MONTHLY RECEIVING WATERS MONITORING REPORT FOR THE POINT LOMA OCEAN OUTFALL

(POINT LOMA METROPOLITAN WASTEWATER TREATMENT PLANT)
NPDES PERMIT NO. CA 0107409

APRIL 2016

CITY OF SAN DIEGO
OCEAN MONITORING PROGRAM
PUBLIC UTILITIES DEPARTMENT
ENVIRONMENTAL MONITORING AND TECHNICAL SERVICES DIVISION

THE CITY OF SAN DIEGO

May 31, 2016

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 April 2016 Monthly Receiving Waters Monitoring Report for the Point Loma Ocean Outfall, Point Loma Wastewater Treatment Plant as required per Order No. R9-2009-0001, 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

TDS/ger

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

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REPORT OUTLINE

INTRODUCTION

METHODS

SUMMARY OF RESULTS

TABLES AND FIGURES

Station Locations (Map)

Shore Stations

- Total Coliform Compliance Summary, Geometric Mean Standard
- Fecal Coliform Compliance Summary, Geometric Mean Standard
- *Enterococcus* Bacteria Compliance Summary, Geometric Mean Standard
- Total Coliform Single Sample Maximum
- Fecal Coliform Single Sample Maximum
- *Enterococcus* Bacteria Single Sample Maximum
- Fecal:Total Coliform Ratio Single Sample Maximum
- Shore Station Water Quality Summary Data
- Visual Observations

Kelp Stations

- Total Coliform Compliance Summary, Geometric Mean Standard
- Fecal Coliform Compliance Summary, Geometric Mean Standard
- *Enterococcus* Bacteria Compliance Summary, Geometric Mean Standard
- Total Coliform Single Sample Maximum
- Fecal Coliform Single Sample Maximum
- *Enterococcus* Bacteria Single Sample Maximum
- Fecal:Total Coliform Ratio Single Sample Maximum
- Kelp Station Water Quality Summary Data
- Visual Observations
- CTD Profile Data
- CTD Profile Graphics

APPENDIX A

Quality Assurance

- Water Quality Summary Data

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. R9-2009-0001, 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 monitored at eight shore stations (D4, D5, D7–D12). These stations range from the tip of the Point Loma Peninsula to west of Mission Bay (see station locations map). Seawater samples are collected from the surf zone at each station five times during the month. These samples are subsequently transported to the City's Marine Microbiology Laboratory and analyzed for the presence of several types of fecal indicator bacteria (FIBs), 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 five times during the month according to permit specifications in order 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 indicator bacteria (i.e., total coliforms, fecal coliforms, and *Enterococcus*). Additional samples for ammonium analysis are collected at these same sites and depths on a quarterly basis in order to correspond to sampling at the offshore stations located within State waters that is typically scheduled during the months of February, May, August and November. 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 primarily collected using a CTD-integrated rosette sampler with Niskin bottles. Aliquots for ammonium and bacteriological analyses are then drawn from these bottles into sterile sample bottles for processing at the City's Toxicology Laboratory (ammonium) and Marine Microbiology Laboratory (bacteria), respectively. 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 eight scans per second. These scans are then internally averaged to create water column profiles with data readings at a rate of one per meter. The CTD data are presented in both graphical

and tabular form. Additionally, data for depths closest to those where bacteriological samples are collected are extracted from the CTD profiles and 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); 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 *Entercocccus* bacteria, water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, transmissivity, chromomorphic dissolved organic matter (CDOM), and visual observations of weather and water conditions. Monitoring at sites within State waters also include the collection of discrete grab samples for ammonium analysis (see Table 4.2).

Seawater samples for ammonium and bacteriological analyses at the offshore stations are primarily 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. The CTD profile data are then presented in both graphical and tabular form. Additionally, data for depths closest to those at which bacteriological samples are 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.

[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.

Single Sample Maximums:

(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 exactly the same throughout field and lab procedures. The results of these analyses provide a measure of precision associated with sample collection, preservation, storage, and lab procedures. The sign test (see Gilbert, 1987) 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 2016 Quality Assurance Report, which will be completed in March 2017.

SUMMARY OF RESULTS

Shore Stations

- During April 2016, one of the eight shore stations was out of compliance with various water-contact standards specified in the Ocean Plan as follows:
    - The single sample maximum (SSM) standard for *Enterococcus* was exceeded at station D11 on April 3.
- Per permit requirements, a resample was collected in response to this SSM exceedance (see Table 2.8 for details).
- 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 surfgrass. See the City of San Diego's most recent *Point Loma Ocean Outfall Annual Receiving Waters Monitoring and Assessment Report* for details (http://www.sandiego.gov/mwwd/environment/oceanmonitor/reports/index.shtml).
- Nothing of sewage origin was observed at any of the shore stations.

Kelp Bed Stations

- The eight kelp bed water quality stations (A1, A6, A7, C4, C5, C6, C7, C8) were sampled five times during April (i.e. April 4, 8, 13, 19, 29).
- During April, all of the kelp bed stations were in compliance with all water-contact standards specified in the Ocean Plan.
- Water column temperatures ranged from 11.43 to 17.96°C during the month. The difference between surface and bottom waters ranged from 0.58 to 5.24°C, indicating that the water column was stratified at some of the kelp bed stations during the month.

- Chlorophyll *a* concentrations ranged from 0.36 to 7.24 µg/L during April, suggesting the presence of phytoplankton blooms during the month.
- There were no notable visual observations for April.

Offshore Stations

- Quarterly sampling was not conducted during April at the offshore stations. The next quarterly sampling is scheduled for May 2016.

TABLES AND FIGURES

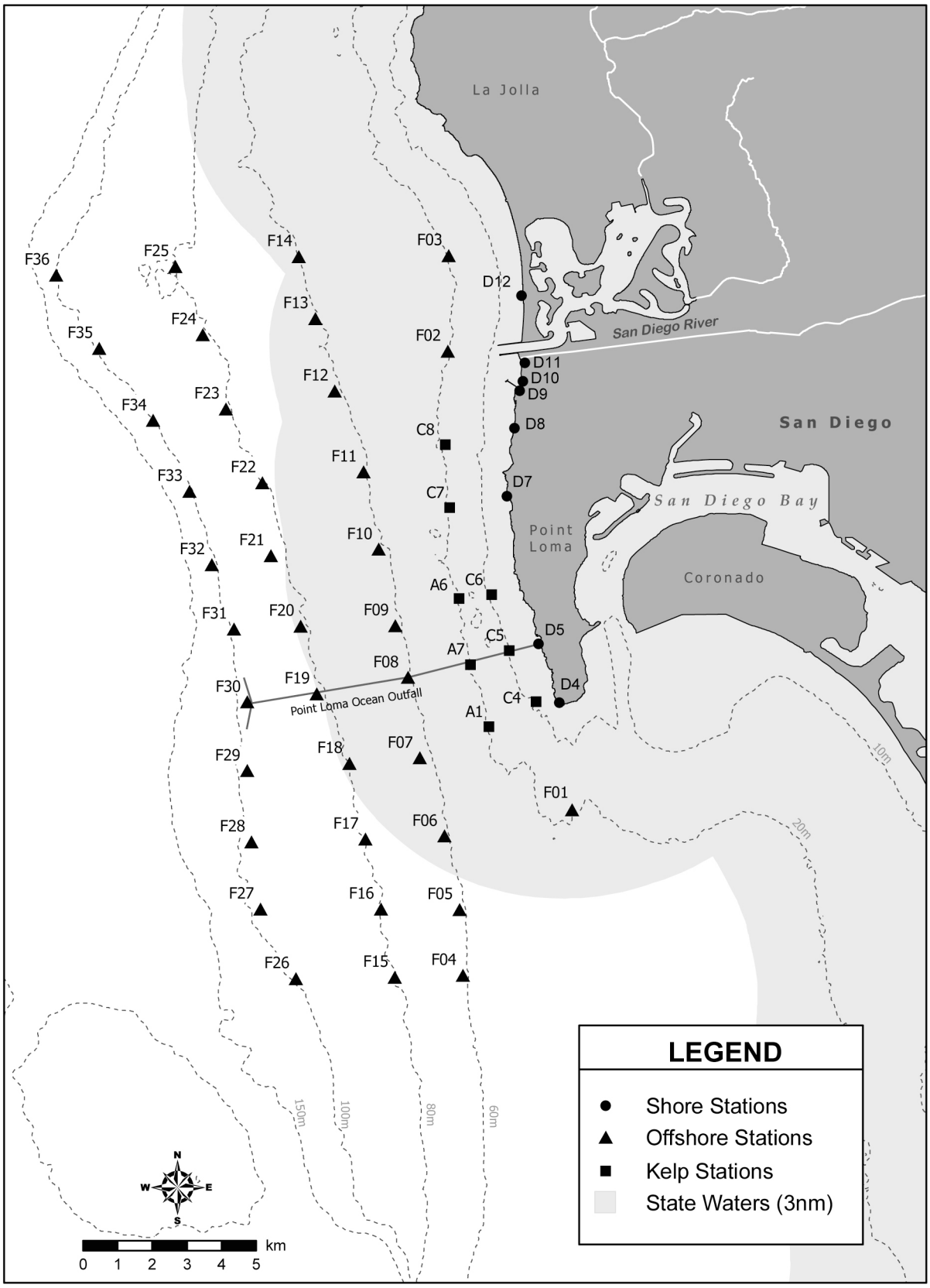

Figure 1.1 Station Map

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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	D9	D10	D11	D12
01 Apr 2016	13	6	9	13	17	9	8	4
02 Apr 2016	13	6	9	13	17	9	8	4
03 Apr 2016	11	4	7	14	18	11	11	4
04 Apr 2016	11	4	7	14	18	11	11	4
05 Apr 2016	11	4	7	14	18	11	11	4
06 Apr 2016	11	4	7	14	18	11	11	4
07 Apr 2016	11	4	7	14	18	11	11	4
08 Apr 2016	11	4	7	14	18	11	11	4
09 Apr 2016	11	4	11	14	29	14	17	4
10 Apr 2016	11	4	11	14	29	14	17	4
11 Apr 2016	11	4	11	14	29	14	17	4
12 Apr 2016	11	4	11	14	29	14	17	4
13 Apr 2016	11	4	11	14	29	14	17	4
14 Apr 2016	11	4	11	14	29	14	17	4
15 Apr 2016	19	4	8	14	22	14	17	6
16 Apr 2016	19	4	8	14	22	14	17	6
17 Apr 2016	19	4	8	14	22	14	17	6
18 Apr 2016	19	4	8	14	22	14	17	6
19 Apr 2016	19	4	8	14	22	14	17	6
20 Apr 2016	19	4	8	14	22	14	17	6
21 Apr 2016	11	2	5	20	22	17	12	3
22 Apr 2016	11	2	5	20	22	17	12	3
23 Apr 2016	11	2	5	20	22	17	12	3
24 Apr 2016	11	2	5	20	22	17	12	3
25 Apr 2016	11	2	5	20	22	17	12	3
26 Apr 2016	11	2	5	20	22	17	12	3
27 Apr 2016	4	4	5	20	20	17	22	3
28 Apr 2016	4	4	5	20	20	17	22	3
29 Apr 2016	4	4	5	20	20	17	22	3
30 Apr 2016	4	4	5	20	20	17	22	3

* Geometric mean calculated using n<5

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	D9	D10	D11	D12
01 Apr 2016	6	2	4	2	2	2	2	3
02 Apr 2016	6	2	4	2	2	2	2	3
03 Apr 2016	6	2	4	2	2	2	2	3
04 Apr 2016	6	2	4	2	2	2	2	3
05 Apr 2016	6	2	4	2	2	2	2	3
06 Apr 2016	6	2	4	2	2	2	2	3
07 Apr 2016	6	2	4	2	2	2	2	3
08 Apr 2016	6	2	4	2	2	2	2	3
09 Apr 2016	6	2	4	2	2	3	2	3
10 Apr 2016	6	2	4	2	2	3	2	3
11 Apr 2016	6	2	4	2	2	3	2	3
12 Apr 2016	6	2	4	2	2	3	2	3
13 Apr 2016	6	2	4	2	2	3	2	3
14 Apr 2016	6	2	4	2	2	3	2	3
15 Apr 2016	6	2	4	2	2	3	4	3
16 Apr 2016	6	2	4	2	2	3	4	3
17 Apr 2016	6	2	4	2	2	3	4	3
18 Apr 2016	6	2	4	2	2	3	4	3
19 Apr 2016	6	2	4	2	2	3	4	3
20 Apr 2016	6	2	4	2	2	3	4	3
21 Apr 2016	5	2	2	2	2	3	4	2
22 Apr 2016	5	2	2	2	2	3	4	2
23 Apr 2016	5	2	2	2	2	3	4	2
24 Apr 2016	5	2	2	2	2	3	4	2
25 Apr 2016	5	2	2	2	2	3	4	2
26 Apr 2016	5	2	2	2	2	3	4	2
27 Apr 2016	2	2	2	2	4	3	5	2
28 Apr 2016	2	2	2	2	4	3	5	2
29 Apr 2016	2	2	2	2	4	3	5	2
30 Apr 2016	2	2	2	2	4	3	5	2

* Geometric mean calculated using n<5

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	D9	D10	D11	D12
01 Apr 2016	5	2	3	2	2	2	4	4
02 Apr 2016	5	2	3	2	2	2	4	4
03 Apr 2016	5	2	3	2	2	2	10	4
04 Apr 2016	5	2	3	2	2	2	10	4
05 Apr 2016	5	2	3	2	2	2	8	4
06 Apr 2016	5	2	3	2	2	2	8	4
07 Apr 2016	5	2	3	2	2	2	8	4
08 Apr 2016	5	2	3	2	2	2	8	4
09 Apr 2016	5	3	3	3	2	3	8	5
10 Apr 2016	5	3	3	3	2	3	8	5
11 Apr 2016	5	3	3	3	2	3	8	5
12 Apr 2016	5	3	3	3	2	3	8	5
13 Apr 2016	5	3	3	3	2	3	8	5
14 Apr 2016	5	3	3	3	2	3	8	5
15 Apr 2016	5	3	3	3	2	3	9	5
16 Apr 2016	5	3	3	3	2	3	9	5
17 Apr 2016	5	3	3	3	2	3	9	5
18 Apr 2016	5	3	3	3	2	3	9	5
19 Apr 2016	5	3	3	3	2	3	9	5
20 Apr 2016	5	3	3	3	2	3	9	5
21 Apr 2016	3	2	2	3	2	3	10	2
22 Apr 2016	3	2	2	3	2	3	10	2
23 Apr 2016	3	2	2	3	2	3	10	2
24 Apr 2016	3	2	2	3	2	3	10	2
25 Apr 2016	3	2	2	3	2	3	10	2
26 Apr 2016	3	2	2	3	2	3	10	2
27 Apr 2016	2	2	2	3	2	4	18	2
28 Apr 2016	2	2	2	3	2	4	18	2
29 Apr 2016	2	2	2	3	2	4	18	2
30 Apr 2016	2	2	2	3	2	4	18	2

* Geometric mean calculated using n<5

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	D9	D10	D11	D12
03 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
09 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
15 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
27 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled

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	D9	D10	D11	D12
03 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
09 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
15 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
27 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled

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	D9	D10	D11	D12
03 Apr 2016	IC	IC	IC	IC	IC	IC	E	IC
05 Apr 2016	ns	ns	ns	ns	ns	ns	IC	ns
09 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
15 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
27 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled

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	D9	D10	D11	D12
03 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
09 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
15 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
27 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled

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	03 Apr 2016	1030	<2	<2	<2	1.00
D4	09 Apr 2016	917	2e	2e	<2	1.00
D4	15 Apr 2016	943	40e	2e	<2	0.05
D4	21 Apr 2016	931	<2	<2	<2	1.00
D4	27 Apr 2016	721	2e	<2	<2	1.00
D5	03 Apr 2016	1021	<2	<2	<2	1.00
D5	09 Apr 2016	901	4e	<2	4e	0.50
D5	15 Apr 2016	928	<2	<2	2e	1.00
D5	21 Apr 2016	914	2e	<2	<2	1.00
D5	27 Apr 2016	707	<20	<2	<2	0.10
D7	03 Apr 2016	1056	2e	<2	<2	1.00
D7	09 Apr 2016	939	<20	<2	2e	0.10
D7	15 Apr 2016	1005	4e	<2	<2	0.50
D7	21 Apr 2016	955	6e	<2	2e	0.33
D7	27 Apr 2016	741	2e	<2	<2	1.00
D8	03 Apr 2016	1107	20e	<2	<2	0.10
D8	09 Apr 2016	952	<20	<2	10e	0.10
D8	15 Apr 2016	1023	<20	2e	<2	0.10
D8	21 Apr 2016	1006	20e	<2	<2	0.10
D8	27 Apr 2016	755	<20	<2	<2	0.10
D9	03 Apr 2016	1116	6e	<2	<2	0.33
D9	09 Apr 2016	1007	<200	4e	2e	0.02
D9	15 Apr 2016	1034	6e	<2	<2	0.33
D9	21 Apr 2016	1023	<20	<2	<2	0.10
D9	27 Apr 2016	806	20e	20e	<2	1.00
D10	03 Apr 2016	1128	10e	<2	<2	0.20
D10	09 Apr 2016	1018	20e	8e	12e	0.40
D10	15 Apr 2016	1046	<20	<2	2e	0.10
D10	21 Apr 2016	1032	<20	<2	<2	0.10
D10	27 Apr 2016	816	<20	6e	10e	0.30
D11	03 Apr 2016	1137	180e	6e	500	0.03
D11	05 Apr 2016	947	ns	ns	<2	ns
D11	09 Apr 2016	1031	<20	<2	8e	0.10
D11	15 Apr 2016	1056	20e	26e	20e	1.30
D11	21 Apr 2016	1047	<2	<2	4e	1.00
D11	27 Apr 2016	825	40e	6e	56	0.15

Station	Date	Time	Total	Fecal	Entero	F:T
D12	03 Apr 2016	1201	<2	<2	<2	1.00
D12	09 Apr 2016	1052	2e	<2	4e	1.00
D12	15 Apr 2016	1116	<20	<2	<2	0.10
D12	21 Apr 2016	1110	<2	<2	<2	1.00
D12	27 Apr 2016	845	2e	<2	<2	1.00

ns = not sampled
ND = no data

Comments

Station	Date	Depth	Parameter	Comments
D11	05 Apr 2016			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	03 Apr 2016	Arrive Time	1030
D4	03 Apr 2016	Weather	Cloudy
D4	03 Apr 2016	Wind Speed (kts)	4.4
D4	03 Apr 2016	Wind Dir	NW
D4	03 Apr 2016	Animal Life	None
D4	03 Apr 2016	Floatables	None
D4	03 Apr 2016	Water Color	Green
D4	03 Apr 2016	Current Direction	NW
D4	03 Apr 2016	Wave Height Low (ft)	1
D4	03 Apr 2016	High Tide (ft)	4.8
D4	03 Apr 2016	High Tide Time	635
D4	03 Apr 2016	Low Tide (ft)	-0.3
D4	03 Apr 2016	Low Tide Time	1324
D4	03 Apr 2016	Comments	Kelp; Seagrass; Water clear
D4	09 Apr 2016	Arrive Time	917
D4	09 Apr 2016	Weather	Partly Cloudy
D4	09 Apr 2016	Wind Speed (kts)	2.1
D4	09 Apr 2016	Wind Dir	NW
D4	09 Apr 2016	Animal Life	None
D4	09 Apr 2016	Floatables	None
D4	09 Apr 2016	Water Color	Green
D4	09 Apr 2016	Current Direction	NW
D4	09 Apr 2016	Wave Height Low (ft)	1
D4	09 Apr 2016	High Tide (ft)	4.5
D4	09 Apr 2016	High Tide Time	1129
D4	09 Apr 2016	Low Tide (ft)	-0.9
D4	09 Apr 2016	Low Tide Time	521
D4	09 Apr 2016	Comments	Kelp; Seagrass; Algae; Water clear
D4	15 Apr 2016	Arrive Time	943
D4	15 Apr 2016	Weather	Partly Cloudy
D4	15 Apr 2016	Wind Speed (kts)	3.2
D4	15 Apr 2016	Wind Dir	NW
D4	15 Apr 2016	Animal Life	None
D4	15 Apr 2016	Floatables	None
D4	15 Apr 2016	Water Color	Green
D4	15 Apr 2016	Current Direction	NW
D4	15 Apr 2016	Wave Height Low (ft)	3
D4	15 Apr 2016	High Tide (ft)	4.2
D4	15 Apr 2016	High Tide Time	505
D4	15 Apr 2016	Low Tide (ft)	0.1
D4	15 Apr 2016	Low Tide Time	1214
D4	15 Apr 2016	Comments	Kelp; Algae; Water clear; Dead seal carcass about 25 feet east of sample point
D4	21 Apr 2016	Arrive Time	931
D4	21 Apr 2016	Weather	Partly Cloudy
D4	21 Apr 2016	Wind Speed (kts)	4.2
D4	21 Apr 2016	Wind Dir	N
D4	21 Apr 2016	Animal Life	None

Station	Date	Parameter	Value
D4	21 Apr 2016	Floatables	None
D4	21 Apr 2016	Water Color	Green
D4	21 Apr 2016	Current Direction	N
D4	21 Apr 2016	Wave Height Low (ft)	4
D4	21 Apr 2016	High Tide (ft)	4.3
D4	21 Apr 2016	High Tide Time	935
D4	21 Apr 2016	Low Tide (ft)	0
D4	21 Apr 2016	Low Tide Time	338
D4	21 Apr 2016	Comments	Water clear; Dead seal 15 ft east of sample point
D4	27 Apr 2016	Arrive Time	721
D4	27 Apr 2016	Weather	Partly Cloudy
D4	27 Apr 2016	Wind Speed (kts)	5.7
D4	27 Apr 2016	Wind Dir	SW
D4	27 Apr 2016	Animal Life	None
D4	27 Apr 2016	Floatables	None
D4	27 Apr 2016	Water Color	Green
D4	27 Apr 2016	Current Direction	NW
D4	27 Apr 2016	Wave Height Low (ft)	1
D4	27 Apr 2016	High Tide (ft)	3
D4	27 Apr 2016	High Tide Time	1413
D4	27 Apr 2016	Low Tide (ft)	0.3
D4	27 Apr 2016	Low Tide Time	733
D4	27 Apr 2016	Comments	Kelp; Seagrass; Water clear
D5	03 Apr 2016	Arrive Time	1021
D5	03 Apr 2016	Weather	Cloudy
D5	03 Apr 2016	Wind Speed (kts)	4
D5	03 Apr 2016	Wind Dir	NW
D5	03 Apr 2016	Animal Life	24 Seagulls
D5	03 Apr 2016	Floatables	None
D5	03 Apr 2016	Water Color	Green
D5	03 Apr 2016	Current Direction	NW
D5	03 Apr 2016	Wave Height Low (ft)	1
D5	03 Apr 2016	High Tide (ft)	4.8
D5	03 Apr 2016	High Tide Time	635
D5	03 Apr 2016	Low Tide (ft)	-0.3
D5	03 Apr 2016	Low Tide Time	1324
D5	03 Apr 2016	Comments	Kelp; Seagrass; Water clear
D5	09 Apr 2016	Arrive Time	901
D5	09 Apr 2016	Weather	Partly Cloudy
D5	09 Apr 2016	Wind Speed (kts)	3.6
D5	09 Apr 2016	Wind Dir	S
D5	09 Apr 2016	Animal Life	None
D5	09 Apr 2016	Floatables	None
D5	09 Apr 2016	Water Color	Green
D5	09 Apr 2016	Current Direction	S
D5	09 Apr 2016	Wave Height Low (ft)	1
D5	09 Apr 2016	High Tide (ft)	4.5
D5	09 Apr 2016	High Tide Time	1129
D5	09 Apr 2016	Low Tide (ft)	-0.9
D5	09 Apr 2016	Low Tide Time	521
D5	09 Apr 2016	Comments	Seagrass; Algae; Water clear

Station	Date	Parameter	Value
D5	15 Apr 2016	Arrive Time	928
D5	15 Apr 2016	Weather	Partly Cloudy
D5	15 Apr 2016	Wind Speed (kts)	1.3
D5	15 Apr 2016	Wind Dir	SW
D5	15 Apr 2016	Animal Life	None
D5	15 Apr 2016	Floatables	None
D5	15 Apr 2016	Water Color	Green
D5	15 Apr 2016	Current Direction	SW
D5	15 Apr 2016	Wave Height Low (ft)	3
D5	15 Apr 2016	High Tide (ft)	4.2
D5	15 Apr 2016	High Tide Time	505
D5	15 Apr 2016	Low Tide (ft)	0.1
D5	15 Apr 2016	Low Tide Time	1214
D5	15 Apr 2016	Comments	Kelp; Seagrass; Algae; Water clear
D5	21 Apr 2016	Arrive Time	914
D5	21 Apr 2016	Weather	Partly Cloudy
D5	21 Apr 2016	Wind Speed (kts)	2.1
D5	21 Apr 2016	Wind Dir	N
D5	21 Apr 2016	Animal Life	None
D5	21 Apr 2016	Floatables	None
D5	21 Apr 2016	Water Color	Green
D5	21 Apr 2016	Current Direction	N
D5	21 Apr 2016	Wave Height Low (ft)	2
D5	21 Apr 2016	High Tide (ft)	4.3
D5	21 Apr 2016	High Tide Time	935
D5	21 Apr 2016	Low Tide (ft)	0
D5	21 Apr 2016	Low Tide Time	338
D5	21 Apr 2016	Comments	Water clear
D5	27 Apr 2016	Arrive Time	707
D5	27 Apr 2016	Weather	Partly Cloudy
D5	27 Apr 2016	Wind Speed (kts)	1.3
D5	27 Apr 2016	Wind Dir	SW
D5	27 Apr 2016	Animal Life	5 Seagulls
D5	27 Apr 2016	Floatables	None
D5	27 Apr 2016	Water Color	Green
D5	27 Apr 2016	Current Direction	NW
D5	27 Apr 2016	Wave Height Low (ft)	2
D5	27 Apr 2016	High Tide (ft)	3
D5	27 Apr 2016	High Tide Time	1413
D5	27 Apr 2016	Low Tide (ft)	0.3
D5	27 Apr 2016	Low Tide Time	733
D5	27 Apr 2016	Comments	Kelp; Seagrass; Water clear
D7	03 Apr 2016	Arrive Time	1056
D7	03 Apr 2016	Weather	Cloudy
D7	03 Apr 2016	Wind Speed (kts)	3.4
D7	03 Apr 2016	Wind Dir	NW
D7	03 Apr 2016	Animal Life	None
D7	03 Apr 2016	Floatables	None
D7	03 Apr 2016	Water Color	Green
D7	03 Apr 2016	Current Direction	NW
D7	03 Apr 2016	Wave Height Low (ft)	2
D7	03 Apr 2016	High Tide (ft)	4.8

Station	Date	Parameter	Value
D7	03 Apr 2016	High Tide Time	635
D7	03 Apr 2016	Low Tide (ft)	-0.3
D7	03 Apr 2016	Low Tide Time	1324
D7	03 Apr 2016	Comments	Kelp; Seagrass; 2 Persons; 6 Surfers; 1 Swimmer; Water clear
D7	09 Apr 2016	Arrive Time	939
D7	09 Apr 2016	Weather	Partly Cloudy
D7	09 Apr 2016	Wind Speed (kts)	6
D7	09 Apr 2016	Wind Dir	S
D7	09 Apr 2016	Animal Life	None
D7	09 Apr 2016	Floatables	None
D7	09 Apr 2016	Water Color	Green
D7	09 Apr 2016	Current Direction	S
D7	09 Apr 2016	Wave Height Low (ft)	2
D7	09 Apr 2016	High Tide (ft)	4.5
D7	09 Apr 2016	High Tide Time	1129
D7	09 Apr 2016	Low Tide (ft)	-0.9
D7	09 Apr 2016	Low Tide Time	521
D7	09 Apr 2016	Comments	Seagrass; Algae; Water clear
D7	15 Apr 2016	Arrive Time	1005
D7	15 Apr 2016	Weather	Partly Cloudy
D7	15 Apr 2016	Wind Speed (kts)	0.7
D7	15 Apr 2016	Wind Dir	NW
D7	15 Apr 2016	Animal Life	None
D7	15 Apr 2016	Floatables	None
D7	15 Apr 2016	Water Color	Green
D7	15 Apr 2016	Current Direction	NW
D7	15 Apr 2016	Wave Height Low (ft)	3
D7	15 Apr 2016	High Tide (ft)	4.2
D7	15 Apr 2016	High Tide Time	505
D7	15 Apr 2016	Low Tide (ft)	0.1
D7	15 Apr 2016	Low Tide Time	1214
D7	15 Apr 2016	Comments	Seagrass; Algae; 3 Surfers; Water clear
D7	21 Apr 2016	Arrive Time	955
D7	21 Apr 2016	Weather	Partly Cloudy
D7	21 Apr 2016	Wind Speed (kts)	2.3
D7	21 Apr 2016	Wind Dir	N
D7	21 Apr 2016	Animal Life	None
D7	21 Apr 2016	Floatables	None
D7	21 Apr 2016	Water Color	Green
D7	21 Apr 2016	Current Direction	N
D7	21 Apr 2016	Wave Height Low (ft)	4
D7	21 Apr 2016	High Tide (ft)	4.3
D7	21 Apr 2016	High Tide Time	935
D7	21 Apr 2016	Low Tide (ft)	0.8
D7	21 Apr 2016	Low Tide Time	1525
D7	21 Apr 2016	Comments	Water clear
D7	27 Apr 2016	Arrive Time	741
D7	27 Apr 2016	Weather	Partly Cloudy
D7	27 Apr 2016	Wind Speed (kts)	2.7
D7	27 Apr 2016	Wind Dir	SW
D7	27 Apr 2016	Animal Life	None

Station	Date	Parameter	Value
D7	27 Apr 2016	Floatables	None
D7	27 Apr 2016	Water Color	Green
D7	27 Apr 2016	Current Direction	NW
D7	27 Apr 2016	Wave Height Low (ft)	1
D7	27 Apr 2016	High Tide (ft)	3
D7	27 Apr 2016	High Tide Time	1413
D7	27 Apr 2016	Low Tide (ft)	0.3
D7	27 Apr 2016	Low Tide Time	733
D7	27 Apr 2016	Comments	Kelp; Seagrass; 5 Surfers; Water clear
D8	03 Apr 2016	Arrive Time	1107
D8	03 Apr 2016	Weather	Cloudy
D8	03 Apr 2016	Wind Speed (kts)	6.9
D8	03 Apr 2016	Wind Dir	W
D8	03 Apr 2016	Animal Life	1 Dog
D8	03 Apr 2016	Floatables	None
D8	03 Apr 2016	Water Color	Green
D8	03 Apr 2016	Current Direction	W
D8	03 Apr 2016	Wave Height Low (ft)	1
D8	03 Apr 2016	High Tide (ft)	4.8
D8	03 Apr 2016	High Tide Time	635
D8	03 Apr 2016	Low Tide (ft)	-0.3
D8	03 Apr 2016	Low Tide Time	1324
D8	03 Apr 2016	Comments	Kelp; Seagrass; 1 Person; Water clear
D8	09 Apr 2016	Arrive Time	952
D8	09 Apr 2016	Weather	Partly Cloudy
D8	09 Apr 2016	Wind Speed (kts)	3.3
D8	09 Apr 2016	Wind Dir	SW
D8	09 Apr 2016	Animal Life	None
D8	09 Apr 2016	Floatables	None
D8	09 Apr 2016	Water Color	Green
D8	09 Apr 2016	Current Direction	SW
D8	09 Apr 2016	Wave Height Low (ft)	2
D8	09 Apr 2016	High Tide (ft)	4.5
D8	09 Apr 2016	High Tide Time	1129
D8	09 Apr 2016	Low Tide (ft)	-0.9
D8	09 Apr 2016	Low Tide Time	521
D8	09 Apr 2016	Comments	Kelp; Seagrass; 5 Persons; Water clear
D8	15 Apr 2016	Arrive Time	1023
D8	15 Apr 2016	Weather	Sunny
D8	15 Apr 2016	Wind Speed (kts)	1.5
D8	15 Apr 2016	Wind Dir	NW
D8	15 Apr 2016	Animal Life	None
D8	15 Apr 2016	Floatables	None
D8	15 Apr 2016	Water Color	Green
D8	15 Apr 2016	Current Direction	NW
D8	15 Apr 2016	Wave Height Low (ft)	2
D8	15 Apr 2016	High Tide (ft)	4.2
D8	15 Apr 2016	High Tide Time	505
D8	15 Apr 2016	Low Tide (ft)	0.1
D8	15 Apr 2016	Low Tide Time	1214
D8	15 Apr 2016	Comments	Kelp; Seagrass; Water clear

Station	Date	Parameter	Value
D8	21 Apr 2016	Arrive Time	1006
D8	21 Apr 2016	Weather	Partly Cloudy
D8	21 Apr 2016	Wind Speed (kts)	2.3
D8	21 Apr 2016	Wind Dir	N
D8	21 Apr 2016	Animal Life	None
D8	21 Apr 2016	Floatables	None
D8	21 Apr 2016	Water Color	Green
D8	21 Apr 2016	Current Direction	N
D8	21 Apr 2016	Wave Height Low (ft)	3
D8	21 Apr 2016	High Tide (ft)	4.3
D8	21 Apr 2016	High Tide Time	935
D8	21 Apr 2016	Low Tide (ft)	0.8
D8	21 Apr 2016	Low Tide Time	1525
D8	21 Apr 2016	Comments	Kelp; Seagrass; 3 Persons; Water clear; Kelp piled up on beach
D8	27 Apr 2016	Arrive Time	755
D8	27 Apr 2016	Weather	Partly Cloudy
D8	27 Apr 2016	Wind Speed (kts)	3.6
D8	27 Apr 2016	Wind Dir	SW
D8	27 Apr 2016	Animal Life	None
D8	27 Apr 2016	Floatables	None
D8	27 Apr 2016	Water Color	Green
D8	27 Apr 2016	Current Direction	NW
D8	27 Apr 2016	Wave Height Low (ft)	1
D8	27 Apr 2016	High Tide (ft)	3
D8	27 Apr 2016	High Tide Time	1413
D8	27 Apr 2016	Low Tide (ft)	0.3
D8	27 Apr 2016	Low Tide Time	733
D8	27 Apr 2016	Comments	Kelp; Seagrass; Algae; Water clear
D9	03 Apr 2016	Arrive Time	1116
D9	03 Apr 2016	Weather	Cloudy
D9	03 Apr 2016	Wind Speed (kts)	7.3
D9	03 Apr 2016	Wind Dir	W
D9	03 Apr 2016	Animal Life	None
D9	03 Apr 2016	Floatables	None
D9	03 Apr 2016	Water Color	Green
D9	03 Apr 2016	Current Direction	W
D9	03 Apr 2016	Wave Height Low (ft)	1
D9	03 Apr 2016	High Tide (ft)	4.8
D9	03 Apr 2016	High Tide Time	635
D9	03 Apr 2016	Low Tide (ft)	-0.3
D9	03 Apr 2016	Low Tide Time	1324
D9	03 Apr 2016	Comments	Kelp; Seagrass; 8 Persons; Water clear
D9	09 Apr 2016	Arrive Time	1007
D9	09 Apr 2016	Weather	Partly Cloudy
D9	09 Apr 2016	Wind Speed (kts)	2.1
D9	09 Apr 2016	Wind Dir	SW
D9	09 Apr 2016	Animal Life	None
D9	09 Apr 2016	Floatables	None
D9	09 Apr 2016	Water Color	Green
D9	09 Apr 2016	Current Direction	SW
D9	09 Apr 2016	Wave Height Low (ft)	2
D9	09 Apr 2016	High Tide (ft)	4.5

Station	Date	Parameter	Value
D9	09 Apr 2016	High Tide Time	1129
D9	09 Apr 2016	Low Tide (ft)	-0.9
D9	09 Apr 2016	Low Tide Time	521
D9	09 Apr 2016	Comments	Seagrass; Algae; Water clear
D9	15 Apr 2016	Arrive Time	1034
D9	15 Apr 2016	Weather	Sunny
D9	15 Apr 2016	Wind Speed (kts)	3.4
D9	15 Apr 2016	Wind Dir	W
D9	15 Apr 2016	Animal Life	2 Birds
D9	15 Apr 2016	Floatables	None
D9	15 Apr 2016	Water Color	Green
D9	15 Apr 2016	Current Direction	W
D9	15 Apr 2016	Wave Height Low (ft)	2
D9	15 Apr 2016	High Tide (ft)	4.2
D9	15 Apr 2016	High Tide Time	505
D9	15 Apr 2016	Low Tide (ft)	0.1
D9	15 Apr 2016	Low Tide Time	1214
D9	15 Apr 2016	Comments	Seagrass; Algae; Water clear
D9	21 Apr 2016	Arrive Time	1023
D9	21 Apr 2016	Weather	Sunny
D9	21 Apr 2016	Wind Speed (kts)	1.3
D9	21 Apr 2016	Wind Dir	N
D9	21 Apr 2016	Animal Life	None
D9	21 Apr 2016	Floatables	None
D9	21 Apr 2016	Water Color	Green
D9	21 Apr 2016	Current Direction	N
D9	21 Apr 2016	Wave Height Low (ft)	3
D9	21 Apr 2016	High Tide (ft)	4.3
D9	21 Apr 2016	High Tide Time	935
D9	21 Apr 2016	Low Tide (ft)	0.8
D9	21 Apr 2016	Low Tide Time	1525
D9	21 Apr 2016	Comments	Water clear
D9	27 Apr 2016	Arrive Time	806
D9	27 Apr 2016	Weather	Partly Cloudy
D9	27 Apr 2016	Wind Speed (kts)	4
D9	27 Apr 2016	Wind Dir	SW
D9	27 Apr 2016	Animal Life	None
D9	27 Apr 2016	Floatables	None
D9	27 Apr 2016	Water Color	Green
D9	27 Apr 2016	Current Direction	NW
D9	27 Apr 2016	Wave Height Low (ft)	2
D9	27 Apr 2016	High Tide (ft)	3
D9	27 Apr 2016	High Tide Time	1413
D9	27 Apr 2016	Low Tide (ft)	0.3
D9	27 Apr 2016	Low Tide Time	733
D9	27 Apr 2016	Comments	Kelp; Seagrass; Water clear
D10	03 Apr 2016	Arrive Time	1128
D10	03 Apr 2016	Weather	Cloudy
D10	03 Apr 2016	Wind Speed (kts)	7.3
D10	03 Apr 2016	Wind Dir	SW
D10	03 Apr 2016	Animal Life	None

Station	Date	Parameter	Value
D10	03 Apr 2016	Floatables	None
D10	03 Apr 2016	Water Color	Green
D10	03 Apr 2016	Current Direction	SW
D10	03 Apr 2016	Wave Height Low (ft)	2
D10	03 Apr 2016	High Tide (ft)	4.8
D10	03 Apr 2016	High Tide Time	635
D10	03 Apr 2016	Low Tide (ft)	-0.3
D10	03 Apr 2016	Low Tide Time	1324
D10	03 Apr 2016	Comments	Kelp; Seagrass; 23 Persons; 3 Surfers; Water clear
D10	09 Apr 2016	Arrive Time	1018
D10	09 Apr 2016	Weather	Partly Cloudy
D10	09 Apr 2016	Wind Speed (kts)	2.8
D10	09 Apr 2016	Wind Dir	S
D10	09 Apr 2016	Animal Life	None
D10	09 Apr 2016	Floatables	None
D10	09 Apr 2016	Water Color	Green
D10	09 Apr 2016	Current Direction	S
D10	09 Apr 2016	Wave Height Low (ft)	3
D10	09 Apr 2016	High Tide (ft)	4.5
D10	09 Apr 2016	High Tide Time	1129
D10	09 Apr 2016	Low Tide (ft)	-0.9
D10	09 Apr 2016	Low Tide Time	521
D10	09 Apr 2016	Comments	Kelp; Seagrass; 10 Persons; 6 Surfers; Water clear
D10	15 Apr 2016	Arrive Time	1046
D10	15 Apr 2016	Weather	Sunny
D10	15 Apr 2016	Wind Speed (kts)	3.4
D10	15 Apr 2016	Wind Dir	SW
D10	15 Apr 2016	Animal Life	None
D10	15 Apr 2016	Floatables	None
D10	15 Apr 2016	Water Color	Green
D10	15 Apr 2016	Current Direction	SW
D10	15 Apr 2016	Wave Height Low (ft)	3
D10	15 Apr 2016	High Tide (ft)	4.2
D10	15 Apr 2016	High Tide Time	505
D10	15 Apr 2016	Low Tide (ft)	0.1
D10	15 Apr 2016	Low Tide Time	1214
D10	15 Apr 2016	Comments	Seagrass; 4 Persons; 2 Surfers; Water clear
D10	21 Apr 2016	Arrive Time	1032
D10	21 Apr 2016	Weather	Partly Cloudy
D10	21 Apr 2016	Wind Speed (kts)	6.9
D10	21 Apr 2016	Wind Dir	N
D10	21 Apr 2016	Animal Life	None
D10	21 Apr 2016	Floatables	None
D10	21 Apr 2016	Water Color	Green
D10	21 Apr 2016	Current Direction	N
D10	21 Apr 2016	Wave Height Low (ft)	3
D10	21 Apr 2016	High Tide (ft)	4.3
D10	21 Apr 2016	High Tide Time	935
D10	21 Apr 2016	Low Tide (ft)	0.8
D10	21 Apr 2016	Low Tide Time	1525
D10	21 Apr 2016	Comments	6 Persons; Water clear

Station	Date	Parameter	Value
D10	27 Apr 2016	Arrive Time	816
D10	27 Apr 2016	Weather	Partly Cloudy
D10	27 Apr 2016	Wind Speed (kts)	6.9
D10	27 Apr 2016	Wind Dir	SE
D10	27 Apr 2016	Animal Life	None
D10	27 Apr 2016	Floatables	None
D10	27 Apr 2016	Water Color	Green
D10	27 Apr 2016	Current Direction	W
D10	27 Apr 2016	Wave Height Low (ft)	3
D10	27 Apr 2016	High Tide (ft)	3
D10	27 Apr 2016	High Tide Time	1413
D10	27 Apr 2016	Low Tide (ft)	0.3
D10	27 Apr 2016	Low Tide Time	733
D10	27 Apr 2016	Comments	Kelp; Seagrass; Water clear
D11	03 Apr 2016	Arrive Time	1137
D11	03 Apr 2016	Weather	Cloudy
D11	03 Apr 2016	Wind Speed (kts)	7.1
D11	03 Apr 2016	Wind Dir	W
D11	03 Apr 2016	Animal Life	30 Dogs
D11	03 Apr 2016	Floatables	None
D11	03 Apr 2016	Water Color	Green
D11	03 Apr 2016	Current Direction	W
D11	03 Apr 2016	Wave Height Low (ft)	2
D11	03 Apr 2016	High Tide (ft)	4.8
D11	03 Apr 2016	High Tide Time	635
D11	03 Apr 2016	Low Tide (ft)	-0.3
D11	03 Apr 2016	Low Tide Time	1324
D11	03 Apr 2016	Comments	Kelp; Seagrass; 50 Persons; 5 Surfers; 10 Swimmers; Water clear
D11	05 Apr 2016	Arrive Time	947
D11	05 Apr 2016	Weather	Foggy
D11	05 Apr 2016	Wind Speed (kts)	2
D11	05 Apr 2016	Wind Dir	W
D11	05 Apr 2016	Animal Life	None
D11	05 Apr 2016	Floatables	None
D11	05 Apr 2016	Water Color	Green
D11	05 Apr 2016	Current Direction	W
D11	05 Apr 2016	Wave Height Low (ft)	3
D11	05 Apr 2016	High Tide (ft)	5.4
D11	05 Apr 2016	High Tide Time	813
D11	05 Apr 2016	Low Tide (ft)	-0.6
D11	05 Apr 2016	Low Tide Time	1439
D11	05 Apr 2016	Comments	Kelp; Seagrass; 4 Surfers; Water turbid
D11	09 Apr 2016	Arrive Time	1031
D11	09 Apr 2016	Weather	Partly Cloudy
D11	09 Apr 2016	Wind Speed (kts)	5.4
D11	09 Apr 2016	Wind Dir	SW
D11	09 Apr 2016	Animal Life	None
D11	09 Apr 2016	Floatables	None
D11	09 Apr 2016	Water Color	Green
D11	09 Apr 2016	Current Direction	SW
D11	09 Apr 2016	Wave Height Low (ft)	2
D11	09 Apr 2016	High Tide (ft)	4.5

Station	Date	Parameter	Value
D11	09 Apr 2016	High Tide Time	1129
D11	09 Apr 2016	Low Tide (ft)	-0.9
D11	09 Apr 2016	Low Tide Time	521
D11	09 Apr 2016	Comments	Seagrass; 7 Persons; 2 Surfers; Water clear
D11	15 Apr 2016	Arrive Time	1056
D11	15 Apr 2016	Weather	Sunny
D11	15 Apr 2016	Wind Speed (kts)	3.4
D11	15 Apr 2016	Wind Dir	W
D11	15 Apr 2016	Animal Life	None
D11	15 Apr 2016	Floatables	None
D11	15 Apr 2016	Water Color	Green
D11	15 Apr 2016	Current Direction	W
D11	15 Apr 2016	Wave Height Low (ft)	3
D11	15 Apr 2016	High Tide (ft)	4.2
D11	15 Apr 2016	High Tide Time	505
D11	15 Apr 2016	Low Tide (ft)	0.1
D11	15 Apr 2016	Low Tide Time	1214
D11	15 Apr 2016	Comments	Seagrass; 2 Persons; Water clear
D11	21 Apr 2016	Arrive Time	1047
D11	21 Apr 2016	Weather	Partly Cloudy
D11	21 Apr 2016	Wind Speed (kts)	3.8
D11	21 Apr 2016	Wind Dir	N
D11	21 Apr 2016	Animal Life	None
D11	21 Apr 2016	Floatables	None
D11	21 Apr 2016	Water Color	Green
D11	21 Apr 2016	Current Direction	N
D11	21 Apr 2016	Wave Height Low (ft)	3
D11	21 Apr 2016	High Tide (ft)	4.3
D11	21 Apr 2016	High Tide Time	935
D11	21 Apr 2016	Low Tide (ft)	0.8
D11	21 Apr 2016	Low Tide Time	1525
D11	21 Apr 2016	Comments	2 Persons; 1 Surfer; Water clear
D11	27 Apr 2016	Arrive Time	825
D11	27 Apr 2016	Weather	Partly Cloudy
D11	27 Apr 2016	Wind Speed (kts)	6
D11	27 Apr 2016	Wind Dir	SE
D11	27 Apr 2016	Animal Life	None
D11	27 Apr 2016	Floatables	None
D11	27 Apr 2016	Water Color	Green
D11	27 Apr 2016	Current Direction	NW
D11	27 Apr 2016	Wave Height Low (ft)	3
D11	27 Apr 2016	High Tide (ft)	3
D11	27 Apr 2016	High Tide Time	1413
D11	27 Apr 2016	Low Tide (ft)	0.3
D11	27 Apr 2016	Low Tide Time	733
D11	27 Apr 2016	Comments	Kelp; Seagrass; Water clear
D12	03 Apr 2016	Arrive Time	1201
D12	03 Apr 2016	Weather	Cloudy
D12	03 Apr 2016	Wind Speed (kts)	7
D12	03 Apr 2016	Wind Dir	NW
D12	03 Apr 2016	Animal Life	None

Station	Date	Parameter	Value
D12	03 Apr 2016	Floatables	None
D12	03 Apr 2016	Water Color	Green
D12	03 Apr 2016	Current Direction	NW
D12	03 Apr 2016	Wave Height Low (ft)	2
D12	03 Apr 2016	High Tide (ft)	4.8
D12	03 Apr 2016	High Tide Time	635
D12	03 Apr 2016	Low Tide (ft)	-0.3
D12	03 Apr 2016	Low Tide Time	1324
D12	03 Apr 2016	Comments	Kelp; Seagrass; 50 Persons; 20 Swimmers; Water clear
D12	09 Apr 2016	Arrive Time	1052
D12	09 Apr 2016	Weather	Partly Cloudy
D12	09 Apr 2016	Wind Speed (kts)	5.6
D12	09 Apr 2016	Wind Dir	SW
D12	09 Apr 2016	Animal Life	None
D12	09 Apr 2016	Floatables	None
D12	09 Apr 2016	Water Color	Green
D12	09 Apr 2016	Current Direction	SW
D12	09 Apr 2016	Wave Height Low (ft)	3
D12	09 Apr 2016	High Tide (ft)	4.5
D12	09 Apr 2016	High Tide Time	1129
D12	09 Apr 2016	Low Tide (ft)	-0.9
D12	09 Apr 2016	Low Tide Time	521
D12	09 Apr 2016	Comments	Seagrass; 13 Persons; 2 Surfers; Water clear
D12	15 Apr 2016	Arrive Time	1116
D12	15 Apr 2016	Weather	Sunny
D12	15 Apr 2016	Wind Speed (kts)	3.3
D12	15 Apr 2016	Wind Dir	W
D12	15 Apr 2016	Animal Life	None
D12	15 Apr 2016	Floatables	None
D12	15 Apr 2016	Water Color	Green
D12	15 Apr 2016	Current Direction	W
D12	15 Apr 2016	Wave Height Low (ft)	4
D12	15 Apr 2016	High Tide (ft)	4.2
D12	15 Apr 2016	High Tide Time	505
D12	15 Apr 2016	Low Tide (ft)	0.1
D12	15 Apr 2016	Low Tide Time	1214
D12	15 Apr 2016	Comments	Kelp; 5 Persons; 1 Surfer; Water clear
D12	21 Apr 2016	Arrive Time	1110
D12	21 Apr 2016	Weather	Partly Cloudy
D12	21 Apr 2016	Wind Speed (kts)	8.7
D12	21 Apr 2016	Wind Dir	N
D12	21 Apr 2016	Animal Life	None
D12	21 Apr 2016	Floatables	None
D12	21 Apr 2016	Water Color	Green
D12	21 Apr 2016	Current Direction	N
D12	21 Apr 2016	Wave Height Low (ft)	3
D12	21 Apr 2016	High Tide (ft)	4.3
D12	21 Apr 2016	High Tide Time	935
D12	21 Apr 2016	Low Tide (ft)	0.8
D12	21 Apr 2016	Low Tide Time	1525
D12	21 Apr 2016	Comments	6 Persons; Water clear

Station	Date	Parameter	Value
D12	27 Apr 2016	Arrive Time	845
D12	27 Apr 2016	Weather	Partly Cloudy
D12	27 Apr 2016	Wind Speed (kts)	6.8
D12	27 Apr 2016	Wind Dir	S
D12	27 Apr 2016	Animal Life	None
D12	27 Apr 2016	Floatables	None
D12	27 Apr 2016	Water Color	Green
D12	27 Apr 2016	Current Direction	NW
D12	27 Apr 2016	Wave Height Low (ft)	3
D12	27 Apr 2016	High Tide (ft)	3
D12	27 Apr 2016	High Tide Time	1413
D12	27 Apr 2016	Low Tide (ft)	0.3
D12	27 Apr 2016	Low Tide Time	733
D12	27 Apr 2016	Comments	Kelp; Seagrass; 1 Jogger; 3 Persons; Water clear

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 Apr 2016	62	42	30	5*	3*	3*	5	7
02 Apr 2016	62	42	30	5*	3*	3*	5	7
03 Apr 2016	62	42	30	5*	3*	3*	5	7
04 Apr 2016	51	38	26	5	3	2	5	6
05 Apr 2016	51	38	26	5	3	2	5	6
06 Apr 2016	51	38	26	5	3	2	5	6
07 Apr 2016	51	38	26	5	3	2	5	6
08 Apr 2016	40	32	24	5	3	2	4	6
09 Apr 2016	18	14	13	4	2	2	4	6
10 Apr 2016	18	14	13	4	2	2	4	6
11 Apr 2016	11	10	13	4	2	2	4	6
12 Apr 2016	11	10	13	4	2	2	4	6
13 Apr 2016	8	9	6	4	2	2	3	4
14 Apr 2016	8	9	6	4	2	2	3	4
15 Apr 2016	8	9	6	4	2	2	3	4
16 Apr 2016	8	9	6	4	2	2	3	4
17 Apr 2016	8	9	6	4	2	2	3	4
18 Apr 2016	8	9	6	4	2	2	3	4
19 Apr 2016	15	10	7	4	2	2	2	4
20 Apr 2016	15	10	7	4	2	2	2	4
21 Apr 2016	15	10	7	4	2	2	2	4
22 Apr 2016	15	10	7	4	2	2	2	4
23 Apr 2016	15	10	7	4	2	2	2	4
24 Apr 2016	15	10	7	4	2	2	2	4
25 Apr 2016	15	10	7	4	2	2	2	4
26 Apr 2016	15	10	7	4	2	2	2	4
27 Apr 2016	15	10	7	4	2	2	2	4
28 Apr 2016	15	10	7	4	2	2	2	4
29 Apr 2016	12	11	8	4	2	2	2	4
30 Apr 2016	12	11	8	4	2	2	2	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 Apr 2016	6	5	4	2*	2*	2*	2	2
02 Apr 2016	6	5	4	2*	2*	2*	2	2
03 Apr 2016	6	5	4	2*	2*	2*	2	2
04 Apr 2016	5	5	4	2	2	2	2	2
05 Apr 2016	5	5	4	2	2	2	2	2
06 Apr 2016	5	5	4	2	2	2	2	2
07 Apr 2016	5	5	4	2	2	2	2	2
08 Apr 2016	4	4	3	2	2	2	2	2
09 Apr 2016	3	3	2	2	2	2	2	2
10 Apr 2016	3	3	2	2	2	2	2	2
11 Apr 2016	3	3	2	2	2	2	2	2
12 Apr 2016	3	3	2	2	2	2	2	2
13 Apr 2016	2	3	2	2	2	2	2	2
14 Apr 2016	2	3	2	2	2	2	2	2
15 Apr 2016	2	3	2	2	2	2	2	2
16 Apr 2016	2	3	2	2	2	2	2	2
17 Apr 2016	2	3	2	2	2	2	2	2
18 Apr 2016	2	3	2	2	2	2	2	2
19 Apr 2016	3	3	2	2	2	2	2	2
20 Apr 2016	3	3	2	2	2	2	2	2
21 Apr 2016	3	3	2	2	2	2	2	2
22 Apr 2016	3	3	2	2	2	2	2	2
23 Apr 2016	3	3	2	2	2	2	2	2
24 Apr 2016	3	3	2	2	2	2	2	2
25 Apr 2016	3	3	2	2	2	2	2	2
26 Apr 2016	3	3	2	2	2	2	2	2
27 Apr 2016	3	3	2	2	2	2	2	2
28 Apr 2016	3	3	2	2	2	2	2	2
29 Apr 2016	3	3	2	2	2	2	2	2
30 Apr 2016	3	3	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 Apr 2016	17	12	12	2*	2*	2*	2	3
02 Apr 2016	17	12	12	2*	2*	2*	2	3
03 Apr 2016	17	12	12	2*	2*	2*	2	3
04 Apr 2016	16	14	12	2	2	2	2	3
05 Apr 2016	16	14	12	2	2	2	2	3
06 Apr 2016	16	14	12	2	2	2	2	3
07 Apr 2016	16	14	12	2	2	2	2	3
08 Apr 2016	12	11	10	2	3	2	2	3
09 Apr 2016	7	7	6	2	3	2	2	2
10 Apr 2016	7	7	6	2	3	2	2	2
11 Apr 2016	4	6	4	2	3	2	2	2
12 Apr 2016	4	6	4	2	3	2	2	2
13 Apr 2016	2	3	2	2	3	2	2	2
14 Apr 2016	2	3	2	2	3	2	2	2
15 Apr 2016	2	3	2	2	3	2	2	2
16 Apr 2016	2	3	2	2	3	2	2	2
17 Apr 2016	2	3	2	2	3	2	2	2
18 Apr 2016	2	3	2	2	3	2	2	2
19 Apr 2016	3	3	2	2	3	2	2	2
20 Apr 2016	3	3	2	2	3	2	2	2
21 Apr 2016	3	3	2	2	3	2	2	2
22 Apr 2016	3	3	2	2	3	2	2	2
23 Apr 2016	3	3	2	2	3	2	2	2
24 Apr 2016	3	3	2	2	3	2	2	2
25 Apr 2016	3	3	2	2	3	2	2	2
26 Apr 2016	3	3	2	2	3	2	2	2
27 Apr 2016	3	3	2	2	3	2	2	2
28 Apr 2016	3	3	2	2	3	2	2	2
29 Apr 2016	3	3	2	2	3	2	2	2
30 Apr 2016	3	3	2	2	3	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
04 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
08 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
13 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
19 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
29 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled

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
04 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
08 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
13 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
19 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
29 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled

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
04 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
08 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
13 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
19 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
29 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled

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
04 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
08 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
13 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
19 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC
29 Apr 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled

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; ammonium (N-NH3) values are reported as mg/L; 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	N-NH3	Temp	XMS	DO	Sal	pH
A1	04 Apr 2016	817	1	<2	<2	2e	1.00	ns	15.9	78.17	7.7	33.53	8.1
A1	04 Apr 2016	817	12	<2	<2	4e	1.00	ns	14.2	81.03	6.5	33.50	8.1
A1	04 Apr 2016	817	18	42	<2	4e	0.05	ns	11.7	81.49	4.5	33.55	7.9
A1	08 Apr 2016	800	1	<2	<2	<2	1.00	ns	16.1	77.82	8.1	33.48	8.2
A1	08 Apr 2016	800	12	8e	<2	<2	0.25	ns	12.9	81.02	5.5	33.54	8.0
A1	08 Apr 2016	800	18	22e	<2	<2	0.09	ns	12.3	81.51	4.9	33.56	7.9
A1	13 Apr 2016	818	1	18e	6e	<2	0.33	ns	17.5	83.78	8.0	33.49	8.2
A1	13 Apr 2016	818	12	10e	<2	2e	0.20	ns	15.9	81.60	7.4	33.48	8.2
A1	13 Apr 2016	818	18	<2	<2	<2	1.00	ns	14.9	78.04	6.8	33.48	8.1
A1	19 Apr 2016	800	1	66	6e	2e	0.09	ns	17.1	78.55	8.0	33.53	8.2
A1	19 Apr 2016	800	12	74	4e	<2	0.05	ns	13.6	82.17	5.9	33.53	8.0
A1	19 Apr 2016	800	18	60e	14e	10e	0.23	ns	12.2	82.17	4.6	33.56	7.9
A1	29 Apr 2016	803	1	<2	<2	<2	1.00	ns	17.6	81.99	7.7	33.56	8.2
A1	29 Apr 2016	803	12	<2	<2	<2	1.00	ns	15.3	81.71	6.6	33.53	8.1
A1	29 Apr 2016	803	18	<2	<2	2e	1.00	ns	13.7	82.55	5.4	33.53	8.0
C4	04 Apr 2016	1107	1	4e	<2	<2	0.50	ns	16.6	78.88	7.4	33.54	8.2
C4	04 Apr 2016	1107	3	2e	<2	<2	1.00	ns	16.1	75.99	7.3	33.54	8.2
C4	04 Apr 2016	1107	9	10e	2e	<2	0.20	ns	14.4	78.26	6.3	33.53	8.1
C4	08 Apr 2016	950	1	2e	2e	<2	1.00	ns	15.7	72.77	7.4	33.48	8.2
C4	08 Apr 2016	950	3	2e	<2	2e	1.00	ns	15.1	69.85	7.2	33.50	8.1
C4	08 Apr 2016	950	9	28e	<2	<2	0.07	ns	14.8	71.80	6.8	33.50	8.1
C4	13 Apr 2016	1045	1	<2	<2	<2	1.00	ns	17.9	75.68	8.1	33.48	8.3
C4	13 Apr 2016	1045	3	6e	2e	<2	0.33	ns	17.6	75.99	8.3	33.48	8.2
C4	13 Apr 2016	1045	9	6e	<2	<2	0.33	ns	16.8	75.87	7.9	33.47	8.2
C4	19 Apr 2016	950	1	<2	<2	<2	1.00	ns	16.9	79.88	7.9	33.53	8.2
C4	19 Apr 2016	950	3	<2	<2	<2	1.00	ns	16.4	78.68	7.7	33.53	8.2
C4	19 Apr 2016	950	9	<2	<2	<2	1.00	ns	15.4	78.70	7.2	33.52	8.2
C4	29 Apr 2016	1004	1	2e	<2	<2	1.00	ns	17.4	72.00	7.2	33.57	8.2
C4	29 Apr 2016	1004	3	2e	<2	<2	1.00	ns	17.2	69.77	7.2	33.57	8.2
C4	29 Apr 2016	1004	9	2e	<2	<2	1.00	ns	15.3	70.96	6.2	33.54	8.1
C5	04 Apr 2016	1057	1	<2	<2	<2	1.00	ns	16.8	76.36	7.3	33.54	8.2
C5	04 Apr 2016	1057	3	<2	<2	<2	1.00	ns	16.0	77.06	7.4	33.53	8.2
C5	04 Apr 2016	1057	9	2e	<2	<2	1.00	ns	13.5	82.22	5.8	33.52	8.0
C5	08 Apr 2016	937	1	<2	<2	30e	1.00	ns	15.9	72.85	8.1	33.47	8.2
C5	08 Apr 2016	937	3	<2	<2	<2	1.00	ns	15.8	72.19	7.9	33.48	8.2

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	N-NH3	Temp	XMS	DO	Sal	pH
C5	08 Apr 2016	937	9	<2	<2	<2	1.00	ns	15.0	79.53	6.9	33.53	8.1
C5	13 Apr 2016	1033	1	<2	<2	<2	1.00	ns	18.0	61.38	8.2	33.40	8.3
C5	13 Apr 2016	1033	3	<2	<2	<2	1.00	ns	17.7	76.49	8.5	33.48	8.3
C5	13 Apr 2016	1033	9	4e	<2	<2	0.50	ns	17.0	78.17	7.9	33.47	8.2
C5	19 Apr 2016	950	1	<2	<2	<2	1.00	ns	17.5	78.93	8.1	33.53	8.3
C5	19 Apr 2016	950	3	<2	<2	<2	1.00	ns	17.2	77.60	8.0	33.52	8.3
C5	19 Apr 2016	950	9	2e	<2	<2	1.00	ns	14.8	83.15	7.4	33.52	8.1
C5	29 Apr 2016	952	1	<2	<2	<2	1.00	ns	17.3	72.30	7.1	33.57	8.2
C5	29 Apr 2016	952	3	<2	<2	<2	1.00	ns	17.3	70.88	7.0	33.57	8.2
C5	29 Apr 2016	952	9	2e	<2	<2	1.00	ns	15.6	64.55	6.3	33.53	8.1
A6	04 Apr 2016	848	1	<2	<2	<2	1.00	ns	16.5	77.68	8.0	33.54	8.2
A6	04 Apr 2016	848	12	<2	<2	4e	1.00	ns	14.1	81.24	6.3	33.50	8.1
A6	04 Apr 2016	848	18	20e	6e	22e	0.30	ns	12.5	81.33	4.8	33.53	7.9
A6	08 Apr 2016	828	1	<2	<2	<2	1.00	ns	16.1	77.99	8.1	33.48	8.2
A6	08 Apr 2016	828	12	12e	<2	<2	0.17	ns	12.7	84.11	5.3	33.55	8.0
A6	08 Apr 2016	828	18	22e	2e	2e	0.09	ns	11.8	82.21	4.5	33.59	7.9
A6	13 Apr 2016	856	1	18e	<2	<2	0.11	ns	17.4	72.41	8.5	33.46	8.2
A6	13 Apr 2016	856	12	<2	<2	<2	1.00	ns	16.4	79.21	7.7	33.48	8.2
A6	13 Apr 2016	856	18	98	8e	8e	0.08	ns	14.6	77.30	6.4	33.50	8.1
A6	19 Apr 2016	833	1	2e	<2	<2	1.00	ns	17.1	78.42	8.0	33.53	8.2
A6	19 Apr 2016	833	12	<2	<2	<2	1.00	ns	15.1	80.90	7.2	33.51	8.1
A6	19 Apr 2016	833	18	16e	<2	2e	0.12	ns	13.8	82.92	5.9	33.54	8.1
A6	29 Apr 2016	839	1	4e	<2	<2	0.50	ns	17.6	82.39	7.5	33.56	8.2
A6	29 Apr 2016	839	12	<2	<2	<2	1.00	ns	17.4	83.03	7.4	33.56	8.2
A6	29 Apr 2016	839	18	12e	<2	2e	0.17	ns	13.9	76.99	6.0	33.53	8.1
C6	04 Apr 2016	1046	1	2e	<2	<2	1.00	ns	16.4	67.70	7.5	33.53	8.2
C6	04 Apr 2016	1046	3	<2	2e	<2	1.00	ns	16.1	77.30	7.5	33.53	8.2
C6	04 Apr 2016	1046	9	<2	<2	<2	1.00	ns	14.0	84.33	6.2	33.51	8.0
C6	08 Apr 2016	923	1	<2	<2	<2	1.00	ns	15.8	74.50	8.0	33.47	8.2
C6	08 Apr 2016	923	3	<2	<2	6e	1.00	ns	15.8	74.69	8.0	33.47	8.2
C6	08 Apr 2016	923	9	<2	<2	<2	1.00	ns	15.1	79.48	7.2	33.50	8.1
C6	13 Apr 2016	1019	1	<2	<2	<2	1.00	ns	17.6	77.59	8.3	33.48	8.2
C6	13 Apr 2016	1019	3	<2	<2	<2	1.00	ns	17.4	77.68	8.2	33.48	8.2
C6	13 Apr 2016	1019	9	<2	<2	<2	1.00	ns	16.4	77.49	7.6	33.49	8.2
C6	19 Apr 2016	833	1	<2	<2	<2	1.00	ns	17.6	80.40	7.6	33.53	8.2
C6	19 Apr 2016	833	3	<2	<2	<2	1.00	ns	17.2	79.58	7.9	33.52	8.2
C6	19 Apr 2016	833	9	<2	<2	<2	1.00	ns	14.9	81.32	7.0	33.51	8.1
C6	29 Apr 2016	939	1	<2	<2	2e	1.00	ns	17.4	71.01	7.2	33.57	8.1
C6	29 Apr 2016	939	3	4e	<2	<2	0.50	ns	17.3	70.53	7.2	33.57	8.1
C6	29 Apr 2016	939	9	<2	<2	<2	1.00	ns	16.8	69.46	6.9	33.55	8.1
A7	04 Apr 2016	833	1	<2	<2	2e	1.00	ns	16.4	78.81	8.0	33.54	8.2

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	N-NH3	Temp	XMS	DO	Sal	pH
A7	04 Apr 2016	833	12	<2	<2	<2	1.00	ns	13.8	79.26	6.2	33.50	8.1
A7	04 Apr 2016	833	18	34e	2e	4e	0.06	ns	12.0	81.35	4.4	33.55	7.9
A7	08 Apr 2016	814	1	<2	<2	<2	1.00	ns	15.9	77.01	7.9	33.49	8.2
A7	08 Apr 2016	814	12	18e	2e	<2	0.11	ns	12.7	82.72	5.2	33.55	8.0
A7	08 Apr 2016	814	18	24e	<2	<2	0.08	ns	12.1	82.98	4.7	33.57	7.9
A7	13 Apr 2016	840	1	<2	<2	ns	1.00	ns	17.4	77.86	8.1	33.48	8.2
A7	13 Apr 2016	840	12	<2	<2	2e	1.00	ns	16.7	82.16	7.7	33.48	8.2
A7	13 Apr 2016	840	18	2e	<2	2e	1.00	ns	15.5	81.92	6.8	33.49	8.1
A7	19 Apr 2016	822	1	<2	<2	<2	1.00	ns	17.1	79.62	8.1	33.53	8.2
A7	19 Apr 2016	822	12	36e	<2	2e	0.06	ns	14.7	81.02	7.1	33.51	8.1
A7	19 Apr 2016	822	18	26e	4e	4e	0.15	ns	13.0	83.30	5.2	33.55	8.0
A7	29 Apr 2016	822	1	4e	<2	<2	0.50	ns	17.5	83.29	7.6	33.56	8.2
A7	29 Apr 2016	822	12	<2	<2	<2	1.00	ns	16.7	83.51	7.1	33.55	8.2
A7	29 Apr 2016	822	18	6e	<2	<2	0.33	ns	14.0	81.37	5.7	33.53	8.0
C7	04 Apr 2016	913	1	<2	2e	<2	1.00	ns	16.6	78.94	8.1	33.54	8.2
C7	04 Apr 2016	913	12	<2	2e	<2	1.00	ns	14.0	80.77	6.4	33.49	8.1
C7	04 Apr 2016	913	18	<2	<2	<2	1.00	ns	12.6	82.81	4.9	33.51	7.9
C7	08 Apr 2016	845	1	<2	<2	<2	1.00	ns	16.1	78.14	8.2	33.47	8.2
C7	08 Apr 2016	845	12	4e	<2	<2	0.50	ns	14.2	82.16	6.6	33.52	8.1
C7	08 Apr 2016	845	18	4e	<2	<2	0.50	ns	12.7	86.03	5.2	33.54	8.0
C7	13 Apr 2016	924	1	2e	<2	<2	1.00	ns	17.6	74.75	8.3	33.44	8.2
C7	13 Apr 2016	924	12	<2	<2	<2	1.00	ns	16.6	73.93	8.1	33.47	8.2
C7	13 Apr 2016	924	18	<2	<2	<2	1.00	ns	15.7	82.71	7.1	33.46	8.1
C7	19 Apr 2016	928	1	<2	<2	<2	1.00	ns	17.4	78.57	8.3	33.53	8.2
C7	19 Apr 2016	928	12	<2	<2	<2	1.00	ns	14.7	81.24	7.1	33.51	8.1
C7	19 Apr 2016	928	18	<2	<2	<2	1.00	ns	13.0	83.52	5.2	33.55	8.0
C7	29 Apr 2016	858	1	<2	<2	<2	1.00	ns	17.7	83.95	7.7	33.56	8.2
C7	29 Apr 2016	858	12	<2	<2	<2	1.00	ns	17.3	83.77	7.5	33.54	8.2
C7	29 Apr 2016	858	18	<2	<2	<2	1.00	ns	15.2	80.74	6.8	33.52	8.1
C8	04 Apr 2016	928	1	<2	<2	<2	1.00	ns	16.5	73.72	8.0	33.54	8.2
C8	04 Apr 2016	928	12	<2	<2	<2	1.00	ns	15.5	77.83	7.3	33.51	8.2
C8	04 Apr 2016	928	18	<2	<2	<2	1.00	ns	12.7	81.10	5.3	33.49	8.0
C8	08 Apr 2016	858	1	<2	<2	<2	1.00	ns	16.1	79.36	8.1	33.48	8.2
C8	08 Apr 2016	858	12	12e	<2	<2	0.17	ns	13.2	83.99	5.8	33.51	8.0
C8	08 Apr 2016	858	18	16e	2e	<2	0.12	ns	12.6	85.22	5.2	33.54	8.0
C8	13 Apr 2016	944	1	<2	<2	<2	1.00	ns	17.2	77.10	8.1	33.35	8.2
C8	13 Apr 2016	944	12	<2	<2	<2	1.00	ns	16.5	76.45	8.0	33.48	8.2
C8	13 Apr 2016	944	18	<2	<2	2e	1.00	ns	15.3	74.86	7.5	33.48	8.1
C8	19 Apr 2016	858	1	<2	<2	<2	1.00	ns	17.5	78.72	8.1	33.54	8.2
C8	19 Apr 2016	858	12	<2	<2	<2	1.00	ns	14.4	80.78	6.7	33.51	8.1
C8	19 Apr 2016	858	18	18e	<2	4e	0.11	ns	12.3	81.69	4.6	33.55	7.9

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	N-NH3	Temp	XMS	DO	Sal	pH
C8	29 Apr 2016	913	1	<2	<2	<2	1.00	ns	17.8	82.31	7.7	33.57	8.2
C8	29 Apr 2016	913	12	<2	<2	<2	1.00	ns	16.8	82.53	7.7	33.53	8.2
C8	29 Apr 2016	913	18	<2	<2	<2	1.00	ns	14.6	75.60	7.1	33.49	8.1

ns = not sampled
ND = no data

Table 3.9

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

Station	Date	Parameter	Value
A1	04 Apr 2016	Depth (m)	18
A1	04 Apr 2016	Arrive Time	817
A1	04 Apr 2016	Depart Time	822
A1	04 Apr 2016	Air Temp (C)	13
A1	04 Apr 2016	Weather	Fog
A1	04 Apr 2016	Visibility (mi)	3
A1	04 Apr 2016	Wind Speed (kts)	5
A1	04 Apr 2016	Wind Dir	NW
A1	04 Apr 2016	Water Color	Green
A1	04 Apr 2016	Wave Ht Low (ft)	2
A1	04 Apr 2016	Wave Period (sec)	9
A1	04 Apr 2016	Sea State	Calm
A1	04 Apr 2016	High Tide (ft)	5.12
A1	04 Apr 2016	High Tide Time	726
A1	04 Apr 2016	Low Tide (ft)	-0.53
A1	04 Apr 2016	Low Tide Time	1402
A1	04 Apr 2016	Comments	Kelp; Boats
A1	08 Apr 2016	Depth (m)	18
A1	08 Apr 2016	Arrive Time	800
A1	08 Apr 2016	Depart Time	803
A1	08 Apr 2016	Air Temp (C)	15
A1	08 Apr 2016	Weather	Drizzle
A1	08 Apr 2016	Visibility (mi)	1
A1	08 Apr 2016	Wind Speed (kts)	3
A1	08 Apr 2016	Wind Dir	W
A1	08 Apr 2016	Water Color	Greenish-Blue
A1	08 Apr 2016	Wave Ht Low (ft)	2
A1	08 Apr 2016	Wave Period (sec)	13
A1	08 Apr 2016	Sea State	Calm
A1	08 Apr 2016	High Tide (ft)	4.92
A1	08 Apr 2016	High Tide Time	1036
A1	08 Apr 2016	Low Tide (ft)	-0.93
A1	08 Apr 2016	Low Tide Time	431
A1	08 Apr 2016	Comments	
A1	13 Apr 2016	Depth (m)	19
A1	13 Apr 2016	Arrive Time	818
A1	13 Apr 2016	Depart Time	823
A1	13 Apr 2016	Air Temp (C)	16
A1	13 Apr 2016	Weather	Overcast
A1	13 Apr 2016	Visibility (mi)	4
A1	13 Apr 2016	Wind Speed (kts)	2
A1	13 Apr 2016	Wind Dir	W
A1	13 Apr 2016	Water Color	Green
A1	13 Apr 2016	Wave Ht Low (ft)	2
A1	13 Apr 2016	Wave Period (sec)	7
A1	13 Apr 2016	Sea State	Calm
A1	13 Apr 2016	High Tide (ft)	3.39
A1	13 Apr 2016	High Tide Time	1657
A1	13 Apr 2016	Low Tide (ft)	0.13

Station	Date	Parameter	Value
A1	13 Apr 2016	Low Tide Time	951
A1	13 Apr 2016	Comments	Kelp
A1	19 Apr 2016	Depth (m)	18
A1	19 Apr 2016	Arrive Time	758
A1	19 Apr 2016	Depart Time	801
A1	19 Apr 2016	Air Temp (C)	19
A1	19 Apr 2016	Weather	Clear
A1	19 Apr 2016	Visibility (mi)	16
A1	19 Apr 2016	Wind Speed (kts)	4
A1	19 Apr 2016	Wind Dir	NW
A1	19 Apr 2016	Water Color	Greenish-Blue
A1	19 Apr 2016	Wave Ht Low (ft)	3
A1	19 Apr 2016	Wave Period (sec)	13
A1	19 Apr 2016	Sea State	Calm
A1	19 Apr 2016	High Tide (ft)	4.41
A1	19 Apr 2016	High Tide Time	827
A1	19 Apr 2016	Low Tide (ft)	0.41
A1	19 Apr 2016	Low Tide Time	1435
A1	19 Apr 2016	Comments	
A1	29 Apr 2016	Depth (m)	19
A1	29 Apr 2016	Arrive Time	803
A1	29 Apr 2016	Depart Time	813
A1	29 Apr 2016	Air Temp (C)	15
A1	29 Apr 2016	Weather	Partly Cloudy
A1	29 Apr 2016	Visibility (mi)	8
A1	29 Apr 2016	Wind Speed (kts)	6
A1	29 Apr 2016	Wind Dir	SW
A1	29 Apr 2016	Water Color	Bluish-Green
A1	29 Apr 2016	Wave Ht Low (ft)	5
A1	29 Apr 2016	Wave Period (sec)	9
A1	29 Apr 2016	Sea State	Wind ripples
A1	29 Apr 2016	High Tide (ft)	3.36
A1	29 Apr 2016	High Tide Time	1656
A1	29 Apr 2016	Low Tide (ft)	0.45
A1	29 Apr 2016	Low Tide Time	952
A1	29 Apr 2016	Comments	Kelp debris
C4	04 Apr 2016	Depth (m)	9
C4	04 Apr 2016	Arrive Time	1107
C4	04 Apr 2016	Depart Time	1110
C4	04 Apr 2016	Air Temp (C)	14
C4	04 Apr 2016	Weather	Fog
C4	04 Apr 2016	Visibility (mi)	3
C4	04 Apr 2016	Wind Speed (kts)	8
C4	04 Apr 2016	Wind Dir	N
C4	04 Apr 2016	Water Color	Green
C4	04 Apr 2016	Wave Ht Low (ft)	2
C4	04 Apr 2016	Wave Period (sec)	9
C4	04 Apr 2016	Sea State	Calm
C4	04 Apr 2016	High Tide (ft)	5.12
C4	04 Apr 2016	High Tide Time	726
C4	04 Apr 2016	Low Tide (ft)	-0.53
C4	04 Apr 2016	Low Tide Time	1402

Station	Date	Parameter	Value
C4	04 Apr 2016	Comments	
C4	08 Apr 2016	Depth (m)	10
C4	08 Apr 2016	Arrive Time	950
C4	08 Apr 2016	Depart Time	952
C4	08 Apr 2016	Air Temp (C)	15
C4	08 Apr 2016	Weather	Drizzle
C4	08 Apr 2016	Visibility (mi)	3
C4	08 Apr 2016	Wind Speed (kts)	4
C4	08 Apr 2016	Wind Dir	S
C4	08 Apr 2016	Water Color	Greenish-Blue
C4	08 Apr 2016	Wave Ht Low (ft)	2
C4	08 Apr 2016	Wave Period (sec)	13
C4	08 Apr 2016	Sea State	Calm
C4	08 Apr 2016	High Tide (ft)	4.92
C4	08 Apr 2016	High Tide Time	1036
C4	08 Apr 2016	Low Tide (ft)	-0.93
C4	08 Apr 2016	Low Tide Time	431
C4	08 Apr 2016	Comments	
C4	13 Apr 2016	Depth (m)	9
C4	13 Apr 2016	Arrive Time	1045
C4	13 Apr 2016	Depart Time	1049
C4	13 Apr 2016	Air Temp (C)	16
C4	13 Apr 2016	Weather	Overcast
C4	13 Apr 2016	Visibility (mi)	7
C4	13 Apr 2016	Wind Speed (kts)	5
C4	13 Apr 2016	Wind Dir	NE
C4	13 Apr 2016	Water Color	Green
C4	13 Apr 2016	Wave Ht Low (ft)	2
C4	13 Apr 2016	Wave Period (sec)	7
C4	13 Apr 2016	Sea State	Calm
C4	13 Apr 2016	High Tide (ft)	3.39
C4	13 Apr 2016	High Tide Time	1657
C4	13 Apr 2016	Low Tide (ft)	0.13
C4	13 Apr 2016	Low Tide Time	951
C4	13 Apr 2016	Comments	Kelp; Boats
C4	19 Apr 2016	Depth (m)	10
C4	19 Apr 2016	Arrive Time	955
C4	19 Apr 2016	Depart Time	958
C4	19 Apr 2016	Air Temp (C)	18
C4	19 Apr 2016	Weather	Partly Cloudy
C4	19 Apr 2016	Visibility (mi)	14
C4	19 Apr 2016	Wind Speed (kts)	3
C4	19 Apr 2016	Wind Dir	S
C4	19 Apr 2016	Water Color	Greenish-Brown
C4	19 Apr 2016	Wave Ht Low (ft)	3
C4	19 Apr 2016	Wave Period (sec)	13
C4	19 Apr 2016	Sea State	Calm
C4	19 Apr 2016	High Tide (ft)	4.41
C4	19 Apr 2016	High Tide Time	827
C4	19 Apr 2016	Low Tide (ft)	0.41
C4	19 Apr 2016	Low Tide Time	1435
C4	19 Apr 2016	Comments	

Station	Date	Parameter	Value
C4	29 Apr 2016	Depth (m)	9
C4	29 Apr 2016	Arrive Time	1004
C4	29 Apr 2016	Depart Time	1009
C4	29 Apr 2016	Air Temp (C)	16
C4	29 Apr 2016	Weather	Partly Cloudy
C4	29 Apr 2016	Visibility (mi)	8
C4	29 Apr 2016	Wind Speed (kts)	2
C4	29 Apr 2016	Wind Dir	N
C4	29 Apr 2016	Water Color	Bluish-Green
C4	29 Apr 2016	Wave Ht Low (ft)	5
C4	29 Apr 2016	Wave Period (sec)	9
C4	29 Apr 2016	Sea State	Wind ripples
C4	29 Apr 2016	High Tide (ft)	3.36
C4	29 Apr 2016	High Tide Time	1656
C4	29 Apr 2016	Low Tide (ft)	0.45
C4	29 Apr 2016	Low Tide Time	952
C4	29 Apr 2016	Comments	
C5	04 Apr 2016	Depth (m)	9
C5	04 Apr 2016	Arrive Time	1057
C5	04 Apr 2016	Depart Time	1100
C5	04 Apr 2016	Air Temp (C)	14
C5	04 Apr 2016	Weather	Fog
C5	04 Apr 2016	Visibility (mi)	3
C5	04 Apr 2016	Wind Speed (kts)	7
C5	04 Apr 2016	Wind Dir	W
C5	04 Apr 2016	Water Color	Green
C5	04 Apr 2016	Wave Ht Low (ft)	2
C5	04 Apr 2016	Wave Period (sec)	9
C5	04 Apr 2016	Sea State	Calm
C5	04 Apr 2016	High Tide (ft)	5.12
C5	04 Apr 2016	High Tide Time	726
C5	04 Apr 2016	Low Tide (ft)	-0.53
C5	04 Apr 2016	Low Tide Time	1402
C5	04 Apr 2016	Comments	
C5	08 Apr 2016	Depth (m)	11
C5	08 Apr 2016	Arrive Time	937
C5	08 Apr 2016	Depart Time	939
C5	08 Apr 2016	Air Temp (C)	15
C5	08 Apr 2016	Weather	Drizzle
C5	08 Apr 2016	Visibility (mi)	3
C5	08 Apr 2016	Wind Speed (kts)	4
C5	08 Apr 2016	Wind Dir	NW
C5	08 Apr 2016	Water Color	Greenish-Blue
C5	08 Apr 2016	Wave Ht Low (ft)	2
C5	08 Apr 2016	Wave Period (sec)	13
C5	08 Apr 2016	Sea State	Calm
C5	08 Apr 2016	High Tide (ft)	4.92
C5	08 Apr 2016	High Tide Time	1036
C5	08 Apr 2016	Low Tide (ft)	-0.93
C5	08 Apr 2016	Low Tide Time	431
C5	08 Apr 2016	Comments	

Station	Date	Parameter	Value
C5	13 Apr 2016	Depth (m)	9
C5	13 Apr 2016	Arrive Time	1033
C5	13 Apr 2016	Depart Time	1037
C5	13 Apr 2016	Air Temp (C)	16
C5	13 Apr 2016	Weather	Overcast
C5	13 Apr 2016	Visibility (mi)	7
C5	13 Apr 2016	Wind Speed (kts)	3
C5	13 Apr 2016	Wind Dir	E
C5	13 Apr 2016	Water Color	Green
C5	13 Apr 2016	Wave Ht Low (ft)	2
C5	13 Apr 2016	Wave Period (sec)	7
C5	13 Apr 2016	Sea State	Calm
C5	13 Apr 2016	High Tide (ft)	3.39
C5	13 Apr 2016	High Tide Time	1657
C5	13 Apr 2016	Low Tide (ft)	0.13
C5	13 Apr 2016	Low Tide Time	951
C5	13 Apr 2016	Comments	Kelp; Seagrass
C5	19 Apr 2016	Depth (m)	9
C5	19 Apr 2016	Arrive Time	943
C5	19 Apr 2016	Depart Time	945
C5	19 Apr 2016	Air Temp (C)	18
C5	19 Apr 2016	Weather	Clear
C5	19 Apr 2016	Visibility (mi)	16
C5	19 Apr 2016	Wind Speed (kts)	3
C5	19 Apr 2016	Wind Dir	NE
C5	19 Apr 2016	Water Color	Green
C5	19 Apr 2016	Wave Ht Low (ft)	3
C5	19 Apr 2016	Wave Period (sec)	13
C5	19 Apr 2016	Sea State	Calm
C5	19 Apr 2016	High Tide (ft)	4.41
C5	19 Apr 2016	High Tide Time	827
C5	19 Apr 2016	Low Tide (ft)	0.41
C5	19 Apr 2016	Low Tide Time	1435
C5	19 Apr 2016	Comments	
C5	29 Apr 2016	Depth (m)	9
C5	29 Apr 2016	Arrive Time	952
C5	29 Apr 2016	Depart Time	956
C5	29 Apr 2016	Air Temp (C)	15
C5	29 Apr 2016	Weather	Partly Cloudy
C5	29 Apr 2016	Visibility (mi)	8
C5	29 Apr 2016	Wind Speed (kts)	5
C5	29 Apr 2016	Wind Dir	N
C5	29 Apr 2016	Water Color	Bluish-Green
C5	29 Apr 2016	Wave Ht Low (ft)	5
C5	29 Apr 2016	Wave Period (sec)	9
C5	29 Apr 2016	Sea State	Wind ripples
C5	29 Apr 2016	High Tide (ft)	3.36
C5	29 Apr 2016	High Tide Time	1656
C5	29 Apr 2016	Low Tide (ft)	0.45
C5	29 Apr 2016	Low Tide Time	952
C5	29 Apr 2016	Comments	Lobster floats
A6	04 Apr 2016	Depth (m)	19

Station	Date	Parameter	Value
A6	04 Apr 2016	Arrive Time	848
A6	04 Apr 2016	Depart Time	859
A6	04 Apr 2016	Air Temp (C)	13
A6	04 Apr 2016	Weather	Fog
A6	04 Apr 2016	Visibility (mi)	3
A6	04 Apr 2016	Wind Speed (kts)	1
A6	04 Apr 2016	Wind Dir	S
A6	04 Apr 2016	Water Color	Green
A6	04 Apr 2016	Wave Ht Low (ft)	2
A6	04 Apr 2016	Wave Period (sec)	9
A6	04 Apr 2016	Sea State	Calm
A6	04 Apr 2016	High Tide (ft)	5.12
A6	04 Apr 2016	High Tide Time	726
A6	04 Apr 2016	Low Tide (ft)	-0.53
A6	04 Apr 2016	Low Tide Time	1402
A6	04 Apr 2016	Comments	Kelp
A6	08 Apr 2016	Depth (m)	17
A6	08 Apr 2016	Arrive Time	828
A6	08 Apr 2016	Depart Time	833
A6	08 Apr 2016	Air Temp (C)	15
A6	08 Apr 2016	Weather	Drizzle
A6	08 Apr 2016	Visibility (mi)	1
A6	08 Apr 2016	Wind Speed (kts)	3
A6	08 Apr 2016	Wind Dir	SE
A6	08 Apr 2016	Water Color	Greenish-Blue
A6	08 Apr 2016	Wave Ht Low (ft)	2
A6	08 Apr 2016	Wave Period (sec)	13
A6	08 Apr 2016	Sea State	Calm
A6	08 Apr 2016	High Tide (ft)	4.92
A6	08 Apr 2016	High Tide Time	1036
A6	08 Apr 2016	Low Tide (ft)	-0.93
A6	08 Apr 2016	Low Tide Time	431
A6	08 Apr 2016	Comments	Unable to obtain station target depth of 18 m within 0.05 nm of station
A6	13 Apr 2016	Depth (m)	18
A6	13 Apr 2016	Arrive Time	856
A6	13 Apr 2016	Depart Time	905
A6	13 Apr 2016	Air Temp (C)	16
A6	13 Apr 2016	Weather	Overcast
A6	13 Apr 2016	Visibility (mi)	4
A6	13 Apr 2016	Wind Speed (kts)	4
A6	13 Apr 2016	Wind Dir	W
A6	13 Apr 2016	Water Color	Green
A6	13 Apr 2016	Wave Ht Low (ft)	2
A6	13 Apr 2016	Wave Period (sec)	7
A6	13 Apr 2016	Sea State	Calm
A6	13 Apr 2016	High Tide (ft)	3.39
A6	13 Apr 2016	High Tide Time	1657
A6	13 Apr 2016	Low Tide (ft)	0.13
A6	13 Apr 2016	Low Tide Time	951
A6	13 Apr 2016	Comments	Kelp
A6	19 Apr 2016	Depth (m)	18

Station	Date	Parameter	Value
A6	19 Apr 2016	Arrive Time	832
A6	19 Apr 2016	Depart Time	835
A6	19 Apr 2016	Air Temp (C)	19
A6	19 Apr 2016	Weather	Clear
A6	19 Apr 2016	Visibility (mi)	16
A6	19 Apr 2016	Wind Speed (kts)	2
A6	19 Apr 2016	Wind Dir	S
A6	19 Apr 2016	Water Color	Greenish-Blue
A6	19 Apr 2016	Wave Ht Low (ft)	3
A6	19 Apr 2016	Wave Period (sec)	13
A6	19 Apr 2016	Sea State	Calm
A6	19 Apr 2016	High Tide (ft)	4.41
A6	19 Apr 2016	High Tide Time	827
A6	19 Apr 2016	Low Tide (ft)	0.41
A6	19 Apr 2016	Low Tide Time	1435
A6	19 Apr 2016	Comments	
A6	29 Apr 2016	Depth (m)	18
A6	29 Apr 2016	Arrive Time	839
A6	29 Apr 2016	Depart Time	845
A6	29 Apr 2016	Air Temp (C)	15
A6	29 Apr 2016	Weather	Partly Cloudy
A6	29 Apr 2016	Visibility (mi)	8
A6	29 Apr 2016	Wind Speed (kts)	6
A6	29 Apr 2016	Wind Dir	SW
A6	29 Apr 2016	Water Color	Bluish-Green
A6	29 Apr 2016	Wave Ht Low (ft)	5
A6	29 Apr 2016	Wave Period (sec)	9
A6	29 Apr 2016	Sea State	Wind ripples
A6	29 Apr 2016	High Tide (ft)	3.36
A6	29 Apr 2016	High Tide Time	1656
A6	29 Apr 2016	Low Tide (ft)	0.45
A6	29 Apr 2016	Low Tide Time	952
A6	29 Apr 2016	Comments	Seagrass
C6	04 Apr 2016	Depth (m)	9
C6	04 Apr 2016	Arrive Time	1046
C6	04 Apr 2016	Depart Time	1049
C6	04 Apr 2016	Air Temp (C)	14
C6	04 Apr 2016	Weather	Fog
C6	04 Apr 2016	Visibility (mi)	3
C6	04 Apr 2016	Wind Speed (kts)	5
C6	04 Apr 2016	Wind Dir	SE
C6	04 Apr 2016	Water Color	Green
C6	04 Apr 2016	Wave Ht Low (ft)	2
C6	04 Apr 2016	Wave Period (sec)	9
C6	04 Apr 2016	Sea State	Calm
C6	04 Apr 2016	High Tide (ft)	5.12
C6	04 Apr 2016	High Tide Time	726
C6	04 Apr 2016	Low Tide (ft)	-0.53
C6	04 Apr 2016	Low Tide Time	1402
C6	04 Apr 2016	Comments	
C6	08 Apr 2016	Depth (m)	10
C6	08 Apr 2016	Arrive Time	923

Station	Date	Parameter	Value
C6	08 Apr 2016	Depart Time	926
C6	08 Apr 2016	Air Temp (C)	16
C6	08 Apr 2016	Weather	Drizzle
C6	08 Apr 2016	Visibility (mi)	3
C6	08 Apr 2016	Wind Speed (kts)	7
C6	08 Apr 2016	Wind Dir	E
C6	08 Apr 2016	Water Color	Greenish-Blue
C6	08 Apr 2016	Wave Ht Low (ft)	2
C6	08 Apr 2016	Wave Period (sec)	13
C6	08 Apr 2016	Sea State	Calm
C6	08 Apr 2016	High Tide (ft)	4.92
C6	08 Apr 2016	High Tide Time	1036
C6	08 Apr 2016	Low Tide (ft)	-0.93
C6	08 Apr 2016	Low Tide Time	431
C6	08 Apr 2016	Comments	
C6	13 Apr 2016	Depth (m)	10
C6	13 Apr 2016	Arrive Time	1019
C6	13 Apr 2016	Depart Time	1022
C6	13 Apr 2016	Air Temp (C)	16
C6	13 Apr 2016	Weather	Overcast
C6	13 Apr 2016	Visibility (mi)	5
C6	13 Apr 2016	Wind Speed (kts)	5
C6	13 Apr 2016	Wind Dir	E
C6	13 Apr 2016	Water Color	Green
C6	13 Apr 2016	Wave Ht Low (ft)	2
C6	13 Apr 2016	Wave Period (sec)	7
C6	13 Apr 2016	Sea State	Calm
C6	13 Apr 2016	High Tide (ft)	3.39
C6	13 Apr 2016	High Tide Time	1657
C6	13 Apr 2016	Low Tide (ft)	0.13
C6	13 Apr 2016	Low Tide Time	951
C6	13 Apr 2016	Comments	Kelp; Seagrass
C6	19 Apr 2016	Depth (m)	9
C6	19 Apr 2016	Arrive Time	930
C6	19 Apr 2016	Depart Time	932
C6	19 Apr 2016	Air Temp (C)	18
C6	19 Apr 2016	Weather	Clear
C6	19 Apr 2016	Visibility (mi)	16
C6	19 Apr 2016	Wind Speed (kts)	4
C6	19 Apr 2016	Wind Dir	N
C6	19 Apr 2016	Water Color	Green
C6	19 Apr 2016	Wave Ht Low (ft)	3
C6	19 Apr 2016	Wave Period (sec)	13
C6	19 Apr 2016	Sea State	Calm
C6	19 Apr 2016	High Tide (ft)	4.41
C6	19 Apr 2016	High Tide Time	827
C6	19 Apr 2016	Low Tide (ft)	0.41
C6	19 Apr 2016	Low Tide Time	1435
C6	19 Apr 2016	Comments	
C6	29 Apr 2016	Depth (m)	10
C6	29 Apr 2016	Arrive Time	939
C6	29 Apr 2016	Depart Time	946

Station	Date	Parameter	Value
C6	29 Apr 2016	Air Temp (C)	15
C6	29 Apr 2016	Weather	Partly Cloudy
C6	29 Apr 2016	Visibility (mi)	8
C6	29 Apr 2016	Wind Speed (kts)	6
C6	29 Apr 2016	Wind Dir	SW
C6	29 Apr 2016	Water Color	Bluish-Green
C6	29 Apr 2016	Wave Ht Low (ft)	5
C6	29 Apr 2016	Wave Period (sec)	9
C6	29 Apr 2016	Sea State	Wind ripples
C6	29 Apr 2016	High Tide (ft)	3.36
C6	29 Apr 2016	High Tide Time	1656
C6	29 Apr 2016	Low Tide (ft)	0.45
C6	29 Apr 2016	Low Tide Time	952
C6	29 Apr 2016	Comments	
A7	04 Apr 2016	Depth (m)	18
A7	04 Apr 2016	Arrive Time	833
A7	04 Apr 2016	Depart Time	837
A7	04 Apr 2016	Air Temp (C)	13
A7	04 Apr 2016	Weather	Fog
A7	04 Apr 2016	Visibility (mi)	3
A7	04 Apr 2016	Wind Speed (kts)	0
A7	04 Apr 2016	Wind Dir	
A7	04 Apr 2016	Water Color	Green
A7	04 Apr 2016	Wave Ht Low (ft)	2
A7	04 Apr 2016	Wave Period (sec)	9
A7	04 Apr 2016	Sea State	Calm
A7	04 Apr 2016	High Tide (ft)	5.12
A7	04 Apr 2016	High Tide Time	726
A7	04 Apr 2016	Low Tide (ft)	-0.53
A7	04 Apr 2016	Low Tide Time	1402
A7	04 Apr 2016	Comments	Kelp
A7	08 Apr 2016	Depth (m)	19
A7	08 Apr 2016	Arrive Time	814
A7	08 Apr 2016	Depart Time	816
A7	08 Apr 2016	Air Temp (C)	15
A7	08 Apr 2016	Weather	Drizzle
A7	08 Apr 2016	Visibility (mi)	1
A7	08 Apr 2016	Wind Speed (kts)	4
A7	08 Apr 2016	Wind Dir	NW
A7	08 Apr 2016	Water Color	Greenish-Blue
A7	08 Apr 2016	Wave Ht Low (ft)	2
A7	08 Apr 2016	Wave Period (sec)	13
A7	08 Apr 2016	Sea State	Calm
A7	08 Apr 2016	High Tide (ft)	4.92
A7	08 Apr 2016	High Tide Time	1036
A7	08 Apr 2016	Low Tide (ft)	-0.93
A7	08 Apr 2016	Low Tide Time	431
A7	08 Apr 2016	Comments	
A7	13 Apr 2016	Depth (m)	19
A7	13 Apr 2016	Arrive Time	840
A7	13 Apr 2016	Depart Time	843
A7	13 Apr 2016	Air Temp (C)	16

Station	Date	Parameter	Value
A7	13 Apr 2016	Weather	Overcast
A7	13 Apr 2016	Visibility (mi)	4
A7	13 Apr 2016	Wind Speed (kts)	5
A7	13 Apr 2016	Wind Dir	NW
A7	13 Apr 2016	Water Color	Green
A7	13 Apr 2016	Wave Ht Low (ft)	2
A7	13 Apr 2016	Wave Period (sec)	7
A7	13 Apr 2016	Sea State	Calm
A7	13 Apr 2016	High Tide (ft)	3.39
A7	13 Apr 2016	High Tide Time	1657
A7	13 Apr 2016	Low Tide (ft)	0.13
A7	13 Apr 2016	Low Tide Time	951
A7	13 Apr 2016	Comments	Kelp; Boats
A7	19 Apr 2016	Depth (m)	19
A7	19 Apr 2016	Arrive Time	814
A7	19 Apr 2016	Depart Time	822
A7	19 Apr 2016	Air Temp (C)	19
A7	19 Apr 2016	Weather	Clear
A7	19 Apr 2016	Visibility (mi)	16
A7	19 Apr 2016	Wind Speed (kts)	3
A7	19 Apr 2016	Wind Dir	W
A7	19 Apr 2016	Water Color	Greenish-Blue
A7	19 Apr 2016	Wave Ht Low (ft)	3
A7	19 Apr 2016	Wave Period (sec)	13
A7	19 Apr 2016	Sea State	Calm
A7	19 Apr 2016	High Tide (ft)	4.41
A7	19 Apr 2016	High Tide Time	827
A7	19 Apr 2016	Low Tide (ft)	0.41
A7	19 Apr 2016	Low Tide Time	1435
A7	19 Apr 2016	Comments	
A7	29 Apr 2016	Depth (m)	18
A7	29 Apr 2016	Arrive Time	822
A7	29 Apr 2016	Depart Time	830
A7	29 Apr 2016	Air Temp (C)	15
A7	29 Apr 2016	Weather	Partly Cloudy
A7	29 Apr 2016	Visibility (mi)	8
A7	29 Apr 2016	Wind Speed (kts)	5
A7	29 Apr 2016	Wind Dir	W
A7	29 Apr 2016	Water Color	Bluish-Green
A7	29 Apr 2016	Wave Ht Low (ft)	5
A7	29 Apr 2016	Wave Period (sec)	9
A7	29 Apr 2016	Sea State	Wind ripples
A7	29 Apr 2016	High Tide (ft)	3.36
A7	29 Apr 2016	High Tide Time	1656
A7	29 Apr 2016	Low Tide (ft)	0.45
A7	29 Apr 2016	Low Tide Time	952
A7	29 Apr 2016	Comments	
C7	04 Apr 2016	Depth (m)	19
C7	04 Apr 2016	Arrive Time	913
C7	04 Apr 2016	Depart Time	919
C7	04 Apr 2016	Air Temp (C)	13
C7	04 Apr 2016	Weather	Fog

Station	Date	Parameter	Value
C7	04 Apr 2016	Visibility (mi)	3
C7	04 Apr 2016	Wind Speed (kts)	3
C7	04 Apr 2016	Wind Dir	NW
C7	04 Apr 2016	Water Color	Green
C7	04 Apr 2016	Wave Ht Low (ft)	2
C7	04 Apr 2016	Wave Period (sec)	9
C7	04 Apr 2016	Sea State	Calm
C7	04 Apr 2016	High Tide (ft)	5.12
C7	04 Apr 2016	High Tide Time	726
C7	04 Apr 2016	Low Tide (ft)	-0.53
C7	04 Apr 2016	Low Tide Time	1402
C7	04 Apr 2016	Comments	Kelp
C7	08 Apr 2016	Depth (m)	18
C7	08 Apr 2016	Arrive Time	845
C7	08 Apr 2016	Depart Time	848
C7	08 Apr 2016	Air Temp (C)	15
C7	08 Apr 2016	Weather	Drizzle
C7	08 Apr 2016	Visibility (mi)	1
C7	08 Apr 2016	Wind Speed (kts)	2
C7	08 Apr 2016	Wind Dir	NW
C7	08 Apr 2016	Water Color	Greenish-Blue
C7	08 Apr 2016	Wave Ht Low (ft)	2
C7	08 Apr 2016	Wave Period (sec)	13
C7	08 Apr 2016	Sea State	Calm
C7	08 Apr 2016	High Tide (ft)	4.92
C7	08 Apr 2016	High Tide Time	1036
C7	08 Apr 2016	Low Tide (ft)	-0.93
C7	08 Apr 2016	Low Tide Time	431
C7	08 Apr 2016	Comments	
C7	13 Apr 2016	Depth (m)	18
C7	13 Apr 2016	Arrive Time	924
C7	13 Apr 2016	Depart Time	936
C7	13 Apr 2016	Air Temp (C)	16
C7	13 Apr 2016	Weather	Overcast
C7	13 Apr 2016	Visibility (mi)	5
C7	13 Apr 2016	Wind Speed (kts)	3
C7	13 Apr 2016	Wind Dir	W
C7	13 Apr 2016	Water Color	Green
C7	13 Apr 2016	Wave Ht Low (ft)	2
C7	13 Apr 2016	Wave Period (sec)	7
C7	13 Apr 2016	Sea State	Calm
C7	13 Apr 2016	High Tide (ft)	3.39
C7	13 Apr 2016	High Tide Time	1657
C7	13 Apr 2016	Low Tide (ft)	0.13
C7	13 Apr 2016	Low Tide Time	951
C7	13 Apr 2016	Comments	Kelp; Kelp debris
C7	19 Apr 2016	Depth (m)	18
C7	19 Apr 2016	Arrive Time	850
C7	19 Apr 2016	Depart Time	853
C7	19 Apr 2016	Air Temp (C)	18
C7	19 Apr 2016	Weather	Clear
C7	19 Apr 2016	Visibility (mi)	16

Station	Date	Parameter	Value
C7	19 Apr 2016	Wind Speed (kts)	4
C7	19 Apr 2016	Wind Dir	N
C7	19 Apr 2016	Water Color	Greenish-Blue
C7	19 Apr 2016	Wave Ht Low (ft)	3
C7	19 Apr 2016	Wave Period (sec)	13
C7	19 Apr 2016	Sea State	Calm
C7	19 Apr 2016	High Tide (ft)	4.41
C7	19 Apr 2016	High Tide Time	827
C7	19 Apr 2016	Low Tide (ft)	0.41
C7	19 Apr 2016	Low Tide Time	1435
C7	19 Apr 2016	Comments	Kelp debris
C7	29 Apr 2016	Depth (m)	19
C7	29 Apr 2016	Arrive Time	858
C7	29 Apr 2016	Depart Time	907
C7	29 Apr 2016	Air Temp (C)	15
C7	29 Apr 2016	Weather	Partly Cloudy
C7	29 Apr 2016	Visibility (mi)	8
C7	29 Apr 2016	Wind Speed (kts)	6
C7	29 Apr 2016	Wind Dir	SE
C7	29 Apr 2016	Water Color	Bluish-Green
C7	29 Apr 2016	Wave Ht Low (ft)	5
C7	29 Apr 2016	Wave Period (sec)	9
C7	29 Apr 2016	Sea State	Wind ripples
C7	29 Apr 2016	High Tide (ft)	3.36
C7	29 Apr 2016	High Tide Time	1656
C7	29 Apr 2016	Low Tide (ft)	0.45
C7	29 Apr 2016	Low Tide Time	952
C7	29 Apr 2016	Comments	
C8	04 Apr 2016	Depth (m)	19
C8	04 Apr 2016	Arrive Time	928
C8	04 Apr 2016	Depart Time	931
C8	04 Apr 2016	Air Temp (C)	13
C8	04 Apr 2016	Weather	Fog
C8	04 Apr 2016	Visibility (mi)	3
C8	04 Apr 2016	Wind Speed (kts)	3
C8	04 Apr 2016	Wind Dir	NW
C8	04 Apr 2016	Water Color	Green
C8	04 Apr 2016	Wave Ht Low (ft)	2
C8	04 Apr 2016	Wave Period (sec)	9
C8	04 Apr 2016	Sea State	Calm
C8	04 Apr 2016	High Tide (ft)	5.12
C8	04 Apr 2016	High Tide Time	726
C8	04 Apr 2016	Low Tide (ft)	-0.53
C8	04 Apr 2016	Low Tide Time	1402
C8	04 Apr 2016	Comments	
C8	08 Apr 2016	Depth (m)	18
C8	08 Apr 2016	Arrive Time	858
C8	08 Apr 2016	Depart Time	900
C8	08 Apr 2016	Air Temp (C)	15
C8	08 Apr 2016	Weather	Drizzle
C8	08 Apr 2016	Visibility (mi)	3
C8	08 Apr 2016	Wind Speed (kts)	5

Station	Date	Parameter	Value
C8	08 Apr 2016	Wind Dir	E
C8	08 Apr 2016	Water Color	Greenish-Blue
C8	08 Apr 2016	Wave Ht Low (ft)	2
C8	08 Apr 2016	Wave Period (sec)	13
C8	08 Apr 2016	Sea State	Calm
C8	08 Apr 2016	High Tide (ft)	4.92
C8	08 Apr 2016	High Tide Time	1036
C8	08 Apr 2016	Low Tide (ft)	-0.93
C8	08 Apr 2016	Low Tide Time	431
C8	08 Apr 2016	Comments	
C8	13 Apr 2016	Depth (m)	18
C8	13 Apr 2016	Arrive Time	944
C8	13 Apr 2016	Depart Time	955
C8	13 Apr 2016	Air Temp (C)	16
C8	13 Apr 2016	Weather	Overcast
C8	13 Apr 2016	Visibility (mi)	5
C8	13 Apr 2016	Wind Speed (kts)	6
C8	13 Apr 2016	Wind Dir	W
C8	13 Apr 2016	Water Color	Green
C8	13 Apr 2016	Wave Ht Low (ft)	2
C8	13 Apr 2016	Wave Period (sec)	7
C8	13 Apr 2016	Sea State	Calm
C8	13 Apr 2016	High Tide (ft)	3.39
C8	13 Apr 2016	High Tide Time	1657
C8	13 Apr 2016	Low Tide (ft)	0.13
C8	13 Apr 2016	Low Tide Time	951
C8	13 Apr 2016	Comments	Kelp
C8	19 Apr 2016	Depth (m)	19
C8	19 Apr 2016	Arrive Time	904
C8	19 Apr 2016	Depart Time	909
C8	19 Apr 2016	Air Temp (C)	18
C8	19 Apr 2016	Weather	Clear
C8	19 Apr 2016	Visibility (mi)	16
C8	19 Apr 2016	Wind Speed (kts)	4
C8	19 Apr 2016	Wind Dir	S
C8	19 Apr 2016	Water Color	Greenish-Blue
C8	19 Apr 2016	Wave Ht Low (ft)	3
C8	19 Apr 2016	Wave Period (sec)	13
C8	19 Apr 2016	Sea State	Calm
C8	19 Apr 2016	High Tide (ft)	4.41
C8	19 Apr 2016	High Tide Time	827
C8	19 Apr 2016	Low Tide (ft)	0.41
C8	19 Apr 2016	Low Tide Time	1435
C8	19 Apr 2016	Comments	
C8	29 Apr 2016	Depth (m)	18
C8	29 Apr 2016	Arrive Time	913
C8	29 Apr 2016	Depart Time	920
C8	29 Apr 2016	Air Temp (C)	16
C8	29 Apr 2016	Weather	Partly Cloudy
C8	29 Apr 2016	Visibility (mi)	8
C8	29 Apr 2016	Wind Speed (kts)	5
C8	29 Apr 2016	Wind Dir	W

Station	Date	Parameter	Value
C8	29 Apr 2016	Water Color	Bluish-Green
C8	29 Apr 2016	Wave Ht Low (ft)	5
C8	29 Apr 2016	Wave Period (sec)	9
C8	29 Apr 2016	Sea State	Wind ripples
C8	29 Apr 2016	High Tide (ft)	3.36
C8	29 Apr 2016	High Tide Time	1656
C8	29 Apr 2016	Low Tide (ft)	0.45
C8	29 Apr 2016	Low Tide Time	952
C8	29 Apr 2016	Comments	

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	04 Apr 2016	1	15.92	78.17	7.7	33.53	8.1	24.6	2.53
A1	04 Apr 2016	2	15.91	78.10	7.7	33.53	8.1	24.6	2.68
A1	04 Apr 2016	3	15.90	78.26	7.6	33.53	8.1	24.6	2.80
A1	04 Apr 2016	4	15.89	78.39	7.7	33.53	8.1	24.6	3.00
A1	04 Apr 2016	5	15.88	78.45	7.7	33.53	8.1	24.6	3.17
A1	04 Apr 2016	6	15.87	78.47	7.7	33.53	8.1	24.6	3.23
A1	04 Apr 2016	7	15.86	78.42	7.6	33.53	8.2	24.6	3.35
A1	04 Apr 2016	8	15.66	78.25	7.4	33.52	8.1	24.7	3.40
A1	04 Apr 2016	9	15.42	78.84	7.3	33.52	8.1	24.7	3.43
A1	04 Apr 2016	10	15.09	79.33	7.0	33.52	8.1	24.8	3.46
A1	04 Apr 2016	11	14.54	80.27	6.7	33.51	8.1	24.9	3.36
A1	04 Apr 2016	12	14.19	81.03	6.5	33.50	8.1	25.0	3.17
A1	04 Apr 2016	13	13.78	81.65	6.2	33.50	8.0	25.1	2.95
A1	04 Apr 2016	14	13.64	81.84	6.0	33.49	8.0	25.1	2.71
A1	04 Apr 2016	15	12.95	82.17	5.5	33.51	8.0	25.2	2.33
A1	04 Apr 2016	16	12.57	82.78	5.3	33.50	7.9	25.3	1.84
A1	04 Apr 2016	17	12.47	82.68	5.0	33.52	7.9	25.3	1.68
A1	04 Apr 2016	18	11.67	81.49	4.5	33.55	7.9	25.5	1.16
A1	04 Apr 2016	19	11.65	80.85	4.4	33.55	7.9	25.5	0.95
A1	08 Apr 2016	1	16.12	77.82	8.1	33.48	8.2	24.5	3.50
A1	08 Apr 2016	2	16.05	77.29	8.0	33.48	8.2	24.6	3.96
A1	08 Apr 2016	3	15.89	75.20	7.9	33.48	8.2	24.6	4.73
A1	08 Apr 2016	4	15.77	73.57	7.8	33.48	8.2	24.6	5.45
A1	08 Apr 2016	5	15.63	72.00	7.6	33.48	8.2	24.7	5.78
A1	08 Apr 2016	6	15.44	71.58	7.4	33.49	8.1	24.7	5.92
A1	08 Apr 2016	7	15.14	71.42	7.2	33.49	8.1	24.8	5.88
A1	08 Apr 2016	8	14.96	71.99	6.9	33.49	8.1	24.8	5.41
A1	08 Apr 2016	9	14.21	74.47	6.4	33.52	8.1	25.0	4.57
A1	08 Apr 2016	10	13.48	77.85	6.0	33.53	8.0	25.2	3.37
A1	08 Apr 2016	11	13.41	76.72	5.8	33.52	8.0	25.2	2.75
A1	08 Apr 2016	12	12.86	81.02	5.5	33.54	8.0	25.3	2.32
A1	08 Apr 2016	13	12.76	81.08	5.3	33.54	8.0	25.3	2.03
A1	08 Apr 2016	14	12.55	81.00	5.2	33.55	8.0	25.4	1.86
A1	08 Apr 2016	15	12.46	80.74	5.1	33.55	7.9	25.4	1.73
A1	08 Apr 2016	16	12.39	80.95	5.0	33.55	7.9	25.4	1.63
A1	08 Apr 2016	17	12.35	81.30	5.0	33.56	7.9	25.4	1.57
A1	08 Apr 2016	18	12.33	81.51	4.9	33.56	7.9	25.4	1.46
A1	13 Apr 2016	1	17.46	83.78	8.0	33.49	8.2	24.2	1.11
A1	13 Apr 2016	2	17.46	83.73	8.0	33.49	8.2	24.2	1.15
A1	13 Apr 2016	3	17.46	83.75	8.0	33.49	8.2	24.2	1.21
A1	13 Apr 2016	4	17.44	83.48	8.0	33.49	8.2	24.2	1.29
A1	13 Apr 2016	5	17.36	82.42	8.0	33.48	8.2	24.3	1.46
A1	13 Apr 2016	6	17.26	80.92	8.2	33.48	8.2	24.3	1.66
A1	13 Apr 2016	7	17.20	80.52	8.1	33.48	8.2	24.3	1.77
A1	13 Apr 2016	8	16.93	80.60	7.9	33.48	8.2	24.4	1.88
A1	13 Apr 2016	9	16.75	81.18	7.9	33.48	8.2	24.4	1.93
A1	13 Apr 2016	10	16.64	81.60	7.8	33.48	8.2	24.4	1.92
A1	13 Apr 2016	11	16.25	81.88	7.6	33.48	8.2	24.5	1.75
A1	13 Apr 2016	12	15.90	81.60	7.4	33.48	8.2	24.6	1.65

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A1	13 Apr 2016	13	15.51	81.32	7.3	33.49	8.1	24.7	1.61
A1	13 Apr 2016	14	15.44	81.10	7.2	33.48	8.1	24.7	1.54
A1	13 Apr 2016	15	15.14	80.37	7.0	33.49	8.1	24.8	1.41
A1	13 Apr 2016	16	14.94	79.55	6.9	33.48	8.1	24.8	1.27
A1	13 Apr 2016	17	14.87	78.79	6.8	33.48	8.1	24.8	1.20
A1	13 Apr 2016	18	14.87	78.04	6.8	33.48	8.1	24.8	1.21
A1	19 Apr 2016	1	17.09	78.55	8.0	33.53	8.2	24.4	1.55
A1	19 Apr 2016	2	17.09	78.57	8.0	33.53	8.2	24.4	1.63
A1	19 Apr 2016	3	16.98	78.42	8.0	33.53	8.2	24.4	1.94
A1	19 Apr 2016	4	16.86	78.26	7.9	33.52	8.2	24.4	2.32
A1	19 Apr 2016	5	16.56	78.19	7.8	33.52	8.2	24.5	2.60
A1	19 Apr 2016	6	16.38	78.67	7.7	33.52	8.2	24.5	2.79
A1	19 Apr 2016	7	15.88	79.22	7.6	33.52	8.2	24.6	2.93
A1	19 Apr 2016	8	15.65	79.48	7.5	33.52	8.1	24.7	2.99
A1	19 Apr 2016	9	15.18	80.24	7.2	33.52	8.1	24.8	3.04
A1	19 Apr 2016	10	14.62	80.75	7.0	33.52	8.1	24.9	3.01
A1	19 Apr 2016	11	14.17	81.41	6.5	33.52	8.1	25.0	2.79
A1	19 Apr 2016	12	13.62	82.17	5.9	33.53	8.0	25.1	2.33
A1	19 Apr 2016	13	13.31	82.82	5.6	33.53	8.0	25.2	1.93
A1	19 Apr 2016	14	13.03	82.95	5.3	33.54	8.0	25.3	1.64
A1	19 Apr 2016	15	12.67	82.82	5.0	33.55	7.9	25.3	1.43
A1	19 Apr 2016	16	12.43	82.57	4.8	33.56	7.9	25.4	1.21
A1	19 Apr 2016	17	12.29	82.35	4.7	33.56	7.9	25.4	1.14
A1	19 Apr 2016	18	12.21	82.17	4.6	33.56	7.9	25.4	1.00
A1	19 Apr 2016	19	12.18	82.23	4.5	33.56	7.9	25.4	0.94
A1	29 Apr 2016	1	17.61	81.99	7.7	33.56	8.2	24.3	0.83
A1	29 Apr 2016	2	17.61	82.34	7.7	33.56	8.2	24.3	0.88
A1	29 Apr 2016	3	17.61	83.79	7.7	33.56	8.2	24.3	0.92
A1	29 Apr 2016	4	17.60	83.82	7.5	33.56	8.2	24.3	0.98
A1	29 Apr 2016	5	17.53	83.73	7.6	33.56	8.2	24.3	1.02
A1	29 Apr 2016	6	17.45	83.99	7.5	33.56	8.2	24.3	1.02
A1	29 Apr 2016	7	17.37	84.19	7.5	33.55	8.2	24.3	1.02
A1	29 Apr 2016	8	17.32	84.10	7.5	33.55	8.2	24.3	1.00
A1	29 Apr 2016	9	17.24	84.11	7.4	33.55	8.2	24.3	1.03
A1	29 Apr 2016	10	16.96	83.77	7.1	33.53	8.2	24.4	1.11
A1	29 Apr 2016	11	16.01	82.30	6.8	33.54	8.2	24.6	1.26
A1	29 Apr 2016	12	15.34	81.71	6.6	33.53	8.1	24.8	1.46
A1	29 Apr 2016	13	14.75	80.53	6.5	33.52	8.1	24.9	1.71
A1	29 Apr 2016	14	14.46	80.34	6.5	33.51	8.1	24.9	1.87
A1	29 Apr 2016	15	14.29	80.04	6.3	33.51	8.1	25.0	1.98
A1	29 Apr 2016	16	14.11	80.98	6.1	33.52	8.1	25.0	1.67
A1	29 Apr 2016	17	14.21	80.82	5.9	33.51	8.0	25.0	1.49
A1	29 Apr 2016	18	13.66	82.55	5.4	33.53	8.0	25.1	1.06
A1	29 Apr 2016	19	13.53	82.03	5.2	33.53	8.0	25.1	0.75
C4	04 Apr 2016	1	16.57	78.88	7.4	33.54	8.2	24.5	0.42
C4	04 Apr 2016	2	16.43	77.70	7.5	33.54	8.2	24.5	0.50
C4	04 Apr 2016	3	16.06	75.99	7.3	33.54	8.2	24.6	0.65
C4	04 Apr 2016	4	15.69	73.59	7.4	33.54	8.1	24.7	0.77
C4	04 Apr 2016	5	15.61	71.08	7.5	33.53	8.1	24.7	0.79
C4	04 Apr 2016	6	15.19	72.52	7.3	33.54	8.1	24.8	0.86
C4	04 Apr 2016	7	15.01	74.80	7.1	33.53	8.1	24.8	1.18
C4	04 Apr 2016	8	15.00	77.86	6.9	33.52	8.1	24.8	1.46

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C4	04 Apr 2016	9	14.44	78.26	6.3	33.53	8.1	25.0	1.38
C4	04 Apr 2016	10	13.80	79.67	6.0	33.54	8.0	25.1	1.14
C4	08 Apr 2016	1	15.72	72.77	7.4	33.48	8.2	24.6	4.25
C4	08 Apr 2016	2	15.44	72.17	7.4	33.49	8.2	24.7	5.06
C4	08 Apr 2016	3	15.10	69.85	7.2	33.50	8.1	24.8	6.44
C4	08 Apr 2016	4	15.06	69.39	7.2	33.49	8.1	24.8	7.01
C4	08 Apr 2016	5	15.04	69.64	7.1	33.49	8.1	24.8	7.24
C4	08 Apr 2016	6	15.02	69.94	7.2	33.49	8.1	24.8	7.20
C4	08 Apr 2016	7	15.00	70.12	7.1	33.49	8.1	24.8	7.08
C4	08 Apr 2016	8	14.94	70.67	7.0	33.50	8.1	24.8	6.71
C4	08 Apr 2016	9	14.80	71.80	6.8	33.50	8.1	24.9	6.26
C4	08 Apr 2016	10	14.49	75.26	6.5	33.51	8.1	24.9	5.00
C4	08 Apr 2016	11	14.38	77.87	6.4	33.52	8.1	25.0	4.16
C4	13 Apr 2016	1	17.87	75.68	8.1	33.48	8.3	24.1	0.75
C4	13 Apr 2016	2	17.86	75.04	8.2	33.48	8.3	24.1	0.79
C4	13 Apr 2016	3	17.63	75.99	8.3	33.48	8.2	24.2	0.99
C4	13 Apr 2016	4	17.48	76.71	8.1	33.48	8.2	24.2	1.09
C4	13 Apr 2016	5	17.41	74.54	7.8	33.48	8.2	24.3	1.00
C4	13 Apr 2016	6	17.32	72.17	7.7	33.48	8.2	24.3	0.94
C4	13 Apr 2016	7	17.13	71.19	7.8	33.48	8.2	24.3	0.98
C4	13 Apr 2016	8	16.88	73.99	7.8	33.48	8.2	24.4	0.96
C4	13 Apr 2016	9	16.77	75.87	7.9	33.47	8.2	24.4	0.91
C4	13 Apr 2016	10	16.76	75.58	7.9	33.47	8.2	24.4	0.86
C4	19 Apr 2016	1	16.89	79.88	7.9	33.53	8.2	24.4	1.10
C4	19 Apr 2016	2	16.76	79.35	7.8	33.53	8.2	24.4	1.21
C4	19 Apr 2016	3	16.38	78.68	7.7	33.53	8.2	24.5	1.56
C4	19 Apr 2016	4	16.18	77.82	7.6	33.53	8.2	24.6	1.81
C4	19 Apr 2016	5	15.91	77.48	7.6	33.53	8.2	24.6	2.08
C4	19 Apr 2016	6	15.79	77.50	7.5	33.52	8.2	24.7	2.36
C4	19 Apr 2016	7	15.67	78.08	7.5	33.52	8.2	24.7	2.49
C4	19 Apr 2016	8	15.56	78.46	7.4	33.52	8.2	24.7	2.79
C4	19 Apr 2016	9	15.43	78.70	7.2	33.52	8.2	24.7	2.65
C4	19 Apr 2016	10	14.51	79.68	6.7	33.54	8.1	24.9	2.08
C4	19 Apr 2016	11	14.13	80.74	6.4	33.53	8.1	25.0	1.39
C4	29 Apr 2016	1	17.38	72.00	7.2	33.57	8.2	24.3	0.36
C4	29 Apr 2016	2	17.29	71.11	7.2	33.57	8.2	24.3	0.41
C4	29 Apr 2016	3	17.25	69.77	7.2	33.57	8.2	24.4	0.50
C4	29 Apr 2016	4	17.22	68.67	7.1	33.57	8.2	24.4	0.62
C4	29 Apr 2016	5	17.18	68.70	7.1	33.56	8.2	24.4	0.71
C4	29 Apr 2016	6	17.02	69.75	7.1	33.56	8.2	24.4	0.78
C4	29 Apr 2016	7	16.79	73.54	6.8	33.55	8.2	24.5	0.79
C4	29 Apr 2016	8	15.72	73.44	6.3	33.57	8.1	24.7	0.78
C4	29 Apr 2016	9	15.32	70.96	6.2	33.54	8.1	24.8	0.70
C4	29 Apr 2016	10	15.48	68.84	6.3	33.53	8.1	24.7	0.69
C5	04 Apr 2016	1	16.76	76.36	7.3	33.54	8.2	24.5	0.44
C5	04 Apr 2016	2	16.50	75.86	7.3	33.53	8.2	24.5	0.57
C5	04 Apr 2016	3	16.01	77.06	7.4	33.53	8.2	24.6	1.07
C5	04 Apr 2016	4	15.58	76.99	7.2	33.52	8.2	24.7	1.80
C5	04 Apr 2016	5	15.07	76.97	7.0	33.51	8.1	24.8	2.06
C5	04 Apr 2016	6	14.54	78.68	6.7	33.52	8.1	24.9	2.21

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C5	04 Apr 2016	7	14.56	80.46	6.3	33.50	8.1	24.9	2.06
C5	04 Apr 2016	8	13.63	81.33	5.9	33.53	8.0	25.1	1.43
C5	04 Apr 2016	9	13.50	82.22	5.8	33.52	8.0	25.1	1.14
C5	08 Apr 2016	1	15.94	72.85	8.1	33.47	8.2	24.6	3.87
C5	08 Apr 2016	2	15.95	73.10	8.0	33.47	8.2	24.6	3.98
C5	08 Apr 2016	3	15.84	72.19	7.9	33.48	8.2	24.6	4.91
C5	08 Apr 2016	4	15.55	71.78	7.5	33.49	8.2	24.7	5.69
C5	08 Apr 2016	5	15.23	75.82	7.2	33.50	8.1	24.8	5.34
C5	08 Apr 2016	6	15.14	77.82	6.9	33.50	8.1	24.8	5.01
C5	08 Apr 2016	7	15.12	76.07	6.7	33.52	8.1	24.8	4.47
C5	08 Apr 2016	8	15.09	76.43	6.8	33.52	8.1	24.8	4.53
C5	08 Apr 2016	9	15.02	79.53	6.9	33.53	8.1	24.8	6.94
C5	08 Apr 2016	10	14.95	81.55	6.8	33.50	8.1	24.8	4.21
C5	08 Apr 2016	11	14.83	82.56	6.7	33.51	8.1	24.9	3.63
C5	13 Apr 2016	1	17.96	61.38	8.2	33.40	8.3	24.1	0.64
C5	13 Apr 2016	2	17.89	71.29	8.3	33.47	8.3	24.1	0.75
C5	13 Apr 2016	3	17.68	76.49	8.5	33.48	8.3	24.2	0.97
C5	13 Apr 2016	4	17.56	78.18	8.4	33.47	8.2	24.2	1.26
C5	13 Apr 2016	5	17.32	80.09	8.0	33.48	8.2	24.3	1.29
C5	13 Apr 2016	6	17.28	80.28	8.0	33.47	8.2	24.3	1.36
C5	13 Apr 2016	7	17.20	80.26	7.9	33.47	8.2	24.3	1.47
C5	13 Apr 2016	8	17.13	79.62	8.0	33.47	8.2	24.3	1.73
C5	13 Apr 2016	9	16.98	78.17	7.9	33.47	8.2	24.3	1.70
C5	13 Apr 2016	10	16.59	75.76	7.9	33.47	8.2	24.4	1.29
C5	19 Apr 2016	1	17.52	78.93	8.1	33.53	8.3	24.3	0.55
C5	19 Apr 2016	2	17.38	78.92	8.2	33.53	8.3	24.3	0.57
C5	19 Apr 2016	3	17.17	77.60	8.0	33.52	8.3	24.3	0.69
C5	19 Apr 2016	4	16.39	77.72	7.8	33.52	8.2	24.5	1.10
C5	19 Apr 2016	5	15.75	77.44	7.7	33.52	8.2	24.7	1.87
C5	19 Apr 2016	6	15.48	78.93	7.6	33.51	8.2	24.7	1.99
C5	19 Apr 2016	7	15.27	80.37	7.5	33.51	8.1	24.8	1.94
C5	19 Apr 2016	8	15.13	81.39	7.4	33.52	8.1	24.8	1.57
C5	19 Apr 2016	9	14.85	83.15	7.4	33.52	8.1	24.9	1.35
C5	19 Apr 2016	10	14.72	84.17	7.4	33.52	8.1	24.9	1.08
C5	29 Apr 2016	1	17.30	72.30	7.1	33.57	8.2	24.3	0.61
C5	29 Apr 2016	2	17.31	71.92	7.1	33.57	8.2	24.3	0.63
C5	29 Apr 2016	3	17.30	70.88	7.0	33.57	8.2	24.3	0.67
C5	29 Apr 2016	4	17.25	70.84	7.0	33.57	8.2	24.4	0.74
C5	29 Apr 2016	5	17.07	71.44	6.9	33.56	8.2	24.4	0.81
C5	29 Apr 2016	6	16.66	73.64	6.9	33.56	8.1	24.5	0.87
C5	29 Apr 2016	7	16.41	74.79	6.6	33.54	8.1	24.5	0.91
C5	29 Apr 2016	8	15.87	71.39	6.4	33.54	8.1	24.7	0.96
C5	29 Apr 2016	9	15.65	64.55	6.3	33.53	8.1	24.7	0.97
A6	04 Apr 2016	1	16.47	77.68	8.0	33.54	8.2	24.5	1.80
A6	04 Apr 2016	2	16.46	78.83	8.0	33.54	8.2	24.5	1.97
A6	04 Apr 2016	3	16.42	79.02	8.0	33.54	8.2	24.5	2.21
A6	04 Apr 2016	4	16.35	78.35	8.0	33.54	8.2	24.5	2.42
A6	04 Apr 2016	5	16.22	78.44	7.9	33.53	8.2	24.6	2.83
A6	04 Apr 2016	6	15.95	77.62	7.7	33.52	8.2	24.6	3.14
A6	04 Apr 2016	7	15.24	77.88	7.4	33.52	8.2	24.8	3.40

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A6	04 Apr 2016	8	14.97	78.41	7.2	33.50	8.1	24.8	3.63
A6	04 Apr 2016	9	14.57	78.83	6.8	33.50	8.1	24.9	3.63
A6	04 Apr 2016	10	14.30	79.98	6.6	33.50	8.1	25.0	3.48
A6	04 Apr 2016	11	14.22	80.17	6.5	33.50	8.1	25.0	3.26
A6	04 Apr 2016	12	14.05	81.24	6.3	33.50	8.1	25.0	2.96
A6	04 Apr 2016	13	13.85	82.15	6.1	33.50	8.0	25.1	2.58
A6	04 Apr 2016	14	13.65	82.67	5.9	33.51	8.0	25.1	2.29
A6	04 Apr 2016	15	13.44	82.48	5.7	33.52	8.0	25.2	2.04
A6	04 Apr 2016	16	13.30	82.45	5.5	33.51	8.0	25.2	1.87
A6	04 Apr 2016	17	12.61	81.96	5.1	33.54	8.0	25.3	1.51
A6	04 Apr 2016	18	12.46	81.33	4.8	33.53	7.9	25.4	1.31
A6	04 Apr 2016	19	11.87	80.27	4.5	33.57	7.9	25.5	1.06
A6	04 Apr 2016	20	11.43	76.60	4.1	33.61	7.9	25.6	0.89
A6	08 Apr 2016	1	16.11	77.99	8.1	33.48	8.2	24.6	3.82
A6	08 Apr 2016	2	15.99	77.17	8.0	33.48	8.2	24.6	4.31
A6	08 Apr 2016	3	15.81	74.81	7.8	33.49	8.2	24.6	4.90
A6	08 Apr 2016	4	15.73	73.70	7.7	33.48	8.2	24.6	5.25
A6	08 Apr 2016	5	15.36	73.19	7.5	33.49	8.2	24.7	5.45
A6	08 Apr 2016	6	15.22	73.12	7.3	33.49	8.2	24.8	5.21
A6	08 Apr 2016	7	15.05	73.28	7.1	33.50	8.1	24.8	4.74
A6	08 Apr 2016	8	14.83	74.20	6.9	33.50	8.1	24.9	3.87
A6	08 Apr 2016	9	14.49	77.15	6.5	33.51	8.1	24.9	2.89
A6	08 Apr 2016	10	14.08	82.65	6.1	33.52	8.1	25.0	2.18
A6	08 Apr 2016	11	13.87	82.99	5.8	33.51	8.0	25.1	1.76
A6	08 Apr 2016	12	12.72	84.11	5.3	33.55	8.0	25.3	1.53
A6	08 Apr 2016	13	12.34	83.81	5.0	33.58	8.0	25.4	1.47
A6	08 Apr 2016	14	12.17	83.47	4.9	33.56	8.0	25.4	1.35
A6	08 Apr 2016	15	12.02	82.68	4.7	33.57	7.9	25.5	1.22
A6	08 Apr 2016	16	11.90	82.54	4.5	33.58	7.9	25.5	1.15
A6	08 Apr 2016	17	11.85	82.21	4.5	33.59	7.9	25.5	1.02
A6	13 Apr 2016	1	17.38	72.41	8.5	33.46	8.2	24.2	1.51
A6	13 Apr 2016	2	17.38	77.39	8.4	33.47	8.2	24.2	1.51
A6	13 Apr 2016	3	17.34	77.16	8.3	33.47	8.2	24.3	1.57
A6	13 Apr 2016	4	17.21	76.94	8.2	33.49	8.2	24.3	1.71
A6	13 Apr 2016	5	17.05	74.45	8.1	33.48	8.2	24.3	2.07
A6	13 Apr 2016	6	16.88	76.71	8.1	33.48	8.2	24.4	2.44
A6	13 Apr 2016	7	16.81	76.70	8.1	33.48	8.2	24.4	2.75
A6	13 Apr 2016	8	16.67	76.82	8.0	33.48	8.2	24.4	2.96
A6	13 Apr 2016	9	16.67	77.50	8.0	33.47	8.2	24.4	2.93
A6	13 Apr 2016	10	16.53	78.31	7.9	33.48	8.2	24.5	2.77
A6	13 Apr 2016	11	16.49	78.96	7.8	33.48	8.2	24.5	2.62
A6	13 Apr 2016	12	16.36	79.21	7.7	33.48	8.2	24.5	2.42
A6	13 Apr 2016	13	16.02	79.38	7.4	33.49	8.2	24.6	2.02
A6	13 Apr 2016	14	15.61	79.63	7.0	33.52	8.1	24.7	1.73
A6	13 Apr 2016	15	14.79	79.31	6.7	33.51	8.1	24.9	1.52
A6	13 Apr 2016	16	14.76	78.49	6.6	33.49	8.1	24.9	1.34
A6	13 Apr 2016	17	14.62	77.86	6.5	33.50	8.1	24.9	1.26
A6	13 Apr 2016	18	14.57	77.30	6.4	33.50	8.1	24.9	1.20
A6	19 Apr 2016	1	17.14	78.42	8.0	33.53	8.2	24.4	1.27
A6	19 Apr 2016	2	17.12	78.32	8.0	33.53	8.2	24.4	1.37
A6	19 Apr 2016	3	17.09	78.25	8.0	33.53	8.2	24.4	1.72
A6	19 Apr 2016	4	17.05	78.30	8.0	33.53	8.2	24.4	2.02

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A6	19 Apr 2016	5	16.94	78.54	7.9	33.52	8.2	24.4	2.22
A6	19 Apr 2016	6	16.74	79.34	7.8	33.52	8.2	24.4	2.26
A6	19 Apr 2016	7	16.50	80.44	7.8	33.52	8.2	24.5	2.29
A6	19 Apr 2016	8	16.19	81.05	7.7	33.52	8.2	24.6	2.35
A6	19 Apr 2016	9	15.94	81.18	7.5	33.52	8.2	24.6	2.56
A6	19 Apr 2016	10	15.44	80.60	7.4	33.52	8.2	24.7	2.74
A6	19 Apr 2016	11	15.16	80.72	7.3	33.51	8.2	24.8	2.82
A6	19 Apr 2016	12	15.08	80.90	7.2	33.51	8.1	24.8	2.80
A6	19 Apr 2016	13	14.94	81.02	7.1	33.51	8.1	24.8	2.73
A6	19 Apr 2016	14	14.76	81.66	7.0	33.51	8.1	24.9	2.51
A6	19 Apr 2016	15	14.68	82.03	6.8	33.51	8.1	24.9	2.35
A6	19 Apr 2016	16	14.60	82.28	6.7	33.51	8.1	24.9	2.24
A6	19 Apr 2016	17	14.34	82.58	6.4	33.52	8.1	25.0	2.02
A6	19 Apr 2016	18	13.81	82.92	5.9	33.54	8.1	25.1	1.68
A6	19 Apr 2016	19	13.53	83.22	5.6	33.53	8.0	25.2	1.37
A6	19 Apr 2016	20	13.26	82.83	5.5	33.55	8.0	25.2	1.20
A6	29 Apr 2016	1	17.58	82.39	7.5	33.56	8.2	24.3	0.60
A6	29 Apr 2016	2	17.58	82.34	7.5	33.56	8.2	24.3	0.61
A6	29 Apr 2016	3	17.54	82.50	7.5	33.56	8.2	24.3	0.69
A6	29 Apr 2016	4	17.50	82.71	7.5	33.56	8.2	24.3	0.75
A6	29 Apr 2016	5	17.49	82.78	7.5	33.56	8.2	24.3	0.83
A6	29 Apr 2016	6	17.49	82.77	7.5	33.56	8.2	24.3	0.87
A6	29 Apr 2016	7	17.49	82.88	7.5	33.56	8.2	24.3	0.90
A6	29 Apr 2016	8	17.50	82.90	7.5	33.56	8.2	24.3	0.91
A6	29 Apr 2016	9	17.50	82.89	7.5	33.56	8.2	24.3	0.93
A6	29 Apr 2016	10	17.48	83.06	7.5	33.56	8.2	24.3	0.97
A6	29 Apr 2016	11	17.43	83.15	7.4	33.56	8.2	24.3	0.91
A6	29 Apr 2016	12	17.41	83.03	7.4	33.56	8.2	24.3	0.91
A6	29 Apr 2016	13	17.21	83.18	7.3	33.56	8.2	24.4	0.90
A6	29 Apr 2016	14	16.73	82.13	7.0	33.55	8.2	24.5	0.90
A6	29 Apr 2016	15	16.05	77.53	6.8	33.55	8.1	24.6	1.02
A6	29 Apr 2016	16	15.65	78.33	6.7	33.54	8.1	24.7	1.01
A6	29 Apr 2016	17	15.47	80.37	6.4	33.53	8.1	24.7	0.99
A6	29 Apr 2016	18	13.89	76.99	6.0	33.53	8.1	25.1	0.97
C6	04 Apr 2016	1	16.45	67.70	7.5	33.53	8.2	24.5	0.64
C6	04 Apr 2016	2	16.18	75.42	7.5	33.53	8.2	24.6	0.80
C6	04 Apr 2016	3	16.10	77.30	7.5	33.53	8.2	24.6	0.98
C6	04 Apr 2016	4	15.99	77.26	7.3	33.52	8.2	24.6	1.19
C6	04 Apr 2016	5	15.60	77.09	7.2	33.52	8.2	24.7	1.43
C6	04 Apr 2016	6	15.25	78.43	6.9	33.52	8.1	24.8	1.68
C6	04 Apr 2016	7	14.59	81.70	6.4	33.52	8.1	24.9	1.55
C6	04 Apr 2016	8	14.05	84.11	6.1	33.52	8.0	25.0	1.11
C6	04 Apr 2016	9	13.99	84.33	6.2	33.51	8.0	25.0	0.86
C6	08 Apr 2016	1	15.81	74.50	8.0	33.47	8.2	24.6	3.50
C6	08 Apr 2016	2	15.80	74.56	8.0	33.47	8.2	24.6	3.73
C6	08 Apr 2016	3	15.78	74.69	8.0	33.47	8.2	24.6	4.05
C6	08 Apr 2016	4	15.76	75.28	7.9	33.47	8.2	24.6	4.25
C6	08 Apr 2016	5	15.70	75.57	7.8	33.47	8.2	24.6	4.25
C6	08 Apr 2016	6	15.62	76.65	7.7	33.47	8.2	24.7	4.20
C6	08 Apr 2016	7	15.52	77.35	7.6	33.48	8.2	24.7	4.06
C6	08 Apr 2016	8	15.35	78.43	7.4	33.49	8.2	24.7	3.66
C6	08 Apr 2016	9	15.14	79.48	7.2	33.50	8.1	24.8	3.13

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C6	08 Apr 2016	10	14.87	81.87	6.8	33.51	8.1	24.8	2.35
C6	13 Apr 2016	1	17.56	77.59	8.3	33.48	8.2	24.2	0.86
C6	13 Apr 2016	2	17.55	77.35	8.3	33.48	8.2	24.2	0.89
C6	13 Apr 2016	3	17.45	77.68	8.2	33.48	8.2	24.2	0.95
C6	13 Apr 2016	4	17.36	76.67	8.1	33.48	8.2	24.3	1.03
C6	13 Apr 2016	5	17.35	76.90	8.3	33.48	8.2	24.3	1.23
C6	13 Apr 2016	6	17.28	78.27	8.1	33.48	8.2	24.3	1.41
C6	13 Apr 2016	7	17.02	78.49	7.9	33.50	8.2	24.4	1.41
C6	13 Apr 2016	8	16.89	78.16	7.8	33.47	8.2	24.4	1.22
C6	13 Apr 2016	9	16.35	77.49	7.6	33.49	8.2	24.5	1.18
C6	19 Apr 2016	1	17.58	80.40	7.6	33.53	8.2	24.2	0.69
C6	19 Apr 2016	2	17.36	80.22	7.8	33.53	8.2	24.3	0.76
C6	19 Apr 2016	3	17.21	79.58	7.9	33.52	8.2	24.3	0.92
C6	19 Apr 2016	4	17.11	79.51	8.0	33.52	8.2	24.4	1.14
C6	19 Apr 2016	5	16.77	79.24	8.1	33.52	8.2	24.4	1.71
C6	19 Apr 2016	6	16.13	78.46	8.1	33.52	8.2	24.6	2.79
C6	19 Apr 2016	7	15.55	77.68	7.7	33.52	8.2	24.7	3.04
C6	19 Apr 2016	8	15.27	78.93	7.3	33.51	8.2	24.8	2.45
C6	19 Apr 2016	9	14.89	81.32	7.0	33.51	8.1	24.9	1.60
C6	19 Apr 2016	10	14.76	83.81	7.0	33.51	8.1	24.9	1.03
C6	29 Apr 2016	1	17.37	71.01	7.2	33.57	8.1	24.3	0.71
C6	29 Apr 2016	2	17.35	70.64	7.2	33.57	8.1	24.3	0.76
C6	29 Apr 2016	3	17.34	70.53	7.2	33.57	8.1	24.3	0.84
C6	29 Apr 2016	4	17.28	70.22	7.2	33.57	8.1	24.3	0.90
C6	29 Apr 2016	5	17.25	70.33	7.2	33.57	8.1	24.4	0.92
C6	29 Apr 2016	6	17.26	70.62	7.2	33.56	8.1	24.4	0.91
C6	29 Apr 2016	7	17.22	70.54	7.1	33.56	8.1	24.4	0.90
C6	29 Apr 2016	8	16.91	70.54	7.0	33.55	8.1	24.4	0.88
C6	29 Apr 2016	9	16.79	69.46	6.9	33.55	8.1	24.5	0.86
A7	04 Apr 2016	1	16.37	78.81	8.0	33.54	8.2	24.5	2.38
A7	04 Apr 2016	2	16.33	78.38	7.9	33.53	8.2	24.5	2.56
A7	04 Apr 2016	3	16.16	78.04	7.8	33.53	8.2	24.6	2.86
A7	04 Apr 2016	4	15.92	78.20	7.7	33.52	8.2	24.6	2.97
A7	04 Apr 2016	5	15.61	78.48	7.5	33.51	8.2	24.7	3.12
A7	04 Apr 2016	6	15.15	79.32	7.3	33.51	8.2	24.8	3.24
A7	04 Apr 2016	7	14.74	80.12	7.1	33.51	8.1	24.9	3.25
A7	04 Apr 2016	8	14.62	80.35	6.9	33.50	8.1	24.9	3.24
A7	04 Apr 2016	9	14.52	80.59	6.9	33.50	8.1	24.9	3.23
A7	04 Apr 2016	10	14.33	80.51	6.6	33.50	8.1	25.0	3.20
A7	04 Apr 2016	11	13.98	79.86	6.4	33.50	8.1	25.0	3.21
A7	04 Apr 2016	12	13.83	79.26	6.2	33.50	8.1	25.1	3.19
A7	04 Apr 2016	13	13.42	78.89	5.9	33.52	8.0	25.2	2.59
A7	04 Apr 2016	14	13.49	82.12	5.8	33.51	8.0	25.1	2.58
A7	04 Apr 2016	15	13.14	82.33	5.5	33.54	8.0	25.2	3.19
A7	04 Apr 2016	16	12.66	82.40	5.0	33.53	8.0	25.3	1.90
A7	04 Apr 2016	17	11.99	81.50	4.6	33.55	7.9	25.5	1.19
A7	04 Apr 2016	18	12.02	81.35	4.4	33.55	7.9	25.5	0.98
A7	04 Apr 2016	19	11.71	79.79	4.3	33.57	7.9	25.5	0.80
A7	04 Apr 2016	20	11.70	79.64	4.2	33.58	7.9	25.5	0.72
A7	08 Apr 2016	1	15.90	77.01	7.9	33.49	8.2	24.6	3.73

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A7	08 Apr 2016	2	15.77	76.83	7.8	33.49	8.2	24.6	3.95
A7	08 Apr 2016	3	15.41	75.07	7.6	33.50	8.2	24.7	4.73
A7	08 Apr 2016	4	15.37	73.87	7.6	33.49	8.2	24.7	5.29
A7	08 Apr 2016	5	15.33	72.97	7.5	33.49	8.2	24.7	5.59
A7	08 Apr 2016	6	15.22	72.85	7.4	33.49	8.1	24.8	5.53
A7	08 Apr 2016	7	15.05	73.13	7.0	33.49	8.1	24.8	5.33
A7	08 Apr 2016	8	14.13	77.02	6.4	33.53	8.1	25.0	3.96
A7	08 Apr 2016	9	14.03	79.90	6.0	33.52	8.0	25.0	3.13
A7	08 Apr 2016	10	13.38	81.41	5.6	33.54	8.0	25.2	2.29
A7	08 Apr 2016	11	13.05	82.51	5.3	33.55	8.0	25.3	1.86
A7	08 Apr 2016	12	12.70	82.72	5.2	33.55	8.0	25.3	1.66
A7	08 Apr 2016	13	12.48	82.57	5.1	33.55	8.0	25.4	1.55
A7	08 Apr 2016	14	12.44	82.92	5.0	33.55	7.9	25.4	1.47
A7	08 Apr 2016	15	12.43	83.12	5.0	33.56	8.0	25.4	1.44
A7	08 Apr 2016	16	12.26	83.13	4.8	33.57	7.9	25.4	1.28
A7	08 Apr 2016	17	12.16	83.17	4.7	33.57	7.9	25.5	1.22
A7	08 Apr 2016	18	12.11	82.98	4.7	33.57	7.9	25.5	1.21
A7	13 Apr 2016	1	17.42	77.86	8.1	33.48	8.2	24.2	1.45
A7	13 Apr 2016	2	17.42	79.05	8.1	33.48	8.2	24.3	1.53
A7	13 Apr 2016	3	17.41	79.26	8.1	33.48	8.2	24.3	1.62
A7	13 Apr 2016	4	17.39	78.96	8.1	33.48	8.2	24.3	1.70
A7	13 Apr 2016	5	17.34	79.76	8.0	33.48	8.2	24.3	1.72
A7	13 Apr 2016	6	17.25	80.29	8.0	33.48	8.2	24.3	1.78
A7	13 Apr 2016	7	17.16	80.76	8.0	33.48	8.2	24.3	1.83
A7	13 Apr 2016	8	17.08	81.27	7.9	33.48	8.2	24.3	1.80
A7	13 Apr 2016	9	16.98	81.27	7.9	33.48	8.2	24.4	1.76
A7	13 Apr 2016	10	16.84	81.65	7.8	33.48	8.2	24.4	1.62
A7	13 Apr 2016	11	16.77	81.91	7.7	33.48	8.2	24.4	1.55
A7	13 Apr 2016	12	16.69	82.16	7.7	33.48	8.2	24.4	1.47
A7	13 Apr 2016	13	16.68	82.46	7.7	33.48	8.2	24.4	1.46
A7	13 Apr 2016	14	16.68	82.59	7.7	33.48	8.2	24.4	1.47
A7	13 Apr 2016	15	16.57	82.63	7.4	33.47	8.2	24.4	1.38
A7	13 Apr 2016	16	16.15	82.83	7.1	33.48	8.2	24.5	1.19
A7	13 Apr 2016	17	15.73	82.42	7.0	33.49	8.1	24.6	1.04
A7	13 Apr 2016	18	15.46	81.92	6.8	33.49	8.1	24.7	0.99
A7	13 Apr 2016	19	15.01	80.66	6.7	33.49	8.1	24.8	1.00
A7	13 Apr 2016	20	14.89	80.38	6.7	33.49	8.1	24.8	1.01
A7	19 Apr 2016	1	17.13	79.62	8.1	33.53	8.2	24.4	1.31
A7	19 Apr 2016	2	17.12	79.66	7.8	33.53	8.2	24.4	1.33
A7	19 Apr 2016	3	17.03	79.42	7.6	33.53	8.2	24.4	1.34
A7	19 Apr 2016	4	17.01	79.30	7.9	33.54	8.2	24.4	1.62
A7	19 Apr 2016	5	16.98	79.17	7.9	33.53	8.2	24.4	1.96
A7	19 Apr 2016	6	16.94	79.06	7.8	33.53	8.2	24.4	2.19
A7	19 Apr 2016	7	16.70	78.97	7.6	33.55	8.2	24.5	2.43
A7	19 Apr 2016	8	16.18	79.33	7.5	33.62	8.2	24.6	2.64
A7	19 Apr 2016	9	15.47	80.03	7.5	33.53	8.2	24.7	2.84
A7	19 Apr 2016	10	15.20	80.31	7.4	33.51	8.2	24.8	2.96
A7	19 Apr 2016	11	14.96	80.65	7.3	33.51	8.1	24.8	2.98
A7	19 Apr 2016	12	14.73	81.02	7.1	33.51	8.1	24.9	2.94
A7	19 Apr 2016	13	14.57	81.35	6.9	33.51	8.1	24.9	2.97
A7	19 Apr 2016	14	14.38	82.09	6.6	33.51	8.1	25.0	2.62
A7	19 Apr 2016	15	14.05	82.66	6.4	33.52	8.1	25.0	2.21
A7	19 Apr 2016	16	13.80	82.72	6.1	33.52	8.1	25.1	1.96

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
A7	19 Apr 2016	17	13.61	83.14	5.7	33.52	8.0	25.1	1.69
A7	19 Apr 2016	18	12.96	83.30	5.2	33.55	8.0	25.3	1.34
A7	19 Apr 2016	19	12.64	82.41	4.9	33.55	7.9	25.3	1.06
A7	19 Apr 2016	20	12.70	82.01	4.9	33.56	7.9	25.3	0.95
A7	29 Apr 2016	1	17.47	83.29	7.6	33.56	8.2	24.3	0.82
A7	29 Apr 2016	2	17.47	83.32	7.6	33.56	8.2	24.3	0.84
A7	29 Apr 2016	3	17.47	83.45	7.6	33.56	8.2	24.3	0.88
A7	29 Apr 2016	4	17.48	83.53	7.5	33.56	8.2	24.3	0.93
A7	29 Apr 2016	5	17.47	83.50	7.6	33.56	8.2	24.3	0.99
A7	29 Apr 2016	6	17.47	83.45	7.5	33.56	8.2	24.3	1.01
A7	29 Apr 2016	7	17.45	83.43	7.5	33.56	8.2	24.3	1.05
A7	29 Apr 2016	8	17.44	83.52	7.5	33.56	8.2	24.3	1.03
A7	29 Apr 2016	9	17.40	83.54	7.4	33.55	8.2	24.3	1.04
A7	29 Apr 2016	10	17.27	83.48	7.4	33.55	8.2	24.3	1.09
A7	29 Apr 2016	11	17.07	83.51	7.3	33.55	8.2	24.4	1.15
A7	29 Apr 2016	12	16.69	83.51	7.1	33.55	8.2	24.5	1.10
A7	29 Apr 2016	13	16.36	82.93	6.9	33.54	8.1	24.5	1.04
A7	29 Apr 2016	14	16.10	82.88	6.6	33.54	8.1	24.6	0.90
A7	29 Apr 2016	15	15.65	83.02	6.3	33.54	8.1	24.7	0.81
A7	29 Apr 2016	16	14.93	82.55	6.2	33.53	8.1	24.9	0.83
A7	29 Apr 2016	17	14.92	81.98	6.1	33.53	8.1	24.8	0.84
A7	29 Apr 2016	18	13.98	81.37	5.7	33.53	8.0	25.1	0.82
A7	29 Apr 2016	19	13.77	80.91	5.5	33.53	8.0	25.1	0.80
C7	04 Apr 2016	1	16.58	78.94	8.1	33.54	8.2	24.5	1.79
C7	04 Apr 2016	2	16.56	78.90	8.1	33.54	8.2	24.5	1.85
C7	04 Apr 2016	3	16.48	78.62	8.1	33.54	8.2	24.5	2.22
C7	04 Apr 2016	4	16.40	78.13	7.9	33.54	8.2	24.5	2.57
C7	04 Apr 2016	5	16.05	77.69	7.8	33.53	8.2	24.6	3.04
C7	04 Apr 2016	6	15.72	76.87	7.7	33.52	8.2	24.7	3.75
C7	04 Apr 2016	7	15.38	76.77	7.5	33.51	8.2	24.7	4.12
C7	04 Apr 2016	8	14.95	76.68	7.3	33.50	8.1	24.8	4.33
C7	04 Apr 2016	9	14.89	78.07	7.2	33.49	8.1	24.8	4.43
C7	04 Apr 2016	10	14.55	78.92	7.0	33.51	8.1	24.9	4.36
C7	04 Apr 2016	11	14.26	79.97	6.7	33.49	8.1	25.0	3.97
C7	04 Apr 2016	12	13.99	80.77	6.4	33.49	8.1	25.0	3.60
C7	04 Apr 2016	13	13.69	81.74	6.2	33.49	8.1	25.1	3.15
C7	04 Apr 2016	14	13.48	82.54	5.9	33.49	8.0	25.1	2.73
C7	04 Apr 2016	15	13.16	83.21	5.6	33.50	8.0	25.2	2.05
C7	04 Apr 2016	16	13.13	83.80	5.3	33.49	8.0	25.2	1.71
C7	04 Apr 2016	17	12.62	83.51	5.0	33.51	8.0	25.3	1.26
C7	04 Apr 2016	18	12.56	82.81	4.9	33.51	7.9	25.3	1.02
C7	08 Apr 2016	1	16.10	78.14	8.2	33.47	8.2	24.5	3.19
C7	08 Apr 2016	2	16.09	78.03	8.2	33.47	8.2	24.6	3.28
C7	08 Apr 2016	3	16.07	77.97	8.1	33.48	8.2	24.6	3.42
C7	08 Apr 2016	4	16.04	78.16	8.1	33.48	8.2	24.6	3.55
C7	08 Apr 2016	5	15.97	78.20	8.1	33.48	8.2	24.6	3.71
C7	08 Apr 2016	6	15.88	77.96	8.0	33.48	8.2	24.6	3.78
C7	08 Apr 2016	7	15.67	78.38	7.8	33.49	8.2	24.7	3.76
C7	08 Apr 2016	8	15.33	79.15	7.5	33.50	8.2	24.7	3.59
C7	08 Apr 2016	9	14.88	80.05	7.3	33.52	8.2	24.9	3.43
C7	08 Apr 2016	10	14.65	80.87	7.1	33.51	8.1	24.9	3.18
C7	08 Apr 2016	11	14.43	81.41	6.9	33.52	8.1	24.9	3.00

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C7	08 Apr 2016	12	14.15	82.16	6.6	33.52	8.1	25.0	2.68
C7	08 Apr 2016	13	13.65	83.04	6.1	33.53	8.1	25.1	2.18
C7	08 Apr 2016	14	13.27	83.90	5.6	33.53	8.0	25.2	1.64
C7	08 Apr 2016	15	12.95	85.02	5.4	33.54	8.0	25.3	1.31
C7	08 Apr 2016	16	12.73	85.50	5.3	33.54	8.0	25.3	1.11
C7	08 Apr 2016	17	12.71	85.87	5.2	33.54	8.0	25.3	0.97
C7	08 Apr 2016	18	12.71	86.03	5.2	33.54	8.0	25.3	0.93
C7	13 Apr 2016	1	17.58	74.75	8.3	33.44	8.2	24.2	1.83
C7	13 Apr 2016	2	17.57	74.60	8.3	33.44	8.2	24.2	1.98
C7	13 Apr 2016	3	17.55	74.54	8.3	33.45	8.2	24.2	2.12
C7	13 Apr 2016	4	17.53	74.27	8.3	33.45	8.2	24.2	2.28
C7	13 Apr 2016	5	17.50	74.29	8.3	33.45	8.2	24.2	2.36
C7	13 Apr 2016	6	17.37	74.06	8.4	33.46	8.2	24.2	2.67
C7	13 Apr 2016	7	17.14	73.70	8.4	33.47	8.2	24.3	3.10
C7	13 Apr 2016	8	17.04	73.44	8.4	33.47	8.2	24.3	3.47
C7	13 Apr 2016	9	16.83	73.40	8.3	33.47	8.2	24.4	3.78
C7	13 Apr 2016	10	16.78	73.68	8.3	33.47	8.2	24.4	4.08
C7	13 Apr 2016	11	16.66	73.67	8.2	33.47	8.2	24.4	4.24
C7	13 Apr 2016	12	16.62	73.93	8.1	33.47	8.2	24.4	4.42
C7	13 Apr 2016	13	16.46	74.69	8.0	33.48	8.2	24.5	4.13
C7	13 Apr 2016	14	16.39	76.75	7.9	33.48	8.2	24.5	3.67
C7	13 Apr 2016	15	16.21	79.04	7.5	33.48	8.2	24.5	2.98
C7	13 Apr 2016	16	15.84	80.51	7.1	33.49	8.2	24.6	2.27
C7	13 Apr 2016	17	15.15	82.63	7.0	33.49	8.1	24.8	1.64
C7	13 Apr 2016	18	15.67	82.71	7.1	33.46	8.1	24.6	1.94
C7	19 Apr 2016	1	17.37	78.57	8.3	33.53	8.2	24.3	0.99
C7	19 Apr 2016	2	17.35	78.40	8.2	33.53	8.2	24.3	1.01
C7	19 Apr 2016	3	17.28	78.03	8.2	33.53	8.2	24.3	1.17
C7	19 Apr 2016	4	17.20	78.02	8.2	33.52	8.2	24.3	1.48
C7	19 Apr 2016	5	17.01	77.80	8.0	33.53	8.2	24.4	1.99
C7	19 Apr 2016	6	16.75	77.52	7.9	33.53	8.2	24.4	2.49
C7	19 Apr 2016	7	16.39	77.40	7.8	33.52	8.2	24.5	2.89
C7	19 Apr 2016	8	15.80	77.78	7.6	33.52	8.2	24.7	3.06
C7	19 Apr 2016	9	15.25	79.17	7.4	33.52	8.2	24.8	3.15
C7	19 Apr 2016	10	14.96	79.97	7.3	33.51	8.1	24.8	3.10
C7	19 Apr 2016	11	14.82	80.70	7.2	33.51	8.1	24.9	3.07
C7	19 Apr 2016	12	14.66	81.24	7.1	33.51	8.1	24.9	2.99
C7	19 Apr 2016	13	14.35	81.69	6.8	33.52	8.1	25.0	2.86
C7	19 Apr 2016	14	14.12	82.00	6.6	33.52	8.1	25.0	2.61
C7	19 Apr 2016	15	14.01	82.60	6.4	33.52	8.1	25.0	2.32
C7	19 Apr 2016	16	13.84	83.14	6.2	33.53	8.1	25.1	2.10
C7	19 Apr 2016	17	13.47	83.46	5.7	33.54	8.0	25.2	1.77
C7	19 Apr 2016	18	12.98	83.52	5.2	33.55	8.0	25.3	1.26
C7	29 Apr 2016	1	17.68	83.95	7.7	33.56	8.2	24.2	0.43
C7	29 Apr 2016	2	17.67	83.42	7.6	33.56	8.2	24.2	0.44
C7	29 Apr 2016	3	17.67	83.69	7.6	33.56	8.2	24.2	0.47
C7	29 Apr 2016	4	17.67	84.49	7.7	33.56	8.2	24.2	0.53
C7	29 Apr 2016	5	17.66	84.54	7.6	33.56	8.2	24.3	0.57
C7	29 Apr 2016	6	17.66	84.54	7.7	33.56	8.2	24.3	0.63
C7	29 Apr 2016	7	17.66	84.59	7.7	33.56	8.2	24.3	0.68
C7	29 Apr 2016	8	17.65	84.61	7.7	33.56	8.2	24.3	0.74
C7	29 Apr 2016	9	17.64	84.57	7.6	33.56	8.2	24.3	0.80

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C7	29 Apr 2016	10	17.63	84.37	7.6	33.56	8.2	24.3	0.84
C7	29 Apr 2016	11	17.59	84.16	7.6	33.55	8.2	24.3	0.92
C7	29 Apr 2016	12	17.30	83.77	7.5	33.54	8.2	24.3	1.14
C7	29 Apr 2016	13	16.72	82.57	7.5	33.54	8.2	24.5	1.49
C7	29 Apr 2016	14	16.31	82.75	7.3	33.52	8.2	24.5	1.76
C7	29 Apr 2016	15	15.53	81.71	6.9	33.52	8.2	24.7	1.79
C7	29 Apr 2016	16	14.79	81.16	6.5	33.51	8.1	24.9	1.50
C7	29 Apr 2016	17	14.76	80.11	6.6	33.50	8.1	24.9	1.12
C7	29 Apr 2016	18	15.15	80.74	6.8	33.52	8.1	24.8	1.26
C8	04 Apr 2016	1	16.54	73.72	8.0	33.54	8.2	24.5	1.87
C8	04 Apr 2016	2	16.54	73.41	8.0	33.54	8.2	24.5	1.96
C8	04 Apr 2016	3	16.52	77.18	8.0	33.54	8.2	24.5	2.18
C8	04 Apr 2016	4	16.47	77.72	8.0	33.53	8.2	24.5	2.54
C8	04 Apr 2016	5	16.42	76.97	7.9	33.53	8.2	24.5	2.88
C8	04 Apr 2016	6	16.37	76.74	8.0	33.52	8.2	24.5	3.19
C8	04 Apr 2016	7	16.28	76.71	7.9	33.52	8.2	24.5	3.54
C8	04 Apr 2016	8	16.11	76.36	7.8	33.52	8.2	24.6	3.70
C8	04 Apr 2016	9	15.94	76.73	7.7	33.52	8.2	24.6	3.72
C8	04 Apr 2016	10	15.79	77.49	7.6	33.52	8.2	24.7	3.72
C8	04 Apr 2016	11	15.56	77.90	7.6	33.52	8.2	24.7	3.75
C8	04 Apr 2016	12	15.47	77.83	7.3	33.51	8.2	24.7	3.85
C8	04 Apr 2016	13	14.92	77.88	7.2	33.51	8.2	24.8	3.86
C8	04 Apr 2016	14	14.53	78.48	6.8	33.50	8.1	24.9	3.77
C8	04 Apr 2016	15	14.05	79.82	6.2	33.48	8.1	25.0	3.34
C8	04 Apr 2016	16	13.25	81.62	5.8	33.49	8.0	25.2	2.63
C8	04 Apr 2016	17	12.98	81.81	5.5	33.48	8.0	25.2	2.12
C8	04 Apr 2016	18	12.68	81.10	5.3	33.49	8.0	25.3	1.69
C8	04 Apr 2016	19	12.49	80.04	5.2	33.49	8.0	25.3	1.42
C8	08 Apr 2016	1	16.11	79.36	8.1	33.48	8.2	24.6	2.21
C8	08 Apr 2016	2	16.09	79.31	8.1	33.48	8.2	24.6	2.40
C8	08 Apr 2016	3	16.03	78.88	8.0	33.48	8.2	24.6	2.67
C8	08 Apr 2016	4	15.80	78.98	8.0	33.49	8.2	24.6	2.89
C8	08 Apr 2016	5	15.71	79.06	7.8	33.49	8.2	24.7	3.15
C8	08 Apr 2016	6	15.42	79.15	7.8	33.51	8.2	24.7	3.31
C8	08 Apr 2016	7	15.25	79.44	7.7	33.51	8.2	24.8	3.34
C8	08 Apr 2016	8	15.14	80.19	7.5	33.51	8.2	24.8	3.25
C8	08 Apr 2016	9	14.89	80.88	7.3	33.51	8.1	24.8	3.08
C8	08 Apr 2016	10	14.39	81.65	6.8	33.52	8.1	25.0	2.75
C8	08 Apr 2016	11	13.50	83.20	6.2	33.53	8.1	25.2	2.30
C8	08 Apr 2016	12	13.24	83.99	5.8	33.51	8.0	25.2	1.93
C8	08 Apr 2016	13	12.80	84.34	5.5	33.53	8.0	25.3	1.62
C8	08 Apr 2016	14	12.71	84.73	5.3	33.53	8.0	25.3	1.36
C8	08 Apr 2016	15	12.68	84.98	5.3	33.53	8.0	25.3	1.24
C8	08 Apr 2016	16	12.68	85.09	5.2	33.53	8.0	25.3	1.18
C8	08 Apr 2016	17	12.67	85.11	5.2	33.54	8.0	25.3	1.14
C8	08 Apr 2016	18	12.65	85.22	5.2	33.54	8.0	25.3	1.10
C8	08 Apr 2016	19	12.63	85.27	5.1	33.54	8.0	25.3	1.05
C8	13 Apr 2016	1	17.17	77.10	8.1	33.35	8.2	24.2	1.38
C8	13 Apr 2016	2	17.13	76.91	8.1	33.44	8.2	24.3	1.44
C8	13 Apr 2016	3	17.06	77.97	8.2	33.48	8.2	24.3	1.69
C8	13 Apr 2016	4	17.04	77.50	8.1	33.48	8.2	24.3	1.88
C8	13 Apr 2016	5	17.01	77.45	8.1	33.48	8.2	24.3	2.21

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
C8	13 Apr 2016	6	17.00	77.16	8.1	33.48	8.2	24.4	2.42
C8	13 Apr 2016	7	16.93	76.44	8.1	33.48	8.2	24.4	2.67
C8	13 Apr 2016	8	16.84	76.39	8.1	33.48	8.2	24.4	2.83
C8	13 Apr 2016	9	16.76	76.12	8.1	33.48	8.2	24.4	3.01
C8	13 Apr 2016	10	16.71	75.96	8.1	33.48	8.2	24.4	3.20
C8	13 Apr 2016	11	16.68	76.49	8.1	33.48	8.2	24.4	3.25
C8	13 Apr 2016	12	16.51	76.45	8.0	33.48	8.2	24.5	3.47
C8	13 Apr 2016	13	16.01	75.80	8.0	33.49	8.2	24.6	3.85
C8	13 Apr 2016	14	15.94	76.27	7.9	33.48	8.2	24.6	4.04
C8	13 Apr 2016	15	15.90	77.07	7.8	33.48	8.2	24.6	3.88
C8	13 Apr 2016	16	15.51	77.83	7.6	33.49	8.2	24.7	3.45
C8	13 Apr 2016	17	15.33	77.09	7.4	33.49	8.2	24.7	3.03
C8	13 Apr 2016	18	15.33	74.86	7.5	33.48	8.1	24.7	2.80
C8	13 Apr 2016	19	15.35	72.50	7.5	33.49	8.2	24.7	2.73
C8	19 Apr 2016	1	17.46	78.72	8.1	33.54	8.2	24.3	0.97
C8	19 Apr 2016	2	17.45	78.77	8.1	33.54	8.2	24.3	0.98
C8	19 Apr 2016	3	17.34	78.48	8.1	33.53	8.2	24.3	1.13
C8	19 Apr 2016	4	17.17	78.24	8.1	33.53	8.2	24.3	1.44
C8	19 Apr 2016	5	16.96	78.13	8.0	33.53	8.2	24.4	1.83
C8	19 Apr 2016	6	16.67	77.64	8.0	33.52	8.2	24.5	2.44
C8	19 Apr 2016	7	16.31	76.98	7.8	33.52	8.2	24.5	3.01
C8	19 Apr 2016	8	15.98	77.19	7.8	33.52	8.2	24.6	3.32
C8	19 Apr 2016	9	15.65	77.84	7.5	33.51	8.2	24.7	3.49
C8	19 Apr 2016	10	15.15	78.64	7.3	33.51	8.2	24.8	3.53
C8	19 Apr 2016	11	14.70	79.66	7.0	33.51	8.1	24.9	3.43
C8	19 Apr 2016	12	14.40	80.78	6.7	33.51	8.1	24.9	3.22
C8	19 Apr 2016	13	14.09	81.52	6.4	33.51	8.1	25.0	2.90
C8	19 Apr 2016	14	13.91	81.98	6.2	33.52	8.1	25.1	2.60
C8	19 Apr 2016	15	13.75	82.14	5.8	33.51	8.1	25.1	2.29
C8	19 Apr 2016	16	13.22	82.82	5.2	33.53	8.0	25.2	1.79
C8	19 Apr 2016	17	12.53	82.50	4.8	33.55	8.0	25.4	1.36
C8	19 Apr 2016	18	12.35	81.69	4.6	33.55	7.9	25.4	1.13
C8	19 Apr 2016	19	12.22	80.92	4.6	33.55	7.9	25.4	0.98
C8	19 Apr 2016	20	12.23	79.93	4.7	33.56	7.9	25.4	0.94
C8	29 Apr 2016	1	17.84	82.31	7.7	33.57	8.2	24.2	0.46
C8	29 Apr 2016	2	17.83	81.89	7.7	33.57	8.2	24.2	0.48
C8	29 Apr 2016	3	17.82	81.98	7.7	33.57	8.2	24.2	0.49
C8	29 Apr 2016	4	17.81	81.94	7.7	33.57	8.2	24.2	0.52
C8	29 Apr 2016	5	17.81	81.93	7.7	33.57	8.2	24.2	0.54
C8	29 Apr 2016	6	17.78	81.88	7.7	33.57	8.2	24.2	0.60
C8	29 Apr 2016	7	17.75	81.80	7.7	33.57	8.2	24.2	0.65
C8	29 Apr 2016	8	17.69	81.74	7.7	33.57	8.2	24.2	0.73
C8	29 Apr 2016	9	17.53	82.30	7.7	33.56	8.2	24.3	0.84
C8	29 Apr 2016	10	17.24	83.03	7.7	33.55	8.2	24.3	1.02
C8	29 Apr 2016	11	16.89	83.07	7.7	33.54	8.2	24.4	1.23
C8	29 Apr 2016	12	16.78	82.53	7.7	33.53	8.2	24.4	1.41
C8	29 Apr 2016	13	16.72	82.33	7.7	33.53	8.2	24.5	1.58
C8	29 Apr 2016	14	16.67	81.89	7.6	33.53	8.2	24.5	1.71
C8	29 Apr 2016	15	16.43	81.29	7.3	33.53	8.2	24.5	1.69
C8	29 Apr 2016	16	15.44	78.67	7.1	33.52	8.2	24.7	1.71
C8	29 Apr 2016	17	14.96	76.87	7.1	33.50	8.1	24.8	1.90
C8	29 Apr 2016	18	14.64	75.60	7.1	33.49	8.1	24.9	1.98

NA = not available

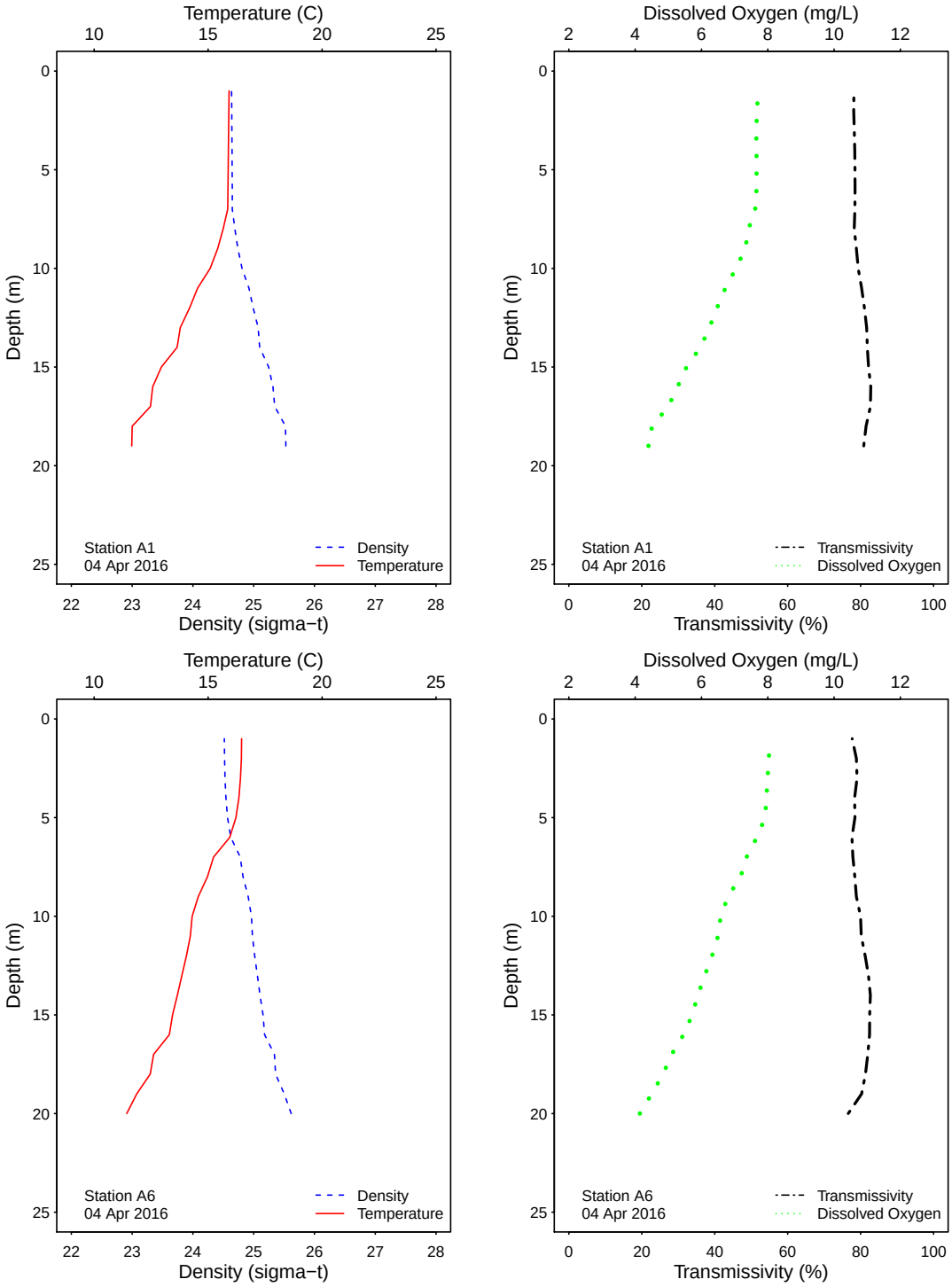


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

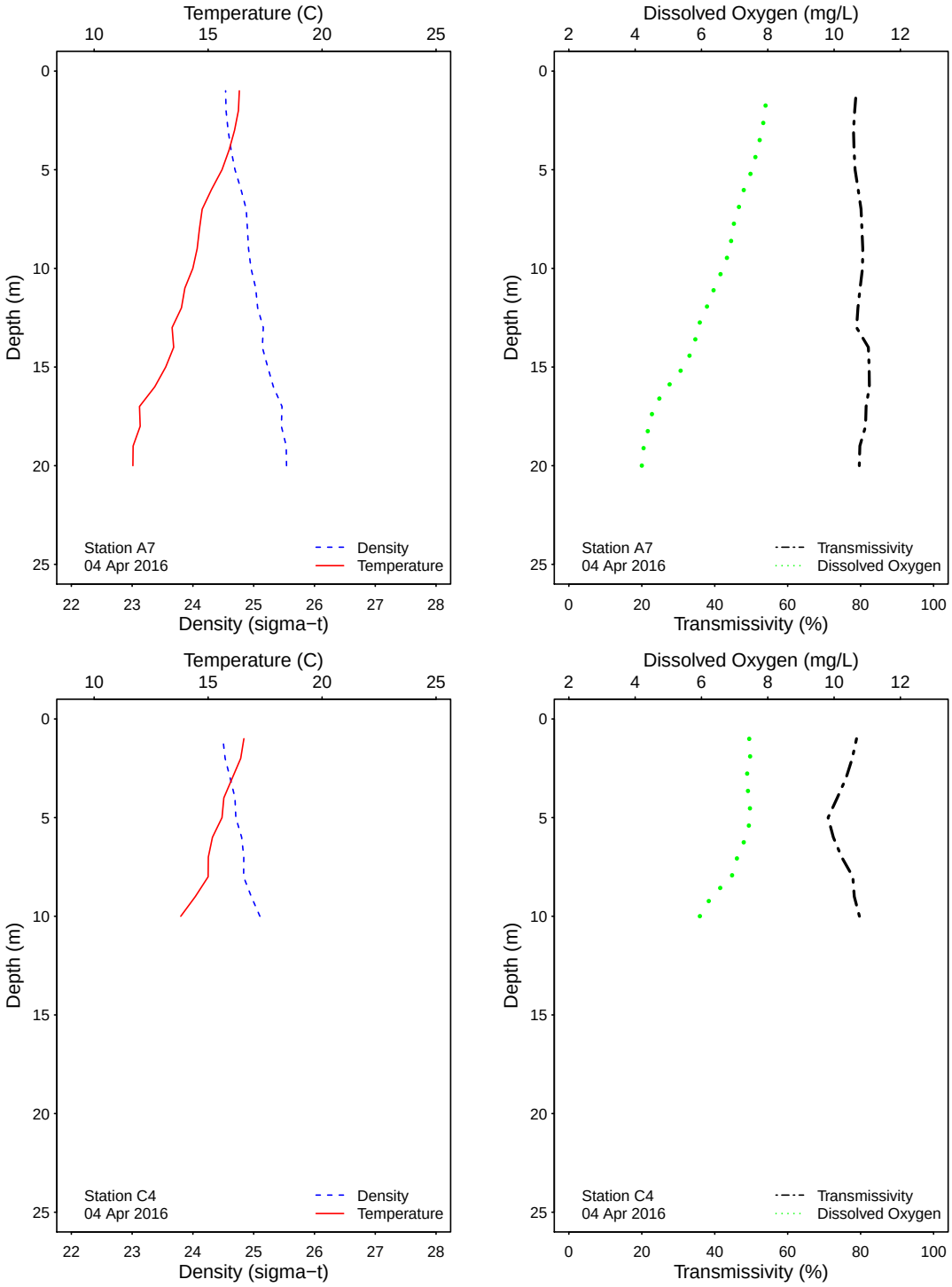
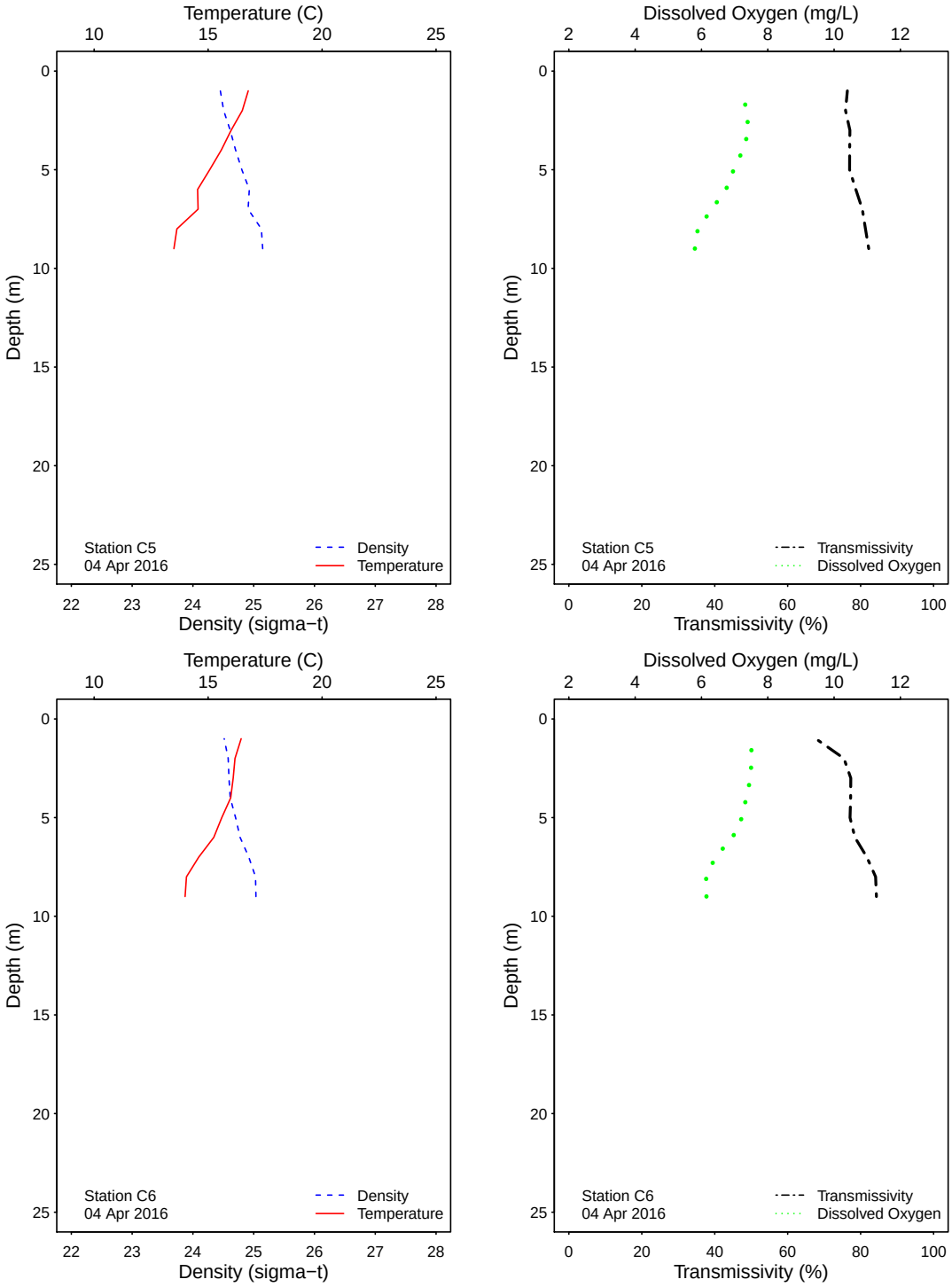


Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.



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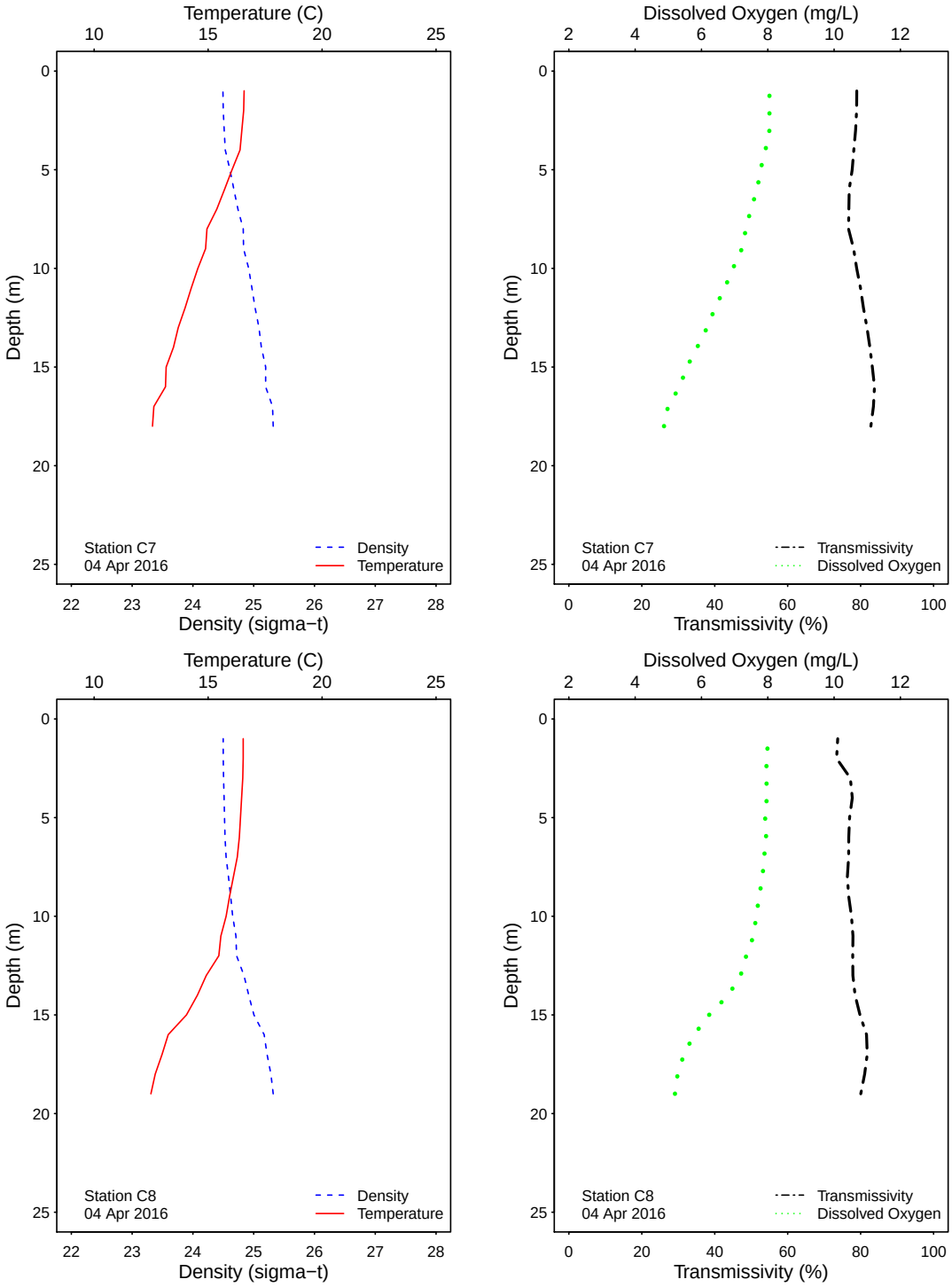

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

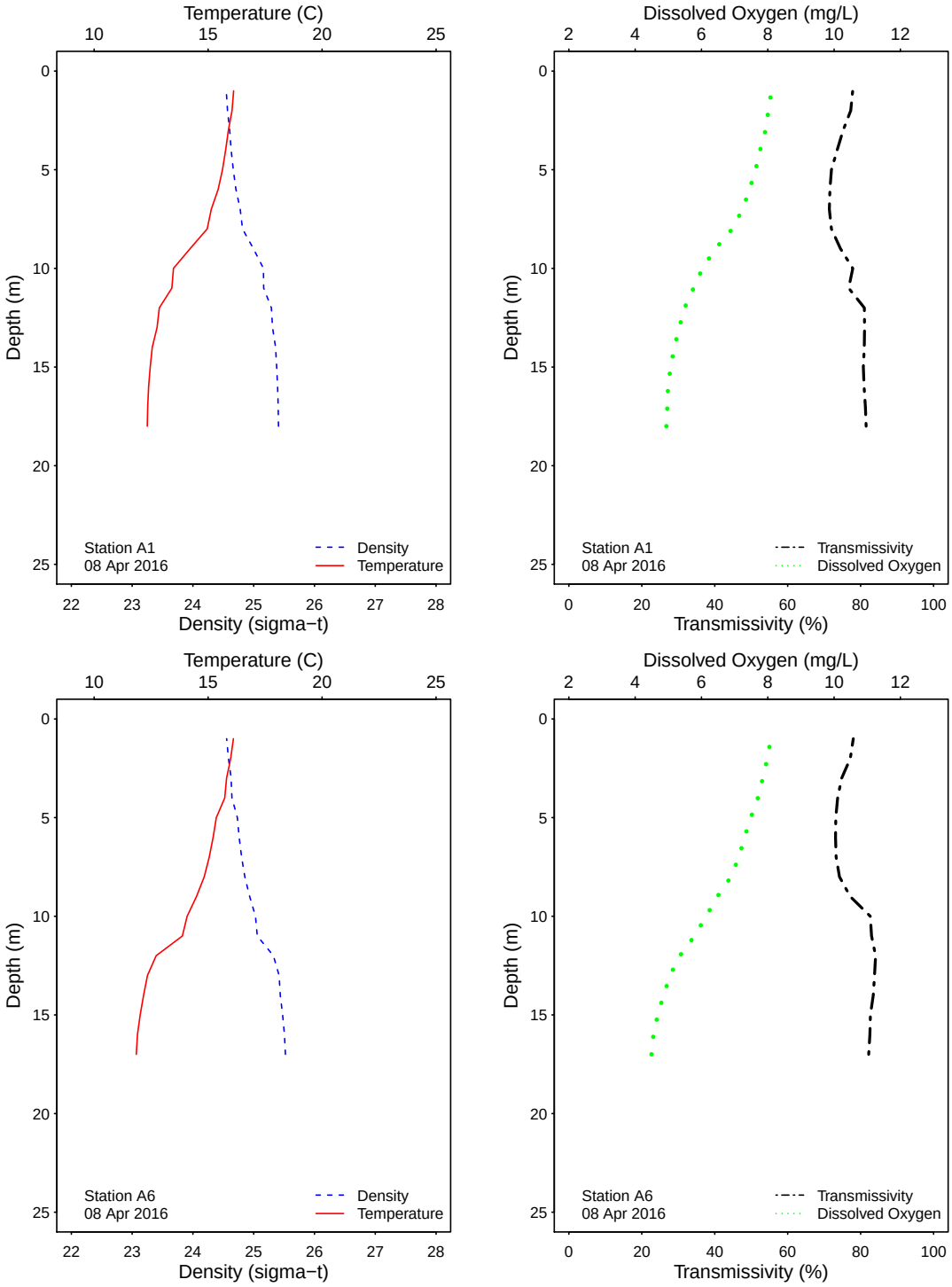

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

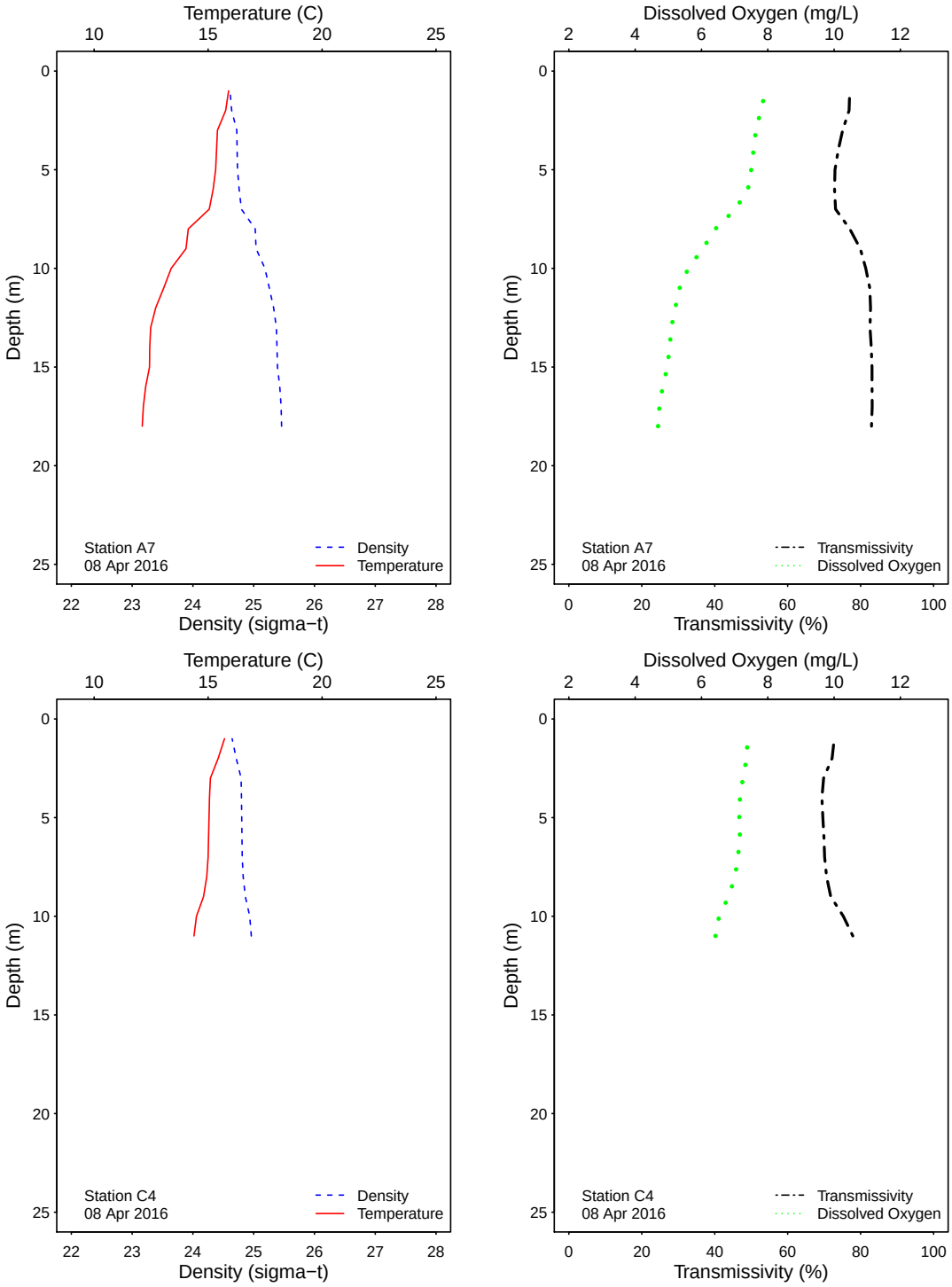

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

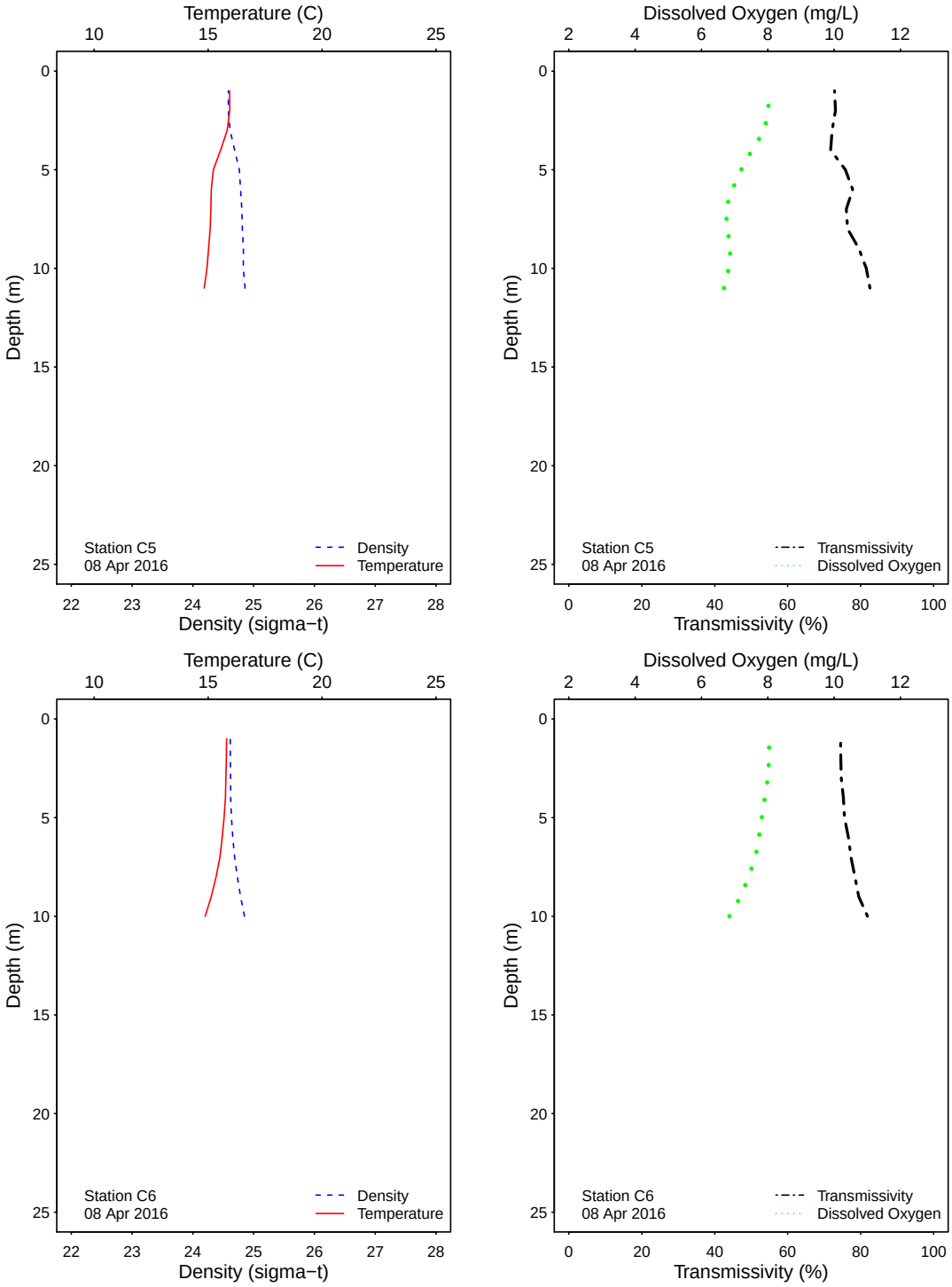

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

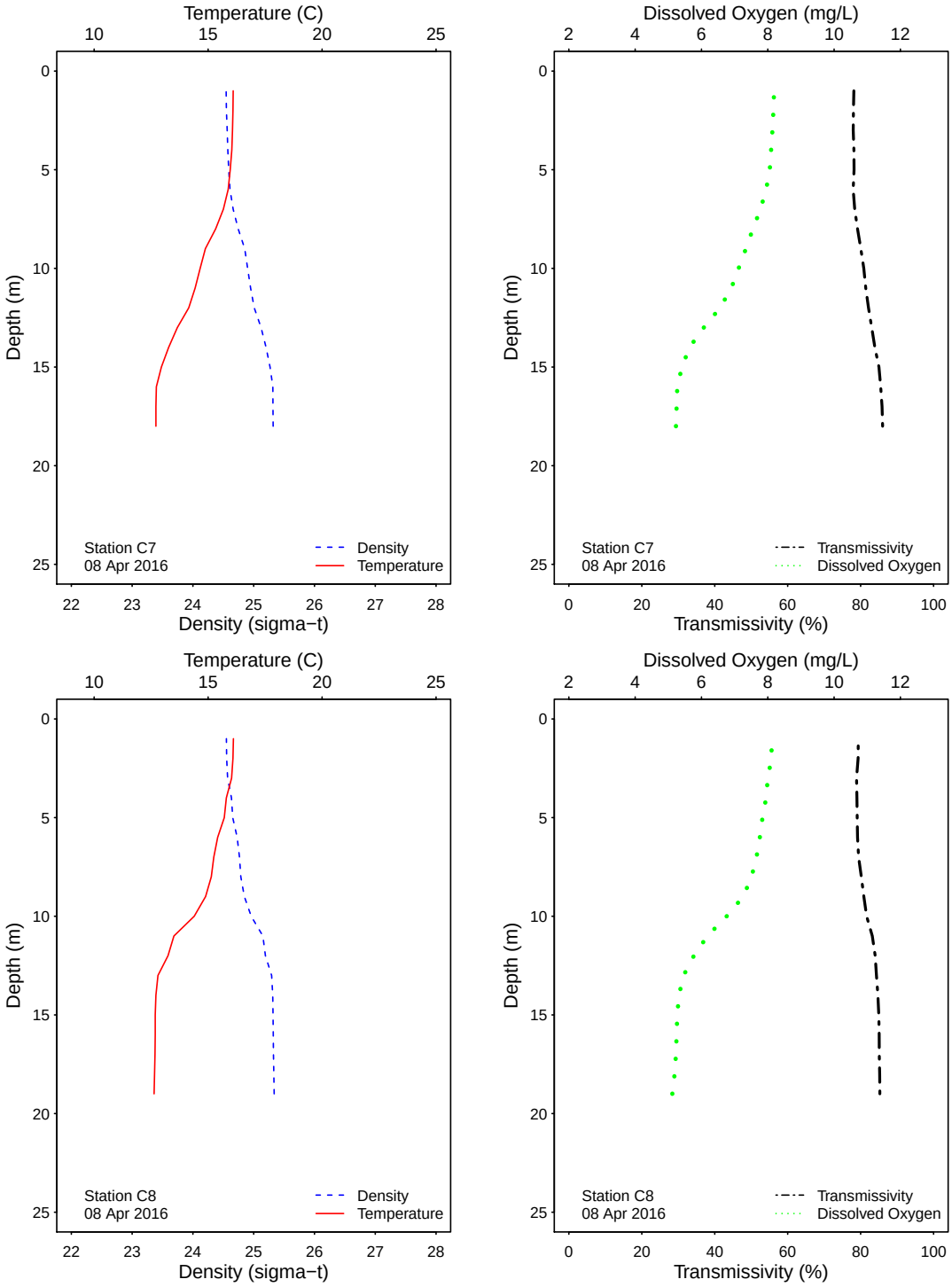

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

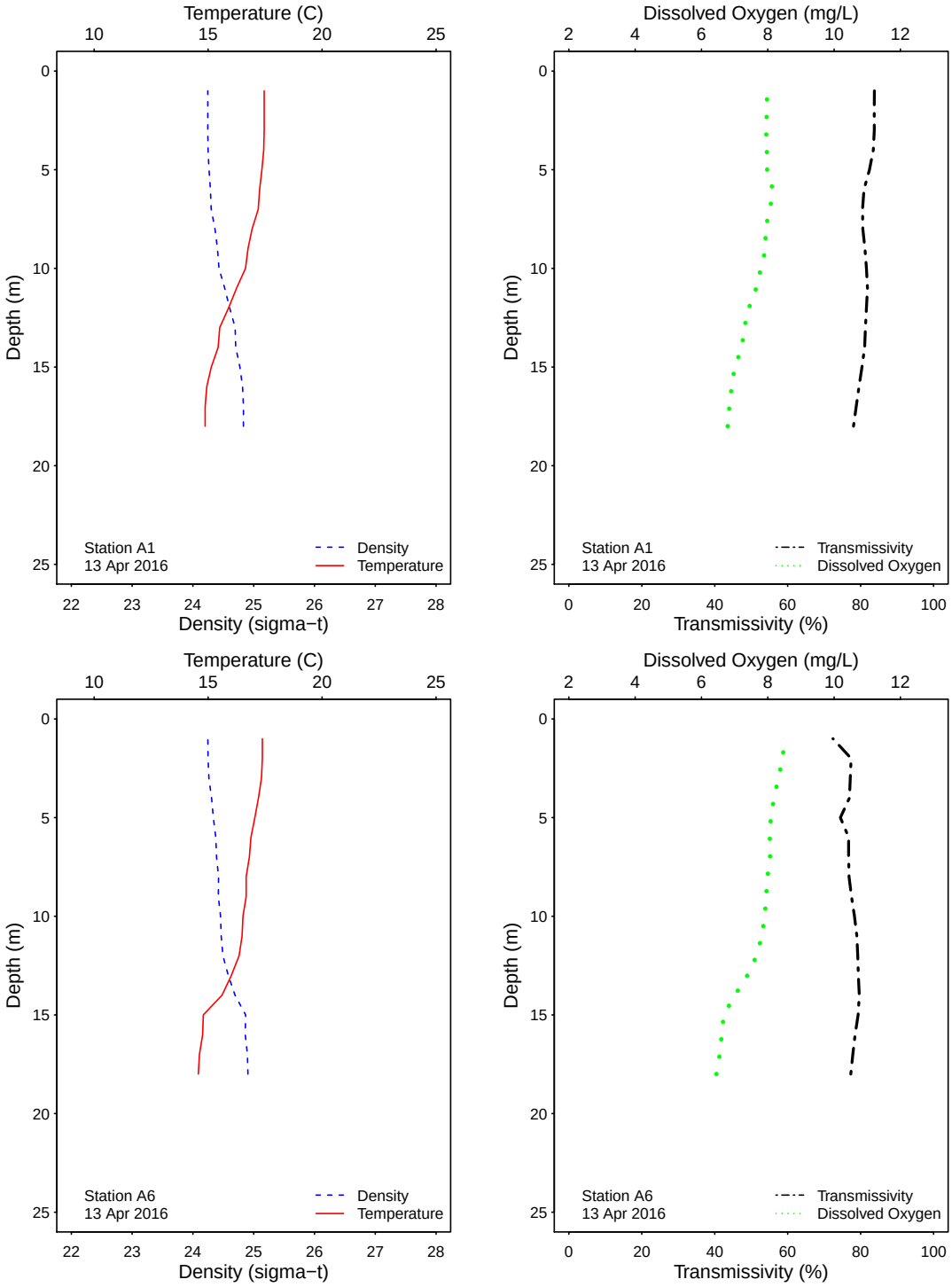

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

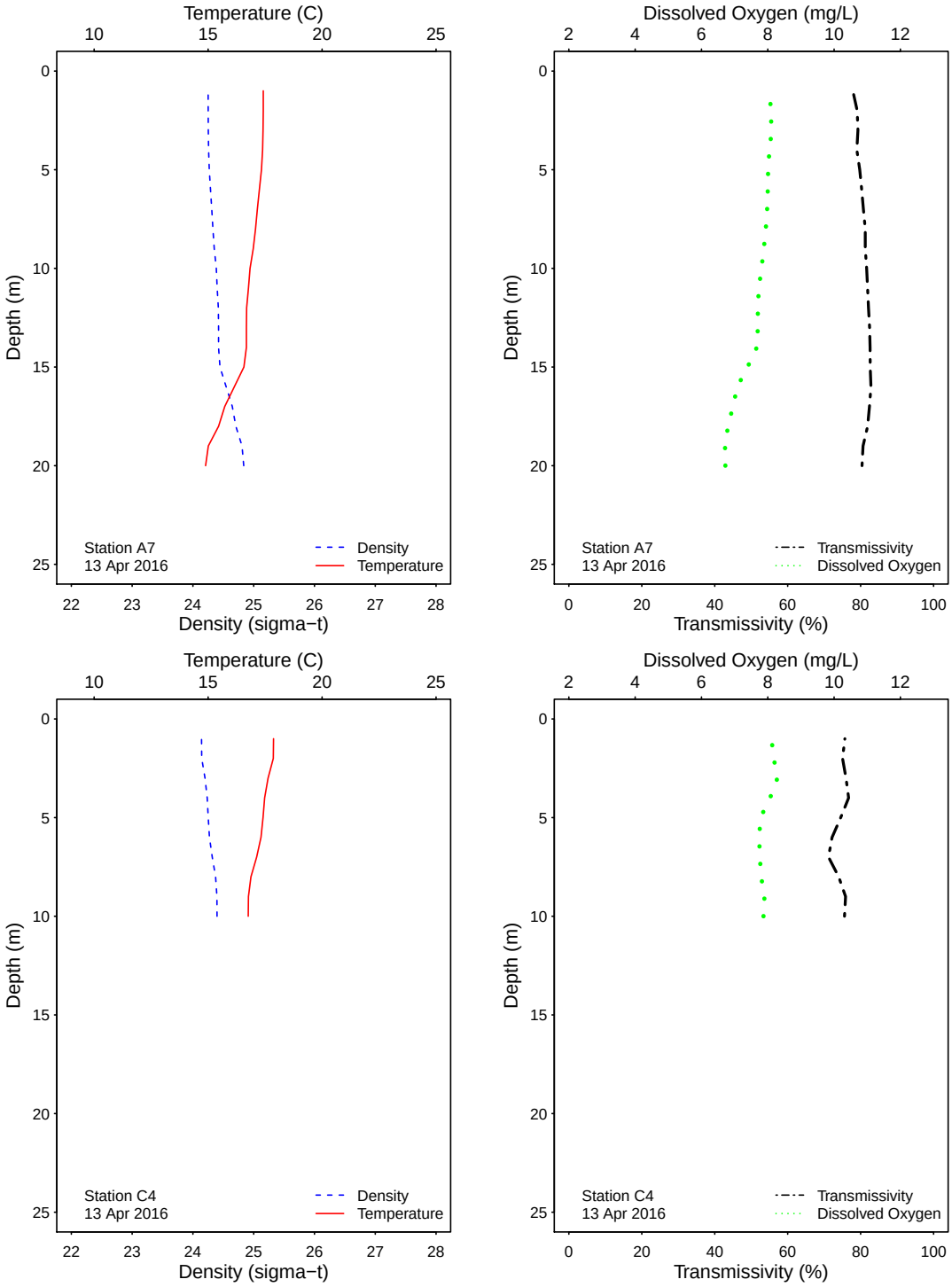

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

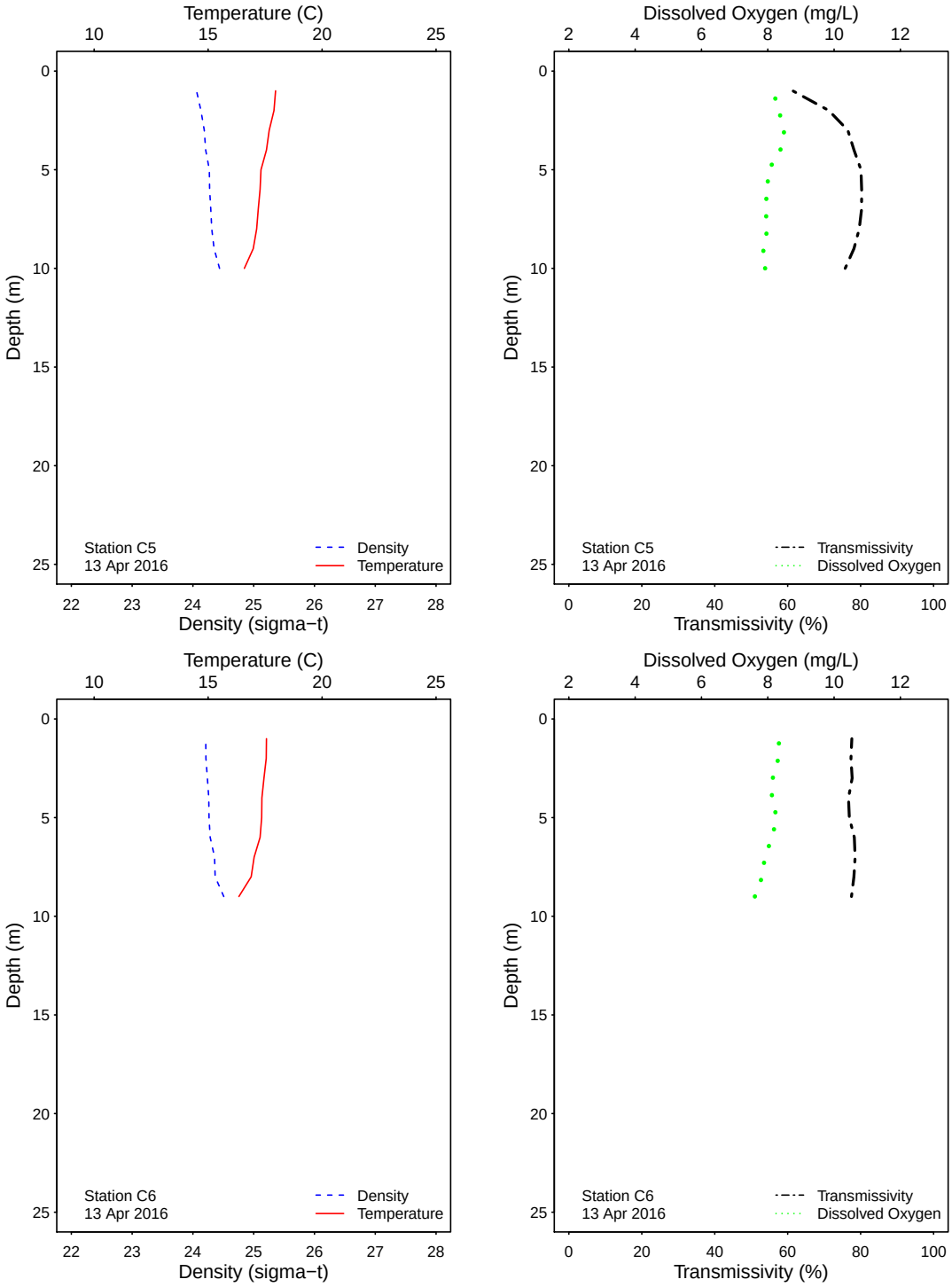

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

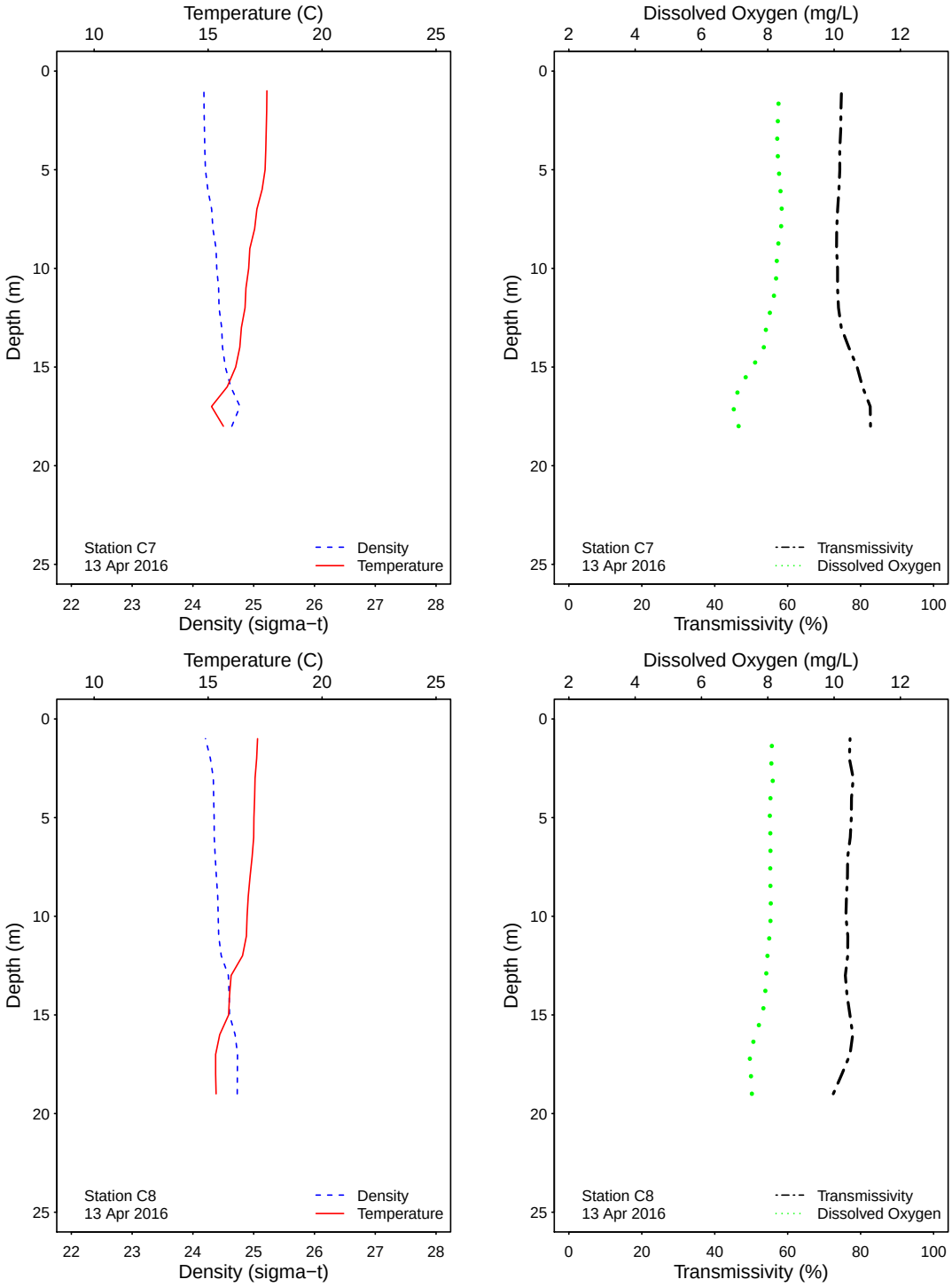

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

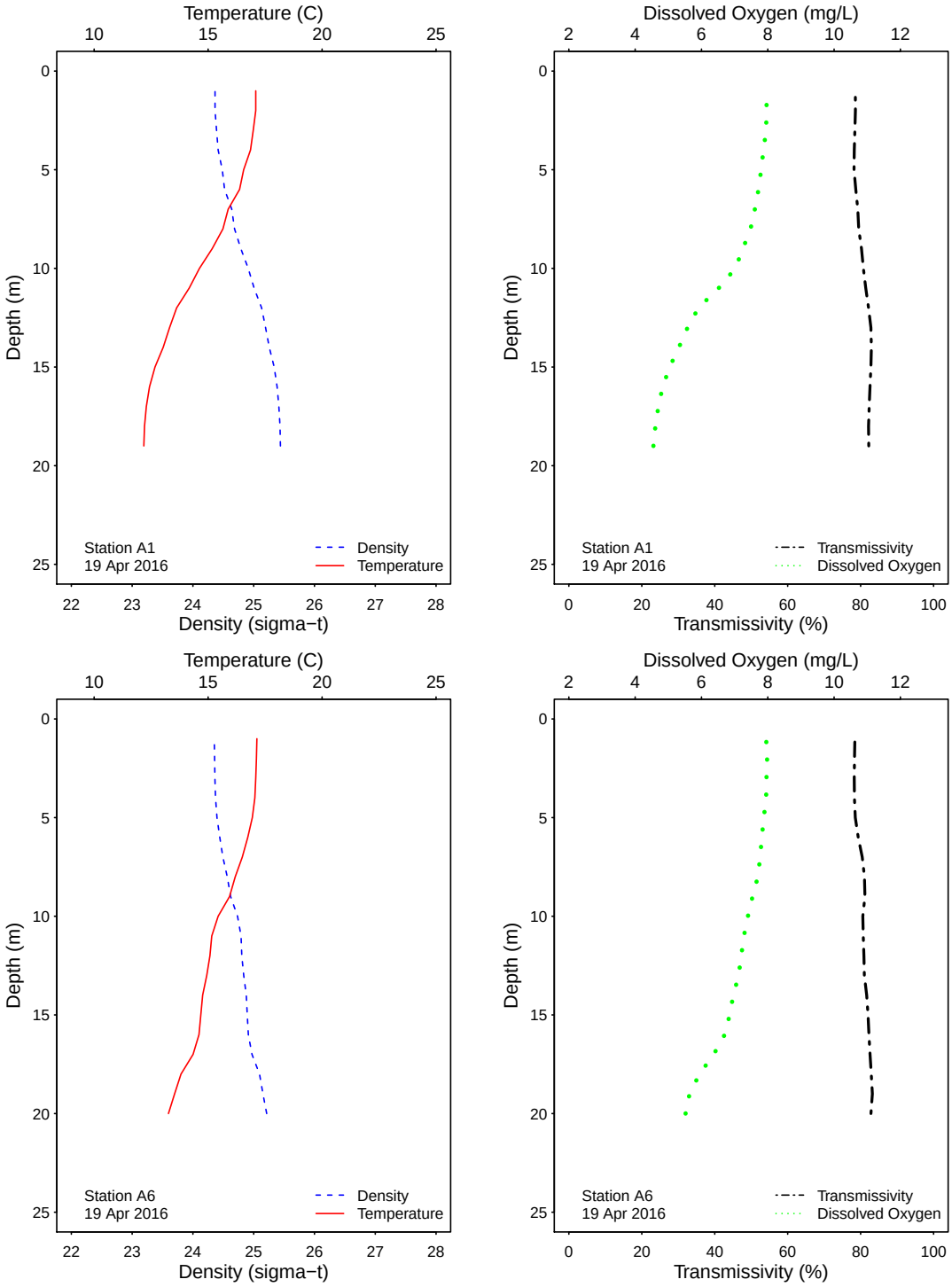

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

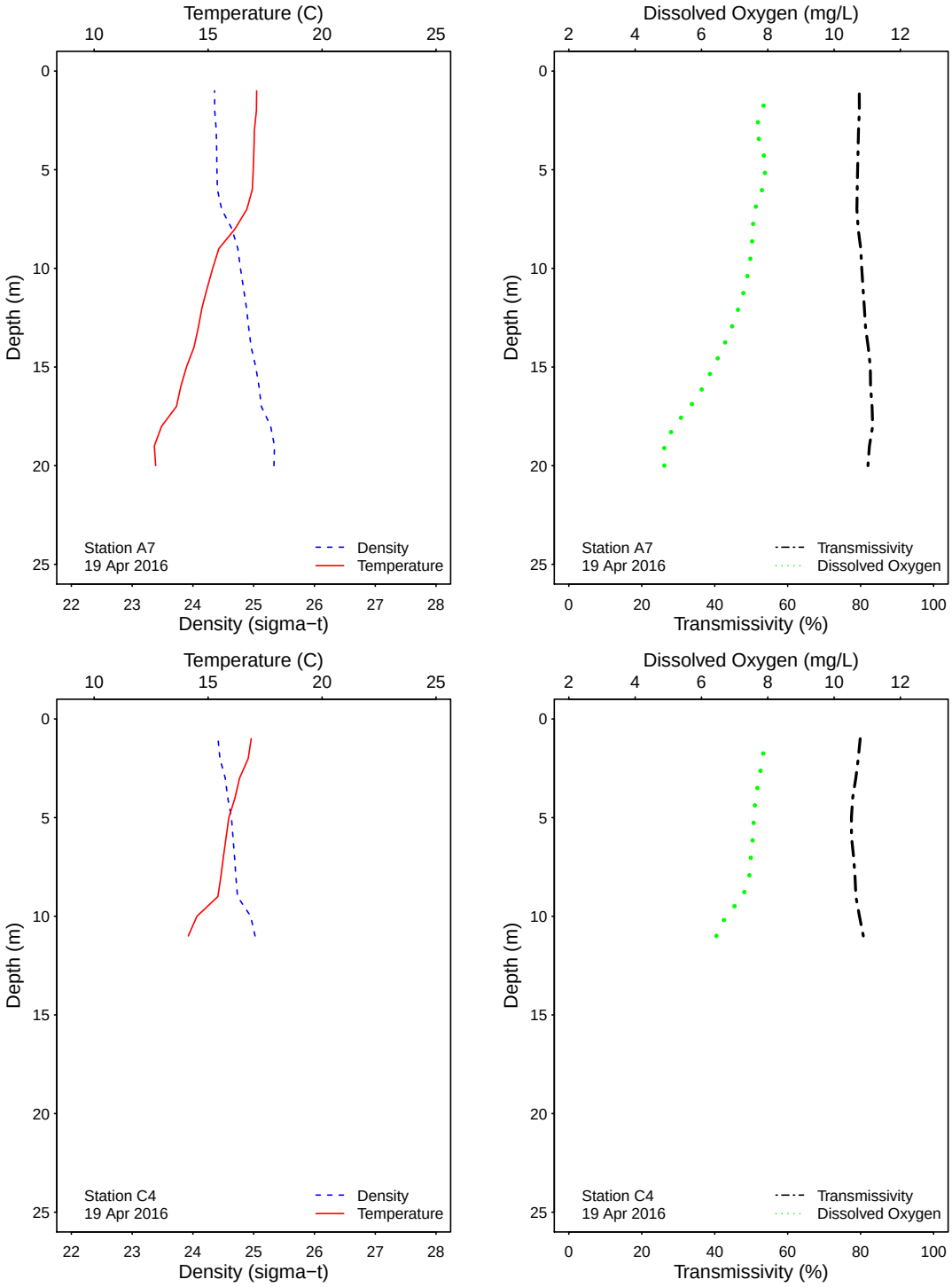

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

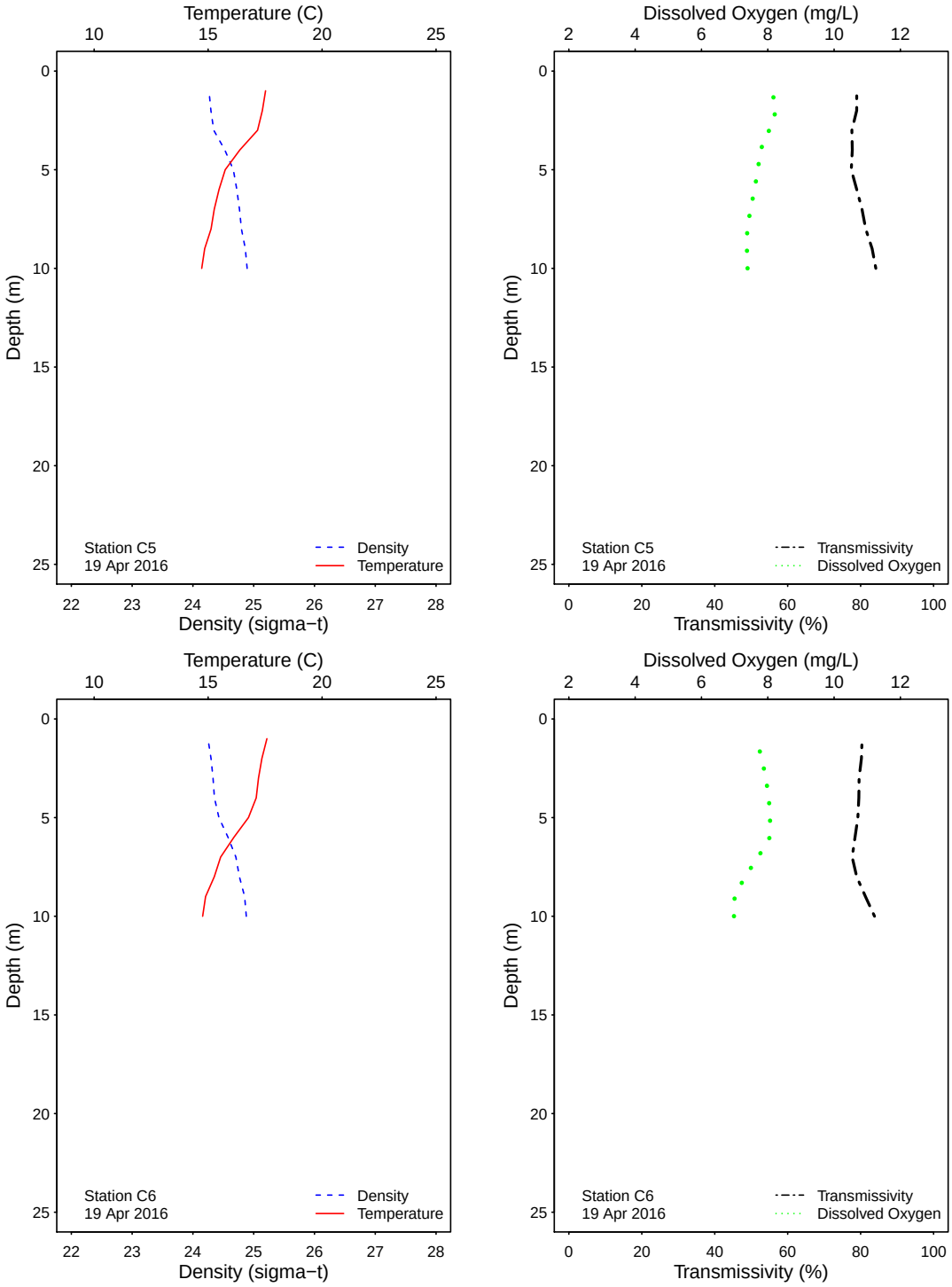

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

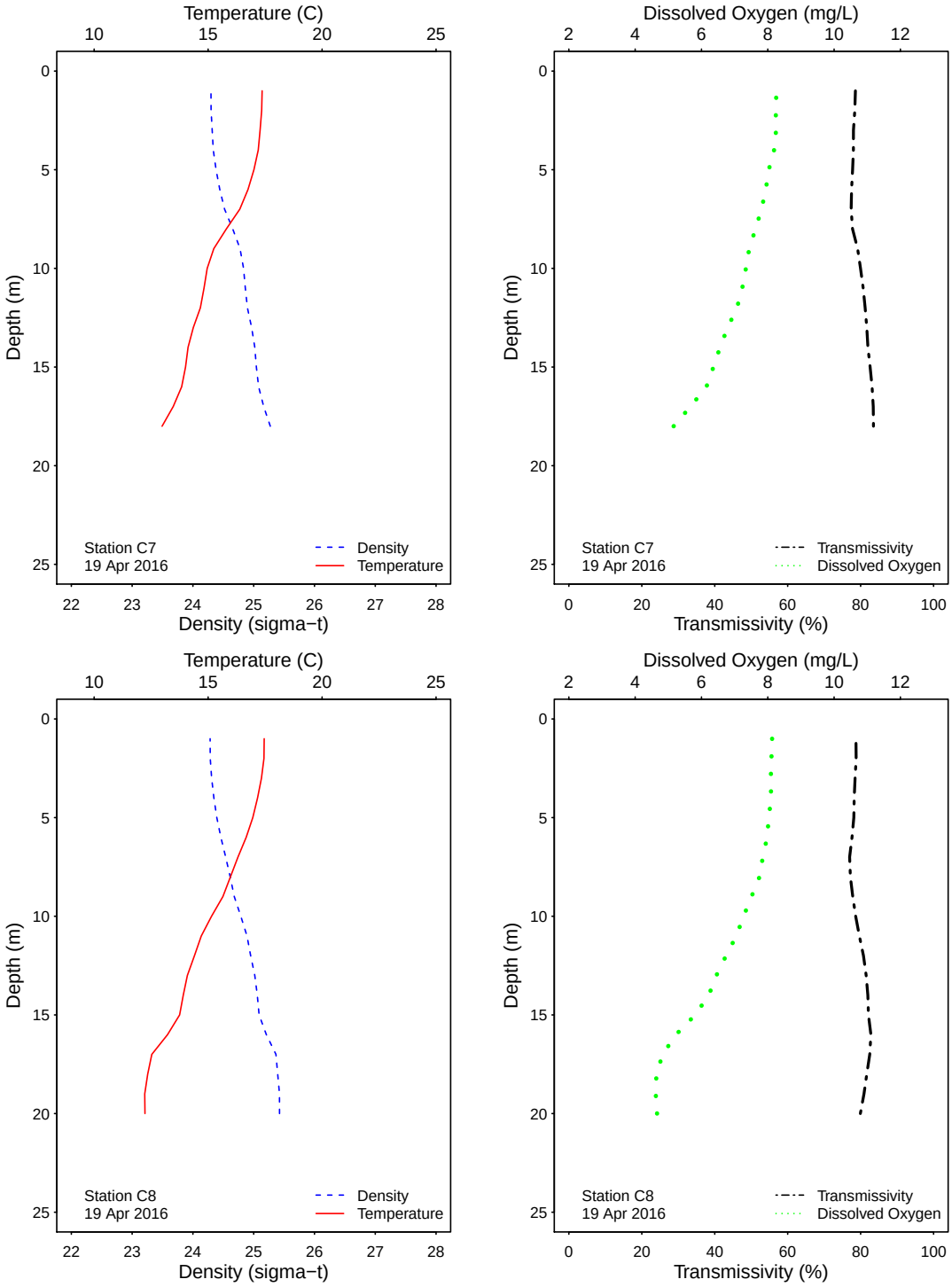

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

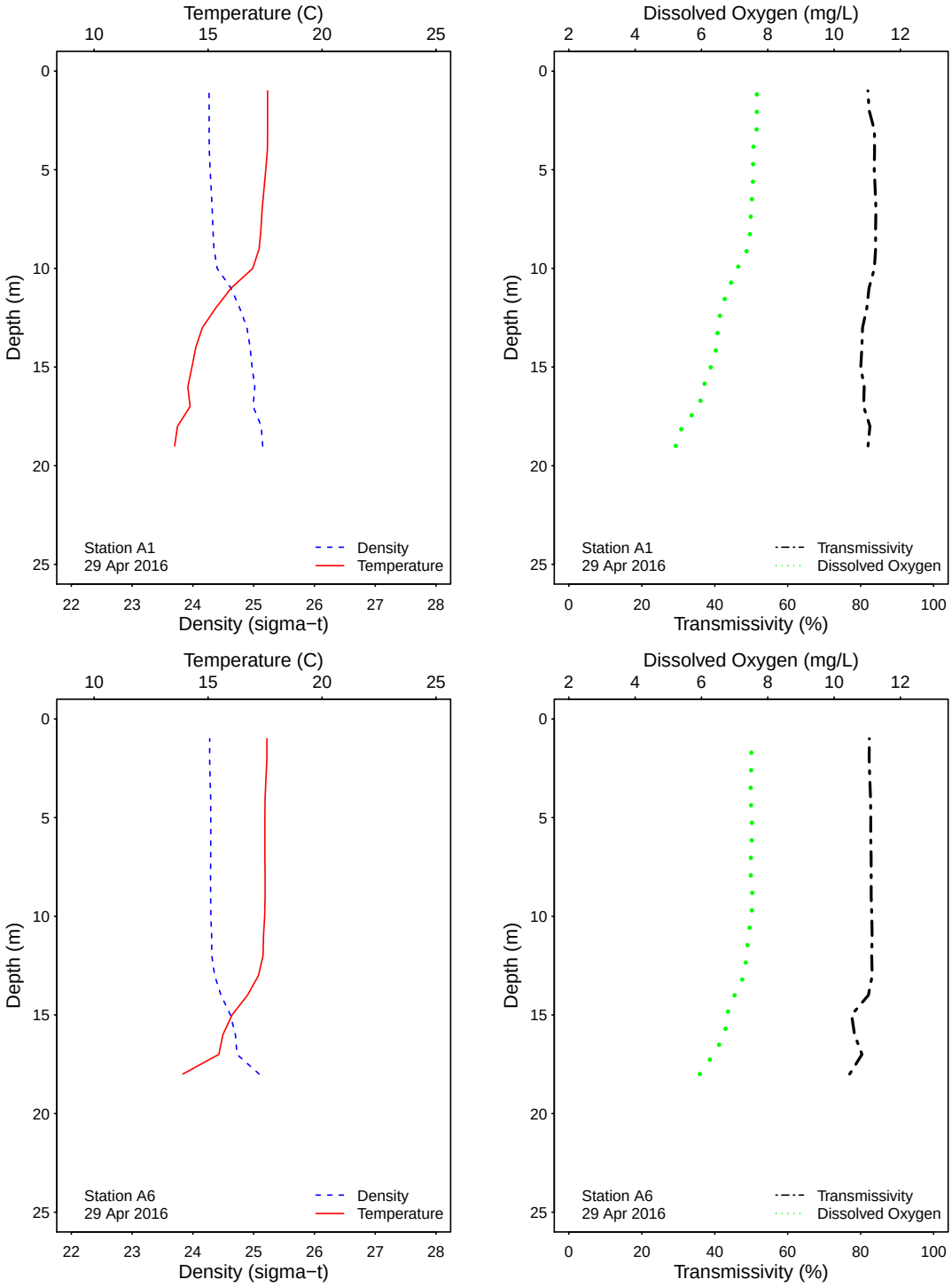

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

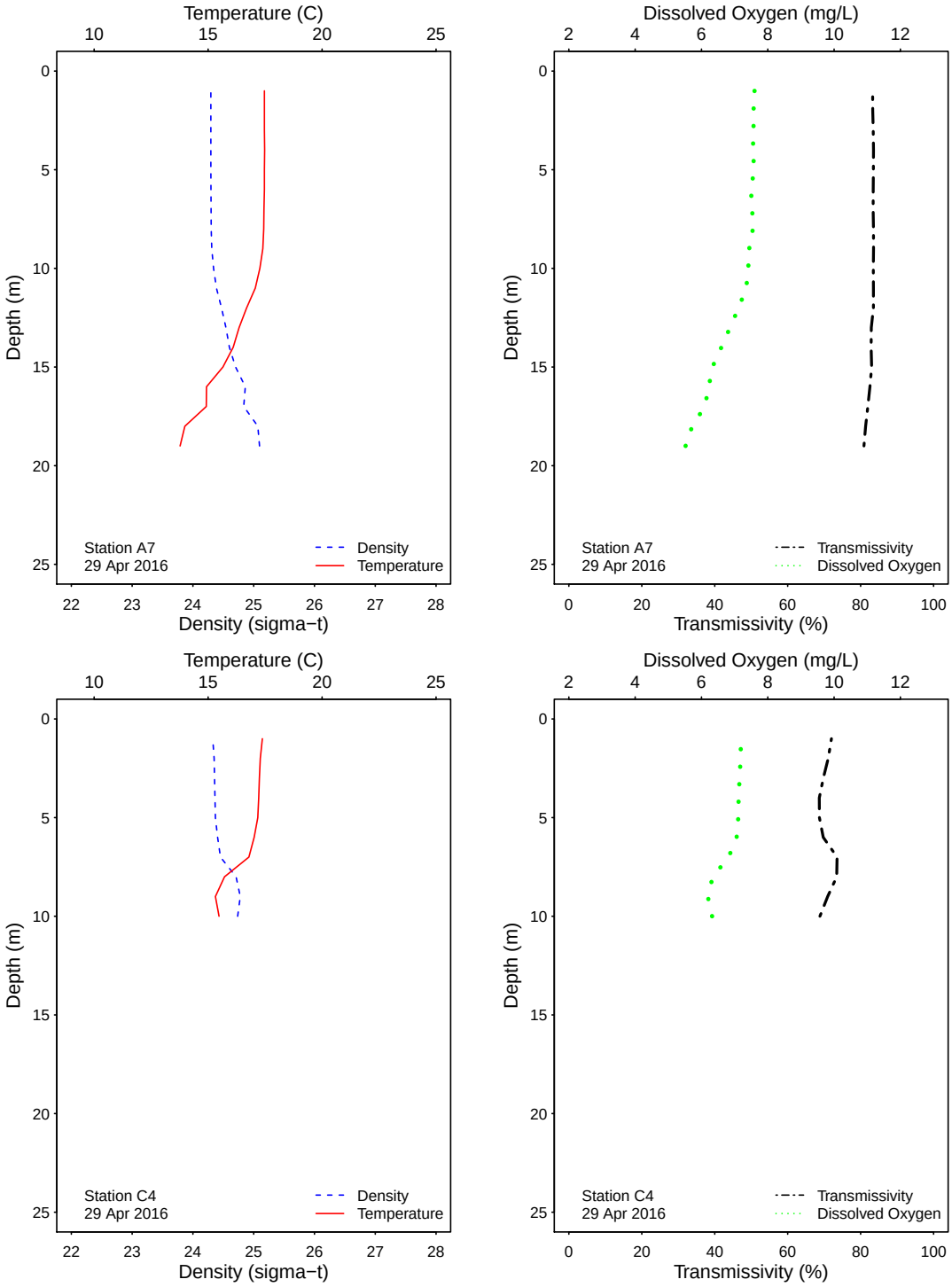

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

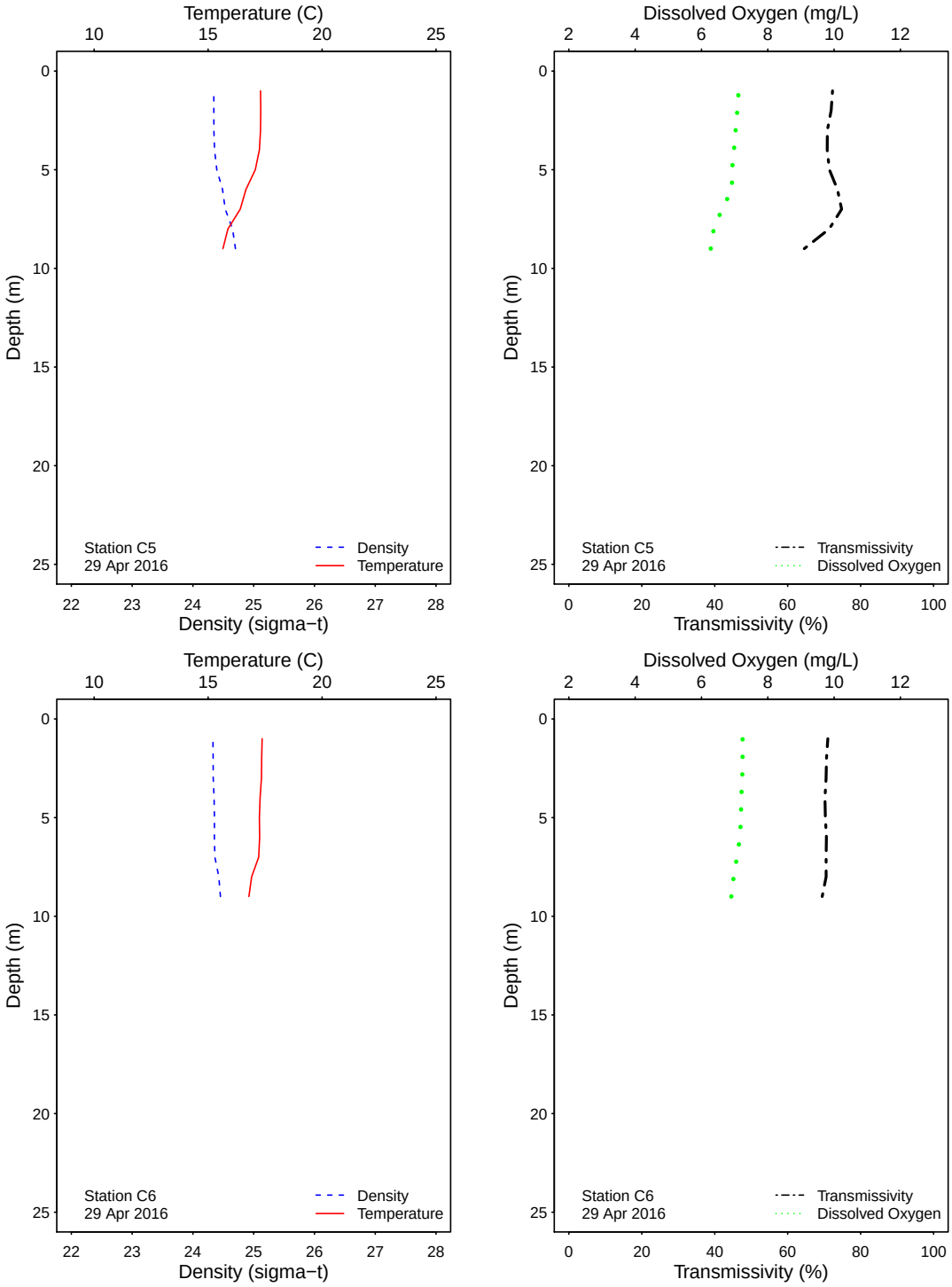

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

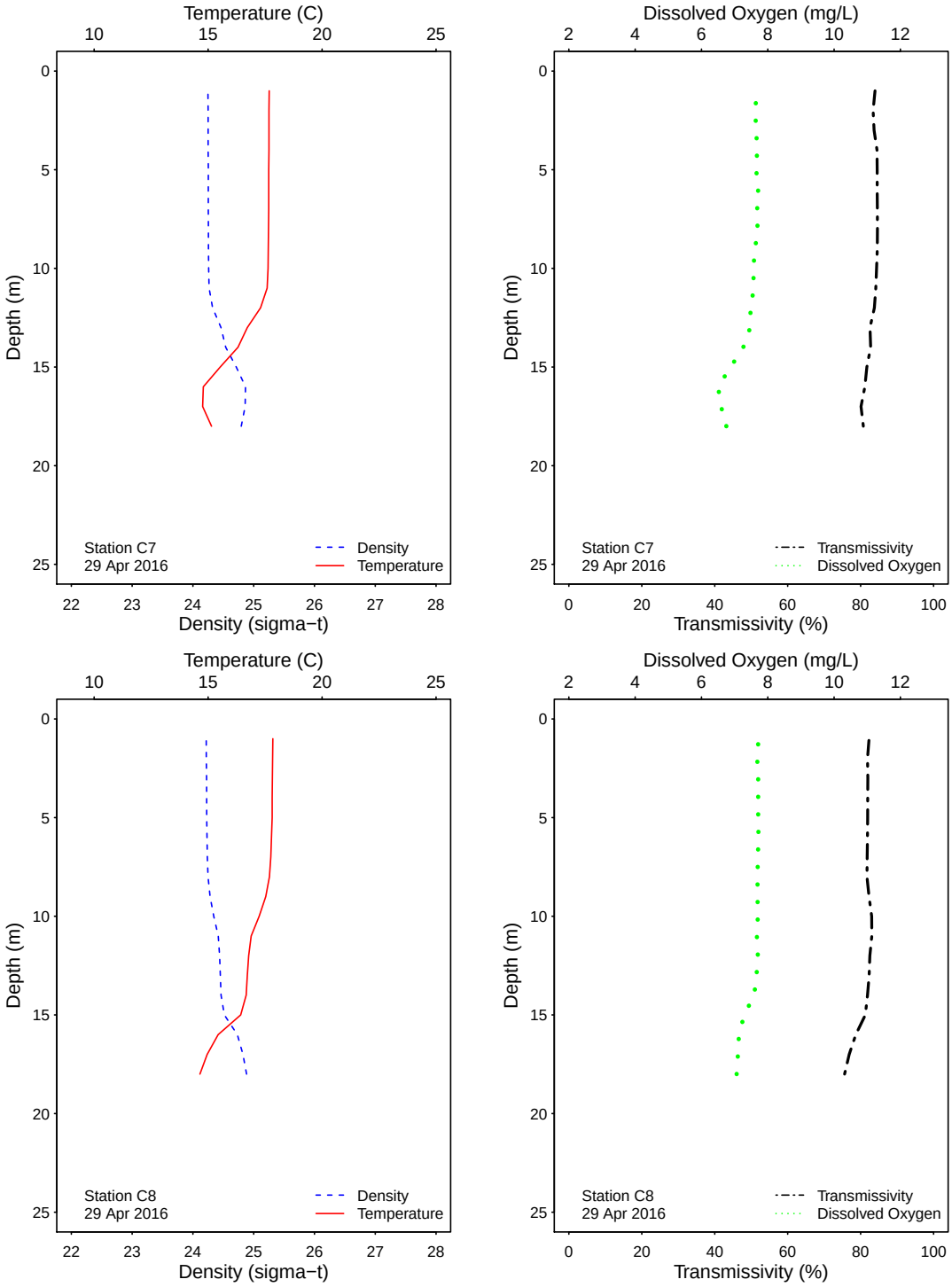

Figure 3.1: Graphics of CTD profile data from the PLOO kelp stations for each sample date.

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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	04 Apr 2016	18	LMA	LAB DUPLICATE	30e	<2	14e
A7	08 Apr 2016	18	AR	LAB DUPLICATE	26e	<2	<2
A7	13 Apr 2016	18	SR	LAB DUPLICATE	8e	<2	<2
A7	19 Apr 2016	18	ZV	LAB DUPLICATE	40	<2	4e
A7	29 Apr 2016	18	JT	LAB DUPLICATE	2e	2e	<2
C7	04 Apr 2016	18	JT	LAB DUPLICATE	<2	<2	<2
C7	08 Apr 2016	18	AR	LAB DUPLICATE	2e	<2	<2
C7	13 Apr 2016	18	SR	LAB DUPLICATE	<2	<2	<2
C7	19 Apr 2016	18	SR	LAB DUPLICATE	2e	<2	<2
C7	29 Apr 2016	18	JT	LAB DUPLICATE	<2	<2	<2
C8	04 Apr 2016	12	JT	LAB DUPLICATE	<2	<2	<2
C8	08 Apr 2016	12	AR	LAB DUPLICATE	14e	<2	<2
C8	13 Apr 2016	12	SR	LAB DUPLICATE	<2	<2	<2
C8	19 Apr 2016	12	SR	LAB DUPLICATE	<2	<2	<2
C8	29 Apr 2016	12	JT	LAB DUPLICATE	<2	<2	<2
D8	03 Apr 2016		JT	FIELD DUPLICATE	<20	<2	2e
D8	03 Apr 2016		JT	LAB DUPLICATE	20e	<2	<2
D8	09 Apr 2016		AR	FIELD DUPLICATE	<20	4e	10e
D8	09 Apr 2016		AR	LAB DUPLICATE	<20	<2	14e
D8	15 Apr 2016		AR	FIELD DUPLICATE	<20	<2	<2
D8	15 Apr 2016		AR	LAB DUPLICATE	<20	<2	2e
D8	21 Apr 2016		ZV	FIELD DUPLICATE	<20	<2	<2
D8	21 Apr 2016		ZV	LAB DUPLICATE	<20	2e	<2
D8	27 Apr 2016		GA	FIELD DUPLICATE	<20	<2	<2
D8	27 Apr 2016		GA	LAB DUPLICATE	20e	<2	<2

ns = not sampled
ND = no data

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