SD Public Utilities

SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

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

JUNE 2025

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

CERTIFIED
Public Utilities Department
Continual Improvement, Prevention of Pollution, Regulatory Compliance
ISO 14001

The City of SAN DIEGO
Public Utilities Department
Environmental Monitoring & Technical Services Division

July 31, 2025

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 June 2025 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 Director, Public Utilities Department

PV/rk

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

INTRODUCTION

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

MATERIALS AND METHODS

Shore Stations

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

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

Kelp Bed Stations

Seven kelp bed and other nearshore stations (I19, I24, I25, I26, I32, I39, I40; collectively referred to as "kelp" stations herein) were sampled weekly 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.

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 quarterly 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 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 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:

<u>Water-Contact Objectives</u>

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 E*nterococci* 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

<u>Shellfish Harvesting Standards</u>

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.

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

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

Quality controls of bacteriological data include laboratory and field duplicate analyses. Laboratory duplicates are performed on approximately 10% of the water quality samples, while field duplicates are performed six times a month (see Appendix A). Laboratory duplicates represent two aliquots of the original sample that are split in the laboratory and analyzed by the same analyst using identical procedures within the same analytical run. The results of these analyses provide a measure of intra-analyst precision. In contrast, field duplicates represent two separate samples collected at the same time from the same site, which are handled under identical circumstances and treated exactly the same throughout field and lab procedures. The results of these analyses provide a measure of precision associated with sample collection, preservation, storage, and lab procedures. The sign test (see Gilbert, 1987[2]) 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 2025 Quality Assurance Report, which will be completed in March 2026.

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 June**,** each of the eight shore stations located north of the border was out of compliance with the 2019 California Ocean Plan (Ocean Plan) water contact standards on one or more days as follows:
    - The 30-day running geometric mean standard for fecal coliforms was exceeded at stations S5, S6, and S11.
    - The single sample maximum (SSM) standard for fecal coliforms was exceeded at stations S5, S6, S11, and S12.
    - The 6-week running geometric mean standard for *Enterococcus* was exceeded at stations S5, S6, S10, S11, and S12.
    - The statistical threshold value (STV) standard for *Enterococcus* was exceeded at stations S5, S6, S11, and S12.

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 coliforms was exceeded at stations S5, S6, S9, S10, S11, and S12.
        - The STV standard for total coliforms was exceeded at stations S4, S5, S6, S8, S10, S11, and S12.
    - A sewage-like odor was observed at stations S5, S6, and S11 on one or more days in June.
    - 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 June 2, 9, 17, 24, and 30.
    - During June, four of the seven kelp bed stations were out of compliance with the various 2019 Ocean Plan water contact standards on one or more days as follows:
        - The 6-week running geometric mean standard for *Enterococcus* was exceeded at station I40.
        - The 30-day running median standard for total coliforms was exceeded at stations I19, I24, I32, and I40.
        - The STV standard for total coliforms was exceeded at stations I19, I24, I32, and I40.
    - Water column temperatures ranged from 11.67 to 19.75°C. The difference between surface and bottom waters ranged from 0.86 to 7.12°C.
    - Concentrations of chlorophyll *a* ranged from 0.47 to 20.33 µg/L at the kelp bed stations.
    - A sewage-like odor was observed at station I40 on one or more days in June.

- **Offshore Water Quality Sampling**
    - Quarterly sampling was not conducted during June at the offshore stations. The next quarterly sampling is scheduled for August 2025.

TABLES AND FIGURES

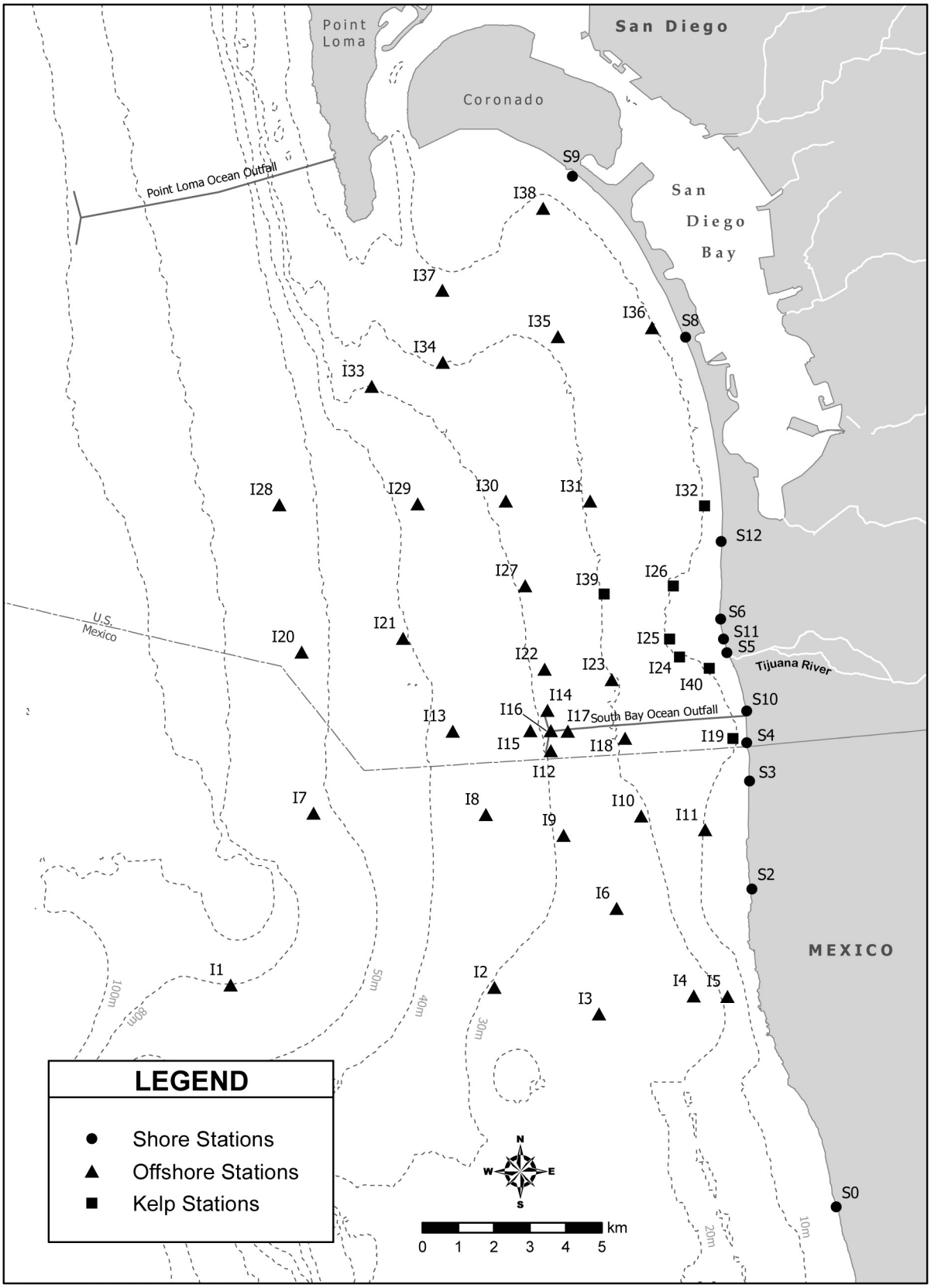

Figure 1.1 Station Map

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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 Jun 2025	7	**2588**	69	2	5	6	**366**	7
02 Jun 2025	7	**2588**	69	2	5	6	**366**	7
03 Jun 2025	8	**3342**	150	4	5	8	**655**	18
04 Jun 2025	8	**3342**	150	4	5	8	**655**	18
05 Jun 2025	7	**2588**	124	4	5	9	**472**	15
06 Jun 2025	7	**2588**	124	4	5	9	**472**	15
07 Jun 2025	7	**2588**	124	4	5	9	**472**	15
08 Jun 2025	7	**2588**	124	4	5	9	**472**	15
09 Jun 2025	7	**2588**	124	4	5	9	**472**	15
10 Jun 2025	7	**2588**	124	4	5	9	**472**	15
11 Jun 2025	7	**2588**	124	4	5	9	**472**	15
12 Jun 2025	7	**6982**	**282**	4	4	9	**1504**	18
13 Jun 2025	7	**6982**	**282**	4	4	9	**1504**	18
14 Jun 2025	7	**6982**	**282**	4	4	9	**1504**	18
15 Jun 2025	7	**6982**	**282**	4	4	9	**1504**	18
16 Jun 2025	7	**6982**	**282**	4	4	9	**1504**	18
17 Jun 2025	9	**7641**	124	4	3	13	**499**	13
18 Jun 2025	9	**7641**	124	4	3	13	**499**	13
19 Jun 2025	13	**6982**	**282**	4	4	20	**503**	18
20 Jun 2025	13	**6982**	**282**	4	4	20	**503**	18
21 Jun 2025	13	**6982**	**282**	4	4	20	**503**	18
22 Jun 2025	13	**6982**	**282**	4	4	20	**503**	18
23 Jun 2025	13	**6982**	**282**	4	4	20	**503**	18
24 Jun 2025	9	**2416**	167	4	5	13	**330**	13
25 Jun 2025	9	**2416**	167	4	5	13	**330**	13
26 Jun 2025	10	**1382**	73	4	7	11	**209**	10
27 Jun 2025	10	**1382**	73	4	7	11	**209**	10
28 Jun 2025	11	**897**	34	4	7	11	131	10
29 Jun 2025	11	**897**	34	4	7	11	131	10
30 Jun 2025	11	**897**	34	4	7	11	131	10

* 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
03 Jun 2025	IC	**E**	**E**	IC	IC	IC	**E**	**E**
12 Jun 2025	IC	**E**	IC	IC	IC	IC	**E**	IC
17 Jun 2025	IC	**E**	IC	IC	IC	IC	IC	IC
24 Jun 2025	IC	IC	IC	IC	IC	IC	IC	IC
26 Jun 2025	IC	IC	IC	IC	IC	IC	IC	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 Jun 2025	14	**1737**	**46**	3	8	**32**	**205**	**42**
02 Jun 2025	14	**1737**	**46**	3	8	**32**	**205**	**42**
03 Jun 2025	22	**1737**	**194**	5	12	**31**	**668**	**119**
04 Jun 2025	22	**1737**	**194**	5	12	**31**	**668**	**119**
05 Jun 2025	22	**1737**	**194**	5	12	**31**	**668**	**119**
06 Jun 2025	22	**1737**	**194**	5	12	**31**	**668**	**119**
07 Jun 2025	22	**1737**	**194**	5	12	**31**	**668**	**119**
08 Jun 2025	22	**1737**	**194**	5	12	**31**	**668**	**119**
09 Jun 2025	22	**1737**	**194**	5	12	**31**	**668**	**119**
10 Jun 2025	28	**2626**	**249**	5	13	**46**	**1259**	**69**
11 Jun 2025	28	**2626**	**249**	5	13	**46**	**1259**	**69**
12 Jun 2025	25	**3383**	**290**	4	11	**33**	**1421**	**46**
13 Jun 2025	25	**3383**	**290**	4	11	**33**	**1421**	**46**
14 Jun 2025	25	**3383**	**290**	4	11	**33**	**1421**	**46**
15 Jun 2025	25	**3383**	**290**	4	11	**33**	**1421**	**46**
16 Jun 2025	25	**3383**	**290**	4	11	**33**	**1421**	**46**
17 Jun 2025	19	**3841**	**125**	4	11	26	**442**	26
18 Jun 2025	19	**3841**	**125**	4	11	26	**442**	26
19 Jun 2025	19	**3841**	**125**	4	11	26	**442**	26
20 Jun 2025	19	**3841**	**125**	4	11	26	**442**	26
21 Jun 2025	19	**3841**	**125**	4	11	26	**442**	26
22 Jun 2025	19	**3841**	**125**	4	11	26	**442**	26
23 Jun 2025	19	**3841**	**125**	4	11	26	**442**	26
24 Jun 2025	10	**2706**	**177**	3	9	15	**863**	26
25 Jun 2025	10	**2706**	**177**	3	9	15	**863**	26
26 Jun 2025	10	**2706**	**177**	3	9	15	**863**	26
27 Jun 2025	10	**2706**	**177**	3	9	15	**863**	26
28 Jun 2025	10	**2706**	**177**	3	9	15	**863**	26
29 Jun 2025	10	**2706**	**177**	3	9	15	**863**	26
30 Jun 2025	10	**2706**	**177**	3	9	15	**863**	26

* 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
June	IC	**E**	**E**	IC	IC	IC	**E**	**E**

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

Table 2.5

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

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Jun 2025	*20	***10700**	***1224**	*20	*20	***150**	***10700**	*33
02 Jun 2025	*20	***10700**	***1224**	*20	*20	***150**	***10700**	*33
03 Jun 2025	20	**16000**	**2400**	20	20	**200**	**16000**	40
04 Jun 2025	20	**16000**	**2400**	20	20	**200**	**16000**	40
05 Jun 2025	*20	***10700**	***1224**	*20	***110**	***150**	***10700**	*33
06 Jun 2025	*20	***10700**	***1224**	*20	***110**	***150**	***10700**	*33
07 Jun 2025	*20	***10700**	***1224**	*20	***110**	***150**	***10700**	*33
08 Jun 2025	*20	***10700**	***1224**	*20	***110**	***150**	***10700**	*33
09 Jun 2025	*20	***10700**	***1224**	*20	***110**	***150**	***10700**	*33
10 Jun 2025	*20	***10700**	***1224**	*20	***110**	***150**	***10700**	*33
11 Jun 2025	*20	***10700**	***1224**	*20	***110**	***150**	***10700**	*33
12 Jun 2025	*20	***16000**	***1700**	*20	***200**	***140**	***12400**	***120**
13 Jun 2025	*20	***16000**	***1700**	*20	***200**	***140**	***12400**	***120**
14 Jun 2025	*20	***16000**	***1700**	*20	***200**	***140**	***12400**	***120**
15 Jun 2025	*20	***16000**	***1700**	*20	***200**	***140**	***12400**	***120**
16 Jun 2025	*20	***16000**	***1700**	*20	***200**	***140**	***12400**	***120**
17 Jun 2025	20	**16000**	**1000**	20	**200**	**200**	**8800**	40
18 Jun 2025	20	**16000**	**1000**	20	**200**	**200**	**8800**	40
19 Jun 2025	*50	***16000**	***1700**	*20	***200**	***200**	***7100**	***120**
20 Jun 2025	*50	***16000**	***1700**	*20	***200**	***200**	***7100**	***120**
21 Jun 2025	*50	***16000**	***1700**	*20	***200**	***200**	***7100**	***120**
22 Jun 2025	*50	***16000**	***1700**	*20	***200**	***200**	***7100**	***120**
23 Jun 2025	*50	***16000**	***1700**	*20	***200**	***200**	***7100**	***120**
24 Jun 2025	20	**16000**	**1000**	20	**200**	**200**	**5400**	**200**
25 Jun 2025	20	**16000**	**1000**	20	**200**	**200**	**5400**	**200**
26 Jun 2025	*50	***16000**	***800**	*20	***200**	***140**	***4600**	***200**
27 Jun 2025	*50	***16000**	***800**	*20	***200**	***140**	***4600**	***200**
28 Jun 2025	*50	***16000**	***800**	*20	***200**	***140**	***4600**	***200**
29 Jun 2025	*50	***16000**	***800**	*20	***200**	***140**	***4600**	***200**
30 Jun 2025	*50	***16000**	***800**	*20	***200**	***140**	***4600**	***200**

* Median calculated using n<5

Table 2.6

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

Date	S4	S5	S6	S8	S9	S10	S11	S12
June	**E**	**E**	**E**	**E**	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 fecal coliform (Fecal) and *Enterococcus* (Entero) are reported as CFU/100 mL. Comments follow the data summary.

Station	Date	Time	Total	Fecal	Entero
S0	03 Jun 2025	835	6200	560	300e
S0	12 Jun 2025	815	1000	180e	120e
S0	17 Jun 2025	830	400e	220e	120e
S0	24 Jun 2025	835	>16000	6600	5400
S10	03 Jun 2025	1059	520	42	66
S10	12 Jun 2025	1043	80e	8e	6e
S10	17 Jun 2025	1100	200e	120e	8e
S10	24 Jun 2025	1043	<20	<2	<2
S10	26 Jun 2025	1053		2e	
S11	03 Jun 2025	943	>16000	>12000	>12000
S11	12 Jun 2025	933	8800	660	2600e
S11	17 Jun 2025	946	<20	<2	2e
S11	24 Jun 2025	933	400e	40e	110
S11	26 Jun 2025	945		60e	
S12	03 Jun 2025	801	11000	2200e	1000
S12	12 Jun 2025	804	<200	6e	6e
S12	17 Jun 2025	810	20e	<2	<2
S12	24 Jun 2025	800	<200	2e	<2
S12	26 Jun 2025	812		2e	
S2	03 Jun 2025	950	3200e	380e	540
S2	12 Jun 2025	930	140e	30e	66
S2	17 Jun 2025	950	260e	20e	18e
S2	24 Jun 2025	945	<20	<2	2e
S3	03 Jun 2025	915	200e	82	98
S3	12 Jun 2025	855	<200	48	48
S3	17 Jun 2025	910	40e	4e	2e
S3	24 Jun 2025	920	<200	74	20e
S4	03 Jun 2025	1121	740	20e	84
S4	12 Jun 2025	1103	20e	6e	14e
S4	17 Jun 2025	1119	80e	40e	14e
S4	24 Jun 2025	1104	<20	<2	<2
S4	26 Jun 2025	1110		16e	
S5	03 Jun 2025	914	>16000	>12000	>12000
S5	12 Jun 2025	903	>16000	>12000	>12000
S5	17 Jun 2025	918	>16000	>12000	>12000
S5	24 Jun 2025	902	120e	12e	22e
S5	26 Jun 2025	924		28e	
S6	03 Jun 2025	1000	>16000	7400	>12000
S6	12 Jun 2025	952	1000e	120e	620
S6	17 Jun 2025	1005	<20	<2	4e
S6	24 Jun 2025	948	600e	12e	16e
S6	26 Jun 2025	1001		<2	
S8	03 Jun 2025	739	400e	60e	40e
S8	12 Jun 2025	742	<20	2e	2e
S8	17 Jun 2025	748	<20	<2	2e
S8	24 Jun 2025	739	<20	<2	<2

Station	Date	Time	Total	Fecal	Entero
S8	26 Jun 2025	749		<2	
S9	03 Jun 2025	720	200e	6e	24e
S9	12 Jun 2025	721	<200	6e	6e
S9	17 Jun 2025	723	<200	<2	2e
S9	24 Jun 2025	720	<200	24e	14e
S9	26 Jun 2025	731		12e	

ns = not sampled
ND = no data

Table 2.8

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

Station	Date	Parameter	Value
S0	03 Jun 2025	Arrive Time	835
S0	03 Jun 2025	Wind Speed (kts)	0
S0	03 Jun 2025	Wind Dir	XX
S0	03 Jun 2025	Animal Life	Bird-20;
S0	03 Jun 2025	Floatables	
S0	03 Jun 2025	Current Direction	N
S0	03 Jun 2025	Water Temp (C)	12
S0	03 Jun 2025	High Tide Time	
S0	03 Jun 2025	Low Tide Time	
S0	03 Jun 2025	Comments	Water turbid; Trash-0; Kelp; 1.0 L/s water flowing from storm drain
S0	12 Jun 2025	Arrive Time	815
S0	12 Jun 2025	Wind Speed (kts)	0
S0	12 Jun 2025	Wind Dir	XX
S0	12 Jun 2025	Animal Life	Bird-20;
S0	12 Jun 2025	Floatables	
S0	12 Jun 2025	Current Direction	N
S0	12 Jun 2025	Water Temp (C)	12
S0	12 Jun 2025	High Tide Time	
S0	12 Jun 2025	Low Tide Time	
S0	12 Jun 2025	Comments	Water turbid; Trash-0; Kelp; 1.0 L/s water flowing from storm drain
S0	17 Jun 2025	Arrive Time	830
S0	17 Jun 2025	Wind Speed (kts)	0
S0	17 Jun 2025	Wind Dir	XX
S0	17 Jun 2025	Animal Life	Bird-20; Seal/Sea Lion-1;
S0	17 Jun 2025	Floatables	
S0	17 Jun 2025	Current Direction	S
S0	17 Jun 2025	Water Temp (C)	13
S0	17 Jun 2025	High Tide Time	
S0	17 Jun 2025	Low Tide Time	
S0	17 Jun 2025	Comments	Water turbid; Trash-0; Kelp; 1.0 L/s water flowing from storm drain
S0	24 Jun 2025	Arrive Time	2035
S0	24 Jun 2025	Wind Speed (kts)	0
S0	24 Jun 2025	Wind Dir	XX
S0	24 Jun 2025	Animal Life	Bird-20; Dog-2;
S0	24 Jun 2025	Floatables	
S0	24 Jun 2025	Current Direction	S
S0	24 Jun 2025	Water Temp (C)	12
S0	24 Jun 2025	High Tide Time	
S0	24 Jun 2025	Low Tide Time	
S0	24 Jun 2025	Comments	Water turbid; Trash-0; Kelp; 1.0 L/s water flowing from storm drain
S2	03 Jun 2025	Arrive Time	950
S2	03 Jun 2025	Wind Speed (kts)	2
S2	03 Jun 2025	Wind Dir	XX
S2	03 Jun 2025	Animal Life	Bird-20; Dog-4;
S2	03 Jun 2025	Floatables	
S2	03 Jun 2025	Current Direction	N
S2	03 Jun 2025	Water Temp (C)	12
S2	03 Jun 2025	High Tide Time	

Station	Date	Parameter	Value
S2	03 Jun 2025	Low Tide Time	
S2	03 Jun 2025	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S2	12 Jun 2025	Arrive Time	930
S2	12 Jun 2025	Wind Speed (kts)	0
S2	12 Jun 2025	Wind Dir	XX
S2	12 Jun 2025	Animal Life	Bird-20; Dog-1;
S2	12 Jun 2025	Floatables	
S2	12 Jun 2025	Current Direction	N
S2	12 Jun 2025	Water Temp (C)	12
S2	12 Jun 2025	High Tide Time	
S2	12 Jun 2025	Low Tide Time	
S2	12 Jun 2025	Comments	Water turbid; Trash-0; Kelp; Person/Walker/Jogger-1; No flow from storm drain
S2	17 Jun 2025	Arrive Time	950
S2	17 Jun 2025	Wind Speed (kts)	0
S2	17 Jun 2025	Wind Dir	XX
S2	17 Jun 2025	Animal Life	Bird-20; Dog-5;
S2	17 Jun 2025	Floatables	
S2	17 Jun 2025	Current Direction	S
S2	17 Jun 2025	Water Temp (C)	14
S2	17 Jun 2025	High Tide Time	
S2	17 Jun 2025	Low Tide Time	
S2	17 Jun 2025	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S2	24 Jun 2025	Arrive Time	945
S2	24 Jun 2025	Wind Speed (kts)	0
S2	24 Jun 2025	Wind Dir	XX
S2	24 Jun 2025	Animal Life	Bird-20; Dog-1;
S2	24 Jun 2025	Floatables	
S2	24 Jun 2025	Current Direction	S
S2	24 Jun 2025	Water Temp (C)	13
S2	24 Jun 2025	High Tide Time	
S2	24 Jun 2025	Low Tide Time	
S2	24 Jun 2025	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S3	03 Jun 2025	Arrive Time	915
S3	03 Jun 2025	Wind Speed (kts)	0
S3	03 Jun 2025	Wind Dir	XX
S3	03 Jun 2025	Animal Life	Bird-20; Dog-4;
S3	03 Jun 2025	Floatables	
S3	03 Jun 2025	Current Direction	N
S3	03 Jun 2025	Water Temp (C)	12
S3	03 Jun 2025	High Tide Time	
S3	03 Jun 2025	Low Tide Time	
S3	03 Jun 2025	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S3	12 Jun 2025	Arrive Time	2055
S3	12 Jun 2025	Wind Speed (kts)	0
S3	12 Jun 2025	Wind Dir	XX
S3	12 Jun 2025	Animal Life	Bird-20;
S3	12 Jun 2025	Floatables	
S3	12 Jun 2025	Current Direction	N
S3	12 Jun 2025	Water Temp (C)	12
S3	12 Jun 2025	High Tide Time	
S3	12 Jun 2025	Low Tide Time	
S3	12 Jun 2025	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S3	17 Jun 2025	Arrive Time	910
S3	17 Jun 2025	Wind Speed (kts)	0

Station	Date	Parameter	Value
S3	17 Jun 2025	Wind Dir	XX
S3	17 Jun 2025	Animal Life	Bird-20; Dog-3;
S3	17 Jun 2025	Floatables	
S3	17 Jun 2025	Current Direction	S
S3	17 Jun 2025	Water Temp (C)	14
S3	17 Jun 2025	High Tide Time	
S3	17 Jun 2025	Low Tide Time	
S3	17 Jun 2025	Comments	Water turbid; Trash-0; Kelp; Person/Walker/Jogger-1; No flow from storm drain
S3	24 Jun 2025	Arrive Time	920
S3	24 Jun 2025	Wind Speed (kts)	0
S3	24 Jun 2025	Wind Dir	XX
S3	24 Jun 2025	Animal Life	Bird-20; Dog-6;
S3	24 Jun 2025	Floatables	
S3	24 Jun 2025	Current Direction	S
S3	24 Jun 2025	Water Temp (C)	13
S3	24 Jun 2025	High Tide Time	
S3	24 Jun 2025	Low Tide Time	
S3	24 Jun 2025	Comments	Water turbid; Trash-0; Kelp; No flow from storm drain
S4	03 Jun 2025	Arrive Time	1121
S4	03 Jun 2025	Wind Speed (kts)	6.5
S4	03 Jun 2025	Wind Dir	W
S4	03 Jun 2025	Animal Life	
S4	03 Jun 2025	Floatables	Foam
S4	03 Jun 2025	Current Direction	E
S4	03 Jun 2025	Water Temp (C)	16.9
S4	03 Jun 2025	High Tide Time	
S4	03 Jun 2025	Low Tide Time	
S4	03 Jun 2025	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S4	12 Jun 2025	Arrive Time	1103
S4	12 Jun 2025	Wind Speed (kts)	4.3
S4	12 Jun 2025	Wind Dir	SW
S4	12 Jun 2025	Animal Life	
S4	12 Jun 2025	Floatables	
S4	12 Jun 2025	Current Direction	E
S4	12 Jun 2025	Water Temp (C)	15.2
S4	12 Jun 2025	High Tide Time	
S4	12 Jun 2025	Low Tide Time	
S4	12 Jun 2025	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S4	17 Jun 2025	Arrive Time	1119
S4	17 Jun 2025	Wind Speed (kts)	1.5
S4	17 Jun 2025	Wind Dir	SW
S4	17 Jun 2025	Animal Life	
S4	17 Jun 2025	Floatables	
S4	17 Jun 2025	Current Direction	NE
S4	17 Jun 2025	Water Temp (C)	16.9
S4	17 Jun 2025	High Tide Time	
S4	17 Jun 2025	Low Tide Time	
S4	17 Jun 2025	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S4	24 Jun 2025	Arrive Time	1104
S4	24 Jun 2025	Wind Speed (kts)	4.6
S4	24 Jun 2025	Wind Dir	NW
S4	24 Jun 2025	Animal Life	
S4	24 Jun 2025	Floatables	Foam
S4	24 Jun 2025	Current Direction	E
S4	24 Jun 2025	Water Temp (C)	17.7

Station	Date	Parameter	Value
S4	24 Jun 2025	High Tide Time	
S4	24 Jun 2025	Low Tide Time	
S4	24 Jun 2025	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S4	26 Jun 2025	Arrive Time	1110
S4	26 Jun 2025	Wind Speed (kts)	4.9
S4	26 Jun 2025	Wind Dir	W
S4	26 Jun 2025	Animal Life	
S4	26 Jun 2025	Floatables	
S4	26 Jun 2025	Current Direction	E
S4	26 Jun 2025	Water Temp (C)	19.4
S4	26 Jun 2025	High Tide Time	
S4	26 Jun 2025	Low Tide Time	
S4	26 Jun 2025	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris
S10	03 Jun 2025	Arrive Time	1059
S10	03 Jun 2025	Wind Speed (kts)	6.9
S10	03 Jun 2025	Wind Dir	W
S10	03 Jun 2025	Animal Life	
S10	03 Jun 2025	Floatables	
S10	03 Jun 2025	Current Direction	E
S10	03 Jun 2025	Water Temp (C)	16.7
S10	03 Jun 2025	High Tide Time	
S10	03 Jun 2025	Low Tide Time	
S10	03 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S10	12 Jun 2025	Arrive Time	1043
S10	12 Jun 2025	Wind Speed (kts)	4.1
S10	12 Jun 2025	Wind Dir	SW
S10	12 Jun 2025	Animal Life	
S10	12 Jun 2025	Floatables	
S10	12 Jun 2025	Current Direction	E
S10	12 Jun 2025	Water Temp (C)	15.4
S10	12 Jun 2025	High Tide Time	
S10	12 Jun 2025	Low Tide Time	
S10	12 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae;Debris
S10	17 Jun 2025	Arrive Time	1100
S10	17 Jun 2025	Wind Speed (kts)	2.7
S10	17 Jun 2025	Wind Dir	W
S10	17 Jun 2025	Animal Life	
S10	17 Jun 2025	Floatables	
S10	17 Jun 2025	Current Direction	E
S10	17 Jun 2025	Water Temp (C)	15.7
S10	17 Jun 2025	High Tide Time	
S10	17 Jun 2025	Low Tide Time	
S10	17 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S10	24 Jun 2025	Arrive Time	1043
S10	24 Jun 2025	Wind Speed (kts)	3.2
S10	24 Jun 2025	Wind Dir	E
S10	24 Jun 2025	Animal Life	
S10	24 Jun 2025	Floatables	
S10	24 Jun 2025	Current Direction	E
S10	24 Jun 2025	Water Temp (C)	17.9
S10	24 Jun 2025	High Tide Time	
S10	24 Jun 2025	Low Tide Time	
S10	24 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S10	26 Jun 2025	Arrive Time	1053
S10	26 Jun 2025	Wind Speed (kts)	5.3

Station	Date	Parameter	Value
S10	26 Jun 2025	Wind Dir	SW
S10	26 Jun 2025	Animal Life	Horse-4;
S10	26 Jun 2025	Floatables	
S10	26 Jun 2025	Current Direction	E
S10	26 Jun 2025	Water Temp (C)	18.3
S10	26 Jun 2025	High Tide Time	
S10	26 Jun 2025	Low Tide Time	
S10	26 Jun 2025	Comments	Water clear; Trash-2; Seagrass;Kelp;Debris; Person/Walker/Jogger-5
S5	03 Jun 2025	Arrive Time	914
S5	03 Jun 2025	Wind Speed (kts)	5.6
S5	03 Jun 2025	Wind Dir	NW
S5	03 Jun 2025	Animal Life	
S5	03 Jun 2025	Floatables	
S5	03 Jun 2025	Current Direction	E
S5	03 Jun 2025	Water Temp (C)	17.8
S5	03 Jun 2025	High Tide Time	
S5	03 Jun 2025	Low Tide Time	
S5	03 Jun 2025	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris
S5	12 Jun 2025	Arrive Time	903
S5	12 Jun 2025	Wind Speed (kts)	5
S5	12 Jun 2025	Wind Dir	SW
S5	12 Jun 2025	Animal Life	
S5	12 Jun 2025	Floatables	Foam
S5	12 Jun 2025	Current Direction	NE
S5	12 Jun 2025	Water Temp (C)	14.4
S5	12 Jun 2025	High Tide Time	
S5	12 Jun 2025	Low Tide Time	
S5	12 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae;Debris; Sewage-like odor
S5	17 Jun 2025	Arrive Time	918
S5	17 Jun 2025	Wind Speed (kts)	4.9
S5	17 Jun 2025	Wind Dir	W
S5	17 Jun 2025	Animal Life	
S5	17 Jun 2025	Floatables	Foam
S5	17 Jun 2025	Current Direction	N
S5	17 Jun 2025	Water Temp (C)	20.2
S5	17 Jun 2025	High Tide Time	
S5	17 Jun 2025	Low Tide Time	
S5	17 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Sewage-like odor
S5	24 Jun 2025	Arrive Time	902
S5	24 Jun 2025	Wind Speed (kts)	3.9
S5	24 Jun 2025	Wind Dir	W
S5	24 Jun 2025	Animal Life	
S5	24 Jun 2025	Floatables	
S5	24 Jun 2025	Current Direction	E
S5	24 Jun 2025	Water Temp (C)	19.4
S5	24 Jun 2025	High Tide Time	
S5	24 Jun 2025	Low Tide Time	
S5	24 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S5	26 Jun 2025	Arrive Time	924
S5	26 Jun 2025	Wind Speed (kts)	0
S5	26 Jun 2025	Wind Dir	W
S5	26 Jun 2025	Animal Life	Bird-4;
S5	26 Jun 2025	Floatables	

Station	Date	Parameter	Value
S5	26 Jun 2025	Current Direction	E
S5	26 Jun 2025	Water Temp (C)	19.9
S5	26 Jun 2025	High Tide Time	
S5	26 Jun 2025	Low Tide Time	
S5	26 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S11	03 Jun 2025	Arrive Time	943
S11	03 Jun 2025	Wind Speed (kts)	6.9
S11	03 Jun 2025	Wind Dir	W
S11	03 Jun 2025	Animal Life	
S11	03 Jun 2025	Floatables	
S11	03 Jun 2025	Current Direction	E
S11	03 Jun 2025	Water Temp (C)	15.9
S11	03 Jun 2025	High Tide Time	
S11	03 Jun 2025	Low Tide Time	
S11	03 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris;Algae; Sewage-like odor
S11	12 Jun 2025	Arrive Time	933
S11	12 Jun 2025	Wind Speed (kts)	4.4
S11	12 Jun 2025	Wind Dir	SW
S11	12 Jun 2025	Animal Life	
S11	12 Jun 2025	Floatables	
S11	12 Jun 2025	Current Direction	NE
S11	12 Jun 2025	Water Temp (C)	15.7
S11	12 Jun 2025	High Tide Time	
S11	12 Jun 2025	Low Tide Time	
S11	12 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S11	17 Jun 2025	Arrive Time	946
S11	17 Jun 2025	Wind Speed (kts)	5.4
S11	17 Jun 2025	Wind Dir	W
S11	17 Jun 2025	Animal Life	
S11	17 Jun 2025	Floatables	Foam
S11	17 Jun 2025	Current Direction	N
S11	17 Jun 2025	Water Temp (C)	18.3
S11	17 Jun 2025	High Tide Time	
S11	17 Jun 2025	Low Tide Time	
S11	17 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Sewage-like odor
S11	24 Jun 2025	Arrive Time	933
S11	24 Jun 2025	Wind Speed (kts)	4.62
S11	24 Jun 2025	Wind Dir	W
S11	24 Jun 2025	Animal Life	
S11	24 Jun 2025	Floatables	
S11	24 Jun 2025	Current Direction	E
S11	24 Jun 2025	Water Temp (C)	19.7
S11	24 Jun 2025	High Tide Time	
S11	24 Jun 2025	Low Tide Time	
S11	24 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S11	26 Jun 2025	Arrive Time	945
S11	26 Jun 2025	Wind Speed (kts)	2.9
S11	26 Jun 2025	Wind Dir	NW
S11	26 Jun 2025	Animal Life	Bird-2;
S11	26 Jun 2025	Floatables	
S11	26 Jun 2025	Current Direction	E
S11	26 Jun 2025	Water Temp (C)	18.7
S11	26 Jun 2025	High Tide Time	
S11	26 Jun 2025	Low Tide Time	

Station	Date	Parameter	Value
S11	26 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S6	03 Jun 2025	Arrive Time	1000
S6	03 Jun 2025	Wind Speed (kts)	5
S6	03 Jun 2025	Wind Dir	W
S6	03 Jun 2025	Animal Life	Bird-8;
S6	03 Jun 2025	Floatables	
S6	03 Jun 2025	Current Direction	E
S6	03 Jun 2025	Water Temp (C)	16.4
S6	03 Jun 2025	High Tide Time	
S6	03 Jun 2025	Low Tide Time	
S6	03 Jun 2025	Comments	Water clear; Trash-2; Kelp;Seagrass;Algae;Debris; Sewage-like odor
S6	12 Jun 2025	Arrive Time	952
S6	12 Jun 2025	Wind Speed (kts)	3.2
S6	12 Jun 2025	Wind Dir	SW
S6	12 Jun 2025	Animal Life	
S6	12 Jun 2025	Floatables	
S6	12 Jun 2025	Current Direction	NE
S6	12 Jun 2025	Water Temp (C)	15.6
S6	12 Jun 2025	High Tide Time	
S6	12 Jun 2025	Low Tide Time	
S6	12 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S6	17 Jun 2025	Arrive Time	1005
S6	17 Jun 2025	Wind Speed (kts)	6.2
S6	17 Jun 2025	Wind Dir	W
S6	17 Jun 2025	Animal Life	
S6	17 Jun 2025	Floatables	Foam
S6	17 Jun 2025	Current Direction	N
S6	17 Jun 2025	Water Temp (C)	17.3
S6	17 Jun 2025	High Tide Time	
S6	17 Jun 2025	Low Tide Time	
S6	17 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S6	24 Jun 2025	Arrive Time	948
S6	24 Jun 2025	Wind Speed (kts)	4.3
S6	24 Jun 2025	Wind Dir	W
S6	24 Jun 2025	Animal Life	
S6	24 Jun 2025	Floatables	
S6	24 Jun 2025	Current Direction	E
S6	24 Jun 2025	Water Temp (C)	18.1
S6	24 Jun 2025	High Tide Time	
S6	24 Jun 2025	Low Tide Time	
S6	24 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S6	26 Jun 2025	Arrive Time	1001
S6	26 Jun 2025	Wind Speed (kts)	4.2
S6	26 Jun 2025	Wind Dir	W
S6	26 Jun 2025	Animal Life	
S6	26 Jun 2025	Floatables	Dead animals
S6	26 Jun 2025	Current Direction	E
S6	26 Jun 2025	Water Temp (C)	18.9
S6	26 Jun 2025	High Tide Time	
S6	26 Jun 2025	Low Tide Time	
S6	26 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae;Debris
S12	03 Jun 2025	Arrive Time	801
S12	03 Jun 2025	Wind Speed (kts)	4.5
S12	03 Jun 2025	Wind Dir	NW

Station	Date	Parameter	Value
S12	03 Jun 2025	Animal Life	Bird-1;
S12	03 Jun 2025	Floatables	
S12	03 Jun 2025	Current Direction	E
S12	03 Jun 2025	Water Temp (C)	16.6
S12	03 Jun 2025	High Tide Time	
S12	03 Jun 2025	Low Tide Time	
S12	03 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S12	12 Jun 2025	Arrive Time	804
S12	12 Jun 2025	Wind Speed (kts)	1.1
S12	12 Jun 2025	Wind Dir	W
S12	12 Jun 2025	Animal Life	
S12	12 Jun 2025	Floatables	
S12	12 Jun 2025	Current Direction	N
S12	12 Jun 2025	Water Temp (C)	15.8
S12	12 Jun 2025	High Tide Time	
S12	12 Jun 2025	Low Tide Time	
S12	12 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-3
S12	17 Jun 2025	Arrive Time	810
S12	17 Jun 2025	Wind Speed (kts)	0
S12	17 Jun 2025	Wind Dir	W
S12	17 Jun 2025	Animal Life	Bird-15;
S12	17 Jun 2025	Floatables	
S12	17 Jun 2025	Current Direction	N
S12	17 Jun 2025	Water Temp (C)	17.5
S12	17 Jun 2025	High Tide Time	
S12	17 Jun 2025	Low Tide Time	
S12	17 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S12	24 Jun 2025	Arrive Time	800
S12	24 Jun 2025	Wind Speed (kts)	0
S12	24 Jun 2025	Wind Dir	W
S12	24 Jun 2025	Animal Life	
S12	24 Jun 2025	Floatables	Foam
S12	24 Jun 2025	Current Direction	E
S12	24 Jun 2025	Water Temp (C)	19
S12	24 Jun 2025	High Tide Time	
S12	24 Jun 2025	Low Tide Time	
S12	24 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S12	26 Jun 2025	Arrive Time	812
S12	26 Jun 2025	Wind Speed (kts)	0.7
S12	26 Jun 2025	Wind Dir	SW
S12	26 Jun 2025	Animal Life	
S12	26 Jun 2025	Floatables	
S12	26 Jun 2025	Current Direction	E
S12	26 Jun 2025	Water Temp (C)	18.9
S12	26 Jun 2025	High Tide Time	
S12	26 Jun 2025	Low Tide Time	
S12	26 Jun 2025	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris; Person/Walker/Jogger-2
S8	03 Jun 2025	Arrive Time	739
S8	03 Jun 2025	Wind Speed (kts)	4.8
S8	03 Jun 2025	Wind Dir	W
S8	03 Jun 2025	Animal Life	
S8	03 Jun 2025	Floatables	
S8	03 Jun 2025	Current Direction	E
S8	03 Jun 2025	Water Temp (C)	16.8

Station	Date	Parameter	Value
S8	03 Jun 2025	High Tide Time	
S8	03 Jun 2025	Low Tide Time	
S8	03 Jun 2025	Comments	Water clear; Trash-1; Kelp;Debris;Seagrass
S8	12 Jun 2025	Arrive Time	742
S8	12 Jun 2025	Wind Speed (kts)	1.6
S8	12 Jun 2025	Wind Dir	NW
S8	12 Jun 2025	Animal Life	
S8	12 Jun 2025	Floatables	Foam; Sanitary napkins
S8	12 Jun 2025	Current Direction	E
S8	12 Jun 2025	Water Temp (C)	16.1
S8	12 Jun 2025	High Tide Time	
S8	12 Jun 2025	Low Tide Time	
S8	12 Jun 2025	Comments	Water clear; Trash-2; Seagrass;Kelp;Debris; Person/Walker/Jogger-1
S8	17 Jun 2025	Arrive Time	748
S8	17 Jun 2025	Wind Speed (kts)	0
S8	17 Jun 2025	Wind Dir	W
S8	17 Jun 2025	Animal Life	
S8	17 Jun 2025	Floatables	
S8	17 Jun 2025	Current Direction	E
S8	17 Jun 2025	Water Temp (C)	16.8
S8	17 Jun 2025	High Tide Time	
S8	17 Jun 2025	Low Tide Time	
S8	17 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S8	24 Jun 2025	Arrive Time	739
S8	24 Jun 2025	Wind Speed (kts)	1.5
S8	24 Jun 2025	Wind Dir	W
S8	24 Jun 2025	Animal Life	
S8	24 Jun 2025	Floatables	
S8	24 Jun 2025	Current Direction	E
S8	24 Jun 2025	Water Temp (C)	18.1
S8	24 Jun 2025	High Tide Time	
S8	24 Jun 2025	Low Tide Time	
S8	24 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-1
S8	26 Jun 2025	Arrive Time	749
S8	26 Jun 2025	Wind Speed (kts)	1.4
S8	26 Jun 2025	Wind Dir	SW
S8	26 Jun 2025	Animal Life	
S8	26 Jun 2025	Floatables	
S8	26 Jun 2025	Current Direction	E
S8	26 Jun 2025	Water Temp (C)	18.8
S8	26 Jun 2025	High Tide Time	
S8	26 Jun 2025	Low Tide Time	
S8	26 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S9	03 Jun 2025	Arrive Time	720
S9	03 Jun 2025	Wind Speed (kts)	1.9
S9	03 Jun 2025	Wind Dir	W
S9	03 Jun 2025	Animal Life	Bird-2;
S9	03 Jun 2025	Floatables	Foam
S9	03 Jun 2025	Current Direction	E
S9	03 Jun 2025	Water Temp (C)	16.32
S9	03 Jun 2025	High Tide Time	
S9	03 Jun 2025	Low Tide Time	
S9	03 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris

Station	Date	Parameter	Value
S9	12 Jun 2025	Arrive Time	721
S9	12 Jun 2025	Wind Speed (kts)	0.8
S9	12 Jun 2025	Wind Dir	NW
S9	12 Jun 2025	Animal Life	
S9	12 Jun 2025	Floatables	Foam
S9	12 Jun 2025	Current Direction	E
S9	12 Jun 2025	Water Temp (C)	16.2
S9	12 Jun 2025	High Tide Time	
S9	12 Jun 2025	Low Tide Time	
S9	12 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-1
S9	17 Jun 2025	Arrive Time	723
S9	17 Jun 2025	Wind Speed (kts)	1.7
S9	17 Jun 2025	Wind Dir	W
S9	17 Jun 2025	Animal Life	
S9	17 Jun 2025	Floatables	
S9	17 Jun 2025	Current Direction	E
S9	17 Jun 2025	Water Temp (C)	17
S9	17 Jun 2025	High Tide Time	
S9	17 Jun 2025	Low Tide Time	
S9	17 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-2
S9	24 Jun 2025	Arrive Time	720
S9	24 Jun 2025	Wind Speed (kts)	1.8
S9	24 Jun 2025	Wind Dir	NW
S9	24 Jun 2025	Animal Life	
S9	24 Jun 2025	Floatables	Foam
S9	24 Jun 2025	Current Direction	E
S9	24 Jun 2025	Water Temp (C)	17.7
S9	24 Jun 2025	High Tide Time	
S9	24 Jun 2025	Low Tide Time	
S9	24 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris
S9	26 Jun 2025	Arrive Time	731
S9	26 Jun 2025	Wind Speed (kts)	0
S9	26 Jun 2025	Wind Dir	W
S9	26 Jun 2025	Animal Life	
S9	26 Jun 2025	Floatables	
S9	26 Jun 2025	Current Direction	E
S9	26 Jun 2025	Water Temp (C)	18.5
S9	26 Jun 2025	High Tide Time	
S9	26 Jun 2025	Low Tide Time	
S9	26 Jun 2025	Comments	Water clear; Trash-1; Kelp;Seagrass;Debris

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 Jun 2025	*6	*4	*3	*3	*2	*2	*11
02 Jun 2025	7	7	3	3	4	2	13
03 Jun 2025	7	7	3	3	4	2	13
04 Jun 2025	7	7	3	3	4	2	13
05 Jun 2025	*4	*7	*2	*2	*5	*2	*11
06 Jun 2025	*4	*7	*2	*2	*5	*2	*11
07 Jun 2025	*4	*7	*2	*2	*5	*2	*11
08 Jun 2025	*4	*7	*2	*2	*5	*2	*11
09 Jun 2025	4	7	2	2	5	2	10
10 Jun 2025	4	7	2	2	5	2	10
11 Jun 2025	*5	*10	*2	*2	*6	*2	*14
12 Jun 2025	*5	*10	*2	*2	*6	*2	*14
13 Jun 2025	*5	*10	*2	*2	*6	*2	*14
14 Jun 2025	*5	*10	*2	*2	*6	*2	*14
15 Jun 2025	*5	*10	*2	*2	*6	*2	*14
16 Jun 2025	*5	*10	*2	*2	*6	*2	*14
17 Jun 2025	7	7	2	2	5	2	14
18 Jun 2025	*9	*8	*2	*2	*6	*2	*9
19 Jun 2025	*9	*8	*2	*2	*6	*2	*9
20 Jun 2025	*9	*8	*2	*2	*6	*2	*9
21 Jun 2025	*9	*8	*2	*2	*6	*2	*9
22 Jun 2025	*9	*8	*2	*2	*6	*2	*9
23 Jun 2025	*9	*8	*2	*2	*6	*2	*9
24 Jun 2025	7	6	2	2	5	2	8
25 Jun 2025	7	6	2	2	5	2	8
26 Jun 2025	*6	*8	*2	*2	*6	*2	*11
27 Jun 2025	*6	*8	*2	*2	*6	*2	*11
28 Jun 2025	*6	*8	*2	*2	*6	*2	*11
29 Jun 2025	*6	*8	*2	*2	*6	*2	*11
30 Jun 2025	5	6	2	2	5	2	9

* Geometric mean calculated using n<5

Table 3.2

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

Date	I19	I24	I25	I26	I32	I39	I40
02 Jun 2025	IC	IC	IC	IC	IC	IC	IC
09 Jun 2025	IC	IC	IC	IC	IC	IC	IC
17 Jun 2025	IC	IC	IC	IC	IC	IC	IC
24 Jun 2025	IC	IC	IC	IC	IC	IC	IC
30 Jun 2025	IC	IC	IC	IC	IC	IC	IC

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 Jun 2025	12	5	4	2	6	2	19
02 Jun 2025	12	8	4	2	8	2	19
03 Jun 2025	7	11	4	2	11	2	27
04 Jun 2025	7	11	4	2	11	2	27
05 Jun 2025	7	11	4	2	11	2	27
06 Jun 2025	7	11	4	2	11	2	27
07 Jun 2025	7	11	4	2	11	2	27
08 Jun 2025	7	11	4	2	11	2	27
09 Jun 2025	7	15	5	2	8	2	27
10 Jun 2025	7	18	5	2	5	2	**33**
11 Jun 2025	7	18	5	2	5	2	**33**
12 Jun 2025	7	18	5	2	5	2	**33**
13 Jun 2025	7	18	5	2	5	2	**33**
14 Jun 2025	7	18	5	2	5	2	**33**
15 Jun 2025	7	18	5	2	5	2	**33**
16 Jun 2025	7	18	5	2	5	2	**33**
17 Jun 2025	7	13	4	2	5	2	**31**
18 Jun 2025	7	13	4	2	5	2	**31**
19 Jun 2025	7	13	4	2	5	2	**31**
20 Jun 2025	7	13	4	2	5	2	**31**
21 Jun 2025	7	13	4	2	5	2	**31**
22 Jun 2025	7	13	4	2	5	2	**31**
23 Jun 2025	9	19	5	2	6	2	**50**
24 Jun 2025	7	13	4	2	5	2	**38**
25 Jun 2025	7	13	4	2	5	2	**38**
26 Jun 2025	7	13	4	2	5	2	**38**
27 Jun 2025	7	13	4	2	5	2	**38**
28 Jun 2025	7	13	4	2	5	2	**38**
29 Jun 2025	7	13	4	2	5	2	**38**
30 Jun 2025	7	9	3	2	5	2	13

* 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
June	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

Table 3.5

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

	I19			I24			I25			I26			I32			I39			I40		
Date	2m	6m	11m	2m	6m	11m	2m	6m	9m	2m	6m	9m	2m	6m	9m	2m	12m	18m	2m	6m	9m
01 Jun 2025	*2	***120**	*30	*11	*13	*13	*2	*30	*20	*2	*2	*20	*11	*11	*20	*2	*2	*2	*11	***160**	*70
02 Jun 2025	2	20	20	20	20	20	2	20	20	2	2	20	20	20	20	2	2	2	20	**140**	**80**
03 Jun 2025	2	20	20	20	20	20	2	20	20	2	2	20	20	20	20	2	2	2	20	**140**	**80**
04 Jun 2025	2	20	20	20	20	20	2	20	20	2	2	20	20	20	20	2	2	2	20	**140**	**80**
05 Jun 2025	*11	*20	*20	***110**	*13	*13	*2	*20	*14	*2	*11	*20	*20	***110**	*22	*2	*2	*2	***80**	***100**	*70
06 Jun 2025	*11	*20	*20	***110**	*13	*13	*2	*20	*14	*2	*11	*20	*20	***110**	*22	*2	*2	*2	***80**	***100**	*70
07 Jun 2025	*11	*20	*20	***110**	*13	*13	*2	*20	*14	*2	*11	*20	*20	***110**	*22	*2	*2	*2	***80**	***100**	*70
08 Jun 2025	*11	*20	*20	***110**	*13	*13	*2	*20	*14	*2	*11	*20	*20	***110**	*22	*2	*2	*2	***80**	***100**	*70
09 Jun 2025	20	20	20	**80**	8	6	2	20	8	2	4	20	20	20	20	2	2	2	**140**	60	60
10 Jun 2025	20	20	20	**80**	8	6	2	20	8	2	4	20	20	20	20	2	2	2	**140**	60	60
11 Jun 2025	*20	*20	*30	***140**	*14	*12	*9	*20	*14	*11	*12	*13	*20	***110**	*20	*2	*2	*3	***170**	***100**	*70
12 Jun 2025	*20	*20	*30	***140**	*14	*12	*9	*20	*14	*11	*12	*13	*20	***110**	*20	*2	*2	*3	***170**	***100**	*70
13 Jun 2025	*20	*20	*30	***140**	*14	*12	*9	*20	*14	*11	*12	*13	*20	***110**	*20	*2	*2	*3	***170**	***100**	*70
14 Jun 2025	*20	*20	*30	***140**	*14	*12	*9	*20	*14	*11	*12	*13	*20	***110**	*20	*2	*2	*3	***170**	***100**	*70
15 Jun 2025	*20	*20	*30	***140**	*14	*12	*9	*20	*14	*11	*12	*13	*20	***110**	*20	*2	*2	*3	***170**	***100**	*70
16 Jun 2025	*20	*20	*30	***140**	*14	*12	*9	*20	*14	*11	*12	*13	*20	***110**	*20	*2	*2	*3	***170**	***100**	*70
17 Jun 2025	20	20	40	**80**	20	20	2	20	20	2	6	20	20	20	20	2	2	4	**200**	**140**	**80**
18 Jun 2025	*40	***120**	*30	*60	*20	*70	*2	*20	*14	*11	*13	*20	*11	***110**	*20	*2	*21	*10	***170**	***120**	***90**
19 Jun 2025	*40	***120**	*30	*60	*20	*70	*2	*20	*14	*11	*13	*20	*11	***110**	*20	*2	*21	*10	***170**	***120**	***90**
20 Jun 2025	*40	***120**	*30	*60	*20	*70	*2	*20	*14	*11	*13	*20	*11	***110**	*20	*2	*21	*10	***170**	***120**	***90**
21 Jun 2025	*40	***120**	*30	*60	*20	*70	*2	*20	*14	*11	*13	*20	*11	***110**	*20	*2	*21	*10	***170**	***120**	***90**
22 Jun 2025	*40	***120**	*30	*60	*20	*70	*2	*20	*14	*11	*13	*20	*11	***110**	*20	*2	*21	*10	***170**	***120**	***90**
23 Jun 2025	*40	***120**	*30	*60	*20	*70	*2	*20	*14	*11	*13	*20	*11	***110**	*20	*2	*21	*10	***170**	***120**	***90**
24 Jun 2025	20	20	40	**80**	20	20	2	20	20	2	20	20	20	20	20	2	2	4	**200**	**180**	**120**
25 Jun 2025	20	20	40	**80**	20	20	2	20	20	2	20	20	20	20	20	2	2	4	**200**	**180**	**120**
26 Jun 2025	*40	*20	*40	***140**	*20	*70	*9	*20	*14	*2	*13	*20	*11	*20	*20	*2	*21	*10	***200**	***140**	***160**
27 Jun 2025	*40	*20	*40	***140**	*20	*70	*9	*20	*14	*2	*13	*20	*11	*20	*20	*2	*21	*10	***200**	***140**	***160**
28 Jun 2025	*40	*20	*40	***140**	*20	*70	*9	*20	*14	*2	*13	*20	*11	*20	*20	*2	*21	*10	***200**	***140**	***160**
29 Jun 2025	*40	*20	*40	***140**	*20	*70	*9	*20	*14	*2	*13	*20	*11	*20	*20	*2	*21	*10	***200**	***140**	***160**
30 Jun 2025	20	20	40	**80**	20	20	2	20	8	2	6	20	20	20	20	2	2	4	**200**	60	**120**

* Median calculated using n<5

Table 3.6

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

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

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

Table 3.7

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

Station	Date	Time	Depth	Total	Fecal	Entero
I19	02 Jun 2025	1006	2	60e	12e	6e
I19	02 Jun 2025	1006	6	20e	4e	26e
I19	02 Jun 2025	1006	11	<20	8e	<2
I19	09 Jun 2025	1056	2	20e	4e	18e
I19	09 Jun 2025	1056	6	12e	2e	4e
I19	09 Jun 2025	1056	11	40e	4e	<2
I19	17 Jun 2025	1128	2	80e	10e	<2
I19	17 Jun 2025	1128	6	1000e	<20	70
I19	17 Jun 2025	1128	11	<200	34e	42
I19	24 Jun 2025	1035	2	<20	<2	<2
I19	24 Jun 2025	1035	6	<20	<2	<2
I19	24 Jun 2025	1035	11	40e	<2	2e
I19	30 Jun 2025	1013	2	<20	<2	<2
I19	30 Jun 2025	1013	6	<20	<2	<2
I19	30 Jun 2025	1013	11	<20	<2	<2
I24	02 Jun 2025	1035	2	260e	46	98
I24	02 Jun 2025	1035	6	400e	90	110
I24	02 Jun 2025	1035	11	800e	86	100
I24	09 Jun 2025	1121	2	80e	24e	320e
I24	09 Jun 2025	1121	6	8e	4e	20e
I24	09 Jun 2025	1121	11	4e	<2	4e
I24	17 Jun 2025	1157	2	40e	<2	<2
I24	17 Jun 2025	1157	6	<20	2e	6e
I24	17 Jun 2025	1157	11	120e	2e	<2
I24	24 Jun 2025	1056	2	<200	4e	<2
I24	24 Jun 2025	1056	6	<20	<2	<2
I24	24 Jun 2025	1056	11	<20	<2	<2
I24	30 Jun 2025	1031	2	<2	<2	<2
I24	30 Jun 2025	1031	6	<2	<2	<2
I24	30 Jun 2025	1031	11	<2	<2	<2
I25	02 Jun 2025	1044	2	<2	<2	<2
I25	02 Jun 2025	1044	6	<20	2e	4e
I25	02 Jun 2025	1044	9	6e	<2	2e
I25	09 Jun 2025	1130	2	16e	<2	30e
I25	09 Jun 2025	1130	6	<2	2e	4e
I25	09 Jun 2025	1130	9	8e	2e	<2
I25	17 Jun 2025	1204	2	<2	<2	<2
I25	17 Jun 2025	1204	6	20e	4e	<2
I25	17 Jun 2025	1204	9	<20	<2	2e

Station	Date	Time	Depth	Total	Fecal	Entero
I25	24 Jun 2025	1102	2	<20	<2	<2
I25	24 Jun 2025	1102	6	<20	<2	<2
I25	24 Jun 2025	1102	9	<20	<2	<2
I25	30 Jun 2025	1038	2	<2	<2	<2
I25	30 Jun 2025	1038	6	<2	<2	<2
I25	30 Jun 2025	1038	9	<2	<2	<2
I26	02 Jun 2025	1055	2	<2	<2	<2
I26	02 Jun 2025	1055	6	<20	2e	<2
I26	02 Jun 2025	1055	9	20e	<2	<2
I26	09 Jun 2025	1143	2	<20	<2	<2
I26	09 Jun 2025	1143	6	4e	2e	<2
I26	09 Jun 2025	1143	9	6e	<2	<2
I26	17 Jun 2025	1213	2	<2	<2	<2
I26	17 Jun 2025	1213	6	6e	<2	2e
I26	17 Jun 2025	1213	9	<20	<2	<2
I26	24 Jun 2025	1111	2	<2	<2	<2
I26	24 Jun 2025	1111	6	<20	<2	<2
I26	24 Jun 2025	1111	9	<20	<2	<2
I26	30 Jun 2025	1048	2	<2	<2	<2
I26	30 Jun 2025	1048	6	<2	<2	<2
I26	30 Jun 2025	1048	9	<20	<2	<2
I32	02 Jun 2025	1112	2	20e	2e	30e
I32	02 Jun 2025	1112	6	320e	50	88
I32	02 Jun 2025	1112	9	2400e	200e	180e
I32	09 Jun 2025	1157	2	<2	<2	<2
I32	09 Jun 2025	1157	6	<20	6e	<2
I32	09 Jun 2025	1157	9	20e	2e	<2
I32	17 Jun 2025	1223	2	<2	2e	<2
I32	17 Jun 2025	1223	6	<20	<2	<2
I32	17 Jun 2025	1223	9	20e	<2	<2
I32	24 Jun 2025	1123	2	<20	<2	<2
I32	24 Jun 2025	1123	6	<20	<2	<2
I32	24 Jun 2025	1123	9	<20	<2	<2
I32	30 Jun 2025	1108	2	<20	<2	<2
I32	30 Jun 2025	1108	6	<20	<2	<2
I32	30 Jun 2025	1108	9	2e	<2	<2
I39	02 Jun 2025	945	2	<2	<2	<2
I39	02 Jun 2025	945	12	40e	10e	10e
I39	02 Jun 2025	945	18	4e	<2	<2
I39	09 Jun 2025	1037	2	<2	<2	<2
I39	09 Jun 2025	1037	12	<2	<2	<2
I39	09 Jun 2025	1037	18	22e	<2	2e
I39	17 Jun 2025	1109	2	<2	<2	<2
I39	17 Jun 2025	1109	12	60e	2e	<2
I39	17 Jun 2025	1109	18	16e	<2	<2

Station	Date	Time	Depth	Total	Fecal	Entero
I39	24 Jun 2025	1013	2	<2	<2	<2
I39	24 Jun 2025	1013	12	<2	<2	<2
I39	24 Jun 2025	1013	18	<2	2e	<2
I39	30 Jun 2025	956	2	<2	<2	<2
I39	30 Jun 2025	956	12	<2	<2	<2
I39	30 Jun 2025	956	18	<2	<2	<2
I40	02 Jun 2025	1026	2	140e	12e	18e
I40	02 Jun 2025	1026	6	60e	24e	22e
I40	02 Jun 2025	1026	9	260e	40e	12e
I40	09 Jun 2025	1111	2	<200	16e	72
I40	09 Jun 2025	1111	6	<20	4e	4e
I40	09 Jun 2025	1111	9	<20	2e	4e
I40	17 Jun 2025	1145	2	400e	22e	4e
I40	17 Jun 2025	1145	6	220e	16e	30e
I40	17 Jun 2025	1145	9	120e	8e	4e
I40	24 Jun 2025	1047	2	200e	8e	10e
I40	24 Jun 2025	1047	6	240e	6e	18e
I40	24 Jun 2025	1047	9	<200	<2	<2
I40	30 Jun 2025	1024	2	<200	10e	<2
I40	30 Jun 2025	1024	6	<20	<2	<2
I40	30 Jun 2025	1024	9	<20	<2	<2

ns = not sampled
ND = no data

Table 3.8

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

Station	Date	Parameter	Value
I19	02 Jun 2025	Arrive Time	1006
I19	02 Jun 2025	Depart Time	1013
I19	02 Jun 2025	Air Temp (C)	999
I19	02 Jun 2025	Visibility (mi)	8
I19	02 Jun 2025	Wind Speed (kts)	9999
I19	02 Jun 2025	Wind Dir	
I19	02 Jun 2025	Sea State	Calm
I19	02 Jun 2025	High Tide Time	218
I19	02 Jun 2025	Low Tide Time	936
I19	02 Jun 2025	Comments	
I19	09 Jun 2025	Arrive Time	1056
I19	09 Jun 2025	Depart Time	1102
I19	09 Jun 2025	Air Temp (C)	15.8
I19	09 Jun 2025	Visibility (mi)	2
I19	09 Jun 2025	Wind Speed (kts)	7.7
I19	09 Jun 2025	Wind Dir	SW
I19	09 Jun 2025	Sea State	Light Chop
I19	09 Jun 2025	High Tide Time	2024
I19	09 Jun 2025	Low Tide Time	312
I19	09 Jun 2025	Comments	
I19	17 Jun 2025	Arrive Time	1128
I19	17 Jun 2025	Depart Time	1139
I19	17 Jun 2025	Air Temp (C)	18.1
I19	17 Jun 2025	Visibility (mi)	8
I19	17 Jun 2025	Wind Speed (kts)	2.6
I19	17 Jun 2025	Wind Dir	S
I19	17 Jun 2025	Sea State	Calm
I19	17 Jun 2025	High Tide Time	106
I19	17 Jun 2025	Low Tide Time	830
I19	17 Jun 2025	Comments	cast 1 missing last depth bin- use cast 2
I19	24 Jun 2025	Arrive Time	1035
I19	24 Jun 2025	Depart Time	1036
I19	24 Jun 2025	Air Temp (C)	20.4
I19	24 Jun 2025	Visibility (mi)	11
I19	24 Jun 2025	Wind Speed (kts)	4.6
I19	24 Jun 2025	Wind Dir	W
I19	24 Jun 2025	Sea State	Calm
I19	24 Jun 2025	High Tide Time	2048
I19	24 Jun 2025	Low Tide Time	324
I19	24 Jun 2025	Comments	Anemometer broken; values low
I19	30 Jun 2025	Arrive Time	1009
I19	30 Jun 2025	Depart Time	1013
I19	30 Jun 2025	Air Temp (C)	
I19	30 Jun 2025	Visibility (mi)	9
I19	30 Jun 2025	Wind Speed (kts)	
I19	30 Jun 2025	Wind Dir	
I19	30 Jun 2025	Sea State	Light Chop
I19	30 Jun 2025	High Tide Time	42
I19	30 Jun 2025	Low Tide Time	742
I19	30 Jun 2025	Comments	
I40	02 Jun 2025	Arrive Time	1026

Station	Date	Parameter	Value
I40	02 Jun 2025	Depart Time	1029
I40	02 Jun 2025	Air Temp (C)	999
I40	02 Jun 2025	Visibility (mi)	8
I40	02 Jun 2025	Wind Speed (kts)	9999
I40	02 Jun 2025	Wind Dir	
I40	02 Jun 2025	Sea State	Calm
I40	02 Jun 2025	High Tide Time	218
I40	02 Jun 2025	Low Tide Time	936
I40	02 Jun 2025	Comments	CTD fouled in prop
I40	09 Jun 2025	Arrive Time	1111
I40	09 Jun 2025	Depart Time	1116
I40	09 Jun 2025	Air Temp (C)	16.1
I40	09 Jun 2025	Visibility (mi)	2
I40	09 Jun 2025	Wind Speed (kts)	4.6
I40	09 Jun 2025	Wind Dir	W
I40	09 Jun 2025	Sea State	Light Chop
I40	09 Jun 2025	High Tide Time	2024
I40	09 Jun 2025	Low Tide Time	312
I40	09 Jun 2025	Comments	Sewage-like Odor
I40	17 Jun 2025	Arrive Time	1145
I40	17 Jun 2025	Depart Time	1154
I40	17 Jun 2025	Air Temp (C)	18.3
I40	17 Jun 2025	Visibility (mi)	8
I40	17 Jun 2025	Wind Speed (kts)	10.6
I40	17 Jun 2025	Wind Dir	SW
I40	17 Jun 2025	Sea State	Calm
I40	17 Jun 2025	High Tide Time	106
I40	17 Jun 2025	Low Tide Time	830
I40	17 Jun 2025	Comments	
I40	24 Jun 2025	Arrive Time	1047
I40	24 Jun 2025	Depart Time	1048
I40	24 Jun 2025	Air Temp (C)	19.7
I40	24 Jun 2025	Visibility (mi)	11
I40	24 Jun 2025	Wind Speed (kts)	4.6
I40	24 Jun 2025	Wind Dir	W
I40	24 Jun 2025	Sea State	Calm
I40	24 Jun 2025	High Tide Time	2048
I40	24 Jun 2025	Low Tide Time	324
I40	24 Jun 2025	Comments	Anemometer broken
I40	30 Jun 2025	Arrive Time	1019
I40	30 Jun 2025	Depart Time	1024
I40	30 Jun 2025	Air Temp (C)	18.4
I40	30 Jun 2025	Visibility (mi)	9
I40	30 Jun 2025	Wind Speed (kts)	4.9
I40	30 Jun 2025	Wind Dir	W
I40	30 Jun 2025	Sea State	Light Chop
I40	30 Jun 2025	High Tide Time	42
I40	30 Jun 2025	Low Tide Time	742
I40	30 Jun 2025	Comments	
I24	02 Jun 2025	Arrive Time	1035
I24	02 Jun 2025	Depart Time	1042
I24	02 Jun 2025	Air Temp (C)	999
I24	02 Jun 2025	Visibility (mi)	8
I24	02 Jun 2025	Wind Speed (kts)	9999
I24	02 Jun 2025	Wind Dir	
I24	02 Jun 2025	Sea State	Calm

Station	Date	Parameter	Value
I24	02 Jun 2025	High Tide Time	218
I24	02 Jun 2025	Low Tide Time	936
I24	02 Jun 2025	Comments	
I24	09 Jun 2025	Arrive Time	1121
I24	09 Jun 2025	Depart Time	1125
I24	09 Jun 2025	Air Temp (C)	16.2
I24	09 Jun 2025	Visibility (mi)	2
I24	09 Jun 2025	Wind Speed (kts)	3.4
I24	09 Jun 2025	Wind Dir	SW
I24	09 Jun 2025	Sea State	Light Chop
I24	09 Jun 2025	High Tide Time	2024
I24	09 Jun 2025	Low Tide Time	312
I24	09 Jun 2025	Comments	
I24	17 Jun 2025	Arrive Time	1157
I24	17 Jun 2025	Depart Time	1201
I24	17 Jun 2025	Air Temp (C)	18.5
I24	17 Jun 2025	Visibility (mi)	8
I24	17 Jun 2025	Wind Speed (kts)	3.7
I24	17 Jun 2025	Wind Dir	SW
I24	17 Jun 2025	Sea State	Calm
I24	17 Jun 2025	High Tide Time	106
I24	17 Jun 2025	Low Tide Time	830
I24	17 Jun 2025	Comments	
I24	24 Jun 2025	Arrive Time	1056
I24	24 Jun 2025	Depart Time	1057
I24	24 Jun 2025	Air Temp (C)	20.4
I24	24 Jun 2025	Visibility (mi)	11
I24	24 Jun 2025	Wind Speed (kts)	0
I24	24 Jun 2025	Wind Dir	W
I24	24 Jun 2025	Sea State	Calm
I24	24 Jun 2025	High Tide Time	2048
I24	24 Jun 2025	Low Tide Time	324
I24	24 Jun 2025	Comments	Anemometer broken
I24	30 Jun 2025	Arrive Time	1027
I24	30 Jun 2025	Depart Time	1031
I24	30 Jun 2025	Air Temp (C)	18.7
I24	30 Jun 2025	Visibility (mi)	9
I24	30 Jun 2025	Wind Speed (kts)	16.3
I24	30 Jun 2025	Wind Dir	SW
I24	30 Jun 2025	Sea State	Light Chop
I24	30 Jun 2025	High Tide Time	42
I24	30 Jun 2025	Low Tide Time	742
I24	30 Jun 2025	Comments	
I25	02 Jun 2025	Arrive Time	1044
I25	02 Jun 2025	Depart Time	1048
I25	02 Jun 2025	Air Temp (C)	999
I25	02 Jun 2025	Visibility (mi)	8
I25	02 Jun 2025	Wind Speed (kts)	9999
I25	02 Jun 2025	Wind Dir	
I25	02 Jun 2025	Sea State	Calm
I25	02 Jun 2025	High Tide Time	218
I25	02 Jun 2025	Low Tide Time	936
I25	02 Jun 2025	Comments	
I25	09 Jun 2025	Arrive Time	1130
I25	09 Jun 2025	Depart Time	1134

Station	Date	Parameter	Value
I25	09 Jun 2025	Air Temp (C)	16.2
I25	09 Jun 2025	Visibility (mi)	2
I25	09 Jun 2025	Wind Speed (kts)	5.9
I25	09 Jun 2025	Wind Dir	W
I25	09 Jun 2025	Sea State	Light Chop
I25	09 Jun 2025	High Tide Time	2024
I25	09 Jun 2025	Low Tide Time	312
I25	09 Jun 2025	Comments	
I25	17 Jun 2025	Arrive Time	1204
I25	17 Jun 2025	Depart Time	1207
I25	17 Jun 2025	Air Temp (C)	18.4
I25	17 Jun 2025	Visibility (mi)	8
I25	17 Jun 2025	Wind Speed (kts)	4
I25	17 Jun 2025	Wind Dir	S
I25	17 Jun 2025	Sea State	Calm
I25	17 Jun 2025	High Tide Time	106
I25	17 Jun 2025	Low Tide Time	830
I25	17 Jun 2025	Comments	
I25	24 Jun 2025	Arrive Time	1102
I25	24 Jun 2025	Depart Time	1104
I25	24 Jun 2025	Air Temp (C)	19.5
I25	24 Jun 2025	Visibility (mi)	11
I25	24 Jun 2025	Wind Speed (kts)	3.3
I25	24 Jun 2025	Wind Dir	W
I25	24 Jun 2025	Sea State	Calm
I25	24 Jun 2025	High Tide Time	2048
I25	24 Jun 2025	Low Tide Time	324
I25	24 Jun 2025	Comments	Anemometer broken
I25	30 Jun 2025	Arrive Time	1035
I25	30 Jun 2025	Depart Time	1038
I25	30 Jun 2025	Air Temp (C)	18.6
I25	30 Jun 2025	Visibility (mi)	9
I25	30 Jun 2025	Wind Speed (kts)	8.9
I25	30 Jun 2025	Wind Dir	SW
I25	30 Jun 2025	Sea State	Light Chop
I25	30 Jun 2025	High Tide Time	42
I25	30 Jun 2025	Low Tide Time	742
I25	30 Jun 2025	Comments	
I39	02 Jun 2025	Arrive Time	945
I39	02 Jun 2025	Depart Time	950
I39	02 Jun 2025	Air Temp (C)	999
I39	02 Jun 2025	Visibility (mi)	8
I39	02 Jun 2025	Wind Speed (kts)	9999
I39	02 Jun 2025	Wind Dir	
I39	02 Jun 2025	Sea State	Calm
I39	02 Jun 2025	High Tide Time	218
I39	02 Jun 2025	Low Tide Time	936
I39	02 Jun 2025	Comments	
I39	09 Jun 2025	Arrive Time	1037
I39	09 Jun 2025	Depart Time	1041
I39	09 Jun 2025	Air Temp (C)	16.3
I39	09 Jun 2025	Visibility (mi)	2
I39	09 Jun 2025	Wind Speed (kts)	1.6
I39	09 Jun 2025	Wind Dir	NW
I39	09 Jun 2025	Sea State	Light Chop
I39	09 Jun 2025	High Tide Time	2024

Station	Date	Parameter	Value
I39	09 Jun 2025	Low Tide Time	312
I39	09 Jun 2025	Comments	
I39	17 Jun 2025	Arrive Time	1109
I39	17 Jun 2025	Depart Time	1114
I39	17 Jun 2025	Air Temp (C)	18.5
I39	17 Jun 2025	Visibility (mi)	8
I39	17 Jun 2025	Wind Speed (kts)	0
I39	17 Jun 2025	Wind Dir	S
I39	17 Jun 2025	Sea State	Calm
I39	17 Jun 2025	High Tide Time	106
I39	17 Jun 2025	Low Tide Time	830
I39	17 Jun 2025	Comments	
I39	24 Jun 2025	Arrive Time	1013
I39	24 Jun 2025	Depart Time	1015
I39	24 Jun 2025	Air Temp (C)	20.5
I39	24 Jun 2025	Visibility (mi)	11
I39	24 Jun 2025	Wind Speed (kts)	1.7
I39	24 Jun 2025	Wind Dir	SW
I39	24 Jun 2025	Sea State	Calm
I39	24 Jun 2025	High Tide Time	2048
I39	24 Jun 2025	Low Tide Time	324
I39	24 Jun 2025	Comments	anemometer likely reading low
I39	30 Jun 2025	Arrive Time	951
I39	30 Jun 2025	Depart Time	956
I39	30 Jun 2025	Air Temp (C)	18.4
I39	30 Jun 2025	Visibility (mi)	9
I39	30 Jun 2025	Wind Speed (kts)	9.4
I39	30 Jun 2025	Wind Dir	W
I39	30 Jun 2025	Sea State	Light Chop
I39	30 Jun 2025	High Tide Time	42
I39	30 Jun 2025	Low Tide Time	742
I39	30 Jun 2025	Comments	
I26	02 Jun 2025	Arrive Time	1055
I26	02 Jun 2025	Depart Time	1058
I26	02 Jun 2025	Air Temp (C)	999
I26	02 Jun 2025	Visibility (mi)	8
I26	02 Jun 2025	Wind Speed (kts)	9999
I26	02 Jun 2025	Wind Dir	
I26	02 Jun 2025	Sea State	Calm
I26	02 Jun 2025	High Tide Time	218
I26	02 Jun 2025	Low Tide Time	936
I26	02 Jun 2025	Comments	
I26	09 Jun 2025	Arrive Time	1143
I26	09 Jun 2025	Depart Time	1146
I26	09 Jun 2025	Air Temp (C)	16.1
I26	09 Jun 2025	Visibility (mi)	2
I26	09 Jun 2025	Wind Speed (kts)	7.9
I26	09 Jun 2025	Wind Dir	W
I26	09 Jun 2025	Sea State	Light Chop
I26	09 Jun 2025	High Tide Time	2024
I26	09 Jun 2025	Low Tide Time	312
I26	09 Jun 2025	Comments	
I26	17 Jun 2025	Arrive Time	1213
I26	17 Jun 2025	Depart Time	1216
I26	17 Jun 2025	Air Temp (C)	18.6

Station	Date	Parameter	Value
I26	17 Jun 2025	Visibility (mi)	8
I26	17 Jun 2025	Wind Speed (kts)	4.3
I26	17 Jun 2025	Wind Dir	S
I26	17 Jun 2025	Sea State	Calm
I26	17 Jun 2025	High Tide Time	106
I26	17 Jun 2025	Low Tide Time	830
I26	17 Jun 2025	Comments	
I26	24 Jun 2025	Arrive Time	1111
I26	24 Jun 2025	Depart Time	1114
I26	24 Jun 2025	Air Temp (C)	19.8
I26	24 Jun 2025	Visibility (mi)	11
I26	24 Jun 2025	Wind Speed (kts)	1
I26	24 Jun 2025	Wind Dir	W
I26	24 Jun 2025	Sea State	Light Chop
I26	24 Jun 2025	High Tide Time	2048
I26	24 Jun 2025	Low Tide Time	324
I26	24 Jun 2025	Comments	Anemometer broken
I26	30 Jun 2025	Arrive Time	1044
I26	30 Jun 2025	Depart Time	1048
I26	30 Jun 2025	Air Temp (C)	18.6
I26	30 Jun 2025	Visibility (mi)	9
I26	30 Jun 2025	Wind Speed (kts)	9
I26	30 Jun 2025	Wind Dir	SW
I26	30 Jun 2025	Sea State	Light Chop
I26	30 Jun 2025	High Tide Time	42
I26	30 Jun 2025	Low Tide Time	742
I26	30 Jun 2025	Comments	
I32	02 Jun 2025	Arrive Time	1112
I32	02 Jun 2025	Depart Time	1116
I32	02 Jun 2025	Air Temp (C)	999
I32	02 Jun 2025	Visibility (mi)	8
I32	02 Jun 2025	Wind Speed (kts)	9999
I32	02 Jun 2025	Wind Dir	
I32	02 Jun 2025	Sea State	Calm
I32	02 Jun 2025	High Tide Time	218
I32	02 Jun 2025	Low Tide Time	936
I32	02 Jun 2025	Comments	
I32	09 Jun 2025	Arrive Time	1157
I32	09 Jun 2025	Depart Time	1202
I32	09 Jun 2025	Air Temp (C)	16
I32	09 Jun 2025	Visibility (mi)	2
I32	09 Jun 2025	Wind Speed (kts)	4.8
I32	09 Jun 2025	Wind Dir	SW
I32	09 Jun 2025	Sea State	Light Chop
I32	09 Jun 2025	High Tide Time	2024
I32	09 Jun 2025	Low Tide Time	312
I32	09 Jun 2025	Comments	
I32	17 Jun 2025	Arrive Time	1223
I32	17 Jun 2025	Depart Time	1228
I32	17 Jun 2025	Air Temp (C)	18.9
I32	17 Jun 2025	Visibility (mi)	8
I32	17 Jun 2025	Wind Speed (kts)	4.9
I32	17 Jun 2025	Wind Dir	S
I32	17 Jun 2025	Sea State	Calm
I32	17 Jun 2025	High Tide Time	106
I32	17 Jun 2025	Low Tide Time	830

Station	Date	Parameter	Value
I32	17 Jun 2025	Comments	
I32	24 Jun 2025	Arrive Time	1123
I32	24 Jun 2025	Depart Time	1126
I32	24 Jun 2025	Air Temp (C)	19.6
I32	24 Jun 2025	Visibility (mi)	11
I32	24 Jun 2025	Wind Speed (kts)	4.9
I32	24 Jun 2025	Wind Dir	W
I32	24 Jun 2025	Sea State	Light Chop
I32	24 Jun 2025	High Tide Time	2048
I32	24 Jun 2025	Low Tide Time	324
I32	24 Jun 2025	Comments	Anemometer broken; reading too low
I32	30 Jun 2025	Arrive Time	1054
I32	30 Jun 2025	Depart Time	1108
I32	30 Jun 2025	Air Temp (C)	18.5
I32	30 Jun 2025	Visibility (mi)	9
I32	30 Jun 2025	Wind Speed (kts)	7.7
I32	30 Jun 2025	Wind Dir	SW
I32	30 Jun 2025	Sea State	Regular Swell
I32	30 Jun 2025	High Tide Time	42
I32	30 Jun 2025	Low Tide Time	742
I32	30 Jun 2025	Comments	

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 (s-t)	Chlor (µg/L)
I19	02 Jun 2025	1	18.16	60.58	6.5	33.40	8.2	24.0	4.43
I19	02 Jun 2025	2	18.10	60.93	7.7	33.54	8.2	24.1	4.89
I19	02 Jun 2025	3	17.74	61.06	8.5	33.60	8.2	24.3	6.15
I19	02 Jun 2025	4	17.43	60.96	8.2	33.60	8.2	24.3	7.78
I19	02 Jun 2025	5	17.10	64.50	7.8	33.59	8.1	24.4	7.65
I19	02 Jun 2025	6	16.39	66.54	7.1	33.59	8.1	24.6	7.14
I19	02 Jun 2025	7	15.12	70.35	6.0	33.59	8.0	24.9	5.39
I19	02 Jun 2025	8	13.18	80.04	4.3	33.61	7.8	25.3	3.15
I19	02 Jun 2025	9	12.77	86.22	3.3	33.60	7.7	25.4	1.49
I19	02 Jun 2025	10	12.69	82.85	3.1	33.59	7.6	25.4	1.37
I19	09 Jun 2025	1	13.25	72.82	5.3	33.54	7.8	25.2	2.24
I19	09 Jun 2025	2	13.25	73.18	5.6	33.54	7.8	25.2	1.28
I19	09 Jun 2025	3	12.63	76.85	4.4	33.56	7.7	25.3	3.76
I19	09 Jun 2025	4	12.54	79.48	3.9	33.56	7.7	25.4	6.00
I19	09 Jun 2025	5	12.49	80.08	3.8	33.55	7.7	25.4	9.29
I19	09 Jun 2025	6	12.47	78.71	3.7	33.56	7.7	25.4	11.09
I19	09 Jun 2025	7	12.45	77.64	3.7	33.56	7.7	25.4	6.80
I19	09 Jun 2025	8	12.42	82.41	3.6	33.57	7.7	25.4	4.34
I19	09 Jun 2025	9	12.39	86.28	3.5	33.58	7.7	25.4	1.73
I19	09 Jun 2025	10	12.39	79.72	3.4	33.58	7.7	25.4	1.17
I19	17 Jun 2025	1	17.21	49.62	10.8	33.41	8.2	24.2	3.83
I19	17 Jun 2025	2	16.29	49.18	10.4	33.42	8.2	24.5	5.24
I19	17 Jun 2025	3	14.54	46.00	9.4	33.48	8.2	24.9	12.94
I19	17 Jun 2025	4	13.65	44.22	8.5	33.53	8.0	25.1	16.94
I19	17 Jun 2025	5	13.42	48.44	7.8	33.52	8.0	25.2	16.69
I19	17 Jun 2025	6	13.16	53.36	7.4	33.51	8.0	25.2	14.35
I19	17 Jun 2025	7	12.96	57.84	7.1	33.52	7.9	25.3	13.34
I19	17 Jun 2025	8	12.93	63.72	6.8	33.53	7.9	25.3	11.46
I19	17 Jun 2025	9	12.91	66.05	6.5	33.52	7.9	25.3	10.84
I19	17 Jun 2025	10	12.84	68.52	6.2	33.52	7.9	25.3	9.71
I19	24 Jun 2025	1	19.61	71.40	9.3	33.53	8.3	23.7	1.89
I19	24 Jun 2025	2	19.51	71.18	9.3	33.53	8.3	23.8	1.89
I19	24 Jun 2025	3	19.23	71.55	9.5	33.54	8.3	23.8	2.62
I19	24 Jun 2025	4	19.04	72.58	9.4	33.54	8.3	23.9	3.94
I19	24 Jun 2025	5	18.89	74.62	9.3	33.55	8.2	23.9	4.26
I19	24 Jun 2025	6	18.48	76.22	8.9	33.55	8.2	24.0	4.58
I19	24 Jun 2025	7	17.39	77.32	8.1	33.55	8.2	24.3	5.09
I19	24 Jun 2025	8	16.71	74.54	7.3	33.55	8.1	24.5	7.37
I19	24 Jun 2025	9	15.97	65.54	6.7	33.55	8.0	24.6	7.96
I19	24 Jun 2025	10	14.92	61.36	6.2	33.56	8.0	24.9	7.64
I19	30 Jun 2025	1	16.37	65.84	7.0	33.55	8.0	24.5	2.04
I19	30 Jun 2025	2	15.59	66.03	6.5	33.53	8.0	24.7	2.44
I19	30 Jun 2025	3	13.87	65.38	6.2	33.57	7.9	25.1	3.54
I19	30 Jun 2025	4	13.50	68.56	6.0	33.53	7.9	25.2	3.58
I19	30 Jun 2025	5	13.00	70.26	5.4	33.55	7.9	25.3	5.23
I19	30 Jun 2025	6	12.80	70.39	4.5	33.57	7.8	25.3	6.39
I19	30 Jun 2025	7	12.70	70.03	4.0	33.56	7.7	25.3	5.46
I19	30 Jun 2025	8	12.62	71.67	3.9	33.56	7.7	25.4	4.96
I19	30 Jun 2025	9	12.53	73.07	3.8	33.56	7.7	25.4	4.43
I19	30 Jun 2025	10	12.53	70.18	3.7	33.57	7.7	25.4	4.44
I40	02 Jun 2025	1	18.04	56.76	8.6	33.52	8.1	24.1	3.49
I40	02 Jun 2025	2	17.96	56.71	8.4	33.52	8.1	24.1	3.96
I40	02 Jun 2025	3	17.23	56.17	8.1	33.55	8.1	24.3	6.59
I40	02 Jun 2025	4	16.62	55.62	7.6	33.57	8.1	24.5	9.41
I40	02 Jun 2025	5	15.90	59.66	6.7	33.57	8.0	24.7	9.09
I40	02 Jun 2025	6	14.63	66.06	5.5	33.60	7.9	25.0	5.76
I40	02 Jun 2025	7	13.92	66.87	4.1	33.59	7.8	25.1	3.47
I40	02 Jun 2025	8	12.60	59.35	3.0	33.60	7.6	25.4	2.13
I40	02 Jun 2025	9	12.34	53.48	2.4	33.60	7.6	25.4	1.52
I40	02 Jun 2025	10	12.50	38.67	2.2	33.59	7.6	25.4	2.01
I40	09 Jun 2025	1	13.36	64.42	6.5	33.47	7.8	25.1	12.51
I40	09 Jun 2025	2	13.30	63.58	6.5	33.49	7.9	25.2	15.65

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I40	09 Jun 2025	3	12.89	66.08	5.8	33.51	7.8	25.3	9.33
I40	09 Jun 2025	4	12.71	77.01	5.2	33.52	7.8	25.3	4.85
I40	09 Jun 2025	5	12.66	83.93	4.9	33.52	7.8	25.3	4.40
I40	09 Jun 2025	6	12.59	86.24	4.5	33.52	7.7	25.3	3.15
I40	09 Jun 2025	7	12.59	88.68	4.4	33.53	7.7	25.3	1.94
I40	09 Jun 2025	8	12.51	89.43	4.3	33.55	7.7	25.4	2.35
I40	09 Jun 2025	9	12.45	89.22	3.9	33.56	7.7	25.4	1.59
I40	09 Jun 2025	10	12.40	65.42	3.5	33.58	7.7	25.4	1.18
I40	17 Jun 2025	1	17.64	53.88	10.4	33.33	8.2	24.1	2.42
I40	17 Jun 2025	2	16.01	53.56	10.4	33.43	8.2	24.5	4.06
I40	17 Jun 2025	3	14.96	47.80	10.5	33.47	8.2	24.8	13.75
I40	17 Jun 2025	4	14.26	41.80	9.7	33.48	8.1	25.0	20.28
I40	17 Jun 2025	5	13.75	43.10	8.5	33.50	8.0	25.1	20.33
I40	17 Jun 2025	6	13.44	50.99	7.8	33.49	8.0	25.1	14.64
I40	17 Jun 2025	7	13.18	61.24	7.0	33.51	7.9	25.2	10.90
I40	17 Jun 2025	8	13.03	67.93	6.0	33.52	7.9	25.2	7.68
I40	17 Jun 2025	9	12.71	67.29	5.0	33.53	7.8	25.3	4.95
I40	17 Jun 2025	10	12.70	50.85	4.6	33.53	7.7	25.3	4.19
I40	24 Jun 2025	1	19.53	69.50	8.4	33.53	8.2	23.8	3.59
I40	24 Jun 2025	2	19.53	69.30	8.4	33.52	8.2	23.8	3.38
I40	24 Jun 2025	3	19.50	68.94	8.3	33.52	8.2	23.8	3.85
I40	24 Jun 2025	4	19.44	68.19	8.2	33.52	8.2	23.8	4.64
I40	24 Jun 2025	5	19.29	67.52	7.8	33.52	8.2	23.8	5.52
I40	24 Jun 2025	6	18.54	70.83	7.4	33.52	8.2	24.0	5.17
I40	24 Jun 2025	7	17.44	74.64	7.4	33.55	8.1	24.3	4.50
I40	24 Jun 2025	8	16.82	76.41	6.8	33.50	8.1	24.4	4.72
I40	24 Jun 2025	9	15.28	71.70	6.4	33.56	8.0	24.8	6.04
I40	24 Jun 2025	10	15.50	63.71	6.2	33.54	7.9	24.7	7.48
I40	30 Jun 2025	1	15.75	68.10	6.4	33.42	7.9	24.6	1.18
I40	30 Jun 2025	2	15.20	67.87	5.7	33.44	7.9	24.7	1.16
I40	30 Jun 2025	3	13.29	68.93	4.8	33.57	7.8	25.2	1.19
I40	30 Jun 2025	4	13.04	73.92	4.3	33.56	7.8	25.3	1.19
I40	30 Jun 2025	5	12.98	78.38	4.2	33.56	7.7	25.3	1.68
I40	30 Jun 2025	6	12.95	77.89	4.0	33.56	7.7	25.3	2.46
I40	30 Jun 2025	7	12.93	76.41	3.9	33.55	7.7	25.3	3.00
I40	30 Jun 2025	8	12.76	76.10	3.9	33.55	7.7	25.3	3.54
I40	30 Jun 2025	9	12.57	74.13	3.9	33.56	7.7	25.4	4.35
I40	30 Jun 2025	10	12.74	64.49	3.9	33.56	7.7	25.3	3.98
I24	02 Jun 2025	1	17.75	77.74	8.5	33.61	8.2	24.3	1.39
I24	02 Jun 2025	2	17.24	77.17	8.3	33.61	8.2	24.4	1.67
I24	02 Jun 2025	3	16.91	75.90	8.1	33.59	8.1	24.5	2.59
I24	02 Jun 2025	4	16.69	70.89	7.8	33.59	8.1	24.5	3.95
I24	02 Jun 2025	5	16.47	68.56	7.2	33.58	8.1	24.5	5.06
I24	02 Jun 2025	6	14.58	67.56	5.5	33.69	7.9	25.0	3.86
I24	02 Jun 2025	7	13.22	67.47	3.6	33.65	7.7	25.3	1.56
I24	02 Jun 2025	8	13.33	63.01	3.2	33.60	7.6	25.2	1.23
I24	02 Jun 2025	9	13.37	62.47	3.0	33.60	7.6	25.2	1.38
I24	02 Jun 2025	10	13.11	55.96	2.8	33.60	7.6	25.3	1.54
I24	09 Jun 2025	1	14.26	73.79	7.2	33.42	7.9	24.9	2.56
I24	09 Jun 2025	2	14.21	74.33	7.2	33.44	7.9	24.9	2.64
I24	09 Jun 2025	3	13.79	73.98	6.8	33.46	7.9	25.0	3.51
I24	09 Jun 2025	4	13.14	73.29	6.2	33.50	7.9	25.2	5.06
I24	09 Jun 2025	5	12.72	73.92	5.4	33.52	7.8	25.3	3.08
I24	09 Jun 2025	6	12.62	80.01	4.7	33.52	7.8	25.3	1.94
I24	09 Jun 2025	7	12.59	80.30	4.4	33.53	7.8	25.3	1.44
I24	09 Jun 2025	8	12.53	80.24	4.2	33.54	7.7	25.4	1.36
I24	09 Jun 2025	9	12.49	78.83	3.9	33.55	7.7	25.4	1.16
I24	09 Jun 2025	10	12.49	66.74	3.7	33.55	7.7	25.4	1.19
I24	17 Jun 2025	1	18.07	58.55	12.3	33.46	8.3	24.1	1.64
I24	17 Jun 2025	2	17.09	58.18	11.5	33.45	8.3	24.3	4.34
I24	17 Jun 2025	3	14.85	52.45	10.6	33.47	8.2	24.8	15.16
I24	17 Jun 2025	4	13.64	47.61	9.2	33.50	8.1	25.1	17.67
I24	17 Jun 2025	5	13.20	53.83	7.6	33.51	8.0	25.2	12.66
I24	17 Jun 2025	6	13.01	64.13	6.7	33.51	7.9	25.2	12.00
I24	17 Jun 2025	7	12.94	70.19	6.0	33.52	7.9	25.3	9.90
I24	17 Jun 2025	8	12.91	72.31	5.6	33.52	7.8	25.3	7.02
I24	17 Jun 2025	9	12.68	74.66	5.2	33.51	7.8	25.3	6.16
I24	17 Jun 2025	10	12.41	75.85	4.8	33.54	7.8	25.4	3.32

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I24	17 Jun 2025	11	12.46	65.09	4.6	33.54	7.7	25.4	2.75
I24	24 Jun 2025	1	19.75	72.13	8.8	33.54	8.2	23.7	1.65
I24	24 Jun 2025	2	19.63	72.03	8.9	33.55	8.2	23.8	1.71
I24	24 Jun 2025	3	19.51	74.26	9.1	33.56	8.3	23.8	1.91
I24	24 Jun 2025	4	19.39	76.94	9.1	33.56	8.3	23.8	2.20
I24	24 Jun 2025	5	19.33	77.57	9.0	33.56	8.3	23.8	2.78
I24	24 Jun 2025	6	19.11	77.88	8.8	33.55	8.2	23.9	2.97
I24	24 Jun 2025	7	18.47	77.85	8.5	33.55	8.2	24.0	3.60
I24	24 Jun 2025	8	17.92	77.04	7.6	33.53	8.2	24.2	4.29
I24	24 Jun 2025	9	15.79	76.50	6.5	33.55	8.0	24.7	4.59
I24	24 Jun 2025	10	15.60	73.19	6.1	33.56	7.9	24.7	4.47
I24	30 Jun 2025	1	18.87	77.88	8.6	33.59	8.2	24.0	0.91
I24	30 Jun 2025	2	18.86	77.85	8.6	33.59	8.2	24.0	0.89
I24	30 Jun 2025	3	18.78	77.87	8.5	33.59	8.2	24.0	0.97
I24	30 Jun 2025	4	18.22	77.66	8.4	33.58	8.2	24.1	1.20
I24	30 Jun 2025	5	17.82	77.11	8.3	33.57	8.2	24.2	1.51
I24	30 Jun 2025	6	16.79	76.23	7.7	33.54	8.1	24.4	1.84
I24	30 Jun 2025	7	14.83	75.46	6.9	33.56	8.0	24.9	3.37
I24	30 Jun 2025	8	13.03	79.20	6.2	33.57	7.9	25.3	3.19
I24	30 Jun 2025	9	12.80	84.08	5.1	33.56	7.8	25.3	2.36
I24	30 Jun 2025	10	13.39	84.25	5.3	33.55	7.8	25.2	2.39
I25	02 Jun 2025	1	18.17	78.58	8.7	33.57	8.2	24.1	1.39
I25	02 Jun 2025	2	17.65	78.47	8.6	33.59	8.2	24.3	1.39
I25	02 Jun 2025	3	16.83	79.26	8.7	33.61	8.2	24.5	1.24
I25	02 Jun 2025	4	16.38	82.55	8.2	33.59	8.1	24.6	1.47
I25	02 Jun 2025	5	16.09	78.75	7.5	33.60	8.1	24.6	2.96
I25	02 Jun 2025	6	15.66	74.37	6.4	33.59	8.0	24.7	3.84
I25	02 Jun 2025	7	13.07	73.54	3.9	33.66	7.7	25.3	2.44
I25	02 Jun 2025	8	12.95	70.19	2.8	33.61	7.6	25.3	1.15
I25	02 Jun 2025	9	13.03	68.13	2.7	33.60	7.6	25.3	1.21
I25	09 Jun 2025	1	14.63	76.55	9.1	33.49	8.1	24.9	4.07
I25	09 Jun 2025	2	14.21	74.09	8.7	33.48	8.1	25.0	4.53
I25	09 Jun 2025	3	13.12	64.05	7.5	33.50	8.0	25.2	7.63
I25	09 Jun 2025	4	12.89	76.34	6.3	33.50	7.9	25.3	2.69
I25	09 Jun 2025	5	12.60	87.59	5.7	33.52	7.8	25.3	1.89
I25	09 Jun 2025	6	12.49	88.75	5.3	33.53	7.8	25.4	3.59
I25	09 Jun 2025	7	12.40	88.58	5.1	33.54	7.8	25.4	2.66
I25	09 Jun 2025	8	12.37	90.14	4.6	33.56	7.8	25.4	1.10
I25	09 Jun 2025	9	12.48	87.61	4.6	33.54	7.8	25.4	1.65
I25	17 Jun 2025	1	17.26	56.54	11.6	33.46	8.3	24.3	3.86
I25	17 Jun 2025	2	16.34	52.20	11.3	33.45	8.3	24.5	4.25
I25	17 Jun 2025	3	14.82	46.45	11.0	33.48	8.2	24.8	13.81
I25	17 Jun 2025	4	13.99	38.14	9.1	33.49	8.1	25.0	16.73
I25	17 Jun 2025	5	13.53	39.61	7.6	33.51	8.0	25.1	13.06
I25	17 Jun 2025	6	13.33	54.44	6.7	33.51	7.9	25.2	10.34
I25	17 Jun 2025	7	12.83	64.95	5.8	33.52	7.8	25.3	7.90
I25	17 Jun 2025	8	12.67	68.05	4.2	33.53	7.7	25.3	4.03
I25	17 Jun 2025	9	12.68	66.24	4.4	33.53	7.7	25.3	3.02
I25	24 Jun 2025	1	19.64	48.16	9.1	33.57	8.3	23.8	1.05
I25	24 Jun 2025	2	19.63	51.34	9.1	33.50	8.3	23.7	1.12
I25	24 Jun 2025	3	19.41	75.31	9.2	33.56	8.3	23.8	1.20
I25	24 Jun 2025	4	19.28	77.18	9.3	33.56	8.3	23.9	1.60
I25	24 Jun 2025	5	19.20	78.66	9.2	33.56	8.3	23.9	2.05
I25	24 Jun 2025	6	19.04	79.26	8.7	33.55	8.2	23.9	2.41
I25	24 Jun 2025	7	18.06	78.89	8.3	33.54	8.2	24.1	2.91
I25	24 Jun 2025	8	17.28	77.15	8.3	33.55	8.2	24.3	3.57
I25	24 Jun 2025	9	17.40	78.81	8.0	33.54	8.1	24.3	3.57
I25	30 Jun 2025	1	18.92	78.34	8.6	33.59	8.2	24.0	0.90
I25	30 Jun 2025	2	18.87	78.15	8.6	33.59	8.2	24.0	0.87
I25	30 Jun 2025	3	18.75	77.99	8.6	33.59	8.2	24.0	1.05
I25	30 Jun 2025	4	18.43	77.80	8.5	33.58	8.2	24.1	1.30
I25	30 Jun 2025	5	17.49	77.10	8.4	33.55	8.2	24.3	1.58
I25	30 Jun 2025	6	16.00	77.13	8.4	33.55	8.1	24.6	1.86
I25	30 Jun 2025	7	14.62	78.20	7.5	33.54	8.1	24.9	2.52
I25	30 Jun 2025	8	12.89	78.00	6.0	33.56	7.9	25.3	3.18
I25	30 Jun 2025	9	13.77	81.48	6.0	33.54	7.9	25.1	2.17

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I39	02 Jun 2025	1	17.69	82.45	9.0	33.61	8.2	24.3	1.21
I39	02 Jun 2025	2	17.52	82.65	9.1	33.61	8.2	24.3	1.21
I39	02 Jun 2025	3	17.19	84.77	9.4	33.60	8.2	24.4	1.16
I39	02 Jun 2025	4	16.18	87.42	10.1	33.61	8.2	24.6	1.01
I39	02 Jun 2025	5	15.81	89.05	10.5	33.60	8.3	24.7	1.06
I39	02 Jun 2025	6	15.21	89.01	9.9	33.58	8.2	24.8	1.26
I39	02 Jun 2025	7	13.78	88.59	9.2	33.58	8.2	25.1	1.53
I39	02 Jun 2025	8	13.16	88.28	7.8	33.58	8.0	25.3	2.24
I39	02 Jun 2025	9	13.03	86.23	6.9	33.55	7.9	25.3	3.22
I39	02 Jun 2025	10	12.02	87.00	6.2	33.52	7.9	25.4	2.72
I39	02 Jun 2025	11	11.72	91.70	5.6	33.52	7.8	25.5	1.30
I39	02 Jun 2025	12	11.77	93.89	5.3	33.54	7.8	25.5	0.95
I39	02 Jun 2025	13	11.68	96.32	4.9	33.58	7.8	25.5	0.87
I39	02 Jun 2025	14	11.67	96.14	4.5	33.59	7.7	25.6	0.67
I39	02 Jun 2025	15	11.68	94.88	4.2	33.60	7.7	25.6	0.58
I39	02 Jun 2025	16	11.68	92.53	4.0	33.60	7.7	25.6	0.53
I39	02 Jun 2025	17	11.68	90.64	3.9	33.60	7.7	25.6	0.51
I39	02 Jun 2025	18	11.69	87.85	3.8	33.61	7.7	25.6	0.47
I39	09 Jun 2025	1	15.47	85.21	9.1	33.52	8.2	24.7	1.38
I39	09 Jun 2025	2	15.56	85.01	9.1	33.52	8.2	24.7	1.49
I39	09 Jun 2025	3	15.50	84.80	9.1	33.52	8.2	24.7	1.49
I39	09 Jun 2025	4	15.34	85.27	9.1	33.53	8.2	24.8	1.38
I39	09 Jun 2025	5	15.28	86.34	8.9	33.53	8.2	24.8	1.36
I39	09 Jun 2025	6	14.83	86.56	8.6	33.53	8.1	24.9	1.49
I39	09 Jun 2025	7	14.02	86.78	8.3	33.50	8.1	25.0	2.62
I39	09 Jun 2025	8	13.88	86.59	8.0	33.48	8.1	25.0	2.80
I39	09 Jun 2025	9	13.15	89.34	7.6	33.47	8.0	25.2	2.72
I39	09 Jun 2025	10	12.85	90.75	7.3	33.46	8.0	25.2	2.60
I39	09 Jun 2025	11	12.78	91.95	7.2	33.47	8.0	25.2	2.28
I39	09 Jun 2025	12	12.81	93.01	7.1	33.46	8.0	25.2	2.32
I39	09 Jun 2025	13	12.46	93.64	6.9	33.47	8.0	25.3	1.93
I39	09 Jun 2025	14	12.29	94.64	6.7	33.48	7.9	25.4	1.47
I39	09 Jun 2025	15	12.18	95.60	6.2	33.51	7.9	25.4	1.12
I39	09 Jun 2025	16	12.04	95.04	5.0	33.57	7.8	25.5	0.85
I39	09 Jun 2025	17	12.04	93.33	4.4	33.58	7.8	25.5	0.68
I39	09 Jun 2025	18	12.03	93.22	4.1	33.58	7.7	25.5	0.65
I39	17 Jun 2025	1	18.16	65.18	12.2	33.49	8.3	24.1	1.70
I39	17 Jun 2025	2	18.00	65.10	12.2	33.49	8.3	24.1	1.65
I39	17 Jun 2025	3	17.89	64.71	12.2	33.49	8.3	24.1	2.15
I39	17 Jun 2025	4	17.74	63.92	12.1	33.48	8.3	24.2	2.73
I39	17 Jun 2025	5	17.43	63.43	12.2	33.49	8.3	24.3	3.62
I39	17 Jun 2025	6	17.07	63.06	12.1	33.49	8.3	24.3	4.90
I39	17 Jun 2025	7	16.79	62.95	11.8	33.48	8.3	24.4	6.48
I39	17 Jun 2025	8	16.18	62.36	11.5	33.49	8.3	24.5	8.55
I39	17 Jun 2025	9	15.94	59.96	11.2	33.49	8.3	24.6	12.13
I39	17 Jun 2025	10	15.71	57.36	10.8	33.49	8.3	24.6	13.97
I39	17 Jun 2025	11	15.03	56.17	9.9	33.48	8.2	24.8	14.30
I39	17 Jun 2025	12	13.39	58.68	8.6	33.50	8.1	25.2	12.27
I39	17 Jun 2025	13	12.26	69.55	6.9	33.54	8.0	25.4	7.26
I39	17 Jun 2025	14	11.94	82.75	5.7	33.54	7.8	25.5	3.21
I39	17 Jun 2025	15	11.82	88.40	5.2	33.55	7.8	25.5	2.12
I39	17 Jun 2025	16	11.74	89.53	5.0	33.56	7.8	25.5	1.63
I39	17 Jun 2025	17	11.72	90.28	4.8	33.55	7.8	25.5	1.25
I39	17 Jun 2025	18	11.74	89.01	4.8	33.56	7.8	25.5	1.30
I39	24 Jun 2025	1	19.47	78.58	9.0	33.56	8.3	23.8	1.22
I39	24 Jun 2025	2	19.40	76.87	9.0	33.56	8.3	23.8	1.21
I39	24 Jun 2025	3	19.33	77.95	9.1	33.56	8.3	23.8	1.46
I39	24 Jun 2025	4	19.20	77.76	9.3	33.55	8.3	23.9	1.91
I39	24 Jun 2025	5	18.78	78.04	9.6	33.55	8.3	24.0	2.34
I39	24 Jun 2025	6	18.68	78.53	9.7	33.56	8.3	24.0	2.31
I39	24 Jun 2025	7	18.66	80.30	9.6	33.56	8.3	24.0	2.42
I39	24 Jun 2025	8	18.64	81.09	9.6	33.56	8.3	24.0	2.73
I39	24 Jun 2025	9	18.58	80.83	9.5	33.55	8.3	24.0	2.84
I39	24 Jun 2025	10	17.94	80.86	9.7	33.55	8.2	24.2	3.41
I39	24 Jun 2025	11	17.58	79.02	9.9	33.56	8.2	24.3	3.99
I39	24 Jun 2025	12	16.89	78.08	9.3	33.55	8.2	24.4	4.12
I39	24 Jun 2025	13	15.46	79.18	8.1	33.53	8.2	24.7	4.93
I39	24 Jun 2025	14	13.70	79.10	6.6	33.55	7.9	25.1	5.97
I39	24 Jun 2025	15	14.32	77.54	6.2	33.50	7.9	25.0	6.21
I39	24 Jun 2025	16	12.74	77.29	5.3	33.54	7.8	25.3	5.33
I39	24 Jun 2025	17	12.81	77.13	4.8	33.53	7.8	25.3	4.37

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I39	24 Jun 2025	18	12.35	75.70	4.4	33.55	7.8	25.4	4.37
I39	30 Jun 2025	1	17.37	77.32	8.8	33.58	8.2	24.3	1.43
I39	30 Jun 2025	2	16.83	77.59	8.8	33.58	8.2	24.5	1.50
I39	30 Jun 2025	3	16.13	78.28	8.9	33.57	8.2	24.6	1.68
I39	30 Jun 2025	4	15.42	79.66	9.1	33.56	8.2	24.8	1.82
I39	30 Jun 2025	5	15.28	80.08	9.1	33.55	8.1	24.8	2.14
I39	30 Jun 2025	6	14.90	80.14	9.0	33.54	8.1	24.9	2.66
I39	30 Jun 2025	7	14.07	79.84	9.0	33.54	8.1	25.0	3.56
I39	30 Jun 2025	8	13.72	78.75	8.9	33.53	8.1	25.1	4.75
I39	30 Jun 2025	9	13.28	79.75	8.2	33.54	8.1	25.2	4.77
I39	30 Jun 2025	10	12.94	78.08	7.1	33.55	8.0	25.3	8.53
I39	30 Jun 2025	11	12.70	72.68	6.2	33.55	7.9	25.3	10.42
I39	30 Jun 2025	12	12.53	74.32	5.6	33.56	7.9	25.4	9.90
I39	30 Jun 2025	13	12.12	77.81	5.1	33.59	7.8	25.5	8.70
I39	30 Jun 2025	14	11.93	83.00	4.7	33.60	7.8	25.5	4.85
I39	30 Jun 2025	15	11.90	88.10	4.4	33.60	7.8	25.5	2.75
I39	30 Jun 2025	16	11.87	89.54	4.4	33.60	7.8	25.5	2.69
I39	30 Jun 2025	17	11.86	90.07	4.4	33.60	7.8	25.5	2.26
I39	30 Jun 2025	18	11.86	90.60	4.3	33.61	7.8	25.5	2.33
I26	02 Jun 2025	1	18.35	75.81	8.9	33.57	8.2	24.1	2.02
I26	02 Jun 2025	2	18.20	75.74	8.7	33.57	8.2	24.1	2.04
I26	02 Jun 2025	3	16.93	76.87	8.8	33.59	8.2	24.4	1.90
I26	02 Jun 2025	4	15.93	80.48	8.4	33.59	8.2	24.7	1.70
I26	02 Jun 2025	5	15.12	83.84	7.3	33.59	8.1	24.9	1.98
I26	02 Jun 2025	6	14.39	83.48	5.5	33.59	7.9	25.0	2.85
I26	02 Jun 2025	7	13.02	81.74	3.7	33.60	7.7	25.3	2.15
I26	02 Jun 2025	8	12.83	81.96	2.9	33.59	7.6	25.3	0.76
I26	02 Jun 2025	9	12.91	79.01	2.9	33.59	7.6	25.3	0.84
I26	09 Jun 2025	1	13.97	72.14	8.6	33.49	8.0	25.0	3.26
I26	09 Jun 2025	2	13.97	69.78	9.5	33.49	8.1	25.0	10.10
I26	09 Jun 2025	3	13.50	55.05	9.1	33.48	8.1	25.1	14.82
I26	09 Jun 2025	4	12.79	48.81	7.6	33.50	8.0	25.3	4.87
I26	09 Jun 2025	5	12.53	75.80	6.0	33.53	7.9	25.3	2.72
I26	09 Jun 2025	6	12.46	86.47	5.3	33.54	7.8	25.4	2.85
I26	09 Jun 2025	7	12.33	90.14	4.8	33.56	7.8	25.4	1.68
I26	09 Jun 2025	8	12.30	91.76	4.4	33.56	7.8	25.4	1.03
I26	09 Jun 2025	9	12.35	89.24	4.3	33.56	7.7	25.4	1.15
I26	17 Jun 2025	1	17.97	61.37	10.6	33.47	8.3	24.1	1.57
I26	17 Jun 2025	2	16.88	60.64	11.2	33.47	8.3	24.4	1.86
I26	17 Jun 2025	3	15.50	56.23	10.6	33.49	8.3	24.7	3.86
I26	17 Jun 2025	4	14.30	53.67	8.7	33.50	8.1	25.0	6.98
I26	17 Jun 2025	5	13.54	54.78	7.4	33.51	8.0	25.1	9.04
I26	17 Jun 2025	6	12.68	64.05	6.2	33.52	7.9	25.3	6.74
I26	17 Jun 2025	7	12.42	74.01	5.3	33.54	7.8	25.4	3.88
I26	17 Jun 2025	8	12.41	77.96	4.9	33.53	7.8	25.4	2.84
I26	17 Jun 2025	9	12.42	79.70	4.7	33.54	7.8	25.4	2.93
I26	24 Jun 2025	1	19.37	80.62	9.4	33.57	8.3	23.8	1.03
I26	24 Jun 2025	2	19.39	80.57	9.4	33.57	8.3	23.8	0.97
I26	24 Jun 2025	3	19.27	80.75	9.4	33.57	8.3	23.9	1.04
I26	24 Jun 2025	4	19.10	80.49	9.4	33.56	8.3	23.9	1.21
I26	24 Jun 2025	5	19.00	80.66	9.4	33.56	8.3	23.9	1.63
I26	24 Jun 2025	6	18.96	80.84	9.3	33.56	8.3	23.9	1.94
I26	24 Jun 2025	7	18.92	80.57	9.3	33.56	8.2	23.9	2.62
I26	24 Jun 2025	8	18.57	80.36	8.7	33.55	8.2	24.0	2.95
I26	24 Jun 2025	9	17.13	75.23	7.7	33.56	8.1	24.4	4.08
I26	30 Jun 2025	1	18.71	78.18	8.6	33.59	8.2	24.0	0.86
I26	30 Jun 2025	2	18.68	76.98	8.6	33.59	8.2	24.0	0.84
I26	30 Jun 2025	3	18.48	77.61	8.6	33.58	8.2	24.1	0.93
I26	30 Jun 2025	4	17.83	78.02	8.6	33.57	8.2	24.2	1.13
I26	30 Jun 2025	5	16.91	78.38	8.4	33.54	8.2	24.4	1.41
I26	30 Jun 2025	6	14.28	79.44	7.5	33.51	8.1	25.0	1.50
I26	30 Jun 2025	7	12.74	73.57	6.4	33.56	7.9	25.3	3.55
I26	30 Jun 2025	8	12.48	77.08	5.3	33.57	7.8	25.4	3.57
I26	30 Jun 2025	9	12.73	84.05	5.2	33.55	7.8	25.3	3.22
I32	02 Jun 2025	1	18.38	68.25	7.4	33.50	8.2	24.0	2.18
I32	02 Jun 2025	2	18.25	68.06	8.2	33.60	8.2	24.1	2.40
I32	02 Jun 2025	3	17.90	66.96	8.4	33.66	8.2	24.3	3.21

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/l)	Sal (ppt)	pH	Dens (s-t)	Chlor (µg/L)
I32	02 Jun 2025	4	17.53	64.48	8.3	33.64	8.2	24.3	4.40
I32	02 Jun 2025	5	17.03	61.24	8.2	33.65	8.1	24.5	7.35
I32	02 Jun 2025	6	16.89	60.34	7.8	33.58	8.1	24.5	8.81
I32	02 Jun 2025	7	16.00	63.77	7.4	33.70	8.0	24.7	7.33
I32	02 Jun 2025	8	15.68	66.70	7.1	33.79	7.9	24.9	4.86
I32	02 Jun 2025	9	15.45	64.59	6.9	33.95	7.9	25.1	3.93
I32	02 Jun 2025	10	15.35	55.48	6.7	34.04	7.9	25.2	3.65
I32	09 Jun 2025	1	14.26	79.26	8.4	33.48	8.0	25.0	1.17
I32	09 Jun 2025	2	14.15	78.88	8.1	33.47	8.0	25.0	1.23
I32	09 Jun 2025	3	13.30	76.69	7.6	33.50	8.0	25.2	3.11
I32	09 Jun 2025	4	13.18	70.82	7.2	33.49	7.9	25.2	8.29
I32	09 Jun 2025	5	12.57	65.36	6.0	33.50	7.9	25.3	8.23
I32	09 Jun 2025	6	12.42	74.98	5.0	33.51	7.8	25.4	3.86
I32	09 Jun 2025	7	12.37	78.79	4.7	33.51	7.8	25.4	3.25
I32	09 Jun 2025	8	12.36	77.08	4.6	33.52	7.8	25.4	2.62
I32	09 Jun 2025	9	12.36	70.09	4.5	33.52	7.7	25.4	2.40
I32	09 Jun 2025	10	12.39	59.02	4.5	33.52	7.7	25.4	2.37
I32	17 Jun 2025	1	16.72	59.54	8.8	33.47	8.2	24.4	2.77
I32	17 Jun 2025	2	15.72	58.73	8.9	33.52	8.2	24.7	4.10
I32	17 Jun 2025	3	14.73	57.12	8.8	33.54	8.1	24.9	6.51
I32	17 Jun 2025	4	14.27	56.94	8.1	33.53	8.1	25.0	9.17
I32	17 Jun 2025	5	13.95	58.52	7.2	33.51	8.0	25.0	10.63
I32	17 Jun 2025	6	13.21	61.51	6.3	33.52	7.9	25.2	9.89
I32	17 Jun 2025	7	12.91	65.52	5.5	33.55	7.8	25.3	8.56
I32	17 Jun 2025	8	12.83	65.41	4.9	33.54	7.8	25.3	7.69
I32	17 Jun 2025	9	12.52	61.86	4.5	33.55	7.7	25.4	6.25
I32	17 Jun 2025	10	12.50	56.04	4.2	33.54	7.7	25.4	4.90
I32	24 Jun 2025	1	19.55	80.02	8.8	33.58	8.2	23.8	0.81
I32	24 Jun 2025	2	19.49	80.58	8.8	33.58	8.2	23.8	0.80
I32	24 Jun 2025	3	19.39	80.20	8.8	33.57	8.2	23.8	0.99
I32	24 Jun 2025	4	19.31	79.25	8.6	33.57	8.2	23.9	1.26
I32	24 Jun 2025	5	19.24	76.28	8.3	33.57	8.2	23.9	1.75
I32	24 Jun 2025	6	19.08	74.10	8.1	33.57	8.2	23.9	2.43
I32	24 Jun 2025	7	18.92	72.34	7.8	33.57	8.2	23.9	3.29
I32	24 Jun 2025	8	18.45	70.47	8.0	33.57	8.2	24.1	3.63
I32	24 Jun 2025	9	17.97	71.01	7.6	33.56	8.2	24.2	3.74
I32	24 Jun 2025	10	16.62	66.77	6.5	33.54	8.1	24.5	5.71
I32	30 Jun 2025	1	17.56	75.40	8.2	33.57	8.1	24.3	1.02
I32	30 Jun 2025	2	17.57	75.41	8.1	33.57	8.1	24.3	0.96
I32	30 Jun 2025	3	16.89	75.31	7.8	33.54	8.1	24.4	1.05
I32	30 Jun 2025	4	14.67	75.26	7.5	33.55	8.1	24.9	1.36
I32	30 Jun 2025	5	13.49	75.65	6.3	33.55	7.9	25.2	2.49
I32	30 Jun 2025	6	12.97	65.17	5.2	33.54	7.8	25.3	6.35
I32	30 Jun 2025	7	12.82	59.32	4.7	33.54	7.8	25.3	9.24
I32	30 Jun 2025	8	12.73	62.84	4.4	33.54	7.8	25.3	10.55
I32	30 Jun 2025	9	12.62	62.84	4.3	33.54	7.7	25.3	10.57
I32	30 Jun 2025	10	12.65	60.55	4.2	33.55	7.7	25.3	10.00

NA = not available

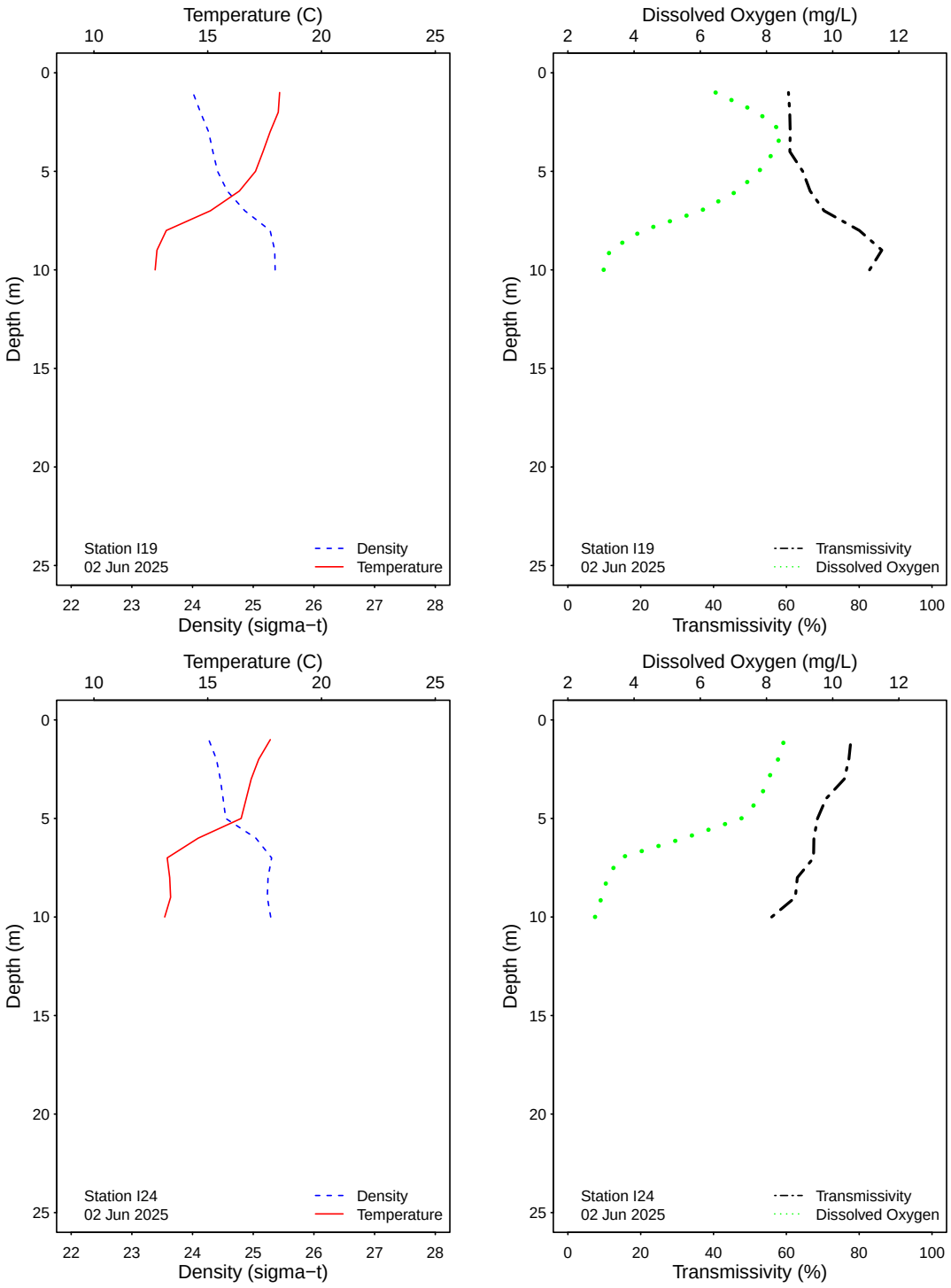

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

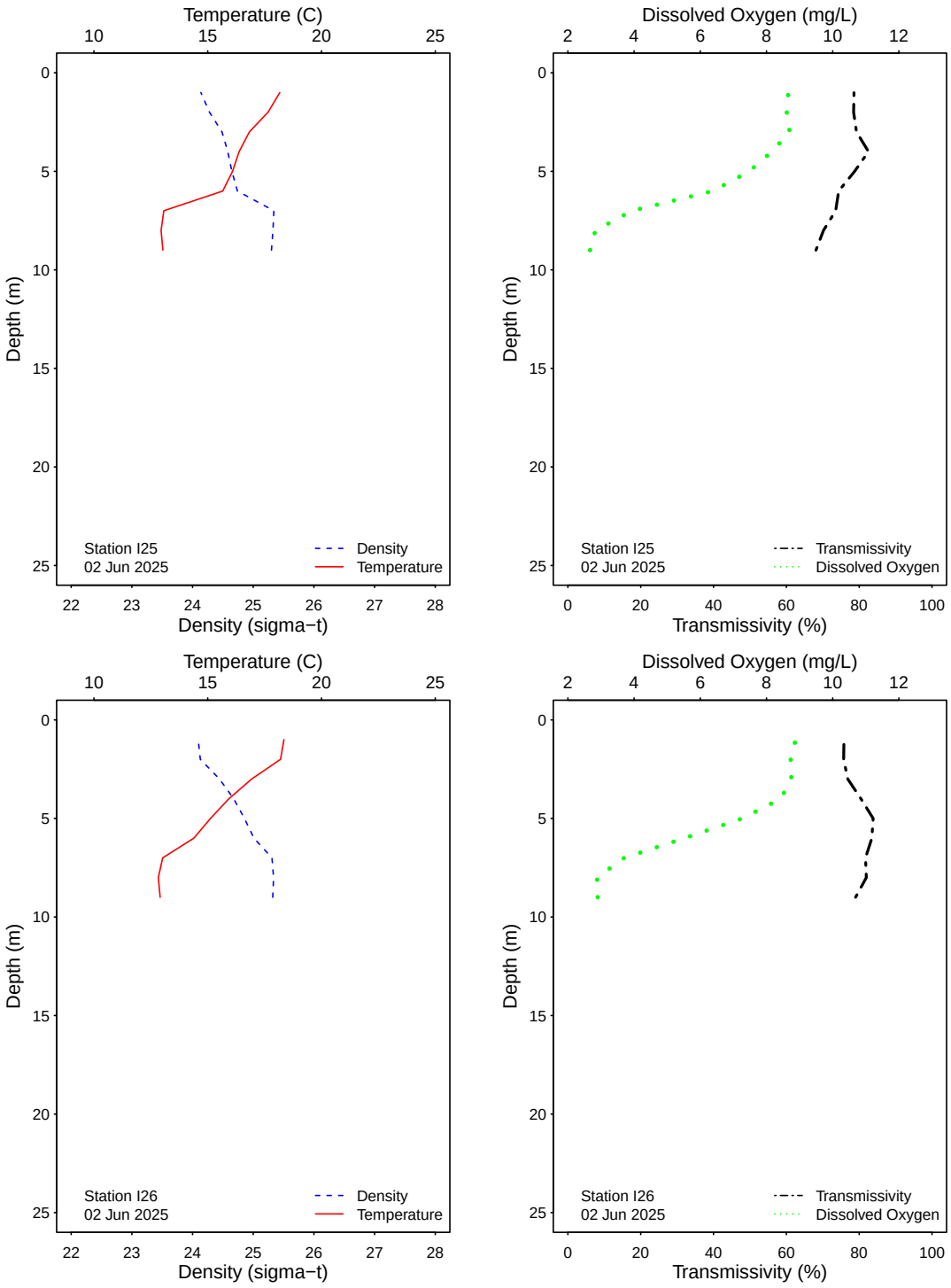

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

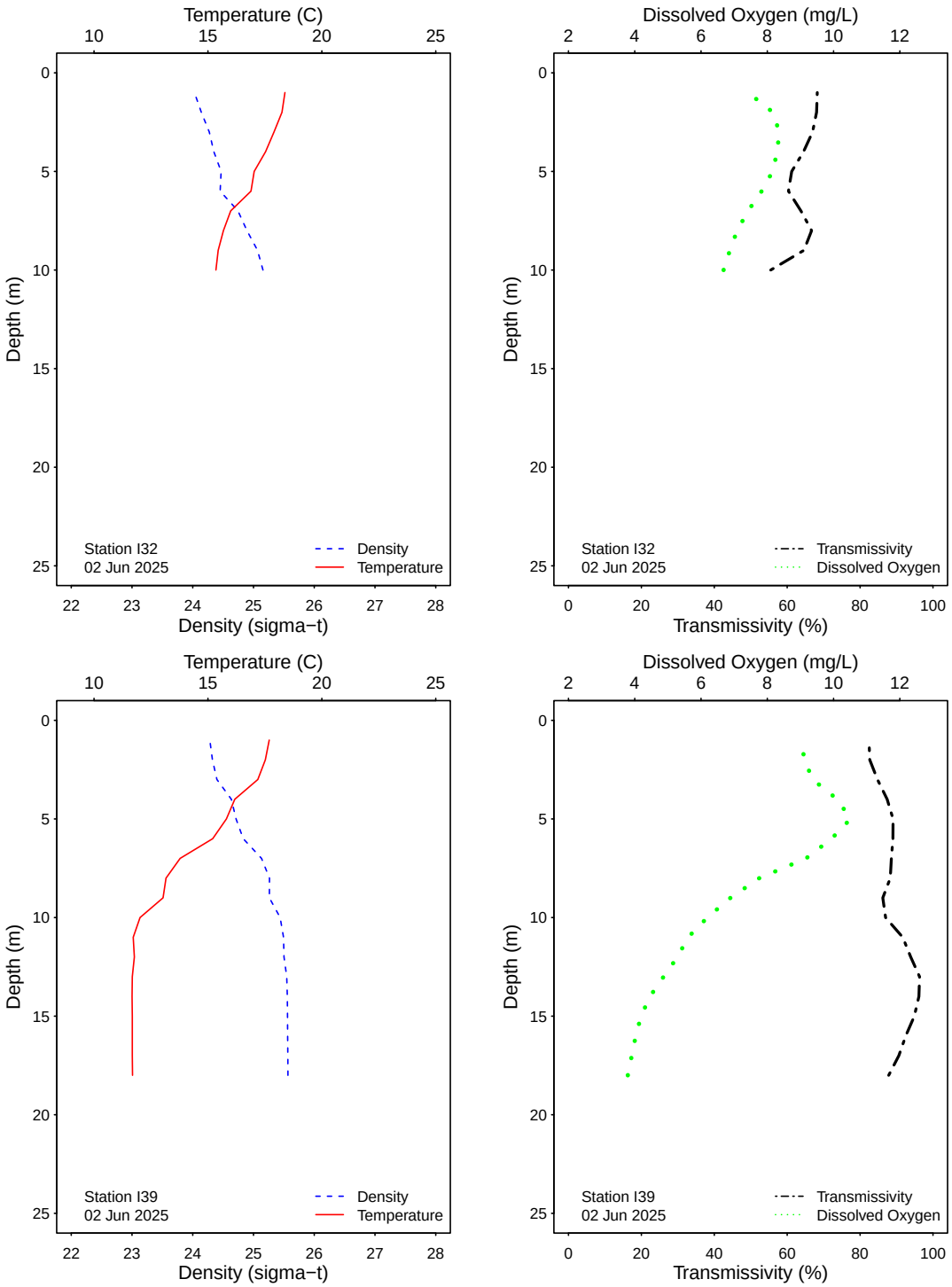

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

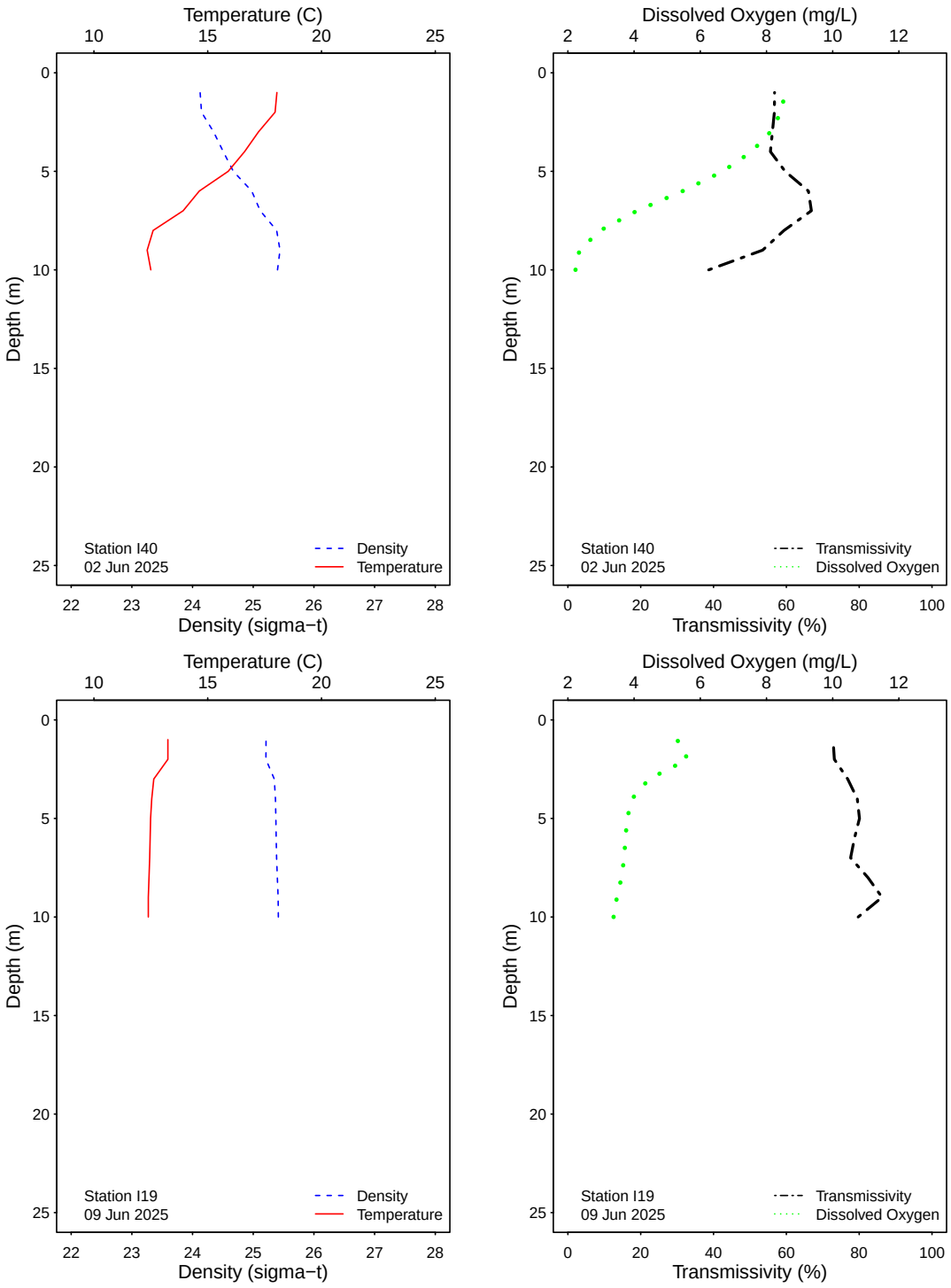

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

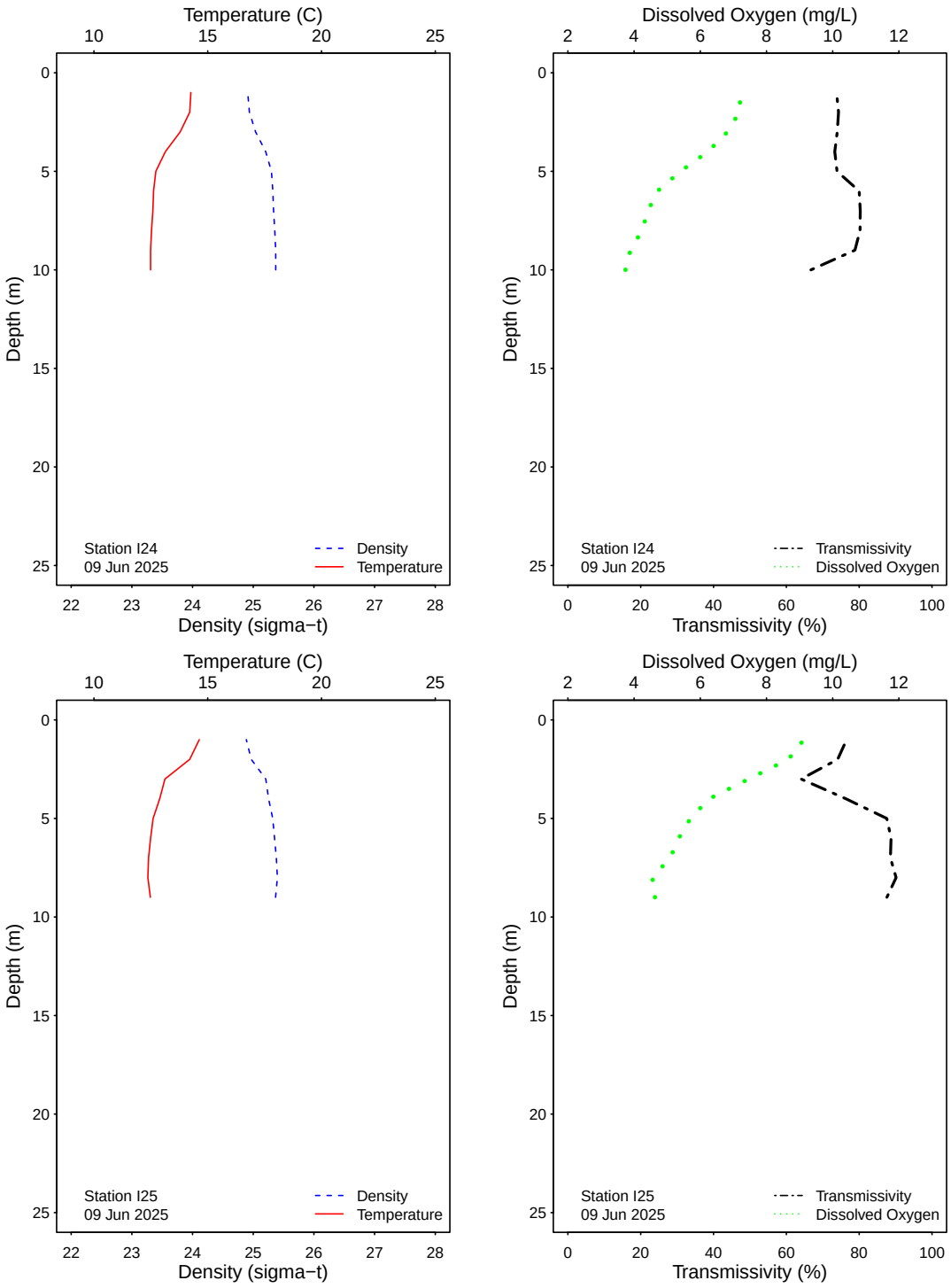

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

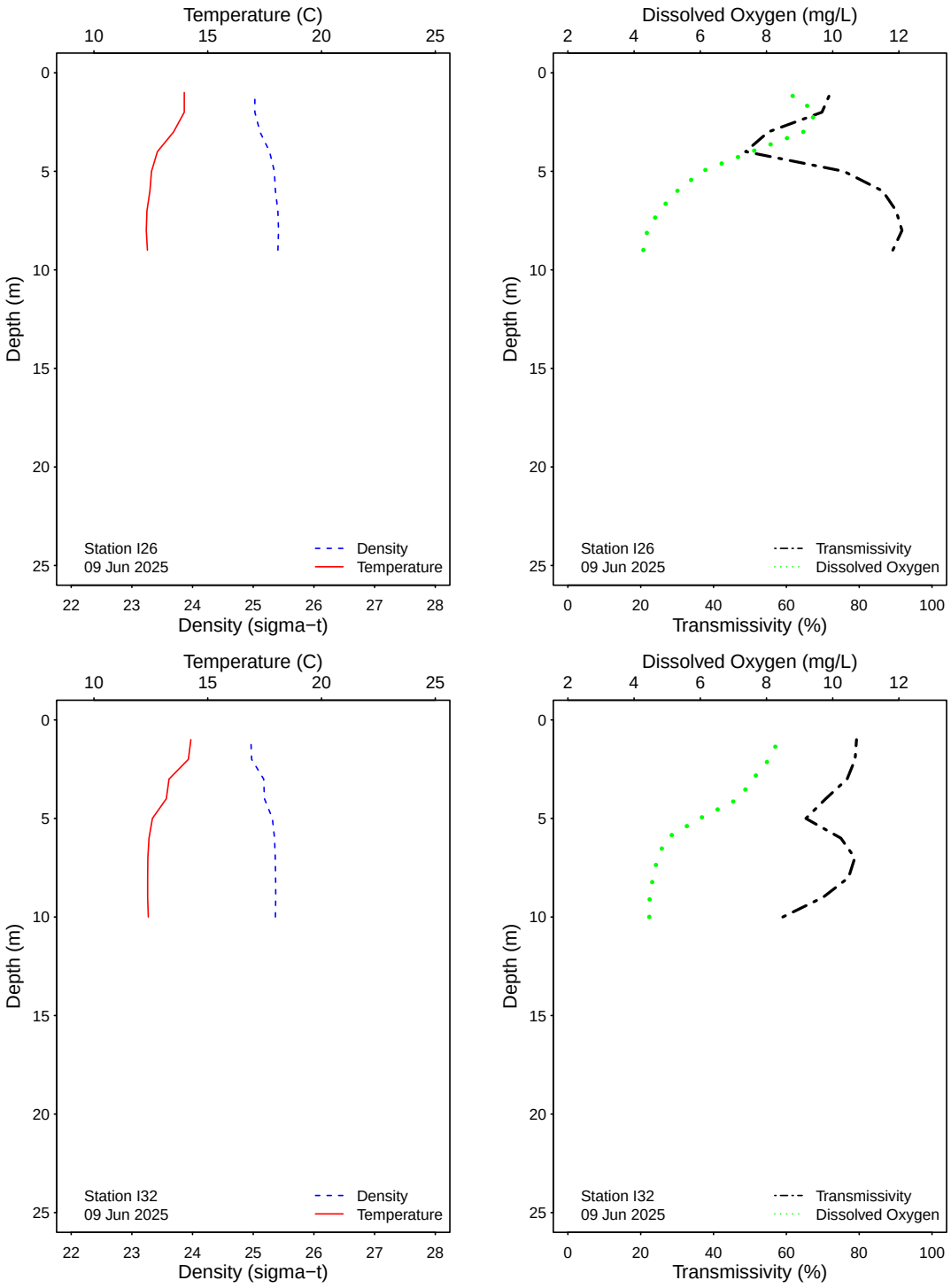

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

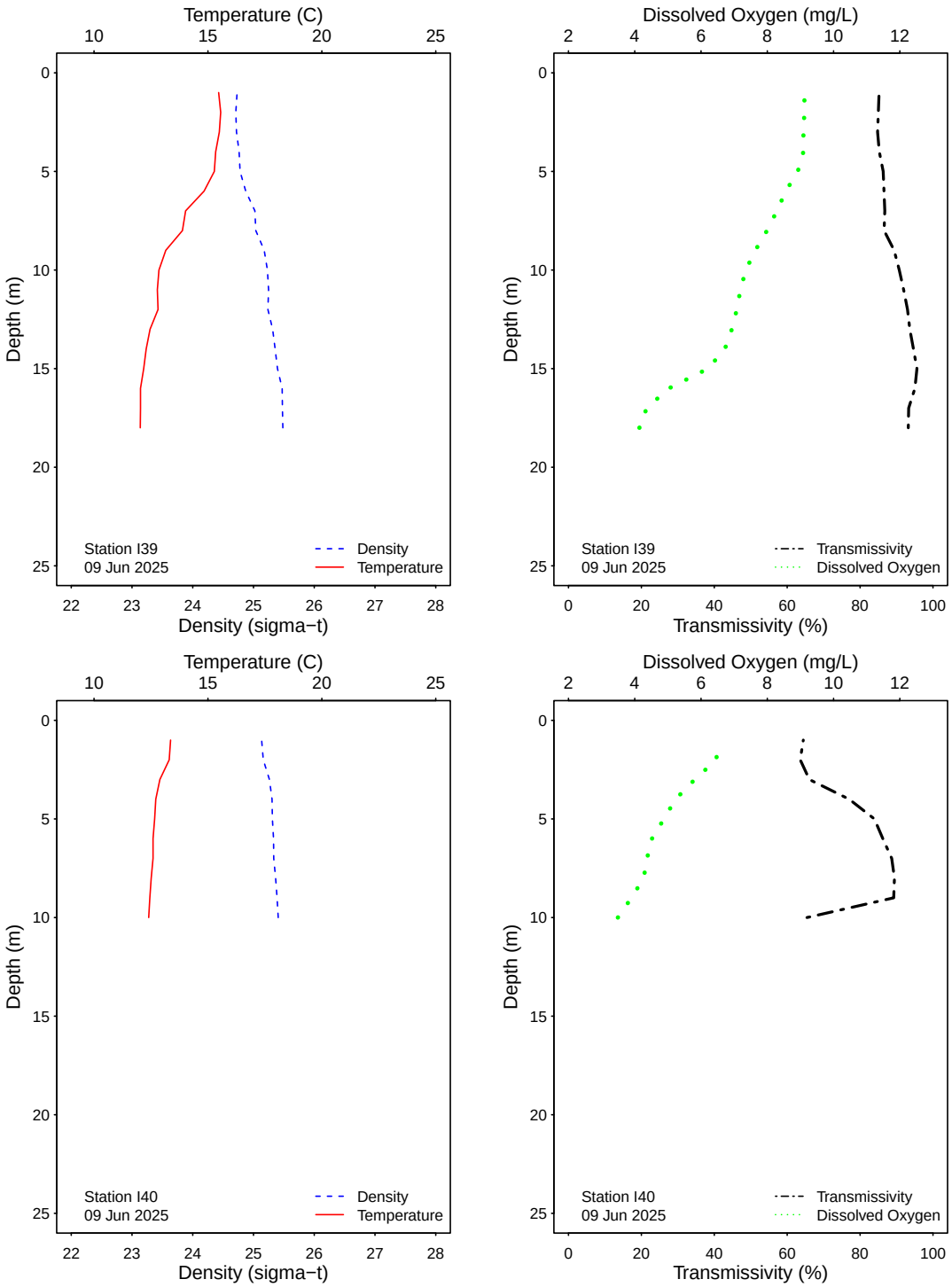

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

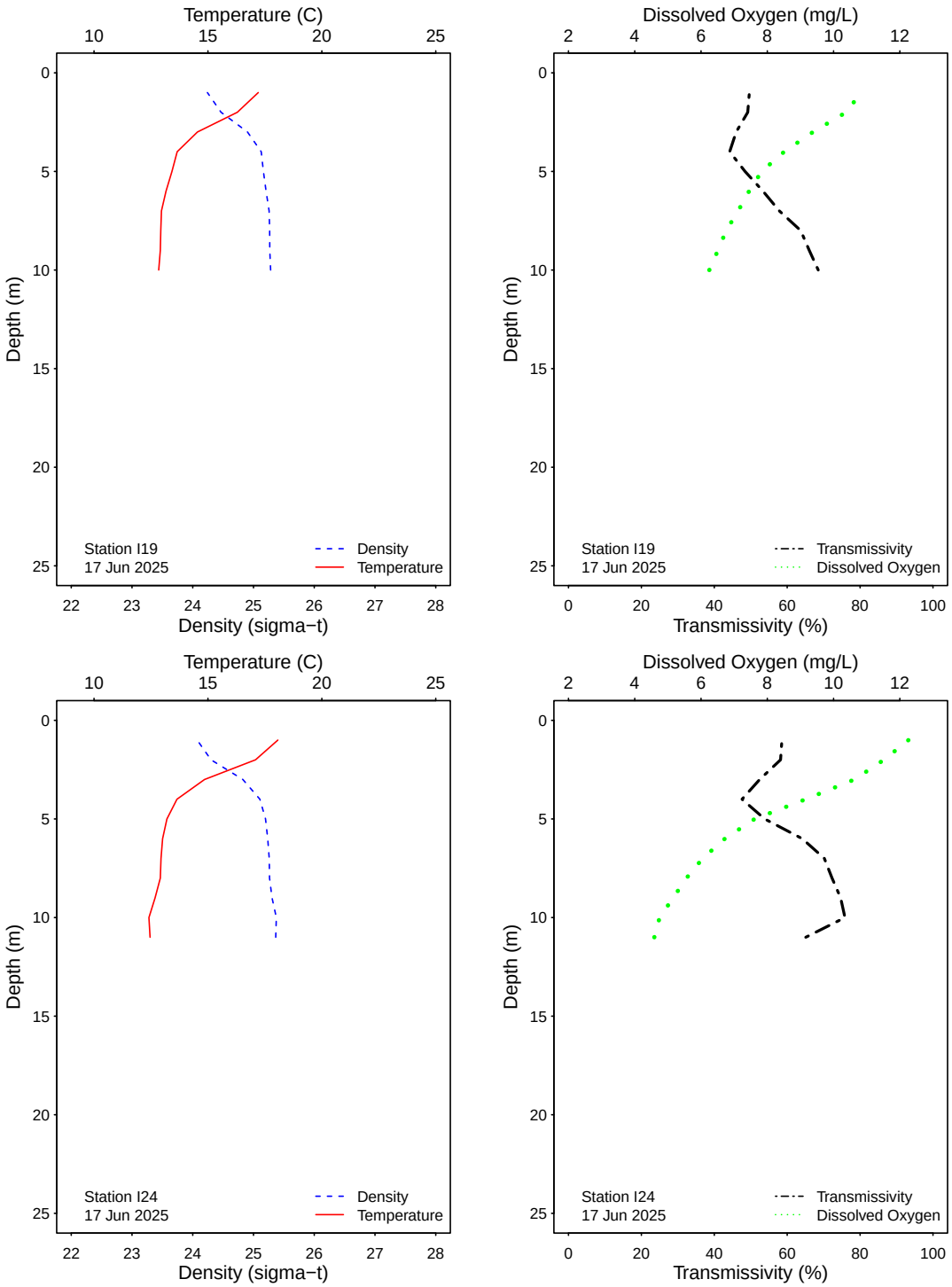

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

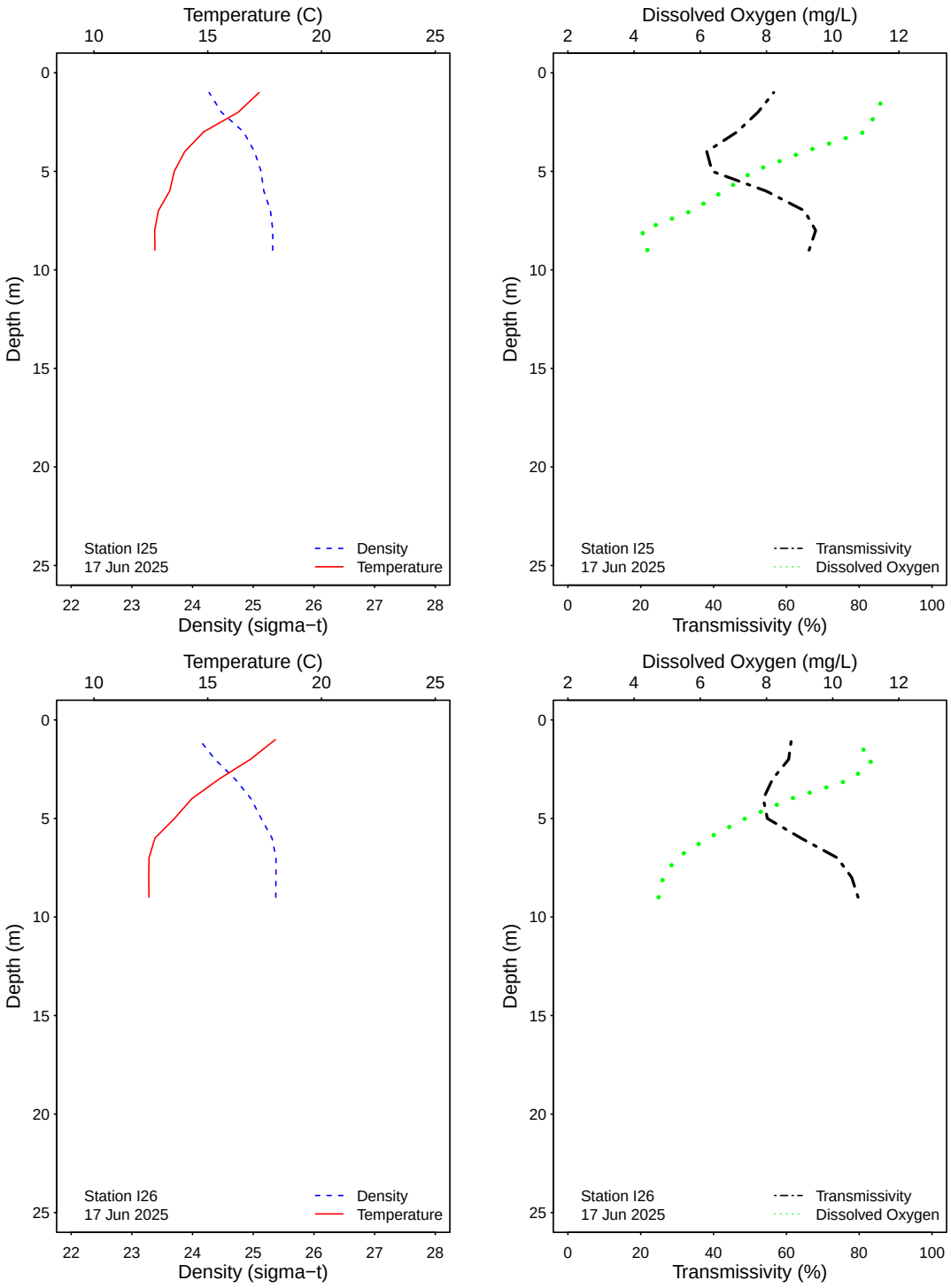

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

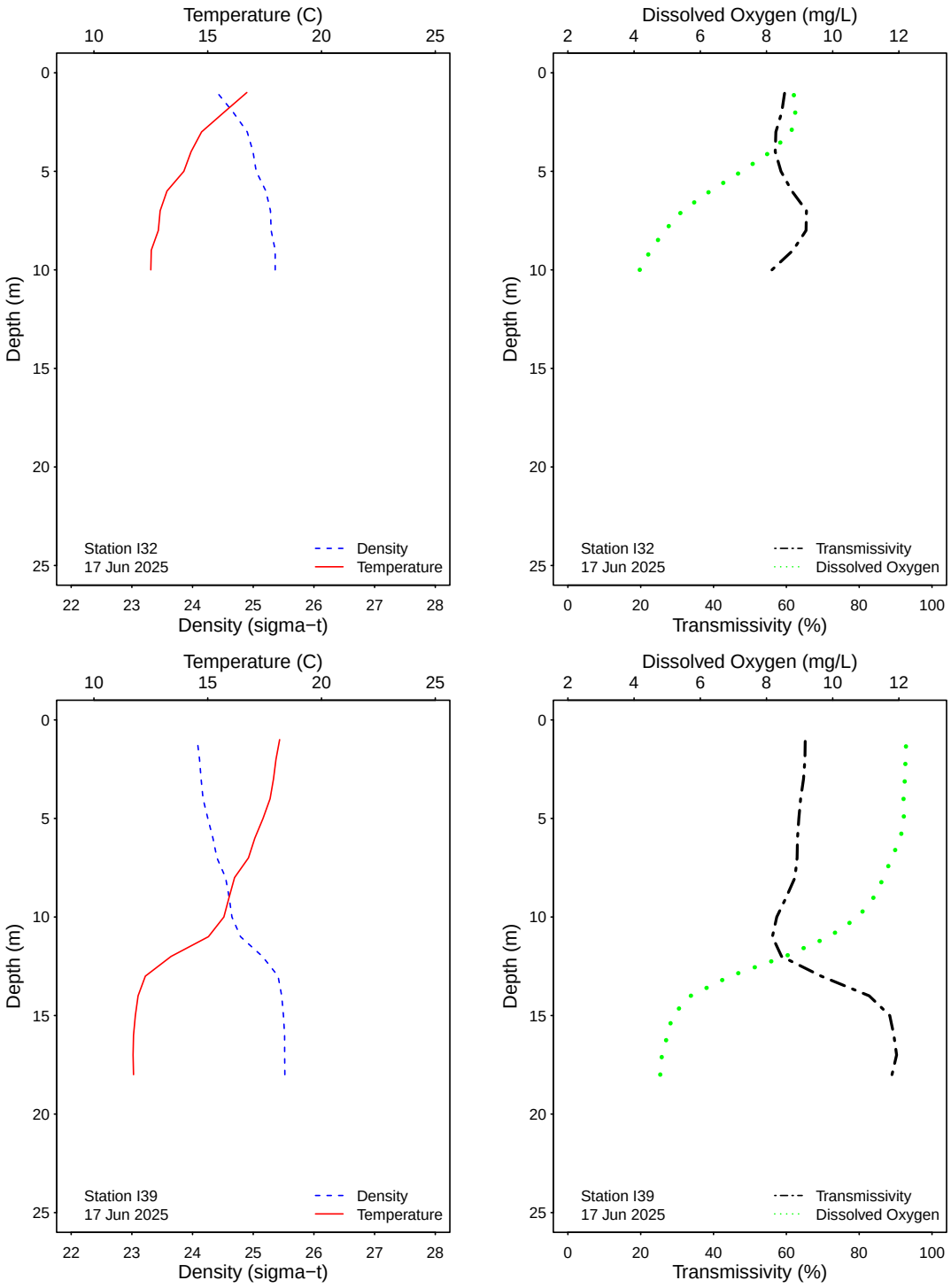

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

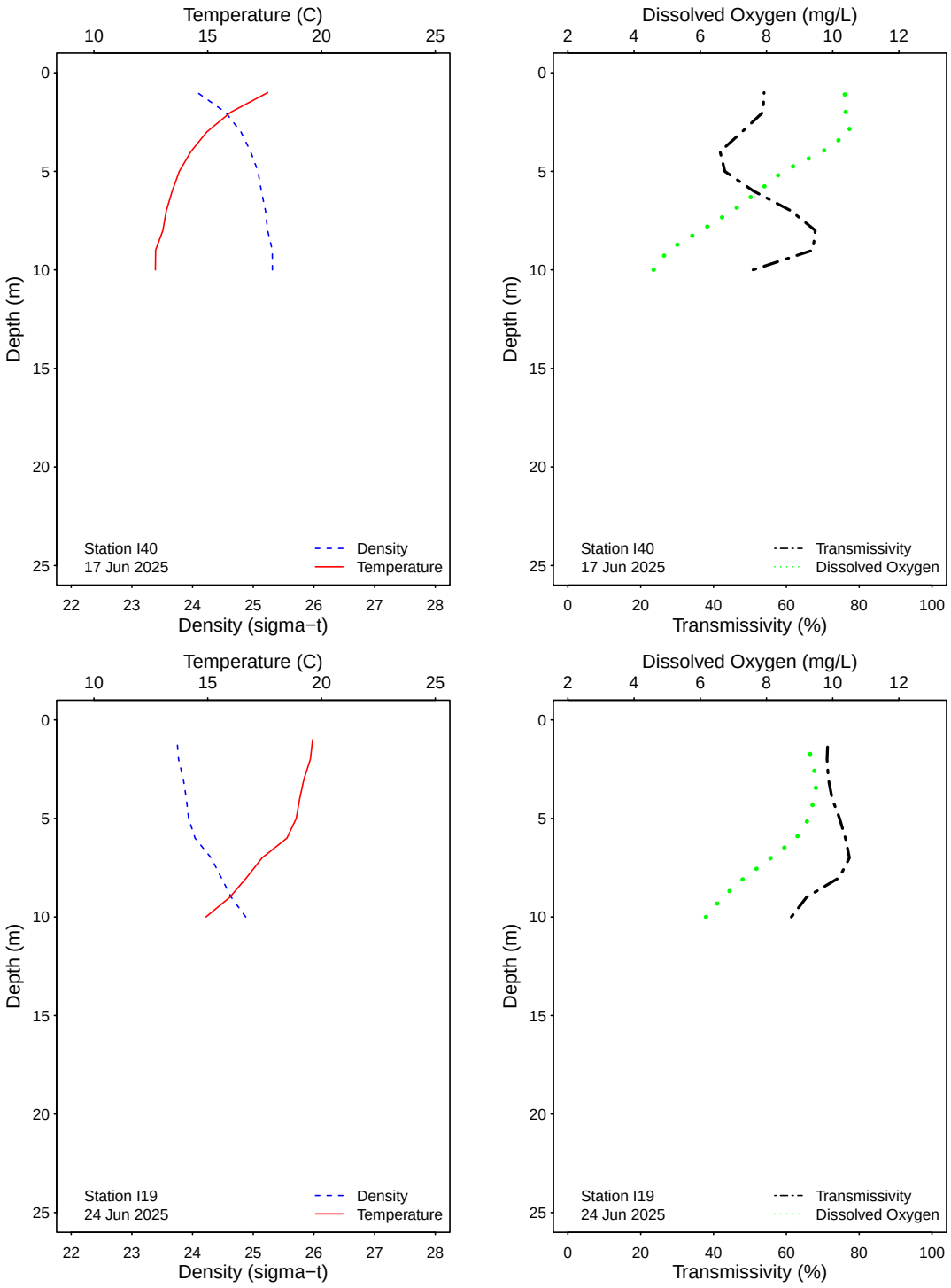

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

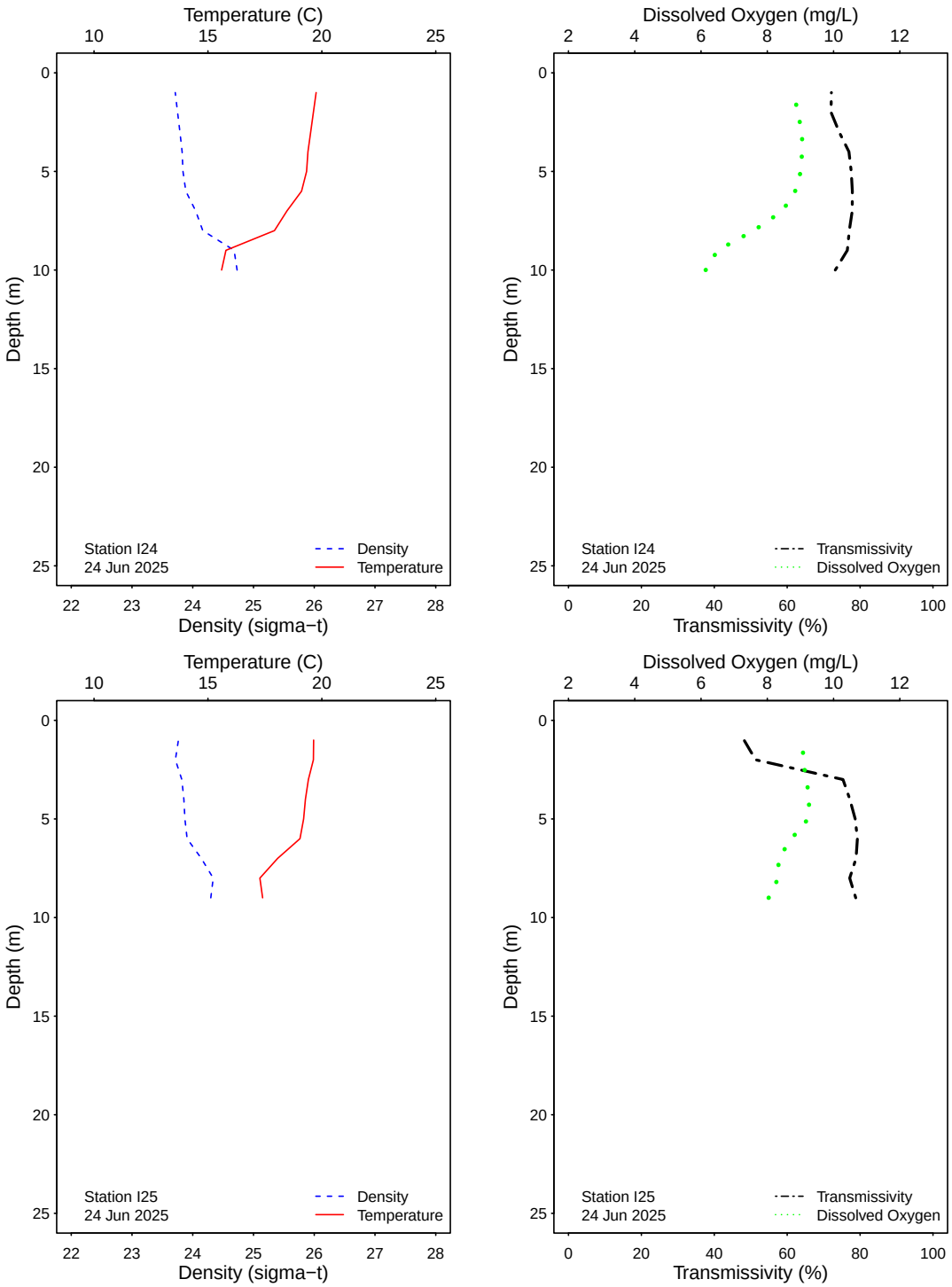

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

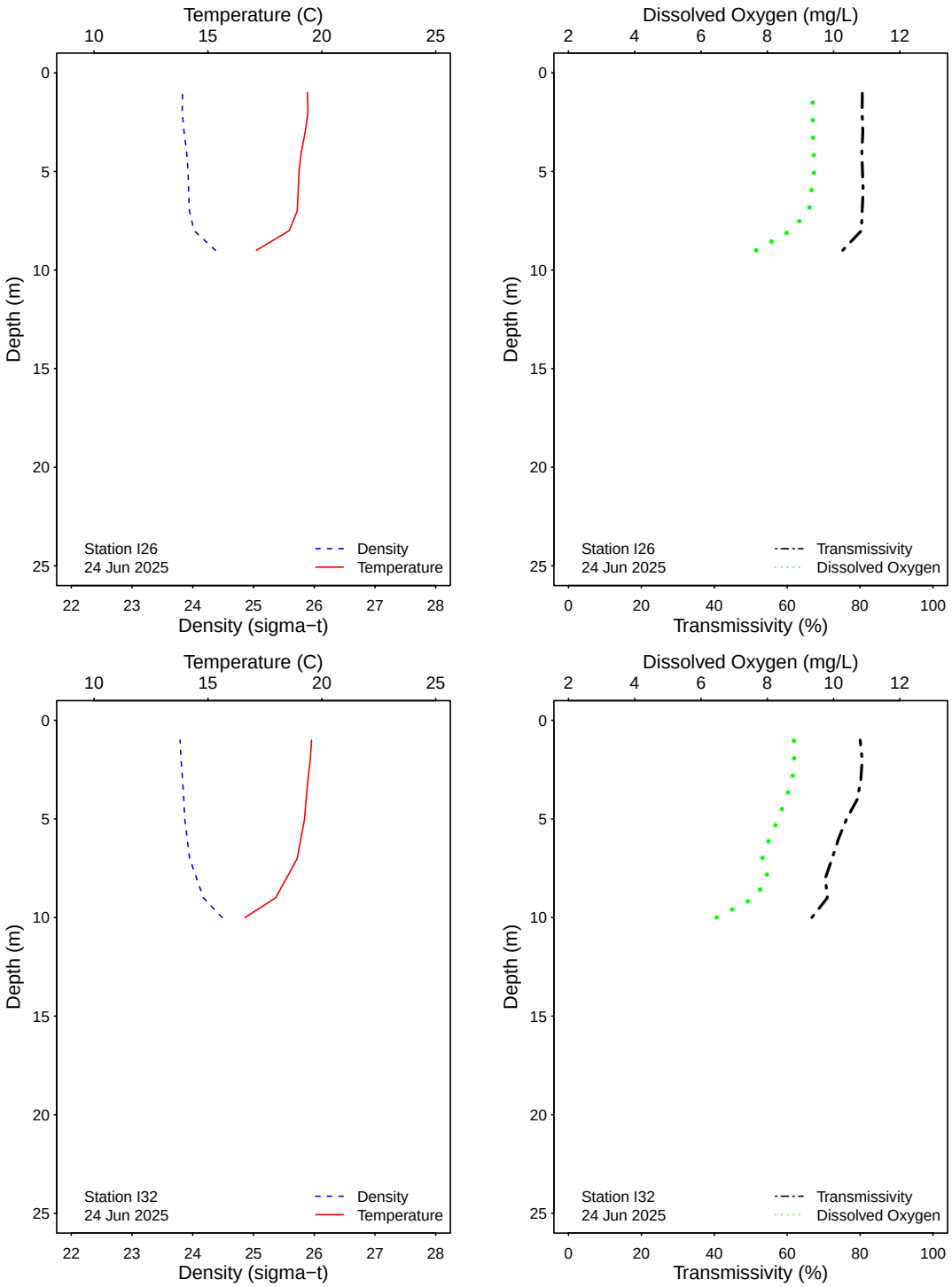

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

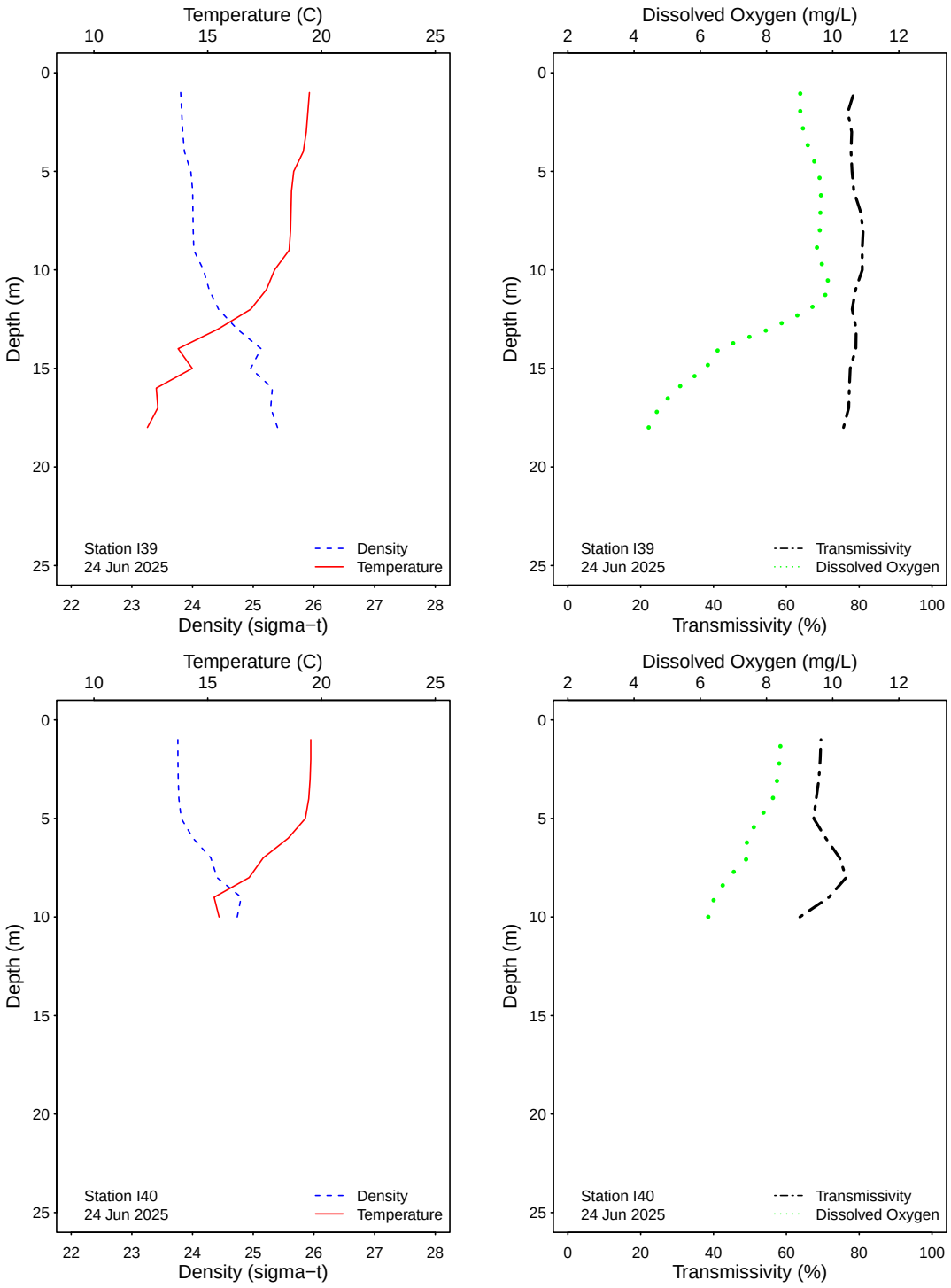

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

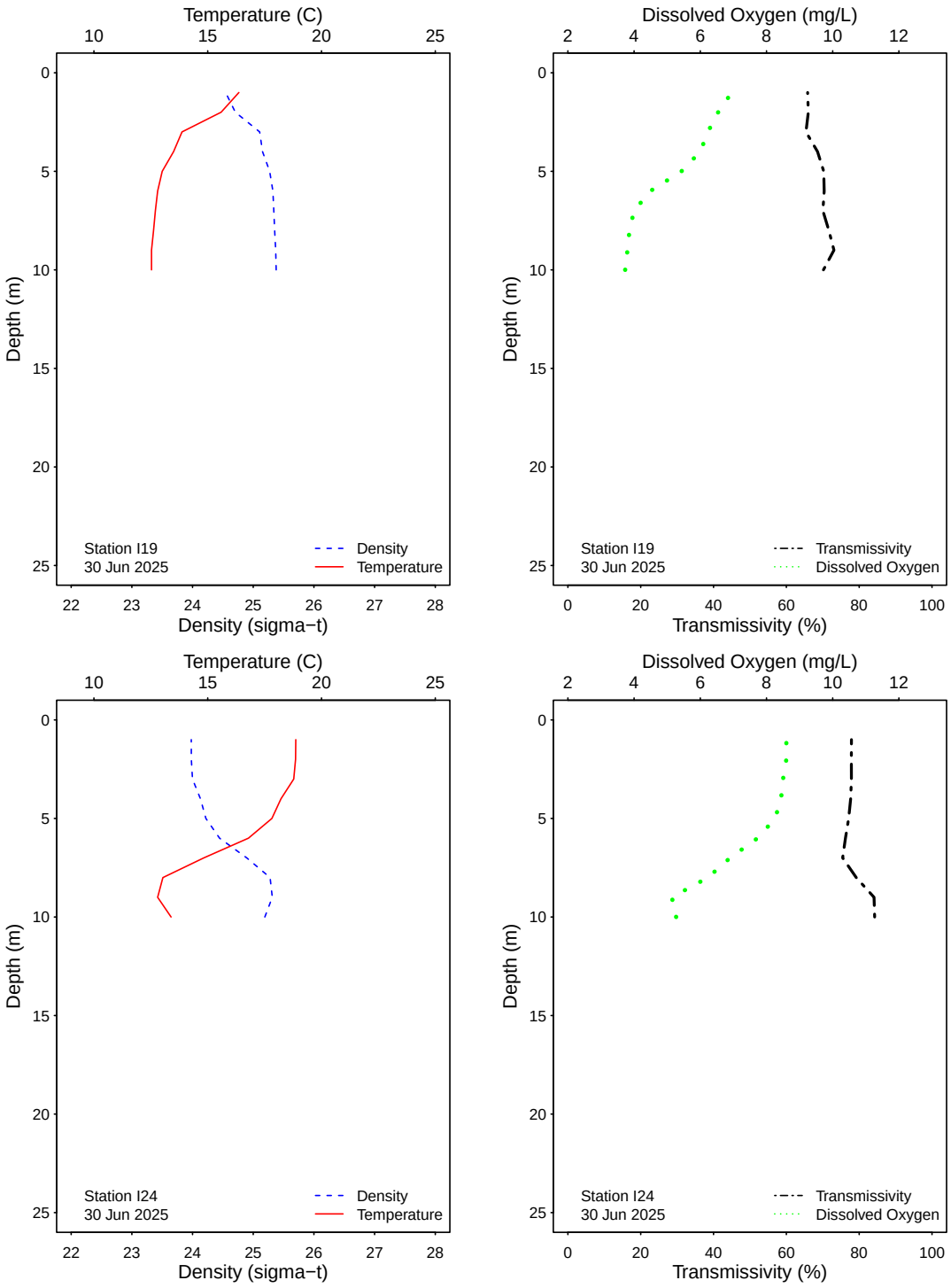

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

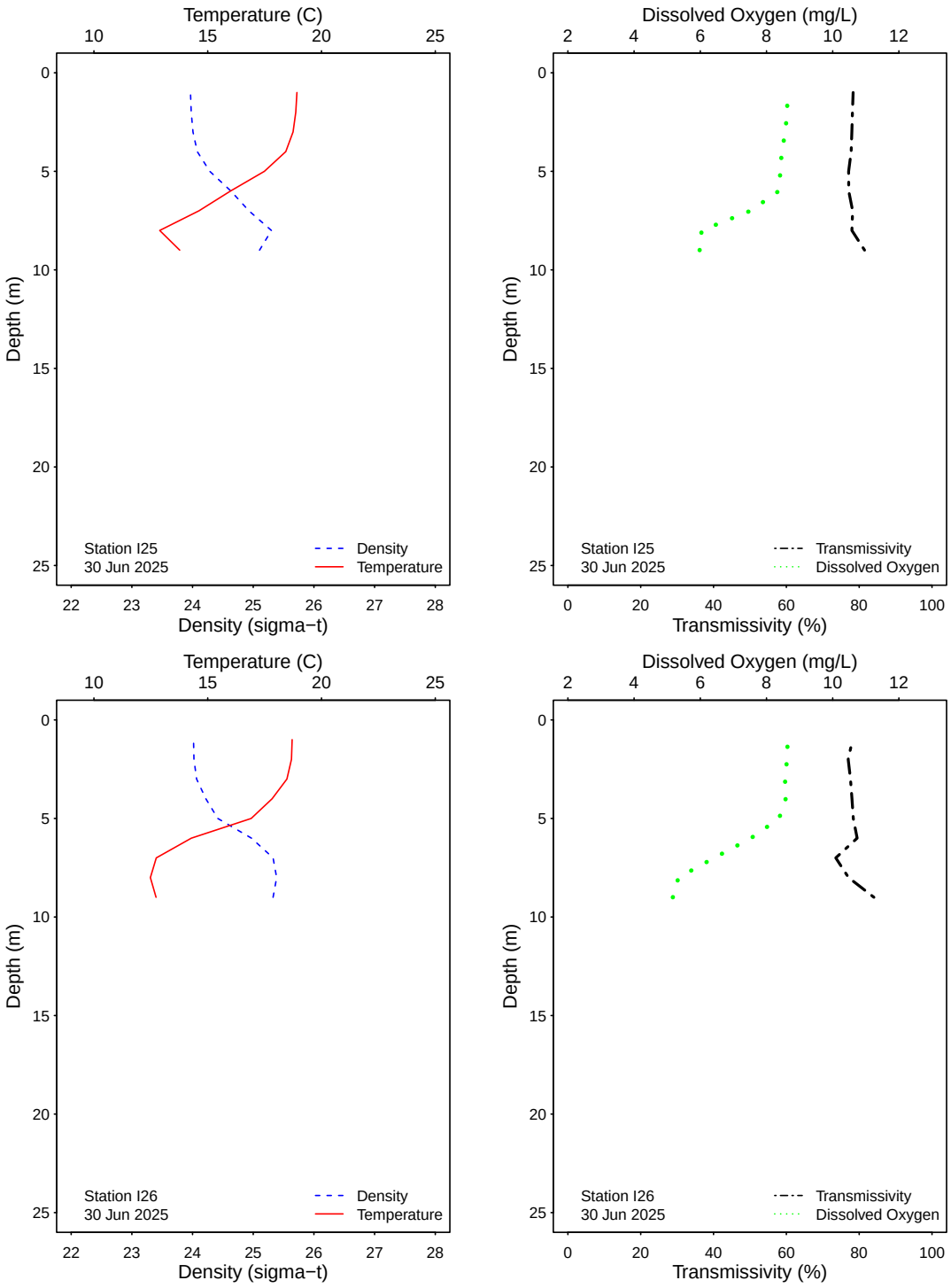

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

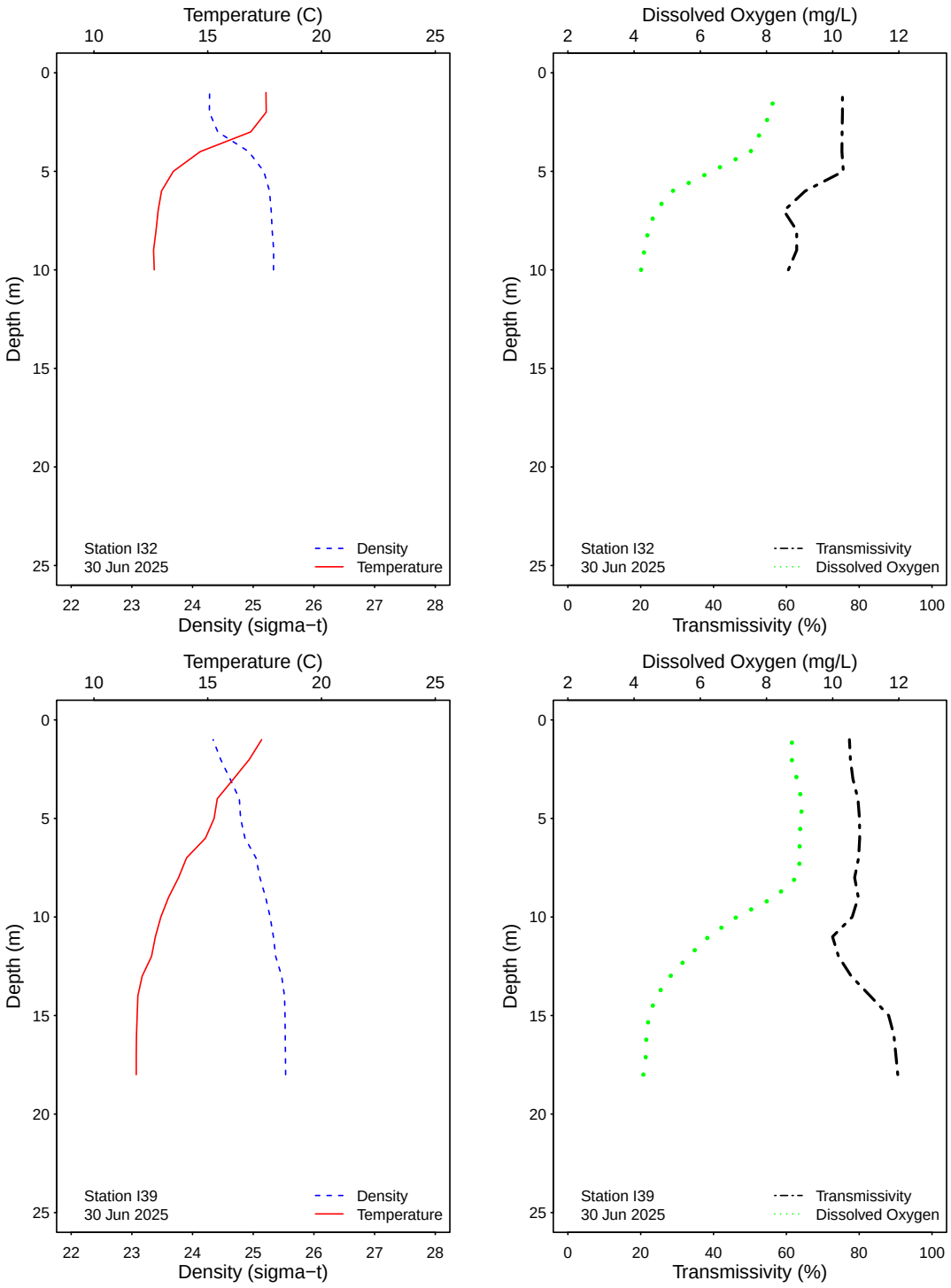

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

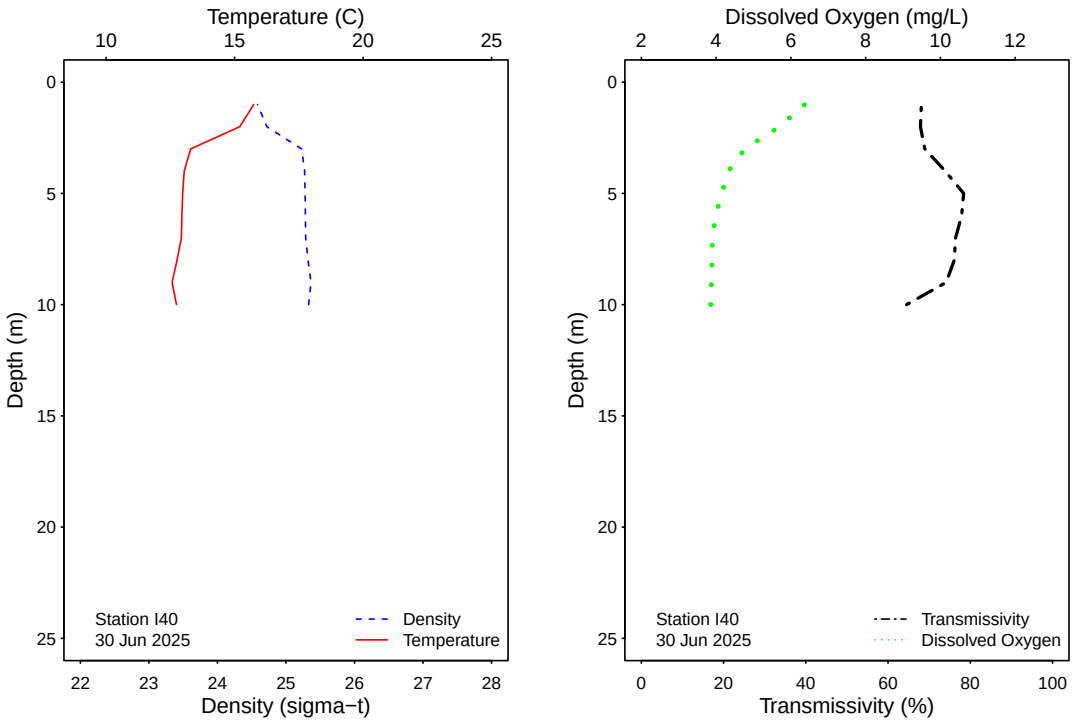

Figure 3.1: Graphics of CTD profile data from the SBOO kelp stations for each sample date.

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	02 Jun 2025	6	JF	LAB DUPLICATE	20	4	6
I19	09 Jun 2025	6	WT	LAB DUPLICATE	20	2	2
I19	17 Jun 2025	6	KT	LAB DUPLICATE	1200	40	52
I19	24 Jun 2025	6	NCD	LAB DUPLICATE	20	2	2
I19	30 Jun 2025	6	ADG	LAB DUPLICATE	20	2	2
I40	02 Jun 2025	6	JF	LAB DUPLICATE	80	14	30
I40	09 Jun 2025	6	WT	LAB DUPLICATE	20	4	8
I40	17 Jun 2025	6	KT	LAB DUPLICATE	300	14	28
I40	24 Jun 2025	6	NCD	LAB DUPLICATE	200	8	4
I40	30 Jun 2025	6	ADG	LAB DUPLICATE	200	2	2
S12	03 Jun 2025		NCD	FIELD DUPLICATE	12000	3600	2200
S12	03 Jun 2025		NCD	LAB DUPLICATE	14000	1000	2200
S12	12 Jun 2025		ADG	FIELD DUPLICATE	4	2	2
S12	12 Jun 2025		ADG	LAB DUPLICATE	20	2	2
S12	17 Jun 2025		ADG	FIELD DUPLICATE	20	2	4
S12	17 Jun 2025		ADG	LAB DUPLICATE	20	2	2
S12	24 Jun 2025		AGD	LAB DUPLICATE	20	2	4
S12	24 Jun 2025		AGD	FIELD DUPLICATE	200	4	2
S12	26 Jun 2025		JF	FIELD DUPLICATE	ns	8	ns
S12	26 Jun 2025		JF	LAB DUPLICATE	ns	10	ns

ns = not sampled
ND = no data

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