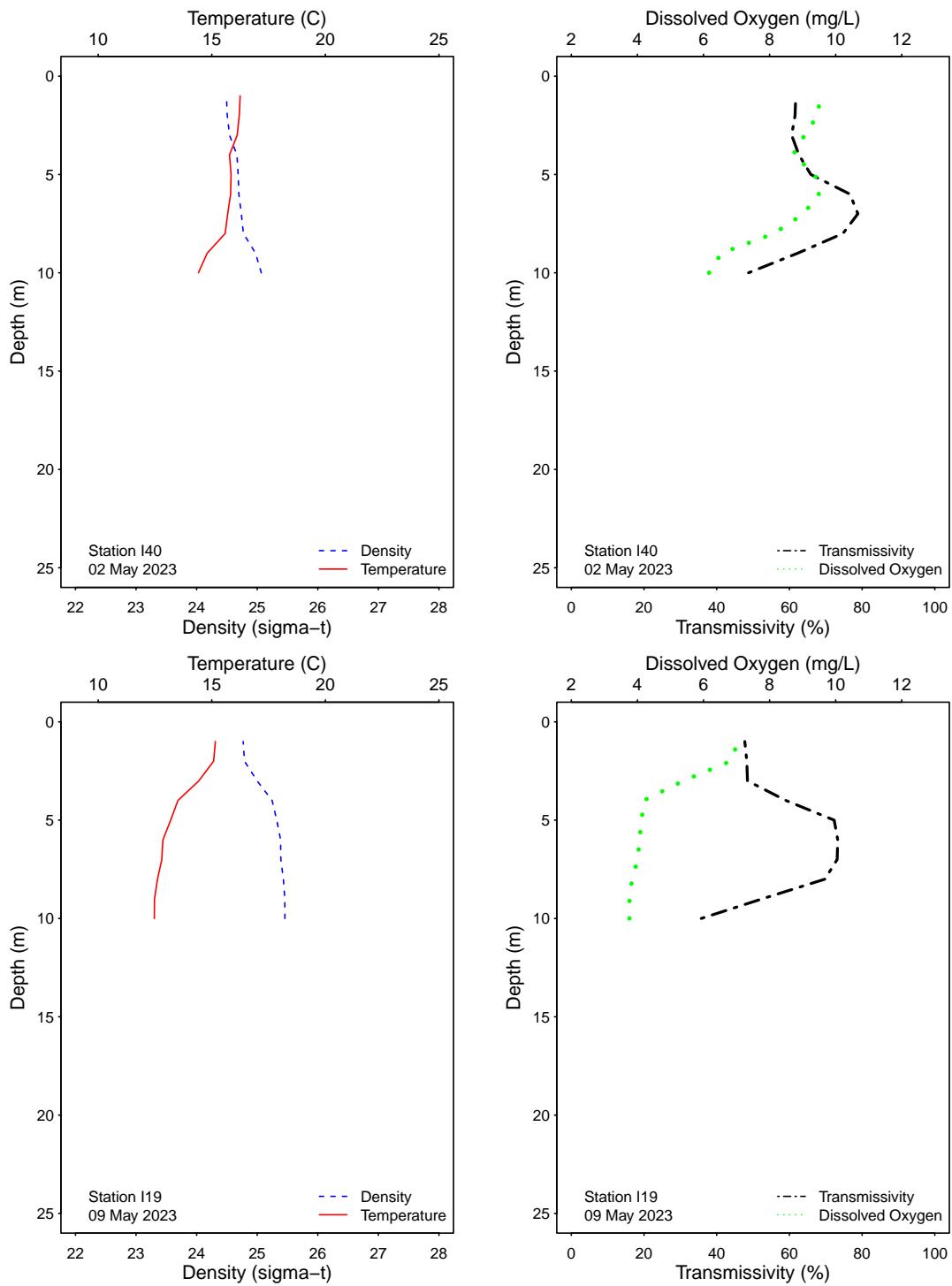


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

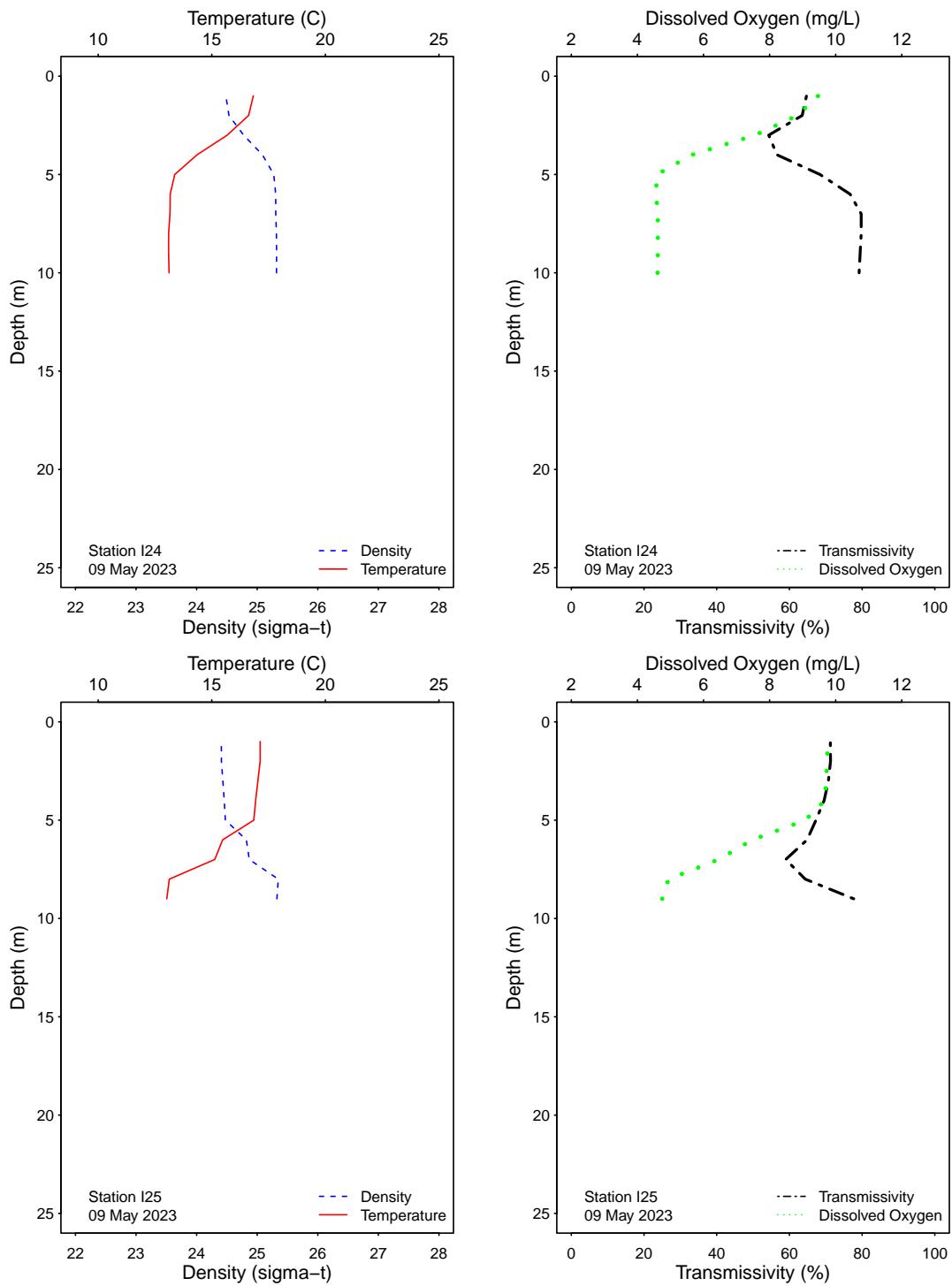


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

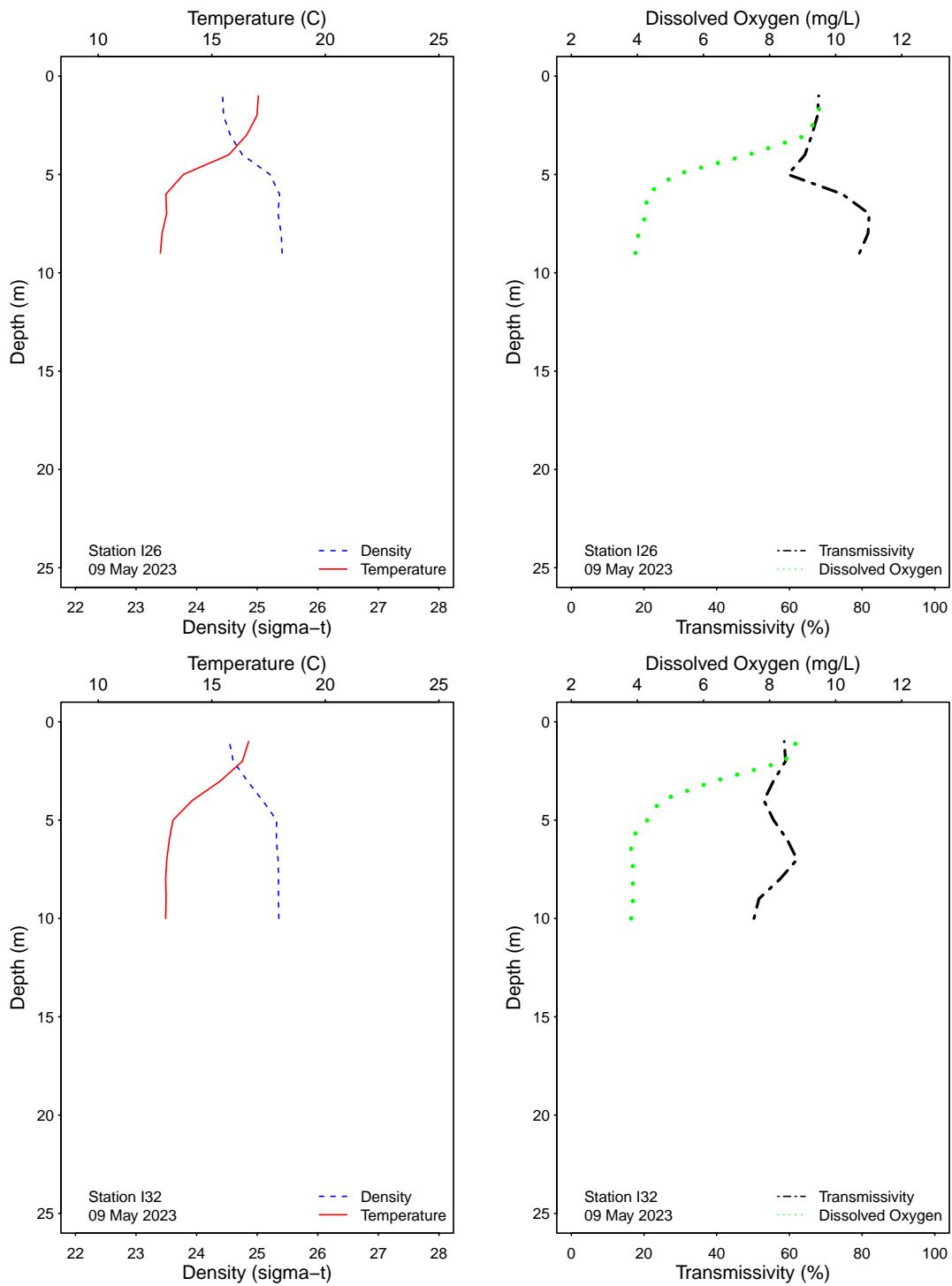


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

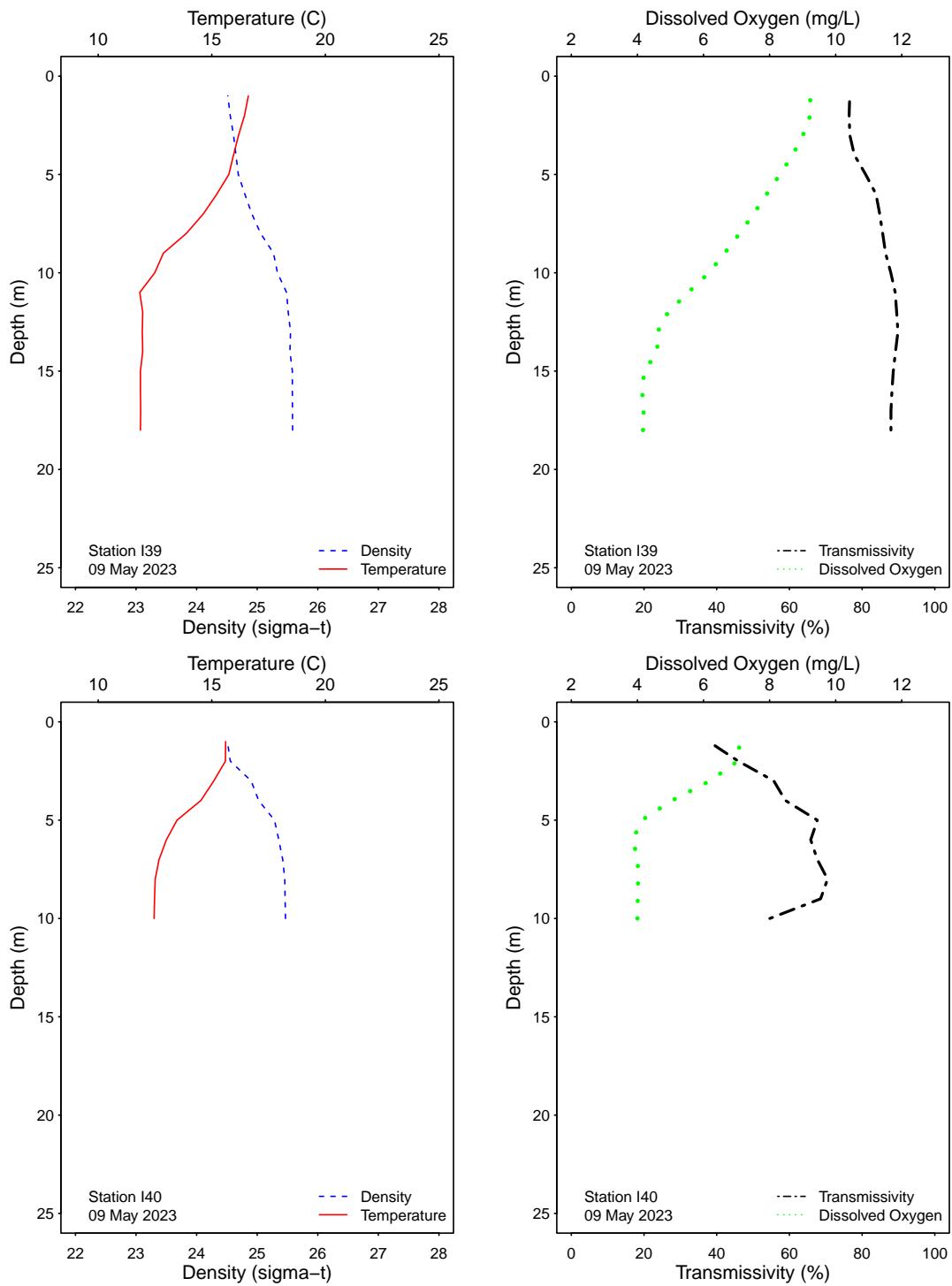


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

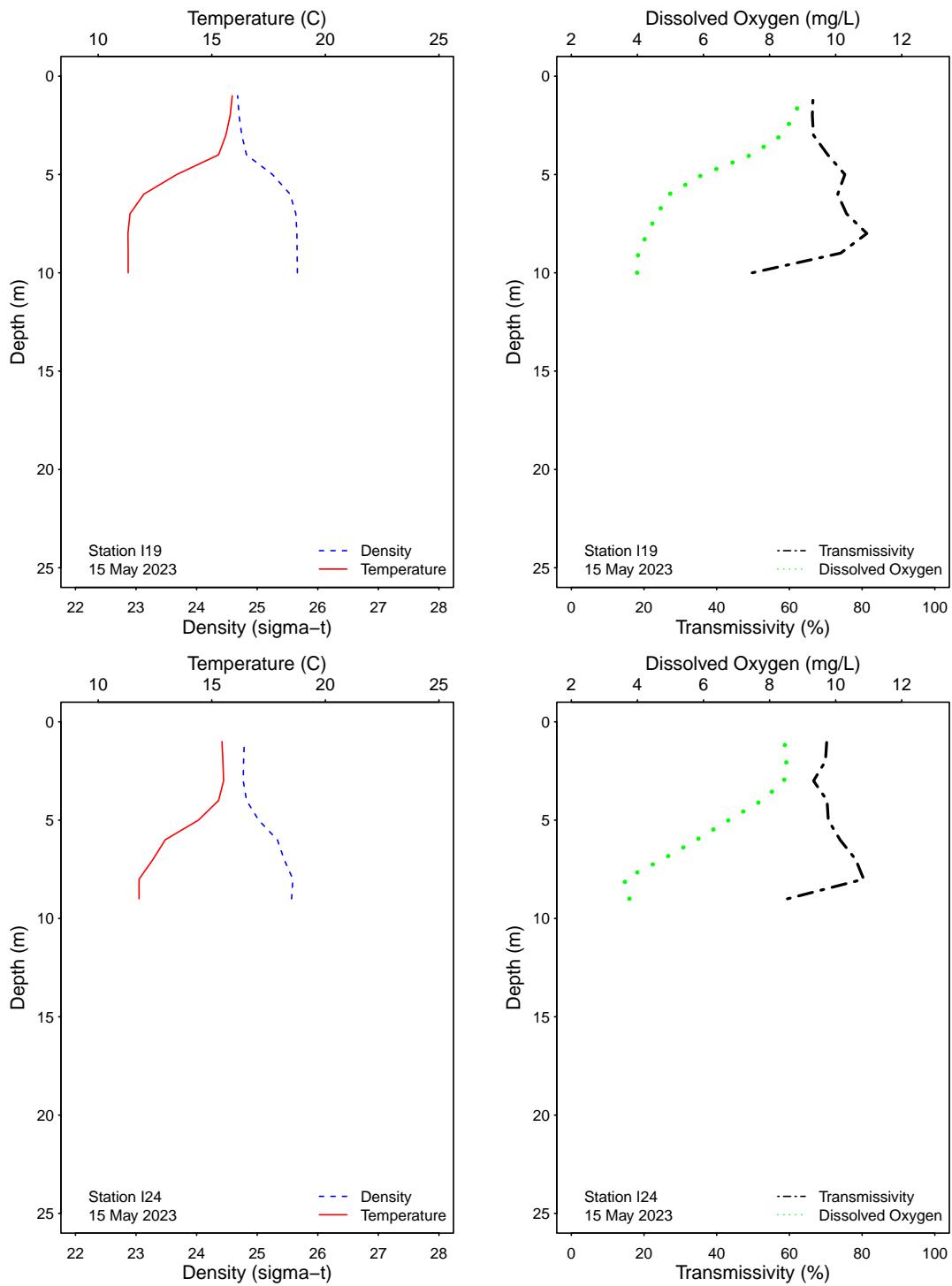


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

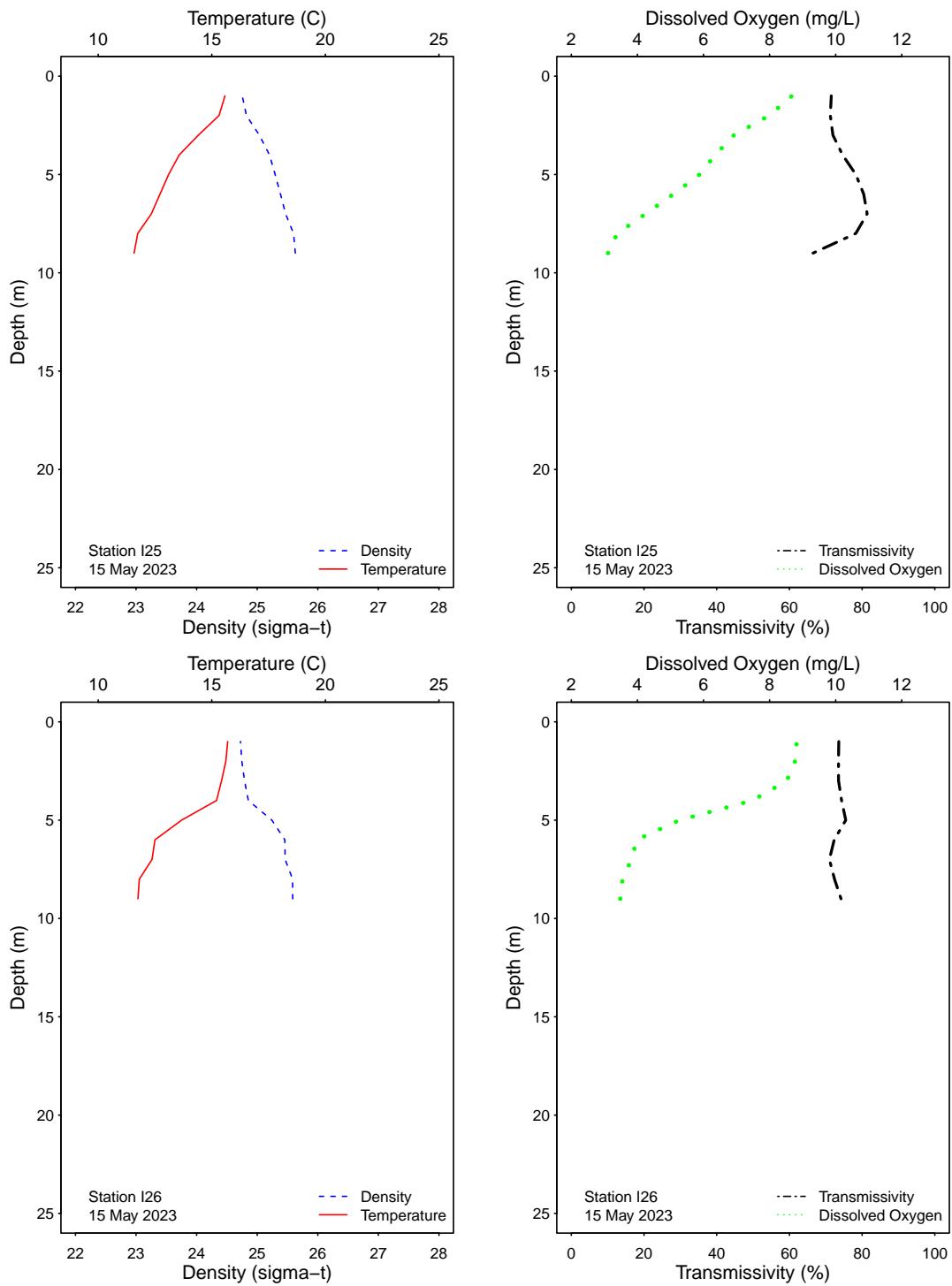


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

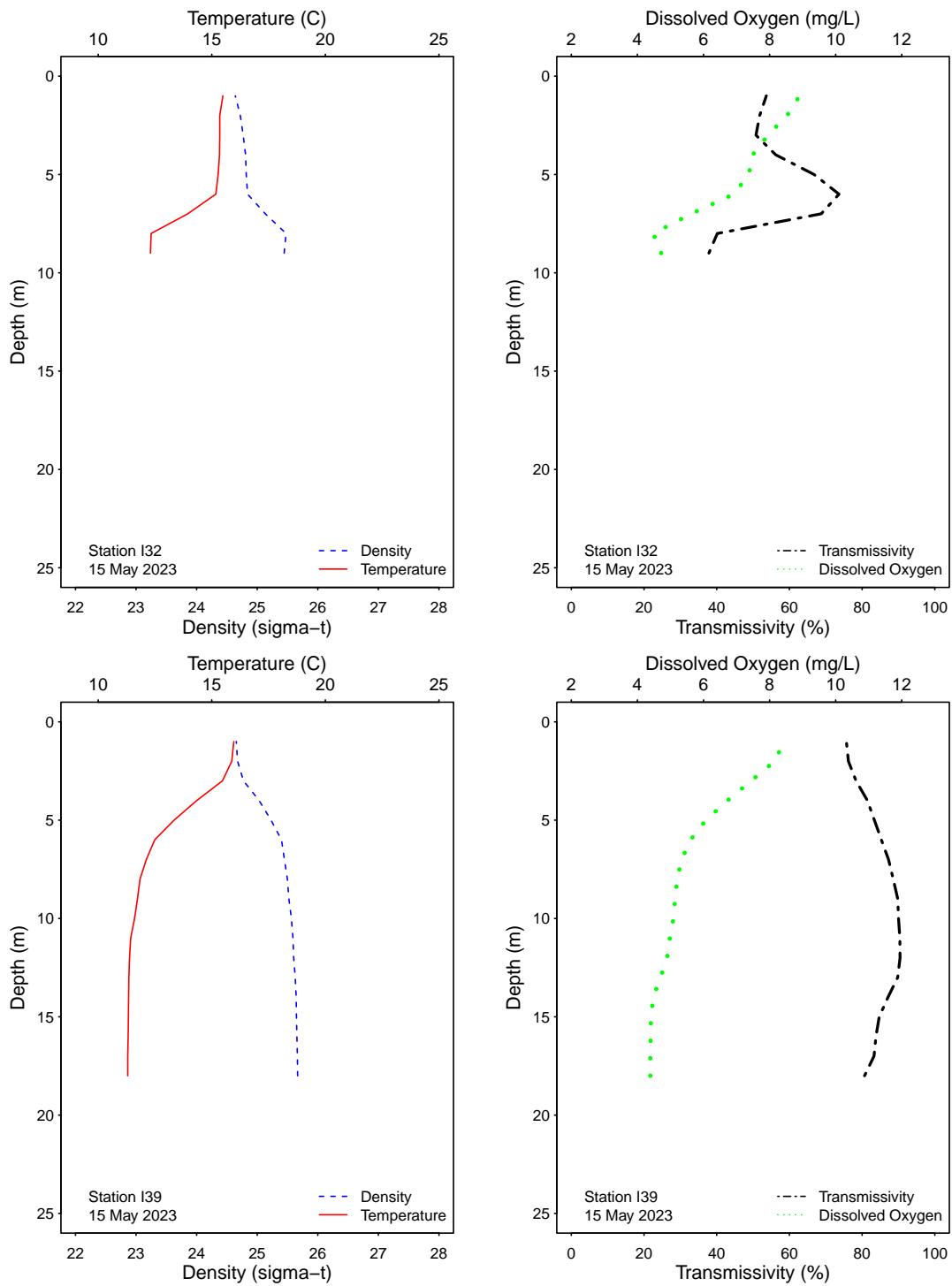


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

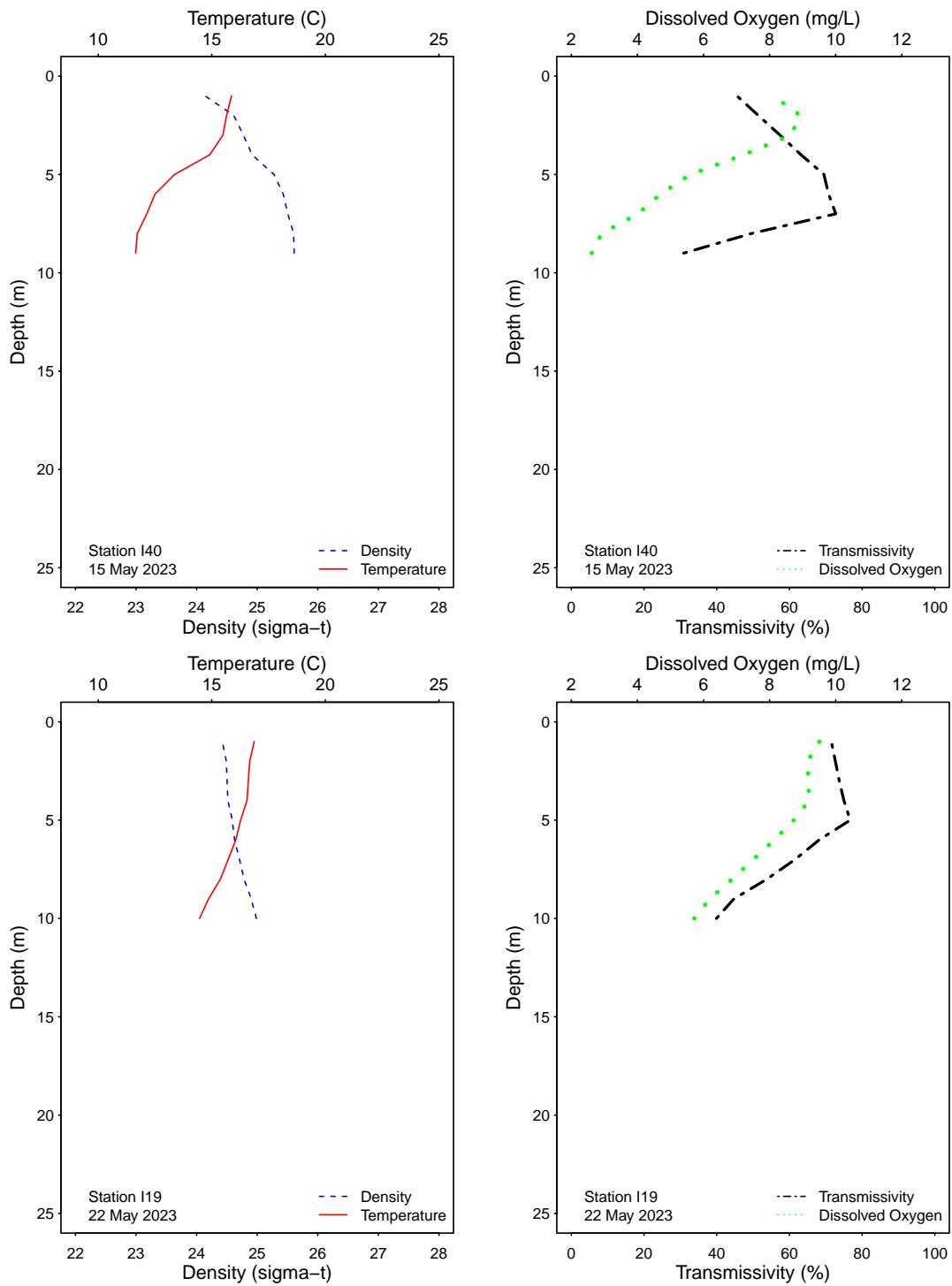


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

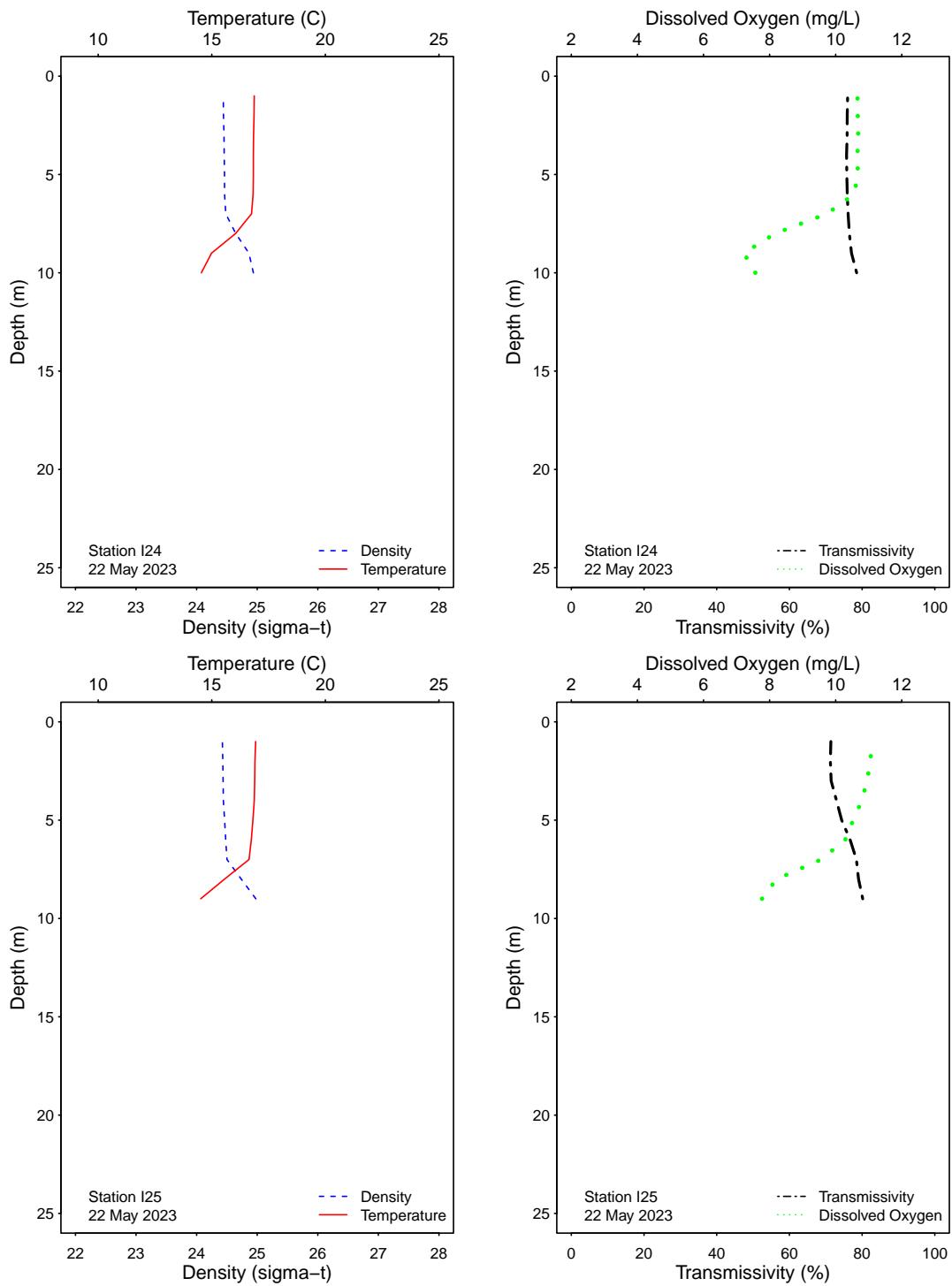


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

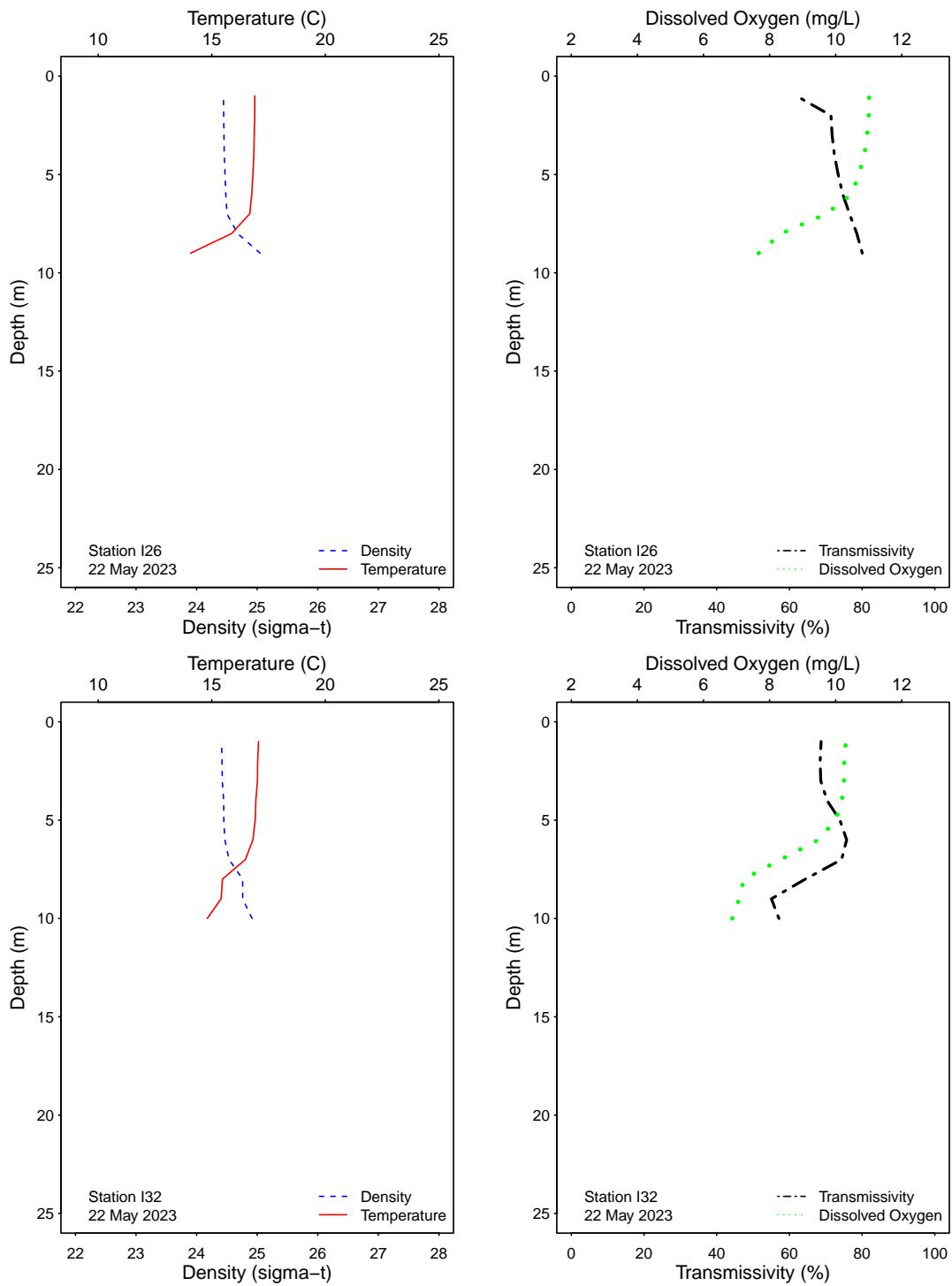


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

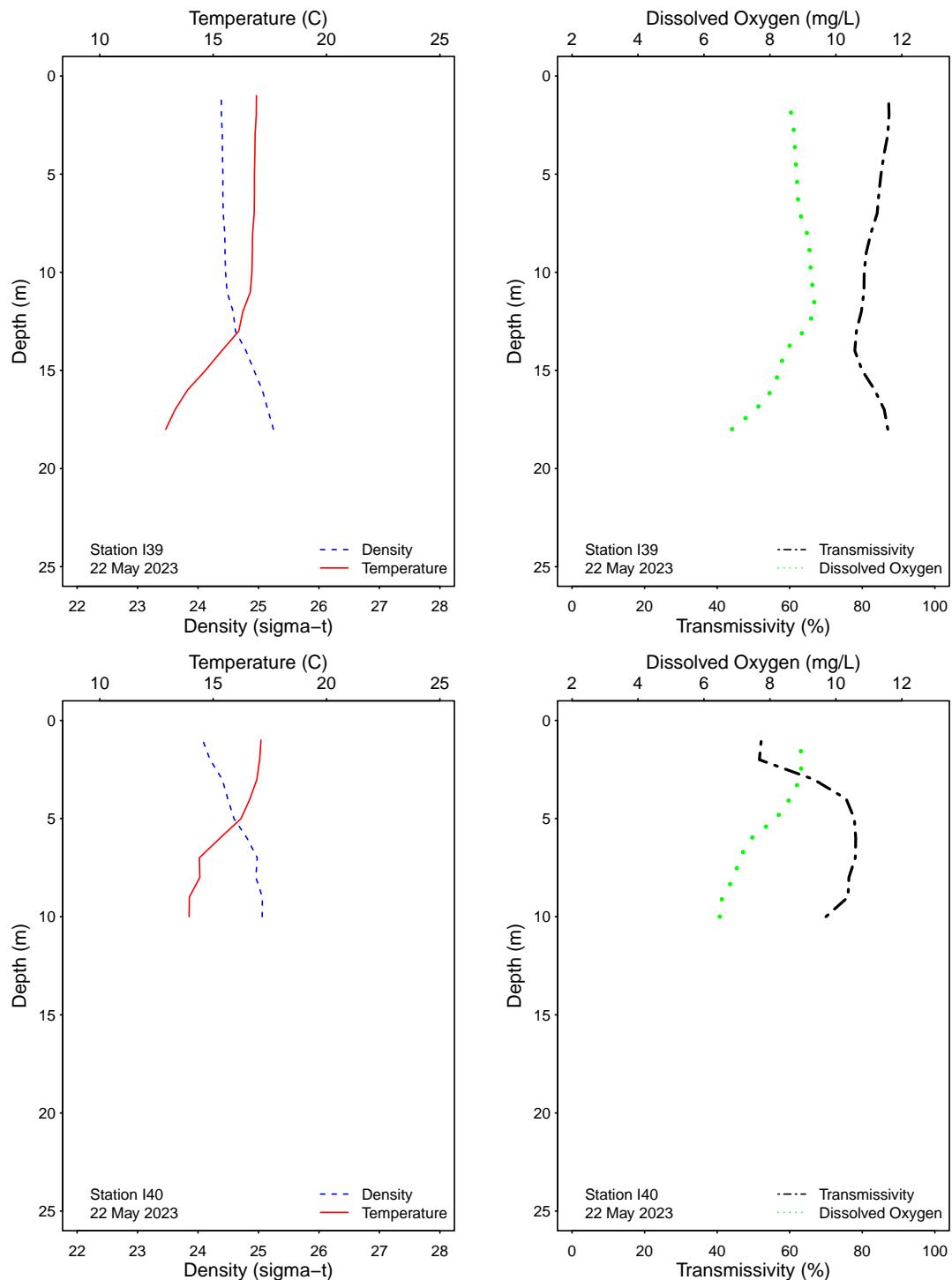


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.



# Offshore Stations



**Table 4.1**

Summary of compliance with the Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria at the SBOO offshore stations within State jurisdictional waters. Fecal coliform density shall not exceed 400 CFU/100 mL.

Date	I12	I14	I16	I18	I22	I23	I33	I36	I37	I38
18 May 2023	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
19 May 2023	ns	ns	ns	ns	ns	ns	IC	IC	IC	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

**Table 4.2**

Summary of compliance with the Ocean Plan's Statistical Threshold Value standard for *Enterococcus* bacteria at the SBOO offshore stations within State jurisdictional waters. *Enterococcus* density shall not exceed 110 CFU/100 mL in more than 10% of samples per month.

Date	I12	I14	I16	I18	I22	I23	I33	I36	I37	I38
May	IC	E								

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

**Table 4.3**

Summary of compliance with the Ocean Plan's Statistical Threshold Value standard for total coliform bacteria at the SBOO offshore stations within State jurisdictional waters. Total coliform density shall not exceed 110 CFU/100 mL in more than 10% of samples per month.

Date	H12	H14	H16	H18	I22	I23	I33	I36	I37	I38
May	2m IC	18m IC	27m IC	2m IC	12m IC	2m IC	18m IC	2m IC	11m IC	2m IC
	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

**Table 4.4**

Summary of water quality parameters at the SBOO offshore stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Entero) bacteria are reported as CFU/100 mL; values for temperature (Temp, °C), transmissivity (XMS, %), dissolved oxygen (DO, mg/L), salinity (Sal, ppt) and pH were extracted from CTD profile data for depths closest to those at which the bacteriological samples were collected. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Entero	Temp	XMS	DO	Sal	pH
I10	16 May 2023	1120	2	<2	<2	<2	15.9	78.65	8.2	33.56	8.1
I10	16 May 2023	1120	12	<2	<2	<2	12.5	87.34	6.3	33.51	7.9
I10	16 May 2023	1120	18	<2	<2	<2	11.6	89.09	5.5	33.53	7.9
I11	16 May 2023	1107	2	<2	<2	<2	15.7	79.57	7.5	33.59	8.1
I11	16 May 2023	1107	6	<2	<2	<2	12.9	86.42	6.5	33.56	8.0
I11	16 May 2023	1107	11	<2	<2	<2	11.8	87.29	5.4	33.57	7.9
I12	18 May 2023	1006	2	<20	<2	<2	16.0	75.12	9.4	33.59	8.2
I12	18 May 2023	1006	18	<2	<2	<2	11.8	90.66	5.8	33.52	7.9
I12	18 May 2023	1006	27	2e	<2	2e	11.3	80.07	4.7	33.60	7.8
I13	18 May 2023	1032	2	16e	<2	<2	15.6	77.65	8.6	33.58	8.2
I13	18 May 2023	1032	18	4e	<2	2e	11.5	91.31	5.3	33.55	7.9
I13	18 May 2023	1032	37	10e	4e	<2	11.1	90.93	4.5	33.64	7.8
I14	18 May 2023	1043	2	<2	2e	<2	16.0	76.24	9.5	33.60	8.2
I14	18 May 2023	1043	18	64	6e	6e	11.7	90.64	5.7	33.52	7.9
I14	18 May 2023	1043	27	20e	<2	<2	11.3	81.63	4.8	33.59	7.8
I16	18 May 2023	958	2	2e	<2	<2	15.9	76.34	9.5	33.59	8.2
I16	18 May 2023	958	18	60e	10e	2e	11.7	90.51	5.7	33.52	7.9
I16	18 May 2023	958	27	12e	<2	<2	11.3	76.12	4.7	33.59	7.8
I18	18 May 2023	940	2	<20	<2	<2	15.7	71.16	9.2	33.54	8.2
I18	18 May 2023	940	12	<2	<2	<2	12.1	86.52	6.1	33.52	7.9
I18	18 May 2023	940	18	20e	2e	<2	11.7	75.91	5.0	33.56	7.8
I20	18 May 2023	824	2	<2	<2	<2	15.8	83.49	7.7	33.52	8.1
I20	18 May 2023	824	18	<2	<2	<2	12.5	89.45	5.3	33.62	7.9
I20	18 May 2023	824	55	1400e	240e	70	10.3	93.39	3.8	33.82	7.7
I21	18 May 2023	841	2	<2	<2	<2	15.8	79.14	9.1	33.59	8.2
I21	18 May 2023	841	18	<2	<2	<2	11.8	90.99	5.2	33.59	7.8
I21	18 May 2023	841	37	20e	4e	<2	10.9	92.53	4.3	33.67	7.8
I22	18 May 2023	916	2	12e	<2	<2	15.9	76.13	8.9	33.58	8.2
I22	18 May 2023	916	18	180e	22e	16e	11.7	90.52	5.7	33.51	7.9
I22	18 May 2023	916	27	16e	2e	2e	11.3	81.27	4.8	33.59	7.8
I23	18 May 2023	927	2	120e	<2	4e	15.0	68.83	8.3	33.50	8.1
I23	18 May 2023	927	12	2e	<2	<2	11.8	88.73	5.9	33.50	7.9
I23	18 May 2023	927	18	20e	2e	2e	11.7	78.88	5.4	33.54	7.8
I3	16 May 2023	1011	2	<2	<2	<2	16.4	83.75	8.2	33.54	8.1
I3	16 May 2023	1011	18	<2	<2	<2	11.6	89.07	6.0	33.49	7.9
I3	16 May 2023	1011	27	2e	<2	<2	11.2	87.61	4.7	33.62	7.8
I30	19 May 2023	1030	2	<2	<2	<2	16.1	78.20	9.3	33.59	8.2
I30	19 May 2023	1030	18	48	16e	6e	12.0	90.23	6.0	33.51	7.9
I30	19 May 2023	1030	27	2e	<2	<2	11.6	79.49	4.9	33.57	7.8

Station	Date	Time	Depth	Total	Fecal	Enter	Temp	XMS	DO	Sal	pH
I33	19 May 2023	938	2	<2	<2	<2	15.9	82.56	8.3	33.55	8.1
I33	19 May 2023	938	18	10e	<2	<2	11.6	90.76	5.7	33.51	7.9
I33	19 May 2023	938	27	4e	<2	<2	11.6	71.57	4.2	33.60	7.8
I36	19 May 2023	1104	2	6e	2e	6e	15.8	55.24	9.8	33.55	8.2
I36	19 May 2023	1104	6	1400e	140e	86	15.7	64.07	8.0	33.54	8.2
I36	19 May 2023	1104	11	520	120e	44	14.7	55.65	7.1	33.53	8.1
I37	19 May 2023	915	2	<2	<2	<2	15.3	74.52	8.2	33.59	8.1
I37	19 May 2023	915	6	<2	<2	<2	15.2	75.56	7.9	33.59	8.1
I37	19 May 2023	915	11	4e	<2	<2	12.2	80.69	4.4	33.59	7.8
I38	19 May 2023	1133	2	<2	<2	<2	16.1	53.46	10.7	33.57	8.3
I38	19 May 2023	1133	6	400e	18e	22e	15.3	73.94	8.1	33.53	8.1
I38	19 May 2023	1133	11	1200e	660	200e	13.8	76.47	6.2	33.53	8.0
I5	16 May 2023	1033	2	<2	<2	<2	16.3	78.70	8.2	33.55	8.1
I5	16 May 2023	1033	6	<2	<2	<2	14.3	80.97	7.1	33.57	8.1
I5	16 May 2023	1033	11	4e	<2	2e	13.1	87.80	6.3	33.56	8.0
I7	16 May 2023	857	2	<2	<2	<2	16.8	87.71	8.2	33.52	8.1
I7	16 May 2023	857	18	<2	<2	<2	12.2	87.77	6.1	33.53	7.9
I7	16 May 2023	857	52	380e	48	18e	10.6	82.73	4.0	33.76	7.7
I8	16 May 2023	1151	2	<2	<2	<2	15.6	78.98	8.1	33.58	8.1
I8	16 May 2023	1151	18	20e	<2	<2	11.4	91.21	5.4	33.55	7.9
I8	16 May 2023	1151	37	4e	<2	<2	11.1	88.56	4.5	33.64	7.8
I9	16 May 2023	1132	2	<2	<2	<2	15.6	78.19	8.1	33.58	8.1
I9	16 May 2023	1132	18	<2	<2	<2	11.3	90.93	5.4	33.54	7.9
I9	16 May 2023	1132	27	4e	<2	<2	11.1	88.73	4.5	33.64	7.8

ns = not sampled

ND = no data

**Comments**

Station	Date	Depth	Parameter	Comments
	18 May 2023			I13 18M, CAME IN A 250ML BOTTLE SO NO DUP WAS RUN

**Table 4.5**

Summary of visual observations made during the month for each SBOO offshore station by sample date.

Station	Date	Parameter	Value
I1	16 May 2023	Depth (m)	61
I1	16 May 2023	Arrive Time	921
I1	16 May 2023	Depart Time	937
I1	16 May 2023	Air Temp (C)	15.7
I1	16 May 2023	Weather	Overcast
I1	16 May 2023	Visibility (mi)	6
I1	16 May 2023	Wind Speed (kts)	5.7
I1	16 May 2023	Wind Dir	N
I1	16 May 2023	Water Color	Blue
I1	16 May 2023	Wave Ht Low (ft)	3
I1	16 May 2023	Wave Period (sec)	15
I1	16 May 2023	Sea State	Wind Ripples
I1	16 May 2023	High Tide (ft)	5.71
I1	16 May 2023	High Tide Time	1948
I1	16 May 2023	Low Tide (ft)	0.21
I1	16 May 2023	Low Tide Time	148
I1	16 May 2023	Comments	OA 1m Btl# 2305099465 Nsk# 5;OA 30m Btl# 2305099466 Nsk# 4;OA 60m Btl# 2305099467 Nsk# 2;OA 60m-dup Btl# 2035099468 Nsk# 1
I10	16 May 2023	Depth (m)	20
I10	16 May 2023	Arrive Time	1120
I10	16 May 2023	Depart Time	1128
I10	16 May 2023	Air Temp (C)	15.6
I10	16 May 2023	Weather	Overcast
I10	16 May 2023	Visibility (mi)	6
I10	16 May 2023	Wind Speed (kts)	5.1
I10	16 May 2023	Wind Dir	NW
I10	16 May 2023	Water Color	Green
I10	16 May 2023	Wave Ht Low (ft)	3
I10	16 May 2023	Wave Period (sec)	15
I10	16 May 2023	Sea State	Wind Ripples
I10	16 May 2023	High Tide (ft)	5.71
I10	16 May 2023	High Tide Time	1948
I10	16 May 2023	Low Tide (ft)	0.21
I10	16 May 2023	Low Tide Time	148
I10	16 May 2023	Comments	Dolphins frolicking on station
I11	16 May 2023	Depth (m)	13
I11	16 May 2023	Arrive Time	1107
I11	16 May 2023	Depart Time	1111
I11	16 May 2023	Air Temp (C)	15.5
I11	16 May 2023	Weather	Overcast
I11	16 May 2023	Visibility (mi)	6
I11	16 May 2023	Wind Speed (kts)	9.1
I11	16 May 2023	Wind Dir	NW
I11	16 May 2023	Water Color	Green
I11	16 May 2023	Wave Ht Low (ft)	3
I11	16 May 2023	Wave Period (sec)	15
I11	16 May 2023	Sea State	Wind Ripples
I11	16 May 2023	High Tide (ft)	5.71
I11	16 May 2023	High Tide Time	1948
I11	16 May 2023	Low Tide (ft)	0.21
I11	16 May 2023	Low Tide Time	148
I11	16 May 2023	Comments	none

Station	Date	Parameter	Value
I12	18 May 2023	Depth (m)	30
I12	18 May 2023	Arrive Time	1006
I12	18 May 2023	Depart Time	1010
I12	18 May 2023	Air Temp (C)	15.1
I12	18 May 2023	Weather	Continuous Layer of Clouds
I12	18 May 2023	Visibility (mi)	10
I12	18 May 2023	Wind Speed (kts)	7.9
I12	18 May 2023	Wind Dir	S
I12	18 May 2023	Water Color	Green
I12	18 May 2023	Wave Ht Low (ft)	2
I12	18 May 2023	Wave Period (sec)	12
I12	18 May 2023	Sea State	Light Chop
I12	18 May 2023	High Tide (ft)	6.11
I12	18 May 2023	High Tide Time	2048
I12	18 May 2023	Low Tide (ft)	-0.79
I12	18 May 2023	Low Tide Time	318
I12	18 May 2023	Comments	OA 1m Btl# 2305109471 Nsk# 4; OA 26m Btl# 235109472 Nsk# 2; OA 26m-dup Btl# 2305109473 Nsk# 1
I13	18 May 2023	Depth (m)	38
I13	18 May 2023	Arrive Time	1032
I13	18 May 2023	Depart Time	1034
I13	18 May 2023	Air Temp (C)	15.2
I13	18 May 2023	Weather	Continuous Layer of Clouds
I13	18 May 2023	Visibility (mi)	10
I13	18 May 2023	Wind Speed (kts)	9.1
I13	18 May 2023	Wind Dir	S
I13	18 May 2023	Water Color	Green
I13	18 May 2023	Wave Ht Low (ft)	2
I13	18 May 2023	Wave Period (sec)	12
I13	18 May 2023	Sea State	Light Chop
I13	18 May 2023	High Tide (ft)	6.11
I13	18 May 2023	High Tide Time	2048
I13	18 May 2023	Low Tide (ft)	-0.79
I13	18 May 2023	Low Tide Time	318
I13	18 May 2023	Comments	none
I14	18 May 2023	Depth (m)	27
I14	18 May 2023	Arrive Time	1043
I14	18 May 2023	Depart Time	1046
I14	18 May 2023	Air Temp (C)	15.3
I14	18 May 2023	Weather	Continuous Layer of Clouds
I14	18 May 2023	Visibility (mi)	10
I14	18 May 2023	Wind Speed (kts)	8.4
I14	18 May 2023	Wind Dir	S
I14	18 May 2023	Water Color	Green
I14	18 May 2023	Wave Ht Low (ft)	2
I14	18 May 2023	Wave Period (sec)	12
I14	18 May 2023	Sea State	Light Chop
I14	18 May 2023	High Tide (ft)	6.11
I14	18 May 2023	High Tide Time	2048
I14	18 May 2023	Low Tide (ft)	-0.79
I14	18 May 2023	Low Tide Time	318
I14	18 May 2023	Comments	none
I15	18 May 2023	Depth (m)	32
I15	18 May 2023	Arrive Time	1017
I15	18 May 2023	Depart Time	1019
I15	18 May 2023	Air Temp (C)	15.1
I15	18 May 2023	Weather	Continuous Layer of Clouds
I15	18 May 2023	Visibility (mi)	10

Station	Date	Parameter	Value
I15	18 May 2023	Wind Speed (kts)	9.4
I15	18 May 2023	Wind Dir	S
I15	18 May 2023	Water Color	Green
I15	18 May 2023	Wave Ht Low (ft)	2
I15	18 May 2023	Wave Period (sec)	12
I15	18 May 2023	Sea State	Light Chop
I15	18 May 2023	High Tide (ft)	6.11
I15	18 May 2023	High Tide Time	2048
I15	18 May 2023	Low Tide (ft)	-0.79
I15	18 May 2023	Low Tide Time	318
I15	18 May 2023	Comments	none
I16	18 May 2023	Depth (m)	30
I16	18 May 2023	Arrive Time	958
I16	18 May 2023	Depart Time	1001
I16	18 May 2023	Air Temp (C)	15
I16	18 May 2023	Weather	Continuous Layer of Clouds
I16	18 May 2023	Visibility (mi)	10
I16	18 May 2023	Wind Speed (kts)	8.2
I16	18 May 2023	Wind Dir	S
I16	18 May 2023	Water Color	Green
I16	18 May 2023	Wave Ht Low (ft)	2
I16	18 May 2023	Wave Period (sec)	12
I16	18 May 2023	Sea State	Light Chop
I16	18 May 2023	High Tide (ft)	6.11
I16	18 May 2023	High Tide Time	2048
I16	18 May 2023	Low Tide (ft)	-0.79
I16	18 May 2023	Low Tide Time	318
I16	18 May 2023	Comments	none
I17	18 May 2023	Depth (m)	27
I17	18 May 2023	Arrive Time	950
I17	18 May 2023	Depart Time	953
I17	18 May 2023	Air Temp (C)	15
I17	18 May 2023	Weather	Continuous Layer of Clouds
I17	18 May 2023	Visibility (mi)	10
I17	18 May 2023	Wind Speed (kts)	9.4
I17	18 May 2023	Wind Dir	S
I17	18 May 2023	Water Color	Green
I17	18 May 2023	Wave Ht Low (ft)	2
I17	18 May 2023	Wave Period (sec)	12
I17	18 May 2023	Sea State	Light Chop
I17	18 May 2023	High Tide (ft)	6.11
I17	18 May 2023	High Tide Time	2048
I17	18 May 2023	Low Tide (ft)	-0.79
I17	18 May 2023	Low Tide Time	318
I17	18 May 2023	Comments	none
I18	18 May 2023	Depth (m)	21
I18	18 May 2023	Arrive Time	940
I18	18 May 2023	Depart Time	942
I18	18 May 2023	Air Temp (C)	15.1
I18	18 May 2023	Weather	Continuous Layer of Clouds
I18	18 May 2023	Visibility (mi)	10
I18	18 May 2023	Wind Speed (kts)	8.2
I18	18 May 2023	Wind Dir	S
I18	18 May 2023	Water Color	Green
I18	18 May 2023	Wave Ht Low (ft)	2
I18	18 May 2023	Wave Period (sec)	12
I18	18 May 2023	Sea State	Light Chop
I18	18 May 2023	High Tide (ft)	6.11

Station	Date	Parameter	Value
I18	18 May 2023	High Tide Time	2048
I18	18 May 2023	Low Tide (ft)	-0.79
I18	18 May 2023	Low Tide Time	318
I18	18 May 2023	Comments	none
I2	16 May 2023	Depth (m)	34
I2	16 May 2023	Arrive Time	956
I2	16 May 2023	Depart Time	1002
I2	16 May 2023	Air Temp (C)	15.3
I2	16 May 2023	Weather	Overcast
I2	16 May 2023	Visibility (mi)	6
I2	16 May 2023	Wind Speed (kts)	3.9
I2	16 May 2023	Wind Dir	NW
I2	16 May 2023	Water Color	Blue
I2	16 May 2023	Wave Ht Low (ft)	3
I2	16 May 2023	Wave Period (sec)	15
I2	16 May 2023	Sea State	Wind Ripples
I2	16 May 2023	High Tide (ft)	5.71
I2	16 May 2023	High Tide Time	1948
I2	16 May 2023	Low Tide (ft)	0.21
I2	16 May 2023	Low Tide Time	148
I2	16 May 2023	Comments	none
I20	18 May 2023	Depth (m)	56
I20	18 May 2023	Arrive Time	824
I20	18 May 2023	Depart Time	827
I20	18 May 2023	Air Temp (C)	15
I20	18 May 2023	Weather	Continuous Layer of Clouds
I20	18 May 2023	Visibility (mi)	10
I20	18 May 2023	Wind Speed (kts)	8.4
I20	18 May 2023	Wind Dir	S
I20	18 May 2023	Water Color	Greenish-Blue
I20	18 May 2023	Wave Ht Low (ft)	2
I20	18 May 2023	Wave Period (sec)	12
I20	18 May 2023	Sea State	Light Chop
I20	18 May 2023	High Tide (ft)	6.11
I20	18 May 2023	High Tide Time	2048
I20	18 May 2023	Low Tide (ft)	-0.79
I20	18 May 2023	Low Tide Time	318
I20	18 May 2023	Comments	none
I21	18 May 2023	Depth (m)	42
I21	18 May 2023	Arrive Time	841
I21	18 May 2023	Depart Time	848
I21	18 May 2023	Air Temp (C)	15.1
I21	18 May 2023	Weather	Continuous Layer of Clouds
I21	18 May 2023	Visibility (mi)	10
I21	18 May 2023	Wind Speed (kts)	8
I21	18 May 2023	Wind Dir	S
I21	18 May 2023	Water Color	Greenish-Blue
I21	18 May 2023	Wave Ht Low (ft)	2
I21	18 May 2023	Wave Period (sec)	12
I21	18 May 2023	Sea State	Light Chop
I21	18 May 2023	High Tide (ft)	6.11
I21	18 May 2023	High Tide Time	2048
I21	18 May 2023	Low Tide (ft)	-0.79
I21	18 May 2023	Low Tide Time	318
I21	18 May 2023	Comments	OA bottle 2305109469 was taken from Nsk 6 which was re-taken at surface immediately after cast as nsk 6 was fired at 41 m; So the surface OA is not in the seasave btl file OA 1m Btl# 2305109469 Nsk# 6

Station	Date	Parameter	Value
I22	18 May 2023	Depth (m)	27
I22	18 May 2023	Arrive Time	916
I22	18 May 2023	Depart Time	918
I22	18 May 2023	Air Temp (C)	14.9
I22	18 May 2023	Weather	Drizzle
I22	18 May 2023	Visibility (mi)	10
I22	18 May 2023	Wind Speed (kts)	9.3
I22	18 May 2023	Wind Dir	S
I22	18 May 2023	Water Color	Greenish-Blue
I22	18 May 2023	Wave Ht Low (ft)	2
I22	18 May 2023	Wave Period (sec)	12
I22	18 May 2023	Sea State	Light Chop
I22	18 May 2023	High Tide (ft)	6.11
I22	18 May 2023	High Tide Time	2048
I22	18 May 2023	Low Tide (ft)	-0.79
I22	18 May 2023	Low Tide Time	318
I22	18 May 2023	Comments	none
I23	18 May 2023	Depth (m)	22
I23	18 May 2023	Arrive Time	927
I23	18 May 2023	Depart Time	930
I23	18 May 2023	Air Temp (C)	14.9
I23	18 May 2023	Weather	Continuous Layer of Clouds
I23	18 May 2023	Visibility (mi)	10
I23	18 May 2023	Wind Speed (kts)	8.4
I23	18 May 2023	Wind Dir	S
I23	18 May 2023	Water Color	Green
I23	18 May 2023	Wave Ht Low (ft)	2
I23	18 May 2023	Wave Period (sec)	12
I23	18 May 2023	Sea State	Light Chop
I23	18 May 2023	High Tide (ft)	6.11
I23	18 May 2023	High Tide Time	2048
I23	18 May 2023	Low Tide (ft)	-0.79
I23	18 May 2023	Low Tide Time	318
I23	18 May 2023	Comments	none
I27	18 May 2023	Depth (m)	30
I27	18 May 2023	Arrive Time	901
I27	18 May 2023	Depart Time	915
I27	18 May 2023	Air Temp (C)	15
I27	18 May 2023	Weather	Drizzle
I27	18 May 2023	Visibility (mi)	10
I27	18 May 2023	Wind Speed (kts)	7.8
I27	18 May 2023	Wind Dir	S
I27	18 May 2023	Water Color	Greenish-Blue
I27	18 May 2023	Wave Ht Low (ft)	2
I27	18 May 2023	Wave Period (sec)	12
I27	18 May 2023	Sea State	Light Chop
I27	18 May 2023	High Tide (ft)	6.11
I27	18 May 2023	High Tide Time	2048
I27	18 May 2023	Low Tide (ft)	-0.79
I27	18 May 2023	Low Tide Time	318
I27	18 May 2023	Comments	none
I28	19 May 2023	Depth (m)	58
I28	19 May 2023	Arrive Time	954
I28	19 May 2023	Depart Time	959
I28	19 May 2023	Air Temp (C)	15.5
I28	19 May 2023	Weather	Overcast
I28	19 May 2023	Visibility (mi)	3

Station	Date	Parameter	Value
I28	19 May 2023	Wind Speed (kts)	6
I28	19 May 2023	Wind Dir	S
I28	19 May 2023	Water Color	Green
I28	19 May 2023	Wave Ht Low (ft)	4
I28	19 May 2023	Wave Period (sec)	15
I28	19 May 2023	Sea State	Light Chop
I28	19 May 2023	High Tide (ft)	6.08
I28	19 May 2023	High Tide Time	2124
I28	19 May 2023	Low Tide (ft)	-1
I28	19 May 2023	Low Tide Time	354
I28	19 May 2023	Comments	OA 1m Btl# 2305119474 Nsk# 3; OA 55m Btl# 2305119475 Nsk# 1
I29	19 May 2023	Depth (m)	38
I29	19 May 2023	Arrive Time	1015
I29	19 May 2023	Depart Time	1018
I29	19 May 2023	Air Temp (C)	15.9
I29	19 May 2023	Weather	Overcast
I29	19 May 2023	Visibility (mi)	8
I29	19 May 2023	Wind Speed (kts)	6.3
I29	19 May 2023	Wind Dir	S
I29	19 May 2023	Water Color	Green
I29	19 May 2023	Wave Ht Low (ft)	4
I29	19 May 2023	Wave Period (sec)	15
I29	19 May 2023	Sea State	Light Chop
I29	19 May 2023	High Tide (ft)	6.08
I29	19 May 2023	High Tide Time	2124
I29	19 May 2023	Low Tide (ft)	-1
I29	19 May 2023	Low Tide Time	354
I29	19 May 2023	Comments	none
I3	16 May 2023	Depth (m)	27
I3	16 May 2023	Arrive Time	1011
I3	16 May 2023	Depart Time	1015
I3	16 May 2023	Air Temp (C)	15.4
I3	16 May 2023	Weather	Overcast
I3	16 May 2023	Visibility (mi)	6
I3	16 May 2023	Wind Speed (kts)	5.4
I3	16 May 2023	Wind Dir	NW
I3	16 May 2023	Water Color	Blue
I3	16 May 2023	Wave Ht Low (ft)	3
I3	16 May 2023	Wave Period (sec)	15
I3	16 May 2023	Sea State	Wind Ripples
I3	16 May 2023	High Tide (ft)	5.71
I3	16 May 2023	High Tide Time	1948
I3	16 May 2023	Low Tide (ft)	0.21
I3	16 May 2023	Low Tide Time	148
I3	16 May 2023	Comments	none
I30	19 May 2023	Depth (m)	29
I30	19 May 2023	Arrive Time	1026
I30	19 May 2023	Depart Time	1030
I30	19 May 2023	Air Temp (C)	15.9
I30	19 May 2023	Weather	Overcast
I30	19 May 2023	Visibility (mi)	8
I30	19 May 2023	Wind Speed (kts)	5.9
I30	19 May 2023	Wind Dir	S
I30	19 May 2023	Water Color	Green
I30	19 May 2023	Wave Ht Low (ft)	4
I30	19 May 2023	Wave Period (sec)	15
I30	19 May 2023	Sea State	Light Chop

Station	Date	Parameter	Value
I30	19 May 2023	High Tide (ft)	6.08
I30	19 May 2023	High Tide Time	2124
I30	19 May 2023	Low Tide (ft)	-1
I30	19 May 2023	Low Tide Time	354
I30	19 May 2023	Comments	none
I31	19 May 2023	Depth (m)	20
I31	19 May 2023	Arrive Time	1039
I31	19 May 2023	Depart Time	1042
I31	19 May 2023	Air Temp (C)	15.8
I31	19 May 2023	Weather	Overcast
I31	19 May 2023	Visibility (mi)	8
I31	19 May 2023	Wind Speed (kts)	5.6
I31	19 May 2023	Wind Dir	SW
I31	19 May 2023	Water Color	Green
I31	19 May 2023	Wave Ht Low (ft)	4
I31	19 May 2023	Wave Period (sec)	15
I31	19 May 2023	Sea State	Light Chop
I31	19 May 2023	High Tide (ft)	6.08
I31	19 May 2023	High Tide Time	2124
I31	19 May 2023	Low Tide (ft)	-1
I31	19 May 2023	Low Tide Time	354
I31	19 May 2023	Comments	none
I33	19 May 2023	Depth (m)	32
I33	19 May 2023	Arrive Time	935
I33	19 May 2023	Depart Time	938
I33	19 May 2023	Air Temp (C)	15.5
I33	19 May 2023	Weather	Overcast
I33	19 May 2023	Visibility (mi)	3
I33	19 May 2023	Wind Speed (kts)	6
I33	19 May 2023	Wind Dir	SE
I33	19 May 2023	Water Color	Green
I33	19 May 2023	Wave Ht Low (ft)	4
I33	19 May 2023	Wave Period (sec)	15
I33	19 May 2023	Sea State	Light Chop
I33	19 May 2023	High Tide (ft)	6.08
I33	19 May 2023	High Tide Time	2124
I33	19 May 2023	Low Tide (ft)	-1
I33	19 May 2023	Low Tide Time	354
I33	19 May 2023	Comments	I33 28m Duplicate sample to make up for missed duplicate on May 18th
I34	19 May 2023	Depth (m)	22
I34	19 May 2023	Arrive Time	924
I34	19 May 2023	Depart Time	926
I34	19 May 2023	Air Temp (C)	15.3
I34	19 May 2023	Weather	Overcast
I34	19 May 2023	Visibility (mi)	3
I34	19 May 2023	Wind Speed (kts)	5.6
I34	19 May 2023	Wind Dir	S
I34	19 May 2023	Water Color	Green
I34	19 May 2023	Wave Ht Low (ft)	4
I34	19 May 2023	Wave Period (sec)	15
I34	19 May 2023	Sea State	Light Chop
I34	19 May 2023	High Tide (ft)	6.08
I34	19 May 2023	High Tide Time	2124
I34	19 May 2023	Low Tide (ft)	-1
I34	19 May 2023	Low Tide Time	354
I34	19 May 2023	Comments	none

Station	Date	Parameter	Value
I35	19 May 2023	Depth (m)	20
I35	19 May 2023	Arrive Time	1114
I35	19 May 2023	Depart Time	1117
I35	19 May 2023	Air Temp (C)	15.7
I35	19 May 2023	Weather	Overcast
I35	19 May 2023	Visibility (mi)	8
I35	19 May 2023	Wind Speed (kts)	6
I35	19 May 2023	Wind Dir	SW
I35	19 May 2023	Water Color	Greenish-Brown
I35	19 May 2023	Wave Ht Low (ft)	4
I35	19 May 2023	Wave Period (sec)	15
I35	19 May 2023	Sea State	Light Chop
I35	19 May 2023	High Tide (ft)	6.08
I35	19 May 2023	High Tide Time	2124
I35	19 May 2023	Low Tide (ft)	-1
I35	19 May 2023	Low Tide Time	354
I35	19 May 2023	Comments	none
I36	19 May 2023	Depth (m)	12
I36	19 May 2023	Arrive Time	1101
I36	19 May 2023	Depart Time	1104
I36	19 May 2023	Air Temp (C)	15.7
I36	19 May 2023	Weather	Overcast
I36	19 May 2023	Visibility (mi)	8
I36	19 May 2023	Wind Speed (kts)	5.8
I36	19 May 2023	Wind Dir	SW
I36	19 May 2023	Water Color	Brown
I36	19 May 2023	Wave Ht Low (ft)	4
I36	19 May 2023	Wave Period (sec)	15
I36	19 May 2023	Sea State	Light Chop
I36	19 May 2023	High Tide (ft)	6.08
I36	19 May 2023	High Tide Time	2124
I36	19 May 2023	Low Tide (ft)	-1
I36	19 May 2023	Low Tide Time	354
I36	19 May 2023	Comments	Sewege-like odor
I37	19 May 2023	Depth (m)	13
I37	19 May 2023	Arrive Time	912
I37	19 May 2023	Depart Time	915
I37	19 May 2023	Air Temp (C)	15.3
I37	19 May 2023	Weather	Overcast
I37	19 May 2023	Visibility (mi)	3
I37	19 May 2023	Wind Speed (kts)	5.2
I37	19 May 2023	Wind Dir	S
I37	19 May 2023	Water Color	Green
I37	19 May 2023	Wave Ht Low (ft)	4
I37	19 May 2023	Wave Period (sec)	15
I37	19 May 2023	Sea State	Light Chop
I37	19 May 2023	High Tide (ft)	6.08
I37	19 May 2023	High Tide Time	2124
I37	19 May 2023	Low Tide (ft)	-1
I37	19 May 2023	Low Tide Time	354
I37	19 May 2023	Comments	none
I38	19 May 2023	Depth (m)	12
I38	19 May 2023	Arrive Time	1130
I38	19 May 2023	Depart Time	1133
I38	19 May 2023	Air Temp (C)	15.9
I38	19 May 2023	Weather	Overcast
I38	19 May 2023	Visibility (mi)	8
I38	19 May 2023	Wind Speed (kts)	3.1

Station	Date	Parameter	Value
I38	19 May 2023	Wind Dir	SW
I38	19 May 2023	Water Color	Brown
I38	19 May 2023	Wave Ht Low (ft)	4
I38	19 May 2023	Wave Period (sec)	15
I38	19 May 2023	Sea State	Calm
I38	19 May 2023	High Tide (ft)	6.08
I38	19 May 2023	High Tide Time	2124
I38	19 May 2023	Low Tide (ft)	-1
I38	19 May 2023	Low Tide Time	354
I38	19 May 2023	Comments	none
I4	16 May 2023	Depth (m)	19
I4	16 May 2023	Arrive Time	1025
I4	16 May 2023	Depart Time	1029
I4	16 May 2023	Air Temp (C)	15.5
I4	16 May 2023	Weather	Overcast
I4	16 May 2023	Visibility (mi)	6
I4	16 May 2023	Wind Speed (kts)	9.3
I4	16 May 2023	Wind Dir	NW
I4	16 May 2023	Water Color	Blueish-Green
I4	16 May 2023	Wave Ht Low (ft)	3
I4	16 May 2023	Wave Period (sec)	15
I4	16 May 2023	Sea State	Wind Ripples
I4	16 May 2023	High Tide (ft)	5.71
I4	16 May 2023	High Tide Time	1948
I4	16 May 2023	Low Tide (ft)	0.21
I4	16 May 2023	Low Tide Time	148
I4	16 May 2023	Comments	none
I5	16 May 2023	Depth (m)	14
I5	16 May 2023	Arrive Time	1033
I5	16 May 2023	Depart Time	1039
I5	16 May 2023	Air Temp (C)	15.5
I5	16 May 2023	Weather	Overcast
I5	16 May 2023	Visibility (mi)	6
I5	16 May 2023	Wind Speed (kts)	6.4
I5	16 May 2023	Wind Dir	N
I5	16 May 2023	Water Color	Green
I5	16 May 2023	Wave Ht Low (ft)	3
I5	16 May 2023	Wave Period (sec)	15
I5	16 May 2023	Sea State	Wind Ripples
I5	16 May 2023	High Tide (ft)	5.71
I5	16 May 2023	High Tide Time	1948
I5	16 May 2023	Low Tide (ft)	0.21
I5	16 May 2023	Low Tide Time	148
I5	16 May 2023	Comments	none
I6	16 May 2023	Depth (m)	25
I6	16 May 2023	Arrive Time	1051
I6	16 May 2023	Depart Time	1055
I6	16 May 2023	Air Temp (C)	15.3
I6	16 May 2023	Weather	Overcast
I6	16 May 2023	Visibility (mi)	6
I6	16 May 2023	Wind Speed (kts)	9.9
I6	16 May 2023	Wind Dir	W
I6	16 May 2023	Water Color	Green
I6	16 May 2023	Wave Ht Low (ft)	3
I6	16 May 2023	Wave Period (sec)	15
I6	16 May 2023	Sea State	Wind Ripples
I6	16 May 2023	High Tide (ft)	5.71
I6	16 May 2023	High Tide Time	1948

Station	Date	Parameter	Value
I6	16 May 2023	Low Tide (ft)	0.21
I6	16 May 2023	Low Tide Time	148
I6	16 May 2023	Comments	none
I7	16 May 2023	Depth (m)	52
I7	16 May 2023	Arrive Time	857
I7	16 May 2023	Depart Time	910
I7	16 May 2023	Air Temp (C)	15.5
I7	16 May 2023	Weather	Overcast
I7	16 May 2023	Visibility (mi)	6
I7	16 May 2023	Wind Speed (kts)	4
I7	16 May 2023	Wind Dir	N
I7	16 May 2023	Water Color	Blue
I7	16 May 2023	Wave Ht Low (ft)	3
I7	16 May 2023	Wave Period (sec)	15
I7	16 May 2023	Sea State	Wind Ripples
I7	16 May 2023	High Tide (ft)	5.71
I7	16 May 2023	High Tide Time	1948
I7	16 May 2023	Low Tide (ft)	0.21
I7	16 May 2023	Low Tide Time	148
I7	16 May 2023	Comments	none
I8	16 May 2023	Depth (m)	36
I8	16 May 2023	Arrive Time	1151
I8	16 May 2023	Depart Time	1156
I8	16 May 2023	Air Temp (C)	15.8
I8	16 May 2023	Weather	Overcast
I8	16 May 2023	Visibility (mi)	6
I8	16 May 2023	Wind Speed (kts)	3.8
I8	16 May 2023	Wind Dir	NW
I8	16 May 2023	Water Color	Green
I8	16 May 2023	Wave Ht Low (ft)	3
I8	16 May 2023	Wave Period (sec)	15
I8	16 May 2023	Sea State	Wind Ripples
I8	16 May 2023	High Tide (ft)	5.71
I8	16 May 2023	High Tide Time	1948
I8	16 May 2023	Low Tide (ft)	0.21
I8	16 May 2023	Low Tide Time	148
I8	16 May 2023	Comments	none
I9	16 May 2023	Depth (m)	30
I9	16 May 2023	Arrive Time	1132
I9	16 May 2023	Depart Time	1140
I9	16 May 2023	Air Temp (C)	15.8
I9	16 May 2023	Weather	Overcast
I9	16 May 2023	Visibility (mi)	6
I9	16 May 2023	Wind Speed (kts)	4.2
I9	16 May 2023	Wind Dir	N
I9	16 May 2023	Water Color	Green
I9	16 May 2023	Wave Ht Low (ft)	3
I9	16 May 2023	Wave Period (sec)	15
I9	16 May 2023	Sea State	Wind Ripples
I9	16 May 2023	High Tide (ft)	5.71
I9	16 May 2023	High Tide Time	1948
I9	16 May 2023	Low Tide (ft)	0.21
I9	16 May 2023	Low Tide Time	148
I9	16 May 2023	Comments	none

**Table 4.6**

Summary of CTD profile data from the SBOO offshore stations for each sample date.

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I1	16 May 2023	1	17.18	90.86	8.2	33.51	8.2	24.3	0.48
I1	16 May 2023	2	17.18	90.50	8.2	33.51	8.2	24.3	0.47
I1	16 May 2023	3	17.18	90.79	8.2	33.51	8.2	24.3	0.50
I1	16 May 2023	4	17.17	90.80	8.2	33.51	8.2	24.3	0.52
I1	16 May 2023	5	17.15	90.82	8.3	33.51	8.2	24.3	0.53
I1	16 May 2023	6	17.09	90.65	8.3	33.51	8.2	24.4	0.55
I1	16 May 2023	7	16.99	90.56	8.4	33.51	8.2	24.4	0.58
I1	16 May 2023	8	16.83	90.63	8.3	33.51	8.2	24.4	0.62
I1	16 May 2023	9	16.50	90.69	8.4	33.51	8.2	24.5	0.70
I1	16 May 2023	10	16.03	90.43	8.5	33.50	8.2	24.6	0.88
I1	16 May 2023	11	15.53	90.00	8.5	33.49	8.1	24.7	1.10
I1	16 May 2023	12	14.81	89.31	8.6	33.47	8.1	24.8	1.50
I1	16 May 2023	13	13.80	88.55	8.6	33.48	8.1	25.0	2.12
I1	16 May 2023	14	13.21	87.39	8.4	33.45	8.1	25.2	2.55
I1	16 May 2023	15	13.10	86.32	8.1	33.45	8.1	25.2	2.42
I1	16 May 2023	16	12.82	86.79	7.5	33.44	8.0	25.2	2.27
I1	16 May 2023	17	12.63	88.18	7.1	33.45	8.0	25.3	2.11
I1	16 May 2023	18	12.57	89.01	6.9	33.46	8.0	25.3	1.93
I1	16 May 2023	19	12.43	89.34	6.6	33.47	8.0	25.3	1.87
I1	16 May 2023	20	12.12	90.07	6.2	33.47	7.9	25.4	2.01
I1	16 May 2023	21	11.93	90.29	6.0	33.46	7.9	25.4	2.12
I1	16 May 2023	22	11.86	90.50	6.0	33.46	7.9	25.4	2.51
I1	16 May 2023	23	11.82	90.46	5.9	33.47	7.9	25.4	1.88
I1	16 May 2023	24	11.78	90.75	5.9	33.47	7.9	25.4	1.79
I1	16 May 2023	25	11.72	90.57	5.8	33.48	7.9	25.5	1.84
I1	16 May 2023	26	11.65	90.56	5.5	33.52	7.9	25.5	1.87
I1	16 May 2023	27	11.56	90.75	5.3	33.53	7.9	25.5	1.79
I1	16 May 2023	28	11.49	91.01	5.3	33.54	7.8	25.5	1.70
I1	16 May 2023	29	11.43	91.54	5.2	33.55	7.8	25.6	1.39
I1	16 May 2023	30	11.25	92.01	5.1	33.58	7.8	25.6	1.35
I1	16 May 2023	31	11.20	92.25	5.0	33.58	7.8	25.6	1.05
I1	16 May 2023	32	11.12	92.63	4.9	33.60	7.8	25.7	0.87
I1	16 May 2023	33	11.09	93.11	4.8	33.61	7.8	25.7	0.83
I1	16 May 2023	34	11.08	93.20	4.8	33.62	7.8	25.7	0.78
I1	16 May 2023	35	11.07	93.33	4.7	33.63	7.8	25.7	0.76
I1	16 May 2023	36	11.05	93.48	4.7	33.64	7.8	25.7	0.73
I1	16 May 2023	37	11.03	93.49	4.7	33.65	7.8	25.7	0.71
I1	16 May 2023	38	11.02	93.52	4.6	33.65	7.8	25.7	0.69
I1	16 May 2023	39	11.01	93.55	4.6	33.65	7.8	25.7	0.69
I1	16 May 2023	40	10.99	93.51	4.6	33.66	7.8	25.7	0.65
I1	16 May 2023	41	10.88	93.54	4.5	33.68	7.8	25.8	0.59
I1	16 May 2023	42	10.84	93.54	4.4	33.69	7.8	25.8	0.55
I1	16 May 2023	43	10.83	93.62	4.4	33.69	7.8	25.8	0.53
I1	16 May 2023	44	10.81	93.63	4.4	33.70	7.8	25.8	0.56
I1	16 May 2023	45	10.80	93.59	4.4	33.70	7.8	25.8	0.54
I1	16 May 2023	46	10.79	93.55	4.4	33.70	7.8	25.8	0.54
I1	16 May 2023	47	10.80	93.41	4.3	33.70	7.8	25.8	0.55
I1	16 May 2023	48	10.80	93.44	4.3	33.70	7.8	25.8	0.54
I1	16 May 2023	49	10.77	93.42	4.3	33.71	7.8	25.8	0.51
I1	16 May 2023	50	10.69	93.40	4.2	33.73	7.8	25.8	0.46
I1	16 May 2023	51	10.61	93.54	4.2	33.74	7.8	25.9	0.42
I1	16 May 2023	52	10.55	93.62	4.1	33.75	7.7	25.9	0.39
I1	16 May 2023	53	10.50	93.59	4.1	33.77	7.7	25.9	0.35
I1	16 May 2023	54	10.45	93.60	4.0	33.78	7.7	25.9	0.33
I1	16 May 2023	55	10.45	93.49	4.0	33.78	7.7	25.9	0.31
I1	16 May 2023	56	10.44	93.28	3.9	33.79	7.7	25.9	0.31

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I1	16 May 2023	57	10.43	93.09	3.9	33.79	7.7	25.9	0.32
I1	16 May 2023	58	10.43	92.93	3.8	33.80	7.7	25.9	0.31
I1	16 May 2023	59	10.43	92.79	3.8	33.80	7.7	25.9	0.32
I1	16 May 2023	60	10.42	92.73	3.8	33.80	7.7	25.9	0.31
I10	16 May 2023	1	16.02	78.55	8.3	33.57	8.1	24.6	2.70
I10	16 May 2023	2	15.90	78.65	8.2	33.56	8.1	24.7	2.86
I10	16 May 2023	3	15.69	79.33	8.1	33.57	8.1	24.7	3.12
I10	16 May 2023	4	15.44	79.68	7.5	33.57	8.1	24.8	2.95
I10	16 May 2023	5	14.04	81.16	6.8	33.59	8.1	25.1	2.56
I10	16 May 2023	6	13.33	83.39	6.6	33.56	8.0	25.2	2.54
I10	16 May 2023	7	12.97	84.83	6.5	33.54	8.0	25.3	2.62
I10	16 May 2023	8	12.94	86.13	6.5	33.53	8.0	25.3	2.66
I10	16 May 2023	9	12.93	86.77	6.6	33.53	8.0	25.3	2.69
I10	16 May 2023	10	12.89	86.98	6.5	33.53	8.0	25.3	2.76
I10	16 May 2023	11	12.69	87.03	6.4	33.51	8.0	25.3	2.53
I10	16 May 2023	12	12.46	87.34	6.3	33.51	7.9	25.3	2.47
I10	16 May 2023	13	12.10	87.88	6.1	33.49	7.9	25.4	2.18
I10	16 May 2023	14	11.95	88.57	6.0	33.50	7.9	25.4	1.86
I10	16 May 2023	15	11.74	89.60	5.9	33.48	7.9	25.5	1.86
I10	16 May 2023	16	11.64	89.98	5.9	33.49	7.9	25.5	2.43
I10	16 May 2023	17	11.64	89.49	5.8	33.51	7.9	25.5	2.70
I10	16 May 2023	18	11.59	89.09	5.5	33.53	7.9	25.5	2.93
I10	16 May 2023	19	11.45	88.73	5.0	33.57	7.8	25.6	2.65
I11	16 May 2023	1	16.09	79.68	8.0	33.55	8.1	24.6	2.33
I11	16 May 2023	2	15.66	79.57	7.5	33.59	8.1	24.7	2.35
I11	16 May 2023	3	14.00	80.62	6.8	33.63	8.0	25.1	2.21
I11	16 May 2023	4	13.52	83.72	6.5	33.57	8.0	25.2	1.88
I11	16 May 2023	5	13.33	86.01	6.5	33.56	8.0	25.2	1.84
I11	16 May 2023	6	12.93	86.42	6.5	33.56	8.0	25.3	1.88
I11	16 May 2023	7	12.82	86.70	6.5	33.54	8.0	25.3	1.99
I11	16 May 2023	8	12.69	87.29	6.2	33.55	8.0	25.3	2.05
I11	16 May 2023	9	12.23	87.93	6.0	33.57	7.9	25.4	2.41
I11	16 May 2023	10	11.95	88.12	5.8	33.56	7.9	25.5	2.71
I11	16 May 2023	11	11.85	87.29	5.4	33.57	7.9	25.5	3.12
I11	16 May 2023	12	11.67	86.40	4.7	33.61	7.8	25.6	1.89
I11	16 May 2023	13	11.71	73.69	4.6	33.60	7.8	25.6	1.78
I12	18 May 2023	1	15.99	74.93	9.4	33.59	8.2	24.7	2.98
I12	18 May 2023	2	15.99	75.12	9.4	33.59	8.2	24.7	3.15
I12	18 May 2023	3	15.98	75.61	9.4	33.59	8.2	24.7	3.63
I12	18 May 2023	4	15.96	76.32	9.4	33.59	8.2	24.7	4.12
I12	18 May 2023	5	15.94	76.38	9.2	33.60	8.2	24.7	4.24
I12	18 May 2023	6	15.66	76.84	8.6	33.60	8.2	24.7	4.65
I12	18 May 2023	7	15.09	76.69	7.4	33.60	8.1	24.9	5.06
I12	18 May 2023	8	13.99	76.69	6.5	33.61	8.0	25.1	4.35
I12	18 May 2023	9	13.84	82.95	6.1	33.58	8.0	25.1	3.26
I12	18 May 2023	10	13.35	86.27	5.9	33.55	8.0	25.2	2.94
I12	18 May 2023	11	12.44	86.65	5.8	33.49	7.9	25.3	2.38
I12	18 May 2023	12	12.16	87.55	5.6	33.47	7.9	25.4	2.04
I12	18 May 2023	13	11.97	87.40	5.6	33.44	7.9	25.4	2.07
I12	18 May 2023	14	12.01	87.50	5.8	33.51	7.9	25.4	1.68
I12	18 May 2023	15	11.94	89.25	5.9	33.52	7.9	25.4	1.64
I12	18 May 2023	16	11.89	90.13	5.9	33.52	7.9	25.5	1.75
I12	18 May 2023	17	11.85	90.57	5.8	33.52	7.9	25.5	1.65
I12	18 May 2023	18	11.80	90.66	5.8	33.52	7.9	25.5	1.80
I12	18 May 2023	19	11.73	90.85	5.7	33.52	7.9	25.5	1.63
I12	18 May 2023	20	11.62	91.08	5.6	33.53	7.9	25.5	1.62
I12	18 May 2023	21	11.43	91.09	5.3	33.55	7.9	25.6	1.55
I12	18 May 2023	22	11.32	91.07	5.0	33.57	7.8	25.6	1.68

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I12	18 May 2023	23	11.30	90.21	4.8	33.58	7.8	25.6	1.80
I12	18 May 2023	24	11.30	87.44	4.8	33.59	7.8	25.6	1.92
I12	18 May 2023	25	11.29	84.86	4.8	33.59	7.8	25.6	2.10
I12	18 May 2023	26	11.29	82.75	4.7	33.60	7.8	25.6	2.22
I12	18 May 2023	27	11.29	80.07	4.7	33.60	7.8	25.6	2.48
I12	18 May 2023	28	11.30	77.74	4.7	33.60	7.8	25.6	2.43
I13	18 May 2023	1	15.56	77.69	8.5	33.58	8.1	24.8	3.02
I13	18 May 2023	2	15.62	77.65	8.6	33.58	8.2	24.7	3.03
I13	18 May 2023	3	15.60	77.76	8.5	33.58	8.2	24.7	3.19
I13	18 May 2023	4	15.56	78.05	8.3	33.58	8.1	24.8	3.61
I13	18 May 2023	5	15.25	79.45	7.8	33.59	8.1	24.8	3.69
I13	18 May 2023	6	15.16	81.40	7.4	33.58	8.1	24.8	3.55
I13	18 May 2023	7	14.71	83.35	6.8	33.60	8.1	25.0	3.27
I13	18 May 2023	8	14.14	86.02	6.3	33.60	8.0	25.1	2.49
I13	18 May 2023	9	13.30	87.12	6.2	33.60	8.0	25.2	2.14
I13	18 May 2023	10	13.01	88.29	6.1	33.58	8.0	25.3	2.06
I13	18 May 2023	11	12.85	89.10	6.0	33.58	7.9	25.3	1.91
I13	18 May 2023	12	12.78	89.02	5.8	33.58	7.9	25.3	1.84
I13	18 May 2023	13	12.44	89.34	5.7	33.59	7.9	25.4	1.75
I13	18 May 2023	14	12.13	89.96	5.6	33.57	7.9	25.5	1.61
I13	18 May 2023	15	11.95	90.65	5.6	33.56	7.9	25.5	1.55
I13	18 May 2023	16	11.79	90.89	5.6	33.55	7.9	25.5	1.94
I13	18 May 2023	17	11.76	91.15	5.5	33.55	7.9	25.5	1.62
I13	18 May 2023	18	11.47	91.31	5.3	33.55	7.9	25.6	2.44
I13	18 May 2023	19	11.36	91.54	5.2	33.55	7.8	25.6	1.53
I13	18 May 2023	20	11.29	91.95	5.1	33.56	7.8	25.6	1.50
I13	18 May 2023	21	11.28	92.18	5.1	33.56	7.8	25.6	1.35
I13	18 May 2023	22	11.20	92.31	5.1	33.57	7.8	25.6	1.25
I13	18 May 2023	23	11.18	92.57	5.0	33.57	7.8	25.6	1.20
I13	18 May 2023	24	11.16	92.65	4.9	33.58	7.8	25.6	1.09
I13	18 May 2023	25	11.08	92.61	4.7	33.62	7.8	25.7	1.03
I13	18 May 2023	26	11.06	92.09	4.6	33.63	7.8	25.7	0.97
I13	18 May 2023	27	11.06	91.61	4.5	33.64	7.8	25.7	1.06
I13	18 May 2023	28	11.06	91.33	4.5	33.64	7.8	25.7	0.99
I13	18 May 2023	29	11.05	91.33	4.5	33.64	7.8	25.7	0.97
I13	18 May 2023	30	11.06	91.33	4.5	33.64	7.8	25.7	0.92
I13	18 May 2023	31	11.06	91.29	4.5	33.64	7.8	25.7	0.92
I13	18 May 2023	32	11.06	91.05	4.5	33.64	7.8	25.7	0.95
I13	18 May 2023	33	11.06	91.10	4.5	33.64	7.8	25.7	0.99
I13	18 May 2023	34	11.06	90.97	4.5	33.64	7.8	25.7	0.97
I13	18 May 2023	35	11.06	90.99	4.5	33.64	7.8	25.7	0.93
I13	18 May 2023	36	11.06	90.96	4.5	33.64	7.8	25.7	0.99
I13	18 May 2023	37	11.06	90.93	4.5	33.64	7.8	25.7	1.01
I13	18 May 2023	38	11.06	90.92	4.5	33.64	7.8	25.7	1.00
I14	18 May 2023	1	15.96	75.48	9.5	33.59	8.2	24.7	2.22
I14	18 May 2023	2	15.96	76.24	9.5	33.60	8.2	24.7	2.20
I14	18 May 2023	3	15.94	76.24	9.4	33.60	8.2	24.7	2.62
I14	18 May 2023	4	15.84	76.96	9.2	33.60	8.2	24.7	3.35
I14	18 May 2023	5	15.69	77.41	8.8	33.59	8.2	24.7	4.50
I14	18 May 2023	6	15.32	77.62	7.7	33.59	8.2	24.8	4.70
I14	18 May 2023	7	13.45	79.53	6.5	33.50	8.0	25.1	3.85
I14	18 May 2023	8	12.78	82.12	6.1	33.42	8.0	25.2	3.12
I14	18 May 2023	9	12.71	81.98	6.0	33.41	8.0	25.2	2.96
I14	18 May 2023	10	12.65	82.18	6.0	33.42	7.9	25.2	2.70
I14	18 May 2023	11	12.72	83.75	6.0	33.46	7.9	25.3	2.21
I14	18 May 2023	12	12.86	86.86	5.9	33.57	7.9	25.3	2.15
I14	18 May 2023	13	12.68	88.52	5.8	33.57	7.9	25.3	1.85
I14	18 May 2023	14	12.23	88.89	5.8	33.53	7.9	25.4	1.83
I14	18 May 2023	15	12.07	89.16	5.8	33.51	7.9	25.4	1.92

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I14	18 May 2023	16	12.04	89.60	5.8	33.51	7.9	25.4	1.78
I14	18 May 2023	17	11.84	89.74	5.8	33.52	7.9	25.5	1.62
I14	18 May 2023	18	11.72	90.64	5.7	33.52	7.9	25.5	1.71
I14	18 May 2023	19	11.65	90.80	5.6	33.53	7.9	25.5	1.50
I14	18 May 2023	20	11.55	90.79	5.4	33.54	7.9	25.5	1.42
I14	18 May 2023	21	11.38	90.37	5.1	33.57	7.8	25.6	1.45
I14	18 May 2023	22	11.31	86.69	4.8	33.58	7.8	25.6	1.72
I14	18 May 2023	23	11.31	84.47	4.8	33.59	7.8	25.6	1.91
I14	18 May 2023	24	11.31	83.69	4.8	33.59	7.8	25.6	2.10
I14	18 May 2023	25	11.30	83.00	4.8	33.59	7.8	25.6	2.20
I14	18 May 2023	26	11.30	81.75	4.8	33.59	7.8	25.6	2.05
I14	18 May 2023	27	11.30	81.63	4.8	33.59	7.8	25.6	1.92
I14	18 May 2023	28	11.30	80.63	4.8	33.59	7.8	25.6	2.01
I15	18 May 2023	1	15.95	77.23	9.0	33.59	8.2	24.7	3.03
I15	18 May 2023	2	15.95	77.56	9.1	33.59	8.2	24.7	3.22
I15	18 May 2023	3	15.94	77.23	9.0	33.59	8.2	24.7	3.76
I15	18 May 2023	4	15.85	77.49	8.7	33.59	8.2	24.7	4.11
I15	18 May 2023	5	15.60	77.87	8.4	33.59	8.2	24.8	4.58
I15	18 May 2023	6	15.44	78.23	8.2	33.59	8.1	24.8	5.05
I15	18 May 2023	7	15.31	77.11	8.0	33.59	8.1	24.8	5.77
I15	18 May 2023	8	15.13	75.99	7.6	33.60	8.1	24.9	6.08
I15	18 May 2023	9	14.71	76.55	6.9	33.59	8.1	25.0	5.81
I15	18 May 2023	10	14.33	78.95	6.3	33.58	8.0	25.0	4.73
I15	18 May 2023	11	12.83	83.56	5.9	33.48	8.0	25.2	3.64
I15	18 May 2023	12	12.07	84.39	5.6	33.45	7.9	25.4	2.61
I15	18 May 2023	13	12.10	85.07	5.5	33.46	7.9	25.4	2.24
I15	18 May 2023	14	12.06	85.28	5.6	33.49	7.9	25.4	1.89
I15	18 May 2023	15	11.89	86.90	5.6	33.49	7.9	25.4	2.02
I15	18 May 2023	16	11.64	88.30	5.5	33.48	7.9	25.5	1.67
I15	18 May 2023	17	11.66	88.60	5.5	33.48	7.9	25.5	1.72
I15	18 May 2023	18	11.65	88.98	5.6	33.51	7.9	25.5	1.51
I15	18 May 2023	19	11.59	89.90	5.6	33.52	7.9	25.5	1.39
I15	18 May 2023	20	11.54	91.15	5.5	33.53	7.9	25.5	1.49
I15	18 May 2023	21	11.48	91.54	5.4	33.53	7.9	25.5	1.47
I15	18 May 2023	22	11.40	91.39	5.2	33.55	7.9	25.6	1.35
I15	18 May 2023	23	11.32	91.73	5.0	33.57	7.8	25.6	1.46
I15	18 May 2023	24	11.30	90.91	4.9	33.58	7.8	25.6	1.48
I15	18 May 2023	25	11.29	89.73	4.9	33.58	7.8	25.6	1.67
I15	18 May 2023	26	11.28	88.21	4.8	33.59	7.8	25.6	1.70
I15	18 May 2023	27	11.27	85.92	4.8	33.59	7.8	25.6	1.97
I15	18 May 2023	28	11.27	84.20	4.7	33.60	7.8	25.6	1.89
I15	18 May 2023	29	11.27	82.83	4.7	33.60	7.8	25.6	1.84
I15	18 May 2023	30	11.27	81.76	4.7	33.60	7.8	25.6	1.91
I15	18 May 2023	31	11.27	81.49	4.7	33.60	7.8	25.6	1.97
I16	18 May 2023	1	15.90	76.11	9.4	33.59	8.2	24.7	3.18
I16	18 May 2023	2	15.93	76.34	9.5	33.59	8.2	24.7	3.30
I16	18 May 2023	3	15.90	76.34	9.3	33.60	8.2	24.7	3.54
I16	18 May 2023	4	15.73	76.30	8.8	33.59	8.2	24.7	4.15
I16	18 May 2023	5	15.18	76.97	7.8	33.60	8.2	24.9	4.39
I16	18 May 2023	6	13.84	79.30	6.9	33.53	8.1	25.1	3.95
I16	18 May 2023	7	13.56	81.92	6.6	33.48	8.0	25.1	3.30
I16	18 May 2023	8	13.54	82.83	6.6	33.46	8.0	25.1	3.02
I16	18 May 2023	9	13.46	82.72	6.6	33.46	8.0	25.1	3.01
I16	18 May 2023	10	13.44	82.78	6.4	33.48	8.0	25.1	3.38
I16	18 May 2023	11	13.16	83.53	6.2	33.49	8.0	25.2	3.20
I16	18 May 2023	12	12.71	84.92	6.0	33.48	7.9	25.3	2.39
I16	18 May 2023	13	12.40	85.91	5.8	33.44	7.9	25.3	2.35
I16	18 May 2023	14	12.44	84.77	5.8	33.54	7.9	25.4	2.10
I16	18 May 2023	15	12.09	87.62	5.8	33.52	7.9	25.4	1.84

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I16	18 May 2023	16	11.90	89.35	5.8	33.53	7.9	25.5	1.90
I16	18 May 2023	17	11.78	90.23	5.8	33.52	7.9	25.5	1.65
I16	18 May 2023	18	11.68	90.51	5.7	33.52	7.9	25.5	1.41
I16	18 May 2023	19	11.62	90.84	5.6	33.53	7.9	25.5	1.53
I16	18 May 2023	20	11.49	90.96	5.3	33.54	7.9	25.5	1.63
I16	18 May 2023	21	11.35	91.17	5.1	33.56	7.8	25.6	1.58
I16	18 May 2023	22	11.30	90.75	4.9	33.58	7.8	25.6	2.01
I16	18 May 2023	23	11.30	87.83	4.8	33.59	7.8	25.6	2.01
I16	18 May 2023	24	11.30	84.33	4.8	33.59	7.8	25.6	2.19
I16	18 May 2023	25	11.30	81.73	4.8	33.59	7.8	25.6	2.20
I16	18 May 2023	26	11.30	79.29	4.7	33.59	7.8	25.6	2.16
I16	18 May 2023	27	11.31	76.12	4.7	33.59	7.8	25.6	2.06
I17	18 May 2023	1	15.90	78.14	9.2	33.60	8.2	24.7	3.01
I17	18 May 2023	2	15.90	77.96	9.2	33.60	8.2	24.7	3.23
I17	18 May 2023	3	15.90	78.14	9.2	33.60	8.2	24.7	3.60
I17	18 May 2023	4	15.89	78.20	9.1	33.60	8.2	24.7	3.86
I17	18 May 2023	5	15.84	78.29	9.0	33.59	8.2	24.7	4.14
I17	18 May 2023	6	15.81	78.86	8.5	33.59	8.2	24.7	4.28
I17	18 May 2023	7	14.98	78.96	7.6	33.57	8.2	24.9	4.09
I17	18 May 2023	8	13.89	80.82	6.8	33.51	8.0	25.1	3.62
I17	18 May 2023	9	13.55	82.88	6.3	33.51	8.0	25.1	3.15
I17	18 May 2023	10	13.04	85.03	6.0	33.55	8.0	25.3	2.71
I17	18 May 2023	11	12.67	87.10	5.9	33.52	7.9	25.3	2.51
I17	18 May 2023	12	12.70	87.90	5.8	33.53	7.9	25.3	2.09
I17	18 May 2023	13	12.40	88.45	5.8	33.52	7.9	25.4	1.95
I17	18 May 2023	14	12.24	88.46	5.9	33.50	7.9	25.4	1.95
I17	18 May 2023	15	12.03	89.08	5.9	33.53	7.9	25.4	1.77
I17	18 May 2023	16	11.89	90.36	5.9	33.52	7.9	25.5	1.76
I17	18 May 2023	17	11.80	90.67	5.8	33.52	7.9	25.5	1.52
I17	18 May 2023	18	11.67	90.58	5.7	33.52	7.9	25.5	1.72
I17	18 May 2023	19	11.57	90.84	5.5	33.53	7.9	25.5	1.58
I17	18 May 2023	20	11.43	90.61	5.2	33.55	7.9	25.6	1.54
I17	18 May 2023	21	11.34	90.34	5.0	33.57	7.8	25.6	1.83
I17	18 May 2023	22	11.33	88.25	4.9	33.58	7.8	25.6	1.84
I17	18 May 2023	23	11.33	84.75	4.8	33.58	7.8	25.6	2.32
I17	18 May 2023	24	11.33	82.61	4.8	33.59	7.8	25.6	2.22
I17	18 May 2023	25	11.33	81.68	4.8	33.59	7.8	25.6	2.38
I18	18 May 2023	1	15.68	71.41	9.2	33.54	8.2	24.7	5.57
I18	18 May 2023	2	15.68	71.16	9.2	33.54	8.2	24.7	6.04
I18	18 May 2023	3	15.68	71.36	9.2	33.54	8.2	24.7	6.38
I18	18 May 2023	4	15.67	71.30	9.2	33.54	8.2	24.7	6.39
I18	18 May 2023	5	15.64	71.24	9.1	33.54	8.2	24.7	6.52
I18	18 May 2023	6	15.56	71.62	8.9	33.54	8.2	24.7	6.47
I18	18 May 2023	7	15.46	72.21	8.7	33.54	8.2	24.7	6.20
I18	18 May 2023	8	15.31	73.13	8.3	33.54	8.2	24.8	5.79
I18	18 May 2023	9	15.04	74.42	7.7	33.55	8.1	24.8	5.28
I18	18 May 2023	10	14.20	76.47	6.9	33.57	8.1	25.0	4.34
I18	18 May 2023	11	12.97	81.37	6.4	33.55	8.0	25.3	3.27
I18	18 May 2023	12	12.10	86.52	6.1	33.52	7.9	25.4	2.50
I18	18 May 2023	13	11.93	88.82	6.0	33.49	7.9	25.4	2.22
I18	18 May 2023	14	11.89	89.24	6.0	33.49	7.9	25.4	2.10
I18	18 May 2023	15	11.82	89.13	5.8	33.48	7.9	25.4	2.20
I18	18 May 2023	16	11.73	88.34	5.4	33.53	7.9	25.5	2.31
I18	18 May 2023	17	11.71	82.05	5.0	33.55	7.8	25.5	2.43
I18	18 May 2023	18	11.70	75.91	5.0	33.56	7.8	25.5	2.12
I18	18 May 2023	19	11.70	74.67	5.0	33.56	7.8	25.5	2.01
I2	16 May 2023	1	16.61	85.89	8.1	33.53	8.1	24.5	1.37
I2	16 May 2023	2	16.60	85.99	8.1	33.53	8.1	24.5	1.49

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I2	16 May 2023	3	16.58	86.01	8.0	33.53	8.1	24.5	1.54
I2	16 May 2023	4	16.18	86.09	7.9	33.54	8.1	24.6	1.72
I2	16 May 2023	5	15.88	85.84	7.8	33.53	8.1	24.6	2.08
I2	16 May 2023	6	15.56	84.62	8.0	33.53	8.1	24.7	2.27
I2	16 May 2023	7	14.87	83.91	8.1	33.53	8.1	24.9	2.13
I2	16 May 2023	8	14.25	85.77	7.8	33.54	8.1	25.0	2.01
I2	16 May 2023	9	14.06	87.19	7.6	33.54	8.1	25.0	2.00
I2	16 May 2023	10	13.77	88.08	7.3	33.55	8.1	25.1	2.06
I2	16 May 2023	11	13.30	88.58	7.0	33.54	8.0	25.2	2.20
I2	16 May 2023	12	13.14	88.42	6.8	33.52	8.0	25.2	2.42
I2	16 May 2023	13	12.53	88.35	6.6	33.52	8.0	25.3	2.35
I2	16 May 2023	14	12.30	88.54	6.4	33.51	8.0	25.4	2.48
I2	16 May 2023	15	12.07	88.97	6.2	33.50	7.9	25.4	2.30
I2	16 May 2023	16	11.90	89.27	6.1	33.49	7.9	25.4	2.22
I2	16 May 2023	17	11.82	89.56	6.0	33.49	7.9	25.4	2.33
I2	16 May 2023	18	11.75	89.93	6.0	33.49	7.9	25.5	2.08
I2	16 May 2023	19	11.71	90.11	5.9	33.49	7.9	25.5	1.95
I2	16 May 2023	20	11.67	90.07	5.9	33.50	7.9	25.5	2.01
I2	16 May 2023	21	11.62	90.35	5.8	33.51	7.9	25.5	1.97
I2	16 May 2023	22	11.58	90.44	5.8	33.51	7.9	25.5	2.05
I2	16 May 2023	23	11.53	90.60	5.7	33.51	7.9	25.5	1.86
I2	16 May 2023	24	11.46	90.74	5.5	33.53	7.9	25.5	1.91
I2	16 May 2023	25	11.41	90.57	5.4	33.54	7.9	25.6	1.83
I2	16 May 2023	26	11.38	90.32	5.3	33.55	7.8	25.6	1.87
I2	16 May 2023	27	11.31	90.08	5.1	33.58	7.8	25.6	1.98
I2	16 May 2023	28	11.28	89.76	5.0	33.58	7.8	25.6	1.87
I2	16 May 2023	29	11.28	89.36	5.0	33.58	7.8	25.6	1.72
I2	16 May 2023	30	11.27	89.26	5.0	33.59	7.8	25.6	1.83
I2	16 May 2023	31	11.27	89.07	5.0	33.59	7.8	25.6	1.72
I2	16 May 2023	32	11.27	88.96	5.0	33.59	7.8	25.6	1.82
I20	18 May 2023	1	15.85	82.99	7.8	33.52	8.1	24.6	2.19
I20	18 May 2023	2	15.81	83.49	7.7	33.52	8.1	24.7	2.29
I20	18 May 2023	3	15.61	82.66	7.7	33.53	8.1	24.7	2.55
I20	18 May 2023	4	15.50	83.17	7.7	33.55	8.1	24.7	2.76
I20	18 May 2023	5	15.33	82.93	7.7	33.57	8.1	24.8	3.09
I20	18 May 2023	6	15.06	82.89	7.6	33.59	8.1	24.9	3.11
I20	18 May 2023	7	14.69	83.22	7.4	33.60	8.0	25.0	3.36
I20	18 May 2023	8	14.39	83.56	7.1	33.60	8.0	25.0	3.26
I20	18 May 2023	9	14.18	84.62	6.7	33.60	8.0	25.1	2.81
I20	18 May 2023	10	13.55	86.21	6.3	33.61	8.0	25.2	2.33
I20	18 May 2023	11	13.27	87.49	5.9	33.61	7.9	25.3	2.01
I20	18 May 2023	12	13.19	87.87	5.8	33.61	7.9	25.3	1.86
I20	18 May 2023	13	13.12	88.08	5.8	33.61	7.9	25.3	1.81
I20	18 May 2023	14	12.99	88.37	5.7	33.61	7.9	25.3	1.76
I20	18 May 2023	15	12.88	88.65	5.6	33.61	7.9	25.3	1.57
I20	18 May 2023	16	12.73	89.16	5.6	33.62	7.9	25.4	1.54
I20	18 May 2023	17	12.61	89.16	5.5	33.61	7.9	25.4	1.51
I20	18 May 2023	18	12.52	89.45	5.3	33.62	7.9	25.4	1.54
I20	18 May 2023	19	12.07	89.82	5.1	33.63	7.8	25.5	1.36
I20	18 May 2023	20	11.82	90.64	4.9	33.63	7.8	25.6	1.33
I20	18 May 2023	21	11.60	91.28	4.8	33.64	7.8	25.6	1.18
I20	18 May 2023	22	11.42	91.71	4.7	33.64	7.8	25.6	1.10
I20	18 May 2023	23	11.33	91.77	4.6	33.65	7.8	25.7	1.05
I20	18 May 2023	24	11.32	91.92	4.6	33.65	7.8	25.7	1.08
I20	18 May 2023	25	11.20	91.92	4.5	33.66	7.8	25.7	0.99
I20	18 May 2023	26	11.13	92.10	4.5	33.66	7.8	25.7	0.97
I20	18 May 2023	27	11.02	92.30	4.4	33.67	7.8	25.7	0.92
I20	18 May 2023	28	10.99	92.56	4.4	33.68	7.8	25.7	0.86
I20	18 May 2023	29	10.97	92.55	4.3	33.68	7.8	25.8	0.85
I20	18 May 2023	30	10.96	92.60	4.3	33.68	7.8	25.8	0.77

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I20	18 May 2023	31	10.96	92.73	4.3	33.68	7.8	25.8	0.81
I20	18 May 2023	32	10.96	92.79	4.3	33.69	7.8	25.8	0.94
I20	18 May 2023	33	10.91	92.73	4.3	33.69	7.8	25.8	0.75
I20	18 May 2023	34	10.84	93.09	4.3	33.70	7.8	25.8	0.64
I20	18 May 2023	35	10.71	93.34	4.3	33.71	7.8	25.8	0.55
I20	18 May 2023	36	10.58	93.61	4.3	33.73	7.8	25.9	0.46
I20	18 May 2023	37	10.53	93.55	4.2	33.74	7.8	25.9	0.41
I20	18 May 2023	38	10.47	93.72	4.2	33.76	7.8	25.9	0.38
I20	18 May 2023	39	10.45	93.83	4.2	33.76	7.8	25.9	0.35
I20	18 May 2023	40	10.42	93.76	4.1	33.77	7.8	25.9	0.33
I20	18 May 2023	41	10.40	93.81	4.1	33.77	7.8	25.9	0.32
I20	18 May 2023	42	10.38	93.73	4.1	33.78	7.8	25.9	0.30
I20	18 May 2023	43	10.35	93.66	4.0	33.79	7.7	25.9	0.29
I20	18 May 2023	44	10.34	93.64	4.0	33.80	7.7	26.0	0.29
I20	18 May 2023	45	10.34	93.58	4.0	33.80	7.7	26.0	0.28
I20	18 May 2023	46	10.33	93.60	4.0	33.80	7.7	26.0	0.28
I20	18 May 2023	47	10.33	93.53	4.0	33.80	7.7	26.0	0.30
I20	18 May 2023	48	10.33	93.54	4.0	33.80	7.7	26.0	0.28
I20	18 May 2023	49	10.33	93.55	4.0	33.80	7.7	26.0	0.29
I20	18 May 2023	50	10.33	93.52	4.0	33.80	7.7	26.0	0.28
I20	18 May 2023	51	10.33	93.51	3.9	33.80	7.7	26.0	0.28
I20	18 May 2023	52	10.33	93.49	3.9	33.80	7.7	26.0	0.28
I20	18 May 2023	53	10.33	93.40	3.9	33.80	7.7	26.0	0.28
I20	18 May 2023	54	10.32	93.48	3.9	33.80	7.7	26.0	0.28
I20	18 May 2023	55	10.29	93.39	3.8	33.82	7.7	26.0	0.27
I21	18 May 2023	1	15.79	79.18	9.1	33.59	8.2	24.7	3.23
I21	18 May 2023	2	15.78	79.14	9.1	33.59	8.2	24.7	3.50
I21	18 May 2023	3	15.74	78.87	8.8	33.59	8.2	24.7	4.01
I21	18 May 2023	4	15.59	79.20	8.3	33.59	8.2	24.8	4.65
I21	18 May 2023	5	15.19	78.59	7.7	33.59	8.1	24.8	4.56
I21	18 May 2023	6	14.88	78.59	7.4	33.59	8.1	24.9	4.26
I21	18 May 2023	7	14.72	79.89	7.3	33.59	8.1	24.9	4.05
I21	18 May 2023	8	14.56	81.48	7.1	33.59	8.0	25.0	3.59
I21	18 May 2023	9	14.34	82.66	6.9	33.60	8.0	25.0	3.46
I21	18 May 2023	10	14.01	83.25	6.5	33.61	8.0	25.1	3.07
I21	18 May 2023	11	13.64	85.77	6.1	33.61	8.0	25.2	2.48
I21	18 May 2023	12	12.92	86.75	5.7	33.62	7.9	25.3	2.02
I21	18 May 2023	13	12.60	88.13	5.6	33.60	7.9	25.4	1.76
I21	18 May 2023	14	12.54	89.17	5.5	33.60	7.9	25.4	1.75
I21	18 May 2023	15	12.46	89.51	5.4	33.60	7.9	25.4	1.52
I21	18 May 2023	16	12.06	89.83	5.3	33.61	7.9	25.5	1.48
I21	18 May 2023	17	11.82	90.36	5.2	33.59	7.8	25.5	1.47
I21	18 May 2023	18	11.76	90.99	5.2	33.59	7.8	25.5	1.50
I21	18 May 2023	19	11.67	91.15	5.2	33.58	7.8	25.5	1.59
I21	18 May 2023	20	11.57	91.18	5.2	33.58	7.8	25.6	1.37
I21	18 May 2023	21	11.46	91.30	5.1	33.57	7.8	25.6	1.58
I21	18 May 2023	22	11.29	91.43	5.1	33.57	7.8	25.6	1.50
I21	18 May 2023	23	11.23	91.56	5.0	33.58	7.8	25.6	1.40
I21	18 May 2023	24	11.12	92.02	4.9	33.59	7.8	25.7	1.06
I21	18 May 2023	25	11.07	92.52	4.8	33.60	7.8	25.7	0.93
I21	18 May 2023	26	11.05	92.60	4.8	33.61	7.8	25.7	0.87
I21	18 May 2023	27	11.04	92.81	4.7	33.62	7.8	25.7	0.86
I21	18 May 2023	28	11.03	92.97	4.7	33.62	7.8	25.7	0.85
I21	18 May 2023	29	10.99	93.05	4.6	33.63	7.8	25.7	0.80
I21	18 May 2023	30	10.98	93.14	4.6	33.64	7.8	25.7	0.76
I21	18 May 2023	31	10.97	93.12	4.5	33.65	7.8	25.7	0.75
I21	18 May 2023	32	10.96	92.95	4.5	33.65	7.8	25.7	0.78
I21	18 May 2023	33	10.96	92.90	4.5	33.65	7.8	25.7	0.75
I21	18 May 2023	34	10.95	92.91	4.5	33.66	7.8	25.7	0.84
I21	18 May 2023	35	10.94	92.84	4.4	33.66	7.8	25.7	0.74

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I21	18 May 2023	36	10.91	92.49	4.4	33.67	7.8	25.8	0.76
I21	18 May 2023	37	10.89	92.53	4.3	33.67	7.8	25.8	0.77
I21	18 May 2023	38	10.89	92.11	4.3	33.67	7.8	25.8	0.77
I21	18 May 2023	39	10.89	92.14	4.3	33.67	7.8	25.8	0.72
I21	18 May 2023	40	10.88	92.10	4.3	33.68	7.8	25.8	0.70
I21	18 May 2023	41	10.88	92.11	4.3	33.68	7.8	25.8	0.74
I22	18 May 2023	1	15.87	77.74	8.9	33.58	8.2	24.7	4.37
I22	18 May 2023	2	15.87	76.13	8.9	33.58	8.2	24.7	4.70
I22	18 May 2023	3	15.85	74.38	8.9	33.58	8.2	24.7	4.68
I22	18 May 2023	4	15.83	77.87	8.8	33.59	8.2	24.7	4.46
I22	18 May 2023	5	15.79	79.44	8.7	33.59	8.2	24.7	4.18
I22	18 May 2023	6	15.70	80.80	8.6	33.58	8.2	24.7	4.18
I22	18 May 2023	7	15.54	81.07	8.3	33.59	8.2	24.8	4.26
I22	18 May 2023	8	15.21	80.53	7.6	33.60	8.1	24.8	4.57
I22	18 May 2023	9	14.45	80.25	6.7	33.61	8.1	25.0	4.61
I22	18 May 2023	10	13.88	80.36	6.1	33.60	8.0	25.1	3.83
I22	18 May 2023	11	13.63	84.14	6.0	33.60	8.0	25.2	2.81
I22	18 May 2023	12	13.52	87.47	6.0	33.60	8.0	25.2	2.22
I22	18 May 2023	13	13.09	88.63	5.9	33.59	7.9	25.3	1.95
I22	18 May 2023	14	12.78	89.32	5.8	33.58	7.9	25.3	1.73
I22	18 May 2023	15	12.20	89.81	5.8	33.55	7.9	25.4	1.73
I22	18 May 2023	16	11.86	90.35	5.8	33.52	7.9	25.5	1.62
I22	18 May 2023	17	11.74	90.44	5.7	33.51	7.9	25.5	1.61
I22	18 May 2023	18	11.71	90.52	5.7	33.51	7.9	25.5	1.54
I22	18 May 2023	19	11.70	90.67	5.6	33.52	7.9	25.5	1.49
I22	18 May 2023	20	11.68	90.57	5.6	33.52	7.9	25.5	1.55
I22	18 May 2023	21	11.63	90.52	5.5	33.52	7.9	25.5	1.62
I22	18 May 2023	22	11.43	90.37	5.2	33.55	7.9	25.6	1.66
I22	18 May 2023	23	11.33	88.99	4.9	33.58	7.8	25.6	1.86
I22	18 May 2023	24	11.32	85.49	4.8	33.58	7.8	25.6	2.20
I22	18 May 2023	25	11.33	83.27	4.8	33.58	7.8	25.6	1.93
I22	18 May 2023	26	11.32	82.41	4.8	33.59	7.8	25.6	2.02
I22	18 May 2023	27	11.32	81.27	4.8	33.59	7.8	25.6	2.13
I22	18 May 2023	28	11.32	80.55	4.8	33.59	7.8	25.6	2.18
I23	18 May 2023	1	15.05	68.39	8.4	33.50	8.1	24.8	5.80
I23	18 May 2023	2	15.03	68.83	8.3	33.50	8.1	24.8	6.20
I23	18 May 2023	3	15.02	68.97	8.3	33.50	8.1	24.8	6.72
I23	18 May 2023	4	14.93	69.16	8.1	33.52	8.1	24.8	6.70
I23	18 May 2023	5	14.57	71.94	7.5	33.56	8.1	25.0	6.32
I23	18 May 2023	6	13.51	77.05	6.8	33.62	8.0	25.2	5.14
I23	18 May 2023	7	12.57	84.36	6.4	33.57	8.0	25.4	3.99
I23	18 May 2023	8	12.11	87.67	6.2	33.53	7.9	25.4	3.78
I23	18 May 2023	9	11.95	88.27	6.1	33.51	7.9	25.4	2.98
I23	18 May 2023	10	11.81	88.70	6.0	33.50	7.9	25.5	2.64
I23	18 May 2023	11	11.78	88.96	6.0	33.49	7.9	25.5	2.71
I23	18 May 2023	12	11.77	88.73	5.9	33.50	7.9	25.5	2.50
I23	18 May 2023	13	11.77	88.63	5.9	33.50	7.9	25.5	2.51
I23	18 May 2023	14	11.76	88.44	5.8	33.50	7.9	25.5	2.48
I23	18 May 2023	15	11.72	87.94	5.6	33.52	7.9	25.5	2.31
I23	18 May 2023	16	11.71	84.83	5.4	33.54	7.9	25.5	2.17
I23	18 May 2023	17	11.70	80.41	5.4	33.54	7.8	25.5	2.15
I23	18 May 2023	18	11.69	78.88	5.4	33.54	7.8	25.5	2.24
I23	18 May 2023	19	11.68	77.95	5.4	33.54	7.8	25.5	2.47
I23	18 May 2023	20	11.68	76.35	5.3	33.55	7.8	25.5	2.52
I23	18 May 2023	21	11.67	73.12	5.2	33.55	7.8	25.5	2.67
I27	18 May 2023	1	15.83	77.21	9.0	33.58	8.2	24.7	4.35
I27	18 May 2023	2	15.83	77.17	9.0	33.58	8.2	24.7	4.40
I27	18 May 2023	3	15.82	77.44	9.0	33.57	8.2	24.7	4.62

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I27	18 May 2023	4	15.81	77.40	9.0	33.57	8.2	24.7	4.82
I27	18 May 2023	5	15.79	77.37	9.0	33.57	8.2	24.7	5.04
I27	18 May 2023	6	15.77	76.79	9.0	33.57	8.2	24.7	5.12
I27	18 May 2023	7	15.76	76.52	9.0	33.57	8.2	24.7	5.13
I27	18 May 2023	8	15.74	76.60	8.9	33.57	8.2	24.7	5.16
I27	18 May 2023	9	15.71	76.99	8.9	33.57	8.2	24.7	4.90
I27	18 May 2023	10	15.68	77.31	8.8	33.57	8.2	24.7	4.79
I27	18 May 2023	11	15.63	77.55	8.6	33.58	8.2	24.7	4.58
I27	18 May 2023	12	15.48	77.89	8.4	33.58	8.2	24.8	4.57
I27	18 May 2023	13	15.32	78.71	7.9	33.59	8.1	24.8	4.60
I27	18 May 2023	14	14.63	79.40	7.0	33.61	8.1	25.0	4.40
I27	18 May 2023	15	13.78	81.56	6.2	33.61	8.0	25.2	3.86
I27	18 May 2023	16	13.19	86.35	5.9	33.59	8.0	25.3	2.92
I27	18 May 2023	17	12.48	88.67	5.8	33.56	7.9	25.4	2.15
I27	18 May 2023	18	11.89	89.99	5.8	33.53	7.9	25.5	1.86
I27	18 May 2023	19	11.72	90.72	5.8	33.51	7.9	25.5	1.98
I27	18 May 2023	20	11.63	90.95	5.7	33.51	7.9	25.5	1.61
I27	18 May 2023	21	11.58	91.02	5.7	33.51	7.9	25.5	1.39
I27	18 May 2023	22	11.53	90.96	5.6	33.51	7.9	25.5	1.44
I27	18 May 2023	23	11.43	90.82	5.4	33.52	7.9	25.5	1.71
I27	18 May 2023	24	11.32	90.61	5.1	33.57	7.8	25.6	1.37
I27	18 May 2023	25	11.30	87.26	4.9	33.58	7.8	25.6	1.69
I27	18 May 2023	26	11.29	85.16	4.8	33.58	7.8	25.6	1.75
I27	18 May 2023	27	11.29	83.75	4.8	33.58	7.8	25.6	1.74
I27	18 May 2023	28	11.29	82.94	4.8	33.59	7.8	25.6	1.85
I28	19 May 2023	1	17.09	90.23	8.2	33.48	8.2	24.3	0.67
I28	19 May 2023	2	17.10	90.09	8.2	33.48	8.2	24.3	0.67
I28	19 May 2023	3	17.10	90.21	8.2	33.48	8.2	24.3	0.68
I28	19 May 2023	4	16.98	90.31	8.1	33.49	8.2	24.4	0.75
I28	19 May 2023	5	16.13	89.60	8.2	33.52	8.2	24.6	1.33
I28	19 May 2023	6	15.82	87.00	8.1	33.53	8.1	24.7	2.08
I28	19 May 2023	7	15.66	84.91	8.0	33.54	8.1	24.7	2.69
I28	19 May 2023	8	15.44	84.18	8.0	33.56	8.1	24.8	3.25
I28	19 May 2023	9	15.17	83.96	7.8	33.58	8.1	24.8	3.74
I28	19 May 2023	10	14.57	82.87	7.4	33.59	8.1	25.0	3.68
I28	19 May 2023	11	14.47	83.78	7.2	33.59	8.1	25.0	3.83
I28	19 May 2023	12	14.44	84.86	7.2	33.59	8.1	25.0	3.53
I28	19 May 2023	13	14.29	85.50	6.9	33.58	8.1	25.0	3.11
I28	19 May 2023	14	13.77	86.48	6.5	33.60	8.0	25.2	2.74
I28	19 May 2023	15	13.27	87.24	6.3	33.60	8.0	25.3	2.54
I28	19 May 2023	16	13.22	87.93	6.2	33.59	8.0	25.3	2.40
I28	19 May 2023	17	13.22	88.15	6.2	33.59	8.0	25.3	2.29
I28	19 May 2023	18	13.15	88.10	6.2	33.59	8.0	25.3	2.33
I28	19 May 2023	19	13.08	88.20	6.1	33.60	8.0	25.3	2.34
I28	19 May 2023	20	13.03	88.18	5.9	33.60	8.0	25.3	2.24
I28	19 May 2023	21	12.33	88.51	5.5	33.62	7.9	25.5	2.21
I28	19 May 2023	22	11.91	89.50	5.2	33.61	7.9	25.5	1.82
I28	19 May 2023	23	11.84	90.25	5.2	33.60	7.9	25.5	1.55
I28	19 May 2023	24	11.78	90.34	5.2	33.60	7.9	25.5	1.54
I28	19 May 2023	25	11.77	90.77	5.1	33.61	7.9	25.6	1.45
I28	19 May 2023	26	11.75	91.02	5.0	33.62	7.9	25.6	1.38
I28	19 May 2023	27	11.69	91.11	4.9	33.64	7.9	25.6	1.35
I28	19 May 2023	28	11.67	91.40	4.9	33.64	7.8	25.6	1.28
I28	19 May 2023	29	11.49	91.22	4.8	33.64	7.8	25.6	1.17
I28	19 May 2023	30	11.31	91.73	4.6	33.65	7.8	25.7	1.05
I28	19 May 2023	31	11.25	91.98	4.5	33.66	7.8	25.7	0.97
I28	19 May 2023	32	11.05	92.18	4.5	33.67	7.8	25.7	0.87
I28	19 May 2023	33	10.88	92.65	4.4	33.69	7.8	25.8	0.70
I28	19 May 2023	34	10.80	93.07	4.3	33.69	7.8	25.8	0.61
I28	19 May 2023	35	10.75	93.46	4.3	33.70	7.8	25.8	0.60

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I28	19 May 2023	36	10.74	93.66	4.3	33.70	7.8	25.8	0.50
I28	19 May 2023	37	10.73	93.63	4.3	33.71	7.8	25.8	0.48
I28	19 May 2023	38	10.69	93.61	4.3	33.72	7.8	25.8	0.47
I28	19 May 2023	39	10.68	93.74	4.3	33.72	7.8	25.8	0.51
I28	19 May 2023	40	10.67	93.77	4.3	33.72	7.8	25.8	0.47
I28	19 May 2023	41	10.65	93.79	4.3	33.73	7.8	25.8	0.45
I28	19 May 2023	42	10.63	93.76	4.2	33.73	7.8	25.9	0.43
I28	19 May 2023	43	10.61	93.77	4.2	33.74	7.8	25.9	0.42
I28	19 May 2023	44	10.58	93.73	4.2	33.74	7.8	25.9	0.40
I28	19 May 2023	45	10.59	93.70	4.2	33.74	7.8	25.9	0.39
I28	19 May 2023	46	10.58	93.75	4.2	33.74	7.8	25.9	0.39
I28	19 May 2023	47	10.56	93.76	4.2	33.75	7.8	25.9	0.41
I28	19 May 2023	48	10.53	93.73	4.2	33.75	7.8	25.9	0.42
I28	19 May 2023	49	10.53	93.68	4.1	33.75	7.8	25.9	0.36
I28	19 May 2023	50	10.52	93.60	4.1	33.75	7.8	25.9	0.36
I28	19 May 2023	51	10.52	93.51	4.1	33.75	7.8	25.9	0.35
I28	19 May 2023	52	10.52	93.49	4.1	33.75	7.8	25.9	0.35
I28	19 May 2023	53	10.50	93.40	4.1	33.76	7.8	25.9	0.35
I28	19 May 2023	54	10.49	93.21	4.1	33.76	7.8	25.9	0.35
I28	19 May 2023	55	10.48	93.10	4.0	33.76	7.8	25.9	0.35
I29	19 May 2023	1	16.58	85.82	8.3	33.51	8.2	24.5	1.53
I29	19 May 2023	2	16.45	85.74	8.4	33.53	8.2	24.5	1.75
I29	19 May 2023	3	16.04	85.01	8.8	33.57	8.2	24.6	2.53
I29	19 May 2023	4	15.83	81.70	8.9	33.59	8.2	24.7	3.25
I29	19 May 2023	5	15.59	79.56	8.6	33.59	8.2	24.8	4.18
I29	19 May 2023	6	15.22	78.41	8.1	33.59	8.1	24.8	4.95
I29	19 May 2023	7	14.75	77.95	7.2	33.60	8.1	24.9	5.54
I29	19 May 2023	8	13.90	77.36	6.4	33.60	8.0	25.1	5.10
I29	19 May 2023	9	13.33	81.12	6.0	33.59	8.0	25.2	3.57
I29	19 May 2023	10	12.98	85.04	6.0	33.58	8.0	25.3	2.58
I29	19 May 2023	11	12.71	87.46	5.9	33.57	7.9	25.3	2.16
I29	19 May 2023	12	12.63	88.62	5.9	33.56	7.9	25.4	2.02
I29	19 May 2023	13	12.24	89.09	5.8	33.55	7.9	25.4	2.05
I29	19 May 2023	14	11.98	89.76	5.8	33.53	7.9	25.5	1.88
I29	19 May 2023	15	11.78	90.38	5.6	33.53	7.9	25.5	1.60
I29	19 May 2023	16	11.67	90.86	5.5	33.54	7.9	25.5	1.58
I29	19 May 2023	17	11.54	91.19	5.4	33.54	7.9	25.5	1.53
I29	19 May 2023	18	11.42	90.99	5.2	33.55	7.9	25.6	1.71
I29	19 May 2023	19	11.33	91.17	5.1	33.56	7.9	25.6	1.52
I29	19 May 2023	20	11.31	91.40	5.0	33.57	7.8	25.6	1.32
I29	19 May 2023	21	11.28	91.36	5.0	33.57	7.8	25.6	1.35
I29	19 May 2023	22	11.26	91.35	5.0	33.57	7.8	25.6	1.36
I29	19 May 2023	23	11.26	91.40	4.9	33.58	7.8	25.6	1.32
I29	19 May 2023	24	11.24	91.10	4.8	33.59	7.8	25.6	1.33
I29	19 May 2023	25	11.24	89.97	4.6	33.59	7.8	25.6	1.44
I29	19 May 2023	26	11.24	88.44	4.6	33.60	7.8	25.6	1.47
I29	19 May 2023	27	11.24	87.82	4.6	33.60	7.8	25.6	1.30
I29	19 May 2023	28	11.24	87.47	4.6	33.60	7.8	25.6	1.35
I29	19 May 2023	29	11.24	87.19	4.6	33.60	7.8	25.6	1.40
I29	19 May 2023	30	11.24	87.02	4.6	33.60	7.8	25.6	1.44
I29	19 May 2023	31	11.24	87.10	4.6	33.60	7.8	25.6	1.56
I29	19 May 2023	32	11.24	87.05	4.6	33.60	7.8	25.6	1.49
I29	19 May 2023	33	11.24	87.14	4.6	33.60	7.8	25.6	1.40
I29	19 May 2023	34	11.24	87.16	4.6	33.60	7.8	25.6	1.52
I29	19 May 2023	35	11.24	87.12	4.6	33.60	7.8	25.6	1.48
I29	19 May 2023	36	11.24	86.83	4.6	33.60	7.8	25.6	1.56
I29	19 May 2023	37	11.24	86.83	4.6	33.60	7.8	25.6	1.51
I29	19 May 2023	38	11.24	86.67	4.6	33.60	7.8	25.6	1.53
I3	16 May 2023	1	16.44	83.61	8.2	33.54	8.1	24.5	1.70

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I3	16 May 2023	2	16.43	83.75	8.2	33.54	8.1	24.5	1.87
I3	16 May 2023	3	16.37	83.70	8.1	33.54	8.1	24.5	2.00
I3	16 May 2023	4	16.27	83.86	8.0	33.54	8.1	24.6	1.95
I3	16 May 2023	5	16.12	84.57	7.9	33.54	8.1	24.6	1.89
I3	16 May 2023	6	15.79	84.92	7.7	33.54	8.1	24.7	1.93
I3	16 May 2023	7	14.92	85.30	7.3	33.56	8.1	24.9	2.15
I3	16 May 2023	8	13.15	84.95	7.3	33.55	8.0	25.2	2.65
I3	16 May 2023	9	12.87	86.10	7.1	33.50	8.0	25.3	2.75
I3	16 May 2023	10	12.54	86.84	6.9	33.48	8.0	25.3	2.72
I3	16 May 2023	11	12.33	87.31	6.7	33.47	8.0	25.3	2.51
I3	16 May 2023	12	12.06	87.32	6.5	33.47	8.0	25.4	2.67
I3	16 May 2023	13	11.96	88.55	6.4	33.47	7.9	25.4	2.49
I3	16 May 2023	14	11.85	88.84	6.2	33.47	7.9	25.4	2.58
I3	16 May 2023	15	11.79	88.97	6.2	33.48	7.9	25.4	2.25
I3	16 May 2023	16	11.71	89.15	6.1	33.48	7.9	25.5	2.31
I3	16 May 2023	17	11.64	89.22	6.0	33.49	7.9	25.5	2.26
I3	16 May 2023	18	11.56	89.07	6.0	33.49	7.9	25.5	2.52
I3	16 May 2023	19	11.44	89.14	5.8	33.49	7.9	25.5	2.17
I3	16 May 2023	20	11.36	89.95	5.6	33.52	7.9	25.6	1.88
I3	16 May 2023	21	11.23	90.54	5.1	33.58	7.8	25.6	1.60
I3	16 May 2023	22	11.17	90.22	4.8	33.61	7.8	25.7	1.70
I3	16 May 2023	23	11.16	89.42	4.7	33.61	7.8	25.7	1.63
I3	16 May 2023	24	11.16	88.53	4.7	33.62	7.8	25.7	1.59
I3	16 May 2023	25	11.15	88.24	4.7	33.62	7.8	25.7	1.73
I3	16 May 2023	26	11.15	87.89	4.7	33.62	7.8	25.7	1.63
I3	16 May 2023	27	11.15	87.61	4.7	33.62	7.8	25.7	1.73
I30	19 May 2023	1	16.14	78.12	9.3	33.59	8.2	24.6	2.15
I30	19 May 2023	2	16.13	78.20	9.3	33.59	8.2	24.6	2.47
I30	19 May 2023	3	16.12	78.15	9.3	33.59	8.2	24.6	3.07
I30	19 May 2023	4	16.11	77.79	9.3	33.59	8.2	24.6	3.25
I30	19 May 2023	5	16.10	78.23	9.2	33.59	8.2	24.6	3.42
I30	19 May 2023	6	16.08	78.23	9.2	33.59	8.2	24.6	3.48
I30	19 May 2023	7	16.06	78.33	9.2	33.59	8.2	24.7	3.43
I30	19 May 2023	8	16.02	78.47	9.1	33.59	8.2	24.7	3.53
I30	19 May 2023	9	15.82	78.32	8.9	33.59	8.2	24.7	3.83
I30	19 May 2023	10	15.73	78.42	8.6	33.59	8.2	24.7	4.32
I30	19 May 2023	11	15.13	78.11	7.8	33.59	8.2	24.9	5.05
I30	19 May 2023	12	14.06	76.92	7.0	33.56	8.1	25.1	5.88
I30	19 May 2023	13	13.66	77.27	6.5	33.53	8.0	25.1	5.46
I30	19 May 2023	14	13.22	80.85	6.2	33.52	8.0	25.2	3.93
I30	19 May 2023	15	12.74	85.01	6.0	33.53	8.0	25.3	2.84
I30	19 May 2023	16	12.49	88.77	5.9	33.53	7.9	25.4	2.06
I30	19 May 2023	17	12.12	89.82	6.0	33.51	7.9	25.4	1.68
I30	19 May 2023	18	12.04	90.23	6.0	33.51	7.9	25.4	1.54
I30	19 May 2023	19	12.03	90.59	6.0	33.51	7.9	25.4	1.49
I30	19 May 2023	20	11.89	90.64	5.9	33.51	7.9	25.5	1.50
I30	19 May 2023	21	11.77	90.79	5.8	33.52	7.9	25.5	1.40
I30	19 May 2023	22	11.68	90.99	5.6	33.52	7.9	25.5	1.43
I30	19 May 2023	23	11.65	90.25	5.4	33.53	7.9	25.5	1.34
I30	19 May 2023	24	11.64	87.49	5.2	33.55	7.9	25.5	1.71
I30	19 May 2023	25	11.62	83.40	5.0	33.56	7.9	25.5	1.90
I30	19 May 2023	26	11.57	80.78	5.0	33.56	7.8	25.6	2.31
I30	19 May 2023	27	11.56	79.49	4.9	33.57	7.8	25.6	2.32
I30	19 May 2023	28	11.57	78.82	4.9	33.57	7.8	25.6	2.19
I31	19 May 2023	1	16.26	76.76	9.4	33.59	8.2	24.6	3.34
I31	19 May 2023	2	16.24	76.62	9.4	33.59	8.2	24.6	3.45
I31	19 May 2023	3	16.23	76.57	9.4	33.59	8.2	24.6	3.79
I31	19 May 2023	4	16.19	76.58	9.3	33.59	8.2	24.6	4.08
I31	19 May 2023	5	16.16	76.26	9.3	33.59	8.2	24.6	4.42

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I31	19 May 2023	6	16.03	76.15	9.2	33.59	8.2	24.7	4.84
I31	19 May 2023	7	15.75	75.99	8.9	33.59	8.2	24.7	5.39
I31	19 May 2023	8	15.37	75.53	8.6	33.58	8.2	24.8	6.33
I31	19 May 2023	9	15.14	74.59	8.2	33.58	8.2	24.8	7.23
I31	19 May 2023	10	14.77	73.76	7.6	33.59	8.1	24.9	7.63
I31	19 May 2023	11	14.16	74.22	6.9	33.60	8.1	25.1	6.78
I31	19 May 2023	12	13.60	77.57	6.3	33.58	8.0	25.2	4.83
I31	19 May 2023	13	13.20	79.90	5.8	33.57	8.0	25.2	3.03
I31	19 May 2023	14	12.57	79.17	5.5	33.57	7.9	25.4	2.15
I31	19 May 2023	15	12.29	81.01	5.3	33.55	7.9	25.4	1.70
I31	19 May 2023	16	12.27	80.40	5.3	33.55	7.9	25.4	1.46
I31	19 May 2023	17	12.26	78.50	5.3	33.55	7.9	25.4	1.47
I31	19 May 2023	18	12.24	77.25	5.3	33.55	7.9	25.4	1.47
I31	19 May 2023	19	12.22	75.63	5.3	33.55	7.9	25.4	1.45
I33	19 May 2023	1	15.80	82.33	8.4	33.55	8.1	24.7	3.11
I33	19 May 2023	2	15.91	82.56	8.3	33.55	8.1	24.7	3.04
I33	19 May 2023	3	15.85	82.90	8.3	33.56	8.1	24.7	3.26
I33	19 May 2023	4	15.68	82.52	8.3	33.57	8.1	24.7	3.62
I33	19 May 2023	5	15.35	81.93	8.2	33.58	8.1	24.8	4.32
I33	19 May 2023	6	15.12	80.77	7.9	33.59	8.1	24.9	4.30
I33	19 May 2023	7	14.88	80.55	7.6	33.58	8.1	24.9	3.99
I33	19 May 2023	8	14.70	81.82	7.4	33.58	8.1	24.9	3.78
I33	19 May 2023	9	14.47	82.35	7.2	33.57	8.1	25.0	3.41
I33	19 May 2023	10	14.22	82.99	6.9	33.57	8.0	25.0	3.28
I33	19 May 2023	11	13.68	83.53	6.5	33.56	8.0	25.1	3.01
I33	19 May 2023	12	12.88	85.19	6.1	33.54	8.0	25.3	2.67
I33	19 May 2023	13	12.19	87.97	5.9	33.52	7.9	25.4	2.28
I33	19 May 2023	14	11.84	89.51	5.8	33.50	7.9	25.5	1.67
I33	19 May 2023	15	11.73	90.27	5.8	33.50	7.9	25.5	1.38
I33	19 May 2023	16	11.68	90.79	5.8	33.50	7.9	25.5	1.67
I33	19 May 2023	17	11.67	90.82	5.7	33.50	7.9	25.5	1.66
I33	19 May 2023	18	11.63	90.76	5.7	33.51	7.9	25.5	1.86
I33	19 May 2023	19	11.59	90.38	5.5	33.52	7.9	25.5	1.88
I33	19 May 2023	20	11.50	89.45	5.2	33.54	7.9	25.5	1.63
I33	19 May 2023	21	11.48	88.05	5.0	33.55	7.8	25.6	1.79
I33	19 May 2023	22	11.48	85.04	4.8	33.56	7.8	25.6	1.74
I33	19 May 2023	23	11.49	81.10	4.8	33.57	7.8	25.6	1.85
I33	19 May 2023	24	11.51	77.96	4.5	33.58	7.8	25.6	2.08
I33	19 May 2023	25	11.53	75.48	4.3	33.59	7.8	25.6	2.24
I33	19 May 2023	26	11.55	73.05	4.2	33.60	7.8	25.6	2.15
I33	19 May 2023	27	11.55	71.57	4.2	33.60	7.8	25.6	1.96
I33	19 May 2023	28	11.55	71.04	4.2	33.61	7.8	25.6	2.02
I33	19 May 2023	29	11.56	71.02	4.2	33.61	7.8	25.6	2.07
I33	19 May 2023	30	11.56	70.72	4.2	33.61	7.8	25.6	1.92
I34	19 May 2023	1	15.33	77.31	8.3	33.58	8.1	24.8	4.71
I34	19 May 2023	2	15.32	77.40	8.3	33.58	8.1	24.8	5.12
I34	19 May 2023	3	15.27	77.50	8.2	33.58	8.1	24.8	5.66
I34	19 May 2023	4	15.18	77.52	7.9	33.59	8.1	24.8	5.21
I34	19 May 2023	5	15.01	78.45	7.6	33.59	8.1	24.9	4.42
I34	19 May 2023	6	14.53	79.86	7.0	33.58	8.1	25.0	4.15
I34	19 May 2023	7	13.67	81.02	6.4	33.56	8.0	25.1	3.94
I34	19 May 2023	8	12.94	82.90	5.9	33.55	8.0	25.3	3.20
I34	19 May 2023	9	12.22	85.75	5.8	33.54	7.9	25.4	2.68
I34	19 May 2023	10	11.89	87.64	5.8	33.51	7.9	25.5	2.42
I34	19 May 2023	11	11.78	88.92	5.7	33.51	7.9	25.5	2.23
I34	19 May 2023	12	11.74	88.86	5.6	33.52	7.9	25.5	2.00
I34	19 May 2023	13	11.67	88.43	5.6	33.52	7.9	25.5	1.84
I34	19 May 2023	14	11.63	88.81	5.4	33.52	7.9	25.5	2.00
I34	19 May 2023	15	11.63	88.33	5.1	33.55	7.8	25.5	1.81

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma\text{-t}$ )	Chlor ( $\mu\text{g/L}$ )
I34	19 May 2023	16	11.63	85.06	4.8	33.56	7.8	25.5	1.69
I34	19 May 2023	17	11.63	81.42	4.6	33.57	7.8	25.6	1.61
I34	19 May 2023	18	11.63	79.51	4.5	33.58	7.8	25.6	1.75
I34	19 May 2023	19	11.63	78.22	4.4	33.59	7.8	25.6	1.76
I35	19 May 2023	1	16.05	69.75	9.8	33.58	8.3	24.6	5.88
I35	19 May 2023	2	16.05	69.78	9.8	33.58	8.3	24.6	6.53
I35	19 May 2023	3	16.04	69.78	9.8	33.58	8.3	24.6	7.77
I35	19 May 2023	4	15.89	70.01	9.3	33.58	8.2	24.7	7.91
I35	19 May 2023	5	15.52	70.99	8.7	33.57	8.2	24.8	7.99
I35	19 May 2023	6	15.24	70.57	8.2	33.56	8.2	24.8	8.89
I35	19 May 2023	7	14.80	68.52	7.5	33.57	8.1	24.9	8.45
I35	19 May 2023	8	14.24	71.71	6.9	33.56	8.1	25.0	5.60
I35	19 May 2023	9	13.85	78.72	6.5	33.55	8.0	25.1	3.91
I35	19 May 2023	10	13.45	82.53	6.1	33.56	8.0	25.2	2.99
I35	19 May 2023	11	12.80	82.24	5.8	33.56	7.9	25.3	2.35
I35	19 May 2023	12	12.55	81.76	5.7	33.55	7.9	25.4	1.99
I35	19 May 2023	13	12.36	81.94	5.6	33.54	7.9	25.4	1.72
I35	19 May 2023	14	12.12	81.84	5.6	33.53	7.9	25.4	1.75
I35	19 May 2023	15	12.03	83.19	5.4	33.54	7.9	25.4	1.47
I35	19 May 2023	16	11.93	83.42	5.0	33.55	7.9	25.5	1.42
I35	19 May 2023	17	11.85	78.27	4.7	33.57	7.8	25.5	1.54
I35	19 May 2023	18	11.83	74.04	4.5	33.58	7.8	25.5	1.68
I35	19 May 2023	19	11.83	70.33	4.4	33.58	7.8	25.5	1.47
I36	19 May 2023	1	15.82	55.76	10.0	33.55	8.2	24.7	15.43
I36	19 May 2023	2	15.79	55.24	9.8	33.55	8.2	24.7	16.06
I36	19 May 2023	3	15.77	55.39	9.5	33.55	8.2	24.7	14.33
I36	19 May 2023	4	15.75	58.67	9.3	33.55	8.2	24.7	11.58
I36	19 May 2023	5	15.72	61.02	8.8	33.54	8.2	24.7	9.18
I36	19 May 2023	6	15.67	64.07	8.0	33.54	8.2	24.7	6.82
I36	19 May 2023	7	15.47	65.29	7.6	33.54	8.1	24.7	4.71
I36	19 May 2023	8	15.25	64.33	7.5	33.53	8.1	24.8	3.62
I36	19 May 2023	9	15.10	59.04	7.6	33.52	8.1	24.8	3.26
I36	19 May 2023	10	15.06	54.09	7.5	33.52	8.1	24.8	3.11
I36	19 May 2023	11	14.66	55.65	7.1	33.53	8.1	24.9	2.81
I37	19 May 2023	1	15.36	74.75	8.2	33.59	8.1	24.8	4.85
I37	19 May 2023	2	15.34	74.52	8.2	33.59	8.1	24.8	5.33
I37	19 May 2023	3	15.33	73.90	8.2	33.59	8.1	24.8	6.01
I37	19 May 2023	4	15.33	74.03	8.1	33.59	8.1	24.8	6.39
I37	19 May 2023	5	15.31	74.58	8.1	33.59	8.1	24.8	6.32
I37	19 May 2023	6	15.21	75.56	7.9	33.59	8.1	24.8	5.67
I37	19 May 2023	7	15.07	76.31	7.7	33.59	8.1	24.9	5.42
I37	19 May 2023	8	14.82	75.92	7.3	33.59	8.1	24.9	5.47
I37	19 May 2023	9	14.18	76.00	6.3	33.61	8.0	25.1	5.02
I37	19 May 2023	10	12.54	79.46	5.0	33.63	7.9	25.4	3.49
I37	19 May 2023	11	12.23	80.69	4.4	33.59	7.8	25.4	2.36
I37	19 May 2023	12	12.22	76.91	4.4	33.58	7.8	25.4	1.87
I38	19 May 2023	1	16.17	53.50	11.3	33.56	8.3	24.6	14.07
I38	19 May 2023	2	16.10	53.46	10.7	33.57	8.3	24.6	13.39
I38	19 May 2023	3	15.95	55.29	9.3	33.56	8.3	24.7	10.16
I38	19 May 2023	4	15.53	62.08	8.5	33.55	8.2	24.7	6.35
I38	19 May 2023	5	15.39	69.58	8.3	33.54	8.2	24.8	4.31
I38	19 May 2023	6	15.30	73.94	8.1	33.53	8.1	24.8	3.54
I38	19 May 2023	7	15.21	74.99	8.0	33.53	8.1	24.8	3.25
I38	19 May 2023	8	15.07	74.78	7.6	33.53	8.1	24.8	2.93
I38	19 May 2023	9	14.67	74.80	7.1	33.52	8.1	24.9	2.61
I38	19 May 2023	10	14.33	76.08	6.8	33.52	8.0	25.0	2.39
I38	19 May 2023	11	13.83	76.47	6.2	33.53	8.0	25.1	2.07

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I4	16 May 2023	1	16.18	80.41	8.3	33.56	8.1	24.6	2.66
I4	16 May 2023	2	16.08	80.49	8.3	33.57	8.1	24.6	2.83
I4	16 May 2023	3	15.92	81.30	8.3	33.57	8.1	24.7	2.74
I4	16 May 2023	4	15.85	82.31	8.2	33.58	8.1	24.7	2.54
I4	16 May 2023	5	15.34	83.49	7.8	33.58	8.1	24.8	2.38
I4	16 May 2023	6	14.91	84.21	7.4	33.57	8.1	24.9	2.52
I4	16 May 2023	7	14.08	84.70	7.3	33.57	8.1	25.1	2.39
I4	16 May 2023	8	13.85	85.64	7.3	33.56	8.0	25.1	2.46
I4	16 May 2023	9	13.44	86.11	7.3	33.56	8.0	25.2	2.50
I4	16 May 2023	10	12.91	86.42	7.1	33.53	8.0	25.3	2.49
I4	16 May 2023	11	12.75	86.50	6.9	33.52	8.0	25.3	2.53
I4	16 May 2023	12	12.65	87.19	6.7	33.53	8.0	25.3	2.73
I4	16 May 2023	13	12.51	87.54	6.4	33.54	8.0	25.4	2.51
I4	16 May 2023	14	12.25	87.92	6.1	33.56	7.9	25.4	2.60
I4	16 May 2023	15	12.01	88.15	5.7	33.58	7.9	25.5	2.45
I4	16 May 2023	16	11.86	89.15	5.5	33.58	7.9	25.5	2.30
I4	16 May 2023	17	11.70	89.02	4.8	33.63	7.8	25.6	2.21
I4	16 May 2023	18	11.42	80.00	4.2	33.67	7.8	25.7	2.18
I5	16 May 2023	1	16.28	78.75	8.2	33.55	8.1	24.6	2.74
I5	16 May 2023	2	16.26	78.70	8.2	33.55	8.1	24.6	3.03
I5	16 May 2023	3	16.22	78.49	8.2	33.55	8.1	24.6	3.79
I5	16 May 2023	4	15.86	78.62	7.8	33.57	8.1	24.7	3.94
I5	16 May 2023	5	15.20	78.89	7.4	33.57	8.1	24.8	3.85
I5	16 May 2023	6	14.32	80.97	7.1	33.57	8.1	25.0	2.90
I5	16 May 2023	7	14.12	84.50	6.9	33.55	8.0	25.0	2.51
I5	16 May 2023	8	13.52	85.91	6.7	33.56	8.0	25.2	2.40
I5	16 May 2023	9	13.27	86.86	6.6	33.55	8.0	25.2	2.15
I5	16 May 2023	10	13.17	87.34	6.5	33.55	8.0	25.2	2.17
I5	16 May 2023	11	13.06	87.80	6.3	33.56	8.0	25.3	2.04
I5	16 May 2023	12	12.89	87.72	6.0	33.57	8.0	25.3	2.30
I5	16 May 2023	13	12.82	83.05	5.4	33.61	7.9	25.4	1.99
I5	16 May 2023	14	12.93	56.53	5.8	33.59	7.9	25.3	1.96
I6	16 May 2023	1	15.90	79.94	8.3	33.56	8.1	24.7	2.55
I6	16 May 2023	2	15.74	79.97	7.9	33.56	8.1	24.7	2.72
I6	16 May 2023	3	15.24	80.79	7.4	33.57	8.1	24.8	2.54
I6	16 May 2023	4	14.62	81.57	6.9	33.57	8.1	25.0	2.32
I6	16 May 2023	5	13.62	84.29	6.6	33.58	8.0	25.2	2.22
I6	16 May 2023	6	12.90	86.22	6.6	33.55	8.0	25.3	2.29
I6	16 May 2023	7	12.69	87.51	6.6	33.54	8.0	25.3	2.50
I6	16 May 2023	8	12.48	87.79	6.5	33.53	8.0	25.4	2.53
I6	16 May 2023	9	12.06	88.05	6.3	33.50	7.9	25.4	2.32
I6	16 May 2023	10	11.86	88.36	6.2	33.48	7.9	25.4	2.37
I6	16 May 2023	11	11.69	89.07	6.1	33.47	7.9	25.5	2.30
I6	16 May 2023	12	11.63	89.22	6.0	33.47	7.9	25.5	2.55
I6	16 May 2023	13	11.58	89.26	6.0	33.48	7.9	25.5	2.51
I6	16 May 2023	14	11.50	89.00	5.9	33.49	7.9	25.5	2.57
I6	16 May 2023	15	11.44	89.12	5.8	33.50	7.9	25.5	2.38
I6	16 May 2023	16	11.36	89.42	5.6	33.51	7.9	25.6	2.34
I6	16 May 2023	17	11.33	90.00	5.4	33.53	7.9	25.6	2.42
I6	16 May 2023	18	11.30	90.30	5.2	33.55	7.8	25.6	2.14
I6	16 May 2023	19	11.20	90.61	4.8	33.60	7.8	25.7	1.80
I6	16 May 2023	20	11.16	88.07	4.6	33.62	7.8	25.7	1.79
I6	16 May 2023	21	11.15	85.66	4.6	33.63	7.8	25.7	1.73
I6	16 May 2023	22	11.15	84.31	4.6	33.63	7.8	25.7	1.92
I6	16 May 2023	23	11.14	83.36	4.6	33.63	7.8	25.7	1.85
I6	16 May 2023	24	11.14	82.02	4.6	33.63	7.8	25.7	1.92
I6	16 May 2023	25	11.14	80.37	4.5	33.63	7.8	25.7	1.96
I6	16 May 2023	26	11.15	78.69	4.5	33.63	7.8	25.7	2.11

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I7	16 May 2023	1	16.81	87.78	8.2	33.52	8.1	24.4	1.11
I7	16 May 2023	2	16.81	87.71	8.2	33.52	8.1	24.4	1.15
I7	16 May 2023	3	16.79	87.75	8.2	33.52	8.1	24.4	1.14
I7	16 May 2023	4	16.70	87.22	8.2	33.52	8.1	24.4	1.11
I7	16 May 2023	5	16.49	87.85	8.4	33.51	8.1	24.5	1.01
I7	16 May 2023	6	15.91	87.89	8.6	33.50	8.1	24.6	1.03
I7	16 May 2023	7	15.20	87.88	8.7	33.51	8.1	24.8	1.27
I7	16 May 2023	8	14.90	87.65	8.2	33.52	8.1	24.9	1.37
I7	16 May 2023	9	14.58	87.39	7.9	33.53	8.1	24.9	1.32
I7	16 May 2023	10	14.44	88.17	7.8	33.53	8.1	25.0	1.45
I7	16 May 2023	11	14.11	88.37	7.7	33.53	8.1	25.0	2.05
I7	16 May 2023	12	13.84	86.44	7.4	33.54	8.0	25.1	2.37
I7	16 May 2023	13	13.37	86.17	7.2	33.54	8.0	25.2	2.56
I7	16 May 2023	14	13.03	86.77	7.1	33.53	8.0	25.2	2.84
I7	16 May 2023	15	12.90	87.10	7.0	33.52	8.0	25.3	2.98
I7	16 May 2023	16	12.69	86.96	6.8	33.50	8.0	25.3	2.84
I7	16 May 2023	17	12.36	87.24	6.4	33.51	7.9	25.4	2.59
I7	16 May 2023	18	12.18	87.77	6.1	33.53	7.9	25.4	2.59
I7	16 May 2023	19	12.14	88.40	5.9	33.54	7.9	25.4	2.49
I7	16 May 2023	20	12.11	89.13	5.8	33.56	7.9	25.4	2.39
I7	16 May 2023	21	12.04	89.31	5.6	33.57	7.9	25.5	2.16
I7	16 May 2023	22	11.79	89.65	5.3	33.59	7.8	25.5	1.88
I7	16 May 2023	23	11.68	90.25	5.1	33.60	7.8	25.6	2.13
I7	16 May 2023	24	11.52	90.48	5.0	33.61	7.8	25.6	1.44
I7	16 May 2023	25	11.34	91.06	4.9	33.60	7.8	25.6	1.31
I7	16 May 2023	26	11.27	91.72	4.9	33.60	7.8	25.6	1.07
I7	16 May 2023	27	11.17	92.05	4.9	33.60	7.8	25.7	0.97
I7	16 May 2023	28	11.14	92.58	4.9	33.60	7.8	25.7	0.96
I7	16 May 2023	29	11.11	92.71	4.8	33.60	7.8	25.7	0.93
I7	16 May 2023	30	11.08	92.75	4.8	33.61	7.8	25.7	0.94
I7	16 May 2023	31	11.07	92.83	4.8	33.61	7.8	25.7	0.87
I7	16 May 2023	32	11.02	92.98	4.8	33.63	7.8	25.7	0.80
I7	16 May 2023	33	10.98	93.06	4.7	33.64	7.8	25.7	0.77
I7	16 May 2023	34	10.92	93.19	4.6	33.66	7.8	25.7	0.75
I7	16 May 2023	35	10.89	93.29	4.6	33.67	7.8	25.8	0.67
I7	16 May 2023	36	10.88	93.07	4.5	33.67	7.8	25.8	0.64
I7	16 May 2023	37	10.86	93.33	4.5	33.68	7.8	25.8	0.61
I7	16 May 2023	38	10.83	93.39	4.5	33.68	7.8	25.8	0.62
I7	16 May 2023	39	10.80	93.48	4.4	33.69	7.8	25.8	0.56
I7	16 May 2023	40	10.77	93.46	4.4	33.70	7.8	25.8	0.56
I7	16 May 2023	41	10.77	93.48	4.4	33.70	7.8	25.8	0.52
I7	16 May 2023	42	10.77	93.43	4.4	33.70	7.8	25.8	0.52
I7	16 May 2023	43	10.77	93.29	4.4	33.70	7.8	25.8	0.52
I7	16 May 2023	44	10.77	93.42	4.4	33.70	7.8	25.8	0.51
I7	16 May 2023	45	10.76	93.45	4.3	33.71	7.8	25.8	0.51
I7	16 May 2023	46	10.74	93.36	4.3	33.71	7.8	25.8	0.50
I7	16 May 2023	47	10.72	93.42	4.3	33.72	7.8	25.8	0.49
I7	16 May 2023	48	10.68	93.42	4.2	33.73	7.8	25.8	0.47
I7	16 May 2023	49	10.65	93.40	4.2	33.73	7.7	25.9	0.43
I7	16 May 2023	50	10.60	93.44	4.2	33.74	7.7	25.9	0.42
I7	16 May 2023	51	10.55	93.41	4.1	33.76	7.7	25.9	0.40
I7	16 May 2023	52	10.56	82.73	4.0	33.76	7.7	25.9	0.37
I8	16 May 2023	1	15.70	78.77	8.2	33.57	8.1	24.7	2.38
I8	16 May 2023	2	15.58	78.98	8.1	33.58	8.1	24.8	2.40
I8	16 May 2023	3	15.46	79.54	8.0	33.58	8.1	24.8	2.71
I8	16 May 2023	4	15.40	80.08	7.9	33.58	8.1	24.8	3.13
I8	16 May 2023	5	15.27	80.46	7.7	33.58	8.1	24.8	3.09
I8	16 May 2023	6	15.16	81.41	7.3	33.58	8.1	24.8	2.84
I8	16 May 2023	7	14.65	82.88	6.7	33.61	8.1	25.0	2.46

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I8	16 May 2023	8	13.52	85.05	5.9	33.64	8.0	25.2	2.26
I8	16 May 2023	9	12.36	87.78	5.5	33.62	7.9	25.5	1.88
I8	16 May 2023	10	11.80	89.88	5.6	33.55	7.9	25.5	1.73
I8	16 May 2023	11	11.68	90.35	5.7	33.52	7.9	25.5	1.68
I8	16 May 2023	12	11.60	90.59	5.7	33.52	7.9	25.5	1.93
I8	16 May 2023	13	11.56	90.65	5.6	33.52	7.9	25.5	1.70
I8	16 May 2023	14	11.53	90.75	5.6	33.53	7.9	25.5	1.69
I8	16 May 2023	15	11.50	90.94	5.5	33.53	7.9	25.5	2.01
I8	16 May 2023	16	11.46	90.92	5.5	33.54	7.9	25.6	1.56
I8	16 May 2023	17	11.43	91.15	5.5	33.54	7.9	25.6	1.79
I8	16 May 2023	18	11.39	91.21	5.4	33.55	7.9	25.6	1.76
I8	16 May 2023	19	11.34	91.32	5.3	33.55	7.9	25.6	1.68
I8	16 May 2023	20	11.30	91.48	5.3	33.55	7.8	25.6	1.68
I8	16 May 2023	21	11.27	91.64	5.2	33.56	7.8	25.6	1.62
I8	16 May 2023	22	11.26	91.65	5.2	33.56	7.8	25.6	1.62
I8	16 May 2023	23	11.26	91.70	5.1	33.57	7.8	25.6	1.52
I8	16 May 2023	24	11.25	91.76	5.1	33.57	7.8	25.6	1.57
I8	16 May 2023	25	11.24	91.76	5.1	33.58	7.8	25.6	1.42
I8	16 May 2023	26	11.24	91.67	5.0	33.58	7.8	25.6	1.54
I8	16 May 2023	27	11.19	91.65	4.9	33.61	7.8	25.7	1.48
I8	16 May 2023	28	11.14	91.48	4.7	33.62	7.8	25.7	1.47
I8	16 May 2023	29	11.12	90.94	4.6	33.63	7.8	25.7	1.38
I8	16 May 2023	30	11.12	90.31	4.6	33.63	7.8	25.7	1.41
I8	16 May 2023	31	11.12	89.98	4.6	33.63	7.8	25.7	1.35
I8	16 May 2023	32	11.10	89.76	4.6	33.63	7.8	25.7	1.33
I8	16 May 2023	33	11.09	89.50	4.6	33.64	7.8	25.7	1.36
I8	16 May 2023	34	11.09	89.14	4.5	33.64	7.8	25.7	1.41
I8	16 May 2023	35	11.09	89.04	4.5	33.64	7.8	25.7	1.33
I8	16 May 2023	36	11.09	88.56	4.5	33.64	7.8	25.7	1.41
I9	16 May 2023	1	15.68	78.35	8.6	33.58	8.1	24.7	2.78
I9	16 May 2023	2	15.55	78.19	8.1	33.58	8.1	24.8	3.37
I9	16 May 2023	3	15.24	78.21	7.6	33.58	8.1	24.8	3.21
I9	16 May 2023	4	15.02	80.32	7.3	33.58	8.1	24.9	2.86
I9	16 May 2023	5	14.74	82.21	6.8	33.59	8.1	24.9	2.58
I9	16 May 2023	6	13.56	83.63	6.3	33.60	8.0	25.2	2.22
I9	16 May 2023	7	12.37	85.87	6.1	33.57	8.0	25.4	2.12
I9	16 May 2023	8	12.08	88.17	6.0	33.53	7.9	25.4	2.14
I9	16 May 2023	9	12.03	89.12	6.0	33.53	7.9	25.4	2.43
I9	16 May 2023	10	11.94	89.27	5.9	33.53	7.9	25.5	2.30
I9	16 May 2023	11	11.73	89.10	5.8	33.52	7.9	25.5	2.59
I9	16 May 2023	12	11.56	88.86	5.7	33.52	7.9	25.5	1.83
I9	16 May 2023	13	11.40	89.93	5.5	33.51	7.9	25.5	1.81
I9	16 May 2023	14	11.38	90.62	5.5	33.52	7.9	25.6	1.76
I9	16 May 2023	15	11.36	90.88	5.5	33.52	7.9	25.6	1.77
I9	16 May 2023	16	11.36	90.97	5.4	33.53	7.9	25.6	1.80
I9	16 May 2023	17	11.34	90.96	5.4	33.53	7.9	25.6	1.73
I9	16 May 2023	18	11.33	90.93	5.4	33.54	7.9	25.6	1.77
I9	16 May 2023	19	11.31	90.98	5.4	33.54	7.8	25.6	1.89
I9	16 May 2023	20	11.30	90.88	5.3	33.55	7.8	25.6	1.93
I9	16 May 2023	21	11.27	90.90	5.2	33.56	7.8	25.6	1.81
I9	16 May 2023	22	11.24	90.82	5.1	33.58	7.8	25.6	1.75
I9	16 May 2023	23	11.16	91.07	4.8	33.61	7.8	25.7	1.68
I9	16 May 2023	24	11.11	90.53	4.6	33.64	7.8	25.7	1.61
I9	16 May 2023	25	11.10	89.86	4.5	33.64	7.8	25.7	1.47
I9	16 May 2023	26	11.09	89.36	4.5	33.64	7.8	25.7	1.46
I9	16 May 2023	27	11.09	88.73	4.5	33.64	7.8	25.7	1.46
I9	16 May 2023	28	11.09	87.51	4.4	33.65	7.8	25.7	1.51
I9	16 May 2023	29	11.09	86.17	4.4	33.65	7.8	25.7	1.51

NA = not available

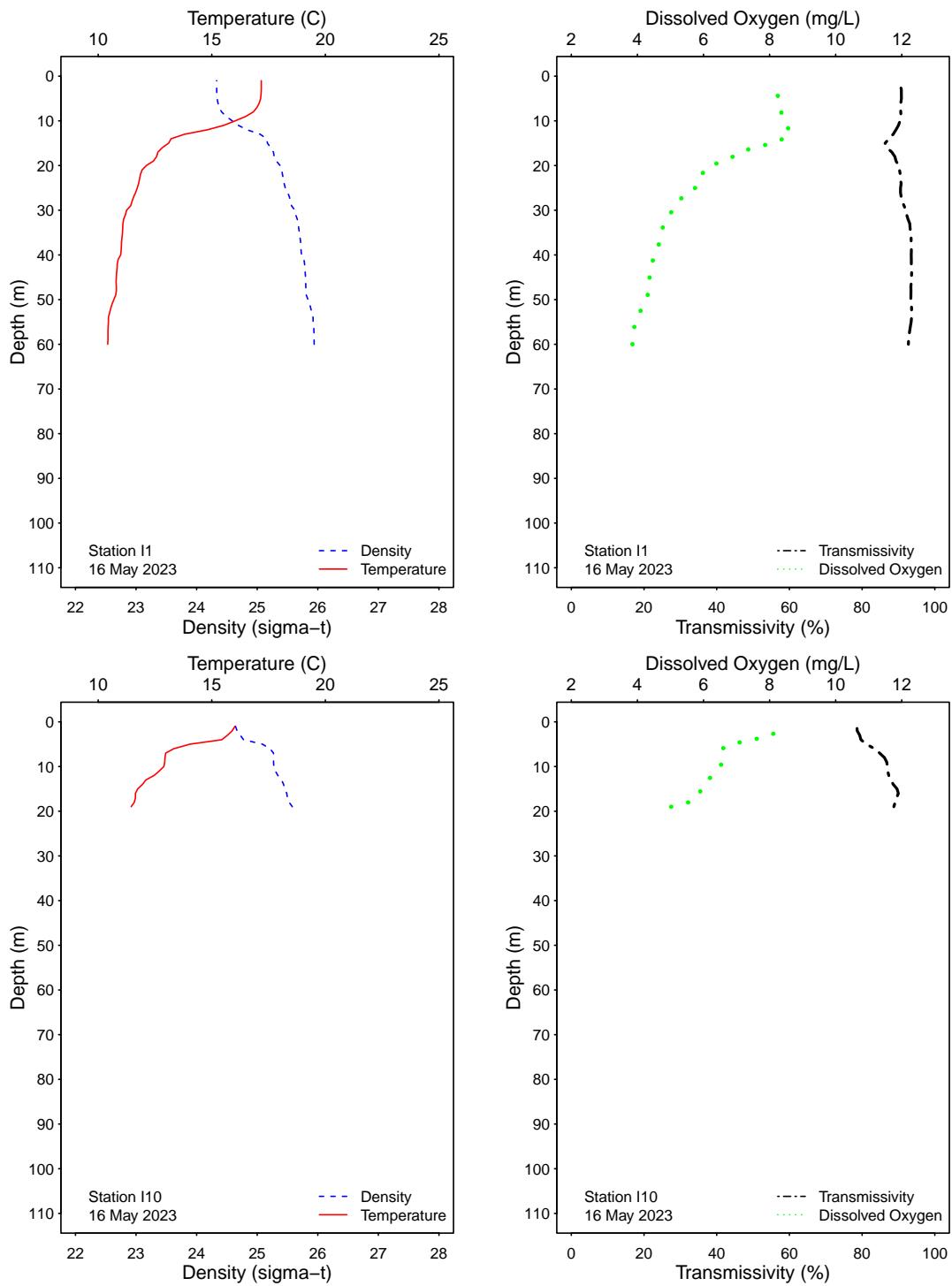


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

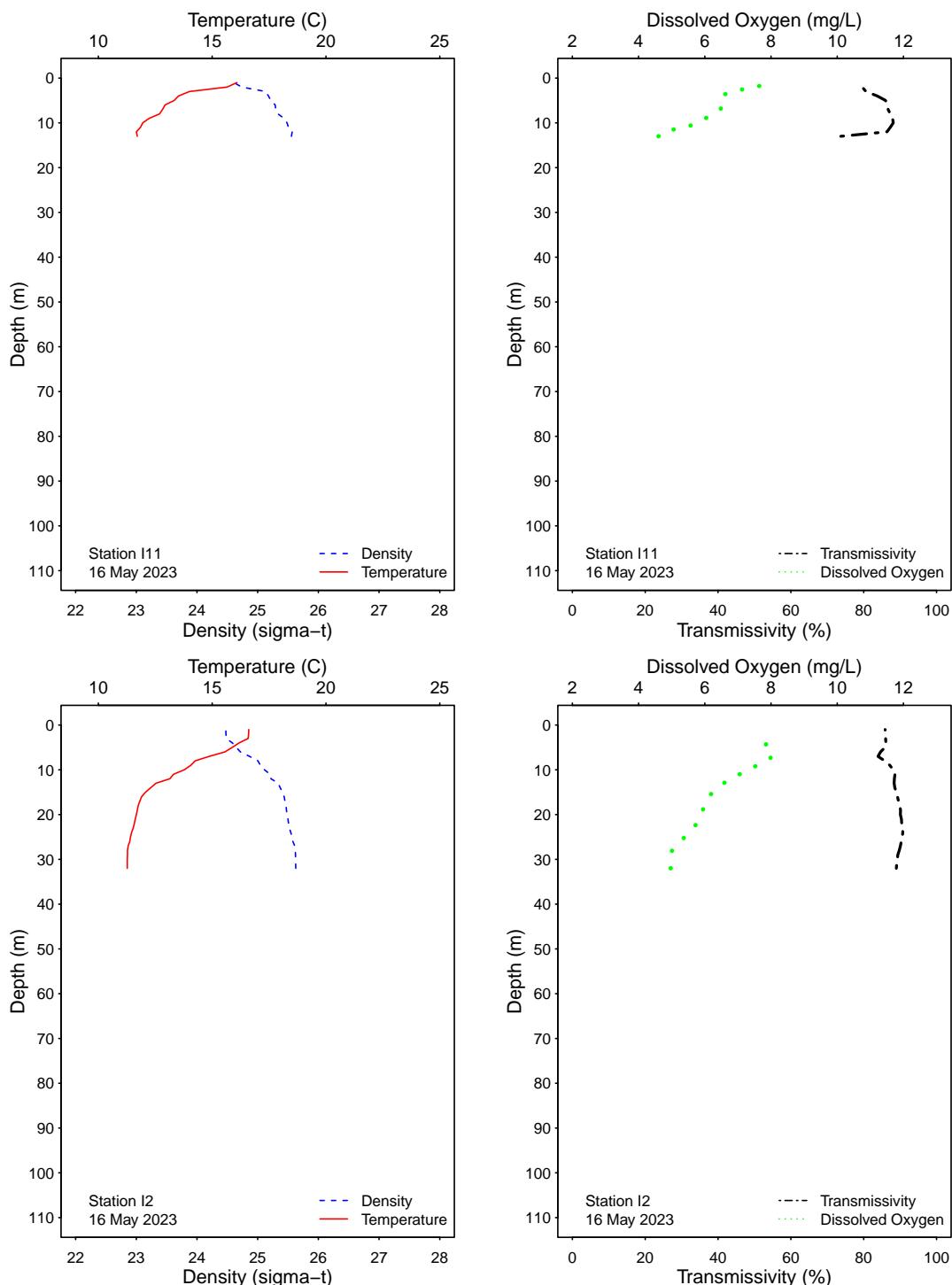


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

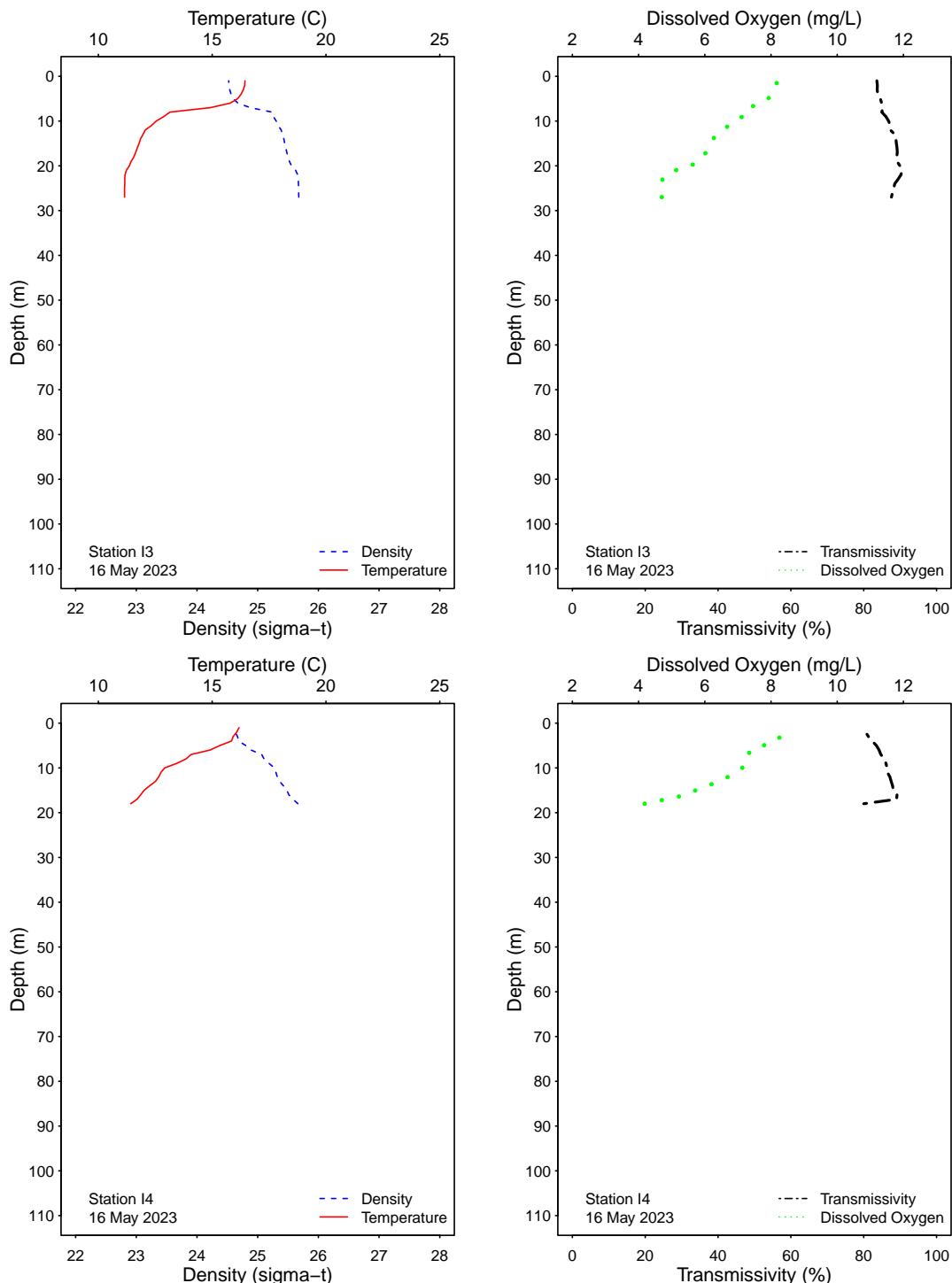


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

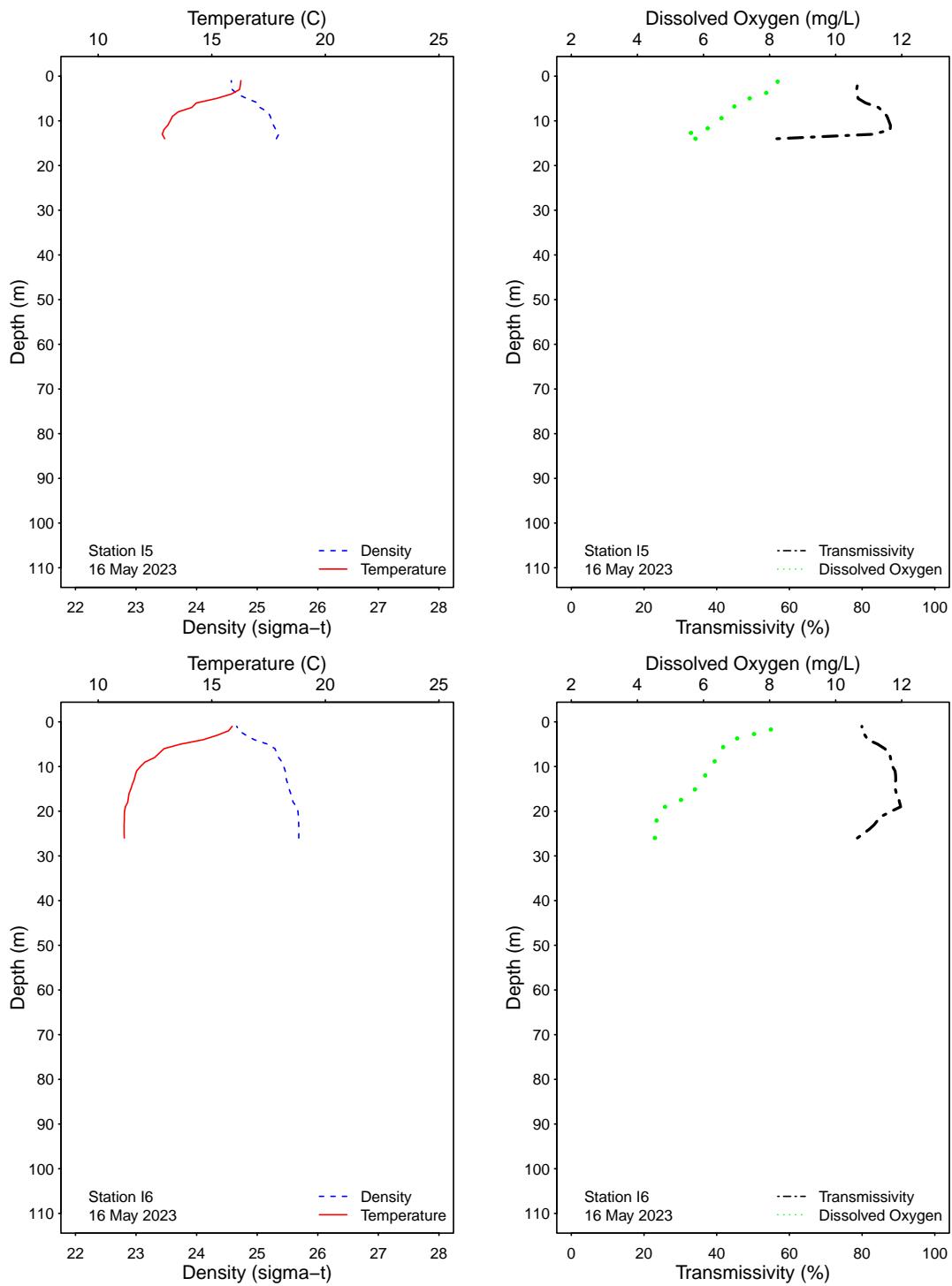


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

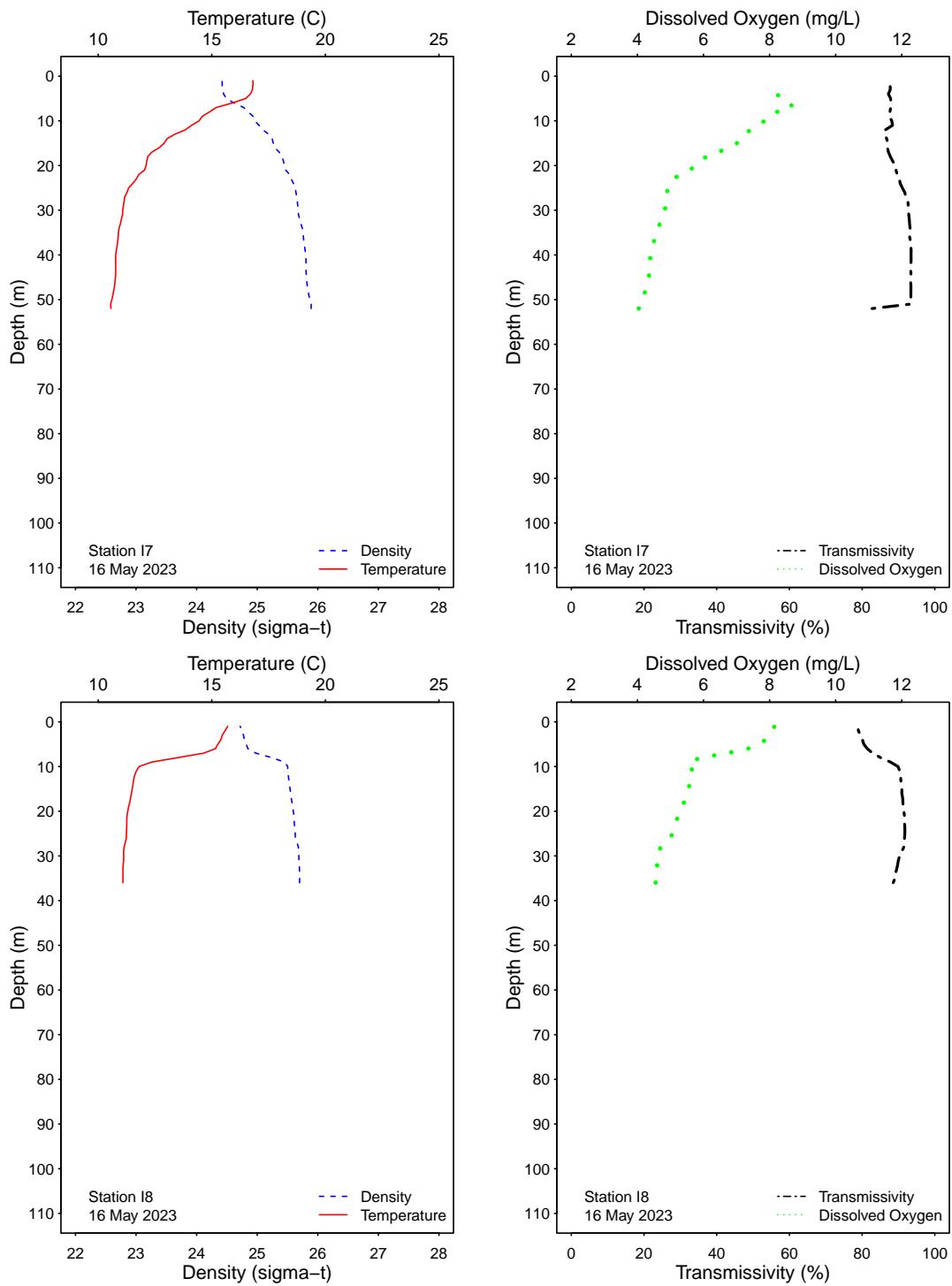


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

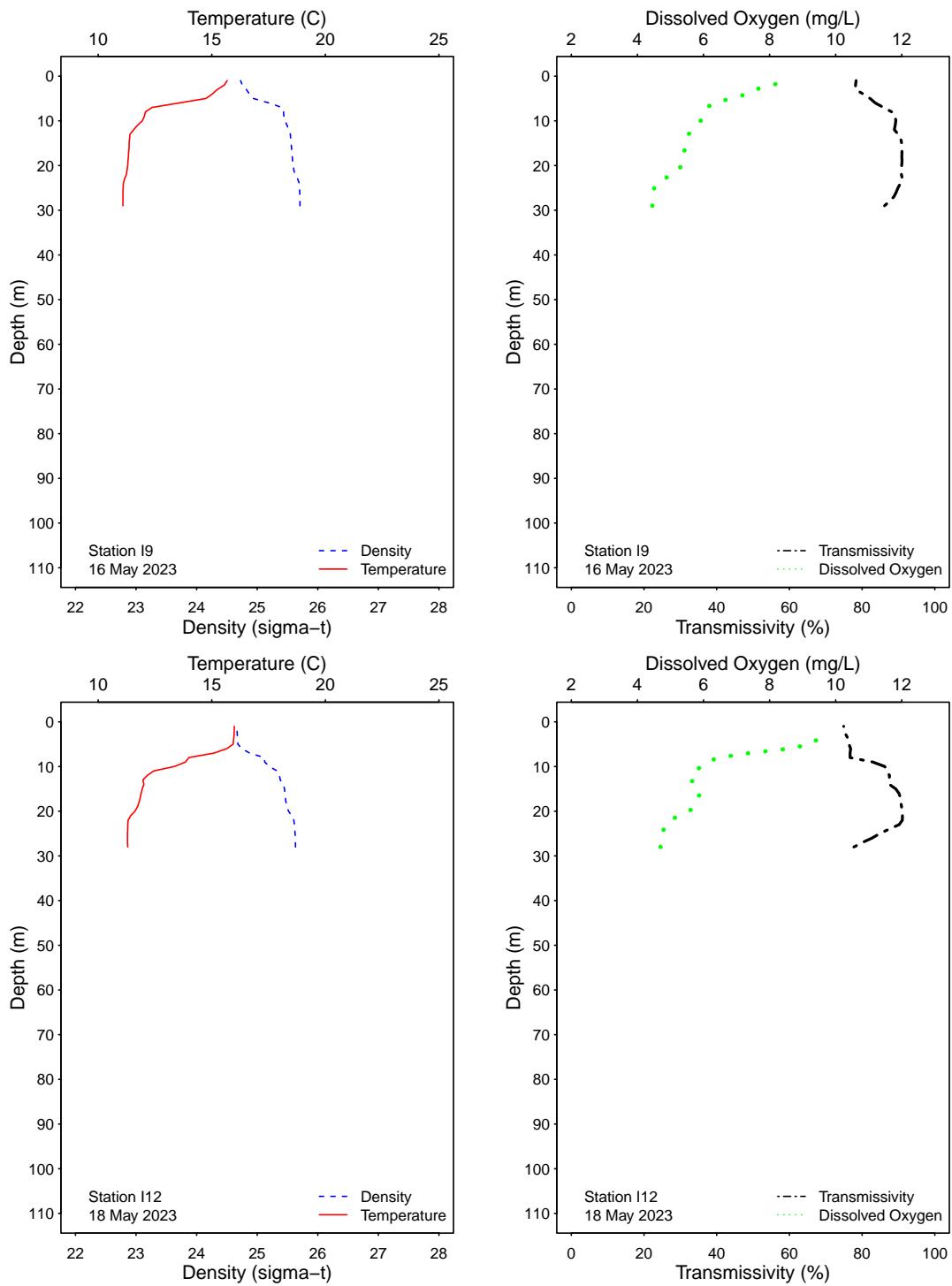


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

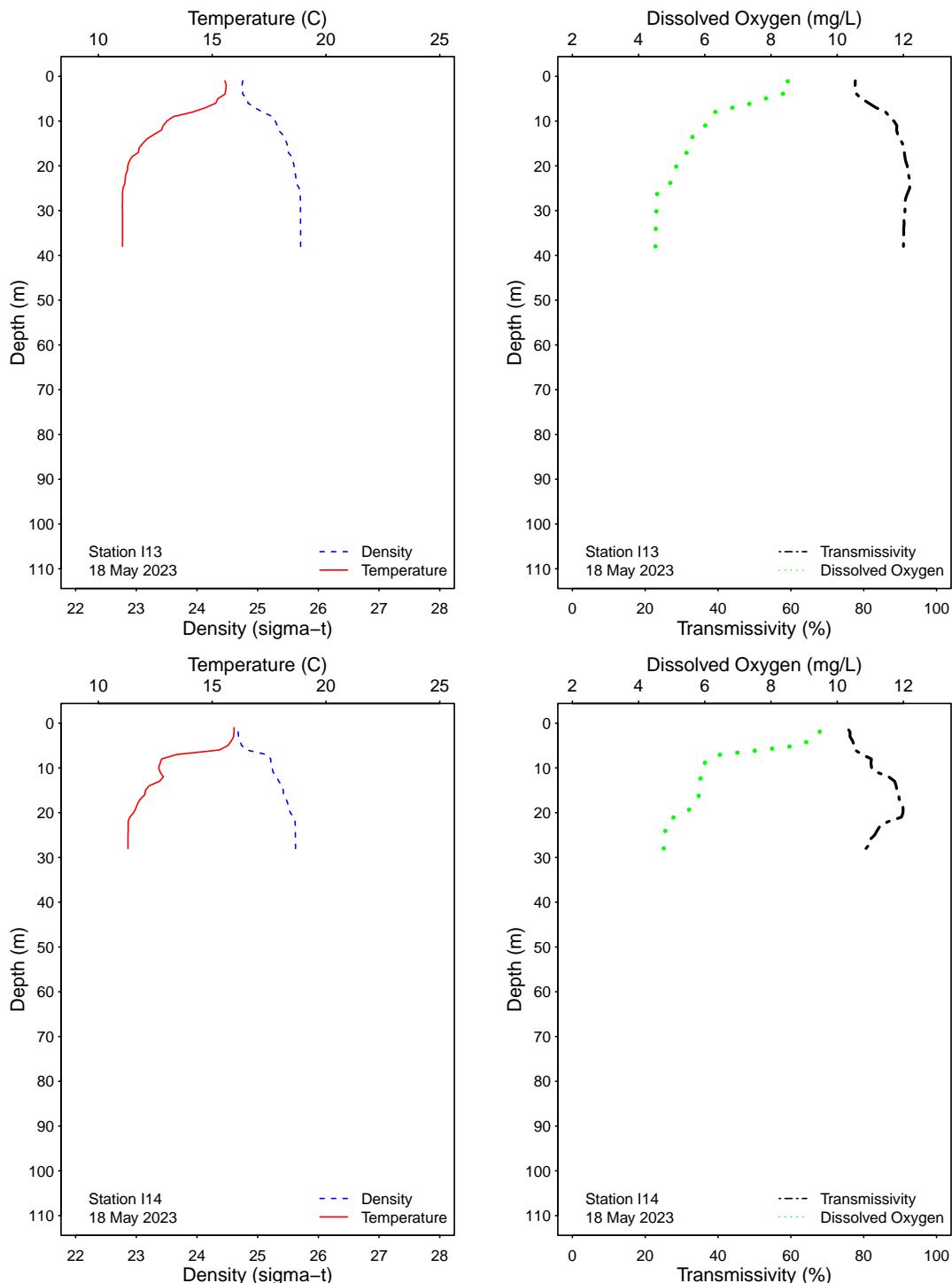


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

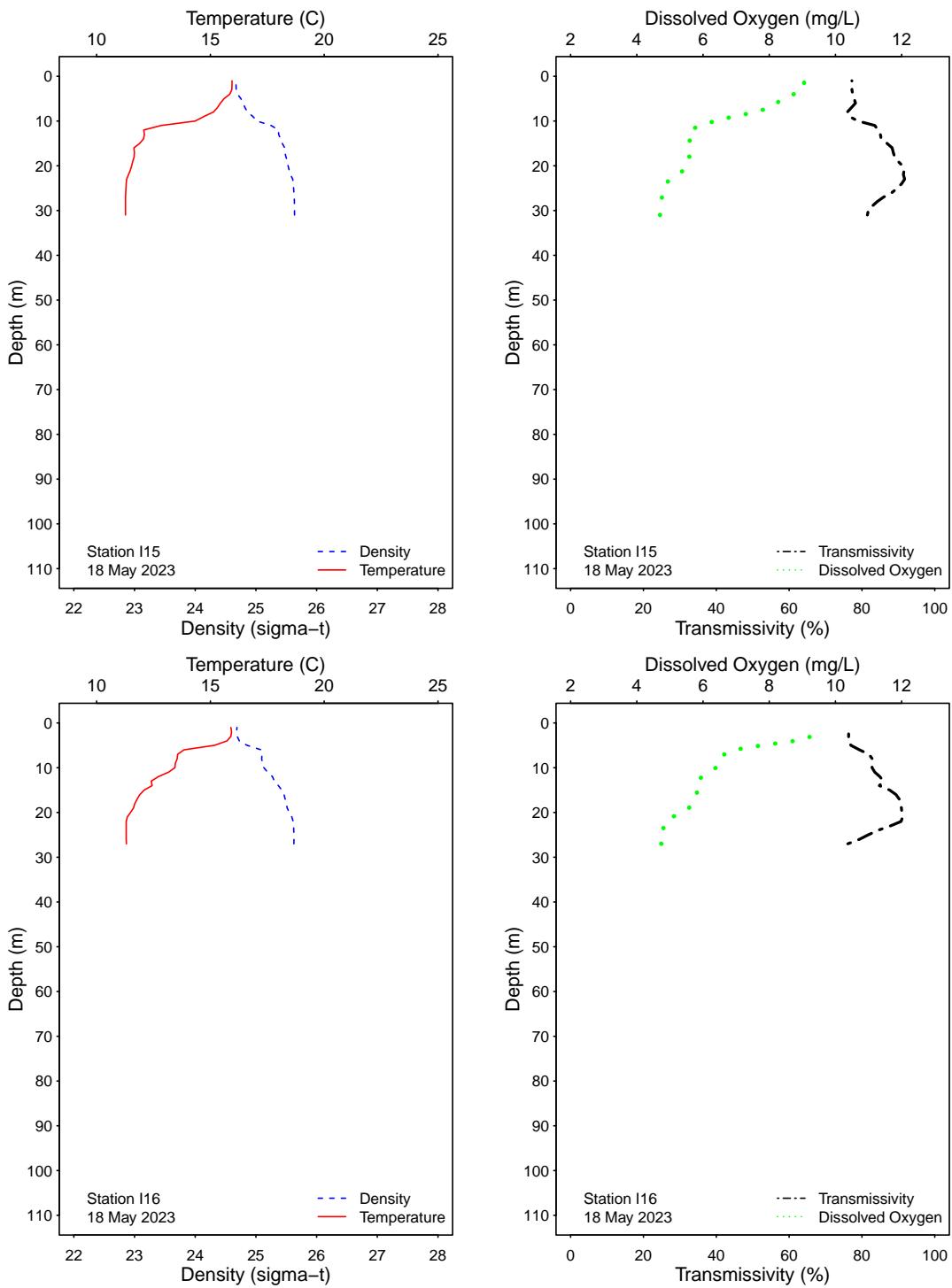


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

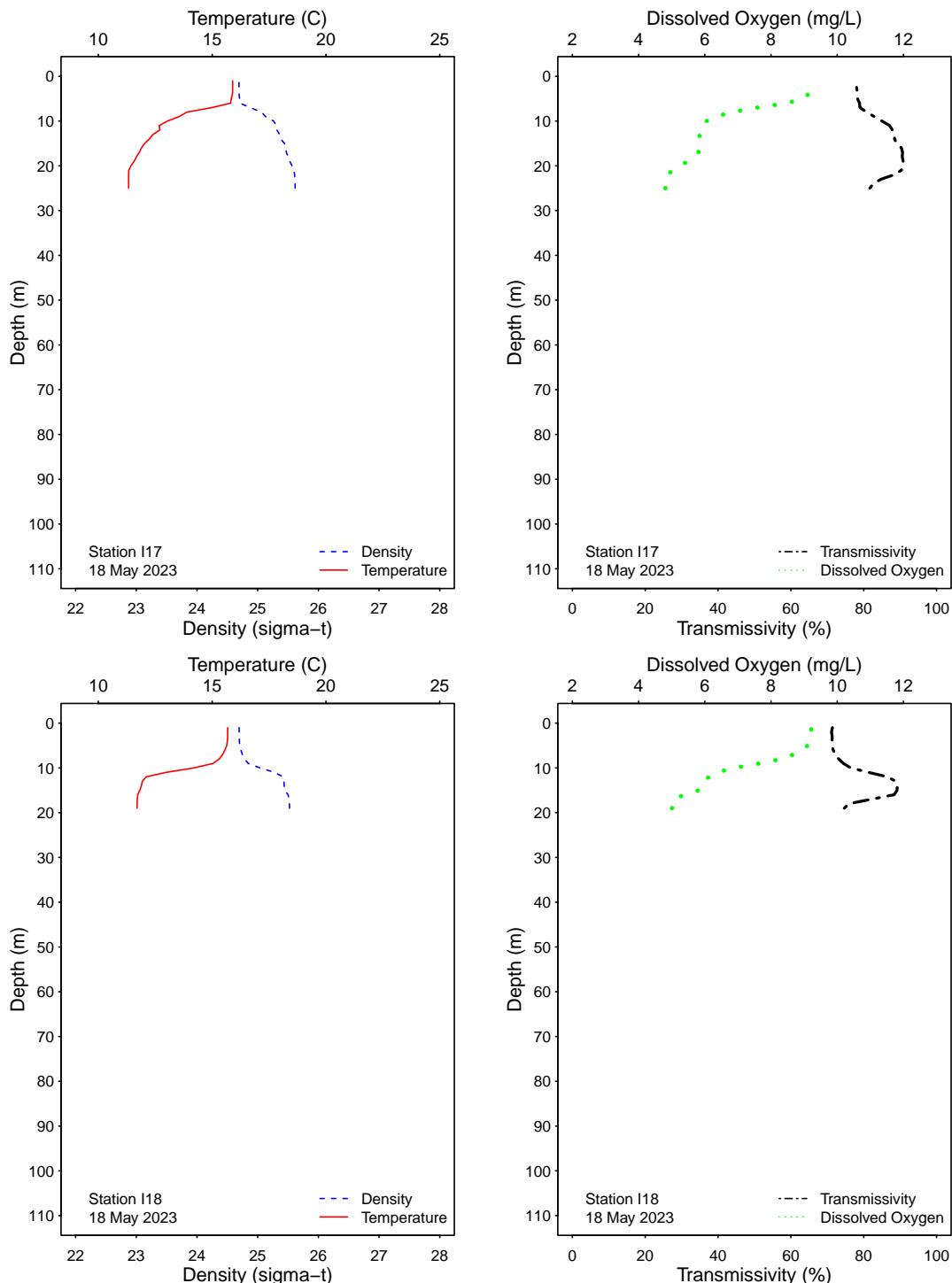


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

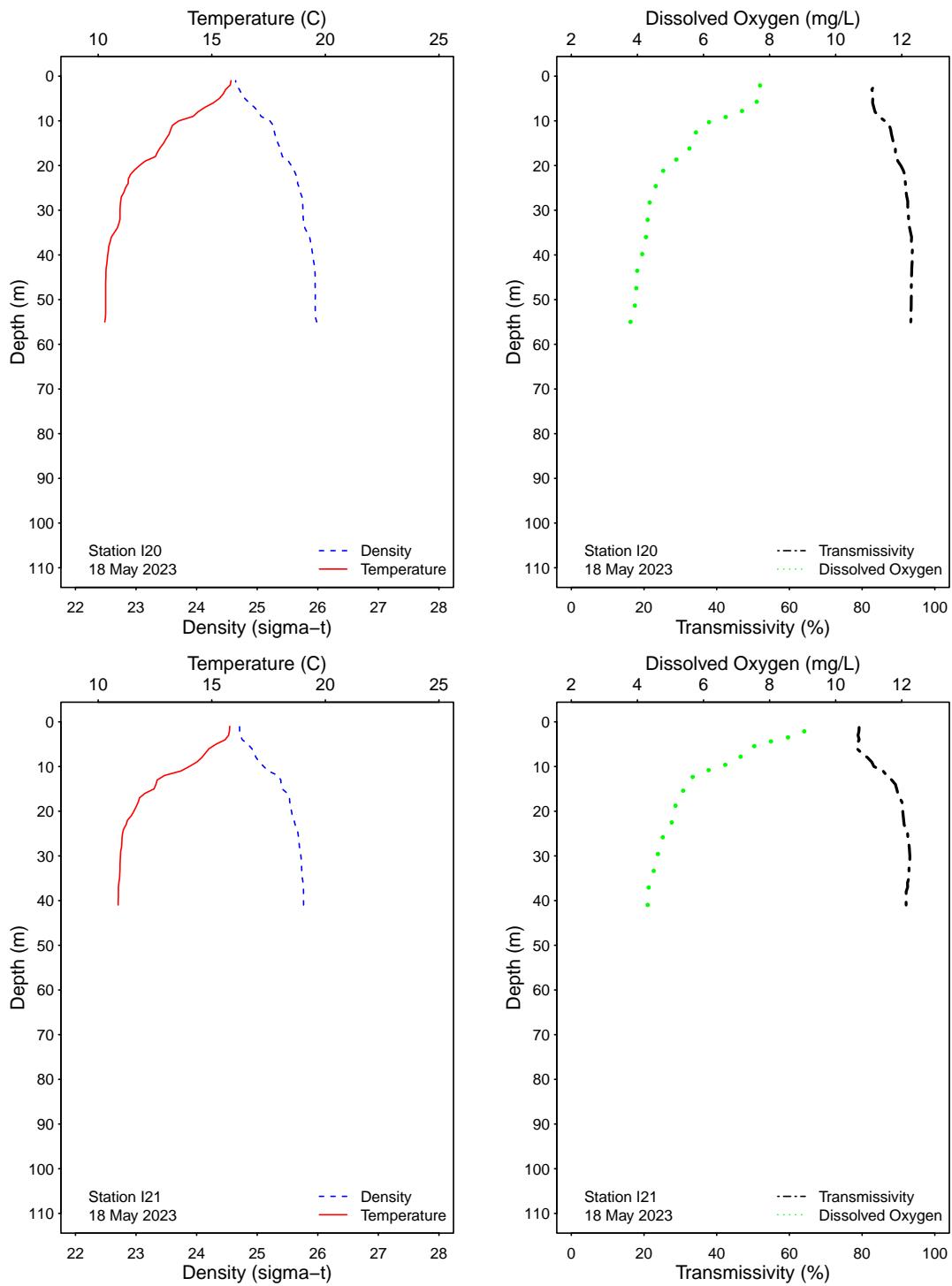


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

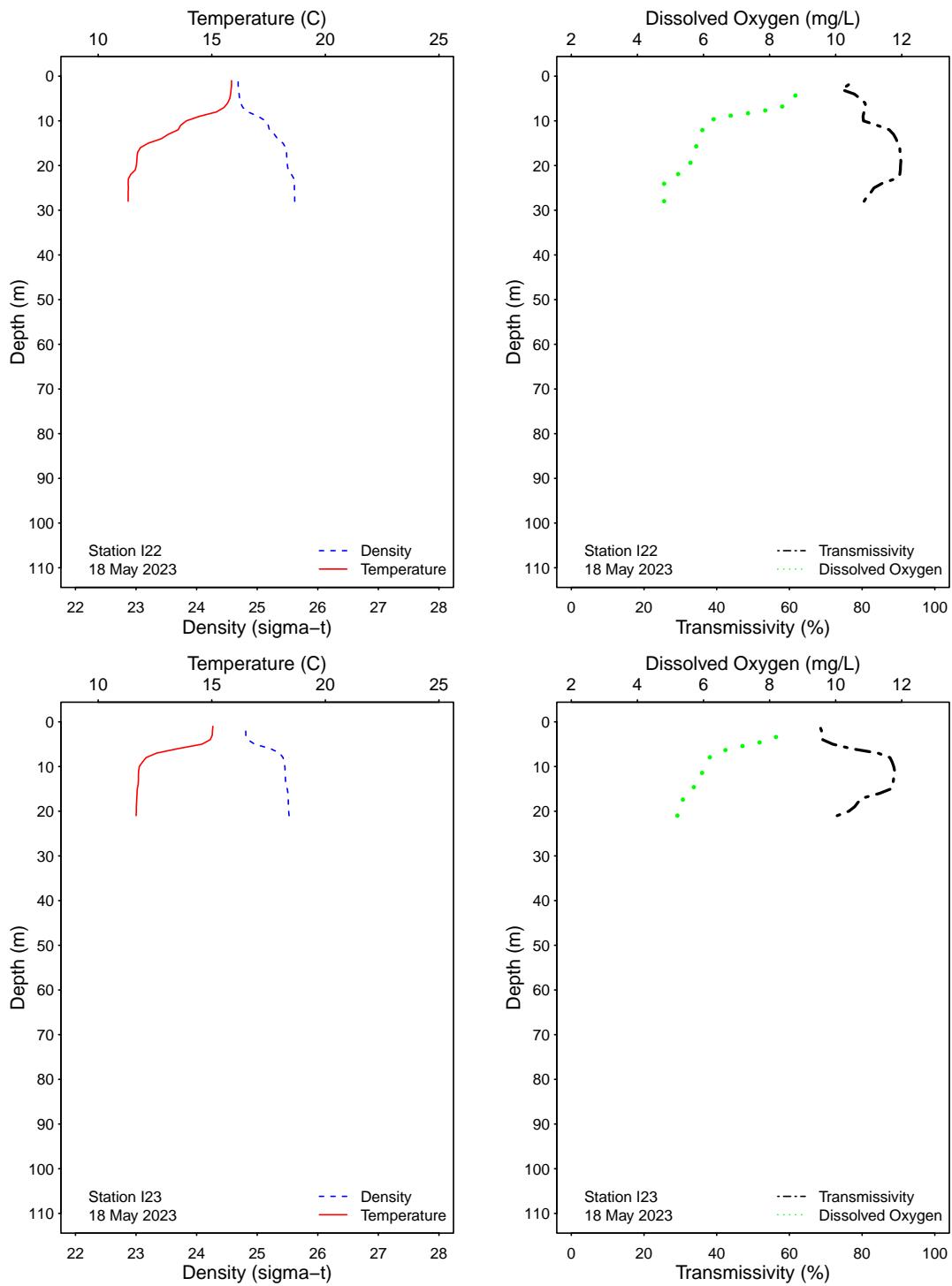


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

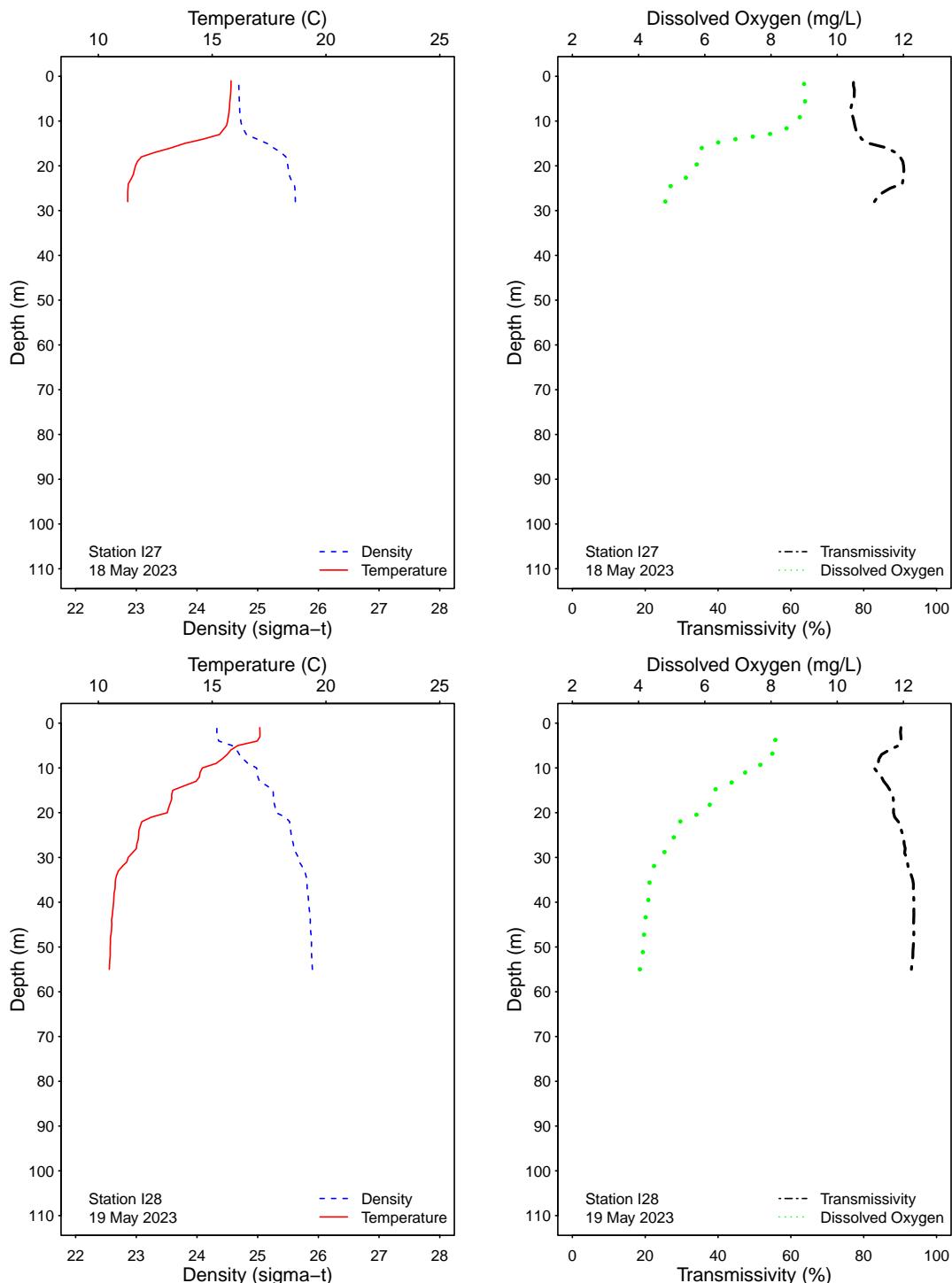


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

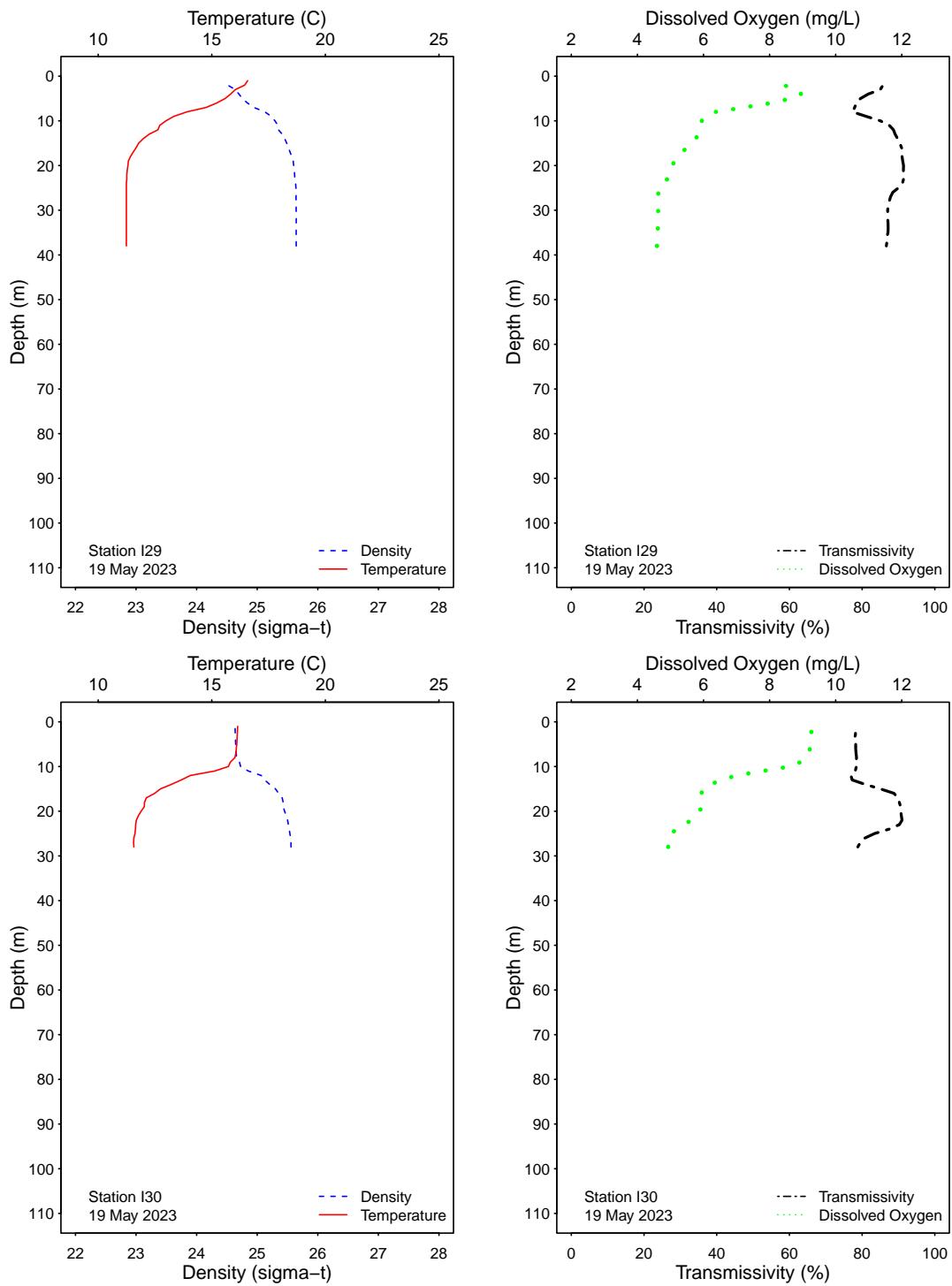


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

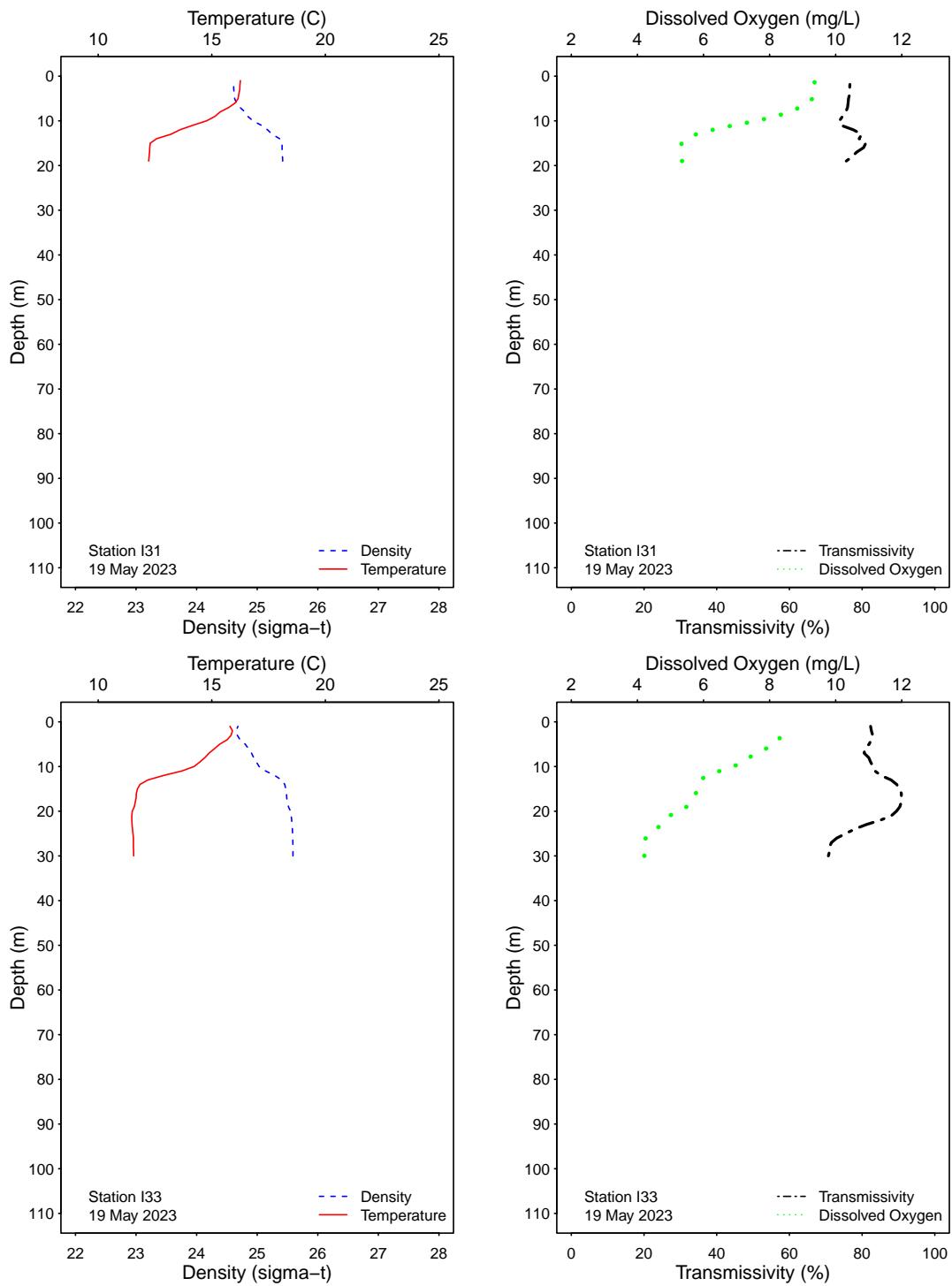


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

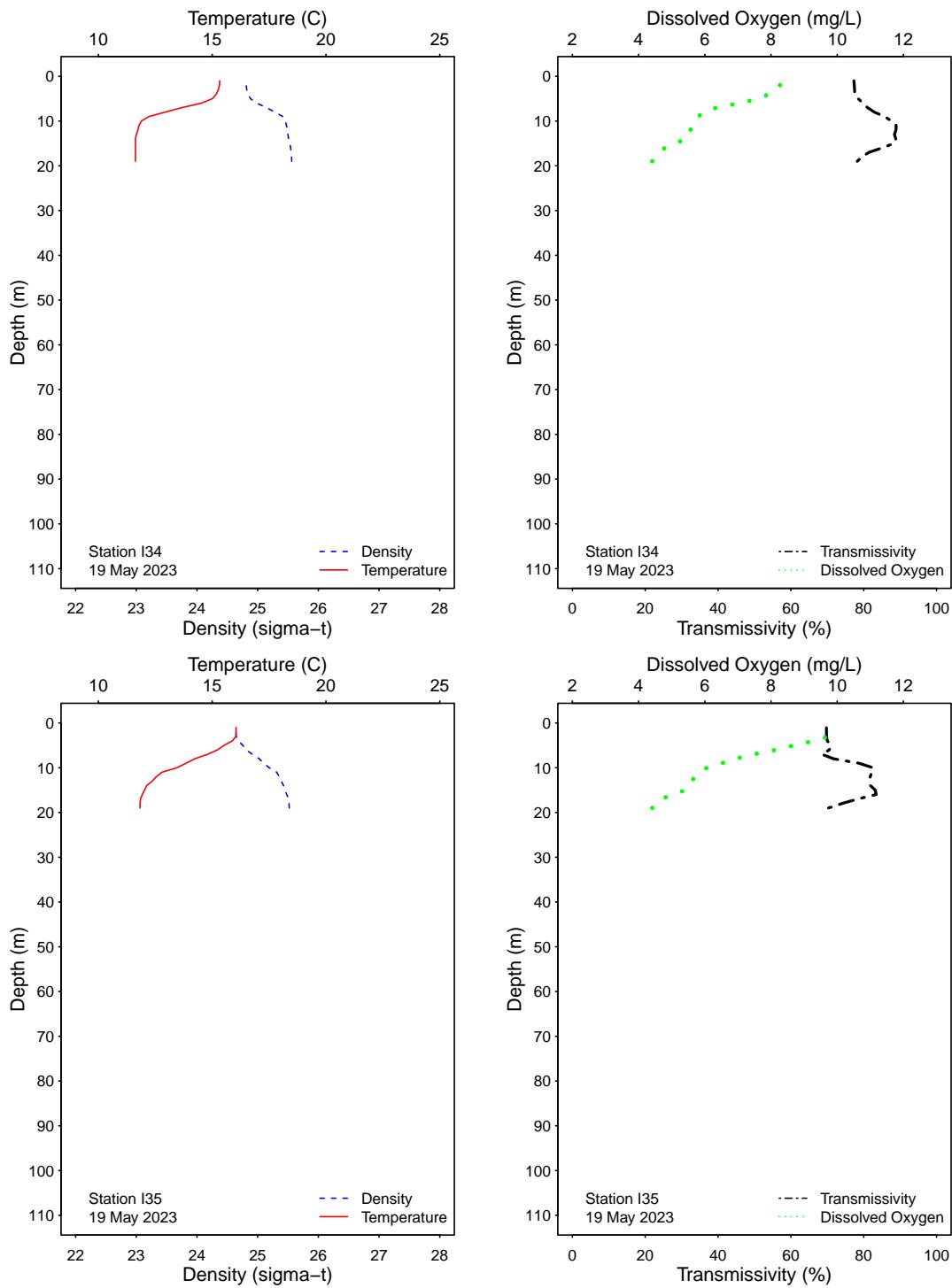


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

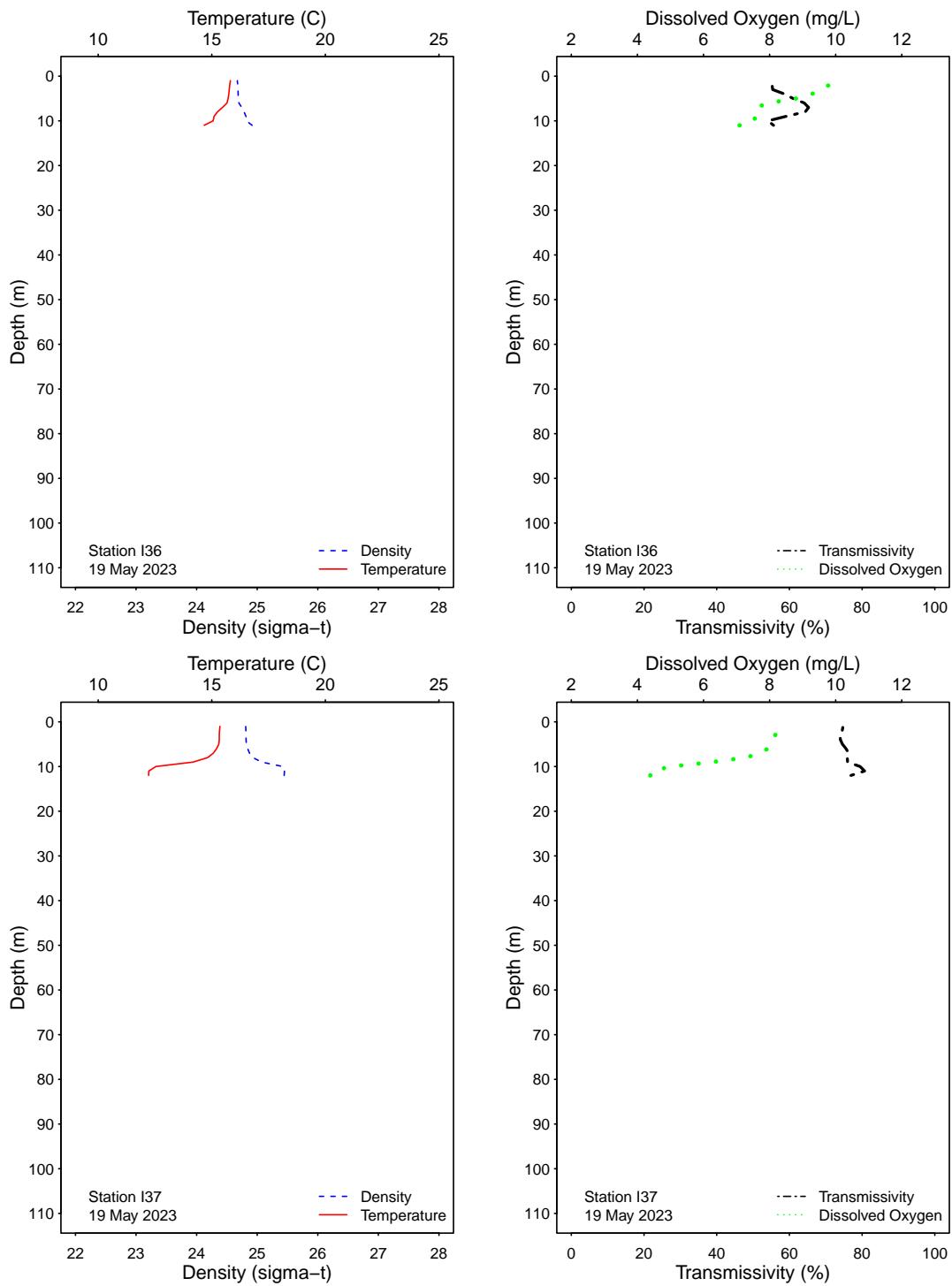


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.

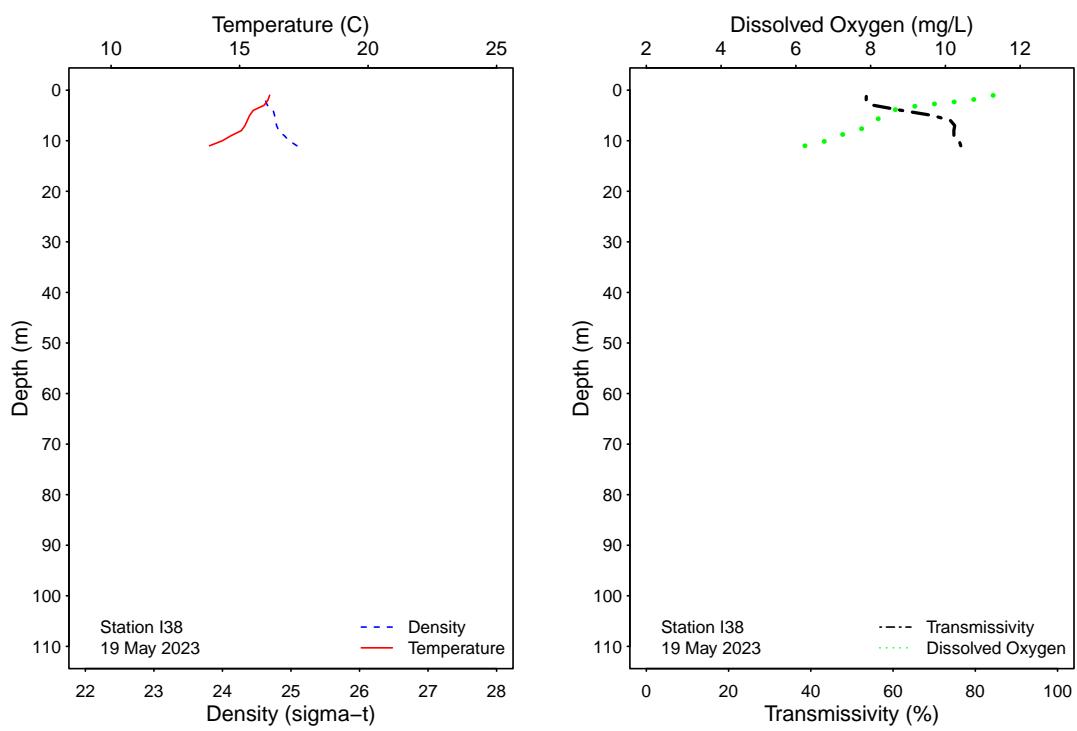


Figure 4.1: Graphics of CTD profile data from the SBOO offshore stations for each sample date.



## APPENDIX A

### Quality Assurance



**Table A.1**

Summary of bacteriological quality assurance field and lab duplicate sample analyses at selected SBOO stations. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Enter) are reported as CFU/100 mL.

<b>Station</b>	<b>Date</b>	<b>Depth</b>	<b>Analyst</b>	<b>Procedure</b>	<b>Total</b>	<b>Fecal</b>	<b>Enter</b>
I3	16 May 2023	18	JF	LAB DUPLICATE	<2	<2	<2
I8	16 May 2023	37	JF	LAB DUPLICATE	4e	<2	<2
I9	16 May 2023	27	JF	LAB DUPLICATE	<2	<2	<2
I12	18 May 2023	18	KT	LAB DUPLICATE	<2	<2	<2
I13	18 May 2023	18	KT	LAB DUPLICATE	ns	ns	ns
I16	18 May 2023	18	KT	LAB DUPLICATE	40e	10e	<2
I19	02 May 2023	6	JF	LAB DUPLICATE	2000e	600	120e
I19	09 May 2023	6	KT	LAB DUPLICATE	620	66	60
I19	15 May 2023	6	KA	LAB DUPLICATE	10e	8e	6e
I19	22 May 2023	6	CRE	LAB DUPLICATE	18e	<2	4e
I30	19 May 2023	27	CRE	LAB DUPLICATE	20e	<2	<2
I33	19 May 2023	18	CRE	LAB DUPLICATE	40e	4e	<2
I36	19 May 2023	11	CRE	FIELD DUPLICATE	800e	240e	70
I36	19 May 2023	11	CRE	LAB DUPLICATE	80e	120e	54
I40	02 May 2023	6	JF	LAB DUPLICATE	400e	60e	42
I40	09 May 2023	6	KT	LAB DUPLICATE	1200	280e	76
I40	15 May 2023	6	KA	LAB DUPLICATE	1000e	200e	100e
I40	22 May 2023	6	KT	LAB DUPLICATE	540e	120e	180e
S12	02 May 2023		JF	FIELD DUPLICATE	60e	6e	6e
S12	02 May 2023		JF	LAB DUPLICATE	80e	10e	2e
S12	09 May 2023		KA	FIELD DUPLICATE	<20	<2	2e
S12	09 May 2023		KA	LAB DUPLICATE	<20	<2	<2
S12	16 May 2023		KA	FIELD DUPLICATE	>16000	>12000	4800
S12	16 May 2023		KA	LAB DUPLICATE	>16000	>12000	6200
S12	23 May 2023		KA	FIELD DUPLICATE	>16000	8600	6400
S12	23 May 2023		KA	LAB DUPLICATE	>16000	>12000	9000
S12	30 May 2023		CRE	FIELD DUPLICATE	11000	4600	1100
S12	30 May 2023		CRE	LAB DUPLICATE	>=14000	6200	880

ns = not sampled

ND = no data

