



SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

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

OCTOBER 2022

Environmental Monitoring and Technical Services
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Public Utilities Department
Environmental Monitoring & Technical Services Division

November 30, 2022

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 October 2022 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 ≥ 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)¹. 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

¹ 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, 1987²) 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 2022 Quality Assurance Report, which will be completed in March 2023.

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 October, each of the eight shore stations located north of the border were out of compliance with 2019 California Ocean Plan (Ocean Plan) water contact standards on one or more days as follows:
 - The single sample maximum (SSM) standard for fecal coliforms was exceeded at stations S5, S6, and S11.
 - The 6-week running geometric mean standard for *Enterococcus* was exceeded at station S5.
 - The statistical threshold value (STV) standard for *Enterococcus* was exceeded at station S5.
 - The 30-day running median standard for total coliform was exceeded at stations S4, S5, S6, S8, S9, S11, and S12.

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

- The STV standard for total coliforms was exceeded at stations S5, S6, S10, S11 and S12.
- Nothing of sewage origin was observed at SBOO shore stations in October.
- 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 October 3, 11, 18, and 25. Due to a lab accident, samples originally collected on October 18th from stations I24, I25, I26, I32, and I39 were re-sampled on October 20th.
- During October, five of the seven kelp stations were out of compliance with 2019 Ocean Plan water contact standards on one or more days as follows:
 - The SSM for fecal coliforms was exceeded at stations I19, I24, I25, and I40.
 - The STV standard for *Enterococcus* was exceeded at station I25.
 - The 30-day running median standard for total coliform was exceeded at stations I19, I24, I25, I39, and I40.
 - The STV standard for total coliform was exceeded at stations I19, I24, I25, and I40.
- Water column temperatures ranged from 13.36 to 19.56°C. The difference between surface and bottom waters ranged from 0.10 to 4.94°C.
- Concentrations of chlorophyll *a* ranged from 0.87 to 27.48 µg/L at the kelp bed stations.
- Nothing of sewage origin was observed at SBOO kelp stations in October.

➤ **Offshore Water Quality Sampling**

- Quarterly sampling was not conducted during October at the offshore stations. The next quarterly sampling is scheduled for November 2022.



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 Oct 2022	7	104	22	9	5	9	14	35
02 Oct 2022	7	104	22	9	5	9	14	35
03 Oct 2022	7	104	22	9	5	9	14	35
04 Oct 2022	7	47	14	7	4	9	12	26
05 Oct 2022	7	47	14	7	4	9	12	26
06 Oct 2022	9	87	17	9	5	10	18	49
07 Oct 2022	9	87	17	9	5	10	18	49
08 Oct 2022	9	87	17	9	5	10	18	49
09 Oct 2022	9	87	17	9	5	10	18	49
10 Oct 2022	9	87	17	9	5	10	18	49
11 Oct 2022	7	41	11	7	4	9	12	26
12 Oct 2022	7	41	11	7	4	9	12	26
13 Oct 2022	4	21	5	2	2	4	5	9
14 Oct 2022	4	21	5	2	2	4	5	9
15 Oct 2022	4	21	5	2	2	4	5	9
16 Oct 2022	4	21	5	2	2	4	5	9
17 Oct 2022	4	21	5	2	2	4	5	9
18 Oct 2022	4	19	4	2	2	4	5	9
19 Oct 2022	4	19	4	2	2	4	5	9
20 Oct 2022	4	4	3	2	2	4	3	8
21 Oct 2022	4	4	3	2	2	4	3	8
22 Oct 2022	4	4	3	2	2	4	3	8
23 Oct 2022	4	4	3	2	2	4	3	8
24 Oct 2022	4	4	3	2	2	4	3	8
25 Oct 2022	4	15	14	2	2	7	13	14
26 Oct 2022	4	15	14	2	2	7	13	14
27 Oct 2022	4	21	15	2	2	7	21	13
28 Oct 2022	4	21	15	2	2	7	21	13
29 Oct 2022	4	21	15	2	2	7	21	13
30 Oct 2022	4	21	15	2	2	7	21	13
31 Oct 2022	4	21	15	2	2	7	21	13

* 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
04 Oct 2022	IC	IC	IC	IC	IC	IC	IC	IC
11 Oct 2022	IC	IC	IC	IC	IC	IC	IC	IC
18 Oct 2022	IC	IC	IC	IC	IC	IC	IC	IC
25 Oct 2022	IC	E	E	IC	IC	IC	E	IC

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 Oct 2022	3	31	9	4	4	3	14	10
02 Oct 2022	3	31	9	4	4	3	14	10
03 Oct 2022	3	31	9	4	4	3	14	10
04 Oct 2022	3	38	9	4	3	3	17	8
05 Oct 2022	3	38	9	4	3	3	17	8
06 Oct 2022	3	38	9	4	3	3	17	8
07 Oct 2022	3	38	9	4	3	3	17	8
08 Oct 2022	3	38	9	4	3	3	17	8
09 Oct 2022	3	38	9	4	3	3	17	8
10 Oct 2022	3	38	9	4	3	3	17	8
11 Oct 2022	3	27	9	3	3	3	19	9
12 Oct 2022	3	27	9	3	3	3	19	9
13 Oct 2022	3	27	9	3	3	3	19	9
14 Oct 2022	3	27	9	3	3	3	19	9
15 Oct 2022	3	27	9	3	3	3	19	9
16 Oct 2022	3	27	9	3	3	3	19	9
17 Oct 2022	3	27	9	3	3	3	19	9
18 Oct 2022	3	27	9	3	3	3	19	9
19 Oct 2022	3	27	9	3	3	3	19	9
20 Oct 2022	3	27	9	3	3	3	19	9
21 Oct 2022	3	27	9	3	3	3	19	9
22 Oct 2022	3	27	9	3	3	3	19	9
23 Oct 2022	3	27	9	3	3	3	19	9
24 Oct 2022	3	27	9	3	3	3	19	9
25 Oct 2022	3	31	9	2	3	2	9	6
26 Oct 2022	3	31	9	2	3	2	9	6
27 Oct 2022	3	31	9	2	3	2	9	6
28 Oct 2022	3	31	9	2	3	2	9	6
29 Oct 2022	3	31	9	2	3	2	9	6
30 Oct 2022	3	31	9	2	3	2	9	6
31 Oct 2022	3	31	9	2	3	2	9	6

* 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
October	IC	E	IC	IC	IC	IC	IC	IC

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 Oct 2022	80	1460	130	110	200	40	320	570
02 Oct 2022	80	1460	130	110	200	40	320	570
03 Oct 2022	80	1460	130	110	200	40	320	570
04 Oct 2022	40	120	120	20	200	40	40	200
05 Oct 2022	40	120	120	20	200	40	40	200
06 Oct 2022	40	1440	130	20	120	30	320	570
07 Oct 2022	40	1440	130	20	120	30	320	570
08 Oct 2022	40	1440	130	20	120	30	320	570
09 Oct 2022	40	1440	130	20	120	30	320	570
10 Oct 2022	40	1440	130	20	120	30	320	570
11 Oct 2022	40	80	120	20	200	20	40	200
12 Oct 2022	40	80	120	20	200	20	40	200
13 Oct 2022	30	50	70	20	120	20	30	200
14 Oct 2022	30	50	70	20	120	20	30	200
15 Oct 2022	30	50	70	20	120	20	30	200
16 Oct 2022	30	50	70	20	120	20	30	200
17 Oct 2022	30	50	70	20	120	20	30	200
18 Oct 2022	20	60	20	20	40	20	20	200
19 Oct 2022	20	60	20	20	40	20	20	200
20 Oct 2022	30	40	20	20	110	20	20	140
21 Oct 2022	30	40	20	20	110	20	20	140
22 Oct 2022	30	40	20	20	110	20	20	140
23 Oct 2022	30	40	20	20	110	20	20	140
24 Oct 2022	30	40	20	20	110	20	20	140
25 Oct 2022	40	60	20	20	20	20	20	200
26 Oct 2022	40	60	20	20	20	20	20	200
27 Oct 2022	30	40	20	110	20	20	20	140
28 Oct 2022	30	40	20	110	20	20	20	140
29 Oct 2022	30	40	20	110	20	20	20	140
30 Oct 2022	30	40	20	110	20	20	20	140
31 Oct 2022	30	40	20	110	20	20	20	140

* Median calculated using n<5

Table 2.6

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

Date	S4	S5	S6	S8	S9	S10	S11	S12
October	IC	E	E	IC	IC	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	04 Oct 2022	850	>16000	7600	1800e
S0	11 Oct 2022	1120	6400	2400e	1600e
S0	18 Oct 2022	935	420	44	22e
S0	25 Oct 2022	830	1800e	280e	72
S2	04 Oct 2022	945	720	62	100
S2	11 Oct 2022	1020	20e	<2	6e
S2	18 Oct 2022	850	<2	<2	<2
S2	25 Oct 2022	1050	<200	24e	20e
S3	04 Oct 2022	920	180e	22e	22e
S3	11 Oct 2022	1045	<20	<2	14e
S3	18 Oct 2022	815	<2	<2	<2
S3	25 Oct 2022	1020	200e	4e	12e
S4	04 Oct 2022	1009	40e	8e	2e
S4	11 Oct 2022	1102	<20	4e	4e
S4	18 Oct 2022	1039	2e	<2	<2
S4	25 Oct 2022	1117	200e	4e	6e
S5	04 Oct 2022	1105	<20	2e	6e
S5	11 Oct 2022	952	20e	2e	4e
S5	18 Oct 2022	942	60e	14e	2e
S5	25 Oct 2022	1017	>16000	3400e	140e
S6	04 Oct 2022	1125	<20	<2	<2
S6	11 Oct 2022	1009	<20	<2	<2
S6	18 Oct 2022	1001	<20	2e	2e
S6	25 Oct 2022	1040	>16000	6200	96
S8	04 Oct 2022	1202	<20	<2	<2
S8	11 Oct 2022	905	<200	2e	2e
S8	18 Oct 2022	904	<20	<2	<2
S8	25 Oct 2022	930	<200	<2	<2
S9	04 Oct 2022	1220	<20	<2	<2
S9	11 Oct 2022	845	<200	<2	6e
S9	18 Oct 2022	840	20e	<2	<2
S9	25 Oct 2022	910	<20	<2	4e
S10	04 Oct 2022	1016	20e	6e	2e
S10	11 Oct 2022	1053	<20	4e	4e
S10	18 Oct 2022	1047	<20	2e	<2
S10	25 Oct 2022	1127	400e	40e	<2
S11	04 Oct 2022	1119	20e	6e	6e
S11	11 Oct 2022	1002	<20	<2	4e
S11	18 Oct 2022	953	<20	4e	<2
S11	25 Oct 2022	1030	>16000	4200	58
S12	04 Oct 2022	1138	80e	8e	4e
S12	11 Oct 2022	930	<200	2e	6e
S12	18 Oct 2022	923	<20	12e	2e

Station	Date	Time	Total	Fecal	Enteric
S12	25 Oct 2022	957	1200e	140e	12e

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	04 Oct 2022	Arrive Time	1726
S0	04 Oct 2022	Weather	Cloudy
S0	04 Oct 2022	Wind Speed (kts)	1.1
S0	04 Oct 2022	Wind Dir	NE
S0	04 Oct 2022	Animal Life	Bird-20; Dog-2
S0	04 Oct 2022	Floatables	None
S0	04 Oct 2022	Water Color	Green
S0	04 Oct 2022	Current Direction	N
S0	04 Oct 2022	Water Temp (C)	16
S0	04 Oct 2022	Wave Height Low (ft)	3
S0	04 Oct 2022	High Tide (ft)	3.97
S0	04 Oct 2022	High Tide Time	700
S0	04 Oct 2022	Low Tide (ft)	2.85
S0	04 Oct 2022	Low Tide Time	1138
S0	04 Oct 2022	Comments	Kelp; Algae; Person/Walker/Jogger-4; 0.5 L/sec water flowing from storm drain
S0	11 Oct 2022	Arrive Time	
S0	11 Oct 2022	Weather	Cloudy
S0	11 Oct 2022	Wind Speed (kts)	1.7
S0	11 Oct 2022	Wind Dir	NW
S0	11 Oct 2022	Animal Life	Bird-15; Dog-2
S0	11 Oct 2022	Floatables	None
S0	11 Oct 2022	Water Color	Green
S0	11 Oct 2022	Current Direction	N
S0	11 Oct 2022	Water Temp (C)	17
S0	11 Oct 2022	Wave Height Low (ft)	3
S0	11 Oct 2022	High Tide (ft)	5.92
S0	11 Oct 2022	High Tide Time	1013
S0	11 Oct 2022	Low Tide (ft)	1.02
S0	11 Oct 2022	Low Tide Time	409
S0	11 Oct 2022	Comments	Kelp; Algae; 0.1 L/sec water flowing from storm drain
S0	18 Oct 2022	Arrive Time	1720
S0	18 Oct 2022	Weather	Sunny
S0	18 Oct 2022	Wind Speed (kts)	1.1
S0	18 Oct 2022	Wind Dir	NE
S0	18 Oct 2022	Animal Life	Bird-10; Dog-3
S0	18 Oct 2022	Floatables	None
S0	18 Oct 2022	Water Color	Green
S0	18 Oct 2022	Current Direction	N
S0	18 Oct 2022	Water Temp (C)	17
S0	18 Oct 2022	Wave Height Low (ft)	3
S0	18 Oct 2022	High Tide (ft)	3.88
S0	18 Oct 2022	High Tide Time	710
S0	18 Oct 2022	Low Tide (ft)	3.16
S0	18 Oct 2022	Low Tide Time	1143
S0	18 Oct 2022	Comments	Kelp; Algae; Person/Walker/Jogger-6; 0.5 L/sec water flowing from storm drain
S0	25 Oct 2022	Arrive Time	1504
S0	25 Oct 2022	Weather	Sunny
S0	25 Oct 2022	Wind Speed (kts)	1
S0	25 Oct 2022	Wind Dir	NE
S0	25 Oct 2022	Animal Life	Dog-2; Seagull-20
S0	25 Oct 2022	Floatables	None

Station	Date	Parameter	Value
S0	25 Oct 2022	Water Color	Green
S0	25 Oct 2022	Current Direction	N
S0	25 Oct 2022	Water Temp (C)	15
S0	25 Oct 2022	Wave Height Low (ft)	3
S0	25 Oct 2022	High Tide (ft)	6.09
S0	25 Oct 2022	High Tide Time	912
S0	25 Oct 2022	Low Tide (ft)	0.87
S0	25 Oct 2022	Low Tide Time	305
S0	25 Oct 2022	Comments	Kelp; Algae; Person/Walker/Jogger-2; Surfer/Paddle boarder-3; 0.5 L/sec water flowing from storm drain
S2	04 Oct 2022	Arrive Time	1723
S2	04 Oct 2022	Weather	Cloudy
S2	04 Oct 2022	Wind Speed (kts)	1
S2	04 Oct 2022	Wind Dir	NE
S2	04 Oct 2022	Animal Life	Bird-20; Dog-4
S2	04 Oct 2022	Floatables	None
S2	04 Oct 2022	Water Color	Green
S2	04 Oct 2022	Current Direction	N
S2	04 Oct 2022	Water Temp (C)	16
S2	04 Oct 2022	Wave Height Low (ft)	3
S2	04 Oct 2022	High Tide (ft)	3.97
S2	04 Oct 2022	High Tide Time	700
S2	04 Oct 2022	Low Tide (ft)	2.85
S2	04 Oct 2022	Low Tide Time	1138
S2	04 Oct 2022	Comments	Kelp; Algae; Person/Walker/Jogger-10; No flow from storm drain
S2	11 Oct 2022	Arrive Time	
S2	11 Oct 2022	Weather	Cloudy
S2	11 Oct 2022	Wind Speed (kts)	0.8
S2	11 Oct 2022	Wind Dir	NW
S2	11 Oct 2022	Animal Life	Bird-15
S2	11 Oct 2022	Floatables	None
S2	11 Oct 2022	Water Color	Green
S2	11 Oct 2022	Current Direction	N
S2	11 Oct 2022	Water Temp (C)	17
S2	11 Oct 2022	Wave Height Low (ft)	3
S2	11 Oct 2022	High Tide (ft)	5.92
S2	11 Oct 2022	High Tide Time	1013
S2	11 Oct 2022	Low Tide (ft)	1.02
S2	11 Oct 2022	Low Tide Time	409
S2	11 Oct 2022	Comments	Kelp; Algae; No flow from storm drain
S2	18 Oct 2022	Arrive Time	
S2	18 Oct 2022	Weather	Sunny
S2	18 Oct 2022	Wind Speed (kts)	1.3
S2	18 Oct 2022	Wind Dir	NE
S2	18 Oct 2022	Animal Life	Bird-20; Dog-4
S2	18 Oct 2022	Floatables	None
S2	18 Oct 2022	Water Color	Green
S2	18 Oct 2022	Current Direction	N
S2	18 Oct 2022	Water Temp (C)	17
S2	18 Oct 2022	Wave Height Low (ft)	3
S2	18 Oct 2022	High Tide (ft)	3.88
S2	18 Oct 2022	High Tide Time	710
S2	18 Oct 2022	Low Tide (ft)	3.16
S2	18 Oct 2022	Low Tide Time	1143
S2	18 Oct 2022	Comments	Kelp; Algae; Person/Walker/Jogger-10; No flow from storm drain

Station	Date	Parameter	Value
S2	25 Oct 2022	Arrive Time	
S2	25 Oct 2022	Weather	Sunny
S2	25 Oct 2022	Wind Speed (kts)	1.6
S2	25 Oct 2022	Wind Dir	NE
S2	25 Oct 2022	Animal Life	Bird-2; Seagull-10
S2	25 Oct 2022	Floatables	None
S2	25 Oct 2022	Water Color	Green
S2	25 Oct 2022	Current Direction	N
S2	25 Oct 2022	Water Temp (C)	15
S2	25 Oct 2022	Wave Height Low (ft)	3
S2	25 Oct 2022	High Tide (ft)	6.09
S2	25 Oct 2022	High Tide Time	912
S2	25 Oct 2022	Low Tide (ft)	0.87
S2	25 Oct 2022	Low Tide Time	305
S2	25 Oct 2022	Comments	Person/Walker/Jogger-10; No flow from storm drain
S3	04 Oct 2022	Arrive Time	1713
S3	04 Oct 2022	Weather	Cloudy
S3	04 Oct 2022	Wind Speed (kts)	1
S3	04 Oct 2022	Wind Dir	NE
S3	04 Oct 2022	Animal Life	Bird-20; Dog-2
S3	04 Oct 2022	Floatables	None
S3	04 Oct 2022	Water Color	Green
S3	04 Oct 2022	Current Direction	N
S3	04 Oct 2022	Water Temp (C)	16
S3	04 Oct 2022	Wave Height Low (ft)	3
S3	04 Oct 2022	High Tide (ft)	3.97
S3	04 Oct 2022	High Tide Time	700
S3	04 Oct 2022	Low Tide (ft)	2.85
S3	04 Oct 2022	Low Tide Time	1138
S3	04 Oct 2022	Comments	Kelp; Algae; Person/Walker/Jogger-20; 0.5 L/sec water flowing from storm drain
S3	11 Oct 2022	Arrive Time	
S3	11 Oct 2022	Weather	Cloudy
S3	11 Oct 2022	Wind Speed (kts)	1.1
S3	11 Oct 2022	Wind Dir	NW
S3	11 Oct 2022	Animal Life	Bird-15; Dog-1
S3	11 Oct 2022	Floatables	None
S3	11 Oct 2022	Water Color	Green
S3	11 Oct 2022	Current Direction	N
S3	11 Oct 2022	Water Temp (C)	17
S3	11 Oct 2022	Wave Height Low (ft)	3
S3	11 Oct 2022	High Tide (ft)	5.92
S3	11 Oct 2022	High Tide Time	1013
S3	11 Oct 2022	Low Tide (ft)	1.02
S3	11 Oct 2022	Low Tide Time	409
S3	11 Oct 2022	Comments	Kelp; Algae; Surfer/Paddle boarder-3; 1.0 L/sec water flowing from storm drain
S3	18 Oct 2022	Arrive Time	1715
S3	18 Oct 2022	Weather	Sunny
S3	18 Oct 2022	Wind Speed (kts)	1.5
S3	18 Oct 2022	Wind Dir	NE
S3	18 Oct 2022	Animal Life	Bird-20; Dog-6
S3	18 Oct 2022	Floatables	None
S3	18 Oct 2022	Water Color	Green
S3	18 Oct 2022	Current Direction	N
S3	18 Oct 2022	Water Temp (C)	17
S3	18 Oct 2022	Wave Height Low (ft)	3
S3	18 Oct 2022	High Tide (ft)	3.88

Station	Date	Parameter	Value
S3	18 Oct 2022	High Tide Time	710
S3	18 Oct 2022	Low Tide (ft)	3.16
S3	18 Oct 2022	Low Tide Time	1143
S3	18 Oct 2022	Comments	Kelp; Algae; Person/Walker/Jogger-10; 0.5 L/sec water flowing from storm drain
S3	25 Oct 2022	Arrive Time	1456
S3	25 Oct 2022	Weather	Sunny
S3	25 Oct 2022	Wind Speed (kts)	1.2
S3	25 Oct 2022	Wind Dir	NE
S3	25 Oct 2022	Animal Life	Dog-2; Seagull-10
S3	25 Oct 2022	Floatables	None
S3	25 Oct 2022	Water Color	Green
S3	25 Oct 2022	Current Direction	N
S3	25 Oct 2022	Water Temp (C)	15
S3	25 Oct 2022	Wave Height Low (ft)	3
S3	25 Oct 2022	High Tide (ft)	6.09
S3	25 Oct 2022	High Tide Time	912
S3	25 Oct 2022	Low Tide (ft)	0.87
S3	25 Oct 2022	Low Tide Time	305
S3	25 Oct 2022	Comments	Kelp; Algae; Person/Walker/Jogger-10; 0.5 L/sec water flowing from storm drain
S4	04 Oct 2022	Arrive Time	1009
S4	04 Oct 2022	Weather	Foggy
S4	04 Oct 2022	Wind Speed (kts)	0.7
S4	04 Oct 2022	Wind Dir	SW
S4	04 Oct 2022	Animal Life	Bird-2; Dolphin-1
S4	04 Oct 2022	Floatables	None
S4	04 Oct 2022	Water Color	Green
S4	04 Oct 2022	Current Direction	N
S4	04 Oct 2022	Water Temp (C)	16
S4	04 Oct 2022	Wave Height Low (ft)	1
S4	04 Oct 2022	High Tide (ft)	3.97
S4	04 Oct 2022	High Tide Time	700
S4	04 Oct 2022	Low Tide (ft)	2.85
S4	04 Oct 2022	Low Tide Time	1138
S4	04 Oct 2022	Comments	Seagrass; Kelp
S4	11 Oct 2022	Arrive Time	1102
S4	11 Oct 2022	Weather	Cloudy
S4	11 Oct 2022	Wind Speed (kts)	4.2
S4	11 Oct 2022	Wind Dir	W
S4	11 Oct 2022	Animal Life	Bird-22; Dolphin-1
S4	11 Oct 2022	Floatables	Foam; Sludge
S4	11 Oct 2022	Water Color	Green
S4	11 Oct 2022	Current Direction	N
S4	11 Oct 2022	Water Temp (C)	17
S4	11 Oct 2022	Wave Height Low (ft)	4
S4	11 Oct 2022	High Tide (ft)	5.92
S4	11 Oct 2022	High Tide Time	1013
S4	11 Oct 2022	Low Tide (ft)	1.02
S4	11 Oct 2022	Low Tide Time	409
S4	11 Oct 2022	Comments	Kelp; Seagrass; Debris
S4	18 Oct 2022	Arrive Time	1039
S4	18 Oct 2022	Weather	Sunny
S4	18 Oct 2022	Wind Speed (kts)	4.4
S4	18 Oct 2022	Wind Dir	NW
S4	18 Oct 2022	Animal Life	Bird-1; Horse-27; Pelican-2; Seagull-5
S4	18 Oct 2022	Floatables	None

Station	Date	Parameter	Value
S4	18 Oct 2022	Water Color	Green
S4	18 Oct 2022	Current Direction	S
S4	18 Oct 2022	Water Temp (C)	19
S4	18 Oct 2022	Wave Height Low (ft)	1
S4	18 Oct 2022	High Tide (ft)	3.88
S4	18 Oct 2022	High Tide Time	710
S4	18 Oct 2022	Low Tide (ft)	3.16
S4	18 Oct 2022	Low Tide Time	1143
S4	18 Oct 2022	Comments	Water clear; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-7
S4	25 Oct 2022	Arrive Time	1117
S4	25 Oct 2022	Weather	Sunny
S4	25 Oct 2022	Wind Speed (kts)	4.6
S4	25 Oct 2022	Wind Dir	W
S4	25 Oct 2022	Animal Life	Bird-1; Seagull-5
S4	25 Oct 2022	Floatables	None
S4	25 Oct 2022	Water Color	Green
S4	25 Oct 2022	Current Direction	N
S4	25 Oct 2022	Water Temp (C)	23
S4	25 Oct 2022	Wave Height Low (ft)	4
S4	25 Oct 2022	High Tide (ft)	6.09
S4	25 Oct 2022	High Tide Time	912
S4	25 Oct 2022	Low Tide (ft)	0.87
S4	25 Oct 2022	Low Tide Time	305
S4	25 Oct 2022	Comments	Kelp; Seagrass
S5	04 Oct 2022	Arrive Time	1105
S5	04 Oct 2022	Weather	Overcast
S5	04 Oct 2022	Wind Speed (kts)	0.8
S5	04 Oct 2022	Wind Dir	W
S5	04 Oct 2022	Animal Life	
S5	04 Oct 2022	Floatables	Foam; Dead animals
S5	04 Oct 2022	Water Color	Green
S5	04 Oct 2022	Current Direction	N
S5	04 Oct 2022	Water Temp (C)	18
S5	04 Oct 2022	Wave Height Low (ft)	2
S5	04 Oct 2022	High Tide (ft)	3.97
S5	04 Oct 2022	High Tide Time	700
S5	04 Oct 2022	Low Tide (ft)	2.85
S5	04 Oct 2022	Low Tide Time	1138
S5	04 Oct 2022	Comments	Water turbid; Trash-1; Kelp; Seagrass; Algae; Debris; Person/Walker/Jogger-1
S5	11 Oct 2022	Arrive Time	952
S5	11 Oct 2022	Weather	Overcast
S5	11 Oct 2022	Wind Speed (kts)	1.9
S5	11 Oct 2022	Wind Dir	W
S5	11 Oct 2022	Animal Life	Pelican-2
S5	11 Oct 2022	Floatables	Foam
S5	11 Oct 2022	Water Color	Green
S5	11 Oct 2022	Current Direction	N
S5	11 Oct 2022	Water Temp (C)	18
S5	11 Oct 2022	Wave Height Low (ft)	2
S5	11 Oct 2022	High Tide (ft)	5.92
S5	11 Oct 2022	High Tide Time	1013
S5	11 Oct 2022	Low Tide (ft)	1.02
S5	11 Oct 2022	Low Tide Time	409
S5	11 Oct 2022	Comments	Kelp; Seagrass; Debris
S5	18 Oct 2022	Arrive Time	942

Station	Date	Parameter	Value
S5	18 Oct 2022	Weather	Sunny
S5	18 Oct 2022	Wind Speed (kts)	6.2
S5	18 Oct 2022	Wind Dir	N
S5	18 Oct 2022	Animal Life	Dolphin-4; Pelican-2; Seagull-8; Shark-1
S5	18 Oct 2022	Floatables	None
S5	18 Oct 2022	Water Color	Green
S5	18 Oct 2022	Current Direction	S
S5	18 Oct 2022	Water Temp (C)	18
S5	18 Oct 2022	Wave Height Low (ft)	1
S5	18 Oct 2022	High Tide (ft)	3.88
S5	18 Oct 2022	High Tide Time	710
S5	18 Oct 2022	Low Tide (ft)	3.16
S5	18 Oct 2022	Low Tide Time	1143
S5	18 Oct 2022	Comments	Water clear; Trash-2; Kelp; Seagrass; Debris; Algae; Person/Walker/Jogger-2
S5	25 Oct 2022	Arrive Time	1017
S5	25 Oct 2022	Weather	Sunny
S5	25 Oct 2022	Wind Speed (kts)	5.6
S5	25 Oct 2022	Wind Dir	NW
S5	25 Oct 2022	Animal Life	Bird-4
S5	25 Oct 2022	Floatables	None
S5	25 Oct 2022	Water Color	Green
S5	25 Oct 2022	Current Direction	S
S5	25 Oct 2022	Water Temp (C)	21
S5	25 Oct 2022	Wave Height Low (ft)	3
S5	25 Oct 2022	High Tide (ft)	6.09
S5	25 Oct 2022	High Tide Time	912
S5	25 Oct 2022	Low Tide (ft)	0.87
S5	25 Oct 2022	Low Tide Time	305
S5	25 Oct 2022	Comments	Water clear; Trash-1; Kelp; Seagrass; Algae; Person/Walker/Jogger-1
S6	04 Oct 2022	Arrive Time	1125
S6	04 Oct 2022	Weather	Overcast
S6	04 Oct 2022	Wind Speed (kts)	3.1
S6	04 Oct 2022	Wind Dir	SW
S6	04 Oct 2022	Animal Life	Bird-5
S6	04 Oct 2022	Floatables	None
S6	04 Oct 2022	Water Color	Green
S6	04 Oct 2022	Current Direction	N
S6	04 Oct 2022	Water Temp (C)	17
S6	04 Oct 2022	Wave Height Low (ft)	2
S6	04 Oct 2022	High Tide (ft)	3.97
S6	04 Oct 2022	High Tide Time	700
S6	04 Oct 2022	Low Tide (ft)	2.85
S6	04 Oct 2022	Low Tide Time	1138
S6	04 Oct 2022	Comments	Kelp; Seagrass; Algae
S6	11 Oct 2022	Arrive Time	1009
S6	11 Oct 2022	Weather	Overcast
S6	11 Oct 2022	Wind Speed (kts)	1.3
S6	11 Oct 2022	Wind Dir	W
S6	11 Oct 2022	Animal Life	Seagull-3
S6	11 Oct 2022	Floatables	Foam; Dead animals
S6	11 Oct 2022	Water Color	Green
S6	11 Oct 2022	Current Direction	N
S6	11 Oct 2022	Water Temp (C)	19
S6	11 Oct 2022	Wave Height Low (ft)	3
S6	11 Oct 2022	High Tide (ft)	5.92
S6	11 Oct 2022	High Tide Time	1013

Station	Date	Parameter	Value
S6	11 Oct 2022	Low Tide (ft)	1.02
S6	11 Oct 2022	Low Tide Time	409
S6	11 Oct 2022	Comments	Water clear; Surfer/Paddle boarder-3; Trash-2; Kelp; Seagrass; Person/Walker/Jogger-9
S6	18 Oct 2022	Arrive Time	1001
S6	18 Oct 2022	Weather	Sunny
S6	18 Oct 2022	Wind Speed (kts)	4.2
S6	18 Oct 2022	Wind Dir	N
S6	18 Oct 2022	Animal Life	Pelican-1; Seagull-3
S6	18 Oct 2022	Floatables	None
S6	18 Oct 2022	Water Color	Green
S6	18 Oct 2022	Current Direction	S
S6	18 Oct 2022	Water Temp (C)	17
S6	18 Oct 2022	Wave Height Low (ft)	4
S6	18 Oct 2022	High Tide (ft)	3.88
S6	18 Oct 2022	High Tide Time	710
S6	18 Oct 2022	Low Tide (ft)	3.16
S6	18 Oct 2022	Low Tide Time	1143
S6	18 Oct 2022	Comments	Water clear; Trash-1; Kelp; Seagrass; Algae; Debris; Person/Walker/Jogger-2
S6	25 Oct 2022	Arrive Time	1040
S6	25 Oct 2022	Weather	Sunny
S6	25 Oct 2022	Wind Speed (kts)	4.8
S6	25 Oct 2022	Wind Dir	NW
S6	25 Oct 2022	Animal Life	Seagull-10
S6	25 Oct 2022	Floatables	Dead animals
S6	25 Oct 2022	Water Color	Green
S6	25 Oct 2022	Current Direction	N
S6	25 Oct 2022	Water Temp (C)	20
S6	25 Oct 2022	Wave Height Low (ft)	4
S6	25 Oct 2022	High Tide (ft)	6.09
S6	25 Oct 2022	High Tide Time	912
S6	25 Oct 2022	Low Tide (ft)	0.87
S6	25 Oct 2022	Low Tide Time	305
S6	25 Oct 2022	Comments	Water clear; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-2
S8	04 Oct 2022	Arrive Time	1202
S8	04 Oct 2022	Weather	Overcast
S8	04 Oct 2022	Wind Speed (kts)	5.4
S8	04 Oct 2022	Wind Dir	SW
S8	04 Oct 2022	Animal Life	Seagull-1
S8	04 Oct 2022	Floatables	None
S8	04 Oct 2022	Water Color	Green
S8	04 Oct 2022	Current Direction	N
S8	04 Oct 2022	Water Temp (C)	18
S8	04 Oct 2022	Wave Height Low (ft)	2
S8	04 Oct 2022	High Tide (ft)	3.97
S8	04 Oct 2022	High Tide Time	700
S8	04 Oct 2022	Low Tide (ft)	2.85
S8	04 Oct 2022	Low Tide Time	1138
S8	04 Oct 2022	Comments	Water clear; Boogie boarder/Swimmer-2; Trash-2; Kelp; Seagrass; Debris; Person/Walker/Jogger-23
S8	11 Oct 2022	Arrive Time	905
S8	11 Oct 2022	Weather	Overcast
S8	11 Oct 2022	Wind Speed (kts)	1.1
S8	11 Oct 2022	Wind Dir	SW
S8	11 Oct 2022	Animal Life	

Station	Date	Parameter	Value
S8	11 Oct 2022	Floatables	Foam
S8	11 Oct 2022	Water Color	Green
S8	11 Oct 2022	Current Direction	S
S8	11 Oct 2022	Water Temp (C)	18
S8	11 Oct 2022	Wave Height Low (ft)	4
S8	11 Oct 2022	High Tide (ft)	5.92
S8	11 Oct 2022	High Tide Time	1013
S8	11 Oct 2022	Low Tide (ft)	1.02
S8	11 Oct 2022	Low Tide Time	409
S8	11 Oct 2022	Comments	Water turbid; Boogie boarder/Swimmer-1; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-4
S8	18 Oct 2022	Arrive Time	904
S8	18 Oct 2022	Weather	Sunny
S8	18 Oct 2022	Wind Speed (kts)	1.5
S8	18 Oct 2022	Wind Dir	NW
S8	18 Oct 2022	Animal Life	Bird-40; Pelican-2; Seagull-5
S8	18 Oct 2022	Floatables	None
S8	18 Oct 2022	Water Color	Green
S8	18 Oct 2022	Current Direction	N
S8	18 Oct 2022	Water Temp (C)	18
S8	18 Oct 2022	Wave Height Low (ft)	1
S8	18 Oct 2022	High Tide (ft)	3.88
S8	18 Oct 2022	High Tide Time	710
S8	18 Oct 2022	Low Tide (ft)	3.16
S8	18 Oct 2022	Low Tide Time	1143
S8	18 Oct 2022	Comments	Water clear; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-1
S8	25 Oct 2022	Arrive Time	930
S8	25 Oct 2022	Weather	Sunny
S8	25 Oct 2022	Wind Speed (kts)	2.1
S8	25 Oct 2022	Wind Dir	NW
S8	25 Oct 2022	Animal Life	Seagull-4
S8	25 Oct 2022	Floatables	None
S8	25 Oct 2022	Water Color	Green
S8	25 Oct 2022	Current Direction	N
S8	25 Oct 2022	Water Temp (C)	18
S8	25 Oct 2022	Wave Height Low (ft)	3
S8	25 Oct 2022	High Tide (ft)	6.09
S8	25 Oct 2022	High Tide Time	912
S8	25 Oct 2022	Low Tide (ft)	0.87
S8	25 Oct 2022	Low Tide Time	305
S8	25 Oct 2022	Comments	Water clear; Trash-2; Kelp; Seagrass; Person/Walker/Jogger-4
S9	04 Oct 2022	Arrive Time	1220
S9	04 Oct 2022	Weather	Overcast
S9	04 Oct 2022	Wind Speed (kts)	5.6
S9	04 Oct 2022	Wind Dir	W
S9	04 Oct 2022	Animal Life	Dog-2
S9	04 Oct 2022	Floatables	None
S9	04 Oct 2022	Water Color	Green
S9	04 Oct 2022	Current Direction	N
S9	04 Oct 2022	Water Temp (C)	19
S9	04 Oct 2022	Wave Height Low (ft)	1
S9	04 Oct 2022	High Tide (ft)	3.97
S9	04 Oct 2022	High Tide Time	700
S9	04 Oct 2022	Low Tide (ft)	2.85
S9	04 Oct 2022	Low Tide Time	1138

Station	Date	Parameter	Value
S9	04 Oct 2022	Comments	Water clear; Surfer/Paddle boarder-1; Trash-1; Kelp; Seagrass; Algae; Person/Walker/Jogger-14
S9	11 Oct 2022	Arrive Time	845
S9	11 Oct 2022	Weather	Overcast
S9	11 Oct 2022	Wind Speed (kts)	1.43
S9	11 Oct 2022	Wind Dir	SW
S9	11 Oct 2022	Animal Life	Dolphin-4
S9	11 Oct 2022	Floatables	
S9	11 Oct 2022	Water Color	Green
S9	11 Oct 2022	Current Direction	S
S9	11 Oct 2022	Water Temp (C)	23
S9	11 Oct 2022	Wave Height Low (ft)	3
S9	11 Oct 2022	High Tide (ft)	5.92
S9	11 Oct 2022	High Tide Time	1013
S9	11 Oct 2022	Low Tide (ft)	1.02
S9	11 Oct 2022	Low Tide Time	409
S9	11 Oct 2022	Comments	Water turbid; Surfer/Paddle boarder-1; Trash-1; Seagrass; Person/Walker/Jogger-15
S9	18 Oct 2022	Arrive Time	840
S9	18 Oct 2022	Weather	Sunny
S9	18 Oct 2022	Wind Speed (kts)	0
S9	18 Oct 2022	Wind Dir	
S9	18 Oct 2022	Animal Life	Pelican-3; Seagull-2
S9	18 Oct 2022	Floatables	None
S9	18 Oct 2022	Water Color	Green
S9	18 Oct 2022	Current Direction	N
S9	18 Oct 2022	Water Temp (C)	17
S9	18 Oct 2022	Wave Height Low (ft)	1
S9	18 Oct 2022	High Tide (ft)	3.88
S9	18 Oct 2022	High Tide Time	710
S9	18 Oct 2022	Low Tide (ft)	3.16
S9	18 Oct 2022	Low Tide Time	1143
S9	18 Oct 2022	Comments	Water clear; Surfer/Paddle boarder-1; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-8
S9	25 Oct 2022	Arrive Time	910
S9	25 Oct 2022	Weather	Sunny
S9	25 Oct 2022	Wind Speed (kts)	0.1
S9	25 Oct 2022	Wind Dir	E
S9	25 Oct 2022	Animal Life	Dolphin-1; Pelican-2; Seagull-4
S9	25 Oct 2022	Floatables	None
S9	25 Oct 2022	Water Color	Green
S9	25 Oct 2022	Current Direction	N
S9	25 Oct 2022	Water Temp (C)	20
S9	25 Oct 2022	Wave Height Low (ft)	2
S9	25 Oct 2022	High Tide (ft)	6.09
S9	25 Oct 2022	High Tide Time	912
S9	25 Oct 2022	Low Tide (ft)	0.87
S9	25 Oct 2022	Low Tide Time	305
S9	25 Oct 2022	Comments	Water clear; Surfer/Paddle boarder-4; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-6
S10	04 Oct 2022	Arrive Time	1016
S10	04 Oct 2022	Weather	Foggy
S10	04 Oct 2022	Wind Speed (kts)	2.2
S10	04 Oct 2022	Wind Dir	SW
S10	04 Oct 2022	Animal Life	Bird-13; Horse-7
S10	04 Oct 2022	Floatables	None
S10	04 Oct 2022	Water Color	Green

Station	Date	Parameter	Value
S10	04 Oct 2022	Current Direction	N
S10	04 Oct 2022	Water Temp (C)	17
S10	04 Oct 2022	Wave Height Low (ft)	3
S10	04 Oct 2022	High Tide (ft)	3.97
S10	04 Oct 2022	High Tide Time	700
S10	04 Oct 2022	Low Tide (ft)	2.85
S10	04 Oct 2022	Low Tide Time	1138
S10	04 Oct 2022	Comments	Water turbid; Trash-2; Kelp; Seagrass; Person/Walker/Jogger-7
S10	11 Oct 2022	Arrive Time	1053
S10	11 Oct 2022	Weather	Cloudy
S10	11 Oct 2022	Wind Speed (kts)	3.1
S10	11 Oct 2022	Wind Dir	W
S10	11 Oct 2022	Animal Life	Bird-15
S10	11 Oct 2022	Floatables	Foam
S10	11 Oct 2022	Water Color	Green
S10	11 Oct 2022	Current Direction	N
S10	11 Oct 2022	Water Temp (C)	19
S10	11 Oct 2022	Wave Height Low (ft)	3
S10	11 Oct 2022	High Tide (ft)	5.92
S10	11 Oct 2022	High Tide Time	1013
S10	11 Oct 2022	Low Tide (ft)	1.02
S10	11 Oct 2022	Low Tide Time	409
S10	11 Oct 2022	Comments	Kelp; Seagrass; Debris
S10	18 Oct 2022	Arrive Time	1047
S10	18 Oct 2022	Weather	Sunny
S10	18 Oct 2022	Wind Speed (kts)	4.6
S10	18 Oct 2022	Wind Dir	N
S10	18 Oct 2022	Animal Life	Bird-8
S10	18 Oct 2022	Floatables	None
S10	18 Oct 2022	Water Color	Green
S10	18 Oct 2022	Current Direction	S
S10	18 Oct 2022	Water Temp (C)	18
S10	18 Oct 2022	Wave Height Low (ft)	3
S10	18 Oct 2022	High Tide (ft)	3.88
S10	18 Oct 2022	High Tide Time	710
S10	18 Oct 2022	Low Tide (ft)	3.16
S10	18 Oct 2022	Low Tide Time	1143
S10	18 Oct 2022	Comments	Kelp; Debris; Seagrass
S10	25 Oct 2022	Arrive Time	1127
S10	25 Oct 2022	Weather	Sunny
S10	25 Oct 2022	Wind Speed (kts)	4.6
S10	25 Oct 2022	Wind Dir	W
S10	25 Oct 2022	Animal Life	Seagull-30
S10	25 Oct 2022	Floatables	None
S10	25 Oct 2022	Water Color	Green
S10	25 Oct 2022	Current Direction	N
S10	25 Oct 2022	Water Temp (C)	19
S10	25 Oct 2022	Wave Height Low (ft)	4
S10	25 Oct 2022	High Tide (ft)	6.09
S10	25 Oct 2022	High Tide Time	912
S10	25 Oct 2022	Low Tide (ft)	0.87
S10	25 Oct 2022	Low Tide Time	305
S10	25 Oct 2022	Comments	Kelp; Seagrass
S11	04 Oct 2022	Arrive Time	1119
S11	04 Oct 2022	Weather	Overcast
S11	04 Oct 2022	Wind Speed (kts)	2.9

Station	Date	Parameter	Value
S11	04 Oct 2022	Wind Dir	SW
S11	04 Oct 2022	Animal Life	Bird-4
S11	04 Oct 2022	Floatables	Foam
S11	04 Oct 2022	Water Color	Brown
S11	04 Oct 2022	Current Direction	N
S11	04 Oct 2022	Water Temp (C)	18
S11	04 Oct 2022	Wave Height Low (ft)	3
S11	04 Oct 2022	High Tide (ft)	3.97
S11	04 Oct 2022	High Tide Time	700
S11	04 Oct 2022	Low Tide (ft)	2.85
S11	04 Oct 2022	Low Tide Time	1138
S11	04 Oct 2022	Comments	Water turbid; Trash-1; Kelp; Seagrass; Debris; Person/Walker/Jogger-1
S11	11 Oct 2022	Arrive Time	1002
S11	11 Oct 2022	Weather	Overcast
S11	11 Oct 2022	Wind Speed (kts)	2.7
S11	11 Oct 2022	Wind Dir	NW
S11	11 Oct 2022	Animal Life	
S11	11 Oct 2022	Floatables	Foam
S11	11 Oct 2022	Water Color	Green
S11	11 Oct 2022	Current Direction	N
S11	11 Oct 2022	Water Temp (C)	19
S11	11 Oct 2022	Wave Height Low (ft)	3
S11	11 Oct 2022	High Tide (ft)	5.92
S11	11 Oct 2022	High Tide Time	1013
S11	11 Oct 2022	Low Tide (ft)	1.02
S11	11 Oct 2022	Low Tide Time	409
S11	11 Oct 2022	Comments	Water clear; Trash-1; Seagrass; Kelp; Person/Walker/Jogger-2
S11	18 Oct 2022	Arrive Time	953
S11	18 Oct 2022	Weather	Sunny
S11	18 Oct 2022	Wind Speed (kts)	5.2
S11	18 Oct 2022	Wind Dir	N
S11	18 Oct 2022	Animal Life	Bird-3; Pelican-2; Seagull-8
S11	18 Oct 2022	Floatables	None
S11	18 Oct 2022	Water Color	Green
S11	18 Oct 2022	Current Direction	S
S11	18 Oct 2022	Water Temp (C)	18
S11	18 Oct 2022	Wave Height Low (ft)	2
S11	18 Oct 2022	High Tide (ft)	3.88
S11	18 Oct 2022	High Tide Time	710
S11	18 Oct 2022	Low Tide (ft)	3.16
S11	18 Oct 2022	Low Tide Time	1143
S11	18 Oct 2022	Comments	Water clear; Trash-1; Kelp; Seagrass; Algae; Person/Walker/Jogger-2
S11	25 Oct 2022	Arrive Time	1030
S11	25 Oct 2022	Weather	Sunny
S11	25 Oct 2022	Wind Speed (kts)	4.8
S11	25 Oct 2022	Wind Dir	NW
S11	25 Oct 2022	Animal Life	Bird-1; Seagull-15
S11	25 Oct 2022	Floatables	None
S11	25 Oct 2022	Water Color	Green
S11	25 Oct 2022	Current Direction	N
S11	25 Oct 2022	Water Temp (C)	22
S11	25 Oct 2022	Wave Height Low (ft)	4
S11	25 Oct 2022	High Tide (ft)	6.09
S11	25 Oct 2022	High Tide Time	912
S11	25 Oct 2022	Low Tide (ft)	0.87

Station	Date	Parameter	Value
S11	25 Oct 2022	Low Tide Time	305
S11	25 Oct 2022	Comments	Water clear; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-3
S12	04 Oct 2022	Arrive Time	1138
S12	04 Oct 2022	Weather	Overcast
S12	04 Oct 2022	Wind Speed (kts)	2.9
S12	04 Oct 2022	Wind Dir	SW
S12	04 Oct 2022	Animal Life	Bird-21
S12	04 Oct 2022	Floatables	None
S12	04 Oct 2022	Water Color	Green
S12	04 Oct 2022	Current Direction	S
S12	04 Oct 2022	Water Temp (C)	18
S12	04 Oct 2022	Wave Height Low (ft)	1
S12	04 Oct 2022	High Tide (ft)	3.97
S12	04 Oct 2022	High Tide Time	700
S12	04 Oct 2022	Low Tide (ft)	2.85
S12	04 Oct 2022	Low Tide Time	1138
S12	04 Oct 2022	Comments	Water clear; Trash-2; Kelp; Seagrass; Algae; Debris; Person/Walker/Jogger-3
S12	11 Oct 2022	Arrive Time	930
S12	11 Oct 2022	Weather	Overcast
S12	11 Oct 2022	Wind Speed (kts)	0.8
S12	11 Oct 2022	Wind Dir	W
S12	11 Oct 2022	Animal Life	Dolphin-3; Pelican-2
S12	11 Oct 2022	Floatables	Foam
S12	11 Oct 2022	Water Color	Green
S12	11 Oct 2022	Current Direction	N
S12	11 Oct 2022	Water Temp (C)	18
S12	11 Oct 2022	Wave Height Low (ft)	2
S12	11 Oct 2022	High Tide (ft)	5.92
S12	11 Oct 2022	High Tide Time	1013
S12	11 Oct 2022	Low Tide (ft)	1.02
S12	11 Oct 2022	Low Tide Time	409
S12	11 Oct 2022	Comments	Water clear; Surfer/Paddle boarder-1; Fisherperson-1; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-3
S12	18 Oct 2022	Arrive Time	923
S12	18 Oct 2022	Weather	Sunny
S12	18 Oct 2022	Wind Speed (kts)	4.2
S12	18 Oct 2022	Wind Dir	NW
S12	18 Oct 2022	Animal Life	Bird-4; Pelican-1; Seagull-2
S12	18 Oct 2022	Floatables	None
S12	18 Oct 2022	Water Color	Green
S12	18 Oct 2022	Current Direction	N
S12	18 Oct 2022	Water Temp (C)	18
S12	18 Oct 2022	Wave Height Low (ft)	1
S12	18 Oct 2022	High Tide (ft)	3.88
S12	18 Oct 2022	High Tide Time	710
S12	18 Oct 2022	Low Tide (ft)	3.16
S12	18 Oct 2022	Low Tide Time	1143
S12	18 Oct 2022	Comments	Water clear; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-2
S12	25 Oct 2022	Arrive Time	957
S12	25 Oct 2022	Weather	Sunny
S12	25 Oct 2022	Wind Speed (kts)	4.6
S12	25 Oct 2022	Wind Dir	NW
S12	25 Oct 2022	Animal Life	Dog-1; Pelican-2; Seagull-4
S12	25 Oct 2022	Floatables	None

Station	Date	Parameter	Value
S12	25 Oct 2022	Water Color	Green
S12	25 Oct 2022	Current Direction	N
S12	25 Oct 2022	Water Temp (C)	20
S12	25 Oct 2022	Wave Height Low (ft)	2
S12	25 Oct 2022	High Tide (ft)	6.09
S12	25 Oct 2022	High Tide Time	912
S12	25 Oct 2022	Low Tide (ft)	0.87
S12	25 Oct 2022	Low Tide Time	305
S12	25 Oct 2022	Comments	Water clear; Boogie boarder/Swimmer-1; Fisherperson-1; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-4

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 Oct 2022	20	11	11	5	10	4	29
02 Oct 2022	20	11	11	5	10	4	29
03 Oct 2022	19	12	11	5	7	4	25
04 Oct 2022	19	12	11	5	7	4	25
05 Oct 2022	19	12	11	5	7	4	25
06 Oct 2022	19	12	11	5	7	4	25
07 Oct 2022	6	6	5	3	9	3	10
08 Oct 2022	6	6	5	3	9	3	10
09 Oct 2022	6	6	5	3	9	3	10
10 Oct 2022	6	6	5	3	9	3	10
11 Oct 2022	5	5	4	2	7	3	7
12 Oct 2022	5	5	4	2	7	3	7
13 Oct 2022	3	4	3	2	2	2	5
14 Oct 2022	3	4	3	2	2	2	5
15 Oct 2022	3	4	3	2	2	2	5
16 Oct 2022	3	4	3	2	2	2	5
17 Oct 2022	3	4	3	2	2	2	5
18 Oct 2022	3	3	3	2	2	2	4
19 Oct 2022	3	3	3	2	2	2	4
20 Oct 2022	3	3	3	2	2	2	3
21 Oct 2022	3	3	3	2	2	2	3
22 Oct 2022	3	3	3	2	2	2	3
23 Oct 2022	3	3	3	2	2	2	3
24 Oct 2022	3	3	3	2	2	2	3
25 Oct 2022	8	8	9	2	2	3	10
26 Oct 2022	8	8	9	2	2	3	10
27 Oct 2022	8	8	9	2	2	3	10
28 Oct 2022	8	8	9	2	2	3	10
29 Oct 2022	12	10	12	2	2	3	16
30 Oct 2022	12	10	12	2	2	3	16
31 Oct 2022	12	10	12	2	2	3	16

* 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
03 Oct 2022	IC						
11 Oct 2022	IC						
18 Oct 2022	IC						
20 Oct 2022	ns	IC	IC	IC	IC	IC	ns
25 Oct 2022	E	E	E	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 Oct 2022	5	4	4	3	3	3	6
02 Oct 2022	5	4	4	3	3	3	6
03 Oct 2022	5	5	4	3	3	3	7
04 Oct 2022	6	6	4	3	3	3	8
05 Oct 2022	6	6	4	3	3	3	8
06 Oct 2022	6	6	4	3	3	3	8
07 Oct 2022	6	6	4	3	3	3	8
08 Oct 2022	6	6	4	3	3	3	8
09 Oct 2022	6	6	4	3	3	3	8
10 Oct 2022	6	6	4	3	3	3	8
11 Oct 2022	6	6	4	3	3	3	8
12 Oct 2022	6	6	4	3	3	3	8
13 Oct 2022	6	6	4	3	3	3	8
14 Oct 2022	6	6	4	3	3	3	8
15 Oct 2022	6	6	4	3	3	3	8
16 Oct 2022	6	6	4	3	3	3	8
17 Oct 2022	6	6	4	3	3	3	8
18 Oct 2022	5	6	4	3	3	3	7
19 Oct 2022	3	3	2	2	3	2	3
20 Oct 2022	3	3	2	2	3	2	3
21 Oct 2022	3	3	2	2	3	2	3
22 Oct 2022	3	3	2	2	3	2	3
23 Oct 2022	3	3	2	2	3	2	3
24 Oct 2022	3	3	2	2	3	2	3
25 Oct 2022	4	3	4	2	2	2	5
26 Oct 2022	4	3	4	2	2	2	5
27 Oct 2022	4	3	4	2	2	2	5
28 Oct 2022	4	3	4	2	2	2	5
29 Oct 2022	4	3	4	2	2	2	5
30 Oct 2022	4	3	4	2	2	2	5
31 Oct 2022	4	3	4	2	2	2	5

* 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
October	IC	IC	E	IC	IC	IC	IC

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.

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
01 Oct 2022	11	11	102	5	60	110	2	11	101	2	2	11	23	47	20	2	6	101	20	103	82
02 Oct 2022	11	11	102	5	60	110	2	11	101	2	2	11	23	47	20	2	6	101	20	103	82
03 Oct 2022	20	20	200	8	100	200	2	20	200	2	2	20	20	24	20	2	2	40	20	120	120
04 Oct 2022	20	20	200	8	100	200	2	20	200	2	2	20	20	24	20	2	2	40	20	120	120
05 Oct 2022	20	20	200	8	100	200	2	20	200	2	2	20	20	24	20	2	2	40	20	120	120
06 Oct 2022	20	20	200	8	100	200	2	20	200	2	2	20	20	24	20	2	2	40	20	120	120
07 Oct 2022	11	11	102	5	60	110	2	11	101	2	2	11	23	45	20	2	2	21	20	103	82
08 Oct 2022	11	11	102	5	60	110	2	11	101	2	2	11	23	45	20	2	2	21	20	103	82
09 Oct 2022	11	11	102	5	60	110	2	11	101	2	2	11	23	45	20	2	2	21	20	103	82
10 Oct 2022	11	11	102	5	60	110	2	11	101	2	2	11	23	45	20	2	2	21	20	103	82
11 Oct 2022	2	2	4	2	20	20	2	4	20	2	2	2	20	20	20	2	2	2	20	86	44
12 Oct 2022	2	2	4	2	20	20	2	4	20	2	2	2	20	20	20	2	2	2	20	86	44
13 Oct 2022	2	2	3	5	51	20	2	3	11	2	2	2	11	11	20	2	2	2	11	44	24
14 Oct 2022	2	2	3	5	51	20	2	3	11	2	2	2	11	11	20	2	2	2	11	44	24
15 Oct 2022	2	2	3	5	51	20	2	3	11	2	2	2	11	11	20	2	2	2	11	44	24
16 Oct 2022	2	2	3	5	51	20	2	3	11	2	2	2	11	11	20	2	2	2	11	44	24
17 Oct 2022	2	2	3	5	51	20	2	3	11	2	2	2	11	11	20	2	2	2	11	44	24
18 Oct 2022	2	2	2	5	51	20	2	3	11	2	2	2	11	11	20	2	2	2	2	2	4
19 Oct 2022	2	2	2	5	51	20	2	3	11	2	2	2	11	11	20	2	2	2	2	2	4
20 Oct 2022	2	2	2	2	2	11	2	3	11	2	2	2	2	2	20	2	2	2	2	2	3
21 Oct 2022	2	2	2	2	2	11	2	3	11	2	2	2	2	2	20	2	2	2	2	2	3
22 Oct 2022	2	2	2	2	2	11	2	3	11	2	2	2	2	2	20	2	2	2	2	2	3
23 Oct 2022	2	2	2	2	2	11	2	3	11	2	2	2	2	2	20	2	2	2	2	2	3
24 Oct 2022	2	2	2	2	2	11	2	3	11	2	2	2	2	2	20	2	2	2	2	2	3
25 Oct 2022	2	2	2	2	2	20	2	4	20	2	2	2	2	2	20	2	2	2	2	2	4
26 Oct 2022	2	2	2	2	2	20	2	4	20	2	2	2	2	2	20	2	2	2	2	2	4
27 Oct 2022	2	2	2	2	2	20	2	4	20	2	2	2	2	2	20	2	2	2	2	2	4
28 Oct 2022	2	2	2	2	2	20	2	4	20	2	2	2	2	2	20	2	2	2	2	2	4
29 Oct 2022	101	101	101	101	101	110	101	102	110	2	15	5	2	11	20	2	2	21	61	131	201
30 Oct 2022	101	101	101	101	101	110	101	102	110	2	15	5	2	11	20	2	2	21	61	131	201
31 Oct 2022	101	101	101	101	101	110	101	102	110	2	15	5	2	11	20	2	2	21	61	131	201

* Median calculated using n<5

Table 3.6

Summary of compliance at the SBOO kelp stations with the Ocean Plan's Statistical Threshold standard 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
October	E	E	E	E	E	E	E	E	IC	IC	IC	IC	IC	IC	IC	IC	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	03 Oct 2022	1059	2	<200	4e	<2	17.0	78.99	7.8	33.35	8.1
I19	03 Oct 2022	1059	6	<200	18e	4e	16.1	80.49	7.7	33.35	8.1
I19	03 Oct 2022	1059	11	<200	18e	14e	15.9	70.16	7.5	33.36	8.0
I19	11 Oct 2022	1022	2	<2	<2	<2	19.2	74.28	9.4	33.40	8.3
I19	11 Oct 2022	1022	6	2e	2e	<2	18.9	74.34	8.9	33.39	8.2
I19	11 Oct 2022	1022	11	2e	<2	<2	15.8	78.31	7.2	33.37	8.1
I19	18 Oct 2022	1057	2	<2	<2	<2	16.8	82.98	7.6	33.41	8.1
I19	18 Oct 2022	1057	6	2e	<2	<2	15.1	84.60	7.1	33.37	8.1
I19	18 Oct 2022	1057	11	2e	<2	<2	14.7	72.01	6.6	33.37	8.0
I19	25 Oct 2022	1111	2	1100	280e	10e	17.6	67.75	8.0	33.39	8.2
I19	25 Oct 2022	1111	6	2000e	460	30e	17.5	66.99	7.9	33.39	8.2
I19	25 Oct 2022	1111	11	1300	280e	42	17.5	62.75	7.8	33.39	8.2
I24	03 Oct 2022	1125	2	<200	10e	8e	17.5	66.91	8.8	33.37	8.2
I24	03 Oct 2022	1125	6	200e	24e	12e	16.2	81.83	8.0	33.36	8.1
I24	03 Oct 2022	1125	11	200e	20e	8e	15.7	84.76	7.9	33.38	8.1
I24	11 Oct 2022	1043	2	<2	<2	<2	19.5	80.26	9.9	33.43	8.3
I24	11 Oct 2022	1043	6	<2	<2	<2	18.8	79.16	8.7	33.39	8.2
I24	11 Oct 2022	1043	11	<20	<2	<2	15.9	80.99	7.3	33.34	8.0
I24	18 Oct 2022	1121	2	ND	<2	ND	17.0	83.38	7.8	33.41	8.1
I24	18 Oct 2022	1121	6	ND	<2	ND	15.0	86.87	7.4	33.37	8.1
I24	18 Oct 2022	1121	11	ND	<2	ND	14.4	87.28	6.7	33.36	8.1
I24	20 Oct 2022	835	2	<2	<2	<2	18.0	86.68	8.0	33.45	8.1
I24	20 Oct 2022	835	6	<2	<2	<2	15.4	84.16	7.4	33.38	8.1
I24	20 Oct 2022	835	11	<2	<2	<2	14.3	65.18	6.9	33.35	8.1
I24	25 Oct 2022	1129	2	7400	1000	10e	17.9	78.25	8.1	33.39	8.2
I24	25 Oct 2022	1129	6	6600	880	8e	17.4	77.16	7.9	33.39	8.2
I24	25 Oct 2022	1129	11	900	100	<2	17.1	76.62	7.6	33.39	8.2
I25	03 Oct 2022	1135	2	<200	<2	<2	18.2	50.20	10.1	33.37	8.3
I25	03 Oct 2022	1135	6	200e	10e	2e	16.3	81.46	8.0	33.36	8.1
I25	03 Oct 2022	1135	9	200e	20e	<2	15.8	84.80	8.0	33.37	8.1
I25	11 Oct 2022	1057	2	<2	<2	<2	19.2	81.33	9.3	33.43	8.3
I25	11 Oct 2022	1057	6	4e	<2	<2	18.4	80.42	8.3	33.38	8.2
I25	11 Oct 2022	1057	9	<20	<2	<2	16.4	82.07	7.3	33.35	8.1
I25	18 Oct 2022	1134	2	ND	<2	ND	17.6	80.11	8.0	33.42	8.1
I25	18 Oct 2022	1134	6	ND	<2	ND	15.0	88.33	7.4	33.38	8.1
I25	18 Oct 2022	1134	9	ND	<2	ND	14.7	87.08	7.0	33.37	8.1
I25	20 Oct 2022	845	2	<2	<2	<2	18.0	87.65	7.8	33.44	8.1
I25	20 Oct 2022	845	6	<2	<2	2e	15.8	85.88	7.4	33.37	8.1
I25	20 Oct 2022	845	9	<2	<2	<2	14.8	85.99	7.6	33.35	8.1

Station	Date	Time	Depth	Total	Fecal	Enter	Temp	XMS	DO	Sal	pH
I25	25 Oct 2022	1137	2	13000	2000e	14e	17.6	78.48	8.0	33.33	8.2
I25	25 Oct 2022	1137	6	>16000	7000	280e	17.4	75.38	7.6	33.36	8.2
I25	25 Oct 2022	1137	9	15000	1600e	80	17.1	63.64	7.1	33.38	8.1
I26	03 Oct 2022	1147	2	<20	2e	<2	18.3	60.31	9.3	33.36	8.3
I26	03 Oct 2022	1147	6	<200	2e	6e	16.1	82.88	8.0	33.35	8.1
I26	03 Oct 2022	1147	9	<200	8e	2e	15.9	85.42	8.0	33.35	8.1
I26	11 Oct 2022	1100	2	<2	<2	<2	19.0	83.02	8.8	33.45	8.2
I26	11 Oct 2022	1100	6	<2	<2	<2	18.4	80.63	8.7	33.41	8.2
I26	11 Oct 2022	1100	9	2e	<2	<2	15.8	79.94	7.2	33.36	8.1
I26	18 Oct 2022	1146	2	ND	<2	ND	17.6	79.32	8.2	33.41	8.2
I26	18 Oct 2022	1146	6	ND	<2	ND	15.0	86.79	7.2	33.37	8.1
I26	18 Oct 2022	1146	9	ND	<2	ND	14.3	88.13	7.2	33.34	8.1
I26	20 Oct 2022	854	2	<2	<2	<2	17.9	87.60	8.0	33.45	8.1
I26	20 Oct 2022	854	6	<2	<2	<2	16.6	86.79	7.7	33.40	8.1
I26	20 Oct 2022	854	9	<2	<2	<2	14.8	83.85	7.3	33.36	8.1
I26	25 Oct 2022	1146	2	2e	2e	<2	17.9	79.64	8.1	33.41	8.2
I26	25 Oct 2022	1146	6	28e	4e	2e	17.3	77.91	7.7	33.39	8.2
I26	25 Oct 2022	1146	9	8e	<2	<2	17.0	79.59	7.6	33.38	8.2
I32	03 Oct 2022	1200	2	<20	<2	<2	18.6	48.73	9.8	33.38	8.3
I32	03 Oct 2022	1200	6	<20	<2	2e	17.2	58.58	7.5	33.35	8.1
I32	03 Oct 2022	1200	9	<20	2e	<2	15.9	81.27	7.3	33.36	8.0
I32	11 Oct 2022	1111	2	<2	<2	<2	19.4	81.88	9.2	33.45	8.3
I32	11 Oct 2022	1111	6	<2	<2	<2	18.9	75.07	9.5	33.42	8.3
I32	11 Oct 2022	1111	9	<20	<2	<2	18.5	76.89	8.6	33.40	8.2
I32	18 Oct 2022	1158	2	ND	<2	ND	17.4	79.67	7.8	33.41	8.2
I32	18 Oct 2022	1158	6	ND	<2	ND	15.0	85.52	6.9	33.36	8.1
I32	18 Oct 2022	1158	9	ND	<2	ND	14.6	85.28	6.9	33.36	8.1
I32	20 Oct 2022	907	2	<2	<2	<2	17.6	76.25	8.3	33.42	8.1
I32	20 Oct 2022	907	6	<2	<2	<2	17.0	77.63	7.8	33.41	8.1
I32	20 Oct 2022	907	9	<20	<2	<2	16.2	81.71	7.1	33.37	8.1
I32	25 Oct 2022	1158	2	2e	<2	<2	17.6	80.23	8.0	33.41	8.2
I32	25 Oct 2022	1158	6	<20	8e	<2	17.5	65.90	7.6	33.41	8.2
I32	25 Oct 2022	1158	9	60e	6e	<2	17.4	57.04	7.6	33.41	8.2
I39	03 Oct 2022	1035	2	26e	4e	4e	18.8	51.09	10.0	33.38	8.3
I39	03 Oct 2022	1035	12	2e	4e	<2	15.4	86.65	8.2	33.35	8.1
I39	03 Oct 2022	1035	18	40e	2e	2e	15.3	86.70	8.1	33.37	8.1
I39	11 Oct 2022	1006	2	<2	<2	<2	19.5	88.70	8.0	33.49	8.2
I39	11 Oct 2022	1006	12	<2	<2	<2	17.2	85.66	7.9	33.38	8.1
I39	11 Oct 2022	1006	18	<2	<2	<2	14.9	85.81	6.9	33.34	8.0
I39	18 Oct 2022	1036	2	ND	<2	ND	18.2	81.91	8.4	33.43	8.2
I39	18 Oct 2022	1036	12	ND	<2	ND	14.1	88.79	7.1	33.34	8.1
I39	18 Oct 2022	1036	18	ND	<2	ND	13.4	89.03	6.3	33.36	8.0
I39	20 Oct 2022	818	2	<2	<2	<2	18.2	86.71	8.0	33.45	8.1
I39	20 Oct 2022	818	12	<2	<2	<2	14.0	90.68	7.4	33.34	8.1
I39	20 Oct 2022	818	18	<2	<2	<2	13.5	84.27	6.6	33.36	8.0

Station	Date	Time	Depth	Total	Fecal	Enter	Temp	XMS	DO	Sal	pH
I39	25 Oct 2022	1049	2	<2	<2	<2	17.6	82.79	8.2	33.41	8.2
I39	25 Oct 2022	1049	12	20e	4e	2e	17.4	80.34	7.8	33.40	8.2
I39	25 Oct 2022	1049	18	120	24e	10e	16.7	84.85	7.5	33.36	8.1
I40	03 Oct 2022	1114	2	120e	14e	24e	17.6	52.01	8.9	33.36	8.2
I40	03 Oct 2022	1114	6	260e	14e	2e	16.2	80.31	7.8	33.36	8.1
I40	03 Oct 2022	1114	9	400e	14e	8e	15.9	79.37	7.7	33.36	8.1
I40	11 Oct 2022	1034	2	<2	<2	<2	19.2	79.44	9.4	33.41	8.3
I40	11 Oct 2022	1034	6	<2	<2	2e	18.1	72.42	7.8	33.37	8.2
I40	11 Oct 2022	1034	9	<2	<2	<2	16.5	66.00	6.4	33.34	8.0
I40	18 Oct 2022	1111	2	<2	<2	<2	17.1	82.11	7.4	33.41	8.1
I40	18 Oct 2022	1111	6	<2	<2	<2	14.9	80.77	7.0	33.37	8.1
I40	18 Oct 2022	1111	9	2e	2e	<2	14.9	79.86	6.9	33.36	8.1
I40	25 Oct 2022	1122	2	11000	2000e	44	17.7	79.52	8.2	33.37	8.2
I40	25 Oct 2022	1122	6	5000	640	20e	17.4	81.72	8.0	33.39	8.2
I40	25 Oct 2022	1122	9	2800e	500	16e	17.4	79.34	7.8	33.39	8.2

ns = not sampled

ND = no data

Comments

Station	Date	Depth	Parameter	Comments
I24	18 Oct 2022			Total coliform and entero were not analyzed due to lab accident
I25	18 Oct 2022			Total coliform and entero were not analyzed due to lab accident
I26	18 Oct 2022			Total coliform and entero were not analyzed due to lab accident
I32	18 Oct 2022			Total coliform and entero were not analyzed due to lab accident
I39	18 Oct 2022			Total coliform and entero were not analyzed due to lab accident

Table 3.8

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

Station	Date	Parameter	Value
I19	03 Oct 2022	Depth (m)	10
I19	03 Oct 2022	Arrive Time	1059
I19	03 Oct 2022	Depart Time	1104
I19	03 Oct 2022	Air Temp (C)	18.8
I19	03 Oct 2022	Weather	Overcast
I19	03 Oct 2022	Visibility (mi)	9
I19	03 Oct 2022	Wind Speed (kts)	9.5
I19	03 Oct 2022	Wind Dir	NW
I19	03 Oct 2022	Water Color	Blueish-Green
I19	03 Oct 2022	Wave Ht Low (ft)	3
I19	03 Oct 2022	Wave Period (sec)	13
I19	03 Oct 2022	Sea State	Regular Swell
I19	03 Oct 2022	High Tide (ft)	5.12
I19	03 Oct 2022	High Tide Time	2300
I19	03 Oct 2022	Low Tide (ft)	-0.04
I19	03 Oct 2022	Low Tide Time	654
I19	03 Oct 2022	Comments	none
I19	11 Oct 2022	Depth (m)	12
I19	11 Oct 2022	Arrive Time	1022
I19	11 Oct 2022	Depart Time	1028
I19	11 Oct 2022	Air Temp (C)	19.9
I19	11 Oct 2022	Weather	Overcast
I19	11 Oct 2022	Visibility (mi)	10
I19	11 Oct 2022	Wind Speed (kts)	0
I19	11 Oct 2022	Wind Dir	E
I19	11 Oct 2022	Water Color	Greenish-Blue
I19	11 Oct 2022	Wave Ht Low (ft)	3.3
I19	11 Oct 2022	Wave Period (sec)	17
I19	11 Oct 2022	Sea State	Calm
I19	11 Oct 2022	High Tide (ft)	5.91
I19	11 Oct 2022	High Tide Time	1718
I19	11 Oct 2022	Low Tide (ft)	0.04
I19	11 Oct 2022	Low Tide Time	0
I19	11 Oct 2022	Comments	none
I19	18 Oct 2022	Depth (m)	11
I19	18 Oct 2022	Arrive Time	1057
I19	18 Oct 2022	Depart Time	1102
I19	18 Oct 2022	Air Temp (C)	19.2
I19	18 Oct 2022	Weather	Clear
I19	18 Oct 2022	Visibility (mi)	12
I19	18 Oct 2022	Wind Speed (kts)	6.3
I19	18 Oct 2022	Wind Dir	NW
I19	18 Oct 2022	Water Color	Greenish-Blue
I19	18 Oct 2022	Wave Ht Low (ft)	3
I19	18 Oct 2022	Wave Period (sec)	14
I19	18 Oct 2022	Sea State	Light Chop
I19	18 Oct 2022	High Tide (ft)	4.2
I19	18 Oct 2022	High Tide Time	2348
I19	18 Oct 2022	Low Tide (ft)	0.68
I19	18 Oct 2022	Low Tide Time	654
I19	18 Oct 2022	Comments	none
I19	25 Oct 2022	Depth (m)	11
I19	25 Oct 2022	Arrive Time	1111

Station	Date	Parameter	Value
I19	25 Oct 2022	Depart Time	1114
I19	25 Oct 2022	Air Temp (C)	18
I19	25 Oct 2022	Weather	Clear
I19	25 Oct 2022	Visibility (mi)	10
I19	25 Oct 2022	Wind Speed (kts)	5.9
I19	25 Oct 2022	Wind Dir	NW
I19	25 Oct 2022	Water Color	Greenish-Blue
I19	25 Oct 2022	Wave Ht Low (ft)	3.3
I19	25 Oct 2022	Wave Period (sec)	15
I19	25 Oct 2022	Sea State	Wind Ripples
I19	25 Oct 2022	High Tide (ft)	6.01
I19	25 Oct 2022	High Tide Time	1618
I19	25 Oct 2022	Low Tide (ft)	-0.23
I19	25 Oct 2022	Low Tide Time	2254
I19	25 Oct 2022	Comments	none
I24	03 Oct 2022	Depth (m)	11
I24	03 Oct 2022	Arrive Time	1125
I24	03 Oct 2022	Depart Time	1130
I24	03 Oct 2022	Air Temp (C)	18.9
I24	03 Oct 2022	Weather	Overcast
I24	03 Oct 2022	Visibility (mi)	9
I24	03 Oct 2022	Wind Speed (kts)	9.9
I24	03 Oct 2022	Wind Dir	NW
I24	03 Oct 2022	Water Color	Brownish-Green
I24	03 Oct 2022	Wave Ht Low (ft)	3
I24	03 Oct 2022	Wave Period (sec)	13
I24	03 Oct 2022	Sea State	Light Chop
I24	03 Oct 2022	High Tide (ft)	5.12
I24	03 Oct 2022	High Tide Time	2300
I24	03 Oct 2022	Low Tide (ft)	-0.04
I24	03 Oct 2022	Low Tide Time	654
I24	03 Oct 2022	Comments	none
I24	11 Oct 2022	Depth (m)	12
I24	11 Oct 2022	Arrive Time	1043
I24	11 Oct 2022	Depart Time	1048
I24	11 Oct 2022	Air Temp (C)	19.9
I24	11 Oct 2022	Weather	Overcast
I24	11 Oct 2022	Visibility (mi)	10
I24	11 Oct 2022	Wind Speed (kts)	0
I24	11 Oct 2022	Wind Dir	N
I24	11 Oct 2022	Water Color	Greenish-Blue
I24	11 Oct 2022	Wave Ht Low (ft)	3.3
I24	11 Oct 2022	Wave Period (sec)	17
I24	11 Oct 2022	Sea State	Calm
I24	11 Oct 2022	High Tide (ft)	5.91
I24	11 Oct 2022	High Tide Time	1718
I24	11 Oct 2022	Low Tide (ft)	0.04
I24	11 Oct 2022	Low Tide Time	0
I24	11 Oct 2022	Comments	none
I24	18 Oct 2022	Depth (m)	10
I24	18 Oct 2022	Arrive Time	1121
I24	18 Oct 2022	Depart Time	1131
I24	18 Oct 2022	Air Temp (C)	19.2
I24	18 Oct 2022	Weather	Clear
I24	18 Oct 2022	Visibility (mi)	12
I24	18 Oct 2022	Wind Speed (kts)	7.9
I24	18 Oct 2022	Wind Dir	NW
I24	18 Oct 2022	Water Color	Greenish-Blue

Station	Date	Parameter	Value
I24	18 Oct 2022	Wave Ht Low (ft)	3
I24	18 Oct 2022	Wave Period (sec)	14
I24	18 Oct 2022	Sea State	Light Chop
I24	18 Oct 2022	High Tide (ft)	4.2
I24	18 Oct 2022	High Tide Time	2348
I24	18 Oct 2022	Low Tide (ft)	0.68
I24	18 Oct 2022	Low Tide Time	654
I24	18 Oct 2022	Comments	Total coliform and enteric were not analyzed due to lab accident
I24	20 Oct 2022	Depth (m)	11
I24	20 Oct 2022	Arrive Time	835
I24	20 Oct 2022	Depart Time	844
I24	20 Oct 2022	Air Temp (C)	18.7
I24	20 Oct 2022	Weather	Partly Cloudy
I24	20 Oct 2022	Visibility (mi)	8
I24	20 Oct 2022	Wind Speed (kts)	0
I24	20 Oct 2022	Wind Dir	NE
I24	20 Oct 2022	Water Color	Greenish-Blue
I24	20 Oct 2022	Wave Ht Low (ft)	3
I24	20 Oct 2022	Wave Period (sec)	14
I24	20 Oct 2022	Sea State	Calm
I24	20 Oct 2022	High Tide (ft)	4.66
I24	20 Oct 2022	High Tide Time	142
I24	20 Oct 2022	Low Tide (ft)	0.52
I24	20 Oct 2022	Low Tide Time	748
I24	20 Oct 2022	Comments	Sample taken due to lab accident on 10/18
I24	25 Oct 2022	Depth (m)	11
I24	25 Oct 2022	Arrive Time	1129
I24	25 Oct 2022	Depart Time	1133
I24	25 Oct 2022	Air Temp (C)	18.2
I24	25 Oct 2022	Weather	Clear
I24	25 Oct 2022	Visibility (mi)	10
I24	25 Oct 2022	Wind Speed (kts)	4.2
I24	25 Oct 2022	Wind Dir	NW
I24	25 Oct 2022	Water Color	Greenish-Blue
I24	25 Oct 2022	Wave Ht Low (ft)	3.3
I24	25 Oct 2022	Wave Period (sec)	15
I24	25 Oct 2022	Sea State	Wind Ripples
I24	25 Oct 2022	High Tide (ft)	6.01
I24	25 Oct 2022	High Tide Time	1618
I24	25 Oct 2022	Low Tide (ft)	-0.23
I24	25 Oct 2022	Low Tide Time	2254
I24	25 Oct 2022	Comments	none
I25	03 Oct 2022	Depth (m)	9
I25	03 Oct 2022	Arrive Time	1135
I25	03 Oct 2022	Depart Time	1140
I25	03 Oct 2022	Air Temp (C)	19
I25	03 Oct 2022	Weather	Overcast
I25	03 Oct 2022	Visibility (mi)	9
I25	03 Oct 2022	Wind Speed (kts)	9.6
I25	03 Oct 2022	Wind Dir	NW
I25	03 Oct 2022	Water Color	Brown
I25	03 Oct 2022	Wave Ht Low (ft)	3
I25	03 Oct 2022	Wave Period (sec)	13
I25	03 Oct 2022	Sea State	Light Chop
I25	03 Oct 2022	High Tide (ft)	5.12
I25	03 Oct 2022	High Tide Time	2300
I25	03 Oct 2022	Low Tide (ft)	-0.04

Station	Date	Parameter	Value
I25	03 Oct 2022	Low Tide Time	654
I25	03 Oct 2022	Comments	Brown algal bloom
I25	11 Oct 2022	Depth (m)	10
I25	11 Oct 2022	Arrive Time	1051
I25	11 Oct 2022	Depart Time	1058
I25	11 Oct 2022	Air Temp (C)	19.9
I25	11 Oct 2022	Weather	Overcast
I25	11 Oct 2022	Visibility (mi)	10
I25	11 Oct 2022	Wind Speed (kts)	0.8
I25	11 Oct 2022	Wind Dir	NE
I25	11 Oct 2022	Water Color	Greenish-Blue
I25	11 Oct 2022	Wave Ht Low (ft)	3.3
I25	11 Oct 2022	Wave Period (sec)	17
I25	11 Oct 2022	Sea State	Calm
I25	11 Oct 2022	High Tide (ft)	5.91
I25	11 Oct 2022	High Tide Time	1718
I25	11 Oct 2022	Low Tide (ft)	0.04
I25	11 Oct 2022	Low Tide Time	0
I25	11 Oct 2022	Comments	none
I25	18 Oct 2022	Depth (m)	9
I25	18 Oct 2022	Arrive Time	1134
I25	18 Oct 2022	Depart Time	1138
I25	18 Oct 2022	Air Temp (C)	19.3
I25	18 Oct 2022	Weather	Clear
I25	18 Oct 2022	Visibility (mi)	12
I25	18 Oct 2022	Wind Speed (kts)	11.1
I25	18 Oct 2022	Wind Dir	NW
I25	18 Oct 2022	Water Color	Greenish-Blue
I25	18 Oct 2022	Wave Ht Low (ft)	3
I25	18 Oct 2022	Wave Period (sec)	14
I25	18 Oct 2022	Sea State	Light Chop
I25	18 Oct 2022	High Tide (ft)	4.2
I25	18 Oct 2022	High Tide Time	2348
I25	18 Oct 2022	Low Tide (ft)	0.68
I25	18 Oct 2022	Low Tide Time	654
I25	18 Oct 2022	Comments	Total coliform and entero were not analyzed due to lab accident
I25	20 Oct 2022	Depth (m)	10
I25	20 Oct 2022	Arrive Time	845
I25	20 Oct 2022	Depart Time	848
I25	20 Oct 2022	Air Temp (C)	18.8
I25	20 Oct 2022	Weather	Partly Cloudy
I25	20 Oct 2022	Visibility (mi)	8
I25	20 Oct 2022	Wind Speed (kts)	3.8
I25	20 Oct 2022	Wind Dir	E
I25	20 Oct 2022	Water Color	Greenish-Blue
I25	20 Oct 2022	Wave Ht Low (ft)	3
I25	20 Oct 2022	Wave Period (sec)	14
I25	20 Oct 2022	Sea State	Calm
I25	20 Oct 2022	High Tide (ft)	4.66
I25	20 Oct 2022	High Tide Time	142
I25	20 Oct 2022	Low Tide (ft)	0.52
I25	20 Oct 2022	Low Tide Time	748
I25	20 Oct 2022	Comments	Sample taken due to lab accident on 10/18
I25	25 Oct 2022	Depth (m)	9
I25	25 Oct 2022	Arrive Time	1137
I25	25 Oct 2022	Depart Time	1143

Station	Date	Parameter	Value
I25	25 Oct 2022	Air Temp (C)	18.3
I25	25 Oct 2022	Weather	Clear
I25	25 Oct 2022	Visibility (mi)	10
I25	25 Oct 2022	Wind Speed (kts)	3.4
I25	25 Oct 2022	Wind Dir	NW
I25	25 Oct 2022	Water Color	Greenish-Blue
I25	25 Oct 2022	Wave Ht Low (ft)	3.3
I25	25 Oct 2022	Wave Period (sec)	15
I25	25 Oct 2022	Sea State	Wind Ripples
I25	25 Oct 2022	High Tide (ft)	6.01
I25	25 Oct 2022	High Tide Time	1618
I25	25 Oct 2022	Low Tide (ft)	-0.23
I25	25 Oct 2022	Low Tide Time	2254
I25	25 Oct 2022	Comments	none
I26	03 Oct 2022	Depth (m)	10
I26	03 Oct 2022	Arrive Time	1147
I26	03 Oct 2022	Depart Time	1150
I26	03 Oct 2022	Air Temp (C)	19.1
I26	03 Oct 2022	Weather	Overcast
I26	03 Oct 2022	Visibility (mi)	9
I26	03 Oct 2022	Wind Speed (kts)	10.4
I26	03 Oct 2022	Wind Dir	W
I26	03 Oct 2022	Water Color	Brown
I26	03 Oct 2022	Wave Ht Low (ft)	3
I26	03 Oct 2022	Wave Period (sec)	13
I26	03 Oct 2022	Sea State	Light Chop
I26	03 Oct 2022	High Tide (ft)	5.12
I26	03 Oct 2022	High Tide Time	2300
I26	03 Oct 2022	Low Tide (ft)	-0.04
I26	03 Oct 2022	Low Tide Time	654
I26	03 Oct 2022	Comments	Brown algal bloom
I26	11 Oct 2022	Depth (m)	10
I26	11 Oct 2022	Arrive Time	1100
I26	11 Oct 2022	Depart Time	1107
I26	11 Oct 2022	Air Temp (C)	19.8
I26	11 Oct 2022	Weather	Overcast
I26	11 Oct 2022	Visibility (mi)	10
I26	11 Oct 2022	Wind Speed (kts)	0.8
I26	11 Oct 2022	Wind Dir	N
I26	11 Oct 2022	Water Color	Greenish-Blue
I26	11 Oct 2022	Wave Ht Low (ft)	3.3
I26	11 Oct 2022	Wave Period (sec)	17
I26	11 Oct 2022	Sea State	Calm
I26	11 Oct 2022	High Tide (ft)	5.91
I26	11 Oct 2022	High Tide Time	1718
I26	11 Oct 2022	Low Tide (ft)	0.04
I26	11 Oct 2022	Low Tide Time	0
I26	11 Oct 2022	Comments	none
I26	18 Oct 2022	Depth (m)	10
I26	18 Oct 2022	Arrive Time	1146
I26	18 Oct 2022	Depart Time	1149
I26	18 Oct 2022	Air Temp (C)	19.4
I26	18 Oct 2022	Weather	Clear
I26	18 Oct 2022	Visibility (mi)	12
I26	18 Oct 2022	Wind Speed (kts)	7.7
I26	18 Oct 2022	Wind Dir	NW
I26	18 Oct 2022	Water Color	Greenish-Blue
I26	18 Oct 2022	Wave Ht Low (ft)	3

Station	Date	Parameter	Value
I26	18 Oct 2022	Wave Period (sec)	14
I26	18 Oct 2022	Sea State	Light Chop
I26	18 Oct 2022	High Tide (ft)	4.2
I26	18 Oct 2022	High Tide Time	2348
I26	18 Oct 2022	Low Tide (ft)	0.68
I26	18 Oct 2022	Low Tide Time	654
I26	18 Oct 2022	Comments	Small patch of bloom visible; Total coliform and enteric were not analyzed due to lab accident
I26	20 Oct 2022	Depth (m)	9
I26	20 Oct 2022	Arrive Time	854
I26	20 Oct 2022	Depart Time	858
I26	20 Oct 2022	Air Temp (C)	19.5
I26	20 Oct 2022	Weather	Partly Cloudy
I26	20 Oct 2022	Visibility (mi)	8
I26	20 Oct 2022	Wind Speed (kts)	3.5
I26	20 Oct 2022	Wind Dir	W
I26	20 Oct 2022	Water Color	Greenish-Blue
I26	20 Oct 2022	Wave Ht Low (ft)	3
I26	20 Oct 2022	Wave Period (sec)	14
I26	20 Oct 2022	Sea State	Calm
I26	20 Oct 2022	High Tide (ft)	4.66
I26	20 Oct 2022	High Tide Time	142
I26	20 Oct 2022	Low Tide (ft)	0.52
I26	20 Oct 2022	Low Tide Time	748
I26	20 Oct 2022	Comments	Sample taken due to lab accident on 10/18
I26	25 Oct 2022	Depth (m)	10
I26	25 Oct 2022	Arrive Time	1146
I26	25 Oct 2022	Depart Time	1149
I26	25 Oct 2022	Air Temp (C)	18.3
I26	25 Oct 2022	Weather	Clear
I26	25 Oct 2022	Visibility (mi)	10
I26	25 Oct 2022	Wind Speed (kts)	3.6
I26	25 Oct 2022	Wind Dir	W
I26	25 Oct 2022	Water Color	Greenish-Blue
I26	25 Oct 2022	Wave Ht Low (ft)	3.3
I26	25 Oct 2022	Wave Period (sec)	15
I26	25 Oct 2022	Sea State	Wind Ripples
I26	25 Oct 2022	High Tide (ft)	6.01
I26	25 Oct 2022	High Tide Time	1618
I26	25 Oct 2022	Low Tide (ft)	-0.23
I26	25 Oct 2022	Low Tide Time	2254
I26	25 Oct 2022	Comments	none
I32	03 Oct 2022	Depth (m)	10
I32	03 Oct 2022	Arrive Time	1200
I32	03 Oct 2022	Depart Time	1209
I32	03 Oct 2022	Air Temp (C)	19.1
I32	03 Oct 2022	Weather	Overcast
I32	03 Oct 2022	Visibility (mi)	9
I32	03 Oct 2022	Wind Speed (kts)	14.5
I32	03 Oct 2022	Wind Dir	W
I32	03 Oct 2022	Water Color	Brown
I32	03 Oct 2022	Wave Ht Low (ft)	3
I32	03 Oct 2022	Wave Period (sec)	13
I32	03 Oct 2022	Sea State	Light Chop
I32	03 Oct 2022	High Tide (ft)	5.12
I32	03 Oct 2022	High Tide Time	2300
I32	03 Oct 2022	Low Tide (ft)	-0.04
I32	03 Oct 2022	Low Tide Time	654

Station	Date	Parameter	Value
I32	03 Oct 2022	Comments	Brown algal bloom
I32	11 Oct 2022	Depth (m)	11
I32	11 Oct 2022	Arrive Time	1111
I32	11 Oct 2022	Depart Time	1116
I32	11 Oct 2022	Air Temp (C)	19.6
I32	11 Oct 2022	Weather	Overcast
I32	11 Oct 2022	Visibility (mi)	10
I32	11 Oct 2022	Wind Speed (kts)	4.1
I32	11 Oct 2022	Wind Dir	W
I32	11 Oct 2022	Water Color	Greenish-Blue
I32	11 Oct 2022	Wave Ht Low (ft)	3.3
I32	11 Oct 2022	Wave Period (sec)	17
I32	11 Oct 2022	Sea State	Calm
I32	11 Oct 2022	High Tide (ft)	5.91
I32	11 Oct 2022	High Tide Time	1718
I32	11 Oct 2022	Low Tide (ft)	0.04
I32	11 Oct 2022	Low Tide Time	0
I32	11 Oct 2022	Comments	none
I32	18 Oct 2022	Depth (m)	11
I32	18 Oct 2022	Arrive Time	1158
I32	18 Oct 2022	Depart Time	1202
I32	18 Oct 2022	Air Temp (C)	19.4
I32	18 Oct 2022	Weather	Clear
I32	18 Oct 2022	Visibility (mi)	12
I32	18 Oct 2022	Wind Speed (kts)	8.2
I32	18 Oct 2022	Wind Dir	NW
I32	18 Oct 2022	Water Color	Greenish-Blue
I32	18 Oct 2022	Wave Ht Low (ft)	3
I32	18 Oct 2022	Wave Period (sec)	14
I32	18 Oct 2022	Sea State	Light Chop
I32	18 Oct 2022	High Tide (ft)	4.2
I32	18 Oct 2022	High Tide Time	2348
I32	18 Oct 2022	Low Tide (ft)	0.68
I32	18 Oct 2022	Low Tide Time	654
I32	18 Oct 2022	Comments	Total coliform and entero were not analyzed due to lab accident
I32	20 Oct 2022	Depth (m)	10
I32	20 Oct 2022	Arrive Time	907
I32	20 Oct 2022	Depart Time	913
I32	20 Oct 2022	Air Temp (C)	20
I32	20 Oct 2022	Weather	Partly Cloudy
I32	20 Oct 2022	Visibility (mi)	8
I32	20 Oct 2022	Wind Speed (kts)	2.2
I32	20 Oct 2022	Wind Dir	S
I32	20 Oct 2022	Water Color	Greenish-Blue
I32	20 Oct 2022	Wave Ht Low (ft)	3
I32	20 Oct 2022	Wave Period (sec)	14
I32	20 Oct 2022	Sea State	Calm
I32	20 Oct 2022	High Tide (ft)	4.66
I32	20 Oct 2022	High Tide Time	142
I32	20 Oct 2022	Low Tide (ft)	0.52
I32	20 Oct 2022	Low Tide Time	748
I32	20 Oct 2022	Comments	Sample taken due to lab accident on 10/18
I32	25 Oct 2022	Depth (m)	11
I32	25 Oct 2022	Arrive Time	1158
I32	25 Oct 2022	Depart Time	1202
I32	25 Oct 2022	Air Temp (C)	18.5

Station	Date	Parameter	Value
I32	25 Oct 2022	Weather	Clear
I32	25 Oct 2022	Visibility (mi)	10
I32	25 Oct 2022	Wind Speed (kts)	4.3
I32	25 Oct 2022	Wind Dir	W
I32	25 Oct 2022	Water Color	Green
I32	25 Oct 2022	Wave Ht Low (ft)	3.3
I32	25 Oct 2022	Wave Period (sec)	15
I32	25 Oct 2022	Sea State	Wind Ripples
I32	25 Oct 2022	High Tide (ft)	6.01
I32	25 Oct 2022	High Tide Time	1618
I32	25 Oct 2022	Low Tide (ft)	-0.23
I32	25 Oct 2022	Low Tide Time	2254
I32	25 Oct 2022	Comments	none
I39	03 Oct 2022	Depth (m)	19
I39	03 Oct 2022	Arrive Time	1035
I39	03 Oct 2022	Depart Time	1041
I39	03 Oct 2022	Air Temp (C)	19.2
I39	03 Oct 2022	Weather	Overcast
I39	03 Oct 2022	Visibility (mi)	9
I39	03 Oct 2022	Wind Speed (kts)	9.2
I39	03 Oct 2022	Wind Dir	W
I39	03 Oct 2022	Water Color	Brown
I39	03 Oct 2022	Wave Ht Low (ft)	3
I39	03 Oct 2022	Wave Period (sec)	13
I39	03 Oct 2022	Sea State	Regular Swell
I39	03 Oct 2022	High Tide (ft)	5.12
I39	03 Oct 2022	High Tide Time	2300
I39	03 Oct 2022	Low Tide (ft)	-0.04
I39	03 Oct 2022	Low Tide Time	654
I39	03 Oct 2022	Comments	Brown algal bloom
I39	11 Oct 2022	Depth (m)	22
I39	11 Oct 2022	Arrive Time	1006
I39	11 Oct 2022	Depart Time	1010
I39	11 Oct 2022	Air Temp (C)	19.6
I39	11 Oct 2022	Weather	Overcast
I39	11 Oct 2022	Visibility (mi)	10
I39	11 Oct 2022	Wind Speed (kts)	0.8
I39	11 Oct 2022	Wind Dir	NE
I39	11 Oct 2022	Water Color	Blueish-Green
I39	11 Oct 2022	Wave Ht Low (ft)	3.3
I39	11 Oct 2022	Wave Period (sec)	17
I39	11 Oct 2022	Sea State	Calm
I39	11 Oct 2022	High Tide (ft)	5.91
I39	11 Oct 2022	High Tide Time	1718
I39	11 Oct 2022	Low Tide (ft)	0.04
I39	11 Oct 2022	Low Tide Time	0
I39	11 Oct 2022	Comments	none
I39	18 Oct 2022	Depth (m)	19
I39	18 Oct 2022	Arrive Time	1036
I39	18 Oct 2022	Depart Time	1040
I39	18 Oct 2022	Air Temp (C)	19.5
I39	18 Oct 2022	Weather	Clear
I39	18 Oct 2022	Visibility (mi)	12
I39	18 Oct 2022	Wind Speed (kts)	4.5
I39	18 Oct 2022	Wind Dir	NW
I39	18 Oct 2022	Water Color	Greenish-Blue
I39	18 Oct 2022	Wave Ht Low (ft)	3
I39	18 Oct 2022	Wave Period (sec)	14

Station	Date	Parameter	Value
I39	18 Oct 2022	Sea State	Light Chop
I39	18 Oct 2022	High Tide (ft)	4.2
I39	18 Oct 2022	High Tide Time	2348
I39	18 Oct 2022	Low Tide (ft)	0.68
I39	18 Oct 2022	Low Tide Time	654
I39	18 Oct 2022	Comments	Total coliform and entero were not analyzed due to lab accident
I39	20 Oct 2022	Depth (m)	19
I39	20 Oct 2022	Arrive Time	818
I39	20 Oct 2022	Depart Time	825
I39	20 Oct 2022	Air Temp (C)	18.6
I39	20 Oct 2022	Weather	Partly Cloudy
I39	20 Oct 2022	Visibility (mi)	8
I39	20 Oct 2022	Wind Speed (kts)	1.4
I39	20 Oct 2022	Wind Dir	E
I39	20 Oct 2022	Water Color	Greenish-Blue
I39	20 Oct 2022	Wave Ht Low (ft)	3
I39	20 Oct 2022	Wave Period (sec)	14
I39	20 Oct 2022	Sea State	Calm
I39	20 Oct 2022	High Tide (ft)	4.66
I39	20 Oct 2022	High Tide Time	142
I39	20 Oct 2022	Low Tide (ft)	0.52
I39	20 Oct 2022	Low Tide Time	748
I39	20 Oct 2022	Comments	Sample taken due to lab accident on 10/18
I39	25 Oct 2022	Depth (m)	20
I39	25 Oct 2022	Arrive Time	1049
I39	25 Oct 2022	Depart Time	1053
I39	25 Oct 2022	Air Temp (C)	17.7
I39	25 Oct 2022	Weather	Clear
I39	25 Oct 2022	Visibility (mi)	10
I39	25 Oct 2022	Wind Speed (kts)	1.9
I39	25 Oct 2022	Wind Dir	N
I39	25 Oct 2022	Water Color	Blueish-Green
I39	25 Oct 2022	Wave Ht Low (ft)	3.3
I39	25 Oct 2022	Wave Period (sec)	15
I39	25 Oct 2022	Sea State	Wind Ripples
I39	25 Oct 2022	High Tide (ft)	6.01
I39	25 Oct 2022	High Tide Time	1618
I39	25 Oct 2022	Low Tide (ft)	-0.23
I39	25 Oct 2022	Low Tide Time	2254
I39	25 Oct 2022	Comments	none
I40	03 Oct 2022	Depth (m)	10
I40	03 Oct 2022	Arrive Time	1114
I40	03 Oct 2022	Depart Time	1119
I40	03 Oct 2022	Air Temp (C)	18.9
I40	03 Oct 2022	Weather	Overcast
I40	03 Oct 2022	Visibility (mi)	9
I40	03 Oct 2022	Wind Speed (kts)	10.6
I40	03 Oct 2022	Wind Dir	W
I40	03 Oct 2022	Water Color	Brown
I40	03 Oct 2022	Wave Ht Low (ft)	3
I40	03 Oct 2022	Wave Period (sec)	13
I40	03 Oct 2022	Sea State	Light Chop
I40	03 Oct 2022	High Tide (ft)	5.12
I40	03 Oct 2022	High Tide Time	2300
I40	03 Oct 2022	Low Tide (ft)	-0.04
I40	03 Oct 2022	Low Tide Time	654
I40	03 Oct 2022	Comments	Brown algal bloom

Station	Date	Parameter	Value
I40	11 Oct 2022	Depth (m)	11
I40	11 Oct 2022	Arrive Time	1034
I40	11 Oct 2022	Depart Time	1038
I40	11 Oct 2022	Air Temp (C)	19.7
I40	11 Oct 2022	Weather	Overcast
I40	11 Oct 2022	Visibility (mi)	10
I40	11 Oct 2022	Wind Speed (kts)	0
I40	11 Oct 2022	Wind Dir	N
I40	11 Oct 2022	Water Color	Greenish-Blue
I40	11 Oct 2022	Wave Ht Low (ft)	3.3
I40	11 Oct 2022	Wave Period (sec)	17
I40	11 Oct 2022	Sea State	Calm
I40	11 Oct 2022	High Tide (ft)	5.91
I40	11 Oct 2022	High Tide Time	1718
I40	11 Oct 2022	Low Tide (ft)	0.04
I40	11 Oct 2022	Low Tide Time	0
I40	11 Oct 2022	Comments	none
I40	18 Oct 2022	Depth (m)	11
I40	18 Oct 2022	Arrive Time	1111
I40	18 Oct 2022	Depart Time	1115
I40	18 Oct 2022	Air Temp (C)	19.1
I40	18 Oct 2022	Weather	Clear
I40	18 Oct 2022	Visibility (mi)	12
I40	18 Oct 2022	Wind Speed (kts)	7
I40	18 Oct 2022	Wind Dir	NW
I40	18 Oct 2022	Water Color	Greenish-Blue
I40	18 Oct 2022	Wave Ht Low (ft)	3
I40	18 Oct 2022	Wave Period (sec)	14
I40	18 Oct 2022	Sea State	Light Chop
I40	18 Oct 2022	High Tide (ft)	4.2
I40	18 Oct 2022	High Tide Time	2348
I40	18 Oct 2022	Low Tide (ft)	0.68
I40	18 Oct 2022	Low Tide Time	654
I40	18 Oct 2022	Comments	none
I40	25 Oct 2022	Depth (m)	11
I40	25 Oct 2022	Arrive Time	1122
I40	25 Oct 2022	Depart Time	1126
I40	25 Oct 2022	Air Temp (C)	18
I40	25 Oct 2022	Weather	Clear
I40	25 Oct 2022	Visibility (mi)	10
I40	25 Oct 2022	Wind Speed (kts)	4
I40	25 Oct 2022	Wind Dir	NW
I40	25 Oct 2022	Water Color	Greenish-Blue
I40	25 Oct 2022	Wave Ht Low (ft)	3.3
I40	25 Oct 2022	Wave Period (sec)	15
I40	25 Oct 2022	Sea State	Wind Ripples
I40	25 Oct 2022	High Tide (ft)	6.01
I40	25 Oct 2022	High Tide Time	1618
I40	25 Oct 2022	Low Tide (ft)	-0.23
I40	25 Oct 2022	Low Tide Time	2254
I40	25 Oct 2022	Comments	none

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	03 Oct 2022	1	17.18	78.97	7.8	33.36	8.1	24.2	2.41
I19	03 Oct 2022	2	16.98	78.99	7.8	33.35	8.1	24.3	2.42
I19	03 Oct 2022	3	16.56	78.96	8.0	33.35	8.1	24.4	2.69
I19	03 Oct 2022	4	16.35	79.04	7.8	33.35	8.1	24.4	2.60
I19	03 Oct 2022	5	16.12	80.30	7.7	33.36	8.1	24.5	2.16
I19	03 Oct 2022	6	16.12	80.49	7.7	33.35	8.1	24.5	2.01
I19	03 Oct 2022	7	16.03	79.22	7.5	33.36	8.1	24.5	1.80
I19	03 Oct 2022	8	16.03	77.44	7.5	33.36	8.1	24.5	1.74
I19	03 Oct 2022	9	15.96	73.73	7.5	33.36	8.0	24.5	1.98
I19	03 Oct 2022	10	15.94	70.16	7.5	33.36	8.0	24.5	2.14
I19	11 Oct 2022	1	19.30	73.32	9.4	33.40	8.3	23.7	4.87
I19	11 Oct 2022	2	19.22	74.28	9.4	33.40	8.3	23.7	5.12
I19	11 Oct 2022	3	19.14	74.27	9.3	33.40	8.3	23.8	5.41
I19	11 Oct 2022	4	19.15	74.35	9.2	33.40	8.3	23.8	5.62
I19	11 Oct 2022	5	18.86	74.28	9.0	33.41	8.3	23.8	5.61
I19	11 Oct 2022	6	18.87	74.34	8.9	33.39	8.2	23.8	5.70
I19	11 Oct 2022	7	18.88	74.36	8.5	33.39	8.2	23.8	5.71
I19	11 Oct 2022	8	17.48	74.14	7.8	33.44	8.2	24.2	6.03
I19	11 Oct 2022	9	16.53	74.89	7.4	33.37	8.1	24.4	5.28
I19	11 Oct 2022	10	15.85	78.31	7.2	33.37	8.1	24.5	4.78
I19	18 Oct 2022	1	17.19	83.71	7.7	33.41	8.1	24.2	1.23
I19	18 Oct 2022	2	16.83	82.98	7.6	33.41	8.1	24.3	1.41
I19	18 Oct 2022	3	16.09	81.45	7.4	33.39	8.1	24.5	1.99
I19	18 Oct 2022	4	15.46	82.79	7.3	33.38	8.1	24.6	1.99
I19	18 Oct 2022	5	15.24	84.95	7.2	33.38	8.1	24.7	1.86
I19	18 Oct 2022	6	15.08	84.60	7.1	33.37	8.1	24.7	1.93
I19	18 Oct 2022	7	15.03	82.06	6.9	33.37	8.1	24.7	2.22
I19	18 Oct 2022	8	14.86	78.08	6.8	33.37	8.1	24.7	2.43
I19	18 Oct 2022	9	14.80	74.17	6.7	33.37	8.0	24.8	2.66
I19	18 Oct 2022	10	14.73	72.01	6.6	33.37	8.0	24.8	2.91
I19	25 Oct 2022	1	17.62	67.59	8.0	33.39	8.2	24.1	1.83
I19	25 Oct 2022	2	17.61	67.75	8.0	33.39	8.2	24.1	1.85
I19	25 Oct 2022	3	17.56	67.11	8.0	33.39	8.2	24.1	2.17
I19	25 Oct 2022	4	17.56	67.86	7.9	33.39	8.2	24.1	2.41
I19	25 Oct 2022	5	17.55	68.43	7.9	33.39	8.2	24.1	2.51
I19	25 Oct 2022	6	17.54	66.99	7.9	33.39	8.2	24.2	2.49
I19	25 Oct 2022	7	17.53	67.15	7.9	33.39	8.2	24.2	2.48
I19	25 Oct 2022	8	17.53	66.10	7.8	33.39	8.2	24.2	2.50
I19	25 Oct 2022	9	17.53	63.96	7.8	33.39	8.2	24.2	2.39
I19	25 Oct 2022	10	17.52	62.75	7.8	33.39	8.2	24.2	2.30
I24	03 Oct 2022	1	17.54	66.39	9.1	33.36	8.2	24.1	10.79
I24	03 Oct 2022	2	17.50	66.91	8.8	33.37	8.2	24.1	10.82
I24	03 Oct 2022	3	16.60	69.36	8.5	33.44	8.2	24.4	10.96
I24	03 Oct 2022	4	16.48	76.41	8.1	33.37	8.1	24.4	9.60
I24	03 Oct 2022	5	16.30	80.35	8.0	33.37	8.1	24.4	7.27
I24	03 Oct 2022	6	16.24	81.83	8.0	33.36	8.1	24.4	5.43
I24	03 Oct 2022	7	16.17	82.24	8.0	33.37	8.1	24.5	4.05
I24	03 Oct 2022	8	16.04	82.73	8.0	33.37	8.1	24.5	3.32
I24	03 Oct 2022	9	15.88	83.23	7.9	33.37	8.1	24.5	2.57
I24	03 Oct 2022	10	15.79	84.55	7.9	33.37	8.1	24.5	3.36
I24	03 Oct 2022	11	15.70	84.76	7.9	33.38	8.1	24.6	3.29

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I24	11 Oct 2022	1	19.56	80.09	10.0	33.42	8.3	23.7	3.00
I24	11 Oct 2022	2	19.51	80.26	9.9	33.43	8.3	23.7	3.19
I24	11 Oct 2022	3	19.42	80.56	9.7	33.43	8.3	23.7	5.18
I24	11 Oct 2022	4	19.23	77.89	9.4	33.44	8.3	23.8	6.06
I24	11 Oct 2022	5	19.01	77.65	9.2	33.42	8.3	23.8	5.61
I24	11 Oct 2022	6	18.79	79.16	8.7	33.39	8.2	23.8	5.18
I24	11 Oct 2022	7	18.27	79.08	8.0	33.38	8.2	24.0	4.52
I24	11 Oct 2022	8	17.51	78.44	7.4	33.34	8.2	24.1	3.58
I24	11 Oct 2022	9	16.12	79.63	7.3	33.37	8.1	24.5	2.65
I24	11 Oct 2022	10	15.92	80.64	7.3	33.34	8.0	24.5	2.04
I24	11 Oct 2022	11	15.88	80.99	7.3	33.34	8.0	24.5	1.74
I24	18 Oct 2022	1	17.65	83.93	7.8	33.41	8.1	24.1	1.30
I24	18 Oct 2022	2	17.00	83.38	7.8	33.41	8.1	24.3	1.51
I24	18 Oct 2022	3	16.64	82.01	7.7	33.40	8.1	24.4	1.65
I24	18 Oct 2022	4	16.05	84.02	7.4	33.39	8.1	24.5	1.65
I24	18 Oct 2022	5	15.45	85.26	7.3	33.38	8.1	24.6	1.71
I24	18 Oct 2022	6	14.99	86.87	7.4	33.37	8.1	24.7	1.69
I24	18 Oct 2022	7	14.86	87.46	7.3	33.36	8.1	24.7	1.62
I24	18 Oct 2022	8	14.74	87.68	7.1	33.37	8.1	24.8	1.68
I24	18 Oct 2022	9	14.68	86.71	7.1	33.36	8.1	24.8	1.73
I24	18 Oct 2022	10	14.51	87.38	6.9	33.36	8.1	24.8	1.50
I24	18 Oct 2022	11	14.43	87.28	6.7	33.36	8.1	24.8	1.26
I24	20 Oct 2022	1	18.11	87.04	8.0	33.46	8.1	24.1	1.33
I24	20 Oct 2022	2	18.01	86.68	8.0	33.45	8.1	24.1	1.37
I24	20 Oct 2022	3	17.70	86.74	7.8	33.44	8.1	24.1	1.48
I24	20 Oct 2022	4	17.10	86.28	7.7	33.42	8.1	24.3	1.92
I24	20 Oct 2022	5	16.37	85.43	7.4	33.39	8.1	24.4	2.08
I24	20 Oct 2022	6	15.39	84.16	7.4	33.38	8.1	24.6	2.25
I24	20 Oct 2022	7	14.75	85.32	7.3	33.35	8.1	24.8	1.92
I24	20 Oct 2022	8	14.41	83.95	7.0	33.34	8.1	24.8	1.69
I24	20 Oct 2022	9	14.30	79.49	7.0	33.34	8.1	24.8	1.65
I24	20 Oct 2022	10	14.28	71.08	6.9	33.34	8.1	24.9	1.62
I24	20 Oct 2022	11	14.28	65.18	6.9	33.35	8.1	24.9	1.68
I24	25 Oct 2022	1	17.80	78.07	8.1	33.40	8.2	24.1	1.92
I24	25 Oct 2022	2	17.86	78.25	8.1	33.39	8.2	24.1	1.69
I24	25 Oct 2022	3	17.85	78.55	8.1	33.40	8.2	24.1	1.58
I24	25 Oct 2022	4	17.73	78.74	8.0	33.40	8.2	24.1	2.26
I24	25 Oct 2022	5	17.52	77.65	7.9	33.39	8.2	24.2	3.12
I24	25 Oct 2022	6	17.44	77.16	7.9	33.39	8.2	24.2	2.90
I24	25 Oct 2022	7	17.37	78.62	7.8	33.38	8.2	24.2	2.54
I24	25 Oct 2022	8	17.26	78.32	7.8	33.38	8.2	24.2	2.14
I24	25 Oct 2022	9	17.17	78.33	7.7	33.39	8.2	24.2	1.86
I24	25 Oct 2022	10	17.14	78.56	7.6	33.38	8.2	24.2	1.59
I24	25 Oct 2022	11	17.13	76.62	7.6	33.39	8.2	24.2	1.57
I25	03 Oct 2022	1	18.15	50.19	10.2	33.37	8.3	24.0	27.15
I25	03 Oct 2022	2	18.17	50.20	10.1	33.37	8.3	24.0	26.95
I25	03 Oct 2022	3	17.89	50.81	9.5	33.39	8.3	24.1	27.48
I25	03 Oct 2022	4	16.97	59.56	8.6	33.40	8.2	24.3	25.28
I25	03 Oct 2022	5	16.38	74.99	8.1	33.38	8.1	24.4	16.77
I25	03 Oct 2022	6	16.27	81.46	8.0	33.36	8.1	24.4	9.18
I25	03 Oct 2022	7	16.02	81.91	8.0	33.37	8.1	24.5	5.54
I25	03 Oct 2022	8	15.80	84.00	8.0	33.37	8.1	24.5	4.32
I25	03 Oct 2022	9	15.77	84.80	8.0	33.37	8.1	24.5	3.67
I25	11 Oct 2022	1	19.26	81.57	9.5	33.43	8.3	23.8	2.57
I25	11 Oct 2022	2	19.24	81.33	9.3	33.43	8.3	23.8	2.84

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I25	11 Oct 2022	3	18.95	81.92	9.2	33.42	8.3	23.8	3.24
I25	11 Oct 2022	4	18.64	81.78	9.0	33.41	8.2	23.9	4.09
I25	11 Oct 2022	5	18.55	80.97	8.8	33.40	8.2	23.9	4.46
I25	11 Oct 2022	6	18.41	80.42	8.3	33.38	8.2	23.9	4.58
I25	11 Oct 2022	7	17.30	79.77	7.7	33.36	8.2	24.2	3.77
I25	11 Oct 2022	8	16.57	80.39	7.4	33.36	8.1	24.4	2.44
I25	11 Oct 2022	9	16.43	82.07	7.3	33.35	8.1	24.4	1.76
I25	18 Oct 2022	1	17.79	79.97	8.3	33.41	8.1	24.1	2.16
I25	18 Oct 2022	2	17.57	80.11	8.0	33.42	8.1	24.2	2.19
I25	18 Oct 2022	3	16.13	81.32	7.6	33.43	8.2	24.5	2.11
I25	18 Oct 2022	4	15.56	84.81	7.6	33.40	8.1	24.6	1.86
I25	18 Oct 2022	5	15.35	86.85	7.5	33.39	8.1	24.7	1.72
I25	18 Oct 2022	6	14.98	88.33	7.4	33.38	8.1	24.7	1.65
I25	18 Oct 2022	7	14.78	88.77	7.2	33.37	8.1	24.8	1.59
I25	18 Oct 2022	8	14.74	88.30	7.0	33.37	8.1	24.8	1.54
I25	18 Oct 2022	9	14.74	87.08	7.0	33.37	8.1	24.8	1.47
I25	20 Oct 2022	1	18.18	87.71	8.0	33.46	8.1	24.0	1.02
I25	20 Oct 2022	2	18.04	87.65	7.8	33.44	8.1	24.1	1.12
I25	20 Oct 2022	3	17.05	87.35	7.9	33.43	8.1	24.3	1.35
I25	20 Oct 2022	4	16.91	87.00	7.9	33.41	8.1	24.3	1.47
I25	20 Oct 2022	5	16.73	86.89	7.6	33.40	8.1	24.3	1.64
I25	20 Oct 2022	6	15.77	85.88	7.4	33.37	8.1	24.5	1.86
I25	20 Oct 2022	7	14.97	84.73	7.5	33.36	8.1	24.7	1.80
I25	20 Oct 2022	8	14.83	86.00	7.6	33.35	8.1	24.7	1.50
I25	20 Oct 2022	9	14.84	85.99	7.6	33.35	8.1	24.7	1.40
I25	25 Oct 2022	1	17.85	78.92	7.9	33.37	8.2	24.1	1.01
I25	25 Oct 2022	2	17.59	78.48	8.0	33.33	8.2	24.1	1.22
I25	25 Oct 2022	3	17.42	75.77	8.1	33.33	8.2	24.1	1.63
I25	25 Oct 2022	4	17.41	75.10	8.0	33.34	8.2	24.1	1.67
I25	25 Oct 2022	5	17.43	76.40	7.9	33.35	8.2	24.1	1.69
I25	25 Oct 2022	6	17.43	75.38	7.6	33.36	8.2	24.2	1.71
I25	25 Oct 2022	7	17.14	71.69	7.2	33.38	8.2	24.2	1.60
I25	25 Oct 2022	8	17.06	67.28	7.1	33.39	8.1	24.3	1.47
I25	25 Oct 2022	9	17.06	63.64	7.1	33.38	8.1	24.3	1.43
I26	03 Oct 2022	1	18.62	60.26	9.7	33.37	8.3	23.9	14.07
I26	03 Oct 2022	2	18.30	60.31	9.3	33.36	8.3	23.9	16.00
I26	03 Oct 2022	3	17.09	63.14	8.9	33.37	8.2	24.2	14.08
I26	03 Oct 2022	4	16.75	77.38	8.6	33.36	8.2	24.3	8.69
I26	03 Oct 2022	5	16.43	81.68	8.2	33.35	8.1	24.4	6.16
I26	03 Oct 2022	6	16.10	82.88	8.0	33.35	8.1	24.5	4.47
I26	03 Oct 2022	7	16.05	84.16	8.0	33.35	8.1	24.5	3.19
I26	03 Oct 2022	8	15.95	85.27	8.0	33.35	8.1	24.5	2.58
I26	03 Oct 2022	9	15.93	85.42	8.0	33.35	8.1	24.5	2.06
I26	11 Oct 2022	1	19.39	82.27	9.0	33.45	8.2	23.7	2.21
I26	11 Oct 2022	2	19.01	83.02	8.8	33.45	8.2	23.8	2.52
I26	11 Oct 2022	3	18.70	82.26	8.6	33.44	8.2	23.9	3.16
I26	11 Oct 2022	4	18.47	79.30	8.8	33.42	8.2	23.9	4.21
I26	11 Oct 2022	5	18.42	81.53	8.8	33.41	8.2	24.0	5.25
I26	11 Oct 2022	6	18.36	80.63	8.7	33.41	8.2	24.0	6.06
I26	11 Oct 2022	7	18.06	80.18	8.2	33.39	8.2	24.0	5.85
I26	11 Oct 2022	8	17.13	79.90	7.5	33.37	8.1	24.2	5.28
I26	11 Oct 2022	9	15.81	79.94	7.2	33.36	8.1	24.5	3.66
I26	18 Oct 2022	1	18.12	79.36	8.4	33.41	8.2	24.0	2.02
I26	18 Oct 2022	2	17.65	79.32	8.2	33.41	8.2	24.1	2.27
I26	18 Oct 2022	3	16.88	77.31	7.8	33.41	8.2	24.3	2.80

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I26	18 Oct 2022	4	16.44	79.08	7.5	33.40	8.2	24.4	2.52
I26	18 Oct 2022	5	16.14	85.40	7.2	33.38	8.1	24.5	2.22
I26	18 Oct 2022	6	14.96	86.79	7.2	33.37	8.1	24.7	2.00
I26	18 Oct 2022	7	14.35	87.49	7.2	33.35	8.1	24.8	1.99
I26	18 Oct 2022	8	14.33	88.03	7.2	33.34	8.1	24.8	1.86
I26	18 Oct 2022	9	14.33	88.13	7.2	33.34	8.1	24.8	1.77
I26	20 Oct 2022	1	17.95	87.76	8.1	33.45	8.1	24.1	1.03
I26	20 Oct 2022	2	17.95	87.60	8.0	33.45	8.1	24.1	1.06
I26	20 Oct 2022	3	17.59	87.66	7.9	33.44	8.1	24.2	1.21
I26	20 Oct 2022	4	16.98	87.35	7.8	33.42	8.1	24.3	1.46
I26	20 Oct 2022	5	16.74	86.91	7.8	33.41	8.1	24.4	1.63
I26	20 Oct 2022	6	16.65	86.79	7.7	33.40	8.1	24.4	1.73
I26	20 Oct 2022	7	16.34	86.34	7.4	33.39	8.1	24.4	2.03
I26	20 Oct 2022	8	15.14	84.98	7.3	33.38	8.1	24.7	2.15
I26	20 Oct 2022	9	14.85	83.85	7.3	33.36	8.1	24.7	1.49
I26	25 Oct 2022	1	17.98	81.40	8.0	33.41	8.2	24.1	0.87
I26	25 Oct 2022	2	17.85	79.64	8.1	33.41	8.2	24.1	1.13
I26	25 Oct 2022	3	17.74	74.84	8.3	33.41	8.2	24.1	2.78
I26	25 Oct 2022	4	17.68	69.73	8.2	33.41	8.2	24.1	4.31
I26	25 Oct 2022	5	17.60	73.63	7.9	33.40	8.2	24.1	3.59
I26	25 Oct 2022	6	17.32	77.91	7.7	33.39	8.2	24.2	2.58
I26	25 Oct 2022	7	17.10	79.54	7.7	33.39	8.2	24.3	2.16
I26	25 Oct 2022	8	17.05	80.63	7.7	33.38	8.2	24.3	1.69
I26	25 Oct 2022	9	17.03	79.59	7.6	33.38	8.2	24.3	1.40
I32	03 Oct 2022	1	18.55	48.64	9.8	33.38	8.3	23.9	25.12
I32	03 Oct 2022	2	18.55	48.73	9.8	33.38	8.3	23.9	26.48
I32	03 Oct 2022	3	18.53	49.25	9.7	33.38	8.3	23.9	27.23
I32	03 Oct 2022	4	18.50	49.71	9.4	33.38	8.2	23.9	27.03
I32	03 Oct 2022	5	18.24	52.74	8.4	33.37	8.2	24.0	24.58
I32	03 Oct 2022	6	17.20	58.58	7.5	33.35	8.1	24.2	17.56
I32	03 Oct 2022	7	16.47	75.97	7.2	33.37	8.1	24.4	8.60
I32	03 Oct 2022	8	16.13	83.68	7.2	33.36	8.0	24.5	4.47
I32	03 Oct 2022	9	15.89	81.27	7.3	33.36	8.0	24.5	2.96
I32	03 Oct 2022	10	15.87	79.34	7.3	33.36	8.0	24.5	2.29
I32	11 Oct 2022	1	19.34	81.22	9.3	33.45	8.3	23.8	3.15
I32	11 Oct 2022	2	19.38	81.88	9.2	33.45	8.3	23.7	2.89
I32	11 Oct 2022	3	19.26	82.15	9.2	33.45	8.3	23.8	3.15
I32	11 Oct 2022	4	19.01	80.88	9.3	33.44	8.2	23.8	4.77
I32	11 Oct 2022	5	18.91	77.09	9.4	33.42	8.2	23.8	7.11
I32	11 Oct 2022	6	18.88	75.07	9.5	33.42	8.3	23.8	8.21
I32	11 Oct 2022	7	18.78	75.52	9.5	33.41	8.3	23.9	8.06
I32	11 Oct 2022	8	18.68	76.65	9.2	33.40	8.3	23.9	7.17
I32	11 Oct 2022	9	18.49	76.89	8.6	33.40	8.2	23.9	6.10
I32	11 Oct 2022	10	18.37	75.77	8.1	33.39	8.2	24.0	5.16
I32	18 Oct 2022	1	18.21	80.40	8.2	33.40	8.2	24.0	1.59
I32	18 Oct 2022	2	17.36	79.67	7.8	33.41	8.2	24.2	1.89
I32	18 Oct 2022	3	16.53	77.06	7.3	33.40	8.1	24.4	2.16
I32	18 Oct 2022	4	15.70	80.39	7.1	33.38	8.1	24.6	2.21
I32	18 Oct 2022	5	15.19	84.02	7.0	33.37	8.1	24.7	2.14
I32	18 Oct 2022	6	15.00	85.52	6.9	33.36	8.1	24.7	1.98
I32	18 Oct 2022	7	14.78	85.12	6.9	33.36	8.1	24.8	1.85
I32	18 Oct 2022	8	14.66	84.83	6.9	33.35	8.1	24.8	1.74
I32	18 Oct 2022	9	14.57	85.28	6.9	33.36	8.1	24.8	1.70
I32	18 Oct 2022	10	14.54	84.39	6.9	33.36	8.1	24.8	1.77
I32	20 Oct 2022	1	17.83	78.06	8.4	33.41	8.1	24.1	2.94

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I32	20 Oct 2022	2	17.57	76.25	8.3	33.42	8.1	24.2	3.82
I32	20 Oct 2022	3	17.43	75.16	8.1	33.41	8.1	24.2	5.09
I32	20 Oct 2022	4	17.31	75.93	8.0	33.41	8.1	24.2	5.63
I32	20 Oct 2022	5	17.19	77.10	7.9	33.41	8.1	24.2	5.71
I32	20 Oct 2022	6	16.99	77.63	7.8	33.41	8.1	24.3	5.19
I32	20 Oct 2022	7	16.85	79.15	7.7	33.40	8.1	24.3	4.02
I32	20 Oct 2022	8	16.63	81.07	7.5	33.40	8.1	24.4	2.81
I32	20 Oct 2022	9	16.24	81.71	7.1	33.37	8.1	24.4	2.46
I32	20 Oct 2022	10	14.83	77.89	6.9	33.37	8.1	24.8	2.02
I32	25 Oct 2022	1	17.75	81.22	8.1	33.40	8.2	24.1	1.00
I32	25 Oct 2022	2	17.64	80.23	8.0	33.41	8.2	24.1	1.11
I32	25 Oct 2022	3	17.58	76.53	7.8	33.41	8.2	24.2	1.26
I32	25 Oct 2022	4	17.56	73.36	7.8	33.41	8.2	24.2	1.27
I32	25 Oct 2022	5	17.53	70.03	7.7	33.41	8.2	24.2	1.34
I32	25 Oct 2022	6	17.49	65.90	7.6	33.41	8.2	24.2	1.45
I32	25 Oct 2022	7	17.48	62.87	7.5	33.41	8.2	24.2	1.62
I32	25 Oct 2022	8	17.46	58.97	7.6	33.41	8.2	24.2	1.66
I32	25 Oct 2022	9	17.45	57.04	7.6	33.41	8.2	24.2	1.63
I32	25 Oct 2022	10	17.35	56.08	7.6	33.40	8.2	24.2	1.63
I39	03 Oct 2022	1	18.80	51.49	9.9	33.38	8.3	23.8	24.87
I39	03 Oct 2022	2	18.84	51.09	10.0	33.38	8.3	23.8	26.68
I39	03 Oct 2022	3	18.78	50.74	9.8	33.38	8.3	23.8	25.94
I39	03 Oct 2022	4	18.68	54.92	9.7	33.38	8.3	23.9	22.54
I39	03 Oct 2022	5	18.41	68.17	9.2	33.37	8.2	23.9	17.12
I39	03 Oct 2022	6	17.81	78.47	9.0	33.37	8.2	24.1	9.40
I39	03 Oct 2022	7	17.63	83.12	8.9	33.36	8.2	24.1	5.46
I39	03 Oct 2022	8	17.09	84.39	8.9	33.37	8.2	24.2	4.08
I39	03 Oct 2022	9	16.78	84.84	8.8	33.35	8.2	24.3	3.98
I39	03 Oct 2022	10	16.34	85.71	8.6	33.35	8.2	24.4	3.54
I39	03 Oct 2022	11	15.57	86.72	8.4	33.35	8.1	24.6	3.01
I39	03 Oct 2022	12	15.36	86.65	8.2	33.35	8.1	24.6	2.49
I39	03 Oct 2022	13	15.38	86.67	8.2	33.35	8.1	24.6	2.05
I39	03 Oct 2022	14	15.35	86.67	8.1	33.35	8.1	24.6	1.93
I39	03 Oct 2022	15	15.35	86.52	8.1	33.36	8.1	24.6	1.93
I39	03 Oct 2022	16	15.36	86.68	8.1	33.36	8.1	24.6	1.91
I39	03 Oct 2022	17	15.35	86.64	8.1	33.36	8.1	24.6	1.85
I39	03 Oct 2022	18	15.34	86.70	8.1	33.37	8.1	24.6	1.82
I39	11 Oct 2022	1	19.54	88.76	8.0	33.49	8.2	23.7	1.23
I39	11 Oct 2022	2	19.48	88.70	8.0	33.49	8.2	23.7	1.30
I39	11 Oct 2022	3	19.38	88.38	8.0	33.48	8.2	23.8	1.32
I39	11 Oct 2022	4	19.28	87.84	8.0	33.48	8.2	23.8	1.44
I39	11 Oct 2022	5	19.22	87.44	8.0	33.48	8.2	23.8	1.61
I39	11 Oct 2022	6	19.22	86.90	7.8	33.48	8.2	23.8	1.65
I39	11 Oct 2022	7	19.06	86.49	7.7	33.46	8.2	23.8	1.64
I39	11 Oct 2022	8	18.24	85.76	7.7	33.44	8.1	24.0	1.75
I39	11 Oct 2022	9	17.61	86.23	7.8	33.41	8.1	24.2	2.00
I39	11 Oct 2022	10	17.34	86.41	7.9	33.40	8.1	24.2	2.62
I39	11 Oct 2022	11	17.27	86.06	8.0	33.39	8.1	24.2	3.14
I39	11 Oct 2022	12	17.16	85.66	7.9	33.38	8.1	24.2	3.32
I39	11 Oct 2022	13	16.64	85.39	7.6	33.37	8.1	24.4	3.81
I39	11 Oct 2022	14	15.99	84.36	7.3	33.35	8.1	24.5	3.53
I39	11 Oct 2022	15	15.08	84.24	7.2	33.34	8.0	24.7	2.48
I39	11 Oct 2022	16	14.90	84.36	7.1	33.34	8.0	24.7	1.88
I39	11 Oct 2022	17	14.87	85.29	7.0	33.34	8.0	24.7	1.52
I39	11 Oct 2022	18	14.86	85.81	6.9	33.34	8.0	24.7	1.30
I39	18 Oct 2022	1	18.30	80.67	8.5	33.43	8.2	24.0	1.25
I39	18 Oct 2022	2	18.25	81.91	8.4	33.43	8.2	24.0	1.26

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I39	18 Oct 2022	3	18.07	83.73	8.4	33.43	8.2	24.1	1.48
I39	18 Oct 2022	4	17.70	83.25	8.1	33.41	8.2	24.1	1.91
I39	18 Oct 2022	5	16.50	83.54	7.7	33.41	8.2	24.4	1.70
I39	18 Oct 2022	6	16.19	86.55	7.4	33.39	8.1	24.5	1.32
I39	18 Oct 2022	7	16.03	87.60	7.3	33.38	8.1	24.5	1.31
I39	18 Oct 2022	8	15.57	87.78	7.2	33.37	8.1	24.6	1.51
I39	18 Oct 2022	9	15.06	87.67	7.2	33.37	8.1	24.7	1.72
I39	18 Oct 2022	10	14.83	87.71	7.3	33.36	8.1	24.7	1.82
I39	18 Oct 2022	11	14.54	88.19	7.2	33.35	8.1	24.8	1.82
I39	18 Oct 2022	12	14.08	88.79	7.1	33.34	8.1	24.9	1.73
I39	18 Oct 2022	13	13.59	89.43	7.0	33.35	8.1	25.0	1.55
I39	18 Oct 2022	14	13.45	90.15	6.8	33.35	8.1	25.0	1.49
I39	18 Oct 2022	15	13.42	89.89	6.6	33.35	8.1	25.0	1.48
I39	18 Oct 2022	16	13.39	89.48	6.5	33.35	8.0	25.0	1.37
I39	18 Oct 2022	17	13.37	89.36	6.4	33.36	8.0	25.0	1.24
I39	18 Oct 2022	18	13.36	89.03	6.3	33.36	8.0	25.1	1.10
I39	20 Oct 2022	1	18.29	86.62	8.1	33.46	8.1	24.0	1.30
I39	20 Oct 2022	2	18.17	86.71	8.0	33.45	8.1	24.0	1.36
I39	20 Oct 2022	3	17.54	87.44	7.9	33.43	8.1	24.2	1.22
I39	20 Oct 2022	4	16.69	88.74	8.1	33.41	8.1	24.4	1.04
I39	20 Oct 2022	5	16.36	90.36	8.1	33.39	8.1	24.4	0.98
I39	20 Oct 2022	6	15.73	90.28	8.1	33.38	8.1	24.6	1.06
I39	20 Oct 2022	7	15.26	89.94	8.1	33.36	8.1	24.7	1.28
I39	20 Oct 2022	8	15.10	89.79	8.0	33.35	8.1	24.7	1.34
I39	20 Oct 2022	9	14.96	90.24	8.0	33.35	8.1	24.7	1.30
I39	20 Oct 2022	10	14.86	90.60	8.0	33.35	8.1	24.7	1.28
I39	20 Oct 2022	11	14.46	90.61	7.7	33.34	8.1	24.8	1.31
I39	20 Oct 2022	12	13.96	90.68	7.4	33.34	8.1	24.9	1.45
I39	20 Oct 2022	13	13.80	90.44	7.1	33.34	8.1	24.9	1.47
I39	20 Oct 2022	14	13.59	89.66	6.8	33.35	8.0	25.0	1.45
I39	20 Oct 2022	15	13.55	88.86	6.7	33.35	8.0	25.0	1.37
I39	20 Oct 2022	16	13.54	87.03	6.6	33.35	8.0	25.0	1.33
I39	20 Oct 2022	17	13.54	86.34	6.6	33.35	8.0	25.0	1.32
I39	20 Oct 2022	18	13.53	84.27	6.6	33.36	8.0	25.0	1.31
I39	25 Oct 2022	1	17.65	82.88	8.2	33.41	8.2	24.1	1.30
I39	25 Oct 2022	2	17.63	82.79	8.2	33.41	8.2	24.1	1.38
I39	25 Oct 2022	3	17.58	82.41	8.2	33.41	8.2	24.2	1.79
I39	25 Oct 2022	4	17.54	81.69	8.2	33.41	8.2	24.2	2.81
I39	25 Oct 2022	5	17.52	78.68	8.1	33.41	8.2	24.2	4.08
I39	25 Oct 2022	6	17.51	78.05	8.1	33.41	8.2	24.2	5.10
I39	25 Oct 2022	7	17.50	78.66	8.1	33.41	8.2	24.2	5.56
I39	25 Oct 2022	8	17.49	79.13	8.0	33.41	8.2	24.2	5.35
I39	25 Oct 2022	9	17.49	79.56	8.0	33.41	8.2	24.2	4.98
I39	25 Oct 2022	10	17.49	79.57	8.0	33.41	8.2	24.2	4.89
I39	25 Oct 2022	11	17.47	79.89	8.0	33.41	8.2	24.2	4.57
I39	25 Oct 2022	12	17.42	80.34	7.8	33.40	8.2	24.2	3.85
I39	25 Oct 2022	13	17.28	81.80	7.8	33.39	8.2	24.2	3.43
I39	25 Oct 2022	14	17.20	82.64	7.8	33.38	8.2	24.2	3.04
I39	25 Oct 2022	15	16.92	83.55	7.8	33.36	8.2	24.3	2.92
I39	25 Oct 2022	16	16.79	84.55	7.8	33.36	8.2	24.3	2.51
I39	25 Oct 2022	17	16.79	84.86	7.8	33.36	8.2	24.3	2.47
I39	25 Oct 2022	18	16.71	84.85	7.5	33.36	8.1	24.3	2.18
I40	03 Oct 2022	1	17.61	51.99	9.1	33.37	8.2	24.1	22.32
I40	03 Oct 2022	2	17.57	52.01	8.9	33.36	8.2	24.1	23.67
I40	03 Oct 2022	3	17.17	52.76	8.5	33.36	8.2	24.2	23.85
I40	03 Oct 2022	4	16.85	61.03	8.1	33.35	8.1	24.3	19.41
I40	03 Oct 2022	5	16.22	75.27	7.9	33.36	8.1	24.4	11.70
I40	03 Oct 2022	6	16.19	80.31	7.8	33.36	8.1	24.4	5.85

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I40	03 Oct 2022	7	16.08	79.09	7.8	33.36	8.1	24.5	3.79
I40	03 Oct 2022	8	15.97	79.08	7.7	33.36	8.1	24.5	3.18
I40	03 Oct 2022	9	15.88	79.37	7.7	33.36	8.1	24.5	2.96
I40	03 Oct 2022	10	15.88	78.85	7.8	33.36	8.1	24.5	2.87
I40	11 Oct 2022	1	19.49	81.04	9.7	33.41	8.3	23.7	2.20
I40	11 Oct 2022	2	19.25	79.44	9.4	33.41	8.3	23.7	3.53
I40	11 Oct 2022	3	19.17	77.11	9.1	33.40	8.3	23.8	4.48
I40	11 Oct 2022	4	18.92	74.84	8.7	33.39	8.2	23.8	6.09
I40	11 Oct 2022	5	18.70	72.37	8.3	33.38	8.2	23.9	6.97
I40	11 Oct 2022	6	18.14	72.42	7.8	33.37	8.2	24.0	6.31
I40	11 Oct 2022	7	17.54	74.25	7.2	33.35	8.1	24.1	5.04
I40	11 Oct 2022	8	16.90	73.31	6.6	33.36	8.1	24.3	3.82
I40	11 Oct 2022	9	16.48	66.00	6.4	33.34	8.0	24.4	3.18
I40	11 Oct 2022	10	16.16	65.80	6.5	33.34	8.0	24.4	2.58
I40	18 Oct 2022	1	17.66	82.28	7.5	33.40	8.1	24.1	1.16
I40	18 Oct 2022	2	17.05	82.11	7.4	33.41	8.1	24.3	1.35
I40	18 Oct 2022	3	16.47	80.43	7.2	33.38	8.1	24.4	1.71
I40	18 Oct 2022	4	15.58	78.86	7.1	33.38	8.1	24.6	2.26
I40	18 Oct 2022	5	15.09	78.75	7.1	33.37	8.1	24.7	2.23
I40	18 Oct 2022	6	14.91	80.77	7.0	33.37	8.1	24.7	2.26
I40	18 Oct 2022	7	14.90	80.92	7.0	33.36	8.1	24.7	2.24
I40	18 Oct 2022	8	14.89	80.23	7.0	33.36	8.1	24.7	2.41
I40	18 Oct 2022	9	14.88	79.86	6.9	33.36	8.1	24.7	2.43
I40	18 Oct 2022	10	14.79	77.82	6.9	33.37	8.0	24.8	2.57
I40	25 Oct 2022	1	17.82	80.06	8.2	33.39	8.2	24.1	1.31
I40	25 Oct 2022	2	17.68	79.52	8.2	33.37	8.2	24.1	1.47
I40	25 Oct 2022	3	17.48	77.45	8.1	33.36	8.2	24.1	1.73
I40	25 Oct 2022	4	17.45	79.04	8.0	33.38	8.2	24.2	1.54
I40	25 Oct 2022	5	17.41	81.26	7.9	33.39	8.2	24.2	1.55
I40	25 Oct 2022	6	17.37	81.72	8.0	33.39	8.2	24.2	1.60
I40	25 Oct 2022	7	17.37	81.11	7.9	33.39	8.2	24.2	1.76
I40	25 Oct 2022	8	17.37	80.44	7.8	33.39	8.2	24.2	1.86
I40	25 Oct 2022	9	17.36	79.34	7.8	33.39	8.2	24.2	1.86
I40	25 Oct 2022	10	17.36	78.08	7.8	33.39	8.2	24.2	1.95

NA = not available

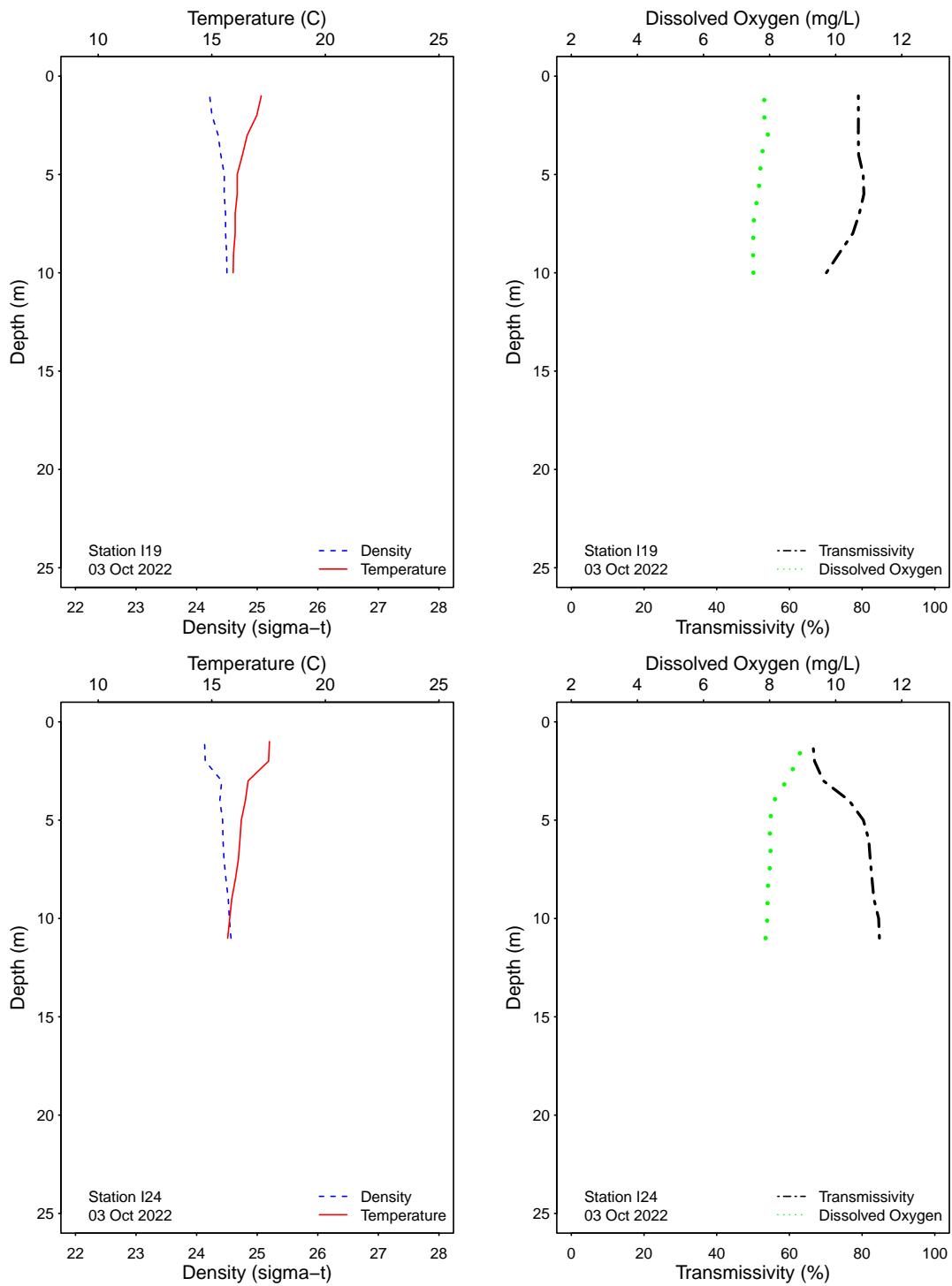


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

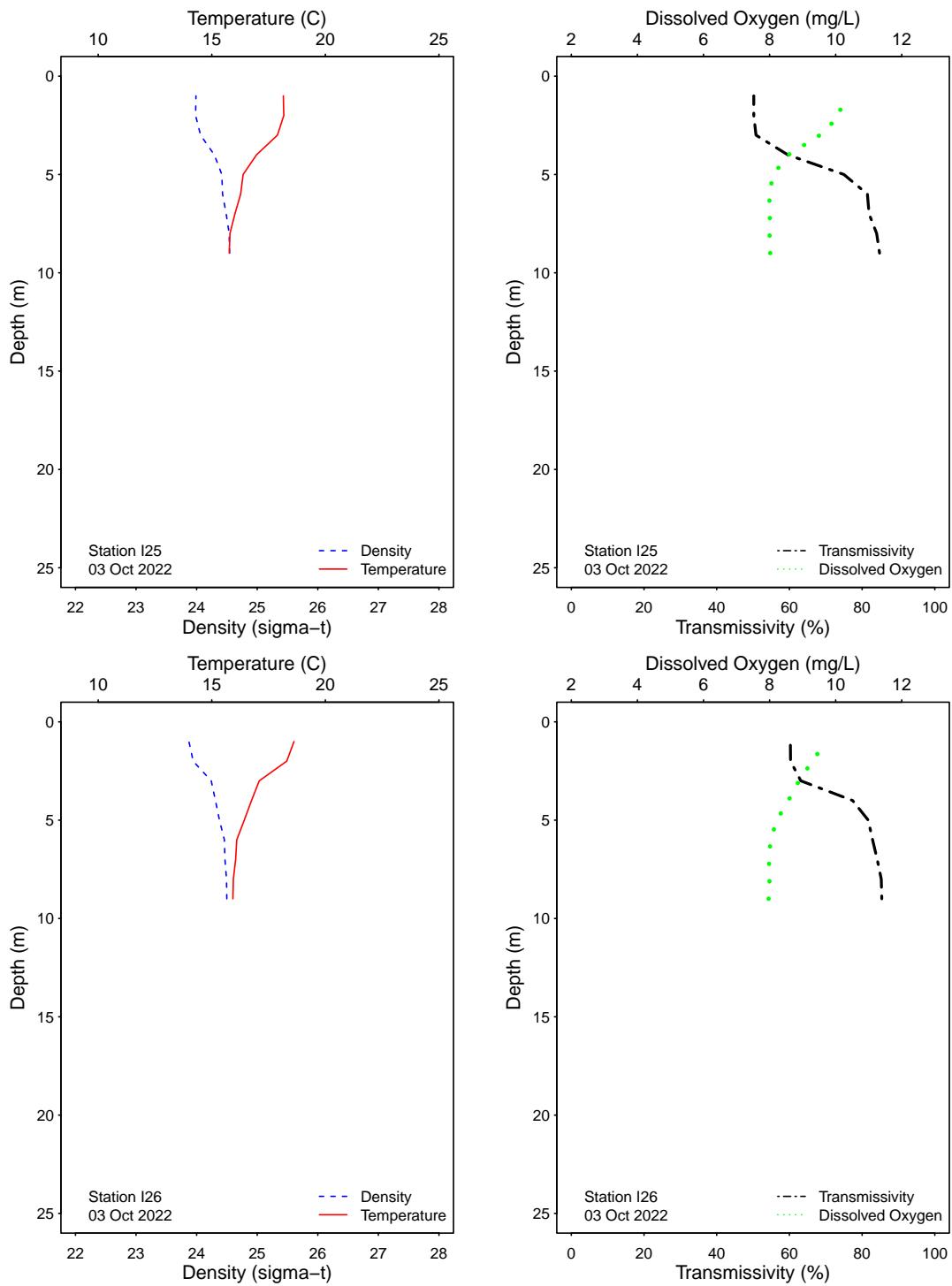


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

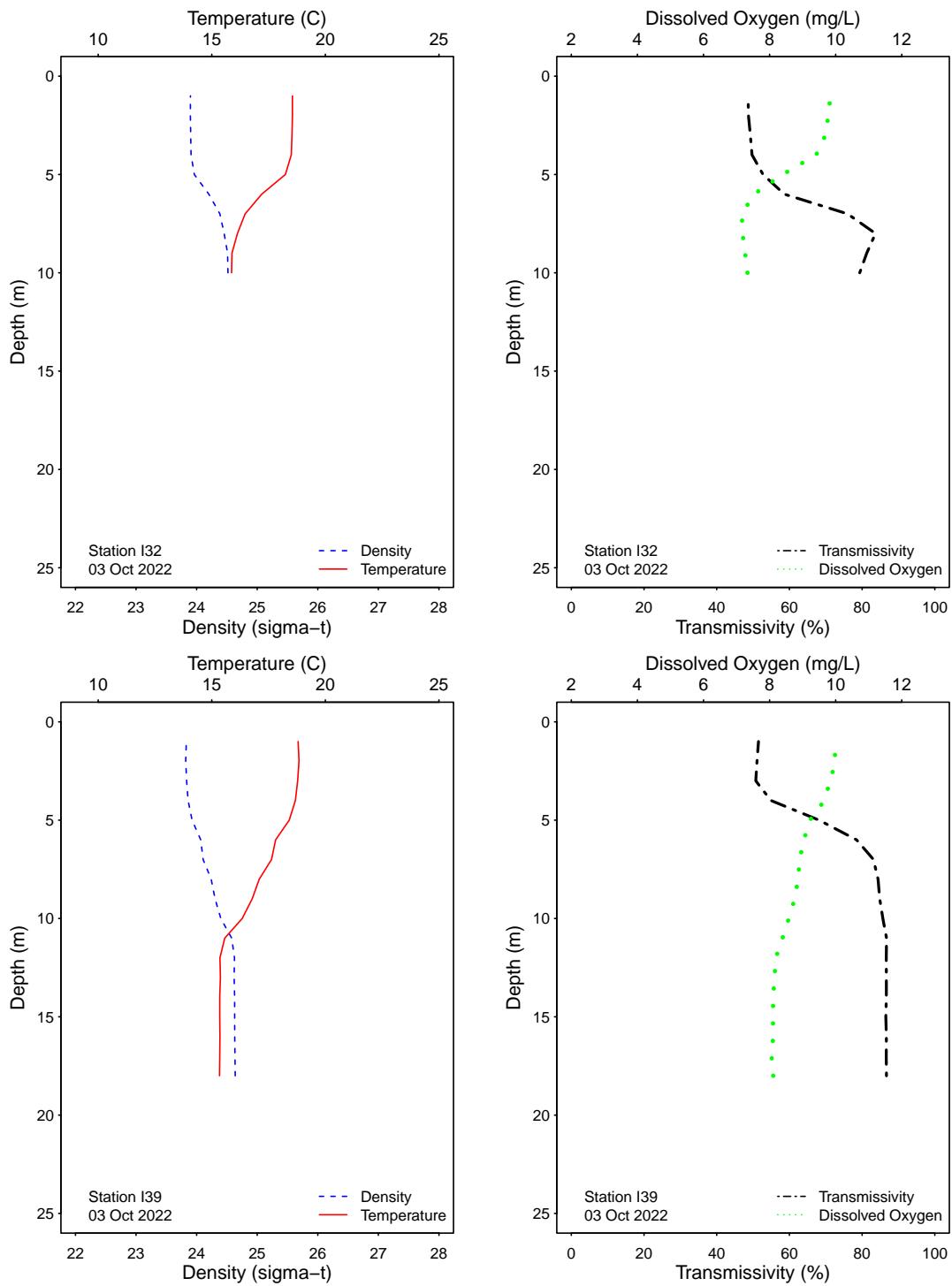


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

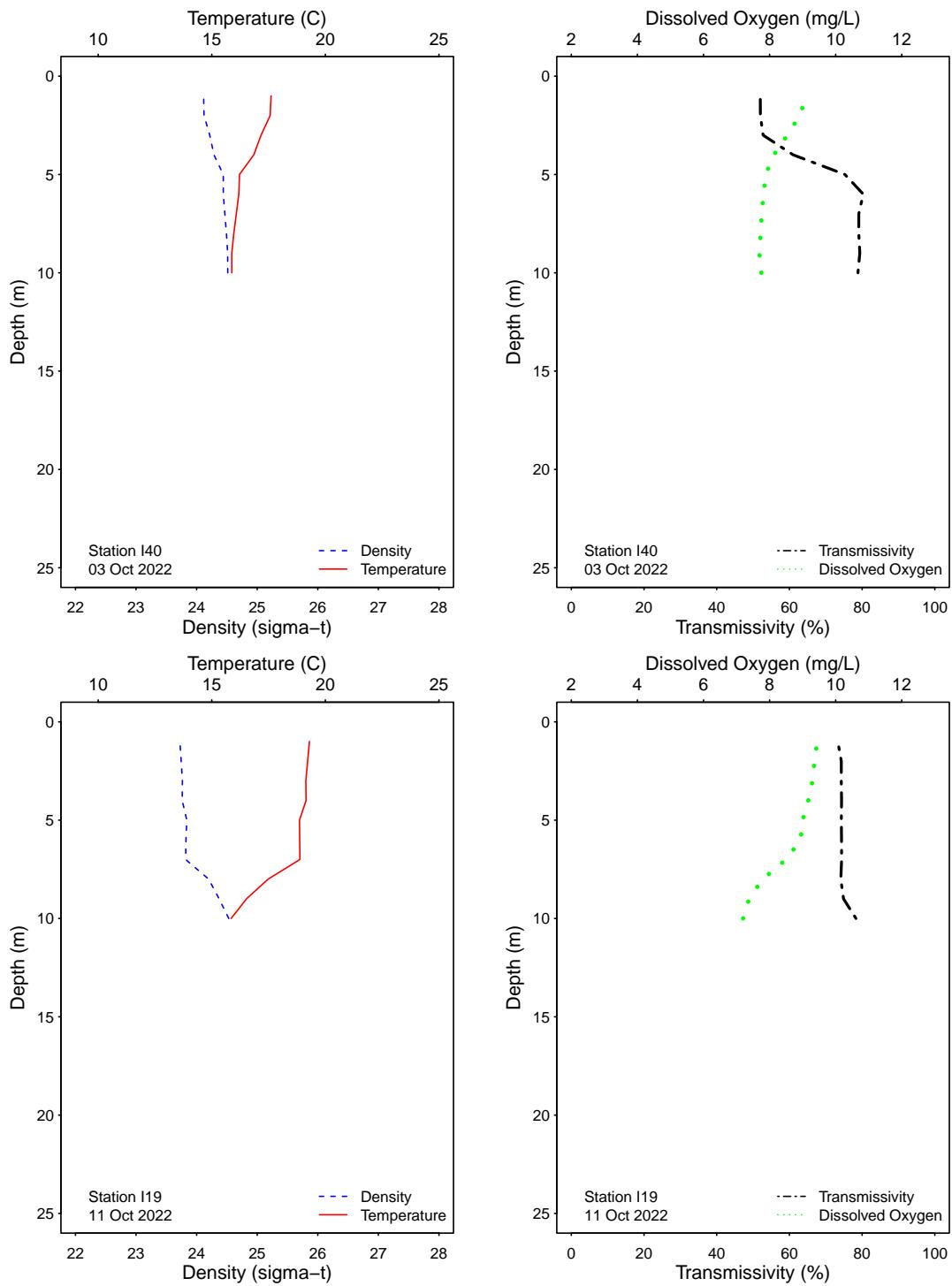


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

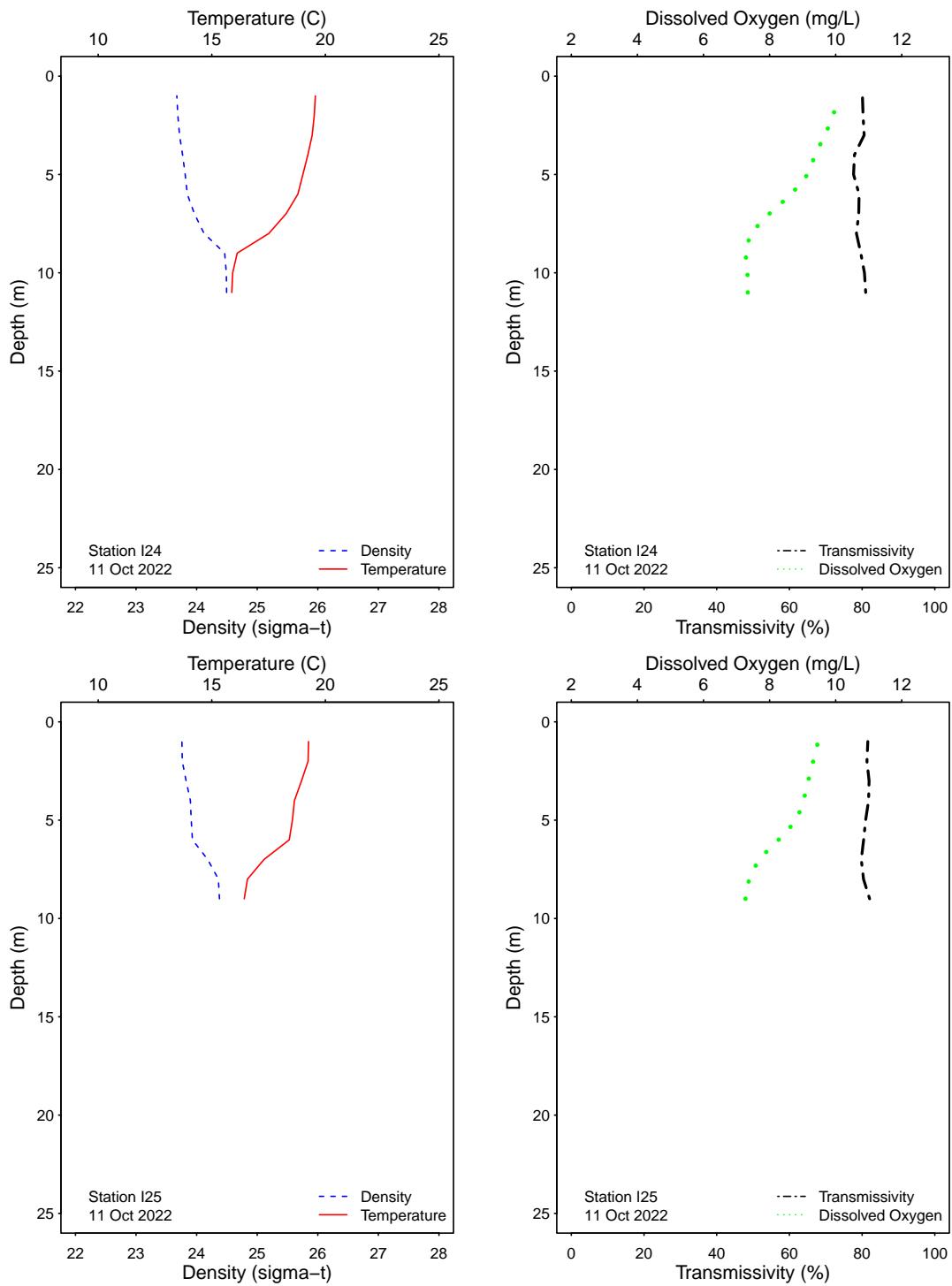


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

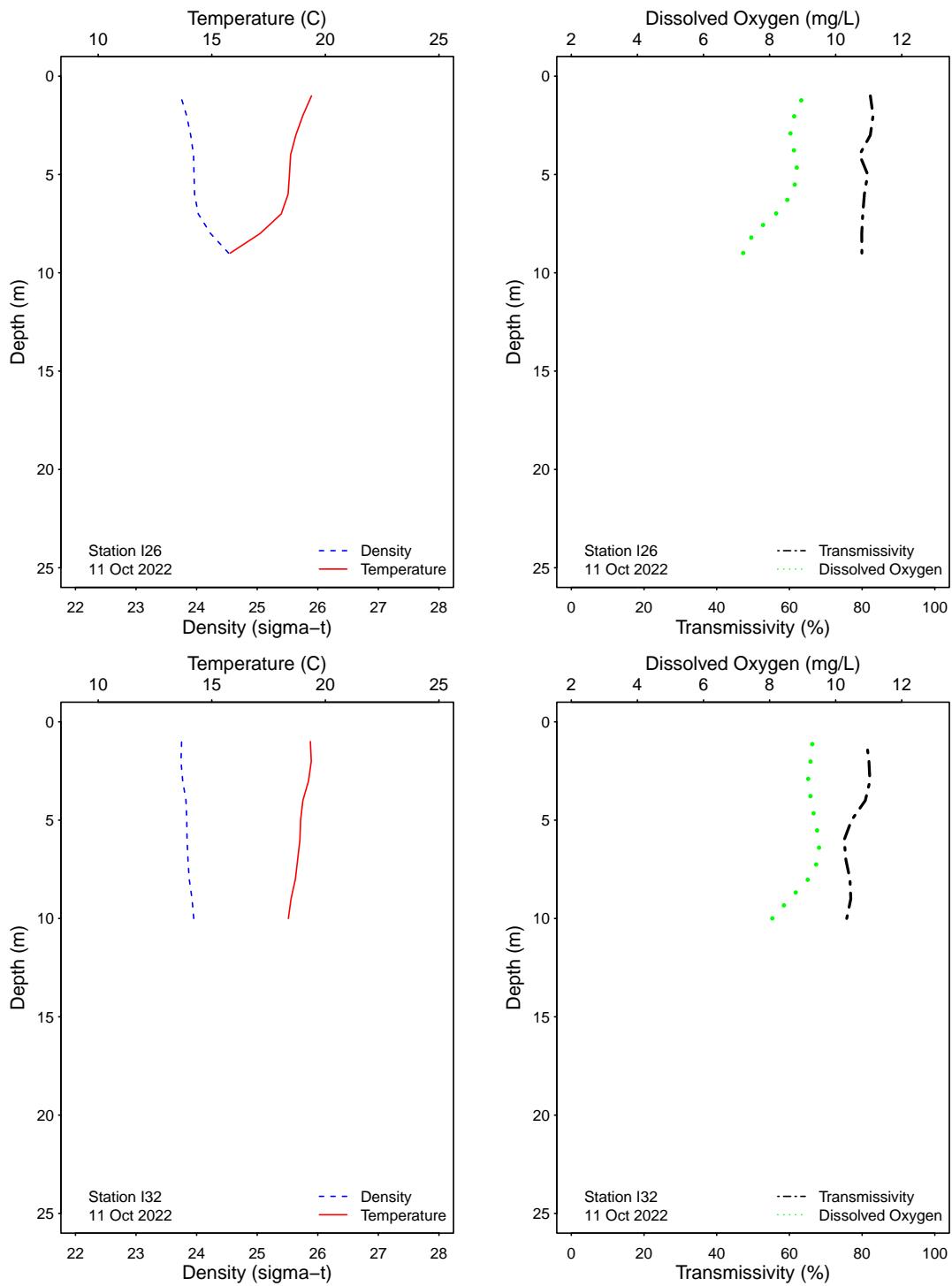


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

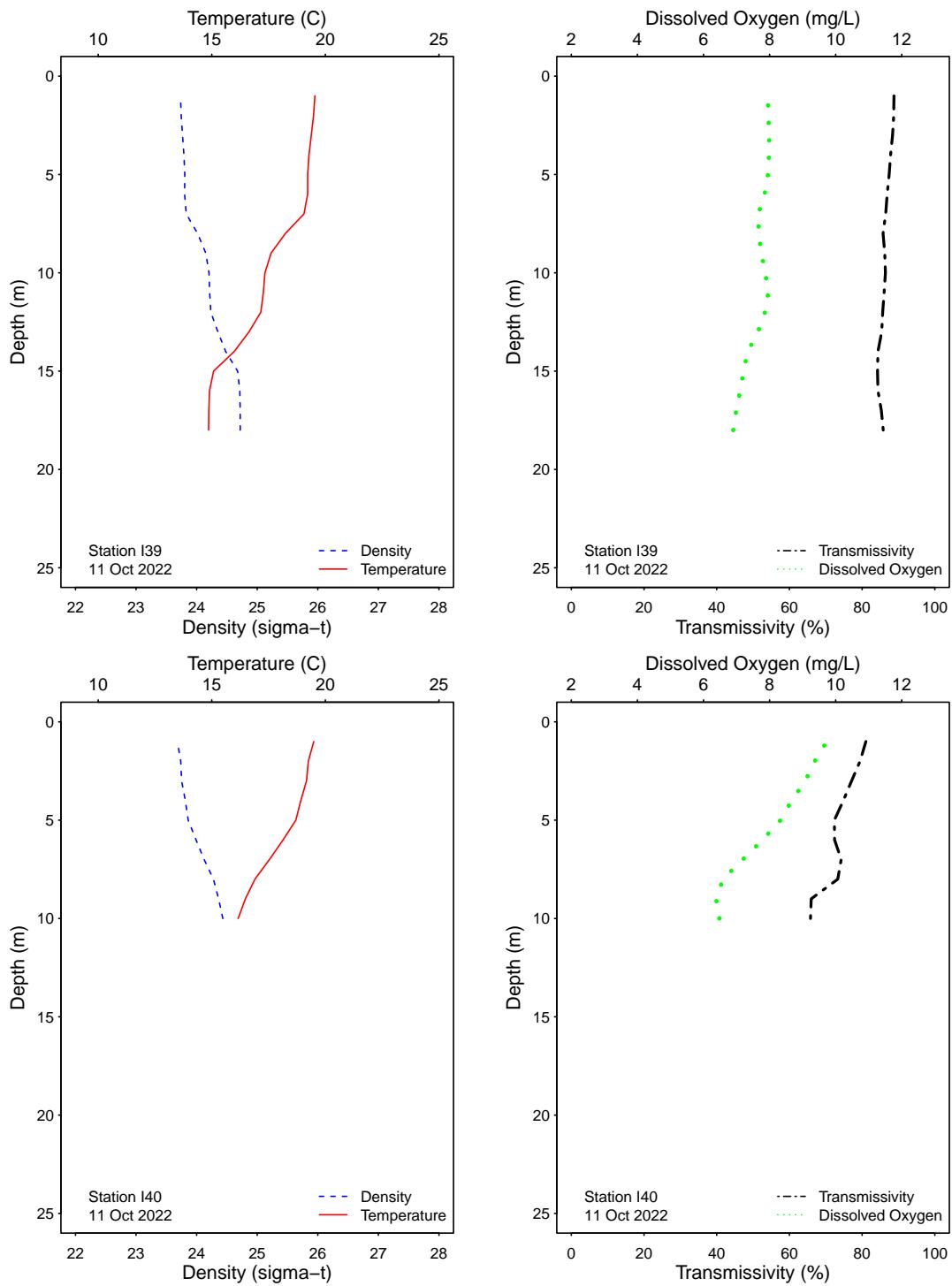


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

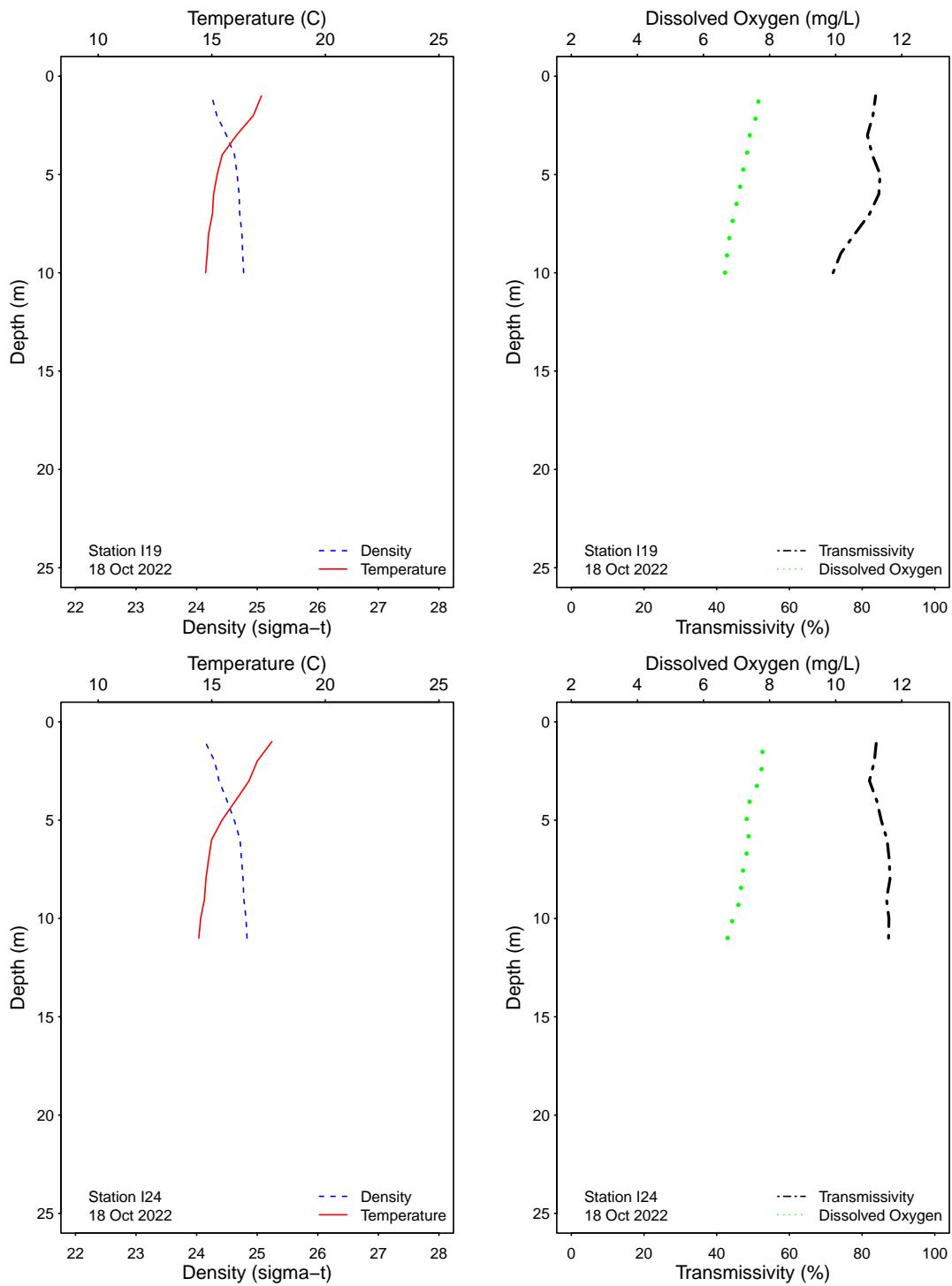


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

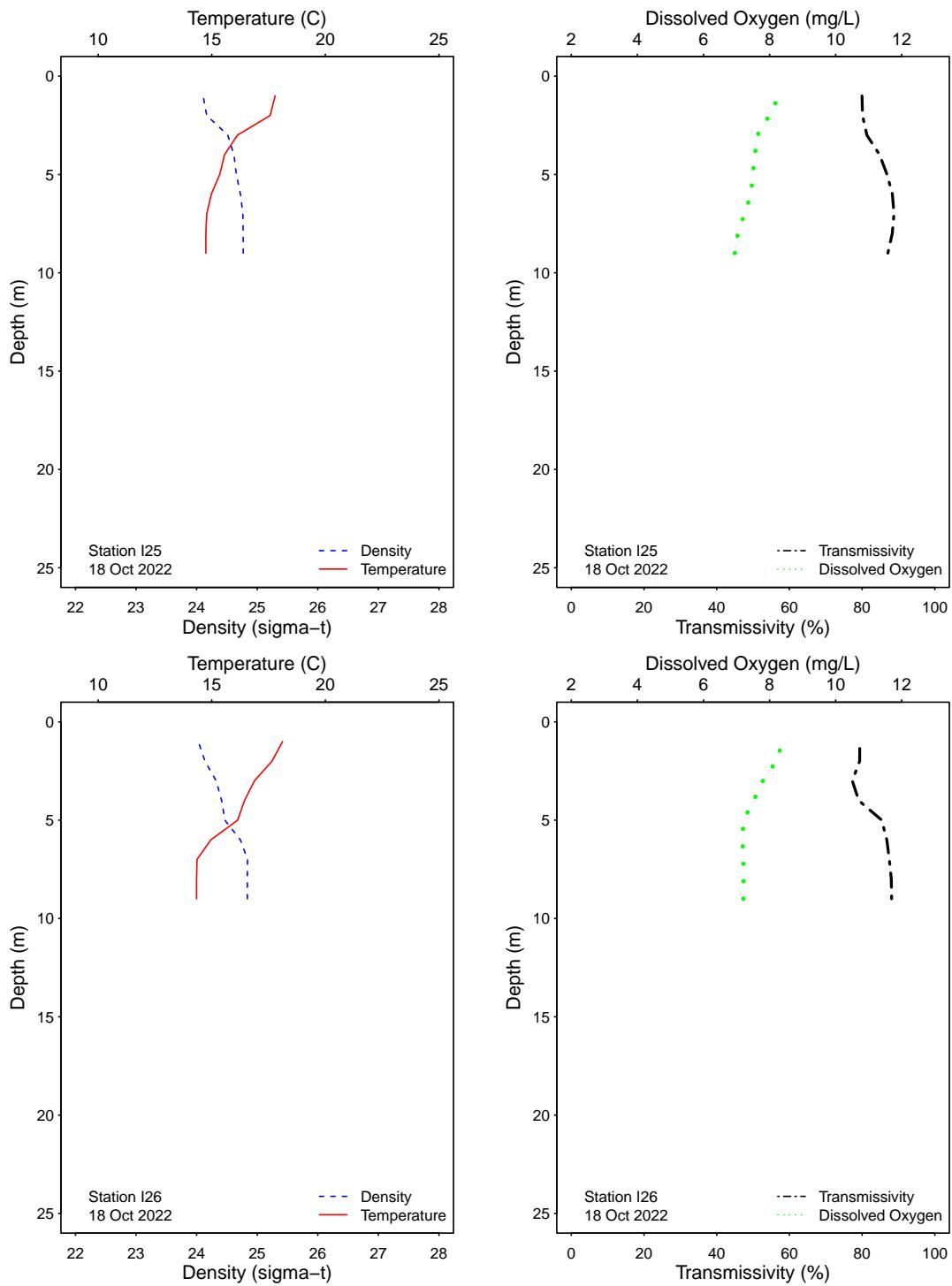


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

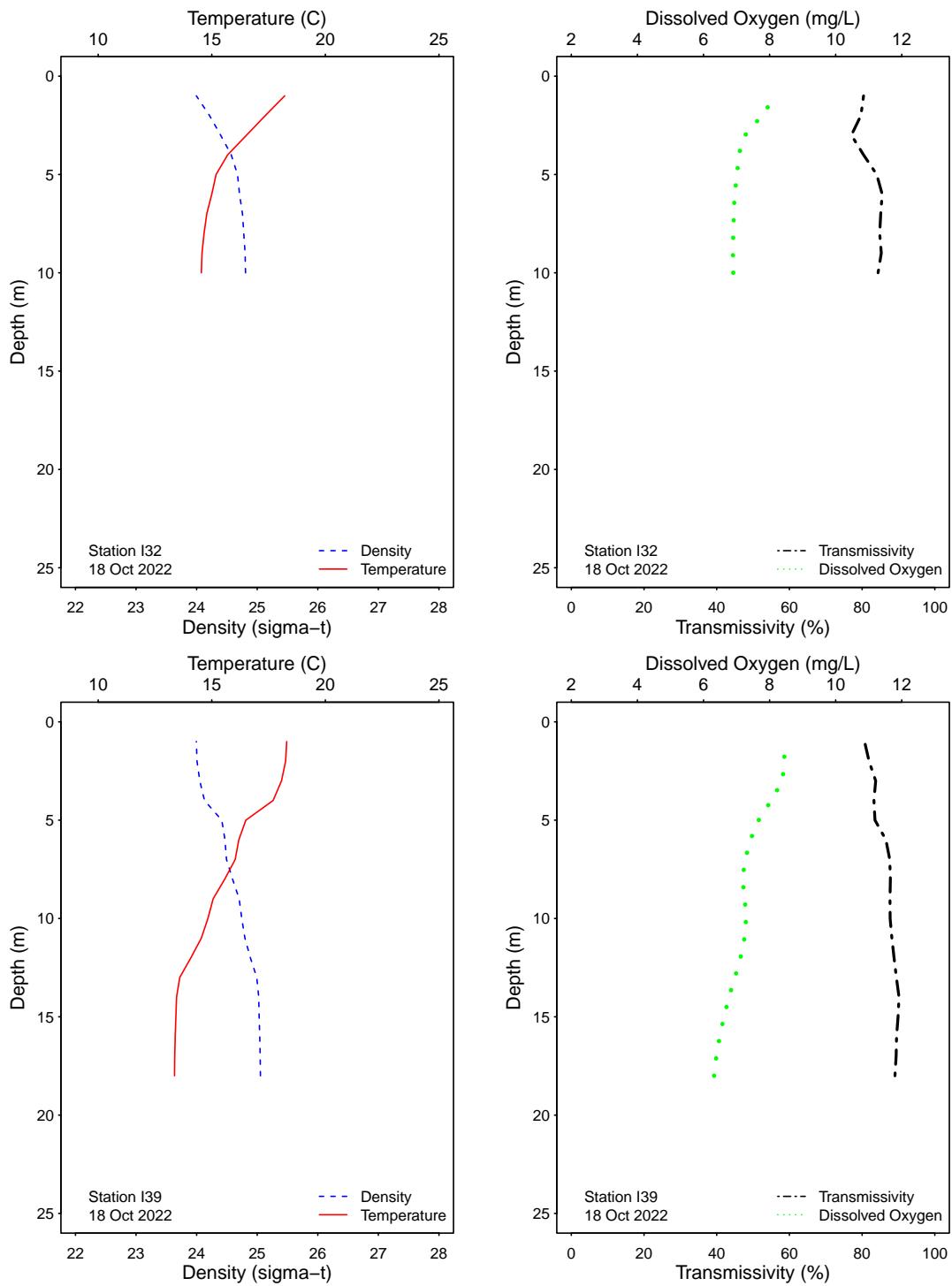


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

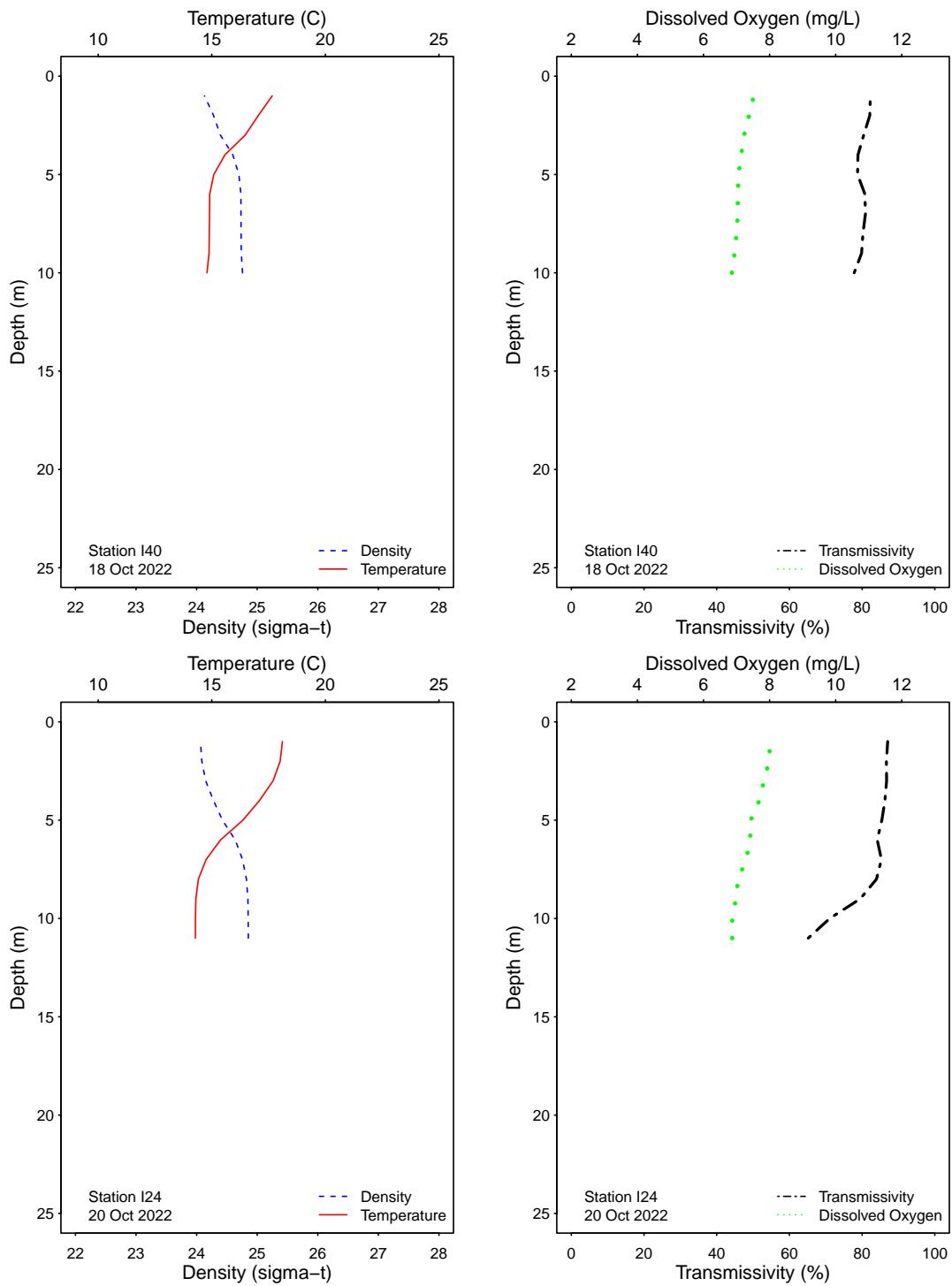


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

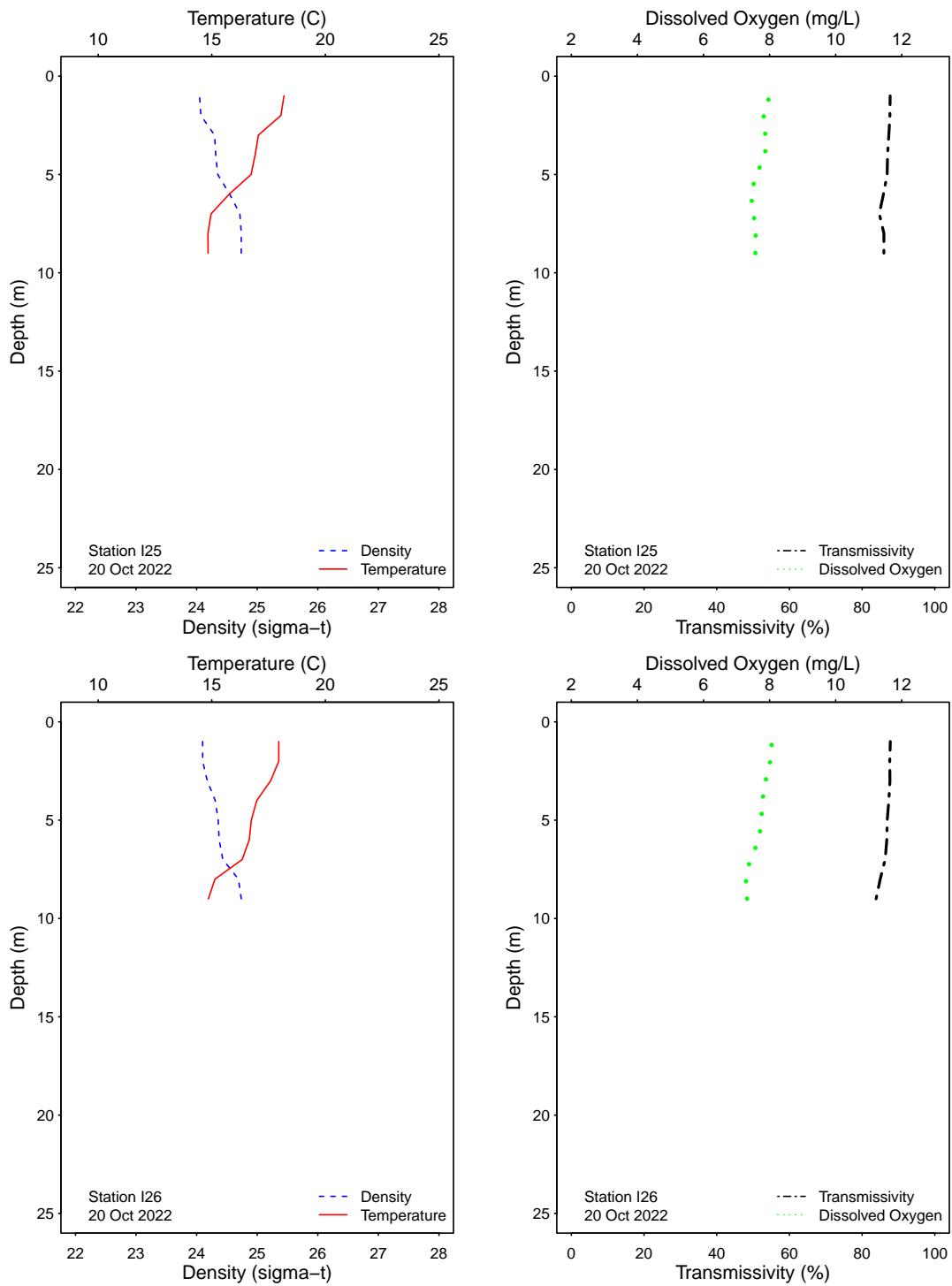


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

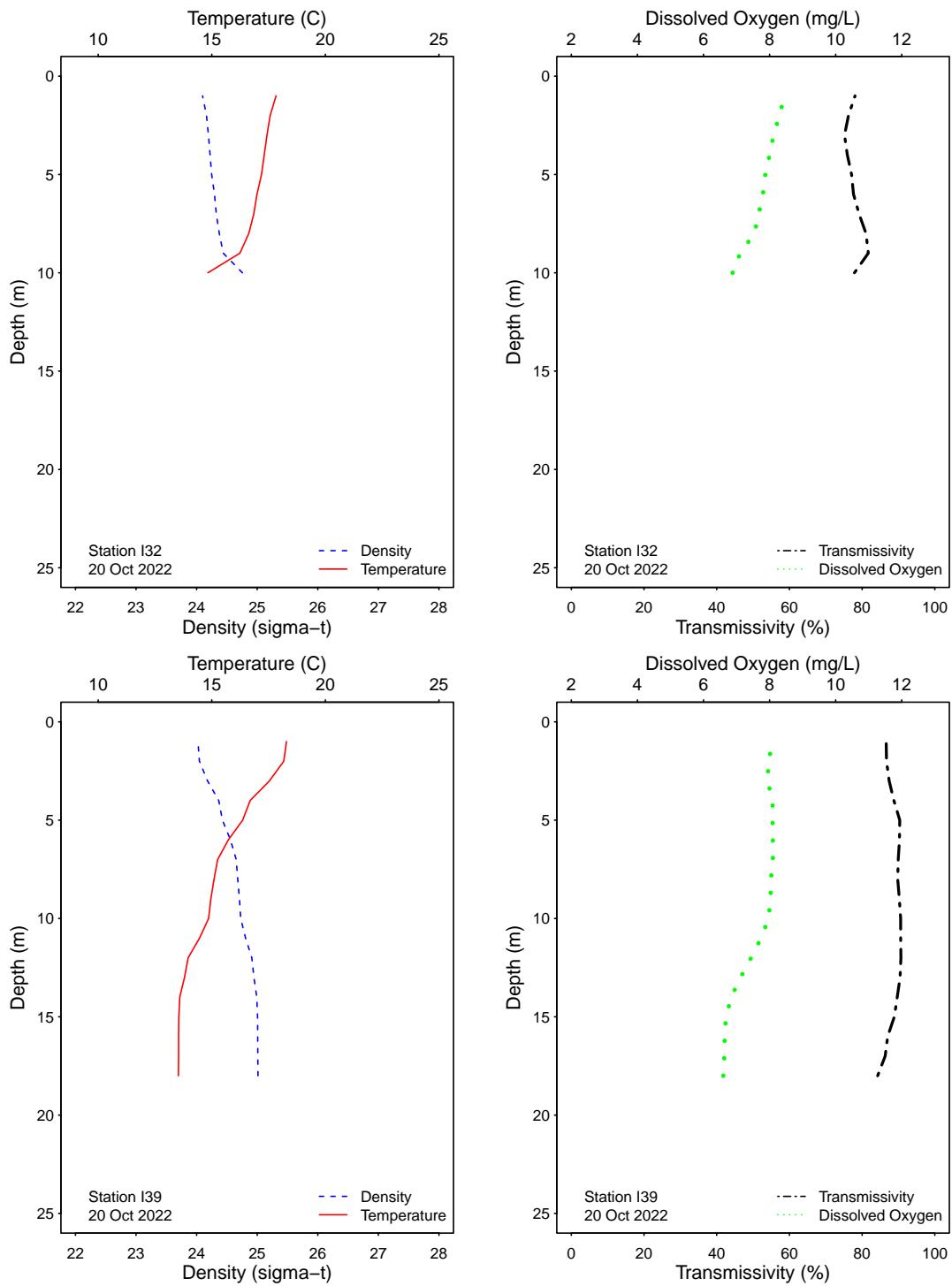


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

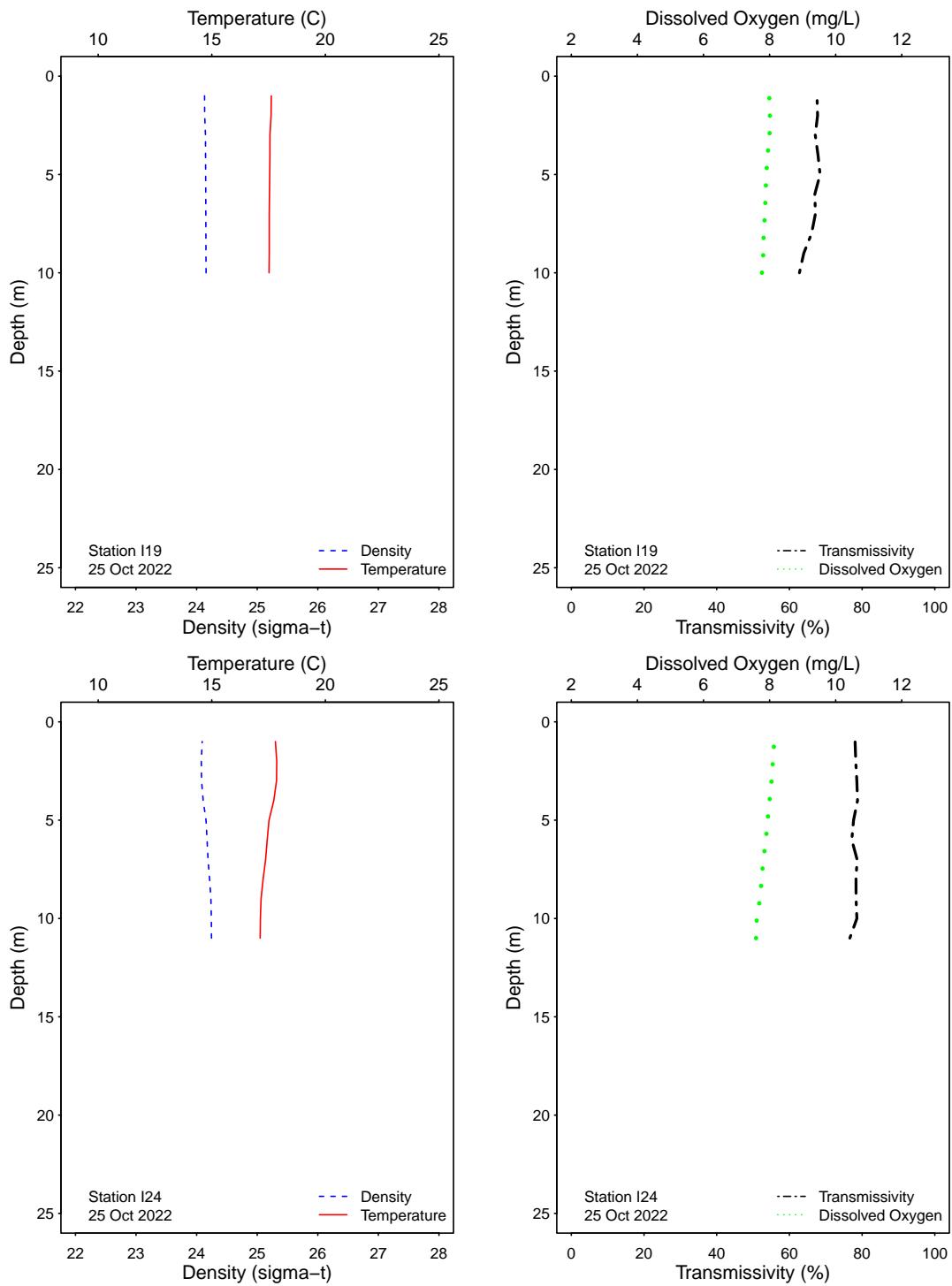


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

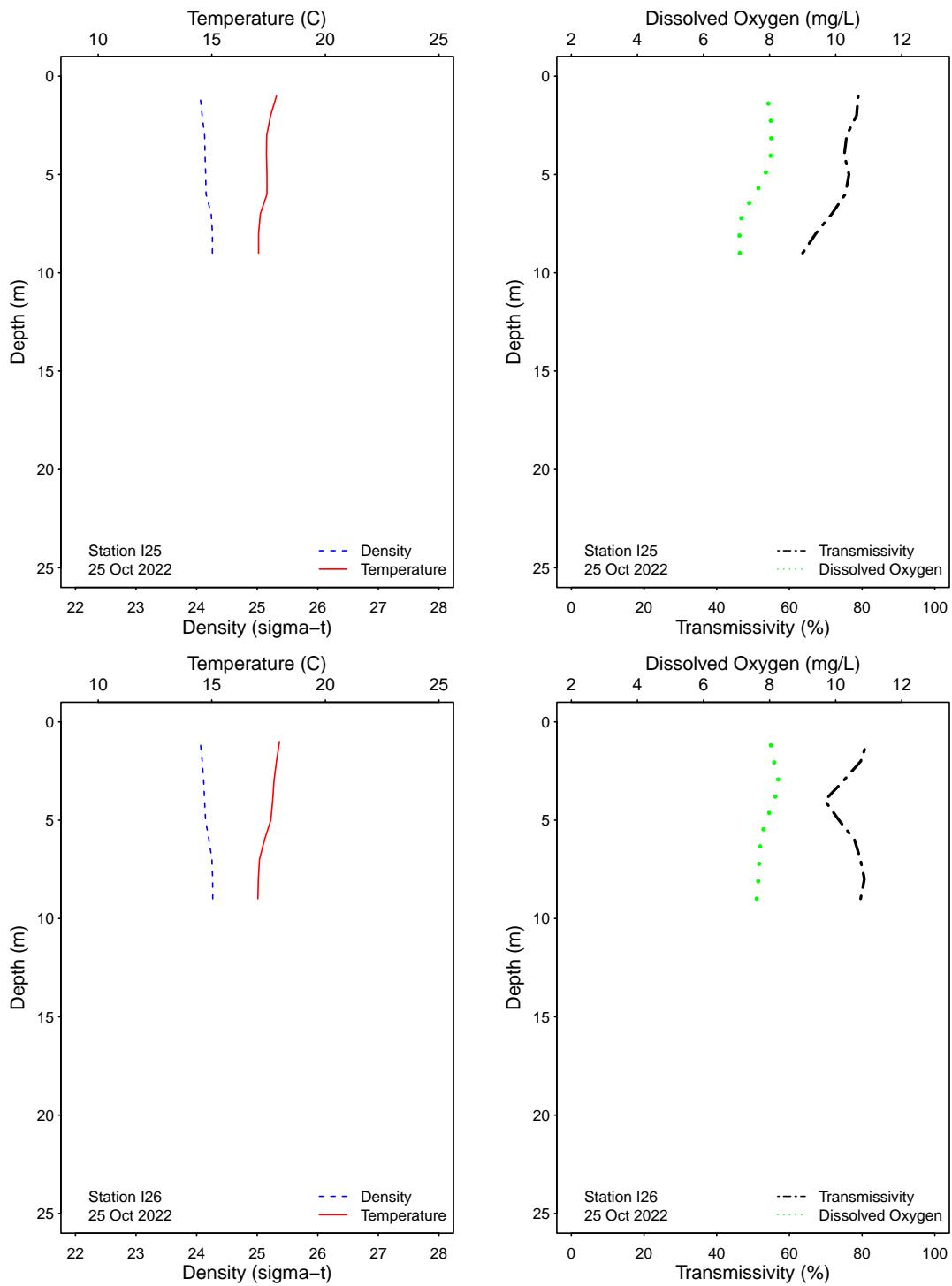


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

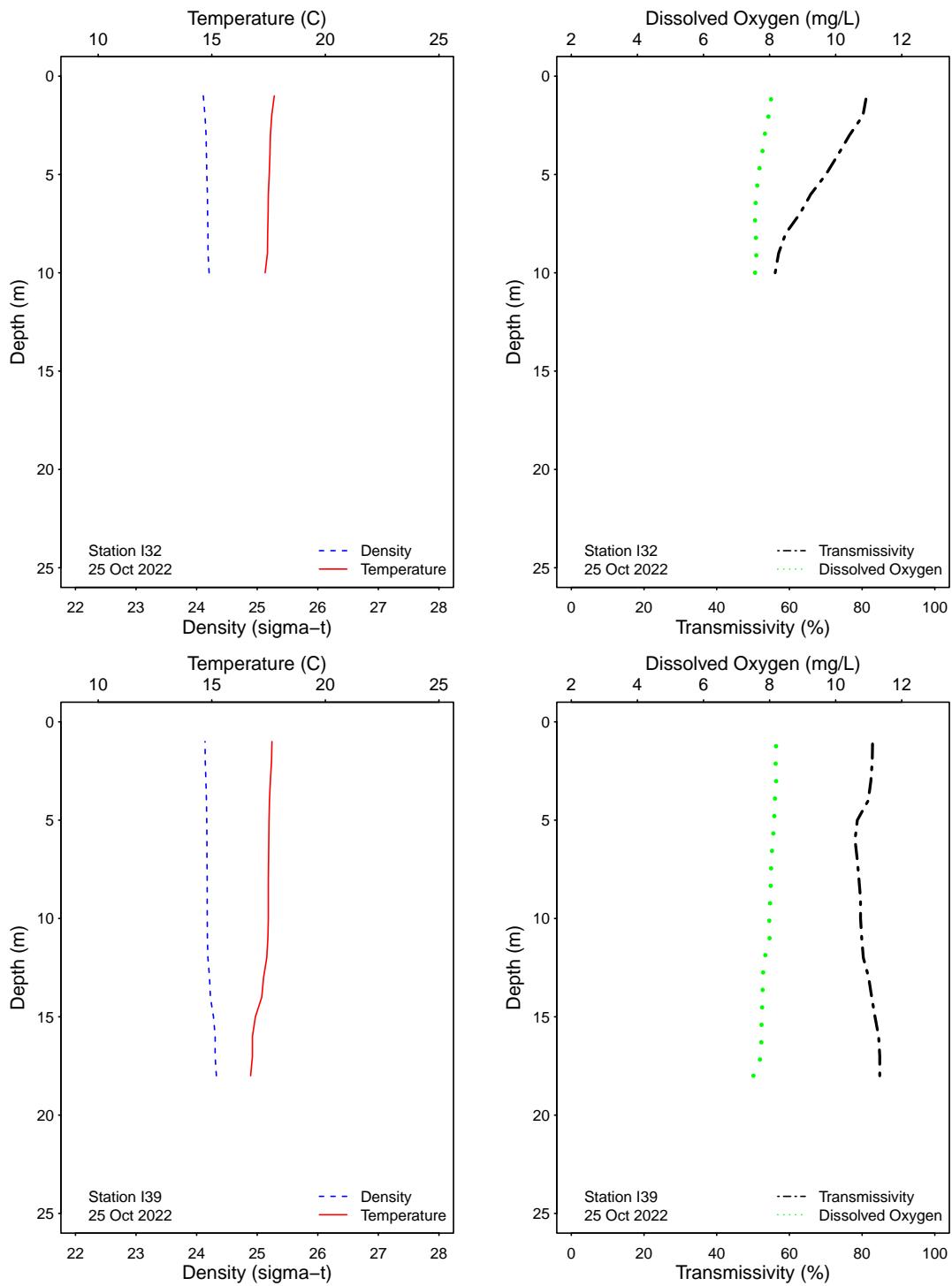


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

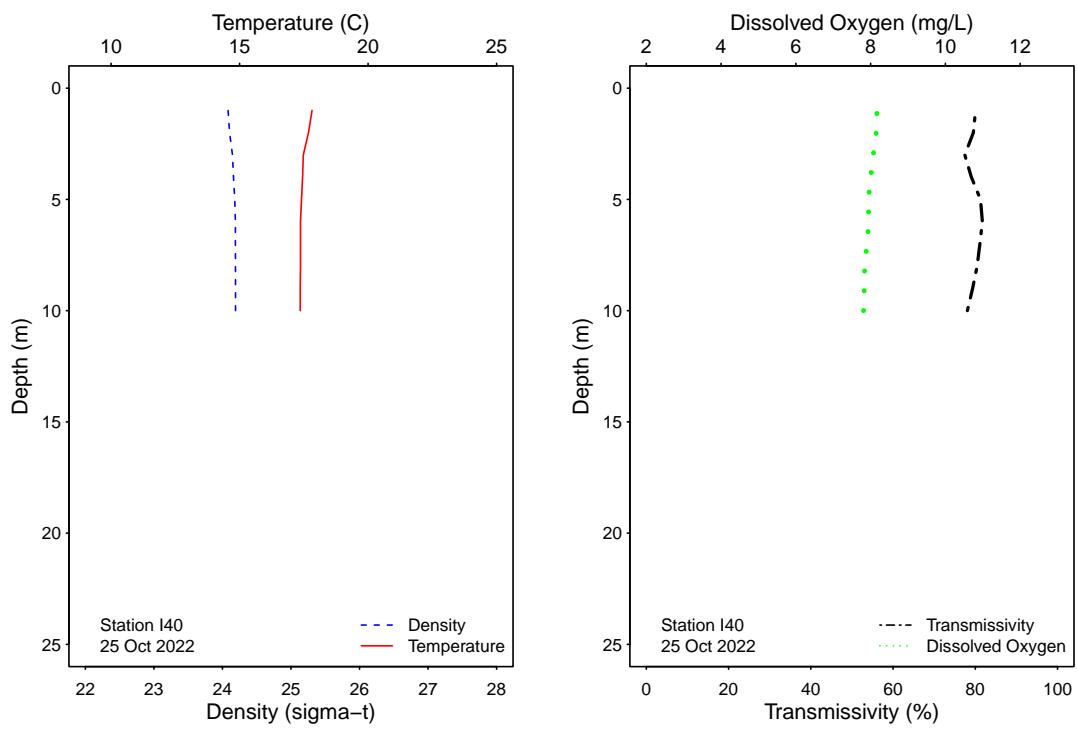


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

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.

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Enter
I19	03 Oct 2022	6	LMA	LAB DUPLICATE	100e	24e	<2
I19	11 Oct 2022	6	JF	LAB DUPLICATE	<2	<2	<2
I19	18 Oct 2022	6	CRE	LAB DUPLICATE	<2	2e	<2
I19	25 Oct 2022	6	CRE	LAB DUPLICATE	1800e	460	32e
I40	03 Oct 2022	6	CRE	LAB DUPLICATE	160e	20e	14e
I40	11 Oct 2022	6	JF	LAB DUPLICATE	<20	<2	<2
I40	18 Oct 2022	6	CRE	LAB DUPLICATE	6e	2e	<2
I40	25 Oct 2022	6	CRE	LAB DUPLICATE	6000	1000	32e
S12	04 Oct 2022		KT	FIELD DUPLICATE	20e	<20	2e
S12	04 Oct 2022		KT	LAB DUPLICATE	98	8e	<2
S12	11 Oct 2022		BS	FIELD DUPLICATE	<200	<20	6e
S12	11 Oct 2022		BS	LAB DUPLICATE	<200	2e	12e
S12	18 Oct 2022		KT	FIELD DUPLICATE	2e	<20	<2
S12	18 Oct 2022		KT	LAB DUPLICATE	4e	10e	<2
S12	25 Oct 2022		BS	FIELD DUPLICATE	600e	60e	10e
S12	25 Oct 2022		BS	LAB DUPLICATE	<200	20e	22e

ns = not sampled

ND = no data

