



SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

NPDES Permit No. CA0109045
SDRWQCB Order No. R9-2013-0006

MARCH 2022

Environmental Monitoring and Technical Services
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April 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 March 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,



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

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 March, six 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 30-day geometric mean standard for fecal coliform was exceeded at stations S4, S5, and S10.
 - The single sample maximum (SSM) standard for fecal coliform was exceeded at stations S4, S5, S6, S10, and S11.
 - The 6-week geometric mean standard for *Enterococcus* was exceeded at stations S4, S5, and S10.
 - The statistical threshold value (STV) standard for *Enterococcus* was exceeded at stations S4, S5, S6, S10, and S11.

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

- The 30-day running median standard for total coliform was exceeded at stations S4, S5, S6, S10, and S11.
 - The STV standard for total coliform was exceeded at stations S4, S5, S6, S10, S11, and S12.
- A sewage-like odor was observed at stations S4, S5, S6, S10, and S11 on one or more days in March.
- A recording error resulted in missing visual observation data for station S4, sampled on March 8th.
- 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 March 1, 8, 16, 22, and 30.
- During March, six of the seven kelp stations were out of compliance with 2019 Ocean Plan water contact standards on one or more days as follows:
 - The 30-day geometric mean standard for fecal coliform was exceeded at stations I19 and I40.
 - The SSM standard for fecal coliform was exceeded at stations I19, I24, I25, I26, I39, and I40.
 - The 6-week geometric mean standard for *Enterococcus* was exceeded at stations I19 and I40.
 - The STV standard for *Enterococcus* was exceeded at stations I19, I24, I25, I39, and I40.
 - The 30-day running median standard for total coliform was exceeded at stations I19, I24, I25, I26, and I40.
 - The STV standard for total coliforms was exceeded at stations I19, I24, I25, I26, I39, and I40.
- Water column temperatures ranged from 11.59 to 16.31°C. The difference between surface and bottom waters ranged from 0.36 to 3.33°C.
- Concentrations of chlorophyll *a* ranged from 0.80 to 20.39 µg/L at the kelp bed stations.
- Nothing of sewage origin was observed at SBOO kelp stations in March.

➤ **Offshore Water Quality Sampling**

- Quarterly sampling was not conducted during March at the offshore stations. The next quarterly sampling is scheduled for May 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 Mar 2022	834	1723	15	5	2	1163	33	10
02 Mar 2022	834	1723	15	5	2	1163	33	10
03 Mar 2022	2409	1928	5	6	2	4039	11	3
04 Mar 2022	2409	1928	5	6	2	4039	11	3
05 Mar 2022	2409	1928	5	6	2	4039	11	3
06 Mar 2022	2409	1928	5	6	2	4039	11	3
07 Mar 2022	2409	1928	5	6	2	4039	11	3
08 Mar 2022	2611	1141	4	5	2	5022	8	3
09 Mar 2022	2611	1141	4	5	2	5022	8	3
10 Mar 2022	4484	634	5	6	2	5251	11	3
11 Mar 2022	4484	634	5	6	2	5251	11	3
12 Mar 2022	4484	634	5	6	2	5251	11	3
13 Mar 2022	4484	634	5	6	2	5251	11	3
14 Mar 2022	4484	634	5	6	2	5251	11	3
15 Mar 2022	1194	357	7	5	4	1249	10	3
16 Mar 2022	1194	357	7	5	4	1249	10	3
17 Mar 2022	1192	923	9	4	4	1465	10	2
18 Mar 2022	1192	923	9	4	4	1465	10	2
19 Mar 2022	1192	923	9	4	4	1465	10	2
20 Mar 2022	1192	923	9	4	4	1465	10	2
21 Mar 2022	1192	923	9	4	4	1465	10	2
22 Mar 2022	1892	1542	7	3	5	2231	7	2
23 Mar 2022	1892	1542	7	3	5	2231	7	2
24 Mar 2022	1192	923	5	4	7	1465	4	2
25 Mar 2022	1192	923	5	4	7	1465	4	2
26 Mar 2022	1192	923	5	4	7	1465	4	2
27 Mar 2022	1192	923	5	4	7	1465	4	2
28 Mar 2022	1192	923	5	4	7	1465	4	2
29 Mar 2022	1348	1542	13	4	6	1791	12	4
30 Mar 2022	1348	1542	13	4	6	1791	12	4
31 Mar 2022	869	923	15	2	8	1232	12	4

* 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
01 Mar 2022	E	E	IC	IC	IC	E	IC	IC
08 Mar 2022	E	IC	IC	IC	IC	E	IC	IC
15 Mar 2022	IC	IC	IC	IC	IC	IC	IC	IC
22 Mar 2022	E	E	IC	IC	IC	E	IC	IC
29 Mar 2022	E	E	E	IC	IC	E	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 Mar 2022	695	3105	11	3	4	1098	26	11
02 Mar 2022	695	3105	11	3	4	1098	26	11
03 Mar 2022	695	3105	11	3	4	1098	26	11
04 Mar 2022	695	3105	11	3	4	1098	26	11
05 Mar 2022	695	3105	11	3	4	1098	26	11
06 Mar 2022	695	3105	11	3	4	1098	26	11
07 Mar 2022	695	3105	11	3	4	1098	26	11
08 Mar 2022	420	818	6	3	4	1098	14	7
09 Mar 2022	420	818	6	3	4	1098	14	7
10 Mar 2022	420	818	6	3	4	1098	14	7
11 Mar 2022	420	818	6	3	4	1098	14	7
12 Mar 2022	420	818	6	3	4	1098	14	7
13 Mar 2022	420	818	6	3	4	1098	14	7
14 Mar 2022	420	818	6	3	4	1098	14	7
15 Mar 2022	361	606	2	2	4	814	7	4
16 Mar 2022	361	606	2	2	4	814	7	4
17 Mar 2022	361	606	2	2	4	814	7	4
18 Mar 2022	361	606	2	2	4	814	7	4
19 Mar 2022	361	606	2	2	4	814	7	4
20 Mar 2022	361	606	2	2	4	814	7	4
21 Mar 2022	361	606	2	2	4	814	7	4
22 Mar 2022	757	606	2	2	3	1117	6	4
23 Mar 2022	757	606	2	2	3	1117	6	4
24 Mar 2022	757	606	2	2	3	1117	6	4
25 Mar 2022	757	606	2	2	3	1117	6	4
26 Mar 2022	757	606	2	2	3	1117	6	4
27 Mar 2022	757	606	2	2	3	1117	6	4
28 Mar 2022	757	606	2	2	3	1117	6	4
29 Mar 2022	837	1398	5	3	4	1555	12	4
30 Mar 2022	837	1398	5	3	4	1555	12	4
31 Mar 2022	837	1398	5	3	4	1555	12	4

* 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
March	E	E	E	IC	IC	E	E	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 Mar 2022	8800	16000	100	2	2	13000	300	40
02 Mar 2022	8800	16000	100	2	2	13000	300	40
03 Mar 2022	12400	16000	60	11	3	14500	160	30
04 Mar 2022	12400	16000	60	11	3	14500	160	30
05 Mar 2022	12400	16000	60	11	3	14500	160	30
06 Mar 2022	12400	16000	60	11	3	14500	160	30
07 Mar 2022	12400	16000	60	11	3	14500	160	30
08 Mar 2022	16000	16000	20	2	2	16000	20	20
09 Mar 2022	16000	16000	20	2	2	16000	20	20
10 Mar 2022	16000	9600	60	11	3	16000	160	21
11 Mar 2022	16000	9600	60	11	3	16000	160	21
12 Mar 2022	16000	9600	60	11	3	16000	160	21
13 Mar 2022	16000	9600	60	11	3	16000	160	21
14 Mar 2022	16000	9600	60	11	3	16000	160	21
15 Mar 2022	16000	3200	60	20	4	16000	20	2
16 Mar 2022	16000	3200	60	20	4	16000	20	2
17 Mar 2022	16000	9600	80	11	11	16000	160	2
18 Mar 2022	16000	9600	80	11	11	16000	160	2
19 Mar 2022	16000	9600	80	11	11	16000	160	2
20 Mar 2022	16000	9600	80	11	11	16000	160	2
21 Mar 2022	16000	9600	80	11	11	16000	160	2
22 Mar 2022	16000	16000	60	20	20	16000	20	2
23 Mar 2022	16000	16000	60	20	20	16000	20	2
24 Mar 2022	16000	9600	40	30	20	16000	20	2
25 Mar 2022	16000	9600	40	30	20	16000	20	2
26 Mar 2022	16000	9600	40	30	20	16000	20	2
27 Mar 2022	16000	9600	40	30	20	16000	20	2
28 Mar 2022	16000	9600	40	30	20	16000	20	2
29 Mar 2022	16000	16000	60	40	20	16000	20	2
30 Mar 2022	16000	16000	60	40	20	16000	20	2
31 Mar 2022	13000	9600	40	30	23	16000	20	2

* 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
March	E	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	01 Mar 2022	1120	160e	14e	22e
S0	08 Mar 2022	835	5400	960	3000e
S0	15 Mar 2022	845	>16000	>12000	12000
S0	22 Mar 2022	830	>16000	6200	>12000
S0	29 Mar 2022	930	7000	1200e	4400
S2	01 Mar 2022	1210	640	80e	18e
S2	08 Mar 2022	920	1800e	100	8e
S2	15 Mar 2022	950	100	18e	58
S2	22 Mar 2022	935	>16000	3400e	120e
S2	29 Mar 2022	1035	9000	800	3200e
S3	01 Mar 2022	1250	11000	1000	40e
S3	08 Mar 2022	910	3400e	220e	16e
S3	15 Mar 2022	920	50	10e	68
S3	22 Mar 2022	910	>16000	>12000	1400e
S3	29 Mar 2022	1010	10000	1400e	920
S4	01 Mar 2022	943	>16000	7800	540
S4	08 Mar 2022	1132	>16000	3600e	460
S4	15 Mar 2022	934	56	6e	8e
S4	22 Mar 2022	1051	>16000	>12000	>12000
S4	29 Mar 2022	925	10000	2200e	1200e
S5	01 Mar 2022	1050	>16000	>12000	>12000
S5	08 Mar 2022	953	3200e	140e	4e
S5	15 Mar 2022	1039	360e	36e	90
S5	22 Mar 2022	922	>16000	>12000	>12000
S5	29 Mar 2022	1038	>16000	>12000	>12000
S6	01 Mar 2022	1110	200e	10e	2e
S6	08 Mar 2022	1010	<20	<2	<2
S6	15 Mar 2022	1102	60e	20e	<2
S6	22 Mar 2022	940	8e	<2	<2
S6	29 Mar 2022	1106	4400	560	140e
S8	01 Mar 2022	840	60e	20e	4e
S8	08 Mar 2022	843	2e	2e	<2
S8	15 Mar 2022	833	<20	2e	<2
S8	22 Mar 2022	831	40e	2e	<2
S8	29 Mar 2022	821	40e	4e	4e
S9	01 Mar 2022	816	20e	2e	4e
S9	08 Mar 2022	824	2e	<2	<2
S9	15 Mar 2022	806	20e	36e	12e
S9	22 Mar 2022	814	26e	14e	<2
S9	29 Mar 2022	801	<200	4e	16e
S10	01 Mar 2022	934	>16000	8000	640
S10	08 Mar 2022	1106	>16000	>12000	>12000
S10	15 Mar 2022	922	40e	4e	4e
S10	22 Mar 2022	1042	>16000	>12000	>12000
S10	29 Mar 2022	912	>16000	4000	3200e

Station	Date	Time	Total	Fecal	Enter
S11	01 Mar 2022	1101	300e	10e	6e
S11	08 Mar 2022	1003	20e	<2	<2
S11	15 Mar 2022	1051	<20	6e	12e
S11	22 Mar 2022	934	2e	<2	<2
S11	29 Mar 2022	1054	9000	920	640
S12	01 Mar 2022	1016	<2	<2	<2
S12	08 Mar 2022	911	2e	<2	<2
S12	15 Mar 2022	1010	<2	<2	10e
S12	22 Mar 2022	856	<2	<2	<2
S12	29 Mar 2022	1004	600e	36e	44

ns = not sampled

ND = no data

Comments

Station	Date	Depth	Parameter	Comments
S4	08 Mar 2022			Visual observation not recorded by error

Table 2.8

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

Station	Date	Parameter	Value
S0	01 Mar 2022	Arrive Time	1120
S0	01 Mar 2022	Weather	Sunny
S0	01 Mar 2022	Wind Speed (kts)	3.2
S0	01 Mar 2022	Wind Dir	N
S0	01 Mar 2022	Animal Life	None
S0	01 Mar 2022	Floatables	None
S0	01 Mar 2022	Water Color	Green
S0	01 Mar 2022	Current Direction	N
S0	01 Mar 2022	Water Temp (C)	15
S0	01 Mar 2022	Wave Height Low (ft)	3
S0	01 Mar 2022	High Tide (ft)	6.2
S0	01 Mar 2022	High Tide Time	747
S0	01 Mar 2022	Low Tide (ft)	1.1
S0	01 Mar 2022	Low Tide Time	146
S0	01 Mar 2022	Comments	Kelp
S0	08 Mar 2022	Arrive Time	835
S0	08 Mar 2022	Weather	Sunny
S0	08 Mar 2022	Wind Speed (kts)	3.1
S0	08 Mar 2022	Wind Dir	N
S0	08 Mar 2022	Animal Life	None
S0	08 Mar 2022	Floatables	None
S0	08 Mar 2022	Water Color	Green
S0	08 Mar 2022	Current Direction	N
S0	08 Mar 2022	Water Temp (C)	12
S0	08 Mar 2022	Wave Height Low (ft)	2
S0	08 Mar 2022	High Tide (ft)	2.51
S0	08 Mar 2022	High Tide Time	1320
S0	08 Mar 2022	Low Tide (ft)	1.04
S0	08 Mar 2022	Low Tide Time	718
S0	08 Mar 2022	Comments	Kelp
S0	15 Mar 2022	Arrive Time	845
S0	15 Mar 2022	Weather	Cloudy
S0	15 Mar 2022	Wind Speed (kts)	1.3
S0	15 Mar 2022	Wind Dir	NE
S0	15 Mar 2022	Animal Life	Bird-10; Dog-2
S0	15 Mar 2022	Floatables	None
S0	15 Mar 2022	Water Color	Green
S0	15 Mar 2022	Current Direction	N
S0	15 Mar 2022	Water Temp (C)	12
S0	15 Mar 2022	Wave Height Low (ft)	4
S0	15 Mar 2022	High Tide (ft)	5.26
S0	15 Mar 2022	High Tide Time	801
S0	15 Mar 2022	Low Tide (ft)	1.55
S0	15 Mar 2022	Low Tide Time	208
S0	15 Mar 2022	Comments	Kelp; Person/Walker/Jogger-10
S0	22 Mar 2022	Arrive Time	830
S0	22 Mar 2022	Weather	Sunny
S0	22 Mar 2022	Wind Speed (kts)	2.1
S0	22 Mar 2022	Wind Dir	N
S0	22 Mar 2022	Animal Life	Dog-1; Seagull-20
S0	22 Mar 2022	Floatables	None
S0	22 Mar 2022	Water Color	Green
S0	22 Mar 2022	Current Direction	N

Station	Date	Parameter	Value
S0	22 Mar 2022	Water Temp (C)	14
S0	22 Mar 2022	Wave Height Low (ft)	2
S0	22 Mar 2022	High Tide (ft)	3.14
S0	22 Mar 2022	High Tide Time	1258
S0	22 Mar 2022	Low Tide (ft)	0.06
S0	22 Mar 2022	Low Tide Time	657
S0	22 Mar 2022	Comments	none
S0	29 Mar 2022	Arrive Time	930
S0	29 Mar 2022	Weather	Cloudy
S0	29 Mar 2022	Wind Speed (kts)	1.2
S0	29 Mar 2022	Wind Dir	NE
S0	29 Mar 2022	Animal Life	Bird-20; Dog-2
S0	29 Mar 2022	Floatables	None
S0	29 Mar 2022	Water Color	Green
S0	29 Mar 2022	Current Direction	NE
S0	29 Mar 2022	Water Temp (C)	15
S0	29 Mar 2022	Wave Height Low (ft)	4
S0	29 Mar 2022	High Tide (ft)	5.47
S0	29 Mar 2022	High Tide Time	754
S0	29 Mar 2022	Low Tide (ft)	1.11
S0	29 Mar 2022	Low Tide Time	201
S0	29 Mar 2022	Comments	Water clear; Trash-0; Kelp; Person/Walker/Jogger-2; 0.5 L/sec water flowing from storm drain to the sea; early morning rain
S2	01 Mar 2022	Arrive Time	1210
S2	01 Mar 2022	Weather	Sunny
S2	01 Mar 2022	Wind Speed (kts)	3.8
S2	01 Mar 2022	Wind Dir	N
S2	01 Mar 2022	Animal Life	None
S2	01 Mar 2022	Floatables	None
S2	01 Mar 2022	Water Color	Green
S2	01 Mar 2022	Current Direction	N
S2	01 Mar 2022	Water Temp (C)	15
S2	01 Mar 2022	Wave Height Low (ft)	3
S2	01 Mar 2022	High Tide (ft)	6.2
S2	01 Mar 2022	High Tide Time	747
S2	01 Mar 2022	Low Tide (ft)	1.1
S2	01 Mar 2022	Low Tide Time	146
S2	01 Mar 2022	Comments	Kelp
S2	08 Mar 2022	Arrive Time	920
S2	08 Mar 2022	Weather	Sunny
S2	08 Mar 2022	Wind Speed (kts)	1.1
S2	08 Mar 2022	Wind Dir	N
S2	08 Mar 2022	Animal Life	None
S2	08 Mar 2022	Floatables	None
S2	08 Mar 2022	Water Color	Green
S2	08 Mar 2022	Current Direction	N
S2	08 Mar 2022	Water Temp (C)	14
S2	08 Mar 2022	Wave Height Low (ft)	2
S2	08 Mar 2022	High Tide (ft)	2.51
S2	08 Mar 2022	High Tide Time	1320
S2	08 Mar 2022	Low Tide (ft)	1.04
S2	08 Mar 2022	Low Tide Time	718
S2	08 Mar 2022	Comments	Kelp
S2	15 Mar 2022	Arrive Time	950
S2	15 Mar 2022	Weather	Cloudy
S2	15 Mar 2022	Wind Speed (kts)	1.3

Station	Date	Parameter	Value
S2	15 Mar 2022	Wind Dir	NE
S2	15 Mar 2022	Animal Life	Bird-10; Dog-2
S2	15 Mar 2022	Floatables	None
S2	15 Mar 2022	Water Color	Green
S2	15 Mar 2022	Current Direction	N
S2	15 Mar 2022	Water Temp (C)	12
S2	15 Mar 2022	Wave Height Low (ft)	4
S2	15 Mar 2022	High Tide (ft)	5.26
S2	15 Mar 2022	High Tide Time	801
S2	15 Mar 2022	Low Tide (ft)	1.55
S2	15 Mar 2022	Low Tide Time	208
S2	15 Mar 2022	Comments	Kelp; Person/Walker/Jogger-10
S2	22 Mar 2022	Arrive Time	935
S2	22 Mar 2022	Weather	Sunny
S2	22 Mar 2022	Wind Speed (kts)	1.1
S2	22 Mar 2022	Wind Dir	N
S2	22 Mar 2022	Animal Life	Seagull-20
S2	22 Mar 2022	Floatables	None
S2	22 Mar 2022	Water Color	Green
S2	22 Mar 2022	Current Direction	N
S2	22 Mar 2022	Water Temp (C)	14
S2	22 Mar 2022	Wave Height Low (ft)	2
S2	22 Mar 2022	High Tide (ft)	3.14
S2	22 Mar 2022	High Tide Time	1258
S2	22 Mar 2022	Low Tide (ft)	0.06
S2	22 Mar 2022	Low Tide Time	657
S2	22 Mar 2022	Comments	none
S2	29 Mar 2022	Arrive Time	1035
S2	29 Mar 2022	Weather	Cloudy
S2	29 Mar 2022	Wind Speed (kts)	1.1
S2	29 Mar 2022	Wind Dir	NE
S2	29 Mar 2022	Animal Life	Bird-10; Dog-3
S2	29 Mar 2022	Floatables	None
S2	29 Mar 2022	Water Color	Green
S2	29 Mar 2022	Current Direction	N
S2	29 Mar 2022	Water Temp (C)	15
S2	29 Mar 2022	Wave Height Low (ft)	4
S2	29 Mar 2022	High Tide (ft)	5.47
S2	29 Mar 2022	High Tide Time	754
S2	29 Mar 2022	Low Tide (ft)	1.11
S2	29 Mar 2022	Low Tide Time	201
S2	29 Mar 2022	Comments	Water clear; Trash-0; Kelp; Person/Walker/Jogger-5; no flow from storm drain; rain in the early morning
S3	01 Mar 2022	Arrive Time	1250
S3	01 Mar 2022	Weather	Sunny
S3	01 Mar 2022	Wind Speed (kts)	3
S3	01 Mar 2022	Wind Dir	N
S3	01 Mar 2022	Animal Life	None
S3	01 Mar 2022	Floatables	None
S3	01 Mar 2022	Water Color	Green
S3	01 Mar 2022	Current Direction	N
S3	01 Mar 2022	Water Temp (C)	15
S3	01 Mar 2022	Wave Height Low (ft)	3
S3	01 Mar 2022	High Tide (ft)	6.2
S3	01 Mar 2022	High Tide Time	747
S3	01 Mar 2022	Low Tide (ft)	1.1
S3	01 Mar 2022	Low Tide Time	146
S3	01 Mar 2022	Comments	Kelp

Station	Date	Parameter	Value
S3	08 Mar 2022	Arrive Time	910
S3	08 Mar 2022	Weather	Sunny
S3	08 Mar 2022	Wind Speed (kts)	1.6
S3	08 Mar 2022	Wind Dir	N
S3	08 Mar 2022	Animal Life	None
S3	08 Mar 2022	Floatables	None
S3	08 Mar 2022	Water Color	Green
S3	08 Mar 2022	Current Direction	N
S3	08 Mar 2022	Water Temp (C)	13
S3	08 Mar 2022	Wave Height Low (ft)	2
S3	08 Mar 2022	High Tide (ft)	2.51
S3	08 Mar 2022	High Tide Time	1320
S3	08 Mar 2022	Low Tide (ft)	1.04
S3	08 Mar 2022	Low Tide Time	718
S3	08 Mar 2022	Comments	Kelp
S3	15 Mar 2022	Arrive Time	920
S3	15 Mar 2022	Weather	Cloudy
S3	15 Mar 2022	Wind Speed (kts)	1.1
S3	15 Mar 2022	Wind Dir	NE
S3	15 Mar 2022	Animal Life	Bird-10; Dog-2
S3	15 Mar 2022	Floatables	None
S3	15 Mar 2022	Water Color	Green
S3	15 Mar 2022	Current Direction	N
S3	15 Mar 2022	Water Temp (C)	12
S3	15 Mar 2022	Wave Height Low (ft)	4
S3	15 Mar 2022	High Tide (ft)	5.26
S3	15 Mar 2022	High Tide Time	801
S3	15 Mar 2022	Low Tide (ft)	1.55
S3	15 Mar 2022	Low Tide Time	208
S3	15 Mar 2022	Comments	Kelp; Person/Walker/Jogger-10
S3	22 Mar 2022	Arrive Time	910
S3	22 Mar 2022	Weather	Sunny
S3	22 Mar 2022	Wind Speed (kts)	1.8
S3	22 Mar 2022	Wind Dir	N
S3	22 Mar 2022	Animal Life	Dog-3; Seagull-20
S3	22 Mar 2022	Floatables	None
S3	22 Mar 2022	Water Color	Green
S3	22 Mar 2022	Current Direction	N
S3	22 Mar 2022	Water Temp (C)	14
S3	22 Mar 2022	Wave Height Low (ft)	2
S3	22 Mar 2022	High Tide (ft)	3.14
S3	22 Mar 2022	High Tide Time	1258
S3	22 Mar 2022	Low Tide (ft)	0.06
S3	22 Mar 2022	Low Tide Time	657
S3	22 Mar 2022	Comments	none
S3	29 Mar 2022	Arrive Time	1010
S3	29 Mar 2022	Weather	Cloudy
S3	29 Mar 2022	Wind Speed (kts)	1.2
S3	29 Mar 2022	Wind Dir	NE
S3	29 Mar 2022	Animal Life	Bird-10; Dog-3
S3	29 Mar 2022	Floatables	None
S3	29 Mar 2022	Water Color	Green
S3	29 Mar 2022	Current Direction	N
S3	29 Mar 2022	Water Temp (C)	15
S3	29 Mar 2022	Wave Height Low (ft)	4
S3	29 Mar 2022	High Tide (ft)	5.47
S3	29 Mar 2022	High Tide Time	754

Station	Date	Parameter	Value
S3	29 Mar 2022	Low Tide (ft)	1.11
S3	29 Mar 2022	Low Tide Time	201
S3	29 Mar 2022	Comments	none
S4	01 Mar 2022	Arrive Time	943
S4	01 Mar 2022	Weather	Sunny
S4	01 Mar 2022	Wind Speed (kts)	2.9
S4	01 Mar 2022	Wind Dir	W
S4	01 Mar 2022	Animal Life	None
S4	01 Mar 2022	Floatables	Foam; Film
S4	01 Mar 2022	Water Color	Green
S4	01 Mar 2022	Current Direction	N
S4	01 Mar 2022	Water Temp (C)	14.8
S4	01 Mar 2022	Wave Height Low (ft)	4
S4	01 Mar 2022	High Tide (ft)	6.2
S4	01 Mar 2022	High Tide Time	747
S4	01 Mar 2022	Low Tide (ft)	1.1
S4	01 Mar 2022	Low Tide Time	146
S4	01 Mar 2022	Comments	Seagrass; Kelp; Debris
S4	15 Mar 2022	Arrive Time	934
S4	15 Mar 2022	Weather	Foggy
S4	15 Mar 2022	Wind Speed (kts)	2.9
S4	15 Mar 2022	Wind Dir	NW
S4	15 Mar 2022	Animal Life	Bird-9; Horse-8; Pelican-5
S4	15 Mar 2022	Floatables	Foam
S4	15 Mar 2022	Water Color	Green
S4	15 Mar 2022	Current Direction	S
S4	15 Mar 2022	Water Temp (C)	14.4
S4	15 Mar 2022	Wave Height Low (ft)	2
S4	15 Mar 2022	High Tide (ft)	5.26
S4	15 Mar 2022	High Tide Time	801
S4	15 Mar 2022	Low Tide (ft)	1.55
S4	15 Mar 2022	Low Tide Time	208
S4	15 Mar 2022	Comments	Water turbid; Trash-2; Kelp; Seagrass; Debris; Person/Walker/Jogger-8; Sewage-like odor
S4	22 Mar 2022	Arrive Time	1051
S4	22 Mar 2022	Weather	Sunny
S4	22 Mar 2022	Wind Speed (kts)	3.8
S4	22 Mar 2022	Wind Dir	W
S4	22 Mar 2022	Animal Life	Bird-8
S4	22 Mar 2022	Floatables	Foam; Film
S4	22 Mar 2022	Water Color	Green
S4	22 Mar 2022	Current Direction	S
S4	22 Mar 2022	Water Temp (C)	15.2
S4	22 Mar 2022	Wave Height Low (ft)	2
S4	22 Mar 2022	High Tide (ft)	3.14
S4	22 Mar 2022	High Tide Time	1258
S4	22 Mar 2022	Low Tide (ft)	0.06
S4	22 Mar 2022	Low Tide Time	657
S4	22 Mar 2022	Comments	none
S4	29 Mar 2022	Arrive Time	925
S4	29 Mar 2022	Weather	Partly cloudy
S4	29 Mar 2022	Wind Speed (kts)	2.7
S4	29 Mar 2022	Wind Dir	W
S4	29 Mar 2022	Animal Life	Bird-15; Seagull-8
S4	29 Mar 2022	Floatables	Foam; Film
S4	29 Mar 2022	Water Color	Brown
S4	29 Mar 2022	Current Direction	S

Station	Date	Parameter	Value
S4	29 Mar 2022	Water Temp (C)	16.1
S4	29 Mar 2022	Wave Height Low (ft)	5
S4	29 Mar 2022	High Tide (ft)	5.47
S4	29 Mar 2022	High Tide Time	754
S4	29 Mar 2022	Low Tide (ft)	1.11
S4	29 Mar 2022	Low Tide Time	201
S4	29 Mar 2022	Comments	Seagrass; Kelp; Debris
S5	01 Mar 2022	Arrive Time	1050
S5	01 Mar 2022	Weather	Sunny
S5	01 Mar 2022	Wind Speed (kts)	3.2
S5	01 Mar 2022	Wind Dir	W
S5	01 Mar 2022	Animal Life	Bird-1
S5	01 Mar 2022	Floatables	Foam; Film
S5	01 Mar 2022	Water Color	Brown
S5	01 Mar 2022	Current Direction	S
S5	01 Mar 2022	Water Temp (C)	15.8
S5	01 Mar 2022	Wave Height Low (ft)	2
S5	01 Mar 2022	High Tide (ft)	6.2
S5	01 Mar 2022	High Tide Time	747
S5	01 Mar 2022	Low Tide (ft)	1.1
S5	01 Mar 2022	Low Tide Time	146
S5	01 Mar 2022	Comments	Kelp; Seagrass; Debris
S5	08 Mar 2022	Arrive Time	953
S5	08 Mar 2022	Weather	Sunny
S5	08 Mar 2022	Wind Speed (kts)	5.5
S5	08 Mar 2022	Wind Dir	NW
S5	08 Mar 2022	Animal Life	Pelican-2; Seagull-10
S5	08 Mar 2022	Floatables	Foam; Dead animals
S5	08 Mar 2022	Water Color	Green
S5	08 Mar 2022	Current Direction	S
S5	08 Mar 2022	Water Temp (C)	17.3
S5	08 Mar 2022	Wave Height Low (ft)	1
S5	08 Mar 2022	High Tide (ft)	2.51
S5	08 Mar 2022	High Tide Time	1320
S5	08 Mar 2022	Low Tide (ft)	1.04
S5	08 Mar 2022	Low Tide Time	718
S5	08 Mar 2022	Comments	Water turbid; Trash-1; Kelp; Debris; Person/Walker/Jogger-2
S5	15 Mar 2022	Arrive Time	1039
S5	15 Mar 2022	Weather	Hazy
S5	15 Mar 2022	Wind Speed (kts)	1.6
S5	15 Mar 2022	Wind Dir	NW
S5	15 Mar 2022	Animal Life	Bird-1; Dog-1
S5	15 Mar 2022	Floatables	Film
S5	15 Mar 2022	Water Color	Green
S5	15 Mar 2022	Current Direction	S
S5	15 Mar 2022	Water Temp (C)	17.8
S5	15 Mar 2022	Wave Height Low (ft)	2
S5	15 Mar 2022	High Tide (ft)	5.26
S5	15 Mar 2022	High Tide Time	801
S5	15 Mar 2022	Low Tide (ft)	1.55
S5	15 Mar 2022	Low Tide Time	208
S5	15 Mar 2022	Comments	Water turbid; Trash-2; Kelp; Seagrass; Debris; Person/Walker/Jogger-3; Sewage-like odor
S5	22 Mar 2022	Arrive Time	922
S5	22 Mar 2022	Weather	Sunny
S5	22 Mar 2022	Wind Speed (kts)	4
S5	22 Mar 2022	Wind Dir	SW

Station	Date	Parameter	Value
S5	22 Mar 2022	Animal Life	Pelican-4
S5	22 Mar 2022	Floatables	Foam; Film
S5	22 Mar 2022	Water Color	Brown
S5	22 Mar 2022	Current Direction	S
S5	22 Mar 2022	Water Temp (C)	18.6
S5	22 Mar 2022	Wave Height Low (ft)	3
S5	22 Mar 2022	High Tide (ft)	3.14
S5	22 Mar 2022	High Tide Time	1258
S5	22 Mar 2022	Low Tide (ft)	0.06
S5	22 Mar 2022	Low Tide Time	657
S5	22 Mar 2022	Comments	Water turbid; Trash-2; Kelp; Seagrass; Debris; Person/Walker/Jogger-1; Sewage-like odor
S5	29 Mar 2022	Arrive Time	1038
S5	29 Mar 2022	Weather	Cloudy
S5	29 Mar 2022	Wind Speed (kts)	6
S5	29 Mar 2022	Wind Dir	W
S5	29 Mar 2022	Animal Life	Bird-3
S5	29 Mar 2022	Floatables	Foam
S5	29 Mar 2022	Water Color	Brown
S5	29 Mar 2022	Current Direction	S
S5	29 Mar 2022	Water Temp (C)	17.2
S5	29 Mar 2022	Wave Height Low (ft)	1
S5	29 Mar 2022	High Tide (ft)	5.47
S5	29 Mar 2022	High Tide Time	754
S5	29 Mar 2022	Low Tide (ft)	1.11
S5	29 Mar 2022	Low Tide Time	201
S5	29 Mar 2022	Comments	Water turbid; Trash-2; Kelp; Seagrass; Debris; Person/Walker/Jogger-2; Sewage-like odor
S6	01 Mar 2022	Arrive Time	1110
S6	01 Mar 2022	Weather	Sunny
S6	01 Mar 2022	Wind Speed (kts)	3.4
S6	01 Mar 2022	Wind Dir	SW
S6	01 Mar 2022	Animal Life	Bird-12; Dog-2
S6	01 Mar 2022	Floatables	Foam; Film
S6	01 Mar 2022	Water Color	Green
S6	01 Mar 2022	Current Direction	N
S6	01 Mar 2022	Water Temp (C)	17.4
S6	01 Mar 2022	Wave Height Low (ft)	4
S6	01 Mar 2022	High Tide (ft)	6.2
S6	01 Mar 2022	High Tide Time	747
S6	01 Mar 2022	Low Tide (ft)	1.1
S6	01 Mar 2022	Low Tide Time	146
S6	01 Mar 2022	Comments	Water turbid; Surfer/Paddle boarder-3; Trash-1; Seagrass; Kelp; Person/Walker/Jogger-9
S6	08 Mar 2022	Arrive Time	1010
S6	08 Mar 2022	Weather	Sunny
S6	08 Mar 2022	Wind Speed (kts)	4.2
S6	08 Mar 2022	Wind Dir	W
S6	08 Mar 2022	Animal Life	None
S6	08 Mar 2022	Floatables	None
S6	08 Mar 2022	Water Color	Green
S6	08 Mar 2022	Current Direction	S
S6	08 Mar 2022	Water Temp (C)	16.5
S6	08 Mar 2022	Wave Height Low (ft)	2
S6	08 Mar 2022	High Tide (ft)	2.51
S6	08 Mar 2022	High Tide Time	1320
S6	08 Mar 2022	Low Tide (ft)	1.04
S6	08 Mar 2022	Low Tide Time	718

Station	Date	Parameter	Value
S6	08 Mar 2022	Comments	Water clear; Trash-1; Person/Walker/Jogger-1
S6	15 Mar 2022	Arrive Time	1102
S6	15 Mar 2022	Weather	Sunny
S6	15 Mar 2022	Wind Speed (kts)	2.8
S6	15 Mar 2022	Wind Dir	NW
S6	15 Mar 2022	Animal Life	Bird-100; Dog-1
S6	15 Mar 2022	Floatables	Foam; Film
S6	15 Mar 2022	Water Color	Green
S6	15 Mar 2022	Current Direction	S
S6	15 Mar 2022	Water Temp (C)	16.4
S6	15 Mar 2022	Wave Height Low (ft)	3
S6	15 Mar 2022	High Tide (ft)	5.26
S6	15 Mar 2022	High Tide Time	801
S6	15 Mar 2022	Low Tide (ft)	1.55
S6	15 Mar 2022	Low Tide Time	208
S6	15 Mar 2022	Comments	Water turbid; Surfer/Paddle boarder-2; Trash-2; Seagrass; Kelp; Person/Walker/Jogger-3
S6	22 Mar 2022	Arrive Time	940
S6	22 Mar 2022	Weather	Sunny
S6	22 Mar 2022	Wind Speed (kts)	2.2
S6	22 Mar 2022	Wind Dir	W
S6	22 Mar 2022	Animal Life	Bird-200; Dog-1
S6	22 Mar 2022	Floatables	Foam; Film
S6	22 Mar 2022	Water Color	Green
S6	22 Mar 2022	Current Direction	S
S6	22 Mar 2022	Water Temp (C)	14.7
S6	22 Mar 2022	Wave Height Low (ft)	4
S6	22 Mar 2022	High Tide (ft)	3.14
S6	22 Mar 2022	High Tide Time	1258
S6	22 Mar 2022	Low Tide (ft)	0.06
S6	22 Mar 2022	Low Tide Time	657
S6	22 Mar 2022	Comments	Water turbid; Surfer/Paddle boarder-1; Trash-1; Kelp; Seagrass; Algae; Person/Walker/Jogger-4
S6	29 Mar 2022	Arrive Time	1106
S6	29 Mar 2022	Weather	Drizzle
S6	29 Mar 2022	Wind Speed (kts)	7.7
S6	29 Mar 2022	Wind Dir	W
S6	29 Mar 2022	Animal Life	Dog-1
S6	29 Mar 2022	Floatables	Foam
S6	29 Mar 2022	Water Color	Green
S6	29 Mar 2022	Current Direction	N
S6	29 Mar 2022	Water Temp (C)	17.2
S6	29 Mar 2022	Wave Height Low (ft)	3
S6	29 Mar 2022	High Tide (ft)	5.47
S6	29 Mar 2022	High Tide Time	754
S6	29 Mar 2022	Low Tide (ft)	1.11
S6	29 Mar 2022	Low Tide Time	201
S6	29 Mar 2022	Comments	Water turbid; Trash-1; Seagrass; Kelp; Person/Walker/Jogger-6; Sewage-like odor
S8	01 Mar 2022	Arrive Time	840
S8	01 Mar 2022	Weather	Sunny
S8	01 Mar 2022	Wind Speed (kts)	5.8
S8	01 Mar 2022	Wind Dir	NE
S8	01 Mar 2022	Animal Life	None
S8	01 Mar 2022	Floatables	None
S8	01 Mar 2022	Water Color	Green
S8	01 Mar 2022	Current Direction	S

Station	Date	Parameter	Value
S8	01 Mar 2022	Water Temp (C)	14.8
S8	01 Mar 2022	Wave Height Low (ft)	2
S8	01 Mar 2022	High Tide (ft)	6.2
S8	01 Mar 2022	High Tide Time	747
S8	01 Mar 2022	Low Tide (ft)	1.1
S8	01 Mar 2022	Low Tide Time	146
S8	01 Mar 2022	Comments	Seagrass; Kelp
S8	08 Mar 2022	Arrive Time	843
S8	08 Mar 2022	Weather	Sunny
S8	08 Mar 2022	Wind Speed (kts)	2.8
S8	08 Mar 2022	Wind Dir	E
S8	08 Mar 2022	Animal Life	None
S8	08 Mar 2022	Floatables	Foam
S8	08 Mar 2022	Water Color	Green
S8	08 Mar 2022	Current Direction	S
S8	08 Mar 2022	Water Temp (C)	15.9
S8	08 Mar 2022	Wave Height Low (ft)	1
S8	08 Mar 2022	High Tide (ft)	2.51
S8	08 Mar 2022	High Tide Time	1320
S8	08 Mar 2022	Low Tide (ft)	1.04
S8	08 Mar 2022	Low Tide Time	718
S8	08 Mar 2022	Comments	Water turbid; Fisherperson-2; Trash-1; Kelp; Person/Walker/Jogger-8
S8	15 Mar 2022	Arrive Time	833
S8	15 Mar 2022	Weather	Foggy
S8	15 Mar 2022	Wind Speed (kts)	2.4
S8	15 Mar 2022	Wind Dir	NW
S8	15 Mar 2022	Animal Life	None
S8	15 Mar 2022	Floatables	Foam
S8	15 Mar 2022	Water Color	Grey
S8	15 Mar 2022	Current Direction	S
S8	15 Mar 2022	Water Temp (C)	15.4
S8	15 Mar 2022	Wave Height Low (ft)	1
S8	15 Mar 2022	High Tide (ft)	5.26
S8	15 Mar 2022	High Tide Time	801
S8	15 Mar 2022	Low Tide (ft)	1.55
S8	15 Mar 2022	Low Tide Time	208
S8	15 Mar 2022	Comments	Seagrass; Kelp
S8	22 Mar 2022	Arrive Time	831
S8	22 Mar 2022	Weather	Sunny
S8	22 Mar 2022	Wind Speed (kts)	3.4
S8	22 Mar 2022	Wind Dir	E
S8	22 Mar 2022	Animal Life	Seagull-1
S8	22 Mar 2022	Floatables	None
S8	22 Mar 2022	Water Color	Green
S8	22 Mar 2022	Current Direction	S
S8	22 Mar 2022	Water Temp (C)	15.8
S8	22 Mar 2022	Wave Height Low (ft)	2
S8	22 Mar 2022	High Tide (ft)	3.14
S8	22 Mar 2022	High Tide Time	1258
S8	22 Mar 2022	Low Tide (ft)	0.06
S8	22 Mar 2022	Low Tide Time	657
S8	22 Mar 2022	Comments	Water clear; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-7
S8	29 Mar 2022	Arrive Time	821
S8	29 Mar 2022	Weather	Partly cloudy
S8	29 Mar 2022	Wind Speed (kts)	3

Station	Date	Parameter	Value
S8	29 Mar 2022	Wind Dir	E
S8	29 Mar 2022	Animal Life	None
S8	29 Mar 2022	Floatables	Foam
S8	29 Mar 2022	Water Color	Green
S8	29 Mar 2022	Current Direction	S
S8	29 Mar 2022	Water Temp (C)	17.7
S8	29 Mar 2022	Wave Height Low (ft)	2
S8	29 Mar 2022	High Tide (ft)	5.47
S8	29 Mar 2022	High Tide Time	754
S8	29 Mar 2022	Low Tide (ft)	1.11
S8	29 Mar 2022	Low Tide Time	201
S8	29 Mar 2022	Comments	Seagrass; Kelp
S9	01 Mar 2022	Arrive Time	816
S9	01 Mar 2022	Weather	Sunny
S9	01 Mar 2022	Wind Speed (kts)	1.5
S9	01 Mar 2022	Wind Dir	SW
S9	01 Mar 2022	Animal Life	Dog-1; Seagull-3
S9	01 Mar 2022	Floatables	Foam
S9	01 Mar 2022	Water Color	Brown
S9	01 Mar 2022	Current Direction	S
S9	01 Mar 2022	Water Temp (C)	14.7
S9	01 Mar 2022	Wave Height Low (ft)	3
S9	01 Mar 2022	High Tide (ft)	6.2
S9	01 Mar 2022	High Tide Time	747
S9	01 Mar 2022	Low Tide (ft)	1.1
S9	01 Mar 2022	Low Tide Time	146
S9	01 Mar 2022	Comments	Water turbid; Trash-1; Seagrass; Kelp; Person/Walker/Jogger-2
S9	08 Mar 2022	Arrive Time	824
S9	08 Mar 2022	Weather	Sunny
S9	08 Mar 2022	Wind Speed (kts)	0.7
S9	08 Mar 2022	Wind Dir	SE
S9	08 Mar 2022	Animal Life	Dolphin-2; Seagull-34
S9	08 Mar 2022	Floatables	None
S9	08 Mar 2022	Water Color	Green
S9	08 Mar 2022	Current Direction	N
S9	08 Mar 2022	Water Temp (C)	14.9
S9	08 Mar 2022	Wave Height Low (ft)	1
S9	08 Mar 2022	High Tide (ft)	2.51
S9	08 Mar 2022	High Tide Time	1320
S9	08 Mar 2022	Low Tide (ft)	1.04
S9	08 Mar 2022	Low Tide Time	718
S9	08 Mar 2022	Comments	Water clear; Surfer/Paddle boarder-2; Trash-1; Person/Walker/Jogger-4
S9	15 Mar 2022	Arrive Time	806
S9	15 Mar 2022	Weather	Foggy
S9	15 Mar 2022	Wind Speed (kts)	4
S9	15 Mar 2022	Wind Dir	N
S9	15 Mar 2022	Animal Life	Bird-1; Seagull-4
S9	15 Mar 2022	Floatables	Foam
S9	15 Mar 2022	Water Color	Grey
S9	15 Mar 2022	Current Direction	S
S9	15 Mar 2022	Water Temp (C)	15.4
S9	15 Mar 2022	Wave Height Low (ft)	1
S9	15 Mar 2022	High Tide (ft)	5.26
S9	15 Mar 2022	High Tide Time	801
S9	15 Mar 2022	Low Tide (ft)	1.55
S9	15 Mar 2022	Low Tide Time	208

Station	Date	Parameter	Value
S9	15 Mar 2022	Comments	Water turbid; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-2
S9	22 Mar 2022	Arrive Time	814
S9	22 Mar 2022	Weather	Sunny
S9	22 Mar 2022	Wind Speed (kts)	1.4
S9	22 Mar 2022	Wind Dir	S
S9	22 Mar 2022	Animal Life	Bird-120
S9	22 Mar 2022	Floatables	Foam
S9	22 Mar 2022	Water Color	Green
S9	22 Mar 2022	Current Direction	S
S9	22 Mar 2022	Water Temp (C)	15.7
S9	22 Mar 2022	Wave Height Low (ft)	1
S9	22 Mar 2022	High Tide (ft)	3.14
S9	22 Mar 2022	High Tide Time	1258
S9	22 Mar 2022	Low Tide (ft)	0.06
S9	22 Mar 2022	Low Tide Time	657
S9	22 Mar 2022	Comments	Water turbid; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-7
S9	29 Mar 2022	Arrive Time	801
S9	29 Mar 2022	Weather	Partly cloudy
S9	29 Mar 2022	Wind Speed (kts)	0.8
S9	29 Mar 2022	Wind Dir	N
S9	29 Mar 2022	Animal Life	Seagull-2
S9	29 Mar 2022	Floatables	Foam
S9	29 Mar 2022	Water Color	Grey
S9	29 Mar 2022	Current Direction	S
S9	29 Mar 2022	Water Temp (C)	16.8
S9	29 Mar 2022	Wave Height Low (ft)	2
S9	29 Mar 2022	High Tide (ft)	5.47
S9	29 Mar 2022	High Tide Time	754
S9	29 Mar 2022	Low Tide (ft)	1.11
S9	29 Mar 2022	Low Tide Time	201
S9	29 Mar 2022	Comments	Seagrass; Kelp
S10	01 Mar 2022	Arrive Time	934
S10	01 Mar 2022	Weather	Sunny
S10	01 Mar 2022	Wind Speed (kts)	2.4
S10	01 Mar 2022	Wind Dir	W
S10	01 Mar 2022	Animal Life	Bird-14
S10	01 Mar 2022	Floatables	Foam; Film
S10	01 Mar 2022	Water Color	Green
S10	01 Mar 2022	Current Direction	S
S10	01 Mar 2022	Water Temp (C)	15.4
S10	01 Mar 2022	Wave Height Low (ft)	3
S10	01 Mar 2022	High Tide (ft)	6.2
S10	01 Mar 2022	High Tide Time	747
S10	01 Mar 2022	Low Tide (ft)	1.1
S10	01 Mar 2022	Low Tide Time	146
S10	01 Mar 2022	Comments	Seagrass; Kelp; Debris
S10	08 Mar 2022	Arrive Time	1106
S10	08 Mar 2022	Weather	Sunny
S10	08 Mar 2022	Wind Speed (kts)	7.4
S10	08 Mar 2022	Wind Dir	W
S10	08 Mar 2022	Animal Life	None
S10	08 Mar 2022	Floatables	Foam; Film
S10	08 Mar 2022	Water Color	Green
S10	08 Mar 2022	Current Direction	S
S10	08 Mar 2022	Water Temp (C)	18.3

Station	Date	Parameter	Value
S10	08 Mar 2022	Wave Height Low (ft)	2
S10	08 Mar 2022	High Tide (ft)	2.51
S10	08 Mar 2022	High Tide Time	1320
S10	08 Mar 2022	Low Tide (ft)	1.04
S10	08 Mar 2022	Low Tide Time	718
S10	08 Mar 2022	Comments	none
S10	15 Mar 2022	Arrive Time	922
S10	15 Mar 2022	Weather	Foggy
S10	15 Mar 2022	Wind Speed (kts)	1.2
S10	15 Mar 2022	Wind Dir	N
S10	15 Mar 2022	Animal Life	Horse-8; Pelican-6
S10	15 Mar 2022	Floatables	Foam
S10	15 Mar 2022	Water Color	Green
S10	15 Mar 2022	Current Direction	S
S10	15 Mar 2022	Water Temp (C)	14.7
S10	15 Mar 2022	Wave Height Low (ft)	3
S10	15 Mar 2022	High Tide (ft)	5.26
S10	15 Mar 2022	High Tide Time	801
S10	15 Mar 2022	Low Tide (ft)	1.55
S10	15 Mar 2022	Low Tide Time	208
S10	15 Mar 2022	Comments	Water turbid; Trash-2; Debris; Seagrass; Kelp; Person/Walker/Jogger-8; Sewage-like odor
S10	22 Mar 2022	Arrive Time	1042
S10	22 Mar 2022	Weather	Sunny
S10	22 Mar 2022	Wind Speed (kts)	3.9
S10	22 Mar 2022	Wind Dir	W
S10	22 Mar 2022	Animal Life	Bird-1
S10	22 Mar 2022	Floatables	Foam; Film
S10	22 Mar 2022	Water Color	Green
S10	22 Mar 2022	Current Direction	S
S10	22 Mar 2022	Water Temp (C)	15.7
S10	22 Mar 2022	Wave Height Low (ft)	3
S10	22 Mar 2022	High Tide (ft)	3.14
S10	22 Mar 2022	High Tide Time	1258
S10	22 Mar 2022	Low Tide (ft)	0.06
S10	22 Mar 2022	Low Tide Time	657
S10	22 Mar 2022	Comments	none
S10	29 Mar 2022	Arrive Time	912
S10	29 Mar 2022	Weather	Partly cloudy
S10	29 Mar 2022	Wind Speed (kts)	1.3
S10	29 Mar 2022	Wind Dir	W
S10	29 Mar 2022	Animal Life	None
S10	29 Mar 2022	Floatables	Foam
S10	29 Mar 2022	Water Color	Brown
S10	29 Mar 2022	Current Direction	S
S10	29 Mar 2022	Water Temp (C)	17.4
S10	29 Mar 2022	Wave Height Low (ft)	5
S10	29 Mar 2022	High Tide (ft)	5.47
S10	29 Mar 2022	High Tide Time	754
S10	29 Mar 2022	Low Tide (ft)	1.11
S10	29 Mar 2022	Low Tide Time	201
S10	29 Mar 2022	Comments	Seagrass; Kelp; Debris
S11	01 Mar 2022	Arrive Time	1101
S11	01 Mar 2022	Weather	Sunny
S11	01 Mar 2022	Wind Speed (kts)	4.8
S11	01 Mar 2022	Wind Dir	W
S11	01 Mar 2022	Animal Life	Bird-1; Dog-1; Seagull-2

Station	Date	Parameter	Value
S11	01 Mar 2022	Floatables	Foam; Film
S11	01 Mar 2022	Water Color	Green
S11	01 Mar 2022	Current Direction	S
S11	01 Mar 2022	Water Temp (C)	15.6
S11	01 Mar 2022	Wave Height Low (ft)	4
S11	01 Mar 2022	High Tide (ft)	6.2
S11	01 Mar 2022	High Tide Time	747
S11	01 Mar 2022	Low Tide (ft)	1.1
S11	01 Mar 2022	Low Tide Time	146
S11	01 Mar 2022	Comments	Water turbid; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-2
S11	08 Mar 2022	Arrive Time	1003
S11	08 Mar 2022	Weather	Sunny
S11	08 Mar 2022	Wind Speed (kts)	4
S11	08 Mar 2022	Wind Dir	W
S11	08 Mar 2022	Animal Life	Dog-2
S11	08 Mar 2022	Floatables	Foam
S11	08 Mar 2022	Water Color	Green
S11	08 Mar 2022	Current Direction	S
S11	08 Mar 2022	Water Temp (C)	17.2
S11	08 Mar 2022	Wave Height Low (ft)	2
S11	08 Mar 2022	High Tide (ft)	2.51
S11	08 Mar 2022	High Tide Time	1320
S11	08 Mar 2022	Low Tide (ft)	1.04
S11	08 Mar 2022	Low Tide Time	718
S11	08 Mar 2022	Comments	Water turbid; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-5
S11	15 Mar 2022	Arrive Time	1051
S11	15 Mar 2022	Weather	Sunny
S11	15 Mar 2022	Wind Speed (kts)	1.8
S11	15 Mar 2022	Wind Dir	NW
S11	15 Mar 2022	Animal Life	None
S11	15 Mar 2022	Floatables	Foam; Film
S11	15 Mar 2022	Water Color	Green
S11	15 Mar 2022	Current Direction	S
S11	15 Mar 2022	Water Temp (C)	15.9
S11	15 Mar 2022	Wave Height Low (ft)	3
S11	15 Mar 2022	High Tide (ft)	5.26
S11	15 Mar 2022	High Tide Time	801
S11	15 Mar 2022	Low Tide (ft)	1.55
S11	15 Mar 2022	Low Tide Time	208
S11	15 Mar 2022	Comments	Kelp; Seagrass
S11	22 Mar 2022	Arrive Time	934
S11	22 Mar 2022	Weather	Sunny
S11	22 Mar 2022	Wind Speed (kts)	3.9
S11	22 Mar 2022	Wind Dir	W
S11	22 Mar 2022	Animal Life	None
S11	22 Mar 2022	Floatables	Foam; Film
S11	22 Mar 2022	Water Color	Green
S11	22 Mar 2022	Current Direction	N
S11	22 Mar 2022	Water Temp (C)	15.6
S11	22 Mar 2022	Wave Height Low (ft)	3
S11	22 Mar 2022	High Tide (ft)	3.14
S11	22 Mar 2022	High Tide Time	1258
S11	22 Mar 2022	Low Tide (ft)	0.06
S11	22 Mar 2022	Low Tide Time	657
S11	22 Mar 2022	Comments	Water turbid; Trash-2; Kelp; Seagrass; Debris; Person/Walker/Jogger-1

Station	Date	Parameter	Value
S11	29 Mar 2022	Arrive Time	1054
S11	29 Mar 2022	Weather	Drizzle
S11	29 Mar 2022	Wind Speed (kts)	8.1
S11	29 Mar 2022	Wind Dir	W
S11	29 Mar 2022	Animal Life	Dog-1
S11	29 Mar 2022	Floatables	Foam
S11	29 Mar 2022	Water Color	Green
S11	29 Mar 2022	Current Direction	S
S11	29 Mar 2022	Water Temp (C)	17.2
S11	29 Mar 2022	Wave Height Low (ft)	3
S11	29 Mar 2022	High Tide (ft)	5.47
S11	29 Mar 2022	High Tide Time	754
S11	29 Mar 2022	Low Tide (ft)	1.11
S11	29 Mar 2022	Low Tide Time	201
S11	29 Mar 2022	Comments	Water turbid; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-1; Sewage-like odor
S12	01 Mar 2022	Arrive Time	1016
S12	01 Mar 2022	Weather	Sunny
S12	01 Mar 2022	Wind Speed (kts)	3.1
S12	01 Mar 2022	Wind Dir	SW
S12	01 Mar 2022	Animal Life	Bird-150; Pelican-1
S12	01 Mar 2022	Floatables	Foam
S12	01 Mar 2022	Water Color	Green
S12	01 Mar 2022	Current Direction	S
S12	01 Mar 2022	Water Temp (C)	15.9
S12	01 Mar 2022	Wave Height Low (ft)	4
S12	01 Mar 2022	High Tide (ft)	6.2
S12	01 Mar 2022	High Tide Time	747
S12	01 Mar 2022	Low Tide (ft)	1.1
S12	01 Mar 2022	Low Tide Time	146
S12	01 Mar 2022	Comments	Water turbid; Trash-1; Seagrass; Kelp; Person/Walker/Jogger-25
S12	08 Mar 2022	Arrive Time	911
S12	08 Mar 2022	Weather	Sunny
S12	08 Mar 2022	Wind Speed (kts)	3.1
S12	08 Mar 2022	Wind Dir	W
S12	08 Mar 2022	Animal Life	Bird-83; Seagull-1
S12	08 Mar 2022	Floatables	None
S12	08 Mar 2022	Water Color	Green
S12	08 Mar 2022	Current Direction	S
S12	08 Mar 2022	Water Temp (C)	15.2
S12	08 Mar 2022	Wave Height Low (ft)	1
S12	08 Mar 2022	High Tide (ft)	2.51
S12	08 Mar 2022	High Tide Time	1320
S12	08 Mar 2022	Low Tide (ft)	1.04
S12	08 Mar 2022	Low Tide Time	718
S12	08 Mar 2022	Comments	Kelp; Seagrass
S12	15 Mar 2022	Arrive Time	1010
S12	15 Mar 2022	Weather	Foggy
S12	15 Mar 2022	Wind Speed (kts)	0.7
S12	15 Mar 2022	Wind Dir	SW
S12	15 Mar 2022	Animal Life	None
S12	15 Mar 2022	Floatables	Foam
S12	15 Mar 2022	Water Color	Green
S12	15 Mar 2022	Current Direction	S
S12	15 Mar 2022	Water Temp (C)	14.7
S12	15 Mar 2022	Wave Height Low (ft)	1

Station	Date	Parameter	Value
S12	15 Mar 2022	High Tide (ft)	5.26
S12	15 Mar 2022	High Tide Time	801
S12	15 Mar 2022	Low Tide (ft)	1.55
S12	15 Mar 2022	Low Tide Time	208
S12	15 Mar 2022	Comments	Water turbid; Trash-1; Seagrass; Kelp; Person/Walker/Jogger-3
S12	22 Mar 2022	Arrive Time	856
S12	22 Mar 2022	Weather	Sunny
S12	22 Mar 2022	Wind Speed (kts)	3.5
S12	22 Mar 2022	Wind Dir	E
S12	22 Mar 2022	Animal Life	Bird-60; Dog-2
S12	22 Mar 2022	Floatables	Foam
S12	22 Mar 2022	Water Color	Green
S12	22 Mar 2022	Current Direction	S
S12	22 Mar 2022	Water Temp (C)	15.1
S12	22 Mar 2022	Wave Height Low (ft)	2
S12	22 Mar 2022	High Tide (ft)	3.14
S12	22 Mar 2022	High Tide Time	1258
S12	22 Mar 2022	Low Tide (ft)	0.06
S12	22 Mar 2022	Low Tide Time	657
S12	22 Mar 2022	Comments	Water clear; Trash-1; Kelp; Seagrass; Person/Walker/Jogger-14
S12	29 Mar 2022	Arrive Time	1004
S12	29 Mar 2022	Weather	Partly cloudy
S12	29 Mar 2022	Wind Speed (kts)	4.2
S12	29 Mar 2022	Wind Dir	W
S12	29 Mar 2022	Animal Life	None
S12	29 Mar 2022	Floatables	Foam
S12	29 Mar 2022	Water Color	Green
S12	29 Mar 2022	Current Direction	S
S12	29 Mar 2022	Water Temp (C)	17.2
S12	29 Mar 2022	Wave Height Low (ft)	3
S12	29 Mar 2022	High Tide (ft)	5.47
S12	29 Mar 2022	High Tide Time	754
S12	29 Mar 2022	Low Tide (ft)	1.11
S12	29 Mar 2022	Low Tide Time	201
S12	29 Mar 2022	Comments	Seagrass; Kelp

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 Mar 2022	98	23	46	25	4	7	454
02 Mar 2022	133	11	24	14	4	4	521
03 Mar 2022	133	11	24	14	4	4	521
04 Mar 2022	133	11	24	14	4	4	521
05 Mar 2022	133	11	24	14	4	4	521
06 Mar 2022	133	11	24	14	4	4	521
07 Mar 2022	133	11	24	14	4	4	521
08 Mar 2022	163	8	15	10	4	4	350
09 Mar 2022	232	11	24	14	4	4	389
10 Mar 2022	232	11	24	14	4	4	389
11 Mar 2022	232	11	24	14	4	4	389
12 Mar 2022	232	11	24	14	4	4	389
13 Mar 2022	232	11	24	14	4	4	389
14 Mar 2022	232	11	24	14	4	4	389
15 Mar 2022	232	11	24	14	4	4	389
16 Mar 2022	99	8	15	10	4	4	144
17 Mar 2022	99	8	15	10	4	4	144
18 Mar 2022	99	8	15	10	4	4	144
19 Mar 2022	119	5	7	8	2	2	151
20 Mar 2022	119	5	7	8	2	2	151
21 Mar 2022	119	5	7	8	2	2	151
22 Mar 2022	252	4	5	6	2	2	64
23 Mar 2022	252	4	5	6	2	2	64
24 Mar 2022	252	4	5	6	2	2	64
25 Mar 2022	252	4	5	6	2	2	64
26 Mar 2022	252	4	5	6	2	2	64
27 Mar 2022	363	5	7	8	2	2	22
28 Mar 2022	363	5	7	8	2	2	22
29 Mar 2022	363	5	7	8	2	2	22
30 Mar 2022	407	14	19	17	2	5	56
31 Mar 2022	252	9	10	8	2	6	30

* 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
01 Mar 2022	E	IC	IC	E	IC	IC	E
08 Mar 2022	E	IC	IC	IC	IC	IC	IC
16 Mar 2022	IC						
22 Mar 2022	E	IC	IC	IC	IC	IC	IC
30 Mar 2022	E	E	E	E	IC	E	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 Mar 2022	32	13	12	9	3	5	131
02 Mar 2022	32	13	12	9	3	5	131
03 Mar 2022	32	13	12	9	3	5	131
04 Mar 2022	32	13	12	9	3	5	131
05 Mar 2022	32	13	12	9	3	5	131
06 Mar 2022	32	13	12	9	3	5	131
07 Mar 2022	33	10	13	12	3	6	127
08 Mar 2022	29	8	10	9	3	5	77
09 Mar 2022	29	8	10	9	3	5	77
10 Mar 2022	29	8	10	9	3	5	77
11 Mar 2022	29	8	10	9	3	5	77
12 Mar 2022	29	8	10	9	3	5	77
13 Mar 2022	29	8	10	9	3	5	77
14 Mar 2022	32	4	5	6	3	3	73
15 Mar 2022	32	4	5	6	3	3	73
16 Mar 2022	21	4	4	5	3	3	40
17 Mar 2022	21	4	4	5	3	3	40
18 Mar 2022	21	4	4	5	3	3	40
19 Mar 2022	21	4	4	5	3	3	40
20 Mar 2022	21	4	4	5	3	3	40
21 Mar 2022	20	4	5	6	3	3	34
22 Mar 2022	32	4	4	5	3	3	21
23 Mar 2022	32	4	4	5	3	3	21
24 Mar 2022	32	4	4	5	3	3	21
25 Mar 2022	32	4	4	5	3	3	21
26 Mar 2022	32	4	4	5	3	3	21
27 Mar 2022	32	4	4	5	3	3	21
28 Mar 2022	32	4	4	5	3	3	21
29 Mar 2022	32	4	4	5	3	3	21
30 Mar 2022	46	7	9	7	3	5	34
31 Mar 2022	46	6	6	6	2	4	41

* 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
March	E	E	E	IC	IC	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.5

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

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 Mar 2022	60	400	420	400	380	180	2000	2000	420	16	380	540	2	2	2	2	2	4	1800	3400	680
02 Mar 2022	1530	500	460	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
03 Mar 2022	1530	500	460	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
04 Mar 2022	1530	500	460	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
05 Mar 2022	1530	500	460	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
06 Mar 2022	1530	500	460	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
07 Mar 2022	1530	500	460	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
08 Mar 2022	3000	600	500	20	6	4	2	2	2	2	2	2	2	2	2	2	2	2	1800	3400	440
09 Mar 2022	3500	2500	950	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
10 Mar 2022	3500	2500	950	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
11 Mar 2022	3500	2500	950	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
12 Mar 2022	3500	2500	950	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
13 Mar 2022	3500	2500	950	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
14 Mar 2022	3500	2500	950	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
15 Mar 2022	3500	2500	950	210	193	92	1001	1001	211	9	191	271	2	2	2	2	2	3	2600	4300	2420
16 Mar 2022	3000	600	500	20	6	4	2	2	6	2	2	2	2	2	2	2	2	2	1800	3400	440
17 Mar 2022	3000	600	500	20	6	4	2	2	6	2	2	2	2	2	2	2	2	2	1800	3400	440
18 Mar 2022	3000	600	500	20	6	4	2	2	6	2	2	2	2	2	2	2	2	2	1800	3400	440
19 Mar 2022	3500	2400	830	11	4	4	2	2	4	2	2	2	2	2	2	2	2	2	2020	2920	2390
20 Mar 2022	3500	2400	830	11	4	4	2	2	4	2	2	2	2	2	2	2	2	2	2020	2920	2390
21 Mar 2022	3500	2400	830	11	4	4	2	2	4	2	2	2	2	2	2	2	2	2	2020	2920	2390
22 Mar 2022	4000	4400	1400	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	640	640	380
23 Mar 2022	4000	4400	1400	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	640	640	380
24 Mar 2022	4000	4400	1400	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	640	640	380
25 Mar 2022	4000	4400	1400	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	640	640	380
26 Mar 2022	4000	4400	1400	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	640	640	380
27 Mar 2022	5200	5200	5500	2	2	3	2	2	4	2	2	2	2	2	2	2	2	2	322	326	200
28 Mar 2022	5200	5200	5500	2	2	3	2	2	4	2	2	2	2	2	2	2	2	2	322	326	200
29 Mar 2022	5200	5200	5500	2	2	3	2	2	4	2	2	2	2	2	2	2	2	2	322	326	200
30 Mar 2022	6400	6000	9600	2	2	4	2	2	6	2	2	2	2	2	2	2	2	2	640	640	380
31 Mar 2022	7100	7800	7200	2	2	3	2	2	4	2	2	2	2	2	5	2	2	2	322	326	200

* 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
March	E	E	E	E	E	E	E	E	E	E	E	E	IC	IC	IC	E	E	IC	E	E	E

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.7

Summary of water quality parameters at the SBOO kelp stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Enter) 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	Enter	Temp	XMS	DO	Sal	pH
I19	01 Mar 2022	1032	2	4000	520	40e	14.0	67.55	8.1	33.43	8.1
I19	01 Mar 2022	1032	6	4400	5400	62	13.6	61.44	7.8	33.43	8.0
I19	01 Mar 2022	1032	11	9600	2400e	220e	13.2	56.99	6.8	33.47	8.0
I19	08 Mar 2022	1116	2	6400	960	44	15.6	61.65	8.0	33.20	8.2
I19	08 Mar 2022	1116	6	6000	100e	2e	15.1	71.37	8.0	33.48	8.2
I19	08 Mar 2022	1116	11	1400e	60	2e	14.2	62.20	6.8	33.48	8.1
I19	16 Mar 2022	1058	2	4e	<2	<2	13.5	66.47	6.9	33.52	7.8
I19	16 Mar 2022	1058	6	20e	6e	<2	12.3	73.20	5.1	33.52	7.7
I19	16 Mar 2022	1058	11	2e	<2	4e	12.1	46.28	5.1	33.52	7.6
I19	22 Mar 2022	1101	2	>16000	>12000	680	13.4	66.91	7.0	33.58	7.9
I19	22 Mar 2022	1101	6	9600	900	66	12.5	50.04	6.6	33.59	7.8
I19	22 Mar 2022	1101	11	>16000	2200e	300e	11.6	36.49	3.8	33.63	7.6
I19	30 Mar 2022	1039	2	7800	620	300e	15.7	36.14	8.3	33.35	8.1
I19	30 Mar 2022	1039	6	11000	500	180e	15.4	57.68	8.4	33.43	8.1
I19	30 Mar 2022	1039	11	13000	820	840	15.3	39.32	8.1	33.45	8.1
I24	01 Mar 2022	1054	2	1200e	80e	6e	13.8	67.68	7.2	33.49	8.1
I24	01 Mar 2022	1054	6	1800e	140e	16e	13.3	65.42	6.5	33.49	8.0
I24	01 Mar 2022	1054	11	480	28e	6e	12.9	44.67	5.4	33.51	7.9
I24	08 Mar 2022	1143	2	2e	<2	<2	14.9	75.84	8.3	33.50	8.2
I24	08 Mar 2022	1143	6	2e	<2	<2	14.6	74.24	8.2	33.49	8.2
I24	08 Mar 2022	1143	11	2e	<2	<2	14.6	74.69	8.2	33.49	8.2
I24	16 Mar 2022	1122	2	<2	<2	<2	15.7	70.45	9.7	33.52	8.1
I24	16 Mar 2022	1122	6	<2	<2	<2	14.7	63.98	8.5	33.53	8.0
I24	16 Mar 2022	1122	11	4e	<2	2e	12.4	64.43	5.0	33.52	7.7
I24	22 Mar 2022	1126	2	<2	<2	<2	14.1	62.96	8.7	33.54	8.1
I24	22 Mar 2022	1126	6	2e	<2	<2	12.4	63.96	5.4	33.61	7.8
I24	22 Mar 2022	1126	11	<2	<2	<2	12.3	69.55	5.4	33.60	7.8
I24	30 Mar 2022	1107	2	12000	1200	860	15.9	33.10	8.6	33.08	8.1
I24	30 Mar 2022	1107	6	2400e	240e	200e	15.8	57.68	8.6	33.32	8.1
I24	30 Mar 2022	1107	11	3000e	640	240e	15.3	53.84	8.3	33.47	8.1
I25	01 Mar 2022	1101	2	2000e	360e	4e	13.8	69.91	7.4	33.49	8.1
I25	01 Mar 2022	1101	6	2000e	300e	10e	13.1	60.61	5.8	33.50	7.9
I25	01 Mar 2022	1101	9	420	44	4e	13.0	52.01	5.6	33.50	7.9
I25	08 Mar 2022	1153	2	<2	<2	<2	14.8	75.66	8.3	33.50	8.2
I25	08 Mar 2022	1153	6	2e	<2	<2	14.2	77.41	7.0	33.48	8.1
I25	08 Mar 2022	1153	9	2e	<2	<2	13.2	79.47	6.2	33.47	8.0
I25	16 Mar 2022	1131	2	<2	<2	<2	15.5	72.91	9.6	33.52	8.1
I25	16 Mar 2022	1131	6	<2	<2	<2	15.0	70.24	8.8	33.51	8.0
I25	16 Mar 2022	1131	9	6e	<2	2e	12.4	68.23	5.0	33.53	7.7

Station	Date	Time	Depth	Total	Fecal	Enter	Temp	XMS	DO	Sal	pH
I25	22 Mar 2022	1131	2	<2	<2	<2	14.6	65.04	8.9	33.53	8.0
	22 Mar 2022	1131	6	<2	<2	<2	13.2	66.31	7.1	33.56	7.9
	22 Mar 2022	1131	9	<2	<2	<2	12.1	72.09	5.0	33.60	7.8
I25	30 Mar 2022	1114	2	>16000	3000e	1100	15.9	27.13	8.9	33.06	8.2
	30 Mar 2022	1114	6	5400	540	320e	15.6	59.08	8.2	33.37	8.1
	30 Mar 2022	1114	9	7200	680	380e	15.2	46.13	7.9	33.44	8.1
I26	01 Mar 2022	1110	2	3400e	320e	2e	14.1	70.13	8.1	33.49	8.1
	01 Mar 2022	1110	6	2400e	860	80e	13.3	65.58	6.2	33.49	8.0
	01 Mar 2022	1110	9	600e	56	6e	13.1	61.19	5.8	33.50	7.9
I26	08 Mar 2022	1206	2	<2	<2	<2	14.9	76.55	8.0	33.50	8.2
	08 Mar 2022	1206	6	<2	<2	<2	14.1	76.64	7.2	33.48	8.1
	08 Mar 2022	1206	9	2e	<2	<2	13.4	79.35	6.5	33.49	8.0
I26	16 Mar 2022	1142	2	<2	<2	<2	15.4	60.34	9.9	33.52	8.1
	16 Mar 2022	1142	6	<2	<2	<2	14.8	50.52	8.7	33.52	8.0
	16 Mar 2022	1142	9	2e	<2	<2	12.9	68.72	6.0	33.54	7.8
I26	22 Mar 2022	1146	2	<2	<2	<2	14.2	67.67	8.6	33.54	8.1
	22 Mar 2022	1146	6	<2	<2	<2	12.7	68.27	6.4	33.58	7.9
	22 Mar 2022	1146	9	<2	<2	<2	11.8	71.78	4.6	33.62	7.7
I26	30 Mar 2022	1125	2	8800	600e	80e	16.3	37.74	8.8	32.70	8.2
	30 Mar 2022	1125	6	2400e	460	100e	15.8	67.43	8.1	33.41	8.1
	30 Mar 2022	1125	9	800e	400e	100e	15.4	60.48	7.8	33.42	8.1
I32	01 Mar 2022	1122	2	<2	<2	<2	14.0	67.48	7.9	33.49	8.1
	01 Mar 2022	1122	6	<2	<2	<2	13.5	62.45	7.5	33.49	8.0
	01 Mar 2022	1122	9	<2	<2	<2	13.4	59.80	7.4	33.49	8.0
I32	08 Mar 2022	1225	2	<2	<2	<2	15.1	72.41	8.6	33.50	8.2
	08 Mar 2022	1225	6	<2	<2	<2	14.3	65.06	7.2	33.49	8.1
	08 Mar 2022	1225	9	2e	<2	<2	13.5	75.16	6.4	33.48	8.1
I32	16 Mar 2022	1201	2	2e	<2	<2	14.4	55.69	8.0	33.52	7.9
	16 Mar 2022	1201	6	<2	<2	<2	12.7	50.21	5.7	33.54	7.8
	16 Mar 2022	1201	9	2e	<2	4e	12.4	57.30	5.2	33.52	7.7
I32	22 Mar 2022	1201	2	<20	<2	<2	14.2	56.19	8.2	33.54	8.0
	22 Mar 2022	1201	6	<2	<2	<2	12.5	45.04	5.7	33.58	7.8
	22 Mar 2022	1201	9	<2	<2	<2	11.8	59.04	4.3	33.61	7.7
I32	30 Mar 2022	1136	2	8e	2e	<2	16.2	52.18	8.6	33.27	8.1
	30 Mar 2022	1136	6	36e	<2	<2	15.8	50.19	7.8	33.37	8.1
	30 Mar 2022	1136	9	62	2e	2e	15.6	59.99	7.9	33.46	8.1
I39	01 Mar 2022	1010	2	<2	<2	<2	14.0	74.30	8.2	33.51	8.1
	01 Mar 2022	1010	12	2e	<2	<2	12.5	78.54	5.4	33.52	7.9
	01 Mar 2022	1010	18	4e	<2	2e	12.2	73.27	4.9	33.55	7.8
I39	08 Mar 2022	1048	2	<2	<2	<2	14.6	78.52	7.9	33.48	8.1
	08 Mar 2022	1048	12	<2	<2	<2	14.5	78.23	7.8	33.47	8.1
	08 Mar 2022	1048	18	<2	<2	<2	13.6	79.75	6.9	33.48	8.1
I39	16 Mar 2022	1035	2	<2	<2	<2	15.3	77.81	8.5	33.51	8.0
	16 Mar 2022	1035	12	<2	<2	<2	13.9	76.66	7.2	33.51	7.9
	16 Mar 2022	1035	18	2e	<2	<2	12.1	72.71	5.0	33.54	7.7

Station	Date	Time	Depth	Total	Fecal	Enter	Temp	XMS	DO	Sal	pH
I39	22 Mar 2022	1040	2	<2	<2	<2	14.9	70.62	9.0	33.53	8.1
I39	22 Mar 2022	1040	12	<2	<2	<2	12.1	76.81	5.7	33.50	7.8
I39	22 Mar 2022	1040	18	<2	<2	<2	11.6	76.63	4.4	33.64	7.7
I39	30 Mar 2022	1020	2	2800e	540	280e	16.0	51.60	8.7	33.10	8.2
I39	30 Mar 2022	1020	12	460	40	34e	15.5	69.24	8.5	33.41	8.1
I39	30 Mar 2022	1020	18	140e	12e	10e	15.2	73.26	8.4	33.48	8.1
I40	01 Mar 2022	1045	2	3400e	440	28e	14.0	66.68	7.7	33.47	8.1
I40	01 Mar 2022	1045	6	5200	600	160e	13.6	63.35	7.1	33.48	8.0
I40	01 Mar 2022	1045	9	4400	900	100e	13.5	62.66	7.1	33.48	8.0
I40	08 Mar 2022	1133	2	640	160e	<2	15.5	64.58	7.8	33.34	8.1
I40	08 Mar 2022	1133	6	640	26e	4e	14.7	60.35	7.1	33.48	8.1
I40	08 Mar 2022	1133	9	380e	26e	14e	14.2	52.07	6.4	33.48	8.0
I40	16 Mar 2022	1111	2	<2	<2	<2	15.4	62.57	10.0	33.52	8.1
I40	16 Mar 2022	1111	6	2e	<2	<2	13.1	69.03	6.1	33.51	7.8
I40	16 Mar 2022	1111	9	20e	4e	2e	12.3	45.25	4.8	33.51	7.6
I40	22 Mar 2022	1113	2	4e	<2	<2	13.4	66.91	7.0	33.58	7.9
I40	22 Mar 2022	1113	6	12e	2e	<2	12.5	50.04	6.6	33.59	7.8
I40	22 Mar 2022	1113	9	<20	<2	<2	11.9	54.51	4.4	33.64	7.7
I40	30 Mar 2022	1052	2	9000	2200e	240e	15.9	44.76	8.4	33.10	8.1
I40	30 Mar 2022	1052	6	6200	1200	480	15.7	49.31	8.4	33.34	8.1
I40	30 Mar 2022	1052	9	7000	3400e	980	15.5	53.42	8.6	33.40	8.1

ns = not sampled

ND = no data

Table 3.8

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

Station	Date	Parameter	Value
I19	01 Mar 2022	Depth (m)	12
I19	01 Mar 2022	Arrive Time	1032
I19	01 Mar 2022	Depart Time	1035
I19	01 Mar 2022	Air Temp (C)	15.4
I19	01 Mar 2022	Weather	Clear
I19	01 Mar 2022	Visibility (mi)	10
I19	01 Mar 2022	Wind Speed (kts)	5
I19	01 Mar 2022	Wind Dir	SW
I19	01 Mar 2022	Water Color	Green
I19	01 Mar 2022	Wave Ht Low (ft)	4.6
I19	01 Mar 2022	Wave Period (sec)	10.1
I19	01 Mar 2022	Sea State	Calm
I19	01 Mar 2022	High Tide (ft)	6.18
I19	01 Mar 2022	High Tide Time	1548
I19	01 Mar 2022	Low Tide (ft)	-1.43
I19	01 Mar 2022	Low Tide Time	2242
I19	01 Mar 2022	Comments	none
I19	08 Mar 2022	Depth (m)	10
I19	08 Mar 2022	Arrive Time	1116
I19	08 Mar 2022	Depart Time	1122
I19	08 Mar 2022	Air Temp (C)	15.2
I19	08 Mar 2022	Weather	Clear
I19	08 Mar 2022	Visibility (mi)	12
I19	08 Mar 2022	Wind Speed (kts)	3.2
I19	08 Mar 2022	Wind Dir	W
I19	08 Mar 2022	Water Color	Greenish-Brown
I19	08 Mar 2022	Wave Ht Low (ft)	3
I19	08 Mar 2022	Wave Period (sec)	13
I19	08 Mar 2022	Sea State	Light Chop
I19	08 Mar 2022	High Tide (ft)	4.4
I19	08 Mar 2022	High Tide Time	806
I19	08 Mar 2022	Low Tide (ft)	1.03
I19	08 Mar 2022	Low Tide Time	1518
I19	08 Mar 2022	Comments	none
I19	16 Mar 2022	Depth (m)	11
I19	16 Mar 2022	Arrive Time	1058
I19	16 Mar 2022	Depart Time	1059
I19	16 Mar 2022	Air Temp (C)	15
I19	16 Mar 2022	Weather	Overcast
I19	16 Mar 2022	Visibility (mi)	7
I19	16 Mar 2022	Wind Speed (kts)	5.4
I19	16 Mar 2022	Wind Dir	W
I19	16 Mar 2022	Water Color	Greenish-Blue
I19	16 Mar 2022	Wave Ht Low (ft)	6.9
I19	16 Mar 2022	Wave Period (sec)	17
I19	16 Mar 2022	Sea State	Confused Swell
I19	16 Mar 2022	High Tide (ft)	5.38
I19	16 Mar 2022	High Tide Time	1536
I19	16 Mar 2022	Low Tide (ft)	-0.65
I19	16 Mar 2022	Low Tide Time	2224
I19	16 Mar 2022	Comments	none
I19	22 Mar 2022	Depth (m)	11
I19	22 Mar 2022	Arrive Time	1101

Station	Date	Parameter	Value
I19	22 Mar 2022	Depart Time	1105
I19	22 Mar 2022	Air Temp (C)	15.6
I19	22 Mar 2022	Weather	Clear
I19	22 Mar 2022	Visibility (mi)	10
I19	22 Mar 2022	Wind Speed (kts)	2.6
I19	22 Mar 2022	Wind Dir	SW
I19	22 Mar 2022	Water Color	Brown
I19	22 Mar 2022	Wave Ht Low (ft)	5.6
I19	22 Mar 2022	Wave Period (sec)	13
I19	22 Mar 2022	Sea State	Regular Swell
I19	22 Mar 2022	High Tide (ft)	5.19
I19	22 Mar 2022	High Tide Time	706
I19	22 Mar 2022	Low Tide (ft)	0.05
I19	22 Mar 2022	Low Tide Time	1354
I19	22 Mar 2022	Comments	none
I19	30 Mar 2022	Depth (m)	11
I19	30 Mar 2022	Arrive Time	1034
I19	30 Mar 2022	Depart Time	1039
I19	30 Mar 2022	Air Temp (C)	14.9
I19	30 Mar 2022	Weather	Partly Cloudy
I19	30 Mar 2022	Visibility (mi)	8
I19	30 Mar 2022	Wind Speed (kts)	3.8
I19	30 Mar 2022	Wind Dir	W
I19	30 Mar 2022	Water Color	Green
I19	30 Mar 2022	Wave Ht Low (ft)	7
I19	30 Mar 2022	Wave Period (sec)	8
I19	30 Mar 2022	Sea State	Calm
I19	30 Mar 2022	High Tide (ft)	5.35
I19	30 Mar 2022	High Tide Time	1542
I19	30 Mar 2022	Low Tide (ft)	-0.7
I19	30 Mar 2022	Low Tide Time	2206
I19	30 Mar 2022	Comments	none
I24	01 Mar 2022	Depth (m)	9
I24	01 Mar 2022	Arrive Time	1054
I24	01 Mar 2022	Depart Time	1057
I24	01 Mar 2022	Air Temp (C)	15.6
I24	01 Mar 2022	Weather	Clear
I24	01 Mar 2022	Visibility (mi)	10
I24	01 Mar 2022	Wind Speed (kts)	2.1
I24	01 Mar 2022	Wind Dir	W
I24	01 Mar 2022	Water Color	Green
I24	01 Mar 2022	Wave Ht Low (ft)	4.6
I24	01 Mar 2022	Wave Period (sec)	10.1
I24	01 Mar 2022	Sea State	Calm
I24	01 Mar 2022	High Tide (ft)	6.18
I24	01 Mar 2022	High Tide Time	1548
I24	01 Mar 2022	Low Tide (ft)	-1.43
I24	01 Mar 2022	Low Tide Time	2242
I24	01 Mar 2022	Comments	Bottom at 9m (low tide)
I24	08 Mar 2022	Depth (m)	10
I24	08 Mar 2022	Arrive Time	1143
I24	08 Mar 2022	Depart Time	1148
I24	08 Mar 2022	Air Temp (C)	14.4
I24	08 Mar 2022	Weather	Clear
I24	08 Mar 2022	Visibility (mi)	12
I24	08 Mar 2022	Wind Speed (kts)	12.5
I24	08 Mar 2022	Wind Dir	W
I24	08 Mar 2022	Water Color	Greenish-Brown

Station	Date	Parameter	Value
I24	08 Mar 2022	Wave Ht Low (ft)	3
I24	08 Mar 2022	Wave Period (sec)	13
I24	08 Mar 2022	Sea State	Light Chop
I24	08 Mar 2022	High Tide (ft)	4.4
I24	08 Mar 2022	High Tide Time	806
I24	08 Mar 2022	Low Tide (ft)	1.03
I24	08 Mar 2022	Low Tide Time	1518
I24	08 Mar 2022	Comments	none
I24	16 Mar 2022	Depth (m)	9
I24	16 Mar 2022	Arrive Time	1122
I24	16 Mar 2022	Depart Time	1131
I24	16 Mar 2022	Air Temp (C)	15.4
I24	16 Mar 2022	Weather	Overcast
I24	16 Mar 2022	Visibility (mi)	7
I24	16 Mar 2022	Wind Speed (kts)	0.7
I24	16 Mar 2022	Wind Dir	W
I24	16 Mar 2022	Water Color	Blueish-Green
I24	16 Mar 2022	Wave Ht Low (ft)	6.9
I24	16 Mar 2022	Wave Period (sec)	17
I24	16 Mar 2022	Sea State	Confused Swell
I24	16 Mar 2022	High Tide (ft)	5.38
I24	16 Mar 2022	High Tide Time	1536
I24	16 Mar 2022	Low Tide (ft)	-0.65
I24	16 Mar 2022	Low Tide Time	2224
I24	16 Mar 2022	Comments	none
I24	22 Mar 2022	Depth (m)	11
I24	22 Mar 2022	Arrive Time	1126
I24	22 Mar 2022	Depart Time	1130
I24	22 Mar 2022	Air Temp (C)	15.8
I24	22 Mar 2022	Weather	Clear
I24	22 Mar 2022	Visibility (mi)	10
I24	22 Mar 2022	Wind Speed (kts)	13.8
I24	22 Mar 2022	Wind Dir	NW
I24	22 Mar 2022	Water Color	Blueish-Green
I24	22 Mar 2022	Wave Ht Low (ft)	5.6
I24	22 Mar 2022	Wave Period (sec)	13
I24	22 Mar 2022	Sea State	Regular Swell
I24	22 Mar 2022	High Tide (ft)	5.19
I24	22 Mar 2022	High Tide Time	706
I24	22 Mar 2022	Low Tide (ft)	0.05
I24	22 Mar 2022	Low Tide Time	1354
I24	22 Mar 2022	Comments	none
I24	30 Mar 2022	Depth (m)	10
I24	30 Mar 2022	Arrive Time	1058
I24	30 Mar 2022	Depart Time	1107
I24	30 Mar 2022	Air Temp (C)	14.9
I24	30 Mar 2022	Weather	Partly Cloudy
I24	30 Mar 2022	Visibility (mi)	8
I24	30 Mar 2022	Wind Speed (kts)	5.9
I24	30 Mar 2022	Wind Dir	W
I24	30 Mar 2022	Water Color	Brownish-Green
I24	30 Mar 2022	Wave Ht Low (ft)	7
I24	30 Mar 2022	Wave Period (sec)	8
I24	30 Mar 2022	Sea State	Calm
I24	30 Mar 2022	High Tide (ft)	5.35
I24	30 Mar 2022	High Tide Time	1542
I24	30 Mar 2022	Low Tide (ft)	-0.7
I24	30 Mar 2022	Low Tide Time	2206

Station	Date	Parameter	Value
I24	30 Mar 2022	Comments	Freshwater lens
I25	01 Mar 2022	Depth (m)	11
I25	01 Mar 2022	Arrive Time	1101
I25	01 Mar 2022	Depart Time	1104
I25	01 Mar 2022	Air Temp (C)	15.7
I25	01 Mar 2022	Weather	Clear
I25	01 Mar 2022	Visibility (mi)	10
I25	01 Mar 2022	Wind Speed (kts)	4.3
I25	01 Mar 2022	Wind Dir	W
I25	01 Mar 2022	Water Color	Green
I25	01 Mar 2022	Wave Ht Low (ft)	4.6
I25	01 Mar 2022	Wave Period (sec)	10.1
I25	01 Mar 2022	Sea State	Calm
I25	01 Mar 2022	High Tide (ft)	6.18
I25	01 Mar 2022	High Tide Time	1548
I25	01 Mar 2022	Low Tide (ft)	-1.43
I25	01 Mar 2022	Low Tide Time	2242
I25	01 Mar 2022	Comments	none
I25	08 Mar 2022	Depth (m)	9
I25	08 Mar 2022	Arrive Time	1153
I25	08 Mar 2022	Depart Time	1159
I25	08 Mar 2022	Air Temp (C)	14.4
I25	08 Mar 2022	Weather	Clear
I25	08 Mar 2022	Visibility (mi)	12
I25	08 Mar 2022	Wind Speed (kts)	11.3
I25	08 Mar 2022	Wind Dir	W
I25	08 Mar 2022	Water Color	Greenish-Brown
I25	08 Mar 2022	Wave Ht Low (ft)	3
I25	08 Mar 2022	Wave Period (sec)	13
I25	08 Mar 2022	Sea State	Light Chop
I25	08 Mar 2022	High Tide (ft)	4.4
I25	08 Mar 2022	High Tide Time	806
I25	08 Mar 2022	Low Tide (ft)	1.03
I25	08 Mar 2022	Low Tide Time	1518
I25	08 Mar 2022	Comments	none
I25	16 Mar 2022	Depth (m)	9
I25	16 Mar 2022	Arrive Time	1131
I25	16 Mar 2022	Depart Time	1133
I25	16 Mar 2022	Air Temp (C)	15.3
I25	16 Mar 2022	Weather	Overcast
I25	16 Mar 2022	Visibility (mi)	7
I25	16 Mar 2022	Wind Speed (kts)	1
I25	16 Mar 2022	Wind Dir	NW
I25	16 Mar 2022	Water Color	Blueish-Green
I25	16 Mar 2022	Wave Ht Low (ft)	6.9
I25	16 Mar 2022	Wave Period (sec)	17
I25	16 Mar 2022	Sea State	Confused Swell
I25	16 Mar 2022	High Tide (ft)	5.38
I25	16 Mar 2022	High Tide Time	1536
I25	16 Mar 2022	Low Tide (ft)	-0.65
I25	16 Mar 2022	Low Tide Time	2224
I25	16 Mar 2022	Comments	none
I25	22 Mar 2022	Depth (m)	9
I25	22 Mar 2022	Arrive Time	1131
I25	22 Mar 2022	Depart Time	1139
I25	22 Mar 2022	Air Temp (C)	15.9
I25	22 Mar 2022	Weather	Clear

Station	Date	Parameter	Value
I25	22 Mar 2022	Visibility (mi)	10
I25	22 Mar 2022	Wind Speed (kts)	9.6
I25	22 Mar 2022	Wind Dir	W
I25	22 Mar 2022	Water Color	Blueish-Green
I25	22 Mar 2022	Wave Ht Low (ft)	5.6
I25	22 Mar 2022	Wave Period (sec)	13
I25	22 Mar 2022	Sea State	Regular Swell
I25	22 Mar 2022	High Tide (ft)	5.19
I25	22 Mar 2022	High Tide Time	706
I25	22 Mar 2022	Low Tide (ft)	0.05
I25	22 Mar 2022	Low Tide Time	1354
I25	22 Mar 2022	Comments	none
I25	30 Mar 2022	Depth (m)	10
I25	30 Mar 2022	Arrive Time	1110
I25	30 Mar 2022	Depart Time	1114
I25	30 Mar 2022	Air Temp (C)	14.9
I25	30 Mar 2022	Weather	Partly Cloudy
I25	30 Mar 2022	Visibility (mi)	8
I25	30 Mar 2022	Wind Speed (kts)	5.2
I25	30 Mar 2022	Wind Dir	W
I25	30 Mar 2022	Water Color	Brownish-Green
I25	30 Mar 2022	Wave Ht Low (ft)	7
I25	30 Mar 2022	Wave Period (sec)	8
I25	30 Mar 2022	Sea State	Calm
I25	30 Mar 2022	High Tide (ft)	5.35
I25	30 Mar 2022	High Tide Time	1542
I25	30 Mar 2022	Low Tide (ft)	-0.7
I25	30 Mar 2022	Low Tide Time	2206
I25	30 Mar 2022	Comments	Possible red tide; Freshwater lens
I26	01 Mar 2022	Depth (m)	11
I26	01 Mar 2022	Arrive Time	1110
I26	01 Mar 2022	Depart Time	1113
I26	01 Mar 2022	Air Temp (C)	16
I26	01 Mar 2022	Weather	Clear
I26	01 Mar 2022	Visibility (mi)	10
I26	01 Mar 2022	Wind Speed (kts)	5.2
I26	01 Mar 2022	Wind Dir	W
I26	01 Mar 2022	Water Color	Blueish-Green
I26	01 Mar 2022	Wave Ht Low (ft)	4.6
I26	01 Mar 2022	Wave Period (sec)	10.1
I26	01 Mar 2022	Sea State	Calm
I26	01 Mar 2022	High Tide (ft)	6.18
I26	01 Mar 2022	High Tide Time	1548
I26	01 Mar 2022	Low Tide (ft)	-1.43
I26	01 Mar 2022	Low Tide Time	2242
I26	01 Mar 2022	Comments	none
I26	08 Mar 2022	Depth (m)	9
I26	08 Mar 2022	Arrive Time	1206
I26	08 Mar 2022	Depart Time	1211
I26	08 Mar 2022	Air Temp (C)	14.5
I26	08 Mar 2022	Weather	Clear
I26	08 Mar 2022	Visibility (mi)	12
I26	08 Mar 2022	Wind Speed (kts)	9.3
I26	08 Mar 2022	Wind Dir	W
I26	08 Mar 2022	Water Color	Greenish-Brown
I26	08 Mar 2022	Wave Ht Low (ft)	3
I26	08 Mar 2022	Wave Period (sec)	13
I26	08 Mar 2022	Sea State	Light Chop

Station	Date	Parameter	Value
I26	08 Mar 2022	High Tide (ft)	4.4
I26	08 Mar 2022	High Tide Time	806
I26	08 Mar 2022	Low Tide (ft)	1.03
I26	08 Mar 2022	Low Tide Time	1518
I26	08 Mar 2022	Comments	none
I26	16 Mar 2022	Depth (m)	9
I26	16 Mar 2022	Arrive Time	1142
I26	16 Mar 2022	Depart Time	1148
I26	16 Mar 2022	Air Temp (C)	15.3
I26	16 Mar 2022	Weather	Overcast
I26	16 Mar 2022	Visibility (mi)	7
I26	16 Mar 2022	Wind Speed (kts)	1.8
I26	16 Mar 2022	Wind Dir	NW
I26	16 Mar 2022	Water Color	Brownish-Green
I26	16 Mar 2022	Wave Ht Low (ft)	6.9
I26	16 Mar 2022	Wave Period (sec)	17
I26	16 Mar 2022	Sea State	Confused Swell
I26	16 Mar 2022	High Tide (ft)	5.38
I26	16 Mar 2022	High Tide Time	1536
I26	16 Mar 2022	Low Tide (ft)	-0.65
I26	16 Mar 2022	Low Tide Time	2224
I26	16 Mar 2022	Comments	none
I26	22 Mar 2022	Depth (m)	10
I26	22 Mar 2022	Arrive Time	1146
I26	22 Mar 2022	Depart Time	1149
I26	22 Mar 2022	Air Temp (C)	15.9
I26	22 Mar 2022	Weather	Clear
I26	22 Mar 2022	Visibility (mi)	10
I26	22 Mar 2022	Wind Speed (kts)	4.5
I26	22 Mar 2022	Wind Dir	NW
I26	22 Mar 2022	Water Color	Blueish-Green
I26	22 Mar 2022	Wave Ht Low (ft)	5.6
I26	22 Mar 2022	Wave Period (sec)	13
I26	22 Mar 2022	Sea State	Regular Swell
I26	22 Mar 2022	High Tide (ft)	5.19
I26	22 Mar 2022	High Tide Time	706
I26	22 Mar 2022	Low Tide (ft)	0.05
I26	22 Mar 2022	Low Tide Time	1354
I26	22 Mar 2022	Comments	none
I26	30 Mar 2022	Depth (m)	9
I26	30 Mar 2022	Arrive Time	1122
I26	30 Mar 2022	Depart Time	1125
I26	30 Mar 2022	Air Temp (C)	15.1
I26	30 Mar 2022	Weather	Clear
I26	30 Mar 2022	Visibility (mi)	12
I26	30 Mar 2022	Wind Speed (kts)	6.5
I26	30 Mar 2022	Wind Dir	NW
I26	30 Mar 2022	Water Color	Green
I26	30 Mar 2022	Wave Ht Low (ft)	7
I26	30 Mar 2022	Wave Period (sec)	8
I26	30 Mar 2022	Sea State	Calm
I26	30 Mar 2022	High Tide (ft)	5.35
I26	30 Mar 2022	High Tide Time	1542
I26	30 Mar 2022	Low Tide (ft)	-0.7
I26	30 Mar 2022	Low Tide Time	2206
I26	30 Mar 2022	Comments	Freshwater lens
I32	01 Mar 2022	Depth (m)	12

Station	Date	Parameter	Value
I32	01 Mar 2022	Arrive Time	1122
I32	01 Mar 2022	Depart Time	1126
I32	01 Mar 2022	Air Temp (C)	16.1
I32	01 Mar 2022	Weather	Clear
I32	01 Mar 2022	Visibility (mi)	10
I32	01 Mar 2022	Wind Speed (kts)	5.8
I32	01 Mar 2022	Wind Dir	SW
I32	01 Mar 2022	Water Color	Blueish-Green
I32	01 Mar 2022	Wave Ht Low (ft)	4.6
I32	01 Mar 2022	Wave Period (sec)	10.1
I32	01 Mar 2022	Sea State	Calm
I32	01 Mar 2022	High Tide (ft)	6.18
I32	01 Mar 2022	High Tide Time	1548
I32	01 Mar 2022	Low Tide (ft)	-1.43
I32	01 Mar 2022	Low Tide Time	2242
I32	01 Mar 2022	Comments	none
I32	08 Mar 2022	Depth (m)	10
I32	08 Mar 2022	Arrive Time	1229
I32	08 Mar 2022	Depart Time	1229
I32	08 Mar 2022	Air Temp (C)	14.6
I32	08 Mar 2022	Weather	Clear
I32	08 Mar 2022	Visibility (mi)	12
I32	08 Mar 2022	Wind Speed (kts)	16.5
I32	08 Mar 2022	Wind Dir	W
I32	08 Mar 2022	Water Color	Green
I32	08 Mar 2022	Wave Ht Low (ft)	3
I32	08 Mar 2022	Wave Period (sec)	13
I32	08 Mar 2022	Sea State	Light Chop
I32	08 Mar 2022	High Tide (ft)	4.4
I32	08 Mar 2022	High Tide Time	806
I32	08 Mar 2022	Low Tide (ft)	1.03
I32	08 Mar 2022	Low Tide Time	1518
I32	08 Mar 2022	Comments	none
I32	16 Mar 2022	Depth (m)	12
I32	16 Mar 2022	Arrive Time	1201
I32	16 Mar 2022	Depart Time	1204
I32	16 Mar 2022	Air Temp (C)	15.5
I32	16 Mar 2022	Weather	Overcast
I32	16 Mar 2022	Visibility (mi)	7
I32	16 Mar 2022	Wind Speed (kts)	2.8
I32	16 Mar 2022	Wind Dir	W
I32	16 Mar 2022	Water Color	Brownish-Green
I32	16 Mar 2022	Wave Ht Low (ft)	6.9
I32	16 Mar 2022	Wave Period (sec)	17
I32	16 Mar 2022	Sea State	Confused Swell
I32	16 Mar 2022	High Tide (ft)	5.38
I32	16 Mar 2022	High Tide Time	1536
I32	16 Mar 2022	Low Tide (ft)	-0.65
I32	16 Mar 2022	Low Tide Time	2224
I32	16 Mar 2022	Comments	Military on station
I32	22 Mar 2022	Depth (m)	11
I32	22 Mar 2022	Arrive Time	1201
I32	22 Mar 2022	Depart Time	1203
I32	22 Mar 2022	Air Temp (C)	15.7
I32	22 Mar 2022	Weather	Clear
I32	22 Mar 2022	Visibility (mi)	10
I32	22 Mar 2022	Wind Speed (kts)	8.4
I32	22 Mar 2022	Wind Dir	NW

Station	Date	Parameter	Value
I32	22 Mar 2022	Water Color	Green
I32	22 Mar 2022	Wave Ht Low (ft)	5.6
I32	22 Mar 2022	Wave Period (sec)	13
I32	22 Mar 2022	Sea State	Regular Swell
I32	22 Mar 2022	High Tide (ft)	5.19
I32	22 Mar 2022	High Tide Time	706
I32	22 Mar 2022	Low Tide (ft)	0.05
I32	22 Mar 2022	Low Tide Time	1354
I32	22 Mar 2022	Comments	none
I32	30 Mar 2022	Depth (m)	11
I32	30 Mar 2022	Arrive Time	1132
I32	30 Mar 2022	Depart Time	1136
I32	30 Mar 2022	Air Temp (C)	15.1
I32	30 Mar 2022	Weather	Clear
I32	30 Mar 2022	Visibility (mi)	12
I32	30 Mar 2022	Wind Speed (kts)	10.9
I32	30 Mar 2022	Wind Dir	W
I32	30 Mar 2022	Water Color	Green
I32	30 Mar 2022	Wave Ht Low (ft)	7
I32	30 Mar 2022	Wave Period (sec)	8
I32	30 Mar 2022	Sea State	Calm
I32	30 Mar 2022	High Tide (ft)	5.35
I32	30 Mar 2022	High Tide Time	1542
I32	30 Mar 2022	Low Tide (ft)	-0.7
I32	30 Mar 2022	Low Tide Time	2206
I32	30 Mar 2022	Comments	none
I39	01 Mar 2022	Depth (m)	20
I39	01 Mar 2022	Arrive Time	1010
I39	01 Mar 2022	Depart Time	1014
I39	01 Mar 2022	Air Temp (C)	15.7
I39	01 Mar 2022	Weather	Clear
I39	01 Mar 2022	Visibility (mi)	10
I39	01 Mar 2022	Wind Speed (kts)	1.7
I39	01 Mar 2022	Wind Dir	W
I39	01 Mar 2022	Water Color	Blueish-Green
I39	01 Mar 2022	Wave Ht Low (ft)	4.6
I39	01 Mar 2022	Wave Period (sec)	10.1
I39	01 Mar 2022	Sea State	Calm
I39	01 Mar 2022	High Tide (ft)	6.18
I39	01 Mar 2022	High Tide Time	1548
I39	01 Mar 2022	Low Tide (ft)	-1.43
I39	01 Mar 2022	Low Tide Time	2242
I39	01 Mar 2022	Comments	none
I39	08 Mar 2022	Depth (m)	18
I39	08 Mar 2022	Arrive Time	1048
I39	08 Mar 2022	Depart Time	1055
I39	08 Mar 2022	Air Temp (C)	14.4
I39	08 Mar 2022	Weather	Clear
I39	08 Mar 2022	Visibility (mi)	12
I39	08 Mar 2022	Wind Speed (kts)	7.9
I39	08 Mar 2022	Wind Dir	NW
I39	08 Mar 2022	Water Color	Greenish-Brown
I39	08 Mar 2022	Wave Ht Low (ft)	3
I39	08 Mar 2022	Wave Period (sec)	13
I39	08 Mar 2022	Sea State	Light Chop
I39	08 Mar 2022	High Tide (ft)	4.4
I39	08 Mar 2022	High Tide Time	806
I39	08 Mar 2022	Low Tide (ft)	1.03

Station	Date	Parameter	Value
I39	08 Mar 2022	Low Tide Time	1518
I39	08 Mar 2022	Comments	none
I39	16 Mar 2022	Depth (m)	19
I39	16 Mar 2022	Arrive Time	1035
I39	16 Mar 2022	Depart Time	1038
I39	16 Mar 2022	Air Temp (C)	15.2
I39	16 Mar 2022	Weather	Overcast
I39	16 Mar 2022	Visibility (mi)	7
I39	16 Mar 2022	Wind Speed (kts)	5.8
I39	16 Mar 2022	Wind Dir	SW
I39	16 Mar 2022	Water Color	Greenish-Blue
I39	16 Mar 2022	Wave Ht Low (ft)	6.9
I39	16 Mar 2022	Wave Period (sec)	17
I39	16 Mar 2022	Sea State	Confused Swell
I39	16 Mar 2022	High Tide (ft)	5.38
I39	16 Mar 2022	High Tide Time	1536
I39	16 Mar 2022	Low Tide (ft)	-0.65
I39	16 Mar 2022	Low Tide Time	2224
I39	16 Mar 2022	Comments	none
I39	22 Mar 2022	Depth (m)	11
I39	22 Mar 2022	Arrive Time	10:40
I39	22 Mar 2022	Depart Time	1045
I39	22 Mar 2022	Air Temp (C)	15.7
I39	22 Mar 2022	Weather	Clear
I39	22 Mar 2022	Visibility (mi)	10
I39	22 Mar 2022	Wind Speed (kts)	3.3
I39	22 Mar 2022	Wind Dir	W
I39	22 Mar 2022	Water Color	Brown
I39	22 Mar 2022	Wave Ht Low (ft)	5.6
I39	22 Mar 2022	Wave Period (sec)	13
I39	22 Mar 2022	Sea State	Regular Swell
I39	22 Mar 2022	High Tide (ft)	5.19
I39	22 Mar 2022	High Tide Time	706
I39	22 Mar 2022	Low Tide (ft)	0.05
I39	22 Mar 2022	Low Tide Time	1354
I39	22 Mar 2022	Comments	none
I39	30 Mar 2022	Depth (m)	20
I39	30 Mar 2022	Arrive Time	1013
I39	30 Mar 2022	Depart Time	1020
I39	30 Mar 2022	Air Temp (C)	15.1
I39	30 Mar 2022	Weather	Partly Cloudy
I39	30 Mar 2022	Visibility (mi)	8
I39	30 Mar 2022	Wind Speed (kts)	1.3
I39	30 Mar 2022	Wind Dir	NW
I39	30 Mar 2022	Water Color	Green
I39	30 Mar 2022	Wave Ht Low (ft)	7
I39	30 Mar 2022	Wave Period (sec)	8
I39	30 Mar 2022	Sea State	Calm
I39	30 Mar 2022	High Tide (ft)	5.35
I39	30 Mar 2022	High Tide Time	1542
I39	30 Mar 2022	Low Tide (ft)	-0.7
I39	30 Mar 2022	Low Tide Time	2206
I39	30 Mar 2022	Comments	Birds on station
I40	01 Mar 2022	Depth (m)	10
I40	01 Mar 2022	Arrive Time	1045
I40	01 Mar 2022	Depart Time	1048
I40	01 Mar 2022	Air Temp (C)	15.5

Station	Date	Parameter	Value
I40	01 Mar 2022	Weather	Clear
I40	01 Mar 2022	Visibility (mi)	10
I40	01 Mar 2022	Wind Speed (kts)	3.6
I40	01 Mar 2022	Wind Dir	SW
I40	01 Mar 2022	Water Color	Green
I40	01 Mar 2022	Wave Ht Low (ft)	4.6
I40	01 Mar 2022	Wave Period (sec)	10.1
I40	01 Mar 2022	Sea State	Calm
I40	01 Mar 2022	High Tide (ft)	6.18
I40	01 Mar 2022	High Tide Time	1548
I40	01 Mar 2022	Low Tide (ft)	-1.43
I40	01 Mar 2022	Low Tide Time	2242
I40	01 Mar 2022	Comments	none
I40	08 Mar 2022	Depth (m)	10
I40	08 Mar 2022	Arrive Time	1133
I40	08 Mar 2022	Depart Time	1137
I40	08 Mar 2022	Air Temp (C)	14.4
I40	08 Mar 2022	Weather	Clear
I40	08 Mar 2022	Visibility (mi)	12
I40	08 Mar 2022	Wind Speed (kts)	9.3
I40	08 Mar 2022	Wind Dir	W
I40	08 Mar 2022	Water Color	Greenish-Brown
I40	08 Mar 2022	Wave Ht Low (ft)	3
I40	08 Mar 2022	Wave Period (sec)	13
I40	08 Mar 2022	Sea State	Light Chop
I40	08 Mar 2022	High Tide (ft)	4.4
I40	08 Mar 2022	High Tide Time	806
I40	08 Mar 2022	Low Tide (ft)	1.03
I40	08 Mar 2022	Low Tide Time	1518
I40	08 Mar 2022	Comments	none
I40	16 Mar 2022	Depth (m)	1
I40	16 Mar 2022	Arrive Time	1111
I40	16 Mar 2022	Depart Time	1115
I40	16 Mar 2022	Air Temp (C)	15.1
I40	16 Mar 2022	Weather	Overcast
I40	16 Mar 2022	Visibility (mi)	7
I40	16 Mar 2022	Wind Speed (kts)	2.5
I40	16 Mar 2022	Wind Dir	W
I40	16 Mar 2022	Water Color	Brown
I40	16 Mar 2022	Wave Ht Low (ft)	6.9
I40	16 Mar 2022	Wave Period (sec)	17
I40	16 Mar 2022	Sea State	Confused Swell
I40	16 Mar 2022	High Tide (ft)	5.38
I40	16 Mar 2022	High Tide Time	1536
I40	16 Mar 2022	Low Tide (ft)	-0.65
I40	16 Mar 2022	Low Tide Time	2224
I40	16 Mar 2022	Comments	none
I40	22 Mar 2022	Depth (m)	10
I40	22 Mar 2022	Arrive Time	1113
I40	22 Mar 2022	Depart Time	1118
I40	22 Mar 2022	Air Temp (C)	15.8
I40	22 Mar 2022	Weather	Clear
I40	22 Mar 2022	Visibility (mi)	10
I40	22 Mar 2022	Wind Speed (kts)	3.6
I40	22 Mar 2022	Wind Dir	W
I40	22 Mar 2022	Water Color	Brown
I40	22 Mar 2022	Wave Ht Low (ft)	5.6
I40	22 Mar 2022	Wave Period (sec)	13

Station	Date	Parameter	Value
I40	22 Mar 2022	Sea State	Regular Swell
I40	22 Mar 2022	High Tide (ft)	5.19
I40	22 Mar 2022	High Tide Time	706
I40	22 Mar 2022	Low Tide (ft)	0.05
I40	22 Mar 2022	Low Tide Time	1354
I40	22 Mar 2022	Comments	none
I40	30 Mar 2022	Depth (m)	11
I40	30 Mar 2022	Arrive Time	1048
I40	30 Mar 2022	Depart Time	1052
I40	30 Mar 2022	Air Temp (C)	14.9
I40	30 Mar 2022	Weather	Partly Cloudy
I40	30 Mar 2022	Visibility (mi)	8
I40	30 Mar 2022	Wind Speed (kts)	4.3
I40	30 Mar 2022	Wind Dir	NW
I40	30 Mar 2022	Water Color	Green
I40	30 Mar 2022	Wave Ht Low (ft)	7
I40	30 Mar 2022	Wave Period (sec)	8
I40	30 Mar 2022	Sea State	Calm
I40	30 Mar 2022	High Tide (ft)	5.35
I40	30 Mar 2022	High Tide Time	1542
I40	30 Mar 2022	Low Tide (ft)	-0.7
I40	30 Mar 2022	Low Tide Time	2206
I40	30 Mar 2022	Comments	Freshwater lens

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	01 Mar 2022	1	14.28	68.64	8.0	33.40	8.1	24.9	1.51
I19	01 Mar 2022	2	14.01	67.55	8.1	33.43	8.1	25.0	2.15
I19	01 Mar 2022	3	13.90	66.24	8.0	33.43	8.1	25.0	3.64
I19	01 Mar 2022	4	13.70	63.74	7.9	33.42	8.0	25.0	4.52
I19	01 Mar 2022	5	13.57	62.11	7.8	33.43	8.0	25.1	4.71
I19	01 Mar 2022	6	13.58	61.44	7.8	33.43	8.0	25.1	4.86
I19	01 Mar 2022	7	13.57	61.06	7.7	33.43	8.0	25.1	4.80
I19	01 Mar 2022	8	13.56	60.83	7.6	33.43	8.0	25.1	4.87
I19	01 Mar 2022	9	13.39	60.26	7.4	33.45	8.0	25.1	4.41
I19	01 Mar 2022	10	13.22	56.99	6.8	33.47	8.0	25.2	4.13
I19	08 Mar 2022	1	15.65	61.49	8.1	33.10	8.1	24.4	1.00
I19	08 Mar 2022	2	15.55	61.65	8.0	33.20	8.2	24.5	1.05
I19	08 Mar 2022	3	15.25	62.28	8.2	33.38	8.2	24.7	1.57
I19	08 Mar 2022	4	15.20	63.75	8.4	33.46	8.2	24.7	2.98
I19	08 Mar 2022	5	15.18	67.50	8.3	33.48	8.2	24.8	3.47
I19	08 Mar 2022	6	15.10	71.37	8.0	33.48	8.2	24.8	3.26
I19	08 Mar 2022	7	14.76	70.85	7.7	33.49	8.2	24.9	2.99
I19	08 Mar 2022	8	14.60	70.15	7.4	33.48	8.1	24.9	2.87
I19	08 Mar 2022	9	14.29	70.25	7.1	33.49	8.1	25.0	3.11
I19	08 Mar 2022	10	14.16	62.20	6.8	33.48	8.1	25.0	3.08
I19	16 Mar 2022	1	13.74	66.82	7.2	33.51	7.8	25.1	1.84
I19	16 Mar 2022	2	13.54	66.47	6.9	33.52	7.8	25.1	2.05
I19	16 Mar 2022	3	13.17	65.66	6.3	33.53	7.8	25.2	2.75
I19	16 Mar 2022	4	12.63	69.89	5.6	33.53	7.7	25.3	3.38
I19	16 Mar 2022	5	12.42	72.79	5.3	33.52	7.7	25.4	3.35
I19	16 Mar 2022	6	12.35	73.20	5.1	33.52	7.7	25.4	3.15
I19	16 Mar 2022	7	12.32	73.08	5.1	33.51	7.7	25.4	3.39
I19	16 Mar 2022	8	12.19	64.27	5.1	33.52	7.7	25.4	3.87
I19	16 Mar 2022	9	12.13	49.80	5.1	33.52	7.6	25.4	4.50
I19	16 Mar 2022	10	12.11	46.28	5.1	33.52	7.6	25.4	4.38
I19	22 Mar 2022	1	13.71	67.74	7.1	33.57	7.9	25.1	1.39
I19	22 Mar 2022	2	13.43	66.91	7.0	33.58	7.9	25.2	1.65
I19	22 Mar 2022	3	13.05	65.44	6.9	33.58	7.8	25.3	2.42
I19	22 Mar 2022	4	12.82	59.91	7.2	33.59	7.8	25.3	3.38
I19	22 Mar 2022	5	12.60	54.71	7.0	33.59	7.8	25.4	3.86
I19	22 Mar 2022	6	12.52	50.04	6.6	33.59	7.8	25.4	4.00
I19	22 Mar 2022	7	12.43	49.59	6.1	33.60	7.8	25.4	3.88
I19	22 Mar 2022	8	12.44	54.44	5.6	33.59	7.7	25.4	3.61
I19	22 Mar 2022	9	11.88	54.51	4.4	33.64	7.7	25.6	3.32
I19	22 Mar 2022	10	11.59	36.49	3.8	33.63	7.6	25.6	3.20
I19	30 Mar 2022	1	15.79	37.08	8.3	33.31	8.1	24.5	1.64
I19	30 Mar 2022	2	15.69	36.14	8.3	33.35	8.1	24.5	1.72
I19	30 Mar 2022	3	15.54	42.24	8.4	33.38	8.1	24.6	2.26
I19	30 Mar 2022	4	15.49	47.40	8.4	33.38	8.1	24.6	3.03
I19	30 Mar 2022	5	15.46	52.01	8.4	33.41	8.1	24.6	3.22
I19	30 Mar 2022	6	15.41	57.68	8.4	33.43	8.1	24.7	2.96
I19	30 Mar 2022	7	15.40	52.05	8.4	33.43	8.1	24.7	2.89
I19	30 Mar 2022	8	15.39	55.31	8.4	33.43	8.1	24.7	2.93
I19	30 Mar 2022	9	15.38	45.89	8.3	33.45	8.1	24.7	2.84
I19	30 Mar 2022	10	15.33	39.32	8.1	33.45	8.1	24.7	2.65

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I24	01 Mar 2022	1	14.18	68.29	7.7	33.40	8.1	24.9	1.72
I24	01 Mar 2022	2	13.77	67.68	7.2	33.49	8.1	25.1	2.03
I24	01 Mar 2022	3	13.41	68.16	6.7	33.50	8.0	25.1	2.40
I24	01 Mar 2022	4	13.37	68.13	6.6	33.49	8.0	25.1	2.95
I24	01 Mar 2022	5	13.37	67.28	6.6	33.49	8.0	25.1	3.55
I24	01 Mar 2022	6	13.32	65.42	6.5	33.49	8.0	25.2	4.42
I24	01 Mar 2022	7	13.21	62.50	6.7	33.49	8.0	25.2	4.53
I24	01 Mar 2022	8	13.03	58.68	5.6	33.50	7.9	25.2	4.70
I24	01 Mar 2022	9	12.86	44.67	5.4	33.51	7.9	25.3	4.50
I24	08 Mar 2022	1	14.94	76.10	8.3	33.50	8.2	24.8	1.04
I24	08 Mar 2022	2	14.90	75.84	8.3	33.50	8.2	24.8	1.12
I24	08 Mar 2022	3	14.89	75.46	8.3	33.49	8.2	24.8	1.21
I24	08 Mar 2022	4	14.70	71.62	8.3	33.50	8.2	24.9	1.80
I24	08 Mar 2022	5	14.62	72.30	8.3	33.49	8.2	24.9	2.16
I24	08 Mar 2022	6	14.59	74.24	8.2	33.49	8.2	24.9	2.20
I24	08 Mar 2022	7	14.59	74.45	8.2	33.49	8.2	24.9	2.34
I24	08 Mar 2022	8	14.59	74.51	8.2	33.49	8.2	24.9	2.70
I24	08 Mar 2022	9	14.59	74.49	8.2	33.49	8.2	24.9	2.84
I24	08 Mar 2022	10	14.58	74.69	8.2	33.49	8.2	24.9	2.89
I24	16 Mar 2022	1	15.68	70.56	9.9	33.53	8.1	24.7	2.01
I24	16 Mar 2022	2	15.70	70.45	9.7	33.52	8.1	24.7	2.26
I24	16 Mar 2022	3	15.42	72.23	9.5	33.53	8.1	24.7	3.82
I24	16 Mar 2022	4	15.26	71.15	9.4	33.52	8.1	24.8	7.05
I24	16 Mar 2022	5	15.13	68.22	9.2	33.52	8.1	24.8	11.45
I24	16 Mar 2022	6	14.72	63.98	8.5	33.53	8.0	24.9	12.37
I24	16 Mar 2022	7	14.13	61.36	7.6	33.53	8.0	25.0	11.95
I24	16 Mar 2022	8	13.34	60.03	6.5	33.55	7.9	25.2	8.49
I24	16 Mar 2022	9	12.57	65.30	5.3	33.54	7.7	25.3	4.58
I24	16 Mar 2022	10	12.44	64.43	5.0	33.52	7.7	25.4	3.07
I24	22 Mar 2022	1	14.25	63.82	9.2	33.54	8.1	25.0	2.19
I24	22 Mar 2022	2	14.08	62.96	8.7	33.54	8.1	25.0	3.38
I24	22 Mar 2022	3	13.81	63.33	8.3	33.54	8.0	25.1	5.48
I24	22 Mar 2022	4	13.53	64.76	7.6	33.55	8.0	25.2	7.93
I24	22 Mar 2022	5	13.07	61.77	6.5	33.57	7.9	25.3	8.00
I24	22 Mar 2022	6	12.45	63.96	5.4	33.61	7.8	25.4	5.91
I24	22 Mar 2022	7	12.37	68.34	5.2	33.59	7.8	25.4	4.75
I24	22 Mar 2022	8	12.37	68.88	5.3	33.59	7.8	25.4	4.64
I24	22 Mar 2022	9	12.32	69.39	5.4	33.59	7.8	25.4	4.24
I24	22 Mar 2022	10	12.29	69.59	5.4	33.60	7.8	25.4	3.91
I24	22 Mar 2022	11	12.30	69.55	5.4	33.60	7.8	25.4	3.63
I24	30 Mar 2022	1	16.00	32.49	8.7	32.89	8.1	24.1	4.88
I24	30 Mar 2022	2	15.92	33.10	8.6	33.08	8.1	24.3	5.74
I24	30 Mar 2022	3	15.79	37.94	8.4	33.24	8.1	24.4	5.40
I24	30 Mar 2022	4	15.79	44.56	8.5	33.25	8.1	24.5	4.75
I24	30 Mar 2022	5	15.79	51.11	8.5	33.27	8.1	24.5	4.40
I24	30 Mar 2022	6	15.78	57.68	8.6	33.32	8.1	24.5	4.08
I24	30 Mar 2022	7	15.71	65.79	8.6	33.40	8.1	24.6	3.62
I24	30 Mar 2022	8	15.54	57.41	8.6	33.42	8.1	24.6	3.28
I24	30 Mar 2022	9	15.44	61.96	8.6	33.45	8.1	24.7	2.92
I24	30 Mar 2022	10	15.26	53.87	8.3	33.47	8.1	24.7	2.27
I24	30 Mar 2022	11	15.27	53.84	8.3	33.47	8.1	24.7	2.08
I25	01 Mar 2022	1	14.15	69.77	7.8	33.40	8.1	24.9	1.55
I25	01 Mar 2022	2	13.78	69.91	7.4	33.49	8.1	25.1	1.82
I25	01 Mar 2022	3	13.56	68.53	7.0	33.49	8.0	25.1	2.22
I25	01 Mar 2022	4	13.44	66.24	6.8	33.49	8.0	25.1	2.88
I25	01 Mar 2022	5	13.22	63.07	6.2	33.50	8.0	25.2	3.45

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I25	01 Mar 2022	6	13.12	60.61	5.8	33.50	7.9	25.2	3.75
I25	01 Mar 2022	7	13.05	57.59	5.7	33.50	7.9	25.2	4.19
I25	01 Mar 2022	8	13.02	56.11	5.7	33.50	7.9	25.2	4.21
I25	01 Mar 2022	9	13.01	52.01	5.6	33.50	7.9	25.2	4.15
I25	08 Mar 2022	1	14.86	75.75	8.3	33.50	8.2	24.8	1.10
I25	08 Mar 2022	2	14.85	75.66	8.3	33.50	8.2	24.8	1.09
I25	08 Mar 2022	3	14.79	75.53	8.3	33.50	8.2	24.9	1.23
I25	08 Mar 2022	4	14.67	74.59	8.2	33.49	8.2	24.9	1.48
I25	08 Mar 2022	5	14.46	74.99	7.8	33.49	8.2	24.9	1.49
I25	08 Mar 2022	6	14.15	77.41	7.0	33.48	8.1	25.0	1.37
I25	08 Mar 2022	7	13.28	78.87	6.2	33.49	8.0	25.2	1.30
I25	08 Mar 2022	8	13.25	79.12	6.1	33.47	8.0	25.2	1.23
I25	08 Mar 2022	9	13.25	79.47	6.2	33.47	8.0	25.2	1.24
I25	16 Mar 2022	1	15.54	74.77	9.6	33.52	8.1	24.7	2.63
I25	16 Mar 2022	2	15.49	72.91	9.6	33.52	8.1	24.7	2.95
I25	16 Mar 2022	3	15.44	73.54	9.5	33.52	8.1	24.7	4.44
I25	16 Mar 2022	4	15.28	71.67	9.2	33.52	8.1	24.8	6.02
I25	16 Mar 2022	5	15.12	70.30	9.1	33.52	8.0	24.8	7.56
I25	16 Mar 2022	6	14.99	70.24	8.8	33.51	8.0	24.8	7.49
I25	16 Mar 2022	7	14.65	70.19	7.9	33.51	8.0	24.9	6.46
I25	16 Mar 2022	8	13.39	69.00	6.2	33.54	7.9	25.2	5.02
I25	16 Mar 2022	9	12.40	68.23	5.0	33.53	7.7	25.4	3.22
I25	22 Mar 2022	1	14.39	66.29	8.8	33.54	8.0	25.0	2.12
I25	22 Mar 2022	2	14.60	65.04	8.9	33.53	8.0	24.9	1.87
I25	22 Mar 2022	3	14.43	67.89	8.2	33.54	8.1	25.0	2.25
I25	22 Mar 2022	4	13.42	68.58	7.5	33.57	8.0	25.2	4.81
I25	22 Mar 2022	5	13.31	68.10	7.4	33.55	8.0	25.2	6.81
I25	22 Mar 2022	6	13.19	66.31	7.1	33.56	7.9	25.2	7.79
I25	22 Mar 2022	7	12.71	65.94	5.9	33.59	7.9	25.4	6.41
I25	22 Mar 2022	8	12.09	71.94	4.9	33.61	7.8	25.5	4.36
I25	22 Mar 2022	9	12.12	72.09	5.0	33.60	7.8	25.5	3.56
I25	30 Mar 2022	1	15.97	27.07	9.2	32.75	8.2	24.0	6.99
I25	30 Mar 2022	2	15.87	27.13	8.9	33.06	8.2	24.3	8.17
I25	30 Mar 2022	3	15.89	44.31	8.5	33.26	8.2	24.4	6.42
I25	30 Mar 2022	4	15.93	57.90	8.0	33.34	8.1	24.5	4.76
I25	30 Mar 2022	5	15.75	60.99	8.0	33.36	8.1	24.5	3.97
I25	30 Mar 2022	6	15.58	59.08	8.2	33.37	8.1	24.6	2.96
I25	30 Mar 2022	7	15.53	59.57	8.0	33.38	8.1	24.6	2.87
I25	30 Mar 2022	8	15.20	51.13	7.9	33.45	8.1	24.7	2.15
I25	30 Mar 2022	9	15.25	46.13	7.9	33.44	8.1	24.7	2.03
I26	01 Mar 2022	1	14.17	69.85	8.2	33.49	8.1	25.0	1.77
I26	01 Mar 2022	2	14.07	70.13	8.1	33.49	8.1	25.0	1.83
I26	01 Mar 2022	3	13.94	70.13	7.8	33.48	8.1	25.0	2.09
I26	01 Mar 2022	4	13.61	68.68	7.0	33.48	8.1	25.1	2.40
I26	01 Mar 2022	5	13.33	66.59	6.4	33.50	8.0	25.2	2.63
I26	01 Mar 2022	6	13.33	65.58	6.2	33.49	8.0	25.2	2.80
I26	01 Mar 2022	7	13.17	64.89	6.0	33.50	7.9	25.2	2.99
I26	01 Mar 2022	8	13.12	62.75	5.8	33.50	7.9	25.2	2.91
I26	01 Mar 2022	9	13.12	61.19	5.8	33.50	7.9	25.2	2.77
I26	08 Mar 2022	1	15.06	76.75	8.2	33.50	8.2	24.8	0.80
I26	08 Mar 2022	2	14.91	76.55	8.0	33.50	8.2	24.8	0.86
I26	08 Mar 2022	3	14.36	75.82	7.6	33.50	8.1	25.0	1.20
I26	08 Mar 2022	4	14.20	74.50	7.3	33.48	8.1	25.0	1.49
I26	08 Mar 2022	5	14.10	75.34	7.3	33.48	8.1	25.0	1.72
I26	08 Mar 2022	6	14.07	76.64	7.2	33.48	8.1	25.0	1.93

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I26	08 Mar 2022	7	14.01	77.15	7.3	33.48	8.1	25.0	1.93
I26	08 Mar 2022	8	13.97	77.97	7.1	33.47	8.1	25.0	2.00
I26	08 Mar 2022	9	13.39	79.35	6.5	33.49	8.0	25.1	1.75
I26	16 Mar 2022	1	15.34	59.98	10.0	33.53	8.1	24.8	4.62
I26	16 Mar 2022	2	15.38	60.34	9.9	33.52	8.1	24.7	5.03
I26	16 Mar 2022	3	15.24	60.70	9.8	33.52	8.1	24.8	12.09
I26	16 Mar 2022	4	15.02	56.00	9.3	33.52	8.1	24.8	19.30
I26	16 Mar 2022	5	14.88	52.11	9.0	33.52	8.0	24.9	20.39
I26	16 Mar 2022	6	14.75	50.52	8.7	33.52	8.0	24.9	20.12
I26	16 Mar 2022	7	14.27	49.42	8.2	33.53	8.0	25.0	17.11
I26	16 Mar 2022	8	14.12	55.47	7.4	33.51	7.9	25.0	12.23
I26	16 Mar 2022	9	12.89	68.72	6.0	33.54	7.8	25.3	7.96
I26	22 Mar 2022	1	14.53	68.19	8.9	33.53	8.1	24.9	1.91
I26	22 Mar 2022	2	14.17	67.67	8.6	33.54	8.1	25.0	2.14
I26	22 Mar 2022	3	13.51	67.32	8.0	33.56	8.0	25.2	3.45
I26	22 Mar 2022	4	13.18	65.50	7.4	33.57	8.0	25.2	5.29
I26	22 Mar 2022	5	12.87	65.79	6.8	33.57	7.9	25.3	7.05
I26	22 Mar 2022	6	12.72	68.27	6.4	33.58	7.9	25.3	7.83
I26	22 Mar 2022	7	12.70	67.66	6.1	33.57	7.9	25.3	7.46
I26	22 Mar 2022	8	12.13	67.84	5.1	33.62	7.8	25.5	6.13
I26	22 Mar 2022	9	11.84	71.78	4.6	33.62	7.7	25.6	3.48
I26	30 Mar 2022	1	16.31	36.89	9.1	32.67	8.2	23.9	2.94
I26	30 Mar 2022	2	16.30	37.74	8.8	32.70	8.2	23.9	3.38
I26	30 Mar 2022	3	16.00	38.37	8.2	33.15	8.1	24.3	4.49
I26	30 Mar 2022	4	15.88	51.24	8.0	33.33	8.1	24.5	5.32
I26	30 Mar 2022	5	15.84	59.98	8.0	33.37	8.1	24.5	4.90
I26	30 Mar 2022	6	15.77	67.43	8.1	33.41	8.1	24.6	4.13
I26	30 Mar 2022	7	15.48	66.95	8.1	33.42	8.1	24.6	3.57
I26	30 Mar 2022	8	15.37	63.33	7.8	33.43	8.1	24.7	3.01
I26	30 Mar 2022	9	15.40	60.48	7.8	33.42	8.1	24.7	2.67
I32	01 Mar 2022	1	14.07	67.84	7.9	33.50	8.1	25.0	1.75
I32	01 Mar 2022	2	14.04	67.48	7.9	33.49	8.1	25.0	1.77
I32	01 Mar 2022	3	13.90	67.92	7.9	33.50	8.1	25.0	2.04
I32	01 Mar 2022	4	13.68	66.80	7.8	33.49	8.1	25.1	3.65
I32	01 Mar 2022	5	13.58	64.35	7.7	33.49	8.1	25.1	5.98
I32	01 Mar 2022	6	13.52	62.45	7.5	33.49	8.0	25.1	7.44
I32	01 Mar 2022	7	13.43	61.88	7.3	33.49	8.0	25.1	7.63
I32	01 Mar 2022	8	13.39	60.68	7.3	33.49	8.0	25.1	7.56
I32	01 Mar 2022	9	13.37	59.80	7.4	33.49	8.0	25.2	7.00
I32	01 Mar 2022	10	13.26	57.15	7.4	33.50	8.0	25.2	6.62
I32	08 Mar 2022	1	15.12	73.36	8.6	33.50	8.2	24.8	0.88
I32	08 Mar 2022	2	15.08	72.41	8.6	33.50	8.2	24.8	0.96
I32	08 Mar 2022	3	14.87	69.44	8.4	33.50	8.2	24.8	1.46
I32	08 Mar 2022	4	14.62	63.19	8.1	33.50	8.2	24.9	2.11
I32	08 Mar 2022	5	14.44	61.57	7.6	33.49	8.2	24.9	2.51
I32	08 Mar 2022	6	14.26	65.06	7.2	33.49	8.1	25.0	2.82
I32	08 Mar 2022	7	14.18	69.13	7.0	33.48	8.1	25.0	3.19
I32	08 Mar 2022	8	13.94	72.78	6.7	33.48	8.1	25.0	3.31
I32	08 Mar 2022	9	13.48	75.16	6.4	33.48	8.1	25.1	3.13
I32	08 Mar 2022	10	13.43	74.14	6.4	33.47	8.0	25.1	3.05
I32	16 Mar 2022	1	14.48	56.28	8.2	33.52	7.9	24.9	2.49
I32	16 Mar 2022	2	14.43	55.69	8.0	33.52	7.9	25.0	2.98
I32	16 Mar 2022	3	14.12	54.22	7.7	33.53	7.8	25.0	4.83
I32	16 Mar 2022	4	13.90	50.90	7.3	33.52	7.8	25.1	7.72
I32	16 Mar 2022	5	13.65	49.01	6.5	33.51	7.8	25.1	8.07

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I32	16 Mar 2022	6	12.72	50.21	5.7	33.54	7.8	25.3	6.18
I32	16 Mar 2022	7	12.98	61.62	5.8	33.49	7.7	25.2	4.97
I32	16 Mar 2022	8	12.56	65.21	5.6	33.53	7.7	25.3	4.85
I32	16 Mar 2022	9	12.45	57.30	5.2	33.52	7.7	25.4	4.25
I32	16 Mar 2022	10	12.46	51.96	5.2	33.51	7.7	25.3	4.22
I32	22 Mar 2022	1	14.57	58.18	8.4	33.52	8.0	24.9	3.57
I32	22 Mar 2022	2	14.19	56.19	8.2	33.54	8.0	25.0	4.69
I32	22 Mar 2022	3	13.90	54.40	7.9	33.54	8.0	25.1	7.64
I32	22 Mar 2022	4	13.46	53.25	7.4	33.55	7.9	25.2	10.65
I32	22 Mar 2022	5	12.84	44.08	6.5	33.58	7.8	25.3	8.00
I32	22 Mar 2022	6	12.46	45.04	5.7	33.58	7.8	25.4	6.10
I32	22 Mar 2022	7	12.28	52.60	5.2	33.58	7.8	25.4	5.46
I32	22 Mar 2022	8	11.95	58.69	4.7	33.61	7.7	25.5	4.87
I32	22 Mar 2022	9	11.82	59.04	4.3	33.61	7.7	25.5	4.23
I32	22 Mar 2022	10	11.71	54.07	4.2	33.61	7.7	25.6	3.60
I32	30 Mar 2022	1	16.21	51.47	8.6	33.29	8.1	24.4	3.04
I32	30 Mar 2022	2	16.21	52.18	8.6	33.27	8.1	24.4	3.01
I32	30 Mar 2022	3	16.09	51.36	8.4	33.31	8.1	24.4	4.20
I32	30 Mar 2022	4	16.10	51.12	8.4	33.32	8.1	24.4	5.25
I32	30 Mar 2022	5	16.04	49.46	8.2	33.33	8.1	24.5	5.46
I32	30 Mar 2022	6	15.82	50.19	7.8	33.37	8.1	24.5	5.37
I32	30 Mar 2022	7	15.76	53.93	7.8	33.38	8.1	24.6	4.94
I32	30 Mar 2022	8	15.73	55.74	7.9	33.41	8.1	24.6	4.93
I32	30 Mar 2022	9	15.61	59.99	7.9	33.46	8.1	24.7	4.22
I32	30 Mar 2022	10	15.57	25.73	7.6	33.47	8.1	24.7	4.63
I39	01 Mar 2022	1	14.20	74.64	8.2	33.50	8.1	25.0	1.53
I39	01 Mar 2022	2	14.04	74.30	8.2	33.51	8.1	25.0	1.55
I39	01 Mar 2022	3	13.85	73.09	7.9	33.51	8.1	25.1	1.98
I39	01 Mar 2022	4	13.59	72.29	7.4	33.51	8.1	25.1	2.39
I39	01 Mar 2022	5	13.13	73.36	6.7	33.52	8.0	25.2	2.37
I39	01 Mar 2022	6	12.91	76.51	6.2	33.51	8.0	25.3	2.31
I39	01 Mar 2022	7	12.81	78.07	6.0	33.50	8.0	25.3	2.24
I39	01 Mar 2022	8	12.76	79.16	6.0	33.50	7.9	25.3	2.13
I39	01 Mar 2022	9	12.71	79.64	5.9	33.51	7.9	25.3	2.46
I39	01 Mar 2022	10	12.63	79.71	5.8	33.51	7.9	25.3	2.71
I39	01 Mar 2022	11	12.58	79.83	5.7	33.52	7.9	25.3	2.41
I39	01 Mar 2022	12	12.48	78.54	5.4	33.52	7.9	25.4	2.42
I39	01 Mar 2022	13	12.38	76.90	5.2	33.53	7.9	25.4	2.04
I39	01 Mar 2022	14	12.32	76.46	5.1	33.53	7.8	25.4	1.89
I39	01 Mar 2022	15	12.27	75.58	5.0	33.54	7.8	25.4	1.77
I39	01 Mar 2022	16	12.24	74.89	5.0	33.54	7.8	25.4	1.96
I39	01 Mar 2022	17	12.19	74.39	5.0	33.55	7.8	25.4	1.79
I39	01 Mar 2022	18	12.17	73.27	4.9	33.55	7.8	25.4	1.63
I39	08 Mar 2022	1	14.64	78.41	7.9	33.47	8.1	24.9	1.04
I39	08 Mar 2022	2	14.58	78.52	7.9	33.48	8.1	24.9	1.04
I39	08 Mar 2022	3	14.56	78.79	7.9	33.47	8.1	24.9	1.12
I39	08 Mar 2022	4	14.55	78.57	7.9	33.47	8.1	24.9	1.19
I39	08 Mar 2022	5	14.56	78.59	7.8	33.47	8.1	24.9	1.31
I39	08 Mar 2022	6	14.56	78.71	7.9	33.47	8.1	24.9	1.35
I39	08 Mar 2022	7	14.55	78.63	7.9	33.47	8.1	24.9	1.45
I39	08 Mar 2022	8	14.55	78.61	7.9	33.47	8.1	24.9	1.56
I39	08 Mar 2022	9	14.53	78.35	7.9	33.47	8.1	24.9	1.70
I39	08 Mar 2022	10	14.51	78.15	7.8	33.47	8.1	24.9	1.90
I39	08 Mar 2022	11	14.49	78.18	7.9	33.47	8.1	24.9	2.05
I39	08 Mar 2022	12	14.49	78.23	7.8	33.47	8.1	24.9	2.20
I39	08 Mar 2022	13	14.46	78.13	7.8	33.48	8.1	24.9	2.41
I39	08 Mar 2022	14	14.41	77.68	7.7	33.48	8.1	24.9	2.65

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I39	08 Mar 2022	15	14.36	77.59	7.7	33.48	8.1	24.9	2.66
I39	08 Mar 2022	16	14.27	77.92	7.5	33.48	8.1	25.0	2.55
I39	08 Mar 2022	17	14.01	78.86	7.1	33.48	8.1	25.0	2.26
I39	08 Mar 2022	18	13.60	79.75	6.9	33.48	8.1	25.1	2.08
I39	16 Mar 2022	1	15.39	78.25	8.5	33.52	8.0	24.7	1.49
I39	16 Mar 2022	2	15.31	77.81	8.5	33.51	8.0	24.8	1.71
I39	16 Mar 2022	3	15.23	77.69	8.6	33.51	8.0	24.8	2.15
I39	16 Mar 2022	4	15.21	77.30	8.6	33.51	8.0	24.8	2.49
I39	16 Mar 2022	5	15.16	76.63	8.5	33.51	8.0	24.8	2.89
I39	16 Mar 2022	6	15.09	76.43	8.3	33.51	8.0	24.8	3.28
I39	16 Mar 2022	7	14.79	76.33	7.9	33.52	8.0	24.9	3.75
I39	16 Mar 2022	8	14.17	76.52	7.4	33.53	7.9	25.0	4.04
I39	16 Mar 2022	9	13.99	76.53	7.3	33.52	7.9	25.0	4.39
I39	16 Mar 2022	10	13.96	76.63	7.2	33.51	7.9	25.0	4.68
I39	16 Mar 2022	11	13.93	76.67	7.2	33.51	7.9	25.1	4.73
I39	16 Mar 2022	12	13.91	76.66	7.2	33.51	7.9	25.1	4.73
I39	16 Mar 2022	13	13.92	76.91	7.2	33.52	7.9	25.1	4.76
I39	16 Mar 2022	14	13.88	77.13	7.1	33.52	7.9	25.1	4.96
I39	16 Mar 2022	15	13.76	77.22	6.6	33.51	7.9	25.1	4.48
I39	16 Mar 2022	16	12.64	77.27	5.8	33.55	7.8	25.3	3.29
I39	16 Mar 2022	17	12.47	76.18	5.3	33.52	7.7	25.3	2.59
I39	16 Mar 2022	18	12.07	72.71	5.0	33.54	7.7	25.4	2.27
I39	22 Mar 2022	1	14.94	71.22	9.1	33.53	8.1	24.9	1.40
I39	22 Mar 2022	2	14.86	70.62	9.0	33.53	8.1	24.9	1.88
I39	22 Mar 2022	3	14.46	66.77	8.8	33.53	8.1	25.0	4.36
I39	22 Mar 2022	4	14.24	64.01	8.3	33.52	8.1	25.0	6.24
I39	22 Mar 2022	5	13.84	66.69	7.9	33.49	8.0	25.1	6.63
I39	22 Mar 2022	6	13.36	69.15	7.6	33.48	8.0	25.1	7.02
I39	22 Mar 2022	7	13.02	70.29	7.1	33.46	8.0	25.2	7.61
I39	22 Mar 2022	8	12.43	72.27	6.4	33.46	7.9	25.3	6.20
I39	22 Mar 2022	9	12.13	75.17	6.0	33.46	7.8	25.4	6.14
I39	22 Mar 2022	10	12.06	75.40	5.7	33.48	7.8	25.4	5.41
I39	22 Mar 2022	11	12.05	76.77	5.6	33.51	7.8	25.4	4.97
I39	22 Mar 2022	12	12.10	76.81	5.7	33.50	7.8	25.4	5.45
I39	22 Mar 2022	13	12.05	77.19	5.6	33.53	7.8	25.4	5.81
I39	22 Mar 2022	14	12.05	77.22	5.5	33.54	7.8	25.4	5.35
I39	22 Mar 2022	15	12.08	77.37	5.5	33.56	7.8	25.5	5.44
I39	22 Mar 2022	16	12.06	76.71	5.3	33.58	7.8	25.5	5.40
I39	22 Mar 2022	17	11.93	77.29	5.0	33.60	7.8	25.5	5.00
I39	22 Mar 2022	18	11.61	76.63	4.4	33.64	7.7	25.6	3.67
I39	30 Mar 2022	1	16.01	50.58	8.8	33.02	8.2	24.2	1.74
I39	30 Mar 2022	2	15.98	51.60	8.7	33.10	8.2	24.3	2.23
I39	30 Mar 2022	3	16.00	58.14	8.5	33.25	8.1	24.4	3.22
I39	30 Mar 2022	4	16.04	66.08	8.2	33.41	8.1	24.5	4.05
I39	30 Mar 2022	5	16.00	69.64	8.1	33.43	8.1	24.5	4.53
I39	30 Mar 2022	6	15.94	70.36	8.2	33.43	8.1	24.6	5.07
I39	30 Mar 2022	7	15.93	70.15	8.3	33.40	8.1	24.5	5.27
I39	30 Mar 2022	8	15.85	69.61	8.3	33.41	8.1	24.6	5.95
I39	30 Mar 2022	9	15.84	69.78	8.1	33.42	8.1	24.6	6.03
I39	30 Mar 2022	10	15.72	70.13	8.2	33.43	8.1	24.6	6.01
I39	30 Mar 2022	11	15.72	69.92	8.3	33.42	8.1	24.6	6.37
I39	30 Mar 2022	12	15.46	69.24	8.5	33.41	8.1	24.6	6.38
I39	30 Mar 2022	13	15.48	70.49	8.6	33.42	8.1	24.6	6.07
I39	30 Mar 2022	14	15.45	72.72	8.7	33.45	8.1	24.7	5.82
I39	30 Mar 2022	15	15.44	72.41	8.7	33.45	8.1	24.7	5.74
I39	30 Mar 2022	16	15.40	73.29	8.6	33.46	8.1	24.7	5.55
I39	30 Mar 2022	17	15.38	73.79	8.6	33.47	8.1	24.7	5.57
I39	30 Mar 2022	18	15.18	73.26	8.4	33.48	8.1	24.8	4.64

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I40	01 Mar 2022	1	14.19	66.33	7.9	33.41	8.1	24.9	1.97
I40	01 Mar 2022	2	13.97	66.68	7.7	33.47	8.1	25.0	2.83
I40	01 Mar 2022	3	13.84	67.08	7.4	33.49	8.1	25.1	3.61
I40	01 Mar 2022	4	13.75	66.81	7.2	33.48	8.0	25.1	3.93
I40	01 Mar 2022	5	13.64	65.16	7.1	33.48	8.0	25.1	4.59
I40	01 Mar 2022	6	13.57	63.35	7.1	33.48	8.0	25.1	5.17
I40	01 Mar 2022	7	13.54	62.84	7.1	33.48	8.0	25.1	5.98
I40	01 Mar 2022	8	13.54	62.93	7.1	33.48	8.0	25.1	6.23
I40	01 Mar 2022	9	13.53	62.66	7.1	33.48	8.0	25.1	5.46
I40	01 Mar 2022	10	13.42	62.68	7.0	33.49	8.0	25.1	5.22
I40	08 Mar 2022	1	15.48	65.47	7.8	33.33	8.1	24.6	0.92
I40	08 Mar 2022	2	15.46	64.58	7.8	33.34	8.1	24.6	0.94
I40	08 Mar 2022	3	15.27	65.08	7.8	33.39	8.1	24.7	1.08
I40	08 Mar 2022	4	15.00	64.06	7.7	33.47	8.2	24.8	1.37
I40	08 Mar 2022	5	14.82	63.38	7.5	33.48	8.1	24.8	1.92
I40	08 Mar 2022	6	14.66	60.35	7.1	33.48	8.1	24.9	3.00
I40	08 Mar 2022	7	14.43	59.51	6.8	33.48	8.1	24.9	3.21
I40	08 Mar 2022	8	14.33	63.22	6.7	33.48	8.1	24.9	3.25
I40	08 Mar 2022	9	14.24	52.07	6.4	33.48	8.0	25.0	3.61
I40	08 Mar 2022	10	14.23	39.62	6.2	33.48	8.0	25.0	4.22
I40	16 Mar 2022	1	15.37	62.59	10.1	33.52	8.1	24.8	6.14
I40	16 Mar 2022	2	15.44	62.57	10.0	33.52	8.1	24.7	6.39
I40	16 Mar 2022	3	14.90	60.41	8.6	33.53	8.1	24.9	8.95
I40	16 Mar 2022	4	13.71	62.40	6.9	33.51	7.9	25.1	10.18
I40	16 Mar 2022	5	13.55	68.44	6.6	33.50	7.8	25.1	8.13
I40	16 Mar 2022	6	13.06	69.03	6.1	33.51	7.8	25.2	4.73
I40	16 Mar 2022	7	12.95	65.48	5.8	33.51	7.7	25.2	3.53
I40	16 Mar 2022	8	12.48	62.25	5.1	33.51	7.7	25.3	2.73
I40	16 Mar 2022	9	12.27	45.25	4.8	33.51	7.6	25.4	3.39
I40	16 Mar 2022	10	12.26	31.37	4.9	33.51	7.6	25.4	3.97
I40	22 Mar 2022	1	13.71	67.74	7.1	33.57	7.9	25.1	1.39
I40	22 Mar 2022	2	13.43	66.91	7.0	33.58	7.9	25.2	1.65
I40	22 Mar 2022	3	13.05	65.44	6.9	33.58	7.8	25.3	2.42
I40	22 Mar 2022	4	12.82	59.91	7.2	33.59	7.8	25.3	3.38
I40	22 Mar 2022	5	12.60	54.71	7.0	33.59	7.8	25.4	3.86
I40	22 Mar 2022	6	12.52	50.04	6.6	33.59	7.8	25.4	4.00
I40	22 Mar 2022	7	12.43	49.59	6.1	33.60	7.8	25.4	3.88
I40	22 Mar 2022	8	12.44	54.44	5.6	33.59	7.7	25.4	3.61
I40	22 Mar 2022	9	11.88	54.51	4.4	33.64	7.7	25.6	3.32
I40	22 Mar 2022	10	11.59	36.49	3.8	33.63	7.6	25.6	3.20
I40	30 Mar 2022	1	15.98	44.99	8.4	33.06	8.1	24.3	2.02
I40	30 Mar 2022	2	15.94	44.76	8.4	33.10	8.1	24.3	2.50
I40	30 Mar 2022	3	15.79	45.04	8.6	33.20	8.1	24.4	4.43
I40	30 Mar 2022	4	15.71	46.51	8.6	33.23	8.1	24.5	4.74
I40	30 Mar 2022	5	15.76	47.82	8.5	33.22	8.1	24.4	4.78
I40	30 Mar 2022	6	15.74	49.31	8.4	33.34	8.1	24.5	4.02
I40	30 Mar 2022	7	15.71	63.68	8.6	33.37	8.1	24.6	3.77
I40	30 Mar 2022	8	15.42	59.69	8.6	33.44	8.1	24.7	3.35
I40	30 Mar 2022	9	15.50	53.42	8.6	33.40	8.1	24.6	3.40
I40	30 Mar 2022	10	15.38	55.45	8.6	33.46	8.1	24.7	2.96

NA = not available

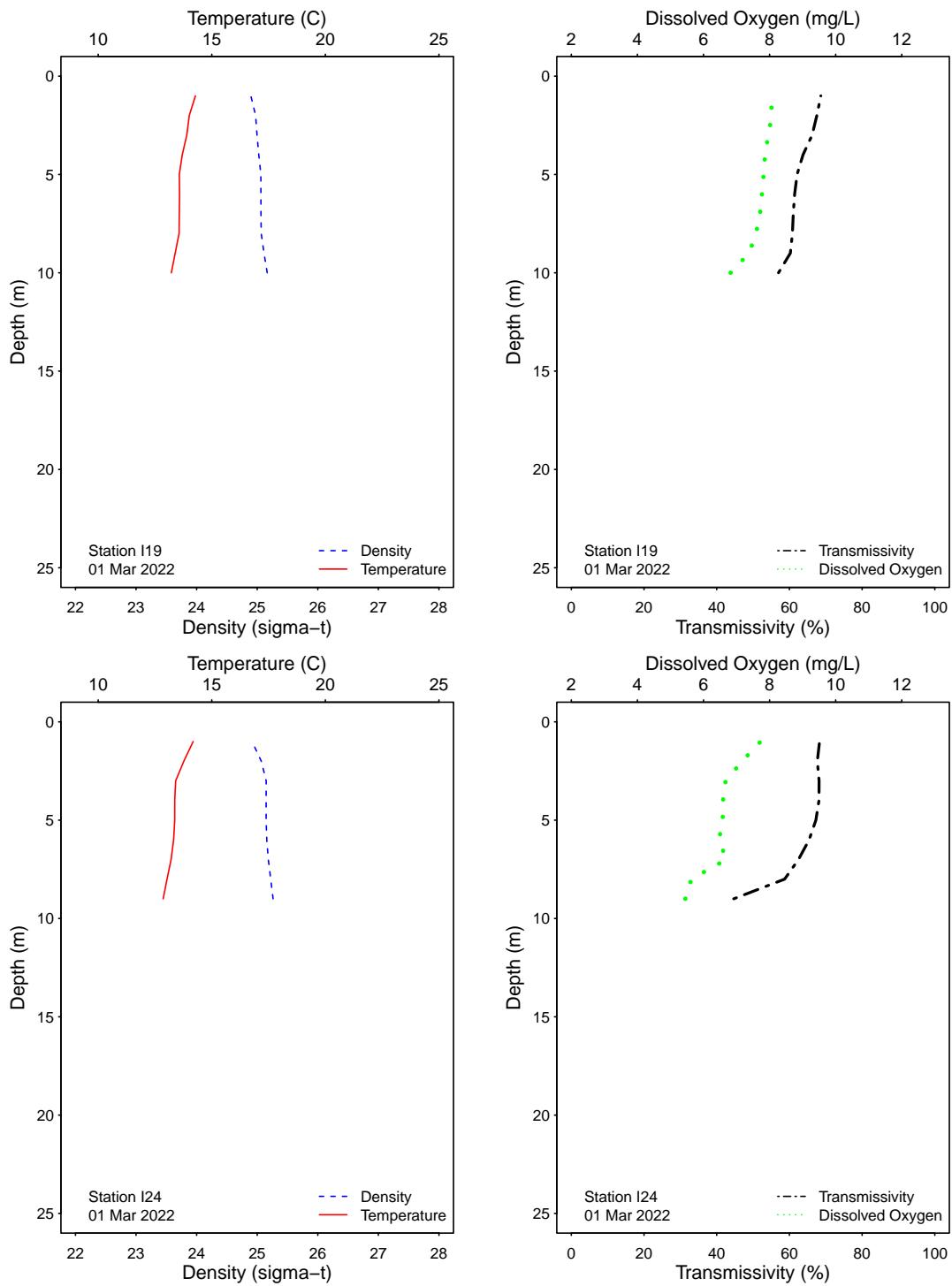


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

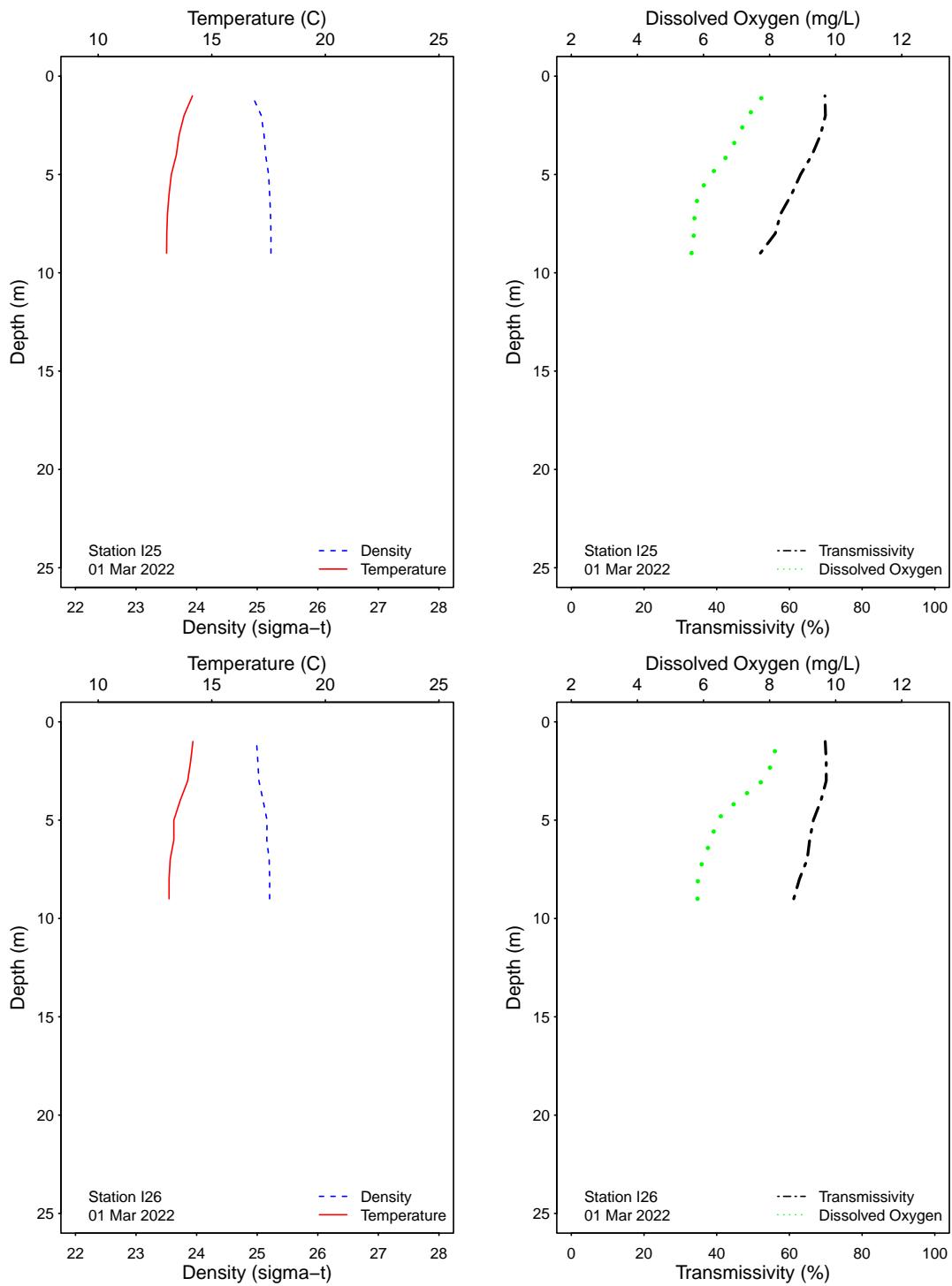


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

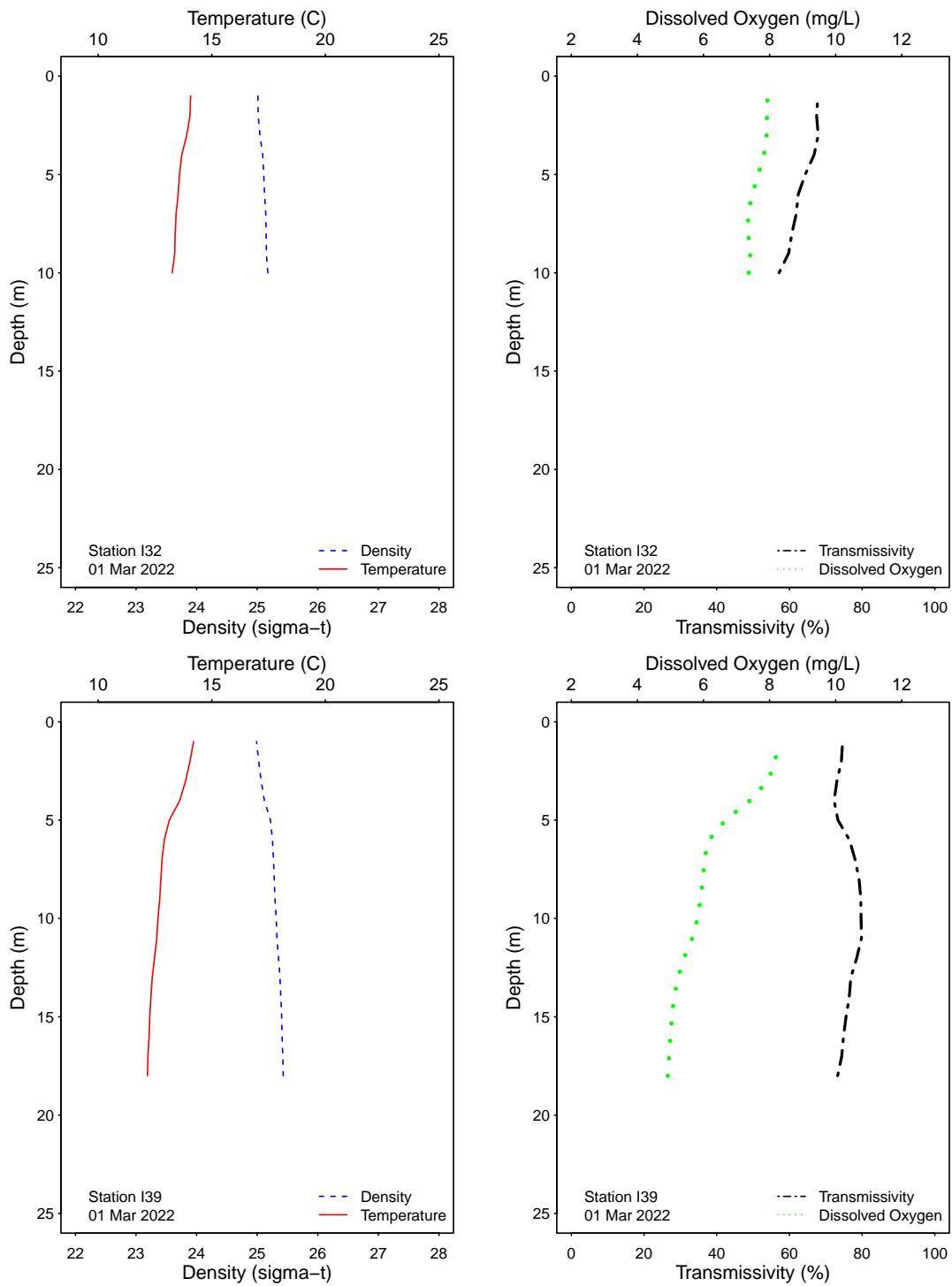


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

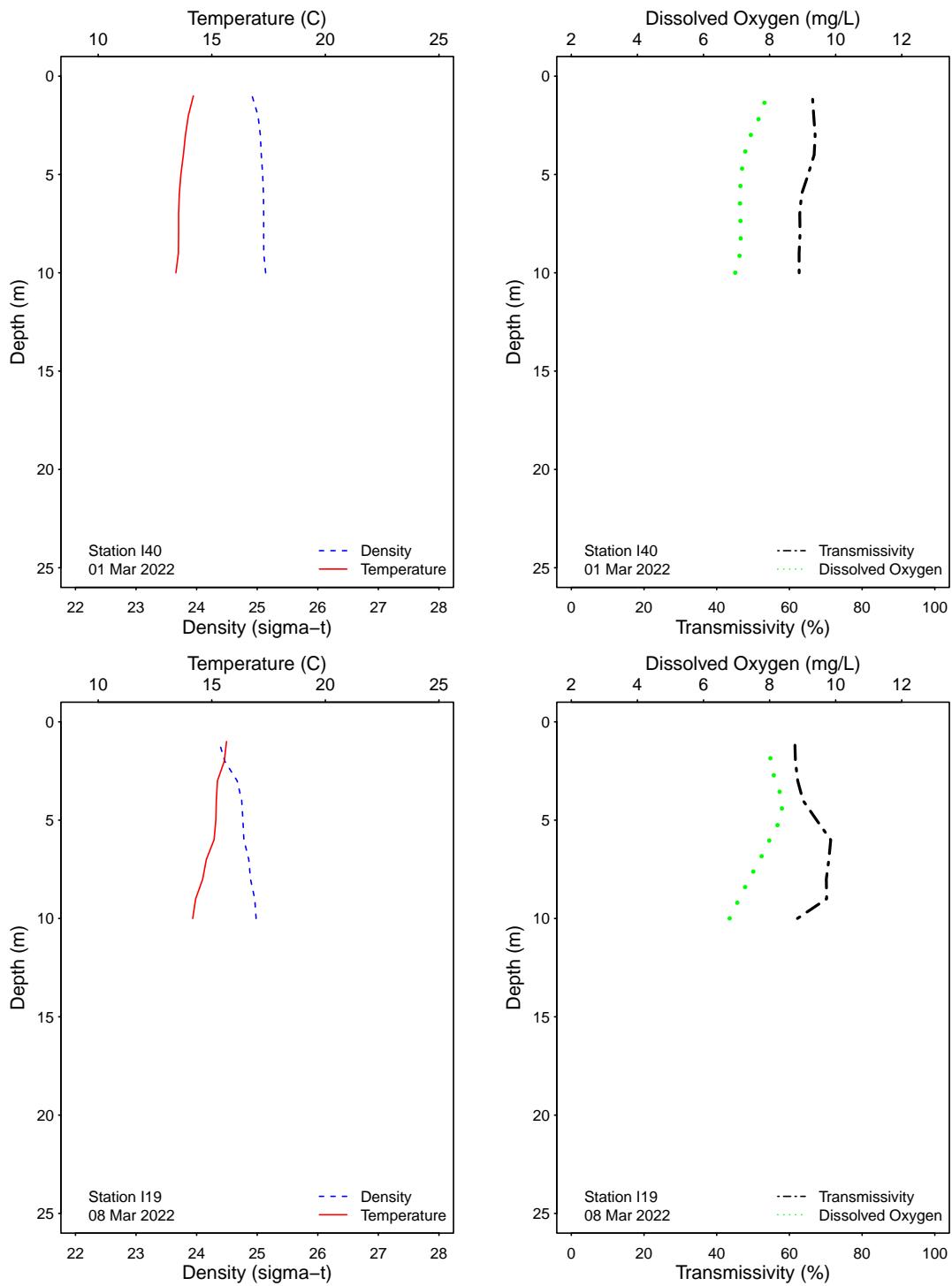


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

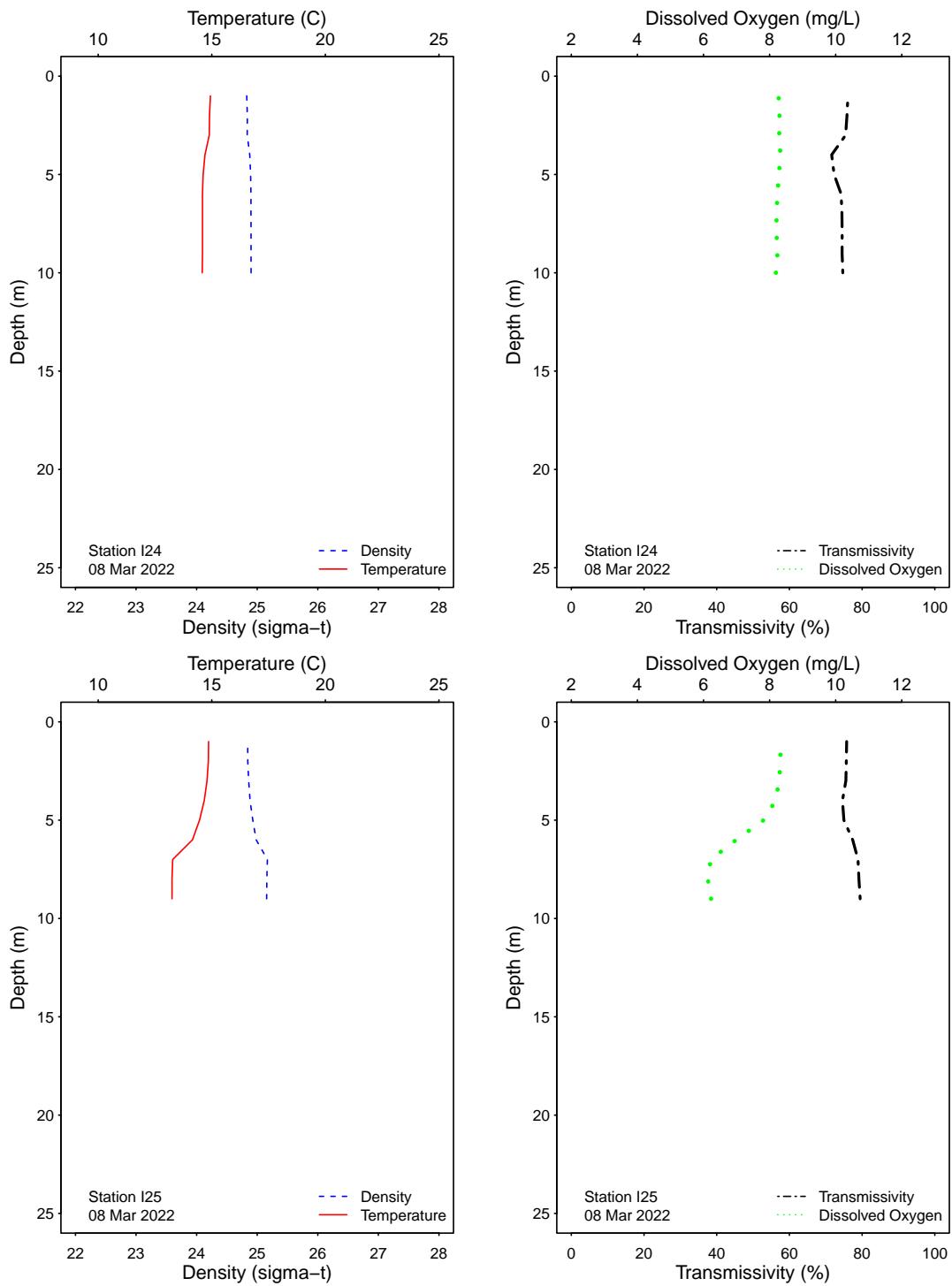


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

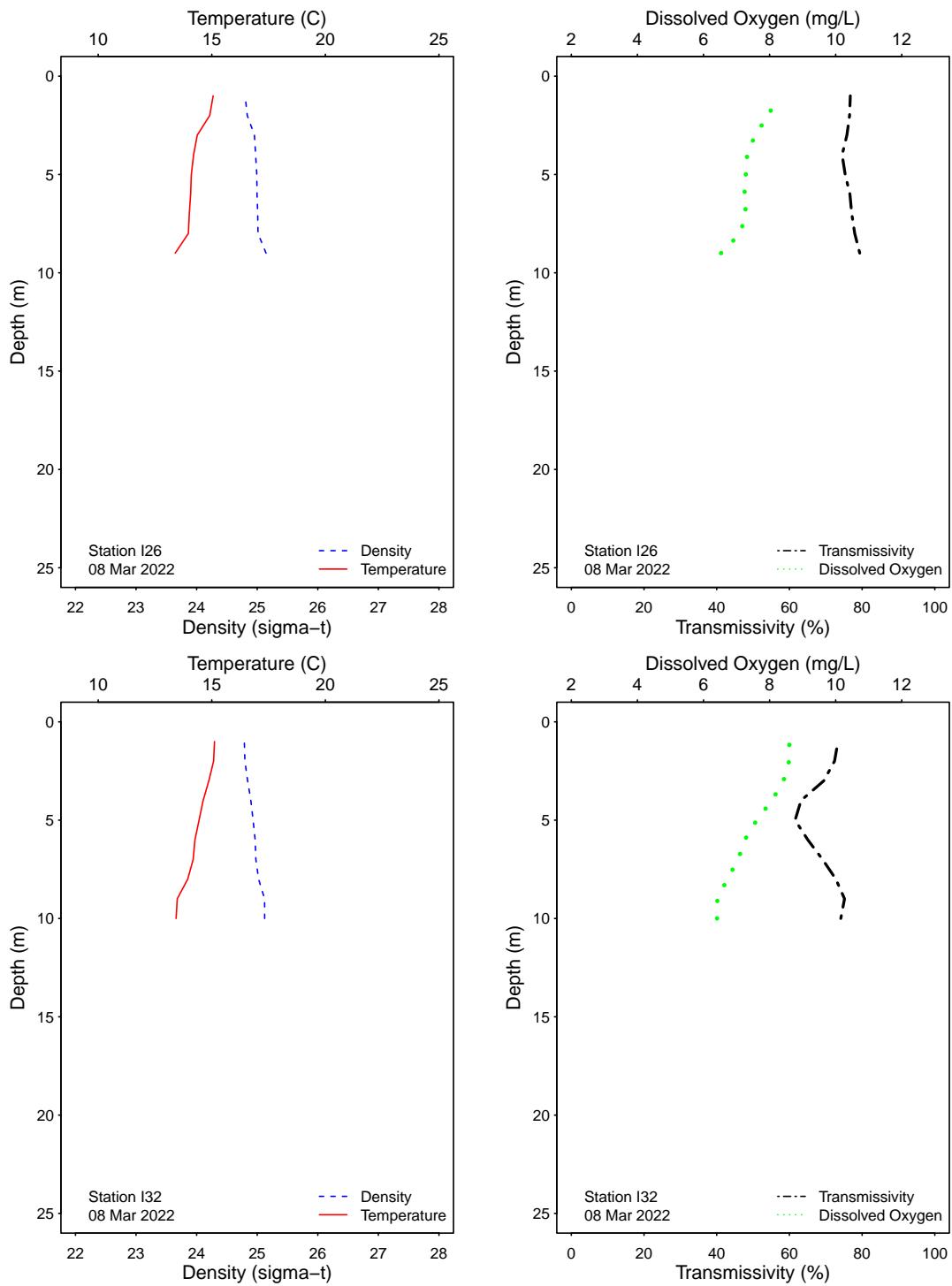


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

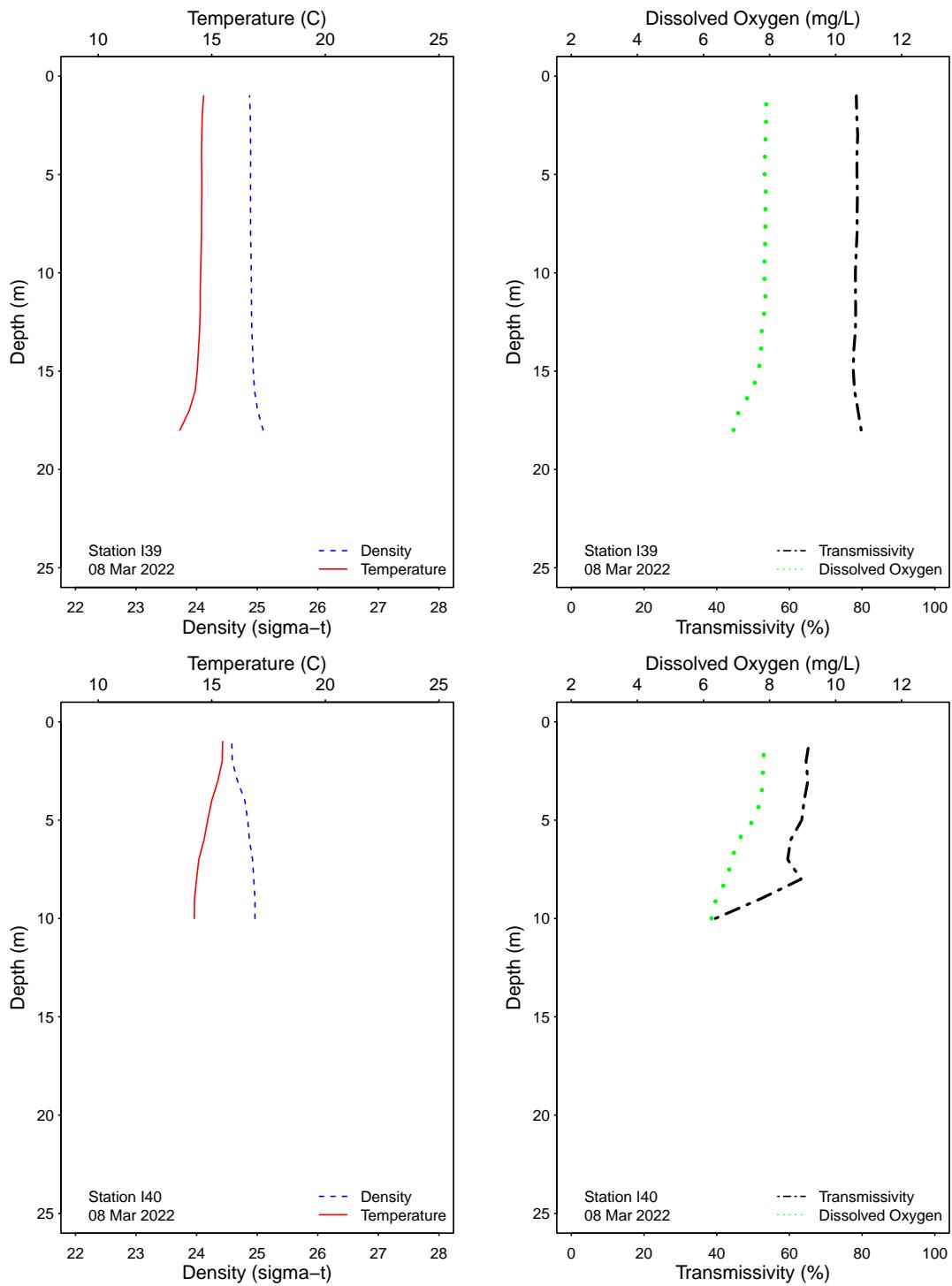


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

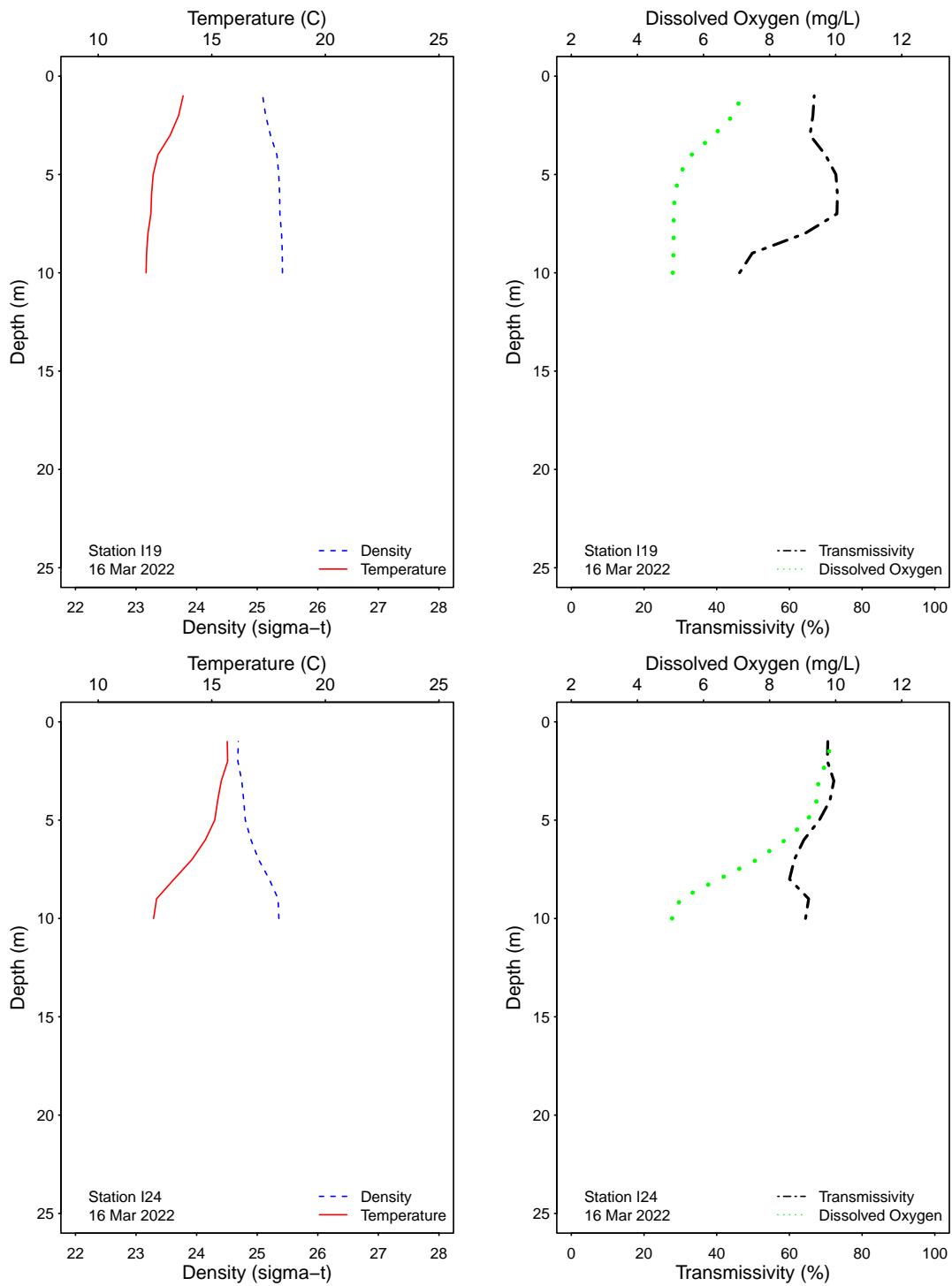


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

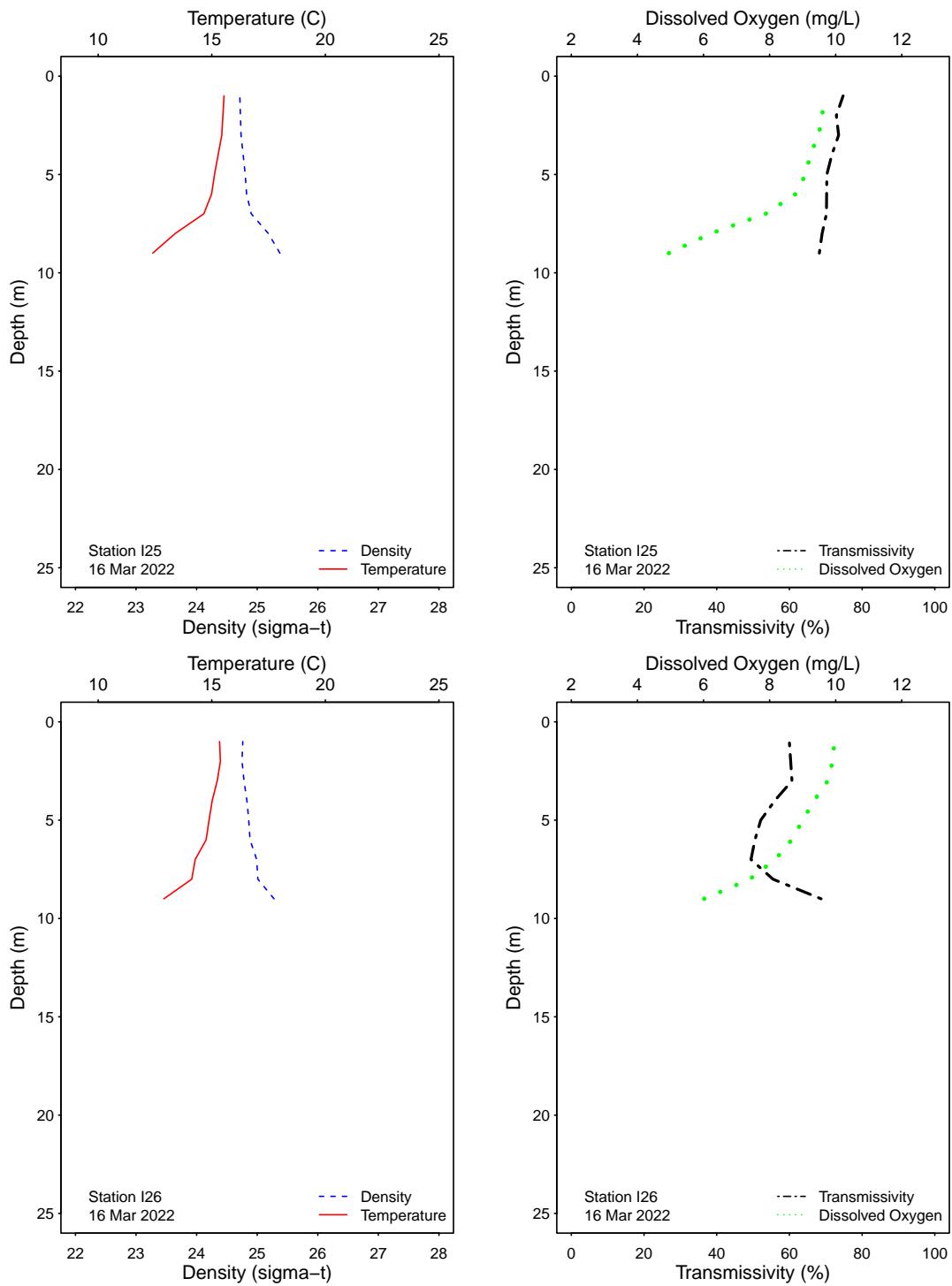


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

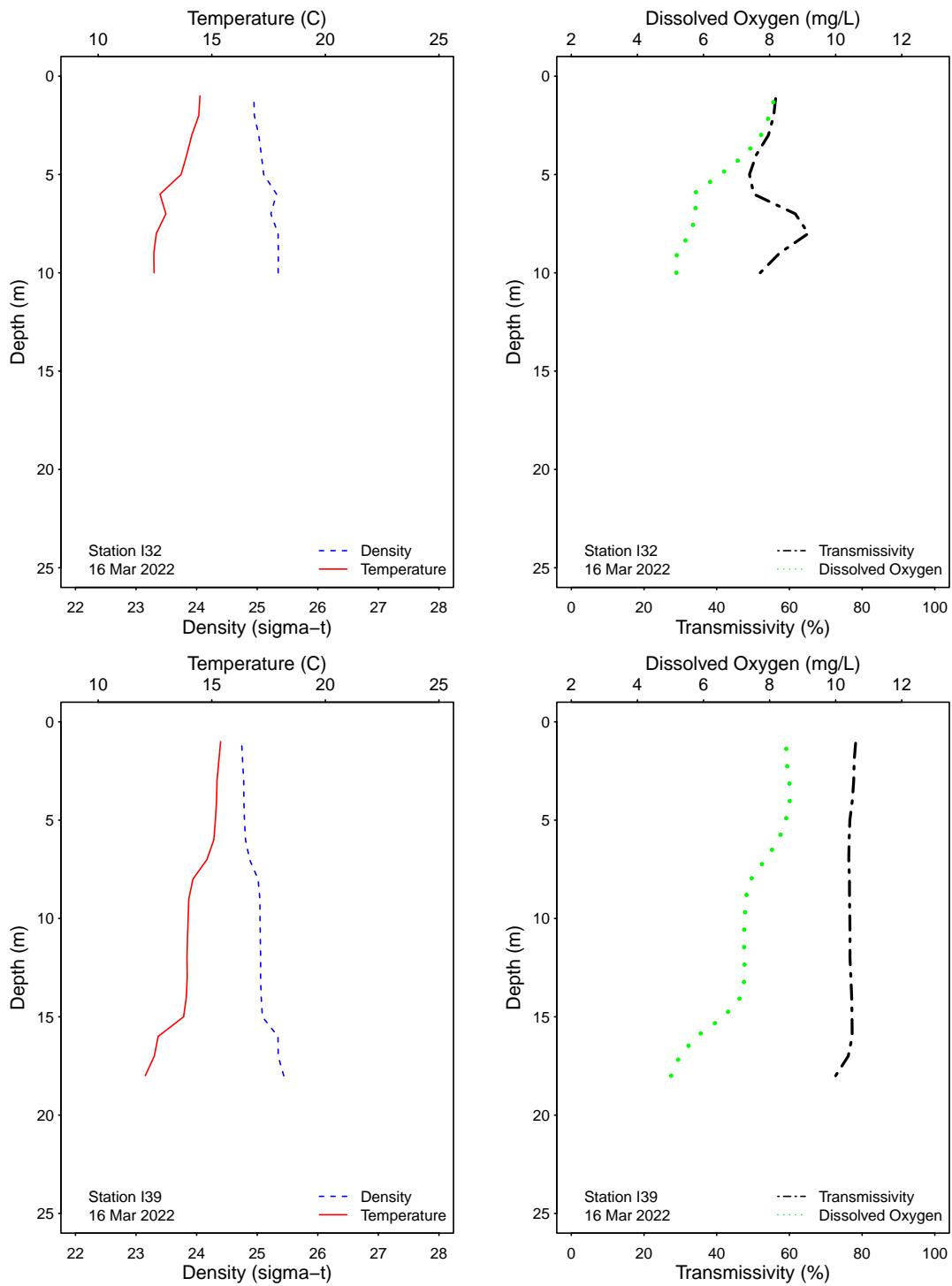


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

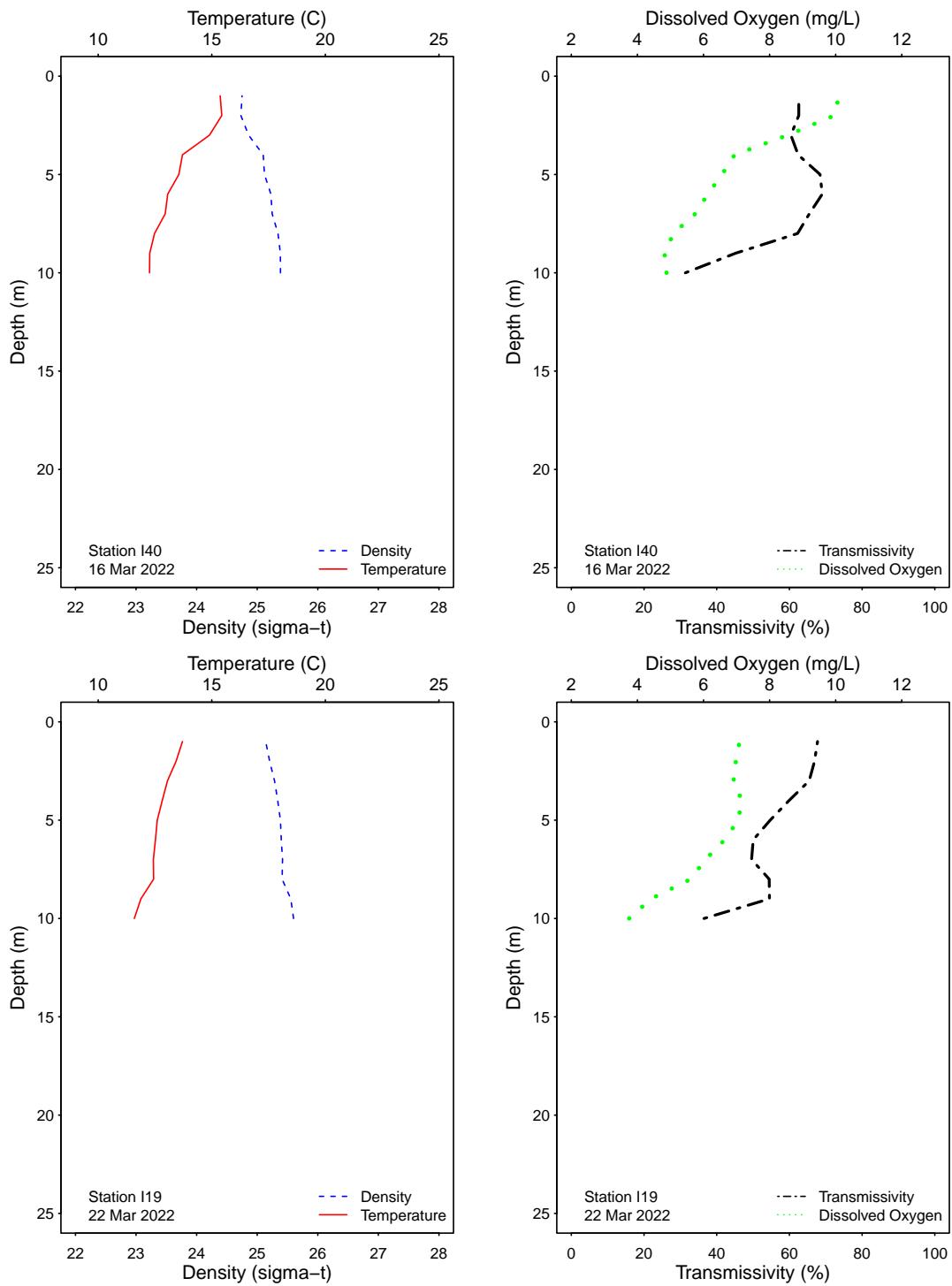


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

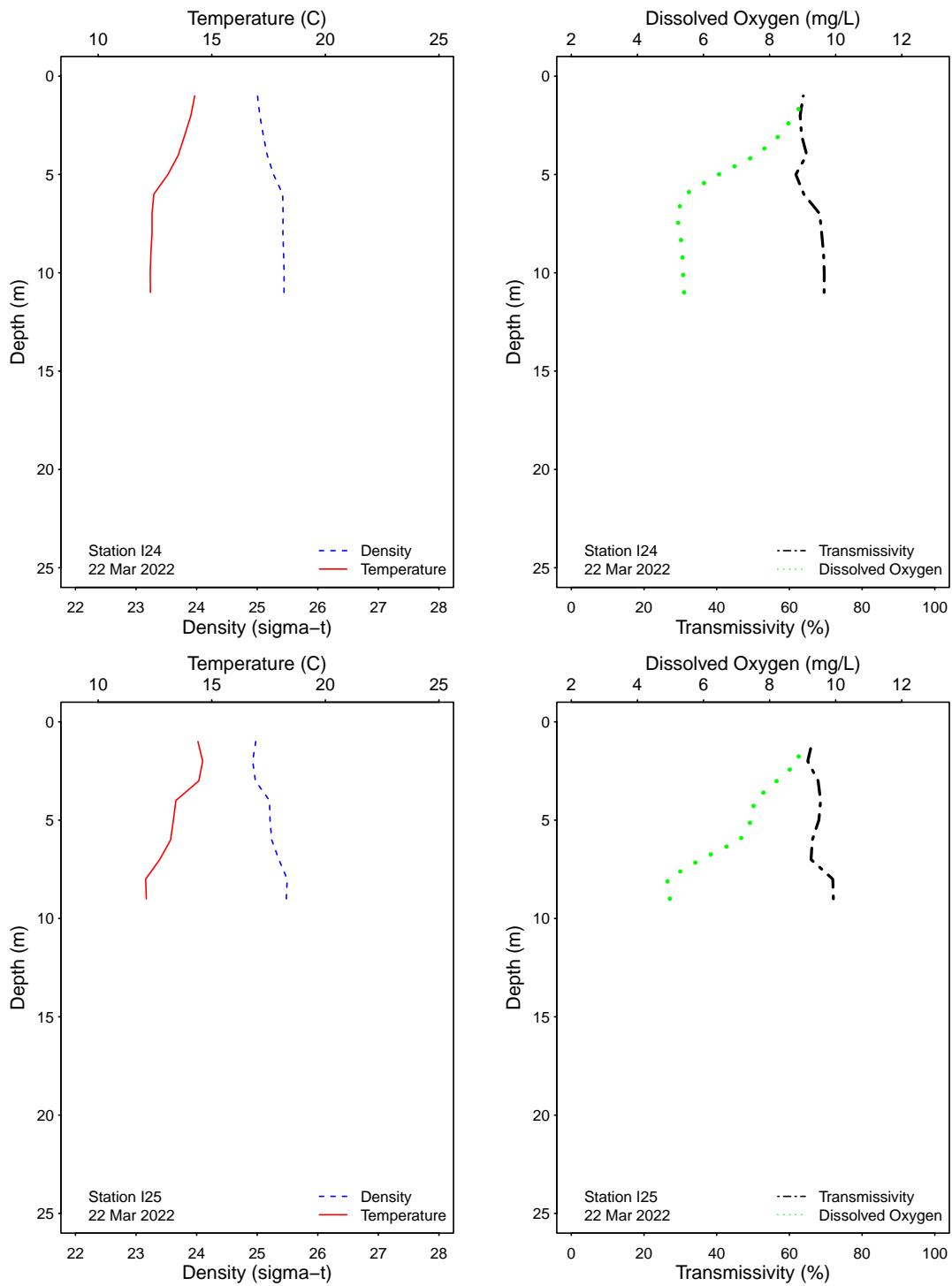


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

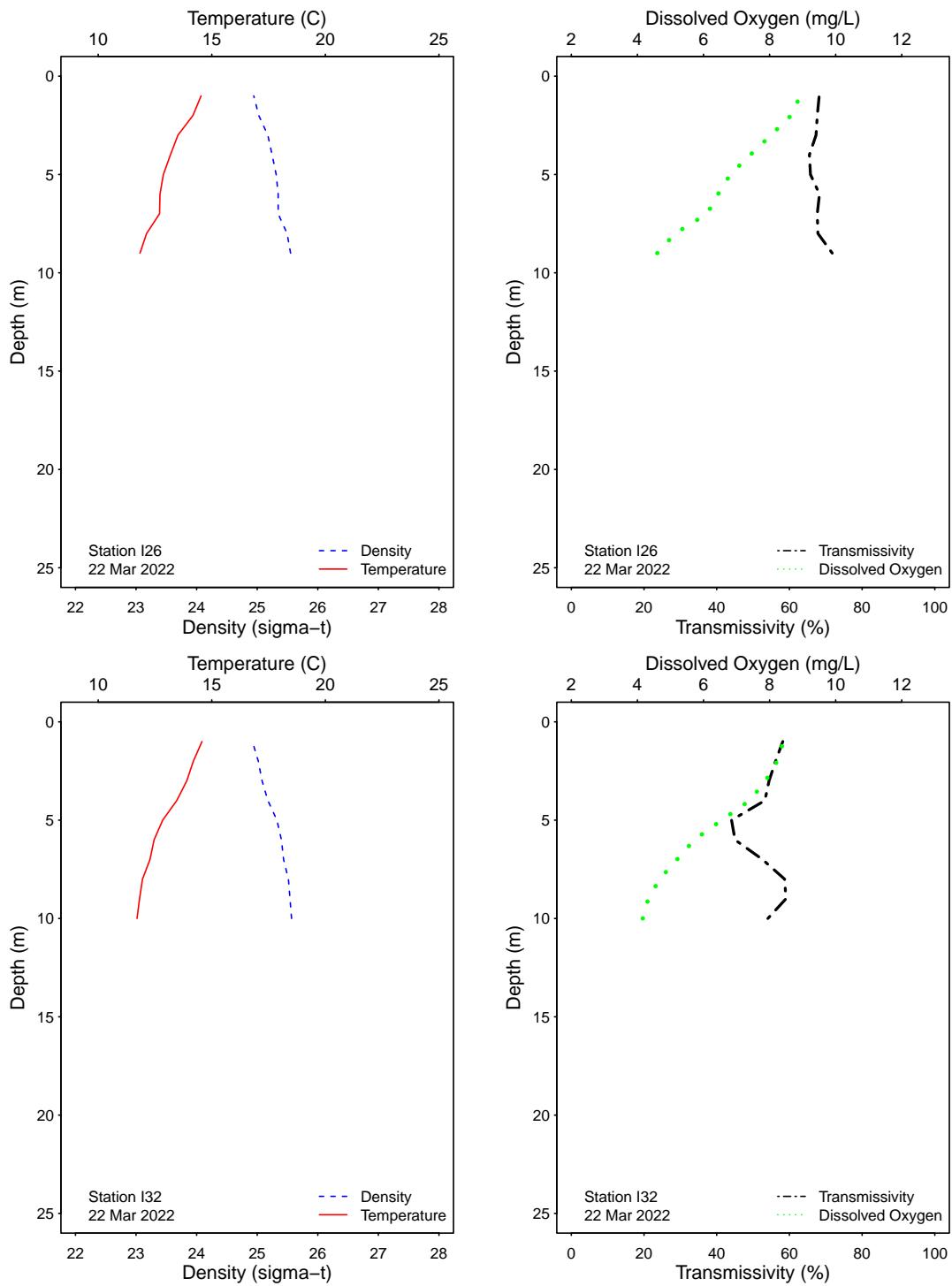


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

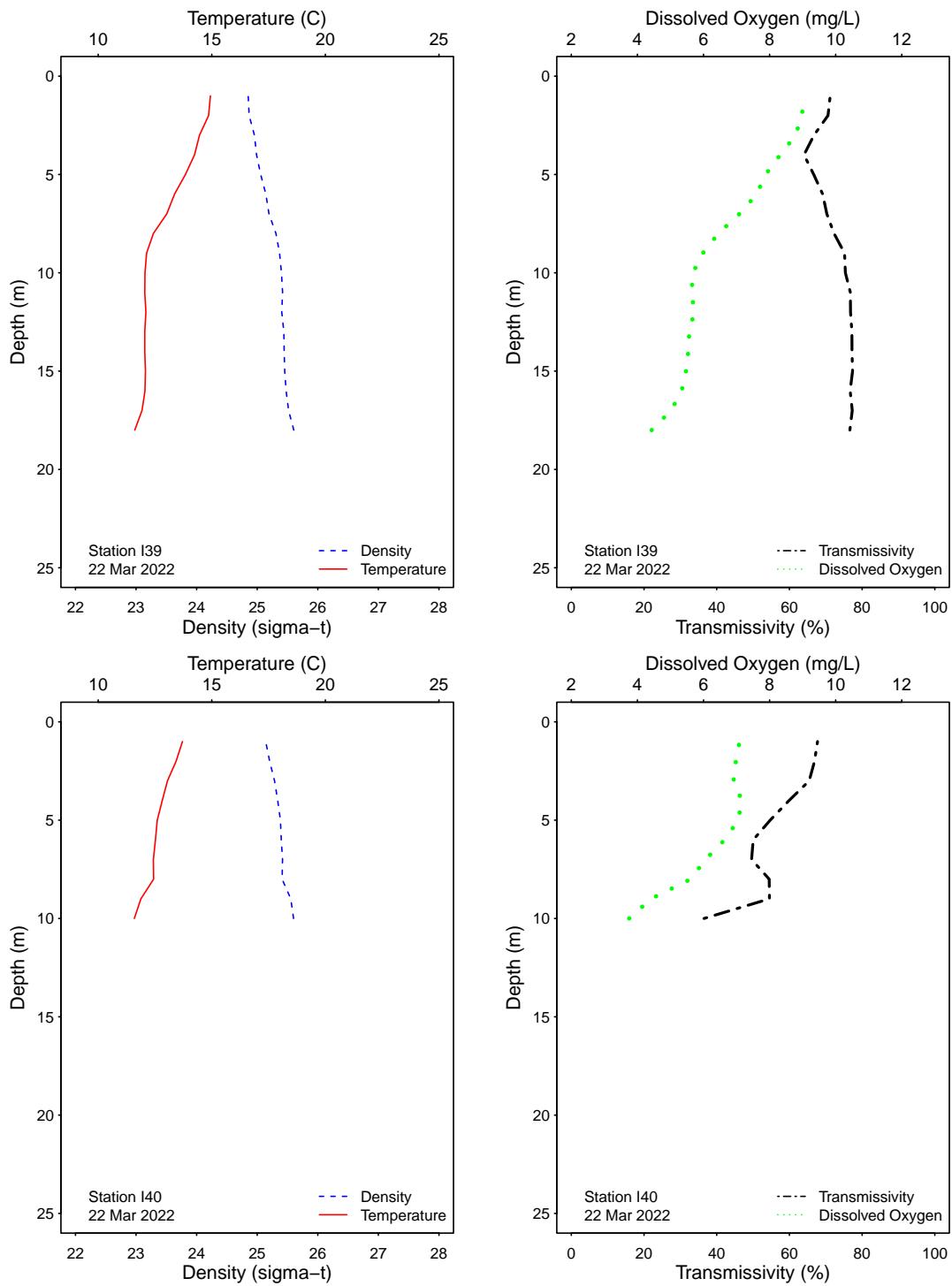


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

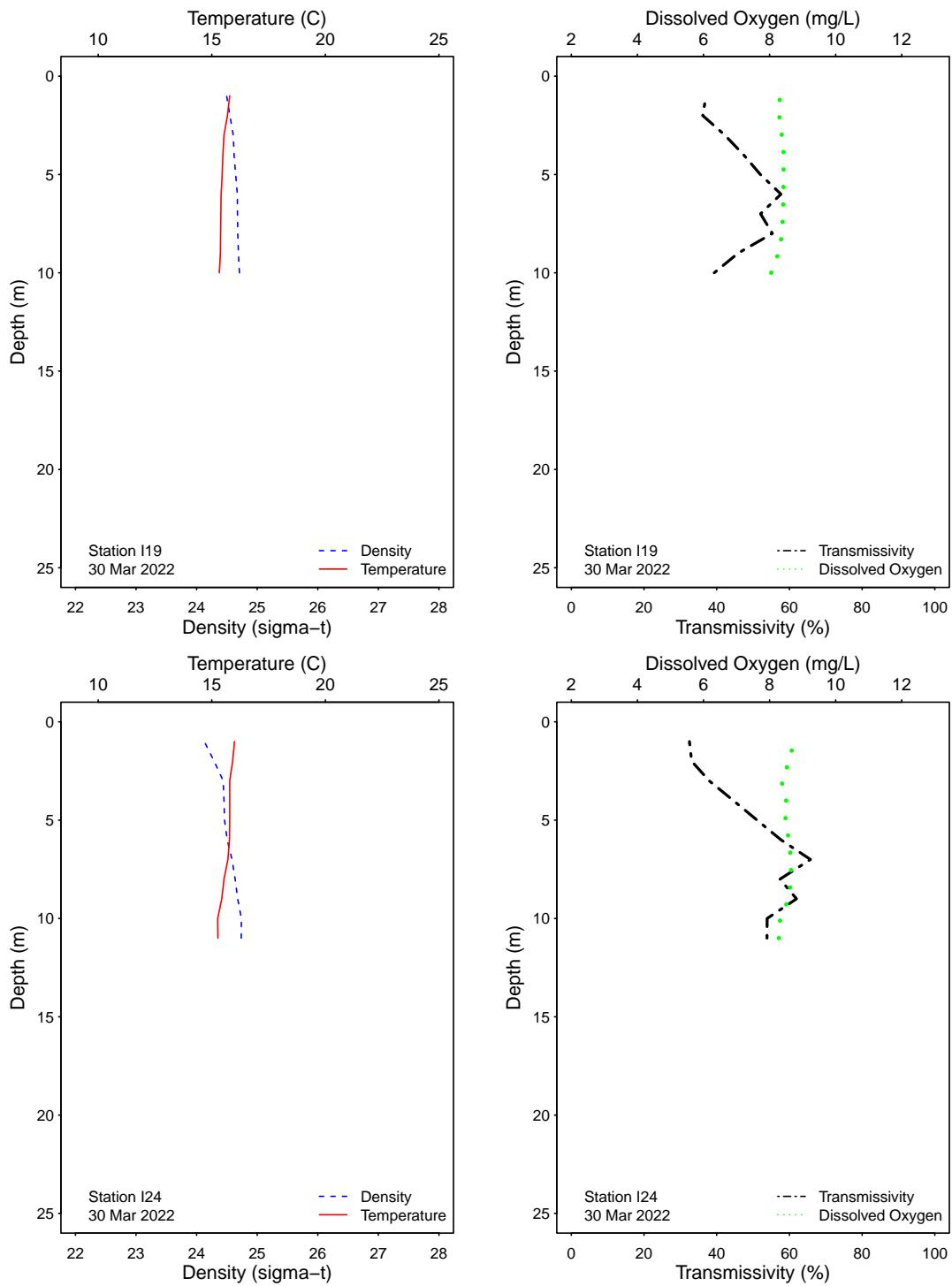


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

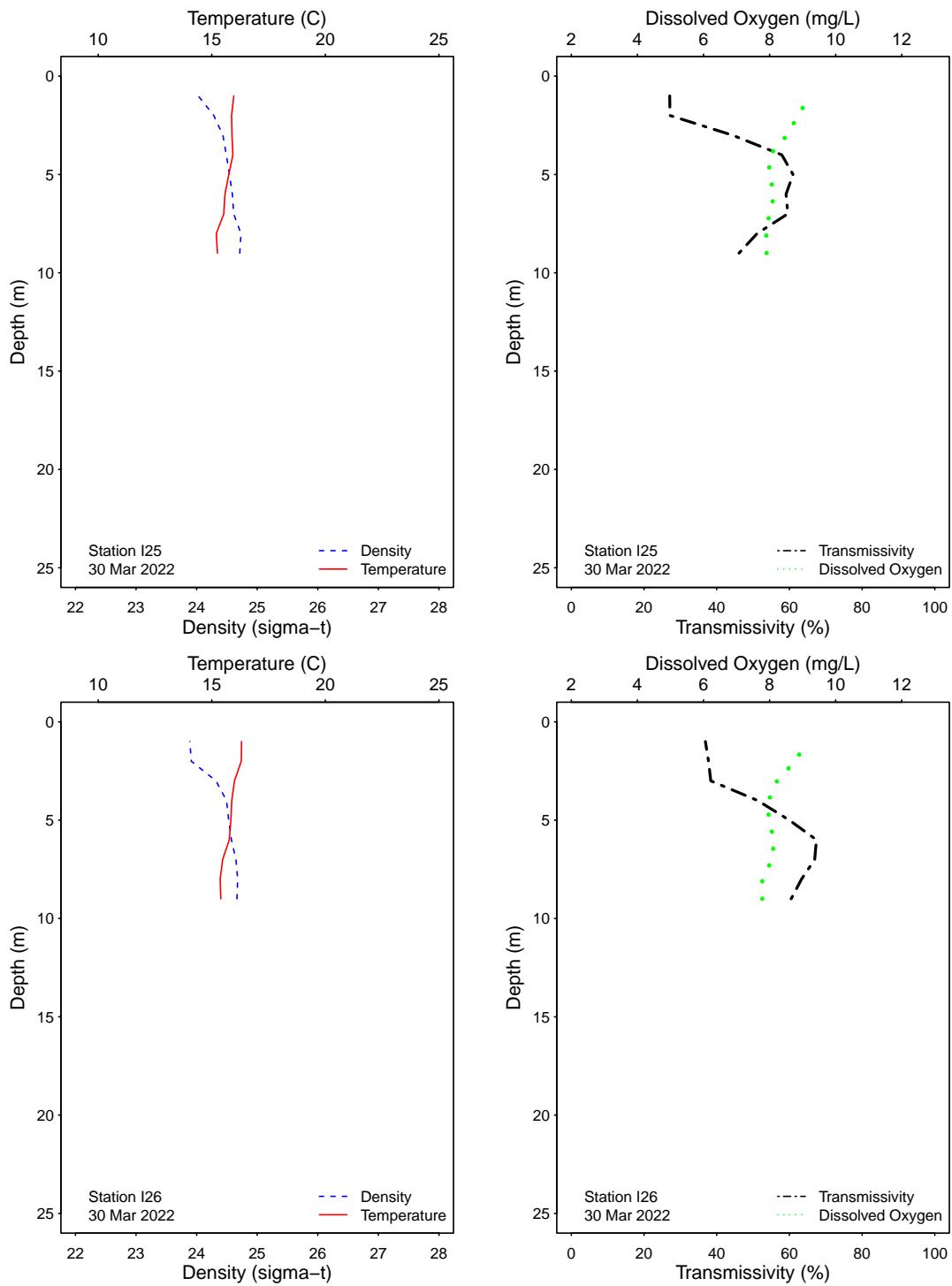


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

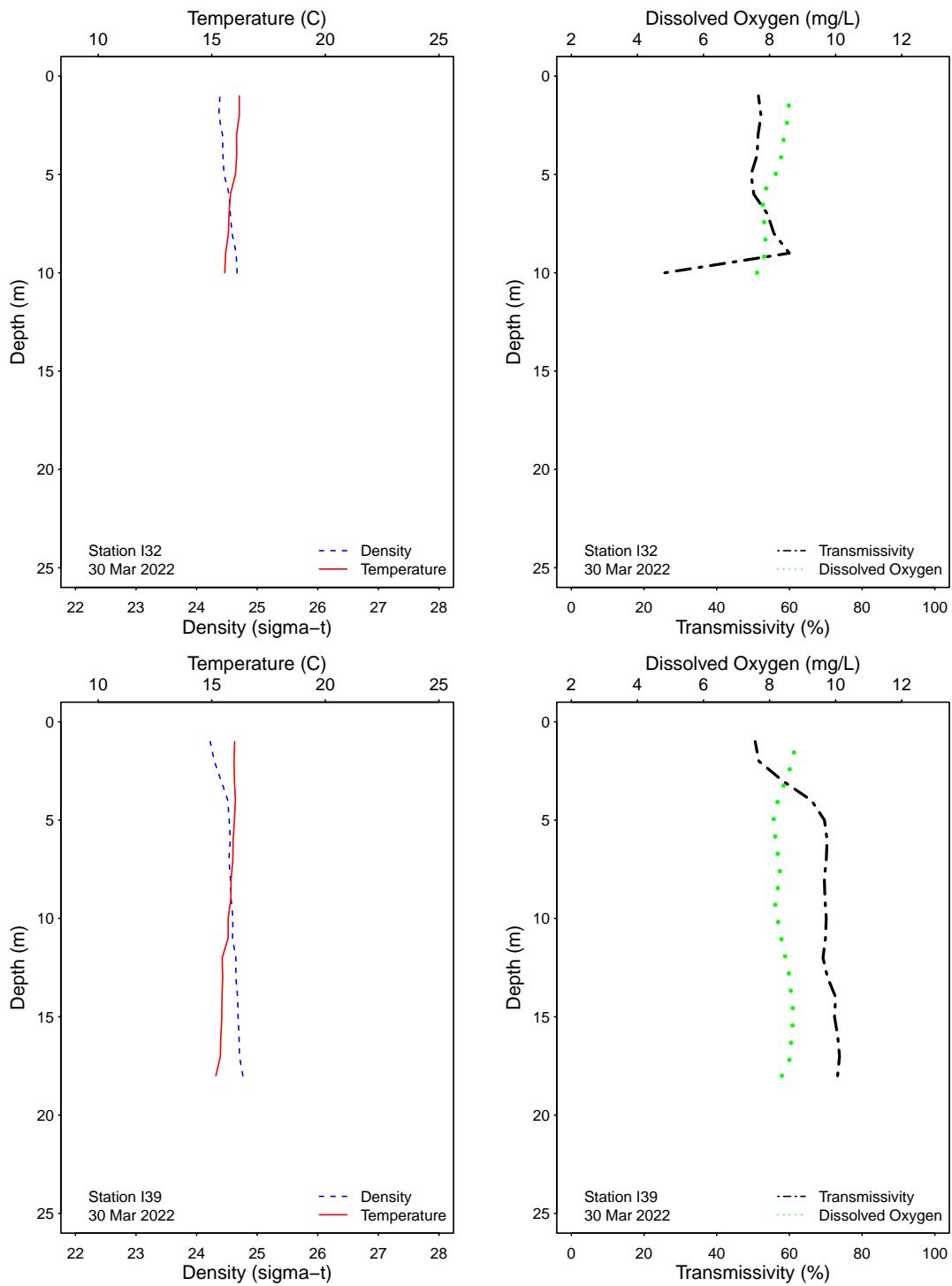


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

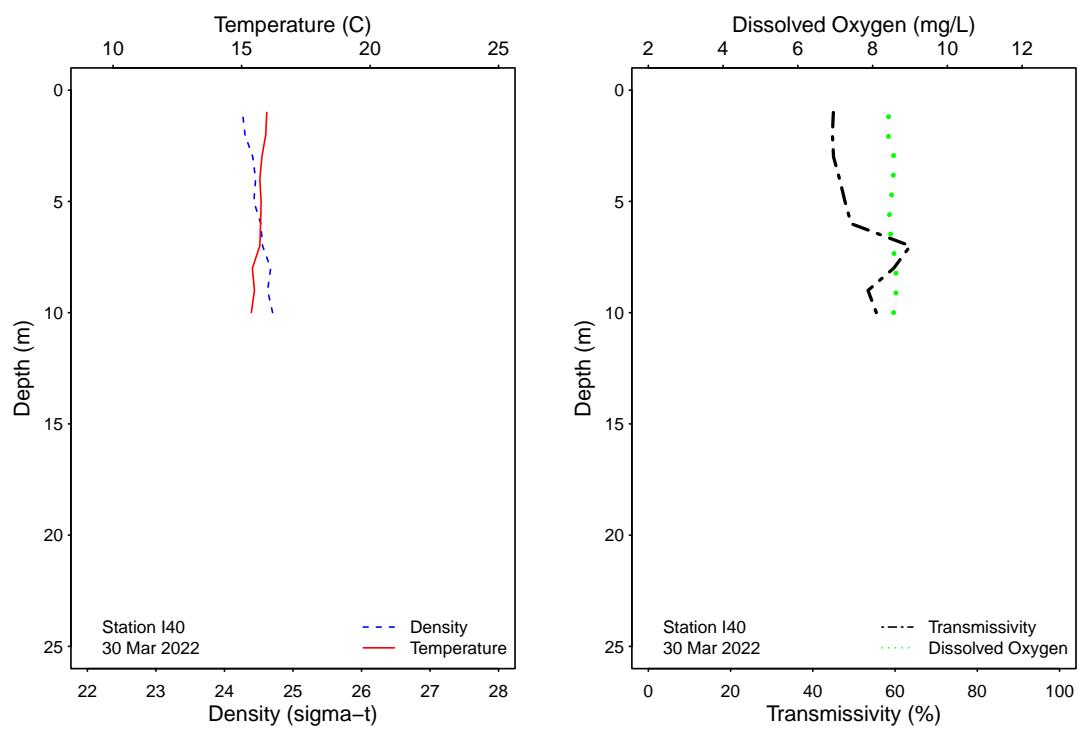


Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

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* (Entero) are reported as CFU/100 mL.

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Entero
I19	01 Mar 2022	6	HF	LAB DUPLICATE	11000	3400e	440
I19	08 Mar 2022	6	BS	LAB DUPLICATE	3800e	110	6e
I19	16 Mar 2022	6	JF	LAB DUPLICATE	10e	<2	<2
I19	22 Mar 2022	6	HF	LAB DUPLICATE	7000	1000	58
I19	30 Mar 2022	6	CRE	LAB DUPLICATE	8800	500	340e
I40	01 Mar 2022	6	HF	LAB DUPLICATE	4400	920	40e
I40	08 Mar 2022	6	BS	LAB DUPLICATE	500	34e	<2
I40	16 Mar 2022	6	JF	LAB DUPLICATE	2e	<2	<2
I40	22 Mar 2022	6	HF	LAB DUPLICATE	8e	<2	<2
I40	30 Mar 2022	6	CRE	LAB DUPLICATE	7800	660	440
S12	01 Mar 2022		KA	FIELD DUPLICATE	<2	<2	<2
S12	01 Mar 2022		KA	LAB DUPLICATE	<2	<2	<2
S12	08 Mar 2022		HF	FIELD DUPLICATE	<2	<2	<2
S12	08 Mar 2022		HF	LAB DUPLICATE	2e	<2	<2
S12	15 Mar 2022		CRE	FIELD DUPLICATE	6e	<2	4e
S12	15 Mar 2022		CRE	LAB DUPLICATE	4e	4e	4e
S12	22 Mar 2022		KA	FIELD DUPLICATE	<2	<2	<2
S12	22 Mar 2022		KA	LAB DUPLICATE	<2	<2	<2
S12	29 Mar 2022		KA	FIELD DUPLICATE	200e	30e	34e
S12	29 Mar 2022		KA	LAB DUPLICATE	200e	48	44

ns = not sampled

ND = no data

