SD Public Utilities

POINT LOMA OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

POINT LOMA WASTEWATER TREATMENT PLANT

NPDES Permit No. CA0107409
SDRWQCB Order No. R9-2017-0007

DECEMBER 2023

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

January 31, 2024

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 December 2023 Monthly Receiving Waters Monitoring Report for the Point Loma Ocean Outfall, Point Loma Wastewater Treatment Plant as required per Order No. R9-2017-0007, NPDES Permit No. CA0107409.

This report includes raw ocean monitoring data and summaries of water quality parameters and ocean conditions measured during the month for the Point Loma outfall region. Also included are summaries of compliance with the bacterial water-contact standards specified in the California Ocean Plan.

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 for the San Diego coastal region surrounding the Point Loma Ocean Outfall are submitted to the San Diego Regional Water Quality Control Board and U.S. EPA Region 9 in accordance with Order No. R9-2017-0007, NPDES Permit No. CA0107409 for the Point Loma Wastewater Treatment Plant (PLWTP), Point Loma Ocean Outfall (PLOO). 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 PLWTP are presented in separate reports.

MATERIALS AND METHODS

Shore Stations

Water quality conditions are required to be monitored at eight shoreline stations, including D4, D5, D7, D8, D9, D10, D11 and D12, which range from the tip of the Point Loma Peninsula to west of Mission Bay (see station locations map). Over the past several years, due to increasing instability in several cliffside areas of Point Loma, City staff have been unable to safely access and sample several stations at various times. This has resulted in the following modifications:

- Station D8 was replaced by alternate station D8-A during July 2016, which was subsequently replaced by station D8-B in March 2018, after which sampling at station D8-A resumed in December 2020. Due to recent access issues at D8-A, sampling resumed at D8-B during February 2021.

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

Kelp Bed Stations

The eight kelp stations are sampled weekly according to permit specifications to monitor water quality conditions within the Point Loma kelp forest. These stations include three sites located along the inshore edge of the kelp bed paralleling the 9-m depth contour (i.e., stations C4, C5 and C6), and five sites located near the offshore edge of the kelp bed along the 18-m depth contour (i.e., stations A1, A6, A7, C7 and C8).

Routine weekly monitoring at each of the kelp bed sites consists primarily of collecting seawater samples at discrete depths to determine concentrations of fecal indicator bacteria (i.e., total coliforms, fecal coliforms, and *Enterococcus*). Water column profiles of various physical/chemical parameters are also generated during each sampling event, and visual observations of weather and water conditions are recorded at each station.

Seawater samples at the kelp bed stations are collected using a CTD-integrated rosette sampler with Niskin bottles. Aliquots for bacteriological analyses are drawn from these bottles into sterile sample bottles for processing at the City's Marine Microbiology Laboratory. Water column

profiles of temperature, transmissivity, dissolved oxygen, pH, salinity, density, chlorophyll *a* are generated using a Sea-Bird conductivity, temperature and depth instrument (CTD), which collects these data at a rate of ≥ 4 scans per second. These scans are then internally averaged to create water column profiles with data readings at a rate of one per meter. Additionally, CTD profile data for each water sample depth are presented with the bacteriological data.

Offshore Stations

Offshore water quality sampling is conducted quarterly typically during the months of February, May, August, and November. A total of 36 offshore stations (F01–F36) are sampled during each survey usually over a 3-day period. Three of the stations (F01–F03) are located along the 18 m depth contour, while 11 stations are located along each of the following contours: 60 m (stations F04–F14), 80 m (stations F15–F25), and 98 m (stations F26–F36). Of these 36 stations, 15 (F01-F03, F06-F14, F18-F20) are located within State jurisdictional waters (i.e., within 3 nautical miles of shore) and are subject to the California Ocean Plan's compliance standards. Monitoring at all offshore sites includes measurements of *Enterococcus* bacteria, water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, transmissivity, chromomorphic dissolved organic matter (CDOM), and visual observations of weather and water conditions.

Seawater samples for bacteriological analyses at the offshore stations are collected using a CTD-integrated rosette sampler with Niskin bottles. Profiles of the various physical/chemical parameters (listed above) are taken using a Sea-Bird CTD. Additionally, data for depths closest to those at which bacteriological samples were collected are extracted from the CTD profiles and 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 geometric mean and single sample maximum water-contact standards specified in the California Ocean Plan. The seven standards are defined as follows:

30-day Geometric Mean: The following standards are based on the geometric mean of the five most recent samples from each site.

(1) Total coliform density shall not exceed 1000 CFU/100 mL;
(2) Fecal coliform density shall not exceed 200 CFU/100 mL;
(3) *Enterococcus* density shall not exceed 35 CFU/100 mL

Single Sample Maximums:

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.

(1) Total coliform density shall not exceed 10,000 CFU/100 mL;
(2) Fecal coliform density shall not exceed 400 CFU/100 mL;
(3) *Enterococcus* density shall not exceed 104 CFU/100 mL;
(4) Total coliform density shall not exceed 1,000 CFU/100 mL when the fecal coliform/total coliform ratio exceeds 0.1.

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 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 2023 Quality Assurance Report, which will be completed in March 2024.

SUMMARY OF RESULTS

As of October 2020, new 2019 Ocean Plan Water Quality Objectives are included for *Enterococcus* and total coliforms, see Appendix B.

Shore Stations

- The eight shore stations (D4, D5, D7, D8-B, D9, D10, D11, D12) were sampled on December 6, 13, 20, and 27.
- During the December reporting period, one of the eight shore stations was out of compliance with the various 2015 California Ocean Plan (Ocean Plan) water contact standards on one or more days as follows:
    - The single sample maximum (SSM) standard for *Enterococcus* was exceeded at station D5.
- A sewage-like odor was observed at stations D5, D10, and D12 on one or more days in December.
- Over the years, elevated bacteria levels at shore and kelp bed stations have tended to be associated with rainfall events, heavy recreational use, or the presence of seabirds or decaying kelp and surf grass. 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 Stations

- The eight kelp bed water quality stations (A1, A6, A7, C4, C5, C6, C7, C8) were sampled on December 5, 11, 18, and 26.

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

- During the December reporting period, each of the eight kelp stations was in compliance with the various 2015 California Ocean Plan (Ocean Plan) water contact standards.
- Water column temperatures ranged from 14.87 to 17.14°C. The difference between surface and bottom waters ranged from 0.01 to 1.59°C.
- Chlorophyll *a* concentrations ranged from 0.35 to 3.43 µg/L.
- Nothing of sewage origin was observed at PLOO kelp stations in December.

Offshore Stations

- Quarterly water quality sampling was not conducted during December at the offshore stations. The next quarterly sampling is scheduled for February 2024.

TABLES AND FIGURES

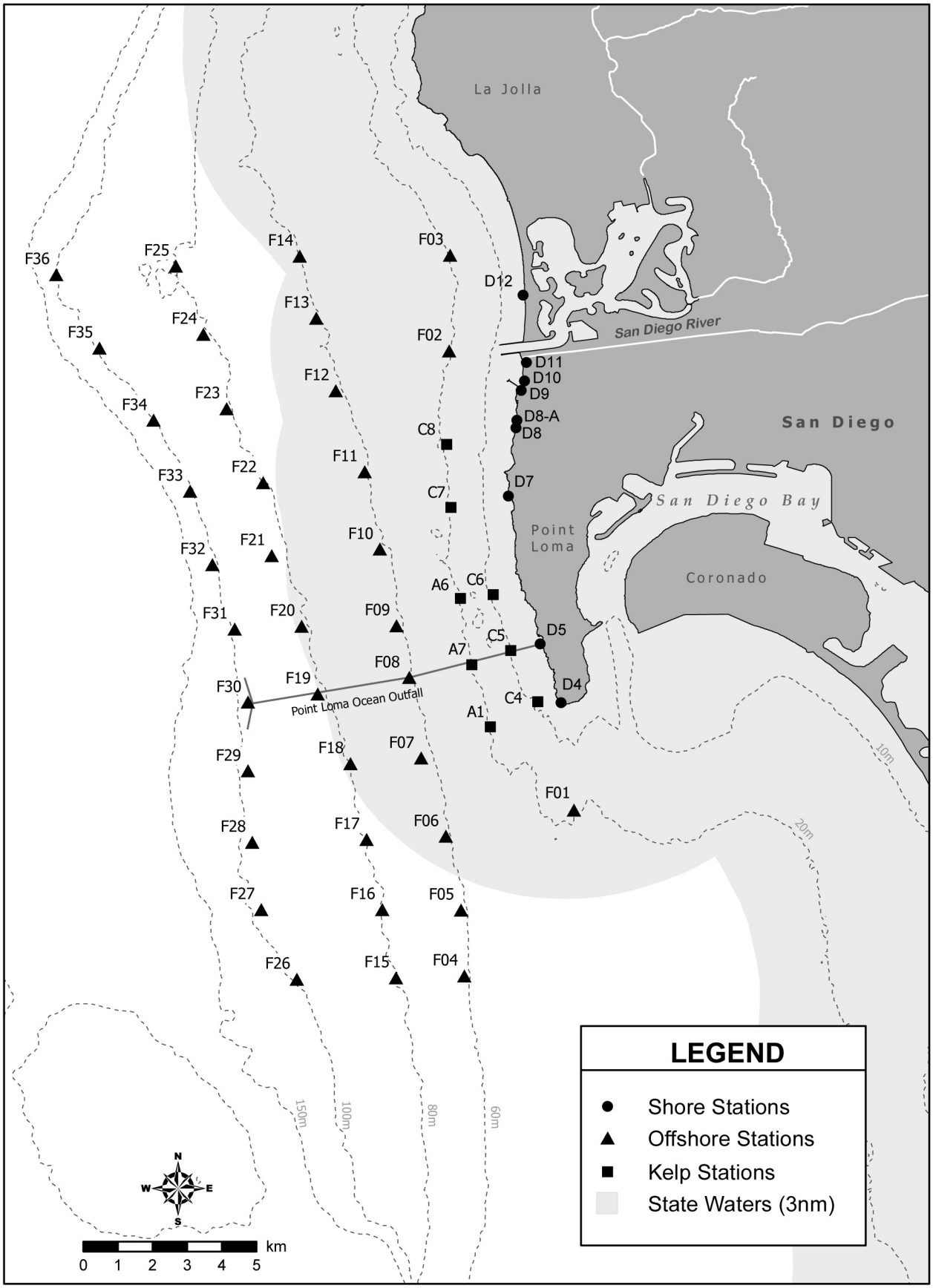

Figure 1.1 Station Map

This page intentionally left blank

Shore Stations

Table 2.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total coliform bacteria at the PLOO 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 >1,000 CFU/100 mL exceed the standard.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
01 Dec 2023	20	36	18	89	21	26	24	26
02 Dec 2023	20	36	18	89	21	26	24	26
03 Dec 2023	20	36	18	89	21	26	24	26
04 Dec 2023	20	36	18	89	21	26	24	26
05 Dec 2023	20	36	18	89	21	26	24	26
06 Dec 2023	13	32	18	66	21	25	23	25
07 Dec 2023	13	32	18	66	21	25	23	25
08 Dec 2023	11	20	13	50	21	26	24	20
09 Dec 2023	11	20	13	50	21	26	24	20
10 Dec 2023	11	20	13	50	21	26	24	20
11 Dec 2023	11	20	13	50	21	26	24	20
12 Dec 2023	11	20	13	50	21	26	24	20
13 Dec 2023	13	20	17	42	16	25	26	20
14 Dec 2023	13	20	17	42	16	25	26	20
15 Dec 2023	11	20	24	36	19	26	24	20
16 Dec 2023	11	20	24	36	19	26	24	20
17 Dec 2023	11	20	24	36	19	26	24	20
18 Dec 2023	11	20	24	36	19	26	24	20
19 Dec 2023	11	20	24	36	19	26	24	20
20 Dec 2023	6	24	13	20	16	26	31	11
21 Dec 2023	6	24	13	20	16	26	31	11
22 Dec 2023	6	24	13	20	16	26	31	11
23 Dec 2023	6	24	13	20	16	26	31	11
24 Dec 2023	6	24	13	20	16	26	31	11
25 Dec 2023	6	24	13	20	16	26	31	11
26 Dec 2023	6	24	13	20	16	26	31	11
27 Dec 2023	9	30	9	32	22	31	36	13
28 Dec 2023	9	30	9	32	22	31	36	13
29 Dec 2023	8	34	8	36	21	26	41	11
30 Dec 2023	8	34	8	36	21	26	41	11
31 Dec 2023	8	34	8	36	21	26	41	11

* Geometric mean calculated using n<5
ns = not sampled

Table 2.2

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria at the PLOO 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	D4	D5	D7	D8-B	D9	D10	D11	D12
01 Dec 2023	2	14	4	14	2	6	10	6
02 Dec 2023	2	14	4	14	2	6	10	6
03 Dec 2023	2	14	4	14	2	6	10	6
04 Dec 2023	2	14	4	14	2	6	10	6
05 Dec 2023	2	14	4	14	2	6	10	6
06 Dec 2023	2	11	3	12	2	5	7	6
07 Dec 2023	2	11	3	12	2	5	7	6
08 Dec 2023	2	5	2	7	3	4	6	4
09 Dec 2023	2	5	2	7	3	4	6	4
10 Dec 2023	2	5	2	7	3	4	6	4
11 Dec 2023	2	5	2	7	3	4	6	4
12 Dec 2023	2	5	2	7	3	4	6	4
13 Dec 2023	2	6	3	5	2	5	7	4
14 Dec 2023	2	6	3	5	2	5	7	4
15 Dec 2023	2	5	4	4	3	5	7	5
16 Dec 2023	2	5	4	4	3	5	7	5
17 Dec 2023	2	5	4	4	3	5	7	5
18 Dec 2023	2	5	4	4	3	5	7	5
19 Dec 2023	2	5	4	4	3	5	7	5
20 Dec 2023	2	7	4	4	5	5	9	3
21 Dec 2023	2	7	4	4	5	5	9	3
22 Dec 2023	2	7	4	4	5	5	9	3
23 Dec 2023	2	7	4	4	5	5	9	3
24 Dec 2023	2	7	4	4	5	5	9	3
25 Dec 2023	2	7	4	4	5	5	9	3
26 Dec 2023	2	7	4	4	5	5	9	3
27 Dec 2023	3	8	4	4	7	7	10	3
28 Dec 2023	3	8	4	4	7	7	10	3
29 Dec 2023	3	10	5	4	10	7	10	3
30 Dec 2023	3	10	5	4	10	7	10	3
31 Dec 2023	3	10	5	4	10	7	10	3

* Geometric mean calculated using n<5
ns = not sampled

Table 2.3

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for *Enterococcus* at the PLOO 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 >35 CFU/100 mL exceed the standard.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
01 Dec 2023	2	5	3	21	3	17	5	5
02 Dec 2023	2	5	3	21	3	17	5	5
03 Dec 2023	2	5	3	21	3	17	5	5
04 Dec 2023	2	5	3	21	3	17	5	5
05 Dec 2023	2	5	3	21	3	17	5	5
06 Dec 2023	2	5	3	16	3	11	4	4
07 Dec 2023	2	5	3	16	3	11	4	4
08 Dec 2023	2	3	2	10	2	8	3	3
09 Dec 2023	2	3	2	9	2	8	3	3
10 Dec 2023	2	3	2	9	2	8	3	3
11 Dec 2023	2	3	2	9	2	8	3	3
12 Dec 2023	2	3	2	9	2	8	3	3
13 Dec 2023	2	3	2	11	2	8	4	3
14 Dec 2023	2	3	2	11	2	8	4	3
15 Dec 2023	2	3	2	11	2	4	3	3
16 Dec 2023	2	3	2	11	2	4	3	3
17 Dec 2023	2	3	2	11	2	4	3	3
18 Dec 2023	2	3	2	11	2	4	3	3
19 Dec 2023	2	3	2	11	2	4	3	3
20 Dec 2023	2	3	2	7	2	4	4	3
21 Dec 2023	2	3	2	7	2	4	4	3
22 Dec 2023	2	3	2	7	2	4	4	3
23 Dec 2023	2	3	2	7	2	4	4	3
24 Dec 2023	2	3	2	7	2	4	4	3
25 Dec 2023	2	3	2	7	2	4	4	3
26 Dec 2023	2	3	2	7	2	4	4	3
27 Dec 2023	2	7	2	9	4	6	6	3
28 Dec 2023	2	6	2	9	4	6	6	3
29 Dec 2023	2	7	2	8	5	5	6	4
30 Dec 2023	2	7	2	8	5	5	6	4
31 Dec 2023	2	7	2	8	5	5	6	4

* Geometric mean calculated using n<5
ns = not sampled

Table 2.4

Summary of compliance at the PLOO shore stations with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria, which states that total coliform density shall not exceed 10,000 CFU/100 mL.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
06 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
13 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
20 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
27 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC

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

Table 2.5

Summary of compliance at the PLOO 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	D4	D5	D7	D8-B	D9	D10	D11	D12
06 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
13 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
20 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
27 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC

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

Table 2.6

Summary of compliance at the PLOO shore stations with the Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 104 CFU/100 mL.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
06 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
13 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
20 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
27 Dec 2023	IC	E	IC	IC	IC	IC	IC	IC

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

Table 2.7

Summary of compliance at the PLOO shore stations with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria and the fecal/total coliform ratio (F:T), which states that total coliform density shall not exceed 1,000 CFU/100 mL when F:T > 0.1.

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
06 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
13 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
20 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
27 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC

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

Table 2.8

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

Station	Date	Time	Total	Fecal	Entero	F:T
D4	06 Dec 2023	916	<2	2e	<2	1.00
D4	13 Dec 2023	936	<20	4e	<2	0.20
D4	20 Dec 2023	855	2e	<2	<2	1.00
D4	27 Dec 2023	942	40e	6e	2e	0.15
D5	06 Dec 2023	904	<20	4e	4e	0.20
D5	13 Dec 2023	921	20e	8e	2e	0.40
D5	20 Dec 2023	842	40e	20e	<2	0.50
D5	27 Dec 2023	931	80e	16e	200e	0.20
D5	28 Dec 2023	1024	ns	ns	4e	ns
D7	06 Dec 2023	836	<20	2e	4e	0.10
D7	13 Dec 2023	848	40e	28e	2e	0.70
D7	20 Dec 2023	821	<2	<2	<2	1.00
D7	27 Dec 2023	856	2e	4e	2e	2.00
D8-B	06 Dec 2023	825	<20	8e	4e	0.40
D8-B	13 Dec 2023	834	<20	<2	22e	0.10
D8-B	20 Dec 2023	811	<20	<2	<2	0.10
D8-B	27 Dec 2023	843	<200	8e	28e	0.04
D9	06 Dec 2023	817	20e	6e	4e	0.30
D9	13 Dec 2023	825	6e	2e	<2	0.33
D9	20 Dec 2023	804	<20	<20	<2	1.00
D9	27 Dec 2023	831	80e	36e	48	0.45
D10	06 Dec 2023	807	20e	4e	2e	0.20
D10	13 Dec 2023	814	<20	16e	6e	0.80
D10	20 Dec 2023	750	<20	2e	2e	0.10
D10	27 Dec 2023	820	60e	24e	28e	0.40
D11	06 Dec 2023	758	<20	2e	<2	0.10
D11	13 Dec 2023	805	40e	18e	6e	0.45
D11	20 Dec 2023	740	60e	22e	4e	0.37
D11	27 Dec 2023	810	60e	14e	20e	0.23
D12	06 Dec 2023	741	<20	4e	2e	0.20
D12	13 Dec 2023	747	<20	4e	6e	0.20
D12	20 Dec 2023	734	<2	<2	2e	1.00
D12	27 Dec 2023	753	<20	<2	8e	0.10

ns = not sampled
ND = no data

Comments

Station	Date	Depth	Parameter	Comments
D5	28 Dec 2023			Resample

Table 2.9

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

Station	Date	Parameter	Value
D4	06 Dec 2023	Arrive Time	916
D4	06 Dec 2023	Weather	Sunny
D4	06 Dec 2023	Wind Speed (kts)	2.8
D4	06 Dec 2023	Wind Dir	SW
D4	06 Dec 2023	Animal Life	
D4	06 Dec 2023	Floatables	None
D4	06 Dec 2023	Water Color	Green
D4	06 Dec 2023	Current Direction	S
D4	06 Dec 2023	Water Temp (C)	15
D4	06 Dec 2023	Wave Height Low (ft)	4
D4	06 Dec 2023	High Tide (ft)	4.32
D4	06 Dec 2023	High Tide Time	449
D4	06 Dec 2023	Low Tide (ft)	2.06
D4	06 Dec 2023	Low Tide Time	1113
D4	06 Dec 2023	Comments	Water clear; Trash-1; Algae;Kelp;Debris
D4	13 Dec 2023	Arrive Time	936
D4	13 Dec 2023	Weather	Sunny
D4	13 Dec 2023	Wind Speed (kts)	1
D4	13 Dec 2023	Wind Dir	NW
D4	13 Dec 2023	Animal Life	
D4	13 Dec 2023	Floatables	None
D4	13 Dec 2023	Water Color	Green
D4	13 Dec 2023	Current Direction	S
D4	13 Dec 2023	Water Temp (C)	13
D4	13 Dec 2023	Wave Height Low (ft)	3
D4	13 Dec 2023	High Tide (ft)	6.39
D4	13 Dec 2023	High Tide Time	816
D4	13 Dec 2023	Low Tide (ft)	2.13
D4	13 Dec 2023	Low Tide Time	200
D4	13 Dec 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Algae
D4	20 Dec 2023	Arrive Time	855
D4	20 Dec 2023	Weather	Partly cloudy
D4	20 Dec 2023	Wind Speed (kts)	1.7
D4	20 Dec 2023	Wind Dir	SW
D4	20 Dec 2023	Animal Life	
D4	20 Dec 2023	Floatables	None
D4	20 Dec 2023	Water Color	Green
D4	20 Dec 2023	Current Direction	S
D4	20 Dec 2023	Water Temp (C)	13
D4	20 Dec 2023	Wave Height Low (ft)	2
D4	20 Dec 2023	High Tide (ft)	4.75
D4	20 Dec 2023	High Tide Time	345
D4	20 Dec 2023	Low Tide (ft)	1.62
D4	20 Dec 2023	Low Tide Time	1020
D4	20 Dec 2023	Comments	Water clear; Trash-1; Kelp;Algae
D4	27 Dec 2023	Arrive Time	942
D4	27 Dec 2023	Weather	Hazy
D4	27 Dec 2023	Wind Speed (kts)	0
D4	27 Dec 2023	Wind Dir	
D4	27 Dec 2023	Animal Life	
D4	27 Dec 2023	Floatables	None
D4	27 Dec 2023	Water Color	Green
D4	27 Dec 2023	Current Direction	S

Station	Date	Parameter	Value
D4	27 Dec 2023	Water Temp (C)	11
D4	27 Dec 2023	Wave Height Low (ft)	5
D4	27 Dec 2023	High Tide (ft)	6.08
D4	27 Dec 2023	High Tide Time	825
D4	27 Dec 2023	Low Tide (ft)	2.18
D4	27 Dec 2023	Low Tide Time	217
D4	27 Dec 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D5	06 Dec 2023	Arrive Time	904
D5	06 Dec 2023	Weather	Sunny
D5	06 Dec 2023	Wind Speed (kts)	0
D5	06 Dec 2023	Wind Dir	
D5	06 Dec 2023	Animal Life	
D5	06 Dec 2023	Floatables	None
D5	06 Dec 2023	Water Color	Green
D5	06 Dec 2023	Current Direction	S
D5	06 Dec 2023	Water Temp (C)	10
D5	06 Dec 2023	Wave Height Low (ft)	4
D5	06 Dec 2023	High Tide (ft)	4.32
D5	06 Dec 2023	High Tide Time	449
D5	06 Dec 2023	Low Tide (ft)	2.06
D5	06 Dec 2023	Low Tide Time	1113
D5	06 Dec 2023	Comments	Water clear; Trash-1; Algae
D5	13 Dec 2023	Arrive Time	921
D5	13 Dec 2023	Weather	Sunny
D5	13 Dec 2023	Wind Speed (kts)	1.7
D5	13 Dec 2023	Wind Dir	NE
D5	13 Dec 2023	Animal Life	
D5	13 Dec 2023	Floatables	None
D5	13 Dec 2023	Water Color	Green
D5	13 Dec 2023	Current Direction	S
D5	13 Dec 2023	Water Temp (C)	12
D5	13 Dec 2023	Wave Height Low (ft)	3
D5	13 Dec 2023	High Tide (ft)	6.39
D5	13 Dec 2023	High Tide Time	816
D5	13 Dec 2023	Low Tide (ft)	2.13
D5	13 Dec 2023	Low Tide Time	200
D5	13 Dec 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Algae;Debris; Sewage-like odor
D5	20 Dec 2023	Arrive Time	842
D5	20 Dec 2023	Weather	Partly cloudy
D5	20 Dec 2023	Wind Speed (kts)	1.6
D5	20 Dec 2023	Wind Dir	SW
D5	20 Dec 2023	Animal Life	
D5	20 Dec 2023	Floatables	None
D5	20 Dec 2023	Water Color	Green
D5	20 Dec 2023	Current Direction	S
D5	20 Dec 2023	Water Temp (C)	13
D5	20 Dec 2023	Wave Height Low (ft)	3
D5	20 Dec 2023	High Tide (ft)	4.75
D5	20 Dec 2023	High Tide Time	345
D5	20 Dec 2023	Low Tide (ft)	1.62
D5	20 Dec 2023	Low Tide Time	1020
D5	20 Dec 2023	Comments	Water turbid; Trash-1; Kelp;Algae
D5	27 Dec 2023	Arrive Time	929
D5	27 Dec 2023	Weather	Hazy
D5	27 Dec 2023	Wind Speed (kts)	0
D5	27 Dec 2023	Wind Dir	

Station	Date	Parameter	Value
D5	27 Dec 2023	Animal Life	
D5	27 Dec 2023	Floatables	None
D5	27 Dec 2023	Water Color	Green
D5	27 Dec 2023	Current Direction	S
D5	27 Dec 2023	Water Temp (C)	12
D5	27 Dec 2023	Wave Height Low (ft)	6
D5	27 Dec 2023	High Tide (ft)	6.08
D5	27 Dec 2023	High Tide Time	825
D5	27 Dec 2023	Low Tide (ft)	2.18
D5	27 Dec 2023	Low Tide Time	217
D5	27 Dec 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D5	28 Dec 2023	Arrive Time	1024
D5	28 Dec 2023	Weather	Hazy
D5	28 Dec 2023	Wind Speed (kts)	6.3
D5	28 Dec 2023	Wind Dir	NW
D5	28 Dec 2023	Animal Life	Bird-1;
D5	28 Dec 2023	Floatables	Foam
D5	28 Dec 2023	Water Color	Brown
D5	28 Dec 2023	Current Direction	S
D5	28 Dec 2023	Water Temp (C)	12
D5	28 Dec 2023	Wave Height Low (ft)	6
D5	28 Dec 2023	High Tide (ft)	5.87
D5	28 Dec 2023	High Tide Time	900
D5	28 Dec 2023	Low Tide (ft)	2.24
D5	28 Dec 2023	Low Tide Time	254
D5	28 Dec 2023	Comments	Water turbid; Trash-1; Algae
D7	06 Dec 2023	Arrive Time	836
D7	06 Dec 2023	Weather	Sunny
D7	06 Dec 2023	Wind Speed (kts)	1.9
D7	06 Dec 2023	Wind Dir	NW
D7	06 Dec 2023	Animal Life	
D7	06 Dec 2023	Floatables	None
D7	06 Dec 2023	Water Color	Green
D7	06 Dec 2023	Current Direction	S
D7	06 Dec 2023	Water Temp (C)	12
D7	06 Dec 2023	Wave Height Low (ft)	6
D7	06 Dec 2023	High Tide (ft)	4.32
D7	06 Dec 2023	High Tide Time	449
D7	06 Dec 2023	Low Tide (ft)	2.06
D7	06 Dec 2023	Low Tide Time	1113
D7	06 Dec 2023	Comments	Water clear; Surfer/Paddle boarder-2; Trash-1; Algae
D7	13 Dec 2023	Arrive Time	848
D7	13 Dec 2023	Weather	Sunny
D7	13 Dec 2023	Wind Speed (kts)	1.4
D7	13 Dec 2023	Wind Dir	S
D7	13 Dec 2023	Animal Life	
D7	13 Dec 2023	Floatables	None
D7	13 Dec 2023	Water Color	Green
D7	13 Dec 2023	Current Direction	S
D7	13 Dec 2023	Water Temp (C)	12
D7	13 Dec 2023	Wave Height Low (ft)	4
D7	13 Dec 2023	High Tide (ft)	6.39
D7	13 Dec 2023	High Tide Time	816
D7	13 Dec 2023	Low Tide (ft)	2.13
D7	13 Dec 2023	Low Tide Time	200
D7	13 Dec 2023	Comments	Water clear; Trash-3; Kelp;Seagrass;Algae;Debris
D7	20 Dec 2023	Arrive Time	821

Station	Date	Parameter	Value
D7	20 Dec 2023	Weather	Partly cloudy
D7	20 Dec 2023	Wind Speed (kts)	2.6
D7	20 Dec 2023	Wind Dir	S
D7	20 Dec 2023	Animal Life	
D7	20 Dec 2023	Floatables	None
D7	20 Dec 2023	Water Color	Green
D7	20 Dec 2023	Current Direction	S
D7	20 Dec 2023	Water Temp (C)	12
D7	20 Dec 2023	Wave Height Low (ft)	2
D7	20 Dec 2023	High Tide (ft)	4.75
D7	20 Dec 2023	High Tide Time	345
D7	20 Dec 2023	Low Tide (ft)	1.62
D7	20 Dec 2023	Low Tide Time	1020
D7	20 Dec 2023	Comments	Water clear; Trash-1; Algae; Person/Walker/Jogger-2
D7	27 Dec 2023	Arrive Time	856
D7	27 Dec 2023	Weather	Partly cloudy
D7	27 Dec 2023	Wind Speed (kts)	1.2
D7	27 Dec 2023	Wind Dir	NW
D7	27 Dec 2023	Animal Life	
D7	27 Dec 2023	Floatables	None
D7	27 Dec 2023	Water Color	Green
D7	27 Dec 2023	Current Direction	S
D7	27 Dec 2023	Water Temp (C)	12
D7	27 Dec 2023	Wave Height Low (ft)	7
D7	27 Dec 2023	High Tide (ft)	6.08
D7	27 Dec 2023	High Tide Time	825
D7	27 Dec 2023	Low Tide (ft)	2.18
D7	27 Dec 2023	Low Tide Time	217
D7	27 Dec 2023	Comments	Water clear; Boogie boarder/Swimmer-1; Trash-2; Kelp;Seagrass;Algae
D8-B	06 Dec 2023	Arrive Time	825
D8-B	06 Dec 2023	Weather	Sunny
D8-B	06 Dec 2023	Wind Speed (kts)	0
D8-B	06 Dec 2023	Wind Dir	
D8-B	06 Dec 2023	Animal Life	
D8-B	06 Dec 2023	Floatables	None
D8-B	06 Dec 2023	Water Color	Green
D8-B	06 Dec 2023	Current Direction	S
D8-B	06 Dec 2023	Water Temp (C)	10
D8-B	06 Dec 2023	Wave Height Low (ft)	6
D8-B	06 Dec 2023	High Tide (ft)	4.32
D8-B	06 Dec 2023	High Tide Time	449
D8-B	06 Dec 2023	Low Tide (ft)	2.06
D8-B	06 Dec 2023	Low Tide Time	1113
D8-B	06 Dec 2023	Comments	Water clear; Trash-1; Algae
D8-B	13 Dec 2023	Arrive Time	834
D8-B	13 Dec 2023	Weather	Sunny
D8-B	13 Dec 2023	Wind Speed (kts)	2.1
D8-B	13 Dec 2023	Wind Dir	NW
D8-B	13 Dec 2023	Animal Life	
D8-B	13 Dec 2023	Floatables	None
D8-B	13 Dec 2023	Water Color	Green
D8-B	13 Dec 2023	Current Direction	S
D8-B	13 Dec 2023	Water Temp (C)	11
D8-B	13 Dec 2023	Wave Height Low (ft)	7
D8-B	13 Dec 2023	High Tide (ft)	6.39
D8-B	13 Dec 2023	High Tide Time	816
D8-B	13 Dec 2023	Low Tide (ft)	2.13

Station	Date	Parameter	Value
D8-B	13 Dec 2023	Low Tide Time	200
D8-B	13 Dec 2023	Comments	Water clear; Trash-3; Kelp;Seagrass;Algae;Debris
D8-B	20 Dec 2023	Arrive Time	811
D8-B	20 Dec 2023	Weather	Partly cloudy
D8-B	20 Dec 2023	Wind Speed (kts)	4
D8-B	20 Dec 2023	Wind Dir	E
D8-B	20 Dec 2023	Animal Life	
D8-B	20 Dec 2023	Floatables	None
D8-B	20 Dec 2023	Water Color	Green
D8-B	20 Dec 2023	Current Direction	S
D8-B	20 Dec 2023	Water Temp (C)	12
D8-B	20 Dec 2023	Wave Height Low (ft)	3
D8-B	20 Dec 2023	High Tide (ft)	4.75
D8-B	20 Dec 2023	High Tide Time	345
D8-B	20 Dec 2023	Low Tide (ft)	1.62
D8-B	20 Dec 2023	Low Tide Time	1020
D8-B	20 Dec 2023	Comments	Water clear; Surfer/Paddle boarder-4; Trash-1; Sea-grass;Algae;Kelp
D8-B	27 Dec 2023	Arrive Time	843
D8-B	27 Dec 2023	Weather	Overcast
D8-B	27 Dec 2023	Wind Speed (kts)	1.6
D8-B	27 Dec 2023	Wind Dir	NW
D8-B	27 Dec 2023	Animal Life	
D8-B	27 Dec 2023	Floatables	None
D8-B	27 Dec 2023	Water Color	Green
D8-B	27 Dec 2023	Current Direction	S
D8-B	27 Dec 2023	Water Temp (C)	11
D8-B	27 Dec 2023	Wave Height Low (ft)	6
D8-B	27 Dec 2023	High Tide (ft)	6.08
D8-B	27 Dec 2023	High Tide Time	825
D8-B	27 Dec 2023	Low Tide (ft)	2.18
D8-B	27 Dec 2023	Low Tide Time	217
D8-B	27 Dec 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Algae;Debris; Person/Walker/Jogger-2
D9	06 Dec 2023	Arrive Time	817
D9	06 Dec 2023	Weather	Sunny
D9	06 Dec 2023	Wind Speed (kts)	0
D9	06 Dec 2023	Wind Dir	
D9	06 Dec 2023	Animal Life	Bird-10; Dog-1;
D9	06 Dec 2023	Floatables	None
D9	06 Dec 2023	Water Color	Green
D9	06 Dec 2023	Current Direction	S
D9	06 Dec 2023	Water Temp (C)	10
D9	06 Dec 2023	Wave Height Low (ft)	7
D9	06 Dec 2023	High Tide (ft)	4.32
D9	06 Dec 2023	High Tide Time	449
D9	06 Dec 2023	Low Tide (ft)	2.06
D9	06 Dec 2023	Low Tide Time	1113
D9	06 Dec 2023	Comments	Water clear; Trash-1; Algae
D9	13 Dec 2023	Arrive Time	825
D9	13 Dec 2023	Weather	Sunny
D9	13 Dec 2023	Wind Speed (kts)	0
D9	13 Dec 2023	Wind Dir	
D9	13 Dec 2023	Animal Life	
D9	13 Dec 2023	Floatables	None
D9	13 Dec 2023	Water Color	Green
D9	13 Dec 2023	Current Direction	S

Station	Date	Parameter	Value
D9	13 Dec 2023	Water Temp (C)	9
D9	13 Dec 2023	Wave Height Low (ft)	4
D9	13 Dec 2023	High Tide (ft)	6.39
D9	13 Dec 2023	High Tide Time	816
D9	13 Dec 2023	Low Tide (ft)	2.13
D9	13 Dec 2023	Low Tide Time	200
D9	13 Dec 2023	Comments	Water clear; Trash-4; Kelp;Seagrass;Algae;Debris
D9	20 Dec 2023	Arrive Time	804
D9	20 Dec 2023	Weather	Partly cloudy
D9	20 Dec 2023	Wind Speed (kts)	0.9
D9	20 Dec 2023	Wind Dir	NE
D9	20 Dec 2023	Animal Life	
D9	20 Dec 2023	Floatables	None
D9	20 Dec 2023	Water Color	Green
D9	20 Dec 2023	Current Direction	S
D9	20 Dec 2023	Water Temp (C)	12
D9	20 Dec 2023	Wave Height Low (ft)	3
D9	20 Dec 2023	High Tide (ft)	4.75
D9	20 Dec 2023	High Tide Time	345
D9	20 Dec 2023	Low Tide (ft)	1.62
D9	20 Dec 2023	Low Tide Time	1020
D9	20 Dec 2023	Comments	Water clear; Trash-1; Kelp;Algae;Seagrass
D9	27 Dec 2023	Arrive Time	831
D9	27 Dec 2023	Weather	Foggy
D9	27 Dec 2023	Wind Speed (kts)	0
D9	27 Dec 2023	Wind Dir	
D9	27 Dec 2023	Animal Life	Dog-1;
D9	27 Dec 2023	Floatables	None
D9	27 Dec 2023	Water Color	Green
D9	27 Dec 2023	Current Direction	S
D9	27 Dec 2023	Water Temp (C)	11
D9	27 Dec 2023	Wave Height Low (ft)	6
D9	27 Dec 2023	High Tide (ft)	6.08
D9	27 Dec 2023	High Tide Time	825
D9	27 Dec 2023	Low Tide (ft)	2.18
D9	27 Dec 2023	Low Tide Time	217
D9	27 Dec 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Algae;Debris; Person/Walker/Jogger-1
D10	06 Dec 2023	Arrive Time	807
D10	06 Dec 2023	Weather	Sunny
D10	06 Dec 2023	Wind Speed (kts)	0.9
D10	06 Dec 2023	Wind Dir	NE
D10	06 Dec 2023	Animal Life	
D10	06 Dec 2023	Floatables	None
D10	06 Dec 2023	Water Color	Green
D10	06 Dec 2023	Current Direction	S
D10	06 Dec 2023	Water Temp (C)	9
D10	06 Dec 2023	Wave Height Low (ft)	8
D10	06 Dec 2023	High Tide (ft)	4.32
D10	06 Dec 2023	High Tide Time	449
D10	06 Dec 2023	Low Tide (ft)	2.06
D10	06 Dec 2023	Low Tide Time	1113
D10	06 Dec 2023	Comments	Water clear; Trash-1; Seagrass;Kelp
D10	13 Dec 2023	Arrive Time	814
D10	13 Dec 2023	Weather	Sunny
D10	13 Dec 2023	Wind Speed (kts)	0.7
D10	13 Dec 2023	Wind Dir	N

Station	Date	Parameter	Value
D10	13 Dec 2023	Animal Life	
D10	13 Dec 2023	Floatables	None
D10	13 Dec 2023	Water Color	Green
D10	13 Dec 2023	Current Direction	S
D10	13 Dec 2023	Water Temp (C)	12
D10	13 Dec 2023	Wave Height Low (ft)	4
D10	13 Dec 2023	High Tide (ft)	6.39
D10	13 Dec 2023	High Tide Time	816
D10	13 Dec 2023	Low Tide (ft)	2.13
D10	13 Dec 2023	Low Tide Time	200
D10	13 Dec 2023	Comments	Water clear; Surfer/Paddle boarder-2; Trash-4; Kelp;Seagrass;Debris; Person/Walker/Jogger-2
D10	20 Dec 2023	Arrive Time	755
D10	20 Dec 2023	Weather	Partly cloudy
D10	20 Dec 2023	Wind Speed (kts)	1.4
D10	20 Dec 2023	Wind Dir	E
D10	20 Dec 2023	Animal Life	
D10	20 Dec 2023	Floatables	None
D10	20 Dec 2023	Water Color	Green
D10	20 Dec 2023	Current Direction	S
D10	20 Dec 2023	Water Temp (C)	12
D10	20 Dec 2023	Wave Height Low (ft)	3
D10	20 Dec 2023	High Tide (ft)	4.75
D10	20 Dec 2023	High Tide Time	345
D10	20 Dec 2023	Low Tide (ft)	1.62
D10	20 Dec 2023	Low Tide Time	1020
D10	20 Dec 2023	Comments	Water clear; Surfer/Paddle boarder-6; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-2
D10	27 Dec 2023	Arrive Time	820
D10	27 Dec 2023	Weather	Foggy
D10	27 Dec 2023	Wind Speed (kts)	3.6
D10	27 Dec 2023	Wind Dir	NW
D10	27 Dec 2023	Animal Life	
D10	27 Dec 2023	Floatables	None
D10	27 Dec 2023	Water Color	Green
D10	27 Dec 2023	Current Direction	S
D10	27 Dec 2023	Water Temp (C)	12
D10	27 Dec 2023	Wave Height Low (ft)	6
D10	27 Dec 2023	High Tide (ft)	6.08
D10	27 Dec 2023	High Tide Time	825
D10	27 Dec 2023	Low Tide (ft)	2.18
D10	27 Dec 2023	Low Tide Time	217
D10	27 Dec 2023	Comments	Water clear; Trash-3; Kelp;Seagrass;Debris; Person/Walker/Jogger-2; Sewage-like odor
D11	06 Dec 2023	Arrive Time	758
D11	06 Dec 2023	Weather	Sunny
D11	06 Dec 2023	Wind Speed (kts)	0.7
D11	06 Dec 2023	Wind Dir	N
D11	06 Dec 2023	Animal Life	
D11	06 Dec 2023	Floatables	None
D11	06 Dec 2023	Water Color	Green
D11	06 Dec 2023	Current Direction	S
D11	06 Dec 2023	Water Temp (C)	9
D11	06 Dec 2023	Wave Height Low (ft)	6
D11	06 Dec 2023	High Tide (ft)	4.32
D11	06 Dec 2023	High Tide Time	449
D11	06 Dec 2023	Low Tide (ft)	2.06
D11	06 Dec 2023	Low Tide Time	1113

Station	Date	Parameter	Value
D11	06 Dec 2023	Comments	Water clear; Surfer/Paddle boarder-1; Trash-1; Algae;Seagrass;Debris
D11	13 Dec 2023	Arrive Time	805
D11	13 Dec 2023	Weather	Sunny
D11	13 Dec 2023	Wind Speed (kts)	2.1
D11	13 Dec 2023	Wind Dir	N
D11	13 Dec 2023	Animal Life	
D11	13 Dec 2023	Floatables	None
D11	13 Dec 2023	Water Color	Green
D11	13 Dec 2023	Current Direction	S
D11	13 Dec 2023	Water Temp (C)	11
D11	13 Dec 2023	Wave Height Low (ft)	3
D11	13 Dec 2023	High Tide (ft)	6.39
D11	13 Dec 2023	High Tide Time	816
D11	13 Dec 2023	Low Tide (ft)	2.13
D11	13 Dec 2023	Low Tide Time	200
D11	13 Dec 2023	Comments	Water clear; Trash-3; Kelp;Seagrass;Algae;Debris; Person/Walker/Jogger-2
D11	20 Dec 2023	Arrive Time	748
D11	20 Dec 2023	Weather	Partly cloudy
D11	20 Dec 2023	Wind Speed (kts)	1.5
D11	20 Dec 2023	Wind Dir	E
D11	20 Dec 2023	Animal Life	
D11	20 Dec 2023	Floatables	None
D11	20 Dec 2023	Water Color	Green
D11	20 Dec 2023	Current Direction	S
D11	20 Dec 2023	Water Temp (C)	14
D11	20 Dec 2023	Wave Height Low (ft)	4
D11	20 Dec 2023	High Tide (ft)	4.75
D11	20 Dec 2023	High Tide Time	345
D11	20 Dec 2023	Low Tide (ft)	1.62
D11	20 Dec 2023	Low Tide Time	1020
D11	20 Dec 2023	Comments	Water clear; Surfer/Paddle boarder-7; Trash-1; Kelp;Seagrass;Algae; Person/Walker/Jogger-5
D11	27 Dec 2023	Arrive Time	810
D11	27 Dec 2023	Weather	Foggy
D11	27 Dec 2023	Wind Speed (kts)	0.6
D11	27 Dec 2023	Wind Dir	NW
D11	27 Dec 2023	Animal Life	
D11	27 Dec 2023	Floatables	None
D11	27 Dec 2023	Water Color	Green
D11	27 Dec 2023	Current Direction	S
D11	27 Dec 2023	Water Temp (C)	12
D11	27 Dec 2023	Wave Height Low (ft)	5
D11	27 Dec 2023	High Tide (ft)	6.08
D11	27 Dec 2023	High Tide Time	825
D11	27 Dec 2023	Low Tide (ft)	2.18
D11	27 Dec 2023	Low Tide Time	217
D11	27 Dec 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Algae;Debris; Person/Walker/Jogger-3
D12	06 Dec 2023	Arrive Time	741
D12	06 Dec 2023	Weather	Sunny
D12	06 Dec 2023	Wind Speed (kts)	1.2
D12	06 Dec 2023	Wind Dir	N
D12	06 Dec 2023	Animal Life	Bird-1;
D12	06 Dec 2023	Floatables	None
D12	06 Dec 2023	Water Color	Green

Station	Date	Parameter	Value
D12	06 Dec 2023	Current Direction	S
D12	06 Dec 2023	Water Temp (C)	10
D12	06 Dec 2023	Wave Height Low (ft)	4
D12	06 Dec 2023	High Tide (ft)	4.32
D12	06 Dec 2023	High Tide Time	449
D12	06 Dec 2023	Low Tide (ft)	2.06
D12	06 Dec 2023	Low Tide Time	1113
D12	06 Dec 2023	Comments	Water clear; Trash-1; Kelp;Debris;Seagrass
D12	13 Dec 2023	Arrive Time	747
D12	13 Dec 2023	Weather	Hazy
D12	13 Dec 2023	Wind Speed (kts)	2
D12	13 Dec 2023	Wind Dir	NW
D12	13 Dec 2023	Animal Life	
D12	13 Dec 2023	Floatables	None
D12	13 Dec 2023	Water Color	Green
D12	13 Dec 2023	Current Direction	S
D12	13 Dec 2023	Water Temp (C)	11
D12	13 Dec 2023	Wave Height Low (ft)	4
D12	13 Dec 2023	High Tide (ft)	6.39
D12	13 Dec 2023	High Tide Time	816
D12	13 Dec 2023	Low Tide (ft)	2.13
D12	13 Dec 2023	Low Tide Time	200
D12	13 Dec 2023	Comments	Water clear; Boogie boarder/Swimmer-1; Trash-3; Kelp;Seagrass;Debris
D12	20 Dec 2023	Arrive Time	734
D12	20 Dec 2023	Weather	Partly cloudy
D12	20 Dec 2023	Wind Speed (kts)	1.3
D12	20 Dec 2023	Wind Dir	E
D12	20 Dec 2023	Animal Life	Bird-4;
D12	20 Dec 2023	Floatables	None
D12	20 Dec 2023	Water Color	Green
D12	20 Dec 2023	Current Direction	S
D12	20 Dec 2023	Water Temp (C)	12
D12	20 Dec 2023	Wave Height Low (ft)	4
D12	20 Dec 2023	High Tide (ft)	4.75
D12	20 Dec 2023	High Tide Time	345
D12	20 Dec 2023	Low Tide (ft)	1.62
D12	20 Dec 2023	Low Tide Time	1020
D12	20 Dec 2023	Comments	Water clear; Trash-1; Kelp;Seagrass
D12	27 Dec 2023	Arrive Time	753
D12	27 Dec 2023	Weather	Foggy
D12	27 Dec 2023	Wind Speed (kts)	0
D12	27 Dec 2023	Wind Dir	
D12	27 Dec 2023	Animal Life	
D12	27 Dec 2023	Floatables	None
D12	27 Dec 2023	Water Color	Green
D12	27 Dec 2023	Current Direction	S
D12	27 Dec 2023	Water Temp (C)	9
D12	27 Dec 2023	Wave Height Low (ft)	5
D12	27 Dec 2023	High Tide (ft)	6.08
D12	27 Dec 2023	High Tide Time	825
D12	27 Dec 2023	Low Tide (ft)	2.18
D12	27 Dec 2023	Low Tide Time	217
D12	27 Dec 2023	Comments	Water clear; Trash-2; Kelp;Seagrass;Debris; Person/Walker/Jogger-3; Sewage-like odor

Kelp Stations

Table 3.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total coliform bacteria at the PLOO 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 >1,000 CFU/100 mL exceed the standard.

Date	A1	A6	A7	C4	C5	C6	C7	C8
01 Dec 2023	7	10	7	2	4	2	5	3
02 Dec 2023	7	10	7	2	4	2	5	3
03 Dec 2023	7	10	7	2	4	2	5	3
04 Dec 2023	7	10	7	2	4	2	5	3
05 Dec 2023	7	8	6	3	3	2	4	3
06 Dec 2023	10	12	8	3	4	2	5	3
07 Dec 2023	10	12	8	3	4	2	5	3
08 Dec 2023	10	12	8	3	4	2	5	3
09 Dec 2023	10	12	8	3	4	2	5	3
10 Dec 2023	10	12	8	3	4	2	5	3
11 Dec 2023	9	11	10	3	6	3	8	6
12 Dec 2023	9	11	10	3	6	3	8	6
13 Dec 2023	14	11	14	3	6	3	9	6
14 Dec 2023	14	11	14	3	6	3	9	6
15 Dec 2023	14	11	14	3	6	3	9	6
16 Dec 2023	14	11	14	3	6	3	9	6
17 Dec 2023	14	11	14	3	6	3	9	6
18 Dec 2023	9	14	14	3	7	4	10	7
19 Dec 2023	9	14	14	3	7	4	10	7
20 Dec 2023	9	14	14	3	7	4	10	7
21 Dec 2023	8	19	22	3	8	4	15	10
22 Dec 2023	8	19	22	3	8	4	15	10
23 Dec 2023	8	19	22	3	8	4	15	10
24 Dec 2023	8	19	22	3	8	4	15	10
25 Dec 2023	8	19	22	3	8	4	15	10
26 Dec 2023	20	23	27	4	6	4	20	7
27 Dec 2023	20	23	27	4	6	4	20	7
28 Dec 2023	16	17	16	5	6	4	19	8
29 Dec 2023	16	17	16	5	6	4	19	8
30 Dec 2023	16	17	16	5	6	4	19	8
31 Dec 2023	16	17	16	5	6	4	19	8

* Geometric mean calculated using n<5

Table 3.2

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria at the PLOO 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	A1	A6	A7	C4	C5	C6	C7	C8
01 Dec 2023	3	3	4	2	2	2	3	2
02 Dec 2023	3	3	4	2	2	2	3	2
03 Dec 2023	3	3	4	2	2	2	3	2
04 Dec 2023	3	3	4	2	2	2	3	2
05 Dec 2023	3	3	4	2	2	2	2	2
06 Dec 2023	3	3	4	2	2	2	3	2
07 Dec 2023	3	3	4	2	2	2	3	2
08 Dec 2023	3	3	4	2	2	2	3	2
09 Dec 2023	3	3	4	2	2	2	3	2
10 Dec 2023	3	3	4	2	2	2	3	2
11 Dec 2023	3	3	5	2	3	2	3	3
12 Dec 2023	3	3	5	2	3	2	3	3
13 Dec 2023	3	4	6	2	3	2	3	3
14 Dec 2023	3	4	6	2	3	2	3	3
15 Dec 2023	3	4	6	2	3	2	3	3
16 Dec 2023	3	4	6	2	3	2	3	3
17 Dec 2023	3	4	6	2	3	2	3	3
18 Dec 2023	3	4	5	2	3	2	3	3
19 Dec 2023	3	4	5	2	3	2	3	3
20 Dec 2023	3	4	5	2	3	2	3	3
21 Dec 2023	3	5	6	2	3	2	4	4
22 Dec 2023	3	5	6	2	3	2	4	4
23 Dec 2023	3	5	6	2	3	2	4	4
24 Dec 2023	3	5	6	2	3	2	4	4
25 Dec 2023	3	5	6	2	3	2	4	4
26 Dec 2023	5	5	7	2	3	2	5	3
27 Dec 2023	5	5	7	2	3	2	5	3
28 Dec 2023	4	4	5	2	3	2	4	4
29 Dec 2023	4	4	5	2	3	2	4	4
30 Dec 2023	4	4	5	2	3	2	4	4
31 Dec 2023	4	4	5	2	3	2	4	4

* Geometric mean calculated using n<5

Table 3.3

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for *Enterococcus* at the PLOO 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 >35 CFU/100 mL exceed the standard.

Date	A1	A6	A7	C4	C5	C6	C7	C8
01 Dec 2023	2	2	2	2	2	3	2	2
02 Dec 2023	2	2	2	2	2	3	2	2
03 Dec 2023	2	2	2	2	2	3	2	2
04 Dec 2023	2	2	2	2	2	3	2	2
05 Dec 2023	2	2	2	2	2	3	2	2
06 Dec 2023	2	2	2	2	2	3	2	2
07 Dec 2023	2	2	2	2	2	3	2	2
08 Dec 2023	2	2	2	2	2	3	2	2
09 Dec 2023	2	2	2	2	2	3	2	2
10 Dec 2023	2	2	2	2	2	3	2	2
11 Dec 2023	2	2	2	2	2	3	2	2
12 Dec 2023	2	2	2	2	2	3	2	2
13 Dec 2023	2	2	2	2	2	3	2	2
14 Dec 2023	2	2	2	2	2	3	2	2
15 Dec 2023	2	2	2	2	2	3	2	2
16 Dec 2023	2	2	2	2	2	3	2	2
17 Dec 2023	2	2	2	2	2	3	2	2
18 Dec 2023	2	2	2	2	2	3	2	2
19 Dec 2023	2	2	2	2	2	3	2	2
20 Dec 2023	2	2	2	2	2	3	2	2
21 Dec 2023	2	2	2	2	2	3	2	2
22 Dec 2023	2	2	2	2	2	3	2	2
23 Dec 2023	2	2	2	2	2	3	2	2
24 Dec 2023	2	2	2	2	2	3	2	2
25 Dec 2023	2	2	2	2	2	3	2	2
26 Dec 2023	3	3	3	2	2	3	3	2
27 Dec 2023	3	3	3	2	2	3	3	2
28 Dec 2023	3	3	2	2	2	2	2	2
29 Dec 2023	3	3	2	2	2	2	2	2
30 Dec 2023	3	3	2	2	2	2	2	2
31 Dec 2023	3	3	2	2	2	2	2	2

* Geometric mean calculated using n<5

Table 3.4

Summary of compliance at the PLOO kelp stations with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria, which states that total coliform density shall not exceed 10,000 CFU/100 mL.

Date	A1	A6	A7	C4	C5	C6	C7	C8
05 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
11 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
18 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
26 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC

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

Table 3.5

Summary of compliance at the PLOO 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	A1	A6	A7	C4	C5	C6	C7	C8
05 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
11 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
18 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
26 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC

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

Table 3.6

Summary of compliance at the PLOO kelp stations with the Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 104 CFU/100 mL.

Date	A1	A6	A7	C4	C5	C6	C7	C8
05 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
11 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
18 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
26 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC

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

Table 3.7

Summary of compliance at the PLOO kelp stations with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria and the fecal/total coliform ratio (F:T), which states that total coliform density shall not exceed 1,000 CFU/100 mL when F:T > 0.1.

Date	A1	A6	A7	C4	C5	C6	C7	C8
05 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
11 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
18 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC
26 Dec 2023	IC	IC	IC	IC	IC	IC	IC	IC

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

Table 3.8

Summary of water quality parameters at the PLOO kelp stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal) and *Enterococcus* (Entero) bacteria are reported as CFU/100 mL; the fecal:total coliform ratio (F:T) is unitless; 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	F:T	Temp	XMS	DO	Sal	pH
A1	05 Dec 2023	753	1	<2	<2	<2	1.000	17.1	90.37	8.0	33.28	8.1
A1	05 Dec 2023	753	12	<2	<2	<2	1.000	17.1	87.97	8.0	33.27	8.1
A1	05 Dec 2023	753	18	18e	<2	<2	0.111	16.6	87.47	7.6	33.25	8.1
A1	11 Dec 2023	747	1	<2	2e	<2	1.000	16.4	88.24	8.1	33.26	8.1
A1	11 Dec 2023	747	12	2e	2e	<2	1.000	16.5	88.40	8.1	33.25	8.1
A1	11 Dec 2023	747	18	18e	6e	4e	0.333	15.5	89.17	7.2	33.21	8.1
A1	18 Dec 2023	749	1	<2	<2	<2	1.000	16.3	78.05	7.6	33.31	8.1
A1	18 Dec 2023	749	12	<2	<2	<2	1.000	16.3	75.66	7.6	33.31	8.1
A1	18 Dec 2023	749	18	<2	<2	<2	1.000	16.3	69.82	7.5	33.31	8.1
A1	26 Dec 2023	824	1	4e	2e	<2	0.500	16.8	85.63	7.9	33.21	8.1
A1	26 Dec 2023	824	12	1800e	14e	<2	0.008	16.4	87.76	7.5	33.24	8.1
A1	26 Dec 2023	824	18	200e	62	12e	0.310	15.9	89.19	7.4	33.23	8.1
A6	05 Dec 2023	819	1	<2	<2	<2	1.000	16.9	86.18	7.8	33.26	8.1
A6	05 Dec 2023	819	12	<2	<2	<2	1.000	16.8	86.51	7.8	33.26	8.1
A6	05 Dec 2023	819	18	8e	<2	<2	0.250	16.6	86.51	7.5	33.26	8.1
A6	11 Dec 2023	816	1	6e	<2	<2	0.333	16.4	87.95	8.3	33.25	8.1
A6	11 Dec 2023	816	12	4e	2e	<2	0.500	16.4	88.08	8.3	33.25	8.1
A6	11 Dec 2023	816	18	18e	4e	<2	0.222	16.2	88.58	7.9	33.24	8.1
A6	18 Dec 2023	810	1	2e	2e	<2	1.000	16.4	88.19	8.0	33.27	8.1
A6	18 Dec 2023	810	12	54	10e	<2	0.185	16.2	88.76	7.7	33.27	8.1
A6	18 Dec 2023	810	18	70	6e	2e	0.086	16.1	86.52	7.4	33.26	8.1
A6	26 Dec 2023	847	1	<2	<2	<2	1.000	16.8	85.38	7.9	33.20	8.1
A6	26 Dec 2023	847	12	80e	2e	10e	0.025	16.8	85.41	7.7	33.21	8.1
A6	26 Dec 2023	847	18	60e	20e	8e	0.333	16.3	81.94	7.3	33.23	8.1
A7	05 Dec 2023	805	1	<2	<2	<2	1.000	16.9	88.33	7.8	33.27	8.1
A7	05 Dec 2023	805	12	<2	<2	<2	1.000	16.9	88.07	7.8	33.27	8.1
A7	05 Dec 2023	805	18	4e	<2	<2	0.500	16.8	88.13	7.7	33.26	8.1
A7	11 Dec 2023	800	1	2e	<2	<2	1.000	16.5	88.71	8.3	33.26	8.2
A7	11 Dec 2023	800	12	<20	6e	<2	0.300	16.5	88.96	8.2	33.26	8.2
A7	11 Dec 2023	800	18	80e	10e	2e	0.125	15.9	88.97	7.7	33.22	8.1
A7	18 Dec 2023	758	1	12e	2e	<2	0.167	16.3	86.46	7.7	33.27	8.1
A7	18 Dec 2023	758	12	12e	<2	<2	0.167	16.3	86.02	7.6	33.27	8.1
A7	18 Dec 2023	758	18	16e	4e	2e	0.250	16.3	86.34	7.5	33.27	8.1
A7	26 Dec 2023	835	1	<2	<2	<2	1.000	16.8	85.50	8.0	33.20	8.1
A7	26 Dec 2023	835	12	60	8e	4e	0.133	16.4	88.39	7.5	33.24	8.1
A7	26 Dec 2023	835	18	120e	32e	2e	0.267	16.2	88.35	7.5	33.24	8.1
C4	05 Dec 2023	931	1	2e	<2	<2	1.000	16.9	78.73	7.4	33.27	8.1
C4	05 Dec 2023	931	3	<2	<2	<2	1.000	16.9	78.17	7.4	33.27	8.1
C4	05 Dec 2023	931	9	<20	2e	<2	0.100	16.8	46.16	7.0	33.28	8.0

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
C4	11 Dec 2023	919	1	4e	2e	<2	0.500	16.4	85.17	7.9	33.26	8.1
C4	11 Dec 2023	919	3	<2	<2	<2	1.000	16.4	84.83	7.9	33.26	8.1
C4	11 Dec 2023	919	9	2e	2e	<2	1.000	16.3	80.50	7.3	33.28	8.1
C4	18 Dec 2023	922	1	<2	<2	<2	1.000	16.3	69.22	7.6	33.30	8.1
C4	18 Dec 2023	922	3	<2	<2	<2	1.000	16.3	65.57	7.5	33.31	8.1
C4	18 Dec 2023	922	9	<2	<2	<2	1.000	16.3	52.34	7.5	33.31	8.1
C4	26 Dec 2023	956	1	<2	2e	<2	1.000	16.8	50.26	7.4	33.23	8.1
C4	26 Dec 2023	956	3	<20	2e	<2	0.100	16.8	48.54	7.3	33.23	8.1
C4	26 Dec 2023	956	9	20e	<2	<2	0.100	16.8	42.34	7.3	33.23	8.1
C5	05 Dec 2023	919	1	<2	<2	<2	1.000	17.0	81.68	7.5	33.27	8.1
C5	05 Dec 2023	919	3	<2	<2	<2	1.000	17.0	80.02	7.4	33.27	8.1
C5	05 Dec 2023	919	9	<2	<2	<2	1.000	16.9	74.92	7.2	33.27	8.1
C5	11 Dec 2023	908	1	2e	2e	<2	1.000	16.4	80.35	6.4	33.10	8.1
C5	11 Dec 2023	908	3	2e	<2	<2	1.000	16.4	80.31	7.7	33.25	8.1
C5	11 Dec 2023	908	9	82	42	4e	0.512	15.7	72.11	7.2	33.20	8.1
C5	18 Dec 2023	910	1	<2	<2	<2	1.000	16.3	66.78	7.3	33.29	8.1
C5	18 Dec 2023	910	3	2e	<2	<2	1.000	16.3	62.91	7.3	33.29	8.1
C5	18 Dec 2023	910	9	<20	<2	2e	0.100	16.3	45.26	7.3	33.30	8.1
C5	26 Dec 2023	946	1	2e	<2	<2	1.000	16.9	76.01	7.4	33.23	8.1
C5	26 Dec 2023	946	3	4e	<2	<2	0.500	16.9	75.88	7.4	33.23	8.1
C5	26 Dec 2023	946	9	2e	<2	<2	1.000	16.8	66.67	7.2	33.23	8.1
C6	05 Dec 2023	908	1	<2	<2	<2	1.000	16.9	82.77	7.5	33.27	8.1
C6	05 Dec 2023	908	3	<2	<2	<2	1.000	16.9	83.20	7.5	33.27	8.1
C6	05 Dec 2023	908	9	<2	<2	<2	1.000	16.9	75.49	7.3	33.27	8.1
C6	11 Dec 2023	858	1	2e	<2	<2	1.000	16.4	87.89	6.2	32.73	8.1
C6	11 Dec 2023	858	3	2e	<2	<2	1.000	16.4	87.94	7.6	33.21	8.1
C6	11 Dec 2023	858	9	18e	2e	<2	0.111	16.0	88.17	7.4	33.22	8.1
C6	18 Dec 2023	858	1	<2	<2	<2	1.000	16.3	80.63	7.4	33.27	8.1
C6	18 Dec 2023	858	3	8e	<2	<2	0.250	16.2	80.20	7.4	33.27	8.1
C6	18 Dec 2023	858	9	28e	2e	<2	0.071	16.1	79.65	7.3	33.26	8.1
C6	26 Dec 2023	930	1	<2	<2	<2	1.000	16.8	67.18	7.2	33.20	8.0
C6	26 Dec 2023	930	3	<2	<2	<2	1.000	16.8	64.00	7.3	33.19	8.0
C6	26 Dec 2023	930	9	<2	<2	<2	1.000	16.8	55.03	7.3	33.20	8.0
C7	05 Dec 2023	833	1	<2	<2	<2	1.000	16.7	84.57	8.1	33.25	8.1
C7	05 Dec 2023	833	12	<2	<2	<2	1.000	16.7	84.03	8.0	33.25	8.1
C7	05 Dec 2023	833	18	2e	<2	<2	1.000	16.5	84.81	7.6	33.25	8.1
C7	11 Dec 2023	828	1	6e	<2	<2	0.333	16.5	87.62	8.3	33.25	8.1
C7	11 Dec 2023	828	12	12e	<2	<2	0.167	16.4	88.20	7.8	33.24	8.1
C7	11 Dec 2023	828	18	160e	12e	4e	0.075	15.6	89.68	7.1	33.19	8.1
C7	18 Dec 2023	825	1	<2	<2	<2	1.000	16.5	88.93	8.2	33.27	8.2
C7	18 Dec 2023	825	12	34e	8e	<2	0.235	16.3	89.15	7.9	33.27	8.1
C7	18 Dec 2023	825	18	16e	<2	2e	0.125	16.1	89.05	7.5	33.26	8.1
C7	26 Dec 2023	900	1	<2	<2	<2	1.000	17.0	83.34	8.1	33.22	8.1
C7	26 Dec 2023	900	12	<20	<2	<2	0.100	16.9	81.56	7.7	33.23	8.1
C7	26 Dec 2023	900	18	160e	22e	6e	0.138	16.1	71.75	7.3	33.23	8.1

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
C8	05 Dec 2023	845	1	<2	<2	<2	1.000	16.7	84.14	8.2	33.26	8.1
C8	05 Dec 2023	845	12	<2	<2	<2	1.000	16.7	84.14	8.2	33.26	8.1
C8	05 Dec 2023	845	18	2e	<2	<2	1.000	16.7	84.08	8.2	33.26	8.1
C8	11 Dec 2023	840	1	2e	2e	<2	1.000	16.4	82.91	8.1	33.24	8.1
C8	11 Dec 2023	840	12	20e	<2	2e	0.100	16.3	80.78	8.0	33.24	8.1
C8	11 Dec 2023	840	18	180e	34e	4e	0.189	15.4	87.66	7.1	33.20	8.1
C8	18 Dec 2023	837	1	2e	<2	<2	1.000	16.4	86.94	8.2	33.27	8.2
C8	18 Dec 2023	837	12	18e	4e	<2	0.222	16.3	89.24	8.0	33.27	8.1
C8	18 Dec 2023	837	18	26e	8e	6e	0.308	16.0	85.04	7.6	33.25	8.1
C8	26 Dec 2023	910	1	<2	<2	<2	1.000	17.0	88.15	8.2	33.26	8.1
C8	26 Dec 2023	910	12	<2	<2	<2	1.000	17.0	85.81	8.2	33.26	8.1
C8	26 Dec 2023	910	18	<2	<2	<2	1.000	17.0	83.89	8.2	33.26	8.1

ns = not sampled
ND = no data

Table 3.9

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

Station	Date	Parameter	Value
A1	05 Dec 2023	Depth (m)	18
A1	05 Dec 2023	Arrive Time	753
A1	05 Dec 2023	Depart Time	757
A1	05 Dec 2023	Air Temp (C)	16.4
A1	05 Dec 2023	Weather	Clear
A1	05 Dec 2023	Visibility (mi)	10
A1	05 Dec 2023	Wind Speed (kts)	0
A1	05 Dec 2023	Wind Dir	NE
A1	05 Dec 2023	Water Color	Greenish-Blue
A1	05 Dec 2023	Wave Ht Low (ft)	5
A1	05 Dec 2023	Wave Period (sec)	13
A1	05 Dec 2023	Sea State	Calm
A1	05 Dec 2023	High Tide (ft)	4
A1	05 Dec 2023	High Tide Time	424
A1	05 Dec 2023	Low Tide (ft)	1.07
A1	05 Dec 2023	Low Tide Time	2142
A1	05 Dec 2023	Comments	Kelp
A1	11 Dec 2023	Depth (m)	19
A1	11 Dec 2023	Arrive Time	747
A1	11 Dec 2023	Depart Time	750
A1	11 Dec 2023	Air Temp (C)	13.8
A1	11 Dec 2023	Weather	Clear
A1	11 Dec 2023	Visibility (mi)	11
A1	11 Dec 2023	Wind Speed (kts)	7.4
A1	11 Dec 2023	Wind Dir	E
A1	11 Dec 2023	Water Color	Blue
A1	11 Dec 2023	Wave Ht Low (ft)	2.3
A1	11 Dec 2023	Wave Period (sec)	15
A1	11 Dec 2023	Sea State	Light Chop
A1	11 Dec 2023	High Tide (ft)	6.13
A1	11 Dec 2023	High Tide Time	700
A1	11 Dec 2023	Low Tide (ft)	-0.79
A1	11 Dec 2023	Low Tide Time	1424
A1	11 Dec 2023	Comments	none
A1	18 Dec 2023	Depth (m)	18
A1	18 Dec 2023	Arrive Time	749
A1	18 Dec 2023	Depart Time	752
A1	18 Dec 2023	Air Temp (C)	15.8
A1	18 Dec 2023	Weather	Partly Cloudy
A1	18 Dec 2023	Visibility (mi)	10
A1	18 Dec 2023	Wind Speed (kts)	5.9
A1	18 Dec 2023	Wind Dir	E
A1	18 Dec 2023	Water Color	Blue
A1	18 Dec 2023	Wave Ht Low (ft)	5
A1	18 Dec 2023	Wave Period (sec)	9
A1	18 Dec 2023	Sea State	Confused Swell
A1	18 Dec 2023	High Tide (ft)	4.67
A1	18 Dec 2023	High Tide Time	1236
A1	18 Dec 2023	Low Tide (ft)	0
A1	18 Dec 2023	Low Tide Time	2000
A1	18 Dec 2023	Comments	none
A1	26 Dec 2023	Depth (m)	19
A1	26 Dec 2023	Arrive Time	824

Station	Date	Parameter	Value
A1	26 Dec 2023	Depart Time	829
A1	26 Dec 2023	Air Temp (C)	14.4
A1	26 Dec 2023	Weather	Partly Cloudy
A1	26 Dec 2023	Visibility (mi)	8
A1	26 Dec 2023	Wind Speed (kts)	3.8
A1	26 Dec 2023	Wind Dir	SE
A1	26 Dec 2023	Water Color	Greenish-Blue
A1	26 Dec 2023	Wave Ht Low (ft)	6
A1	26 Dec 2023	Wave Period (sec)	13
A1	26 Dec 2023	Sea State	Regular Swell
A1	26 Dec 2023	High Tide (ft)	6.32
A1	26 Dec 2023	High Tide Time	754
A1	26 Dec 2023	Low Tide (ft)	-1.18
A1	26 Dec 2023	Low Tide Time	1518
A1	26 Dec 2023	Comments	Kelp; Kelp Debris; Lobster Floats
A6	05 Dec 2023	Depth (m)	19
A6	05 Dec 2023	Arrive Time	819
A6	05 Dec 2023	Depart Time	824
A6	05 Dec 2023	Air Temp (C)	16.6
A6	05 Dec 2023	Weather	Clear
A6	05 Dec 2023	Visibility (mi)	10
A6	05 Dec 2023	Wind Speed (kts)	3.4
A6	05 Dec 2023	Wind Dir	E
A6	05 Dec 2023	Water Color	Greenish-Blue
A6	05 Dec 2023	Wave Ht Low (ft)	5
A6	05 Dec 2023	Wave Period (sec)	13
A6	05 Dec 2023	Sea State	Calm
A6	05 Dec 2023	High Tide (ft)	4
A6	05 Dec 2023	High Tide Time	424
A6	05 Dec 2023	Low Tide (ft)	1.07
A6	05 Dec 2023	Low Tide Time	2142
A6	05 Dec 2023	Comments	none
A6	11 Dec 2023	Depth (m)	17
A6	11 Dec 2023	Arrive Time	816
A6	11 Dec 2023	Depart Time	820
A6	11 Dec 2023	Air Temp (C)	14.8
A6	11 Dec 2023	Weather	Clear
A6	11 Dec 2023	Visibility (mi)	11
A6	11 Dec 2023	Wind Speed (kts)	7.3
A6	11 Dec 2023	Wind Dir	NE
A6	11 Dec 2023	Water Color	Greenish-Blue
A6	11 Dec 2023	Wave Ht Low (ft)	2.3
A6	11 Dec 2023	Wave Period (sec)	15
A6	11 Dec 2023	Sea State	Light Chop
A6	11 Dec 2023	High Tide (ft)	6.13
A6	11 Dec 2023	High Tide Time	700
A6	11 Dec 2023	Low Tide (ft)	-0.79
A6	11 Dec 2023	Low Tide Time	1424
A6	11 Dec 2023	Comments	Kelp Debris
A6	18 Dec 2023	Depth (m)	16
A6	18 Dec 2023	Arrive Time	810
A6	18 Dec 2023	Depart Time	817
A6	18 Dec 2023	Air Temp (C)	16.2
A6	18 Dec 2023	Weather	Partly Cloudy
A6	18 Dec 2023	Visibility (mi)	10
A6	18 Dec 2023	Wind Speed (kts)	5.7
A6	18 Dec 2023	Wind Dir	N
A6	18 Dec 2023	Water Color	Blue

Station	Date	Parameter	Value
A6	18 Dec 2023	Wave Ht Low (ft)	5
A6	18 Dec 2023	Wave Period (sec)	9
A6	18 Dec 2023	Sea State	Confused Swell
A6	18 Dec 2023	High Tide (ft)	4.67
A6	18 Dec 2023	High Tide Time	1236
A6	18 Dec 2023	Low Tide (ft)	0
A6	18 Dec 2023	Low Tide Time	2000
A6	18 Dec 2023	Comments	none
A6	26 Dec 2023	Depth (m)	20
A6	26 Dec 2023	Arrive Time	847
A6	26 Dec 2023	Depart Time	850
A6	26 Dec 2023	Air Temp (C)	15.1
A6	26 Dec 2023	Weather	Partly Cloudy
A6	26 Dec 2023	Visibility (mi)	8
A6	26 Dec 2023	Wind Speed (kts)	2.8
A6	26 Dec 2023	Wind Dir	N
A6	26 Dec 2023	Water Color	Greenish-Blue
A6	26 Dec 2023	Wave Ht Low (ft)	6
A6	26 Dec 2023	Wave Period (sec)	13
A6	26 Dec 2023	Sea State	Regular Swell
A6	26 Dec 2023	High Tide (ft)	6.32
A6	26 Dec 2023	High Tide Time	754
A6	26 Dec 2023	Low Tide (ft)	-1.18
A6	26 Dec 2023	Low Tide Time	1518
A6	26 Dec 2023	Comments	Kelp; Lobster Floats
A7	05 Dec 2023	Depth (m)	20
A7	05 Dec 2023	Arrive Time	805
A7	05 Dec 2023	Depart Time	810
A7	05 Dec 2023	Air Temp (C)	16.7
A7	05 Dec 2023	Weather	Clear
A7	05 Dec 2023	Visibility (mi)	10
A7	05 Dec 2023	Wind Speed (kts)	1
A7	05 Dec 2023	Wind Dir	N
A7	05 Dec 2023	Water Color	Greenish-Blue
A7	05 Dec 2023	Wave Ht Low (ft)	5
A7	05 Dec 2023	Wave Period (sec)	13
A7	05 Dec 2023	Sea State	Calm
A7	05 Dec 2023	High Tide (ft)	4
A7	05 Dec 2023	High Tide Time	424
A7	05 Dec 2023	Low Tide (ft)	1.07
A7	05 Dec 2023	Low Tide Time	2142
A7	05 Dec 2023	Comments	none
A7	11 Dec 2023	Depth (m)	16
A7	11 Dec 2023	Arrive Time	800
A7	11 Dec 2023	Depart Time	810
A7	11 Dec 2023	Air Temp (C)	14.8
A7	11 Dec 2023	Weather	Clear
A7	11 Dec 2023	Visibility (mi)	11
A7	11 Dec 2023	Wind Speed (kts)	5.9
A7	11 Dec 2023	Wind Dir	E
A7	11 Dec 2023	Water Color	Blue
A7	11 Dec 2023	Wave Ht Low (ft)	2.3
A7	11 Dec 2023	Wave Period (sec)	15
A7	11 Dec 2023	Sea State	Light Chop
A7	11 Dec 2023	High Tide (ft)	6.13
A7	11 Dec 2023	High Tide Time	700
A7	11 Dec 2023	Low Tide (ft)	-0.79
A7	11 Dec 2023	Low Tide Time	1424

Station	Date	Parameter	Value
A7	11 Dec 2023	Comments	none
A7	18 Dec 2023	Depth (m)	18
A7	18 Dec 2023	Arrive Time	758
A7	18 Dec 2023	Depart Time	804
A7	18 Dec 2023	Air Temp (C)	16.2
A7	18 Dec 2023	Weather	Partly Cloudy
A7	18 Dec 2023	Visibility (mi)	10
A7	18 Dec 2023	Wind Speed (kts)	4.3
A7	18 Dec 2023	Wind Dir	N
A7	18 Dec 2023	Water Color	Blue
A7	18 Dec 2023	Wave Ht Low (ft)	5
A7	18 Dec 2023	Wave Period (sec)	9
A7	18 Dec 2023	Sea State	Confused Swell
A7	18 Dec 2023	High Tide (ft)	4.67
A7	18 Dec 2023	High Tide Time	1236
A7	18 Dec 2023	Low Tide (ft)	0
A7	18 Dec 2023	Low Tide Time	2000
A7	18 Dec 2023	Comments	none
A7	26 Dec 2023	Depth (m)	21
A7	26 Dec 2023	Arrive Time	835
A7	26 Dec 2023	Depart Time	840
A7	26 Dec 2023	Air Temp (C)	15.1
A7	26 Dec 2023	Weather	Partly Cloudy
A7	26 Dec 2023	Visibility (mi)	8
A7	26 Dec 2023	Wind Speed (kts)	3.4
A7	26 Dec 2023	Wind Dir	N
A7	26 Dec 2023	Water Color	Greenish-Blue
A7	26 Dec 2023	Wave Ht Low (ft)	6
A7	26 Dec 2023	Wave Period (sec)	13
A7	26 Dec 2023	Sea State	Regular Swell
A7	26 Dec 2023	High Tide (ft)	6.32
A7	26 Dec 2023	High Tide Time	754
A7	26 Dec 2023	Low Tide (ft)	-1.18
A7	26 Dec 2023	Low Tide Time	1518
A7	26 Dec 2023	Comments	Kelp; Kelp Debris; Lobster Floats
C4	05 Dec 2023	Depth (m)	10
C4	05 Dec 2023	Arrive Time	931
C4	05 Dec 2023	Depart Time	934
C4	05 Dec 2023	Air Temp (C)	16.8
C4	05 Dec 2023	Weather	Clear
C4	05 Dec 2023	Visibility (mi)	10
C4	05 Dec 2023	Wind Speed (kts)	1.9
C4	05 Dec 2023	Wind Dir	SE
C4	05 Dec 2023	Water Color	Green
C4	05 Dec 2023	Wave Ht Low (ft)	5
C4	05 Dec 2023	Wave Period (sec)	13
C4	05 Dec 2023	Sea State	Calm
C4	05 Dec 2023	High Tide (ft)	4
C4	05 Dec 2023	High Tide Time	424
C4	05 Dec 2023	Low Tide (ft)	1.07
C4	05 Dec 2023	Low Tide Time	2142
C4	05 Dec 2023	Comments	Kelp; Kelp Debris; Lobster Floats
C4	11 Dec 2023	Depth (m)	12
C4	11 Dec 2023	Arrive Time	919
C4	11 Dec 2023	Depart Time	921
C4	11 Dec 2023	Air Temp (C)	14.4
C4	11 Dec 2023	Weather	Clear

Station	Date	Parameter	Value
C4	11 Dec 2023	Visibility (mi)	11
C4	11 Dec 2023	Wind Speed (kts)	8.6
C4	11 Dec 2023	Wind Dir	SE
C4	11 Dec 2023	Water Color	Green
C4	11 Dec 2023	Wave Ht Low (ft)	2.3
C4	11 Dec 2023	Wave Period (sec)	15
C4	11 Dec 2023	Sea State	Light Chop
C4	11 Dec 2023	High Tide (ft)	6.13
C4	11 Dec 2023	High Tide Time	700
C4	11 Dec 2023	Low Tide (ft)	-0.79
C4	11 Dec 2023	Low Tide Time	1424
C4	11 Dec 2023	Comments	none
C4	18 Dec 2023	Depth (m)	9
C4	18 Dec 2023	Arrive Time	922
C4	18 Dec 2023	Depart Time	1010
C4	18 Dec 2023	Air Temp (C)	15.9
C4	18 Dec 2023	Weather	Overcast
C4	18 Dec 2023	Visibility (mi)	10
C4	18 Dec 2023	Wind Speed (kts)	14.8
C4	18 Dec 2023	Wind Dir	SE
C4	18 Dec 2023	Water Color	Green
C4	18 Dec 2023	Wave Ht Low (ft)	5
C4	18 Dec 2023	Wave Period (sec)	9
C4	18 Dec 2023	Sea State	Calm
C4	18 Dec 2023	High Tide (ft)	4.67
C4	18 Dec 2023	High Tide Time	1236
C4	18 Dec 2023	Low Tide (ft)	0
C4	18 Dec 2023	Low Tide Time	2000
C4	18 Dec 2023	Comments	none
C4	26 Dec 2023	Depth (m)	12
C4	26 Dec 2023	Arrive Time	956
C4	26 Dec 2023	Depart Time	959
C4	26 Dec 2023	Air Temp (C)	15.2
C4	26 Dec 2023	Weather	Partly Cloudy
C4	26 Dec 2023	Visibility (mi)	8
C4	26 Dec 2023	Wind Speed (kts)	6.5
C4	26 Dec 2023	Wind Dir	N
C4	26 Dec 2023	Water Color	Green
C4	26 Dec 2023	Wave Ht Low (ft)	6
C4	26 Dec 2023	Wave Period (sec)	13
C4	26 Dec 2023	Sea State	Regular Swell
C4	26 Dec 2023	High Tide (ft)	6.32
C4	26 Dec 2023	High Tide Time	754
C4	26 Dec 2023	Low Tide (ft)	-1.18
C4	26 Dec 2023	Low Tide Time	1518
C4	26 Dec 2023	Comments	Using Niskins 1;3;and 4; Kelp; Kelp Debris
C5	05 Dec 2023	Depth (m)	11
C5	05 Dec 2023	Arrive Time	919
C5	05 Dec 2023	Depart Time	923
C5	05 Dec 2023	Air Temp (C)	17.1
C5	05 Dec 2023	Weather	Clear
C5	05 Dec 2023	Visibility (mi)	10
C5	05 Dec 2023	Wind Speed (kts)	1.8
C5	05 Dec 2023	Wind Dir	S
C5	05 Dec 2023	Water Color	Green
C5	05 Dec 2023	Wave Ht Low (ft)	5
C5	05 Dec 2023	Wave Period (sec)	13
C5	05 Dec 2023	Sea State	Calm

Station	Date	Parameter	Value
C5	05 Dec 2023	High Tide (ft)	4
C5	05 Dec 2023	High Tide Time	424
C5	05 Dec 2023	Low Tide (ft)	1.07
C5	05 Dec 2023	Low Tide Time	2142
C5	05 Dec 2023	Comments	none
C5	11 Dec 2023	Depth (m)	10
C5	11 Dec 2023	Arrive Time	908
C5	11 Dec 2023	Depart Time	911
C5	11 Dec 2023	Air Temp (C)	15.2
C5	11 Dec 2023	Weather	Clear
C5	11 Dec 2023	Visibility (mi)	11
C5	11 Dec 2023	Wind Speed (kts)	16.9
C5	11 Dec 2023	Wind Dir	S
C5	11 Dec 2023	Water Color	Green
C5	11 Dec 2023	Wave Ht Low (ft)	2.3
C5	11 Dec 2023	Wave Period (sec)	15
C5	11 Dec 2023	Sea State	Light Chop
C5	11 Dec 2023	High Tide (ft)	6.13
C5	11 Dec 2023	High Tide Time	700
C5	11 Dec 2023	Low Tide (ft)	-0.79
C5	11 Dec 2023	Low Tide Time	1424
C5	11 Dec 2023	Comments	none
C5	18 Dec 2023	Depth (m)	8
C5	18 Dec 2023	Arrive Time	910
C5	18 Dec 2023	Depart Time	916
C5	18 Dec 2023	Air Temp (C)	16.1
C5	18 Dec 2023	Weather	Overcast
C5	18 Dec 2023	Visibility (mi)	10
C5	18 Dec 2023	Wind Speed (kts)	10.9
C5	18 Dec 2023	Wind Dir	S
C5	18 Dec 2023	Water Color	Green
C5	18 Dec 2023	Wave Ht Low (ft)	5
C5	18 Dec 2023	Wave Period (sec)	9
C5	18 Dec 2023	Sea State	Calm
C5	18 Dec 2023	High Tide (ft)	4.67
C5	18 Dec 2023	High Tide Time	1236
C5	18 Dec 2023	Low Tide (ft)	0
C5	18 Dec 2023	Low Tide Time	2000
C5	18 Dec 2023	Comments	none
C5	26 Dec 2023	Depth (m)	12
C5	26 Dec 2023	Arrive Time	946
C5	26 Dec 2023	Depart Time	951
C5	26 Dec 2023	Air Temp (C)	15
C5	26 Dec 2023	Weather	Partly Cloudy
C5	26 Dec 2023	Visibility (mi)	8
C5	26 Dec 2023	Wind Speed (kts)	5.9
C5	26 Dec 2023	Wind Dir	N
C5	26 Dec 2023	Water Color	Green
C5	26 Dec 2023	Wave Ht Low (ft)	6
C5	26 Dec 2023	Wave Period (sec)	13
C5	26 Dec 2023	Sea State	Regular Swell
C5	26 Dec 2023	High Tide (ft)	6.32
C5	26 Dec 2023	High Tide Time	754
C5	26 Dec 2023	Low Tide (ft)	-1.18
C5	26 Dec 2023	Low Tide Time	1518
C5	26 Dec 2023	Comments	Kelp; Kelp Debris
C6	05 Dec 2023	Depth (m)	10

Station	Date	Parameter	Value
C6	05 Dec 2023	Arrive Time	908
C6	05 Dec 2023	Depart Time	912
C6	05 Dec 2023	Air Temp (C)	17.1
C6	05 Dec 2023	Weather	Clear
C6	05 Dec 2023	Visibility (mi)	10
C6	05 Dec 2023	Wind Speed (kts)	0.4
C6	05 Dec 2023	Wind Dir	SW
C6	05 Dec 2023	Water Color	Greenish-Blue
C6	05 Dec 2023	Wave Ht Low (ft)	5
C6	05 Dec 2023	Wave Period (sec)	13
C6	05 Dec 2023	Sea State	Calm
C6	05 Dec 2023	High Tide (ft)	4
C6	05 Dec 2023	High Tide Time	424
C6	05 Dec 2023	Low Tide (ft)	1.07
C6	05 Dec 2023	Low Tide Time	2142
C6	05 Dec 2023	Comments	Kelp
C6	11 Dec 2023	Depth (m)	8
C6	11 Dec 2023	Arrive Time	858
C6	11 Dec 2023	Depart Time	902
C6	11 Dec 2023	Air Temp (C)	15.4
C6	11 Dec 2023	Weather	Clear
C6	11 Dec 2023	Visibility (mi)	11
C6	11 Dec 2023	Wind Speed (kts)	14
C6	11 Dec 2023	Wind Dir	S
C6	11 Dec 2023	Water Color	Blueish-Green
C6	11 Dec 2023	Wave Ht Low (ft)	2.3
C6	11 Dec 2023	Wave Period (sec)	15
C6	11 Dec 2023	Sea State	Light Chop
C6	11 Dec 2023	High Tide (ft)	6.13
C6	11 Dec 2023	High Tide Time	700
C6	11 Dec 2023	Low Tide (ft)	-0.79
C6	11 Dec 2023	Low Tide Time	1424
C6	11 Dec 2023	Comments	none
C6	18 Dec 2023	Depth (m)	10
C6	18 Dec 2023	Arrive Time	858
C6	18 Dec 2023	Depart Time	902
C6	18 Dec 2023	Air Temp (C)	16
C6	18 Dec 2023	Weather	Overcast
C6	18 Dec 2023	Visibility (mi)	10
C6	18 Dec 2023	Wind Speed (kts)	5.5
C6	18 Dec 2023	Wind Dir	E
C6	18 Dec 2023	Water Color	Blue
C6	18 Dec 2023	Wave Ht Low (ft)	5
C6	18 Dec 2023	Wave Period (sec)	9
C6	18 Dec 2023	Sea State	Calm
C6	18 Dec 2023	High Tide (ft)	4.67
C6	18 Dec 2023	High Tide Time	1236
C6	18 Dec 2023	Low Tide (ft)	0
C6	18 Dec 2023	Low Tide Time	2000
C6	18 Dec 2023	Comments	none
C6	26 Dec 2023	Depth (m)	12
C6	26 Dec 2023	Arrive Time	930
C6	26 Dec 2023	Depart Time	937
C6	26 Dec 2023	Air Temp (C)	15.2
C6	26 Dec 2023	Weather	Partly Cloudy
C6	26 Dec 2023	Visibility (mi)	8
C6	26 Dec 2023	Wind Speed (kts)	7.5
C6	26 Dec 2023	Wind Dir	N

Station	Date	Parameter	Value
C6	26 Dec 2023	Water Color	Green
C6	26 Dec 2023	Wave Ht Low (ft)	6
C6	26 Dec 2023	Wave Period (sec)	13
C6	26 Dec 2023	Sea State	Regular Swell
C6	26 Dec 2023	High Tide (ft)	6.32
C6	26 Dec 2023	High Tide Time	754
C6	26 Dec 2023	Low Tide (ft)	-1.18
C6	26 Dec 2023	Low Tide Time	1518
C6	26 Dec 2023	Comments	none
C7	05 Dec 2023	Depth (m)	17
C7	05 Dec 2023	Arrive Time	833
C7	05 Dec 2023	Depart Time	837
C7	05 Dec 2023	Air Temp (C)	16.1
C7	05 Dec 2023	Weather	Clear
C7	05 Dec 2023	Visibility (mi)	10
C7	05 Dec 2023	Wind Speed (kts)	2.1
C7	05 Dec 2023	Wind Dir	N
C7	05 Dec 2023	Water Color	Greenish-Blue
C7	05 Dec 2023	Wave Ht Low (ft)	5
C7	05 Dec 2023	Wave Period (sec)	13
C7	05 Dec 2023	Sea State	Calm
C7	05 Dec 2023	High Tide (ft)	4
C7	05 Dec 2023	High Tide Time	424
C7	05 Dec 2023	Low Tide (ft)	1.07
C7	05 Dec 2023	Low Tide Time	2142
C7	05 Dec 2023	Comments	none
C7	11 Dec 2023	Depth (m)	18
C7	11 Dec 2023	Arrive Time	828
C7	11 Dec 2023	Depart Time	832
C7	11 Dec 2023	Air Temp (C)	15.3
C7	11 Dec 2023	Weather	Clear
C7	11 Dec 2023	Visibility (mi)	11
C7	11 Dec 2023	Wind Speed (kts)	6.8
C7	11 Dec 2023	Wind Dir	N
C7	11 Dec 2023	Water Color	Greenish-Blue
C7	11 Dec 2023	Wave Ht Low (ft)	2.3
C7	11 Dec 2023	Wave Period (sec)	15
C7	11 Dec 2023	Sea State	Light Chop
C7	11 Dec 2023	High Tide (ft)	6.13
C7	11 Dec 2023	High Tide Time	700
C7	11 Dec 2023	Low Tide (ft)	-0.79
C7	11 Dec 2023	Low Tide Time	1424
C7	11 Dec 2023	Comments	none
C7	18 Dec 2023	Depth (m)	18
C7	18 Dec 2023	Arrive Time	825
C7	18 Dec 2023	Depart Time	832
C7	18 Dec 2023	Air Temp (C)	16.5
C7	18 Dec 2023	Weather	Partly Cloudy
C7	18 Dec 2023	Visibility (mi)	10
C7	18 Dec 2023	Wind Speed (kts)	6.4
C7	18 Dec 2023	Wind Dir	N
C7	18 Dec 2023	Water Color	Blue
C7	18 Dec 2023	Wave Ht Low (ft)	5
C7	18 Dec 2023	Wave Period (sec)	9
C7	18 Dec 2023	Sea State	Confused Swell
C7	18 Dec 2023	High Tide (ft)	4.67
C7	18 Dec 2023	High Tide Time	1236
C7	18 Dec 2023	Low Tide (ft)	0

Station	Date	Parameter	Value
C7	18 Dec 2023	Low Tide Time	2000
C7	18 Dec 2023	Comments	none
C7	26 Dec 2023	Depth (m)	18
C7	26 Dec 2023	Arrive Time	900
C7	26 Dec 2023	Depart Time	904
C7	26 Dec 2023	Air Temp (C)	14.7
C7	26 Dec 2023	Weather	Partly Cloudy
C7	26 Dec 2023	Visibility (mi)	8
C7	26 Dec 2023	Wind Speed (kts)	4.2
C7	26 Dec 2023	Wind Dir	NE
C7	26 Dec 2023	Water Color	Green
C7	26 Dec 2023	Wave Ht Low (ft)	6
C7	26 Dec 2023	Wave Period (sec)	13
C7	26 Dec 2023	Sea State	Regular Swell
C7	26 Dec 2023	High Tide (ft)	6.32
C7	26 Dec 2023	High Tide Time	754
C7	26 Dec 2023	Low Tide (ft)	-1.18
C7	26 Dec 2023	Low Tide Time	1518
C7	26 Dec 2023	Comments	none
C8	05 Dec 2023	Depth (m)	19
C8	05 Dec 2023	Arrive Time	845
C8	05 Dec 2023	Depart Time	852
C8	05 Dec 2023	Air Temp (C)	16.4
C8	05 Dec 2023	Weather	Clear
C8	05 Dec 2023	Visibility (mi)	10
C8	05 Dec 2023	Wind Speed (kts)	4
C8	05 Dec 2023	Wind Dir	NE
C8	05 Dec 2023	Water Color	Greenish-Blue
C8	05 Dec 2023	Wave Ht Low (ft)	5
C8	05 Dec 2023	Wave Period (sec)	13
C8	05 Dec 2023	Sea State	Calm
C8	05 Dec 2023	High Tide (ft)	4
C8	05 Dec 2023	High Tide Time	424
C8	05 Dec 2023	Low Tide (ft)	1.07
C8	05 Dec 2023	Low Tide Time	2142
C8	05 Dec 2023	Comments	Kelp
C8	11 Dec 2023	Depth (m)	20
C8	11 Dec 2023	Arrive Time	840
C8	11 Dec 2023	Depart Time	842
C8	11 Dec 2023	Air Temp (C)	15.4
C8	11 Dec 2023	Weather	Clear
C8	11 Dec 2023	Visibility (mi)	11
C8	11 Dec 2023	Wind Speed (kts)	2.4
C8	11 Dec 2023	Wind Dir	SE
C8	11 Dec 2023	Water Color	Blueish-Green
C8	11 Dec 2023	Wave Ht Low (ft)	2.3
C8	11 Dec 2023	Wave Period (sec)	15
C8	11 Dec 2023	Sea State	Light Chop
C8	11 Dec 2023	High Tide (ft)	6.13
C8	11 Dec 2023	High Tide Time	700
C8	11 Dec 2023	Low Tide (ft)	-0.79
C8	11 Dec 2023	Low Tide Time	1424
C8	11 Dec 2023	Comments	none
C8	18 Dec 2023	Depth (m)	19
C8	18 Dec 2023	Arrive Time	837
C8	18 Dec 2023	Depart Time	844
C8	18 Dec 2023	Air Temp (C)	16.5

Station	Date	Parameter	Value
C8	18 Dec 2023	Weather	Overcast
C8	18 Dec 2023	Visibility (mi)	10
C8	18 Dec 2023	Wind Speed (kts)	13.8
C8	18 Dec 2023	Wind Dir	NW
C8	18 Dec 2023	Water Color	Blue
C8	18 Dec 2023	Wave Ht Low (ft)	5
C8	18 Dec 2023	Wave Period (sec)	9
C8	18 Dec 2023	Sea State	Calm
C8	18 Dec 2023	High Tide (ft)	4.67
C8	18 Dec 2023	High Tide Time	1236
C8	18 Dec 2023	Low Tide (ft)	0
C8	18 Dec 2023	Low Tide Time	2000
C8	18 Dec 2023	Comments	none
C8	26 Dec 2023	Depth (m)	20
C8	26 Dec 2023	Arrive Time	910
C8	26 Dec 2023	Depart Time	930
C8	26 Dec 2023	Air Temp (C)	14.2
C8	26 Dec 2023	Weather	Partly Cloudy
C8	26 Dec 2023	Visibility (mi)	8
C8	26 Dec 2023	Wind Speed (kts)	9
C8	26 Dec 2023	Wind Dir	NE
C8	26 Dec 2023	Water Color	Green
C8	26 Dec 2023	Wave Ht Low (ft)	6
C8	26 Dec 2023	Wave Period (sec)	13
C8	26 Dec 2023	Sea State	Regular Swell
C8	26 Dec 2023	High Tide (ft)	6.32
C8	26 Dec 2023	High Tide Time	754
C8	26 Dec 2023	Low Tide (ft)	-1.18
C8	26 Dec 2023	Low Tide Time	1518
C8	26 Dec 2023	Comments	none

Table 3.10

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

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
A1	05 Dec 2023	1	17.12	90.37	8.0	33.28	8.1	24.2	0.77
A1	05 Dec 2023	2	17.13	90.44	8.0	33.28	8.1	24.2	0.76
A1	05 Dec 2023	3	17.13	88.84	8.0	33.27	8.1	24.2	0.77
A1	05 Dec 2023	4	17.13	90.38	8.0	33.27	8.1	24.2	0.77
A1	05 Dec 2023	5	17.13	90.47	8.0	33.28	8.1	24.2	0.81
A1	05 Dec 2023	6	17.13	90.54	8.0	33.28	8.1	24.2	0.81
A1	05 Dec 2023	7	17.13	90.54	8.0	33.28	8.1	24.2	0.88
A1	05 Dec 2023	8	17.14	90.54	8.0	33.28	8.1	24.2	0.85
A1	05 Dec 2023	9	17.13	90.55	8.0	33.28	8.1	24.2	0.89
A1	05 Dec 2023	10	17.13	90.60	8.0	33.28	8.1	24.2	0.89
A1	05 Dec 2023	11	17.13	90.54	8.0	33.28	8.1	24.2	0.90
A1	05 Dec 2023	12	17.12	87.97	8.0	33.27	8.1	24.2	0.91
A1	05 Dec 2023	13	17.11	88.41	8.0	33.27	8.1	24.2	0.95
A1	05 Dec 2023	14	17.05	89.18	7.9	33.27	8.1	24.2	0.94
A1	05 Dec 2023	15	16.90	89.70	7.8	33.26	8.1	24.2	0.95
A1	05 Dec 2023	16	16.70	89.35	7.7	33.25	8.1	24.2	1.14
A1	05 Dec 2023	17	16.58	88.52	7.6	33.25	8.1	24.3	0.79
A1	05 Dec 2023	18	16.57	87.47	7.6	33.25	8.1	24.3	0.87
A1	11 Dec 2023	1	16.45	88.24	8.1	33.26	8.1	24.3	1.20
A1	11 Dec 2023	2	16.44	88.22	8.1	33.25	8.1	24.3	1.23
A1	11 Dec 2023	3	16.44	88.35	8.1	33.25	8.1	24.3	1.23
A1	11 Dec 2023	4	16.44	88.44	8.1	33.25	8.1	24.3	1.35
A1	11 Dec 2023	5	16.44	88.40	8.1	33.25	8.1	24.3	1.31
A1	11 Dec 2023	6	16.45	88.46	8.1	33.25	8.1	24.3	1.28
A1	11 Dec 2023	7	16.45	88.47	8.1	33.25	8.1	24.3	1.35
A1	11 Dec 2023	8	16.45	88.45	8.1	33.25	8.1	24.3	1.32
A1	11 Dec 2023	9	16.45	88.51	8.1	33.25	8.1	24.3	1.31
A1	11 Dec 2023	10	16.46	88.54	8.1	33.25	8.1	24.3	1.32
A1	11 Dec 2023	11	16.46	88.40	8.1	33.25	8.1	24.3	1.32
A1	11 Dec 2023	12	16.46	88.40	8.1	33.25	8.1	24.3	1.36
A1	11 Dec 2023	13	16.46	88.45	8.1	33.25	8.1	24.3	1.35
A1	11 Dec 2023	14	16.46	88.42	8.1	33.26	8.1	24.3	1.37
A1	11 Dec 2023	15	16.46	88.47	8.1	33.25	8.1	24.3	1.31
A1	11 Dec 2023	16	16.43	88.47	8.0	33.25	8.1	24.3	1.27
A1	11 Dec 2023	17	16.16	88.65	7.7	33.23	8.1	24.4	1.02
A1	11 Dec 2023	18	15.50	89.17	7.2	33.21	8.1	24.5	0.72
A1	11 Dec 2023	19	14.87	89.35	6.9	33.20	8.0	24.6	0.56
A1	18 Dec 2023	1	16.31	78.05	7.6	33.31	8.1	24.4	1.21
A1	18 Dec 2023	2	16.31	77.66	7.6	33.31	8.1	24.4	1.22
A1	18 Dec 2023	3	16.31	77.59	7.6	33.31	8.1	24.4	1.24
A1	18 Dec 2023	4	16.32	77.61	7.6	33.31	8.1	24.4	1.18
A1	18 Dec 2023	5	16.32	77.68	7.6	33.31	8.1	24.4	1.23
A1	18 Dec 2023	6	16.32	77.44	7.6	33.31	8.1	24.4	1.23
A1	18 Dec 2023	7	16.32	77.73	7.6	33.31	8.1	24.4	1.20
A1	18 Dec 2023	8	16.32	77.28	7.6	33.31	8.1	24.4	1.26
A1	18 Dec 2023	9	16.32	76.70	7.6	33.31	8.1	24.4	1.26
A1	18 Dec 2023	10	16.32	76.52	7.6	33.31	8.1	24.4	1.18
A1	18 Dec 2023	11	16.32	76.42	7.6	33.31	8.1	24.4	1.17
A1	18 Dec 2023	12	16.32	75.66	7.6	33.31	8.1	24.4	1.17
A1	18 Dec 2023	13	16.32	75.71	7.6	33.31	8.1	24.4	1.16
A1	18 Dec 2023	14	16.32	73.87	7.5	33.31	8.1	24.4	1.13
A1	18 Dec 2023	15	16.32	73.08	7.5	33.31	8.1	24.4	1.18
A1	18 Dec 2023	16	16.32	72.98	7.5	33.31	8.1	24.4	1.12

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A1	18 Dec 2023	17	16.32	71.72	7.5	33.31	8.1	24.4	1.09
A1	18 Dec 2023	18	16.32	69.82	7.5	33.31	8.1	24.4	1.06
A1	26 Dec 2023	1	16.81	85.63	7.9	33.21	8.1	24.2	0.99
A1	26 Dec 2023	2	16.81	85.66	7.9	33.21	8.1	24.2	1.06
A1	26 Dec 2023	3	16.81	85.59	7.9	33.21	8.1	24.2	1.32
A1	26 Dec 2023	4	16.81	85.55	7.9	33.21	8.1	24.2	1.48
A1	26 Dec 2023	5	16.81	85.23	7.9	33.21	8.1	24.2	1.70
A1	26 Dec 2023	6	16.74	85.14	7.8	33.22	8.1	24.2	1.40
A1	26 Dec 2023	7	16.61	85.40	7.6	33.22	8.1	24.2	1.11
A1	26 Dec 2023	8	16.47	86.67	7.6	33.24	8.1	24.3	0.82
A1	26 Dec 2023	9	16.53	87.26	7.6	33.24	8.1	24.3	0.62
A1	26 Dec 2023	10	16.50	87.71	7.6	33.24	8.1	24.3	0.57
A1	26 Dec 2023	11	16.48	87.61	7.6	33.24	8.1	24.3	0.51
A1	26 Dec 2023	12	16.42	87.76	7.5	33.24	8.1	24.3	0.48
A1	26 Dec 2023	13	16.31	87.88	7.5	33.23	8.1	24.3	0.47
A1	26 Dec 2023	14	16.17	87.90	7.5	33.24	8.1	24.4	0.43
A1	26 Dec 2023	15	16.12	88.27	7.5	33.24	8.1	24.4	0.42
A1	26 Dec 2023	16	16.10	88.46	7.4	33.24	8.1	24.4	0.39
A1	26 Dec 2023	17	16.03	89.01	7.4	33.23	8.1	24.4	0.41
A1	26 Dec 2023	18	15.92	89.19	7.4	33.23	8.1	24.4	0.41
A1	26 Dec 2023	19	15.81	87.45	7.2	33.23	8.0	24.4	0.38
A1	26 Dec 2023	20	15.80	85.58	7.2	33.23	8.0	24.4	0.37
A6	05 Dec 2023	1	16.87	86.18	7.8	33.26	8.1	24.2	0.84
A6	05 Dec 2023	2	16.87	85.98	7.8	33.26	8.1	24.2	0.85
A6	05 Dec 2023	3	16.87	86.06	7.8	33.26	8.1	24.2	0.86
A6	05 Dec 2023	4	16.87	86.17	7.8	33.26	8.1	24.2	0.90
A6	05 Dec 2023	5	16.87	86.19	7.8	33.26	8.1	24.2	0.98
A6	05 Dec 2023	6	16.87	86.19	7.8	33.26	8.1	24.2	1.05
A6	05 Dec 2023	7	16.86	86.16	7.8	33.26	8.1	24.2	1.06
A6	05 Dec 2023	8	16.86	86.17	7.8	33.26	8.1	24.2	1.08
A6	05 Dec 2023	9	16.86	86.32	7.8	33.26	8.1	24.2	1.02
A6	05 Dec 2023	10	16.85	86.34	7.8	33.26	8.1	24.2	1.03
A6	05 Dec 2023	11	16.85	86.41	7.8	33.26	8.1	24.2	1.02
A6	05 Dec 2023	12	16.84	86.51	7.8	33.26	8.1	24.2	1.02
A6	05 Dec 2023	13	16.84	86.49	7.8	33.26	8.1	24.2	0.98
A6	05 Dec 2023	14	16.82	86.58	7.8	33.26	8.1	24.2	0.90
A6	05 Dec 2023	15	16.79	86.61	7.7	33.26	8.1	24.2	0.89
A6	05 Dec 2023	16	16.78	86.53	7.7	33.26	8.1	24.2	0.83
A6	05 Dec 2023	17	16.76	86.41	7.6	33.26	8.1	24.2	0.79
A6	05 Dec 2023	18	16.63	86.51	7.5	33.26	8.1	24.3	0.68
A6	11 Dec 2023	1	16.41	87.95	8.3	33.25	8.1	24.3	1.00
A6	11 Dec 2023	2	16.41	87.77	8.2	33.25	8.1	24.3	1.00
A6	11 Dec 2023	3	16.42	87.93	8.3	33.25	8.1	24.3	1.04
A6	11 Dec 2023	4	16.41	87.93	8.3	33.25	8.1	24.3	1.16
A6	11 Dec 2023	5	16.41	87.89	8.3	33.25	8.1	24.3	1.32
A6	11 Dec 2023	6	16.41	87.98	8.3	33.25	8.1	24.3	1.38
A6	11 Dec 2023	7	16.41	87.92	8.3	33.25	8.1	24.3	1.36
A6	11 Dec 2023	8	16.41	88.05	8.3	33.25	8.1	24.3	1.37
A6	11 Dec 2023	9	16.41	87.98	8.3	33.25	8.1	24.3	1.40
A6	11 Dec 2023	10	16.41	88.05	8.3	33.25	8.1	24.3	1.37
A6	11 Dec 2023	11	16.41	88.03	8.3	33.25	8.1	24.3	1.45
A6	11 Dec 2023	12	16.40	88.08	8.3	33.25	8.1	24.3	1.46
A6	11 Dec 2023	13	16.40	88.06	8.3	33.25	8.1	24.3	1.35
A6	11 Dec 2023	14	16.40	88.06	8.3	33.25	8.1	24.3	1.40
A6	11 Dec 2023	15	16.39	88.16	8.3	33.25	8.1	24.3	1.38
A6	11 Dec 2023	16	16.34	88.21	8.1	33.25	8.1	24.3	1.28
A6	11 Dec 2023	17	16.27	88.28	8.0	33.24	8.1	24.3	1.10
A6	11 Dec 2023	18	16.23	88.58	7.9	33.24	8.1	24.3	0.96

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A6	11 Dec 2023	19	16.16	88.86	7.8	33.23	8.1	24.4	0.88
A6	18 Dec 2023	1	16.39	88.19	8.0	33.27	8.1	24.3	1.16
A6	18 Dec 2023	2	16.39	88.09	8.0	33.27	8.1	24.3	1.13
A6	18 Dec 2023	3	16.37	88.09	7.9	33.27	8.1	24.3	1.08
A6	18 Dec 2023	4	16.34	88.23	7.9	33.27	8.1	24.3	1.04
A6	18 Dec 2023	5	16.32	88.36	7.9	33.27	8.1	24.3	0.98
A6	18 Dec 2023	6	16.31	88.58	7.9	33.27	8.1	24.3	1.02
A6	18 Dec 2023	7	16.30	88.62	7.9	33.27	8.1	24.3	0.93
A6	18 Dec 2023	8	16.30	88.69	7.9	33.27	8.1	24.3	0.92
A6	18 Dec 2023	9	16.29	88.68	7.9	33.27	8.1	24.3	0.90
A6	18 Dec 2023	10	16.28	88.66	7.8	33.27	8.1	24.4	0.84
A6	18 Dec 2023	11	16.26	88.79	7.8	33.27	8.1	24.4	0.82
A6	18 Dec 2023	12	16.23	88.76	7.7	33.27	8.1	24.4	0.77
A6	18 Dec 2023	13	16.23	88.65	7.7	33.27	8.1	24.4	0.66
A6	18 Dec 2023	14	16.20	88.56	7.6	33.26	8.1	24.4	0.60
A6	18 Dec 2023	15	16.16	88.48	7.5	33.26	8.1	24.4	0.55
A6	18 Dec 2023	16	16.15	88.25	7.5	33.26	8.1	24.4	0.47
A6	18 Dec 2023	17	16.14	87.63	7.4	33.26	8.1	24.4	0.45
A6	18 Dec 2023	18	16.14	86.52	7.4	33.26	8.1	24.4	0.43
A6	26 Dec 2023	1	16.83	85.38	7.9	33.20	8.1	24.2	1.14
A6	26 Dec 2023	2	16.82	85.30	7.8	33.20	8.1	24.2	1.14
A6	26 Dec 2023	3	16.82	85.28	7.9	33.20	8.1	24.2	1.27
A6	26 Dec 2023	4	16.82	85.32	7.8	33.20	8.1	24.2	1.33
A6	26 Dec 2023	5	16.82	85.33	7.8	33.20	8.1	24.2	1.37
A6	26 Dec 2023	6	16.82	85.24	7.8	33.20	8.1	24.2	1.42
A6	26 Dec 2023	7	16.82	85.40	7.8	33.20	8.1	24.2	1.41
A6	26 Dec 2023	8	16.81	85.36	7.8	33.20	8.1	24.2	1.47
A6	26 Dec 2023	9	16.80	85.34	7.8	33.20	8.1	24.2	1.30
A6	26 Dec 2023	10	16.80	85.41	7.8	33.20	8.1	24.2	1.26
A6	26 Dec 2023	11	16.78	85.44	7.7	33.20	8.1	24.2	1.03
A6	26 Dec 2023	12	16.75	85.41	7.7	33.21	8.1	24.2	0.87
A6	26 Dec 2023	13	16.72	85.30	7.6	33.22	8.1	24.2	0.73
A6	26 Dec 2023	14	16.63	85.01	7.5	33.23	8.1	24.2	0.58
A6	26 Dec 2023	15	16.49	85.03	7.4	33.23	8.1	24.3	0.53
A6	26 Dec 2023	16	16.38	84.91	7.4	33.23	8.1	24.3	0.44
A6	26 Dec 2023	17	16.26	83.70	7.4	33.23	8.1	24.3	0.42
A6	26 Dec 2023	18	16.26	81.94	7.3	33.23	8.1	24.3	0.45
A6	26 Dec 2023	19	16.22	80.49	7.3	33.23	8.1	24.3	0.43
A6	26 Dec 2023	20	16.16	78.83	7.3	33.23	8.1	24.4	0.45
A6	26 Dec 2023	21	16.17	77.62	7.3	33.23	8.1	24.3	0.41
A7	05 Dec 2023	1	16.93	88.33	7.8	33.27	8.1	24.2	0.73
A7	05 Dec 2023	2	16.93	88.41	7.8	33.27	8.1	24.2	0.73
A7	05 Dec 2023	3	16.93	88.50	7.8	33.27	8.1	24.2	0.78
A7	05 Dec 2023	4	16.93	88.46	7.8	33.27	8.1	24.2	0.81
A7	05 Dec 2023	5	16.93	88.40	7.8	33.27	8.1	24.2	0.88
A7	05 Dec 2023	6	16.93	88.33	7.8	33.27	8.1	24.2	0.94
A7	05 Dec 2023	7	16.92	88.26	7.8	33.27	8.1	24.2	1.04
A7	05 Dec 2023	8	16.92	88.29	7.8	33.27	8.1	24.2	1.13
A7	05 Dec 2023	9	16.92	88.28	7.8	33.27	8.1	24.2	1.07
A7	05 Dec 2023	10	16.92	88.35	7.8	33.27	8.1	24.2	1.12
A7	05 Dec 2023	11	16.92	88.15	7.8	33.27	8.1	24.2	1.17
A7	05 Dec 2023	12	16.91	88.07	7.8	33.27	8.1	24.2	1.14
A7	05 Dec 2023	13	16.91	88.05	7.8	33.27	8.1	24.2	1.17
A7	05 Dec 2023	14	16.90	88.05	7.8	33.27	8.1	24.2	1.15
A7	05 Dec 2023	15	16.87	88.12	7.8	33.27	8.1	24.2	1.06
A7	05 Dec 2023	16	16.83	88.18	7.8	33.27	8.1	24.2	0.89
A7	05 Dec 2023	17	16.83	88.16	7.8	33.27	8.1	24.2	0.84
A7	05 Dec 2023	18	16.81	88.13	7.7	33.26	8.1	24.2	0.87

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A7	05 Dec 2023	19	16.77	87.80	7.7	33.26	8.1	24.2	0.77
A7	05 Dec 2023	20	16.74	87.36	7.6	33.26	8.1	24.2	0.72
A7	11 Dec 2023	1	16.53	88.71	8.3	33.26	8.2	24.3	0.76
A7	11 Dec 2023	2	16.52	88.97	8.3	33.26	8.2	24.3	0.77
A7	11 Dec 2023	3	16.53	88.94	8.3	33.26	8.2	24.3	0.76
A7	11 Dec 2023	4	16.54	88.95	8.3	33.26	8.2	24.3	0.83
A7	11 Dec 2023	5	16.55	88.84	8.3	33.26	8.2	24.3	0.92
A7	11 Dec 2023	6	16.54	88.86	8.3	33.26	8.2	24.3	0.92
A7	11 Dec 2023	7	16.54	88.96	8.3	33.26	8.2	24.3	0.93
A7	11 Dec 2023	8	16.54	88.93	8.3	33.26	8.2	24.3	0.99
A7	11 Dec 2023	9	16.55	89.00	8.3	33.26	8.2	24.3	0.99
A7	11 Dec 2023	10	16.54	88.96	8.3	33.26	8.2	24.3	1.04
A7	11 Dec 2023	11	16.53	89.00	8.3	33.26	8.2	24.3	1.06
A7	11 Dec 2023	12	16.51	88.96	8.2	33.26	8.2	24.3	1.09
A7	11 Dec 2023	13	16.48	88.71	8.2	33.25	8.1	24.3	1.19
A7	11 Dec 2023	14	16.44	88.64	8.2	33.25	8.1	24.3	1.21
A7	11 Dec 2023	15	16.40	88.62	8.1	33.25	8.1	24.3	1.16
A7	11 Dec 2023	16	16.34	88.67	8.0	33.25	8.1	24.3	1.10
A7	11 Dec 2023	17	16.20	88.79	7.9	33.24	8.1	24.4	1.04
A7	11 Dec 2023	18	15.92	88.97	7.7	33.22	8.1	24.4	0.87
A7	11 Dec 2023	19	15.48	89.19	7.5	33.21	8.1	24.5	0.81
A7	18 Dec 2023	1	16.31	86.46	7.7	33.27	8.1	24.3	1.15
A7	18 Dec 2023	2	16.31	86.26	7.7	33.27	8.1	24.3	1.07
A7	18 Dec 2023	3	16.31	85.70	7.7	33.27	8.1	24.3	1.14
A7	18 Dec 2023	4	16.31	85.41	7.7	33.27	8.1	24.3	1.09
A7	18 Dec 2023	5	16.31	85.36	7.7	33.27	8.1	24.3	1.07
A7	18 Dec 2023	6	16.31	85.86	7.8	33.27	8.1	24.3	1.15
A7	18 Dec 2023	7	16.31	86.08	7.7	33.27	8.1	24.3	1.13
A7	18 Dec 2023	8	16.31	86.13	7.8	33.27	8.1	24.3	1.17
A7	18 Dec 2023	9	16.31	85.83	7.7	33.27	8.1	24.3	1.11
A7	18 Dec 2023	10	16.30	85.85	7.7	33.27	8.1	24.3	1.07
A7	18 Dec 2023	11	16.30	85.78	7.7	33.27	8.1	24.3	1.04
A7	18 Dec 2023	12	16.30	86.02	7.6	33.27	8.1	24.3	0.96
A7	18 Dec 2023	13	16.30	86.14	7.6	33.27	8.1	24.3	0.92
A7	18 Dec 2023	14	16.29	86.39	7.6	33.27	8.1	24.3	0.85
A7	18 Dec 2023	15	16.29	86.57	7.5	33.27	8.1	24.4	0.77
A7	18 Dec 2023	16	16.28	86.66	7.5	33.27	8.1	24.4	0.66
A7	18 Dec 2023	17	16.26	86.34	7.5	33.27	8.1	24.4	0.60
A7	26 Dec 2023	1	16.83	85.50	8.0	33.20	8.1	24.2	1.13
A7	26 Dec 2023	2	16.84	85.02	8.0	33.20	8.1	24.2	1.26
A7	26 Dec 2023	3	16.83	84.70	8.0	33.20	8.1	24.2	1.35
A7	26 Dec 2023	4	16.83	85.10	8.0	33.20	8.1	24.2	1.60
A7	26 Dec 2023	5	16.82	85.25	7.9	33.21	8.1	24.2	1.53
A7	26 Dec 2023	6	16.79	85.21	7.8	33.22	8.1	24.2	1.22
A7	26 Dec 2023	7	16.77	86.02	7.8	33.23	8.1	24.2	0.86
A7	26 Dec 2023	8	16.74	86.76	7.7	33.23	8.1	24.2	0.74
A7	26 Dec 2023	9	16.60	87.58	7.6	33.24	8.1	24.3	0.59
A7	26 Dec 2023	10	16.47	88.12	7.5	33.24	8.1	24.3	0.48
A7	26 Dec 2023	11	16.42	88.20	7.5	33.24	8.1	24.3	0.44
A7	26 Dec 2023	12	16.40	88.39	7.5	33.24	8.1	24.3	0.45
A7	26 Dec 2023	13	16.36	88.53	7.5	33.24	8.1	24.3	0.40
A7	26 Dec 2023	14	16.33	88.68	7.5	33.24	8.1	24.3	0.35
A7	26 Dec 2023	15	16.33	88.77	7.5	33.24	8.1	24.3	0.38
A7	26 Dec 2023	16	16.29	88.67	7.5	33.24	8.1	24.3	0.35
A7	26 Dec 2023	17	16.19	88.69	7.4	33.24	8.1	24.4	0.35
A7	26 Dec 2023	18	16.20	88.35	7.5	33.24	8.1	24.3	0.37
A7	26 Dec 2023	19	16.21	88.43	7.5	33.24	8.1	24.3	0.37
A7	26 Dec 2023	20	16.17	88.06	7.4	33.24	8.1	24.4	0.38

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A7	26 Dec 2023	21	16.17	87.64	7.4	33.24	8.1	24.4	0.48
C4	05 Dec 2023	1	16.94	78.73	7.4	33.27	8.1	24.2	0.48
C4	05 Dec 2023	2	16.93	78.10	7.4	33.27	8.1	24.2	0.48
C4	05 Dec 2023	3	16.93	78.17	7.4	33.27	8.1	24.2	0.50
C4	05 Dec 2023	4	16.90	77.93	7.4	33.27	8.1	24.2	0.60
C4	05 Dec 2023	5	16.89	75.91	7.2	33.27	8.1	24.2	0.63
C4	05 Dec 2023	6	16.87	73.04	7.1	33.27	8.1	24.2	0.66
C4	05 Dec 2023	7	16.85	66.15	7.1	33.27	8.1	24.2	0.68
C4	05 Dec 2023	8	16.82	58.58	7.1	33.28	8.1	24.2	0.68
C4	05 Dec 2023	9	16.80	46.16	7.0	33.28	8.0	24.2	0.79
C4	05 Dec 2023	10	16.80	15.23	6.9	33.28	8.0	24.2	1.06
C4	11 Dec 2023	1	16.35	85.17	7.9	33.26	8.1	24.3	0.74
C4	11 Dec 2023	2	16.36	85.01	7.9	33.26	8.1	24.3	0.76
C4	11 Dec 2023	3	16.35	84.83	7.9	33.26	8.1	24.3	0.83
C4	11 Dec 2023	4	16.35	84.54	7.9	33.26	8.1	24.3	1.01
C4	11 Dec 2023	5	16.35	84.58	7.8	33.27	8.1	24.3	1.07
C4	11 Dec 2023	6	16.35	84.38	7.7	33.27	8.1	24.3	1.10
C4	11 Dec 2023	7	16.34	83.95	7.6	33.27	8.1	24.3	1.00
C4	11 Dec 2023	8	16.34	82.74	7.4	33.27	8.1	24.3	0.95
C4	11 Dec 2023	9	16.33	80.50	7.3	33.28	8.1	24.3	0.85
C4	11 Dec 2023	10	16.33	78.61	7.2	33.28	8.1	24.3	0.79
C4	11 Dec 2023	11	16.34	75.69	7.1	33.28	8.0	24.3	0.75
C4	11 Dec 2023	12	16.34	69.90	7.1	33.28	8.0	24.3	0.70
C4	18 Dec 2023	1	16.28	69.22	7.6	33.30	8.1	24.4	0.71
C4	18 Dec 2023	2	16.27	67.53	7.5	33.30	8.1	24.4	0.79
C4	18 Dec 2023	3	16.27	65.57	7.5	33.31	8.1	24.4	0.85
C4	18 Dec 2023	4	16.27	65.86	7.5	33.31	8.1	24.4	0.81
C4	18 Dec 2023	5	16.27	64.03	7.5	33.30	8.1	24.4	0.77
C4	18 Dec 2023	6	16.27	61.52	7.5	33.31	8.1	24.4	0.74
C4	18 Dec 2023	7	16.27	58.68	7.5	33.31	8.1	24.4	0.74
C4	18 Dec 2023	8	16.27	55.80	7.5	33.31	8.1	24.4	0.75
C4	18 Dec 2023	9	16.27	52.34	7.5	33.31	8.1	24.4	0.75
C4	18 Dec 2023	10	16.27	48.88	7.4	33.31	8.1	24.4	0.79
C4	18 Dec 2023	11	16.27	40.30	7.4	33.30	8.1	24.4	0.88
C4	26 Dec 2023	1	16.84	50.26	7.4	33.23	8.1	24.2	0.57
C4	26 Dec 2023	2	16.84	49.52	7.4	33.23	8.1	24.2	0.59
C4	26 Dec 2023	3	16.82	48.54	7.3	33.23	8.1	24.2	0.59
C4	26 Dec 2023	4	16.80	46.74	7.3	33.23	8.1	24.2	0.59
C4	26 Dec 2023	5	16.79	44.57	7.3	33.23	8.1	24.2	0.56
C4	26 Dec 2023	6	16.79	45.08	7.3	33.23	8.1	24.2	0.57
C4	26 Dec 2023	7	16.79	46.77	7.3	33.23	8.1	24.2	0.56
C4	26 Dec 2023	8	16.78	45.77	7.3	33.23	8.1	24.2	0.53
C4	26 Dec 2023	9	16.77	42.34	7.3	33.23	8.1	24.2	0.53
C4	26 Dec 2023	10	16.76	32.48	7.3	33.23	8.0	24.2	0.56
C4	26 Dec 2023	11	16.76	28.40	7.3	33.23	8.0	24.2	0.64
C4	26 Dec 2023	12	16.76	25.70	7.2	33.23	8.0	24.2	0.66
C5	05 Dec 2023	1	17.02	81.68	7.5	33.27	8.1	24.2	0.46
C5	05 Dec 2023	2	17.01	81.55	7.5	33.27	8.1	24.2	0.50
C5	05 Dec 2023	3	16.99	80.02	7.4	33.27	8.1	24.2	0.52
C5	05 Dec 2023	4	16.99	79.38	7.4	33.27	8.1	24.2	0.57
C5	05 Dec 2023	5	16.97	78.42	7.4	33.27	8.1	24.2	0.65
C5	05 Dec 2023	6	16.97	78.18	7.4	33.27	8.1	24.2	0.67
C5	05 Dec 2023	7	16.96	77.02	7.4	33.27	8.1	24.2	0.66
C5	05 Dec 2023	8	16.95	76.66	7.3	33.27	8.1	24.2	0.65
C5	05 Dec 2023	9	16.88	74.92	7.2	33.27	8.1	24.2	0.63
C5	05 Dec 2023	10	16.77	61.80	7.2	33.28	8.1	24.2	0.63

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C5	05 Dec 2023	11	16.75	40.51	7.0	33.28	8.1	24.2	0.76
C5	11 Dec 2023	1	16.35	80.35	6.4	33.10	8.1	24.2	0.60
C5	11 Dec 2023	2	16.36	80.34	7.7	33.22	8.1	24.3	0.60
C5	11 Dec 2023	3	16.36	80.31	7.7	33.25	8.1	24.3	0.61
C5	11 Dec 2023	4	16.35	79.78	7.6	33.25	8.1	24.3	0.69
C5	11 Dec 2023	5	16.34	78.96	7.6	33.25	8.1	24.3	0.72
C5	11 Dec 2023	6	16.22	78.46	7.4	33.24	8.1	24.3	0.67
C5	11 Dec 2023	7	16.08	75.19	7.3	33.23	8.1	24.4	0.61
C5	11 Dec 2023	8	15.86	71.44	7.2	33.22	8.1	24.4	0.57
C5	11 Dec 2023	9	15.73	72.11	7.2	33.20	8.1	24.4	0.55
C5	11 Dec 2023	10	15.40	74.31	7.1	33.19	8.1	24.5	0.64
C5	11 Dec 2023	11	15.19	76.31	7.0	33.19	8.0	24.5	1.05
C5	18 Dec 2023	1	16.33	66.78	7.3	33.29	8.1	24.4	0.84
C5	18 Dec 2023	2	16.33	62.08	7.3	33.29	8.1	24.4	0.86
C5	18 Dec 2023	3	16.32	62.91	7.3	33.29	8.1	24.4	0.89
C5	18 Dec 2023	4	16.32	64.22	7.3	33.29	8.1	24.4	0.78
C5	18 Dec 2023	5	16.32	58.68	7.3	33.29	8.1	24.4	0.71
C5	18 Dec 2023	6	16.32	57.81	7.3	33.29	8.1	24.4	0.66
C5	18 Dec 2023	7	16.32	56.81	7.2	33.29	8.1	24.4	0.63
C5	18 Dec 2023	8	16.31	51.00	7.2	33.30	8.1	24.4	0.61
C5	18 Dec 2023	9	16.29	45.26	7.3	33.30	8.1	24.4	0.63
C5	18 Dec 2023	10	16.21	42.01	7.3	33.31	8.1	24.4	0.67
C5	18 Dec 2023	11	16.13	30.67	7.4	33.31	8.1	24.4	0.77
C5	26 Dec 2023	1	16.86	76.01	7.4	33.23	8.1	24.2	0.37
C5	26 Dec 2023	2	16.86	76.12	7.4	33.23	8.1	24.2	0.42
C5	26 Dec 2023	3	16.85	75.88	7.4	33.23	8.1	24.2	0.45
C5	26 Dec 2023	4	16.83	75.41	7.4	33.23	8.1	24.2	0.48
C5	26 Dec 2023	5	16.81	73.59	7.3	33.23	8.1	24.2	0.45
C5	26 Dec 2023	6	16.81	71.30	7.3	33.23	8.1	24.2	0.44
C5	26 Dec 2023	7	16.81	69.74	7.3	33.23	8.1	24.2	0.43
C5	26 Dec 2023	8	16.80	68.71	7.3	33.23	8.1	24.2	0.42
C5	26 Dec 2023	9	16.77	66.67	7.2	33.23	8.1	24.2	0.42
C5	26 Dec 2023	10	16.76	61.84	7.2	33.23	8.1	24.2	0.43
C5	26 Dec 2023	11	16.74	29.74	7.1	33.23	8.1	24.2	0.74
C6	05 Dec 2023	1	16.94	82.77	7.5	33.27	8.1	24.2	0.40
C6	05 Dec 2023	2	16.93	83.51	7.5	33.27	8.1	24.2	0.47
C6	05 Dec 2023	3	16.91	83.20	7.5	33.27	8.1	24.2	0.60
C6	05 Dec 2023	4	16.88	82.54	7.4	33.27	8.1	24.2	0.69
C6	05 Dec 2023	5	16.86	79.69	7.3	33.27	8.1	24.2	0.65
C6	05 Dec 2023	6	16.86	77.94	7.3	33.27	8.1	24.2	0.62
C6	05 Dec 2023	7	16.86	77.35	7.3	33.27	8.1	24.2	0.60
C6	05 Dec 2023	8	16.86	76.38	7.3	33.27	8.1	24.2	0.58
C6	05 Dec 2023	9	16.86	75.49	7.3	33.27	8.1	24.2	0.59
C6	05 Dec 2023	10	16.86	74.62	7.3	33.27	8.1	24.2	0.59
C6	05 Dec 2023	11	16.86	71.98	7.3	33.27	8.1	24.2	0.64
C6	11 Dec 2023	1	16.37	87.89	6.2	32.73	8.1	23.9	0.78
C6	11 Dec 2023	2	16.37	87.93	7.1	33.15	8.1	24.2	0.78
C6	11 Dec 2023	3	16.37	87.94	7.6	33.21	8.1	24.3	0.75
C6	11 Dec 2023	4	16.37	87.86	7.8	33.24	8.1	24.3	0.80
C6	11 Dec 2023	5	16.37	87.85	7.8	33.25	8.1	24.3	0.86
C6	11 Dec 2023	6	16.36	87.69	7.8	33.24	8.1	24.3	0.84
C6	11 Dec 2023	7	16.32	87.70	7.7	33.24	8.1	24.3	0.75
C6	11 Dec 2023	8	16.16	87.79	7.5	33.23	8.1	24.3	0.66
C6	11 Dec 2023	9	15.99	88.17	7.4	33.22	8.1	24.4	0.51
C6	11 Dec 2023	10	15.97	88.86	7.3	33.22	8.1	24.4	0.41

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C6	18 Dec 2023	1	16.26	80.63	7.4	33.27	8.1	24.4	0.47
C6	18 Dec 2023	2	16.26	80.35	7.4	33.27	8.1	24.4	0.47
C6	18 Dec 2023	3	16.25	80.20	7.4	33.27	8.1	24.4	0.48
C6	18 Dec 2023	4	16.24	80.72	7.4	33.27	8.1	24.4	0.44
C6	18 Dec 2023	5	16.25	80.99	7.4	33.27	8.1	24.4	0.45
C6	18 Dec 2023	6	16.23	81.06	7.4	33.27	8.1	24.4	0.42
C6	18 Dec 2023	7	16.19	81.42	7.4	33.26	8.1	24.4	0.41
C6	18 Dec 2023	8	16.14	82.23	7.4	33.26	8.1	24.4	0.39
C6	18 Dec 2023	9	16.13	79.65	7.3	33.26	8.1	24.4	0.39
C6	18 Dec 2023	10	16.13	77.34	7.3	33.26	8.1	24.4	0.41
C6	26 Dec 2023	1	16.83	67.18	7.2	33.20	8.0	24.2	0.40
C6	26 Dec 2023	2	16.81	65.73	7.2	33.20	8.0	24.2	0.48
C6	26 Dec 2023	3	16.77	64.00	7.3	33.19	8.0	24.2	0.55
C6	26 Dec 2023	4	16.76	61.16	7.3	33.19	8.0	24.2	0.53
C6	26 Dec 2023	5	16.76	59.45	7.4	33.19	8.0	24.2	0.54
C6	26 Dec 2023	6	16.74	57.98	7.4	33.19	8.0	24.2	0.56
C6	26 Dec 2023	7	16.75	56.87	7.4	33.19	8.0	24.2	0.54
C6	26 Dec 2023	8	16.75	55.78	7.4	33.20	8.0	24.2	0.53
C6	26 Dec 2023	9	16.77	55.03	7.3	33.20	8.0	24.2	0.51
C6	26 Dec 2023	10	16.77	54.10	7.2	33.20	8.0	24.2	0.53
C7	05 Dec 2023	1	16.69	84.57	8.1	33.25	8.1	24.2	1.02
C7	05 Dec 2023	2	16.69	84.53	8.0	33.25	8.1	24.2	1.08
C7	05 Dec 2023	3	16.69	84.54	8.1	33.25	8.1	24.2	1.21
C7	05 Dec 2023	4	16.69	84.37	8.0	33.25	8.1	24.2	1.37
C7	05 Dec 2023	5	16.69	84.28	8.0	33.25	8.1	24.2	1.41
C7	05 Dec 2023	6	16.68	84.14	8.0	33.25	8.1	24.2	1.48
C7	05 Dec 2023	7	16.68	84.22	8.0	33.25	8.1	24.2	1.52
C7	05 Dec 2023	8	16.67	84.31	8.0	33.25	8.1	24.2	1.49
C7	05 Dec 2023	9	16.67	84.21	8.1	33.25	8.1	24.2	1.61
C7	05 Dec 2023	10	16.67	84.08	8.0	33.25	8.1	24.2	1.57
C7	05 Dec 2023	11	16.67	84.01	8.0	33.25	8.1	24.2	1.66
C7	05 Dec 2023	12	16.68	84.03	8.0	33.25	8.1	24.2	1.61
C7	05 Dec 2023	13	16.67	84.01	8.0	33.25	8.1	24.2	1.52
C7	05 Dec 2023	14	16.67	84.23	8.0	33.25	8.1	24.2	1.36
C7	05 Dec 2023	15	16.67	84.42	7.9	33.25	8.1	24.2	1.20
C7	05 Dec 2023	16	16.65	84.73	7.9	33.25	8.1	24.3	1.16
C7	05 Dec 2023	17	16.60	84.87	7.7	33.24	8.1	24.3	1.02
C7	05 Dec 2023	18	16.51	84.81	7.6	33.25	8.1	24.3	0.74
C7	11 Dec 2023	1	16.52	87.62	8.3	33.25	8.1	24.3	1.05
C7	11 Dec 2023	2	16.52	87.57	8.3	33.25	8.1	24.3	1.05
C7	11 Dec 2023	3	16.52	87.62	8.3	33.25	8.1	24.3	1.16
C7	11 Dec 2023	4	16.52	87.59	8.3	33.25	8.1	24.3	1.37
C7	11 Dec 2023	5	16.52	87.54	8.3	33.25	8.1	24.3	1.58
C7	11 Dec 2023	6	16.52	87.55	8.3	33.25	8.1	24.3	1.53
C7	11 Dec 2023	7	16.52	87.53	8.3	33.25	8.1	24.3	1.61
C7	11 Dec 2023	8	16.51	87.43	8.2	33.25	8.1	24.3	1.70
C7	11 Dec 2023	9	16.47	87.48	8.0	33.24	8.1	24.3	1.50
C7	11 Dec 2023	10	16.37	87.78	7.8	33.24	8.1	24.3	1.34
C7	11 Dec 2023	11	16.36	88.28	7.8	33.24	8.1	24.3	1.32
C7	11 Dec 2023	12	16.35	88.20	7.8	33.24	8.1	24.3	1.48
C7	11 Dec 2023	13	16.35	88.03	7.8	33.24	8.1	24.3	1.46
C7	11 Dec 2023	14	16.33	87.88	7.7	33.23	8.1	24.3	1.34
C7	11 Dec 2023	15	16.21	87.95	7.6	33.23	8.1	24.3	0.97
C7	11 Dec 2023	16	16.14	88.55	7.4	33.23	8.1	24.4	0.66
C7	11 Dec 2023	17	16.03	89.16	7.3	33.22	8.1	24.4	0.52
C7	11 Dec 2023	18	15.60	89.68	7.1	33.19	8.1	24.4	0.45
C7	11 Dec 2023	19	15.02	89.80	7.0	33.19	8.0	24.6	0.40

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C7	18 Dec 2023	1	16.49	88.93	8.2	33.27	8.2	24.3	1.13
C7	18 Dec 2023	2	16.49	88.97	8.2	33.27	8.2	24.3	1.27
C7	18 Dec 2023	3	16.47	88.95	8.2	33.27	8.2	24.3	1.31
C7	18 Dec 2023	4	16.44	88.85	8.1	33.27	8.1	24.3	1.39
C7	18 Dec 2023	5	16.38	88.20	8.0	33.26	8.1	24.3	1.27
C7	18 Dec 2023	6	16.35	87.48	8.0	33.26	8.1	24.3	1.20
C7	18 Dec 2023	7	16.34	88.37	8.0	33.27	8.1	24.3	1.15
C7	18 Dec 2023	8	16.33	88.77	8.0	33.27	8.1	24.3	1.03
C7	18 Dec 2023	9	16.29	89.10	7.9	33.27	8.1	24.3	0.95
C7	18 Dec 2023	10	16.26	89.13	7.9	33.27	8.1	24.4	0.93
C7	18 Dec 2023	11	16.26	89.13	7.9	33.27	8.1	24.4	0.90
C7	18 Dec 2023	12	16.26	89.15	7.9	33.27	8.1	24.4	0.86
C7	18 Dec 2023	13	16.26	89.14	7.9	33.27	8.1	24.4	0.84
C7	18 Dec 2023	14	16.24	89.28	7.9	33.27	8.1	24.4	0.76
C7	18 Dec 2023	15	16.23	89.46	7.8	33.26	8.1	24.4	0.71
C7	18 Dec 2023	16	16.18	89.61	7.7	33.26	8.1	24.4	0.64
C7	18 Dec 2023	17	16.11	89.37	7.5	33.26	8.1	24.4	0.50
C7	18 Dec 2023	18	16.10	89.05	7.5	33.26	8.1	24.4	0.41
C7	26 Dec 2023	1	16.98	83.34	8.1	33.22	8.1	24.1	0.99
C7	26 Dec 2023	2	16.97	83.61	8.1	33.22	8.1	24.2	1.07
C7	26 Dec 2023	3	16.97	83.64	8.1	33.22	8.1	24.2	1.23
C7	26 Dec 2023	4	16.97	83.52	8.1	33.22	8.1	24.2	1.34
C7	26 Dec 2023	5	16.98	83.67	8.1	33.22	8.1	24.2	1.45
C7	26 Dec 2023	6	16.98	83.73	8.1	33.22	8.1	24.2	1.45
C7	26 Dec 2023	7	16.98	83.97	8.0	33.22	8.1	24.2	1.41
C7	26 Dec 2023	8	16.97	83.90	8.0	33.22	8.1	24.2	1.20
C7	26 Dec 2023	9	16.95	83.84	8.0	33.22	8.1	24.2	1.05
C7	26 Dec 2023	10	16.93	83.97	7.8	33.23	8.1	24.2	0.91
C7	26 Dec 2023	11	16.88	83.29	7.7	33.23	8.1	24.2	0.64
C7	26 Dec 2023	12	16.87	81.56	7.7	33.23	8.1	24.2	0.56
C7	26 Dec 2023	13	16.77	80.75	7.5	33.23	8.1	24.2	0.51
C7	26 Dec 2023	14	16.40	79.38	7.4	33.23	8.1	24.3	0.48
C7	26 Dec 2023	15	16.12	78.59	7.3	33.23	8.1	24.4	0.46
C7	26 Dec 2023	16	16.06	76.62	7.3	33.23	8.1	24.4	0.44
C7	26 Dec 2023	17	16.05	74.09	7.3	33.23	8.1	24.4	0.43
C7	26 Dec 2023	18	16.05	71.75	7.3	33.23	8.1	24.4	0.44
C8	05 Dec 2023	1	16.67	84.14	8.2	33.26	8.1	24.3	1.19
C8	05 Dec 2023	2	16.66	84.14	8.2	33.26	8.1	24.3	1.34
C8	05 Dec 2023	3	16.66	83.91	8.2	33.26	8.1	24.3	1.53
C8	05 Dec 2023	4	16.66	83.87	8.2	33.26	8.1	24.3	1.61
C8	05 Dec 2023	5	16.66	83.80	8.2	33.26	8.1	24.3	1.71
C8	05 Dec 2023	6	16.67	84.09	8.2	33.26	8.1	24.3	1.68
C8	05 Dec 2023	7	16.66	84.09	8.2	33.26	8.1	24.3	1.75
C8	05 Dec 2023	8	16.66	84.13	8.2	33.26	8.1	24.3	1.81
C8	05 Dec 2023	9	16.66	84.00	8.2	33.26	8.1	24.3	1.94
C8	05 Dec 2023	10	16.66	84.05	8.2	33.26	8.1	24.3	1.93
C8	05 Dec 2023	11	16.66	84.04	8.2	33.26	8.1	24.3	1.96
C8	05 Dec 2023	12	16.66	84.14	8.2	33.26	8.1	24.3	1.96
C8	05 Dec 2023	13	16.66	84.12	8.2	33.26	8.1	24.3	1.91
C8	05 Dec 2023	14	16.66	84.16	8.2	33.26	8.1	24.3	1.96
C8	05 Dec 2023	15	16.66	84.14	8.2	33.26	8.1	24.3	1.96
C8	05 Dec 2023	16	16.66	83.95	8.2	33.26	8.1	24.3	1.92
C8	05 Dec 2023	17	16.66	83.84	8.2	33.26	8.1	24.3	1.89
C8	05 Dec 2023	18	16.66	84.08	8.2	33.26	8.1	24.3	1.93
C8	05 Dec 2023	19	16.66	84.24	8.1	33.26	8.1	24.3	1.81
C8	05 Dec 2023	20	16.61	84.23	7.9	33.25	8.1	24.3	1.63
C8	11 Dec 2023	1	16.38	82.91	8.1	33.24	8.1	24.3	1.81
C8	11 Dec 2023	2	16.39	81.32	8.1	33.24	8.1	24.3	2.02

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C8	11 Dec 2023	3	16.38	82.95	8.1	33.24	8.1	24.3	2.48
C8	11 Dec 2023	4	16.38	82.76	8.1	33.24	8.1	24.3	2.92
C8	11 Dec 2023	5	16.36	82.56	8.1	33.24	8.1	24.3	3.26
C8	11 Dec 2023	6	16.36	81.97	8.1	33.24	8.1	24.3	3.43
C8	11 Dec 2023	7	16.36	81.35	8.1	33.24	8.1	24.3	3.38
C8	11 Dec 2023	8	16.35	80.97	8.1	33.24	8.1	24.3	3.38
C8	11 Dec 2023	9	16.34	80.81	8.0	33.24	8.1	24.3	3.15
C8	11 Dec 2023	10	16.34	80.76	8.1	33.24	8.1	24.3	2.80
C8	11 Dec 2023	11	16.34	80.76	8.1	33.24	8.1	24.3	2.74
C8	11 Dec 2023	12	16.34	80.78	8.0	33.24	8.1	24.3	2.57
C8	11 Dec 2023	13	16.32	80.76	8.0	33.24	8.1	24.3	2.04
C8	11 Dec 2023	14	16.28	81.38	7.9	33.23	8.1	24.3	1.38
C8	11 Dec 2023	15	16.08	82.67	7.6	33.23	8.1	24.4	0.97
C8	11 Dec 2023	16	15.83	84.02	7.4	33.22	8.1	24.4	0.73
C8	11 Dec 2023	17	15.60	85.80	7.2	33.21	8.1	24.5	0.58
C8	11 Dec 2023	18	15.40	87.66	7.1	33.20	8.1	24.5	0.51
C8	11 Dec 2023	19	15.14	88.78	7.0	33.19	8.0	24.5	0.48
C8	11 Dec 2023	20	15.05	88.88	7.0	33.19	8.0	24.6	0.41
C8	18 Dec 2023	1	16.42	86.94	8.2	33.27	8.2	24.3	1.45
C8	18 Dec 2023	2	16.42	86.78	8.2	33.27	8.2	24.3	1.44
C8	18 Dec 2023	3	16.42	87.16	8.2	33.27	8.2	24.3	1.58
C8	18 Dec 2023	4	16.41	87.18	8.2	33.27	8.1	24.3	1.55
C8	18 Dec 2023	5	16.40	87.23	8.2	33.27	8.1	24.3	1.43
C8	18 Dec 2023	6	16.39	87.34	8.1	33.27	8.1	24.3	1.42
C8	18 Dec 2023	7	16.39	87.97	8.1	33.27	8.1	24.3	1.25
C8	18 Dec 2023	8	16.37	88.23	8.1	33.27	8.1	24.3	1.25
C8	18 Dec 2023	9	16.37	88.31	8.1	33.27	8.1	24.3	1.18
C8	18 Dec 2023	10	16.36	88.59	8.1	33.27	8.1	24.3	1.10
C8	18 Dec 2023	11	16.36	89.03	8.1	33.27	8.1	24.3	1.00
C8	18 Dec 2023	12	16.34	89.24	8.0	33.27	8.1	24.3	0.91
C8	18 Dec 2023	13	16.29	89.41	8.0	33.27	8.1	24.4	0.84
C8	18 Dec 2023	14	16.26	89.51	7.9	33.27	8.1	24.4	0.73
C8	18 Dec 2023	15	16.16	89.66	7.8	33.26	8.1	24.4	0.61
C8	18 Dec 2023	16	16.12	89.54	7.7	33.26	8.1	24.4	0.55
C8	18 Dec 2023	17	16.06	88.43	7.6	33.25	8.1	24.4	0.54
C8	18 Dec 2023	18	16.01	85.04	7.6	33.25	8.1	24.4	0.53
C8	18 Dec 2023	19	16.00	81.69	7.5	33.25	8.1	24.4	0.54
C8	26 Dec 2023	1	17.03	88.15	8.2	33.26	8.1	24.2	0.57
C8	26 Dec 2023	2	17.03	87.99	8.2	33.26	8.1	24.2	0.59
C8	26 Dec 2023	3	17.03	88.14	8.2	33.26	8.1	24.2	0.71
C8	26 Dec 2023	4	17.03	87.77	8.2	33.26	8.1	24.2	0.80
C8	26 Dec 2023	5	17.03	87.84	8.2	33.26	8.1	24.2	0.91
C8	26 Dec 2023	6	17.02	87.65	8.2	33.26	8.1	24.2	1.06
C8	26 Dec 2023	7	17.03	87.62	8.2	33.26	8.1	24.2	1.10
C8	26 Dec 2023	8	17.02	87.56	8.2	33.26	8.1	24.2	1.25
C8	26 Dec 2023	9	17.03	87.37	8.2	33.26	8.1	24.2	1.15
C8	26 Dec 2023	10	17.03	86.41	8.2	33.26	8.1	24.2	1.01
C8	26 Dec 2023	11	17.03	85.68	8.2	33.26	8.1	24.2	0.97
C8	26 Dec 2023	12	17.03	85.81	8.2	33.26	8.1	24.2	0.98
C8	26 Dec 2023	13	17.03	85.49	8.2	33.26	8.1	24.2	0.95
C8	26 Dec 2023	14	17.03	85.30	8.2	33.26	8.1	24.2	0.95
C8	26 Dec 2023	15	17.03	85.41	8.2	33.26	8.1	24.2	0.94
C8	26 Dec 2023	16	17.03	85.20	8.2	33.26	8.1	24.2	0.94
C8	26 Dec 2023	17	17.03	84.40	8.2	33.26	8.1	24.2	0.88
C8	26 Dec 2023	18	17.03	83.89	8.2	33.26	8.1	24.2	0.83
C8	26 Dec 2023	19	17.03	83.41	8.2	33.26	8.1	24.2	0.81
C8	26 Dec 2023	20	17.03	82.49	8.1	33.26	8.1	24.2	0.84

NA = not available

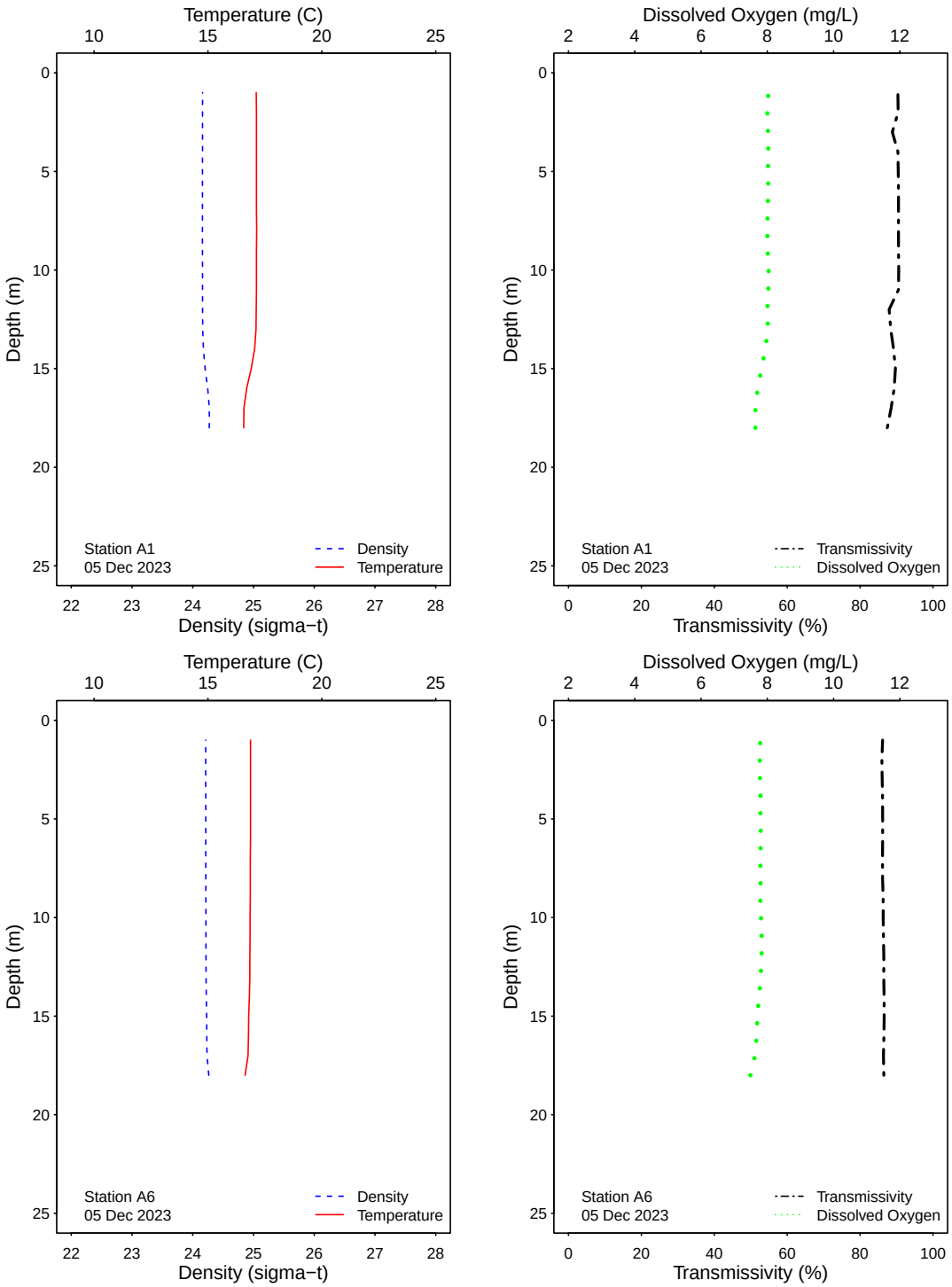

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

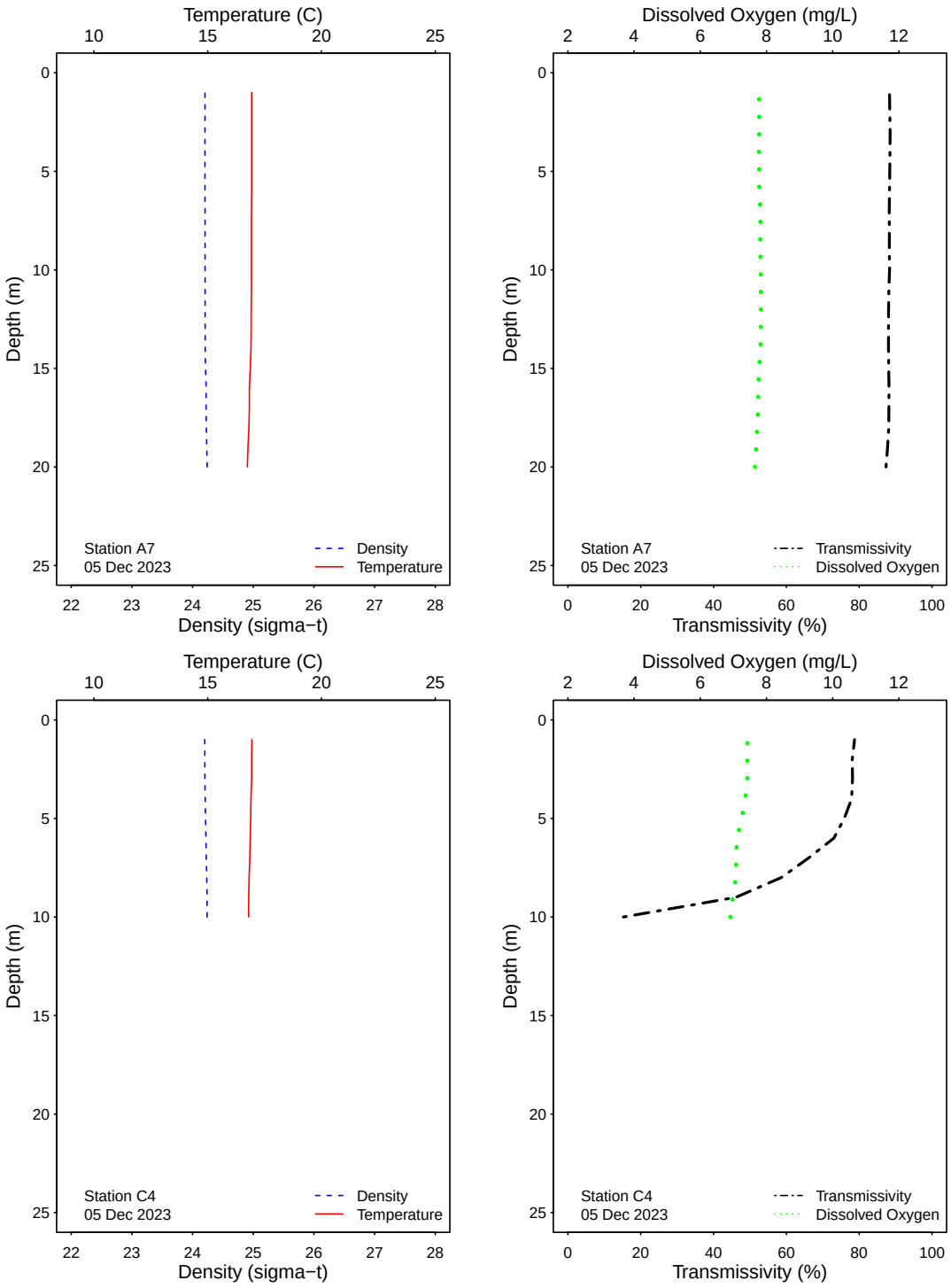

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

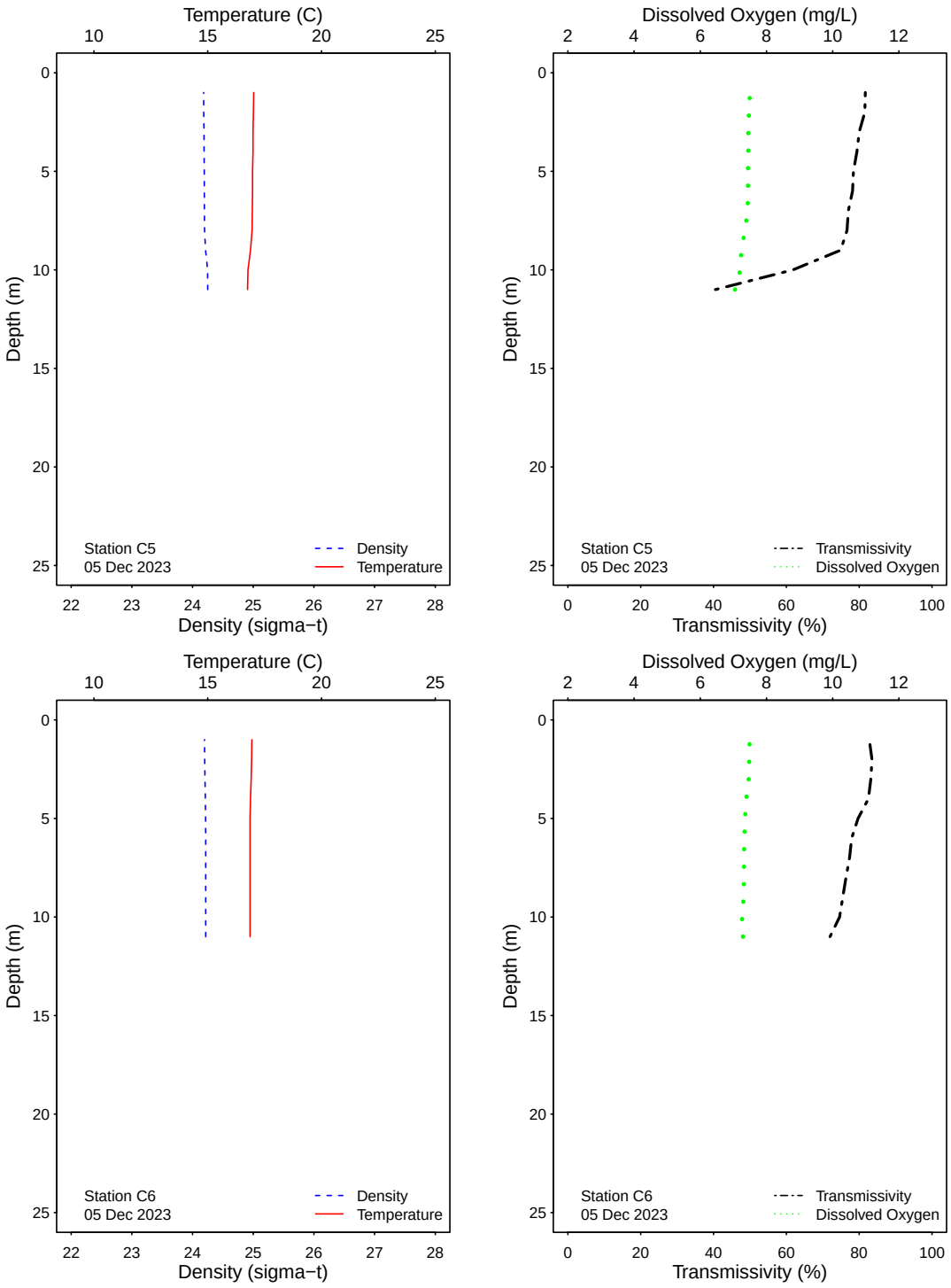

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

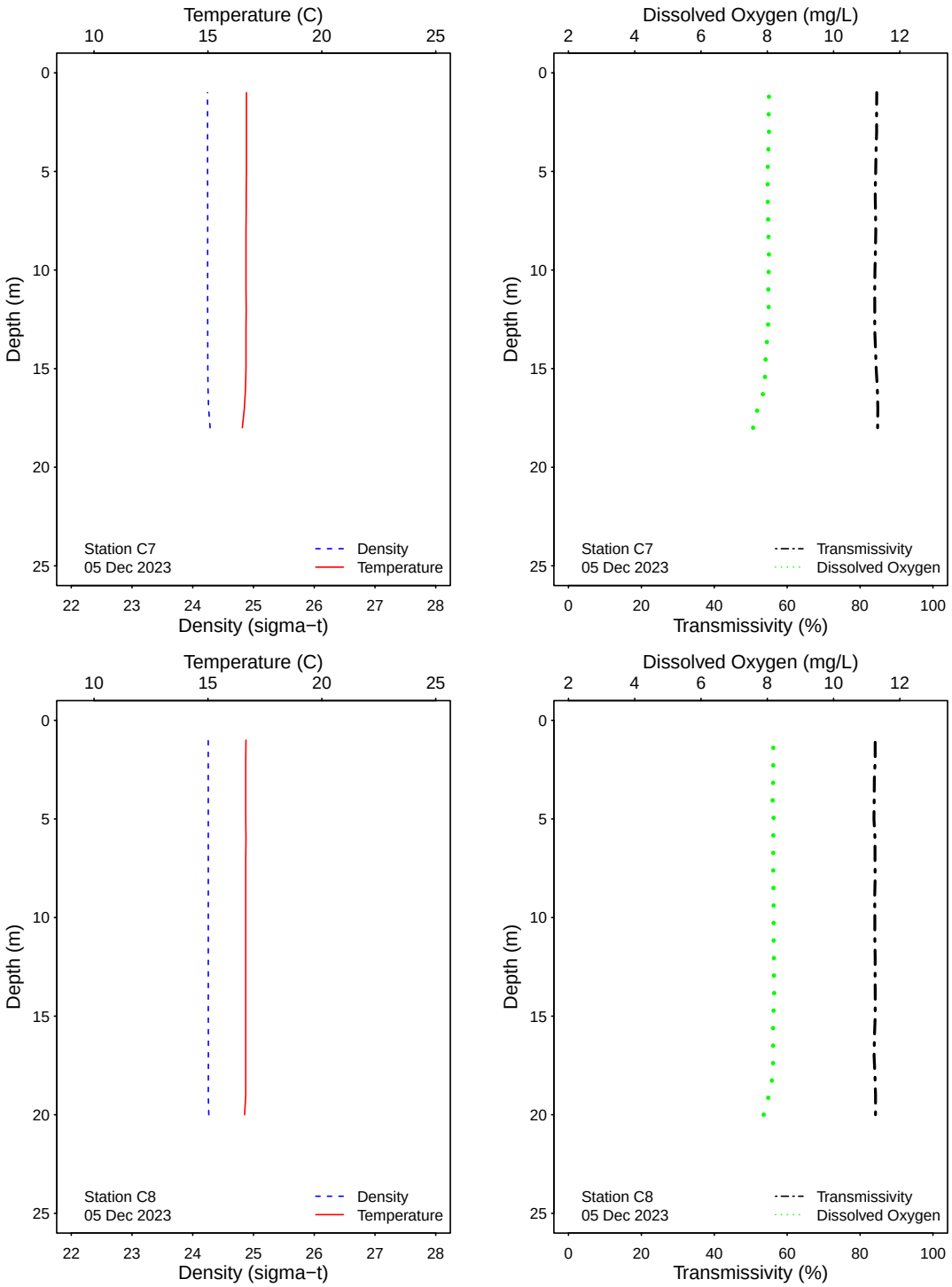

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

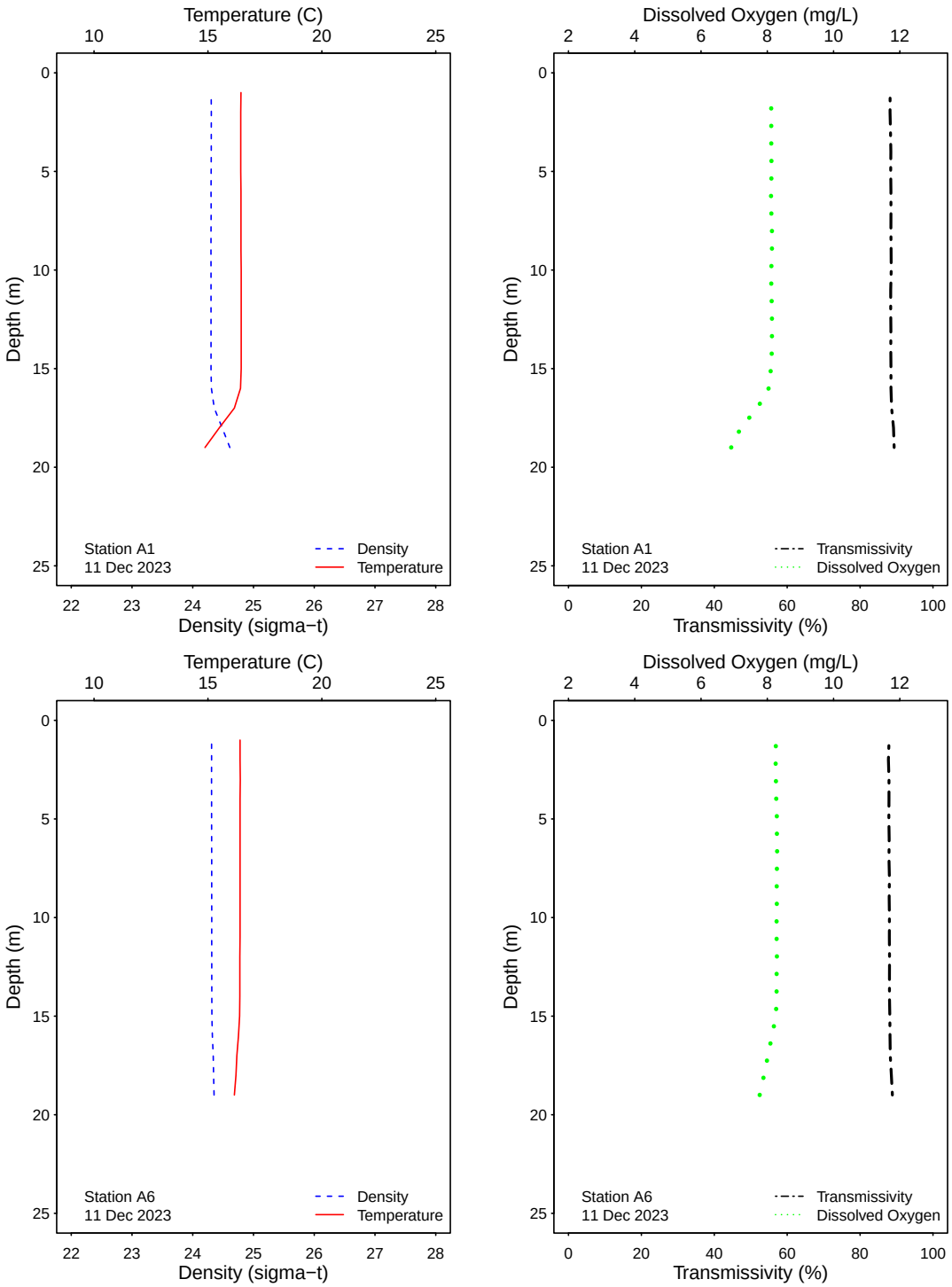

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

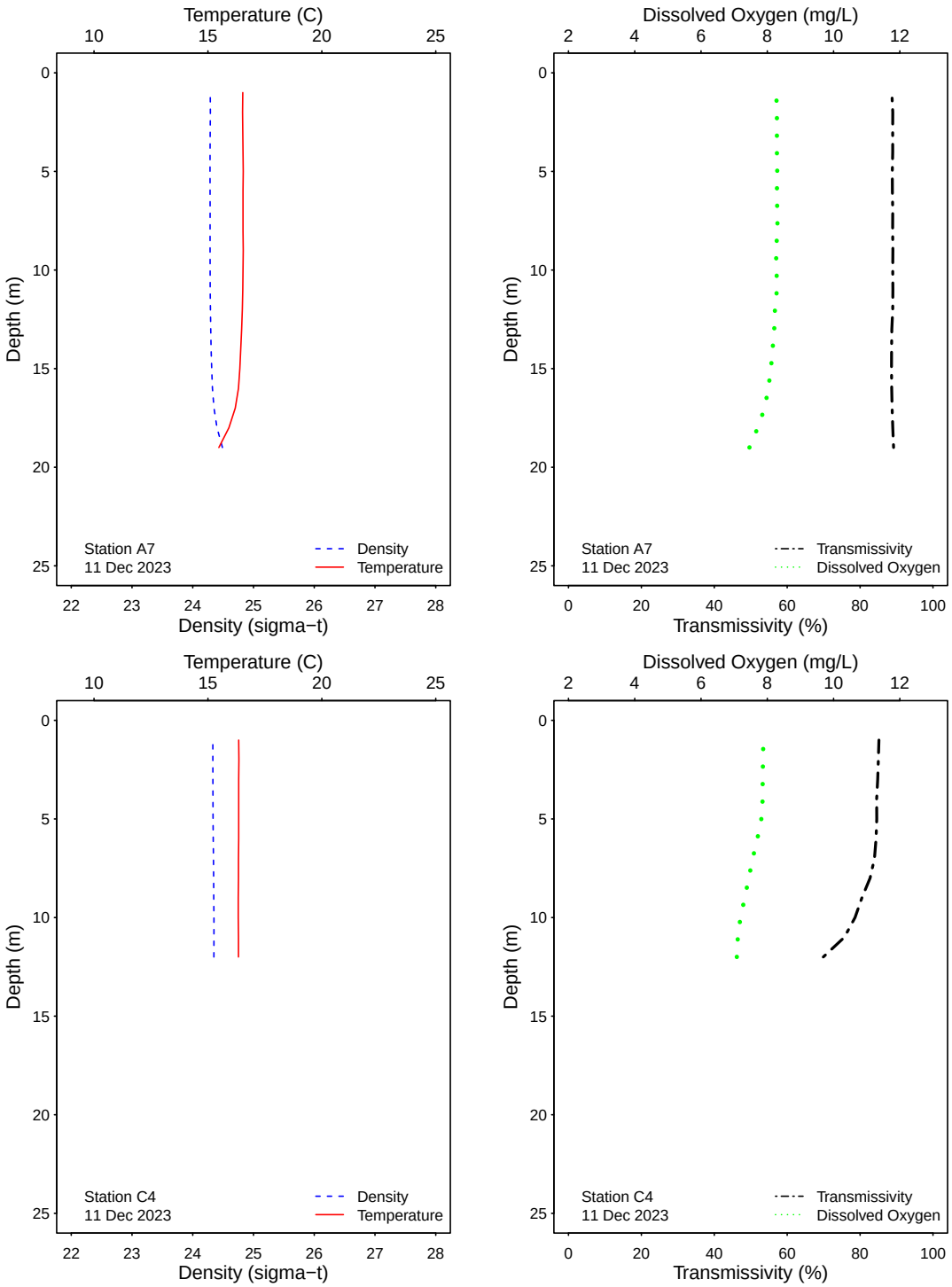

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

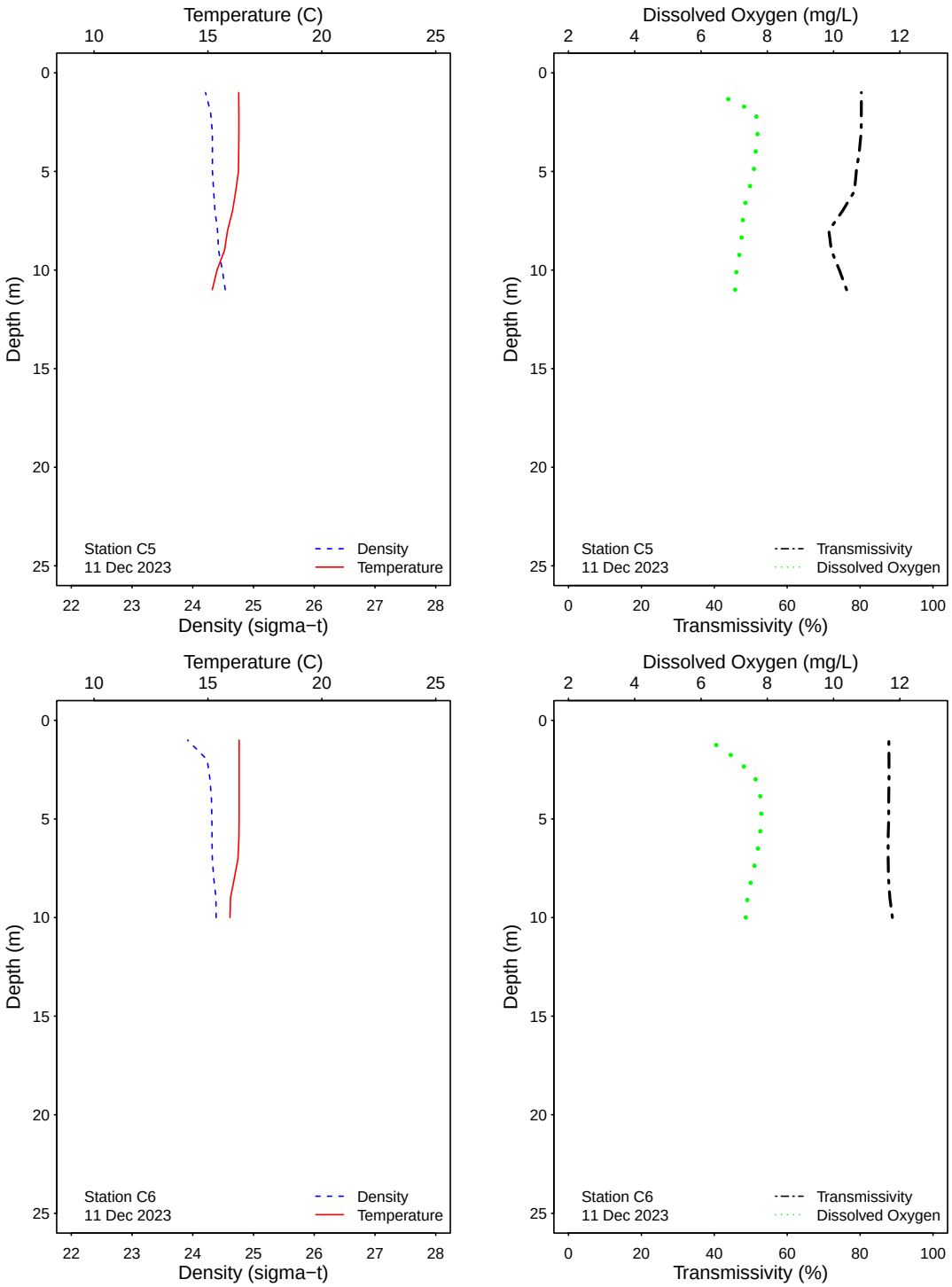

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

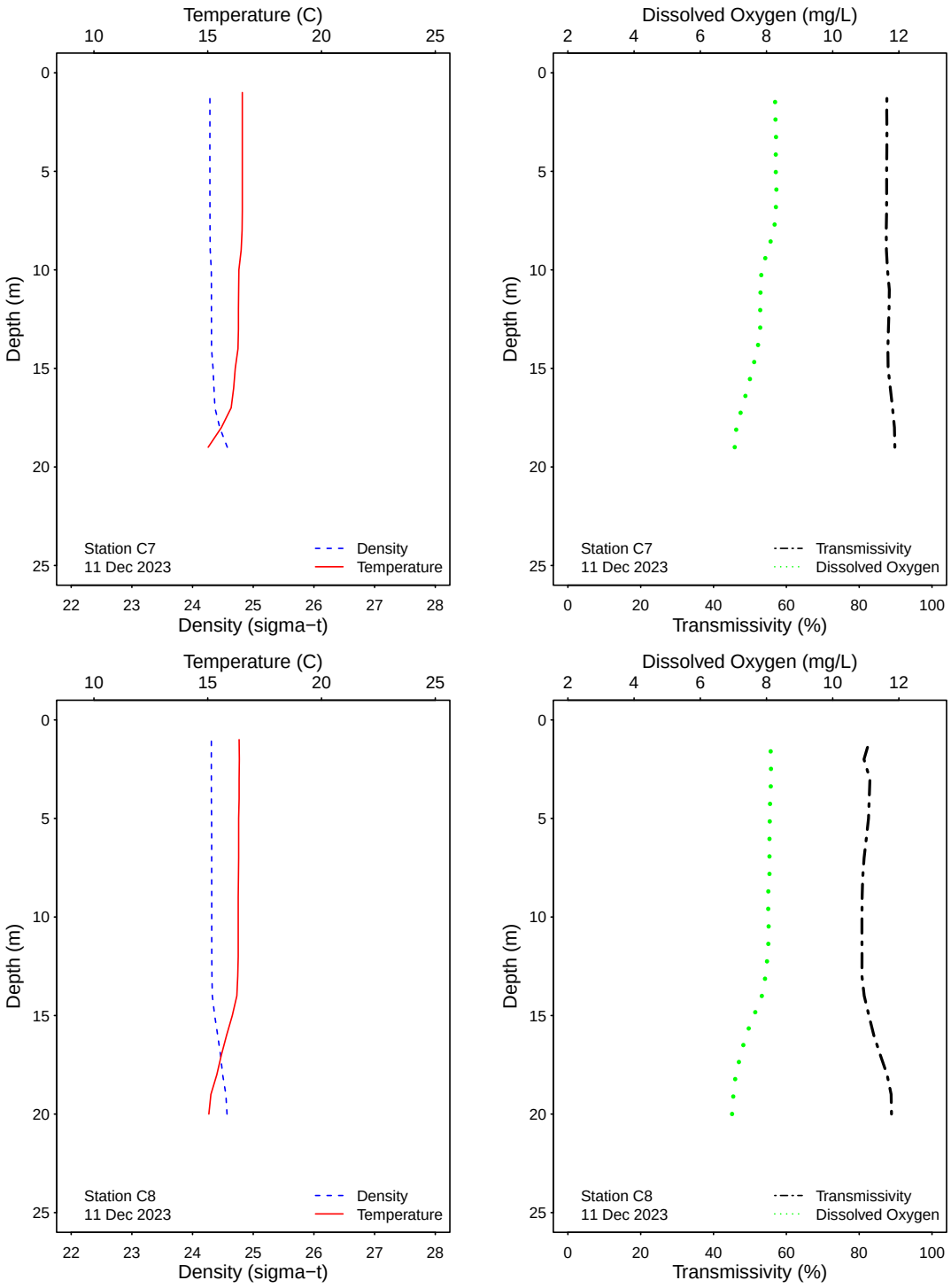

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

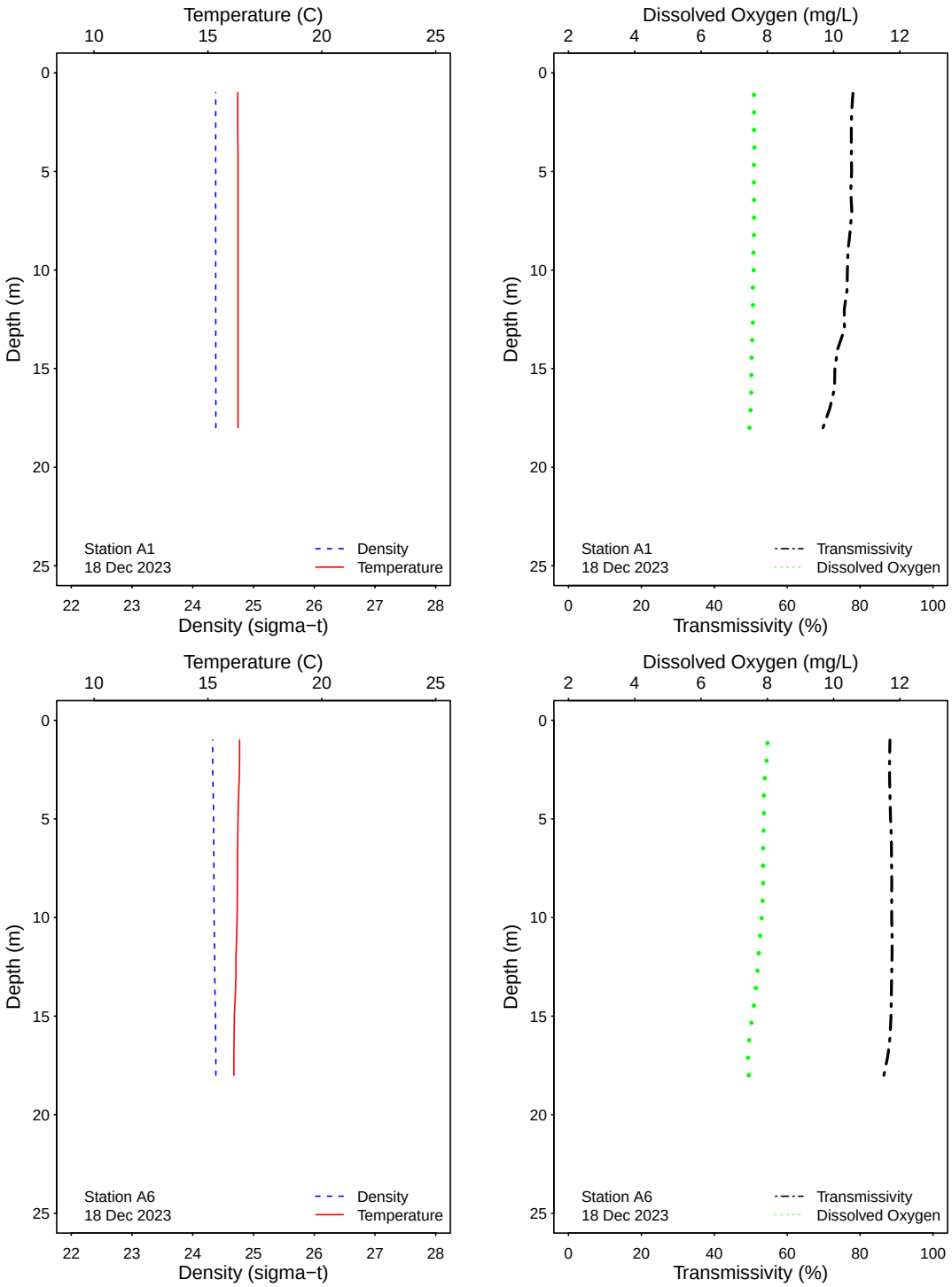

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

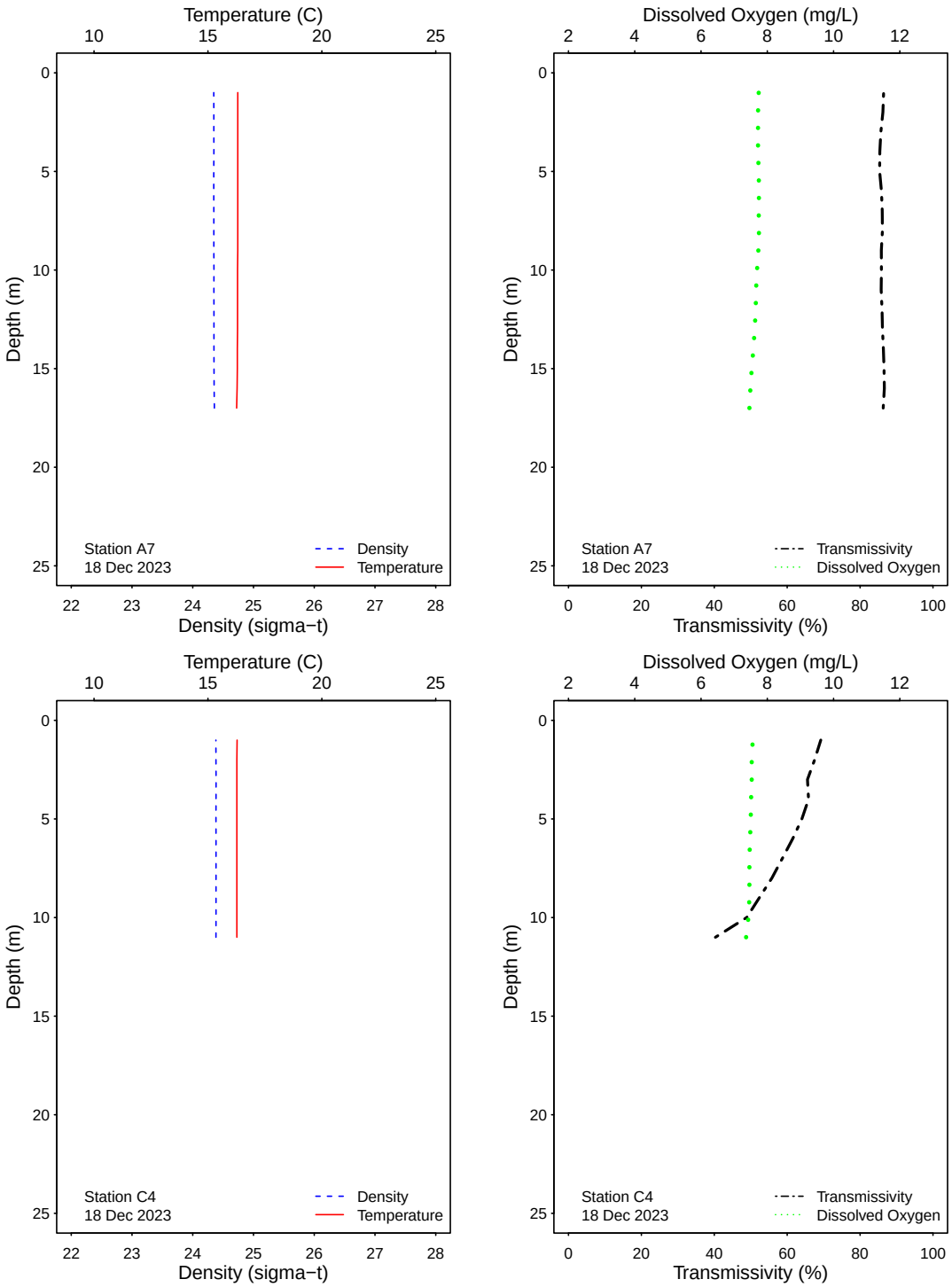

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

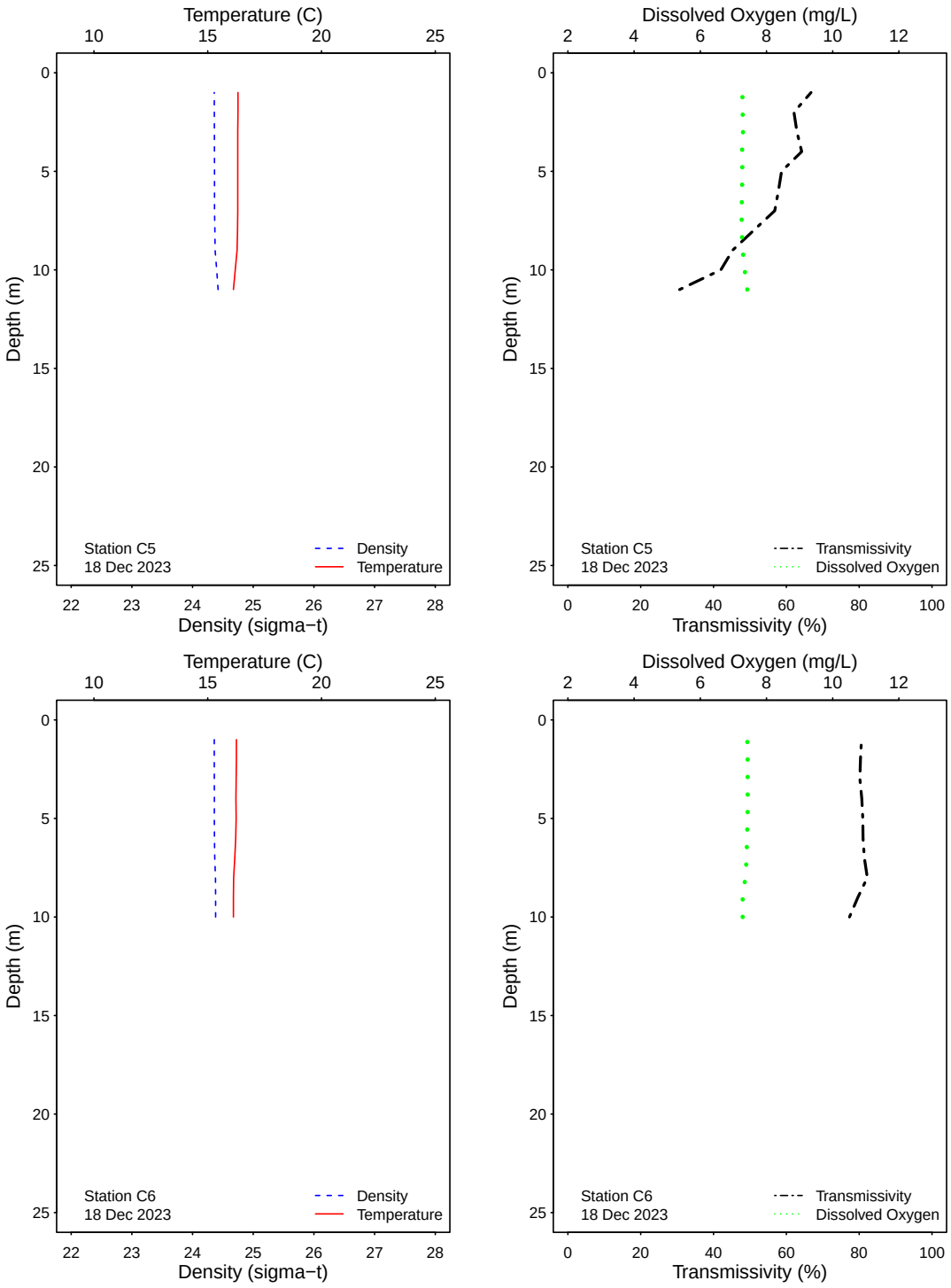

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

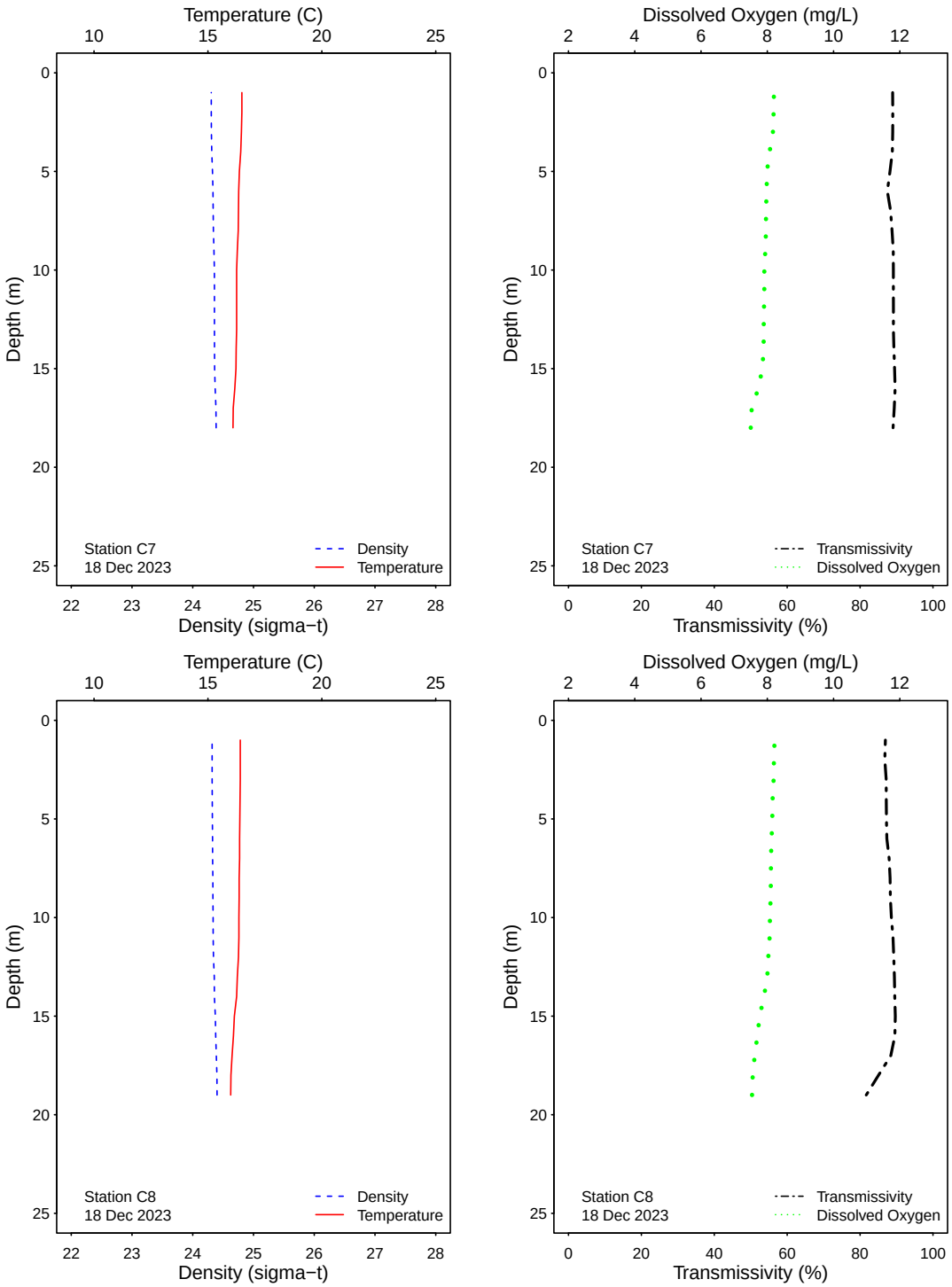

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

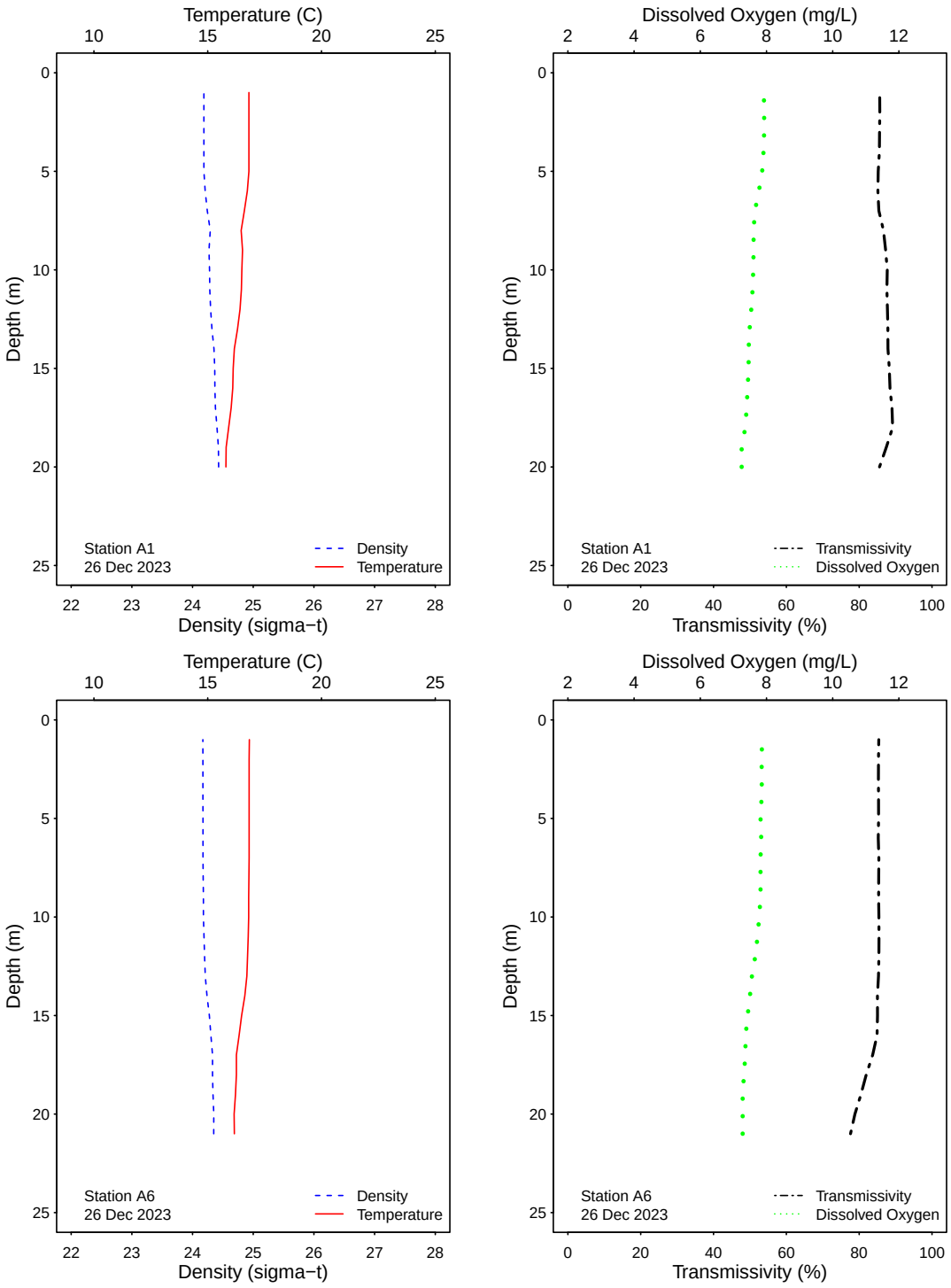

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

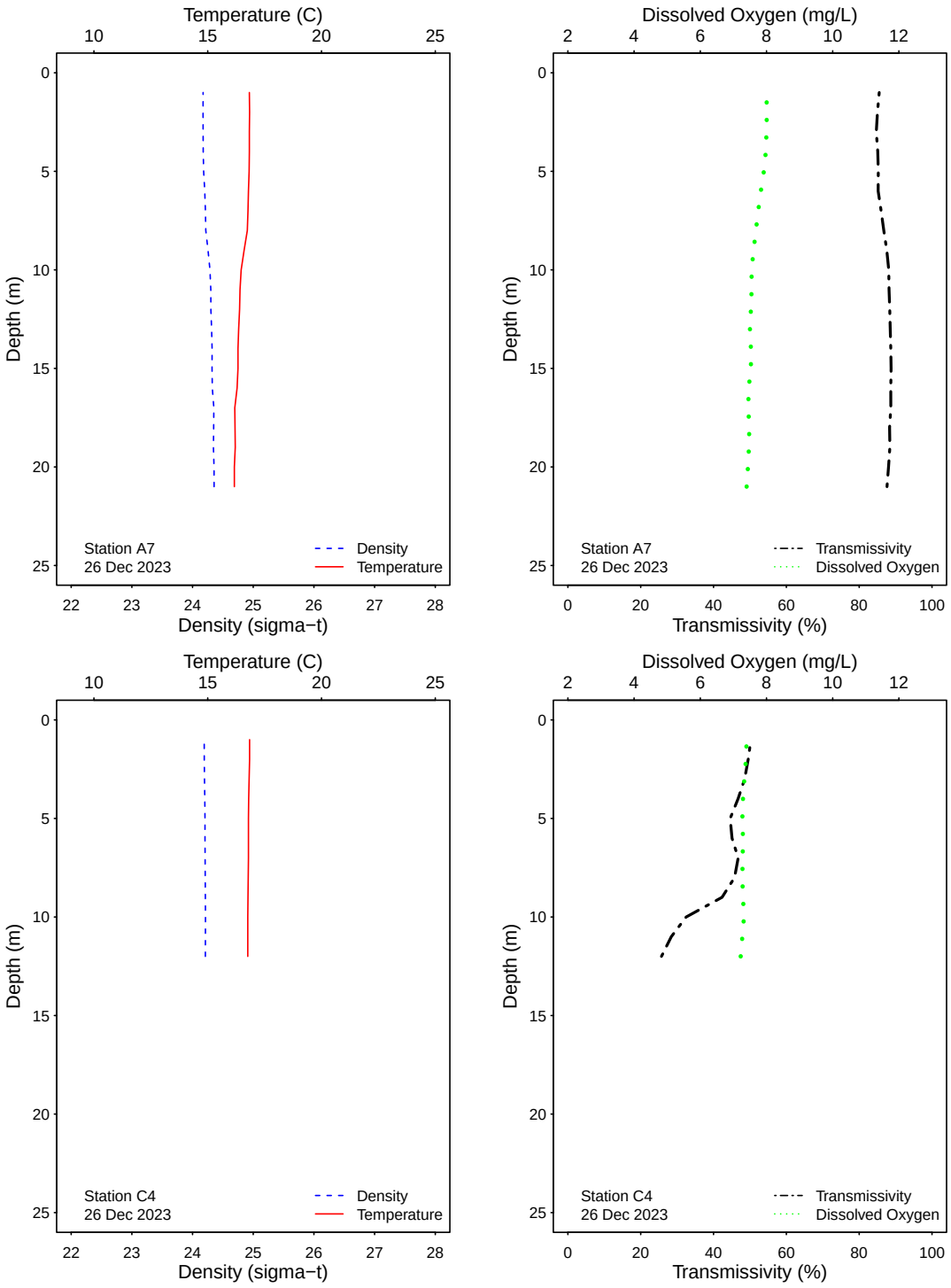

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

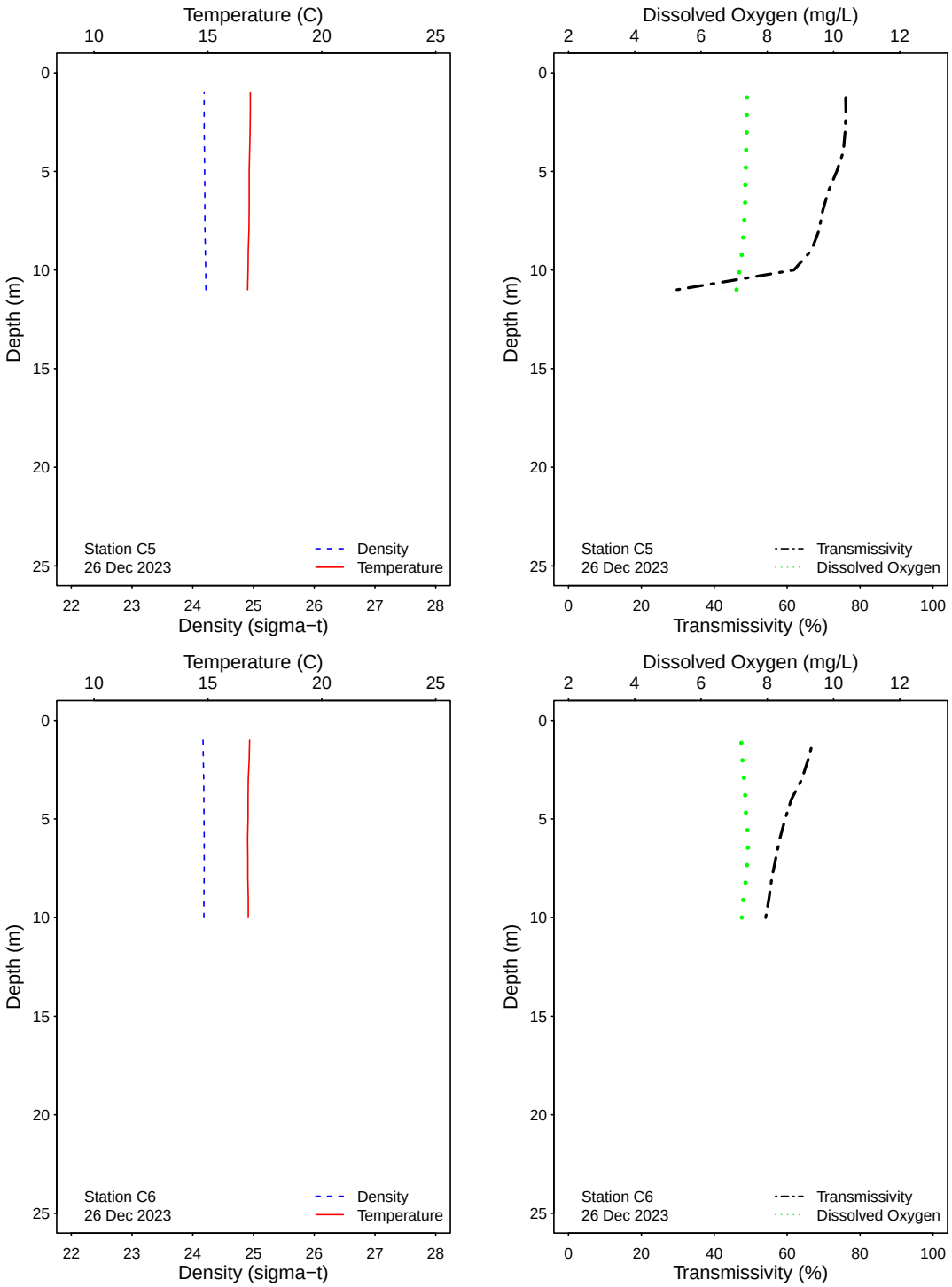

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

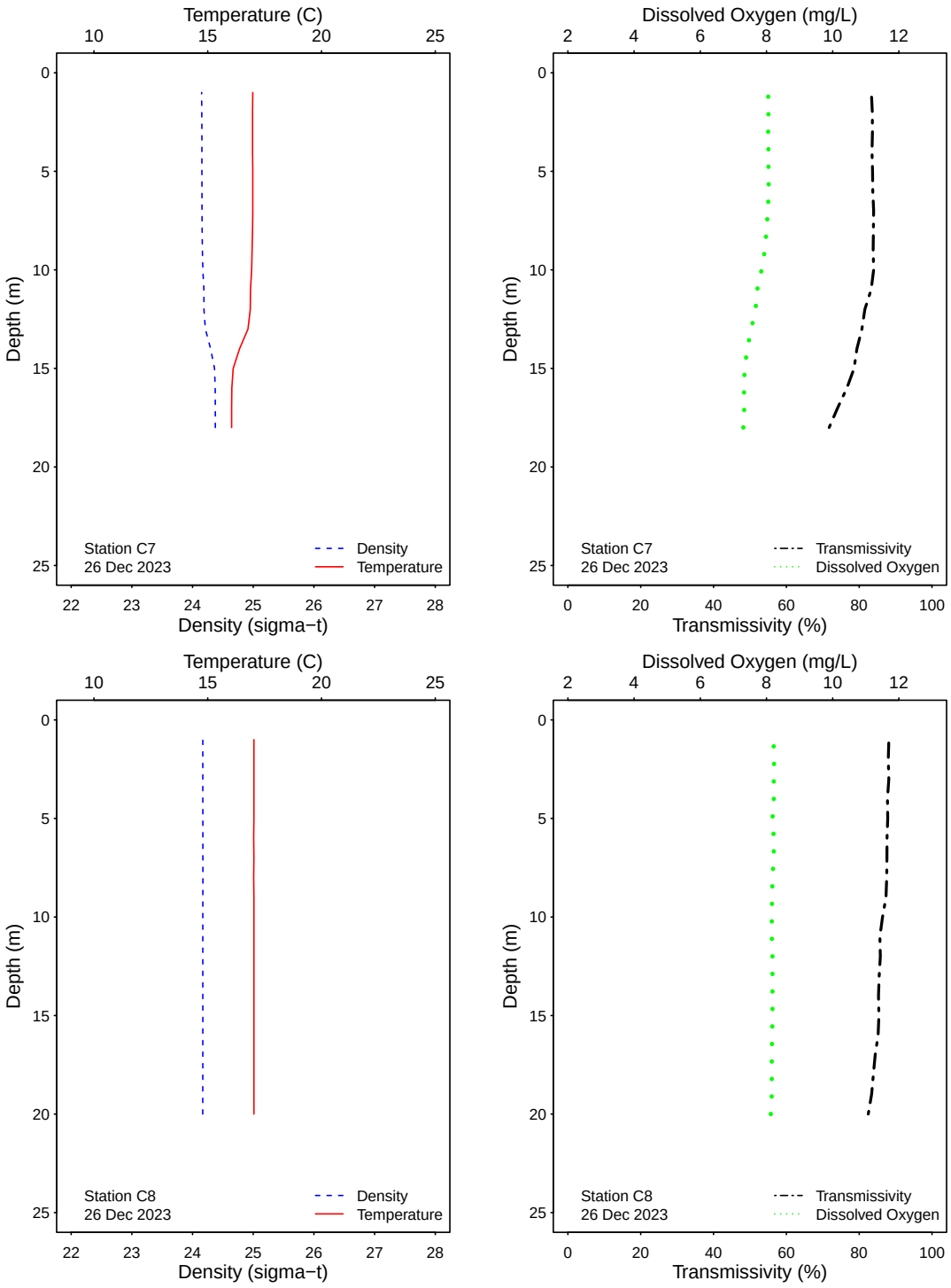

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

This page intentionally left blank

APPENDIX A

Quality Assurance

Table A.1

Summary of bacteriological quality assurance field and lab duplicate sample analyses at selected PLOO 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
A7	05 Dec 2023	18		LAB DUPLICATE	10e	<2	<2
A7	11 Dec 2023	18		LAB DUPLICATE	40e	12e	<2
A7	18 Dec 2023	18		LAB DUPLICATE	24e	6e	2e
A7	26 Dec 2023	18		LAB DUPLICATE	160e	42	6e
C7	05 Dec 2023	18		LAB DUPLICATE	6e	<2	<2
C7	11 Dec 2023	18		LAB DUPLICATE	60e	22e	4e
C7	18 Dec 2023	18		LAB DUPLICATE	8e	2e	2e
C7	26 Dec 2023	18		LAB DUPLICATE	120e	22e	2e
C8	05 Dec 2023	12		LAB DUPLICATE	<2	<2	2e
C8	11 Dec 2023	12		LAB DUPLICATE	20e	<2	<2
C8	18 Dec 2023	12		LAB DUPLICATE	14e	2e	<2
C8	26 Dec 2023	12		LAB DUPLICATE	<2	<2	<2
D12	06 Dec 2023			FIELD DUPLICATE	<20	<2	2e
D12	06 Dec 2023			LAB DUPLICATE	<20	4e	2e
D12	13 Dec 2023			FIELD DUPLICATE	<20	6e	4e
D12	13 Dec 2023			LAB DUPLICATE	<20	<2	4e
D12	20 Dec 2023			FIELD DUPLICATE	2e	2e	<2
D12	20 Dec 2023			LAB DUPLICATE	2e	<2	2e
D12	27 Dec 2023			FIELD DUPLICATE	40e	2e	<2
D12	27 Dec 2023			LAB DUPLICATE	<20	<2	10e

ns = not sampled
ND = no data

This page intentionally left blank

APPENDIX B

New 2019 Ocean Plan
Water Quality Objectives

Shore Stations

Table B.1

Summary of compliance with the Ocean Plan's 6-week Geometric Mean standard for *Enterococcus* at the PLOO 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	D4	D5	D7	D8-B	D9	D10	D11	D12
01 Dec 2023	2	4	3	12	3	10	4	6
02 Dec 2023	2	4	3	12	3	10	4	6
03 Dec 2023	2	4	3	12	3	10	4	6
04 Dec 2023	2	4	3	12	3	10	4	6
05 Dec 2023	2	4	3	12	3	10	4	6
06 Dec 2023	2	4	3	12	3	8	4	4
07 Dec 2023	2	4	3	12	3	8	4	4
08 Dec 2023	2	4	3	12	3	8	4	4
09 Dec 2023	2	4	3	12	3	8	4	4
10 Dec 2023	2	4	3	12	3	8	4	4
11 Dec 2023	2	4	3	12	3	8	4	4
12 Dec 2023	2	4	3	12	3	8	4	4
13 Dec 2023	2	4	3	16	3	10	4	4
14 Dec 2023	2	4	3	16	3	10	4	4
15 Dec 2023	2	4	3	16	3	10	4	4
16 Dec 2023	2	4	3	16	3	10	4	4
17 Dec 2023	2	4	3	16	3	10	4	4
18 Dec 2023	2	4	3	16	3	10	4	4
19 Dec 2023	2	4	3	16	3	10	4	4
20 Dec 2023	2	3	2	9	2	6	4	3
21 Dec 2023	2	3	2	8	2	6	4	3
22 Dec 2023	2	3	2	8	2	6	4	3
23 Dec 2023	2	3	2	8	2	6	4	3
24 Dec 2023	2	3	2	8	2	6	4	3
25 Dec 2023	2	3	2	8	2	6	4	3
26 Dec 2023	2	3	2	8	2	6	4	3
27 Dec 2023	2	5	2	9	4	5	5	3
28 Dec 2023	2	5	2	9	4	5	5	3
29 Dec 2023	2	5	2	9	4	5	5	3
30 Dec 2023	2	5	2	9	4	5	5	3
31 Dec 2023	2	5	2	9	4	5	5	3

* Geometric mean calculated using n<5
ns = not sampled

Table B.2

Summary of compliance at the PLOO 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	D4	D5	D7	D8-B	D9	D10	D11	D12
December	IC	E	IC	IC	IC	IC	IC	IC

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

Table B.3

Summary of compliance with the Ocean Plan's 30-day Median standard for total coliform bacteria at the PLOO 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	D4	D5	D7	D8-B	D9	D10	D11	D12
01 Dec 2023	20	20	20	**140**	25	20	20	20
02 Dec 2023	20	20	20	**140**	25	20	20	20
03 Dec 2023	20	20	20	**140**	25	20	20	20
04 Dec 2023	20	20	20	**140**	25	20	20	20
05 Dec 2023	20	20	20	**140**	25	20	20	20
06 Dec 2023	20	20	20	**80**	20	20	20	20
07 Dec 2023	20	20	20	**80**	20	20	20	20
08 Dec 2023	20	20	20	50	25	20	20	20
09 Dec 2023	20	20	20	50	25	20	20	20
10 Dec 2023	20	20	20	50	25	20	20	20
11 Dec 2023	20	20	20	50	25	20	20	20
12 Dec 2023	20	20	20	50	25	20	20	20
13 Dec 2023	20	20	20	20	20	20	20	20
14 Dec 2023	20	20	20	20	20	20	20	20
15 Dec 2023	20	20	20	20	25	20	20	20
16 Dec 2023	20	20	20	20	25	20	20	20
17 Dec 2023	20	20	20	20	25	20	20	20
18 Dec 2023	20	20	20	20	25	20	20	20
19 Dec 2023	20	20	20	20	25	20	20	20
20 Dec 2023	11	20	20	20	20	20	30	20
21 Dec 2023	11	20	20	20	20	20	30	20
22 Dec 2023	11	20	20	20	20	20	30	20
23 Dec 2023	11	20	20	20	20	20	30	20
24 Dec 2023	11	20	20	20	20	20	30	20
25 Dec 2023	11	20	20	20	20	20	30	20
26 Dec 2023	11	20	20	20	20	20	30	20
27 Dec 2023	20	20	20	20	20	20	40	20
28 Dec 2023	20	20	20	20	20	20	40	20
29 Dec 2023	11	30	11	20	20	20	50	20
30 Dec 2023	11	30	11	20	20	20	50	20
31 Dec 2023	11	30	11	20	20	20	50	20

* Median calculated using n<5

Table B.4

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

Date	D4	D5	D7	D8-B	D9	D10	D11	D12
December	IC	IC	IC	IC	IC	IC	IC	IC

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

Kelp Stations

Table B.5

Summary of compliance with the Ocean Plan's 6-week Geometric Mean standard for *Enterococcus* at the PLOO 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	A1	A6	A7	C4	C5	C6	C7	C8
01 Dec 2023	2	2	2	2	2	3	2	2
02 Dec 2023	2	2	2	2	2	3	2	2
03 Dec 2023	2	2	2	2	2	3	2	2
04 Dec 2023	2	2	2	2	2	3	2	2
05 Dec 2023	2	2	2	2	2	3	2	2
06 Dec 2023	2	2	2	2	2	3	2	2
07 Dec 2023	2	2	2	2	2	3	2	2
08 Dec 2023	2	2	2	2	2	3	2	2
09 Dec 2023	2	2	2	2	2	3	2	2
10 Dec 2023	2	2	2	2	2	3	2	2
11 Dec 2023	2	2	2	2	2	3	2	2
12 Dec 2023	2	2	2	2	2	3	2	2
13 Dec 2023	2	2	2	2	2	3	2	2
14 Dec 2023	2	2	2	2	2	3	2	2
15 Dec 2023	2	2	2	2	2	3	2	2
16 Dec 2023	2	2	2	2	2	3	2	2
17 Dec 2023	2	2	2	2	2	3	2	2
18 Dec 2023	2	2	2	2	2	3	2	2
19 Dec 2023	2	2	2	2	2	3	2	2
20 Dec 2023	2	2	2	2	2	3	2	2
21 Dec 2023	2	2	2	2	2	3	2	2
22 Dec 2023	2	2	2	2	2	3	2	2
23 Dec 2023	2	2	2	2	2	3	2	2
24 Dec 2023	2	2	2	2	2	3	2	2
25 Dec 2023	2	2	2	2	2	3	2	2
26 Dec 2023	2	3	2	2	2	3	2	2
27 Dec 2023	2	3	2	2	2	3	2	2
28 Dec 2023	2	3	2	2	2	3	2	2
29 Dec 2023	2	3	2	2	2	3	2	2
30 Dec 2023	2	3	2	2	2	3	2	2
31 Dec 2023	2	3	2	2	2	3	2	2

* Geometric mean calculated using n<5

Table B.6

Summary of compliance at the PLOO 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	A1	A6	A7	C4	C5	C6	C7	C8
December	IC	IC	IC	IC	IC	IC	IC	IC

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

Table B.7

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

	A1			A6			A7			C4			C5			C6			C7			C8		
Date	1m	12m	18m	1m	12m	18m	1m	12m	18m	1m	3m	9m	1m	3m	9m	1m	3m	9m	1m	12m	18m	1m	12m	18m
01 Dec 2023	2	2	24	2	11	15	2	2	4	2	2	2	2	2	4	2	2	2	2	2	8	2	2	2
02 Dec 2023	2	2	24	2	11	15	2	2	4	2	2	2	2	2	4	2	2	2	2	2	8	2	2	2
03 Dec 2023	2	2	24	2	11	15	2	2	4	2	2	2	2	2	4	2	2	2	2	2	8	2	2	2
04 Dec 2023	2	2	24	2	11	15	2	2	4	2	2	2	2	2	4	2	2	2	2	2	8	2	2	2
05 Dec 2023	2	2	18	2	2	8	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
06 Dec 2023	2	2	32	2	11	15	2	2	5	2	2	2	2	2	4	2	2	2	2	2	8	2	2	2
07 Dec 2023	2	2	32	2	11	15	2	2	5	2	2	2	2	2	4	2	2	2	2	2	8	2	2	2
08 Dec 2023	2	2	32	2	11	15	2	2	5	2	2	2	2	2	4	2	2	2	2	2	8	2	2	2
09 Dec 2023	2	2	32	2	11	15	2	2	5	2	2	2	2	2	4	2	2	2	2	2	8	2	2	2
10 Dec 2023	2	2	32	2	11	15	2	2	5	2	2	2	2	2	4	2	2	2	2	2	8	2	2	2
11 Dec 2023	2	2	18	2	4	18	2	2	6	2	2	2	2	2	6	2	2	2	2	2	14	2	2	2
12 Dec 2023	2	2	18	2	4	18	2	2	6	2	2	2	2	2	6	2	2	2	2	2	14	2	2	2
13 Dec 2023	2	2	32	3	3	13	2	11	42	2	2	2	2	2	11	2	2	2	4	4	34	2	3	5
14 Dec 2023	2	2	32	3	3	13	2	11	42	2	2	2	2	2	11	2	2	2	4	4	34	2	3	5
15 Dec 2023	2	2	32	3	3	13	2	11	42	2	2	2	2	2	11	2	2	2	4	4	34	2	3	5
16 Dec 2023	2	2	32	3	3	13	2	11	42	2	2	2	2	2	11	2	2	2	4	4	34	2	3	5
17 Dec 2023	2	2	32	3	3	13	2	11	42	2	2	2	2	2	11	2	2	2	4	4	34	2	3	5
18 Dec 2023	2	2	18	2	4	18	2	12	16	2	2	2	2	2	20	2	2	2	2	6	16	2	4	8
19 Dec 2023	2	2	18	2	4	18	2	12	16	2	2	2	2	2	20	2	2	2	2	6	16	2	4	8
20 Dec 2023	2	2	18	2	4	18	2	12	16	2	2	2	2	2	20	2	2	2	2	6	16	2	4	8
21 Dec 2023	2	2	18	3	13	44	2	16	48	2	2	2	2	2	20	2	2	10	4	9	41	2	11	17
22 Dec 2023	2	2	18	3	13	44	2	16	48	2	2	2	2	2	20	2	2	10	4	9	41	2	11	17
23 Dec 2023	2	2	18	3	13	44	2	16	48	2	2	2	2	2	20	2	2	10	4	9	41	2	11	17
24 Dec 2023	2	2	18	3	13	44	2	16	48	2	2	2	2	2	20	2	2	10	4	9	41	2	11	17
25 Dec 2023	2	2	18	3	13	44	2	16	48	2	2	2	2	2	20	2	2	10	4	9	41	2	11	17
26 Dec 2023	2	2	18	2	22	60	2	20	**80**	2	2	2	2	2	20	2	2	2	2	12	66	2	4	8
27 Dec 2023	2	2	18	2	22	60	2	20	**80**	2	2	2	2	2	20	2	2	2	2	12	66	2	4	8
28 Dec 2023	2	2	18	2	29	39	2	16	48	2	2	11	2	2	11	2	2	10	2	16	**88**	2	10	14
29 Dec 2023	2	2	18	2	29	39	2	16	48	2	2	11	2	2	11	2	2	10	2	16	**88**	2	10	14
30 Dec 2023	2	2	18	2	29	39	2	16	48	2	2	11	2	2	11	2	2	10	2	16	**88**	2	10	14
31 Dec 2023	2	2	18	2	29	39	2	16	48	2	2	11	2	2	11	2	2	10	2	16	**88**	2	10	14

Table B.8

Summary of compliance at the PLOO 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 IC = In Compliance E = Exceedance ns = not sampled ND = no data

Date	A1			A6			A7			C4			C5			C6			C7			C8		
	1m	12m	18m	1m	12m	18m	1m	12m	18m	1m	3m	9m	1m	3m	9m	1m	3m	9m	1m	12m	18m	1m	12m	18m
December	IC	**E**	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC