

SOUTH BAY OCEAN OUTFALL MONTHLY RECEIVING WATERS MONITORING REPORT

SOUTH BAY WATER RECLAMATION PLANT

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

NOVEMBER 2018

Environmental Monitoring and Technical Services
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December 31, 2018

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

Attention: POTW Compliance Unit

Dear Mr. Gibson:

Enclosed is the November 2018 Monthly Receiving Waters Monitoring Report for the South Bay Ocean Outfall, South Bay Water Reclamation Plant as required per Order No. R9-2013-0006 as amended by Order Nos. R9-2014-0071 and R9-2017-0023, NPDES Permit No. CA0109045.

This report includes raw ocean monitoring data and summaries of water quality parameters and ocean conditions measured during the month for the South Bay outfall region. Also included are summaries of compliance with the bacterial water-contact standards specified in the California Ocean Plan. These data are also presented in the monthly report submitted by the International Boundary and Water Commission, U.S. Section for discharge from the South Bay International Wastewater Treatment Plant (Order No. R9-2014-0009 as amended Order Nos. R9-2014-0094 and R9-2017-0024, NPDES Permit No. CA0108928).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,



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

TS/amw

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

INTRODUCTION

Monthly reports of water quality and ocean conditions from Playa Blanco, Mexico to Coronado, USA are submitted to the San Diego Regional Water Quality Control Board and U.S. EPA Region 9 in accordance with Order No. R9-2013-0006 as amended by Order Nos. R9-2014-0071 and R9-2017-0023, NPDES Permit No. CA0109045, for the South Bay Water Reclamation Plant (SBWRP), South Bay Ocean Outfall (SBOO). This report includes receiving waters monitoring data collected from all shore, kelp and offshore stations specified in the above order. Data for influent and effluent monitoring activities for the SBWRP are presented in separate reports.

MATERIALS AND METHODS

Shore Stations

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

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

Kelp Bed Stations

Seven kelp bed and other nearshore stations (I19, I24, I25, I26, I32, I39, I40; collectively referred to as “kelp” stations herein) were sampled four times during the month according to NPDES permit specifications. Six stations (I19, I24, I25, I26, I32, I40) are located along the 9- m depth contour, and one (I39) is located along the 18-m depth contour. Three of these stations, I25, I26, and I39, were selected based on their proximity to suitable substrates for the Imperial Beach kelp bed (see station locations map); however, this kelp bed has been historically transient and variable in terms of size and density. Thus, these three stations are only occasionally located within an area where kelp is actually found.

The seven kelp stations are sampled on a weekly basis during the month. Routine monitoring at each kelp site consists of collecting seawater samples at three discrete depths for bacteriological analyses (total coliforms, fecal coliforms, and *Enterococcus* bacteria) and generating water column profiles of various physical/chemical parameters, including water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, and transmissivity. Visual observations of weather and water conditions are also recorded at all stations.

Seawater samples at the kelp bed stations are primarily collected using a CTD-integrated rosette sampler with Niskin bottles. Aliquots for bacteriological analyses were drawn from these bottles into sterile sample bottles for processing at the City's Marine Microbiology Laboratory. Water column profiles of the various physical/chemical parameters were taken using a CTD. The CTD collected these physical/chemical data at a rate ≥ 4 scans per second. The data were then internally averaged using the CTD proprietary software, Seasoft, to create water column profiles equivalent

to one reading per meter. Additionally, CTD profile data for each water sample depth are presented with the bacteriological data.

Offshore Stations

Quarterly offshore water quality sampling is typically conducted over three days during February, May, August, and November for a total of 40 stations during each month (see station locations map). These offshore stations (I1–I40) are arranged in a grid surrounding the discharge site, and are generally located along the 9, 19, 28, 38, and 55-m depth contours. The seven offshore sites designated as kelp bed stations (described above) are included as part of the monthly offshore water quality sampling, however the data from these seven stations are reported within the kelp bed station section of the report with the other four days of kelp bed water quality sampling. Monitoring at all sites included measurements of various physical/chemical parameters, including water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, transmissivity, and chromomorphous dissolved organic matter (CDOM). Visual observations of weather and water conditions were also recorded at all stations. Seawater samples for the analysis of indicator bacteria, suspended solids, and oil and grease concentrations were collected at 28 of the stations.

At these offshore stations, water samples for bacteriological analyses were collected using a rosette sampler with Niskin bottles. Measurements of the physical/chemical parameters listed above were taken using a Sea-Bird CTD. Additionally, CTD profile data for depths closest to those at which bacteriological samples were collected were extracted from the CTD profiles and are presented with the bacteriological data.

Bacteriological Reporting and Quality Assurance

Estimated values for bacteriological analyses are denoted by greater than (>), less than (<), or estimated (e) qualifiers and result from plates with colony counts above or below the permissible counting limits established in Bordner et al. (1978)^[1]. This document defines membrane filtration limits of 20–80 colonies per plate for total coliforms and 20–60 colonies per plate for fecal coliforms and *Enterococcus*. No Data (ND) is reported if plate counts from all dilutions have a total colony count of >200 per plate.

Results of the bacteriological analysis of seawater samples collected from each of the shore, kelp bed, and offshore stations located within State waters are assessed relative to the geometric mean and single sample maximum water-contact standards specified in the California Ocean Plan (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.

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

Quality controls of bacteriological data include laboratory and field duplicate analyses. Laboratory duplicates are performed on approximately 10% of the water quality samples, while field duplicates are performed six times a month (see Appendix A). Laboratory duplicates represent two aliquots of the original sample that are split in the laboratory and analyzed by the same analyst using identical procedures within the same analytical run. The results of these analyses provide a measure of intra-analyst precision. In contrast, field duplicates represent two separate samples collected at the same time from the same site, which are handled under identical circumstances and treated exactly the same throughout field and lab procedures. The results of these analyses provide a measure of precision associated with sample collection, preservation, storage, and lab procedures. The sign test (see Gilbert, 1987) 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 2018 Quality Assurance Report, which will be completed in March 2019.

SUMMARY OF RESULTS

➤ **Shoreline Water Quality Sampling**

- Because of site access restrictions in Mexico, the South Bay shoreline sampling is typically carried out on the same day each week (i.e., Tuesday) in order to coordinate sampling between the Mexican and USA based stations. Seawater samples at the three shore stations located south of the USA/Mexico border (i.e., stations S0, S2 and S3) are presently collected by the Comisión Internacional de Límites y Aguas (CILA) and transported to the IBWC for subsequent delivery to the City's Marine Microbiology Lab, while samples from the eight stations located in USA waters are sampled by City staff.
- During November, each of the eight shore stations located north of the border was in compliance with all California Ocean Plan (Ocean Plan) water contact standards. These standards do not apply to stations located in Mexican waters.
- Although the Ocean Plan standards do not apply to these stations, bacteria densities exceeded one or more benchmark levels (i.e., total coliforms >10,000 CFU/100mL; fecal coliforms >400 CFU/100 mL; *Enterococcus* >104 CFU/100 mL; total >1000 CFU/100 mL & F:T ratio >0.1) in seawater samples collected at station S0 on one or more days during the month.
- Historical analyses of Ocean Plan compliance rates for the South Bay outfall shore and kelp monitoring stations, combined with the results of satellite imagery data, suggest that

outflows from the Tijuana River and Los Buenos Creek, as well as surface runoff during or after rain events (storms), are likely to be the cause of impacted water quality along the shore and in near shore recreational waters in the South Bay region. See the City of San Diego's most recent *Biennial Receiving Waters Monitoring and Assessment Report for the Point Loma and South Bay Ocean Outfalls* for details (<http://www.sandiego.gov/mwwd/environment/oceanmonitor/reports/index.shtml>).

- Nothing of sewage origin was observed at any of the shore stations.

➤ **Kelp Bed Water Quality Sampling**

- The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled four times during the month (i.e. November 5, 14, 19, 26).
- During November, each of the seven stations were in compliance with all Ocean Plan water contact standards.
- Water column temperatures ranged from 16.22 to 18.43°C. The difference between surface and bottom waters ranged from 0.06 to 1.86°C, indicating the water column was stratified at some of these sites during the month.
- Chlorophyll *a* concentrations ranged from 0.12 to 4.56 µg/L at the kelp bed stations, suggesting the absence of phytoplankton blooms during the month.
- Nothing of sewage origin was observed at any of the kelp bed stations.

➤ **Offshore Water Quality Sampling**

- Quarterly offshore water quality sampling was conducted over three days during the month (i.e., November 6, 7, 8).
- During November, all of the offshore stations located within State jurisdictional waters (i.e., I12, I14, I16, I18, I22, I23, I33, I36, I37, I38) were in compliance with the relevant Ocean Plan single sample maximum standards.
- Although the Ocean Plan standards do not apply to stations outside State jurisdictional waters, bacteria densities for these stations did not exceed benchmark levels (i.e., total coliforms >10,000 CFU/100mL; fecal coliforms >400 CFU/100 mL; *Enterococcus* >104 CFU/100 mL; total >1000 CFU/100 mL & F:T ratio >0.1).
- Water column temperatures ranged from 13.93 to 19.58°C at the offshore sites. The difference between surface and bottom waters ranged from 0.31 to 5.65°C, indicating that the water column was stratified at some of the offshore stations during the month.
- Chlorophyll *a* concentrations ranged from 0.04 to 9.02 µg/L at the offshore sites, suggesting the presence of phytoplankton blooms during the month.
- CDOM data are available upon request.
- Nothing of sewage origin was observed at any of the offshore stations.



TABLES AND FIGURES

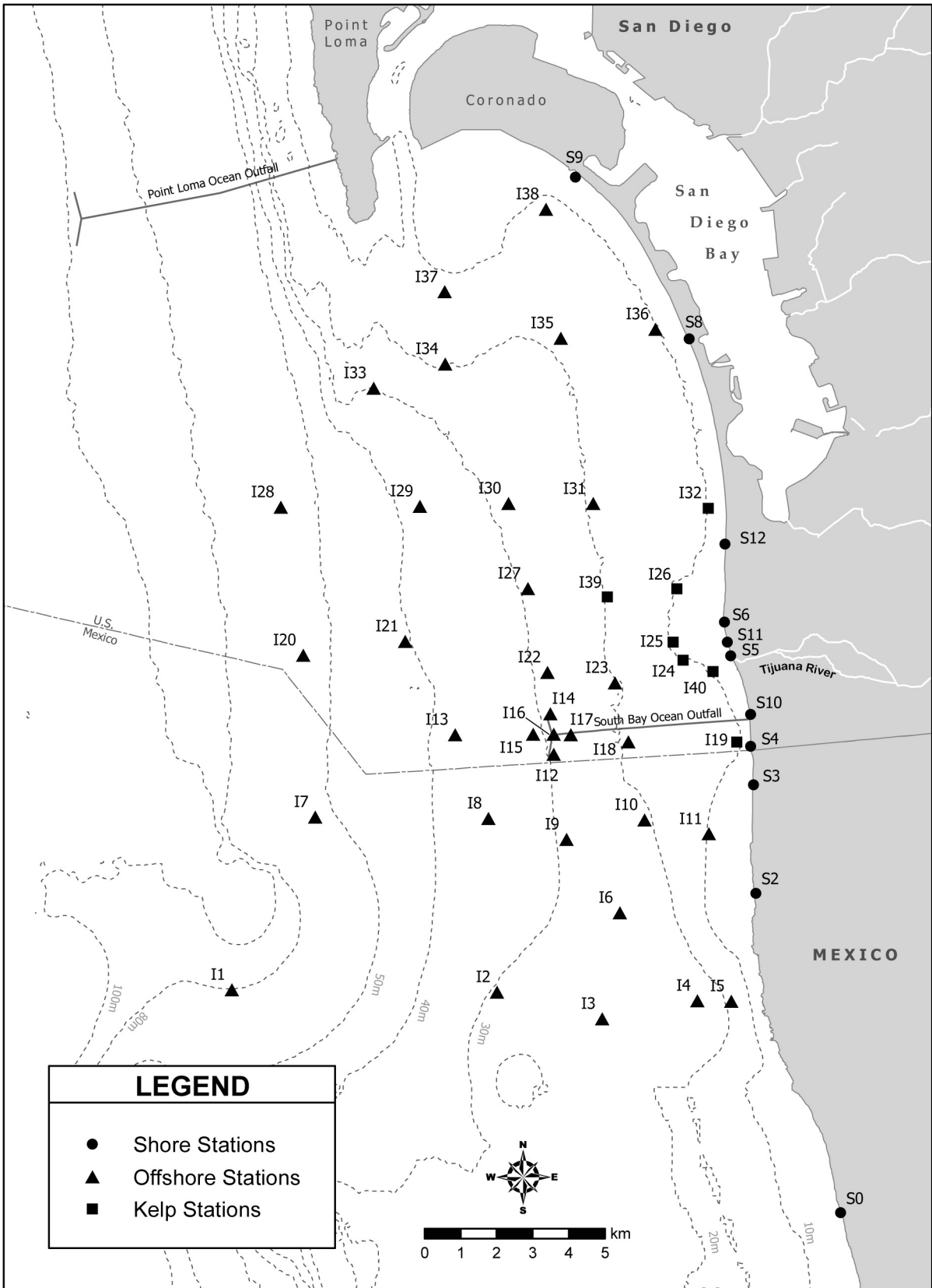


Figure 1.1 Station Map

Shore Stations

Table 2.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total coliform bacteria at the SBOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >1,000 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Nov 2018	83	52	31*	8*	13*	24*	44*	28*
02 Nov 2018	83	52	31*	8*	13*	24*	44*	28*
03 Nov 2018	83	52	31*	8*	13*	24*	44*	28*
04 Nov 2018	83	52	31*	8*	13*	24*	44*	28*
05 Nov 2018	83	52	31*	8*	13*	24*	44*	28*
06 Nov 2018	96	44	29	9	14	29	38	17
07 Nov 2018	96	44	29	9	14	29	38	17
08 Nov 2018	114	52	31*	8*	13*	31*	44*	16*
09 Nov 2018	114	52	31*	8*	13*	31*	44*	16*
10 Nov 2018	114	52	31*	8*	13*	31*	44*	16*
11 Nov 2018	114	52	31*	8*	13*	31*	44*	16*
12 Nov 2018	114	52	31*	8*	13*	31*	44*	16*
13 Nov 2018	70	30	18	6	14	39	27	17
14 Nov 2018	70	30	18	6	14	39	27	17
15 Nov 2018	92	13	13*	4*	20*	70*	13*	11*
16 Nov 2018	92	13	13*	4*	20*	70*	13*	11*
17 Nov 2018	92	15*	13*	4*	20*	70*	13*	11*
18 Nov 2018	92	15*	13*	4*	20*	70*	13*	11*
19 Nov 2018	92	15*	13*	4*	20*	70*	13*	11*
20 Nov 2018	54	16	9	4	13	34	11	13
21 Nov 2018	54	16	9	4	13	34	11	13
22 Nov 2018	58	11*	6*	4*	11*	22*	9*	11*
23 Nov 2018	58	11*	6*	4*	11*	22*	9*	11*
24 Nov 2018	58	11*	6*	4*	11*	22*	9*	11*
25 Nov 2018	58	11*	6*	4*	11*	22*	9*	11*
26 Nov 2018	58	11*	6*	4*	11*	22*	9*	11*
27 Nov 2018	33	8	5	4	13	14	7	8
28 Nov 2018	33	8	5	4	13	14	7	8
29 Nov 2018	11	6*	4*	4*	11*	12*	5*	6*
30 Nov 2018	10*	6*	4*	4*	11*	12*	5*	6*

* 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 SBOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >200 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Nov 2018	10	6	4*	2*	2*	2*	5*	11*
02 Nov 2018	10	6	4*	2*	2*	2*	5*	11*
03 Nov 2018	10	6	4*	2*	2*	2*	5*	11*
04 Nov 2018	10	6	4*	2*	2*	2*	5*	11*
05 Nov 2018	10	6	4*	2*	2*	2*	5*	11*
06 Nov 2018	11	5	4	2	2	4	4	13
07 Nov 2018	11	5	4	2	2	4	4	13
08 Nov 2018	12	7	4*	2*	2*	5*	5*	20*
09 Nov 2018	12	7	4*	2*	2*	5*	5*	20*
10 Nov 2018	12	7	4*	2*	2*	5*	5*	20*
11 Nov 2018	12	7	4*	2*	2*	5*	5*	20*
12 Nov 2018	12	7	4*	2*	2*	5*	5*	20*
13 Nov 2018	10	5	4	2	2	6	4	13
14 Nov 2018	10	5	4	2	2	6	4	13
15 Nov 2018	14	2	2*	2*	2*	8*	2*	12*
16 Nov 2018	14	2	2*	2*	2*	8*	2*	12*
17 Nov 2018	14	2*	2*	2*	2*	8*	2*	12*
18 Nov 2018	14	2*	2*	2*	2*	8*	2*	12*
19 Nov 2018	14	2*	2*	2*	2*	8*	2*	12*
20 Nov 2018	10	3	2	2	2	6	2	9
21 Nov 2018	10	3	2	2	2	6	2	9
22 Nov 2018	12	4*	2*	2*	2*	8*	2*	6*
23 Nov 2018	12	4*	2*	2*	2*	8*	2*	6*
24 Nov 2018	12	4*	2*	2*	2*	8*	2*	6*
25 Nov 2018	12	4*	2*	2*	2*	8*	2*	6*
26 Nov 2018	12	4*	2*	2*	2*	8*	2*	6*
27 Nov 2018	9	3	2	2	2	6	2	5
28 Nov 2018	9	3	2	2	2	6	2	5
29 Nov 2018	4	4*	2*	2*	2*	8*	2*	4*
30 Nov 2018	4*	4*	2*	2*	2*	8*	2*	4*

* 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 SBOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >35 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Nov 2018	17	6	3*	3*	2*	5*	3*	3*
02 Nov 2018	17	6	3*	3*	2*	5*	3*	3*
03 Nov 2018	17	6	3*	3*	2*	5*	3*	3*
04 Nov 2018	17	6	3*	3*	2*	5*	3*	3*
05 Nov 2018	17	6	3*	3*	2*	5*	3*	3*
06 Nov 2018	21	5	3	2	2	6	3	3
07 Nov 2018	21	5	3	2	2	6	3	3
08 Nov 2018	22	6	3*	3*	2*	8*	3*	3*
09 Nov 2018	22	6	3*	3*	2*	8*	3*	3*
10 Nov 2018	22	6	3*	3*	2*	8*	3*	3*
11 Nov 2018	22	6	3*	3*	2*	8*	3*	3*
12 Nov 2018	22	6	3*	3*	2*	8*	3*	3*
13 Nov 2018	20	5	3	2	2	9	3	3
14 Nov 2018	20	5	3	2	2	9	3	3
15 Nov 2018	32	4	4*	3*	2*	14*	3*	3*
16 Nov 2018	32	4	4*	3*	2*	14*	3*	3*
17 Nov 2018	32	4*	4*	3*	2*	14*	3*	3*
18 Nov 2018	32	4*	4*	3*	2*	14*	3*	3*
19 Nov 2018	32	4*	4*	3*	2*	14*	3*	3*
20 Nov 2018	26	4	5	3	2	9	3	3
21 Nov 2018	26	4	5	3	2	9	3	3
22 Nov 2018	27	3*	4*	3*	2*	7*	3*	2*
23 Nov 2018	27	3*	4*	3*	2*	7*	3*	2*
24 Nov 2018	27	3*	4*	3*	2*	7*	3*	2*
25 Nov 2018	27	3*	4*	3*	2*	7*	3*	2*
26 Nov 2018	27	3*	4*	3*	2*	7*	3*	2*
27 Nov 2018	17	3	4	3	2	6	2	2
28 Nov 2018	17	3	4	3	2	6	2	2
29 Nov 2018	8	2*	4*	2*	2*	5*	3*	2*
30 Nov 2018	11*	2*	4*	2*	2*	5*	3*	2*

* Geometric mean calculated using n<5

Table 2.4

Summary of compliance at the SBOO 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	S4	S5	S6	S8	S9	S10	S11	S12
06 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
13 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
20 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
27 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.5

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

Date	S4	S5	S6	S8	S9	S10	S11	S12
06 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
13 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
20 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
27 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.6

Summary of compliance at the SBOO 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	S4	S5	S6	S8	S9	S10	S11	S12
06 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
13 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
20 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
27 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.7

Summary of compliance at the SBOO 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	S4	S5	S6	S8	S9	S10	S11	S12
06 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
13 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
20 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC
27 Nov 2018	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 2.8

Summary of water quality parameters at the SBOO 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
S0	06 Nov 2018	1145	6e	<2	8e	0.33
S0	13 Nov 2018	1045	540	14e	140e	0.03
S0	20 Nov 2018	1055	18e	2e	18e	0.11
S0	27 Nov 2018	1115	ND	200e	120	ND
S2	06 Nov 2018	1300	54	4e	4e	0.07
S2	13 Nov 2018	1155	<2	<2	8e	1.00
S2	20 Nov 2018	1200	<2	<2	2e	1.00
S2	27 Nov 2018	955	<200	20e	2e	0.10
S3	06 Nov 2018	1230	20e	<2	2e	0.10
S3	13 Nov 2018	1125	6e	<2	8e	0.33
S3	20 Nov 2018	1135	<20	2e	<2	0.10
S3	27 Nov 2018	940	<2	<2	8e	1.00
S4	06 Nov 2018	828	<200	18e	62	0.09
S4	13 Nov 2018	746	6e	4e	12e	0.67
S4	20 Nov 2018	924	4e	<2	10e	0.50
S4	27 Nov 2018	845	<2	<2	<2	1.00
S5	06 Nov 2018	951	<20	4e	2e	0.20
S5	13 Nov 2018	852	<2	<2	<2	1.00
S5	20 Nov 2018	1041	<20	10e	4e	0.50
S5	27 Nov 2018	959	<2	<2	<2	1.00
S6	06 Nov 2018	1008	<20	<2	4e	0.10
S6	13 Nov 2018	903	<2	<2	4e	1.00
S6	20 Nov 2018	1049	<2	2e	10e	1.00
S6	27 Nov 2018	1011	2e	<2	<2	1.00
S8	06 Nov 2018	1139	<20	<2	<2	0.10
S8	13 Nov 2018	1022	<2	2e	<2	1.00
S8	20 Nov 2018	1226	2e	<2	4e	1.00
S8	27 Nov 2018	1135	<2	<2	<2	1.00
S9	06 Nov 2018	1224	<20	<2	<2	0.10
S9	13 Nov 2018	1116	<20	<2	4e	0.10
S9	20 Nov 2018	1313	2e	<2	<2	1.00
S9	27 Nov 2018	1219	<20	2e	<2	0.10
S10	06 Nov 2018	836	60e	62	12e	1.03
S10	13 Nov 2018	741	100e	20e	14e	0.20
S10	20 Nov 2018	919	<2	2e	<2	1.00
S10	27 Nov 2018	850	<2	<2	2e	1.00
S11	06 Nov 2018	958	<20	<2	2e	0.10
S11	13 Nov 2018	858	4e	2e	<2	0.50
S11	20 Nov 2018	1045	4e	2e	6e	0.50
S11	27 Nov 2018	1005	2e	2e	<2	1.00

Station	Date	Time	Total	Fecal	Enterico	F:T
S12	06 Nov 2018	1021	<2	20e	<2	10.00
S12	13 Nov 2018	911	<20	2e	<2	0.10
S12	20 Nov 2018	1100	<20	<2	2e	0.10
S12	27 Nov 2018	1021	<2	<2	<2	1.00

ns = not sampled

ND = no data

Comments

Station	Date	Depth	Parameter	Comments
S0	27 Nov 2018			ND: No data; Non-typical colony count = >200 Exceeds acceptable maximum threshold; Typical colony count = 3.

Table 2.9

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

Station	Date	Parameter	Value
S0	06 Nov 2018	Arrive Time	1145
S0	06 Nov 2018	Weather	Sunny
S0	06 Nov 2018	Wind Speed (kts)	7.6
S0	06 Nov 2018	Wind Dir	SW
S0	06 Nov 2018	Animal Life	1 Dog; 20 Seagulls
S0	06 Nov 2018	Floatables	None
S0	06 Nov 2018	Water Color	Green
S0	06 Nov 2018	Current Direction	N
S0	06 Nov 2018	Water Temp (C)	19
S0	06 Nov 2018	Wave Height Low (ft)	2
S0	06 Nov 2018	High Tide (ft)	6.2
S0	06 Nov 2018	High Tide Time	739
S0	06 Nov 2018	Low Tide (ft)	-0.4
S0	06 Nov 2018	Low Tide Time	1419
S0	06 Nov 2018	Comments	Kelp; Algae; Water turbid; 0.5 L/s water flowing from storm drain
S0	13 Nov 2018	Arrive Time	1045
S0	13 Nov 2018	Weather	Sunny
S0	13 Nov 2018	Wind Speed (kts)	7.8
S0	13 Nov 2018	Wind Dir	SW
S0	13 Nov 2018	Animal Life	5 Dogs
S0	13 Nov 2018	Floatables	None
S0	13 Nov 2018	Water Color	Green
S0	13 Nov 2018	Current Direction	N
S0	13 Nov 2018	Water Temp (C)	15
S0	13 Nov 2018	Wave Height Low (ft)	3
S0	13 Nov 2018	High Tide (ft)	4.4
S0	13 Nov 2018	High Tide Time	1140
S0	13 Nov 2018	Low Tide (ft)	3.1
S0	13 Nov 2018	Low Tide Time	543
S0	13 Nov 2018	Comments	Water clear; 0.5 L/s water flowing from storm drain
S0	20 Nov 2018	Arrive Time	1055
S0	20 Nov 2018	Weather	Sunny
S0	20 Nov 2018	Wind Speed (kts)	1.6
S0	20 Nov 2018	Wind Dir	SW
S0	20 Nov 2018	Animal Life	3 Dogs; 20 Seagulls
S0	20 Nov 2018	Floatables	None
S0	20 Nov 2018	Water Color	Green
S0	20 Nov 2018	Current Direction	N
S0	20 Nov 2018	Water Temp (C)	17
S0	20 Nov 2018	Wave Height Low (ft)	2
S0	20 Nov 2018	High Tide (ft)	5.6
S0	20 Nov 2018	High Tide Time	642
S0	20 Nov 2018	Low Tide (ft)	0.9
S0	20 Nov 2018	Low Tide Time	1228
S0	20 Nov 2018	Comments	Kelp; 2 Persons; Water turbid; 4.0 L/s water flowing from storm drain
S0	27 Nov 2018	Arrive Time	1115
S0	27 Nov 2018	Weather	Sunny

Station	Date	Parameter	Value
S0	27 Nov 2018	Wind Speed (kts)	1.2
S0	27 Nov 2018	Wind Dir	SW
S0	27 Nov 2018	Animal Life	5 Birds; 5 Dogs
S0	27 Nov 2018	Floatables	None
S0	27 Nov 2018	Water Color	Green
S0	27 Nov 2018	Current Direction	N
S0	27 Nov 2018	Water Temp (C)	15
S0	27 Nov 2018	Wave Height Low (ft)	2
S0	27 Nov 2018	High Tide (ft)	5.6
S0	27 Nov 2018	High Tide Time	1111
S0	27 Nov 2018	Low Tide (ft)	2.5
S0	27 Nov 2018	Low Tide Time	507
S0	27 Nov 2018	Comments	Kelp; Algae; 5 Persons; Water clear; 0.5 L/s water flowing from storm drain
S2	06 Nov 2018	Arrive Time	1300
S2	06 Nov 2018	Weather	Sunny
S2	06 Nov 2018	Wind Speed (kts)	8.6
S2	06 Nov 2018	Wind Dir	SW
S2	06 Nov 2018	Animal Life	20 Seagulls
S2	06 Nov 2018	Floatables	None
S2	06 Nov 2018	Water Color	Green
S2	06 Nov 2018	Current Direction	N
S2	06 Nov 2018	Water Temp (C)	19
S2	06 Nov 2018	Wave Height Low (ft)	2
S2	06 Nov 2018	High Tide (ft)	6.2
S2	06 Nov 2018	High Tide Time	739
S2	06 Nov 2018	Low Tide (ft)	-0.4
S2	06 Nov 2018	Low Tide Time	1419
S2	06 Nov 2018	Comments	Kelp; Algae; Water turbid; No flow from storm drain
S2	13 Nov 2018	Arrive Time	1155
S2	13 Nov 2018	Weather	Sunny
S2	13 Nov 2018	Wind Speed (kts)	5.5
S2	13 Nov 2018	Wind Dir	SW
S2	13 Nov 2018	Animal Life	5 Birds
S2	13 Nov 2018	Floatables	None
S2	13 Nov 2018	Water Color	Green
S2	13 Nov 2018	Current Direction	N
S2	13 Nov 2018	Water Temp (C)	15
S2	13 Nov 2018	Wave Height Low (ft)	3
S2	13 Nov 2018	High Tide (ft)	4.4
S2	13 Nov 2018	High Tide Time	1140
S2	13 Nov 2018	Low Tide (ft)	3.1
S2	13 Nov 2018	Low Tide Time	543
S2	13 Nov 2018	Comments	Water clear; No flow from storm drain
S2	20 Nov 2018	Arrive Time	1200
S2	20 Nov 2018	Weather	Sunny
S2	20 Nov 2018	Wind Speed (kts)	2.7
S2	20 Nov 2018	Wind Dir	SW
S2	20 Nov 2018	Animal Life	2 Dogs; 20 Seagulls
S2	20 Nov 2018	Floatables	None
S2	20 Nov 2018	Water Color	Green
S2	20 Nov 2018	Current Direction	N

Station	Date	Parameter	Value
S2	20 Nov 2018	Water Temp (C)	17
S2	20 Nov 2018	Wave Height Low (ft)	2
S2	20 Nov 2018	High Tide (ft)	5.6
S2	20 Nov 2018	High Tide Time	642
S2	20 Nov 2018	Low Tide (ft)	0.9
S2	20 Nov 2018	Low Tide Time	1228
S2	20 Nov 2018	Comments	Kelp; Algae; Water turbid; No flow from storm drain
S2	27 Nov 2018	Arrive Time	955
S2	27 Nov 2018	Weather	Sunny
S2	27 Nov 2018	Wind Speed (kts)	1.6
S2	27 Nov 2018	Wind Dir	SW
S2	27 Nov 2018	Animal Life	20 Shorebirds
S2	27 Nov 2018	Floatables	None
S2	27 Nov 2018	Water Color	Green
S2	27 Nov 2018	Current Direction	N
S2	27 Nov 2018	Water Temp (C)	15
S2	27 Nov 2018	Wave Height Low (ft)	2
S2	27 Nov 2018	High Tide (ft)	5.6
S2	27 Nov 2018	High Tide Time	1111
S2	27 Nov 2018	Low Tide (ft)	2.5
S2	27 Nov 2018	Low Tide Time	507
S2	27 Nov 2018	Comments	15 Persons; Water clear; No flow from storm drain
S3	06 Nov 2018	Arrive Time	1230
S3	06 Nov 2018	Weather	Sunny
S3	06 Nov 2018	Wind Speed (kts)	9.5
S3	06 Nov 2018	Wind Dir	SW
S3	06 Nov 2018	Animal Life	20 Seagulls
S3	06 Nov 2018	Floatables	None
S3	06 Nov 2018	Water Color	Green
S3	06 Nov 2018	Current Direction	N
S3	06 Nov 2018	Water Temp (C)	19
S3	06 Nov 2018	Wave Height Low (ft)	2
S3	06 Nov 2018	High Tide (ft)	6.2
S3	06 Nov 2018	High Tide Time	739
S3	06 Nov 2018	Low Tide (ft)	-0.4
S3	06 Nov 2018	Low Tide Time	1419
S3	06 Nov 2018	Comments	Kelp; Algae; Water turbid; No flow from storm drain
S3	13 Nov 2018	Arrive Time	1125
S3	13 Nov 2018	Weather	Sunny
S3	13 Nov 2018	Wind Speed (kts)	5.9
S3	13 Nov 2018	Wind Dir	SW
S3	13 Nov 2018	Animal Life	5 Birds
S3	13 Nov 2018	Floatables	None
S3	13 Nov 2018	Water Color	Green
S3	13 Nov 2018	Current Direction	N
S3	13 Nov 2018	Water Temp (C)	15
S3	13 Nov 2018	Wave Height Low (ft)	3
S3	13 Nov 2018	High Tide (ft)	4.4
S3	13 Nov 2018	High Tide Time	1140
S3	13 Nov 2018	Low Tide (ft)	3.1
S3	13 Nov 2018	Low Tide Time	543
S3	13 Nov 2018	Comments	Kelp; Algae; Water clear; No flow from storm drain

Station	Date	Parameter	Value
S3	20 Nov 2018	Arrive Time	1135
S3	20 Nov 2018	Weather	Sunny
S3	20 Nov 2018	Wind Speed (kts)	3.8
S3	20 Nov 2018	Wind Dir	SW
S3	20 Nov 2018	Animal Life	4 Dogs; 20 Seagulls
S3	20 Nov 2018	Floatables	None
S3	20 Nov 2018	Water Color	Green
S3	20 Nov 2018	Current Direction	N
S3	20 Nov 2018	Water Temp (C)	17
S3	20 Nov 2018	Wave Height Low (ft)	2
S3	20 Nov 2018	High Tide (ft)	5.6
S3	20 Nov 2018	High Tide Time	642
S3	20 Nov 2018	Low Tide (ft)	0.9
S3	20 Nov 2018	Low Tide Time	1228
S3	20 Nov 2018	Comments	Kelp; Algae; 10 Persons; Water turbid; No flow from storm drain
S3	27 Nov 2018	Arrive Time	940
S3	27 Nov 2018	Weather	Sunny
S3	27 Nov 2018	Wind Speed (kts)	1
S3	27 Nov 2018	Wind Dir	SW
S3	27 Nov 2018	Animal Life	5 Shorebirds
S3	27 Nov 2018	Floatables	None
S3	27 Nov 2018	Water Color	Green
S3	27 Nov 2018	Current Direction	N
S3	27 Nov 2018	Water Temp (C)	15
S3	27 Nov 2018	Wave Height Low (ft)	2
S3	27 Nov 2018	High Tide (ft)	5.6
S3	27 Nov 2018	High Tide Time	1111
S3	27 Nov 2018	Low Tide (ft)	2.5
S3	27 Nov 2018	Low Tide Time	507
S3	27 Nov 2018	Comments	Kelp; Algae; 5 Persons; Water clear; No flow from storm drain
S4	06 Nov 2018	Arrive Time	828
S4	06 Nov 2018	Weather	Partly Cloudy
S4	06 Nov 2018	Wind Speed (kts)	0.1
S4	06 Nov 2018	Wind Dir	N
S4	06 Nov 2018	Animal Life	None
S4	06 Nov 2018	Floatables	None
S4	06 Nov 2018	Water Color	Green
S4	06 Nov 2018	Current Direction	N
S4	06 Nov 2018	Water Temp (C)	17
S4	06 Nov 2018	Wave Height Low (ft)	2
S4	06 Nov 2018	High Tide (ft)	6.2
S4	06 Nov 2018	High Tide Time	739
S4	06 Nov 2018	Low Tide (ft)	-0.4
S4	06 Nov 2018	Low Tide Time	1419
S4	06 Nov 2018	Comments	Kelp; Seagrass; Water clear
S4	13 Nov 2018	Arrive Time	746
S4	13 Nov 2018	Weather	Sunny
S4	13 Nov 2018	Wind Speed (kts)	17.1
S4	13 Nov 2018	Wind Dir	SE
S4	13 Nov 2018	Animal Life	None
S4	13 Nov 2018	Floatables	None

Station	Date	Parameter	Value
S4	13 Nov 2018	Water Color	Green
S4	13 Nov 2018	Current Direction	N
S4	13 Nov 2018	Water Temp (C)	16
S4	13 Nov 2018	Wave Height Low (ft)	3
S4	13 Nov 2018	High Tide (ft)	4.4
S4	13 Nov 2018	High Tide Time	1140
S4	13 Nov 2018	Low Tide (ft)	3.1
S4	13 Nov 2018	Low Tide Time	543
S4	13 Nov 2018	Comments	Kelp; Seagrass; Water clear
S4	20 Nov 2018	Arrive Time	924
S4	20 Nov 2018	Weather	Sunny
S4	20 Nov 2018	Wind Speed (kts)	5.6
S4	20 Nov 2018	Wind Dir	S
S4	20 Nov 2018	Animal Life	None
S4	20 Nov 2018	Floatables	None
S4	20 Nov 2018	Water Color	Green
S4	20 Nov 2018	Current Direction	N
S4	20 Nov 2018	Water Temp (C)	18
S4	20 Nov 2018	Wave Height Low (ft)	2
S4	20 Nov 2018	High Tide (ft)	5.6
S4	20 Nov 2018	High Tide Time	642
S4	20 Nov 2018	Low Tide (ft)	0.9
S4	20 Nov 2018	Low Tide Time	1228
S4	20 Nov 2018	Comments	Kelp; Water clear
S4	27 Nov 2018	Arrive Time	845
S4	27 Nov 2018	Weather	Sunny
S4	27 Nov 2018	Wind Speed (kts)	0
S4	27 Nov 2018	Wind Dir	
S4	27 Nov 2018	Animal Life	None
S4	27 Nov 2018	Floatables	None
S4	27 Nov 2018	Water Color	Green
S4	27 Nov 2018	Current Direction	N
S4	27 Nov 2018	Water Temp (C)	15
S4	27 Nov 2018	Wave Height Low (ft)	3
S4	27 Nov 2018	High Tide (ft)	5.6
S4	27 Nov 2018	High Tide Time	1111
S4	27 Nov 2018	Low Tide (ft)	2.5
S4	27 Nov 2018	Low Tide Time	507
S4	27 Nov 2018	Comments	Kelp; Seagrass; Water clear
S5	06 Nov 2018	Arrive Time	951
S5	06 Nov 2018	Weather	Partly Cloudy
S5	06 Nov 2018	Wind Speed (kts)	1.6
S5	06 Nov 2018	Wind Dir	N
S5	06 Nov 2018	Animal Life	None
S5	06 Nov 2018	Floatables	None
S5	06 Nov 2018	Water Color	Green
S5	06 Nov 2018	Current Direction	N
S5	06 Nov 2018	Water Temp (C)	20
S5	06 Nov 2018	Wave Height Low (ft)	2
S5	06 Nov 2018	High Tide (ft)	6.2
S5	06 Nov 2018	High Tide Time	739
S5	06 Nov 2018	Low Tide (ft)	-0.4

Station	Date	Parameter	Value
S5	06 Nov 2018	Low Tide Time	1419
S5	06 Nov 2018	Comments	Kelp; Seagrass; 1 Person; Water clear
S5	13 Nov 2018	Arrive Time	852
S5	13 Nov 2018	Weather	Sunny
S5	13 Nov 2018	Wind Speed (kts)	13.2
S5	13 Nov 2018	Wind Dir	SE
S5	13 Nov 2018	Animal Life	3 Dogs
S5	13 Nov 2018	Floatables	None
S5	13 Nov 2018	Water Color	Green
S5	13 Nov 2018	Current Direction	N
S5	13 Nov 2018	Water Temp (C)	16
S5	13 Nov 2018	Wave Height Low (ft)	3
S5	13 Nov 2018	High Tide (ft)	4.4
S5	13 Nov 2018	High Tide Time	1140
S5	13 Nov 2018	Low Tide (ft)	3.1
S5	13 Nov 2018	Low Tide Time	543
S5	13 Nov 2018	Comments	Kelp; Seagrass; 2 Persons; Water clear
S5	20 Nov 2018	Arrive Time	1041
S5	20 Nov 2018	Weather	Sunny
S5	20 Nov 2018	Wind Speed (kts)	4.4
S5	20 Nov 2018	Wind Dir	S
S5	20 Nov 2018	Animal Life	None
S5	20 Nov 2018	Floatables	None
S5	20 Nov 2018	Water Color	Green
S5	20 Nov 2018	Current Direction	N
S5	20 Nov 2018	Water Temp (C)	19
S5	20 Nov 2018	Wave Height Low (ft)	1
S5	20 Nov 2018	High Tide (ft)	5.6
S5	20 Nov 2018	High Tide Time	642
S5	20 Nov 2018	Low Tide (ft)	0.9
S5	20 Nov 2018	Low Tide Time	1228
S5	20 Nov 2018	Comments	Seagrass; 2 Persons; Water clear
S5	27 Nov 2018	Arrive Time	959
S5	27 Nov 2018	Weather	Sunny
S5	27 Nov 2018	Wind Speed (kts)	3.3
S5	27 Nov 2018	Wind Dir	W
S5	27 Nov 2018	Animal Life	None
S5	27 Nov 2018	Floatables	None
S5	27 Nov 2018	Water Color	Green
S5	27 Nov 2018	Current Direction	N
S5	27 Nov 2018	Water Temp (C)	15
S5	27 Nov 2018	Wave Height Low (ft)	3
S5	27 Nov 2018	High Tide (ft)	5.6
S5	27 Nov 2018	High Tide Time	1111
S5	27 Nov 2018	Low Tide (ft)	2.5
S5	27 Nov 2018	Low Tide Time	507
S5	27 Nov 2018	Comments	Kelp; Seagrass; Water clear
S6	06 Nov 2018	Arrive Time	1008
S6	06 Nov 2018	Weather	Partly Cloudy
S6	06 Nov 2018	Wind Speed (kts)	2.1
S6	06 Nov 2018	Wind Dir	NW

Station	Date	Parameter	Value
S6	06 Nov 2018	Animal Life	None
S6	06 Nov 2018	Floatables	None
S6	06 Nov 2018	Water Color	Green
S6	06 Nov 2018	Current Direction	N
S6	06 Nov 2018	Water Temp (C)	20
S6	06 Nov 2018	Wave Height Low (ft)	2
S6	06 Nov 2018	High Tide (ft)	6.2
S6	06 Nov 2018	High Tide Time	739
S6	06 Nov 2018	Low Tide (ft)	-0.4
S6	06 Nov 2018	Low Tide Time	1419
S6	06 Nov 2018	Comments	Seagrass; 3 Persons; Water clear
S6	13 Nov 2018	Arrive Time	903
S6	13 Nov 2018	Weather	Sunny
S6	13 Nov 2018	Wind Speed (kts)	14.8
S6	13 Nov 2018	Wind Dir	SE
S6	13 Nov 2018	Animal Life	None
S6	13 Nov 2018	Floatables	None
S6	13 Nov 2018	Water Color	Green
S6	13 Nov 2018	Current Direction	N
S6	13 Nov 2018	Water Temp (C)	17
S6	13 Nov 2018	Wave Height Low (ft)	3
S6	13 Nov 2018	High Tide (ft)	4.4
S6	13 Nov 2018	High Tide Time	1140
S6	13 Nov 2018	Low Tide (ft)	3.1
S6	13 Nov 2018	Low Tide Time	543
S6	13 Nov 2018	Comments	Kelp; Seagrass; 1 Person; Water clear
S6	20 Nov 2018	Arrive Time	1049
S6	20 Nov 2018	Weather	Sunny
S6	20 Nov 2018	Wind Speed (kts)	4.1
S6	20 Nov 2018	Wind Dir	S
S6	20 Nov 2018	Animal Life	None
S6	20 Nov 2018	Floatables	None
S6	20 Nov 2018	Water Color	Green
S6	20 Nov 2018	Current Direction	N
S6	20 Nov 2018	Water Temp (C)	20
S6	20 Nov 2018	Wave Height Low (ft)	1
S6	20 Nov 2018	High Tide (ft)	5.6
S6	20 Nov 2018	High Tide Time	642
S6	20 Nov 2018	Low Tide (ft)	0.9
S6	20 Nov 2018	Low Tide Time	1228
S6	20 Nov 2018	Comments	Seagrass; 2 Persons; 4 Surfers; Water clear
S6	27 Nov 2018	Arrive Time	1011
S6	27 Nov 2018	Weather	Sunny
S6	27 Nov 2018	Wind Speed (kts)	3.8
S6	27 Nov 2018	Wind Dir	W
S6	27 Nov 2018	Animal Life	None
S6	27 Nov 2018	Floatables	None
S6	27 Nov 2018	Water Color	Green
S6	27 Nov 2018	Current Direction	N
S6	27 Nov 2018	Water Temp (C)	18
S6	27 Nov 2018	Wave Height Low (ft)	4
S6	27 Nov 2018	High Tide (ft)	5.6

Station	Date	Parameter	Value
S6	27 Nov 2018	High Tide Time	1111
S6	27 Nov 2018	Low Tide (ft)	2.5
S6	27 Nov 2018	Low Tide Time	507
S6	27 Nov 2018	Comments	Kelp; Seagrass; 8 Persons; 2 Surfers; Water clear
S8	06 Nov 2018	Arrive Time	1139
S8	06 Nov 2018	Weather	Sunny
S8	06 Nov 2018	Wind Speed (kts)	6.2
S8	06 Nov 2018	Wind Dir	N
S8	06 Nov 2018	Animal Life	5 Birds
S8	06 Nov 2018	Floatables	None
S8	06 Nov 2018	Water Color	Green
S8	06 Nov 2018	Current Direction	N
S8	06 Nov 2018	Water Temp (C)	18
S8	06 Nov 2018	Wave Height Low (ft)	2
S8	06 Nov 2018	High Tide (ft)	6.2
S8	06 Nov 2018	High Tide Time	739
S8	06 Nov 2018	Low Tide (ft)	-0.4
S8	06 Nov 2018	Low Tide Time	1419
S8	06 Nov 2018	Comments	Seagrass; Water clear
S8	13 Nov 2018	Arrive Time	1022
S8	13 Nov 2018	Weather	Sunny
S8	13 Nov 2018	Wind Speed (kts)	8.8
S8	13 Nov 2018	Wind Dir	SE
S8	13 Nov 2018	Animal Life	None
S8	13 Nov 2018	Floatables	None
S8	13 Nov 2018	Water Color	Green
S8	13 Nov 2018	Current Direction	N
S8	13 Nov 2018	Water Temp (C)	17
S8	13 Nov 2018	Wave Height Low (ft)	3
S8	13 Nov 2018	High Tide (ft)	4.4
S8	13 Nov 2018	High Tide Time	1140
S8	13 Nov 2018	Low Tide (ft)	3.1
S8	13 Nov 2018	Low Tide Time	543
S8	13 Nov 2018	Comments	Kelp; Seagrass; Water clear
S8	20 Nov 2018	Arrive Time	1226
S8	20 Nov 2018	Weather	Sunny
S8	20 Nov 2018	Wind Speed (kts)	3.4
S8	20 Nov 2018	Wind Dir	NW
S8	20 Nov 2018	Animal Life	None
S8	20 Nov 2018	Floatables	None
S8	20 Nov 2018	Water Color	Green
S8	20 Nov 2018	Current Direction	N
S8	20 Nov 2018	Water Temp (C)	19
S8	20 Nov 2018	Wave Height Low (ft)	1
S8	20 Nov 2018	High Tide (ft)	5.6
S8	20 Nov 2018	High Tide Time	642
S8	20 Nov 2018	Low Tide (ft)	0.9
S8	20 Nov 2018	Low Tide Time	1228
S8	20 Nov 2018	Comments	23 Persons; 4 Surfers; 2 Swimmers; Water clear
S8	27 Nov 2018	Arrive Time	1135
S8	27 Nov 2018	Weather	Sunny

Station	Date	Parameter	Value
S8	27 Nov 2018	Wind Speed (kts)	5.4
S8	27 Nov 2018	Wind Dir	W
S8	27 Nov 2018	Animal Life	None
S8	27 Nov 2018	Floatables	None
S8	27 Nov 2018	Water Color	Green
S8	27 Nov 2018	Current Direction	N
S8	27 Nov 2018	Water Temp (C)	17
S8	27 Nov 2018	Wave Height Low (ft)	3
S8	27 Nov 2018	High Tide (ft)	5.6
S8	27 Nov 2018	High Tide Time	1111
S8	27 Nov 2018	Low Tide (ft)	2.5
S8	27 Nov 2018	Low Tide Time	507
S8	27 Nov 2018	Comments	Kelp; Seagrass; 1 Person; 1 Fisherman; Water clear
S9	06 Nov 2018	Arrive Time	1224
S9	06 Nov 2018	Weather	Sunny
S9	06 Nov 2018	Wind Speed (kts)	5.3
S9	06 Nov 2018	Wind Dir	N
S9	06 Nov 2018	Animal Life	None
S9	06 Nov 2018	Floatables	None
S9	06 Nov 2018	Water Color	Green
S9	06 Nov 2018	Current Direction	N
S9	06 Nov 2018	Water Temp (C)	20
S9	06 Nov 2018	Wave Height Low (ft)	1
S9	06 Nov 2018	High Tide (ft)	6.2
S9	06 Nov 2018	High Tide Time	739
S9	06 Nov 2018	Low Tide (ft)	-0.4
S9	06 Nov 2018	Low Tide Time	1419
S9	06 Nov 2018	Comments	Seagrass; 11 Persons; Water clear
S9	13 Nov 2018	Arrive Time	1116
S9	13 Nov 2018	Weather	Sunny
S9	13 Nov 2018	Wind Speed (kts)	1
S9	13 Nov 2018	Wind Dir	W
S9	13 Nov 2018	Animal Life	None
S9	13 Nov 2018	Floatables	None
S9	13 Nov 2018	Water Color	Green
S9	13 Nov 2018	Current Direction	N
S9	13 Nov 2018	Water Temp (C)	17
S9	13 Nov 2018	Wave Height Low (ft)	2
S9	13 Nov 2018	High Tide (ft)	4.4
S9	13 Nov 2018	High Tide Time	1140
S9	13 Nov 2018	Low Tide (ft)	3.1
S9	13 Nov 2018	Low Tide Time	543
S9	13 Nov 2018	Comments	Kelp; Seagrass; 4 Persons; 2 Surfers; 1 Swimmer; Water clear
S9	20 Nov 2018	Arrive Time	1313
S9	20 Nov 2018	Weather	Sunny
S9	20 Nov 2018	Wind Speed (kts)	1.2
S9	20 Nov 2018	Wind Dir	N
S9	20 Nov 2018	Animal Life	None
S9	20 Nov 2018	Floatables	None
S9	20 Nov 2018	Water Color	Green
S9	20 Nov 2018	Current Direction	N
S9	20 Nov 2018	Water Temp (C)	19

Station	Date	Parameter	Value
S9	20 Nov 2018	Wave Height Low (ft)	1
S9	20 Nov 2018	High Tide (ft)	4.3
S9	20 Nov 2018	High Tide Time	1917
S9	20 Nov 2018	Low Tide (ft)	0.3
S9	20 Nov 2018	Low Tide Time	1323
S9	20 Nov 2018	Comments	Kelp; Seagrass; 23 Persons; 5 Surfers; Water clear
S9	27 Nov 2018	Arrive Time	1219
S9	27 Nov 2018	Weather	Sunny
S9	27 Nov 2018	Wind Speed (kts)	4.2
S9	27 Nov 2018	Wind Dir	W
S9	27 Nov 2018	Animal Life	None
S9	27 Nov 2018	Floatables	None
S9	27 Nov 2018	Water Color	Green
S9	27 Nov 2018	Current Direction	N
S9	27 Nov 2018	Water Temp (C)	18
S9	27 Nov 2018	Wave Height Low (ft)	2
S9	27 Nov 2018	High Tide (ft)	3.7
S9	27 Nov 2018	High Tide Time	1228
S9	27 Nov 2018	Low Tide (ft)	-0.4
S9	27 Nov 2018	Low Tide Time	1849
S9	27 Nov 2018	Comments	Kelp; Seagrass; Water clear
S10	06 Nov 2018	Arrive Time	836
S10	06 Nov 2018	Weather	Partly Cloudy
S10	06 Nov 2018	Wind Speed (kts)	1.3
S10	06 Nov 2018	Wind Dir	N
S10	06 Nov 2018	Animal Life	None
S10	06 Nov 2018	Floatables	None
S10	06 Nov 2018	Water Color	Green
S10	06 Nov 2018	Current Direction	N
S10	06 Nov 2018	Water Temp (C)	16
S10	06 Nov 2018	Wave Height Low (ft)	3
S10	06 Nov 2018	High Tide (ft)	6.2
S10	06 Nov 2018	High Tide Time	739
S10	06 Nov 2018	Low Tide (ft)	-0.4
S10	06 Nov 2018	Low Tide Time	1419
S10	06 Nov 2018	Comments	Kelp; Seagrass; Water clear
S10	13 Nov 2018	Arrive Time	741
S10	13 Nov 2018	Weather	Sunny
S10	13 Nov 2018	Wind Speed (kts)	12
S10	13 Nov 2018	Wind Dir	SE
S10	13 Nov 2018	Animal Life	None
S10	13 Nov 2018	Floatables	None
S10	13 Nov 2018	Water Color	Green
S10	13 Nov 2018	Current Direction	N
S10	13 Nov 2018	Water Temp (C)	16
S10	13 Nov 2018	Wave Height Low (ft)	3
S10	13 Nov 2018	High Tide (ft)	4.4
S10	13 Nov 2018	High Tide Time	1140
S10	13 Nov 2018	Low Tide (ft)	3.1
S10	13 Nov 2018	Low Tide Time	543
S10	13 Nov 2018	Comments	Kelp; Seagrass; Water clear

Station	Date	Parameter	Value
S10	20 Nov 2018	Arrive Time	919
S10	20 Nov 2018	Weather	Sunny
S10	20 Nov 2018	Wind Speed (kts)	4.8
S10	20 Nov 2018	Wind Dir	S
S10	20 Nov 2018	Animal Life	None
S10	20 Nov 2018	Floatables	None
S10	20 Nov 2018	Water Color	Green
S10	20 Nov 2018	Current Direction	N
S10	20 Nov 2018	Water Temp (C)	19
S10	20 Nov 2018	Wave Height Low (ft)	2
S10	20 Nov 2018	High Tide (ft)	5.6
S10	20 Nov 2018	High Tide Time	642
S10	20 Nov 2018	Low Tide (ft)	0.9
S10	20 Nov 2018	Low Tide Time	1228
S10	20 Nov 2018	Comments	Kelp; Water clear
S10	27 Nov 2018	Arrive Time	850
S10	27 Nov 2018	Weather	Sunny
S10	27 Nov 2018	Wind Speed (kts)	5.8
S10	27 Nov 2018	Wind Dir	E
S10	27 Nov 2018	Animal Life	None
S10	27 Nov 2018	Floatables	None
S10	27 Nov 2018	Water Color	Green
S10	27 Nov 2018	Current Direction	N
S10	27 Nov 2018	Water Temp (C)	15
S10	27 Nov 2018	Wave Height Low (ft)	3
S10	27 Nov 2018	High Tide (ft)	5.6
S10	27 Nov 2018	High Tide Time	1111
S10	27 Nov 2018	Low Tide (ft)	2.5
S10	27 Nov 2018	Low Tide Time	507
S10	27 Nov 2018	Comments	Kelp; Seagrass; Water clear
S11	06 Nov 2018	Arrive Time	958
S11	06 Nov 2018	Weather	Partly Cloudy
S11	06 Nov 2018	Wind Speed (kts)	2.3
S11	06 Nov 2018	Wind Dir	N
S11	06 Nov 2018	Animal Life	None
S11	06 Nov 2018	Floatables	None
S11	06 Nov 2018	Water Color	Green
S11	06 Nov 2018	Current Direction	N
S11	06 Nov 2018	Water Temp (C)	19
S11	06 Nov 2018	Wave Height Low (ft)	3
S11	06 Nov 2018	High Tide (ft)	6.2
S11	06 Nov 2018	High Tide Time	739
S11	06 Nov 2018	Low Tide (ft)	-0.4
S11	06 Nov 2018	Low Tide Time	1419
S11	06 Nov 2018	Comments	Kelp; Seagrass; Water clear
S11	13 Nov 2018	Arrive Time	858
S11	13 Nov 2018	Weather	Sunny
S11	13 Nov 2018	Wind Speed (kts)	12.6
S11	13 Nov 2018	Wind Dir	SE
S11	13 Nov 2018	Animal Life	None
S11	13 Nov 2018	Floatables	None
S11	13 Nov 2018	Water Color	Green

Station	Date	Parameter	Value
S11	13 Nov 2018	Current Direction	N
S11	13 Nov 2018	Water Temp (C)	17
S11	13 Nov 2018	Wave Height Low (ft)	3
S11	13 Nov 2018	High Tide (ft)	4.4
S11	13 Nov 2018	High Tide Time	1140
S11	13 Nov 2018	Low Tide (ft)	3.1
S11	13 Nov 2018	Low Tide Time	543
S11	13 Nov 2018	Comments	Kelp; Seagrass; Water clear
S11	20 Nov 2018	Arrive Time	1045
S11	20 Nov 2018	Weather	Sunny
S11	20 Nov 2018	Wind Speed (kts)	5.2
S11	20 Nov 2018	Wind Dir	S
S11	20 Nov 2018	Animal Life	None
S11	20 Nov 2018	Floatables	None
S11	20 Nov 2018	Water Color	Green
S11	20 Nov 2018	Current Direction	N
S11	20 Nov 2018	Water Temp (C)	19
S11	20 Nov 2018	Wave Height Low (ft)	1
S11	20 Nov 2018	High Tide (ft)	5.6
S11	20 Nov 2018	High Tide Time	642
S11	20 Nov 2018	Low Tide (ft)	0.9
S11	20 Nov 2018	Low Tide Time	1228
S11	20 Nov 2018	Comments	Seagrass; Water clear
S11	27 Nov 2018	Arrive Time	1005
S11	27 Nov 2018	Weather	Sunny
S11	27 Nov 2018	Wind Speed (kts)	3.8
S11	27 Nov 2018	Wind Dir	W
S11	27 Nov 2018	Animal Life	None
S11	27 Nov 2018	Floatables	None
S11	27 Nov 2018	Water Color	Green
S11	27 Nov 2018	Current Direction	N
S11	27 Nov 2018	Water Temp (C)	16
S11	27 Nov 2018	Wave Height Low (ft)	3
S11	27 Nov 2018	High Tide (ft)	5.6
S11	27 Nov 2018	High Tide Time	1111
S11	27 Nov 2018	Low Tide (ft)	2.5
S11	27 Nov 2018	Low Tide Time	507
S11	27 Nov 2018	Comments	Kelp; Seagrass; Water clear
S12	06 Nov 2018	Arrive Time	1021
S12	06 Nov 2018	Weather	Overcast
S12	06 Nov 2018	Wind Speed (kts)	5.3
S12	06 Nov 2018	Wind Dir	W
S12	06 Nov 2018	Animal Life	None
S12	06 Nov 2018	Floatables	None
S12	06 Nov 2018	Water Color	Green
S12	06 Nov 2018	Current Direction	N
S12	06 Nov 2018	Water Temp (C)	20
S12	06 Nov 2018	Wave Height Low (ft)	2
S12	06 Nov 2018	High Tide (ft)	6.2
S12	06 Nov 2018	High Tide Time	739
S12	06 Nov 2018	Low Tide (ft)	-0.4
S12	06 Nov 2018	Low Tide Time	1419

Station	Date	Parameter	Value
S12	06 Nov 2018	Comments	3 Persons; Water clear
S12	13 Nov 2018	Arrive Time	911
S12	13 Nov 2018	Weather	Sunny
S12	13 Nov 2018	Wind Speed (kts)	4.6
S12	13 Nov 2018	Wind Dir	SE
S12	13 Nov 2018	Animal Life	None
S12	13 Nov 2018	Floatables	None
S12	13 Nov 2018	Water Color	Green
S12	13 Nov 2018	Current Direction	N
S12	13 Nov 2018	Water Temp (C)	17
S12	13 Nov 2018	Wave Height Low (ft)	3
S12	13 Nov 2018	High Tide (ft)	4.4
S12	13 Nov 2018	High Tide Time	1140
S12	13 Nov 2018	Low Tide (ft)	3.1
S12	13 Nov 2018	Low Tide Time	543
S12	13 Nov 2018	Comments	Kelp; Seagrass; Water clear
S12	20 Nov 2018	Arrive Time	1100
S12	20 Nov 2018	Weather	Partly Cloudy
S12	20 Nov 2018	Wind Speed (kts)	1.2
S12	20 Nov 2018	Wind Dir	N
S12	20 Nov 2018	Animal Life	2 Dogs
S12	20 Nov 2018	Floatables	None
S12	20 Nov 2018	Water Color	Green
S12	20 Nov 2018	Current Direction	N
S12	20 Nov 2018	Water Temp (C)	19
S12	20 Nov 2018	Wave Height Low (ft)	1
S12	20 Nov 2018	High Tide (ft)	5.6
S12	20 Nov 2018	High Tide Time	642
S12	20 Nov 2018	Low Tide (ft)	0.9
S12	20 Nov 2018	Low Tide Time	1228
S12	20 Nov 2018	Comments	Kelp; Seagrass; 5 Persons; Water clear
S12	27 Nov 2018	Arrive Time	1021
S12	27 Nov 2018	Weather	Sunny
S12	27 Nov 2018	Wind Speed (kts)	2.8
S12	27 Nov 2018	Wind Dir	W
S12	27 Nov 2018	Animal Life	None
S12	27 Nov 2018	Floatables	None
S12	27 Nov 2018	Water Color	Green
S12	27 Nov 2018	Current Direction	N
S12	27 Nov 2018	Water Temp (C)	18
S12	27 Nov 2018	Wave Height Low (ft)	3
S12	27 Nov 2018	High Tide (ft)	5.6
S12	27 Nov 2018	High Tide Time	1111
S12	27 Nov 2018	Low Tide (ft)	2.5
S12	27 Nov 2018	Low Tide Time	507
S12	27 Nov 2018	Comments	Kelp; Seagrass; 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 SBOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >1,000 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Nov 2018	6*	5*	7*	6*	11*	2*	8*
02 Nov 2018	6*	5*	7*	6*	11*	2*	8*
03 Nov 2018	6*	5*	7*	6*	11*	2*	8*
04 Nov 2018	6*	5*	7*	6*	11*	2*	8*
05 Nov 2018	6	4	5	5	8	2	6
06 Nov 2018	6	4	5	5	8	2	6
07 Nov 2018	4*	3*	4*	3*	6*	2*	5*
08 Nov 2018	4*	3*	4*	3*	6*	2*	5*
09 Nov 2018	4*	3*	4*	3*	6*	2*	5*
10 Nov 2018	4*	3*	4*	3*	6*	2*	5*
11 Nov 2018	4*	3*	4*	3*	6*	2*	5*
12 Nov 2018	4*	3*	4*	3*	6*	2*	5*
13 Nov 2018	4*	3*	4*	3*	6*	2*	5*
14 Nov 2018	3*	2*	2*	2*	2*	2*	2*
15 Nov 2018	3*	2*	2*	2*	2*	2*	2*
16 Nov 2018	3*	2*	2*	2*	2*	2*	2*
17 Nov 2018	3*	2*	2*	2*	2*	2*	2*
18 Nov 2018	3*	2*	2*	2*	2*	2*	2*
19 Nov 2018	2	2	2	2	2	2	2
20 Nov 2018	2	2	2	2	2	2	2
21 Nov 2018	3*	2*	2*	2*	2*	2*	2*
22 Nov 2018	3*	2*	2*	2*	2*	2*	2*
23 Nov 2018	3*	2*	2*	2*	2*	2*	2*
24 Nov 2018	3*	2*	2*	2*	2*	2*	2*
25 Nov 2018	3*	2*	2*	2*	2*	2*	2*
26 Nov 2018	3	2	2	2	2	2	2
27 Nov 2018	3	2	2	2	2	2	2
28 Nov 2018	3*	2*	2*	2*	2*	3*	2*
29 Nov 2018	3*	2*	2*	2*	2*	3*	2*
30 Nov 2018	3*	2*	2*	2*	2*	3*	2*

* 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 SBOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >200 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Nov 2018	2*	2*	2*	3*	4*	2*	3*
02 Nov 2018	2*	2*	2*	3*	4*	2*	3*
03 Nov 2018	2*	2*	2*	3*	4*	2*	3*
04 Nov 2018	2*	2*	2*	3*	4*	2*	3*
05 Nov 2018	2	2	2	2	4	2	2
06 Nov 2018	2	2	2	2	4	2	2
07 Nov 2018	2*	2*	2*	3*	4*	2*	3*
08 Nov 2018	2*	2*	2*	3*	4*	2*	3*
09 Nov 2018	2*	2*	2*	3*	4*	2*	3*
10 Nov 2018	2*	2*	2*	3*	4*	2*	3*
11 Nov 2018	2*	2*	2*	3*	4*	2*	3*
12 Nov 2018	2*	2*	2*	3*	4*	2*	3*
13 Nov 2018	2*	2*	2*	3*	4*	2*	3*
14 Nov 2018	2*	2*	2*	2*	2*	2*	2*
15 Nov 2018	2*	2*	2*	2*	2*	2*	2*
16 Nov 2018	2*	2*	2*	2*	2*	2*	2*
17 Nov 2018	2*	2*	2*	2*	2*	2*	2*
18 Nov 2018	2*	2*	2*	2*	2*	2*	2*
19 Nov 2018	2	2	2	2	2	2	2
20 Nov 2018	2	2	2	2	2	2	2
21 Nov 2018	2*	2*	2*	2*	2*	2*	2*
22 Nov 2018	2*	2*	2*	2*	2*	2*	2*
23 Nov 2018	2*	2*	2*	2*	2*	2*	2*
24 Nov 2018	2*	2*	2*	2*	2*	2*	2*
25 Nov 2018	2*	2*	2*	2*	2*	2*	2*
26 Nov 2018	2	2	2	2	2	2	2
27 Nov 2018	2	2	2	2	2	2	2
28 Nov 2018	2*	2*	2*	2*	2*	2*	2*
29 Nov 2018	2*	2*	2*	2*	2*	2*	2*
30 Nov 2018	2*	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 SBOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >35 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Nov 2018	2*	2*	3*	2*	2*	2*	2*
02 Nov 2018	2*	2*	3*	2*	2*	2*	2*
03 Nov 2018	2*	2*	3*	2*	2*	2*	2*
04 Nov 2018	2*	2*	3*	2*	2*	2*	2*
05 Nov 2018	2	2	3	2	2	2	2
06 Nov 2018	2	2	3	2	2	2	2
07 Nov 2018	2*	2*	3*	2*	2*	2*	2*
08 Nov 2018	2*	2*	3*	2*	2*	2*	2*
09 Nov 2018	2*	2*	3*	2*	2*	2*	2*
10 Nov 2018	2*	2*	3*	2*	2*	2*	2*
11 Nov 2018	2*	2*	3*	2*	2*	2*	2*
12 Nov 2018	2*	2*	3*	2*	2*	2*	2*
13 Nov 2018	2*	2*	3*	2*	2*	2*	2*
14 Nov 2018	2*	2*	3*	2*	2*	2*	2*
15 Nov 2018	2*	2*	3*	2*	2*	2*	2*
16 Nov 2018	2*	2*	3*	2*	2*	2*	2*
17 Nov 2018	2*	2*	3*	2*	2*	2*	2*
18 Nov 2018	2*	2*	3*	2*	2*	2*	2*
19 Nov 2018	2	2	3	2	2	2	2
20 Nov 2018	2	2	3	2	2	2	2
21 Nov 2018	2*	2*	3*	2*	2*	2*	2*
22 Nov 2018	2*	2*	3*	2*	2*	2*	2*
23 Nov 2018	2*	2*	3*	2*	2*	2*	2*
24 Nov 2018	2*	2*	3*	2*	2*	2*	2*
25 Nov 2018	2*	2*	3*	2*	2*	2*	2*
26 Nov 2018	2	2	3	2	2	2	2
27 Nov 2018	2	2	3	2	2	2	2
28 Nov 2018	2*	2*	2*	2*	2*	2*	2*
29 Nov 2018	2*	2*	2*	2*	2*	2*	2*
30 Nov 2018	2*	2*	2*	2*	2*	2*	2*

* Geometric mean calculated using n<5

Table 3.4

Summary of compliance at the SBOO 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	I19	I24	I25	I26	I32	I39	I40
05 Nov 2018	IC	IC	IC	IC	IC	IC	IC
14 Nov 2018	IC	IC	IC	IC	IC	IC	IC
19 Nov 2018	IC	IC	IC	IC	IC	IC	IC
26 Nov 2018	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.5

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

Date	I19	I24	I25	I26	I32	I39	I40
05 Nov 2018	IC	IC	IC	IC	IC	IC	IC
14 Nov 2018	IC	IC	IC	IC	IC	IC	IC
19 Nov 2018	IC	IC	IC	IC	IC	IC	IC
26 Nov 2018	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.6

Summary of compliance at the SBOO 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	I19	I24	I25	I26	I32	I39	I40
05 Nov 2018	IC	IC	IC	IC	IC	IC	IC
14 Nov 2018	IC	IC	IC	IC	IC	IC	IC
19 Nov 2018	IC	IC	IC	IC	IC	IC	IC
26 Nov 2018	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.7

Summary of compliance at the SBOO 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	I19	I24	I25	I26	I32	I39	I40
05 Nov 2018	IC	IC	IC	IC	IC	IC	IC
14 Nov 2018	IC	IC	IC	IC	IC	IC	IC
19 Nov 2018	IC	IC	IC	IC	IC	IC	IC
26 Nov 2018	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 3.8

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

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I19	05 Nov 2018	1058	2	<2	<2	<2	1.0	18.0	77.48	8.6	33.57	8.2
I19	05 Nov 2018	1058	6	2e	<2	<2	1.0	17.9	76.33	8.3	33.57	8.2
I19	05 Nov 2018	1058	11	12e	2e	2e	0.2	17.8	75.19	8.0	33.56	8.2
I19	14 Nov 2018	1040	2	<2	<2	<2	1.0	17.7	80.48	7.6	33.68	8.0
I19	14 Nov 2018	1040	6	<2	<2	2e	1.0	17.5	78.41	7.7	33.69	8.0
I19	14 Nov 2018	1040	11	<2	2e	<2	1.0	17.2	76.24	7.8	33.71	8.0
I19	19 Nov 2018	1021	2	<2	<2	<2	1.0	18.2	84.58	7.9	33.71	8.2
I19	19 Nov 2018	1021	6	<2	<2	<2	1.0	18.1	83.15	7.9	33.71	8.2
I19	19 Nov 2018	1021	11	2e	2e	2e	1.0	18.0	80.02	7.9	33.73	8.2
I19	26 Nov 2018	1035	2	<2	<2	<2	1.0	17.8	64.80	7.3	33.71	8.1
I19	26 Nov 2018	1035	6	8e	<2	<2	0.2	17.4	62.75	7.3	33.68	8.1
I19	26 Nov 2018	1035	11	6e	<2	<2	0.3	17.1	70.15	7.4	33.66	8.1
I24	05 Nov 2018	1119	2	<2	<2	<2	1.0	18.1	71.80	9.5	33.55	8.3
I24	05 Nov 2018	1119	6	<2	<2	<2	1.0	17.6	75.73	8.0	33.55	8.2
I24	05 Nov 2018	1119	11	<2	<2	<2	1.0	17.2	69.30	6.8	33.53	8.1
I24	14 Nov 2018	1107	2	<2	<2	<2	1.0	17.9	81.66	7.8	33.66	8.0
I24	14 Nov 2018	1107	6	<2	<2	<2	1.0	17.8	81.73	7.8	33.66	8.0
I24	14 Nov 2018	1107	11	<2	<2	<2	1.0	17.8	81.80	7.8	33.66	8.0
I24	19 Nov 2018	1041	2	<2	<2	<2	1.0	18.1	85.14	7.9	33.71	8.2
I24	19 Nov 2018	1041	6	<2	<2	<2	1.0	18.1	84.62	7.9	33.71	8.2
I24	19 Nov 2018	1041	11	<2	<2	<2	1.0	18.0	81.90	7.9	33.70	8.2
I24	26 Nov 2018	1055	2	<2	<2	<2	1.0	18.1	83.63	7.8	33.74	8.2
I24	26 Nov 2018	1055	6	<2	<2	<2	1.0	17.9	86.22	7.8	33.73	8.2
I24	26 Nov 2018	1055	11	<2	<2	<2	1.0	17.7	86.67	7.8	33.71	8.2
I25	05 Nov 2018	1127	2	<2	<2	<2	1.0	18.2	74.18	9.5	33.55	8.3
I25	05 Nov 2018	1127	6	<2	<2	<2	1.0	17.3	71.46	7.9	33.54	8.2
I25	05 Nov 2018	1127	9	<2	<2	<2	1.0	16.9	66.92	7.4	33.52	8.1
I25	14 Nov 2018	1116	2	<2	<2	<2	1.0	17.9	83.61	7.8	33.66	8.0
I25	14 Nov 2018	1116	6	<2	<2	<2	1.0	17.8	82.34	7.8	33.66	8.0
I25	14 Nov 2018	1116	9	<2	<2	<2	1.0	17.8	82.42	7.8	33.66	8.0
I25	19 Nov 2018	1047	2	<2	<2	<2	1.0	18.1	86.91	7.8	33.71	8.2
I25	19 Nov 2018	1047	6	<2	<2	<2	1.0	18.0	84.71	7.8	33.70	8.2
I25	19 Nov 2018	1047	9	<2	<2	<2	1.0	18.0	83.64	7.8	33.70	8.2
I25	26 Nov 2018	1103	2	<2	<2	<2	1.0	18.0	86.19	7.8	33.73	8.2
I25	26 Nov 2018	1103	6	<2	<2	<2	1.0	17.9	86.52	7.8	33.72	8.2
I25	26 Nov 2018	1103	9	<2	<2	<2	1.0	17.7	86.41	7.7	33.71	8.2

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I26	05 Nov 2018	1139	2	<2	<2	<2	1.0	18.3	77.19	9.3	33.57	8.3
I26	05 Nov 2018	1139	6	<2	2e	<2	1.0	17.0	72.24	8.2	33.57	8.2
I26	05 Nov 2018	1139	9	<2	<2	<2	1.0	16.7	72.40	7.5	33.53	8.1
I26	14 Nov 2018	1127	2	<2	<2	<2	1.0	17.9	84.57	7.9	33.64	8.0
I26	14 Nov 2018	1127	6	<2	<2	<2	1.0	17.8	83.42	7.9	33.65	8.0
I26	14 Nov 2018	1127	9	<2	<2	<2	1.0	17.8	83.20	7.9	33.65	8.0
I26	19 Nov 2018	1053	2	<2	<2	<2	1.0	18.1	83.91	7.9	33.72	8.2
I26	19 Nov 2018	1053	6	<2	<2	<2	1.0	17.9	82.77	7.8	33.72	8.2
I26	19 Nov 2018	1053	9	2e	<2	<2	1.0	17.9	81.57	7.8	33.72	8.2
I26	26 Nov 2018	1108	2	<2	<2	<2	1.0	18.3	80.38	7.7	33.76	8.2
I26	26 Nov 2018	1108	6	<2	<2	<2	1.0	18.0	81.18	7.6	33.74	8.2
I26	26 Nov 2018	1108	9	<2	<2	<2	1.0	17.8	83.52	7.6	33.72	8.2
I32	05 Nov 2018	1153	2	<2	<2	<2	1.0	18.4	75.18	9.1	33.56	8.2
I32	05 Nov 2018	1153	6	<2	<2	<2	1.0	17.3	72.39	8.7	33.54	8.2
I32	05 Nov 2018	1153	9	4e	<2	<2	0.5	17.0	60.91	7.3	33.53	8.1
I32	14 Nov 2018	1140	2	<2	<2	<2	1.0	18.1	82.84	7.8	33.66	8.0
I32	14 Nov 2018	1140	6	<2	<2	<2	1.0	17.8	77.56	7.8	33.66	8.0
I32	14 Nov 2018	1140	9	<2	<2	<2	1.0	17.8	76.45	7.9	33.68	8.0
I32	19 Nov 2018	1107	2	<2	<2	<2	1.0	18.1	80.00	7.8	33.70	8.2
I32	19 Nov 2018	1107	6	<2	<2	<2	1.0	17.9	78.77	7.9	33.70	8.2
I32	19 Nov 2018	1107	9	<2	<2	<2	1.0	17.9	79.41	7.9	33.71	8.2
I32	26 Nov 2018	1125	2	<2	<2	<2	1.0	18.4	69.85	7.8	33.76	8.2
I32	26 Nov 2018	1125	6	<2	<2	<2	1.0	18.2	68.37	7.8	33.76	8.2
I32	26 Nov 2018	1125	9	<2	<2	<2	1.0	18.1	69.21	7.8	33.76	8.2
I39	05 Nov 2018	1030	2	<2	<2	<2	1.0	18.1	78.63	9.2	33.55	8.2
I39	05 Nov 2018	1030	12	<2	<2	<2	1.0	16.8	79.44	8.1	33.54	8.2
I39	05 Nov 2018	1030	18	<2	<2	<2	1.0	16.2	80.35	7.5	33.53	8.1
I39	14 Nov 2018	1020	2	<2	<2	<2	1.0	17.8	85.21	7.9	33.64	8.0
I39	14 Nov 2018	1020	12	2e	<2	<2	1.0	17.5	85.22	7.9	33.62	8.0
I39	14 Nov 2018	1020	18	<2	<2	<2	1.0	16.8	85.76	7.8	33.57	8.0
I39	19 Nov 2018	1000	2	<2	<2	<2	1.0	18.3	87.83	7.7	33.72	8.2
I39	19 Nov 2018	1000	12	<2	<2	<2	1.0	18.2	88.08	7.8	33.71	8.2
I39	19 Nov 2018	1000	18	<2	<2	<2	1.0	18.0	85.17	7.7	33.70	8.2
I39	26 Nov 2018	1015	2	<2	<2	<2	1.0	17.9	84.87	7.8	33.73	8.2
I39	26 Nov 2018	1015	12	<2	<2	<2	1.0	17.6	85.55	7.7	33.69	8.2
I39	26 Nov 2018	1015	18	12e	<2	2e	0.2	16.7	85.82	7.4	33.64	8.1
I40	05 Nov 2018	1109	2	<2	<2	<2	1.0	18.0	79.84	9.0	33.56	8.2
I40	05 Nov 2018	1109	6	<2	<2	<2	1.0	18.0	78.24	9.0	33.56	8.2
I40	05 Nov 2018	1109	9	<2	<2	2e	1.0	17.6	76.08	8.1	33.54	8.2
I40	14 Nov 2018	1057	2	<2	<2	<2	1.0	17.8	77.96	7.8	33.68	8.0
I40	14 Nov 2018	1057	6	<2	<2	<2	1.0	17.7	75.20	7.8	33.68	8.0

Station	Date	Time	Depth	Total	Fecal	Enteroc	F:T	Temp	XMS	DO	Sal	pH
I40	14 Nov 2018	1057	9	<2	<2	<2	1.0	17.4	75.74	7.8	33.70	8.0
I40	19 Nov 2018	1031	2	<2	<2	<2	1.0	18.1	82.98	7.9	33.72	8.2
I40	19 Nov 2018	1031	6	<2	<2	<2	1.0	18.0	78.63	8.0	33.72	8.2
I40	19 Nov 2018	1031	9	<2	<2	<2	1.0	18.0	76.47	7.9	33.72	8.2
I40	26 Nov 2018	1047	2	<2	<2	<2	1.0	18.2	74.76	7.8	33.76	8.2
I40	26 Nov 2018	1047	6	<2	<2	<2	1.0	18.1	73.72	7.8	33.75	8.2
I40	26 Nov 2018	1047	9	<2	<2	<2	1.0	17.8	82.63	7.7	33.72	8.2

ns = not sampled

ND = no data

Table 3.9

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

Station	Date	Parameter	Value
I19	05 Nov 2018	Depth (m)	11
I19	05 Nov 2018	Arrive Time	1058
I19	05 Nov 2018	Depart Time	1100
I19	05 Nov 2018	Air Temp (C)	17
I19	05 Nov 2018	Weather	Haze
I19	05 Nov 2018	Visibility (mi)	3
I19	05 Nov 2018	Wind Speed (kts)	8
I19	05 Nov 2018	Wind Dir	S
I19	05 Nov 2018	Water Color	Brownish-Green
I19	05 Nov 2018	Wave Ht Low (ft)	3
I19	05 Nov 2018	Wave Period (sec)	11
I19	05 Nov 2018	Sea State	Light chop
I19	05 Nov 2018	High Tide (ft)	5.95
I19	05 Nov 2018	High Tide Time	707
I19	05 Nov 2018	Low Tide (ft)	0.29
I19	05 Nov 2018	Low Tide Time	1254
I19	05 Nov 2018	Comments	none
I19	14 Nov 2018	Depth (m)	11
I19	14 Nov 2018	Arrive Time	1040
I19	14 Nov 2018	Depart Time	1045
I19	14 Nov 2018	Air Temp (C)	19
I19	14 Nov 2018	Weather	Clear
I19	14 Nov 2018	Visibility (mi)	13
I19	14 Nov 2018	Wind Speed (kts)	3
I19	14 Nov 2018	Wind Dir	NW
I19	14 Nov 2018	Water Color	Green
I19	14 Nov 2018	Wave Ht Low (ft)	3
I19	14 Nov 2018	Wave Period (sec)	9
I19	14 Nov 2018	Sea State	Wind ripples
I19	14 Nov 2018	High Tide (ft)	3.54
I19	14 Nov 2018	High Tide Time	344
I19	14 Nov 2018	Low Tide (ft)	3.27
I19	14 Nov 2018	Low Tide Time	741
I19	14 Nov 2018	Comments	none
I19	19 Nov 2018	Depth (m)	9
I19	19 Nov 2018	Arrive Time	1021
I19	19 Nov 2018	Depart Time	1024
I19	19 Nov 2018	Air Temp (C)	17
I19	19 Nov 2018	Weather	Partly Cloudy
I19	19 Nov 2018	Visibility (mi)	9
I19	19 Nov 2018	Wind Speed (kts)	7
I19	19 Nov 2018	Wind Dir	SE
I19	19 Nov 2018	Water Color	Green
I19	19 Nov 2018	Wave Ht Low (ft)	3
I19	19 Nov 2018	Wave Period (sec)	13
I19	19 Nov 2018	Sea State	Calm
I19	19 Nov 2018	High Tide (ft)	5.22
I19	19 Nov 2018	High Tide Time	615
I19	19 Nov 2018	Low Tide (ft)	0.84

Station	Date	Parameter	Value
I19	19 Nov 2018	Low Tide Time	48
I19	19 Nov 2018	Comments	none
I19	26 Nov 2018	Depth (m)	12
I19	26 Nov 2018	Arrive Time	1035
I19	26 Nov 2018	Depart Time	1040
I19	26 Nov 2018	Air Temp (C)	23
I19	26 Nov 2018	Weather	Clear
I19	26 Nov 2018	Visibility (mi)	15
I19	26 Nov 2018	Wind Speed (kts)	6
I19	26 Nov 2018	Wind Dir	NE
I19	26 Nov 2018	Water Color	Green
I19	26 Nov 2018	Wave Ht Low (ft)	4
I19	26 Nov 2018	Wave Period (sec)	11
I19	26 Nov 2018	Sea State	Calm
I19	26 Nov 2018	High Tide (ft)	6.02
I19	26 Nov 2018	High Tide Time	1017
I19	26 Nov 2018	Low Tide (ft)	2.19
I19	26 Nov 2018	Low Tide Time	407
I19	26 Nov 2018	Comments	none
I24	05 Nov 2018	Depth (m)	10
I24	05 Nov 2018	Arrive Time	1119
I24	05 Nov 2018	Depart Time	1124
I24	05 Nov 2018	Air Temp (C)	17
I24	05 Nov 2018	Weather	Haze
I24	05 Nov 2018	Visibility (mi)	3
I24	05 Nov 2018	Wind Speed (kts)	4
I24	05 Nov 2018	Wind Dir	S
I24	05 Nov 2018	Water Color	Brownish-Green
I24	05 Nov 2018	Wave Ht Low (ft)	3
I24	05 Nov 2018	Wave Period (sec)	11
I24	05 Nov 2018	Sea State	Light chop
I24	05 Nov 2018	High Tide (ft)	5.95
I24	05 Nov 2018	High Tide Time	707
I24	05 Nov 2018	Low Tide (ft)	0.29
I24	05 Nov 2018	Low Tide Time	1254
I24	05 Nov 2018	Comments	none
I24	14 Nov 2018	Depth (m)	11
I24	14 Nov 2018	Arrive Time	1107
I24	14 Nov 2018	Depart Time	1113
I24	14 Nov 2018	Air Temp (C)	18
I24	14 Nov 2018	Weather	Clear
I24	14 Nov 2018	Visibility (mi)	15
I24	14 Nov 2018	Wind Speed (kts)	5
I24	14 Nov 2018	Wind Dir	W
I24	14 Nov 2018	Water Color	Green
I24	14 Nov 2018	Wave Ht Low (ft)	3
I24	14 Nov 2018	Wave Period (sec)	9
I24	14 Nov 2018	Sea State	Wind ripples
I24	14 Nov 2018	High Tide (ft)	3.54
I24	14 Nov 2018	High Tide Time	344
I24	14 Nov 2018	Low Tide (ft)	3.27
I24	14 Nov 2018	Low Tide Time	741

Station	Date	Parameter	Value
I24	14 Nov 2018	Comments	none
I24	19 Nov 2018	Depth (m)	10
I24	19 Nov 2018	Arrive Time	1041
I24	19 Nov 2018	Depart Time	1043
I24	19 Nov 2018	Air Temp (C)	18
I24	19 Nov 2018	Weather	Partly Cloudy
I24	19 Nov 2018	Visibility (mi)	9
I24	19 Nov 2018	Wind Speed (kts)	6
I24	19 Nov 2018	Wind Dir	S
I24	19 Nov 2018	Water Color	Green
I24	19 Nov 2018	Wave Ht Low (ft)	3
I24	19 Nov 2018	Wave Period (sec)	13
I24	19 Nov 2018	Sea State	Calm
I24	19 Nov 2018	High Tide (ft)	5.22
I24	19 Nov 2018	High Tide Time	615
I24	19 Nov 2018	Low Tide (ft)	0.84
I24	19 Nov 2018	Low Tide Time	48
I24	19 Nov 2018	Comments	none
I24	26 Nov 2018	Depth (m)	12
I24	26 Nov 2018	Arrive Time	1055
I24	26 Nov 2018	Depart Time	1100
I24	26 Nov 2018	Air Temp (C)	19
I24	26 Nov 2018	Weather	Clear
I24	26 Nov 2018	Visibility (mi)	15
I24	26 Nov 2018	Wind Speed (kts)	12
I24	26 Nov 2018	Wind Dir	SW
I24	26 Nov 2018	Water Color	Green
I24	26 Nov 2018	Wave Ht Low (ft)	4
I24	26 Nov 2018	Wave Period (sec)	11
I24	26 Nov 2018	Sea State	Calm
I24	26 Nov 2018	High Tide (ft)	6.02
I24	26 Nov 2018	High Tide Time	1017
I24	26 Nov 2018	Low Tide (ft)	2.19
I24	26 Nov 2018	Low Tide Time	407
I24	26 Nov 2018	Comments	none
I25	05 Nov 2018	Depth (m)	9
I25	05 Nov 2018	Arrive Time	1127
I25	05 Nov 2018	Depart Time	1132
I25	05 Nov 2018	Air Temp (C)	17
I25	05 Nov 2018	Weather	Haze
I25	05 Nov 2018	Visibility (mi)	3
I25	05 Nov 2018	Wind Speed (kts)	3
I25	05 Nov 2018	Wind Dir	S
I25	05 Nov 2018	Water Color	Brownish-Green
I25	05 Nov 2018	Wave Ht Low (ft)	3
I25	05 Nov 2018	Wave Period (sec)	11
I25	05 Nov 2018	Sea State	Light chop
I25	05 Nov 2018	High Tide (ft)	5.95
I25	05 Nov 2018	High Tide Time	707
I25	05 Nov 2018	Low Tide (ft)	0.29
I25	05 Nov 2018	Low Tide Time	1254
I25	05 Nov 2018	Comments	none

Station	Date	Parameter	Value
I25	14 Nov 2018	Depth (m)	9
I25	14 Nov 2018	Arrive Time	1116
I25	14 Nov 2018	Depart Time	1122
I25	14 Nov 2018	Air Temp (C)	19
I25	14 Nov 2018	Weather	Clear
I25	14 Nov 2018	Visibility (mi)	15
I25	14 Nov 2018	Wind Speed (kts)	7
I25	14 Nov 2018	Wind Dir	SW
I25	14 Nov 2018	Water Color	Green
I25	14 Nov 2018	Wave Ht Low (ft)	3
I25	14 Nov 2018	Wave Period (sec)	9
I25	14 Nov 2018	Sea State	Wind ripples
I25	14 Nov 2018	High Tide (ft)	3.54
I25	14 Nov 2018	High Tide Time	344
I25	14 Nov 2018	Low Tide (ft)	3.27
I25	14 Nov 2018	Low Tide Time	741
I25	14 Nov 2018	Comments	none
I25	19 Nov 2018	Depth (m)	10
I25	19 Nov 2018	Arrive Time	1047
I25	19 Nov 2018	Depart Time	1052
I25	19 Nov 2018	Air Temp (C)	18
I25	19 Nov 2018	Weather	Partly Cloudy
I25	19 Nov 2018	Visibility (mi)	9
I25	19 Nov 2018	Wind Speed (kts)	6
I25	19 Nov 2018	Wind Dir	S
I25	19 Nov 2018	Water Color	Green
I25	19 Nov 2018	Wave Ht Low (ft)	3
I25	19 Nov 2018	Wave Period (sec)	13
I25	19 Nov 2018	Sea State	Calm
I25	19 Nov 2018	High Tide (ft)	5.22
I25	19 Nov 2018	High Tide Time	615
I25	19 Nov 2018	Low Tide (ft)	0.84
I25	19 Nov 2018	Low Tide Time	48
I25	19 Nov 2018	Comments	none
I25	26 Nov 2018	Depth (m)	10
I25	26 Nov 2018	Arrive Time	1103
I25	26 Nov 2018	Depart Time	1108
I25	26 Nov 2018	Air Temp (C)	19
I25	26 Nov 2018	Weather	Clear
I25	26 Nov 2018	Visibility (mi)	15
I25	26 Nov 2018	Wind Speed (kts)	4
I25	26 Nov 2018	Wind Dir	S
I25	26 Nov 2018	Water Color	Green
I25	26 Nov 2018	Wave Ht Low (ft)	4
I25	26 Nov 2018	Wave Period (sec)	11
I25	26 Nov 2018	Sea State	Calm
I25	26 Nov 2018	High Tide (ft)	6.02
I25	26 Nov 2018	High Tide Time	1017
I25	26 Nov 2018	Low Tide (ft)	2.19
I25	26 Nov 2018	Low Tide Time	407
I25	26 Nov 2018	Comments	none

Station	Date	Parameter	Value
I26	05 Nov 2018	Depth (m)	10
I26	05 Nov 2018	Arrive Time	1139
I26	05 Nov 2018	Depart Time	1143
I26	05 Nov 2018	Air Temp (C)	18
I26	05 Nov 2018	Weather	Partly Cloudy
I26	05 Nov 2018	Visibility (mi)	5
I26	05 Nov 2018	Wind Speed (kts)	7
I26	05 Nov 2018	Wind Dir	SW
I26	05 Nov 2018	Water Color	Brownish-Green
I26	05 Nov 2018	Wave Ht Low (ft)	3
I26	05 Nov 2018	Wave Period (sec)	11
I26	05 Nov 2018	Sea State	Light chop
I26	05 Nov 2018	High Tide (ft)	5.95
I26	05 Nov 2018	High Tide Time	707
I26	05 Nov 2018	Low Tide (ft)	0.29
I26	05 Nov 2018	Low Tide Time	1254
I26	05 Nov 2018	Comments	none
I26	14 Nov 2018	Depth (m)	11
I26	14 Nov 2018	Arrive Time	1127
I26	14 Nov 2018	Depart Time	1136
I26	14 Nov 2018	Air Temp (C)	19
I26	14 Nov 2018	Weather	Clear
I26	14 Nov 2018	Visibility (mi)	15
I26	14 Nov 2018	Wind Speed (kts)	7
I26	14 Nov 2018	Wind Dir	SW
I26	14 Nov 2018	Water Color	Green
I26	14 Nov 2018	Wave Ht Low (ft)	3
I26	14 Nov 2018	Wave Period (sec)	9
I26	14 Nov 2018	Sea State	Wind ripples
I26	14 Nov 2018	High Tide (ft)	3.54
I26	14 Nov 2018	High Tide Time	344
I26	14 Nov 2018	Low Tide (ft)	3.27
I26	14 Nov 2018	Low Tide Time	741
I26	14 Nov 2018	Comments	none
I26	19 Nov 2018	Depth (m)	9
I26	19 Nov 2018	Arrive Time	1053
I26	19 Nov 2018	Depart Time	1059
I26	19 Nov 2018	Air Temp (C)	18
I26	19 Nov 2018	Weather	Partly Cloudy
I26	19 Nov 2018	Visibility (mi)	9
I26	19 Nov 2018	Wind Speed (kts)	6
I26	19 Nov 2018	Wind Dir	S
I26	19 Nov 2018	Water Color	Green
I26	19 Nov 2018	Wave Ht Low (ft)	3
I26	19 Nov 2018	Wave Period (sec)	13
I26	19 Nov 2018	Sea State	Calm
I26	19 Nov 2018	High Tide (ft)	5.22
I26	19 Nov 2018	High Tide Time	615
I26	19 Nov 2018	Low Tide (ft)	0.84
I26	19 Nov 2018	Low Tide Time	48
I26	19 Nov 2018	Comments	none
I26	26 Nov 2018	Depth (m)	10

Station	Date	Parameter	Value
I26	26 Nov 2018	Arrive Time	1108
I26	26 Nov 2018	Depart Time	1112
I26	26 Nov 2018	Air Temp (C)	19
I26	26 Nov 2018	Weather	Clear
I26	26 Nov 2018	Visibility (mi)	15
I26	26 Nov 2018	Wind Speed (kts)	20
I26	26 Nov 2018	Wind Dir	W
I26	26 Nov 2018	Water Color	Green
I26	26 Nov 2018	Wave Ht Low (ft)	4
I26	26 Nov 2018	Wave Period (sec)	11
I26	26 Nov 2018	Sea State	Calm
I26	26 Nov 2018	High Tide (ft)	6.02
I26	26 Nov 2018	High Tide Time	1017
I26	26 Nov 2018	Low Tide (ft)	2.19
I26	26 Nov 2018	Low Tide Time	407
I26	26 Nov 2018	Comments	none
I32	05 Nov 2018	Depth (m)	10
I32	05 Nov 2018	Arrive Time	1153
I32	05 Nov 2018	Depart Time	1157
I32	05 Nov 2018	Air Temp (C)	18
I32	05 Nov 2018	Weather	Partly Cloudy
I32	05 Nov 2018	Visibility (mi)	5
I32	05 Nov 2018	Wind Speed (kts)	7
I32	05 Nov 2018	Wind Dir	S
I32	05 Nov 2018	Water Color	Brownish-Green
I32	05 Nov 2018	Wave Ht Low (ft)	3
I32	05 Nov 2018	Wave Period (sec)	11
I32	05 Nov 2018	Sea State	Light chop
I32	05 Nov 2018	High Tide (ft)	5.95
I32	05 Nov 2018	High Tide Time	707
I32	05 Nov 2018	Low Tide (ft)	0.29
I32	05 Nov 2018	Low Tide Time	1254
I32	05 Nov 2018	Comments	none
I32	14 Nov 2018	Depth (m)	12
I32	14 Nov 2018	Arrive Time	1140
I32	14 Nov 2018	Depart Time	1203
I32	14 Nov 2018	Air Temp (C)	19
I32	14 Nov 2018	Weather	Clear
I32	14 Nov 2018	Visibility (mi)	15
I32	14 Nov 2018	Wind Speed (kts)	7
I32	14 Nov 2018	Wind Dir	SW
I32	14 Nov 2018	Water Color	Green
I32	14 Nov 2018	Wave Ht Low (ft)	3
I32	14 Nov 2018	Wave Period (sec)	9
I32	14 Nov 2018	Sea State	Wind ripples
I32	14 Nov 2018	High Tide (ft)	3.54
I32	14 Nov 2018	High Tide Time	344
I32	14 Nov 2018	Low Tide (ft)	3.27
I32	14 Nov 2018	Low Tide Time	741
I32	14 Nov 2018	Comments	none
I32	19 Nov 2018	Depth (m)	9
I32	19 Nov 2018	Arrive Time	1107

Station	Date	Parameter	Value
I32	19 Nov 2018	Depart Time	1120
I32	19 Nov 2018	Air Temp (C)	18
I32	19 Nov 2018	Weather	Partly Cloudy
I32	19 Nov 2018	Visibility (mi)	5
I32	19 Nov 2018	Wind Speed (kts)	5
I32	19 Nov 2018	Wind Dir	SE
I32	19 Nov 2018	Water Color	Brownish-Green
I32	19 Nov 2018	Wave Ht Low (ft)	3
I32	19 Nov 2018	Wave Period (sec)	9
I32	19 Nov 2018	Sea State	Calm
I32	19 Nov 2018	High Tide (ft)	5.22
I32	19 Nov 2018	High Tide Time	615
I32	19 Nov 2018	Low Tide (ft)	0.84
I32	19 Nov 2018	Low Tide Time	48
I32	19 Nov 2018	Comments	none
I32	26 Nov 2018	Depth (m)	11
I32	26 Nov 2018	Arrive Time	1124
I32	26 Nov 2018	Depart Time	1129
I32	26 Nov 2018	Air Temp (C)	19
I32	26 Nov 2018	Weather	Clear
I32	26 Nov 2018	Visibility (mi)	15
I32	26 Nov 2018	Wind Speed (kts)	10
I32	26 Nov 2018	Wind Dir	SW
I32	26 Nov 2018	Water Color	Green
I32	26 Nov 2018	Wave Ht Low (ft)	4
I32	26 Nov 2018	Wave Period (sec)	11
I32	26 Nov 2018	Sea State	Calm
I32	26 Nov 2018	High Tide (ft)	6.02
I32	26 Nov 2018	High Tide Time	1017
I32	26 Nov 2018	Low Tide (ft)	2.19
I32	26 Nov 2018	Low Tide Time	407
I32	26 Nov 2018	Comments	none
I39	05 Nov 2018	Depth (m)	20
I39	05 Nov 2018	Arrive Time	1030
I39	05 Nov 2018	Depart Time	1033
I39	05 Nov 2018	Air Temp (C)	16
I39	05 Nov 2018	Weather	Haze
I39	05 Nov 2018	Visibility (mi)	3
I39	05 Nov 2018	Wind Speed (kts)	6
I39	05 Nov 2018	Wind Dir	SE
I39	05 Nov 2018	Water Color	Brownish-Green
I39	05 Nov 2018	Wave Ht Low (ft)	3
I39	05 Nov 2018	Wave Period (sec)	11
I39	05 Nov 2018	Sea State	Calm
I39	05 Nov 2018	High Tide (ft)	5.95
I39	05 Nov 2018	High Tide Time	707
I39	05 Nov 2018	Low Tide (ft)	0.29
I39	05 Nov 2018	Low Tide Time	1254
I39	05 Nov 2018	Comments	none
I39	14 Nov 2018	Depth (m)	20
I39	14 Nov 2018	Arrive Time	1020
I39	14 Nov 2018	Depart Time	1025

Station	Date	Parameter	Value
I39	14 Nov 2018	Air Temp (C)	19
I39	14 Nov 2018	Weather	Partly Cloudy
I39	14 Nov 2018	Visibility (mi)	10
I39	14 Nov 2018	Wind Speed (kts)	3
I39	14 Nov 2018	Wind Dir	SW
I39	14 Nov 2018	Water Color	Green
I39	14 Nov 2018	Wave Ht Low (ft)	3
I39	14 Nov 2018	Wave Period (sec)	9
I39	14 Nov 2018	Sea State	Calm
I39	14 Nov 2018	High Tide (ft)	3.54
I39	14 Nov 2018	High Tide Time	344
I39	14 Nov 2018	Low Tide (ft)	3.27
I39	14 Nov 2018	Low Tide Time	741
I39	14 Nov 2018	Comments	none
I39	19 Nov 2018	Depth (m)	19
I39	19 Nov 2018	Arrive Time	1000
I39	19 Nov 2018	Depart Time	1006
I39	19 Nov 2018	Air Temp (C)	18
I39	19 Nov 2018	Weather	Partly Cloudy
I39	19 Nov 2018	Visibility (mi)	9
I39	19 Nov 2018	Wind Speed (kts)	5
I39	19 Nov 2018	Wind Dir	S
I39	19 Nov 2018	Water Color	Green
I39	19 Nov 2018	Wave Ht Low (ft)	3
I39	19 Nov 2018	Wave Period (sec)	13
I39	19 Nov 2018	Sea State	Calm
I39	19 Nov 2018	High Tide (ft)	5.22
I39	19 Nov 2018	High Tide Time	615
I39	19 Nov 2018	Low Tide (ft)	0.84
I39	19 Nov 2018	Low Tide Time	48
I39	19 Nov 2018	Comments	Lobster floats
I39	26 Nov 2018	Depth (m)	20
I39	26 Nov 2018	Arrive Time	1015
I39	26 Nov 2018	Depart Time	1021
I39	26 Nov 2018	Air Temp (C)	19
I39	26 Nov 2018	Weather	Clear
I39	26 Nov 2018	Visibility (mi)	15
I39	26 Nov 2018	Wind Speed (kts)	5
I39	26 Nov 2018	Wind Dir	N
I39	26 Nov 2018	Water Color	Green
I39	26 Nov 2018	Wave Ht Low (ft)	4
I39	26 Nov 2018	Wave Period (sec)	11
I39	26 Nov 2018	Sea State	Wind ripples
I39	26 Nov 2018	High Tide (ft)	6.02
I39	26 Nov 2018	High Tide Time	1017
I39	26 Nov 2018	Low Tide (ft)	2.19
I39	26 Nov 2018	Low Tide Time	407
I39	26 Nov 2018	Comments	none
I40	05 Nov 2018	Depth (m)	10
I40	05 Nov 2018	Arrive Time	1109
I40	05 Nov 2018	Depart Time	1113
I40	05 Nov 2018	Air Temp (C)	17

Station	Date	Parameter	Value
I40	05 Nov 2018	Weather	Haze
I40	05 Nov 2018	Visibility (mi)	3
I40	05 Nov 2018	Wind Speed (kts)	6
I40	05 Nov 2018	Wind Dir	S
I40	05 Nov 2018	Water Color	Brownish-Green
I40	05 Nov 2018	Wave Ht Low (ft)	3
I40	05 Nov 2018	Wave Period (sec)	11
I40	05 Nov 2018	Sea State	Light chop
I40	05 Nov 2018	High Tide (ft)	5.95
I40	05 Nov 2018	High Tide Time	707
I40	05 Nov 2018	Low Tide (ft)	0.29
I40	05 Nov 2018	Low Tide Time	1254
I40	05 Nov 2018	Comments	none
I40	14 Nov 2018	Depth (m)	11
I40	14 Nov 2018	Arrive Time	1057
I40	14 Nov 2018	Depart Time	1103
I40	14 Nov 2018	Air Temp (C)	18
I40	14 Nov 2018	Weather	Clear
I40	14 Nov 2018	Visibility (mi)	14
I40	14 Nov 2018	Wind Speed (kts)	2
I40	14 Nov 2018	Wind Dir	SW
I40	14 Nov 2018	Water Color	Green
I40	14 Nov 2018	Wave Ht Low (ft)	3
I40	14 Nov 2018	Wave Period (sec)	9
I40	14 Nov 2018	Sea State	Wind ripples
I40	14 Nov 2018	High Tide (ft)	3.54
I40	14 Nov 2018	High Tide Time	344
I40	14 Nov 2018	Low Tide (ft)	3.27
I40	14 Nov 2018	Low Tide Time	741
I40	14 Nov 2018	Comments	none
I40	19 Nov 2018	Depth (m)	9
I40	19 Nov 2018	Arrive Time	1031
I40	19 Nov 2018	Depart Time	1035
I40	19 Nov 2018	Air Temp (C)	18
I40	19 Nov 2018	Weather	Partly Cloudy
I40	19 Nov 2018	Visibility (mi)	9
I40	19 Nov 2018	Wind Speed (kts)	7
I40	19 Nov 2018	Wind Dir	SE
I40	19 Nov 2018	Water Color	Green
I40	19 Nov 2018	Wave Ht Low (ft)	3
I40	19 Nov 2018	Wave Period (sec)	13
I40	19 Nov 2018	Sea State	Calm
I40	19 Nov 2018	High Tide (ft)	5.22
I40	19 Nov 2018	High Tide Time	615
I40	19 Nov 2018	Low Tide (ft)	0.84
I40	19 Nov 2018	Low Tide Time	48
I40	19 Nov 2018	Comments	none
I40	26 Nov 2018	Depth (m)	12
I40	26 Nov 2018	Arrive Time	1047
I40	26 Nov 2018	Depart Time	1051
I40	26 Nov 2018	Air Temp (C)	20
I40	26 Nov 2018	Weather	Clear

Station	Date	Parameter	Value
I40	26 Nov 2018	Visibility (mi)	15
I40	26 Nov 2018	Wind Speed (kts)	7
I40	26 Nov 2018	Wind Dir	S
I40	26 Nov 2018	Water Color	Green
I40	26 Nov 2018	Wave Ht Low (ft)	4
I40	26 Nov 2018	Wave Period (sec)	11
I40	26 Nov 2018	Sea State	Calm
I40	26 Nov 2018	High Tide (ft)	6.02
I40	26 Nov 2018	High Tide Time	1017
I40	26 Nov 2018	Low Tide (ft)	2.19
I40	26 Nov 2018	Low Tide Time	407
I40	26 Nov 2018	Comments	none

Table 3.10

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

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I19	05 Nov 2018	1	18.06	77.34	8.6	33.57	8.2	24.2	1.82
I19	05 Nov 2018	2	18.04	77.48	8.6	33.57	8.2	24.2	1.71
I19	05 Nov 2018	3	18.02	77.19	8.6	33.57	8.2	24.2	2.01
I19	05 Nov 2018	4	17.96	76.76	8.6	33.57	8.2	24.2	2.51
I19	05 Nov 2018	5	17.88	75.07	8.5	33.57	8.2	24.2	3.82
I19	05 Nov 2018	6	17.85	76.33	8.3	33.57	8.2	24.2	4.49
I19	05 Nov 2018	7	17.83	79.01	8.2	33.56	8.2	24.2	3.74
I19	05 Nov 2018	8	17.83	79.25	8.2	33.56	8.2	24.2	2.88
I19	05 Nov 2018	9	17.83	79.05	8.1	33.56	8.2	24.2	2.35
I19	05 Nov 2018	10	17.81	75.19	8.0	33.56	8.2	24.2	2.00
I19	14 Nov 2018	1	17.68	80.45	7.6	33.68	8.0	24.3	0.46
I19	14 Nov 2018	2	17.67	80.48	7.6	33.68	8.0	24.3	0.48
I19	14 Nov 2018	3	17.62	80.26	7.6	33.68	8.0	24.4	0.53
I19	14 Nov 2018	4	17.59	79.78	7.6	33.68	8.0	24.4	0.67
I19	14 Nov 2018	5	17.55	79.07	7.7	33.69	8.0	24.4	0.87
I19	14 Nov 2018	6	17.48	78.41	7.7	33.69	8.0	24.4	1.14
I19	14 Nov 2018	7	17.43	77.65	7.7	33.70	8.0	24.4	1.39
I19	14 Nov 2018	8	17.37	77.33	7.7	33.70	8.0	24.4	1.58
I19	14 Nov 2018	9	17.29	77.01	7.7	33.71	8.0	24.5	1.60
I19	14 Nov 2018	10	17.18	76.24	7.8	33.71	8.0	24.5	1.56
I19	19 Nov 2018	1	18.23	84.44	7.9	33.71	8.2	24.2	0.51
I19	19 Nov 2018	2	18.21	84.58	7.9	33.71	8.2	24.2	0.51
I19	19 Nov 2018	3	18.20	84.59	7.9	33.71	8.2	24.2	0.54
I19	19 Nov 2018	4	18.18	84.23	7.9	33.71	8.2	24.2	0.63
I19	19 Nov 2018	5	18.16	83.92	7.9	33.71	8.2	24.2	0.74
I19	19 Nov 2018	6	18.15	83.15	7.9	33.71	8.2	24.3	0.84
I19	19 Nov 2018	7	18.13	82.33	7.9	33.71	8.2	24.3	1.03
I19	19 Nov 2018	8	18.11	81.84	7.9	33.72	8.2	24.3	1.16
I19	19 Nov 2018	9	18.05	82.05	7.9	33.72	8.2	24.3	1.09
I19	19 Nov 2018	10	18.01	80.02	7.9	33.73	8.2	24.3	0.98
I19	26 Nov 2018	1	17.71	64.89	7.3	33.67	8.1	24.3	1.29
I19	26 Nov 2018	2	17.80	64.80	7.3	33.71	8.1	24.3	1.19
I19	26 Nov 2018	3	17.55	63.27	7.3	33.71	8.1	24.4	1.13
I19	26 Nov 2018	4	17.47	63.25	7.3	33.69	8.1	24.4	1.22
I19	26 Nov 2018	5	17.41	63.20	7.3	33.68	8.1	24.4	1.39
I19	26 Nov 2018	6	17.35	62.75	7.3	33.68	8.1	24.4	1.52
I19	26 Nov 2018	7	17.23	63.13	7.3	33.67	8.1	24.4	1.62
I19	26 Nov 2018	8	17.13	64.56	7.4	33.66	8.1	24.5	1.70
I19	26 Nov 2018	9	17.10	68.45	7.4	33.66	8.1	24.5	1.69
I19	26 Nov 2018	10	17.09	70.15	7.4	33.66	8.1	24.5	1.64
I24	05 Nov 2018	1	18.15	72.40	9.5	33.55	8.3	24.1	2.39
I24	05 Nov 2018	2	18.13	71.80	9.5	33.55	8.3	24.1	2.42
I24	05 Nov 2018	3	18.05	72.10	9.4	33.55	8.3	24.1	2.77
I24	05 Nov 2018	4	17.94	73.49	9.2	33.56	8.2	24.2	3.03
I24	05 Nov 2018	5	17.86	76.07	8.7	33.56	8.2	24.2	3.07
I24	05 Nov 2018	6	17.58	75.73	8.0	33.55	8.2	24.3	3.49
I24	05 Nov 2018	7	17.41	74.32	7.3	33.54	8.1	24.3	3.49

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I24	05 Nov 2018	8	17.34	74.26	7.0	33.54	8.1	24.3	3.05
I24	05 Nov 2018	9	17.23	72.33	6.8	33.54	8.1	24.3	2.09
I24	05 Nov 2018	10	17.23	69.30	6.8	33.53	8.1	24.3	1.45
I24	14 Nov 2018	1	17.86	81.85	7.8	33.66	8.0	24.3	0.55
I24	14 Nov 2018	2	17.86	81.66	7.8	33.66	8.0	24.3	0.53
I24	14 Nov 2018	3	17.86	81.78	7.8	33.66	8.0	24.3	0.54
I24	14 Nov 2018	4	17.85	81.76	7.8	33.66	8.0	24.3	0.58
I24	14 Nov 2018	5	17.83	81.62	7.8	33.66	8.0	24.3	0.67
I24	14 Nov 2018	6	17.82	81.73	7.8	33.66	8.0	24.3	0.76
I24	14 Nov 2018	7	17.81	81.79	7.8	33.66	8.0	24.3	0.86
I24	14 Nov 2018	8	17.81	81.80	7.8	33.66	8.0	24.3	0.90
I24	14 Nov 2018	9	17.81	81.83	7.9	33.66	8.0	24.3	0.94
I24	14 Nov 2018	10	17.80	81.81	7.8	33.66	8.0	24.3	0.95
I24	14 Nov 2018	11	17.80	81.80	7.8	33.66	8.0	24.3	0.98
I24	19 Nov 2018	1	18.13	86.02	7.9	33.71	8.2	24.3	0.35
I24	19 Nov 2018	2	18.09	85.14	7.9	33.71	8.2	24.3	0.40
I24	19 Nov 2018	3	18.09	85.08	7.9	33.70	8.2	24.3	0.49
I24	19 Nov 2018	4	18.09	85.18	7.9	33.71	8.2	24.3	0.51
I24	19 Nov 2018	5	18.09	85.17	7.9	33.71	8.2	24.3	0.51
I24	19 Nov 2018	6	18.07	84.62	7.9	33.71	8.2	24.3	0.56
I24	19 Nov 2018	7	18.04	83.92	7.9	33.70	8.2	24.3	0.65
I24	19 Nov 2018	8	18.03	83.80	7.9	33.70	8.2	24.3	0.83
I24	19 Nov 2018	9	18.00	83.19	7.9	33.70	8.2	24.3	0.96
I24	19 Nov 2018	10	18.00	81.90	7.9	33.70	8.2	24.3	1.05
I24	26 Nov 2018	1	18.10	83.61	7.8	33.74	8.2	24.3	0.41
I24	26 Nov 2018	2	18.06	83.63	7.8	33.74	8.2	24.3	0.41
I24	26 Nov 2018	3	17.98	84.29	7.8	33.73	8.2	24.3	0.44
I24	26 Nov 2018	4	17.95	85.51	7.8	33.73	8.2	24.3	0.45
I24	26 Nov 2018	5	17.92	85.96	7.8	33.73	8.2	24.3	0.47
I24	26 Nov 2018	6	17.91	86.22	7.8	33.73	8.2	24.3	0.53
I24	26 Nov 2018	7	17.90	86.29	7.8	33.73	8.2	24.3	0.57
I24	26 Nov 2018	8	17.89	86.51	7.8	33.72	8.2	24.3	0.60
I24	26 Nov 2018	9	17.88	86.64	7.8	33.72	8.2	24.3	0.65
I24	26 Nov 2018	10	17.85	86.45	7.8	33.72	8.2	24.3	0.64
I24	26 Nov 2018	11	17.72	86.67	7.8	33.71	8.2	24.4	0.70
I25	05 Nov 2018	1	18.31	74.38	9.5	33.54	8.3	24.1	1.59
I25	05 Nov 2018	2	18.22	74.18	9.5	33.55	8.3	24.1	1.88
I25	05 Nov 2018	3	18.04	73.24	9.3	33.55	8.3	24.1	2.41
I25	05 Nov 2018	4	17.84	74.18	8.9	33.55	8.2	24.2	2.98
I25	05 Nov 2018	5	17.71	72.96	8.4	33.54	8.2	24.2	3.77
I25	05 Nov 2018	6	17.30	71.46	7.9	33.54	8.2	24.3	3.95
I25	05 Nov 2018	7	17.13	71.42	7.6	33.53	8.1	24.4	3.51
I25	05 Nov 2018	8	16.87	70.76	7.4	33.53	8.1	24.4	2.26
I25	05 Nov 2018	9	16.88	66.92	7.4	33.52	8.1	24.4	1.77
I25	14 Nov 2018	1	17.94	83.78	7.8	33.66	8.0	24.3	0.39
I25	14 Nov 2018	2	17.92	83.61	7.8	33.66	8.0	24.3	0.39
I25	14 Nov 2018	3	17.86	83.33	7.8	33.66	8.0	24.3	0.43
I25	14 Nov 2018	4	17.84	82.92	7.8	33.66	8.0	24.3	0.51
I25	14 Nov 2018	5	17.82	82.69	7.8	33.66	8.0	24.3	0.58
I25	14 Nov 2018	6	17.81	82.34	7.8	33.66	8.0	24.3	0.70

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I25	14 Nov 2018	7	17.81	82.45	7.8	33.66	8.0	24.3	0.79
I25	14 Nov 2018	8	17.81	82.42	7.8	33.66	8.0	24.3	0.87
I25	14 Nov 2018	9	17.81	82.42	7.8	33.66	8.0	24.3	0.92
I25	19 Nov 2018	1	18.18	86.89	7.8	33.71	8.2	24.2	0.31
I25	19 Nov 2018	2	18.15	86.91	7.8	33.71	8.2	24.2	0.34
I25	19 Nov 2018	3	18.12	86.68	7.8	33.71	8.2	24.3	0.34
I25	19 Nov 2018	4	18.08	86.33	7.9	33.70	8.2	24.3	0.39
I25	19 Nov 2018	5	18.03	85.70	7.9	33.70	8.2	24.3	0.47
I25	19 Nov 2018	6	18.00	84.71	7.8	33.70	8.2	24.3	0.59
I25	19 Nov 2018	7	18.00	84.03	7.9	33.70	8.2	24.3	0.67
I25	19 Nov 2018	8	18.00	83.80	7.8	33.70	8.2	24.3	0.69
I25	19 Nov 2018	9	18.00	83.64	7.8	33.70	8.2	24.3	0.66
I25	26 Nov 2018	1	18.12	86.31	7.8	33.73	8.2	24.3	0.32
I25	26 Nov 2018	2	18.00	86.19	7.8	33.73	8.2	24.3	0.30
I25	26 Nov 2018	3	17.92	86.28	7.8	33.73	8.2	24.3	0.33
I25	26 Nov 2018	4	17.91	86.28	7.8	33.73	8.2	24.3	0.35
I25	26 Nov 2018	5	17.89	86.42	7.8	33.72	8.2	24.3	0.40
I25	26 Nov 2018	6	17.88	86.52	7.8	33.72	8.2	24.3	0.45
I25	26 Nov 2018	7	17.87	86.42	7.8	33.72	8.2	24.3	0.47
I25	26 Nov 2018	8	17.84	86.56	7.8	33.72	8.2	24.3	0.52
I25	26 Nov 2018	9	17.72	86.41	7.7	33.71	8.2	24.4	0.58
I26	05 Nov 2018	1	18.39	77.48	9.3	33.56	8.3	24.1	1.09
I26	05 Nov 2018	2	18.31	77.19	9.3	33.57	8.3	24.1	1.16
I26	05 Nov 2018	3	18.15	76.39	9.2	33.57	8.3	24.1	1.50
I26	05 Nov 2018	4	17.98	73.71	8.9	33.56	8.2	24.2	2.37
I26	05 Nov 2018	5	17.66	70.37	8.6	33.57	8.2	24.3	3.39
I26	05 Nov 2018	6	17.01	72.24	8.2	33.57	8.2	24.4	4.22
I26	05 Nov 2018	7	16.77	74.71	7.7	33.54	8.1	24.5	3.99
I26	05 Nov 2018	8	16.74	73.45	7.5	33.53	8.1	24.4	3.00
I26	05 Nov 2018	9	16.74	72.40	7.5	33.53	8.1	24.4	2.36
I26	14 Nov 2018	1	17.96	84.48	8.0	33.64	8.0	24.2	0.52
I26	14 Nov 2018	2	17.94	84.57	7.9	33.64	8.0	24.2	0.53
I26	14 Nov 2018	3	17.82	84.25	7.9	33.65	8.0	24.3	0.56
I26	14 Nov 2018	4	17.79	83.52	7.9	33.65	8.0	24.3	0.64
I26	14 Nov 2018	5	17.79	83.41	7.9	33.65	8.0	24.3	0.73
I26	14 Nov 2018	6	17.79	83.42	7.9	33.65	8.0	24.3	0.76
I26	14 Nov 2018	7	17.79	83.27	7.9	33.65	8.0	24.3	0.81
I26	14 Nov 2018	8	17.79	83.23	7.9	33.65	8.0	24.3	0.88
I26	14 Nov 2018	9	17.79	83.20	7.9	33.65	8.0	24.3	0.94
I26	19 Nov 2018	1	18.06	83.96	7.8	33.71	8.2	24.3	0.57
I26	19 Nov 2018	2	18.06	83.91	7.9	33.72	8.2	24.3	0.59
I26	19 Nov 2018	3	18.03	83.80	7.8	33.72	8.2	24.3	0.64
I26	19 Nov 2018	4	17.99	83.42	7.9	33.72	8.2	24.3	0.74
I26	19 Nov 2018	5	17.96	82.99	7.9	33.72	8.2	24.3	0.90
I26	19 Nov 2018	6	17.95	82.77	7.8	33.72	8.2	24.3	0.98
I26	19 Nov 2018	7	17.94	82.40	7.8	33.72	8.2	24.3	1.00
I26	19 Nov 2018	8	17.94	81.98	7.9	33.72	8.2	24.3	1.06
I26	19 Nov 2018	9	17.95	81.57	7.8	33.72	8.2	24.3	0.95
I26	26 Nov 2018	1	18.28	80.36	7.7	33.76	8.2	24.3	0.55

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I26	26 Nov 2018	2	18.30	80.38	7.7	33.76	8.2	24.2	0.53
I26	26 Nov 2018	3	18.28	80.57	7.7	33.76	8.2	24.3	0.56
I26	26 Nov 2018	4	18.15	80.53	7.7	33.76	8.2	24.3	0.69
I26	26 Nov 2018	5	18.10	81.05	7.7	33.75	8.2	24.3	0.81
I26	26 Nov 2018	6	18.01	81.18	7.6	33.74	8.2	24.3	0.89
I26	26 Nov 2018	7	17.89	82.24	7.6	33.73	8.2	24.3	0.94
I26	26 Nov 2018	8	17.85	83.30	7.6	33.72	8.2	24.3	0.96
I26	26 Nov 2018	9	17.79	83.52	7.6	33.72	8.2	24.3	0.99
I32	05 Nov 2018	1	18.43	75.38	9.2	33.56	8.2	24.1	1.36
I32	05 Nov 2018	2	18.41	75.18	9.1	33.56	8.2	24.1	1.45
I32	05 Nov 2018	3	18.04	74.57	8.9	33.56	8.2	24.2	2.12
I32	05 Nov 2018	4	17.83	72.56	8.9	33.55	8.2	24.2	2.67
I32	05 Nov 2018	5	17.47	73.54	9.0	33.55	8.2	24.3	3.37
I32	05 Nov 2018	6	17.28	72.39	8.7	33.54	8.2	24.3	4.05
I32	05 Nov 2018	7	17.14	70.34	8.1	33.53	8.2	24.4	4.56
I32	05 Nov 2018	8	17.02	65.02	7.6	33.53	8.1	24.4	4.42
I32	05 Nov 2018	9	16.98	60.91	7.3	33.53	8.1	24.4	4.29
I32	05 Nov 2018	10	16.94	54.00	7.1	33.53	8.1	24.4	4.07
I32	14 Nov 2018	1	18.03	82.11	7.8	33.66	8.0	24.2	0.51
I32	14 Nov 2018	2	18.05	82.84	7.8	33.66	8.0	24.2	0.49
I32	14 Nov 2018	3	17.99	82.77	7.8	33.66	8.0	24.3	0.47
I32	14 Nov 2018	4	17.90	81.59	7.8	33.66	8.0	24.3	0.60
I32	14 Nov 2018	5	17.84	79.49	7.8	33.66	8.0	24.3	0.91
I32	14 Nov 2018	6	17.81	77.56	7.8	33.66	8.0	24.3	1.33
I32	14 Nov 2018	7	17.79	77.35	7.9	33.67	8.0	24.3	1.62
I32	14 Nov 2018	8	17.76	77.40	7.9	33.68	8.0	24.3	1.84
I32	14 Nov 2018	9	17.75	76.45	7.9	33.68	8.0	24.3	1.89
I32	14 Nov 2018	10	17.74	75.12	7.9	33.68	8.0	24.3	1.75
I32	19 Nov 2018	1	18.05	79.87	7.8	33.70	8.2	24.3	0.79
I32	19 Nov 2018	2	18.05	80.00	7.8	33.70	8.2	24.3	0.82
I32	19 Nov 2018	3	18.04	79.96	7.8	33.70	8.2	24.3	0.84
I32	19 Nov 2018	4	18.03	79.78	7.9	33.70	8.2	24.3	0.91
I32	19 Nov 2018	5	17.97	79.17	7.9	33.70	8.2	24.3	1.02
I32	19 Nov 2018	6	17.95	78.77	7.9	33.70	8.2	24.3	1.22
I32	19 Nov 2018	7	17.93	78.60	7.9	33.70	8.2	24.3	1.37
I32	19 Nov 2018	8	17.91	78.89	7.9	33.70	8.2	24.3	1.45
I32	19 Nov 2018	9	17.88	79.41	7.9	33.71	8.2	24.3	1.38
I32	19 Nov 2018	10	17.86	79.03	7.9	33.71	8.2	24.3	1.27
I32	26 Nov 2018	1	18.36	69.71	7.8	33.76	8.2	24.2	0.97
I32	26 Nov 2018	2	18.35	69.85	7.8	33.76	8.2	24.2	0.97
I32	26 Nov 2018	3	18.21	69.46	7.9	33.76	8.2	24.3	1.44
I32	26 Nov 2018	4	18.18	68.98	7.9	33.76	8.2	24.3	2.31
I32	26 Nov 2018	5	18.18	68.27	7.9	33.76	8.2	24.3	2.78
I32	26 Nov 2018	6	18.16	68.37	7.8	33.76	8.2	24.3	2.65
I32	26 Nov 2018	7	18.15	69.24	7.8	33.76	8.2	24.3	2.30
I32	26 Nov 2018	8	18.15	69.62	7.7	33.76	8.2	24.3	2.19
I32	26 Nov 2018	9	18.13	69.21	7.8	33.76	8.2	24.3	2.01
I32	26 Nov 2018	10	18.08	70.46	7.8	33.76	8.2	24.3	1.80
I39	05 Nov 2018	1	18.08	79.11	9.2	33.55	8.2	24.1	1.10
I39	05 Nov 2018	2	18.06	78.63	9.2	33.55	8.2	24.1	1.09

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I39	05 Nov 2018	3	17.99	79.19	9.2	33.56	8.2	24.2	1.20
I39	05 Nov 2018	4	17.90	79.16	9.1	33.56	8.2	24.2	1.52
I39	05 Nov 2018	5	17.76	79.91	8.9	33.57	8.2	24.2	1.65
I39	05 Nov 2018	6	17.53	81.01	8.6	33.57	8.2	24.3	1.79
I39	05 Nov 2018	7	17.25	81.57	8.5	33.56	8.2	24.4	1.88
I39	05 Nov 2018	8	17.10	80.71	8.4	33.55	8.2	24.4	2.11
I39	05 Nov 2018	9	17.06	80.76	8.3	33.55	8.2	24.4	2.43
I39	05 Nov 2018	10	16.95	80.50	8.3	33.54	8.2	24.4	2.60
I39	05 Nov 2018	11	16.89	80.29	8.2	33.54	8.2	24.4	2.90
I39	05 Nov 2018	12	16.79	79.44	8.1	33.54	8.2	24.4	3.28
I39	05 Nov 2018	13	16.72	79.13	7.9	33.54	8.1	24.5	3.69
I39	05 Nov 2018	14	16.63	79.88	7.9	33.54	8.1	24.5	3.56
I39	05 Nov 2018	15	16.55	80.87	7.9	33.53	8.1	24.5	3.19
I39	05 Nov 2018	16	16.48	81.18	7.7	33.53	8.1	24.5	2.92
I39	05 Nov 2018	17	16.29	80.82	7.5	33.53	8.1	24.6	2.52
I39	05 Nov 2018	18	16.22	80.35	7.5	33.53	8.1	24.6	2.02
I39	14 Nov 2018	1	17.87	85.04	7.9	33.64	8.0	24.3	0.60
I39	14 Nov 2018	2	17.84	85.21	7.9	33.64	8.0	24.3	0.60
I39	14 Nov 2018	3	17.82	85.14	7.9	33.64	8.0	24.3	0.63
I39	14 Nov 2018	4	17.79	85.12	7.9	33.64	8.0	24.3	0.68
I39	14 Nov 2018	5	17.78	85.00	7.9	33.64	8.0	24.3	0.75
I39	14 Nov 2018	6	17.76	84.93	8.0	33.64	8.0	24.3	0.82
I39	14 Nov 2018	7	17.74	84.90	8.0	33.64	8.0	24.3	0.87
I39	14 Nov 2018	8	17.71	84.89	7.9	33.64	8.0	24.3	0.94
I39	14 Nov 2018	9	17.69	84.97	7.9	33.64	8.0	24.3	1.01
I39	14 Nov 2018	10	17.63	85.08	7.9	33.63	8.0	24.3	1.10
I39	14 Nov 2018	11	17.58	85.11	7.9	33.63	8.0	24.3	1.16
I39	14 Nov 2018	12	17.53	85.22	7.9	33.62	8.0	24.3	1.15
I39	14 Nov 2018	13	17.43	85.22	7.9	33.62	8.0	24.4	1.16
I39	14 Nov 2018	14	17.34	84.96	7.8	33.61	8.0	24.4	1.14
I39	14 Nov 2018	15	17.25	85.11	7.8	33.60	8.0	24.4	1.13
I39	14 Nov 2018	16	17.02	85.35	7.8	33.59	8.0	24.4	1.06
I39	14 Nov 2018	17	16.89	85.60	7.8	33.58	8.0	24.4	1.04
I39	14 Nov 2018	18	16.84	85.76	7.8	33.57	8.0	24.5	0.97
I39	19 Nov 2018	1	18.33	87.71	7.7	33.71	8.2	24.2	0.16
I39	19 Nov 2018	2	18.30	87.83	7.7	33.72	8.2	24.2	0.12
I39	19 Nov 2018	3	18.27	87.91	7.8	33.71	8.2	24.2	0.12
I39	19 Nov 2018	4	18.27	87.96	7.7	33.71	8.2	24.2	0.14
I39	19 Nov 2018	5	18.26	87.98	7.8	33.71	8.2	24.2	0.15
I39	19 Nov 2018	6	18.26	87.94	7.7	33.71	8.2	24.2	0.16
I39	19 Nov 2018	7	18.26	87.98	7.8	33.71	8.2	24.2	0.18
I39	19 Nov 2018	8	18.26	88.02	7.8	33.71	8.2	24.2	0.21
I39	19 Nov 2018	9	18.25	88.00	7.8	33.71	8.2	24.2	0.20
I39	19 Nov 2018	10	18.25	87.96	7.8	33.72	8.2	24.2	0.22
I39	19 Nov 2018	11	18.25	88.05	7.7	33.71	8.2	24.2	0.23
I39	19 Nov 2018	12	18.24	88.08	7.8	33.71	8.2	24.2	0.24
I39	19 Nov 2018	13	18.23	88.14	7.8	33.71	8.2	24.2	0.29
I39	19 Nov 2018	14	18.22	88.01	7.8	33.71	8.2	24.2	0.32
I39	19 Nov 2018	15	18.16	87.51	7.8	33.71	8.2	24.2	0.36
I39	19 Nov 2018	16	18.05	86.55	7.8	33.71	8.2	24.3	0.50
I39	19 Nov 2018	17	18.04	85.52	7.7	33.70	8.2	24.3	0.58
I39	19 Nov 2018	18	18.03	85.17	7.7	33.70	8.2	24.3	0.64

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I39	26 Nov 2018	1	17.89	84.85	7.8	33.73	8.2	24.3	0.59
I39	26 Nov 2018	2	17.88	84.87	7.8	33.73	8.2	24.3	0.58
I39	26 Nov 2018	3	17.86	84.74	7.8	33.73	8.2	24.3	0.62
I39	26 Nov 2018	4	17.84	84.81	7.8	33.73	8.2	24.3	0.69
I39	26 Nov 2018	5	17.83	84.94	7.8	33.73	8.2	24.3	0.77
I39	26 Nov 2018	6	17.82	84.99	7.8	33.73	8.2	24.3	0.79
I39	26 Nov 2018	7	17.81	85.21	7.8	33.72	8.2	24.3	0.85
I39	26 Nov 2018	8	17.80	85.27	7.8	33.72	8.2	24.3	0.93
I39	26 Nov 2018	9	17.76	85.34	7.8	33.72	8.2	24.3	0.98
I39	26 Nov 2018	10	17.71	85.36	7.7	33.71	8.2	24.4	0.99
I39	26 Nov 2018	11	17.64	85.63	7.7	33.70	8.2	24.4	0.98
I39	26 Nov 2018	12	17.57	85.55	7.7	33.69	8.2	24.4	1.04
I39	26 Nov 2018	13	17.42	85.63	7.6	33.68	8.1	24.4	1.08
I39	26 Nov 2018	14	17.19	86.01	7.5	33.67	8.1	24.4	0.99
I39	26 Nov 2018	15	16.72	85.98	7.4	33.66	8.1	24.5	0.82
I39	26 Nov 2018	16	16.68	85.83	7.4	33.64	8.1	24.5	0.74
I39	26 Nov 2018	17	16.68	85.73	7.4	33.64	8.1	24.5	0.73
I39	26 Nov 2018	18	16.67	85.82	7.4	33.64	8.1	24.6	0.76
I40	05 Nov 2018	1	18.05	79.91	9.0	33.56	8.2	24.2	1.05
I40	05 Nov 2018	2	18.03	79.84	9.0	33.56	8.2	24.2	1.15
I40	05 Nov 2018	3	18.00	79.76	9.1	33.56	8.2	24.2	1.48
I40	05 Nov 2018	4	17.99	79.24	9.1	33.56	8.2	24.2	2.00
I40	05 Nov 2018	5	17.98	78.74	9.1	33.56	8.2	24.2	2.54
I40	05 Nov 2018	6	17.96	78.24	9.0	33.56	8.2	24.2	3.12
I40	05 Nov 2018	7	17.86	78.07	8.8	33.55	8.2	24.2	3.38
I40	05 Nov 2018	8	17.80	77.92	8.6	33.55	8.2	24.2	3.30
I40	05 Nov 2018	9	17.63	76.08	8.1	33.54	8.2	24.2	3.26
I40	05 Nov 2018	10	17.17	73.19	7.3	33.54	8.1	24.4	2.97
I40	14 Nov 2018	1	17.86	78.04	7.8	33.68	8.0	24.3	0.57
I40	14 Nov 2018	2	17.83	77.96	7.8	33.68	8.0	24.3	0.61
I40	14 Nov 2018	3	17.75	77.15	7.8	33.68	8.0	24.3	0.70
I40	14 Nov 2018	4	17.71	76.18	7.8	33.68	8.0	24.3	0.95
I40	14 Nov 2018	5	17.70	75.62	7.8	33.68	8.0	24.3	1.19
I40	14 Nov 2018	6	17.67	75.20	7.8	33.68	8.0	24.3	1.43
I40	14 Nov 2018	7	17.64	74.67	7.7	33.68	8.0	24.4	1.58
I40	14 Nov 2018	8	17.58	74.89	7.7	33.68	8.0	24.4	1.64
I40	14 Nov 2018	9	17.40	75.74	7.8	33.70	8.0	24.4	1.64
I40	14 Nov 2018	10	17.26	76.83	7.9	33.71	8.0	24.5	1.45
I40	19 Nov 2018	1	18.13	83.12	7.9	33.71	8.2	24.3	0.81
I40	19 Nov 2018	2	18.08	82.98	7.9	33.72	8.2	24.3	0.85
I40	19 Nov 2018	3	18.05	82.26	8.0	33.72	8.2	24.3	1.03
I40	19 Nov 2018	4	18.02	80.53	8.0	33.72	8.2	24.3	1.31
I40	19 Nov 2018	5	18.01	79.11	7.9	33.72	8.2	24.3	1.61
I40	19 Nov 2018	6	18.00	78.63	8.0	33.72	8.2	24.3	1.77
I40	19 Nov 2018	7	17.99	78.29	8.0	33.72	8.2	24.3	1.80
I40	19 Nov 2018	8	17.99	77.22	7.9	33.72	8.2	24.3	1.84
I40	19 Nov 2018	9	17.99	76.47	7.9	33.72	8.2	24.3	1.75
I40	19 Nov 2018	10	18.00	76.26	7.9	33.72	8.2	24.3	1.73
I40	26 Nov 2018	1	18.34	75.38	7.7	33.77	8.2	24.2	0.60
I40	26 Nov 2018	2	18.24	74.76	7.8	33.76	8.2	24.3	0.69
I40	26 Nov 2018	3	18.19	73.78	7.8	33.76	8.2	24.3	0.89

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I40	26 Nov 2018	4	18.14	73.08	7.8	33.75	8.2	24.3	1.22
I40	26 Nov 2018	5	18.11	73.52	7.7	33.75	8.2	24.3	1.52
I40	26 Nov 2018	6	18.07	73.72	7.8	33.75	8.2	24.3	1.75
I40	26 Nov 2018	7	17.99	75.84	7.8	33.74	8.2	24.3	1.68
I40	26 Nov 2018	8	17.91	79.84	7.7	33.73	8.2	24.3	1.47
I40	26 Nov 2018	9	17.84	82.63	7.7	33.72	8.2	24.3	1.30
I40	26 Nov 2018	10	17.75	83.37	7.6	33.71	8.2	24.3	1.23

NA = not available

Offshore Stations

Table 4.1

Summary of compliance with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria at the SBOO offshore stations within three nautical miles of shore. Total coliform density shall not exceed 10,000 CFU/100 mL.

Date	I12	I14	I16	I18	I22	I23	I33	I36	I37	I38
07 Nov 2018	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
08 Nov 2018	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 4.2

Summary of compliance with the Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria at the SBOO offshore stations within three nautical miles of shore. Fecal coliform density shall not exceed 400 CFU/100 mL.

Date	I12	I14	I16	I18	I22	I23	I33	I36	I37	I38
07 Nov 2018	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
08 Nov 2018	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 4.3

Summary of compliance with the Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria at the SBOO offshore stations within three nautical miles of shore. *Enterococcus* density shall not exceed 104 CFU/100 mL.

Date	I12	I14	I16	I18	I22	I23	I33	I36	I37	I38
07 Nov 2018	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
08 Nov 2018	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 4.4

Summary of compliance with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria and the fecal/total coliform ratio (F:T) at the SBOO offshore stations within three nautical miles of shore. Total coliform density shall not exceed 1,000 CFU/100 mL when F:T > 0.1.

Date	I12	I14	I16	I18	I22	I23	I33	I36	I37	I38
07 Nov 2018	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
08 Nov 2018	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

ND = no data

Table 4.5

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

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I10	06 Nov 2018	1110	2	<2	<2	<2	1.00	18.7	86.28	8.0	33.66	8.2
I10	06 Nov 2018	1110	12	28e	<2	<2	0.07	17.3	82.88	8.0	33.56	8.2
I10	06 Nov 2018	1110	18	14e	<2	<2	0.14	16.9	79.87	7.8	33.54	8.1
I11	06 Nov 2018	1052	2	16e	<2	16e	0.12	18.4	83.90	8.0	33.60	8.2
I11	06 Nov 2018	1052	6	140e	6e	60	0.04	18.2	83.09	8.0	33.60	8.2
I11	06 Nov 2018	1052	11	1100	72	80e	0.07	18.1	80.24	8.0	33.60	8.2
I12	07 Nov 2018	1108	2	<2	<2	<2	1.00	19.2	88.00	7.7	33.72	8.2
I12	07 Nov 2018	1108	18	<2	<2	<2	1.00	16.6	86.38	8.0	33.56	8.2
I12	07 Nov 2018	1108	27	<2	<2	<2	1.00	16.4	86.86	8.0	33.55	8.1
I13	07 Nov 2018	1134	2	<2	<2	<2	1.00	18.8	87.17	7.8	33.69	8.2
I13	07 Nov 2018	1134	18	<2	<2	<2	1.00	16.8	86.22	8.1	33.57	8.2
I13	07 Nov 2018	1134	37	<2	<2	<2	1.00	15.3	86.72	7.8	33.53	8.1
I14	07 Nov 2018	1151	2	<2	<2	<2	1.00	19.3	87.92	7.7	33.72	8.2
I14	07 Nov 2018	1151	18	<2	<2	<2	1.00	17.2	86.36	8.0	33.59	8.2
I14	07 Nov 2018	1151	27	<2	<2	<2	1.00	16.6	86.52	8.0	33.55	8.2
I16	07 Nov 2018	1100	2	<2	<2	<2	1.00	19.2	88.07	7.6	33.72	8.2
I16	07 Nov 2018	1100	18	20e	2e	<2	0.10	16.9	86.64	8.0	33.50	8.2
I16	07 Nov 2018	1100	27	6e	<2	4e	0.33	16.6	86.64	8.0	33.55	8.1
I18	07 Nov 2018	1039	2	<2	<2	<2	1.00	19.2	87.66	7.8	33.73	8.2
I18	07 Nov 2018	1039	12	<2	<2	<2	1.00	18.9	87.71	7.9	33.69	8.2
I18	07 Nov 2018	1039	18	<2	<2	<2	1.00	17.9	85.01	8.0	33.60	8.2
I20	07 Nov 2018	904	2	<2	<2	<2	1.00	18.4	84.69	8.0	33.65	8.1
I20	07 Nov 2018	904	18	<2	<2	<2	1.00	16.9	84.12	7.9	33.56	8.1
I20	07 Nov 2018	904	55	<2	<2	<2	1.00	14.3	87.66	7.2	33.52	8.0
I21	07 Nov 2018	935	2	<2	<2	<2	1.00	18.3	87.16	7.9	33.65	8.2
I21	07 Nov 2018	935	18	<2	2e	<2	1.00	15.9	86.86	7.8	33.54	8.1
I21	07 Nov 2018	935	37	<2	<2	<2	1.00	15.4	85.98	7.3	33.53	8.1
I22	07 Nov 2018	1010	2	<2	<2	<2	1.00	19.1	87.59	7.7	33.71	8.2
I22	07 Nov 2018	1010	18	<2	<2	<2	1.00	17.5	86.96	8.1	33.59	8.2
I22	07 Nov 2018	1010	27	<2	<2	<2	1.00	16.5	85.89	7.9	33.55	8.1
I23	07 Nov 2018	1025	2	<2	<2	<2	1.00	19.1	87.74	7.8	33.71	8.2
I23	07 Nov 2018	1025	12	<2	2e	<2	1.00	19.0	87.58	7.8	33.71	8.2
I23	07 Nov 2018	1025	18	2e	<2	<2	1.00	17.9	85.43	8.1	33.59	8.2
I3	06 Nov 2018	952	2	<2	<2	<2	1.00	18.9	87.50	7.8	33.70	8.2
I3	06 Nov 2018	952	18	<2	<2	<2	1.00	16.2	87.27	8.2	33.55	8.1
I3	06 Nov 2018	952	27	<2	<2	<2	1.00	15.4	88.15	7.9	33.52	8.1

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH
I30	08 Nov 2018		2	<2	<2	<2	1.00	19.4	87.99	7.6	33.73	8.2
I30	08 Nov 2018		18	<2	<2	<2	1.00	18.3	86.18	8.0	33.64	8.1
I30	08 Nov 2018		27	<4	<4	<4	1.00	17.2	83.71	7.9	33.57	8.1
I33	08 Nov 2018		2	<2	<2	<2	1.00	19.2	87.94	7.6	33.72	8.2
I33	08 Nov 2018		18	<2	<2	<2	1.00	17.3	84.10	7.8	33.57	8.1
I33	08 Nov 2018		27	<2	<2	<2	1.00	16.7	83.50	7.8	33.55	8.1
I36	08 Nov 2018		2	<2	<2	<2	1.00	18.7	74.61	9.4	33.59	8.2
I36	08 Nov 2018		6	<2	<2	<2	1.00	18.5	72.20	9.1	33.59	8.2
I36	08 Nov 2018		11	<4	4e	<4	1.00	18.2	72.68	7.6	33.59	8.1
I37	08 Nov 2018		2	2e	<2	<2	1.00	18.9	82.98	7.9	33.68	8.1
I37	08 Nov 2018		6	<2	<2	<2	1.00	18.8	84.12	7.9	33.68	8.1
I37	08 Nov 2018		11	<2	<2	<2	1.00	18.1	83.21	8.0	33.62	8.1
I38	08 Nov 2018		2	<2	<2	<2	1.00	18.7	75.68	8.9	33.60	8.2
I38	08 Nov 2018		6	<2	<2	<2	1.00	18.4	75.65	8.8	33.59	8.2
I38	08 Nov 2018		11	<2	<2	2e	1.00	18.1	78.32	7.3	33.58	8.1
I5	06 Nov 2018	1015	2	36e	<2	64	0.06	18.4	81.69	8.0	33.59	8.1
I5	06 Nov 2018	1015	6	90	2e	12e	0.02	17.8	82.73	8.2	33.59	8.1
I5	06 Nov 2018	1015	11	12e	2e	6e	0.17	16.8	81.80	8.1	33.54	8.1
I7	06 Nov 2018	836	2	<2	<2	<2	1.00	19.3	88.12	7.6	33.73	8.1
I7	06 Nov 2018	836	18	<2	<2	<2	1.00	17.0	86.63	8.2	33.55	8.1
I7	06 Nov 2018	836	52	<2	<2	<2	1.00	14.2	87.67	7.5	33.52	8.0
I8	06 Nov 2018	1145	2	<2	<2	<2	1.00	18.5	86.59	8.0	33.64	8.2
I8	06 Nov 2018	1145	18	<2	<2	<2	1.00	15.3	87.52	7.8	33.52	8.1
I8	06 Nov 2018	1145	37	<2	<2	<2	1.00	15.3	87.61	7.5	33.53	8.1
I9	06 Nov 2018	1129	2	2e	<2	<2	1.00	18.5	86.84	8.0	33.66	8.2
I9	06 Nov 2018	1129	18	<2	<2	<2	1.00	15.8	87.81	7.9	33.52	8.1
I9	06 Nov 2018	1129	27	<2	<2	<2	1.00	15.7	87.71	7.7	33.53	8.1

ns = not sampled

ND = no data

Table 4.6

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

Station	Date	Parameter	Value
I1	06 Nov 2018	Depth (m)	62
I1	06 Nov 2018	Arrive Time	902
I1	06 Nov 2018	Depart Time	907
I1	06 Nov 2018	Air Temp (C)	18
I1	06 Nov 2018	Weather	Partly Cloudy
I1	06 Nov 2018	Visibility (mi)	5
I1	06 Nov 2018	Wind Speed (kts)	9
I1	06 Nov 2018	Wind Dir	SE
I1	06 Nov 2018	Water Color	Greenish-Blue
I1	06 Nov 2018	Wave Ht Low (ft)	3
I1	06 Nov 2018	Wave Period (sec)	11
I1	06 Nov 2018	Sea State	Calm
I1	06 Nov 2018	High Tide (ft)	6.16
I1	06 Nov 2018	High Tide Time	739
I1	06 Nov 2018	Low Tide (ft)	-0.35
I1	06 Nov 2018	Low Tide Time	1419
I1	06 Nov 2018	Comments	none
I10	06 Nov 2018	Depth (m)	21
I10	06 Nov 2018	Arrive Time	1110
I10	06 Nov 2018	Depart Time	1113
I10	06 Nov 2018	Air Temp (C)	19
I10	06 Nov 2018	Weather	Haze
I10	06 Nov 2018	Visibility (mi)	5
I10	06 Nov 2018	Wind Speed (kts)	10
I10	06 Nov 2018	Wind Dir	S
I10	06 Nov 2018	Water Color	Green
I10	06 Nov 2018	Wave Ht Low (ft)	3
I10	06 Nov 2018	Wave Period (sec)	11
I10	06 Nov 2018	Sea State	Calm
I10	06 Nov 2018	High Tide (ft)	6.16
I10	06 Nov 2018	High Tide Time	739
I10	06 Nov 2018	Low Tide (ft)	-0.35
I10	06 Nov 2018	Low Tide Time	1419
I10	06 Nov 2018	Comments	none
I11	06 Nov 2018	Depth (m)	14
I11	06 Nov 2018	Arrive Time	1052
I11	06 Nov 2018	Depart Time	1058
I11	06 Nov 2018	Air Temp (C)	19
I11	06 Nov 2018	Weather	Haze
I11	06 Nov 2018	Visibility (mi)	5
I11	06 Nov 2018	Wind Speed (kts)	8
I11	06 Nov 2018	Wind Dir	S
I11	06 Nov 2018	Water Color	Green
I11	06 Nov 2018	Wave Ht Low (ft)	3
I11	06 Nov 2018	Wave Period (sec)	11
I11	06 Nov 2018	Sea State	Calm
I11	06 Nov 2018	High Tide (ft)	6.16
I11	06 Nov 2018	High Tide Time	739
I11	06 Nov 2018	Low Tide (ft)	-0.35

Station	Date	Parameter	Value
I11	06 Nov 2018	Low Tide Time	1419
I11	06 Nov 2018	Comments	none
I12	07 Nov 2018	Depth (m)	30
I12	07 Nov 2018	Arrive Time	1108
I12	07 Nov 2018	Depart Time	1114
I12	07 Nov 2018	Air Temp (C)	18
I12	07 Nov 2018	Weather	Overcast
I12	07 Nov 2018	Visibility (mi)	10
I12	07 Nov 2018	Wind Speed (kts)	7
I12	07 Nov 2018	Wind Dir	NW
I12	07 Nov 2018	Water Color	Bluish-Green
I12	07 Nov 2018	Wave Ht Low (ft)	1
I12	07 Nov 2018	Wave Period (sec)	13
I12	07 Nov 2018	Sea State	Calm
I12	07 Nov 2018	High Tide (ft)	6.24
I12	07 Nov 2018	High Tide Time	810
I12	07 Nov 2018	Low Tide (ft)	-0.52
I12	07 Nov 2018	Low Tide Time	1459
I12	07 Nov 2018	Comments	none
I13	07 Nov 2018	Depth (m)	30
I13	07 Nov 2018	Arrive Time	1134
I13	07 Nov 2018	Depart Time	1139
I13	07 Nov 2018	Air Temp (C)	18
I13	07 Nov 2018	Weather	Partly Cloudy
I13	07 Nov 2018	Visibility (mi)	10
I13	07 Nov 2018	Wind Speed (kts)	7
I13	07 Nov 2018	Wind Dir	N
I13	07 Nov 2018	Water Color	Bluish-Green
I13	07 Nov 2018	Wave Ht Low (ft)	1
I13	07 Nov 2018	Wave Period (sec)	13
I13	07 Nov 2018	Sea State	Calm
I13	07 Nov 2018	High Tide (ft)	6.24
I13	07 Nov 2018	High Tide Time	810
I13	07 Nov 2018	Low Tide (ft)	-0.52
I13	07 Nov 2018	Low Tide Time	1459
I13	07 Nov 2018	Comments	none
I14	07 Nov 2018	Depth (m)	30
I14	07 Nov 2018	Arrive Time	1151
I14	07 Nov 2018	Depart Time	1159
I14	07 Nov 2018	Air Temp (C)	18
I14	07 Nov 2018	Weather	Partly Cloudy
I14	07 Nov 2018	Visibility (mi)	10
I14	07 Nov 2018	Wind Speed (kts)	7
I14	07 Nov 2018	Wind Dir	NW
I14	07 Nov 2018	Water Color	Bluish-Green
I14	07 Nov 2018	Wave Ht Low (ft)	1
I14	07 Nov 2018	Wave Period (sec)	13
I14	07 Nov 2018	Sea State	Calm
I14	07 Nov 2018	High Tide (ft)	6.24
I14	07 Nov 2018	High Tide Time	810
I14	07 Nov 2018	Low Tide (ft)	-0.52
I14	07 Nov 2018	Low Tide Time	1459

Station	Date	Parameter	Value
I14	07 Nov 2018	Comments	
I15	07 Nov 2018	Depth (m)	30
I15	07 Nov 2018	Arrive Time	1119
I15	07 Nov 2018	Depart Time	1124
I15	07 Nov 2018	Air Temp (C)	18
I15	07 Nov 2018	Weather	Overcast
I15	07 Nov 2018	Visibility (mi)	10
I15	07 Nov 2018	Wind Speed (kts)	9
I15	07 Nov 2018	Wind Dir	NW
I15	07 Nov 2018	Water Color	Bluish-Green
I15	07 Nov 2018	Wave Ht Low (ft)	1
I15	07 Nov 2018	Wave Period (sec)	13
I15	07 Nov 2018	Sea State	Calm
I15	07 Nov 2018	High Tide (ft)	6.24
I15	07 Nov 2018	High Tide Time	810
I15	07 Nov 2018	Low Tide (ft)	-0.52
I15	07 Nov 2018	Low Tide Time	1459
I15	07 Nov 2018	Comments	none
I16	07 Nov 2018	Depth (m)	28
I16	07 Nov 2018	Arrive Time	1100
I16	07 Nov 2018	Depart Time	1107
I16	07 Nov 2018	Air Temp (C)	18
I16	07 Nov 2018	Weather	Overcast
I16	07 Nov 2018	Visibility (mi)	10
I16	07 Nov 2018	Wind Speed (kts)	7
I16	07 Nov 2018	Wind Dir	NW
I16	07 Nov 2018	Water Color	Bluish-Green
I16	07 Nov 2018	Wave Ht Low (ft)	1
I16	07 Nov 2018	Wave Period (sec)	13
I16	07 Nov 2018	Sea State	Calm
I16	07 Nov 2018	High Tide (ft)	6.24
I16	07 Nov 2018	High Tide Time	810
I16	07 Nov 2018	Low Tide (ft)	-0.52
I16	07 Nov 2018	Low Tide Time	1459
I16	07 Nov 2018	Comments	none
I17	07 Nov 2018	Depth (m)	25
I17	07 Nov 2018	Arrive Time	1052
I17	07 Nov 2018	Depart Time	1059
I17	07 Nov 2018	Air Temp (C)	18
I17	07 Nov 2018	Weather	Overcast
I17	07 Nov 2018	Visibility (mi)	10
I17	07 Nov 2018	Wind Speed (kts)	9
I17	07 Nov 2018	Wind Dir	N
I17	07 Nov 2018	Water Color	Bluish-Green
I17	07 Nov 2018	Wave Ht Low (ft)	1
I17	07 Nov 2018	Wave Period (sec)	13
I17	07 Nov 2018	Sea State	Calm
I17	07 Nov 2018	High Tide (ft)	6.24
I17	07 Nov 2018	High Tide Time	810
I17	07 Nov 2018	Low Tide (ft)	-0.52
I17	07 Nov 2018	Low Tide Time	1459
I17	07 Nov 2018	Comments	none

Station	Date	Parameter	Value
118	07 Nov 2018	Depth (m)	21
118	07 Nov 2018	Arrive Time	1039
118	07 Nov 2018	Depart Time	1044
118	07 Nov 2018	Air Temp (C)	18
118	07 Nov 2018	Weather	Overcast
118	07 Nov 2018	Visibility (mi)	10
118	07 Nov 2018	Wind Speed (kts)	8
118	07 Nov 2018	Wind Dir	N
118	07 Nov 2018	Water Color	Bluish-Green
118	07 Nov 2018	Wave Ht Low (ft)	1
118	07 Nov 2018	Wave Period (sec)	13
118	07 Nov 2018	Sea State	Calm
118	07 Nov 2018	High Tide (ft)	6.24
118	07 Nov 2018	High Tide Time	810
118	07 Nov 2018	Low Tide (ft)	-0.52
118	07 Nov 2018	Low Tide Time	1459
118	07 Nov 2018	Comments	none
12	06 Nov 2018	Depth (m)	35
12	06 Nov 2018	Arrive Time	935
12	06 Nov 2018	Depart Time	939
12	06 Nov 2018	Air Temp (C)	19
12	06 Nov 2018	Weather	Partly Cloudy
12	06 Nov 2018	Visibility (mi)	5
12	06 Nov 2018	Wind Speed (kts)	8
12	06 Nov 2018	Wind Dir	S
12	06 Nov 2018	Water Color	Greenish-Blue
12	06 Nov 2018	Wave Ht Low (ft)	3
12	06 Nov 2018	Wave Period (sec)	11
12	06 Nov 2018	Sea State	Calm
12	06 Nov 2018	High Tide (ft)	6.16
12	06 Nov 2018	High Tide Time	739
12	06 Nov 2018	Low Tide (ft)	-0.35
12	06 Nov 2018	Low Tide Time	1419
12	06 Nov 2018	Comments	none
I20	07 Nov 2018	Depth (m)	57
I20	07 Nov 2018	Arrive Time	904
I20	07 Nov 2018	Depart Time	924
I20	07 Nov 2018	Air Temp (C)	19
I20	07 Nov 2018	Weather	Overcast
I20	07 Nov 2018	Visibility (mi)	10
I20	07 Nov 2018	Wind Speed (kts)	0
I20	07 Nov 2018	Wind Dir	
I20	07 Nov 2018	Water Color	Bluish-Green
I20	07 Nov 2018	Wave Ht Low (ft)	1
I20	07 Nov 2018	Wave Period (sec)	13
I20	07 Nov 2018	Sea State	Calm
I20	07 Nov 2018	High Tide (ft)	6.24
I20	07 Nov 2018	High Tide Time	810
I20	07 Nov 2018	Low Tide (ft)	-0.52
I20	07 Nov 2018	Low Tide Time	1459
I20	07 Nov 2018	Comments	none

Station	Date	Parameter	Value
I21	07 Nov 2018	Depth (m)	42
I21	07 Nov 2018	Arrive Time	935
I21	07 Nov 2018	Depart Time	941
I21	07 Nov 2018	Air Temp (C)	19
I21	07 Nov 2018	Weather	Overcast
I21	07 Nov 2018	Visibility (mi)	10
I21	07 Nov 2018	Wind Speed (kts)	2
I21	07 Nov 2018	Wind Dir	NW
I21	07 Nov 2018	Water Color	Bluish-Green
I21	07 Nov 2018	Wave Ht Low (ft)	1
I21	07 Nov 2018	Wave Period (sec)	13
I21	07 Nov 2018	Sea State	Calm
I21	07 Nov 2018	High Tide (ft)	6.24
I21	07 Nov 2018	High Tide Time	810
I21	07 Nov 2018	Low Tide (ft)	-0.52
I21	07 Nov 2018	Low Tide Time	1459
I21	07 Nov 2018	Comments	none
I22	07 Nov 2018	Depth (m)	29
I22	07 Nov 2018	Arrive Time	1010
I22	07 Nov 2018	Depart Time	1017
I22	07 Nov 2018	Air Temp (C)	19
I22	07 Nov 2018	Weather	Overcast
I22	07 Nov 2018	Visibility (mi)	10
I22	07 Nov 2018	Wind Speed (kts)	5
I22	07 Nov 2018	Wind Dir	NW
I22	07 Nov 2018	Water Color	Bluish-Green
I22	07 Nov 2018	Wave Ht Low (ft)	1
I22	07 Nov 2018	Wave Period (sec)	13
I22	07 Nov 2018	Sea State	Calm
I22	07 Nov 2018	High Tide (ft)	6.24
I22	07 Nov 2018	High Tide Time	810
I22	07 Nov 2018	Low Tide (ft)	-0.52
I22	07 Nov 2018	Low Tide Time	1459
I22	07 Nov 2018	Comments	none
I23	07 Nov 2018	Depth (m)	22
I23	07 Nov 2018	Arrive Time	1025
I23	07 Nov 2018	Depart Time	1033
I23	07 Nov 2018	Air Temp (C)	18
I23	07 Nov 2018	Weather	Overcast
I23	07 Nov 2018	Visibility (mi)	10
I23	07 Nov 2018	Wind Speed (kts)	8
I23	07 Nov 2018	Wind Dir	NW
I23	07 Nov 2018	Water Color	Bluish-Green
I23	07 Nov 2018	Wave Ht Low (ft)	1
I23	07 Nov 2018	Wave Period (sec)	13
I23	07 Nov 2018	Sea State	Calm
I23	07 Nov 2018	High Tide (ft)	6.24
I23	07 Nov 2018	High Tide Time	810
I23	07 Nov 2018	Low Tide (ft)	-0.52
I23	07 Nov 2018	Low Tide Time	1459
I23	07 Nov 2018	Comments	none
I27	07 Nov 2018	Depth (m)	30

Station	Date	Parameter	Value
I27	07 Nov 2018	Arrive Time	956
I27	07 Nov 2018	Depart Time	1001
I27	07 Nov 2018	Air Temp (C)	19
I27	07 Nov 2018	Weather	Overcast
I27	07 Nov 2018	Visibility (mi)	10
I27	07 Nov 2018	Wind Speed (kts)	6
I27	07 Nov 2018	Wind Dir	NW
I27	07 Nov 2018	Water Color	Bluish-Green
I27	07 Nov 2018	Wave Ht Low (ft)	1
I27	07 Nov 2018	Wave Period (sec)	13
I27	07 Nov 2018	Sea State	Calm
I27	07 Nov 2018	High Tide (ft)	6.24
I27	07 Nov 2018	High Tide Time	810
I27	07 Nov 2018	Low Tide (ft)	-0.52
I27	07 Nov 2018	Low Tide Time	1459
I27	07 Nov 2018	Comments	none
I28	08 Nov 2018	Depth (m)	56
I28	08 Nov 2018	Arrive Time	1104
I28	08 Nov 2018	Depart Time	1110
I28	08 Nov 2018	Air Temp (C)	19
I28	08 Nov 2018	Weather	Haze
I28	08 Nov 2018	Visibility (mi)	5
I28	08 Nov 2018	Wind Speed (kts)	9
I28	08 Nov 2018	Wind Dir	S
I28	08 Nov 2018	Water Color	Bluish-Green
I28	08 Nov 2018	Wave Ht Low (ft)	3
I28	08 Nov 2018	Wave Period (sec)	11
I28	08 Nov 2018	Sea State	Calm
I28	08 Nov 2018	High Tide (ft)	6.17
I28	08 Nov 2018	High Tide Time	841
I28	08 Nov 2018	Low Tide (ft)	-0.51
I28	08 Nov 2018	Low Tide Time	1539
I28	08 Nov 2018	Comments	none
I29	08 Nov 2018	Depth (m)	39
I29	08 Nov 2018	Arrive Time	1119
I29	08 Nov 2018	Depart Time	1124
I29	08 Nov 2018	Air Temp (C)	19
I29	08 Nov 2018	Weather	Haze
I29	08 Nov 2018	Visibility (mi)	5
I29	08 Nov 2018	Wind Speed (kts)	6
I29	08 Nov 2018	Wind Dir	SW
I29	08 Nov 2018	Water Color	Bluish-Green
I29	08 Nov 2018	Wave Ht Low (ft)	3
I29	08 Nov 2018	Wave Period (sec)	11
I29	08 Nov 2018	Sea State	Calm
I29	08 Nov 2018	High Tide (ft)	6.17
I29	08 Nov 2018	High Tide Time	841
I29	08 Nov 2018	Low Tide (ft)	-0.51
I29	08 Nov 2018	Low Tide Time	1539
I29	08 Nov 2018	Comments	none
I3	06 Nov 2018	Depth (m)	30
I3	06 Nov 2018	Arrive Time	952

Station	Date	Parameter	Value
I3	06 Nov 2018	Depart Time	956
I3	06 Nov 2018	Air Temp (C)	19
I3	06 Nov 2018	Weather	Partly Cloudy
I3	06 Nov 2018	Visibility (mi)	5
I3	06 Nov 2018	Wind Speed (kts)	10
I3	06 Nov 2018	Wind Dir	S
I3	06 Nov 2018	Water Color	Greenish-Blue
I3	06 Nov 2018	Wave Ht Low (ft)	3
I3	06 Nov 2018	Wave Period (sec)	11
I3	06 Nov 2018	Sea State	Calm
I3	06 Nov 2018	High Tide (ft)	6.16
I3	06 Nov 2018	High Tide Time	739
I3	06 Nov 2018	Low Tide (ft)	-0.35
I3	06 Nov 2018	Low Tide Time	1419
I3	06 Nov 2018	Comments	none
I30	08 Nov 2018	Depth (m)	28
I30	08 Nov 2018	Arrive Time	1130
I30	08 Nov 2018	Depart Time	1136
I30	08 Nov 2018	Air Temp (C)	19
I30	08 Nov 2018	Weather	Clear
I30	08 Nov 2018	Visibility (mi)	5
I30	08 Nov 2018	Wind Speed (kts)	1
I30	08 Nov 2018	Wind Dir	S
I30	08 Nov 2018	Water Color	Bluish-Green
I30	08 Nov 2018	Wave Ht Low (ft)	3
I30	08 Nov 2018	Wave Period (sec)	11
I30	08 Nov 2018	Sea State	Calm
I30	08 Nov 2018	High Tide (ft)	6.17
I30	08 Nov 2018	High Tide Time	841
I30	08 Nov 2018	Low Tide (ft)	-0.51
I30	08 Nov 2018	Low Tide Time	1539
I30	08 Nov 2018	Comments	none
I31	08 Nov 2018	Depth (m)	20
I31	08 Nov 2018	Arrive Time	1142
I31	08 Nov 2018	Depart Time	1146
I31	08 Nov 2018	Air Temp (C)	19
I31	08 Nov 2018	Weather	Clear
I31	08 Nov 2018	Visibility (mi)	5
I31	08 Nov 2018	Wind Speed (kts)	7
I31	08 Nov 2018	Wind Dir	SW
I31	08 Nov 2018	Water Color	Bluish-Green
I31	08 Nov 2018	Wave Ht Low (ft)	3
I31	08 Nov 2018	Wave Period (sec)	11
I31	08 Nov 2018	Sea State	Calm
I31	08 Nov 2018	High Tide (ft)	6.17
I31	08 Nov 2018	High Tide Time	841
I31	08 Nov 2018	Low Tide (ft)	-0.51
I31	08 Nov 2018	Low Tide Time	1539
I31	08 Nov 2018	Comments	none
I33	08 Nov 2018	Depth (m)	31
I33	08 Nov 2018	Arrive Time	1050
I33	08 Nov 2018	Depart Time	1054

Station	Date	Parameter	Value
I33	08 Nov 2018	Air Temp (C)	19
I33	08 Nov 2018	Weather	Overcast
I33	08 Nov 2018	Visibility (mi)	5
I33	08 Nov 2018	Wind Speed (kts)	5
I33	08 Nov 2018	Wind Dir	NW
I33	08 Nov 2018	Water Color	Green
I33	08 Nov 2018	Wave Ht Low (ft)	3
I33	08 Nov 2018	Wave Period (sec)	11
I33	08 Nov 2018	Sea State	Calm
I33	08 Nov 2018	High Tide (ft)	6.17
I33	08 Nov 2018	High Tide Time	841
I33	08 Nov 2018	Low Tide (ft)	-0.51
I33	08 Nov 2018	Low Tide Time	1539
I33	08 Nov 2018	Comments	none
I35	08 Nov 2018	Depth (m)	20
I35	08 Nov 2018	Arrive Time	1214
I35	08 Nov 2018	Depart Time	1217
I35	08 Nov 2018	Air Temp (C)	19
I35	08 Nov 2018	Weather	Clear
I35	08 Nov 2018	Visibility (mi)	5
I35	08 Nov 2018	Wind Speed (kts)	6
I35	08 Nov 2018	Wind Dir	S
I35	08 Nov 2018	Water Color	Bluish-Green
I35	08 Nov 2018	Wave Ht Low (ft)	3
I35	08 Nov 2018	Wave Period (sec)	11
I35	08 Nov 2018	Sea State	Calm
I35	08 Nov 2018	High Tide (ft)	6.17
I35	08 Nov 2018	High Tide Time	841
I35	08 Nov 2018	Low Tide (ft)	-0.51
I35	08 Nov 2018	Low Tide Time	1539
I35	08 Nov 2018	Comments	none
I36	08 Nov 2018	Depth (m)	12
I36	08 Nov 2018	Arrive Time	1159
I36	08 Nov 2018	Depart Time	1203
I36	08 Nov 2018	Air Temp (C)	19
I36	08 Nov 2018	Weather	Clear
I36	08 Nov 2018	Visibility (mi)	5
I36	08 Nov 2018	Wind Speed (kts)	4
I36	08 Nov 2018	Wind Dir	SW
I36	08 Nov 2018	Water Color	Green
I36	08 Nov 2018	Wave Ht Low (ft)	3
I36	08 Nov 2018	Wave Period (sec)	11
I36	08 Nov 2018	Sea State	Calm
I36	08 Nov 2018	High Tide (ft)	6.17
I36	08 Nov 2018	High Tide Time	841
I36	08 Nov 2018	Low Tide (ft)	-0.51
I36	08 Nov 2018	Low Tide Time	1539
I36	08 Nov 2018	Comments	none
I37	08 Nov 2018	Depth (m)	14
I37	08 Nov 2018	Arrive Time	819
I37	08 Nov 2018	Depart Time	1036
I37	08 Nov 2018	Air Temp (C)	18

Station	Date	Parameter	Value
I37	08 Nov 2018	Weather	Overcast
I37	08 Nov 2018	Visibility (mi)	5
I37	08 Nov 2018	Wind Speed (kts)	4
I37	08 Nov 2018	Wind Dir	N
I37	08 Nov 2018	Water Color	Green
I37	08 Nov 2018	Wave Ht Low (ft)	3
I37	08 Nov 2018	Wave Period (sec)	11
I37	08 Nov 2018	Sea State	Calm
I37	08 Nov 2018	High Tide (ft)	6.17
I37	08 Nov 2018	High Tide Time	841
I37	08 Nov 2018	Low Tide (ft)	-0.51
I37	08 Nov 2018	Low Tide Time	1539
I37	08 Nov 2018	Comments	CTD communication problems; Took ~2hrs to troubleshoot
I38	08 Nov 2018	Depth (m)	11
I38	08 Nov 2018	Arrive Time	1228
I38	08 Nov 2018	Depart Time	1232
I38	08 Nov 2018	Air Temp (C)	19
I38	08 Nov 2018	Weather	Clear
I38	08 Nov 2018	Visibility (mi)	5
I38	08 Nov 2018	Wind Speed (kts)	11
I38	08 Nov 2018	Wind Dir	SW
I38	08 Nov 2018	Water Color	Bluish-Green
I38	08 Nov 2018	Wave Ht Low (ft)	3
I38	08 Nov 2018	Wave Period (sec)	11
I38	08 Nov 2018	Sea State	Calm
I38	08 Nov 2018	High Tide (ft)	6.17
I38	08 Nov 2018	High Tide Time	841
I38	08 Nov 2018	Low Tide (ft)	-0.51
I38	08 Nov 2018	Low Tide Time	1539
I38	08 Nov 2018	Comments	Boats
I4	06 Nov 2018	Depth (m)	20
I4	06 Nov 2018	Arrive Time	1006
I4	06 Nov 2018	Depart Time	1010
I4	06 Nov 2018	Air Temp (C)	19
I4	06 Nov 2018	Weather	Partly Cloudy
I4	06 Nov 2018	Visibility (mi)	5
I4	06 Nov 2018	Wind Speed (kts)	7
I4	06 Nov 2018	Wind Dir	S
I4	06 Nov 2018	Water Color	Greenish-Blue
I4	06 Nov 2018	Wave Ht Low (ft)	3
I4	06 Nov 2018	Wave Period (sec)	11
I4	06 Nov 2018	Sea State	Calm
I4	06 Nov 2018	High Tide (ft)	6.16
I4	06 Nov 2018	High Tide Time	739
I4	06 Nov 2018	Low Tide (ft)	-0.35
I4	06 Nov 2018	Low Tide Time	1419
I4	06 Nov 2018	Comments	none
I5	06 Nov 2018	Depth (m)	14
I5	06 Nov 2018	Arrive Time	1015
I5	06 Nov 2018	Depart Time	1018
I5	06 Nov 2018	Air Temp (C)	19
I5	06 Nov 2018	Weather	Partly Cloudy

Station	Date	Parameter	Value
15	06 Nov 2018	Visibility (mi)	5
15	06 Nov 2018	Wind Speed (kts)	9
15	06 Nov 2018	Wind Dir	SW
15	06 Nov 2018	Water Color	Green
15	06 Nov 2018	Wave Ht Low (ft)	3
15	06 Nov 2018	Wave Period (sec)	11
15	06 Nov 2018	Sea State	Calm
15	06 Nov 2018	High Tide (ft)	6.16
15	06 Nov 2018	High Tide Time	739
15	06 Nov 2018	Low Tide (ft)	-0.35
15	06 Nov 2018	Low Tide Time	1419
15	06 Nov 2018	Comments	none
16	06 Nov 2018	Depth (m)	26
16	06 Nov 2018	Arrive Time	1034
16	06 Nov 2018	Depart Time	1039
16	06 Nov 2018	Air Temp (C)	19
16	06 Nov 2018	Weather	Partly Cloudy
16	06 Nov 2018	Visibility (mi)	5
16	06 Nov 2018	Wind Speed (kts)	8
16	06 Nov 2018	Wind Dir	NE
16	06 Nov 2018	Water Color	Green
16	06 Nov 2018	Wave Ht Low (ft)	3
16	06 Nov 2018	Wave Period (sec)	11
16	06 Nov 2018	Sea State	Calm
16	06 Nov 2018	High Tide (ft)	6.16
16	06 Nov 2018	High Tide Time	739
16	06 Nov 2018	Low Tide (ft)	-0.35
16	06 Nov 2018	Low Tide Time	1419
16	06 Nov 2018	Comments	none
17	06 Nov 2018	Depth (m)	53
17	06 Nov 2018	Arrive Time	836
17	06 Nov 2018	Depart Time	845
17	06 Nov 2018	Air Temp (C)	18
17	06 Nov 2018	Weather	Partly Cloudy
17	06 Nov 2018	Visibility (mi)	5
17	06 Nov 2018	Wind Speed (kts)	2
17	06 Nov 2018	Wind Dir	NE
17	06 Nov 2018	Water Color	Green
17	06 Nov 2018	Wave Ht Low (ft)	3
17	06 Nov 2018	Wave Period (sec)	11
17	06 Nov 2018	Sea State	Calm
17	06 Nov 2018	High Tide (ft)	6.16
17	06 Nov 2018	High Tide Time	739
17	06 Nov 2018	Low Tide (ft)	-0.35
17	06 Nov 2018	Low Tide Time	1419
17	06 Nov 2018	Comments	none
18	06 Nov 2018	Depth (m)	37
18	06 Nov 2018	Arrive Time	1145
18	06 Nov 2018	Depart Time	1150
18	06 Nov 2018	Air Temp (C)	18
18	06 Nov 2018	Weather	Haze
18	06 Nov 2018	Visibility (mi)	5

Station	Date	Parameter	Value
18	06 Nov 2018	Wind Speed (kts)	11
18	06 Nov 2018	Wind Dir	S
18	06 Nov 2018	Water Color	Green
18	06 Nov 2018	Wave Ht Low (ft)	3
18	06 Nov 2018	Wave Period (sec)	11
18	06 Nov 2018	Sea State	Calm
18	06 Nov 2018	High Tide (ft)	6.16
18	06 Nov 2018	High Tide Time	739
18	06 Nov 2018	Low Tide (ft)	-0.35
18	06 Nov 2018	Low Tide Time	1419
18	06 Nov 2018	Comments	none
19	06 Nov 2018	Depth (m)	30
19	06 Nov 2018	Arrive Time	1129
19	06 Nov 2018	Depart Time	1135
19	06 Nov 2018	Air Temp (C)	19
19	06 Nov 2018	Weather	Haze
19	06 Nov 2018	Visibility (mi)	5
19	06 Nov 2018	Wind Speed (kts)	14
19	06 Nov 2018	Wind Dir	S
19	06 Nov 2018	Water Color	Green
19	06 Nov 2018	Wave Ht Low (ft)	3
19	06 Nov 2018	Wave Period (sec)	11
19	06 Nov 2018	Sea State	Calm
19	06 Nov 2018	High Tide (ft)	6.16
19	06 Nov 2018	High Tide Time	739
19	06 Nov 2018	Low Tide (ft)	-0.35
19	06 Nov 2018	Low Tide Time	1419
19	06 Nov 2018	Comments	none

Table 4.7

Summary of CTD profile data from the SBOO offshore stations for each sample date.

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I1	06 Nov 2018	1	19.58	89.01	7.5	33.73	8.1	23.9	0.04
I1	06 Nov 2018	2	19.58	89.08	7.5	33.73	8.1	23.9	0.05
I1	06 Nov 2018	3	19.58	89.14	7.6	33.73	8.1	23.9	0.06
I1	06 Nov 2018	4	19.58	89.15	7.5	33.73	8.1	23.9	0.07
I1	06 Nov 2018	5	19.58	89.08	7.5	33.73	8.1	23.9	0.08
I1	06 Nov 2018	6	19.57	89.08	7.5	33.73	8.1	23.9	0.10
I1	06 Nov 2018	7	19.57	89.10	7.5	33.73	8.1	23.9	0.10
I1	06 Nov 2018	8	19.56	89.03	7.5	33.73	8.1	23.9	0.09
I1	06 Nov 2018	9	19.56	89.05	7.5	33.73	8.1	23.9	0.12
I1	06 Nov 2018	10	19.51	89.02	7.6	33.72	8.1	23.9	0.15
I1	06 Nov 2018	11	19.41	88.87	7.6	33.72	8.1	23.9	0.16
I1	06 Nov 2018	12	19.33	88.74	7.7	33.72	8.1	24.0	0.20
I1	06 Nov 2018	13	19.31	88.67	7.7	33.72	8.1	24.0	0.23
I1	06 Nov 2018	14	19.30	88.69	7.7	33.72	8.1	24.0	0.25
I1	06 Nov 2018	15	19.29	88.68	7.7	33.72	8.1	24.0	0.27
I1	06 Nov 2018	16	19.18	88.62	7.7	33.72	8.1	24.0	0.34
I1	06 Nov 2018	17	19.05	88.67	7.7	33.71	8.1	24.0	0.40
I1	06 Nov 2018	18	18.77	88.37	7.8	33.68	8.1	24.1	0.45
I1	06 Nov 2018	19	18.31	87.82	8.0	33.64	8.1	24.2	0.55
I1	06 Nov 2018	20	18.24	87.56	8.0	33.63	8.1	24.2	0.64
I1	06 Nov 2018	21	17.93	87.24	8.1	33.61	8.1	24.2	0.81
I1	06 Nov 2018	22	17.61	86.73	8.1	33.59	8.1	24.3	0.96
I1	06 Nov 2018	23	17.48	86.77	8.1	33.59	8.1	24.3	1.02
I1	06 Nov 2018	24	17.33	86.60	8.1	33.57	8.1	24.3	1.15
I1	06 Nov 2018	25	17.22	86.38	8.1	33.57	8.1	24.4	1.22
I1	06 Nov 2018	26	17.10	86.18	8.1	33.56	8.1	24.4	1.33
I1	06 Nov 2018	27	16.92	85.97	8.1	33.56	8.1	24.4	1.46
I1	06 Nov 2018	28	16.75	86.37	8.1	33.55	8.1	24.5	1.37
I1	06 Nov 2018	29	16.58	86.65	8.0	33.55	8.1	24.5	1.38
I1	06 Nov 2018	30	16.32	86.27	8.0	33.54	8.1	24.5	1.31
I1	06 Nov 2018	31	16.06	87.46	8.0	33.50	8.1	24.6	1.09
I1	06 Nov 2018	32	15.04	88.25	7.8	33.51	8.1	24.8	1.14
I1	06 Nov 2018	33	14.59	87.62	7.6	33.52	8.1	24.9	1.20
I1	06 Nov 2018	34	14.54	87.52	7.5	33.52	8.1	24.9	1.25
I1	06 Nov 2018	35	14.49	87.59	7.5	33.52	8.1	24.9	1.23
I1	06 Nov 2018	36	14.47	87.67	7.5	33.52	8.1	24.9	1.22
I1	06 Nov 2018	37	14.45	87.68	7.5	33.52	8.1	24.9	1.19
I1	06 Nov 2018	38	14.43	87.65	7.5	33.52	8.1	25.0	1.18
I1	06 Nov 2018	39	14.42	87.79	7.5	33.52	8.1	25.0	1.14
I1	06 Nov 2018	40	14.38	87.84	7.4	33.53	8.1	25.0	1.11
I1	06 Nov 2018	41	14.32	87.74	7.3	33.53	8.1	25.0	1.09
I1	06 Nov 2018	42	14.29	87.55	7.3	33.53	8.0	25.0	1.06
I1	06 Nov 2018	43	14.27	87.70	7.2	33.54	8.0	25.0	0.99
I1	06 Nov 2018	44	14.26	87.82	7.2	33.54	8.0	25.0	0.93
I1	06 Nov 2018	45	14.26	87.68	7.2	33.54	8.0	25.0	0.91
I1	06 Nov 2018	46	14.23	87.92	7.2	33.54	8.0	25.0	0.88
I1	06 Nov 2018	47	14.20	87.87	7.1	33.54	8.0	25.0	0.84
I1	06 Nov 2018	48	14.16	87.85	7.1	33.54	8.0	25.0	0.80
I1	06 Nov 2018	49	14.15	87.80	7.1	33.54	8.0	25.0	0.78
I1	06 Nov 2018	50	14.14	87.80	7.1	33.54	8.0	25.0	0.78
I1	06 Nov 2018	51	14.14	87.85	7.1	33.54	8.0	25.0	0.78

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I1	06 Nov 2018	52	14.13	87.89	7.1	33.54	8.0	25.0	0.77
I1	06 Nov 2018	53	14.12	87.84	7.1	33.54	8.0	25.0	0.76
I1	06 Nov 2018	54	14.11	87.88	7.0	33.54	8.0	25.0	0.76
I1	06 Nov 2018	55	14.07	87.86	7.0	33.55	8.0	25.0	0.73
I1	06 Nov 2018	56	14.04	87.83	7.0	33.54	8.0	25.1	0.71
I1	06 Nov 2018	57	14.03	87.75	7.0	33.54	8.0	25.1	0.69
I1	06 Nov 2018	58	14.01	87.79	7.0	33.54	8.0	25.1	0.67
I1	06 Nov 2018	59	13.97	87.76	6.9	33.55	8.0	25.1	0.65
I1	06 Nov 2018	60	13.93	87.67	6.9	33.55	8.0	25.1	0.61
I10	06 Nov 2018	1	18.70	86.18	8.0	33.67	8.2	24.1	0.25
I10	06 Nov 2018	2	18.69	86.28	8.0	33.66	8.2	24.1	0.21
I10	06 Nov 2018	3	18.47	86.59	8.0	33.65	8.2	24.1	0.24
I10	06 Nov 2018	4	18.39	86.77	8.1	33.64	8.2	24.1	0.27
I10	06 Nov 2018	5	18.29	86.82	8.1	33.63	8.2	24.2	0.28
I10	06 Nov 2018	6	18.21	86.94	8.1	33.63	8.2	24.2	0.30
I10	06 Nov 2018	7	18.10	86.96	8.1	33.62	8.2	24.2	0.30
I10	06 Nov 2018	8	17.94	87.19	8.0	33.62	8.2	24.2	0.37
I10	06 Nov 2018	9	17.78	86.96	8.0	33.60	8.2	24.3	0.42
I10	06 Nov 2018	10	17.53	86.74	8.0	33.59	8.2	24.3	0.56
I10	06 Nov 2018	11	17.34	84.56	8.0	33.57	8.2	24.3	0.73
I10	06 Nov 2018	12	17.29	82.88	8.0	33.56	8.2	24.3	0.87
I10	06 Nov 2018	13	17.25	82.45	8.0	33.56	8.1	24.3	0.98
I10	06 Nov 2018	14	17.21	81.84	8.0	33.56	8.1	24.4	1.08
I10	06 Nov 2018	15	17.12	80.99	7.9	33.55	8.1	24.4	1.22
I10	06 Nov 2018	16	17.00	80.31	7.9	33.55	8.1	24.4	1.29
I10	06 Nov 2018	17	16.93	80.17	7.8	33.54	8.1	24.4	1.39
I10	06 Nov 2018	18	16.89	79.87	7.8	33.54	8.1	24.4	1.36
I10	06 Nov 2018	19	16.77	79.87	7.7	33.54	8.1	24.4	1.35
I11	06 Nov 2018	1	18.37	83.89	8.0	33.60	8.2	24.1	0.27
I11	06 Nov 2018	2	18.37	83.90	8.0	33.60	8.2	24.1	0.27
I11	06 Nov 2018	3	18.36	84.00	8.0	33.60	8.2	24.1	0.28
I11	06 Nov 2018	4	18.31	83.97	8.0	33.61	8.2	24.1	0.35
I11	06 Nov 2018	5	18.26	83.46	8.0	33.61	8.2	24.1	0.42
I11	06 Nov 2018	6	18.24	83.09	8.0	33.60	8.2	24.1	0.49
I11	06 Nov 2018	7	18.14	82.73	8.0	33.60	8.2	24.2	0.61
I11	06 Nov 2018	8	18.12	81.54	8.0	33.60	8.2	24.2	0.74
I11	06 Nov 2018	9	18.09	80.74	8.0	33.60	8.2	24.2	0.87
I11	06 Nov 2018	10	18.08	80.44	8.0	33.60	8.2	24.2	0.99
I11	06 Nov 2018	11	18.07	80.24	8.0	33.60	8.2	24.2	1.10
I11	06 Nov 2018	12	18.06	79.98	8.0	33.60	8.1	24.2	1.12
I11	06 Nov 2018	13	18.06	79.92	8.0	33.60	8.1	24.2	1.12
I12	07 Nov 2018	1	19.25	88.00	7.7	33.72	8.2	24.0	0.15
I12	07 Nov 2018	2	19.22	88.00	7.7	33.72	8.2	24.0	0.13
I12	07 Nov 2018	3	19.09	87.97	7.7	33.71	8.2	24.0	0.13
I12	07 Nov 2018	4	19.05	87.97	7.7	33.71	8.2	24.0	0.14
I12	07 Nov 2018	5	19.04	87.95	7.7	33.71	8.2	24.0	0.16
I12	07 Nov 2018	6	18.84	87.80	7.8	33.69	8.2	24.1	0.20
I12	07 Nov 2018	7	18.55	87.59	7.9	33.67	8.2	24.1	0.26
I12	07 Nov 2018	8	18.29	87.29	8.0	33.65	8.2	24.2	0.30
I12	07 Nov 2018	9	17.81	87.03	8.2	33.61	8.2	24.3	0.36
I12	07 Nov 2018	10	17.76	86.92	8.2	33.60	8.2	24.3	0.40
I12	07 Nov 2018	11	17.68	86.74	8.2	33.59	8.2	24.3	0.47

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I12	07 Nov 2018	12	17.46	86.79	8.2	33.59	8.2	24.3	0.55
I12	07 Nov 2018	13	17.42	86.72	8.2	33.58	8.2	24.3	0.57
I12	07 Nov 2018	14	17.35	86.73	8.2	33.58	8.2	24.3	0.66
I12	07 Nov 2018	15	17.26	86.62	8.2	33.58	8.2	24.4	0.78
I12	07 Nov 2018	16	17.09	86.46	8.1	33.58	8.2	24.4	0.95
I12	07 Nov 2018	17	16.86	86.48	8.0	33.58	8.2	24.5	1.06
I12	07 Nov 2018	18	16.57	86.38	8.0	33.56	8.2	24.5	1.12
I12	07 Nov 2018	19	16.54	86.51	8.0	33.55	8.2	24.5	1.07
I12	07 Nov 2018	20	16.53	86.76	8.0	33.55	8.1	24.5	1.09
I12	07 Nov 2018	21	16.52	86.77	8.0	33.55	8.1	24.5	1.08
I12	07 Nov 2018	22	16.50	86.85	8.0	33.55	8.1	24.5	1.07
I12	07 Nov 2018	23	16.47	86.93	8.0	33.55	8.1	24.5	1.02
I12	07 Nov 2018	24	16.44	86.93	8.0	33.55	8.1	24.5	1.02
I12	07 Nov 2018	25	16.43	86.86	8.0	33.55	8.1	24.5	1.00
I12	07 Nov 2018	26	16.42	86.93	8.0	33.55	8.1	24.5	0.99
I12	07 Nov 2018	27	16.42	86.86	8.0	33.55	8.1	24.5	0.98
I12	07 Nov 2018	28	16.41	86.79	8.0	33.55	8.1	24.5	0.94
I13	07 Nov 2018	1	18.86	87.14	7.8	33.69	8.2	24.1	0.23
I13	07 Nov 2018	2	18.81	87.17	7.8	33.69	8.2	24.1	0.21
I13	07 Nov 2018	3	18.53	87.15	7.8	33.68	8.2	24.1	0.22
I13	07 Nov 2018	4	18.13	87.09	8.0	33.65	8.2	24.2	0.25
I13	07 Nov 2018	5	18.02	87.10	8.0	33.63	8.2	24.2	0.28
I13	07 Nov 2018	6	17.94	86.94	8.1	33.62	8.2	24.2	0.33
I13	07 Nov 2018	7	17.70	86.55	8.1	33.62	8.2	24.3	0.38
I13	07 Nov 2018	8	17.45	86.41	8.2	33.59	8.2	24.3	0.44
I13	07 Nov 2018	9	17.27	86.55	8.2	33.58	8.2	24.4	0.50
I13	07 Nov 2018	10	17.05	86.31	8.2	33.57	8.2	24.4	0.58
I13	07 Nov 2018	11	16.99	86.39	8.2	33.56	8.2	24.4	0.67
I13	07 Nov 2018	12	16.96	86.37	8.2	33.56	8.2	24.4	0.73
I13	07 Nov 2018	13	16.95	86.39	8.2	33.56	8.2	24.4	0.79
I13	07 Nov 2018	14	16.94	86.34	8.2	33.56	8.2	24.4	0.83
I13	07 Nov 2018	15	16.92	86.31	8.2	33.56	8.2	24.4	0.89
I13	07 Nov 2018	16	16.91	86.30	8.2	33.56	8.2	24.4	0.95
I13	07 Nov 2018	17	16.89	86.30	8.1	33.56	8.2	24.4	1.01
I13	07 Nov 2018	18	16.79	86.22	8.1	33.57	8.2	24.5	1.07
I13	07 Nov 2018	19	16.50	86.10	8.1	33.56	8.2	24.5	1.21
I13	07 Nov 2018	20	16.41	85.95	8.1	33.55	8.2	24.5	1.34
I13	07 Nov 2018	21	16.25	85.85	8.0	33.55	8.2	24.6	1.50
I13	07 Nov 2018	22	15.85	85.68	8.0	33.54	8.2	24.7	1.71
I13	07 Nov 2018	23	15.53	85.41	8.0	33.52	8.1	24.7	1.95
I13	07 Nov 2018	24	15.38	85.58	7.9	33.52	8.1	24.8	1.94
I13	07 Nov 2018	25	15.35	86.25	7.9	33.52	8.1	24.8	1.84
I13	07 Nov 2018	26	15.33	86.28	7.9	33.52	8.1	24.8	1.78
I13	07 Nov 2018	27	15.31	86.50	7.8	33.52	8.1	24.8	1.74
I13	07 Nov 2018	28	15.30	86.62	7.8	33.52	8.1	24.8	1.73
I13	07 Nov 2018	29	15.30	86.65	7.8	33.52	8.1	24.8	1.69
I13	07 Nov 2018	30	15.29	86.64	7.8	33.52	8.1	24.8	1.68
I13	07 Nov 2018	31	15.29	86.69	7.8	33.52	8.1	24.8	1.69
I13	07 Nov 2018	32	15.29	86.56	7.8	33.52	8.1	24.8	1.69
I13	07 Nov 2018	33	15.29	86.72	7.8	33.52	8.1	24.8	1.70
I13	07 Nov 2018	34	15.29	86.70	7.8	33.52	8.1	24.8	1.70
I13	07 Nov 2018	35	15.29	86.68	7.8	33.52	8.1	24.8	1.66
I13	07 Nov 2018	36	15.29	86.65	7.8	33.52	8.1	24.8	1.63
I13	07 Nov 2018	37	15.28	86.72	7.8	33.53	8.1	24.8	1.63

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I13	07 Nov 2018	38	15.28	86.69	7.8	33.53	8.1	24.8	1.60
I14	07 Nov 2018	1	19.28	87.91	7.7	33.72	8.2	24.0	0.14
I14	07 Nov 2018	2	19.28	87.92	7.7	33.72	8.2	24.0	0.14
I14	07 Nov 2018	3	19.26	87.88	7.7	33.72	8.2	24.0	0.14
I14	07 Nov 2018	4	19.20	87.84	7.7	33.72	8.2	24.0	0.14
I14	07 Nov 2018	5	19.12	87.99	7.7	33.71	8.2	24.0	0.15
I14	07 Nov 2018	6	19.09	88.02	7.7	33.71	8.2	24.0	0.15
I14	07 Nov 2018	7	19.01	87.97	7.7	33.71	8.2	24.0	0.17
I14	07 Nov 2018	8	18.69	87.74	7.8	33.69	8.2	24.1	0.21
I14	07 Nov 2018	9	18.20	87.34	8.0	33.65	8.2	24.2	0.25
I14	07 Nov 2018	10	17.94	87.10	8.2	33.62	8.2	24.2	0.30
I14	07 Nov 2018	11	17.82	86.98	8.2	33.60	8.2	24.2	0.38
I14	07 Nov 2018	12	17.76	86.87	8.2	33.60	8.2	24.3	0.42
I14	07 Nov 2018	13	17.71	86.80	8.2	33.60	8.2	24.3	0.45
I14	07 Nov 2018	14	17.68	86.79	8.2	33.59	8.2	24.3	0.50
I14	07 Nov 2018	15	17.63	86.79	8.2	33.59	8.2	24.3	0.54
I14	07 Nov 2018	16	17.50	86.74	8.2	33.59	8.2	24.3	0.60
I14	07 Nov 2018	17	17.31	86.57	8.2	33.58	8.2	24.4	0.71
I14	07 Nov 2018	18	17.16	86.36	8.0	33.59	8.2	24.4	0.91
I14	07 Nov 2018	19	16.83	86.46	8.0	33.57	8.2	24.5	1.01
I14	07 Nov 2018	20	16.76	86.51	8.0	33.56	8.2	24.5	0.99
I14	07 Nov 2018	21	16.74	86.43	8.1	33.55	8.2	24.5	1.03
I14	07 Nov 2018	22	16.73	86.40	8.1	33.55	8.2	24.5	1.04
I14	07 Nov 2018	23	16.72	86.33	8.1	33.55	8.2	24.5	1.04
I14	07 Nov 2018	24	16.70	86.46	8.0	33.55	8.2	24.5	1.07
I14	07 Nov 2018	25	16.69	86.45	8.0	33.55	8.2	24.5	1.11
I14	07 Nov 2018	26	16.66	86.46	8.0	33.55	8.2	24.5	1.09
I14	07 Nov 2018	27	16.63	86.52	8.0	33.55	8.2	24.5	1.22
I14	07 Nov 2018	28	16.62	86.20	8.0	33.55	8.2	24.5	1.03
I15	07 Nov 2018	1	19.15	87.90	7.7	33.71	8.2	24.0	0.12
I15	07 Nov 2018	2	19.14	87.90	7.7	33.71	8.2	24.0	0.12
I15	07 Nov 2018	3	19.10	87.88	7.7	33.71	8.2	24.0	0.13
I15	07 Nov 2018	4	19.04	87.90	7.7	33.71	8.2	24.0	0.14
I15	07 Nov 2018	5	18.91	87.73	7.8	33.70	8.2	24.0	0.18
I15	07 Nov 2018	6	18.76	87.59	7.9	33.68	8.2	24.1	0.21
I15	07 Nov 2018	7	18.64	87.36	7.9	33.67	8.2	24.1	0.26
I15	07 Nov 2018	8	18.46	87.42	8.0	33.66	8.2	24.1	0.31
I15	07 Nov 2018	9	18.04	86.99	8.1	33.63	8.2	24.2	0.36
I15	07 Nov 2018	10	17.74	86.79	8.2	33.60	8.2	24.3	0.39
I15	07 Nov 2018	11	17.70	86.71	8.2	33.59	8.2	24.3	0.44
I15	07 Nov 2018	12	17.61	86.71	8.2	33.57	8.2	24.3	0.51
I15	07 Nov 2018	13	17.40	86.68	8.1	33.52	8.2	24.3	0.58
I15	07 Nov 2018	14	17.07	86.61	8.1	33.46	8.2	24.3	0.65
I15	07 Nov 2018	15	16.93	86.55	8.1	33.45	8.2	24.3	0.69
I15	07 Nov 2018	16	16.95	86.57	8.2	33.49	8.2	24.4	0.75
I15	07 Nov 2018	17	17.08	86.59	8.2	33.55	8.2	24.4	0.95
I15	07 Nov 2018	18	17.02	86.52	8.2	33.55	8.2	24.4	0.95
I15	07 Nov 2018	19	17.01	86.79	8.1	33.57	8.2	24.4	0.95
I15	07 Nov 2018	20	16.86	86.46	8.0	33.57	8.2	24.5	1.08
I15	07 Nov 2018	21	16.48	86.25	8.0	33.56	8.2	24.5	1.33
I15	07 Nov 2018	22	16.32	86.65	8.0	33.55	8.1	24.6	1.30
I15	07 Nov 2018	23	16.31	86.79	8.0	33.55	8.1	24.6	1.19
I15	07 Nov 2018	24	16.30	86.94	8.0	33.55	8.1	24.6	1.15

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I15	07 Nov 2018	25	16.29	86.95	8.0	33.55	8.1	24.6	1.15
I15	07 Nov 2018	26	16.28	87.06	8.0	33.55	8.1	24.6	1.11
I15	07 Nov 2018	27	16.26	86.97	8.0	33.55	8.1	24.6	1.09
I15	07 Nov 2018	28	16.26	86.98	7.9	33.55	8.1	24.6	1.05
I15	07 Nov 2018	29	16.26	86.93	8.0	33.55	8.1	24.6	1.04
I15	07 Nov 2018	30	16.26	86.93	7.9	33.55	8.1	24.6	1.06
I15	07 Nov 2018	31	16.24	86.97	7.9	33.55	8.1	24.6	1.06
I16	07 Nov 2018	1	19.22	88.09	7.7	33.72	8.2	24.0	0.14
I16	07 Nov 2018	2	19.21	88.07	7.6	33.72	8.2	24.0	0.13
I16	07 Nov 2018	3	19.12	88.08	7.7	33.72	8.2	24.0	0.13
I16	07 Nov 2018	4	19.07	88.05	7.7	33.72	8.2	24.0	0.13
I16	07 Nov 2018	5	19.01	88.03	7.7	33.71	8.2	24.0	0.14
I16	07 Nov 2018	6	18.78	88.08	7.8	33.70	8.2	24.1	0.17
I16	07 Nov 2018	7	18.33	87.69	7.9	33.66	8.2	24.2	0.27
I16	07 Nov 2018	8	17.97	87.25	8.1	33.64	8.2	24.2	0.29
I16	07 Nov 2018	9	17.71	87.01	8.2	33.60	8.2	24.3	0.34
I16	07 Nov 2018	10	17.67	86.81	8.2	33.60	8.2	24.3	0.40
I16	07 Nov 2018	11	17.62	86.78	8.2	33.60	8.2	24.3	0.44
I16	07 Nov 2018	12	17.31	86.70	8.2	33.55	8.2	24.3	0.54
I16	07 Nov 2018	13	17.30	86.69	8.2	33.54	8.2	24.3	0.59
I16	07 Nov 2018	14	17.30	86.51	8.1	33.56	8.2	24.3	0.61
I16	07 Nov 2018	15	16.94	86.76	8.1	33.50	8.2	24.4	0.76
I16	07 Nov 2018	16	17.02	86.55	8.1	33.50	8.2	24.4	0.78
I16	07 Nov 2018	17	16.99	86.50	8.1	33.52	8.2	24.4	0.85
I16	07 Nov 2018	18	16.87	86.64	8.0	33.50	8.2	24.4	0.90
I16	07 Nov 2018	19	16.74	86.60	8.0	33.51	8.2	24.4	0.93
I16	07 Nov 2018	20	16.66	86.59	8.0	33.52	8.2	24.5	0.95
I16	07 Nov 2018	21	16.62	86.61	8.0	33.53	8.1	24.5	0.98
I16	07 Nov 2018	22	16.62	86.59	8.0	33.53	8.1	24.5	1.00
I16	07 Nov 2018	23	16.60	86.65	8.0	33.53	8.1	24.5	0.99
I16	07 Nov 2018	24	16.61	86.65	8.0	33.54	8.1	24.5	1.00
I16	07 Nov 2018	25	16.60	86.63	8.0	33.54	8.1	24.5	1.01
I16	07 Nov 2018	26	16.57	86.66	8.0	33.55	8.1	24.5	0.99
I16	07 Nov 2018	27	16.57	86.64	8.0	33.55	8.1	24.5	0.95
I16	07 Nov 2018	28	16.55	86.34	8.0	33.55	8.1	24.5	0.93
I17	07 Nov 2018	1	19.24	88.01	7.7	33.72	8.2	24.0	0.19
I17	07 Nov 2018	2	19.23	87.98	7.7	33.72	8.2	24.0	0.18
I17	07 Nov 2018	3	19.23	87.89	7.7	33.72	8.2	24.0	0.19
I17	07 Nov 2018	4	19.18	88.01	7.7	33.72	8.2	24.0	0.19
I17	07 Nov 2018	5	19.12	88.07	7.7	33.72	8.2	24.0	0.20
I17	07 Nov 2018	6	19.02	88.07	7.7	33.72	8.2	24.0	0.21
I17	07 Nov 2018	7	18.60	87.93	7.8	33.70	8.2	24.1	0.22
I17	07 Nov 2018	8	18.02	87.46	8.0	33.65	8.2	24.2	0.28
I17	07 Nov 2018	9	17.89	87.27	8.1	33.62	8.2	24.2	0.33
I17	07 Nov 2018	10	17.85	86.88	8.2	33.61	8.2	24.2	0.48
I17	07 Nov 2018	11	17.81	86.92	8.2	33.61	8.2	24.3	0.42
I17	07 Nov 2018	12	17.77	86.96	8.2	33.60	8.2	24.3	0.47
I17	07 Nov 2018	13	17.71	86.97	8.2	33.60	8.2	24.3	0.50
I17	07 Nov 2018	14	17.57	86.75	8.2	33.59	8.2	24.3	0.53
I17	07 Nov 2018	15	17.29	86.70	8.2	33.59	8.2	24.4	0.63
I17	07 Nov 2018	16	17.17	86.60	8.2	33.58	8.2	24.4	0.77
I17	07 Nov 2018	17	17.11	86.66	8.1	33.58	8.2	24.4	0.83
I17	07 Nov 2018	18	16.99	86.72	8.1	33.57	8.2	24.4	0.88

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I17	07 Nov 2018	19	16.90	86.41	8.1	33.56	8.2	24.4	0.91
I17	07 Nov 2018	20	16.88	86.53	8.1	33.56	8.2	24.4	0.94
I17	07 Nov 2018	21	16.86	86.43	8.1	33.56	8.2	24.4	0.94
I17	07 Nov 2018	22	16.84	86.29	8.0	33.56	8.2	24.4	0.95
I17	07 Nov 2018	23	16.84	86.30	8.1	33.56	8.2	24.4	0.94
I17	07 Nov 2018	24	16.84	86.28	8.0	33.56	8.2	24.4	0.98
I17	07 Nov 2018	25	16.82	86.16	8.0	33.56	8.2	24.4	0.97
I18	07 Nov 2018	1	19.23	87.73	7.8	33.73	8.2	24.0	0.19
I18	07 Nov 2018	2	19.19	87.66	7.8	33.73	8.2	24.0	0.20
I18	07 Nov 2018	3	19.12	87.62	7.8	33.73	8.2	24.0	0.20
I18	07 Nov 2018	4	19.11	87.68	7.8	33.73	8.2	24.0	0.21
I18	07 Nov 2018	5	19.11	87.70	7.8	33.72	8.2	24.0	0.23
I18	07 Nov 2018	6	19.10	87.68	7.7	33.72	8.2	24.0	0.24
I18	07 Nov 2018	7	19.09	87.72	7.8	33.72	8.2	24.0	0.33
I18	07 Nov 2018	8	19.08	87.70	7.8	33.72	8.2	24.0	0.28
I18	07 Nov 2018	9	19.04	87.72	7.8	33.72	8.2	24.0	0.30
I18	07 Nov 2018	10	19.00	87.73	7.8	33.71	8.2	24.0	0.33
I18	07 Nov 2018	11	18.93	87.65	7.8	33.70	8.2	24.0	0.32
I18	07 Nov 2018	12	18.85	87.71	7.9	33.69	8.2	24.1	0.35
I18	07 Nov 2018	13	18.66	87.58	8.0	33.67	8.2	24.1	0.38
I18	07 Nov 2018	14	18.46	87.41	8.0	33.66	8.2	24.1	0.48
I18	07 Nov 2018	15	18.32	86.91	8.0	33.64	8.2	24.2	0.59
I18	07 Nov 2018	16	18.23	86.43	8.0	33.63	8.2	24.2	0.68
I18	07 Nov 2018	17	18.08	85.66	8.0	33.61	8.2	24.2	0.79
I18	07 Nov 2018	18	17.94	85.01	8.0	33.60	8.2	24.2	0.86
I18	07 Nov 2018	19	17.87	84.48	8.0	33.59	8.2	24.2	0.91
I2	06 Nov 2018	1	18.67	87.62	7.8	33.68	8.1	24.1	0.34
I2	06 Nov 2018	2	18.67	87.49	7.8	33.68	8.1	24.1	0.37
I2	06 Nov 2018	3	18.65	87.51	7.8	33.69	8.1	24.1	0.37
I2	06 Nov 2018	4	18.61	87.51	7.8	33.68	8.1	24.1	0.39
I2	06 Nov 2018	5	18.31	87.47	7.8	33.66	8.1	24.2	0.49
I2	06 Nov 2018	6	17.82	87.25	8.0	33.63	8.1	24.3	0.58
I2	06 Nov 2018	7	17.30	87.28	8.1	33.58	8.1	24.4	0.67
I2	06 Nov 2018	8	17.16	87.10	8.2	33.56	8.1	24.4	0.81
I2	06 Nov 2018	9	17.07	86.92	8.2	33.56	8.1	24.4	0.87
I2	06 Nov 2018	10	16.93	86.66	8.2	33.56	8.1	24.4	0.97
I2	06 Nov 2018	11	16.87	86.55	8.2	33.55	8.1	24.4	1.06
I2	06 Nov 2018	12	16.83	86.53	8.2	33.55	8.1	24.4	1.09
I2	06 Nov 2018	13	16.74	86.48	8.1	33.55	8.1	24.5	1.16
I2	06 Nov 2018	14	16.54	86.22	8.1	33.55	8.1	24.5	1.26
I2	06 Nov 2018	15	16.41	86.41	8.1	33.55	8.1	24.5	1.33
I2	06 Nov 2018	16	16.33	86.53	8.1	33.54	8.1	24.6	1.38
I2	06 Nov 2018	17	16.24	86.55	8.1	33.54	8.1	24.6	1.36
I2	06 Nov 2018	18	16.15	86.64	8.1	33.54	8.1	24.6	1.36
I2	06 Nov 2018	19	16.11	86.64	8.1	33.54	8.1	24.6	1.37
I2	06 Nov 2018	20	16.03	86.63	8.1	33.53	8.1	24.6	1.39
I2	06 Nov 2018	21	15.86	86.76	8.1	33.53	8.1	24.6	1.35
I2	06 Nov 2018	22	15.60	86.92	8.2	33.51	8.1	24.7	1.34
I2	06 Nov 2018	23	15.46	87.05	8.2	33.50	8.1	24.7	1.36
I2	06 Nov 2018	24	15.26	87.10	8.2	33.50	8.1	24.8	1.44
I2	06 Nov 2018	25	15.11	86.73	8.1	33.50	8.1	24.8	1.61
I2	06 Nov 2018	26	15.11	86.76	8.0	33.50	8.1	24.8	1.67
I2	06 Nov 2018	27	15.11	86.74	8.0	33.50	8.1	24.8	1.68

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I2	06 Nov 2018	28	15.09	86.81	7.8	33.51	8.1	24.8	1.65
I2	06 Nov 2018	29	15.08	86.79	7.7	33.52	8.1	24.8	1.55
I2	06 Nov 2018	30	15.05	86.76	7.6	33.52	8.1	24.8	1.46
I2	06 Nov 2018	31	15.04	86.76	7.5	33.53	8.1	24.8	1.41
I2	06 Nov 2018	32	15.05	86.63	7.5	33.53	8.1	24.8	1.35
I20	07 Nov 2018	1	18.38	84.91	8.0	33.65	8.1	24.1	0.74
I20	07 Nov 2018	2	18.36	84.69	8.0	33.65	8.1	24.1	0.79
I20	07 Nov 2018	3	18.34	84.66	8.0	33.65	8.1	24.2	0.86
I20	07 Nov 2018	4	18.31	84.48	8.0	33.65	8.1	24.2	0.93
I20	07 Nov 2018	5	18.22	84.47	8.0	33.64	8.1	24.2	1.14
I20	07 Nov 2018	6	18.18	84.26	8.0	33.64	8.1	24.2	1.27
I20	07 Nov 2018	7	18.13	84.25	8.0	33.63	8.1	24.2	1.32
I20	07 Nov 2018	8	18.10	84.23	8.0	33.63	8.1	24.2	1.41
I20	07 Nov 2018	9	18.09	84.01	8.0	33.63	8.1	24.2	1.49
I20	07 Nov 2018	10	18.01	84.20	8.0	33.63	8.1	24.2	1.55
I20	07 Nov 2018	11	17.84	84.01	8.0	33.62	8.1	24.2	1.68
I20	07 Nov 2018	12	17.79	84.04	8.0	33.61	8.1	24.3	1.86
I20	07 Nov 2018	13	17.75	83.79	8.1	33.61	8.1	24.3	1.85
I20	07 Nov 2018	14	17.67	83.83	8.0	33.60	8.1	24.3	1.84
I20	07 Nov 2018	15	17.59	83.94	8.0	33.60	8.1	24.3	1.83
I20	07 Nov 2018	16	17.51	83.91	8.0	33.59	8.1	24.3	1.93
I20	07 Nov 2018	17	17.28	84.02	7.9	33.58	8.1	24.4	1.92
I20	07 Nov 2018	18	16.87	84.12	7.9	33.56	8.1	24.4	1.87
I20	07 Nov 2018	19	16.52	84.44	7.8	33.55	8.1	24.5	1.70
I20	07 Nov 2018	20	16.18	85.12	7.8	33.53	8.1	24.6	1.35
I20	07 Nov 2018	21	16.03	86.36	7.8	33.53	8.1	24.6	1.11
I20	07 Nov 2018	22	15.85	86.96	7.9	33.53	8.1	24.6	0.94
I20	07 Nov 2018	23	15.69	87.27	7.9	33.52	8.1	24.7	0.87
I20	07 Nov 2018	24	15.53	87.81	7.8	33.52	8.1	24.7	0.83
I20	07 Nov 2018	25	15.42	87.80	7.7	33.52	8.1	24.7	0.80
I20	07 Nov 2018	26	15.37	87.63	7.6	33.52	8.1	24.7	0.82
I20	07 Nov 2018	27	15.35	87.60	7.6	33.52	8.1	24.8	0.86
I20	07 Nov 2018	28	15.34	87.44	7.6	33.52	8.1	24.8	0.84
I20	07 Nov 2018	29	15.32	87.56	7.6	33.52	8.1	24.8	0.78
I20	07 Nov 2018	30	15.31	87.44	7.5	33.53	8.1	24.8	0.70
I20	07 Nov 2018	31	15.29	87.66	7.5	33.53	8.1	24.8	0.75
I20	07 Nov 2018	32	15.24	87.57	7.4	33.53	8.1	24.8	0.71
I20	07 Nov 2018	33	15.21	87.37	7.4	33.53	8.1	24.8	0.72
I20	07 Nov 2018	34	15.17	87.66	7.4	33.53	8.1	24.8	0.72
I20	07 Nov 2018	35	15.11	86.43	7.4	33.53	8.1	24.8	0.67
I20	07 Nov 2018	36	15.09	87.70	7.4	33.53	8.1	24.8	0.69
I20	07 Nov 2018	37	14.97	87.65	7.4	33.53	8.1	24.8	0.69
I20	07 Nov 2018	38	14.87	87.64	7.3	33.53	8.1	24.9	0.70
I20	07 Nov 2018	39	14.83	87.64	7.3	33.53	8.1	24.9	0.66
I20	07 Nov 2018	40	14.77	87.71	7.3	33.53	8.1	24.9	0.68
I20	07 Nov 2018	41	14.65	87.70	7.3	33.52	8.1	24.9	0.67
I20	07 Nov 2018	42	14.55	87.71	7.3	33.52	8.1	24.9	0.65
I20	07 Nov 2018	43	14.54	87.68	7.3	33.52	8.1	24.9	0.64
I20	07 Nov 2018	44	14.53	87.57	7.3	33.52	8.1	24.9	0.67
I20	07 Nov 2018	45	14.52	87.71	7.3	33.52	8.0	24.9	0.65
I20	07 Nov 2018	46	14.52	87.58	7.3	33.52	8.0	24.9	0.65
I20	07 Nov 2018	47	14.51	87.58	7.3	33.52	8.0	24.9	0.62
I20	07 Nov 2018	48	14.50	87.56	7.2	33.52	8.0	24.9	0.62
I20	07 Nov 2018	49	14.50	87.70	7.3	33.52	8.0	24.9	0.63

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I20	07 Nov 2018	50	14.50	87.46	7.3	33.52	8.0	24.9	0.65
I20	07 Nov 2018	51	14.49	87.75	7.3	33.52	8.0	24.9	0.63
I20	07 Nov 2018	52	14.48	87.73	7.2	33.52	8.0	24.9	0.63
I20	07 Nov 2018	53	14.46	87.80	7.2	33.52	8.0	24.9	0.61
I20	07 Nov 2018	54	14.42	87.83	7.2	33.52	8.0	25.0	0.61
I20	07 Nov 2018	55	14.35	87.66	7.2	33.52	8.0	25.0	0.59
I21	07 Nov 2018	1	18.43	87.27	7.9	33.66	8.2	24.1	0.46
I21	07 Nov 2018	2	18.34	87.16	7.9	33.65	8.2	24.2	0.49
I21	07 Nov 2018	3	18.16	87.02	8.0	33.64	8.2	24.2	0.59
I21	07 Nov 2018	4	17.90	86.96	8.0	33.62	8.1	24.2	0.69
I21	07 Nov 2018	5	17.55	86.84	8.0	33.59	8.1	24.3	0.84
I21	07 Nov 2018	6	17.21	86.62	7.9	33.57	8.1	24.4	0.95
I21	07 Nov 2018	7	16.81	85.97	7.9	33.56	8.1	24.5	1.01
I21	07 Nov 2018	8	16.51	86.42	7.9	33.55	8.1	24.5	0.95
I21	07 Nov 2018	9	16.28	86.87	8.0	33.54	8.1	24.6	0.97
I21	07 Nov 2018	10	16.15	87.08	8.0	33.54	8.1	24.6	0.94
I21	07 Nov 2018	11	16.07	87.11	8.0	33.53	8.1	24.6	0.94
I21	07 Nov 2018	12	16.05	87.11	8.0	33.53	8.1	24.6	0.95
I21	07 Nov 2018	13	16.03	86.98	8.0	33.53	8.1	24.6	1.01
I21	07 Nov 2018	14	16.02	86.92	7.9	33.53	8.1	24.6	1.01
I21	07 Nov 2018	15	16.00	86.97	7.9	33.53	8.1	24.6	1.00
I21	07 Nov 2018	16	15.98	86.99	7.9	33.54	8.1	24.6	1.04
I21	07 Nov 2018	17	15.94	86.95	7.9	33.54	8.1	24.6	1.02
I21	07 Nov 2018	18	15.91	86.86	7.8	33.54	8.1	24.6	1.07
I21	07 Nov 2018	19	15.87	86.89	7.8	33.54	8.1	24.7	1.08
I21	07 Nov 2018	20	15.84	86.80	7.8	33.53	8.1	24.7	1.07
I21	07 Nov 2018	21	15.84	86.76	7.8	33.53	8.1	24.7	1.07
I21	07 Nov 2018	22	15.82	86.61	7.7	33.53	8.1	24.7	1.12
I21	07 Nov 2018	23	15.75	86.74	7.6	33.53	8.1	24.7	1.08
I21	07 Nov 2018	24	15.66	86.40	7.6	33.53	8.1	24.7	1.08
I21	07 Nov 2018	25	15.64	86.54	7.6	33.53	8.1	24.7	1.01
I21	07 Nov 2018	26	15.63	86.53	7.6	33.53	8.1	24.7	1.01
I21	07 Nov 2018	27	15.62	86.71	7.7	33.53	8.1	24.7	1.12
I21	07 Nov 2018	28	15.60	86.97	7.7	33.53	8.1	24.7	1.17
I21	07 Nov 2018	29	15.60	87.07	7.7	33.53	8.1	24.7	1.08
I21	07 Nov 2018	30	15.58	87.07	7.7	33.53	8.1	24.7	1.01
I21	07 Nov 2018	31	15.56	86.99	7.6	33.53	8.1	24.7	0.99
I21	07 Nov 2018	32	15.53	86.75	7.5	33.53	8.1	24.7	0.94
I21	07 Nov 2018	33	15.52	86.57	7.5	33.53	8.1	24.7	0.94
I21	07 Nov 2018	34	15.51	86.37	7.4	33.53	8.1	24.7	0.94
I21	07 Nov 2018	35	15.45	86.19	7.3	33.53	8.1	24.7	0.85
I21	07 Nov 2018	36	15.43	86.10	7.3	33.53	8.1	24.7	0.84
I21	07 Nov 2018	37	15.39	85.98	7.3	33.53	8.1	24.8	0.78
I21	07 Nov 2018	38	15.37	85.85	7.3	33.53	8.1	24.8	0.74
I21	07 Nov 2018	39	15.36	85.93	7.3	33.53	8.1	24.8	0.74
I21	07 Nov 2018	40	15.34	85.89	7.3	33.53	8.1	24.8	0.77
I21	07 Nov 2018	41	15.32	85.91	7.2	33.53	8.1	24.8	0.74
I22	07 Nov 2018	1	19.13	87.58	7.7	33.72	8.2	24.0	0.27
I22	07 Nov 2018	2	19.09	87.59	7.7	33.71	8.2	24.0	0.28
I22	07 Nov 2018	3	19.07	87.54	7.7	33.71	8.2	24.0	0.30
I22	07 Nov 2018	4	19.07	87.38	7.7	33.71	8.2	24.0	0.31
I22	07 Nov 2018	5	19.05	87.77	7.7	33.71	8.2	24.0	0.32
I22	07 Nov 2018	6	19.02	88.01	7.7	33.71	8.2	24.0	0.33

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I22	07 Nov 2018	7	18.97	88.00	7.7	33.71	8.2	24.0	0.34
I22	07 Nov 2018	8	18.93	87.99	7.7	33.70	8.2	24.1	0.38
I22	07 Nov 2018	9	18.86	87.96	7.7	33.70	8.2	24.1	0.41
I22	07 Nov 2018	10	18.60	87.69	7.9	33.67	8.2	24.1	0.44
I22	07 Nov 2018	11	18.43	87.50	7.9	33.66	8.2	24.1	0.47
I22	07 Nov 2018	12	18.22	87.23	8.0	33.64	8.2	24.2	0.54
I22	07 Nov 2018	13	18.00	87.39	8.1	33.62	8.2	24.2	0.59
I22	07 Nov 2018	14	17.93	87.08	8.2	33.61	8.2	24.2	0.68
I22	07 Nov 2018	15	17.79	87.13	8.2	33.60	8.2	24.3	0.64
I22	07 Nov 2018	16	17.68	87.21	8.2	33.59	8.2	24.3	0.65
I22	07 Nov 2018	17	17.60	87.06	8.2	33.59	8.2	24.3	0.71
I22	07 Nov 2018	18	17.51	86.96	8.1	33.59	8.2	24.3	0.78
I22	07 Nov 2018	19	17.24	86.74	8.1	33.58	8.2	24.4	0.84
I22	07 Nov 2018	20	16.93	86.70	8.1	33.56	8.2	24.4	0.88
I22	07 Nov 2018	21	16.89	86.44	8.1	33.55	8.1	24.4	0.88
I22	07 Nov 2018	22	16.85	86.43	8.1	33.55	8.1	24.4	0.88
I22	07 Nov 2018	23	16.82	86.30	8.1	33.55	8.1	24.4	0.90
I22	07 Nov 2018	24	16.77	86.30	8.0	33.55	8.1	24.5	0.90
I22	07 Nov 2018	25	16.73	86.28	8.0	33.55	8.1	24.5	0.90
I22	07 Nov 2018	26	16.66	86.24	8.0	33.55	8.1	24.5	0.89
I22	07 Nov 2018	27	16.53	85.89	7.9	33.55	8.1	24.5	0.92
I22	07 Nov 2018	28	16.44	85.25	7.8	33.54	8.1	24.5	0.90
I23	07 Nov 2018	1	19.10	87.78	7.8	33.71	8.2	24.0	0.24
I23	07 Nov 2018	2	19.06	87.74	7.8	33.71	8.2	24.0	0.24
I23	07 Nov 2018	3	19.00	87.65	7.9	33.71	8.2	24.0	0.26
I23	07 Nov 2018	4	18.99	87.58	7.8	33.71	8.2	24.0	0.30
I23	07 Nov 2018	5	18.99	87.60	7.8	33.71	8.2	24.0	0.32
I23	07 Nov 2018	6	18.99	87.59	7.8	33.71	8.2	24.0	0.33
I23	07 Nov 2018	7	18.99	87.62	7.8	33.71	8.2	24.0	0.35
I23	07 Nov 2018	8	18.99	87.58	7.8	33.71	8.2	24.0	0.36
I23	07 Nov 2018	9	18.98	87.56	7.8	33.71	8.2	24.0	0.38
I23	07 Nov 2018	10	18.98	87.65	7.8	33.71	8.2	24.0	0.40
I23	07 Nov 2018	11	18.98	87.64	7.8	33.71	8.2	24.0	0.41
I23	07 Nov 2018	12	18.97	87.58	7.8	33.71	8.2	24.0	0.45
I23	07 Nov 2018	13	18.86	87.56	7.8	33.70	8.2	24.1	0.48
I23	07 Nov 2018	14	18.49	87.62	8.0	33.67	8.2	24.1	0.56
I23	07 Nov 2018	15	18.17	87.04	8.1	33.63	8.2	24.2	0.65
I23	07 Nov 2018	16	18.06	86.50	8.1	33.61	8.2	24.2	0.73
I23	07 Nov 2018	17	17.99	86.24	8.1	33.60	8.2	24.2	0.85
I23	07 Nov 2018	18	17.87	85.43	8.1	33.59	8.2	24.2	0.97
I23	07 Nov 2018	19	17.77	83.98	8.1	33.59	8.2	24.2	1.05
I23	07 Nov 2018	20	17.69	82.90	8.1	33.58	8.2	24.3	1.08
I23	07 Nov 2018	21	17.66	82.59	8.0	33.58	8.2	24.3	1.06
I27	07 Nov 2018	1	19.04	87.89	7.7	33.71	8.2	24.0	0.27
I27	07 Nov 2018	2	19.01	87.87	7.7	33.71	8.2	24.0	0.29
I27	07 Nov 2018	3	18.97	87.74	7.7	33.70	8.2	24.0	0.32
I27	07 Nov 2018	4	18.96	87.65	7.7	33.70	8.2	24.0	0.35
I27	07 Nov 2018	5	18.95	87.60	7.7	33.70	8.2	24.0	0.36
I27	07 Nov 2018	6	18.95	87.65	7.7	33.70	8.2	24.0	0.39
I27	07 Nov 2018	7	18.95	87.66	7.7	33.70	8.2	24.0	0.41
I27	07 Nov 2018	8	18.94	87.66	7.7	33.70	8.2	24.0	0.42
I27	07 Nov 2018	9	18.92	87.65	7.7	33.70	8.2	24.0	0.43
I27	07 Nov 2018	10	18.88	87.69	7.8	33.70	8.2	24.1	0.45

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I27	07 Nov 2018	11	18.83	87.65	7.8	33.69	8.2	24.1	0.47
I27	07 Nov 2018	12	18.66	87.58	7.8	33.68	8.2	24.1	0.48
I27	07 Nov 2018	13	18.57	87.59	7.9	33.67	8.2	24.1	0.50
I27	07 Nov 2018	14	18.50	87.52	7.9	33.66	8.2	24.1	0.53
I27	07 Nov 2018	15	18.36	87.50	7.9	33.65	8.2	24.2	0.57
I27	07 Nov 2018	16	18.06	87.33	8.1	33.62	8.2	24.2	0.67
I27	07 Nov 2018	17	17.84	86.88	8.2	33.61	8.2	24.2	0.74
I27	07 Nov 2018	18	17.66	86.63	8.2	33.60	8.2	24.3	0.79
I27	07 Nov 2018	19	17.52	86.64	8.2	33.59	8.2	24.3	0.81
I27	07 Nov 2018	20	17.40	86.62	8.1	33.58	8.2	24.3	0.87
I27	07 Nov 2018	21	17.15	86.47	8.1	33.57	8.2	24.4	1.00
I27	07 Nov 2018	22	16.99	86.09	8.1	33.56	8.1	24.4	1.01
I27	07 Nov 2018	23	16.88	86.11	8.0	33.56	8.1	24.4	1.02
I27	07 Nov 2018	24	16.69	85.97	8.0	33.55	8.1	24.5	1.08
I27	07 Nov 2018	25	16.57	85.68	7.9	33.55	8.1	24.5	1.09
I27	07 Nov 2018	26	16.47	85.53	7.8	33.54	8.1	24.5	1.09
I27	07 Nov 2018	27	16.43	84.96	7.8	33.54	8.1	24.5	1.12
I27	07 Nov 2018	28	16.39	84.54	7.7	33.54	8.1	24.5	1.10
I28	08 Nov 2018	1	19.04	87.64	7.8	33.71	8.1	24.0	0.20
I28	08 Nov 2018	2	18.95	87.56	7.8	33.70	8.2	24.0	0.21
I28	08 Nov 2018	3	18.68	87.52	7.9	33.67	8.1	24.1	0.26
I28	08 Nov 2018	4	18.60	87.32	7.9	33.66	8.1	24.1	0.28
I28	08 Nov 2018	5	18.55	87.22	7.9	33.66	8.1	24.1	0.29
I28	08 Nov 2018	6	18.51	87.01	7.9	33.66	8.1	24.1	0.33
I28	08 Nov 2018	7	18.51	87.08	7.9	33.66	8.1	24.1	0.33
I28	08 Nov 2018	8	18.50	86.92	7.9	33.66	8.1	24.1	0.36
I28	08 Nov 2018	9	18.49	87.04	7.9	33.66	8.1	24.1	0.39
I28	08 Nov 2018	10	18.45	86.99	7.9	33.65	8.1	24.1	0.41
I28	08 Nov 2018	11	18.42	86.92	7.9	33.65	8.1	24.1	0.44
I28	08 Nov 2018	12	18.33	86.87	8.0	33.64	8.1	24.1	0.47
I28	08 Nov 2018	13	18.29	86.74	8.0	33.63	8.1	24.2	0.50
I28	08 Nov 2018	14	18.28	86.66	8.0	33.63	8.1	24.2	0.53
I28	08 Nov 2018	15	18.22	86.63	8.0	33.63	8.1	24.2	0.54
I28	08 Nov 2018	16	18.15	86.59	8.0	33.62	8.1	24.2	0.60
I28	08 Nov 2018	17	18.12	86.46	8.1	33.62	8.1	24.2	0.61
I28	08 Nov 2018	18	18.08	86.55	8.1	33.62	8.1	24.2	0.62
I28	08 Nov 2018	19	18.06	86.63	8.1	33.62	8.1	24.2	0.63
I28	08 Nov 2018	20	18.05	86.45	8.1	33.62	8.1	24.2	0.66
I28	08 Nov 2018	21	18.06	86.65	8.1	33.62	8.1	24.2	0.67
I28	08 Nov 2018	22	18.06	86.74	8.1	33.62	8.1	24.2	0.66
I28	08 Nov 2018	23	18.06	86.58	8.1	33.62	8.1	24.2	0.65
I28	08 Nov 2018	24	18.05	86.69	8.1	33.62	8.1	24.2	0.65
I28	08 Nov 2018	25	18.04	86.68	8.1	33.62	8.1	24.2	0.66
I28	08 Nov 2018	26	18.00	86.74	8.0	33.62	8.1	24.2	0.67
I28	08 Nov 2018	27	17.73	86.59	8.0	33.60	8.1	24.3	0.71
I28	08 Nov 2018	28	17.21	86.75	8.1	33.58	8.1	24.4	0.77
I28	08 Nov 2018	29	16.81	86.89	8.1	33.56	8.1	24.5	0.80
I28	08 Nov 2018	30	16.32	86.99	8.2	33.54	8.1	24.6	0.95
I28	08 Nov 2018	31	16.13	86.69	8.2	33.53	8.1	24.6	1.09
I28	08 Nov 2018	32	15.83	86.56	8.0	33.52	8.1	24.7	1.34
I28	08 Nov 2018	33	15.51	85.92	7.7	33.52	8.1	24.7	1.45
I28	08 Nov 2018	34	15.45	85.87	7.6	33.52	8.1	24.7	1.25
I28	08 Nov 2018	35	15.41	85.71	7.6	33.52	8.1	24.7	1.28
I28	08 Nov 2018	36	15.36	86.05	7.7	33.52	8.1	24.8	1.57

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I28	08 Nov 2018	37	15.32	86.05	7.8	33.52	8.1	24.8	1.71
I28	08 Nov 2018	38	15.29	86.16	7.7	33.52	8.1	24.8	1.69
I28	08 Nov 2018	39	15.25	86.41	7.7	33.52	8.1	24.8	1.55
I28	08 Nov 2018	40	15.21	86.54	7.7	33.52	8.1	24.8	1.55
I28	08 Nov 2018	41	15.18	86.36	7.7	33.52	8.1	24.8	1.63
I28	08 Nov 2018	42	15.15	86.53	7.6	33.52	8.1	24.8	1.51
I28	08 Nov 2018	43	15.12	86.87	7.5	33.52	8.1	24.8	1.26
I28	08 Nov 2018	44	15.07	87.18	7.5	33.52	8.1	24.8	1.01
I28	08 Nov 2018	45	15.05	87.22	7.4	33.52	8.1	24.8	0.96
I28	08 Nov 2018	46	15.00	87.10	7.5	33.53	8.1	24.8	0.98
I28	08 Nov 2018	47	14.98	87.01	7.4	33.53	8.1	24.8	0.98
I28	08 Nov 2018	48	14.94	87.08	7.4	33.52	8.1	24.8	0.96
I28	08 Nov 2018	49	14.83	87.02	7.4	33.53	8.1	24.9	0.86
I28	08 Nov 2018	50	14.80	87.18	7.3	33.53	8.1	24.9	0.78
I28	08 Nov 2018	51	14.79	87.17	7.3	33.53	8.1	24.9	0.73
I28	08 Nov 2018	52	14.77	87.14	7.3	33.53	8.1	24.9	0.71
I28	08 Nov 2018	53	14.75	87.17	7.3	33.53	8.1	24.9	0.66
I28	08 Nov 2018	54	14.70	87.21	7.2	33.53	8.1	24.9	0.64
I28	08 Nov 2018	55	14.43	87.17	7.2	33.53	8.0	25.0	0.61
I29	08 Nov 2018	1	19.18	87.95	7.7	33.71	8.2	24.0	0.21
I29	08 Nov 2018	2	18.94	87.70	7.8	33.70	8.2	24.0	0.20
I29	08 Nov 2018	3	18.51	87.41	8.0	33.66	8.2	24.1	0.24
I29	08 Nov 2018	4	18.23	87.14	8.1	33.63	8.2	24.2	0.30
I29	08 Nov 2018	5	17.91	86.94	8.1	33.61	8.1	24.2	0.36
I29	08 Nov 2018	6	17.62	86.55	8.2	33.59	8.1	24.3	0.45
I29	08 Nov 2018	7	17.44	86.32	8.1	33.59	8.1	24.3	0.59
I29	08 Nov 2018	8	17.33	85.88	8.1	33.58	8.1	24.3	0.72
I29	08 Nov 2018	9	17.11	86.28	8.1	33.57	8.1	24.4	0.75
I29	08 Nov 2018	10	16.97	86.34	8.1	33.56	8.1	24.4	0.77
I29	08 Nov 2018	11	16.87	86.32	8.1	33.55	8.1	24.4	0.85
I29	08 Nov 2018	12	16.80	86.43	8.1	33.54	8.1	24.4	0.92
I29	08 Nov 2018	13	16.74	86.28	8.1	33.54	8.1	24.5	0.97
I29	08 Nov 2018	14	16.69	86.32	8.1	33.54	8.1	24.5	1.03
I29	08 Nov 2018	15	16.66	86.43	8.0	33.54	8.1	24.5	1.13
I29	08 Nov 2018	16	16.62	86.58	8.0	33.54	8.1	24.5	1.18
I29	08 Nov 2018	17	16.56	86.73	8.0	33.55	8.1	24.5	1.18
I29	08 Nov 2018	18	16.55	86.56	8.0	33.55	8.1	24.5	1.17
I29	08 Nov 2018	19	16.55	86.65	7.9	33.55	8.1	24.5	1.17
I29	08 Nov 2018	20	16.55	86.52	7.9	33.55	8.1	24.5	1.18
I29	08 Nov 2018	21	16.55	86.47	7.9	33.55	8.1	24.5	1.20
I29	08 Nov 2018	22	16.51	86.41	7.9	33.55	8.1	24.5	1.22
I29	08 Nov 2018	23	16.49	86.33	7.9	33.55	8.1	24.5	1.20
I29	08 Nov 2018	24	16.45	86.27	7.9	33.55	8.1	24.5	1.18
I29	08 Nov 2018	25	16.41	86.39	7.9	33.55	8.1	24.5	1.21
I29	08 Nov 2018	26	16.36	86.41	7.9	33.55	8.1	24.6	1.22
I29	08 Nov 2018	27	16.31	86.61	7.8	33.55	8.1	24.6	1.20
I29	08 Nov 2018	28	16.27	86.39	7.8	33.55	8.1	24.6	1.22
I29	08 Nov 2018	29	16.25	86.42	7.8	33.55	8.1	24.6	1.20
I29	08 Nov 2018	30	16.24	86.38	7.8	33.55	8.1	24.6	1.13
I29	08 Nov 2018	31	16.18	86.17	7.7	33.54	8.1	24.6	1.16
I29	08 Nov 2018	32	16.18	85.97	7.7	33.54	8.1	24.6	1.12
I29	08 Nov 2018	33	16.16	86.17	7.7	33.54	8.1	24.6	1.11
I29	08 Nov 2018	34	16.15	86.11	7.7	33.54	8.1	24.6	1.07
I29	08 Nov 2018	35	16.14	86.12	7.7	33.54	8.1	24.6	1.06

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I29	08 Nov 2018	36	16.12	85.97	7.7	33.54	8.1	24.6	1.05
I29	08 Nov 2018	37	16.08	85.92	7.6	33.54	8.1	24.6	1.03
I29	08 Nov 2018	38	16.04	85.46	7.6	33.54	8.1	24.6	1.00
I3	06 Nov 2018	1	18.88	87.34	7.9	33.70	8.2	24.1	0.25
I3	06 Nov 2018	2	18.88	87.50	7.8	33.70	8.2	24.1	0.25
I3	06 Nov 2018	3	18.86	87.49	7.9	33.70	8.2	24.1	0.27
I3	06 Nov 2018	4	18.83	87.41	7.8	33.70	8.2	24.1	0.30
I3	06 Nov 2018	5	18.70	87.47	7.9	33.69	8.2	24.1	0.34
I3	06 Nov 2018	6	18.49	87.02	8.0	33.66	8.2	24.1	0.41
I3	06 Nov 2018	7	18.24	86.53	8.2	33.63	8.2	24.2	0.48
I3	06 Nov 2018	8	18.02	86.27	8.3	33.61	8.2	24.2	0.54
I3	06 Nov 2018	9	17.93	86.31	8.2	33.60	8.2	24.2	0.57
I3	06 Nov 2018	10	17.67	86.45	8.3	33.59	8.2	24.3	0.66
I3	06 Nov 2018	11	17.54	86.31	8.3	33.58	8.2	24.3	0.69
I3	06 Nov 2018	12	17.45	86.35	8.2	33.58	8.2	24.3	0.73
I3	06 Nov 2018	13	17.39	86.56	8.2	33.58	8.2	24.3	0.75
I3	06 Nov 2018	14	17.32	86.65	8.2	33.58	8.1	24.3	0.77
I3	06 Nov 2018	15	17.14	86.76	8.2	33.57	8.1	24.4	0.77
I3	06 Nov 2018	16	17.02	86.76	8.1	33.57	8.1	24.4	0.76
I3	06 Nov 2018	17	16.70	86.78	8.1	33.56	8.1	24.5	0.81
I3	06 Nov 2018	18	16.25	87.27	8.2	33.55	8.1	24.6	0.82
I3	06 Nov 2018	19	16.10	86.98	8.1	33.53	8.1	24.6	1.01
I3	06 Nov 2018	20	15.72	86.56	8.2	33.52	8.1	24.7	1.26
I3	06 Nov 2018	21	15.59	86.81	8.1	33.51	8.1	24.7	1.29
I3	06 Nov 2018	22	15.42	87.86	7.9	33.51	8.1	24.7	1.00
I3	06 Nov 2018	23	15.41	88.11	7.9	33.51	8.1	24.7	0.85
I3	06 Nov 2018	24	15.41	88.04	7.9	33.51	8.1	24.7	0.78
I3	06 Nov 2018	25	15.41	88.12	7.9	33.51	8.1	24.7	0.77
I3	06 Nov 2018	26	15.41	88.06	7.9	33.52	8.1	24.7	0.76
I3	06 Nov 2018	27	15.41	88.15	7.9	33.52	8.1	24.7	0.75
I30	08 Nov 2018	1	19.52	88.04	7.6	33.73	8.2	23.9	0.17
I30	08 Nov 2018	2	19.42	87.99	7.6	33.73	8.2	23.9	0.19
I30	08 Nov 2018	3	19.32	87.74	7.6	33.73	8.2	24.0	0.22
I30	08 Nov 2018	4	19.20	87.62	7.7	33.72	8.2	24.0	0.25
I30	08 Nov 2018	5	19.13	87.44	7.7	33.71	8.2	24.0	0.29
I30	08 Nov 2018	6	19.08	87.28	7.7	33.71	8.2	24.0	0.32
I30	08 Nov 2018	7	19.03	87.08	7.7	33.70	8.2	24.0	0.37
I30	08 Nov 2018	8	19.01	87.16	7.8	33.70	8.2	24.0	0.42
I30	08 Nov 2018	9	18.95	87.12	7.8	33.70	8.2	24.0	0.45
I30	08 Nov 2018	10	18.87	87.09	7.8	33.69	8.2	24.1	0.50
I30	08 Nov 2018	11	18.82	86.95	7.8	33.69	8.2	24.1	0.56
I30	08 Nov 2018	12	18.70	86.72	7.9	33.68	8.2	24.1	0.67
I30	08 Nov 2018	13	18.55	86.39	7.9	33.66	8.2	24.1	0.83
I30	08 Nov 2018	14	18.45	86.19	7.9	33.65	8.2	24.1	0.92
I30	08 Nov 2018	15	18.39	86.28	8.0	33.65	8.2	24.1	1.03
I30	08 Nov 2018	16	18.38	86.21	8.0	33.65	8.2	24.1	1.04
I30	08 Nov 2018	17	18.36	86.19	8.0	33.65	8.2	24.1	1.09
I30	08 Nov 2018	18	18.28	86.18	8.0	33.64	8.1	24.2	1.06
I30	08 Nov 2018	19	18.22	86.48	8.1	33.64	8.1	24.2	1.04
I30	08 Nov 2018	20	18.17	86.54	8.1	33.63	8.1	24.2	1.00
I30	08 Nov 2018	21	17.98	86.58	8.1	33.62	8.1	24.2	1.01
I30	08 Nov 2018	22	17.81	86.33	8.1	33.61	8.1	24.3	1.07
I30	08 Nov 2018	23	17.59	86.10	8.0	33.59	8.1	24.3	1.10

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I30	08 Nov 2018	24	17.41	85.63	8.0	33.58	8.1	24.3	1.14
I30	08 Nov 2018	25	17.32	84.56	8.0	33.57	8.1	24.3	1.13
I30	08 Nov 2018	26	17.26	84.04	8.0	33.57	8.1	24.4	1.13
I30	08 Nov 2018	27	17.23	83.71	7.9	33.57	8.1	24.4	1.09
I30	08 Nov 2018	28	17.21	83.16	7.9	33.57	8.1	24.4	1.05
I31	08 Nov 2018	1	19.01	78.98	8.6	33.60	8.2	23.9	1.69
I31	08 Nov 2018	2	18.93	78.99	8.6	33.60	8.2	24.0	1.69
I31	08 Nov 2018	3	18.77	79.45	8.6	33.59	8.2	24.0	1.81
I31	08 Nov 2018	4	18.76	80.04	8.6	33.59	8.2	24.0	1.98
I31	08 Nov 2018	5	18.74	80.10	8.6	33.59	8.2	24.0	2.07
I31	08 Nov 2018	6	18.64	81.16	8.5	33.59	8.2	24.0	1.92
I31	08 Nov 2018	7	18.61	81.79	8.4	33.60	8.2	24.0	1.78
I31	08 Nov 2018	8	18.63	82.90	8.2	33.62	8.2	24.1	1.57
I31	08 Nov 2018	9	18.54	84.20	8.1	33.63	8.2	24.1	1.33
I31	08 Nov 2018	10	18.40	83.43	8.0	33.62	8.1	24.1	1.28
I31	08 Nov 2018	11	18.22	82.87	7.9	33.61	8.1	24.2	1.23
I31	08 Nov 2018	12	18.09	82.74	7.9	33.61	8.1	24.2	1.12
I31	08 Nov 2018	13	17.86	83.20	8.0	33.60	8.1	24.2	1.05
I31	08 Nov 2018	14	17.79	84.04	8.0	33.59	8.1	24.2	1.11
I31	08 Nov 2018	15	17.75	84.04	8.0	33.59	8.1	24.3	1.08
I31	08 Nov 2018	16	17.68	84.32	8.0	33.59	8.1	24.3	1.10
I31	08 Nov 2018	17	17.64	84.78	8.0	33.59	8.1	24.3	1.11
I31	08 Nov 2018	18	17.61	84.60	8.0	33.59	8.1	24.3	1.13
I31	08 Nov 2018	19	17.56	84.41	7.9	33.59	8.1	24.3	1.13
I33	08 Nov 2018	1	19.29	87.92	7.6	33.73	8.2	24.0	0.17
I33	08 Nov 2018	2	19.23	87.94	7.6	33.72	8.2	24.0	0.18
I33	08 Nov 2018	3	19.18	88.12	7.7	33.71	8.2	24.0	0.26
I33	08 Nov 2018	4	19.09	88.07	7.7	33.71	8.2	24.0	0.23
I33	08 Nov 2018	5	18.92	87.80	7.8	33.70	8.2	24.0	0.32
I33	08 Nov 2018	6	18.53	87.61	7.9	33.67	8.2	24.1	0.33
I33	08 Nov 2018	7	18.13	87.15	8.0	33.62	8.1	24.2	0.40
I33	08 Nov 2018	8	17.90	86.86	8.1	33.60	8.1	24.2	0.49
I33	08 Nov 2018	9	17.83	86.77	8.1	33.59	8.1	24.2	0.55
I33	08 Nov 2018	10	17.81	86.75	8.1	33.59	8.1	24.2	0.60
I33	08 Nov 2018	11	17.70	86.69	8.1	33.59	8.1	24.3	0.69
I33	08 Nov 2018	12	17.58	86.67	8.2	33.57	8.1	24.3	0.75
I33	08 Nov 2018	13	17.53	86.62	8.1	33.56	8.1	24.3	0.84
I33	08 Nov 2018	14	17.45	86.54	8.1	33.56	8.1	24.3	0.88
I33	08 Nov 2018	15	17.43	86.41	8.0	33.57	8.1	24.3	0.97
I33	08 Nov 2018	16	17.39	85.47	7.9	33.57	8.1	24.3	1.13
I33	08 Nov 2018	17	17.36	84.61	7.9	33.57	8.1	24.3	1.27
I33	08 Nov 2018	18	17.34	84.10	7.8	33.57	8.1	24.3	1.38
I33	08 Nov 2018	19	17.31	83.80	7.8	33.57	8.1	24.3	1.42
I33	08 Nov 2018	20	17.24	83.74	7.8	33.57	8.1	24.4	1.39
I33	08 Nov 2018	21	17.07	83.27	7.7	33.57	8.1	24.4	1.42
I33	08 Nov 2018	22	16.90	82.90	7.7	33.56	8.1	24.4	1.40
I33	08 Nov 2018	23	16.81	83.11	7.8	33.55	8.1	24.4	1.44
I33	08 Nov 2018	24	16.76	83.30	7.8	33.55	8.1	24.5	1.41
I33	08 Nov 2018	25	16.74	83.43	7.8	33.55	8.1	24.5	1.33
I33	08 Nov 2018	26	16.71	83.40	7.8	33.55	8.1	24.5	1.29
I33	08 Nov 2018	27	16.68	83.50	7.8	33.55	8.1	24.5	1.28
I33	08 Nov 2018	28	16.66	83.38	7.7	33.55	8.1	24.5	1.29
I33	08 Nov 2018	29	16.64	83.46	7.7	33.55	8.1	24.5	1.25

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I33	08 Nov 2018	30	16.62	83.31	7.7	33.55	8.1	24.5	1.21
I35	08 Nov 2018	1	19.01	84.40	7.9	33.68	8.2	24.0	0.50
I35	08 Nov 2018	2	19.01	84.43	7.9	33.68	8.2	24.0	0.52
I35	08 Nov 2018	3	18.98	84.56	8.0	33.68	8.2	24.0	0.57
I35	08 Nov 2018	4	18.87	84.69	8.0	33.67	8.2	24.0	0.61
I35	08 Nov 2018	5	18.80	84.90	8.0	33.67	8.2	24.1	0.64
I35	08 Nov 2018	6	18.77	84.91	8.0	33.67	8.2	24.1	0.68
I35	08 Nov 2018	7	18.66	85.25	8.0	33.66	8.2	24.1	0.80
I35	08 Nov 2018	8	18.51	85.15	8.1	33.65	8.2	24.1	0.93
I35	08 Nov 2018	9	18.48	84.71	8.1	33.65	8.2	24.1	1.20
I35	08 Nov 2018	10	18.46	84.16	8.1	33.64	8.2	24.1	1.46
I35	08 Nov 2018	11	18.44	83.51	8.1	33.64	8.2	24.1	2.05
I35	08 Nov 2018	12	18.42	82.91	8.1	33.64	8.2	24.1	2.24
I35	08 Nov 2018	13	18.42	82.90	8.1	33.64	8.2	24.1	2.40
I35	08 Nov 2018	14	18.39	82.91	8.0	33.63	8.2	24.1	2.18
I35	08 Nov 2018	15	18.34	83.09	8.0	33.63	8.2	24.1	2.06
I35	08 Nov 2018	16	18.18	83.28	8.0	33.61	8.2	24.2	1.88
I35	08 Nov 2018	17	18.08	83.62	8.0	33.61	8.2	24.2	1.65
I35	08 Nov 2018	18	17.98	82.27	7.9	33.60	8.1	24.2	1.53
I35	08 Nov 2018	19	17.95	80.93	7.8	33.60	8.1	24.2	1.43
I36	08 Nov 2018	1	18.78	74.37	9.4	33.59	8.2	24.0	2.14
I36	08 Nov 2018	2	18.74	74.61	9.4	33.59	8.2	24.0	2.24
I36	08 Nov 2018	3	18.67	73.51	9.6	33.59	8.2	24.0	3.32
I36	08 Nov 2018	4	18.53	70.17	9.6	33.59	8.2	24.1	6.35
I36	08 Nov 2018	5	18.48	69.13	9.4	33.59	8.2	24.1	9.02
I36	08 Nov 2018	6	18.46	72.20	9.1	33.59	8.2	24.1	8.31
I36	08 Nov 2018	7	18.45	74.52	9.0	33.59	8.2	24.1	6.85
I36	08 Nov 2018	8	18.43	76.78	8.7	33.59	8.2	24.1	5.25
I36	08 Nov 2018	9	18.37	77.98	8.3	33.59	8.2	24.1	3.82
I36	08 Nov 2018	10	18.30	75.84	7.9	33.59	8.2	24.1	2.81
I36	08 Nov 2018	11	18.23	72.68	7.6	33.59	8.1	24.1	2.11
I37	08 Nov 2018	1	18.97	81.94	7.9	33.68	8.1	24.0	0.59
I37	08 Nov 2018	2	18.91	82.98	7.9	33.68	8.1	24.0	0.58
I37	08 Nov 2018	3	18.90	83.10	7.9	33.68	8.1	24.0	0.62
I37	08 Nov 2018	4	18.82	83.61	7.9	33.68	8.1	24.1	0.62
I37	08 Nov 2018	5	18.79	83.82	7.9	33.68	8.1	24.1	0.67
I37	08 Nov 2018	6	18.77	84.12	7.9	33.68	8.1	24.1	0.78
I37	08 Nov 2018	7	18.75	84.41	7.9	33.68	8.1	24.1	0.83
I37	08 Nov 2018	8	18.71	84.50	7.9	33.68	8.1	24.1	0.82
I37	08 Nov 2018	9	18.59	84.80	7.9	33.67	8.1	24.1	0.88
I37	08 Nov 2018	10	18.29	84.11	7.9	33.65	8.1	24.2	1.01
I37	08 Nov 2018	11	18.12	83.21	8.0	33.62	8.1	24.2	1.22
I37	08 Nov 2018	12	18.09	82.44	7.9	33.61	8.1	24.2	1.44
I38	08 Nov 2018	1	18.73	75.55	8.8	33.60	8.2	24.0	1.97
I38	08 Nov 2018	2	18.72	75.68	8.9	33.60	8.2	24.0	2.11
I38	08 Nov 2018	3	18.63	75.73	8.9	33.60	8.2	24.0	2.47
I38	08 Nov 2018	4	18.46	74.88	9.0	33.59	8.2	24.1	3.46
I38	08 Nov 2018	5	18.44	74.48	9.0	33.59	8.2	24.1	4.53
I38	08 Nov 2018	6	18.41	75.65	8.8	33.59	8.2	24.1	4.69
I38	08 Nov 2018	7	18.37	77.71	8.6	33.59	8.2	24.1	4.03
I38	08 Nov 2018	8	18.29	79.06	8.3	33.59	8.2	24.1	3.07

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I38	08 Nov 2018	9	18.24	79.87	8.1	33.59	8.2	24.1	2.40
I38	08 Nov 2018	10	18.16	79.07	7.7	33.59	8.1	24.2	2.11
I38	08 Nov 2018	11	18.11	78.32	7.3	33.58	8.1	24.2	1.60
I4	06 Nov 2018	1	18.53	86.40	8.0	33.65	8.2	24.1	0.25
I4	06 Nov 2018	2	18.50	86.61	8.0	33.65	8.2	24.1	0.25
I4	06 Nov 2018	3	18.45	86.86	8.0	33.65	8.2	24.1	0.27
I4	06 Nov 2018	4	18.41	86.83	8.0	33.64	8.2	24.1	0.28
I4	06 Nov 2018	5	18.38	86.69	8.0	33.64	8.2	24.1	0.32
I4	06 Nov 2018	6	18.38	86.72	8.0	33.64	8.2	24.1	0.35
I4	06 Nov 2018	7	18.38	86.80	8.0	33.64	8.2	24.1	0.37
I4	06 Nov 2018	8	18.38	86.80	8.0	33.64	8.2	24.1	0.38
I4	06 Nov 2018	9	18.36	86.81	8.0	33.64	8.2	24.1	0.42
I4	06 Nov 2018	10	18.33	86.78	8.0	33.64	8.2	24.2	0.46
I4	06 Nov 2018	11	18.31	86.77	8.0	33.64	8.2	24.2	0.49
I4	06 Nov 2018	12	18.29	86.85	8.0	33.64	8.2	24.2	0.52
I4	06 Nov 2018	13	18.18	86.97	8.0	33.63	8.2	24.2	0.52
I4	06 Nov 2018	14	18.06	87.12	8.0	33.62	8.2	24.2	0.55
I4	06 Nov 2018	15	17.88	87.21	8.0	33.61	8.2	24.2	0.56
I4	06 Nov 2018	16	17.11	87.65	8.1	33.57	8.1	24.4	0.61
I4	06 Nov 2018	17	16.95	86.53	8.1	33.55	8.1	24.4	0.67
I4	06 Nov 2018	18	16.57	85.09	8.1	33.53	8.1	24.5	0.91
I5	06 Nov 2018	1	18.42	81.81	8.0	33.59	8.1	24.1	0.39
I5	06 Nov 2018	2	18.40	81.69	8.0	33.59	8.1	24.1	0.40
I5	06 Nov 2018	3	18.32	81.63	8.0	33.60	8.1	24.1	0.51
I5	06 Nov 2018	4	18.14	79.40	8.0	33.60	8.1	24.2	0.71
I5	06 Nov 2018	5	17.88	80.90	8.1	33.60	8.1	24.2	0.86
I5	06 Nov 2018	6	17.77	82.73	8.2	33.59	8.1	24.2	0.98
I5	06 Nov 2018	7	17.65	83.04	8.2	33.58	8.1	24.3	0.98
I5	06 Nov 2018	8	17.58	84.56	8.2	33.57	8.1	24.3	0.95
I5	06 Nov 2018	9	17.37	85.36	8.1	33.56	8.1	24.3	0.86
I5	06 Nov 2018	10	16.95	85.08	8.1	33.55	8.1	24.4	0.91
I5	06 Nov 2018	11	16.83	81.80	8.1	33.54	8.1	24.4	1.09
I5	06 Nov 2018	12	16.76	80.12	8.1	33.54	8.1	24.4	1.35
I5	06 Nov 2018	13	16.73	79.17	8.1	33.54	8.1	24.5	1.39
I5	06 Nov 2018	14	16.73	78.81	8.1	33.54	8.1	24.5	1.48
I6	06 Nov 2018	1	18.76	86.86	7.9	33.69	8.2	24.1	0.19
I6	06 Nov 2018	2	18.74	87.07	7.9	33.69	8.2	24.1	0.20
I6	06 Nov 2018	3	18.72	87.22	7.9	33.68	8.2	24.1	0.20
I6	06 Nov 2018	4	18.69	87.13	7.9	33.68	8.2	24.1	0.22
I6	06 Nov 2018	5	18.65	87.17	7.9	33.68	8.2	24.1	0.25
I6	06 Nov 2018	6	18.63	87.16	7.9	33.68	8.2	24.1	0.26
I6	06 Nov 2018	7	18.55	87.22	8.0	33.67	8.2	24.1	0.29
I6	06 Nov 2018	8	18.42	86.97	8.0	33.66	8.2	24.1	0.32
I6	06 Nov 2018	9	18.12	86.76	8.1	33.63	8.2	24.2	0.37
I6	06 Nov 2018	10	17.94	86.74	8.1	33.62	8.2	24.2	0.40
I6	06 Nov 2018	11	17.66	87.03	8.0	33.60	8.2	24.3	0.41
I6	06 Nov 2018	12	17.07	87.32	8.1	33.58	8.2	24.4	0.40
I6	06 Nov 2018	13	16.91	87.45	8.1	33.57	8.1	24.4	0.42
I6	06 Nov 2018	14	16.84	87.25	8.0	33.57	8.1	24.5	0.43
I6	06 Nov 2018	15	16.29	87.33	8.1	33.55	8.1	24.6	0.54
I6	06 Nov 2018	16	16.09	87.61	8.1	33.53	8.1	24.6	0.61
I6	06 Nov 2018	17	15.95	87.72	8.0	33.52	8.1	24.6	0.63

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
16	06 Nov 2018	18	15.93	87.84	8.0	33.52	8.1	24.6	0.62
16	06 Nov 2018	19	15.92	87.84	7.9	33.52	8.1	24.6	0.63
16	06 Nov 2018	20	15.90	87.85	7.9	33.52	8.1	24.6	0.66
16	06 Nov 2018	21	15.90	87.87	7.9	33.53	8.1	24.6	0.66
16	06 Nov 2018	22	15.90	87.86	7.9	33.53	8.1	24.6	0.69
16	06 Nov 2018	23	15.90	87.79	7.9	33.53	8.1	24.6	0.69
16	06 Nov 2018	24	15.90	87.82	7.8	33.53	8.1	24.6	0.67
16	06 Nov 2018	25	15.90	87.84	7.9	33.53	8.1	24.6	0.70
16	06 Nov 2018	26	15.90	87.94	7.9	33.53	8.1	24.6	0.66
17	06 Nov 2018	1	19.31	88.19	7.6	33.73	8.1	24.0	0.26
17	06 Nov 2018	2	19.32	88.12	7.6	33.73	8.1	24.0	0.28
17	06 Nov 2018	3	19.24	88.36	7.6	33.73	8.1	24.0	0.39
17	06 Nov 2018	4	18.84	87.56	7.7	33.70	8.1	24.1	0.52
17	06 Nov 2018	5	18.63	87.31	7.8	33.67	8.1	24.1	0.69
17	06 Nov 2018	6	18.46	86.97	7.9	33.66	8.1	24.1	0.76
17	06 Nov 2018	7	18.40	86.93	7.9	33.65	8.1	24.1	0.82
17	06 Nov 2018	8	18.32	86.62	8.0	33.64	8.1	24.2	0.89
17	06 Nov 2018	9	18.17	86.54	8.0	33.62	8.1	24.2	1.04
17	06 Nov 2018	10	17.83	86.44	8.0	33.59	8.1	24.2	1.16
17	06 Nov 2018	11	17.61	86.40	8.1	33.58	8.1	24.3	1.21
17	06 Nov 2018	12	17.57	85.96	8.1	33.58	8.1	24.3	1.32
17	06 Nov 2018	13	17.56	85.83	8.1	33.58	8.1	24.3	1.39
17	06 Nov 2018	14	17.56	85.71	8.2	33.58	8.1	24.3	1.49
17	06 Nov 2018	15	17.55	85.47	8.1	33.58	8.1	24.3	1.56
17	06 Nov 2018	16	17.48	85.40	8.0	33.58	8.1	24.3	1.47
17	06 Nov 2018	17	17.09	86.34	8.2	33.56	8.1	24.4	1.38
17	06 Nov 2018	18	16.96	86.63	8.2	33.55	8.1	24.4	1.14
17	06 Nov 2018	19	16.88	86.89	8.2	33.55	8.1	24.4	1.07
17	06 Nov 2018	20	16.57	87.28	8.2	33.54	8.1	24.5	0.97
17	06 Nov 2018	21	16.32	87.63	8.3	33.53	8.1	24.5	0.88
17	06 Nov 2018	22	16.22	87.76	8.3	33.52	8.1	24.6	0.80
17	06 Nov 2018	23	16.15	87.93	8.3	33.51	8.1	24.6	0.78
17	06 Nov 2018	24	16.13	87.97	8.3	33.51	8.1	24.6	0.81
17	06 Nov 2018	25	16.12	87.98	8.3	33.51	8.1	24.6	0.77
17	06 Nov 2018	26	16.02	87.99	8.2	33.51	8.1	24.6	0.77
17	06 Nov 2018	27	15.70	88.08	8.3	33.50	8.1	24.7	0.74
17	06 Nov 2018	28	15.57	88.17	8.3	33.49	8.1	24.7	0.73
17	06 Nov 2018	29	15.48	88.24	8.3	33.48	8.1	24.7	0.73
17	06 Nov 2018	30	15.34	88.16	8.3	33.48	8.1	24.7	0.75
17	06 Nov 2018	31	15.21	88.21	8.4	33.48	8.1	24.8	0.75
17	06 Nov 2018	32	15.10	88.33	8.4	33.48	8.1	24.8	0.83
17	06 Nov 2018	33	15.00	88.26	8.4	33.48	8.1	24.8	0.89
17	06 Nov 2018	34	14.95	87.70	8.3	33.48	8.1	24.8	1.00
17	06 Nov 2018	35	14.88	87.95	8.3	33.49	8.1	24.8	1.07
17	06 Nov 2018	36	14.85	87.67	8.3	33.49	8.1	24.8	1.09
17	06 Nov 2018	37	14.85	87.73	8.3	33.49	8.1	24.8	1.11
17	06 Nov 2018	38	14.82	87.70	8.2	33.49	8.1	24.9	1.13
17	06 Nov 2018	39	14.79	87.79	8.2	33.50	8.1	24.9	1.19
17	06 Nov 2018	40	14.75	87.59	8.0	33.50	8.1	24.9	1.18
17	06 Nov 2018	41	14.74	87.53	7.9	33.50	8.1	24.9	1.17
17	06 Nov 2018	42	14.74	87.55	7.9	33.51	8.1	24.9	1.19
17	06 Nov 2018	43	14.74	87.60	7.9	33.51	8.1	24.9	1.22
17	06 Nov 2018	44	14.75	87.46	7.8	33.51	8.1	24.9	1.18
17	06 Nov 2018	45	14.74	87.39	7.7	33.52	8.1	24.9	1.22

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
17	06 Nov 2018	46	14.71	87.37	7.7	33.52	8.1	24.9	1.31
17	06 Nov 2018	47	14.66	87.25	7.6	33.52	8.1	24.9	1.27
17	06 Nov 2018	48	14.51	87.18	7.5	33.52	8.0	24.9	1.15
17	06 Nov 2018	49	14.32	87.49	7.4	33.52	8.0	25.0	1.10
17	06 Nov 2018	50	14.26	87.51	7.4	33.52	8.0	25.0	1.08
17	06 Nov 2018	51	14.22	87.63	7.5	33.52	8.0	25.0	1.03
17	06 Nov 2018	52	14.22	87.67	7.5	33.52	8.0	25.0	1.02
18	06 Nov 2018	1	18.46	86.57	8.0	33.64	8.2	24.1	0.21
18	06 Nov 2018	2	18.46	86.59	8.0	33.64	8.2	24.1	0.22
18	06 Nov 2018	3	18.46	86.76	8.0	33.64	8.2	24.1	0.22
18	06 Nov 2018	4	18.46	86.77	8.0	33.64	8.2	24.1	0.23
18	06 Nov 2018	5	18.37	86.83	8.0	33.64	8.2	24.1	0.26
18	06 Nov 2018	6	18.21	87.02	8.0	33.63	8.2	24.2	0.28
18	06 Nov 2018	7	17.90	87.12	8.0	33.63	8.2	24.2	0.28
18	06 Nov 2018	8	17.49	87.22	8.1	33.60	8.2	24.3	0.29
18	06 Nov 2018	9	16.66	87.42	8.2	33.57	8.2	24.5	0.30
18	06 Nov 2018	10	16.48	87.52	8.2	33.54	8.2	24.5	0.31
18	06 Nov 2018	11	16.12	87.51	8.3	33.53	8.2	24.6	0.35
18	06 Nov 2018	12	16.00	87.79	8.3	33.51	8.2	24.6	0.39
18	06 Nov 2018	13	15.82	87.93	8.3	33.50	8.2	24.6	0.40
18	06 Nov 2018	14	15.63	87.79	8.3	33.50	8.2	24.7	0.47
18	06 Nov 2018	15	15.60	87.37	8.3	33.50	8.2	24.7	0.59
18	06 Nov 2018	16	15.46	87.30	8.1	33.51	8.1	24.7	0.75
18	06 Nov 2018	17	15.39	87.42	7.9	33.52	8.1	24.7	0.79
18	06 Nov 2018	18	15.30	87.52	7.8	33.52	8.1	24.8	0.79
18	06 Nov 2018	19	15.31	87.47	7.8	33.52	8.1	24.8	0.81
18	06 Nov 2018	20	15.29	87.53	7.8	33.52	8.1	24.8	0.83
18	06 Nov 2018	21	15.29	87.70	7.7	33.52	8.1	24.8	0.86
18	06 Nov 2018	22	15.29	87.64	7.7	33.53	8.1	24.8	0.90
18	06 Nov 2018	23	15.29	87.60	7.7	33.53	8.1	24.8	0.91
18	06 Nov 2018	24	15.30	87.42	7.7	33.53	8.1	24.8	0.88
18	06 Nov 2018	25	15.30	87.77	7.7	33.53	8.1	24.8	0.89
18	06 Nov 2018	26	15.30	87.72	7.7	33.53	8.1	24.8	0.90
18	06 Nov 2018	27	15.30	87.76	7.6	33.53	8.1	24.8	0.88
18	06 Nov 2018	28	15.30	87.83	7.6	33.53	8.1	24.8	0.90
18	06 Nov 2018	29	15.30	87.79	7.6	33.53	8.1	24.8	0.89
18	06 Nov 2018	30	15.30	87.88	7.6	33.53	8.1	24.8	0.88
18	06 Nov 2018	31	15.30	87.89	7.6	33.53	8.1	24.8	0.89
18	06 Nov 2018	32	15.29	87.80	7.6	33.53	8.1	24.8	0.86
18	06 Nov 2018	33	15.29	87.82	7.6	33.53	8.1	24.8	0.86
18	06 Nov 2018	34	15.28	87.65	7.5	33.53	8.1	24.8	0.86
18	06 Nov 2018	35	15.27	87.79	7.5	33.53	8.1	24.8	0.82
18	06 Nov 2018	36	15.26	87.61	7.5	33.53	8.1	24.8	0.84
19	06 Nov 2018	1	18.51	86.82	8.0	33.66	8.2	24.1	0.22
19	06 Nov 2018	2	18.51	86.84	8.0	33.66	8.2	24.1	0.24
19	06 Nov 2018	3	18.50	86.73	8.0	33.66	8.2	24.1	0.23
19	06 Nov 2018	4	18.51	86.94	8.0	33.66	8.2	24.1	0.25
19	06 Nov 2018	5	18.50	86.90	8.0	33.66	8.2	24.1	0.28
19	06 Nov 2018	6	18.48	86.90	8.0	33.66	8.2	24.1	0.29
19	06 Nov 2018	7	18.46	87.01	7.9	33.66	8.2	24.1	0.30
19	06 Nov 2018	8	18.26	86.83	8.0	33.64	8.2	24.2	0.31
19	06 Nov 2018	9	17.87	87.21	8.0	33.62	8.2	24.2	0.33
19	06 Nov 2018	10	17.44	87.17	8.1	33.60	8.2	24.3	0.36

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
19	06 Nov 2018	11	17.17	87.19	8.1	33.58	8.2	24.4	0.40
19	06 Nov 2018	12	16.81	87.25	8.2	33.57	8.2	24.5	0.38
19	06 Nov 2018	13	16.55	87.35	8.2	33.55	8.2	24.5	0.41
19	06 Nov 2018	14	16.29	87.40	8.1	33.54	8.2	24.6	0.47
19	06 Nov 2018	15	15.87	87.50	8.1	33.52	8.1	24.6	0.57
19	06 Nov 2018	16	15.83	87.78	8.0	33.52	8.1	24.6	0.60
19	06 Nov 2018	17	15.78	87.83	7.9	33.52	8.1	24.7	0.58
19	06 Nov 2018	18	15.79	87.81	7.9	33.52	8.1	24.7	0.60
19	06 Nov 2018	19	15.78	87.80	7.8	33.52	8.1	24.7	0.61
19	06 Nov 2018	20	15.78	87.71	7.8	33.53	8.1	24.7	0.65
19	06 Nov 2018	21	15.77	87.69	7.8	33.53	8.1	24.7	0.67
19	06 Nov 2018	22	15.77	87.81	7.8	33.53	8.1	24.7	0.68
19	06 Nov 2018	23	15.76	87.80	7.7	33.53	8.1	24.7	0.68
19	06 Nov 2018	24	15.76	87.88	7.7	33.53	8.1	24.7	0.73
19	06 Nov 2018	25	15.75	87.76	7.7	33.53	8.1	24.7	0.75
19	06 Nov 2018	26	15.73	87.77	7.7	33.53	8.1	24.7	0.76
19	06 Nov 2018	27	15.73	87.71	7.7	33.53	8.1	24.7	0.72
19	06 Nov 2018	28	15.72	87.75	7.7	33.53	8.1	24.7	0.73
19	06 Nov 2018	29	15.70	87.60	7.7	33.53	8.1	24.7	0.74

NA = not available

APPENDIX A

Quality Assurance

Table A.1

Summary of bacteriological quality assurance field and lab duplicate sample analyses at selected SBOO stations. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Entero) are reported as CFU/100 mL.

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Entero
I3	06 Nov 2018	18	JLT	LAB DUPLICATE	<2	<2	<2
I8	06 Nov 2018	37	JLT	LAB DUPLICATE	<2	<2	<2
I9	06 Nov 2018	27	JLT	LAB DUPLICATE	<2	<2	<2
I12	07 Nov 2018	18	AE	LAB DUPLICATE	<2	<2	<2
I13	07 Nov 2018	18	AE	LAB DUPLICATE	<2	<2	<2
I14	07 Nov 2018	2	AR	LAB DUPLICATE	<2	<2	<2
I16	07 Nov 2018	18	AR	LAB DUPLICATE	8e	10e	<2
I19	05 Nov 2018	6	LMA	LAB DUPLICATE	<2	<2	<2
I19	14 Nov 2018	6	AE	LAB DUPLICATE	2e	<2	<2
I19	19 Nov 2018	6	JT	LAB DUPLICATE	<2	<2	<2
I19	26 Nov 2018	6	AE	LAB DUPLICATE	<20	<2	<2
I20	07 Nov 2018	55	AR	LAB DUPLICATE	<2	<2	ns
I30	08 Nov 2018	27	LMA	LAB DUPLICATE	<4	<4	<4
I33	08 Nov 2018	27	JLT	LAB DUPLICATE	<2	<2	<2
I36	08 Nov 2018	11	LMA	FIELD DUPLICATE	<20	<2	<2
I36	08 Nov 2018	11	LMA	LAB DUPLICATE	<4	<4	<4
I40	05 Nov 2018	6	JLT	LAB DUPLICATE	<2	<2	<2
I40	14 Nov 2018	6	AR	LAB DUPLICATE	<2	<2	<2
I40	19 Nov 2018	6	JT	LAB DUPLICATE	<2	<2	ns
I40	26 Nov 2018	6	AE	LAB DUPLICATE	<2	<2	<2
S12	06 Nov 2018		AR	FIELD DUPLICATE	20e	20e	2e
S12	06 Nov 2018		AR	LAB DUPLICATE	4e	4e	2e
S12	13 Nov 2018		JT	FIELD DUPLICATE	<2	<2	2e
S12	13 Nov 2018		JT	LAB DUPLICATE	<2	<2	<2
S12	20 Nov 2018		AE	FIELD DUPLICATE	<20	<2	2e
S12	20 Nov 2018		AE	LAB DUPLICATE	<2	<2	ns
S12	27 Nov 2018		AE	FIELD DUPLICATE	<20	<2	<2
S12	27 Nov 2018		AE	LAB DUPLICATE	<2	<2	ns

ns = not sampled

ND = no data

