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

JULY 2023

Environmental Monitoring and Technical Services
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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

August 31, 2023

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

Attention: POTW Compliance Unit

Dear Mr. Gibson:

Enclosed is the July 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 July 5, 12, 19, and 26.
- During the July 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 D10.
- Nothing of sewage origin was observed at PLOO shore stations in July.
- 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 July 5, 13, 19, and 27.
- During the July reporting period, each of the eight kelp stations was in compliance with the various 2015 California Ocean Plan (Ocean Plan) water contact standards.

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

- Water column temperatures ranged from 11.21 to 22.16°C. The difference between surface and bottom waters ranged from 4.13 to 8.57°C.
- Chlorophyll *a* concentrations ranged from 0.28 to 2.63 µg/L.
- Nothing of sewage origin was observed at PLOO kelp stations in July.

Offshore Stations

- Quarterly water quality sampling was not conducted during July at the offshore stations. The next quarterly sampling is scheduled for August 2023.

TABLES AND FIGURES

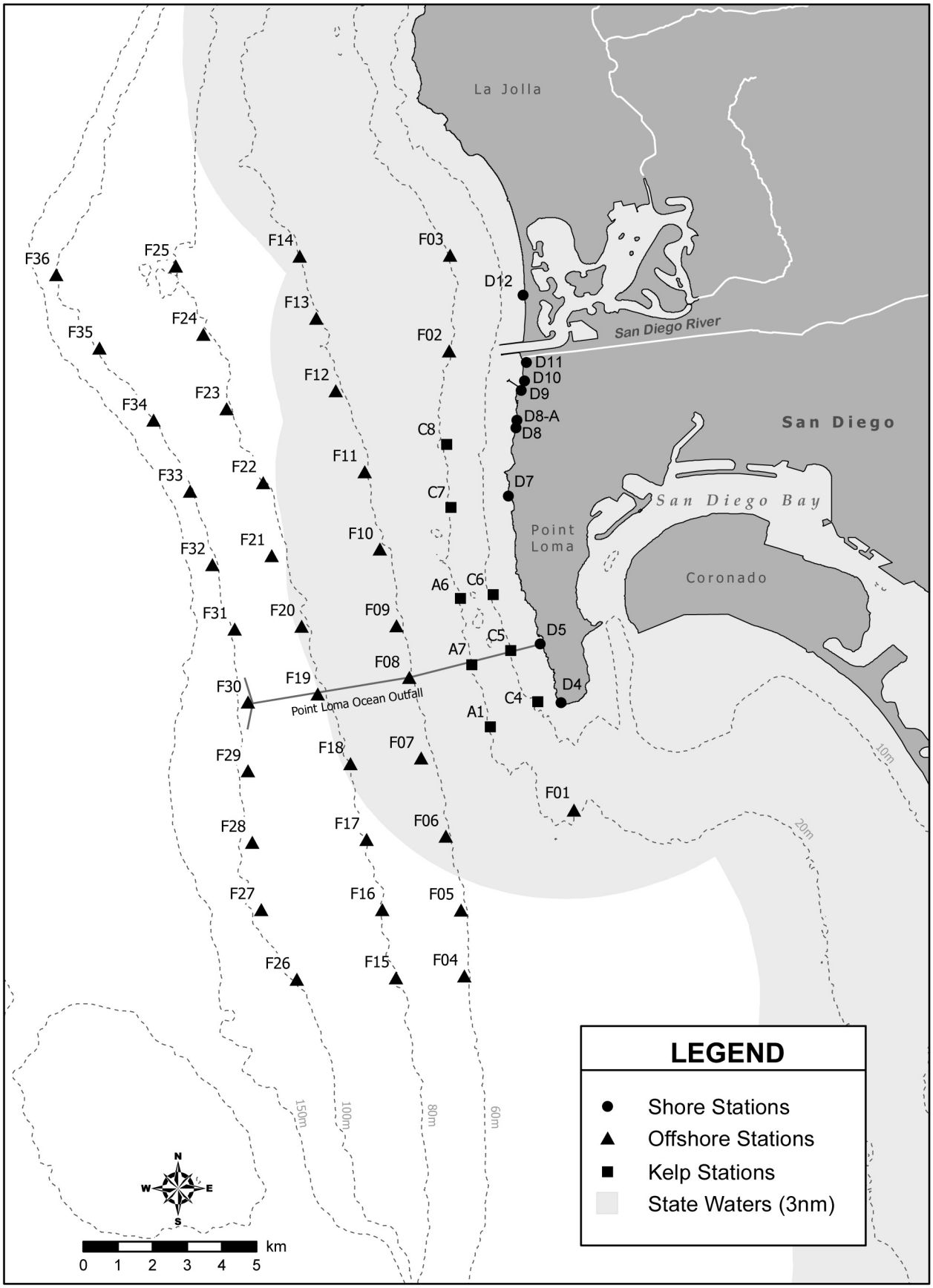

Figure 1.1 Station Map

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Shore Stations

Table 2.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for 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 Jul 2023	4	11	36	24	36	24	47	6
02 Jul 2023	4	11	36	24	36	24	47	6
03 Jul 2023	4	11	36	24	36	24	47	6
04 Jul 2023	4	11	36	24	36	24	47	6
05 Jul 2023	8	13	50	36	32	36	63	13
06 Jul 2023	8	13	50	36	32	36	63	13
07 Jul 2023	11	20	63	42	36	42	83	20
08 Jul 2023	11	20	63	42	36	42	83	20
09 Jul 2023	11	20	63	42	36	42	83	20
10 Jul 2023	11	20	63	42	36	42	83	20
11 Jul 2023	11	20	63	42	36	42	83	20
12 Jul 2023	13	20	80	58	25	42	63	20
13 Jul 2023	13	20	80	58	25	42	63	20
14 Jul 2023	20	20	112	75	22	50	83	20
15 Jul 2023	20	20	112	75	22	50	83	20
16 Jul 2023	20	20	112	75	22	50	83	20
17 Jul 2023	20	20	112	75	22	50	83	20
18 Jul 2023	20	20	112	75	22	50	83	20
19 Jul 2023	20	20	80	60	17	42	63	20
20 Jul 2023	20	20	80	60	17	42	63	20
21 Jul 2023	36	36	112	118	11	42	63	36
22 Jul 2023	36	36	112	118	11	42	63	36
23 Jul 2023	36	36	112	118	11	42	63	36
24 Jul 2023	36	36	112	118	11	42	63	36
25 Jul 2023	36	36	112	118	11	42	63	36
26 Jul 2023	32	39	80	95	15	42	50	32
27 Jul 2023	32	39	80	95	15	42	50	32
28 Jul 2023	36	26	63	79	14	50	36	36
29 Jul 2023	36	26	63	79	14	50	36	36
30 Jul 2023	36	26	63	79	14	50	36	36
31 Jul 2023	36	26	63	79	14	50	36	36

* 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 Jul 2023	2	2	2	2	3	8	10	2
02 Jul 2023	2	2	2	2	3	8	10	2
03 Jul 2023	2	2	2	2	3	8	10	2
04 Jul 2023	2	2	2	2	3	8	10	2
05 Jul 2023	2	2	2	3	4	8	12	3
06 Jul 2023	2	2	2	3	4	8	12	3
07 Jul 2023	2	2	2	3	4	7	12	3
08 Jul 2023	2	2	2	3	4	7	12	3
09 Jul 2023	2	2	2	3	4	7	12	3
10 Jul 2023	2	2	2	3	4	7	12	3
11 Jul 2023	2	2	2	3	4	7	12	3
12 Jul 2023	2	2	2	3	3	6	8	3
13 Jul 2023	2	2	2	3	3	6	8	3
14 Jul 2023	2	2	2	3	3	6	8	2
15 Jul 2023	2	2	2	3	3	6	8	2
16 Jul 2023	2	2	2	3	3	6	8	2
17 Jul 2023	2	2	2	3	3	6	8	2
18 Jul 2023	2	2	2	3	3	6	8	2
19 Jul 2023	2	2	2	3	4	7	10	2
20 Jul 2023	2	2	2	3	4	7	10	2
21 Jul 2023	2	2	2	3	4	6	7	2
22 Jul 2023	2	2	2	3	4	6	7	2
23 Jul 2023	2	2	2	3	4	6	7	2
24 Jul 2023	2	2	2	3	4	6	7	2
25 Jul 2023	2	2	2	3	4	6	7	2
26 Jul 2023	2	2	2	3	4	5	6	2
27 Jul 2023	2	2	2	3	4	5	6	2
28 Jul 2023	2	2	2	3	4	6	6	2
29 Jul 2023	2	2	2	3	4	6	6	2
30 Jul 2023	2	2	2	3	4	6	6	2
31 Jul 2023	2	2	2	3	4	6	6	2

* 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 Jul 2023	2	2	5	2	4	4	3	4
02 Jul 2023	2	2	5	2	4	4	3	4
03 Jul 2023	2	2	5	2	4	4	3	4
04 Jul 2023	2	2	5	2	4	4	3	4
05 Jul 2023	2	2	6	3	4	4	4	5
06 Jul 2023	2	2	6	3	4	4	4	5
07 Jul 2023	2	2	5	3	3	4	5	6
08 Jul 2023	2	2	5	3	3	4	5	6
09 Jul 2023	2	2	5	3	3	4	5	6
10 Jul 2023	2	2	5	3	3	4	5	6
11 Jul 2023	2	2	5	3	3	4	5	6
12 Jul 2023	2	2	4	3	3	4	4	5
13 Jul 2023	2	2	4	3	3	4	4	5
14 Jul 2023	2	2	4	3	3	4	5	3
15 Jul 2023	2	2	4	3	3	4	5	3
16 Jul 2023	2	2	4	3	3	4	5	3
17 Jul 2023	2	2	4	3	3	4	5	3
18 Jul 2023	2	2	4	3	3	4	5	3
19 Jul 2023	2	2	4	3	3	5	6	3
20 Jul 2023	2	2	4	3	3	5	6	3
21 Jul 2023	2	2	3	3	2	3	6	3
22 Jul 2023	2	2	3	3	2	3	6	3
23 Jul 2023	2	2	3	3	2	3	6	3
24 Jul 2023	2	2	3	3	2	3	6	3
25 Jul 2023	2	2	3	3	2	3	6	3
26 Jul 2023	2	2	3	3	2	9	5	3
27 Jul 2023	2	2	3	3	2	7	5	3
28 Jul 2023	2	2	3	3	2	9	6	3
29 Jul 2023	2	2	3	3	2	9	6	3
30 Jul 2023	2	2	3	3	2	9	6	3
31 Jul 2023	2	2	3	3	2	9	6	3

* 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
05 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
12 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
19 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
26 Jul 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
05 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
12 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
19 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
26 Jul 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
05 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
12 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
19 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
26 Jul 2023	IC	IC	IC	IC	IC	E	IC	IC
27 Jul 2023	ns	ns	ns	ns	ns	IC	ns	ns

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
05 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
12 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
19 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
26 Jul 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	05 Jul 2023	902	<200	<2	<2	0.01
D4	12 Jul 2023	947	<20	<2	<2	0.10
D4	19 Jul 2023	925	<20	2e	<2	0.10
D4	26 Jul 2023	945	<20	<2	<2	0.10
D5	05 Jul 2023	914	<20	<2	2e	0.10
D5	12 Jul 2023	933	<20	<2	<2	0.10
D5	19 Jul 2023	906	<20	<2	<2	0.10
D5	26 Jul 2023	929	60e	4e	<2	0.07
D7	05 Jul 2023	840	<200	2e	10e	0.01
D7	12 Jul 2023	911	<200	<2	2e	0.01
D7	19 Jul 2023	843	<20	<2	<2	0.10
D7	26 Jul 2023	904	<20	<2	<2	0.10
D8-B	05 Jul 2023	827	200e	8e	8e	0.04
D8-B	12 Jul 2023	859	<200	<2	2e	0.01
D8-B	19 Jul 2023	831	24e	<2	2e	0.08
D8-B	26 Jul 2023	848	40e	<2	<2	0.05
D9	05 Jul 2023	819	<20	12e	4e	0.60
D9	12 Jul 2023	851	6e	2e	<2	0.33
D9	19 Jul 2023	822	6e	8e	2e	1.33
D9	26 Jul 2023	836	60e	<2	<2	0.03
D10	05 Jul 2023	800	<200	8e	2e	0.04
D10	12 Jul 2023	842	40e	<2	<2	0.05
D10	19 Jul 2023	813	<20	16e	12e	0.80
D10	26 Jul 2023	822	40e	4e	780	0.10
D10	27 Jul 2023	1103	ns	ns	<2	ns
D11	05 Jul 2023	750	200e	18e	16e	0.09
D11	12 Jul 2023	832	<20	<2	<2	0.10
D11	19 Jul 2023	803	20e	<20	18e	1.00
D11	26 Jul 2023	809	20e	2e	<2	0.10
D12	05 Jul 2023	732	200e	4e	10e	0.02
D12	12 Jul 2023	816	<20	<2	2e	0.10
D12	19 Jul 2023	747	<20	<2	<2	0.10
D12	26 Jul 2023	752	<20	<2	<2	0.10

ns = not sampled
ND = no data

Comments

Station	Date	Depth	Parameter	Comments
D10	05 Jul 2023			Negative control for mEI ran on 7/5/23 had growth likely due to cross contamination during setup.
D10	27 Jul 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	05 Jul 2023	Arrive Time	902
D4	05 Jul 2023	Weather	Sunny
D4	05 Jul 2023	Wind Speed (kts)	5
D4	05 Jul 2023	Wind Dir	NW
D4	05 Jul 2023	Animal Life	
D4	05 Jul 2023	Floatables	Foam
D4	05 Jul 2023	Water Color	Green
D4	05 Jul 2023	Current Direction	S
D4	05 Jul 2023	Water Temp (C)	14
D4	05 Jul 2023	Wave Height Low (ft)	3
D4	05 Jul 2023	High Tide (ft)	3.95
D4	05 Jul 2023	High Tide Time	1210
D4	05 Jul 2023	Low Tide (ft)	-1.37
D4	05 Jul 2023	Low Tide Time	548
D4	05 Jul 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D4	12 Jul 2023	Arrive Time	947
D4	12 Jul 2023	Weather	Sunny
D4	12 Jul 2023	Wind Speed (kts)	4
D4	12 Jul 2023	Wind Dir	NW
D4	12 Jul 2023	Animal Life	
D4	12 Jul 2023	Floatables	None
D4	12 Jul 2023	Water Color	Green
D4	12 Jul 2023	Current Direction	S
D4	12 Jul 2023	Water Temp (C)	18
D4	12 Jul 2023	Wave Height Low (ft)	1
D4	12 Jul 2023	High Tide (ft)	3.11
D4	12 Jul 2023	High Tide Time	649
D4	12 Jul 2023	Low Tide (ft)	0.58
D4	12 Jul 2023	Low Tide Time	52
D4	12 Jul 2023	Comments	Water clear; Trash-1; Seagrass;Algae
D4	19 Jul 2023	Arrive Time	925
D4	19 Jul 2023	Weather	Partly cloudy
D4	19 Jul 2023	Wind Speed (kts)	2.4
D4	19 Jul 2023	Wind Dir	NW
D4	19 Jul 2023	Animal Life	
D4	19 Jul 2023	Floatables	None
D4	19 Jul 2023	Water Color	Green
D4	19 Jul 2023	Current Direction	S
D4	19 Jul 2023	Water Temp (C)	20
D4	19 Jul 2023	Wave Height Low (ft)	2
D4	19 Jul 2023	High Tide (ft)	3.74
D4	19 Jul 2023	High Tide Time	1140
D4	19 Jul 2023	Low Tide (ft)	-0.34
D4	19 Jul 2023	Low Tide Time	520
D4	19 Jul 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D4	26 Jul 2023	Arrive Time	945
D4	26 Jul 2023	Weather	Foggy
D4	26 Jul 2023	Wind Speed (kts)	5.2
D4	26 Jul 2023	Wind Dir	NW
D4	26 Jul 2023	Animal Life	
D4	26 Jul 2023	Floatables	None
D4	26 Jul 2023	Water Color	Green
D4	26 Jul 2023	Current Direction	S

Station	Date	Parameter	Value
D4	26 Jul 2023	Water Temp (C)	21
D4	26 Jul 2023	Wave Height Low (ft)	0.5
D4	26 Jul 2023	High Tide (ft)	2.78
D4	26 Jul 2023	High Tide Time	407
D4	26 Jul 2023	Low Tide (ft)	2.1
D4	26 Jul 2023	Low Tide Time	851
D4	26 Jul 2023	Comments	Water clear; Trash-1; Seagrass
D5	05 Jul 2023	Arrive Time	914
D5	05 Jul 2023	Weather	Sunny
D5	05 Jul 2023	Wind Speed (kts)	5.6
D5	05 Jul 2023	Wind Dir	NW
D5	05 Jul 2023	Animal Life	
D5	05 Jul 2023	Floatables	None
D5	05 Jul 2023	Water Color	Green
D5	05 Jul 2023	Current Direction	S
D5	05 Jul 2023	Water Temp (C)	13
D5	05 Jul 2023	Wave Height Low (ft)	3
D5	05 Jul 2023	High Tide (ft)	3.95
D5	05 Jul 2023	High Tide Time	1210
D5	05 Jul 2023	Low Tide (ft)	-1.37
D5	05 Jul 2023	Low Tide Time	548
D5	05 Jul 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D5	12 Jul 2023	Arrive Time	933
D5	12 Jul 2023	Weather	Sunny
D5	12 Jul 2023	Wind Speed (kts)	6
D5	12 Jul 2023	Wind Dir	NW
D5	12 Jul 2023	Animal Life	
D5	12 Jul 2023	Floatables	None
D5	12 Jul 2023	Water Color	Green
D5	12 Jul 2023	Current Direction	S
D5	12 Jul 2023	Water Temp (C)	18
D5	12 Jul 2023	Wave Height Low (ft)	1
D5	12 Jul 2023	High Tide (ft)	3.11
D5	12 Jul 2023	High Tide Time	649
D5	12 Jul 2023	Low Tide (ft)	0.58
D5	12 Jul 2023	Low Tide Time	52
D5	12 Jul 2023	Comments	Water clear; Trash-1; Algae;Debris
D5	19 Jul 2023	Arrive Time	906
D5	19 Jul 2023	Weather	Cloudy
D5	19 Jul 2023	Wind Speed (kts)	2.3
D5	19 Jul 2023	Wind Dir	NW
D5	19 Jul 2023	Animal Life	
D5	19 Jul 2023	Floatables	None
D5	19 Jul 2023	Water Color	Grey
D5	19 Jul 2023	Current Direction	S
D5	19 Jul 2023	Water Temp (C)	17
D5	19 Jul 2023	Wave Height Low (ft)	2
D5	19 Jul 2023	High Tide (ft)	3.74
D5	19 Jul 2023	High Tide Time	1140
D5	19 Jul 2023	Low Tide (ft)	-0.34
D5	19 Jul 2023	Low Tide Time	520
D5	19 Jul 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D5	26 Jul 2023	Arrive Time	929
D5	26 Jul 2023	Weather	Foggy
D5	26 Jul 2023	Wind Speed (kts)	2.4
D5	26 Jul 2023	Wind Dir	NW
D5	26 Jul 2023	Animal Life	

Station	Date	Parameter	Value
D5	26 Jul 2023	Floatables	None
D5	26 Jul 2023	Water Color	Green
D5	26 Jul 2023	Current Direction	S
D5	26 Jul 2023	Water Temp (C)	20
D5	26 Jul 2023	Wave Height Low (ft)	0
D5	26 Jul 2023	High Tide (ft)	2.78
D5	26 Jul 2023	High Tide Time	407
D5	26 Jul 2023	Low Tide (ft)	2.1
D5	26 Jul 2023	Low Tide Time	851
D5	26 Jul 2023	Comments	Water clear; Trash-1
D7	05 Jul 2023	Arrive Time	840
D7	05 Jul 2023	Weather	Cloudy
D7	05 Jul 2023	Wind Speed (kts)	2.2
D7	05 Jul 2023	Wind Dir	NW
D7	05 Jul 2023	Animal Life	
D7	05 Jul 2023	Floatables	None
D7	05 Jul 2023	Water Color	Green
D7	05 Jul 2023	Current Direction	S
D7	05 Jul 2023	Water Temp (C)	14
D7	05 Jul 2023	Wave Height Low (ft)	2
D7	05 Jul 2023	High Tide (ft)	3.95
D7	05 Jul 2023	High Tide Time	1210
D7	05 Jul 2023	Low Tide (ft)	-1.37
D7	05 Jul 2023	Low Tide Time	548
D7	05 Jul 2023	Comments	Water clear; Surfer/Paddle boarder-2; Trash-2; Kelp;Seagrass;Algae;Debris
D7	12 Jul 2023	Arrive Time	911
D7	12 Jul 2023	Weather	Sunny
D7	12 Jul 2023	Wind Speed (kts)	2.1
D7	12 Jul 2023	Wind Dir	NW
D7	12 Jul 2023	Animal Life	
D7	12 Jul 2023	Floatables	None
D7	12 Jul 2023	Water Color	Green
D7	12 Jul 2023	Current Direction	S
D7	12 Jul 2023	Water Temp (C)	19
D7	12 Jul 2023	Wave Height Low (ft)	1
D7	12 Jul 2023	High Tide (ft)	3.11
D7	12 Jul 2023	High Tide Time	649
D7	12 Jul 2023	Low Tide (ft)	0.58
D7	12 Jul 2023	Low Tide Time	52
D7	12 Jul 2023	Comments	Water clear; Trash-1; Kelp;Debris; Person/Walker/Jogger-5
D7	19 Jul 2023	Arrive Time	843
D7	19 Jul 2023	Weather	Cloudy
D7	19 Jul 2023	Wind Speed (kts)	0
D7	19 Jul 2023	Wind Dir	
D7	19 Jul 2023	Animal Life	
D7	19 Jul 2023	Floatables	None
D7	19 Jul 2023	Water Color	Green
D7	19 Jul 2023	Current Direction	S
D7	19 Jul 2023	Water Temp (C)	18
D7	19 Jul 2023	Wave Height Low (ft)	1
D7	19 Jul 2023	High Tide (ft)	3.74
D7	19 Jul 2023	High Tide Time	1140
D7	19 Jul 2023	Low Tide (ft)	-0.34
D7	19 Jul 2023	Low Tide Time	520
D7	19 Jul 2023	Comments	Water clear; Surfer/Paddle boarder-1; Trash-1; Kelp;Seagrass;Algae; Person/Walker/Jogger-1

Station	Date	Parameter	Value
D7	26 Jul 2023	Arrive Time	904
D7	26 Jul 2023	Weather	Overcast
D7	26 Jul 2023	Wind Speed (kts)	0
D7	26 Jul 2023	Wind Dir	
D7	26 Jul 2023	Animal Life	
D7	26 Jul 2023	Floatables	None
D7	26 Jul 2023	Water Color	Green
D7	26 Jul 2023	Current Direction	S
D7	26 Jul 2023	Water Temp (C)	22
D7	26 Jul 2023	Wave Height Low (ft)	0
D7	26 Jul 2023	High Tide (ft)	2.78
D7	26 Jul 2023	High Tide Time	407
D7	26 Jul 2023	Low Tide (ft)	2.1
D7	26 Jul 2023	Low Tide Time	851
D7	26 Jul 2023	Comments	Water clear; Trash-1; Seagrass; Person/Walker/Jogger-4
D8-B	05 Jul 2023	Arrive Time	827
D8-B	05 Jul 2023	Weather	Cloudy
D8-B	05 Jul 2023	Wind Speed (kts)	4.2
D8-B	05 Jul 2023	Wind Dir	W
D8-B	05 Jul 2023	Animal Life	
D8-B	05 Jul 2023	Floatables	None
D8-B	05 Jul 2023	Water Color	Green
D8-B	05 Jul 2023	Current Direction	S
D8-B	05 Jul 2023	Water Temp (C)	13
D8-B	05 Jul 2023	Wave Height Low (ft)	3
D8-B	05 Jul 2023	High Tide (ft)	3.95
D8-B	05 Jul 2023	High Tide Time	1210
D8-B	05 Jul 2023	Low Tide (ft)	-1.37
D8-B	05 Jul 2023	Low Tide Time	548
D8-B	05 Jul 2023	Comments	Water clear; Trash-3; Kelp;Seagrass;Algae;Debris
D8-B	12 Jul 2023	Arrive Time	859
D8-B	12 Jul 2023	Weather	Sunny
D8-B	12 Jul 2023	Wind Speed (kts)	4.3
D8-B	12 Jul 2023	Wind Dir	SW
D8-B	12 Jul 2023	Animal Life	
D8-B	12 Jul 2023	Floatables	None
D8-B	12 Jul 2023	Water Color	Green
D8-B	12 Jul 2023	Current Direction	S
D8-B	12 Jul 2023	Water Temp (C)	18
D8-B	12 Jul 2023	Wave Height Low (ft)	3
D8-B	12 Jul 2023	High Tide (ft)	3.11
D8-B	12 Jul 2023	High Tide Time	649
D8-B	12 Jul 2023	Low Tide (ft)	0.58
D8-B	12 Jul 2023	Low Tide Time	52
D8-B	12 Jul 2023	Comments	Water clear; Trash-1; Kelp;Debris;Algae
D8-B	19 Jul 2023	Arrive Time	831
D8-B	19 Jul 2023	Weather	Cloudy
D8-B	19 Jul 2023	Wind Speed (kts)	1.7
D8-B	19 Jul 2023	Wind Dir	W
D8-B	19 Jul 2023	Animal Life	
D8-B	19 Jul 2023	Floatables	None
D8-B	19 Jul 2023	Water Color	Green
D8-B	19 Jul 2023	Current Direction	S
D8-B	19 Jul 2023	Water Temp (C)	17
D8-B	19 Jul 2023	Wave Height Low (ft)	2
D8-B	19 Jul 2023	High Tide (ft)	3.74
D8-B	19 Jul 2023	High Tide Time	1140
D8-B	19 Jul 2023	Low Tide (ft)	-0.34

Station	Date	Parameter	Value
D8-B	19 Jul 2023	Low Tide Time	520
D8-B	19 Jul 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D8-B	26 Jul 2023	Arrive Time	848
D8-B	26 Jul 2023	Weather	Foggy
D8-B	26 Jul 2023	Wind Speed (kts)	3.1
D8-B	26 Jul 2023	Wind Dir	W
D8-B	26 Jul 2023	Animal Life	
D8-B	26 Jul 2023	Floatables	None
D8-B	26 Jul 2023	Water Color	Green
D8-B	26 Jul 2023	Current Direction	S
D8-B	26 Jul 2023	Water Temp (C)	21
D8-B	26 Jul 2023	Wave Height Low (ft)	1
D8-B	26 Jul 2023	High Tide (ft)	2.78
D8-B	26 Jul 2023	High Tide Time	407
D8-B	26 Jul 2023	Low Tide (ft)	2.1
D8-B	26 Jul 2023	Low Tide Time	851
D8-B	26 Jul 2023	Comments	Water clear; Boogie boarder/Swimmer-2; Trash-1; Kelp;Seagrass
D9	05 Jul 2023	Arrive Time	819
D9	05 Jul 2023	Weather	Cloudy
D9	05 Jul 2023	Wind Speed (kts)	1.7
D9	05 Jul 2023	Wind Dir	NW
D9	05 Jul 2023	Animal Life	Dog-12;
D9	05 Jul 2023	Floatables	None
D9	05 Jul 2023	Water Color	Green
D9	05 Jul 2023	Current Direction	S
D9	05 Jul 2023	Water Temp (C)	15
D9	05 Jul 2023	Wave Height Low (ft)	4
D9	05 Jul 2023	High Tide (ft)	3.95
D9	05 Jul 2023	High Tide Time	1210
D9	05 Jul 2023	Low Tide (ft)	-1.37
D9	05 Jul 2023	Low Tide Time	548
D9	05 Jul 2023	Comments	Water clear; Trash-3; Kelp;Seagrass;Algae;Debris; Person/Walker/Jogger-2
D9	12 Jul 2023	Arrive Time	851
D9	12 Jul 2023	Weather	Sunny
D9	12 Jul 2023	Wind Speed (kts)	2.4
D9	12 Jul 2023	Wind Dir	NW
D9	12 Jul 2023	Animal Life	
D9	12 Jul 2023	Floatables	None
D9	12 Jul 2023	Water Color	Green
D9	12 Jul 2023	Current Direction	S
D9	12 Jul 2023	Water Temp (C)	19
D9	12 Jul 2023	Wave Height Low (ft)	2
D9	12 Jul 2023	High Tide (ft)	3.11
D9	12 Jul 2023	High Tide Time	649
D9	12 Jul 2023	Low Tide (ft)	0.58
D9	12 Jul 2023	Low Tide Time	52
D9	12 Jul 2023	Comments	Water clear; Trash-1; Algae;Debris; Person/Walker/Jogger-3
D9	19 Jul 2023	Arrive Time	822
D9	19 Jul 2023	Weather	Cloudy
D9	19 Jul 2023	Wind Speed (kts)	1.9
D9	19 Jul 2023	Wind Dir	NW
D9	19 Jul 2023	Animal Life	
D9	19 Jul 2023	Floatables	None
D9	19 Jul 2023	Water Color	Green
D9	19 Jul 2023	Current Direction	S

Station	Date	Parameter	Value
D9	19 Jul 2023	Water Temp (C)	17
D9	19 Jul 2023	Wave Height Low (ft)	2
D9	19 Jul 2023	High Tide (ft)	3.74
D9	19 Jul 2023	High Tide Time	1140
D9	19 Jul 2023	Low Tide (ft)	-0.34
D9	19 Jul 2023	Low Tide Time	520
D9	19 Jul 2023	Comments	Water clear; Trash-1; Kelp;Seagrass;Algae
D9	26 Jul 2023	Arrive Time	836
D9	26 Jul 2023	Weather	Sunny
D9	26 Jul 2023	Wind Speed (kts)	1.4
D9	26 Jul 2023	Wind Dir	W
D9	26 Jul 2023	Animal Life	
D9	26 Jul 2023	Floatables	None
D9	26 Jul 2023	Water Color	Green
D9	26 Jul 2023	Current Direction	S
D9	26 Jul 2023	Water Temp (C)	21
D9	26 Jul 2023	Wave Height Low (ft)	1.5
D9	26 Jul 2023	High Tide (ft)	2.78
D9	26 Jul 2023	High Tide Time	407
D9	26 Jul 2023	Low Tide (ft)	2.1
D9	26 Jul 2023	Low Tide Time	851
D9	26 Jul 2023	Comments	Water clear; Trash-1; Person/Walker/Jogger-2
D10	05 Jul 2023	Arrive Time	800
D10	05 Jul 2023	Weather	Cloudy
D10	05 Jul 2023	Wind Speed (kts)	1.4
D10	05 Jul 2023	Wind Dir	N
D10	05 Jul 2023	Animal Life	
D10	05 Jul 2023	Floatables	None
D10	05 Jul 2023	Water Color	Green
D10	05 Jul 2023	Current Direction	S
D10	05 Jul 2023	Water Temp (C)	16
D10	05 Jul 2023	Wave Height Low (ft)	4
D10	05 Jul 2023	High Tide (ft)	3.95
D10	05 Jul 2023	High Tide Time	1210
D10	05 Jul 2023	Low Tide (ft)	-1.37
D10	05 Jul 2023	Low Tide Time	548
D10	05 Jul 2023	Comments	Water clear; Surfer/Paddle boarder-1; Trash-3; Kelp;Seagrass;Debris
D10	12 Jul 2023	Arrive Time	842
D10	12 Jul 2023	Weather	Sunny
D10	12 Jul 2023	Wind Speed (kts)	6.2
D10	12 Jul 2023	Wind Dir	NW
D10	12 Jul 2023	Animal Life	
D10	12 Jul 2023	Floatables	None
D10	12 Jul 2023	Water Color	Green
D10	12 Jul 2023	Current Direction	S
D10	12 Jul 2023	Water Temp (C)	19
D10	12 Jul 2023	Wave Height Low (ft)	3
D10	12 Jul 2023	High Tide (ft)	3.11
D10	12 Jul 2023	High Tide Time	649
D10	12 Jul 2023	Low Tide (ft)	0.58
D10	12 Jul 2023	Low Tide Time	52
D10	12 Jul 2023	Comments	Water clear; Boogie boarder/Swimmer-2; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-3
D10	19 Jul 2023	Arrive Time	813
D10	19 Jul 2023	Weather	Cloudy
D10	19 Jul 2023	Wind Speed (kts)	4

Station	Date	Parameter	Value
D10	19 Jul 2023	Wind Dir	NW
D10	19 Jul 2023	Animal Life	
D10	19 Jul 2023	Floatables	None
D10	19 Jul 2023	Water Color	Green
D10	19 Jul 2023	Current Direction	S
D10	19 Jul 2023	Water Temp (C)	17
D10	19 Jul 2023	Wave Height Low (ft)	3
D10	19 Jul 2023	High Tide (ft)	3.74
D10	19 Jul 2023	High Tide Time	1140
D10	19 Jul 2023	Low Tide (ft)	-0.34
D10	19 Jul 2023	Low Tide Time	520
D10	19 Jul 2023	Comments	Water clear; Surfer/Paddle boarder-3; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-2
D10	26 Jul 2023	Arrive Time	822
D10	26 Jul 2023	Weather	Foggy
D10	26 Jul 2023	Wind Speed (kts)	2.2
D10	26 Jul 2023	Wind Dir	W
D10	26 Jul 2023	Animal Life	
D10	26 Jul 2023	Floatables	None
D10	26 Jul 2023	Water Color	Green
D10	26 Jul 2023	Current Direction	S
D10	26 Jul 2023	Water Temp (C)	21
D10	26 Jul 2023	Wave Height Low (ft)	2
D10	26 Jul 2023	High Tide (ft)	2.78
D10	26 Jul 2023	High Tide Time	407
D10	26 Jul 2023	Low Tide (ft)	2.1
D10	26 Jul 2023	Low Tide Time	851
D10	26 Jul 2023	Comments	Water clear; Surfer/Paddle boarder-4; Trash-1; Kelp;Seagrass
D10	27 Jul 2023	Arrive Time	1103
D10	27 Jul 2023	Weather	Sunny
D10	27 Jul 2023	Wind Speed (kts)	4.6
D10	27 Jul 2023	Wind Dir	W
D10	27 Jul 2023	Animal Life	Bird-1;
D10	27 Jul 2023	Floatables	None
D10	27 Jul 2023	Water Color	Green
D10	27 Jul 2023	Current Direction	S
D10	27 Jul 2023	Water Temp (C)	22
D10	27 Jul 2023	Wave Height Low (ft)	4
D10	27 Jul 2023	High Tide (ft)	2.79
D10	27 Jul 2023	High Tide Time	605
D10	27 Jul 2023	Low Tide (ft)	1.2
D10	27 Jul 2023	Low Tide Time	6
D10	27 Jul 2023	Comments	Water clear; Boogie boarder/Swimmer-6; Surfer/Paddle boarder-2; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-3
D11	05 Jul 2023	Arrive Time	750
D11	05 Jul 2023	Weather	Cloudy
D11	05 Jul 2023	Wind Speed (kts)	1.3
D11	05 Jul 2023	Wind Dir	NW
D11	05 Jul 2023	Animal Life	
D11	05 Jul 2023	Floatables	None
D11	05 Jul 2023	Water Color	Green
D11	05 Jul 2023	Current Direction	S
D11	05 Jul 2023	Water Temp (C)	14
D11	05 Jul 2023	Wave Height Low (ft)	2
D11	05 Jul 2023	High Tide (ft)	3.95
D11	05 Jul 2023	High Tide Time	1210

Station	Date	Parameter	Value
D11	05 Jul 2023	Low Tide (ft)	-1.37
D11	05 Jul 2023	Low Tide Time	548
D11	05 Jul 2023	Comments	Water clear; Fisherperson-2; Trash-2; Kelp;Seagrass;Algae;Debris
D11	12 Jul 2023	Arrive Time	832
D11	12 Jul 2023	Weather	Sunny
D11	12 Jul 2023	Wind Speed (kts)	1.5
D11	12 Jul 2023	Wind Dir	NW
D11	12 Jul 2023	Animal Life	
D11	12 Jul 2023	Floatables	None
D11	12 Jul 2023	Water Color	Green
D11	12 Jul 2023	Current Direction	S
D11	12 Jul 2023	Water Temp (C)	19
D11	12 Jul 2023	Wave Height Low (ft)	3
D11	12 Jul 2023	High Tide (ft)	3.11
D11	12 Jul 2023	High Tide Time	649
D11	12 Jul 2023	Low Tide (ft)	0.58
D11	12 Jul 2023	Low Tide Time	52
D11	12 Jul 2023	Comments	Water clear; Surfer/Paddle boarder-16; Trash-1; Kelp;Seagrass;Debris;Algae
D11	19 Jul 2023	Arrive Time	803
D11	19 Jul 2023	Weather	Cloudy
D11	19 Jul 2023	Wind Speed (kts)	2.7
D11	19 Jul 2023	Wind Dir	NW
D11	19 Jul 2023	Animal Life	
D11	19 Jul 2023	Floatables	None
D11	19 Jul 2023	Water Color	Green
D11	19 Jul 2023	Current Direction	S
D11	19 Jul 2023	Water Temp (C)	17
D11	19 Jul 2023	Wave Height Low (ft)	3
D11	19 Jul 2023	High Tide (ft)	3.74
D11	19 Jul 2023	High Tide Time	1140
D11	19 Jul 2023	Low Tide (ft)	-0.34
D11	19 Jul 2023	Low Tide Time	520
D11	19 Jul 2023	Comments	Water clear; Surfer/Paddle boarder-2; Trash-2; Kelp;Seagrass;Algae
D11	26 Jul 2023	Arrive Time	809
D11	26 Jul 2023	Weather	Foggy
D11	26 Jul 2023	Wind Speed (kts)	1.9
D11	26 Jul 2023	Wind Dir	W
D11	26 Jul 2023	Animal Life	Dog-1;
D11	26 Jul 2023	Floatables	None
D11	26 Jul 2023	Water Color	Green
D11	26 Jul 2023	Current Direction	S
D11	26 Jul 2023	Water Temp (C)	21
D11	26 Jul 2023	Wave Height Low (ft)	1
D11	26 Jul 2023	High Tide (ft)	2.78
D11	26 Jul 2023	High Tide Time	407
D11	26 Jul 2023	Low Tide (ft)	2.1
D11	26 Jul 2023	Low Tide Time	851
D11	26 Jul 2023	Comments	Water clear; Surfer/Paddle boarder-1; Trash-1; Kelp;Seagrass
D12	05 Jul 2023	Arrive Time	732
D12	05 Jul 2023	Weather	Cloudy
D12	05 Jul 2023	Wind Speed (kts)	2.1
D12	05 Jul 2023	Wind Dir	NW
D12	05 Jul 2023	Animal Life	Bird-1;

Station	Date	Parameter	Value
D12	05 Jul 2023	Floatables	None
D12	05 Jul 2023	Water Color	Green
D12	05 Jul 2023	Current Direction	S
D12	05 Jul 2023	Water Temp (C)	13
D12	05 Jul 2023	Wave Height Low (ft)	3
D12	05 Jul 2023	High Tide (ft)	3.95
D12	05 Jul 2023	High Tide Time	1210
D12	05 Jul 2023	Low Tide (ft)	-1.37
D12	05 Jul 2023	Low Tide Time	548
D12	05 Jul 2023	Comments	Water clear; Fisherperson-1; Trash-2; Kelp;Seagrass;Debris; Person/Walker/Jogger-3
D12	12 Jul 2023	Arrive Time	816
D12	12 Jul 2023	Weather	Sunny
D12	12 Jul 2023	Wind Speed (kts)	5.8
D12	12 Jul 2023	Wind Dir	NW
D12	12 Jul 2023	Animal Life	Bird-1;
D12	12 Jul 2023	Floatables	None
D12	12 Jul 2023	Water Color	Green
D12	12 Jul 2023	Current Direction	S
D12	12 Jul 2023	Water Temp (C)	17
D12	12 Jul 2023	Wave Height Low (ft)	3
D12	12 Jul 2023	High Tide (ft)	3.11
D12	12 Jul 2023	High Tide Time	649
D12	12 Jul 2023	Low Tide (ft)	0.58
D12	12 Jul 2023	Low Tide Time	52
D12	12 Jul 2023	Comments	Water clear; Boogie boarder/Swimmer-1; Trash-1; Kelp;Seagrass;Debris; Person/Walker/Jogger-1
D12	19 Jul 2023	Arrive Time	747
D12	19 Jul 2023	Weather	Cloudy
D12	19 Jul 2023	Wind Speed (kts)	4.2
D12	19 Jul 2023	Wind Dir	N
D12	19 Jul 2023	Animal Life	
D12	19 Jul 2023	Floatables	None
D12	19 Jul 2023	Water Color	Green
D12	19 Jul 2023	Current Direction	S
D12	19 Jul 2023	Water Temp (C)	16
D12	19 Jul 2023	Wave Height Low (ft)	3
D12	19 Jul 2023	High Tide (ft)	3.74
D12	19 Jul 2023	High Tide Time	1140
D12	19 Jul 2023	Low Tide (ft)	-0.34
D12	19 Jul 2023	Low Tide Time	520
D12	19 Jul 2023	Comments	Water clear; Surfer/Paddle boarder-1; Fisherperson-2; Trash-1; Kelp;Seagrass; Person/Walker/Jogger-2
D12	26 Jul 2023	Arrive Time	752
D12	26 Jul 2023	Weather	Foggy
D12	26 Jul 2023	Wind Speed (kts)	1.2
D12	26 Jul 2023	Wind Dir	W
D12	26 Jul 2023	Animal Life	Bird-2;
D12	26 Jul 2023	Floatables	None
D12	26 Jul 2023	Water Color	Green
D12	26 Jul 2023	Current Direction	S
D12	26 Jul 2023	Water Temp (C)	19
D12	26 Jul 2023	Wave Height Low (ft)	1
D12	26 Jul 2023	High Tide (ft)	2.78
D12	26 Jul 2023	High Tide Time	407
D12	26 Jul 2023	Low Tide (ft)	2.1
D12	26 Jul 2023	Low Tide Time	851

Station	Date	Parameter	Value
D12	26 Jul 2023	Comments	Water clear; Boogie boarder/Swimmer-1; Trash-1

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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 Jul 2023	3	17	5	3	8	5	4	3
02 Jul 2023	3	17	5	3	8	5	4	3
03 Jul 2023	3	17	5	3	8	5	4	3
04 Jul 2023	3	17	5	3	8	5	4	3
05 Jul 2023	3	28	4	3	6	4	4	3
06 Jul 2023	3	31	4	3	8	5	5	3
07 Jul 2023	3	31	4	3	8	5	5	3
08 Jul 2023	3	31	4	3	8	5	5	3
09 Jul 2023	3	31	4	3	8	5	5	3
10 Jul 2023	3	31	4	3	8	5	5	3
11 Jul 2023	3	31	4	3	8	5	5	3
12 Jul 2023	3	31	4	3	8	5	5	3
13 Jul 2023	4	38	8	2	9	5	4	3
14 Jul 2023	4	38	8	2	9	5	4	3
15 Jul 2023	4	38	8	2	9	5	4	3
16 Jul 2023	4	38	8	2	9	5	4	3
17 Jul 2023	4	38	8	2	9	5	4	3
18 Jul 2023	4	38	8	2	9	5	4	3
19 Jul 2023	4	39	6	2	7	5	4	3
20 Jul 2023	4	51	6	2	3	4	3	3
21 Jul 2023	4	51	6	2	3	4	3	3
22 Jul 2023	4	51	6	2	3	4	3	3
23 Jul 2023	4	51	6	2	3	4	3	3
24 Jul 2023	4	51	6	2	3	4	3	3
25 Jul 2023	4	51	6	2	3	4	3	3
26 Jul 2023	3*	83*	5*	2*	2*	3*	4*	3*
27 Jul 2023	3	33	4	3	2	4	3	4
28 Jul 2023	3	33	4	3	2	4	3	4
29 Jul 2023	3	33	4	3	2	4	3	4
30 Jul 2023	3	33	4	3	2	4	3	4
31 Jul 2023	3	33	4	3	2	4	3	4

* 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 Jul 2023	2	4	2	2	2	2	2	2
02 Jul 2023	2	4	2	2	2	2	2	2
03 Jul 2023	2	4	2	2	2	2	2	2
04 Jul 2023	2	4	2	2	2	2	2	2
05 Jul 2023	2	6	2	2	2	2	2	2
06 Jul 2023	2	7	2	2	2	2	2	2
07 Jul 2023	2	7	2	2	2	2	2	2
08 Jul 2023	2	7	2	2	2	2	2	2
09 Jul 2023	2	7	2	2	2	2	2	2
10 Jul 2023	2	7	2	2	2	2	2	2
11 Jul 2023	2	7	2	2	2	2	2	2
12 Jul 2023	2	7	2	2	2	2	2	2
13 Jul 2023	2	7	2	2	2	2	2	2
14 Jul 2023	2	7	2	2	2	2	2	2
15 Jul 2023	2	7	2	2	2	2	2	2
16 Jul 2023	2	7	2	2	2	2	2	2
17 Jul 2023	2	7	2	2	2	2	2	2
18 Jul 2023	2	7	2	2	2	2	2	2
19 Jul 2023	2	10	2	2	2	2	2	2
20 Jul 2023	2	16	2	2	2	2	2	2
21 Jul 2023	2	16	2	2	2	2	2	2
22 Jul 2023	2	16	2	2	2	2	2	2
23 Jul 2023	2	16	2	2	2	2	2	2
24 Jul 2023	2	16	2	2	2	2	2	2
25 Jul 2023	2	16	2	2	2	2	2	2
26 Jul 2023	2*	23*	2*	2*	2*	2*	2*	2*
27 Jul 2023	2	12	2	2	2	2	2	2
28 Jul 2023	2	12	2	2	2	2	2	2
29 Jul 2023	2	12	2	2	2	2	2	2
30 Jul 2023	2	12	2	2	2	2	2	2
31 Jul 2023	2	12	2	2	2	2	2	2

* 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 Jul 2023	2	2	2	2	2	2	2	2
02 Jul 2023	2	2	2	2	2	2	2	2
03 Jul 2023	2	2	2	2	2	2	2	2
04 Jul 2023	2	2	2	2	2	2	2	2
05 Jul 2023	2	2	2	2	2	2	2	2
06 Jul 2023	2	2	2	2	2	2	2	2
07 Jul 2023	2	2	2	2	2	2	2	2
08 Jul 2023	2	2	2	2	2	2	2	2
09 Jul 2023	2	2	2	2	2	2	2	2
10 Jul 2023	2	2	2	2	2	2	2	2
11 Jul 2023	2	2	2	2	2	2	2	2
12 Jul 2023	2	2	2	2	2	2	2	2
13 Jul 2023	2	2	2	2	2	2	2	2
14 Jul 2023	2	2	2	2	2	2	2	2
15 Jul 2023	2	2	2	2	2	2	2	2
16 Jul 2023	2	2	2	2	2	2	2	2
17 Jul 2023	2	2	2	2	2	2	2	2
18 Jul 2023	2	2	2	2	2	2	2	2
19 Jul 2023	2	2	2	2	2	2	2	2
20 Jul 2023	2	2	2	2	2	2	2	2
21 Jul 2023	2	2	2	2	2	2	2	2
22 Jul 2023	2	2	2	2	2	2	2	2
23 Jul 2023	2	2	2	2	2	2	2	2
24 Jul 2023	2	2	2	2	2	2	2	2
25 Jul 2023	2	2	2	2	2	2	2	2
26 Jul 2023	2*	3*	2*	2*	2*	2*	2*	2*
27 Jul 2023	2	2	2	2	2	2	2	2
28 Jul 2023	2	2	2	2	2	2	2	2
29 Jul 2023	2	2	2	2	2	2	2	2
30 Jul 2023	2	2	2	2	2	2	2	2
31 Jul 2023	2	2	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 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
13 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
19 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
27 Jul 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 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
13 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
19 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
27 Jul 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 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
13 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
19 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
27 Jul 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 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
13 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
19 Jul 2023	IC	IC	IC	IC	IC	IC	IC	IC
27 Jul 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 Jul 2023	825	1	<2	<2	<2	1.00	17.4	91.16	8.8	33.42	8.1
A1	05 Jul 2023	825	12	<2	<2	<2	1.00	15.3	91.87	8.5	33.37	8.1
A1	05 Jul 2023	825	18	<2	<2	<2	1.00	11.8	91.53	6.6	33.51	7.9
A1	13 Jul 2023	813	1	<2	<2	<2	1.00	19.4	79.02	9.1	33.46	8.2
A1	13 Jul 2023	813	12	10e	<2	<2	0.20	12.2	89.87	6.7	33.45	7.9
A1	13 Jul 2023	813	18	20e	2e	<2	0.10	11.2	91.39	5.6	33.53	7.9
A1	19 Jul 2023	810	1	<2	<2	<2	1.00	18.4	88.55	8.1	33.41	8.1
A1	19 Jul 2023	810	12	<2	<2	<2	1.00	12.7	89.65	7.2	33.43	7.9
A1	19 Jul 2023	810	18	<2	<2	<2	1.00	12.5	90.84	7.0	33.43	7.9
A1	27 Jul 2023	754	1	<2	<2	<2	1.00	22.0	90.21	7.9	33.47	8.1
A1	27 Jul 2023	754	12	<2	<2	<2	1.00	16.2	91.81	9.1	33.31	8.1
A1	27 Jul 2023	754	18	<2	<2	<2	1.00	14.5	91.31	8.8	33.28	8.1
A6	05 Jul 2023	854	1	<2	<2	<2	1.00	17.4	88.11	8.8	33.42	8.1
A6	05 Jul 2023	854	12	30e	<2	2e	0.07	11.9	92.58	6.9	33.34	7.9
A6	05 Jul 2023	854	18	520	84	6e	0.16	11.7	91.71	6.6	33.40	7.9
A6	13 Jul 2023	840	1	<2	<2	<2	1.00	19.4	81.42	9.4	33.45	8.2
A6	13 Jul 2023	840	12	36e	<2	<2	0.06	12.6	90.80	6.9	33.45	8.0
A6	13 Jul 2023	840	18	180e	20e	4e	0.11	11.2	91.64	5.5	33.53	7.8
A6	19 Jul 2023	832	1	4e	<2	<2	0.50	18.4	86.68	8.6	33.40	8.1
A6	19 Jul 2023	832	12	80e	34e	<2	0.42	12.5	91.60	7.0	33.41	7.9
A6	19 Jul 2023	832	18	44	110	<2	2.50	12.2	91.77	6.6	33.45	7.9
A6	27 Jul 2023	820	1	<2	<2	<2	1.00	22.1	89.56	8.0	33.47	8.1
A6	27 Jul 2023	820	12	<2	<2	<2	1.00	16.2	90.95	8.9	33.31	8.1
A6	27 Jul 2023	820	18	<2	<2	<2	1.00	14.6	92.00	9.1	33.28	8.1
A7	05 Jul 2023	841	1	<2	<2	<2	1.00	17.0	89.65	8.8	33.41	8.1
A7	05 Jul 2023	841	12	<2	<2	<2	1.00	14.7	91.96	8.6	33.35	8.1
A7	05 Jul 2023	841	18	<2	<2	<2	1.00	11.6	90.81	6.4	33.42	7.9
A7	13 Jul 2023	826	1	2e	<2	<2	1.00	19.5	82.64	9.1	33.45	8.2
A7	13 Jul 2023	826	12	32e	4e	<2	0.12	12.3	90.76	6.6	33.48	7.9
A7	13 Jul 2023	826	18	62	2e	<2	0.03	11.8	91.11	6.2	33.52	7.9
A7	19 Jul 2023	820	1	<2	<2	<2	1.00	16.6	86.95	8.5	33.40	8.1
A7	19 Jul 2023	820	12	<2	<2	<2	1.00	12.8	90.45	7.3	33.41	8.0
A7	19 Jul 2023	820	18	<2	<2	<2	1.00	12.5	90.78	6.9	33.44	7.9
A7	27 Jul 2023	807	1	<2	<2	<2	1.00	21.9	90.06	8.0	33.47	8.1
A7	27 Jul 2023	807	12	<2	2e	<2	1.00	16.3	90.48	9.0	33.31	8.1
A7	27 Jul 2023	807	18	<2	<2	<2	1.00	14.6	91.36	9.0	33.27	8.1
C4	05 Jul 2023	954	1	<2	<2	<2	1.00	17.3	86.25	8.7	33.43	8.1
C4	05 Jul 2023	954	3	<2	<2	<2	1.00	14.2	89.31	8.0	33.41	8.0
C4	05 Jul 2023	954	9	<2	<2	<2	1.00	12.3	91.00	7.3	33.34	8.0

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
C4	13 Jul 2023	948	1	<2	<2	<2	1.00	19.1	83.40	9.1	33.44	8.2
C4	13 Jul 2023	948	3	<2	<2	<2	1.00	18.2	83.26	8.5	33.44	8.2
C4	13 Jul 2023	948	9	<2	<2	<2	1.00	12.4	86.76	6.9	33.42	7.9
C4	19 Jul 2023	936	1	<2	<2	<2	1.00	18.5	80.85	8.2	33.46	8.1
C4	19 Jul 2023	936	3	2e	<2	<2	1.00	15.3	77.52	8.3	33.45	8.1
C4	19 Jul 2023	936	9	<2	<2	<2	1.00	14.2	88.53	8.0	33.40	8.0
C4	27 Jul 2023	927	1	<2	<2	<2	1.00	21.8	90.37	8.0	33.46	8.1
C4	27 Jul 2023	927	3	<2	<2	<2	1.00	21.6	90.27	8.1	33.45	8.1
C4	27 Jul 2023	927	9	<20	<2	<2	0.10	17.4	86.52	8.9	33.36	8.1
C5	05 Jul 2023	946	1	<2	<2	<2	1.00	16.8	88.93	8.4	33.41	8.1
C5	05 Jul 2023	946	3	<2	<2	<2	1.00	13.8	90.25	7.9	33.44	8.0
C5	05 Jul 2023	946	9	<2	<2	<2	1.00	12.6	91.03	7.5	33.36	8.0
C5	13 Jul 2023	935	1	<2	<2	<2	1.00	19.2	83.75	9.2	33.44	8.2
C5	13 Jul 2023	935	3	2e	<2	<2	1.00	18.9	84.01	9.2	33.44	8.2
C5	13 Jul 2023	935	9	6e	<2	<2	0.33	14.0	88.98	8.3	33.43	8.1
C5	19 Jul 2023	924	1	<2	<2	<2	1.00	19.1	88.48	8.3	33.42	8.1
C5	19 Jul 2023	924	3	<2	<2	<2	1.00	16.1	87.46	8.5	33.44	8.1
C5	19 Jul 2023	924	9	2e	<2	<2	1.00	13.6	88.86	7.5	33.41	8.0
C5	27 Jul 2023	916	1	<2	<2	<2	1.00	21.9	89.97	7.9	33.47	8.1
C5	27 Jul 2023	916	3	<2	<2	<2	1.00	21.7	90.11	8.0	33.46	8.1
C5	27 Jul 2023	916	9	2e	<2	<2	1.00	17.0	89.60	9.2	33.37	8.2
C6	05 Jul 2023	937	1	<2	<2	<2	1.00	17.4	86.94	8.6	33.43	8.1
C6	05 Jul 2023	937	3	<2	<2	<2	1.00	15.7	88.96	8.4	33.43	8.1
C6	05 Jul 2023	937	9	<2	<2	<2	1.00	13.2	89.64	8.0	33.38	8.0
C6	13 Jul 2023	925	1	2e	<2	<2	1.00	19.3	75.51	9.2	33.39	8.2
C6	13 Jul 2023	925	3	<2	<2	<2	1.00	17.8	81.37	9.5	33.45	8.2
C6	13 Jul 2023	925	9	8e	2e	<2	0.25	13.8	88.64	8.2	33.41	8.0
C6	19 Jul 2023	913	1	<2	<2	<2	1.00	18.9	84.83	8.8	33.42	8.2
C6	19 Jul 2023	913	3	<2	<2	<2	1.00	15.2	85.73	8.2	33.42	8.1
C6	19 Jul 2023	913	9	4e	<2	<2	0.50	13.7	89.73	7.7	33.42	8.0
C6	27 Jul 2023	908	1	<2	<2	<2	1.00	21.9	90.25	7.9	33.47	8.1
C6	27 Jul 2023	908	3	<2	<2	<2	1.00	21.6	90.35	8.1	33.46	8.1
C6	27 Jul 2023	908	9	<20	<2	<2	0.10	17.1	88.93	9.2	33.41	8.1
C7	05 Jul 2023	905	1	<2	<2	<2	1.00	17.6	86.05	8.8	33.42	8.1
C7	05 Jul 2023	905	12	2e	<2	<2	1.00	12.2	91.86	7.0	33.36	7.9
C7	05 Jul 2023	905	18	10e	<2	2e	0.20	11.7	92.43	6.7	33.38	7.9
C7	13 Jul 2023	855	1	2e	<2	<2	1.00	20.1	78.40	8.9	33.47	8.2
C7	13 Jul 2023	855	12	6e	2e	<2	0.33	13.3	90.55	7.9	33.41	8.0
C7	13 Jul 2023	855	18	16e	<2	<2	0.12	11.8	92.04	6.3	33.49	7.9
C7	19 Jul 2023	843	1	<2	<2	<2	1.00	19.1	83.79	9.5	33.43	8.2
C7	19 Jul 2023	843	12	<2	<2	<2	1.00	13.0	90.28	7.4	33.43	8.0
C7	19 Jul 2023	843	18	<2	<2	<2	1.00	12.4	92.14	7.0	33.44	7.9
C7	27 Jul 2023	833	1	<2	<2	<2	1.00	22.1	89.58	8.1	33.48	8.2
C7	27 Jul 2023	833	12	<2	<2	<2	1.00	16.3	90.09	9.4	33.32	8.1
C7	27 Jul 2023	833	18	<2	<2	<2	1.00	13.8	90.37	8.8	33.31	8.1

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
C8	05 Jul 2023	919	1	<2	<2	<2	1.00	17.6	86.64	8.9	33.44	8.1
C8	05 Jul 2023	919	12	2e	2e	<2	1.00	12.1	91.70	7.0	33.37	7.9
C8	05 Jul 2023	919	18	2e	2e	<2	1.00	12.0	91.69	6.9	33.38	7.9
C8	13 Jul 2023	906	1	<2	<2	<2	1.00	19.2	80.27	9.3	33.44	8.2
C8	13 Jul 2023	906	12	2e	2e	<2	1.00	13.1	89.94	8.0	33.40	8.0
C8	13 Jul 2023	906	18	14e	<2	<2	0.14	11.9	91.43	6.2	33.48	7.9
C8	19 Jul 2023	856	1	<2	<2	<2	1.00	18.4	82.51	9.1	33.44	8.2
C8	19 Jul 2023	856	12	2e	<2	<2	1.00	13.0	90.09	7.1	33.43	8.0
C8	19 Jul 2023	856	18	4e	<2	<2	0.50	12.8	90.57	7.1	33.44	8.0
C8	27 Jul 2023	849	1	<2	<2	<2	1.00	22.2	89.21	7.8	33.47	8.1
C8	27 Jul 2023	849	12	<2	<2	<2	1.00	16.0	89.53	9.6	33.31	8.2
C8	27 Jul 2023	849	18	20e	<2	<2	0.10	13.8	89.75	8.9	33.29	8.1

ns = not sampled
ND = no data

Comments

Station	Date	Depth	Parameter	Comments
A1	05 Jul 2023			Negative control for mEI ran on 7/5/23 had growth likely due to cross contamination during setup.

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 Jul 2023	Depth (m)	18
A1	05 Jul 2023	Arrive Time	825
A1	05 Jul 2023	Depart Time	836
A1	05 Jul 2023	Air Temp (C)	16.2
A1	05 Jul 2023	Weather	Overcast
A1	05 Jul 2023	Visibility (mi)	9
A1	05 Jul 2023	Wind Speed (kts)	3.8
A1	05 Jul 2023	Wind Dir	NW
A1	05 Jul 2023	Water Color	Blue
A1	05 Jul 2023	Wave Ht Low (ft)	3.9
A1	05 Jul 2023	Wave Period (sec)	14
A1	05 Jul 2023	Sea State	Light Chop
A1	05 Jul 2023	High Tide (ft)	6.5
A1	05 Jul 2023	High Tide Time	2306
A1	05 Jul 2023	Low Tide (ft)	-1.45
A1	05 Jul 2023	Low Tide Time	542
A1	05 Jul 2023	Comments	1st cast drifted shallow; use 2nd cast
A1	13 Jul 2023	Depth (m)	20
A1	13 Jul 2023	Arrive Time	813
A1	13 Jul 2023	Depart Time	817
A1	13 Jul 2023	Air Temp (C)	19.7
A1	13 Jul 2023	Weather	Clear
A1	13 Jul 2023	Visibility (mi)	11
A1	13 Jul 2023	Wind Speed (kts)	7.2
A1	13 Jul 2023	Wind Dir	NW
A1	13 Jul 2023	Water Color	Blue
A1	13 Jul 2023	Wave Ht Low (ft)	3
A1	13 Jul 2023	Wave Period (sec)	13
A1	13 Jul 2023	Sea State	Light Chop
A1	13 Jul 2023	High Tide (ft)	5.92
A1	13 Jul 2023	High Tide Time	1854
A1	13 Jul 2023	Low Tide (ft)	0.01
A1	13 Jul 2023	Low Tide Time	142
A1	13 Jul 2023	Comments	none
A1	19 Jul 2023	Depth (m)	17
A1	19 Jul 2023	Arrive Time	810
A1	19 Jul 2023	Depart Time	811
A1	19 Jul 2023	Air Temp (C)	19.7
A1	19 Jul 2023	Weather	Fog
A1	19 Jul 2023	Visibility (mi)	6
A1	19 Jul 2023	Wind Speed (kts)	5.6
A1	19 Jul 2023	Wind Dir	N
A1	19 Jul 2023	Water Color	Blue
A1	19 Jul 2023	Wave Ht Low (ft)	2.6
A1	19 Jul 2023	Wave Period (sec)	11
A1	19 Jul 2023	Sea State	Calm
A1	19 Jul 2023	High Tide (ft)	5.75
A1	19 Jul 2023	High Tide Time	2230
A1	19 Jul 2023	Low Tide (ft)	-0.36
A1	19 Jul 2023	Low Tide Time	518
A1	19 Jul 2023	Comments	Low Tide; sampled on west edge of station (0.05)
A1	27 Jul 2023	Depth (m)	19
A1	27 Jul 2023	Arrive Time	754

Station	Date	Parameter	Value
A1	27 Jul 2023	Depart Time	801
A1	27 Jul 2023	Air Temp (C)	20.2
A1	27 Jul 2023	Weather	Overcast
A1	27 Jul 2023	Visibility (mi)	5
A1	27 Jul 2023	Wind Speed (kts)	3.7
A1	27 Jul 2023	Wind Dir	NW
A1	27 Jul 2023	Water Color	Blue
A1	27 Jul 2023	Wave Ht Low (ft)	3
A1	27 Jul 2023	Wave Period (sec)	15
A1	27 Jul 2023	Sea State	Wind Ripples
A1	27 Jul 2023	High Tide (ft)	5.34
A1	27 Jul 2023	High Tide Time	1706
A1	27 Jul 2023	Low Tide (ft)	0.78
A1	27 Jul 2023	Low Tide Time	2354
A1	27 Jul 2023	Comments	none
A6	05 Jul 2023	Depth (m)	17
A6	05 Jul 2023	Arrive Time	854
A6	05 Jul 2023	Depart Time	903
A6	05 Jul 2023	Air Temp (C)	16.7
A6	05 Jul 2023	Weather	Overcast
A6	05 Jul 2023	Visibility (mi)	9
A6	05 Jul 2023	Wind Speed (kts)	2.7
A6	05 Jul 2023	Wind Dir	NW
A6	05 Jul 2023	Water Color	Blue
A6	05 Jul 2023	Wave Ht Low (ft)	3.9
A6	05 Jul 2023	Wave Period (sec)	14
A6	05 Jul 2023	Sea State	Light Chop
A6	05 Jul 2023	High Tide (ft)	6.5
A6	05 Jul 2023	High Tide Time	2306
A6	05 Jul 2023	Low Tide (ft)	-1.45
A6	05 Jul 2023	Low Tide Time	542
A6	05 Jul 2023	Comments	Unable to get depth due to low tide; 17m max
A6	13 Jul 2023	Depth (m)	20
A6	13 Jul 2023	Arrive Time	840
A6	13 Jul 2023	Depart Time	843
A6	13 Jul 2023	Air Temp (C)	19.7
A6	13 Jul 2023	Weather	Clear
A6	13 Jul 2023	Visibility (mi)	11
A6	13 Jul 2023	Wind Speed (kts)	5.9
A6	13 Jul 2023	Wind Dir	N
A6	13 Jul 2023	Water Color	Greenish-Blue
A6	13 Jul 2023	Wave Ht Low (ft)	3
A6	13 Jul 2023	Wave Period (sec)	13
A6	13 Jul 2023	Sea State	Light Chop
A6	13 Jul 2023	High Tide (ft)	5.92
A6	13 Jul 2023	High Tide Time	1854
A6	13 Jul 2023	Low Tide (ft)	0.01
A6	13 Jul 2023	Low Tide Time	142
A6	13 Jul 2023	Comments	none
A6	19 Jul 2023	Depth (m)	1
A6	19 Jul 2023	Arrive Time	832
A6	19 Jul 2023	Depart Time	835
A6	19 Jul 2023	Air Temp (C)	19.7
A6	19 Jul 2023	Weather	Fog
A6	19 Jul 2023	Visibility (mi)	6
A6	19 Jul 2023	Wind Speed (kts)	6.7
A6	19 Jul 2023	Wind Dir	NW
A6	19 Jul 2023	Water Color	Blueish-Green

Station	Date	Parameter	Value
A6	19 Jul 2023	Wave Ht Low (ft)	2.6
A6	19 Jul 2023	Wave Period (sec)	11
A6	19 Jul 2023	Sea State	Calm
A6	19 Jul 2023	High Tide (ft)	5.75
A6	19 Jul 2023	High Tide Time	2230
A6	19 Jul 2023	Low Tide (ft)	-0.36
A6	19 Jul 2023	Low Tide Time	518
A6	19 Jul 2023	Comments	none
A6	27 Jul 2023	Depth (m)	18
A6	27 Jul 2023	Arrive Time	820
A6	27 Jul 2023	Depart Time	824
A6	27 Jul 2023	Air Temp (C)	20.1
A6	27 Jul 2023	Weather	Overcast
A6	27 Jul 2023	Visibility (mi)	5
A6	27 Jul 2023	Wind Speed (kts)	1.5
A6	27 Jul 2023	Wind Dir	W
A6	27 Jul 2023	Water Color	Blue
A6	27 Jul 2023	Wave Ht Low (ft)	3
A6	27 Jul 2023	Wave Period (sec)	15
A6	27 Jul 2023	Sea State	Wind Ripples
A6	27 Jul 2023	High Tide (ft)	5.34
A6	27 Jul 2023	High Tide Time	1706
A6	27 Jul 2023	Low Tide (ft)	0.78
A6	27 Jul 2023	Low Tide Time	2354
A6	27 Jul 2023	Comments	Kelp Debris
A7	05 Jul 2023	Depth (m)	18
A7	05 Jul 2023	Arrive Time	841
A7	05 Jul 2023	Depart Time	847
A7	05 Jul 2023	Air Temp (C)	16.2
A7	05 Jul 2023	Weather	Overcast
A7	05 Jul 2023	Visibility (mi)	9
A7	05 Jul 2023	Wind Speed (kts)	9.9
A7	05 Jul 2023	Wind Dir	NW
A7	05 Jul 2023	Water Color	Blue
A7	05 Jul 2023	Wave Ht Low (ft)	3.9
A7	05 Jul 2023	Wave Period (sec)	14
A7	05 Jul 2023	Sea State	Light Chop
A7	05 Jul 2023	High Tide (ft)	6.5
A7	05 Jul 2023	High Tide Time	2306
A7	05 Jul 2023	Low Tide (ft)	-1.45
A7	05 Jul 2023	Low Tide Time	542
A7	05 Jul 2023	Comments	none
A7	13 Jul 2023	Depth (m)	1
A7	13 Jul 2023	Arrive Time	826
A7	13 Jul 2023	Depart Time	830
A7	13 Jul 2023	Air Temp (C)	19.6
A7	13 Jul 2023	Weather	Clear
A7	13 Jul 2023	Visibility (mi)	11
A7	13 Jul 2023	Wind Speed (kts)	7.1
A7	13 Jul 2023	Wind Dir	N
A7	13 Jul 2023	Water Color	Blue
A7	13 Jul 2023	Wave Ht Low (ft)	3
A7	13 Jul 2023	Wave Period (sec)	13
A7	13 Jul 2023	Sea State	Light Chop
A7	13 Jul 2023	High Tide (ft)	5.92
A7	13 Jul 2023	High Tide Time	1854
A7	13 Jul 2023	Low Tide (ft)	0.01
A7	13 Jul 2023	Low Tide Time	142

Station	Date	Parameter	Value
A7	13 Jul 2023	Comments	none
A7	19 Jul 2023	Depth (m)	18
A7	19 Jul 2023	Arrive Time	820
A7	19 Jul 2023	Depart Time	831
A7	19 Jul 2023	Air Temp (C)	19.8
A7	19 Jul 2023	Weather	Fog
A7	19 Jul 2023	Visibility (mi)	6
A7	19 Jul 2023	Wind Speed (kts)	2.4
A7	19 Jul 2023	Wind Dir	NW
A7	19 Jul 2023	Water Color	Blue
A7	19 Jul 2023	Wave Ht Low (ft)	2.6
A7	19 Jul 2023	Wave Period (sec)	11
A7	19 Jul 2023	Sea State	Calm
A7	19 Jul 2023	High Tide (ft)	5.75
A7	19 Jul 2023	High Tide Time	2230
A7	19 Jul 2023	Low Tide (ft)	-0.36
A7	19 Jul 2023	Low Tide Time	518
A7	19 Jul 2023	Comments	none
A7	27 Jul 2023	Depth (m)	20
A7	27 Jul 2023	Arrive Time	807
A7	27 Jul 2023	Depart Time	811
A7	27 Jul 2023	Air Temp (C)	20.1
A7	27 Jul 2023	Weather	Overcast
A7	27 Jul 2023	Visibility (mi)	5
A7	27 Jul 2023	Wind Speed (kts)	2.4
A7	27 Jul 2023	Wind Dir	W
A7	27 Jul 2023	Water Color	Blue
A7	27 Jul 2023	Wave Ht Low (ft)	3
A7	27 Jul 2023	Wave Period (sec)	15
A7	27 Jul 2023	Sea State	Wind Ripples
A7	27 Jul 2023	High Tide (ft)	5.34
A7	27 Jul 2023	High Tide Time	1706
A7	27 Jul 2023	Low Tide (ft)	0.78
A7	27 Jul 2023	Low Tide Time	2354
A7	27 Jul 2023	Comments	none
C4	05 Jul 2023	Depth (m)	11
C4	05 Jul 2023	Arrive Time	954
C4	05 Jul 2023	Depart Time	958
C4	05 Jul 2023	Air Temp (C)	16.8
C4	05 Jul 2023	Weather	Partly Cloudy
C4	05 Jul 2023	Visibility (mi)	9
C4	05 Jul 2023	Wind Speed (kts)	6.7
C4	05 Jul 2023	Wind Dir	NW
C4	05 Jul 2023	Water Color	Blueish-Green
C4	05 Jul 2023	Wave Ht Low (ft)	3.9
C4	05 Jul 2023	Wave Period (sec)	14
C4	05 Jul 2023	Sea State	Light Chop
C4	05 Jul 2023	High Tide (ft)	6.5
C4	05 Jul 2023	High Tide Time	2306
C4	05 Jul 2023	Low Tide (ft)	-1.45
C4	05 Jul 2023	Low Tide Time	542
C4	05 Jul 2023	Comments	none
C4	13 Jul 2023	Depth (m)	11
C4	13 Jul 2023	Arrive Time	948
C4	13 Jul 2023	Depart Time	950
C4	13 Jul 2023	Air Temp (C)	19.9
C4	13 Jul 2023	Weather	Clear

Station	Date	Parameter	Value
C4	13 Jul 2023	Visibility (mi)	11
C4	13 Jul 2023	Wind Speed (kts)	5.8
C4	13 Jul 2023	Wind Dir	N
C4	13 Jul 2023	Water Color	Greenish-Blue
C4	13 Jul 2023	Wave Ht Low (ft)	3
C4	13 Jul 2023	Wave Period (sec)	13
C4	13 Jul 2023	Sea State	Light Chop
C4	13 Jul 2023	High Tide (ft)	5.92
C4	13 Jul 2023	High Tide Time	1854
C4	13 Jul 2023	Low Tide (ft)	0.01
C4	13 Jul 2023	Low Tide Time	142
C4	13 Jul 2023	Comments	none
C4	19 Jul 2023	Depth (m)	9
C4	19 Jul 2023	Arrive Time	936
C4	19 Jul 2023	Depart Time	1016
C4	19 Jul 2023	Air Temp (C)	19.9
C4	19 Jul 2023	Weather	Haze
C4	19 Jul 2023	Visibility (mi)	6
C4	19 Jul 2023	Wind Speed (kts)	9.1
C4	19 Jul 2023	Wind Dir	W
C4	19 Jul 2023	Water Color	Blueish-Green
C4	19 Jul 2023	Wave Ht Low (ft)	2.6
C4	19 Jul 2023	Wave Period (sec)	11
C4	19 Jul 2023	Sea State	Calm
C4	19 Jul 2023	High Tide (ft)	5.75
C4	19 Jul 2023	High Tide Time	2230
C4	19 Jul 2023	Low Tide (ft)	-0.36
C4	19 Jul 2023	Low Tide Time	518
C4	19 Jul 2023	Comments	none
C4	27 Jul 2023	Depth (m)	11
C4	27 Jul 2023	Arrive Time	927
C4	27 Jul 2023	Depart Time	931
C4	27 Jul 2023	Air Temp (C)	20
C4	27 Jul 2023	Weather	Overcast
C4	27 Jul 2023	Visibility (mi)	5
C4	27 Jul 2023	Wind Speed (kts)	2.9
C4	27 Jul 2023	Wind Dir	NW
C4	27 Jul 2023	Water Color	Blue
C4	27 Jul 2023	Wave Ht Low (ft)	3
C4	27 Jul 2023	Wave Period (sec)	15
C4	27 Jul 2023	Sea State	Wind Ripples
C4	27 Jul 2023	High Tide (ft)	5.34
C4	27 Jul 2023	High Tide Time	1706
C4	27 Jul 2023	Low Tide (ft)	0.78
C4	27 Jul 2023	Low Tide Time	2354
C4	27 Jul 2023	Comments	none
C5	05 Jul 2023	Depth (m)	12
C5	05 Jul 2023	Arrive Time	946
C5	05 Jul 2023	Depart Time	949
C5	05 Jul 2023	Air Temp (C)	16.8
C5	05 Jul 2023	Weather	Partly Cloudy
C5	05 Jul 2023	Visibility (mi)	9
C5	05 Jul 2023	Wind Speed (kts)	7.1
C5	05 Jul 2023	Wind Dir	W
C5	05 Jul 2023	Water Color	Blueish-Green
C5	05 Jul 2023	Wave Ht Low (ft)	3.9
C5	05 Jul 2023	Wave Period (sec)	14
C5	05 Jul 2023	Sea State	Light Chop

Station	Date	Parameter	Value
C5	05 Jul 2023	High Tide (ft)	6.5
C5	05 Jul 2023	High Tide Time	2306
C5	05 Jul 2023	Low Tide (ft)	-1.45
C5	05 Jul 2023	Low Tide Time	542
C5	05 Jul 2023	Comments	none
C5	13 Jul 2023	Depth (m)	11
C5	13 Jul 2023	Arrive Time	935
C5	13 Jul 2023	Depart Time	939
C5	13 Jul 2023	Air Temp (C)	20
C5	13 Jul 2023	Weather	Clear
C5	13 Jul 2023	Visibility (mi)	11
C5	13 Jul 2023	Wind Speed (kts)	3.9
C5	13 Jul 2023	Wind Dir	N
C5	13 Jul 2023	Water Color	Greenish-Blue
C5	13 Jul 2023	Wave Ht Low (ft)	3
C5	13 Jul 2023	Wave Period (sec)	13
C5	13 Jul 2023	Sea State	Light Chop
C5	13 Jul 2023	High Tide (ft)	5.92
C5	13 Jul 2023	High Tide Time	1854
C5	13 Jul 2023	Low Tide (ft)	0.01
C5	13 Jul 2023	Low Tide Time	142
C5	13 Jul 2023	Comments	none
C5	19 Jul 2023	Depth (m)	11
C5	19 Jul 2023	Arrive Time	924
C5	19 Jul 2023	Depart Time	931
C5	19 Jul 2023	Air Temp (C)	19.9
C5	19 Jul 2023	Weather	Haze
C5	19 Jul 2023	Visibility (mi)	6
C5	19 Jul 2023	Wind Speed (kts)	7.9
C5	19 Jul 2023	Wind Dir	SW
C5	19 Jul 2023	Water Color	Blueish-Green
C5	19 Jul 2023	Wave Ht Low (ft)	2.6
C5	19 Jul 2023	Wave Period (sec)	11
C5	19 Jul 2023	Sea State	Calm
C5	19 Jul 2023	High Tide (ft)	5.75
C5	19 Jul 2023	High Tide Time	2230
C5	19 Jul 2023	Low Tide (ft)	-0.36
C5	19 Jul 2023	Low Tide Time	518
C5	19 Jul 2023	Comments	none
C5	27 Jul 2023	Depth (m)	11
C5	27 Jul 2023	Arrive Time	916
C5	27 Jul 2023	Depart Time	921
C5	27 Jul 2023	Air Temp (C)	19.9
C5	27 Jul 2023	Weather	Overcast
C5	27 Jul 2023	Visibility (mi)	5
C5	27 Jul 2023	Wind Speed (kts)	2.9
C5	27 Jul 2023	Wind Dir	W
C5	27 Jul 2023	Water Color	Blue
C5	27 Jul 2023	Wave Ht Low (ft)	3
C5	27 Jul 2023	Wave Period (sec)	15
C5	27 Jul 2023	Sea State	Wind Ripples
C5	27 Jul 2023	High Tide (ft)	5.34
C5	27 Jul 2023	High Tide Time	1706
C5	27 Jul 2023	Low Tide (ft)	0.78
C5	27 Jul 2023	Low Tide Time	2354
C5	27 Jul 2023	Comments	none
C6	05 Jul 2023	Depth (m)	9

Station	Date	Parameter	Value
C6	05 Jul 2023	Arrive Time	937
C6	05 Jul 2023	Depart Time	940
C6	05 Jul 2023	Air Temp (C)	16.8
C6	05 Jul 2023	Weather	Partly Cloudy
C6	05 Jul 2023	Visibility (mi)	9
C6	05 Jul 2023	Wind Speed (kts)	7.2
C6	05 Jul 2023	Wind Dir	W
C6	05 Jul 2023	Water Color	Blueish-Green
C6	05 Jul 2023	Wave Ht Low (ft)	3.9
C6	05 Jul 2023	Wave Period (sec)	14
C6	05 Jul 2023	Sea State	Light Chop
C6	05 Jul 2023	High Tide (ft)	6.5
C6	05 Jul 2023	High Tide Time	2306
C6	05 Jul 2023	Low Tide (ft)	-1.45
C6	05 Jul 2023	Low Tide Time	542
C6	05 Jul 2023	Comments	none
C6	13 Jul 2023	Depth (m)	9
C6	13 Jul 2023	Arrive Time	925
C6	13 Jul 2023	Depart Time	929
C6	13 Jul 2023	Air Temp (C)	20
C6	13 Jul 2023	Weather	Clear
C6	13 Jul 2023	Visibility (mi)	11
C6	13 Jul 2023	Wind Speed (kts)	4.4
C6	13 Jul 2023	Wind Dir	N
C6	13 Jul 2023	Water Color	Greenish-Blue
C6	13 Jul 2023	Wave Ht Low (ft)	3
C6	13 Jul 2023	Wave Period (sec)	13
C6	13 Jul 2023	Sea State	Light Chop
C6	13 Jul 2023	High Tide (ft)	5.92
C6	13 Jul 2023	High Tide Time	1854
C6	13 Jul 2023	Low Tide (ft)	0.01
C6	13 Jul 2023	Low Tide Time	142
C6	13 Jul 2023	Comments	none
C6	19 Jul 2023	Depth (m)	9
C6	19 Jul 2023	Arrive Time	913
C6	19 Jul 2023	Depart Time	918
C6	19 Jul 2023	Air Temp (C)	19.8
C6	19 Jul 2023	Weather	Haze
C6	19 Jul 2023	Visibility (mi)	6
C6	19 Jul 2023	Wind Speed (kts)	3.9
C6	19 Jul 2023	Wind Dir	SW
C6	19 Jul 2023	Water Color	Blueish-Green
C6	19 Jul 2023	Wave Ht Low (ft)	2.6
C6	19 Jul 2023	Wave Period (sec)	11
C6	19 Jul 2023	Sea State	Calm
C6	19 Jul 2023	High Tide (ft)	5.75
C6	19 Jul 2023	High Tide Time	2230
C6	19 Jul 2023	Low Tide (ft)	-0.36
C6	19 Jul 2023	Low Tide Time	518
C6	19 Jul 2023	Comments	none
C6	27 Jul 2023	Depth (m)	9
C6	27 Jul 2023	Arrive Time	908
C6	27 Jul 2023	Depart Time	911
C6	27 Jul 2023	Air Temp (C)	20.1
C6	27 Jul 2023	Weather	Overcast
C6	27 Jul 2023	Visibility (mi)	5
C6	27 Jul 2023	Wind Speed (kts)	3.1
C6	27 Jul 2023	Wind Dir	W

Station	Date	Parameter	Value
C6	27 Jul 2023	Water Color	Blue
C6	27 Jul 2023	Wave Ht Low (ft)	3
C6	27 Jul 2023	Wave Period (sec)	15
C6	27 Jul 2023	Sea State	Wind Ripples
C6	27 Jul 2023	High Tide (ft)	5.34
C6	27 Jul 2023	High Tide Time	1706
C6	27 Jul 2023	Low Tide (ft)	0.78
C6	27 Jul 2023	Low Tide Time	2354
C6	27 Jul 2023	Comments	Kelp Debris
C7	05 Jul 2023	Depth (m)	17
C7	05 Jul 2023	Arrive Time	905
C7	05 Jul 2023	Depart Time	911
C7	05 Jul 2023	Air Temp (C)	16.5
C7	05 Jul 2023	Weather	Overcast
C7	05 Jul 2023	Visibility (mi)	9
C7	05 Jul 2023	Wind Speed (kts)	10.4
C7	05 Jul 2023	Wind Dir	N
C7	05 Jul 2023	Water Color	Blue
C7	05 Jul 2023	Wave Ht Low (ft)	3.9
C7	05 Jul 2023	Wave Period (sec)	14
C7	05 Jul 2023	Sea State	Light Chop
C7	05 Jul 2023	High Tide (ft)	6.5
C7	05 Jul 2023	High Tide Time	2306
C7	05 Jul 2023	Low Tide (ft)	-1.45
C7	05 Jul 2023	Low Tide Time	542
C7	05 Jul 2023	Comments	Unable to get depth due to low tide; 17m max
C7	13 Jul 2023	Depth (m)	18
C7	13 Jul 2023	Arrive Time	855
C7	13 Jul 2023	Depart Time	858
C7	13 Jul 2023	Air Temp (C)	19.8
C7	13 Jul 2023	Weather	Clear
C7	13 Jul 2023	Visibility (mi)	11
C7	13 Jul 2023	Wind Speed (kts)	5.7
C7	13 Jul 2023	Wind Dir	N
C7	13 Jul 2023	Water Color	Greenish-Blue
C7	13 Jul 2023	Wave Ht Low (ft)	3
C7	13 Jul 2023	Wave Period (sec)	13
C7	13 Jul 2023	Sea State	Light Chop
C7	13 Jul 2023	High Tide (ft)	5.92
C7	13 Jul 2023	High Tide Time	1854
C7	13 Jul 2023	Low Tide (ft)	0.01
C7	13 Jul 2023	Low Tide Time	142
C7	13 Jul 2023	Comments	none
C7	19 Jul 2023	Depth (m)	17
C7	19 Jul 2023	Arrive Time	843
C7	19 Jul 2023	Depart Time	848
C7	19 Jul 2023	Air Temp (C)	19.8
C7	19 Jul 2023	Weather	Fog
C7	19 Jul 2023	Visibility (mi)	6
C7	19 Jul 2023	Wind Speed (kts)	11.9
C7	19 Jul 2023	Wind Dir	NW
C7	19 Jul 2023	Water Color	Blueish-Green
C7	19 Jul 2023	Wave Ht Low (ft)	2.6
C7	19 Jul 2023	Wave Period (sec)	11
C7	19 Jul 2023	Sea State	Calm
C7	19 Jul 2023	High Tide (ft)	5.75
C7	19 Jul 2023	High Tide Time	2230
C7	19 Jul 2023	Low Tide (ft)	-0.36

Station	Date	Parameter	Value
C7	19 Jul 2023	Low Tide Time	518
C7	19 Jul 2023	Comments	none
C7	27 Jul 2023	Depth (m)	18
C7	27 Jul 2023	Arrive Time	833
C7	27 Jul 2023	Depart Time	839
C7	27 Jul 2023	Air Temp (C)	20
C7	27 Jul 2023	Weather	Overcast
C7	27 Jul 2023	Visibility (mi)	5
C7	27 Jul 2023	Wind Speed (kts)	7.6
C7	27 Jul 2023	Wind Dir	NW
C7	27 Jul 2023	Water Color	Blue
C7	27 Jul 2023	Wave Ht Low (ft)	3
C7	27 Jul 2023	Wave Period (sec)	15
C7	27 Jul 2023	Sea State	Wind Ripples
C7	27 Jul 2023	High Tide (ft)	5.34
C7	27 Jul 2023	High Tide Time	1706
C7	27 Jul 2023	Low Tide (ft)	0.78
C7	27 Jul 2023	Low Tide Time	2354
C7	27 Jul 2023	Comments	none
C8	05 Jul 2023	Depth (m)	19
C8	05 Jul 2023	Arrive Time	919
C8	05 Jul 2023	Depart Time	922
C8	05 Jul 2023	Air Temp (C)	16.6
C8	05 Jul 2023	Weather	Overcast
C8	05 Jul 2023	Visibility (mi)	9
C8	05 Jul 2023	Wind Speed (kts)	6.3
C8	05 Jul 2023	Wind Dir	W
C8	05 Jul 2023	Water Color	Blue
C8	05 Jul 2023	Wave Ht Low (ft)	3.9
C8	05 Jul 2023	Wave Period (sec)	14
C8	05 Jul 2023	Sea State	Light Chop
C8	05 Jul 2023	High Tide (ft)	6.5
C8	05 Jul 2023	High Tide Time	2306
C8	05 Jul 2023	Low Tide (ft)	-1.45
C8	05 Jul 2023	Low Tide Time	542
C8	05 Jul 2023	Comments	none
C8	13 Jul 2023	Depth (m)	20
C8	13 Jul 2023	Arrive Time	906
C8	13 Jul 2023	Depart Time	910
C8	13 Jul 2023	Air Temp (C)	19.8
C8	13 Jul 2023	Weather	Clear
C8	13 Jul 2023	Visibility (mi)	11
C8	13 Jul 2023	Wind Speed (kts)	4.6
C8	13 Jul 2023	Wind Dir	NW
C8	13 Jul 2023	Water Color	Greenish-Blue
C8	13 Jul 2023	Wave Ht Low (ft)	3
C8	13 Jul 2023	Wave Period (sec)	13
C8	13 Jul 2023	Sea State	Light Chop
C8	13 Jul 2023	High Tide (ft)	5.92
C8	13 Jul 2023	High Tide Time	1854
C8	13 Jul 2023	Low Tide (ft)	0.01
C8	13 Jul 2023	Low Tide Time	142
C8	13 Jul 2023	Comments	none
C8	19 Jul 2023	Depth (m)	19
C8	19 Jul 2023	Arrive Time	856
C8	19 Jul 2023	Depart Time	858
C8	19 Jul 2023	Air Temp (C)	19.7

Station	Date	Parameter	Value
C8	19 Jul 2023	Weather	Haze
C8	19 Jul 2023	Visibility (mi)	6
C8	19 Jul 2023	Wind Speed (kts)	5.8
C8	19 Jul 2023	Wind Dir	N
C8	19 Jul 2023	Water Color	Blueish-Green
C8	19 Jul 2023	Wave Ht Low (ft)	2.6
C8	19 Jul 2023	Wave Period (sec)	11
C8	19 Jul 2023	Sea State	Calm
C8	19 Jul 2023	High Tide (ft)	5.75
C8	19 Jul 2023	High Tide Time	2230
C8	19 Jul 2023	Low Tide (ft)	-0.36
C8	19 Jul 2023	Low Tide Time	518
C8	19 Jul 2023	Comments	none
C8	27 Jul 2023	Depth (m)	19
C8	27 Jul 2023	Arrive Time	849
C8	27 Jul 2023	Depart Time	852
C8	27 Jul 2023	Air Temp (C)	20
C8	27 Jul 2023	Weather	Overcast
C8	27 Jul 2023	Visibility (mi)	5
C8	27 Jul 2023	Wind Speed (kts)	1.3
C8	27 Jul 2023	Wind Dir	N
C8	27 Jul 2023	Water Color	Blue
C8	27 Jul 2023	Wave Ht Low (ft)	3
C8	27 Jul 2023	Wave Period (sec)	15
C8	27 Jul 2023	Sea State	Wind Ripples
C8	27 Jul 2023	High Tide (ft)	5.34
C8	27 Jul 2023	High Tide Time	1706
C8	27 Jul 2023	Low Tide (ft)	0.78
C8	27 Jul 2023	Low Tide Time	2354
C8	27 Jul 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 Jul 2023	1	17.44	91.16	8.8	33.42	8.1	24.2	0.40
A1	05 Jul 2023	2	17.43	91.23	8.8	33.42	8.1	24.2	0.41
A1	05 Jul 2023	3	17.44	91.51	8.8	33.41	8.1	24.2	0.43
A1	05 Jul 2023	4	17.42	91.56	8.8	33.41	8.1	24.2	0.43
A1	05 Jul 2023	5	17.39	91.80	8.7	33.41	8.1	24.2	0.42
A1	05 Jul 2023	6	17.29	91.93	8.7	33.40	8.1	24.2	0.40
A1	05 Jul 2023	7	16.95	92.11	8.7	33.42	8.1	24.3	0.38
A1	05 Jul 2023	8	16.22	92.51	9.0	33.37	8.1	24.4	0.38
A1	05 Jul 2023	9	16.30	92.56	8.8	33.37	8.1	24.4	0.40
A1	05 Jul 2023	10	15.64	92.61	8.8	33.37	8.1	24.6	0.47
A1	05 Jul 2023	11	15.40	92.21	8.7	33.36	8.1	24.6	0.55
A1	05 Jul 2023	12	15.33	91.87	8.5	33.37	8.1	24.6	0.58
A1	05 Jul 2023	13	14.50	92.15	8.3	33.38	8.1	24.8	0.66
A1	05 Jul 2023	14	14.38	92.03	8.2	33.36	8.0	24.8	0.75
A1	05 Jul 2023	15	14.39	91.91	8.2	33.36	8.0	24.8	0.81
A1	05 Jul 2023	16	14.10	91.85	7.4	33.41	8.0	24.9	0.78
A1	05 Jul 2023	17	11.81	91.53	6.6	33.51	7.9	25.5	0.84
A1	13 Jul 2023	1	19.36	79.02	9.1	33.46	8.2	23.8	1.18
A1	13 Jul 2023	2	19.35	80.92	9.1	33.44	8.2	23.7	1.19
A1	13 Jul 2023	3	19.26	80.38	9.2	33.46	8.2	23.8	1.40
A1	13 Jul 2023	4	19.13	82.12	9.1	33.46	8.2	23.8	1.53
A1	13 Jul 2023	5	18.57	82.22	8.9	33.45	8.2	23.9	1.78
A1	13 Jul 2023	6	16.21	82.41	9.1	33.48	8.1	24.5	1.93
A1	13 Jul 2023	7	15.44	84.99	9.0	33.43	8.1	24.7	1.81
A1	13 Jul 2023	8	15.19	86.18	8.6	33.41	8.1	24.7	1.79
A1	13 Jul 2023	9	14.07	86.80	7.9	33.45	8.0	25.0	1.52
A1	13 Jul 2023	10	13.13	88.68	7.3	33.46	8.0	25.2	1.30
A1	13 Jul 2023	11	12.37	89.48	6.9	33.46	7.9	25.3	1.14
A1	13 Jul 2023	12	12.19	89.87	6.7	33.45	7.9	25.4	1.13
A1	13 Jul 2023	13	12.07	89.98	6.7	33.46	7.9	25.4	1.13
A1	13 Jul 2023	14	12.07	90.26	6.4	33.53	7.9	25.4	1.07
A1	13 Jul 2023	15	11.88	90.29	6.3	33.66	7.9	25.6	1.10
A1	13 Jul 2023	16	11.73	90.26	6.1	33.50	7.9	25.5	0.91
A1	13 Jul 2023	17	11.34	90.64	5.8	33.53	7.9	25.6	0.76
A1	13 Jul 2023	18	11.21	91.39	5.6	33.53	7.9	25.6	0.69
A1	19 Jul 2023	1	18.35	88.55	8.1	33.41	8.1	24.0	1.25
A1	19 Jul 2023	2	16.03	88.10	8.2	33.44	8.1	24.5	1.62
A1	19 Jul 2023	3	13.95	87.28	8.3	33.46	8.0	25.0	2.30
A1	19 Jul 2023	4	13.75	87.55	8.3	33.40	8.0	25.0	2.43
A1	19 Jul 2023	5	13.67	88.00	8.2	33.39	8.0	25.0	2.45
A1	19 Jul 2023	6	13.60	87.78	8.2	33.39	8.0	25.0	2.63
A1	19 Jul 2023	7	13.58	87.87	8.1	33.39	8.0	25.0	2.51
A1	19 Jul 2023	8	13.58	88.10	8.1	33.40	8.0	25.0	2.48
A1	19 Jul 2023	9	13.58	88.06	7.9	33.40	8.0	25.0	2.54
A1	19 Jul 2023	10	13.44	88.06	7.6	33.41	8.0	25.1	2.12
A1	19 Jul 2023	11	13.04	89.01	7.4	33.43	8.0	25.2	1.55
A1	19 Jul 2023	12	12.71	89.65	7.2	33.43	7.9	25.2	1.42
A1	19 Jul 2023	13	12.55	90.44	7.1	33.43	7.9	25.3	1.36
A1	19 Jul 2023	14	12.50	90.69	7.1	33.43	7.9	25.3	1.18
A1	19 Jul 2023	15	12.48	90.78	7.1	33.43	7.9	25.3	1.19
A1	19 Jul 2023	16	12.47	90.87	7.0	33.43	7.9	25.3	1.19
A1	19 Jul 2023	17	12.48	90.83	7.0	33.43	7.9	25.3	1.19
A1	19 Jul 2023	18	12.51	90.84	7.0	33.43	7.9	25.3	1.01

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
A1	27 Jul 2023	1	22.00	90.21	7.9	33.47	8.1	23.1	0.62
A1	27 Jul 2023	2	22.01	90.20	7.9	33.47	8.1	23.1	0.65
A1	27 Jul 2023	3	21.86	90.22	8.0	33.47	8.1	23.1	0.62
A1	27 Jul 2023	4	21.50	90.26	8.2	33.46	8.1	23.2	0.53
A1	27 Jul 2023	5	21.24	90.78	8.2	33.45	8.1	23.2	0.49
A1	27 Jul 2023	6	20.31	91.25	8.4	33.42	8.1	23.5	0.50
A1	27 Jul 2023	7	18.13	91.23	9.0	33.40	8.1	24.0	0.53
A1	27 Jul 2023	8	17.67	91.15	9.1	33.33	8.1	24.1	0.56
A1	27 Jul 2023	9	16.79	91.41	9.2	33.33	8.1	24.3	0.57
A1	27 Jul 2023	10	16.73	91.68	9.2	33.30	8.1	24.3	0.58
A1	27 Jul 2023	11	16.72	91.79	9.1	33.31	8.1	24.3	0.57
A1	27 Jul 2023	12	16.16	91.81	9.1	33.31	8.1	24.4	0.62
A1	27 Jul 2023	13	15.93	91.76	9.0	33.30	8.1	24.5	0.72
A1	27 Jul 2023	14	15.28	91.72	9.0	33.29	8.1	24.6	0.82
A1	27 Jul 2023	15	15.04	91.49	9.0	33.27	8.1	24.6	0.88
A1	27 Jul 2023	16	14.86	91.28	9.0	33.28	8.1	24.7	0.96
A1	27 Jul 2023	17	14.85	91.29	8.9	33.27	8.1	24.7	0.93
A1	27 Jul 2023	18	14.49	91.31	8.8	33.28	8.1	24.8	0.81
A1	27 Jul 2023	19	14.27	91.22	8.8	33.28	8.1	24.8	0.75
A6	05 Jul 2023	1	17.38	88.11	8.8	33.42	8.1	24.2	0.60
A6	05 Jul 2023	2	17.27	87.38	8.7	33.44	8.1	24.2	0.63
A6	05 Jul 2023	3	16.20	88.59	8.9	33.44	8.1	24.5	0.62
A6	05 Jul 2023	4	15.96	89.71	8.9	33.38	8.1	24.5	0.61
A6	05 Jul 2023	5	15.50	90.13	8.7	33.40	8.1	24.6	0.61
A6	05 Jul 2023	6	13.93	90.69	8.2	33.43	8.0	25.0	0.63
A6	05 Jul 2023	7	13.00	91.18	7.6	33.39	8.0	25.1	0.64
A6	05 Jul 2023	8	12.26	91.82	7.1	33.38	8.0	25.3	0.63
A6	05 Jul 2023	9	11.96	92.42	6.9	33.33	7.9	25.3	0.57
A6	05 Jul 2023	10	11.99	92.48	6.9	33.33	7.9	25.3	0.61
A6	05 Jul 2023	11	11.90	92.60	6.9	33.34	7.9	25.3	0.65
A6	05 Jul 2023	12	11.91	92.58	6.9	33.34	7.9	25.3	0.66
A6	05 Jul 2023	13	11.85	92.47	6.8	33.35	7.9	25.3	0.71
A6	05 Jul 2023	14	11.82	92.32	6.7	33.37	7.9	25.4	0.79
A6	05 Jul 2023	15	11.73	92.01	6.6	33.39	7.9	25.4	0.73
A6	05 Jul 2023	16	11.73	91.99	6.6	33.39	7.9	25.4	0.78
A6	05 Jul 2023	17	11.68	91.71	6.6	33.40	7.9	25.4	0.76
A6	13 Jul 2023	1	19.40	81.42	9.4	33.45	8.2	23.7	1.26
A6	13 Jul 2023	2	19.39	81.37	9.3	33.45	8.2	23.7	1.38
A6	13 Jul 2023	3	19.33	81.33	9.3	33.45	8.2	23.8	1.50
A6	13 Jul 2023	4	18.95	81.24	9.5	33.45	8.2	23.8	1.74
A6	13 Jul 2023	5	17.96	80.93	9.7	33.46	8.2	24.1	2.01
A6	13 Jul 2023	6	17.13	81.52	9.6	33.45	8.2	24.3	2.15
A6	13 Jul 2023	7	16.22	82.44	9.3	33.44	8.2	24.5	2.21
A6	13 Jul 2023	8	15.56	84.05	8.7	33.41	8.1	24.6	2.06
A6	13 Jul 2023	9	13.80	86.53	8.2	33.43	8.1	25.0	1.68
A6	13 Jul 2023	10	13.48	89.54	7.9	33.40	8.0	25.1	1.35
A6	13 Jul 2023	11	13.14	90.49	7.5	33.43	8.0	25.1	1.11
A6	13 Jul 2023	12	12.65	90.80	6.9	33.45	8.0	25.3	0.91
A6	13 Jul 2023	13	12.25	91.10	6.4	33.47	7.9	25.4	0.79
A6	13 Jul 2023	14	11.77	91.33	6.0	33.50	7.9	25.5	0.71
A6	13 Jul 2023	15	11.47	91.55	5.7	33.52	7.8	25.5	0.63
A6	13 Jul 2023	16	11.33	91.68	5.6	33.52	7.8	25.6	0.66
A6	13 Jul 2023	17	11.27	91.70	5.5	33.52	7.8	25.6	0.62
A6	13 Jul 2023	18	11.24	91.64	5.5	33.53	7.8	25.6	0.60
A6	13 Jul 2023	19	11.27	91.53	5.5	33.53	7.8	25.6	0.60
A6	13 Jul 2023	20	11.25	91.67	5.5	33.54	7.8	25.6	0.59
A6	13 Jul 2023	21	11.25	91.72	5.5	33.54	7.8	25.6	0.60

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
A6	19 Jul 2023	1	18.35	86.68	8.6	33.40	8.1	24.0	1.40
A6	19 Jul 2023	2	16.65	86.03	8.6	33.44	8.1	24.4	1.79
A6	19 Jul 2023	3	15.45	85.40	8.4	33.42	8.1	24.7	1.60
A6	19 Jul 2023	4	14.56	87.47	7.9	33.42	8.0	24.8	1.54
A6	19 Jul 2023	5	13.01	89.02	7.6	33.43	8.0	25.2	1.71
A6	19 Jul 2023	6	12.90	89.84	7.4	33.40	8.0	25.2	1.59
A6	19 Jul 2023	7	13.20	90.50	7.4	33.37	8.0	25.1	1.37
A6	19 Jul 2023	8	12.87	90.71	7.3	33.40	8.0	25.2	1.23
A6	19 Jul 2023	9	12.60	90.85	7.2	33.41	7.9	25.2	1.08
A6	19 Jul 2023	10	12.60	91.39	7.2	33.40	7.9	25.2	1.13
A6	19 Jul 2023	11	12.56	91.23	7.1	33.41	7.9	25.2	1.00
A6	19 Jul 2023	12	12.53	91.60	7.0	33.41	7.9	25.3	1.08
A6	19 Jul 2023	13	12.52	91.61	7.1	33.42	7.9	25.3	1.15
A6	19 Jul 2023	14	12.47	91.70	7.0	33.42	7.9	25.3	1.12
A6	19 Jul 2023	15	12.34	91.57	6.9	33.43	7.9	25.3	1.14
A6	19 Jul 2023	16	12.33	91.78	6.8	33.43	7.9	25.3	0.99
A6	19 Jul 2023	17	12.21	91.67	6.7	33.44	7.9	25.3	0.93
A6	19 Jul 2023	18	12.15	91.77	6.6	33.45	7.9	25.4	0.86
A6	19 Jul 2023	19	12.16	91.77	6.7	33.45	7.9	25.4	0.80
A6	27 Jul 2023	1	22.12	89.56	8.0	33.47	8.1	23.0	0.64
A6	27 Jul 2023	2	22.15	89.56	8.0	33.48	8.1	23.0	0.66
A6	27 Jul 2023	3	21.63	89.58	8.2	33.48	8.2	23.2	0.65
A6	27 Jul 2023	4	21.08	89.74	8.5	33.46	8.2	23.3	0.56
A6	27 Jul 2023	5	19.83	90.38	8.9	33.45	8.2	23.6	0.55
A6	27 Jul 2023	6	19.37	90.24	9.0	33.41	8.1	23.7	0.56
A6	27 Jul 2023	7	18.96	90.65	8.9	33.40	8.1	23.8	0.58
A6	27 Jul 2023	8	18.32	90.94	8.9	33.38	8.1	24.0	0.67
A6	27 Jul 2023	9	17.41	90.50	9.1	33.36	8.1	24.2	0.80
A6	27 Jul 2023	10	17.08	90.09	9.0	33.34	8.1	24.2	0.80
A6	27 Jul 2023	11	16.41	90.49	9.0	33.34	8.1	24.4	0.67
A6	27 Jul 2023	12	16.19	90.95	8.9	33.31	8.1	24.4	0.60
A6	27 Jul 2023	13	15.56	91.09	9.0	33.34	8.1	24.6	0.64
A6	27 Jul 2023	14	15.11	91.20	9.2	33.30	8.1	24.6	0.75
A6	27 Jul 2023	15	14.95	91.44	9.2	33.28	8.1	24.7	0.86
A6	27 Jul 2023	16	14.76	91.78	9.2	33.28	8.1	24.7	0.85
A6	27 Jul 2023	17	14.61	91.91	9.2	33.28	8.1	24.7	0.90
A6	27 Jul 2023	18	14.59	92.00	9.1	33.28	8.1	24.7	0.98
A7	05 Jul 2023	1	17.00	89.65	8.8	33.41	8.1	24.3	0.46
A7	05 Jul 2023	2	17.01	89.96	8.8	33.41	8.1	24.3	0.46
A7	05 Jul 2023	3	17.02	90.49	8.9	33.41	8.1	24.3	0.44
A7	05 Jul 2023	4	16.99	90.57	8.8	33.41	8.1	24.3	0.46
A7	05 Jul 2023	5	16.97	90.91	8.9	33.40	8.1	24.3	0.47
A7	05 Jul 2023	6	16.93	91.13	8.9	33.40	8.1	24.3	0.51
A7	05 Jul 2023	7	16.81	91.24	8.8	33.40	8.1	24.3	0.51
A7	05 Jul 2023	8	16.70	91.36	8.8	33.40	8.1	24.4	0.51
A7	05 Jul 2023	9	15.93	91.62	8.8	33.44	8.1	24.6	0.48
A7	05 Jul 2023	10	15.60	92.12	8.7	33.37	8.1	24.6	0.49
A7	05 Jul 2023	11	14.80	92.07	8.6	33.37	8.1	24.8	0.54
A7	05 Jul 2023	12	14.71	91.96	8.6	33.35	8.1	24.8	0.57
A7	05 Jul 2023	13	14.64	91.89	8.4	33.34	8.1	24.8	0.62
A7	05 Jul 2023	14	12.99	91.67	7.4	33.51	8.0	25.2	0.65
A7	05 Jul 2023	15	12.08	91.52	6.8	33.39	7.9	25.3	0.72
A7	05 Jul 2023	16	11.79	91.37	6.6	33.41	7.9	25.4	0.72
A7	05 Jul 2023	17	11.70	91.09	6.4	33.41	7.9	25.4	0.76
A7	05 Jul 2023	18	11.64	90.81	6.4	33.42	7.9	25.4	0.74
A7	13 Jul 2023	1	19.50	82.64	9.1	33.45	8.2	23.7	1.36
A7	13 Jul 2023	2	19.38	82.71	9.3	33.46	8.2	23.7	1.45
A7	13 Jul 2023	3	18.65	82.34	9.8	33.47	8.2	23.9	1.73

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
A7	13 Jul 2023	4	18.06	81.24	9.6	33.45	8.2	24.1	1.93
A7	13 Jul 2023	5	16.84	82.17	9.1	33.47	8.2	24.4	1.93
A7	13 Jul 2023	6	15.06	84.67	9.1	33.44	8.1	24.8	1.82
A7	13 Jul 2023	7	14.79	87.23	8.5	33.43	8.1	24.8	1.72
A7	13 Jul 2023	8	13.42	88.78	7.6	33.48	8.0	25.1	1.33
A7	13 Jul 2023	9	13.16	90.07	7.2	33.45	8.0	25.2	0.97
A7	13 Jul 2023	10	12.81	90.58	6.9	33.46	8.0	25.2	0.76
A7	13 Jul 2023	11	12.57	90.71	6.8	33.47	7.9	25.3	0.69
A7	13 Jul 2023	12	12.34	90.76	6.6	33.48	7.9	25.3	0.67
A7	13 Jul 2023	13	12.12	90.88	6.5	33.49	7.9	25.4	0.63
A7	13 Jul 2023	14	12.12	90.83	6.4	33.49	7.9	25.4	0.63
A7	13 Jul 2023	15	12.03	90.79	6.4	33.50	7.9	25.4	0.62
A7	13 Jul 2023	16	12.02	90.92	6.3	33.50	7.9	25.4	0.63
A7	13 Jul 2023	17	11.96	90.93	6.3	33.51	7.9	25.4	0.66
A7	13 Jul 2023	18	11.82	91.11	6.2	33.52	7.9	25.5	0.62
A7	13 Jul 2023	19	11.63	91.29	6.0	33.53	7.8	25.5	0.60
A7	19 Jul 2023	1	16.58	86.95	8.5	33.40	8.1	24.4	1.37
A7	19 Jul 2023	2	15.49	86.40	8.5	33.39	8.1	24.6	1.76
A7	19 Jul 2023	3	14.59	86.65	8.2	33.40	8.1	24.8	1.83
A7	19 Jul 2023	4	13.46	87.55	8.0	33.41	8.0	25.1	2.05
A7	19 Jul 2023	5	13.19	88.69	7.8	33.40	8.0	25.1	2.06
A7	19 Jul 2023	6	13.08	89.12	7.6	33.40	8.0	25.1	1.84
A7	19 Jul 2023	7	13.01	89.52	7.6	33.40	8.0	25.2	2.21
A7	19 Jul 2023	8	12.94	89.61	7.5	33.40	8.0	25.2	2.21
A7	19 Jul 2023	9	12.92	89.51	7.5	33.40	8.0	25.2	2.10
A7	19 Jul 2023	10	12.88	90.13	7.4	33.41	8.0	25.2	1.66
A7	19 Jul 2023	11	12.85	90.28	7.4	33.41	8.0	25.2	1.78
A7	19 Jul 2023	12	12.79	90.45	7.3	33.41	8.0	25.2	1.65
A7	19 Jul 2023	13	12.76	90.45	7.2	33.42	7.9	25.2	1.39
A7	19 Jul 2023	14	12.76	90.60	7.2	33.42	7.9	25.2	1.25
A7	19 Jul 2023	15	12.75	90.89	7.2	33.42	7.9	25.2	1.35
A7	19 Jul 2023	16	12.71	90.87	7.2	33.43	7.9	25.2	1.26
A7	19 Jul 2023	17	12.66	90.72	7.1	33.43	7.9	25.2	1.23
A7	19 Jul 2023	18	12.52	90.78	6.9	33.44	7.9	25.3	1.10
A7	19 Jul 2023	19	12.45	91.06	6.9	33.44	7.9	25.3	1.13
A7	27 Jul 2023	1	21.95	90.06	8.0	33.47	8.1	23.1	0.61
A7	27 Jul 2023	2	21.72	90.09	8.2	33.47	8.1	23.1	0.58
A7	27 Jul 2023	3	21.54	90.37	8.3	33.46	8.2	23.2	0.54
A7	27 Jul 2023	4	21.52	90.73	8.3	33.46	8.2	23.2	0.54
A7	27 Jul 2023	5	21.49	90.90	8.3	33.46	8.2	23.2	0.52
A7	27 Jul 2023	6	21.12	90.91	8.4	33.45	8.2	23.3	0.51
A7	27 Jul 2023	7	20.72	91.10	8.5	33.44	8.2	23.4	0.51
A7	27 Jul 2023	8	19.49	91.11	8.7	33.43	8.2	23.7	0.53
A7	27 Jul 2023	9	18.24	91.09	8.9	33.38	8.1	24.0	0.62
A7	27 Jul 2023	10	17.49	91.01	9.1	33.35	8.1	24.1	0.72
A7	27 Jul 2023	11	16.99	90.65	9.1	33.32	8.1	24.2	0.71
A7	27 Jul 2023	12	16.32	90.48	9.0	33.31	8.1	24.4	0.66
A7	27 Jul 2023	13	15.89	90.35	9.0	33.30	8.1	24.5	0.65
A7	27 Jul 2023	14	15.78	90.62	8.9	33.30	8.1	24.5	0.65
A7	27 Jul 2023	15	15.30	90.81	8.9	33.29	8.1	24.6	0.65
A7	27 Jul 2023	16	15.06	91.03	8.9	33.28	8.1	24.6	0.74
A7	27 Jul 2023	17	14.98	91.24	8.9	33.27	8.1	24.6	0.82
A7	27 Jul 2023	18	14.55	91.36	9.0	33.27	8.1	24.7	0.91
A7	27 Jul 2023	19	14.46	91.27	8.9	33.27	8.1	24.8	0.95
A7	27 Jul 2023	20	14.41	91.23	8.7	33.28	8.1	24.8	0.89
C4	05 Jul 2023	1	17.29	86.25	8.7	33.43	8.1	24.2	0.35
C4	05 Jul 2023	2	16.13	86.78	8.2	33.50	8.1	24.6	0.37
C4	05 Jul 2023	3	14.20	89.31	8.0	33.41	8.0	24.9	0.29

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C4	05 Jul 2023	4	13.98	89.32	7.8	33.40	8.0	24.9	0.28
C4	05 Jul 2023	5	13.12	90.44	7.7	33.36	8.0	25.1	0.34
C4	05 Jul 2023	6	12.88	91.33	7.5	33.37	8.0	25.2	0.38
C4	05 Jul 2023	7	12.42	91.44	7.4	33.35	8.0	25.2	0.41
C4	05 Jul 2023	8	12.28	91.12	7.4	33.33	8.0	25.2	0.42
C4	05 Jul 2023	9	12.28	91.00	7.3	33.34	8.0	25.2	0.44
C4	05 Jul 2023	10	12.23	91.05	7.4	33.34	8.0	25.3	0.45
C4	05 Jul 2023	11	12.23	90.90	7.4	33.34	8.0	25.3	0.45
C4	05 Jul 2023	12	12.24	91.09	7.4	33.34	8.0	25.3	0.52
C4	13 Jul 2023	1	19.12	83.40	9.1	33.44	8.2	23.8	0.86
C4	13 Jul 2023	2	18.67	83.39	9.2	33.44	8.2	23.9	0.98
C4	13 Jul 2023	3	18.23	83.26	8.5	33.44	8.2	24.0	1.09
C4	13 Jul 2023	4	14.26	83.77	7.7	33.50	8.1	25.0	0.99
C4	13 Jul 2023	5	12.88	86.66	7.2	33.42	8.0	25.2	0.89
C4	13 Jul 2023	6	12.69	85.96	7.1	33.40	8.0	25.2	0.95
C4	13 Jul 2023	7	12.68	86.05	7.2	33.40	8.0	25.2	1.07
C4	13 Jul 2023	8	12.77	86.83	7.1	33.40	8.0	25.2	1.01
C4	13 Jul 2023	9	12.45	86.76	6.9	33.42	7.9	25.3	0.88
C4	13 Jul 2023	10	12.51	85.81	6.9	33.43	7.9	25.3	0.83
C4	13 Jul 2023	11	12.24	84.50	6.9	33.46	7.9	25.3	0.61
C4	19 Jul 2023	1	18.50	80.85	8.2	33.46	8.1	24.0	1.21
C4	19 Jul 2023	2	17.84	78.71	7.9	33.45	8.1	24.1	1.65
C4	19 Jul 2023	3	15.34	77.52	8.3	33.45	8.1	24.7	1.40
C4	19 Jul 2023	4	14.59	83.48	8.3	33.41	8.0	24.8	1.20
C4	19 Jul 2023	5	14.37	87.11	8.2	33.39	8.0	24.9	1.14
C4	19 Jul 2023	6	14.28	88.03	8.1	33.39	8.0	24.9	1.13
C4	19 Jul 2023	7	14.21	88.36	8.0	33.39	8.0	24.9	1.15
C4	19 Jul 2023	8	14.17	88.54	8.0	33.39	8.0	24.9	1.15
C4	19 Jul 2023	9	14.15	88.53	8.0	33.40	8.0	24.9	1.11
C4	19 Jul 2023	10	14.14	88.46	8.0	33.40	8.0	24.9	1.04
C4	19 Jul 2023	11	14.15	88.29	8.0	33.40	8.0	24.9	1.00
C4	27 Jul 2023	1	21.82	90.37	8.0	33.46	8.1	23.1	0.51
C4	27 Jul 2023	2	21.76	90.25	8.1	33.45	8.1	23.1	0.57
C4	27 Jul 2023	3	21.61	90.27	8.1	33.45	8.1	23.1	0.62
C4	27 Jul 2023	4	21.21	90.19	8.2	33.44	8.1	23.2	0.66
C4	27 Jul 2023	5	20.96	90.16	8.3	33.43	8.1	23.3	0.70
C4	27 Jul 2023	6	20.68	89.95	8.2	33.42	8.1	23.4	0.73
C4	27 Jul 2023	7	20.23	89.19	8.2	33.41	8.1	23.5	0.74
C4	27 Jul 2023	8	18.58	88.03	8.6	33.40	8.1	23.9	0.66
C4	27 Jul 2023	9	17.42	86.52	8.9	33.36	8.1	24.1	0.59
C4	27 Jul 2023	10	15.82	84.82	9.5	33.33	8.1	24.5	0.49
C5	05 Jul 2023	1	16.75	88.93	8.4	33.41	8.1	24.4	0.37
C5	05 Jul 2023	2	15.15	89.41	8.4	33.44	8.1	24.7	0.39
C5	05 Jul 2023	3	13.76	90.25	7.9	33.44	8.0	25.0	0.37
C5	05 Jul 2023	4	12.95	90.48	7.6	33.38	8.0	25.1	0.38
C5	05 Jul 2023	5	12.89	90.36	7.5	33.36	8.0	25.1	0.40
C5	05 Jul 2023	6	12.77	90.85	7.5	33.36	8.0	25.2	0.43
C5	05 Jul 2023	7	12.74	91.03	7.4	33.36	8.0	25.2	0.44
C5	05 Jul 2023	8	12.59	91.11	7.5	33.36	8.0	25.2	0.45
C5	05 Jul 2023	9	12.59	91.03	7.5	33.36	8.0	25.2	0.48
C5	05 Jul 2023	10	12.60	91.00	7.5	33.37	8.0	25.2	0.49
C5	05 Jul 2023	11	12.64	90.90	7.6	33.37	8.0	25.2	0.51
C5	13 Jul 2023	1	19.25	83.75	9.2	33.44	8.2	23.8	0.91
C5	13 Jul 2023	2	19.13	84.16	9.3	33.44	8.2	23.8	1.01
C5	13 Jul 2023	3	18.89	84.01	9.2	33.44	8.2	23.9	1.15
C5	13 Jul 2023	4	17.81	83.49	9.3	33.46	8.2	24.1	1.33

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
C5	13 Jul 2023	5	16.58	82.86	9.3	33.45	8.2	24.4	1.52
C5	13 Jul 2023	6	15.57	83.36	9.1	33.44	8.1	24.6	1.55
C5	13 Jul 2023	7	14.98	85.86	9.0	33.42	8.1	24.8	1.10
C5	13 Jul 2023	8	14.34	88.68	8.7	33.44	8.1	24.9	0.80
C5	13 Jul 2023	9	13.96	88.98	8.3	33.43	8.1	25.0	0.71
C5	13 Jul 2023	10	13.52	88.94	7.8	33.46	8.0	25.1	0.56
C5	13 Jul 2023	11	13.33	88.07	7.8	33.45	8.0	25.1	0.54
C5	19 Jul 2023	1	19.07	88.48	8.3	33.42	8.1	23.8	0.77
C5	19 Jul 2023	2	17.96	88.35	8.3	33.44	8.1	24.1	0.98
C5	19 Jul 2023	3	16.05	87.46	8.5	33.44	8.1	24.5	1.19
C5	19 Jul 2023	4	15.26	86.15	8.3	33.41	8.1	24.7	1.13
C5	19 Jul 2023	5	14.57	86.91	7.8	33.41	8.0	24.8	0.94
C5	19 Jul 2023	6	14.19	88.23	7.5	33.40	8.0	24.9	0.80
C5	19 Jul 2023	7	13.98	88.71	7.4	33.40	8.0	25.0	0.68
C5	19 Jul 2023	8	13.76	88.78	7.4	33.41	8.0	25.0	0.60
C5	19 Jul 2023	9	13.55	88.86	7.5	33.41	8.0	25.1	0.67
C5	19 Jul 2023	10	13.53	89.21	7.6	33.41	8.0	25.1	0.68
C5	27 Jul 2023	1	21.95	89.97	7.9	33.47	8.1	23.1	0.67
C5	27 Jul 2023	2	21.88	89.98	8.0	33.46	8.1	23.1	0.70
C5	27 Jul 2023	3	21.72	90.11	8.0	33.46	8.1	23.1	0.71
C5	27 Jul 2023	4	21.38	90.23	8.2	33.45	8.1	23.2	0.65
C5	27 Jul 2023	5	20.92	90.51	8.4	33.43	8.1	23.3	0.63
C5	27 Jul 2023	6	20.50	90.76	8.5	33.42	8.1	23.4	0.64
C5	27 Jul 2023	7	19.89	90.92	8.6	33.41	8.1	23.6	0.71
C5	27 Jul 2023	8	19.23	90.56	8.6	33.37	8.1	23.7	0.74
C5	27 Jul 2023	9	17.03	89.60	9.2	33.37	8.2	24.3	0.59
C5	27 Jul 2023	10	15.87	87.54	9.5	33.32	8.1	24.5	0.46
C5	27 Jul 2023	11	15.49	86.25	9.6	33.29	8.1	24.5	0.45
C6	05 Jul 2023	1	17.35	86.94	8.6	33.43	8.1	24.2	0.42
C6	05 Jul 2023	2	16.46	86.58	8.5	33.46	8.1	24.5	0.43
C6	05 Jul 2023	3	15.66	88.96	8.4	33.43	8.1	24.6	0.44
C6	05 Jul 2023	4	14.44	89.79	8.4	33.40	8.1	24.9	0.39
C6	05 Jul 2023	5	14.27	90.23	8.1	33.38	8.0	24.9	0.38
C6	05 Jul 2023	6	13.52	90.00	8.0	33.40	8.0	25.0	0.34
C6	05 Jul 2023	7	13.46	89.81	8.0	33.38	8.0	25.0	0.34
C6	05 Jul 2023	8	13.20	89.62	8.0	33.39	8.0	25.1	0.38
C6	05 Jul 2023	9	13.21	89.64	8.0	33.38	8.0	25.1	0.41
C6	13 Jul 2023	1	19.34	75.51	9.2	33.39	8.2	23.7	1.27
C6	13 Jul 2023	2	19.20	78.16	9.2	33.44	8.2	23.8	1.29
C6	13 Jul 2023	3	17.81	81.37	9.5	33.45	8.2	24.1	1.44
C6	13 Jul 2023	4	17.14	82.09	9.1	33.43	8.2	24.3	1.60
C6	13 Jul 2023	5	15.44	82.57	8.9	33.44	8.1	24.7	1.26
C6	13 Jul 2023	6	14.59	85.65	8.7	33.42	8.1	24.8	0.79
C6	13 Jul 2023	7	14.30	88.61	8.3	33.40	8.1	24.9	0.58
C6	13 Jul 2023	8	13.95	87.48	8.1	33.41	8.1	25.0	0.51
C6	13 Jul 2023	9	13.80	88.64	8.2	33.41	8.0	25.0	0.48
C6	19 Jul 2023	1	18.87	84.83	8.8	33.42	8.2	23.8	0.86
C6	19 Jul 2023	2	16.77	84.73	8.3	33.49	8.1	24.4	0.93
C6	19 Jul 2023	3	15.15	85.73	8.2	33.42	8.1	24.7	0.81
C6	19 Jul 2023	4	14.69	88.30	8.0	33.41	8.1	24.8	0.85
C6	19 Jul 2023	5	14.31	89.12	7.8	33.41	8.0	24.9	0.82
C6	19 Jul 2023	6	13.96	89.42	7.6	33.42	8.0	25.0	0.72
C6	19 Jul 2023	7	13.67	89.59	7.6	33.42	8.0	25.0	0.67
C6	19 Jul 2023	8	13.71	89.74	7.7	33.41	8.0	25.0	0.63
C6	19 Jul 2023	9	13.71	89.73	7.7	33.42	8.0	25.0	0.61
C6	19 Jul 2023	10	13.74	89.81	7.8	33.42	8.0	25.0	0.61

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
C6	27 Jul 2023	1	21.95	90.25	7.9	33.47	8.1	23.1	0.63
C6	27 Jul 2023	2	21.91	90.23	7.9	33.46	8.1	23.1	0.64
C6	27 Jul 2023	3	21.62	90.35	8.1	33.46	8.1	23.2	0.64
C6	27 Jul 2023	4	21.23	90.46	8.4	33.45	8.2	23.3	0.57
C6	27 Jul 2023	5	20.86	90.87	8.5	33.44	8.2	23.3	0.55
C6	27 Jul 2023	6	20.66	91.03	8.5	33.43	8.2	23.4	0.61
C6	27 Jul 2023	7	20.41	90.83	8.3	33.42	8.2	23.4	0.70
C6	27 Jul 2023	8	19.70	89.76	8.3	33.37	8.1	23.6	0.61
C6	27 Jul 2023	9	17.13	88.93	9.2	33.41	8.1	24.3	0.44
C7	05 Jul 2023	1	17.56	86.05	8.8	33.42	8.1	24.2	0.56
C7	05 Jul 2023	2	17.54	86.02	8.8	33.43	8.1	24.2	0.58
C7	05 Jul 2023	3	16.86	86.59	8.8	33.47	8.1	24.4	0.62
C7	05 Jul 2023	4	16.33	87.33	8.9	33.43	8.1	24.5	0.70
C7	05 Jul 2023	5	15.59	87.95	8.9	33.40	8.1	24.6	0.82
C7	05 Jul 2023	6	14.90	88.43	8.6	33.45	8.1	24.8	0.82
C7	05 Jul 2023	7	14.11	89.67	8.4	33.39	8.0	24.9	0.74
C7	05 Jul 2023	8	13.92	89.94	8.3	33.40	8.0	25.0	0.62
C7	05 Jul 2023	9	13.62	89.96	8.0	33.39	8.0	25.0	0.66
C7	05 Jul 2023	10	12.93	90.23	7.6	33.42	8.0	25.2	0.75
C7	05 Jul 2023	11	12.27	91.01	7.2	33.40	8.0	25.3	0.77
C7	05 Jul 2023	12	12.15	91.86	7.0	33.36	7.9	25.3	0.79
C7	05 Jul 2023	13	11.85	92.42	6.8	33.38	7.9	25.4	0.78
C7	05 Jul 2023	14	11.78	92.62	6.7	33.36	7.9	25.4	0.76
C7	05 Jul 2023	15	11.77	92.60	6.7	33.37	7.9	25.4	0.78
C7	05 Jul 2023	16	11.79	92.46	6.7	33.37	7.9	25.4	0.87
C7	05 Jul 2023	17	11.74	92.43	6.7	33.38	7.9	25.4	0.74
C7	13 Jul 2023	1	20.09	78.40	8.9	33.47	8.2	23.6	1.47
C7	13 Jul 2023	2	19.93	78.25	8.9	33.46	8.2	23.6	1.61
C7	13 Jul 2023	3	18.57	78.22	9.3	33.48	8.2	24.0	1.87
C7	13 Jul 2023	4	17.74	78.88	9.8	33.45	8.2	24.2	2.04
C7	13 Jul 2023	5	17.29	79.91	9.9	33.44	8.2	24.2	1.97
C7	13 Jul 2023	6	16.85	82.26	9.7	33.43	8.2	24.3	2.05
C7	13 Jul 2023	7	16.37	83.38	9.4	33.42	8.2	24.4	2.20
C7	13 Jul 2023	8	15.43	84.27	9.2	33.43	8.1	24.7	2.09
C7	13 Jul 2023	9	14.66	86.48	8.8	33.42	8.1	24.8	1.95
C7	13 Jul 2023	10	13.71	87.77	8.4	33.42	8.1	25.0	1.66
C7	13 Jul 2023	11	13.53	89.68	8.2	33.39	8.0	25.0	1.42
C7	13 Jul 2023	12	13.27	90.55	7.9	33.41	8.0	25.1	1.21
C7	13 Jul 2023	13	12.99	90.71	7.6	33.42	8.0	25.2	1.04
C7	13 Jul 2023	14	13.01	90.97	7.5	33.41	8.0	25.2	1.00
C7	13 Jul 2023	15	12.49	91.25	7.0	33.45	8.0	25.3	1.05
C7	13 Jul 2023	16	11.99	91.48	6.6	33.46	7.9	25.4	1.03
C7	13 Jul 2023	17	11.97	91.94	6.3	33.47	7.9	25.4	0.88
C7	13 Jul 2023	18	11.77	92.04	6.3	33.49	7.9	25.5	0.75
C7	19 Jul 2023	1	19.08	83.79	9.5	33.43	8.2	23.8	1.23
C7	19 Jul 2023	2	17.37	83.63	9.0	33.46	8.2	24.2	1.73
C7	19 Jul 2023	3	16.17	83.75	8.9	33.43	8.1	24.5	2.22
C7	19 Jul 2023	4	15.71	84.43	8.7	33.41	8.1	24.6	2.36
C7	19 Jul 2023	5	15.17	85.28	8.5	33.40	8.1	24.7	2.24
C7	19 Jul 2023	6	14.68	86.38	8.3	33.41	8.1	24.8	1.89
C7	19 Jul 2023	7	14.66	88.02	8.1	33.40	8.0	24.8	1.80
C7	19 Jul 2023	8	14.27	89.02	8.0	33.41	8.0	24.9	1.34
C7	19 Jul 2023	9	14.22	89.19	7.9	33.41	8.0	24.9	1.19
C7	19 Jul 2023	10	13.95	89.40	7.6	33.42	8.0	25.0	1.24
C7	19 Jul 2023	11	13.25	89.90	7.5	33.43	8.0	25.1	1.10
C7	19 Jul 2023	12	13.01	90.28	7.4	33.43	8.0	25.2	1.24
C7	19 Jul 2023	13	12.91	91.04	7.3	33.43	8.0	25.2	1.27

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
C7	19 Jul 2023	14	12.64	91.11	7.2	33.43	8.0	25.2	1.19
C7	19 Jul 2023	15	12.47	91.40	7.1	33.44	7.9	25.3	1.33
C7	19 Jul 2023	16	12.38	91.84	7.0	33.44	7.9	25.3	1.13
C7	19 Jul 2023	17	12.38	92.18	7.0	33.44	7.9	25.3	1.07
C7	19 Jul 2023	18	12.39	92.14	7.0	33.44	7.9	25.3	1.20
C7	27 Jul 2023	1	22.05	89.58	8.1	33.48	8.2	23.0	0.71
C7	27 Jul 2023	2	22.05	89.51	8.0	33.48	8.2	23.0	0.76
C7	27 Jul 2023	3	21.94	89.52	8.1	33.47	8.2	23.1	0.74
C7	27 Jul 2023	4	21.38	89.80	8.4	33.47	8.2	23.2	0.63
C7	27 Jul 2023	5	21.17	90.17	8.5	33.45	8.2	23.3	0.57
C7	27 Jul 2023	6	20.46	90.52	8.8	33.45	8.2	23.5	0.57
C7	27 Jul 2023	7	20.02	90.44	8.8	33.43	8.2	23.6	0.58
C7	27 Jul 2023	8	19.03	90.15	8.9	33.41	8.2	23.8	0.56
C7	27 Jul 2023	9	18.41	91.13	8.9	33.36	8.1	23.9	0.54
C7	27 Jul 2023	10	17.31	91.47	9.2	33.35	8.1	24.2	0.68
C7	27 Jul 2023	11	16.88	91.33	9.4	33.32	8.1	24.3	0.86
C7	27 Jul 2023	12	16.28	90.09	9.4	33.32	8.1	24.4	0.91
C7	27 Jul 2023	13	16.14	90.31	9.3	33.30	8.1	24.4	0.88
C7	27 Jul 2023	14	16.04	90.50	9.2	33.29	8.1	24.4	0.85
C7	27 Jul 2023	15	15.72	90.56	9.2	33.30	8.1	24.5	0.89
C7	27 Jul 2023	16	15.29	90.44	9.3	33.30	8.1	24.6	0.85
C7	27 Jul 2023	17	15.25	90.21	8.9	33.28	8.1	24.6	0.74
C7	27 Jul 2023	18	13.83	90.37	8.8	33.31	8.1	24.9	0.62
C8	05 Jul 2023	1	17.57	86.64	8.9	33.44	8.1	24.2	0.52
C8	05 Jul 2023	2	17.33	86.42	8.8	33.45	8.1	24.2	0.55
C8	05 Jul 2023	3	16.20	86.73	9.1	33.42	8.1	24.5	0.68
C8	05 Jul 2023	4	16.12	88.27	8.9	33.42	8.1	24.5	0.71
C8	05 Jul 2023	5	15.34	88.55	8.9	33.39	8.1	24.7	0.79
C8	05 Jul 2023	6	14.99	88.83	8.9	33.39	8.1	24.7	0.79
C8	05 Jul 2023	7	14.57	89.66	8.9	33.35	8.1	24.8	0.77
C8	05 Jul 2023	8	14.31	90.10	8.3	33.39	8.1	24.9	0.75
C8	05 Jul 2023	9	13.41	89.60	7.9	33.43	8.0	25.1	0.77
C8	05 Jul 2023	10	13.16	90.27	7.7	33.37	8.0	25.1	0.78
C8	05 Jul 2023	11	12.46	91.45	7.3	33.42	8.0	25.3	0.81
C8	05 Jul 2023	12	12.06	91.70	7.0	33.37	7.9	25.3	0.90
C8	05 Jul 2023	13	12.06	91.91	7.0	33.37	7.9	25.3	0.93
C8	05 Jul 2023	14	12.00	91.99	6.9	33.37	7.9	25.3	0.93
C8	05 Jul 2023	15	11.97	91.92	6.9	33.37	7.9	25.3	0.92
C8	05 Jul 2023	16	11.99	91.91	6.9	33.38	7.9	25.3	0.88
C8	05 Jul 2023	17	11.96	91.87	6.9	33.38	7.9	25.3	1.05
C8	05 Jul 2023	18	11.96	91.69	6.9	33.38	7.9	25.3	0.98
C8	05 Jul 2023	19	11.97	91.72	6.9	33.39	7.9	25.3	0.91
C8	13 Jul 2023	1	19.17	80.27	9.3	33.44	8.2	23.8	1.39
C8	13 Jul 2023	2	18.14	80.14	9.7	33.46	8.2	24.1	1.47
C8	13 Jul 2023	3	17.45	80.57	9.7	33.44	8.2	24.2	1.51
C8	13 Jul 2023	4	16.70	81.61	9.7	33.43	8.2	24.4	1.61
C8	13 Jul 2023	5	16.21	83.41	9.6	33.42	8.2	24.5	1.59
C8	13 Jul 2023	6	15.58	84.99	9.5	33.41	8.1	24.6	1.66
C8	13 Jul 2023	7	15.18	86.25	9.4	33.41	8.1	24.7	1.67
C8	13 Jul 2023	8	14.94	87.24	9.3	33.40	8.1	24.8	1.68
C8	13 Jul 2023	9	14.54	88.05	9.0	33.40	8.1	24.8	1.68
C8	13 Jul 2023	10	13.83	88.35	8.6	33.41	8.1	25.0	1.73
C8	13 Jul 2023	11	13.36	89.05	8.2	33.41	8.0	25.1	1.53
C8	13 Jul 2023	12	13.10	89.94	8.0	33.40	8.0	25.1	1.40
C8	13 Jul 2023	13	13.04	90.62	7.8	33.40	8.0	25.1	1.34
C8	13 Jul 2023	14	12.92	90.81	7.6	33.41	8.0	25.2	1.25
C8	13 Jul 2023	15	12.77	90.94	7.4	33.42	8.0	25.2	1.16
C8	13 Jul 2023	16	12.53	90.97	6.9	33.44	7.9	25.3	0.94

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
C8	13 Jul 2023	17	12.21	91.11	6.5	33.47	7.9	25.4	0.79
C8	13 Jul 2023	18	11.94	91.43	6.2	33.48	7.9	25.4	0.73
C8	13 Jul 2023	19	11.91	91.47	6.2	33.48	7.9	25.4	0.68
C8	19 Jul 2023	1	18.37	82.51	9.1	33.44	8.2	24.0	1.66
C8	19 Jul 2023	2	16.99	82.30	9.0	33.44	8.2	24.3	2.10
C8	19 Jul 2023	3	16.09	82.15	8.9	33.42	8.1	24.5	2.58
C8	19 Jul 2023	4	15.48	82.52	8.6	33.41	8.1	24.6	2.50
C8	19 Jul 2023	5	14.78	84.28	8.4	33.40	8.1	24.8	2.28
C8	19 Jul 2023	6	14.45	86.61	8.2	33.41	8.1	24.9	2.14
C8	19 Jul 2023	7	14.11	87.85	7.8	33.41	8.0	24.9	1.65
C8	19 Jul 2023	8	13.51	89.00	7.5	33.43	8.0	25.1	1.36
C8	19 Jul 2023	9	13.37	89.81	7.4	33.42	8.0	25.1	1.28
C8	19 Jul 2023	10	13.29	89.80	7.2	33.42	8.0	25.1	0.92
C8	19 Jul 2023	11	13.09	90.18	7.1	33.43	8.0	25.2	0.95
C8	19 Jul 2023	12	13.03	90.09	7.1	33.43	8.0	25.2	0.98
C8	19 Jul 2023	13	12.98	90.33	7.2	33.43	8.0	25.2	1.41
C8	19 Jul 2023	14	12.89	90.45	7.2	33.44	8.0	25.2	1.26
C8	19 Jul 2023	15	12.81	90.49	7.2	33.44	8.0	25.2	1.23
C8	19 Jul 2023	16	12.80	90.58	7.2	33.44	8.0	25.2	1.21
C8	19 Jul 2023	17	12.79	90.73	7.2	33.44	8.0	25.2	1.20
C8	19 Jul 2023	18	12.79	90.57	7.1	33.44	8.0	25.2	1.25
C8	19 Jul 2023	19	12.79	90.63	7.1	33.45	8.0	25.2	1.17
C8	27 Jul 2023	1	22.16	89.21	7.8	33.47	8.1	23.0	0.64
C8	27 Jul 2023	2	22.13	88.72	7.8	33.44	8.1	23.0	0.66
C8	27 Jul 2023	3	21.67	87.36	8.1	33.47	8.1	23.1	0.60
C8	27 Jul 2023	4	21.21	89.81	8.5	33.47	8.2	23.3	0.54
C8	27 Jul 2023	5	20.86	90.70	8.6	33.44	8.2	23.3	0.54
C8	27 Jul 2023	6	20.31	90.77	8.8	33.44	8.2	23.5	0.53
C8	27 Jul 2023	7	20.55	91.03	8.4	33.40	8.2	23.4	0.55
C8	27 Jul 2023	8	18.80	91.23	8.7	33.40	8.2	23.8	0.54
C8	27 Jul 2023	9	17.75	91.57	8.9	33.36	8.1	24.1	0.54
C8	27 Jul 2023	10	16.96	91.73	9.2	33.33	8.1	24.2	0.64
C8	27 Jul 2023	11	16.33	90.96	9.5	33.32	8.1	24.4	0.82
C8	27 Jul 2023	12	15.98	89.53	9.6	33.31	8.2	24.5	0.74
C8	27 Jul 2023	13	15.74	88.96	9.7	33.31	8.2	24.5	0.67
C8	27 Jul 2023	14	15.51	89.12	9.8	33.30	8.2	24.5	0.82
C8	27 Jul 2023	15	15.38	89.41	9.7	33.30	8.2	24.6	1.11
C8	27 Jul 2023	16	15.23	89.58	9.4	33.29	8.2	24.6	1.12
C8	27 Jul 2023	17	14.56	89.56	9.1	33.31	8.1	24.8	0.89
C8	27 Jul 2023	18	13.81	89.75	8.9	33.29	8.1	24.9	0.80
C8	27 Jul 2023	19	13.59	90.21	9.0	33.27	8.1	24.9	0.83

NA = not available

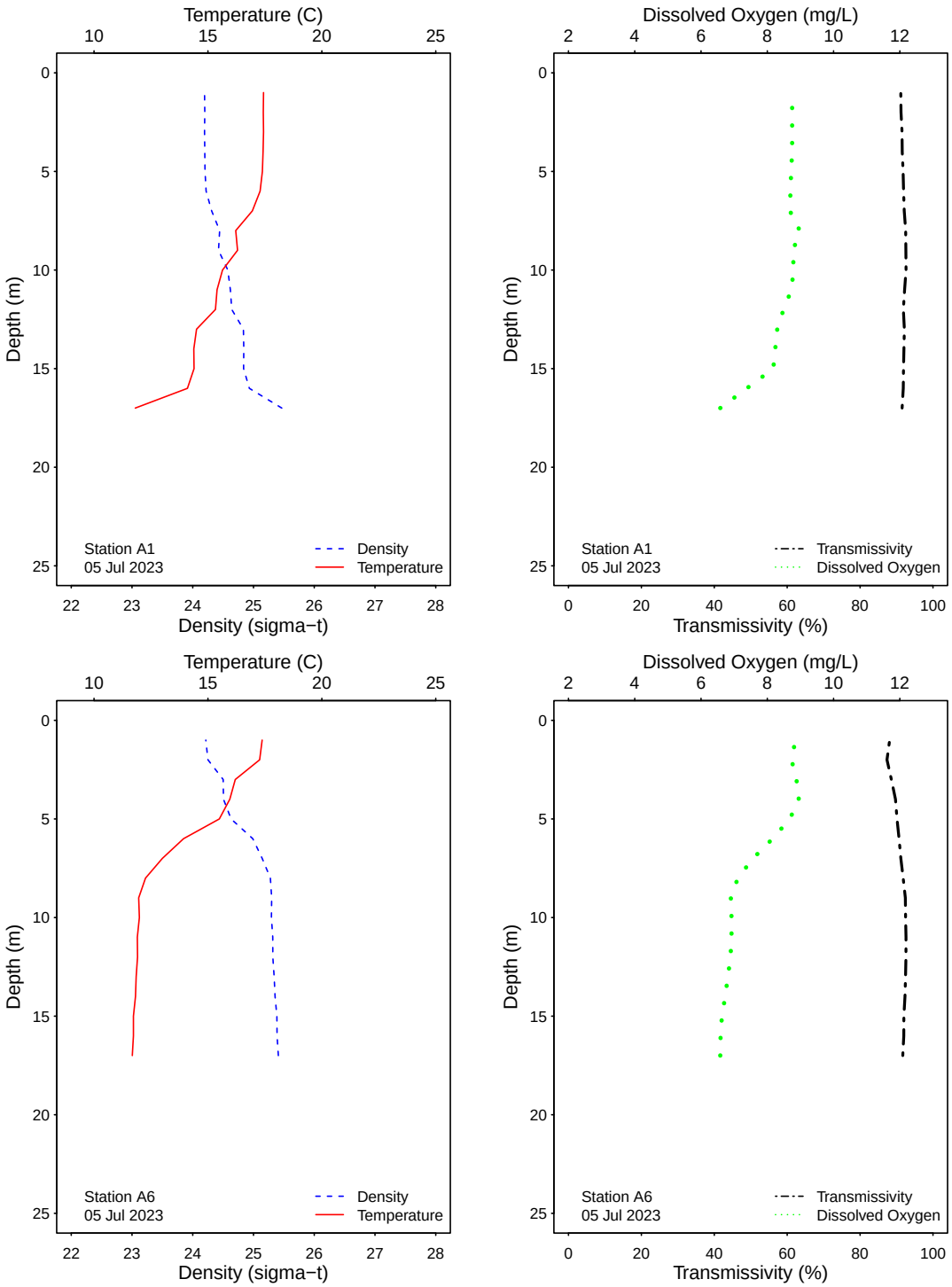

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

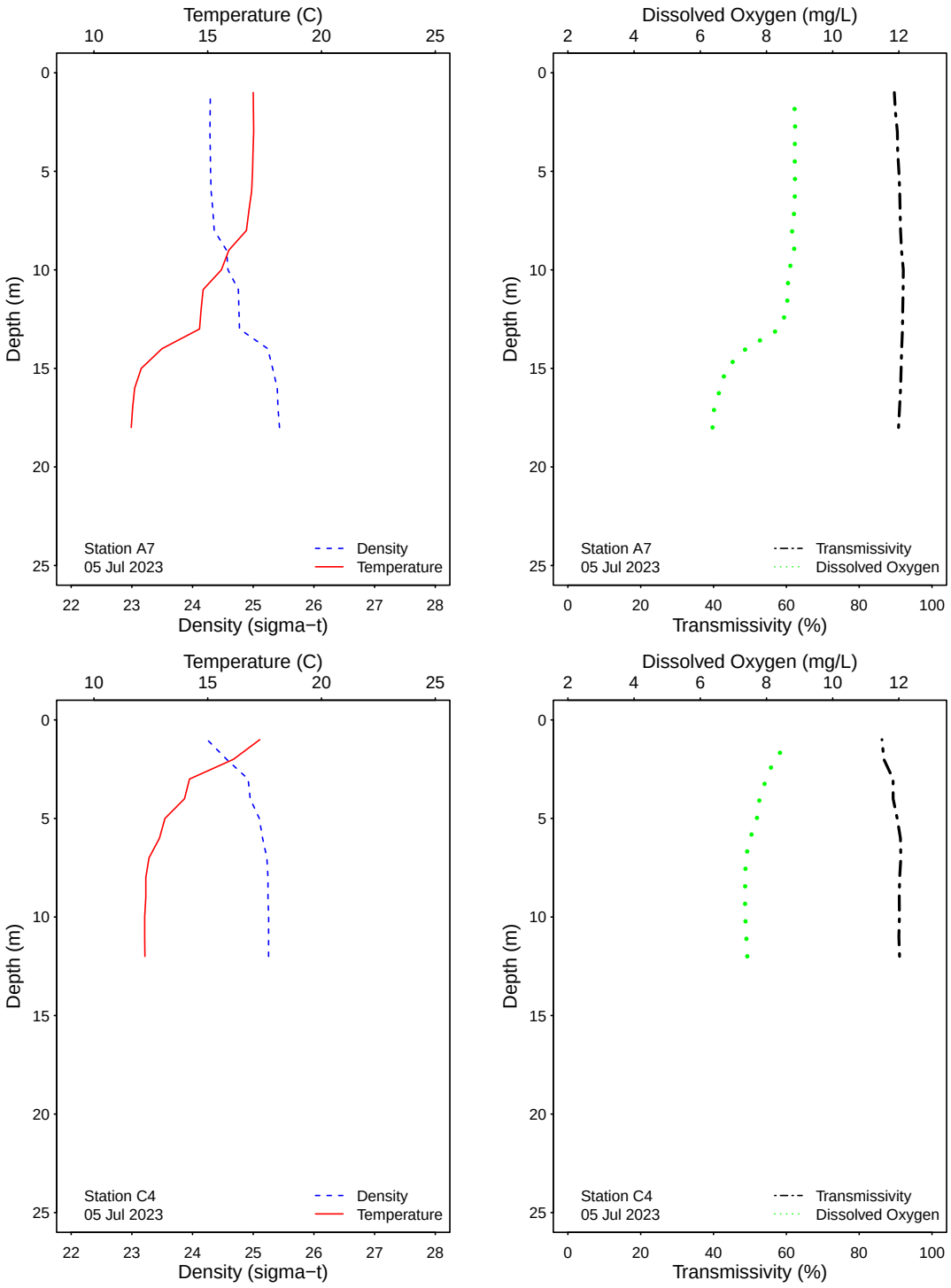

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

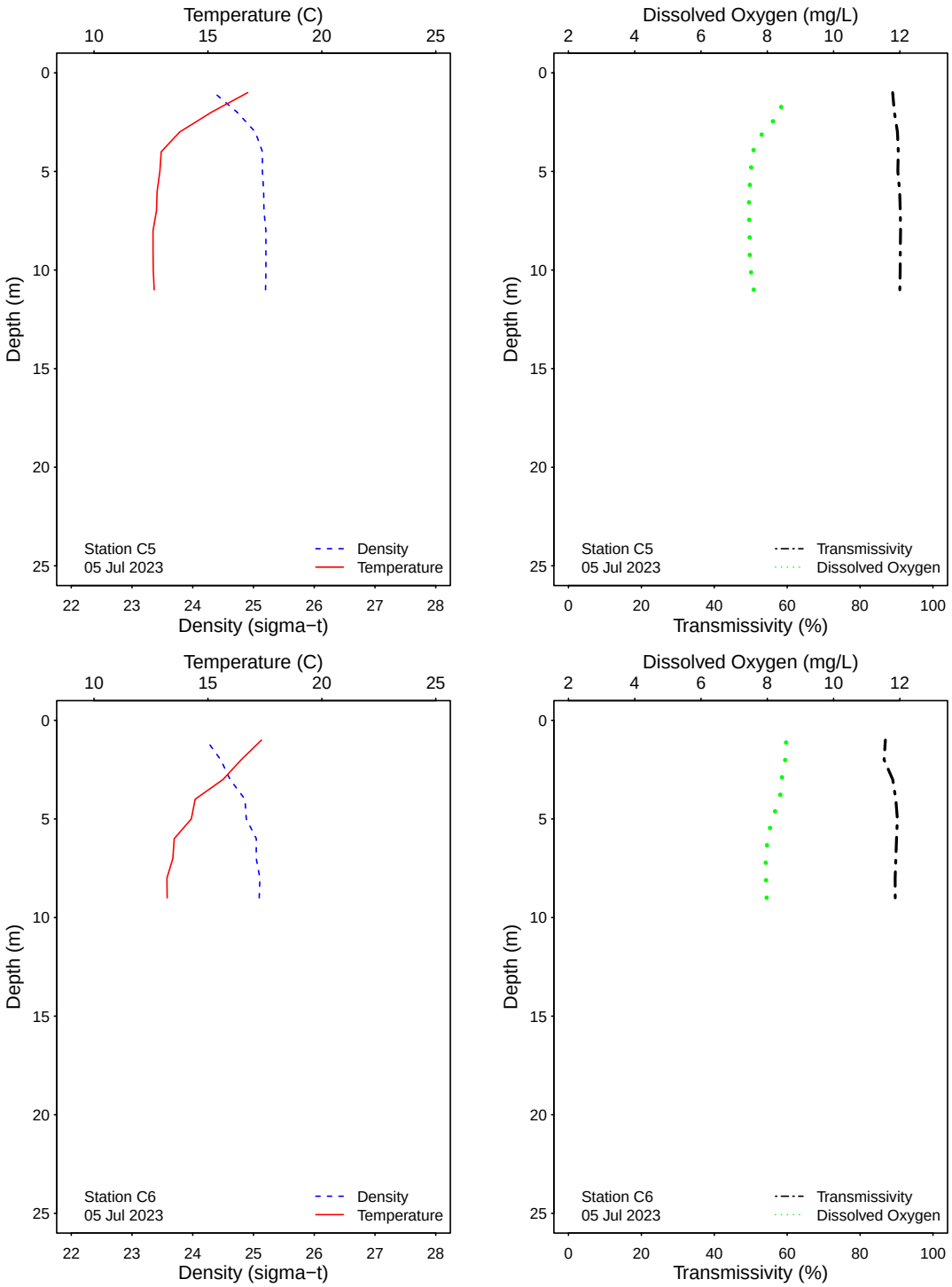

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

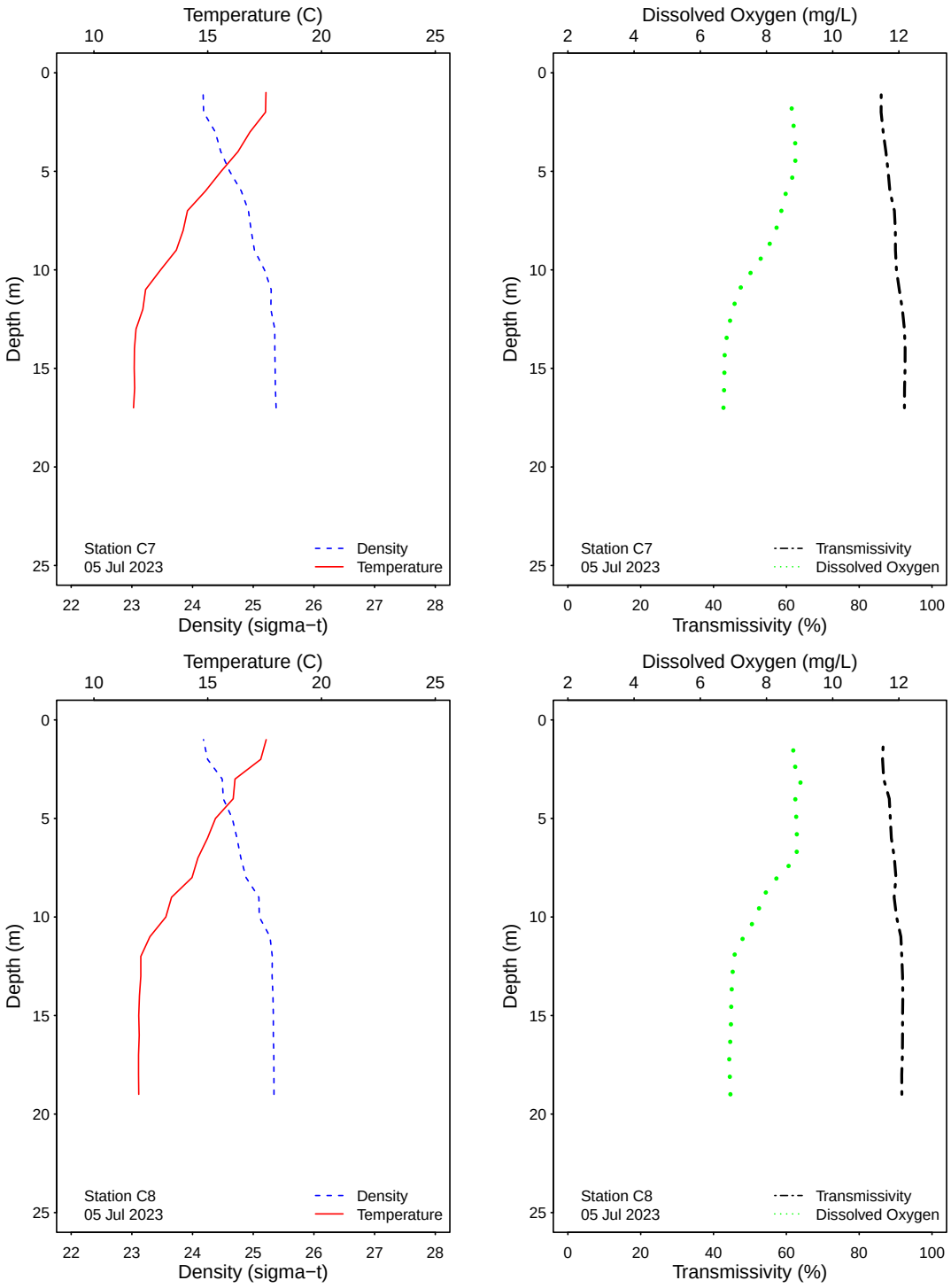

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

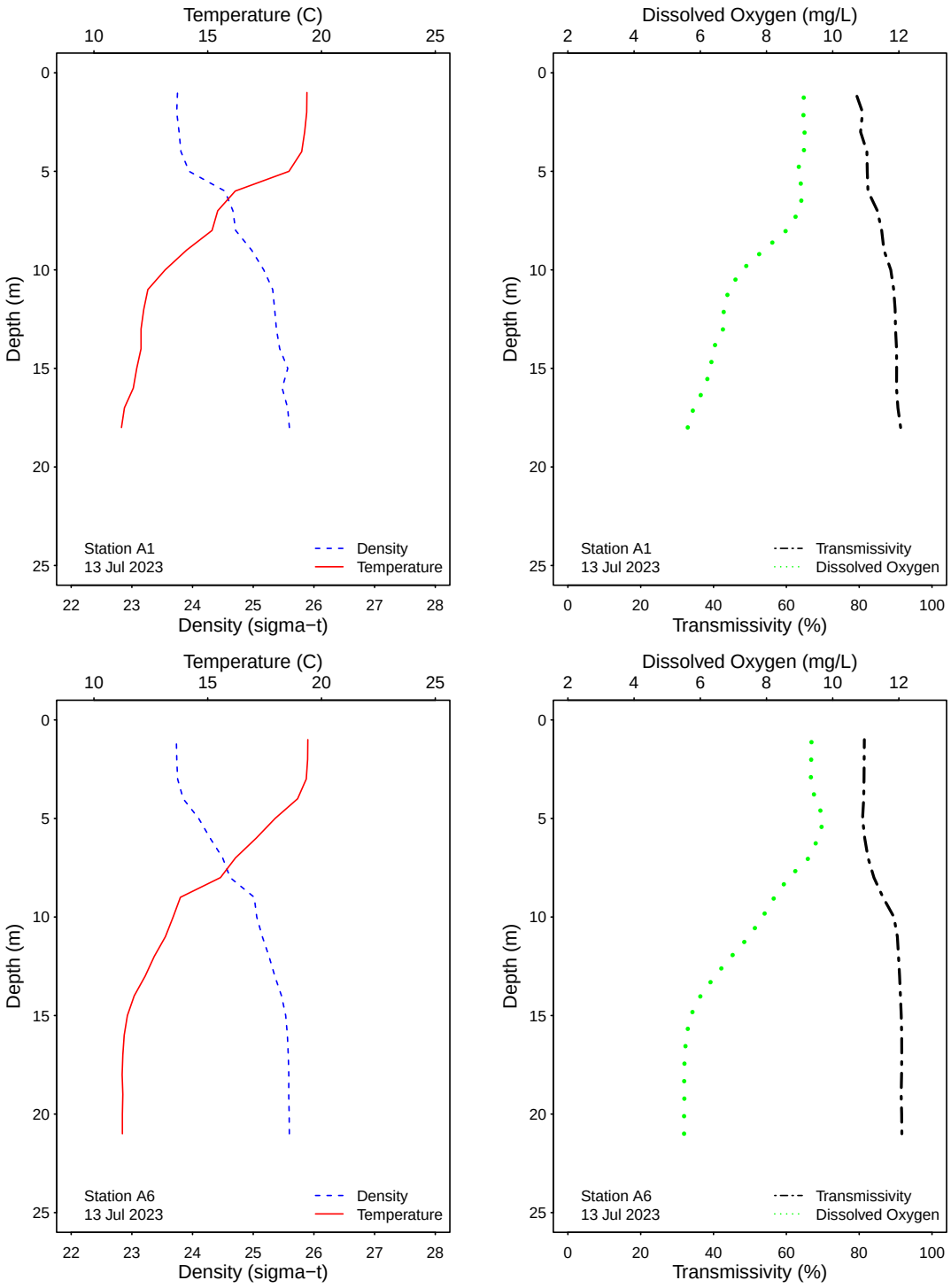

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

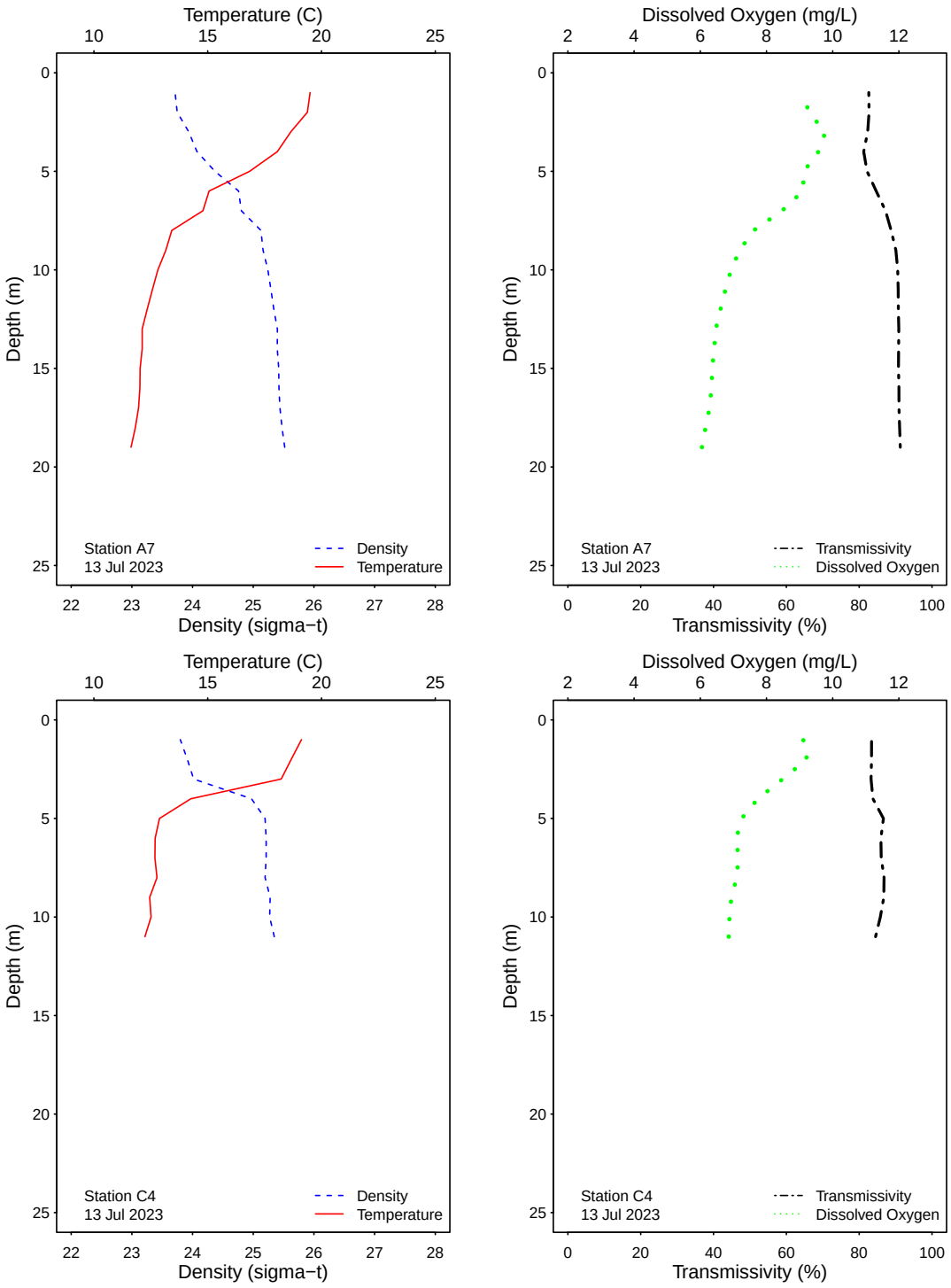

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

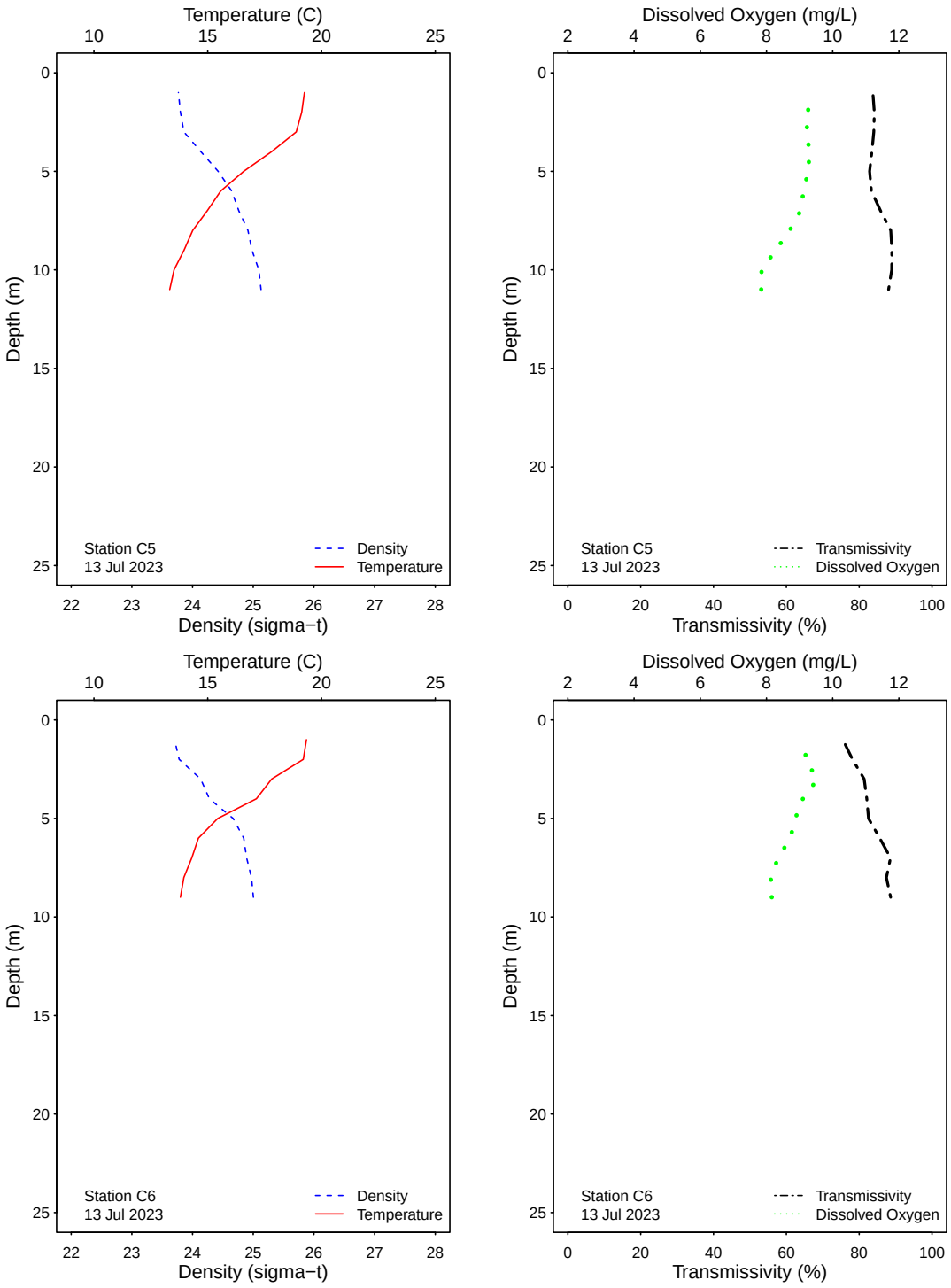

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

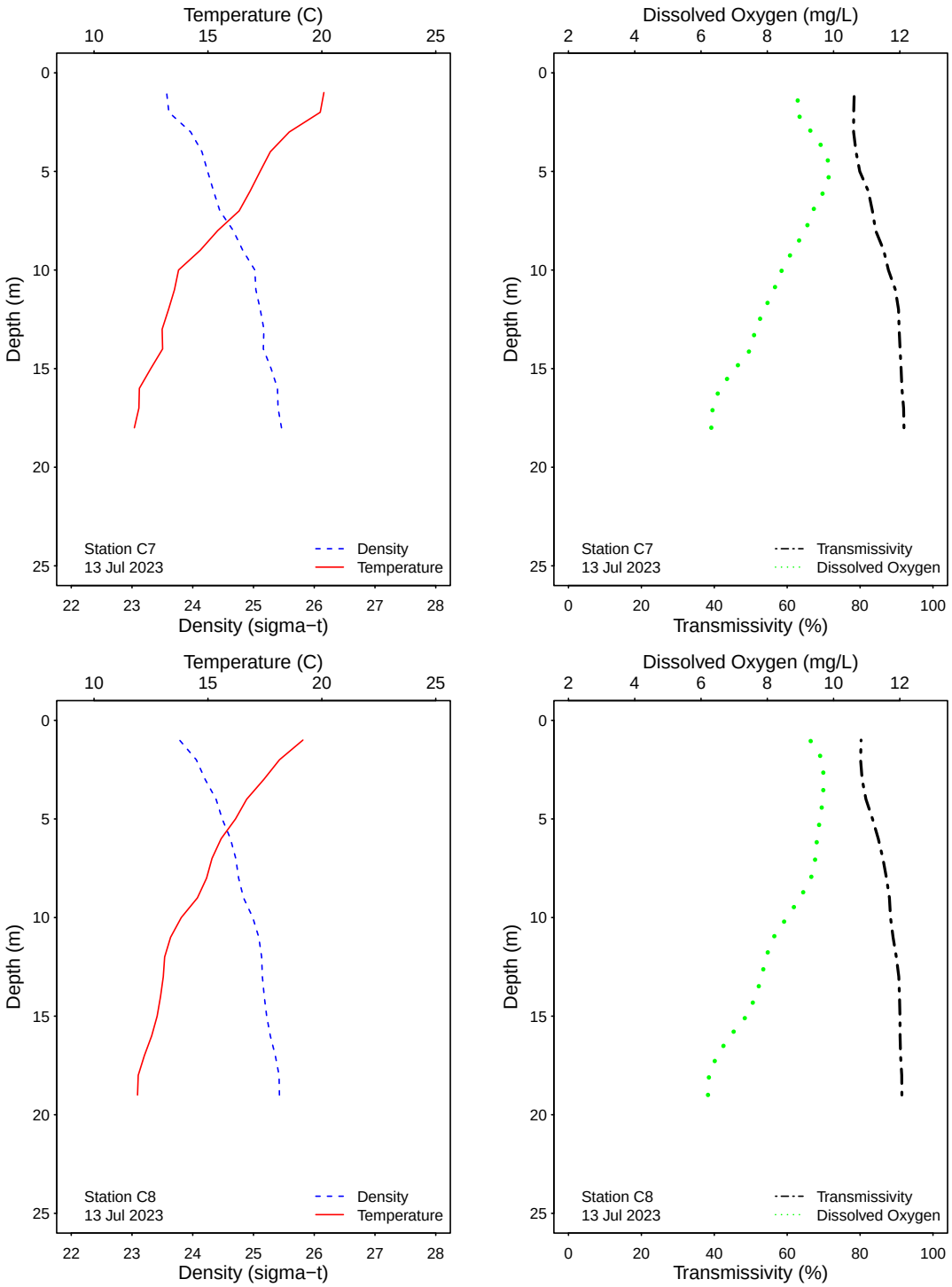

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

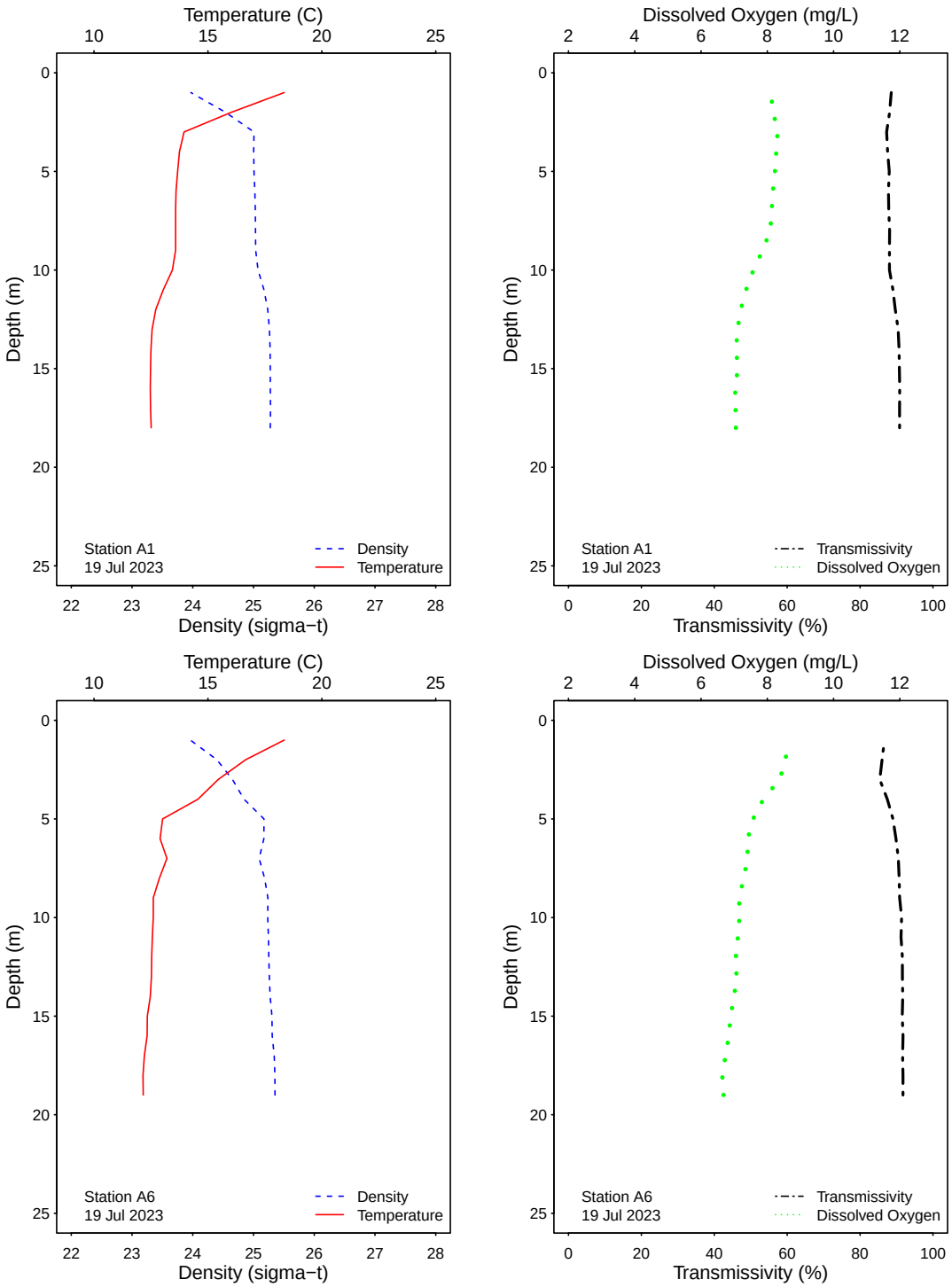

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

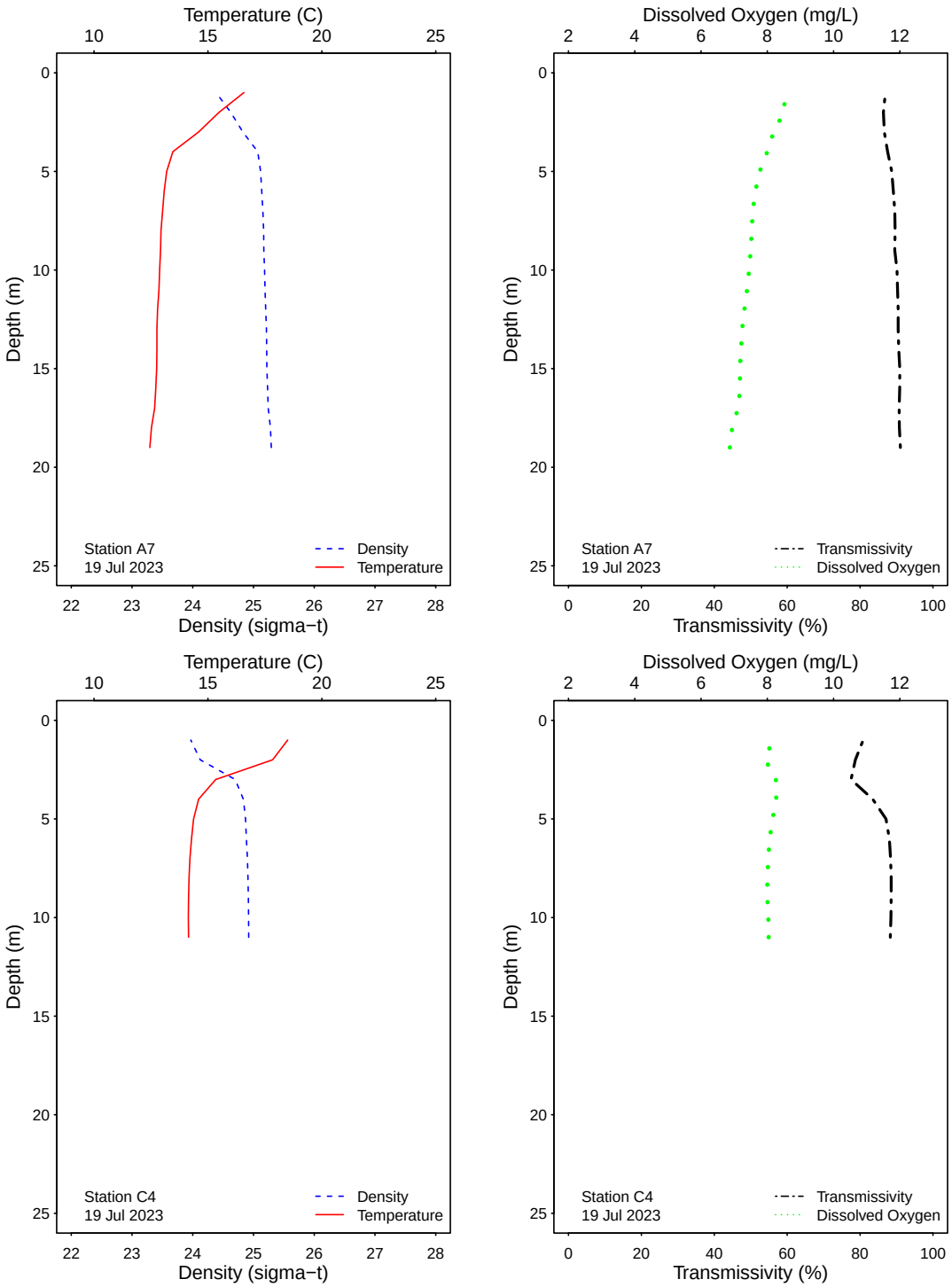

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

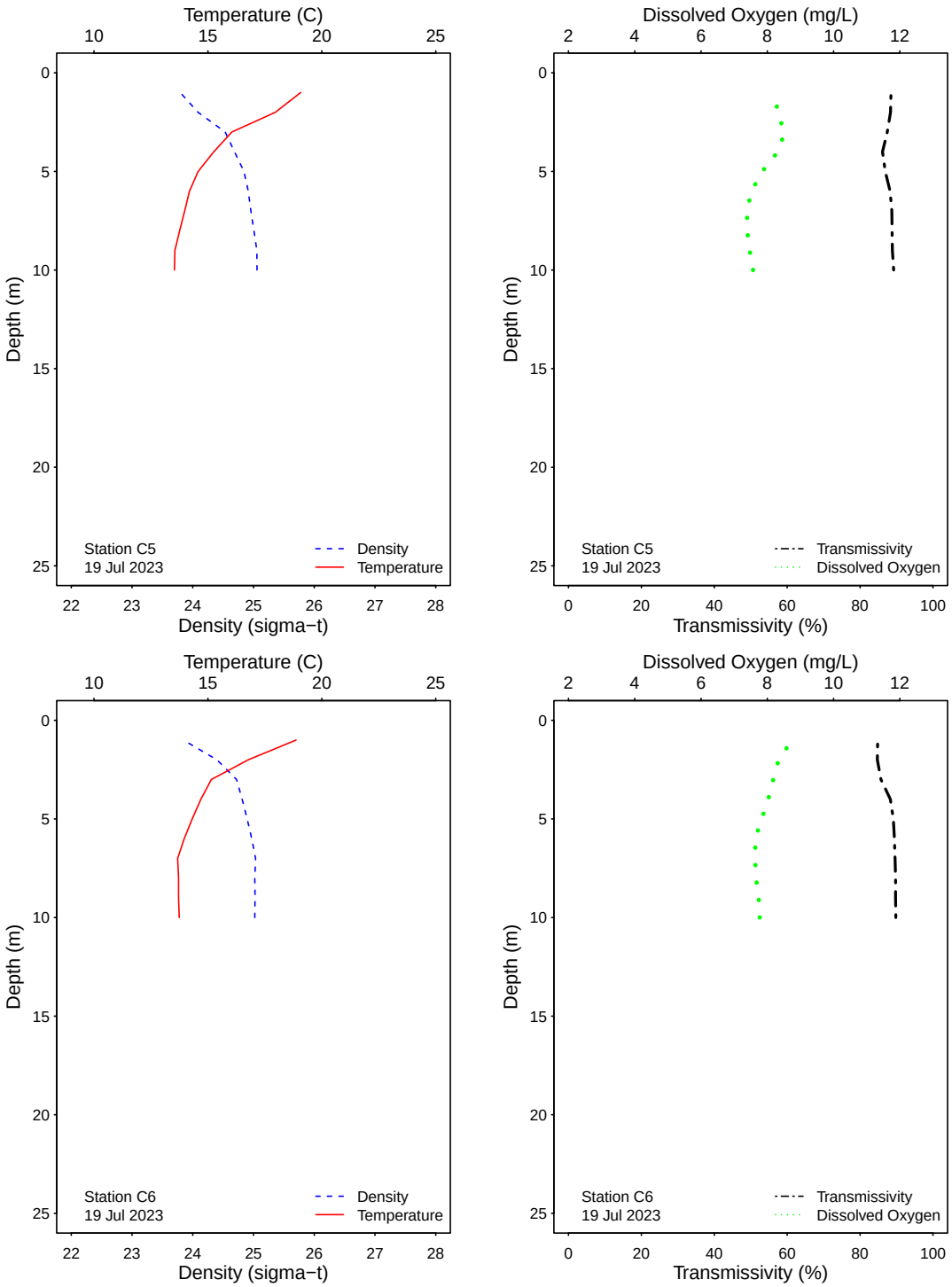

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

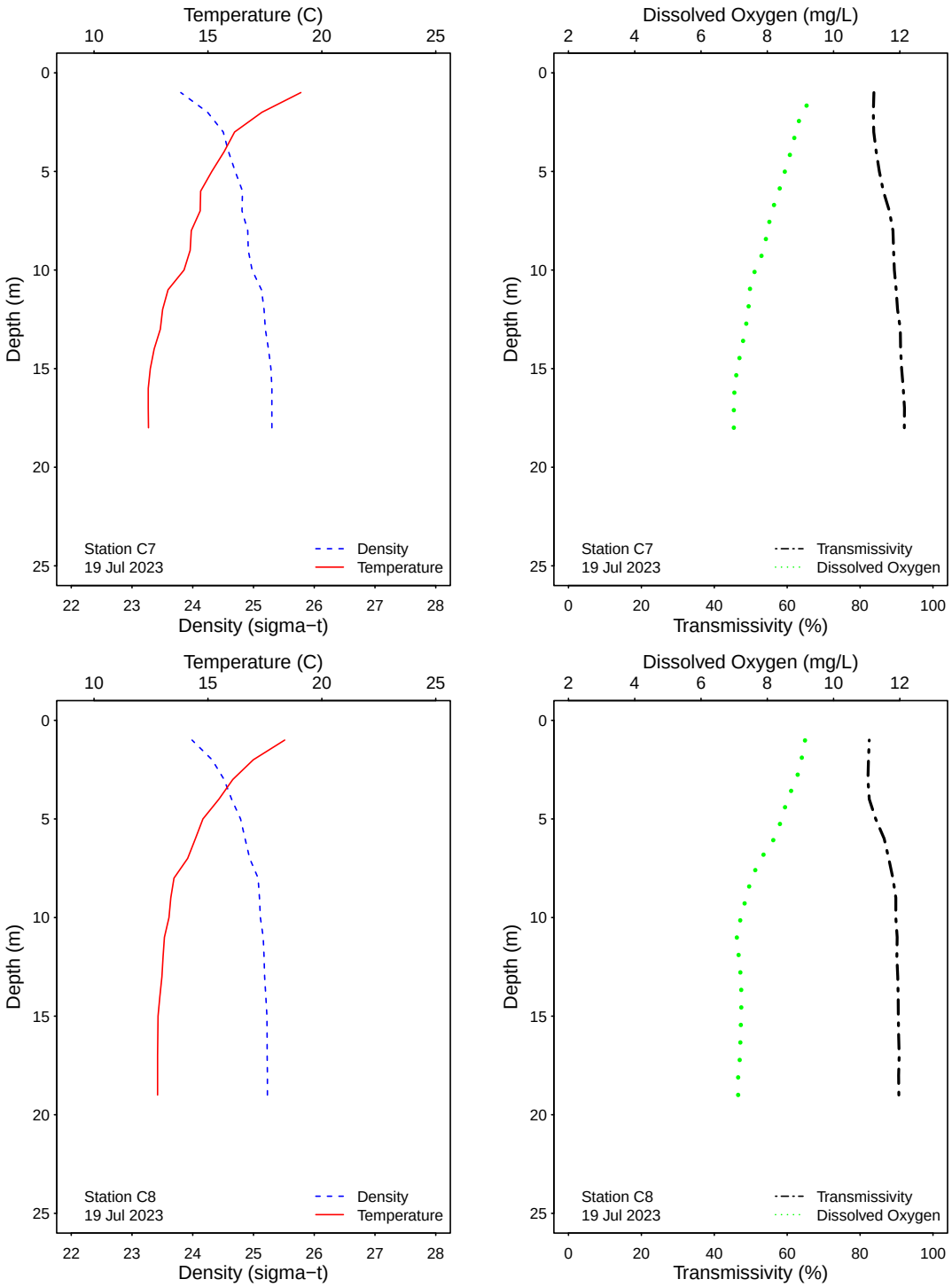

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

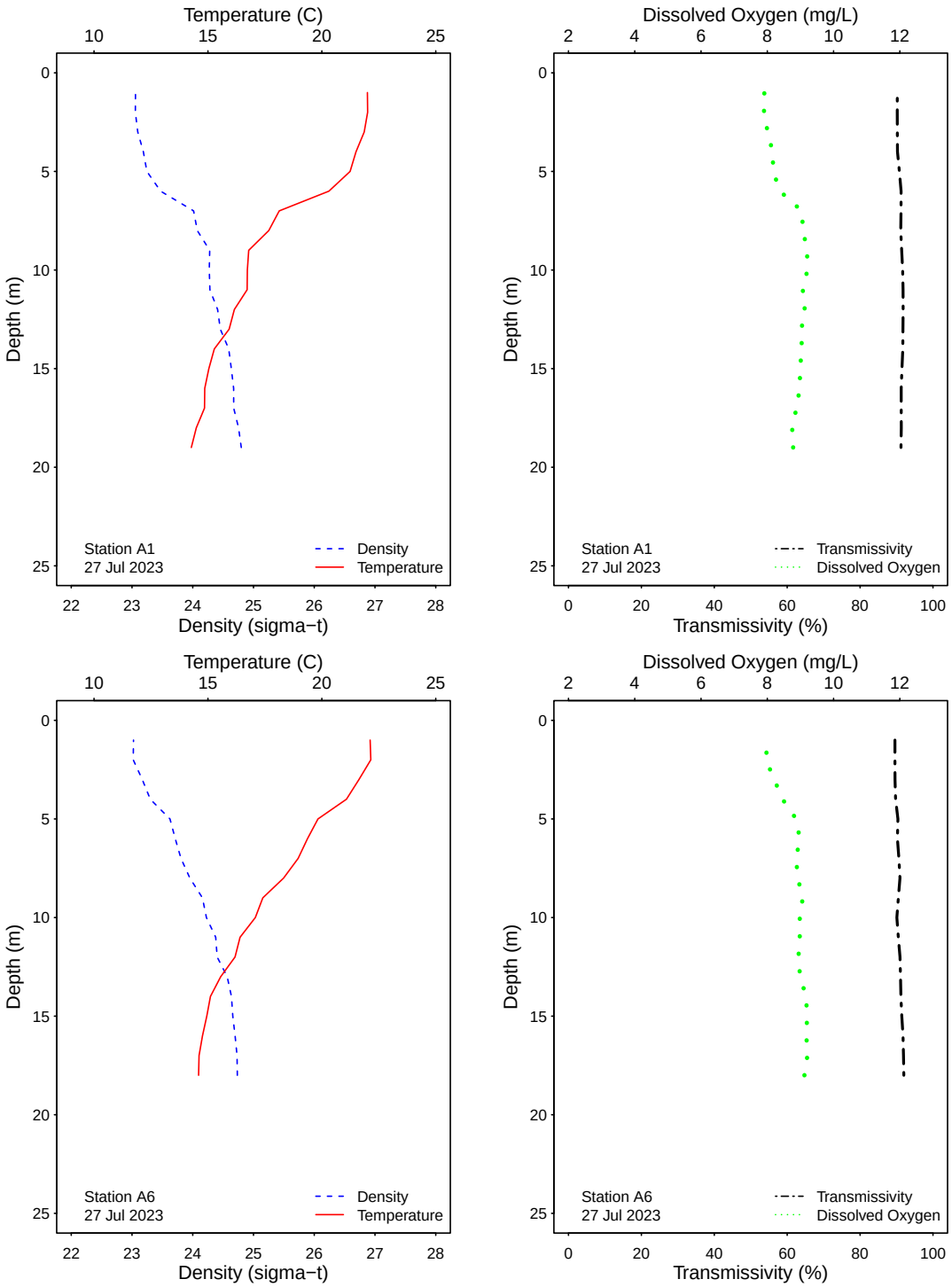

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

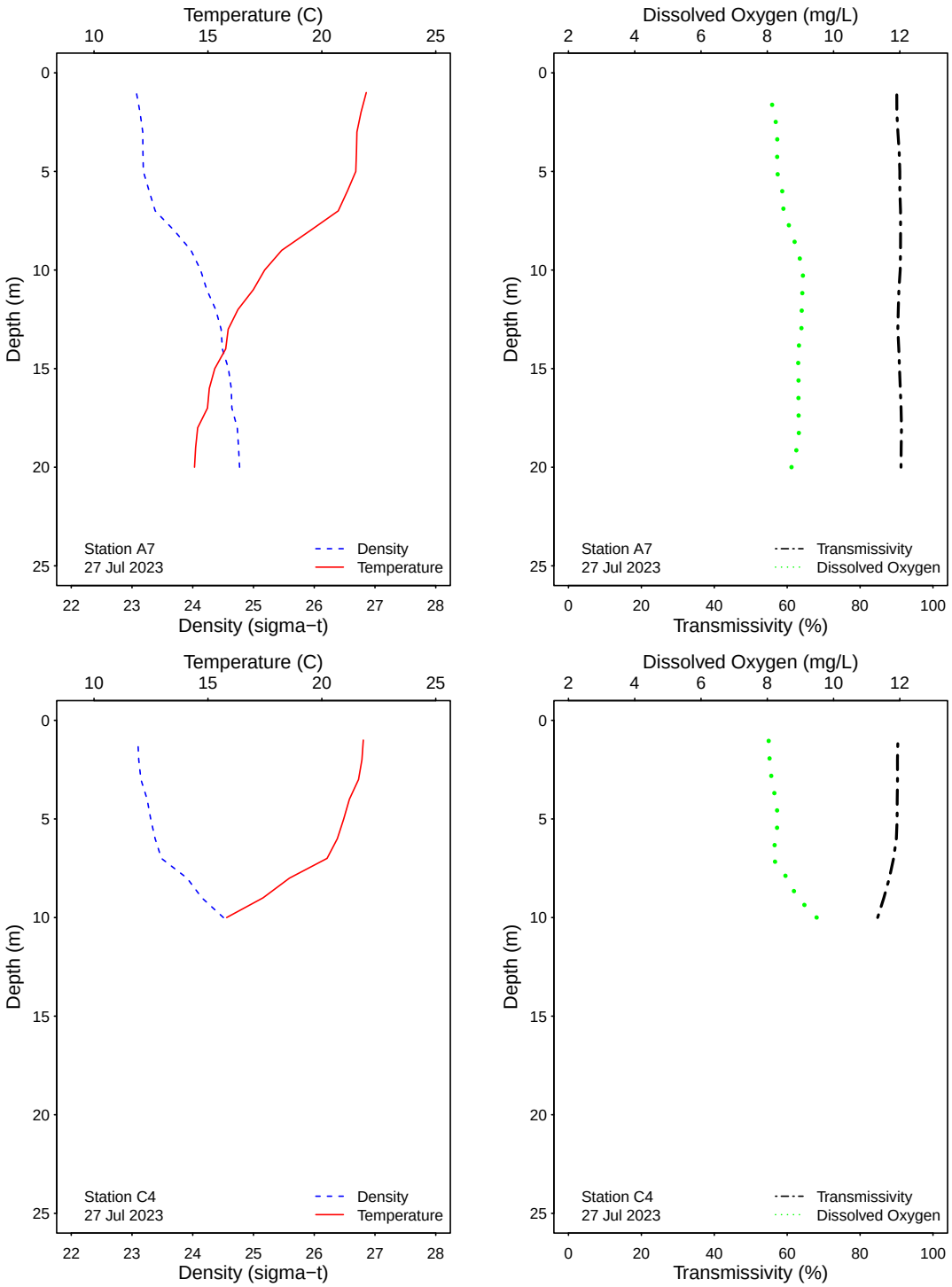

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

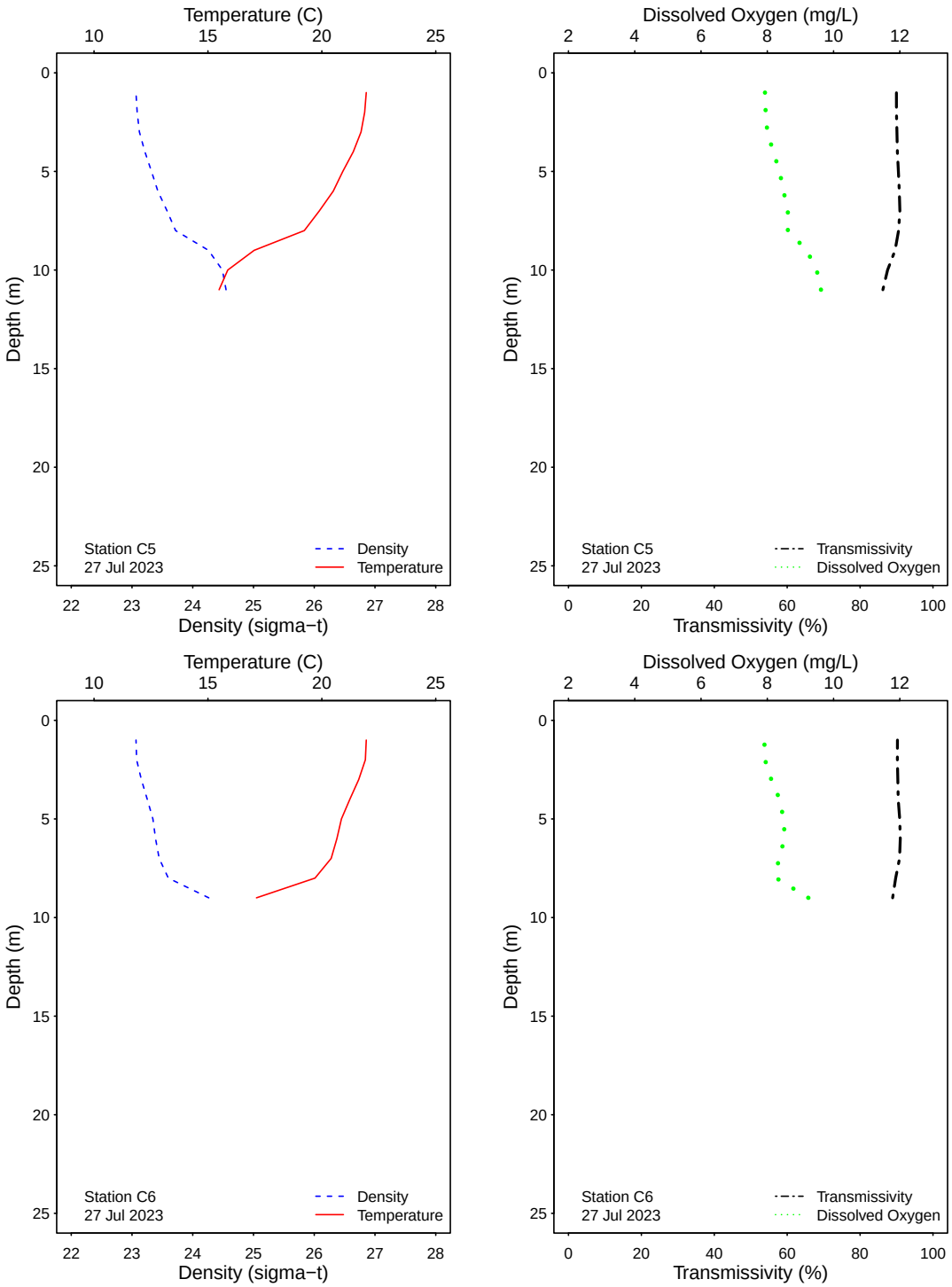

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

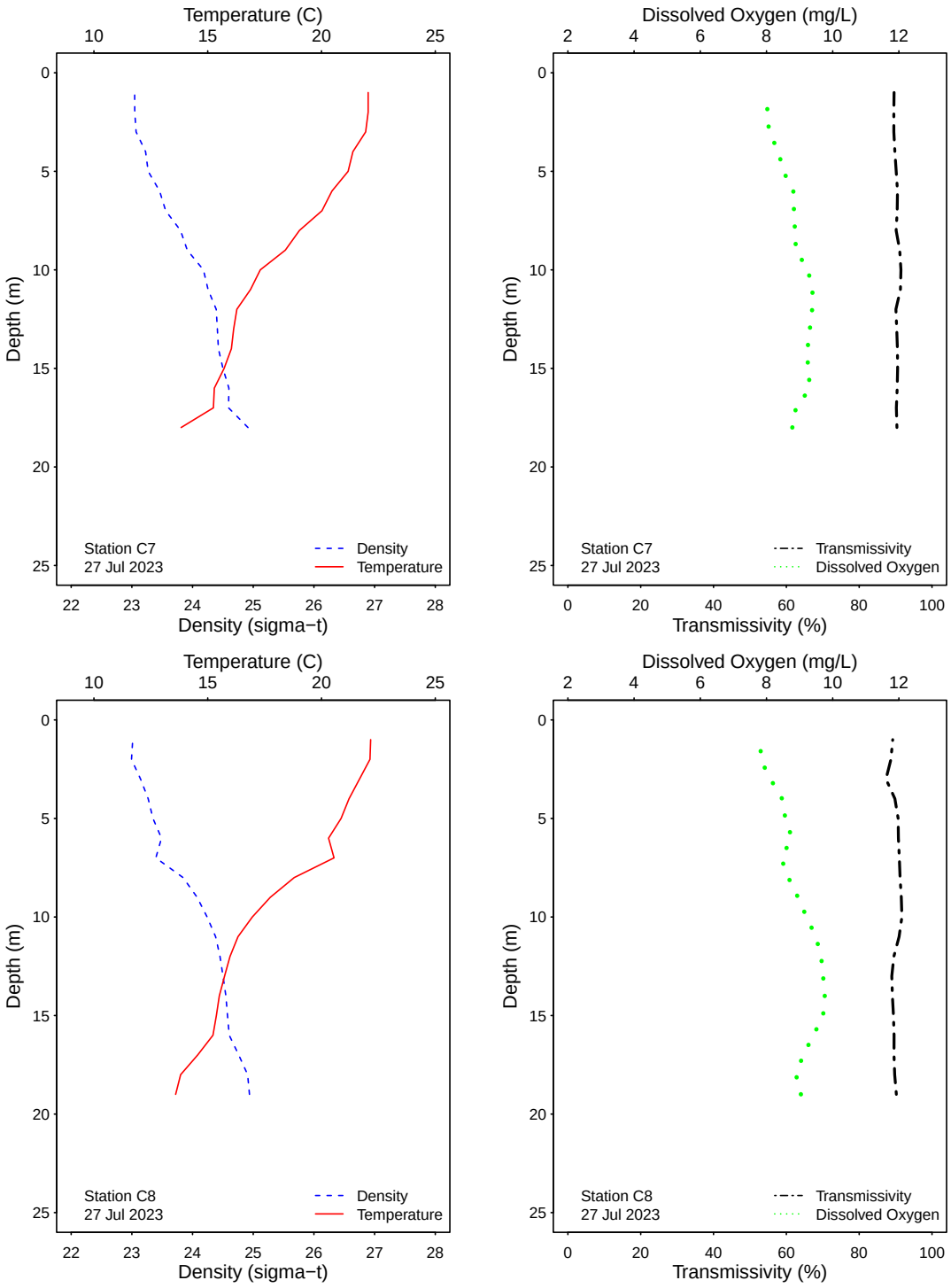

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

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 Jul 2023	18	CRE	LAB DUPLICATE	<2	<2	<2
A7	13 Jul 2023	18	WT	LAB DUPLICATE	68	4e	<2
A7	19 Jul 2023	18	CRE	LAB DUPLICATE	<2	<2	<2
A7	27 Jul 2023	18	CRE	LAB DUPLICATE	<2	<2	<2
C7	05 Jul 2023	18	CRE	LAB DUPLICATE	10e	4e	<2
C7	13 Jul 2023	18	WT	LAB DUPLICATE	12e	<2	<2
C7	19 Jul 2023	18	CRE	LAB DUPLICATE	<2	<2	<2
C7	27 Jul 2023	18	CRE	LAB DUPLICATE	<2	<2	<2
C8	05 Jul 2023	12	CRE	LAB DUPLICATE	4e	<2	<2
C8	13 Jul 2023	12	WT	LAB DUPLICATE	<2	<2	<2
C8	19 Jul 2023	12	CRE	LAB DUPLICATE	<2	<2	<2
C8	27 Jul 2023	12	CRE	LAB DUPLICATE	<2	<2	<2
D12	05 Jul 2023		WT	FIELD DUPLICATE	<200	4e	10e
D12	05 Jul 2023		WT	LAB DUPLICATE	<200	6e	24e
D12	12 Jul 2023		KT	FIELD DUPLICATE	20e	2e	<2
D12	12 Jul 2023		KT	LAB DUPLICATE	<20	<2	<2
D12	19 Jul 2023		KA	FIELD DUPLICATE	<20	<2	4e
D12	19 Jul 2023		KA	LAB DUPLICATE	<20	2e	8e
D12	26 Jul 2023		CRE	FIELD DUPLICATE	<20	2e	<2
D12	26 Jul 2023		CRE	LAB DUPLICATE	<20	2e	<2

ns = not sampled
ND = no data

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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
31 May 2023	2	2	5	2	3	5	12	3
01 Jun 2023	2	2	5	2	3	5	12	3
02 Jun 2023	2	2	5	2	3	5	12	3
03 Jun 2023	2	2	5	2	3	5	12	3
04 Jun 2023	2	2	5	2	3	5	12	3
05 Jun 2023	2	2	5	2	3	5	12	3
06 Jun 2023	2	2	5	2	3	5	12	3
07 Jun 2023	2	2	4	2	4	4	9	3
08 Jun 2023	2	2	4	2	4	4	9	3
09 Jun 2023	2	2	4	2	4	4	9	3
10 Jun 2023	2	2	4	2	4	4	9	3
11 Jun 2023	2	2	4	2	4	4	9	3
12 Jun 2023	2	2	4	2	4	4	9	3
13 Jun 2023	2	2	4	2	4	4	9	3
14 Jun 2023	2	2	4	2	4	4	9	4
15 Jun 2023	2	2	4	2	4	4	9	4
16 Jun 2023	2	2	4	2	4	4	9	4
17 Jun 2023	2	2	4	2	4	4	9	4
18 Jun 2023	2	2	4	2	4	4	9	4
19 Jun 2023	2	2	4	2	4	4	9	4
20 Jun 2023	2	2	4	2	4	4	9	4
21 Jun 2023	2	2	6	2	4	4	7	3
22 Jun 2023	2	2	6	2	4	4	7	3
23 Jun 2023	2	2	6	2	4	4	7	3
24 Jun 2023	2	2	6	2	4	4	7	3
25 Jun 2023	2	2	6	2	4	4	7	3
26 Jun 2023	2	2	6	2	4	4	7	3
27 Jun 2023	2	2	6	2	4	4	7	3
28 Jun 2023	2	2	6	2	3	4	5	3
29 Jun 2023	2	2	6	2	3	4	5	3
30 Jun 2023	2	2	6	2	3	4	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
June	IC	IC	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
31 May 2023	2	20	20	20	20	20	20	2
01 Jun 2023	2	20	20	20	20	20	20	2
02 Jun 2023	3	**110**	**110**	20	20	20	**110**	2
03 Jun 2023	3	**110**	**110**	20	20	20	**110**	2
04 Jun 2023	3	**110**	**110**	20	20	20	**110**	2
05 Jun 2023	3	**110**	**110**	20	20	20	**110**	2
06 Jun 2023	3	**110**	**110**	20	20	20	**110**	2
07 Jun 2023	2	20	20	20	20	20	20	2
08 Jun 2023	2	20	20	20	20	20	20	2
09 Jun 2023	2	**110**	20	20	20	20	20	2
10 Jun 2023	2	**110**	20	20	20	20	20	2
11 Jun 2023	2	**110**	20	20	20	20	20	2
12 Jun 2023	2	**110**	20	20	20	20	20	2
13 Jun 2023	2	**110**	20	20	20	20	20	2
14 Jun 2023	2	20	20	20	20	20	20	2
15 Jun 2023	2	20	20	20	20	20	20	2
16 Jun 2023	2	**110**	20	20	20	20	20	2
17 Jun 2023	2	**110**	20	20	20	20	20	2
18 Jun 2023	2	**110**	20	20	20	20	20	2
19 Jun 2023	2	**110**	20	20	20	20	20	2
20 Jun 2023	2	**110**	20	20	20	20	20	2
21 Jun 2023	2	20	20	20	20	20	20	2
22 Jun 2023	2	20	20	20	20	20	20	2
23 Jun 2023	2	11	20	20	30	20	20	2
24 Jun 2023	2	11	20	20	30	20	20	2
25 Jun 2023	2	11	20	20	30	20	20	2
26 Jun 2023	2	11	20	20	30	20	20	2
27 Jun 2023	2	11	20	20	30	20	20	2
28 Jun 2023	2	20	20	20	20	20	20	2
29 Jun 2023	2	20	20	20	20	20	20	2
30 Jun 2023	2	11	20	20	30	20	40	11

* 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
June	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
31 May 2023	2	2	2	2	2	2	2	2
01 Jun 2023	2	2	2	2	2	2	2	2
02 Jun 2023	2	2	2	2	2	2	2	2
03 Jun 2023	2	2	2	2	2	2	2	2
04 Jun 2023	2	2	2	2	2	2	2	2
05 Jun 2023	2	2	2	2	2	2	2	2
06 Jun 2023	2	2	2	2	2	2	2	2
07 Jun 2023	2	2	2	2	2	2	2	2
08 Jun 2023	2	2	2	2	2	2	2	2
09 Jun 2023	2	2	2	2	2	2	2	2
10 Jun 2023	2	2	2	2	2	2	2	2
11 Jun 2023	2	2	2	2	2	2	2	2
12 Jun 2023	2	2	2	2	2	2	2	2
13 Jun 2023	2	2	2	2	2	2	2	2
14 Jun 2023	2	2	2	2	2	2	2	2
15 Jun 2023	2	2	2	2	2	2	2	2
16 Jun 2023	2	2	2	2	2	2	2	2
17 Jun 2023	2	2	2	2	2	2	2	2
18 Jun 2023	2	2	2	2	2	2	2	2
19 Jun 2023	2	2	2	2	2	2	2	2
20 Jun 2023	2	2	2	2	2	2	2	2
21 Jun 2023	2	2	2	2	2	2	2	2
22 Jun 2023	2	2	2	2	2	2	2	2
23 Jun 2023	2	2	2	2	2	2	2	2
24 Jun 2023	2	2	2	2	2	2	2	2
25 Jun 2023	2	2	2	2	2	2	2	2
26 Jun 2023	2	2	2	2	2	2	2	2
27 Jun 2023	2	2	2	2	2	2	2	2
28 Jun 2023	2	2	2	2	2	2	2	2
29 Jun 2023	2	2	2	2	2	2	2	2
30 Jun 2023	2	2	2	2	2	2	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
June	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
31 May 2023	2	2	2	2	2	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	6	2	2	8
01 Jun 2023	2	2	6	2	5	7	2	6	10	2	2	2	2	2	2	2	2	2	2	2	10	2	2	15
02 Jun 2023	2	2	6	2	5	7	2	6	10	2	2	2	2	2	2	2	2	2	2	2	10	2	2	15
03 Jun 2023	2	2	6	2	5	7	2	6	10	2	2	2	2	2	2	2	2	2	2	2	10	2	2	15
04 Jun 2023	2	2	6	2	5	7	2	6	10	2	2	2	2	2	2	2	2	2	2	2	10	2	2	15
05 Jun 2023	2	2	6	2	5	7	2	6	10	2	2	2	2	2	2	2	2	2	2	2	10	2	2	15
06 Jun 2023	2	2	2	2	6	8	2	4	2	2	2	2	2	2	2	2	2	2	2	2	6	2	2	8
07 Jun 2023	2	2	2	2	6	8	2	4	2	2	2	2	2	2	2	2	2	2	2	2	6	2	2	8
08 Jun 2023	2	2	2	2	7	14	2	3	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	13
09 Jun 2023	2	2	2	2	7	14	2	3	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	13
10 Jun 2023	2	2	2	2	7	14	2	3	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	13
11 Jun 2023	2	2	2	2	7	14	2	3	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	13
12 Jun 2023	2	2	2	2	7	14	2	3	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	13
13 Jun 2023	2	2	2	2	8	22	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	2	2	6
14 Jun 2023	2	2	2	2	8	26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	5
15 Jun 2023	2	2	2	2	8	26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	5
16 Jun 2023	2	2	2	2	8	26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	5
17 Jun 2023	2	2	2	2	8	26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	5
18 Jun 2023	2	2	2	2	8	26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	5
19 Jun 2023	2	2	2	2	8	26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	5
20 Jun 2023	2	2	2	2	6	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	2	2	4
21 Jun 2023	2	2	2	2	4	39	2	2	3	2	2	2	2	2	2	2	2	2	2	2	13	2	2	5
22 Jun 2023	2	2	2	2	4	39	2	2	3	2	2	2	2	2	2	2	2	2	2	2	13	2	2	5
23 Jun 2023	2	2	2	2	4	39	2	2	3	2	2	2	2	2	2	2	2	2	2	2	13	2	2	5
24 Jun 2023	2	2	2	2	4	39	2	2	3	2	2	2	2	2	2	2	2	2	2	2	13	2	2	5
25 Jun 2023	2	2	2	2	4	39	2	2	3	2	2	2	2	2	2	2	2	2	2	2	13	2	2	5
26 Jun 2023	2	2	2	2	4	32	2	2	4	2	2	2	2	2	2	2	2	2	2	2	12	2	2	4
27 Jun 2023	2	2	2	2	4	32	2	2	4	2	2	2	2	2	2	2	2	2	2	2	12	2	2	4
28 Jun 2023	2	2	2	2	4	32	2	2	4	2	2	2	2	2	2	2	2	2	2	2	12	2	2	4
29 Jun 2023	2	2	2	2	4	32	2	2	4	2	2	2	2	2	2	2	2	2	2	2	12	2	2	4
30 Jun 2023	2	3	3	2	5	39	2	3	8	2	2	2	2	2	2	2	2	2	2	2	8	2	2	4

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

	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
June	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC	IC