

# **MONTHLY RECEIVING WATERS MONITORING REPORT FOR THE SOUTH BAY OCEAN OUTFALL**

## **SOUTH BAY WATER RECLAMATION PLANT**

NPDES PERMIT No. CA 0109045  
SDRWQCB Order No. R9-2013-0006

# **MAY 2017**

Environmental Monitoring and Technical Services  
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June 30, 2017

David 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 May 2017 Monthly Receiving Waters Monitoring Report for the South Bay Ocean Outfall, South Bay Water Reclamation Plant as required per Order No. R9-2013-0006, 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, 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/gfw

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, NPDES Permit No. CA0109045, for the South Bay Water Reclamation Plant (SBWRP), South Bay Ocean Outfall (SBOO). Order No. R9-2013-0006 superseded Order No. R9-2006-0067 effective April 4, 2013. 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 five 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 of eight scans per second. The data were then

internally averaged using the CTD proprietary software, Seasoftware, 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 chromophoric 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, suspended solids, and oil and grease analyses were typically 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)<sup>[1]</sup>. 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.

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<sup>[1]</sup>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 2017 Quality Assurance Report, which will be completed in March 2018.

## **SUMMARY OF RESULTS**

### **➤ Shoreline Water Quality Sampling**

- Because of site access restrictions in Mexico, the South Bay shoreline sampling is 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 May, three of the eight shore stations located north of the border were out of compliance with various California Ocean Plan (Ocean Plan) water contact standards (see below); these standards do not apply to stations located in Mexican waters.
  - The 30-day geometric mean standard for *Enterococcus* was exceeded at station S5 on May 1.
  - The single sample maximum (SSM) standards for total coliforms, fecal coliforms, and *Enterococcus* were exceeded at stations S4, S5, S6, S10 and S11 on one or more days during the month.

- The SSM standard that states total coliform densities shall not exceed 1000 CFU/100 mL when the fecal:total ratio exceeds 0.1, was exceeded at stations S5 and S6 on May 9.
- Per permit requirements, resamples were collected in response to these SSM exceedances (see Table 2.8 for details).
- 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 the seawater samples collected at stations S0 and S3 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 *South Bay Ocean Outfall Annual Receiving Waters Monitoring and Assessment Report* for details (<http://www.sandiego.gov/mwwd/environment/oceanmonitor/reports/index.shtml>).
- Nothing of sewage origin was observed at any of the shore stations.

#### ➤ **Kelp Bed Water Quality Sampling**

- The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled six times during May (i.e. May 2, 3, 11, 19, 25, 30).
- During May, each of the kelp bed stations was in compliance with various water-contact standards specified in the Ocean Plan.
- Water column temperatures ranged from 10.77 to 18.32°C. The difference between surface and bottom waters ranged from approximately 0.79 to 6.17°C, indicating the water column was stratified at some of these sites during the month.
- Chlorophyll *a* concentrations ranged from 0.58 to 19.65 µg/L at these stations, suggesting the presence of phytoplankton blooms during the month.
- Suspended solids ranged from 2.8 to 6.9 mg/L in May.
- Oil and grease values were ≤ 3.89 mg/L in all kelp bed seawater samples.
- 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., May 2, 3, 4).
- All of the offshore stations located within State jurisdictional waters (i.e., I12, I14, I16, I18, I22, I23, I33, I36–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 10.18 to 18.89°C at the offshore sites. The difference between surface and bottom waters ranged from 4.18 to 8.08°C, indicating that the water column was stratified at all of the offshore stations during the month.
- Chlorophyll *a* concentrations ranged from 0.27 to 24.55 µg/L at the offshore sites, suggesting the presence of phytoplankton blooms during the month.
- CDOM data are available upon request.
- Suspended solid values ranged from 0.2 to 12.6 mg/L in May. Elevated levels of suspended solids (i.e., values  $\geq 8$  mg/L) occurred in seawater samples collected from stations I5 (6 m depth).
- Oil and grease values were  $\leq 3.45$  mg/L in all offshore seawater samples.
- Nothing of sewage origin was observed at any of the offshore stations.

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# TABLES AND FIGURES



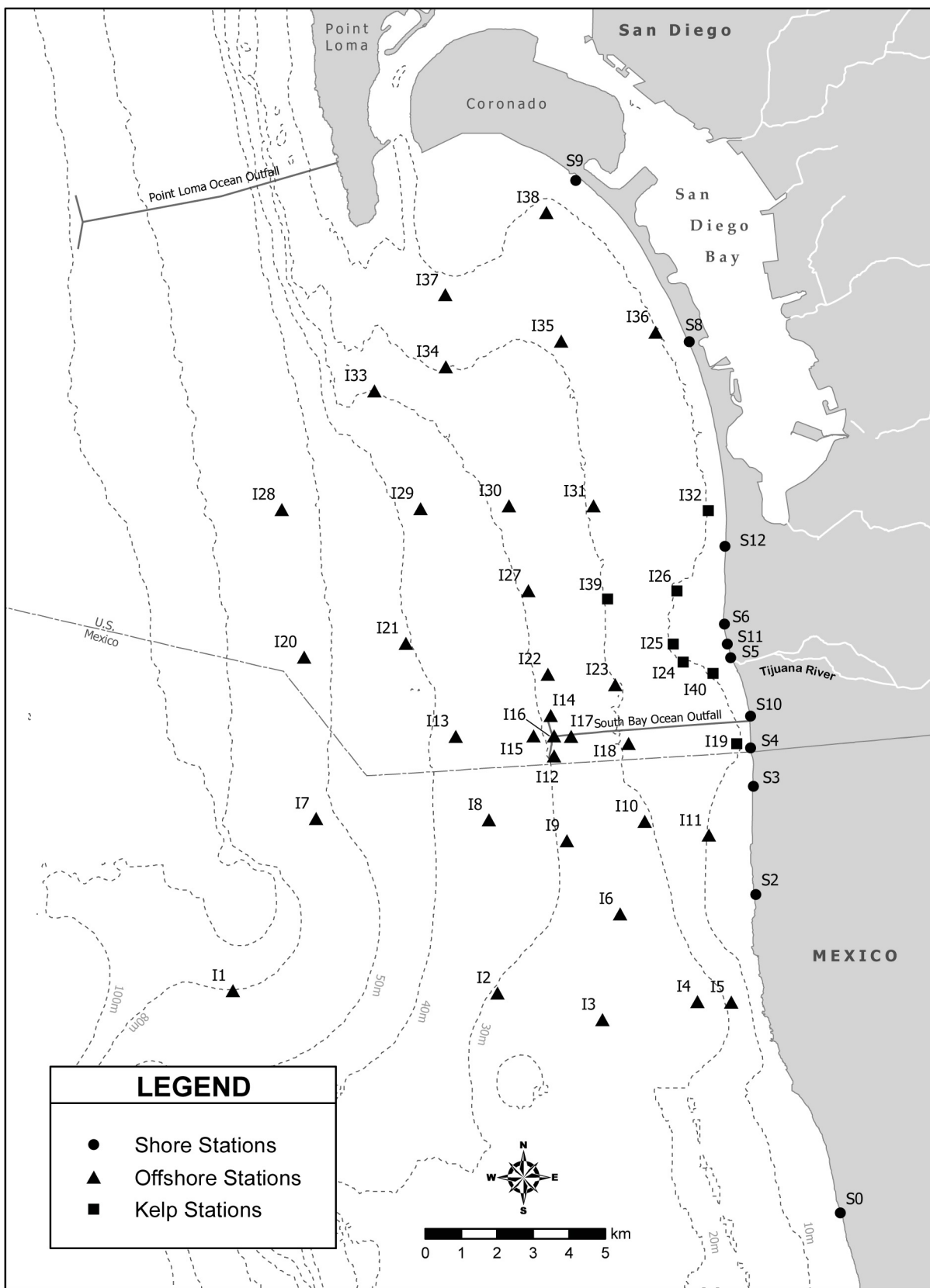


Figure 1.1 Station Map

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# Shore Stations





**Table 2.1**

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total coliform bacteria at the 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 May 2017	33*	152	4*	6*	11*	30*	8*	11*
02 May 2017	30	158	6	8	13	44	9	13
03 May 2017	30	158	6	8	13	44	9	13
04 May 2017	21*	73	8*	11*	20*	24*	13*	20*
05 May 2017	21*	73	8*	11*	20*	24*	13*	20*
06 May 2017	21*	25	8*	11*	20*	24*	13*	20*
07 May 2017	21*	20*	8*	11*	20*	24*	13*	20*
08 May 2017	21*	20*	8*	11*	20*	24*	13*	20*
09 May 2017	80	76	35	13	20	89	55	20
10 May 2017	80	76	35	13	20	89	55	20
11 May 2017	138	121	35	11*	20*	188	55	20*
12 May 2017	138	121	35	11*	20*	188	55	20*
13 May 2017	138	121	35	11*	20*	188	55	20*
14 May 2017	138	121	35	11*	20*	188	55	20*
15 May 2017	138	121	35	11*	20*	188	55	20*
16 May 2017	100	226	32	13	13	175	32	20
17 May 2017	100	226	32	13	13	175	32	20
18 May 2017	218	582	55	20*	11*	427	55	20*
19 May 2017	218	582	55	20*	11*	427	55	20*
20 May 2017	218	582	55	20*	11*	427	55	20*
21 May 2017	218	582	55	20*	11*	427	55	20*
22 May 2017	218	582	55	20*	11*	427	55	20*
23 May 2017	146	487	68	20	13	256	68	18
24 May 2017	146	487	68	20	13	256	68	18
25 May 2017	144	922	121	20*	11*	372	76	18*
26 May 2017	144	922	121	20*	11*	372	76	18*
27 May 2017	144	922	121	20*	11*	372	76	18*
28 May 2017	144	922	121	20*	11*	372	76	18*
29 May 2017	144	922	121	20*	11*	372	76	18*
30 May 2017	103	487	89	20	13	228	61	18
31 May 2017	103	487	89	20	13	228	61	18

\* 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 May 2017	3*	47	3*	2*	3*	5*	3*	3*
02 May 2017	4	33	3	2	3	4	3	3
03 May 2017	4	33	3	2	3	4	3	3
04 May 2017	3*	12	3*	2*	3*	3*	3*	4*
05 May 2017	3*	12	3*	2*	3*	3*	3*	4*
06 May 2017	3*	4	3*	2*	3*	3*	3*	4*
07 May 2017	3*	3*	3*	2*	3*	3*	3*	4*
08 May 2017	3*	3*	3*	2*	3*	3*	3*	4*
09 May 2017	8	13	14	2	3	10	10	3
10 May 2017	8	13	14	2	3	10	10	3
11 May 2017	14	21	14	2*	3*	16	10	4*
12 May 2017	14	21	14	2*	3*	16	10	4*
13 May 2017	14	21	14	2*	3*	16	10	4*
14 May 2017	14	21	14	2*	3*	16	10	4*
15 May 2017	14	21	14	2*	3*	16	10	4*
16 May 2017	10	30	10	2	3	15	8	3
17 May 2017	10	30	10	2	3	15	8	3
18 May 2017	14	52	14	2*	3*	22	10	2*
19 May 2017	14	52	14	2*	3*	22	10	2*
20 May 2017	14	52	14	2*	3*	22	10	2*
21 May 2017	14	52	14	2*	3*	22	10	2*
22 May 2017	14	52	14	2*	3*	22	10	2*
23 May 2017	10	30	10	2	3	17	8	2
24 May 2017	10	30	10	2	3	17	8	2
25 May 2017	14	45	11	2*	2*	22	7	2*
26 May 2017	14	45	11	2*	2*	22	7	2*
27 May 2017	14	45	11	2*	2*	22	7	2*
28 May 2017	14	45	11	2*	2*	22	7	2*
29 May 2017	14	45	11	2*	2*	22	7	2*
30 May 2017	10	27	8	2	2	15	6	2
31 May 2017	10	27	8	2	2	15	6	2

\* Geometric mean calculated using n<5

**Table 2.3**

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for *Enterococcus* at the 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 May 2017	8*	38	4*	3*	5*	11	3*	3*
02 May 2017	6	28	4	3	4	9	3	3
03 May 2017	6	28	4	3	4	9	3	3
04 May 2017	3*	10	3*	3*	4*	5	2*	3*
05 May 2017	3*	10	3*	3*	4*	5	2*	3*
06 May 2017	3*	5	3*	3*	4*	2	2*	3*
07 May 2017	3*	4*	3*	3*	4*	2*	2*	3*
08 May 2017	3*	4*	3*	3*	4*	2*	2*	3*
09 May 2017	7	8	8	3	3	7	7	3
10 May 2017	7	8	8	3	3	7	7	3
11 May 2017	12	12	8	3*	4*	14	7	3*
12 May 2017	12	12	8	3*	4*	14	7	3*
13 May 2017	12	12	8	3*	4*	14	7	3*
14 May 2017	12	12	8	3*	4*	14	7	3*
15 May 2017	12	12	8	3*	4*	14	7	3*
16 May 2017	11	18	6	3	3	17	6	3
17 May 2017	11	18	6	3	3	17	6	3
18 May 2017	16	18	6	2*	4*	26	6	2*
19 May 2017	16	18	6	2*	4*	26	6	2*
20 May 2017	16	18	6	2*	4*	26	6	2*
21 May 2017	16	18	6	2*	4*	26	6	2*
22 May 2017	16	18	6	2*	4*	26	6	2*
23 May 2017	11	14	5	2	3	19	5	2
24 May 2017	11	14	5	2	3	19	5	2
25 May 2017	12	18	6	2*	2*	26	6	2*
26 May 2017	12	18	6	2*	2*	26	6	2*
27 May 2017	12	18	6	2*	2*	26	6	2*
28 May 2017	12	18	6	2*	2*	26	6	2*
29 May 2017	12	18	6	2*	2*	26	6	2*
30 May 2017	9	13	5	2	2	17	5	3
31 May 2017	9	13	5	2	2	17	5	3

\* 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
02 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
09 May 2017	E	E	E	IC	IC	E	E	IC
11 May 2017	IC	IC	IC	ns	ns	IC	IC	ns
16 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
23 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
30 May 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**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
02 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
09 May 2017	E	E	E	IC	IC	E	E	IC
11 May 2017	IC	IC	IC	ns	ns	IC	IC	ns
16 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
23 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
30 May 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**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
02 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
09 May 2017	E	E	E	IC	IC	E	E	IC
11 May 2017	IC	IC	IC	ns	ns	IC	IC	ns
16 May 2017	IC	E	IC	IC	IC	IC	IC	IC
18 May 2017	ns	IC	ns	ns	ns	ns	ns	ns
23 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
30 May 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**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
02 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
09 May 2017	IC	E	E	IC	IC	IC	IC	IC
11 May 2017	IC	IC	IC	ns	ns	IC	IC	ns
16 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
23 May 2017	IC	IC	IC	IC	IC	IC	IC	IC
30 May 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**Table 2.8**

Summary of water quality parameters at the 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	02 May 2017	1015	740	92	280e	0.12
S0	09 May 2017	1125	>16000	600e	300e	0.04
S0	16 May 2017	1015	4000	220e	20e	0.06
S0	23 May 2017	1020	20e	4e	2e	0.20
S0	30 May 2017	1055	1700e	380e	600	0.22
S2	02 May 2017	1115	<20	<2	<2	0.10
S2	09 May 2017	1029	6800	260e	<20	0.04
S2	16 May 2017	1115	<20	<2	<2	0.10
S2	23 May 2017	1210	20e	<2	<2	0.10
S2	30 May 2017	1305	<20	<2	<2	0.10
S3	02 May 2017	1205	<20	<2	<2	0.10
S3	09 May 2017	935	>16000	1000e	120e	0.06
S3	16 May 2017	1145	<20	<2	2e	0.10
S3	23 May 2017	1125	<20	<2	<2	0.10
S3	30 May 2017	1220	<20	<2	4e	0.10
S4	02 May 2017	857	20e	6e	<2	0.30
S4	09 May 2017	914	>16000	600e	180e	0.04
S4	11 May 2017	900	480e	34e	32e	0.07
S4	16 May 2017	830	20e	<2	10e	0.10
S4	23 May 2017	830	20e	2e	<2	0.10
S4	30 May 2017	1012	<20	<2	2e	0.10
S5	02 May 2017	1013	<200	4e	4e	0.02
S5	09 May 2017	1126	>16000	5600	180e	0.35
S5	11 May 2017	1000	200e	24e	16e	0.12
S5	16 May 2017	945	5200	180e	120	0.03
S5	18 May 2017	908	ns	ns	6e	ns
S5	23 May 2017	943	<200	2e	4e	0.01
S5	30 May 2017	1234	<20	<2	<2	0.10
S6	02 May 2017	1002	<20	6e	<2	0.30
S6	09 May 2017	1033	>16000	3600e	440	0.22
S6	11 May 2017	1012	<20	<2	<2	0.10
S6	16 May 2017	937	<20	2e	<2	0.10
S6	23 May 2017	933	<200	<2	2e	0.01
S6	30 May 2017	1224	<20	<2	<2	0.10
S8	02 May 2017	1140	<20	<2	<2	0.10
S8	09 May 2017	1218	<20	<2	<2	0.10
S8	16 May 2017	1114	<20	<2	<2	0.10
S8	23 May 2017	1153	<20	<2	<2	0.10
S8	30 May 2017	1318	<20	<2	<2	0.10
S9	02 May 2017	1223	<20	<2	<2	0.10
S9	09 May 2017	1252	<20	<2	<2	0.10
S9	16 May 2017	1154	<2	<2	<2	1.00



Station	Date	Time	Total	Fecal	Enteroc	F:T
S9	23 May 2017	1230	<20	<2	2e	0.10
S9	30 May 2017	1357	<20	<2	<2	0.10
S10	02 May 2017	902	220e	4e	<2	0.02
S10	09 May 2017	855	>16000	1600e	500	0.10
S10	11 May 2017	906	840	20e	68	0.02
S10	16 May 2017	839	120e	10e	40	0.08
S10	23 May 2017	823	<20	4e	4e	0.20
S10	30 May 2017	1016	<20	<2	<2	0.10
S11	02 May 2017	1008	20e	<2	<2	0.10
S11	09 May 2017	1058	>16000	1400e	720	0.09
S11	11 May 2017	1007	<20	2e	<2	0.10
S11	16 May 2017	940	2e	<2	<2	1.00
S11	23 May 2017	1023	<200	<2	<2	0.01
S11	30 May 2017	1228	<20	<2	<2	0.10
S12	02 May 2017	954	20e	4e	<2	0.20
S12	09 May 2017	1017	<20	<2	<2	0.10
S12	16 May 2017	929	<20	<2	2e	0.10
S12	23 May 2017	922	12e	2e	<2	0.17
S12	30 May 2017	1207	<20	<2	10e	0.10

ns = not sampled

ND = no data

**Comments**

Station	Date	Depth	Parameter	Comments
S4	11 May 2017			Resample
S5	11 May 2017			Resample
S6	11 May 2017			Resample
S10	11 May 2017			Resample
S11	11 May 2017			Resample
S5	18 May 2017			Resample

**Table 2.9**

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

Station	Date	Parameter	Value
S0	02 May 2017	Arrive Time	1015
S0	02 May 2017	Weather	Cloudy
S0	02 May 2017	Wind Speed (kts)	0.7
S0	02 May 2017	Wind Dir	SE
S0	02 May 2017	Animal Life	5 Shorebirds; 15 Dolphins
S0	02 May 2017	Floatables	None
S0	02 May 2017	Water Color	Green
S0	02 May 2017	Current Direction	N
S0	02 May 2017	Water Temp (C)	15
S0	02 May 2017	Wave Height Low (ft)	4
S0	02 May 2017	High Tide (ft)	3.7
S0	02 May 2017	High Tide Time	1653
S0	02 May 2017	Low Tide (ft)	-0.1
S0	02 May 2017	Low Tide Time	947
S0	02 May 2017	Comments	Kelp; Algae; 2 Persons; Water clear; Water flowing from stormdrain at 0.5L/sec
S0	09 May 2017	Arrive Time	1125
S0	09 May 2017	Weather	Cloudy
S0	09 May 2017	Wind Speed (kts)	1.2
S0	09 May 2017	Wind Dir	SW
S0	09 May 2017	Animal Life	None
S0	09 May 2017	Floatables	None
S0	09 May 2017	Water Color	Green
S0	09 May 2017	Current Direction	S
S0	09 May 2017	Water Temp (C)	16
S0	09 May 2017	Wave Height Low (ft)	2
S0	09 May 2017	High Tide (ft)	4.1
S0	09 May 2017	High Tide Time	918
S0	09 May 2017	Low Tide (ft)	1
S0	09 May 2017	Low Tide Time	1457
S0	09 May 2017	Comments	Water turbid; Water flowing from stormdrain at 2 L/sec
S0	16 May 2017	Arrive Time	1015
S0	16 May 2017	Weather	Sunny
S0	16 May 2017	Wind Speed (kts)	4.2
S0	16 May 2017	Wind Dir	SE
S0	16 May 2017	Animal Life	5 Shorebirds
S0	16 May 2017	Floatables	None
S0	16 May 2017	Water Color	Green
S0	16 May 2017	Current Direction	N
S0	16 May 2017	Water Temp (C)	16
S0	16 May 2017	Wave Height Low (ft)	3
S0	16 May 2017	High Tide (ft)	3.1
S0	16 May 2017	High Tide Time	1454
S0	16 May 2017	Low Tide (ft)	0.3
S0	16 May 2017	Low Tide Time	753
S0	16 May 2017	Comments	Kelp; Algae; Water clear; Water flowing from stormdrain at 1.5 L/sec; Trash
S0	23 May 2017	Arrive Time	1020

Station	Date	Parameter	Value
S0	23 May 2017	Weather	Sunny
S0	23 May 2017	Wind Speed (kts)	0.5
S0	23 May 2017	Wind Dir	SE
S0	23 May 2017	Animal Life	5 Shorebirds
S0	23 May 2017	Floatables	None
S0	23 May 2017	Water Color	Green
S0	23 May 2017	Current Direction	N
S0	23 May 2017	Water Temp (C)	14
S0	23 May 2017	Wave Height Low (ft)	2
S0	23 May 2017	High Tide (ft)	4.3
S0	23 May 2017	High Tide Time	806
S0	23 May 2017	Low Tide (ft)	0.6
S0	23 May 2017	Low Tide Time	1352
S0	23 May 2017	Comments	5 Persons; Water clear; Water flowing from stormdrain at 0.5L/sec
S0	30 May 2017	Arrive Time	1055
S0	30 May 2017	Weather	Cloudy
S0	30 May 2017	Wind Speed (kts)	1.4
S0	30 May 2017	Wind Dir	NE
S0	30 May 2017	Animal Life	>20 Shorebirds; 6 Seagulls
S0	30 May 2017	Floatables	None
S0	30 May 2017	Water Color	Green
S0	30 May 2017	Current Direction	N
S0	30 May 2017	Water Temp (C)	15
S0	30 May 2017	Wave Height Low (ft)	3
S0	30 May 2017	High Tide (ft)	3.9
S0	30 May 2017	High Tide Time	1456
S0	30 May 2017	Low Tide (ft)	-0.5
S0	30 May 2017	Low Tide Time	805
S0	30 May 2017	Comments	Seagrass; Algae; Water clear; Flow from storm drain approx 1L/sec
S2	02 May 2017	Arrive Time	1115
S2	02 May 2017	Weather	Sunny
S2	02 May 2017	Wind Speed (kts)	1.2
S2	02 May 2017	Wind Dir	SE
S2	02 May 2017	Animal Life	10 Shorebirds; 5 Dolphins
S2	02 May 2017	Floatables	None
S2	02 May 2017	Water Color	Green
S2	02 May 2017	Current Direction	N
S2	02 May 2017	Water Temp (C)	16
S2	02 May 2017	Wave Height Low (ft)	4
S2	02 May 2017	High Tide (ft)	3.7
S2	02 May 2017	High Tide Time	1653
S2	02 May 2017	Low Tide (ft)	-0.1
S2	02 May 2017	Low Tide Time	947
S2	02 May 2017	Comments	Kelp; Algae; 2 Persons; Water clear; No water flowing from stormdrain
S2	09 May 2017	Arrive Time	1029
S2	09 May 2017	Weather	Cloudy
S2	09 May 2017	Wind Speed (kts)	1.2
S2	09 May 2017	Wind Dir	SW
S2	09 May 2017	Animal Life	15 Shorebirds
S2	09 May 2017	Floatables	None
S2	09 May 2017	Water Color	Green

Station	Date	Parameter	Value
S2	09 May 2017	Current Direction	S
S2	09 May 2017	Water Temp (C)	16
S2	09 May 2017	Wave Height Low (ft)	2
S2	09 May 2017	High Tide (ft)	4.1
S2	09 May 2017	High Tide Time	918
S2	09 May 2017	Low Tide (ft)	1
S2	09 May 2017	Low Tide Time	1457
S2	09 May 2017	Comments	Water turbid; No flow on stormdrain
S2	16 May 2017	Arrive Time	1115
S2	16 May 2017	Weather	Sunny
S2	16 May 2017	Wind Speed (kts)	2.9
S2	16 May 2017	Wind Dir	SE
S2	16 May 2017	Animal Life	5 Shorebirds
S2	16 May 2017	Floatables	None
S2	16 May 2017	Water Color	Green
S2	16 May 2017	Current Direction	N
S2	16 May 2017	Water Temp (C)	17
S2	16 May 2017	Wave Height Low (ft)	3
S2	16 May 2017	High Tide (ft)	3.1
S2	16 May 2017	High Tide Time	1454
S2	16 May 2017	Low Tide (ft)	0.3
S2	16 May 2017	Low Tide Time	753
S2	16 May 2017	Comments	Kelp; Algae; Water clear; No water flowing from storm drain
S2	23 May 2017	Arrive Time	1210
S2	23 May 2017	Weather	Sunny
S2	23 May 2017	Wind Speed (kts)	0.7
S2	23 May 2017	Wind Dir	SE
S2	23 May 2017	Animal Life	5 Shorebirds
S2	23 May 2017	Floatables	None
S2	23 May 2017	Water Color	Green
S2	23 May 2017	Current Direction	N
S2	23 May 2017	Water Temp (C)	14
S2	23 May 2017	Wave Height Low (ft)	2
S2	23 May 2017	High Tide (ft)	4.3
S2	23 May 2017	High Tide Time	806
S2	23 May 2017	Low Tide (ft)	0.6
S2	23 May 2017	Low Tide Time	1352
S2	23 May 2017	Comments	5 Persons; Water clear; No water flowing from storm drain
S2	30 May 2017	Arrive Time	1305
S2	30 May 2017	Weather	Cloudy
S2	30 May 2017	Wind Speed (kts)	1.5
S2	30 May 2017	Wind Dir	NE
S2	30 May 2017	Animal Life	5 Shorebirds; 3 Seagulls
S2	30 May 2017	Floatables	None
S2	30 May 2017	Water Color	Green
S2	30 May 2017	Current Direction	N
S2	30 May 2017	Water Temp (C)	16
S2	30 May 2017	Wave Height Low (ft)	3
S2	30 May 2017	High Tide (ft)	3.9
S2	30 May 2017	High Tide Time	1456
S2	30 May 2017	Low Tide (ft)	-0.5
S2	30 May 2017	Low Tide Time	805

Station	Date	Parameter	Value
S2	30 May 2017	Comments	Seagrass; Algae; Water clear; No flow from storm drain
S3	02 May 2017	Arrive Time	1205
S3	02 May 2017	Weather	Sunny
S3	02 May 2017	Wind Speed (kts)	2.2
S3	02 May 2017	Wind Dir	SE
S3	02 May 2017	Animal Life	5 Shorebirds; 3 Dogs
S3	02 May 2017	Floatables	None
S3	02 May 2017	Water Color	Green
S3	02 May 2017	Current Direction	N
S3	02 May 2017	Water Temp (C)	16
S3	02 May 2017	Wave Height Low (ft)	4
S3	02 May 2017	High Tide (ft)	3.7
S3	02 May 2017	High Tide Time	1653
S3	02 May 2017	Low Tide (ft)	-0.1
S3	02 May 2017	Low Tide Time	947
S3	02 May 2017	Comments	Kelp; Algae; Water clear
S3	09 May 2017	Arrive Time	935
S3	09 May 2017	Weather	Cloudy
S3	09 May 2017	Wind Speed (kts)	0.9
S3	09 May 2017	Wind Dir	SW
S3	09 May 2017	Animal Life	1 Dog
S3	09 May 2017	Floatables	None
S3	09 May 2017	Water Color	Green
S3	09 May 2017	Current Direction	S
S3	09 May 2017	Water Temp (C)	16
S3	09 May 2017	Wave Height Low (ft)	2
S3	09 May 2017	High Tide (ft)	4.1
S3	09 May 2017	High Tide Time	918
S3	09 May 2017	Low Tide (ft)	1
S3	09 May 2017	Low Tide Time	1457
S3	09 May 2017	Comments	Water turbid; Water flowing from stormdrain at 0.5 L/sec
S3	16 May 2017	Arrive Time	1145
S3	16 May 2017	Weather	Sunny
S3	16 May 2017	Wind Speed (kts)	4.1
S3	16 May 2017	Wind Dir	SE
S3	16 May 2017	Animal Life	5 Shorebirds
S3	16 May 2017	Floatables	None
S3	16 May 2017	Water Color	Green
S3	16 May 2017	Current Direction	N
S3	16 May 2017	Water Temp (C)	17
S3	16 May 2017	Wave Height Low (ft)	3
S3	16 May 2017	High Tide (ft)	3.1
S3	16 May 2017	High Tide Time	1454
S3	16 May 2017	Low Tide (ft)	0.3
S3	16 May 2017	Low Tide Time	753
S3	16 May 2017	Comments	Kelp; Algae; Water clear
S3	23 May 2017	Arrive Time	1125
S3	23 May 2017	Weather	Sunny
S3	23 May 2017	Wind Speed (kts)	0.9
S3	23 May 2017	Wind Dir	SE
S3	23 May 2017	Animal Life	5 Shorebirds

Station	Date	Parameter	Value
S3	23 May 2017	Floatables	None
S3	23 May 2017	Water Color	Green
S3	23 May 2017	Current Direction	N
S3	23 May 2017	Water Temp (C)	14
S3	23 May 2017	Wave Height Low (ft)	2
S3	23 May 2017	High Tide (ft)	4.3
S3	23 May 2017	High Tide Time	806
S3	23 May 2017	Low Tide (ft)	0.6
S3	23 May 2017	Low Tide Time	1352
S3	23 May 2017	Comments	5 Persons; Water clear; No water flowing from storm drain
S3	30 May 2017	Arrive Time	1220
S3	30 May 2017	Weather	Cloudy
S3	30 May 2017	Wind Speed (kts)	1.2
S3	30 May 2017	Wind Dir	NE
S3	30 May 2017	Animal Life	5 Shorebirds; 3 Seagulls
S3	30 May 2017	Floatables	None
S3	30 May 2017	Water Color	Green
S3	30 May 2017	Current Direction	N
S3	30 May 2017	Water Temp (C)	16
S3	30 May 2017	Wave Height Low (ft)	2
S3	30 May 2017	High Tide (ft)	3.9
S3	30 May 2017	High Tide Time	1456
S3	30 May 2017	Low Tide (ft)	-0.5
S3	30 May 2017	Low Tide Time	805
S3	30 May 2017	Comments	Seagrass; Algae; Water clear; No flow from storm drain
S4	02 May 2017	Arrive Time	857
S4	02 May 2017	Weather	Foggy
S4	02 May 2017	Wind Speed (kts)	2.9
S4	02 May 2017	Wind Dir	W
S4	02 May 2017	Animal Life	None
S4	02 May 2017	Floatables	None
S4	02 May 2017	Water Color	Green
S4	02 May 2017	Current Direction	N
S4	02 May 2017	Water Temp (C)	16.2
S4	02 May 2017	Wave Height Low (ft)	3
S4	02 May 2017	High Tide (ft)	4.7
S4	02 May 2017	High Tide Time	211
S4	02 May 2017	Low Tide (ft)	-0.1
S4	02 May 2017	Low Tide Time	947
S4	02 May 2017	Comments	Kelp; Seagrass; Water clear
S4	09 May 2017	Arrive Time	914
S4	09 May 2017	Weather	Cloudy
S4	09 May 2017	Wind Speed (kts)	1.9
S4	09 May 2017	Wind Dir	W
S4	09 May 2017	Animal Life	None
S4	09 May 2017	Floatables	None
S4	09 May 2017	Water Color	Green
S4	09 May 2017	Current Direction	N
S4	09 May 2017	Water Temp (C)	16.2
S4	09 May 2017	Wave Height Low (ft)	3
S4	09 May 2017	High Tide (ft)	4.1
S4	09 May 2017	High Tide Time	918

Station	Date	Parameter	Value
S4	09 May 2017	Low Tide (ft)	1
S4	09 May 2017	Low Tide Time	1457
S4	09 May 2017	Comments	Kelp; Seagrass; Water clear
S4	11 May 2017	Arrive Time	900
S4	11 May 2017	Weather	Partly Cloudy
S4	11 May 2017	Wind Speed (kts)	5.6
S4	11 May 2017	Wind Dir	N
S4	11 May 2017	Animal Life	None
S4	11 May 2017	Floatables	None
S4	11 May 2017	Water Color	Green
S4	11 May 2017	Current Direction	N
S4	11 May 2017	Water Temp (C)	17
S4	11 May 2017	Wave Height Low (ft)	2
S4	11 May 2017	High Tide (ft)	3.8
S4	11 May 2017	High Tide Time	1031
S4	11 May 2017	Low Tide (ft)	-0.4
S4	11 May 2017	Low Tide Time	425
S4	11 May 2017	Comments	Kelp; Seagrass; Water clear
S4	16 May 2017	Arrive Time	830
S4	16 May 2017	Weather	Cloudy
S4	16 May 2017	Wind Speed (kts)	4.4
S4	16 May 2017	Wind Dir	W
S4	16 May 2017	Animal Life	None
S4	16 May 2017	Floatables	None
S4	16 May 2017	Water Color	Green
S4	16 May 2017	Current Direction	N
S4	16 May 2017	Water Temp (C)	14.6
S4	16 May 2017	Wave Height Low (ft)	3
S4	16 May 2017	High Tide (ft)	3.1
S4	16 May 2017	High Tide Time	1454
S4	16 May 2017	Low Tide (ft)	0.3
S4	16 May 2017	Low Tide Time	753
S4	16 May 2017	Comments	Kelp; Seagrass; 1 Person; Water clear
S4	23 May 2017	Arrive Time	830
S4	23 May 2017	Weather	Sunny
S4	23 May 2017	Wind Speed (kts)	3.6
S4	23 May 2017	Wind Dir	N
S4	23 May 2017	Animal Life	None
S4	23 May 2017	Floatables	None
S4	23 May 2017	Water Color	Green
S4	23 May 2017	Current Direction	N
S4	23 May 2017	Water Temp (C)	12.5
S4	23 May 2017	Wave Height Low (ft)	2
S4	23 May 2017	High Tide (ft)	4.3
S4	23 May 2017	High Tide Time	806
S4	23 May 2017	Low Tide (ft)	0.6
S4	23 May 2017	Low Tide Time	1352
S4	23 May 2017	Comments	Kelp; 2 Persons; Water clear
S4	30 May 2017	Arrive Time	1012
S4	30 May 2017	Weather	Cloudy
S4	30 May 2017	Wind Speed (kts)	3.3



Station	Date	Parameter	Value
S4	30 May 2017	Wind Dir	W
S4	30 May 2017	Animal Life	None
S4	30 May 2017	Floatables	None
S4	30 May 2017	Water Color	Green
S4	30 May 2017	Current Direction	N
S4	30 May 2017	Water Temp (C)	14.2
S4	30 May 2017	Wave Height Low (ft)	2
S4	30 May 2017	High Tide (ft)	3.9
S4	30 May 2017	High Tide Time	1456
S4	30 May 2017	Low Tide (ft)	-0.5
S4	30 May 2017	Low Tide Time	805
S4	30 May 2017	Comments	Kelp; Seagrass; Debris; 2 Persons; Water clear
S5	02 May 2017	Arrive Time	1013
S5	02 May 2017	Weather	Cloudy
S5	02 May 2017	Wind Speed (kts)	5.2
S5	02 May 2017	Wind Dir	SW
S5	02 May 2017	Animal Life	None
S5	02 May 2017	Floatables	None
S5	02 May 2017	Water Color	Brown
S5	02 May 2017	Current Direction	N
S5	02 May 2017	Water Temp (C)	16.8
S5	02 May 2017	Wave Height Low (ft)	2
S5	02 May 2017	High Tide (ft)	3.7
S5	02 May 2017	High Tide Time	1653
S5	02 May 2017	Low Tide (ft)	-0.1
S5	02 May 2017	Low Tide Time	947
S5	02 May 2017	Comments	Kelp; Seagrass; Water clear
S5	09 May 2017	Arrive Time	1126
S5	09 May 2017	Weather	Cloudy
S5	09 May 2017	Wind Speed (kts)	2.4
S5	09 May 2017	Wind Dir	W
S5	09 May 2017	Animal Life	None
S5	09 May 2017	Floatables	None
S5	09 May 2017	Water Color	Green
S5	09 May 2017	Current Direction	N
S5	09 May 2017	Water Temp (C)	16.7
S5	09 May 2017	Wave Height Low (ft)	2
S5	09 May 2017	High Tide (ft)	4.1
S5	09 May 2017	High Tide Time	918
S5	09 May 2017	Low Tide (ft)	1
S5	09 May 2017	Low Tide Time	1457
S5	09 May 2017	Comments	Kelp; Seagrass; Water clear; Detergent odor
S5	11 May 2017	Arrive Time	1000
S5	11 May 2017	Weather	Sunny
S5	11 May 2017	Wind Speed (kts)	7.1
S5	11 May 2017	Wind Dir	N
S5	11 May 2017	Animal Life	None
S5	11 May 2017	Floatables	None
S5	11 May 2017	Water Color	Green
S5	11 May 2017	Current Direction	N
S5	11 May 2017	Water Temp (C)	16
S5	11 May 2017	Wave Height Low (ft)	1

Station	Date	Parameter	Value
S5	11 May 2017	High Tide (ft)	3.8
S5	11 May 2017	High Tide Time	1031
S5	11 May 2017	Low Tide (ft)	-0.4
S5	11 May 2017	Low Tide Time	425
S5	11 May 2017	Comments	Kelp; Seagrass; Water clear
S5	16 May 2017	Arrive Time	945
S5	16 May 2017	Weather	Partly Cloudy
S5	16 May 2017	Wind Speed (kts)	9.9
S5	16 May 2017	Wind Dir	W
S5	16 May 2017	Animal Life	2 Shorebirds; 2 Pelicans; 10 Seagulls
S5	16 May 2017	Floatables	None
S5	16 May 2017	Water Color	Green
S5	16 May 2017	Current Direction	N
S5	16 May 2017	Water Temp (C)	15.4
S5	16 May 2017	Wave Height Low (ft)	2
S5	16 May 2017	High Tide (ft)	3.1
S5	16 May 2017	High Tide Time	1454
S5	16 May 2017	Low Tide (ft)	0.3
S5	16 May 2017	Low Tide Time	753
S5	16 May 2017	Comments	Kelp; Seagrass; Water clear
S5	18 May 2017	Arrive Time	908
S5	18 May 2017	Weather	Sunny
S5	18 May 2017	Wind Speed (kts)	7.2
S5	18 May 2017	Wind Dir	S
S5	18 May 2017	Animal Life	None
S5	18 May 2017	Floatables	None
S5	18 May 2017	Water Color	Green
S5	18 May 2017	Current Direction	N
S5	18 May 2017	Water Temp (C)	17
S5	18 May 2017	Wave Height Low (ft)	1
S5	18 May 2017	High Tide (ft)	3.9
S5	18 May 2017	High Tide Time	208
S5	18 May 2017	Low Tide (ft)	0.5
S5	18 May 2017	Low Tide Time	956
S5	18 May 2017	Comments	Kelp; Seagrass; 1 Person; Water clear
S5	23 May 2017	Arrive Time	943
S5	23 May 2017	Weather	Sunny
S5	23 May 2017	Wind Speed (kts)	8.1
S5	23 May 2017	Wind Dir	N
S5	23 May 2017	Animal Life	15 Birds; 4 Seagulls
S5	23 May 2017	Floatables	None
S5	23 May 2017	Water Color	Green
S5	23 May 2017	Current Direction	N
S5	23 May 2017	Water Temp (C)	12
S5	23 May 2017	Wave Height Low (ft)	1
S5	23 May 2017	High Tide (ft)	4.3
S5	23 May 2017	High Tide Time	806
S5	23 May 2017	Low Tide (ft)	0.6
S5	23 May 2017	Low Tide Time	1352
S5	23 May 2017	Comments	Seagrass; Water clear
S5	30 May 2017	Arrive Time	1234

Station	Date	Parameter	Value
S5	30 May 2017	Weather	Cloudy
S5	30 May 2017	Wind Speed (kts)	3.4
S5	30 May 2017	Wind Dir	W
S5	30 May 2017	Animal Life	None
S5	30 May 2017	Floatables	None
S5	30 May 2017	Water Color	Green
S5	30 May 2017	Current Direction	N
S5	30 May 2017	Water Temp (C)	15.3
S5	30 May 2017	Wave Height Low (ft)	2
S5	30 May 2017	High Tide (ft)	3.9
S5	30 May 2017	High Tide Time	1456
S5	30 May 2017	Low Tide (ft)	-0.5
S5	30 May 2017	Low Tide Time	805
S5	30 May 2017	Comments	Kelp; Seagrass; Water clear
S6	02 May 2017	Arrive Time	1002
S6	02 May 2017	Weather	Cloudy
S6	02 May 2017	Wind Speed (kts)	6
S6	02 May 2017	Wind Dir	SW
S6	02 May 2017	Animal Life	1 Dog
S6	02 May 2017	Floatables	None
S6	02 May 2017	Water Color	Green
S6	02 May 2017	Current Direction	N
S6	02 May 2017	Water Temp (C)	16.2
S6	02 May 2017	Wave Height Low (ft)	3
S6	02 May 2017	High Tide (ft)	3.7
S6	02 May 2017	High Tide Time	1653
S6	02 May 2017	Low Tide (ft)	-0.1
S6	02 May 2017	Low Tide Time	947
S6	02 May 2017	Comments	Kelp; Seagrass; 3 Persons; Water clear
S6	09 May 2017	Arrive Time	1033
S6	09 May 2017	Weather	Cloudy
S6	09 May 2017	Wind Speed (kts)	1.7
S6	09 May 2017	Wind Dir	W
S6	09 May 2017	Animal Life	None
S6	09 May 2017	Floatables	None
S6	09 May 2017	Water Color	Green
S6	09 May 2017	Current Direction	N
S6	09 May 2017	Water Temp (C)	16.4
S6	09 May 2017	Wave Height Low (ft)	3
S6	09 May 2017	High Tide (ft)	4.1
S6	09 May 2017	High Tide Time	918
S6	09 May 2017	Low Tide (ft)	1
S6	09 May 2017	Low Tide Time	1457
S6	09 May 2017	Comments	Kelp; Seagrass; 2 Persons; Water clear
S6	11 May 2017	Arrive Time	1012
S6	11 May 2017	Weather	Sunny
S6	11 May 2017	Wind Speed (kts)	9.4
S6	11 May 2017	Wind Dir	N
S6	11 May 2017	Animal Life	None
S6	11 May 2017	Floatables	None
S6	11 May 2017	Water Color	Green
S6	11 May 2017	Current Direction	N

Station	Date	Parameter	Value
S6	11 May 2017	Water Temp (C)	16
S6	11 May 2017	Wave Height Low (ft)	1
S6	11 May 2017	High Tide (ft)	3.8
S6	11 May 2017	High Tide Time	1031
S6	11 May 2017	Low Tide (ft)	1.5
S6	11 May 2017	Low Tide Time	1550
S6	11 May 2017	Comments	Kelp; Seagrass; 2 Persons; Water clear
S6	16 May 2017	Arrive Time	937
S6	16 May 2017	Weather	Partly Cloudy
S6	16 May 2017	Wind Speed (kts)	11
S6	16 May 2017	Wind Dir	W
S6	16 May 2017	Animal Life	None
S6	16 May 2017	Floatables	None
S6	16 May 2017	Water Color	Green
S6	16 May 2017	Current Direction	N
S6	16 May 2017	Water Temp (C)	15.6
S6	16 May 2017	Wave Height Low (ft)	2
S6	16 May 2017	High Tide (ft)	3.1
S6	16 May 2017	High Tide Time	1454
S6	16 May 2017	Low Tide (ft)	0.3
S6	16 May 2017	Low Tide Time	753
S6	16 May 2017	Comments	Kelp; Seagrass; Water clear
S6	23 May 2017	Arrive Time	933
S6	23 May 2017	Weather	Sunny
S6	23 May 2017	Wind Speed (kts)	8.3
S6	23 May 2017	Wind Dir	N
S6	23 May 2017	Animal Life	None
S6	23 May 2017	Floatables	None
S6	23 May 2017	Water Color	Green
S6	23 May 2017	Current Direction	N
S6	23 May 2017	Water Temp (C)	15.1
S6	23 May 2017	Wave Height Low (ft)	3
S6	23 May 2017	High Tide (ft)	4.3
S6	23 May 2017	High Tide Time	806
S6	23 May 2017	Low Tide (ft)	0.6
S6	23 May 2017	Low Tide Time	1352
S6	23 May 2017	Comments	Seagrass; Water clear
S6	30 May 2017	Arrive Time	1224
S6	30 May 2017	Weather	Cloudy
S6	30 May 2017	Wind Speed (kts)	2.8
S6	30 May 2017	Wind Dir	W
S6	30 May 2017	Animal Life	None
S6	30 May 2017	Floatables	None
S6	30 May 2017	Water Color	Green
S6	30 May 2017	Current Direction	N
S6	30 May 2017	Water Temp (C)	14.9
S6	30 May 2017	Wave Height Low (ft)	2
S6	30 May 2017	High Tide (ft)	3.9
S6	30 May 2017	High Tide Time	1456
S6	30 May 2017	Low Tide (ft)	-0.5
S6	30 May 2017	Low Tide Time	805
S6	30 May 2017	Comments	Kelp; Seagrass; Water clear

Station	Date	Parameter	Value
S8	02 May 2017	Arrive Time	1140
S8	02 May 2017	Weather	Cloudy
S8	02 May 2017	Wind Speed (kts)	8.7
S8	02 May 2017	Wind Dir	W
S8	02 May 2017	Animal Life	None
S8	02 May 2017	Floatables	None
S8	02 May 2017	Water Color	Green
S8	02 May 2017	Current Direction	N
S8	02 May 2017	Water Temp (C)	16.5
S8	02 May 2017	Wave Height Low (ft)	3
S8	02 May 2017	High Tide (ft)	3.7
S8	02 May 2017	High Tide Time	1653
S8	02 May 2017	Low Tide (ft)	-0.1
S8	02 May 2017	Low Tide Time	947
S8	02 May 2017	Comments	Kelp; Seagrass; 5 Persons; Water clear
S8	09 May 2017	Arrive Time	1218
S8	09 May 2017	Weather	Partly Cloudy
S8	09 May 2017	Wind Speed (kts)	12
S8	09 May 2017	Wind Dir	W
S8	09 May 2017	Animal Life	None
S8	09 May 2017	Floatables	None
S8	09 May 2017	Water Color	Green
S8	09 May 2017	Current Direction	W
S8	09 May 2017	Water Temp (C)	16.9
S8	09 May 2017	Wave Height Low (ft)	3
S8	09 May 2017	High Tide (ft)	4.1
S8	09 May 2017	High Tide Time	918
S8	09 May 2017	Low Tide (ft)	1
S8	09 May 2017	Low Tide Time	1457
S8	09 May 2017	Comments	Kelp; Seagrass; 3 Persons; Water clear
S8	16 May 2017	Arrive Time	1114
S8	16 May 2017	Weather	Sunny
S8	16 May 2017	Wind Speed (kts)	6.9
S8	16 May 2017	Wind Dir	W
S8	16 May 2017	Animal Life	None
S8	16 May 2017	Floatables	None
S8	16 May 2017	Water Color	Green
S8	16 May 2017	Current Direction	N
S8	16 May 2017	Water Temp (C)	15.2
S8	16 May 2017	Wave Height Low (ft)	2
S8	16 May 2017	High Tide (ft)	3.1
S8	16 May 2017	High Tide Time	1454
S8	16 May 2017	Low Tide (ft)	0.3
S8	16 May 2017	Low Tide Time	753
S8	16 May 2017	Comments	Kelp; Seagrass; 4 Persons; Water clear
S8	23 May 2017	Arrive Time	1153
S8	23 May 2017	Weather	Sunny
S8	23 May 2017	Wind Speed (kts)	9.7
S8	23 May 2017	Wind Dir	N
S8	23 May 2017	Animal Life	None
S8	23 May 2017	Floatables	None

Station	Date	Parameter	Value
S8	23 May 2017	Water Color	Green
S8	23 May 2017	Current Direction	N
S8	23 May 2017	Water Temp (C)	15.1
S8	23 May 2017	Wave Height Low (ft)	2
S8	23 May 2017	High Tide (ft)	4.3
S8	23 May 2017	High Tide Time	806
S8	23 May 2017	Low Tide (ft)	0.6
S8	23 May 2017	Low Tide Time	1352
S8	23 May 2017	Comments	8 Persons; Water clear
S8	30 May 2017	Arrive Time	1318
S8	30 May 2017	Weather	Cloudy
S8	30 May 2017	Wind Speed (kts)	6.2
S8	30 May 2017	Wind Dir	W
S8	30 May 2017	Animal Life	None
S8	30 May 2017	Floatables	None
S8	30 May 2017	Water Color	Green
S8	30 May 2017	Current Direction	N
S8	30 May 2017	Water Temp (C)	15.1
S8	30 May 2017	Wave Height Low (ft)	3
S8	30 May 2017	High Tide (ft)	3.9
S8	30 May 2017	High Tide Time	1456
S8	30 May 2017	Low Tide (ft)	-0.5
S8	30 May 2017	Low Tide Time	805
S8	30 May 2017	Comments	Kelp; Seagrass; 13 Persons; 1 Boat; 7 Swimmers; Water clear
S9	02 May 2017	Arrive Time	1223
S9	02 May 2017	Weather	Sunny
S9	02 May 2017	Wind Speed (kts)	6.6
S9	02 May 2017	Wind Dir	W
S9	02 May 2017	Animal Life	None
S9	02 May 2017	Floatables	None
S9	02 May 2017	Water Color	Green
S9	02 May 2017	Current Direction	N
S9	02 May 2017	Water Temp (C)	16.9
S9	02 May 2017	Wave Height Low (ft)	2
S9	02 May 2017	High Tide (ft)	3.7
S9	02 May 2017	High Tide Time	1653
S9	02 May 2017	Low Tide (ft)	-0.1
S9	02 May 2017	Low Tide Time	947
S9	02 May 2017	Comments	Kelp; Seagrass; 4 Persons; Water clear
S9	09 May 2017	Arrive Time	1252
S9	09 May 2017	Weather	Sunny
S9	09 May 2017	Wind Speed (kts)	6.8
S9	09 May 2017	Wind Dir	W
S9	09 May 2017	Animal Life	None
S9	09 May 2017	Floatables	None
S9	09 May 2017	Water Color	Green
S9	09 May 2017	Current Direction	N
S9	09 May 2017	Water Temp (C)	16.8
S9	09 May 2017	Wave Height Low (ft)	2
S9	09 May 2017	High Tide (ft)	4.1
S9	09 May 2017	High Tide Time	918
S9	09 May 2017	Low Tide (ft)	1

Station	Date	Parameter	Value
S9	09 May 2017	Low Tide Time	1457
S9	09 May 2017	Comments	Kelp; Seagrass; 2 Persons; Water clear
S9	16 May 2017	Arrive Time	1154
S9	16 May 2017	Weather	Sunny
S9	16 May 2017	Wind Speed (kts)	3.6
S9	16 May 2017	Wind Dir	W
S9	16 May 2017	Animal Life	None
S9	16 May 2017	Floatables	None
S9	16 May 2017	Water Color	Green
S9	16 May 2017	Current Direction	N
S9	16 May 2017	Water Temp (C)	19.2
S9	16 May 2017	Wave Height Low (ft)	2
S9	16 May 2017	High Tide (ft)	3.1
S9	16 May 2017	High Tide Time	1454
S9	16 May 2017	Low Tide (ft)	0.3
S9	16 May 2017	Low Tide Time	753
S9	16 May 2017	Comments	Kelp; Seagrass; 4 Persons; 1 Fisherman; Water clear
S9	23 May 2017	Arrive Time	1230
S9	23 May 2017	Weather	Partly Cloudy
S9	23 May 2017	Wind Speed (kts)	7.9
S9	23 May 2017	Wind Dir	N
S9	23 May 2017	Animal Life	None
S9	23 May 2017	Floatables	None
S9	23 May 2017	Water Color	Green
S9	23 May 2017	Current Direction	N
S9	23 May 2017	Water Temp (C)	14.8
S9	23 May 2017	Wave Height Low (ft)	2
S9	23 May 2017	High Tide (ft)	4.3
S9	23 May 2017	High Tide Time	806
S9	23 May 2017	Low Tide (ft)	0.6
S9	23 May 2017	Low Tide Time	1352
S9	23 May 2017	Comments	2 Persons; 1 Swimmer; Water clear
S9	30 May 2017	Arrive Time	1357
S9	30 May 2017	Weather	Cloudy
S9	30 May 2017	Wind Speed (kts)	5.8
S9	30 May 2017	Wind Dir	W
S9	30 May 2017	Animal Life	None
S9	30 May 2017	Floatables	None
S9	30 May 2017	Water Color	Green
S9	30 May 2017	Current Direction	N
S9	30 May 2017	Water Temp (C)	15.1
S9	30 May 2017	Wave Height Low (ft)	2
S9	30 May 2017	High Tide (ft)	3.9
S9	30 May 2017	High Tide Time	1456
S9	30 May 2017	Low Tide (ft)	-0.5
S9	30 May 2017	Low Tide Time	805
S9	30 May 2017	Comments	Kelp; Seagrass; 12 Persons; 3 Surfers; 2 Swimmers; Water clear
S10	02 May 2017	Arrive Time	902
S10	02 May 2017	Weather	Foggy
S10	02 May 2017	Wind Speed (kts)	1.5
S10	02 May 2017	Wind Dir	W

Station	Date	Parameter	Value
S10	02 May 2017	Animal Life	None
S10	02 May 2017	Floatables	None
S10	02 May 2017	Water Color	Green
S10	02 May 2017	Current Direction	N
S10	02 May 2017	Water Temp (C)	16.4
S10	02 May 2017	Wave Height Low (ft)	3
S10	02 May 2017	High Tide (ft)	4.7
S10	02 May 2017	High Tide Time	211
S10	02 May 2017	Low Tide (ft)	-0.1
S10	02 May 2017	Low Tide Time	947
S10	02 May 2017	Comments	Kelp; Seagrass; Water clear
S10	09 May 2017	Arrive Time	855
S10	09 May 2017	Weather	Cloudy
S10	09 May 2017	Wind Speed (kts)	3.1
S10	09 May 2017	Wind Dir	W
S10	09 May 2017	Animal Life	None
S10	09 May 2017	Floatables	None
S10	09 May 2017	Water Color	Green
S10	09 May 2017	Current Direction	N
S10	09 May 2017	Water Temp (C)	15.8
S10	09 May 2017	Wave Height Low (ft)	3
S10	09 May 2017	High Tide (ft)	4.1
S10	09 May 2017	High Tide Time	918
S10	09 May 2017	Low Tide (ft)	-0.1
S10	09 May 2017	Low Tide Time	320
S10	09 May 2017	Comments	Kelp; Seagrass; Water clear
S10	11 May 2017	Arrive Time	906
S10	11 May 2017	Weather	Partly Cloudy
S10	11 May 2017	Wind Speed (kts)	5.8
S10	11 May 2017	Wind Dir	N
S10	11 May 2017	Animal Life	None
S10	11 May 2017	Floatables	None
S10	11 May 2017	Water Color	Green
S10	11 May 2017	Current Direction	N
S10	11 May 2017	Water Temp (C)	16
S10	11 May 2017	Wave Height Low (ft)	2
S10	11 May 2017	High Tide (ft)	3.8
S10	11 May 2017	High Tide Time	1031
S10	11 May 2017	Low Tide (ft)	-0.4
S10	11 May 2017	Low Tide Time	425
S10	11 May 2017	Comments	Kelp; Seagrass; Water clear
S10	16 May 2017	Arrive Time	839
S10	16 May 2017	Weather	Cloudy
S10	16 May 2017	Wind Speed (kts)	7.5
S10	16 May 2017	Wind Dir	W
S10	16 May 2017	Animal Life	None
S10	16 May 2017	Floatables	None
S10	16 May 2017	Water Color	Green
S10	16 May 2017	Current Direction	N
S10	16 May 2017	Water Temp (C)	14.2
S10	16 May 2017	Wave Height Low (ft)	3
S10	16 May 2017	High Tide (ft)	3.1



Station	Date	Parameter	Value
S10	16 May 2017	High Tide Time	1454
S10	16 May 2017	Low Tide (ft)	0.3
S10	16 May 2017	Low Tide Time	753
S10	16 May 2017	Comments	Kelp; Seagrass; Water clear
S10	23 May 2017	Arrive Time	823
S10	23 May 2017	Weather	Sunny
S10	23 May 2017	Wind Speed (kts)	6.4
S10	23 May 2017	Wind Dir	NE
S10	23 May 2017	Animal Life	None
S10	23 May 2017	Floatables	None
S10	23 May 2017	Water Color	Green
S10	23 May 2017	Current Direction	N
S10	23 May 2017	Water Temp (C)	12.1
S10	23 May 2017	Wave Height Low (ft)	2
S10	23 May 2017	High Tide (ft)	4.3
S10	23 May 2017	High Tide Time	806
S10	23 May 2017	Low Tide (ft)	0.6
S10	23 May 2017	Low Tide Time	1352
S10	23 May 2017	Comments	Kelp; Water clear
S10	30 May 2017	Arrive Time	1016
S10	30 May 2017	Weather	Cloudy
S10	30 May 2017	Wind Speed (kts)	2.1
S10	30 May 2017	Wind Dir	W
S10	30 May 2017	Animal Life	None
S10	30 May 2017	Floatables	None
S10	30 May 2017	Water Color	Green
S10	30 May 2017	Current Direction	N
S10	30 May 2017	Water Temp (C)	14.1
S10	30 May 2017	Wave Height Low (ft)	2
S10	30 May 2017	High Tide (ft)	3.9
S10	30 May 2017	High Tide Time	1456
S10	30 May 2017	Low Tide (ft)	-0.5
S10	30 May 2017	Low Tide Time	805
S10	30 May 2017	Comments	Kelp; Seagrass; Debris; Water clear
S11	02 May 2017	Arrive Time	1008
S11	02 May 2017	Weather	Cloudy
S11	02 May 2017	Wind Speed (kts)	5.8
S11	02 May 2017	Wind Dir	SW
S11	02 May 2017	Animal Life	None
S11	02 May 2017	Floatables	None
S11	02 May 2017	Water Color	Green
S11	02 May 2017	Current Direction	N
S11	02 May 2017	Water Temp (C)	16.6
S11	02 May 2017	Wave Height Low (ft)	3
S11	02 May 2017	High Tide (ft)	3.7
S11	02 May 2017	High Tide Time	1653
S11	02 May 2017	Low Tide (ft)	-0.1
S11	02 May 2017	Low Tide Time	947
S11	02 May 2017	Comments	Kelp; Seagrass; Water clear
S11	09 May 2017	Arrive Time	1058
S11	09 May 2017	Weather	Cloudy

Station	Date	Parameter	Value
S11	09 May 2017	Wind Speed (kts)	2.2
S11	09 May 2017	Wind Dir	W
S11	09 May 2017	Animal Life	None
S11	09 May 2017	Floatables	None
S11	09 May 2017	Water Color	Green
S11	09 May 2017	Current Direction	N
S11	09 May 2017	Water Temp (C)	16.8
S11	09 May 2017	Wave Height Low (ft)	3
S11	09 May 2017	High Tide (ft)	4.1
S11	09 May 2017	High Tide Time	918
S11	09 May 2017	Low Tide (ft)	1
S11	09 May 2017	Low Tide Time	1457
S11	09 May 2017	Comments	Kelp; Seagrass; Water clear; Detergent odor
S11	11 May 2017	Arrive Time	1007
S11	11 May 2017	Weather	Sunny
S11	11 May 2017	Wind Speed (kts)	7.1
S11	11 May 2017	Wind Dir	N
S11	11 May 2017	Animal Life	None
S11	11 May 2017	Floatables	None
S11	11 May 2017	Water Color	Green
S11	11 May 2017	Current Direction	N
S11	11 May 2017	Water Temp (C)	17
S11	11 May 2017	Wave Height Low (ft)	1
S11	11 May 2017	High Tide (ft)	3.8
S11	11 May 2017	High Tide Time	1031
S11	11 May 2017	Low Tide (ft)	-0.4
S11	11 May 2017	Low Tide Time	425
S11	11 May 2017	Comments	Kelp; Seagrass; Water clear
S11	16 May 2017	Arrive Time	940
S11	16 May 2017	Weather	Partly Cloudy
S11	16 May 2017	Wind Speed (kts)	6.8
S11	16 May 2017	Wind Dir	W
S11	16 May 2017	Animal Life	None
S11	16 May 2017	Floatables	None
S11	16 May 2017	Water Color	Green
S11	16 May 2017	Current Direction	N
S11	16 May 2017	Water Temp (C)	15.6
S11	16 May 2017	Wave Height Low (ft)	2
S11	16 May 2017	High Tide (ft)	3.1
S11	16 May 2017	High Tide Time	1454
S11	16 May 2017	Low Tide (ft)	0.3
S11	16 May 2017	Low Tide Time	753
S11	16 May 2017	Comments	Kelp; Seagrass; Water clear
S11	23 May 2017	Arrive Time	1023
S11	23 May 2017	Weather	Partly Cloudy
S11	23 May 2017	Wind Speed (kts)	7.5
S11	23 May 2017	Wind Dir	N
S11	23 May 2017	Animal Life	None
S11	23 May 2017	Floatables	None
S11	23 May 2017	Water Color	Green
S11	23 May 2017	Current Direction	N
S11	23 May 2017	Water Temp (C)	14.1

Station	Date	Parameter	Value
S11	23 May 2017	Wave Height Low (ft)	2
S11	23 May 2017	High Tide (ft)	4.3
S11	23 May 2017	High Tide Time	806
S11	23 May 2017	Low Tide (ft)	0.6
S11	23 May 2017	Low Tide Time	1352
S11	23 May 2017	Comments	Water clear
S11	30 May 2017	Arrive Time	1228
S11	30 May 2017	Weather	Cloudy
S11	30 May 2017	Wind Speed (kts)	2.9
S11	30 May 2017	Wind Dir	W
S11	30 May 2017	Animal Life	None
S11	30 May 2017	Floatables	None
S11	30 May 2017	Water Color	Green
S11	30 May 2017	Current Direction	N
S11	30 May 2017	Water Temp (C)	14.9
S11	30 May 2017	Wave Height Low (ft)	2
S11	30 May 2017	High Tide (ft)	3.9
S11	30 May 2017	High Tide Time	1456
S11	30 May 2017	Low Tide (ft)	-0.5
S11	30 May 2017	Low Tide Time	805
S11	30 May 2017	Comments	Kelp; Seagrass; Water clear
S12	02 May 2017	Arrive Time	954
S12	02 May 2017	Weather	Overcast
S12	02 May 2017	Wind Speed (kts)	3.4
S12	02 May 2017	Wind Dir	SW
S12	02 May 2017	Animal Life	1 Dog
S12	02 May 2017	Floatables	None
S12	02 May 2017	Water Color	Green
S12	02 May 2017	Current Direction	N
S12	02 May 2017	Water Temp (C)	16.4
S12	02 May 2017	Wave Height Low (ft)	3
S12	02 May 2017	High Tide (ft)	3.7
S12	02 May 2017	High Tide Time	1653
S12	02 May 2017	Low Tide (ft)	-0.1
S12	02 May 2017	Low Tide Time	947
S12	02 May 2017	Comments	Kelp; Seagrass; 3 Persons; Water clear
S12	09 May 2017	Arrive Time	1017
S12	09 May 2017	Weather	Cloudy
S12	09 May 2017	Wind Speed (kts)	1.7
S12	09 May 2017	Wind Dir	W
S12	09 May 2017	Animal Life	None
S12	09 May 2017	Floatables	None
S12	09 May 2017	Water Color	Green
S12	09 May 2017	Current Direction	N
S12	09 May 2017	Water Temp (C)	16.4
S12	09 May 2017	Wave Height Low (ft)	3
S12	09 May 2017	High Tide (ft)	4.1
S12	09 May 2017	High Tide Time	918
S12	09 May 2017	Low Tide (ft)	1
S12	09 May 2017	Low Tide Time	1457
S12	09 May 2017	Comments	Kelp; Seagrass; Water clear

Station	Date	Parameter	Value
S12	16 May 2017	Arrive Time	929
S12	16 May 2017	Weather	Cloudy
S12	16 May 2017	Wind Speed (kts)	9.5
S12	16 May 2017	Wind Dir	W
S12	16 May 2017	Animal Life	None
S12	16 May 2017	Floatables	None
S12	16 May 2017	Water Color	Green
S12	16 May 2017	Current Direction	N
S12	16 May 2017	Water Temp (C)	14.2
S12	16 May 2017	Wave Height Low (ft)	3
S12	16 May 2017	High Tide (ft)	3.1
S12	16 May 2017	High Tide Time	1454
S12	16 May 2017	Low Tide (ft)	0.3
S12	16 May 2017	Low Tide Time	753
S12	16 May 2017	Comments	Kelp; Seagrass; Water clear
S12	23 May 2017	Arrive Time	922
S12	23 May 2017	Weather	Sunny
S12	23 May 2017	Wind Speed (kts)	2.6
S12	23 May 2017	Wind Dir	N
S12	23 May 2017	Animal Life	None
S12	23 May 2017	Floatables	None
S12	23 May 2017	Water Color	Green
S12	23 May 2017	Current Direction	N
S12	23 May 2017	Water Temp (C)	14
S12	23 May 2017	Wave Height Low (ft)	2
S12	23 May 2017	High Tide (ft)	4.3
S12	23 May 2017	High Tide Time	806
S12	23 May 2017	Low Tide (ft)	0.6
S12	23 May 2017	Low Tide Time	1352
S12	23 May 2017	Comments	2 Persons; Water clear
S12	30 May 2017	Arrive Time	1207
S12	30 May 2017	Weather	Cloudy
S12	30 May 2017	Wind Speed (kts)	3.3
S12	30 May 2017	Wind Dir	W
S12	30 May 2017	Animal Life	None
S12	30 May 2017	Floatables	None
S12	30 May 2017	Water Color	Green
S12	30 May 2017	Current Direction	N
S12	30 May 2017	Water Temp (C)	14.6
S12	30 May 2017	Wave Height Low (ft)	2
S12	30 May 2017	High Tide (ft)	3.9
S12	30 May 2017	High Tide Time	1456
S12	30 May 2017	Low Tide (ft)	-0.5
S12	30 May 2017	Low Tide Time	805
S12	30 May 2017	Comments	Kelp; Seagrass; 1 Person; 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 May 2017	88	9	4	7	8	4	44
02 May 2017	88	9	4	7	8	4	44
03 May 2017	69	8	4	6	8	5	41
04 May 2017	69	8	4	6	8	5	41
05 May 2017	69	8	4	6	8	5	41
06 May 2017	39	11	5	5	8	6	35
07 May 2017	39	11	5	5	8	6	35
08 May 2017	39	11	5	5	8	6	35
09 May 2017	39	11	5	5	8	6	35
10 May 2017	16*	17*	6*	7*	11*	7*	61*
11 May 2017	26	27	11	10	12	14	67
12 May 2017	26	27	11	10	12	14	67
13 May 2017	26	27	11	10	12	14	67
14 May 2017	49*	31*	17*	15*	12*	23*	114*
15 May 2017	49*	31*	17*	15*	12*	23*	114*
16 May 2017	49*	31*	17*	15*	12*	23*	114*
17 May 2017	49*	31*	17*	15*	12*	23*	114*
18 May 2017	49*	31*	17*	15*	12*	23*	114*
19 May 2017	45*	18*	17*	9*	10*	29*	61*
20 May 2017	45*	18*	17*	9*	10*	29*	61*
21 May 2017	45*	18*	17*	9*	10*	29*	61*
22 May 2017	45*	18*	17*	9*	10*	29*	61*
23 May 2017	45*	18*	17*	9*	10*	29*	61*
24 May 2017	45*	18*	17*	9*	10*	29*	61*
25 May 2017	38	18	17	11	12	17	49
26 May 2017	32*	15*	12*	8*	13*	14*	37*
27 May 2017	32*	15*	12*	8*	13*	14*	37*
28 May 2017	32*	15*	12*	8*	13*	14*	37*
29 May 2017	32*	15*	12*	8*	13*	14*	37*
30 May 2017	27	12	10	6	12	10	31
31 May 2017	27	12	10	6	12	10	31

\* 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 May 2017	8	2	3	2	2	2	11
02 May 2017	8	2	3	2	2	2	11
03 May 2017	6	2	2	2	2	2	8
04 May 2017	6	2	2	2	2	2	8
05 May 2017	6	2	2	2	2	2	8
06 May 2017	4	2	3	2	2	2	7
07 May 2017	4	2	3	2	2	2	7
08 May 2017	4	2	3	2	2	2	7
09 May 2017	4	2	3	2	2	2	7
10 May 2017	2*	2*	3*	2*	2*	2*	10*
11 May 2017	4	3	3	3	2	3	10
12 May 2017	4	3	3	3	2	3	10
13 May 2017	4	3	3	3	2	3	10
14 May 2017	4*	4*	3*	3*	2*	3*	15*
15 May 2017	4*	4*	3*	3*	2*	3*	15*
16 May 2017	4*	4*	3*	3*	2*	3*	15*
17 May 2017	4*	4*	3*	3*	2*	3*	15*
18 May 2017	4*	4*	3*	3*	2*	3*	15*
19 May 2017	4*	4*	3*	3*	2*	3*	4*
20 May 2017	4*	4*	3*	3*	2*	3*	4*
21 May 2017	4*	4*	3*	3*	2*	3*	4*
22 May 2017	4*	4*	3*	3*	2*	3*	4*
23 May 2017	4*	4*	3*	3*	2*	3*	4*
24 May 2017	4*	4*	3*	3*	2*	3*	4*
25 May 2017	4	3	3	3	2	3	4
26 May 2017	4*	3*	3*	3*	2*	3*	3*
27 May 2017	4*	3*	3*	3*	2*	3*	3*
28 May 2017	4*	3*	3*	3*	2*	3*	3*
29 May 2017	4*	3*	3*	3*	2*	3*	3*
30 May 2017	4	3	2	3	2	3	3
31 May 2017	4	3	2	3	2	3	3

\* 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 May 2017	7	4	3	6	4	3	13
02 May 2017	7	4	3	6	3	3	13
03 May 2017	6	4	3	5	3	2	10
04 May 2017	6	4	3	5	3	2	10
05 May 2017	6	4	3	5	3	2	10
06 May 2017	4	4	3	6	4	3	10
07 May 2017	4	4	3	6	4	3	10
08 May 2017	4	4	3	6	4	3	10
09 May 2017	4	4	3	6	4	3	10
10 May 2017	4*	4*	3*	5*	4*	3*	9*
11 May 2017	6	6	3	5	3	4	10
12 May 2017	6	6	3	5	3	4	10
13 May 2017	6	6	3	5	3	4	10
14 May 2017	7*	5*	4*	4*	2*	5*	14*
15 May 2017	7*	5*	4*	4*	2*	5*	14*
16 May 2017	7*	5*	4*	4*	2*	5*	14*
17 May 2017	7*	5*	4*	4*	2*	5*	14*
18 May 2017	7*	5*	4*	4*	2*	5*	14*
19 May 2017	9*	5*	4*	4*	2*	5*	7*
20 May 2017	9*	5*	4*	4*	2*	5*	7*
21 May 2017	9*	5*	4*	4*	2*	5*	7*
22 May 2017	9*	5*	4*	4*	2*	5*	7*
23 May 2017	9*	5*	4*	4*	2*	5*	7*
24 May 2017	9*	5*	4*	4*	2*	5*	7*
25 May 2017	7	6	4	3	2	4	6
26 May 2017	6*	6*	3*	2*	2*	4*	5*
27 May 2017	6*	6*	3*	2*	2*	4*	5*
28 May 2017	6*	6*	3*	2*	2*	4*	5*
29 May 2017	6*	6*	3*	2*	2*	4*	5*
30 May 2017	8	5	3	2	2	3	4
31 May 2017	8	5	3	2	2	3	4

\* 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
02 May 2017	ns	ns	ns	ns	IC	ns	ns
03 May 2017	IC	IC	IC	IC	ns	IC	IC
11 May 2017	IC	IC	IC	IC	IC	IC	IC
19 May 2017	IC	IC	IC	IC	IC	IC	IC
25 May 2017	IC	IC	IC	IC	IC	IC	IC
30 May 2017	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**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
02 May 2017	ns	ns	ns	ns	IC	ns	ns
03 May 2017	IC	IC	IC	IC	ns	IC	IC
11 May 2017	IC	IC	IC	IC	IC	IC	IC
19 May 2017	IC	IC	IC	IC	IC	IC	IC
25 May 2017	IC	IC	IC	IC	IC	IC	IC
30 May 2017	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**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
02 May 2017	ns	ns	ns	ns	IC	ns	ns
03 May 2017	IC	IC	IC	IC	ns	IC	IC
11 May 2017	IC	IC	IC	IC	IC	IC	IC
19 May 2017	IC	IC	IC	IC	IC	IC	IC
25 May 2017	IC	IC	IC	IC	IC	IC	IC
30 May 2017	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**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
02 May 2017	ns	ns	ns	ns	IC	ns	ns
03 May 2017	IC	IC	IC	IC	ns	IC	IC
11 May 2017	IC	IC	IC	IC	IC	IC	IC
19 May 2017	IC	IC	IC	IC	IC	IC	IC
25 May 2017	IC	IC	IC	IC	IC	IC	IC
30 May 2017	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**Table 3.8**

Summary of water quality parameters at the 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; oil and grease samples (OG) and suspended solids (SUSO) data are reported as mg/L. Duplicates are indicated by \*. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I19	03 May 2017	927	2	<2	<2	<2	1.00	17.5	71.20	9.34	33.48	8.26	2.49	3.1
I19	03 May 2017	927	6	40e	<2	4e	0.05	16.7	66.25	8.65	33.51	8.23	ns	2.9
I19	03 May 2017	927	11	<20	4e	<2	0.20	13.9	65.26	8.83	33.54	8.13	ns	5.7
I19	11 May 2017	1102	2	60e	14e	10e	0.23	16.7	59.46	8.56	33.36	8.23	ns	ns
I19	11 May 2017	1102	6	240e	24e	32e	0.10	15.8	66.88	6.84	33.41	8.16	ns	ns
I19	11 May 2017	1102	11	220e	14e	88	0.06	14.5	54.54	6.17	33.48	8.00	ns	ns
I19	19 May 2017	1111	2	20e	<2	12e	0.10	16.1	54.77	8.06	33.43	8.15	ns	ns
I19	19 May 2017	1111	6	<2	<2	<2	1.00	13.4	68.15	5.69	33.47	8.07	ns	ns
I19	19 May 2017	1111	11	<20	<2	<2	0.10	11.9	44.00	3.37	33.50	7.73	ns	ns
I19	25 May 2017	1105	2	<20	<2	2e	0.10	14.4	53.27	7.22	33.54	8.22	ns	ns
I19	25 May 2017	1105	6	20e	6e	4e	0.30	13.0	61.76	5.43	33.53	7.96	ns	ns
I19	25 May 2017	1105	11	<20	2e	<2	0.10	11.6	56.47	2.24	33.54	7.74	ns	ns
I19	30 May 2017	1056	2	<2	<2	<2	1.00	14.8	72.88	7.71	33.53	8.15	ns	ns
I19	30 May 2017	1056	6	20e	2e	12e	0.10	11.9	68.26	0.25	33.53	7.76	ns	ns
I19	30 May 2017	1056	11	20e	<2	60e	0.10	11.3	33.02	2.15	33.52	7.59	ns	ns
I24	03 May 2017	856	2	<2	<2	<2	1.00	18.0	72.29	9.98	33.49	8.32	2.76	3.0
I24	03 May 2017	856	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	4.4*
I24	03 May 2017	856	6	2e	<2	<2	1.00	17.4	73.71	9.79	33.49	8.31	ns	6.7
I24	03 May 2017	856	11	<20	2e	<2	0.10	13.9	69.18	8.20	33.60	8.08	ns	6.5
I24	11 May 2017	1126	2	4e	<2	<2	0.50	17.1	71.61	8.81	33.43	8.24	ns	ns
I24	11 May 2017	1126	6	20e	<2	8e	0.10	15.3	65.67	7.44	33.45	8.14	ns	ns
I24	11 May 2017	1126	11	420e	30e	68	0.07	14.8	65.53	6.35	33.45	8.04	ns	ns
I24	19 May 2017	1134	2	<2	<2	<2	1.00	17.4	74.38	8.52	33.53	8.22	ns	ns
I24	19 May 2017	1134	6	2e	<2	<2	1.00	15.0	65.58	5.29	33.53	8.13	ns	ns
I24	19 May 2017	1134	11	<2	<2	<2	1.00	12.4	75.62	2.56	33.58	7.78	ns	ns
I24	25 May 2017	1126	2	<20	<2	2e	0.10	14.3	56.47	5.78	33.52	8.16	ns	ns
I24	25 May 2017	1126	6	<20	<2	2e	0.10	11.7	69.56	1.95	33.55	7.77	ns	ns
I24	25 May 2017	1126	11	<20	<2	28e	0.10	11.5	59.84	2.52	33.54	7.70	ns	ns
I24	30 May 2017	1118	2	<2	<2	<2	1.00	15.1	78.00	7.89	33.52	8.15	ns	ns
I24	30 May 2017	1118	6	4e	2e	2e	0.50	12.2	70.99	2.63	33.49	7.86	ns	ns
I24	30 May 2017	1118	11	10e	2e	2e	0.20	11.6	79.34	3.52	33.49	7.69	ns	ns
I25	03 May 2017	847	2	<2	<2	<2	1.00	18.1	78.44	9.40	33.52	8.29	1.01	4.5
I25	03 May 2017	847	6	2e	<2	<2	1.00	17.1	75.47	9.61	33.47	8.26	ns	3.2
I25	03 May 2017	847	9	16e	<2	<2	0.12	14.6	72.62	9.13	33.55	8.12	ns	3.5
I25	11 May 2017	1134	2	6e	2e	2e	0.33	17.1	68.97	9.12	33.43	8.26	ns	ns

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I25	11 May 2017	1134	6	120e	4e	16e	0.03	15.9	69.51	7.31	33.43	8.16	ns	ns
I25	11 May 2017	1134	9	140e	10e	6e	0.07	14.8	75.18	6.54	33.45	8.03	ns	ns
I25	19 May 2017	1142	2	<2	<2	<2	1.00	16.9	73.63	8.28	33.51	8.19	ns	ns
I25	19 May 2017	1142	6	<2	<2	<2	1.00	14.6	67.83	6.32	33.51	8.11	ns	ns
I25	19 May 2017	1142	9	<2	<2	<2	1.00	12.7	76.91	4.35	33.43	7.74	ns	ns
I25	25 May 2017	1134	2	<20	<2	<2	0.10	15.2	63.02	8.04	33.54	8.37	ns	ns
I25	25 May 2017	1134	6	<20	2e	2e	0.10	11.9	65.42	1.91	33.58	7.83	ns	ns
I25	25 May 2017	1134	9	<20	<2	4e	0.10	11.6	74.32	2.94	33.53	7.75	ns	ns
I25	30 May 2017	1126	2	<2	<2	<2	1.00	14.0	72.24	7.03	33.52	8.10	ns	ns
I25	30 May 2017	1126	6	4e	2e	<2	0.50	12.2	75.53	3.12	33.51	7.85	ns	ns
I25	30 May 2017	1126	9	4e	<2	<2	0.50	11.8	78.00	4.05	33.50	7.75	ns	ns
I26	03 May 2017	834	2	<2	<2	<2	1.00	18.1	76.13	9.31	33.52	8.29	3.89	2.8
I26	03 May 2017	834	6	<2	<2	<2	1.00	17.3	71.43	8.81	33.51	8.27	ns	3.0
I26	03 May 2017	834	9	2e	<2	<2	1.00	14.5	73.16	9.11	33.93	8.11	ns	5.5
I26	11 May 2017	1148	2	<2	<2	<2	1.00	17.0	76.51	8.80	33.45	8.24	ns	ns
I26	11 May 2017	1148	6	20e	4e	<2	0.20	16.6	72.48	7.70	33.44	8.24	ns	ns
I26	11 May 2017	1148	9	120e	22e	8e	0.18	15.1	69.15	6.08	33.48	8.03	ns	ns
I26	19 May 2017	1202	2	<2	<2	<2	1.00	16.9	54.66	8.81	33.53	8.23	ns	ns
I26	19 May 2017	1202	6	<2	<2	<2	1.00	14.3	66.32	5.04	33.54	8.13	ns	ns
I26	19 May 2017	1202	9	<2	<2	<2	1.00	12.6	80.24	4.31	33.49	7.82	ns	ns
I26	25 May 2017	1145	2	<20	<2	<2	0.10	15.3	71.60	9.81	33.53	8.32	ns	ns
I26	25 May 2017	1145	6	<20	<2	<2	0.10	12.9	60.59	3.99	33.56	8.06	ns	ns
I26	25 May 2017	1145	9	<20	<2	<2	0.10	11.7	78.70	3.09	33.54	7.81	ns	ns
I26	30 May 2017	1136	2	<2	<2	<2	1.00	15.1	76.23	8.14	33.54	8.15	ns	ns
I26	30 May 2017	1136	6	<2	<2	<2	1.00	12.2	76.59	2.28	33.51	7.86	ns	ns
I26	30 May 2017	1136	9	<2	<2	<2	1.00	11.6	82.39	3.47	33.50	7.70	ns	ns
I32	02 May 2017	1024	2	<2	<2	2e	1.00	16.8	58.85	8.84	33.51	8.17	1.82	4.3
I32	02 May 2017	1024	6	<20	<2	<2	0.10	15.8	54.77	8.00	33.53	8.11	ns	5.4
I32	02 May 2017	1024	9	4e	2e	<2	0.50	14.6	68.70	7.76	33.52	8.04	ns	4.3
I32	11 May 2017	1202	2	10e	<2	<2	0.20	16.9	68.90	9.15	33.44	8.26	ns	ns
I32	11 May 2017	1202	6	40e	2e	<2	0.05	16.7	66.25	8.33	33.43	8.24	ns	ns
I32	11 May 2017	1202	9	10e	8e	2e	0.80	16.2	60.58	7.94	33.44	8.19	ns	ns
I32	19 May 2017	1215	2	<20	<2	2e	0.10	17.2	62.22	8.14	33.53	8.28	ns	ns
I32	19 May 2017	1215	6	<2	<2	<2	1.00	14.5	60.51	4.11	33.64	8.05	ns	ns
I32	19 May 2017	1215	9	<2	<2	2e	1.00	12.0	55.57	4.16	33.52	7.79	ns	ns
I32	25 May 2017	1157	2	<20	<2	<2	0.10	15.6	54.99	9.93	33.53	8.39	ns	ns
I32	25 May 2017	1157	6	<20	<2	<2	0.10	14.0	55.48	5.77	33.55	8.23	ns	ns
I32	25 May 2017	1157	9	<20	<2	<2	0.10	11.9	56.68	3.97	33.55	7.90	ns	ns
I32	30 May 2017	1148	2	<2	<2	<2	1.00	15.4	65.90	7.05	33.52	8.23	ns	ns
I32	30 May 2017	1148	6	<2	<2	<2	1.00	11.7	71.19	1.45	33.52	7.61	ns	ns
I32	30 May 2017	1148	9	<20	<2	<2	0.10	11.6	67.59	2.28	33.50	7.59	ns	ns

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I39	03 May 2017	822	2	<2	<2	<2	1.00	18.1	79.62	8.83	33.54	8.26	3.72	4.7
I39	03 May 2017	822	12	<20	<2	<2	0.10	12.9	72.26	8.47	33.60	8.06	ns	6.9
I39	03 May 2017	822	18	<20	2e	<2	0.10	12.6	67.32	6.31	33.57	7.97	ns	6.4
I39	11 May 2017	1039	2	12e	4e	<2	0.33	16.9	68.58	8.52	33.41	8.24	ns	ns
I39	11 May 2017	1039	12	140e	4e	12e	0.03	13.9	74.59	5.95	33.50	8.00	ns	ns
I39	11 May 2017	1039	18	400e	26e	68	0.06	12.5	72.68	4.66	33.54	7.85	ns	ns
I39	19 May 2017	1029	2	<2	<2	<2	1.00	17.4	76.05	8.39	33.53	8.21	ns	ns
I39	19 May 2017	1029	12	2e	<2	<2	1.00	11.3	80.71	3.21	33.53	7.77	ns	ns
I39	19 May 2017	1029	18	<20	<2	<2	0.10	11.2	78.40	3.51	33.55	7.73	ns	ns
I39	25 May 2017	1040	2	<2	<2	<2	1.00	14.9	75.11	8.41	33.54	8.21	ns	ns
I39	25 May 2017	1040	12	2e	<2	<2	1.00	11.6	76.47	2.38	33.54	7.79	ns	ns
I39	25 May 2017	1040	18	<2	<2	<2	1.00	11.2	80.86	2.76	33.55	7.74	ns	ns
I39	30 May 2017	1032	2	<2	<2	<2	1.00	13.4	76.47	5.82	33.50	8.05	ns	ns
I39	30 May 2017	1032	12	<2	<2	<2	1.00	10.9	86.78	3.29	33.55	7.72	ns	ns
I39	30 May 2017	1032	18	4e	<2	<2	0.50	10.8	85.30	3.36	33.58	7.69	ns	ns
I40	03 May 2017	905	2	<2	2e	<2	1.00	17.9	71.88	8.60	33.43	8.25	2.32	5.8
I40	03 May 2017	905	6	4e	<2	<2	0.50	17.3	75.95	9.23	33.49	8.26	ns	3.4
I40	03 May 2017	905	9	80e	<2	<2	0.02	15.6	72.62	8.94	33.96	8.22	ns	6.6
I40	11 May 2017	1116	2	16e	2e	<2	0.12	17.3	71.41	8.46	33.41	8.18	ns	ns
I40	11 May 2017	1116	6	100e	14e	14e	0.14	15.6	71.03	8.01	33.43	8.16	ns	ns
I40	11 May 2017	1116	9	180e	12e	22e	0.07	15.6	71.13	8.16	33.44	8.15	ns	ns
I40	19 May 2017	1126	2	<20	<2	<2	0.10	16.4	60.15	7.37	33.53	8.11	ns	ns
I40	19 May 2017	1126	6	<20	<2	2e	0.10	14.4	66.72	3.48	33.58	8.01	ns	ns
I40	19 May 2017	1126	9	60e	<2	8e	0.03	12.4	61.17	3.06	33.56	7.73	ns	ns
I40	25 May 2017	1117	2	20e	2e	<2	0.10	14.3	51.97	7.05	33.50	8.17	ns	ns
I40	25 May 2017	1117	6	<20	4e	8e	0.20	12.9	58.50	5.44	33.51	7.93	ns	ns
I40	25 May 2017	1117	9	<20	2e	6e	0.10	12.2	63.41	2.17	33.54	7.84	ns	ns
I40	30 May 2017	1108	2	<20	<2	<2	0.10	14.6	72.81	4.76	33.51	8.12	ns	ns
I40	30 May 2017	1108	6	2e	<2	<2	1.00	12.1	74.28	1.91	33.51	7.66	ns	ns
I40	30 May 2017	1108	9	<20	<2	<2	0.10	11.4	75.95	2.35	33.52	7.60	ns	ns

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	03 May 2017	Depth (m)	11
I19	03 May 2017	Arrive Time	927
I19	03 May 2017	Depart Time	932
I19	03 May 2017	Air Temp (C)	17
I19	03 May 2017	Weather	Partly Cloudy
I19	03 May 2017	Visibility (mi)	5
I19	03 May 2017	Wind Speed (kts)	6
I19	03 May 2017	Wind Dir	NW
I19	03 May 2017	Water Color	Brownish-Green
I19	03 May 2017	Wave Ht Low (ft)	3
I19	03 May 2017	Wave Period (sec)	9
I19	03 May 2017	Sea State	Calm
I19	03 May 2017	High Tide (ft)	4.3
I19	03 May 2017	High Tide Time	339
I19	03 May 2017	Low Tide (ft)	0
I19	03 May 2017	Low Tide Time	1100
I19	03 May 2017	Comments	
I19	11 May 2017	Depth (m)	11
I19	11 May 2017	Arrive Time	1102
I19	11 May 2017	Depart Time	1106
I19	11 May 2017	Air Temp (C)	16
I19	11 May 2017	Weather	Haze
I19	11 May 2017	Visibility (mi)	14
I19	11 May 2017	Wind Speed (kts)	12
I19	11 May 2017	Wind Dir	NE
I19	11 May 2017	Water Color	Green
I19	11 May 2017	Wave Ht Low (ft)	3
I19	11 May 2017	Wave Period (sec)	13
I19	11 May 2017	Sea State	Light chop
I19	11 May 2017	High Tide (ft)	3.8
I19	11 May 2017	High Tide Time	1031
I19	11 May 2017	Low Tide (ft)	-0.4
I19	11 May 2017	Low Tide Time	425
I19	11 May 2017	Comments	
I19	19 May 2017	Depth (m)	11
I19	19 May 2017	Arrive Time	1111
I19	19 May 2017	Depart Time	1114
I19	19 May 2017	Air Temp (C)	18
I19	19 May 2017	Weather	Clear
I19	19 May 2017	Visibility (mi)	12
I19	19 May 2017	Wind Speed (kts)	8
I19	19 May 2017	Wind Dir	SE
I19	19 May 2017	Water Color	Greenish-Brown
I19	19 May 2017	Wave Ht Low (ft)	4
I19	19 May 2017	Wave Period (sec)	13
I19	19 May 2017	Sea State	Heavy chop
I19	19 May 2017	High Tide (ft)	3.7
I19	19 May 2017	High Tide Time	344
I19	19 May 2017	Low Tide (ft)	0.5

Station	Date	Parameter	Value
I19	19 May 2017	Low Tide Time	1054
I19	19 May 2017	Comments	Freshwater lens
I19	25 May 2017	Depth (m)	11
I19	25 May 2017	Arrive Time	1106
I19	25 May 2017	Depart Time	1109
I19	25 May 2017	Air Temp (C)	16
I19	25 May 2017	Weather	Overcast
I19	25 May 2017	Visibility (mi)	10
I19	25 May 2017	Wind Speed (kts)	3
I19	25 May 2017	Wind Dir	W
I19	25 May 2017	Water Color	Greenish-Brown
I19	25 May 2017	Wave Ht Low (ft)	4
I19	25 May 2017	Wave Period (sec)	13
I19	25 May 2017	Sea State	Wind ripples
I19	25 May 2017	High Tide (ft)	4.3
I19	25 May 2017	High Tide Time	949
I19	25 May 2017	Low Tide (ft)	0.9
I19	25 May 2017	Low Tide Time	1515
I19	25 May 2017	Comments	
I19	30 May 2017	Depth (m)	10
I19	30 May 2017	Arrive Time	1056
I19	30 May 2017	Depart Time	1108
I19	30 May 2017	Air Temp (C)	15
I19	30 May 2017	Weather	Continuous layer of clouds
I19	30 May 2017	Visibility (mi)	8
I19	30 May 2017	Wind Speed (kts)	5
I19	30 May 2017	Wind Dir	S
I19	30 May 2017	Water Color	Brown
I19	30 May 2017	Wave Ht Low (ft)	2
I19	30 May 2017	Wave Period (sec)	13
I19	30 May 2017	Sea State	Calm
I19	30 May 2017	High Tide (ft)	3.9
I19	30 May 2017	High Tide Time	1456
I19	30 May 2017	Low Tide (ft)	-0.5
I19	30 May 2017	Low Tide Time	805
I19	30 May 2017	Comments	
I24	03 May 2017	Depth (m)	10
I24	03 May 2017	Arrive Time	856
I24	03 May 2017	Depart Time	859
I24	03 May 2017	Air Temp (C)	17
I24	03 May 2017	Weather	Partly Cloudy
I24	03 May 2017	Visibility (mi)	5
I24	03 May 2017	Wind Speed (kts)	6
I24	03 May 2017	Wind Dir	SW
I24	03 May 2017	Water Color	Brownish-Green
I24	03 May 2017	Wave Ht Low (ft)	3
I24	03 May 2017	Wave Period (sec)	9
I24	03 May 2017	Sea State	Calm
I24	03 May 2017	High Tide (ft)	4.3
I24	03 May 2017	High Tide Time	339
I24	03 May 2017	Low Tide (ft)	0
I24	03 May 2017	Low Tide Time	1100

Station	Date	Parameter	Value
I24	03 May 2017	Comments	
I24	11 May 2017	Depth (m)	10
I24	11 May 2017	Arrive Time	1126
I24	11 May 2017	Depart Time	1130
I24	11 May 2017	Air Temp (C)	16
I24	11 May 2017	Weather	Haze
I24	11 May 2017	Visibility (mi)	14
I24	11 May 2017	Wind Speed (kts)	12
I24	11 May 2017	Wind Dir	SE
I24	11 May 2017	Water Color	Green
I24	11 May 2017	Wave Ht Low (ft)	3
I24	11 May 2017	Wave Period (sec)	13
I24	11 May 2017	Sea State	Light chop
I24	11 May 2017	High Tide (ft)	3.8
I24	11 May 2017	High Tide Time	1031
I24	11 May 2017	Low Tide (ft)	-0.4
I24	11 May 2017	Low Tide Time	425
I24	11 May 2017	Comments	
I24	19 May 2017	Depth (m)	10
I24	19 May 2017	Arrive Time	1134
I24	19 May 2017	Depart Time	1138
I24	19 May 2017	Air Temp (C)	18
I24	19 May 2017	Weather	Clear
I24	19 May 2017	Visibility (mi)	12
I24	19 May 2017	Wind Speed (kts)	11
I24	19 May 2017	Wind Dir	S
I24	19 May 2017	Water Color	Green
I24	19 May 2017	Wave Ht Low (ft)	4
I24	19 May 2017	Wave Period (sec)	13
I24	19 May 2017	Sea State	Heavy chop
I24	19 May 2017	High Tide (ft)	3.7
I24	19 May 2017	High Tide Time	344
I24	19 May 2017	Low Tide (ft)	0.5
I24	19 May 2017	Low Tide Time	1054
I24	19 May 2017	Comments	
I24	25 May 2017	Depth (m)	10
I24	25 May 2017	Arrive Time	1126
I24	25 May 2017	Depart Time	1131
I24	25 May 2017	Air Temp (C)	16
I24	25 May 2017	Weather	Overcast
I24	25 May 2017	Visibility (mi)	10
I24	25 May 2017	Wind Speed (kts)	4
I24	25 May 2017	Wind Dir	N
I24	25 May 2017	Water Color	Greenish-Brown
I24	25 May 2017	Wave Ht Low (ft)	4
I24	25 May 2017	Wave Period (sec)	13
I24	25 May 2017	Sea State	Wind ripples
I24	25 May 2017	High Tide (ft)	4.3
I24	25 May 2017	High Tide Time	949
I24	25 May 2017	Low Tide (ft)	0.9
I24	25 May 2017	Low Tide Time	1515
I24	25 May 2017	Comments	

Station	Date	Parameter	Value
I24	30 May 2017	Depth (m)	9
I24	30 May 2017	Arrive Time	1118
I24	30 May 2017	Depart Time	1120
I24	30 May 2017	Air Temp (C)	16
I24	30 May 2017	Weather	Continuous layer of clouds
I24	30 May 2017	Visibility (mi)	8
I24	30 May 2017	Wind Speed (kts)	7
I24	30 May 2017	Wind Dir	W
I24	30 May 2017	Water Color	Brown
I24	30 May 2017	Wave Ht Low (ft)	2
I24	30 May 2017	Wave Period (sec)	13
I24	30 May 2017	Sea State	Calm
I24	30 May 2017	High Tide (ft)	3.9
I24	30 May 2017	High Tide Time	1456
I24	30 May 2017	Low Tide (ft)	-0.5
I24	30 May 2017	Low Tide Time	805
I24	30 May 2017	Comments	
I25	03 May 2017	Depth (m)	9
I25	03 May 2017	Arrive Time	847
I25	03 May 2017	Depart Time	850
I25	03 May 2017	Air Temp (C)	17
I25	03 May 2017	Weather	Partly Cloudy
I25	03 May 2017	Visibility (mi)	5
I25	03 May 2017	Wind Speed (kts)	6
I25	03 May 2017	Wind Dir	SE
I25	03 May 2017	Water Color	Brownish-Green
I25	03 May 2017	Wave Ht Low (ft)	3
I25	03 May 2017	Wave Period (sec)	9
I25	03 May 2017	Sea State	Calm
I25	03 May 2017	High Tide (ft)	4.3
I25	03 May 2017	High Tide Time	339
I25	03 May 2017	Low Tide (ft)	0
I25	03 May 2017	Low Tide Time	1100
I25	03 May 2017	Comments	
I25	11 May 2017	Depth (m)	9
I25	11 May 2017	Arrive Time	1134
I25	11 May 2017	Depart Time	1140
I25	11 May 2017	Air Temp (C)	17
I25	11 May 2017	Weather	Haze
I25	11 May 2017	Visibility (mi)	14
I25	11 May 2017	Wind Speed (kts)	13
I25	11 May 2017	Wind Dir	S
I25	11 May 2017	Water Color	Green
I25	11 May 2017	Wave Ht Low (ft)	3
I25	11 May 2017	Wave Period (sec)	13
I25	11 May 2017	Sea State	Light chop
I25	11 May 2017	High Tide (ft)	3.8
I25	11 May 2017	High Tide Time	1031
I25	11 May 2017	Low Tide (ft)	-0.4
I25	11 May 2017	Low Tide Time	425
I25	11 May 2017	Comments	

Station	Date	Parameter	Value
I25	19 May 2017	Depth (m)	9
I25	19 May 2017	Arrive Time	1142
I25	19 May 2017	Depart Time	1156
I25	19 May 2017	Air Temp (C)	18
I25	19 May 2017	Weather	Clear
I25	19 May 2017	Visibility (mi)	12
I25	19 May 2017	Wind Speed (kts)	14
I25	19 May 2017	Wind Dir	SE
I25	19 May 2017	Water Color	Green
I25	19 May 2017	Wave Ht Low (ft)	4
I25	19 May 2017	Wave Period (sec)	13
I25	19 May 2017	Sea State	Heavy chop
I25	19 May 2017	High Tide (ft)	3.7
I25	19 May 2017	High Tide Time	344
I25	19 May 2017	Low Tide (ft)	0.5
I25	19 May 2017	Low Tide Time	1054
I25	19 May 2017	Comments	
I25	25 May 2017	Depth (m)	9
I25	25 May 2017	Arrive Time	1134
I25	25 May 2017	Depart Time	1139
I25	25 May 2017	Air Temp (C)	16
I25	25 May 2017	Weather	Overcast
I25	25 May 2017	Visibility (mi)	11
I25	25 May 2017	Wind Speed (kts)	5
I25	25 May 2017	Wind Dir	S
I25	25 May 2017	Water Color	Brownish-Green
I25	25 May 2017	Wave Ht Low (ft)	4
I25	25 May 2017	Wave Period (sec)	13
I25	25 May 2017	Sea State	Wind ripples
I25	25 May 2017	High Tide (ft)	4.3
I25	25 May 2017	High Tide Time	949
I25	25 May 2017	Low Tide (ft)	0.9
I25	25 May 2017	Low Tide Time	1515
I25	25 May 2017	Comments	
I25	30 May 2017	Depth (m)	9
I25	30 May 2017	Arrive Time	1126
I25	30 May 2017	Depart Time	1128
I25	30 May 2017	Air Temp (C)	16
I25	30 May 2017	Weather	Continuous layer of clouds
I25	30 May 2017	Visibility (mi)	8
I25	30 May 2017	Wind Speed (kts)	7
I25	30 May 2017	Wind Dir	N
I25	30 May 2017	Water Color	Brown
I25	30 May 2017	Wave Ht Low (ft)	2
I25	30 May 2017	Wave Period (sec)	13
I25	30 May 2017	Sea State	Calm
I25	30 May 2017	High Tide (ft)	3.9
I25	30 May 2017	High Tide Time	1456
I25	30 May 2017	Low Tide (ft)	-0.5
I25	30 May 2017	Low Tide Time	805
I25	30 May 2017	Comments	Kelp debris
I26	03 May 2017	Depth (m)	9

Station	Date	Parameter	Value
I26	03 May 2017	Arrive Time	834
I26	03 May 2017	Depart Time	839
I26	03 May 2017	Air Temp (C)	17
I26	03 May 2017	Weather	Clear
I26	03 May 2017	Visibility (mi)	12
I26	03 May 2017	Wind Speed (kts)	5
I26	03 May 2017	Wind Dir	NE
I26	03 May 2017	Water Color	Brownish-Green
I26	03 May 2017	Wave Ht Low (ft)	3
I26	03 May 2017	Wave Period (sec)	9
I26	03 May 2017	Sea State	Calm
I26	03 May 2017	High Tide (ft)	4.3
I26	03 May 2017	High Tide Time	339
I26	03 May 2017	Low Tide (ft)	0
I26	03 May 2017	Low Tide Time	1100
I26	03 May 2017	Comments	
I26	11 May 2017	Depth (m)	9
I26	11 May 2017	Arrive Time	1148
I26	11 May 2017	Depart Time	1153
I26	11 May 2017	Air Temp (C)	16
I26	11 May 2017	Weather	Haze
I26	11 May 2017	Visibility (mi)	14
I26	11 May 2017	Wind Speed (kts)	11
I26	11 May 2017	Wind Dir	SW
I26	11 May 2017	Water Color	Green
I26	11 May 2017	Wave Ht Low (ft)	3
I26	11 May 2017	Wave Period (sec)	13
I26	11 May 2017	Sea State	Light chop
I26	11 May 2017	High Tide (ft)	3.8
I26	11 May 2017	High Tide Time	1031
I26	11 May 2017	Low Tide (ft)	-0.4
I26	11 May 2017	Low Tide Time	425
I26	11 May 2017	Comments	
I26	19 May 2017	Depth (m)	9
I26	19 May 2017	Arrive Time	1202
I26	19 May 2017	Depart Time	1205
I26	19 May 2017	Air Temp (C)	18
I26	19 May 2017	Weather	Clear
I26	19 May 2017	Visibility (mi)	12
I26	19 May 2017	Wind Speed (kts)	13
I26	19 May 2017	Wind Dir	W
I26	19 May 2017	Water Color	Greenish-Brown
I26	19 May 2017	Wave Ht Low (ft)	4
I26	19 May 2017	Wave Period (sec)	13
I26	19 May 2017	Sea State	Heavy chop
I26	19 May 2017	High Tide (ft)	3.7
I26	19 May 2017	High Tide Time	344
I26	19 May 2017	Low Tide (ft)	0.5
I26	19 May 2017	Low Tide Time	1054
I26	19 May 2017	Comments	Phytoplankton bloom
I26	25 May 2017	Depth (m)	9
I26	25 May 2017	Arrive Time	1145

Station	Date	Parameter	Value
I26	25 May 2017	Depart Time	1149
I26	25 May 2017	Air Temp (C)	16
I26	25 May 2017	Weather	Overcast
I26	25 May 2017	Visibility (mi)	11
I26	25 May 2017	Wind Speed (kts)	6
I26	25 May 2017	Wind Dir	SW
I26	25 May 2017	Water Color	Brownish-Green
I26	25 May 2017	Wave Ht Low (ft)	4
I26	25 May 2017	Wave Period (sec)	13
I26	25 May 2017	Sea State	Wind ripples
I26	25 May 2017	High Tide (ft)	4.3
I26	25 May 2017	High Tide Time	949
I26	25 May 2017	Low Tide (ft)	0.9
I26	25 May 2017	Low Tide Time	1515
I26	25 May 2017	Comments	
I26	30 May 2017	Depth (m)	9
I26	30 May 2017	Arrive Time	1136
I26	30 May 2017	Depart Time	1138
I26	30 May 2017	Air Temp (C)	15
I26	30 May 2017	Weather	Continuous layer of clouds
I26	30 May 2017	Visibility (mi)	8
I26	30 May 2017	Wind Speed (kts)	6
I26	30 May 2017	Wind Dir	NE
I26	30 May 2017	Water Color	Greenish-Brown
I26	30 May 2017	Wave Ht Low (ft)	2
I26	30 May 2017	Wave Period (sec)	13
I26	30 May 2017	Sea State	Calm
I26	30 May 2017	High Tide (ft)	3.9
I26	30 May 2017	High Tide Time	1456
I26	30 May 2017	Low Tide (ft)	-0.5
I26	30 May 2017	Low Tide Time	805
I26	30 May 2017	Comments	
I32	02 May 2017	Depth (m)	10
I32	02 May 2017	Arrive Time	1024
I32	02 May 2017	Depart Time	1029
I32	02 May 2017	Air Temp (C)	15
I32	02 May 2017	Weather	Fog
I32	02 May 2017	Visibility (mi)	1
I32	02 May 2017	Wind Speed (kts)	6
I32	02 May 2017	Wind Dir	S
I32	02 May 2017	Water Color	Green
I32	02 May 2017	Wave Ht Low (ft)	4
I32	02 May 2017	Wave Period (sec)	13
I32	02 May 2017	Sea State	Wind ripples
I32	02 May 2017	High Tide (ft)	3.7
I32	02 May 2017	High Tide Time	1653
I32	02 May 2017	Low Tide (ft)	-0.1
I32	02 May 2017	Low Tide Time	947
I32	02 May 2017	Comments	
I32	11 May 2017	Depth (m)	10
I32	11 May 2017	Arrive Time	1202
I32	11 May 2017	Depart Time	1208

Station	Date	Parameter	Value
I32	11 May 2017	Air Temp (C)	17
I32	11 May 2017	Weather	Haze
I32	11 May 2017	Visibility (mi)	14
I32	11 May 2017	Wind Speed (kts)	12
I32	11 May 2017	Wind Dir	NE
I32	11 May 2017	Water Color	Green
I32	11 May 2017	Wave Ht Low (ft)	3
I32	11 May 2017	Wave Period (sec)	13
I32	11 May 2017	Sea State	Light chop
I32	11 May 2017	High Tide (ft)	3.8
I32	11 May 2017	High Tide Time	1031
I32	11 May 2017	Low Tide (ft)	-0.4
I32	11 May 2017	Low Tide Time	425
I32	11 May 2017	Comments	
I32	19 May 2017	Depth (m)	9
I32	19 May 2017	Arrive Time	1215
I32	19 May 2017	Depart Time	1220
I32	19 May 2017	Air Temp (C)	18
I32	19 May 2017	Weather	Clear
I32	19 May 2017	Visibility (mi)	12
I32	19 May 2017	Wind Speed (kts)	14
I32	19 May 2017	Wind Dir	NE
I32	19 May 2017	Water Color	Green
I32	19 May 2017	Wave Ht Low (ft)	4
I32	19 May 2017	Wave Period (sec)	13
I32	19 May 2017	Sea State	Heavy chop
I32	19 May 2017	High Tide (ft)	3.7
I32	19 May 2017	High Tide Time	344
I32	19 May 2017	Low Tide (ft)	0.5
I32	19 May 2017	Low Tide Time	1054
I32	19 May 2017	Comments	Plankton bloom
I32	25 May 2017	Depth (m)	9
I32	25 May 2017	Arrive Time	1157
I32	25 May 2017	Depart Time	1205
I32	25 May 2017	Air Temp (C)	16
I32	25 May 2017	Weather	Overcast
I32	25 May 2017	Visibility (mi)	11
I32	25 May 2017	Wind Speed (kts)	4
I32	25 May 2017	Wind Dir	N
I32	25 May 2017	Water Color	Brownish-Green
I32	25 May 2017	Wave Ht Low (ft)	4
I32	25 May 2017	Wave Period (sec)	13
I32	25 May 2017	Sea State	Wind ripples
I32	25 May 2017	High Tide (ft)	4.3
I32	25 May 2017	High Tide Time	949
I32	25 May 2017	Low Tide (ft)	0.9
I32	25 May 2017	Low Tide Time	1515
I32	25 May 2017	Comments	
I32	30 May 2017	Depth (m)	9
I32	30 May 2017	Arrive Time	1148
I32	30 May 2017	Depart Time	1151
I32	30 May 2017	Air Temp (C)	16



Station	Date	Parameter	Value
I32	30 May 2017	Weather	Continuous layer of clouds
I32	30 May 2017	Visibility (mi)	8
I32	30 May 2017	Wind Speed (kts)	5
I32	30 May 2017	Wind Dir	W
I32	30 May 2017	Water Color	Greenish-Brown
I32	30 May 2017	Wave Ht Low (ft)	2
I32	30 May 2017	Wave Period (sec)	13
I32	30 May 2017	Sea State	Calm
I32	30 May 2017	High Tide (ft)	3.9
I32	30 May 2017	High Tide Time	1456
I32	30 May 2017	Low Tide (ft)	-0.5
I32	30 May 2017	Low Tide Time	805
I32	30 May 2017	Comments	
I39	03 May 2017	Depth (m)	18
I39	03 May 2017	Arrive Time	822
I39	03 May 2017	Depart Time	827
I39	03 May 2017	Air Temp (C)	17
I39	03 May 2017	Weather	Clear
I39	03 May 2017	Visibility (mi)	12
I39	03 May 2017	Wind Speed (kts)	3
I39	03 May 2017	Wind Dir	NE
I39	03 May 2017	Water Color	Brownish-Green
I39	03 May 2017	Wave Ht Low (ft)	3
I39	03 May 2017	Wave Period (sec)	9
I39	03 May 2017	Sea State	Calm
I39	03 May 2017	High Tide (ft)	4.3
I39	03 May 2017	High Tide Time	339
I39	03 May 2017	Low Tide (ft)	0
I39	03 May 2017	Low Tide Time	1100
I39	03 May 2017	Comments	
I39	11 May 2017	Depth (m)	18
I39	11 May 2017	Arrive Time	1039
I39	11 May 2017	Depart Time	1044
I39	11 May 2017	Air Temp (C)	16
I39	11 May 2017	Weather	Haze
I39	11 May 2017	Visibility (mi)	14
I39	11 May 2017	Wind Speed (kts)	12
I39	11 May 2017	Wind Dir	E
I39	11 May 2017	Water Color	Green
I39	11 May 2017	Wave Ht Low (ft)	3
I39	11 May 2017	Wave Period (sec)	13
I39	11 May 2017	Sea State	Light chop
I39	11 May 2017	High Tide (ft)	3.8
I39	11 May 2017	High Tide Time	1031
I39	11 May 2017	Low Tide (ft)	-0.4
I39	11 May 2017	Low Tide Time	425
I39	11 May 2017	Comments	
I39	19 May 2017	Depth (m)	19
I39	19 May 2017	Arrive Time	1029
I39	19 May 2017	Depart Time	1034
I39	19 May 2017	Air Temp (C)	17
I39	19 May 2017	Weather	Clear

Station	Date	Parameter	Value
I39	19 May 2017	Visibility (mi)	8
I39	19 May 2017	Wind Speed (kts)	14
I39	19 May 2017	Wind Dir	SE
I39	19 May 2017	Water Color	Green
I39	19 May 2017	Wave Ht Low (ft)	4
I39	19 May 2017	Wave Period (sec)	13
I39	19 May 2017	Sea State	Calm
I39	19 May 2017	High Tide (ft)	3.7
I39	19 May 2017	High Tide Time	344
I39	19 May 2017	Low Tide (ft)	0.5
I39	19 May 2017	Low Tide Time	1054
I39	19 May 2017	Comments	
I39	25 May 2017	Depth (m)	19
I39	25 May 2017	Arrive Time	1040
I39	25 May 2017	Depart Time	1046
I39	25 May 2017	Air Temp (C)	16
I39	25 May 2017	Weather	Overcast
I39	25 May 2017	Visibility (mi)	6
I39	25 May 2017	Wind Speed (kts)	5
I39	25 May 2017	Wind Dir	S
I39	25 May 2017	Water Color	Bluish-Green
I39	25 May 2017	Wave Ht Low (ft)	4
I39	25 May 2017	Wave Period (sec)	13
I39	25 May 2017	Sea State	Wind ripples
I39	25 May 2017	High Tide (ft)	4.3
I39	25 May 2017	High Tide Time	949
I39	25 May 2017	Low Tide (ft)	0.9
I39	25 May 2017	Low Tide Time	1515
I39	25 May 2017	Comments	
I39	30 May 2017	Depth (m)	18
I39	30 May 2017	Arrive Time	1032
I39	30 May 2017	Depart Time	1034
I39	30 May 2017	Air Temp (C)	15
I39	30 May 2017	Weather	Continuous layer of clouds
I39	30 May 2017	Visibility (mi)	6
I39	30 May 2017	Wind Speed (kts)	2
I39	30 May 2017	Wind Dir	S
I39	30 May 2017	Water Color	Greenish-Blue
I39	30 May 2017	Wave Ht Low (ft)	2
I39	30 May 2017	Wave Period (sec)	13
I39	30 May 2017	Sea State	Calm
I39	30 May 2017	High Tide (ft)	3.9
I39	30 May 2017	High Tide Time	1456
I39	30 May 2017	Low Tide (ft)	-0.5
I39	30 May 2017	Low Tide Time	805
I39	30 May 2017	Comments	
I40	03 May 2017	Depth (m)	10
I40	03 May 2017	Arrive Time	905
I40	03 May 2017	Depart Time	909
I40	03 May 2017	Air Temp (C)	17
I40	03 May 2017	Weather	Partly Cloudy
I40	03 May 2017	Visibility (mi)	5

Station	Date	Parameter	Value
I40	03 May 2017	Wind Speed (kts)	6
I40	03 May 2017	Wind Dir	S
I40	03 May 2017	Water Color	Brownish-Green
I40	03 May 2017	Wave Ht Low (ft)	3
I40	03 May 2017	Wave Period (sec)	9
I40	03 May 2017	Sea State	Calm
I40	03 May 2017	High Tide (ft)	4.3
I40	03 May 2017	High Tide Time	339
I40	03 May 2017	Low Tide (ft)	0
I40	03 May 2017	Low Tide Time	1100
I40	03 May 2017	Comments	
I40	11 May 2017	Depth (m)	10
I40	11 May 2017	Arrive Time	1116
I40	11 May 2017	Depart Time	1121
I40	11 May 2017	Air Temp (C)	16
I40	11 May 2017	Weather	Haze
I40	11 May 2017	Visibility (mi)	14
I40	11 May 2017	Wind Speed (kts)	15
I40	11 May 2017	Wind Dir	N
I40	11 May 2017	Water Color	Green
I40	11 May 2017	Wave Ht Low (ft)	3
I40	11 May 2017	Wave Period (sec)	13
I40	11 May 2017	Sea State	Light chop
I40	11 May 2017	High Tide (ft)	3.8
I40	11 May 2017	High Tide Time	1031
I40	11 May 2017	Low Tide (ft)	-0.4
I40	11 May 2017	Low Tide Time	425
I40	11 May 2017	Comments	
I40	19 May 2017	Depth (m)	10
I40	19 May 2017	Arrive Time	1126
I40	19 May 2017	Depart Time	1128
I40	19 May 2017	Air Temp (C)	18
I40	19 May 2017	Weather	Clear
I40	19 May 2017	Visibility (mi)	12
I40	19 May 2017	Wind Speed (kts)	10
I40	19 May 2017	Wind Dir	S
I40	19 May 2017	Water Color	Green
I40	19 May 2017	Wave Ht Low (ft)	4
I40	19 May 2017	Wave Period (sec)	13
I40	19 May 2017	Sea State	Heavy chop
I40	19 May 2017	High Tide (ft)	3.7
I40	19 May 2017	High Tide Time	344
I40	19 May 2017	Low Tide (ft)	0.5
I40	19 May 2017	Low Tide Time	1054
I40	19 May 2017	Comments	Clear delineation of two watermasses at surface maybe TJ estuary
I40	25 May 2017	Depth (m)	10
I40	25 May 2017	Arrive Time	1117
I40	25 May 2017	Depart Time	1123
I40	25 May 2017	Air Temp (C)	16
I40	25 May 2017	Weather	Overcast
I40	25 May 2017	Visibility (mi)	10
I40	25 May 2017	Wind Speed (kts)	5

Station	Date	Parameter	Value
I40	25 May 2017	Wind Dir	SW
I40	25 May 2017	Water Color	Greenish-Brown
I40	25 May 2017	Wave Ht Low (ft)	4
I40	25 May 2017	Wave Period (sec)	13
I40	25 May 2017	Sea State	Wind ripples
I40	25 May 2017	High Tide (ft)	4.3
I40	25 May 2017	High Tide Time	949
I40	25 May 2017	Low Tide (ft)	0.9
I40	25 May 2017	Low Tide Time	1515
I40	25 May 2017	Comments	
I40	30 May 2017	Depth (m)	9
I40	30 May 2017	Arrive Time	1108
I40	30 May 2017	Depart Time	1112
I40	30 May 2017	Air Temp (C)	16
I40	30 May 2017	Weather	Continuous layer of clouds
I40	30 May 2017	Visibility (mi)	8
I40	30 May 2017	Wind Speed (kts)	4
I40	30 May 2017	Wind Dir	NE
I40	30 May 2017	Water Color	Brown
I40	30 May 2017	Wave Ht Low (ft)	2
I40	30 May 2017	Wave Period (sec)	13
I40	30 May 2017	Sea State	Calm
I40	30 May 2017	High Tide (ft)	3.9
I40	30 May 2017	High Tide Time	1456
I40	30 May 2017	Low Tide (ft)	-0.5
I40	30 May 2017	Low Tide Time	805
I40	30 May 2017	Comments	

**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 ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I19	03 May 2017	1	17.77	71.10	9.32	33.47	8.3	24.2	1.46
I19	03 May 2017	2	17.47	71.20	9.34	33.48	8.3	24.2	1.42
I19	03 May 2017	3	17.21	69.51	9.04	33.47	8.2	24.3	1.50
I19	03 May 2017	4	17.02	68.70	8.71	33.46	8.2	24.3	1.81
I19	03 May 2017	5	16.96	67.32	8.62	33.46	8.2	24.3	2.26
I19	03 May 2017	6	16.68	66.25	8.65	33.51	8.2	24.4	2.93
I19	03 May 2017	7	16.13	64.11	8.59	33.51	8.2	24.6	3.60
I19	03 May 2017	8	15.29	61.51	8.63	33.66	8.2	24.9	3.86
I19	03 May 2017	9	14.42	64.51	8.66	33.50	8.2	24.9	4.03
I19	03 May 2017	10	13.94	65.26	8.83	33.54	8.1	25.1	4.09
I19	11 May 2017	1	16.78	58.71	8.74	33.36	8.2	24.3	4.31
I19	11 May 2017	2	16.73	59.46	8.56	33.36	8.2	24.3	5.35
I19	11 May 2017	3	16.53	65.18	8.14	33.40	8.2	24.4	6.89
I19	11 May 2017	4	16.23	64.05	8.12	33.40	8.2	24.5	6.38
I19	11 May 2017	5	16.10	64.51	7.71	33.38	8.2	24.5	4.74
I19	11 May 2017	6	15.80	66.88	6.84	33.41	8.2	24.6	2.93
I19	11 May 2017	7	15.32	50.93	6.01	33.45	8.1	24.7	2.38
I19	11 May 2017	8	14.81	28.52	5.95	33.46	8.0	24.8	2.10
I19	11 May 2017	9	14.60	41.74	6.06	33.47	8.0	24.9	1.83
I19	11 May 2017	10	14.47	54.54	6.17	33.48	8.0	24.9	1.76
I19	19 May 2017	1	16.16	55.04	8.27	33.43	8.2	24.5	6.31
I19	19 May 2017	2	16.13	54.77	8.06	33.43	8.2	24.5	7.13
I19	19 May 2017	3	15.69	57.03	7.82	33.43	8.1	24.6	8.89
I19	19 May 2017	4	14.21	59.81	7.40	33.48	8.1	25.0	10.64
I19	19 May 2017	5	13.82	66.65	6.50	33.47	8.1	25.0	10.72
I19	19 May 2017	6	13.44	68.15	5.69	33.47	8.1	25.1	8.49
I19	19 May 2017	7	13.01	61.82	4.65	33.47	8.0	25.2	5.09
I19	19 May 2017	8	12.82	60.65	3.10	33.46	7.9	25.2	3.84
I19	19 May 2017	9	12.14	59.23	2.65	33.48	7.8	25.4	3.90
I19	19 May 2017	10	11.95	44.00	3.37	33.50	7.7	25.4	3.65
I19	25 May 2017	1	14.70	52.14	8.76	33.52	8.2	24.9	16.59
I19	25 May 2017	2	14.37	53.27	7.22	33.54	8.2	25.0	14.70
I19	25 May 2017	3	13.88	55.05	6.30	33.54	8.1	25.1	10.20
I19	25 May 2017	4	13.53	56.24	6.12	33.54	8.1	25.2	7.68
I19	25 May 2017	5	13.16	59.20	5.95	33.54	8.0	25.2	6.46
I19	25 May 2017	6	12.99	61.76	5.43	33.53	8.0	25.3	5.32
I19	25 May 2017	7	12.72	61.37	4.14	33.55	7.9	25.3	4.19
I19	25 May 2017	8	12.34	61.46	2.51	33.54	7.8	25.4	3.54
I19	25 May 2017	9	11.70	60.76	1.96	33.56	7.8	25.5	3.37
I19	25 May 2017	10	11.61	56.47	2.24	33.54	7.7	25.5	3.28
I19	30 May 2017	1	14.94	73.44	8.39	33.53	8.2	24.9	7.75
I19	30 May 2017	2	14.75	72.88	7.71	33.53	8.2	24.9	5.77
I19	30 May 2017	3	14.51	69.35	6.27	33.53	8.1	24.9	4.11
I19	30 May 2017	4	14.35	64.25	3.70	33.53	8.1	25.0	3.30
I19	30 May 2017	5	13.64	64.58	0.96	33.49	8.0	25.1	2.49
I19	30 May 2017	6	11.95	68.26	0.25	33.53	7.8	25.5	1.98
I19	30 May 2017	7	11.47	67.85	1.02	33.52	7.6	25.5	1.88

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I19	30 May 2017	8	11.33	59.12	1.67	33.52	7.6	25.6	1.85
I19	30 May 2017	9	11.31	47.86	1.98	33.52	7.6	25.6	1.90
I19	30 May 2017	10	11.32	33.02	2.15	33.52	7.6	25.6	1.91
I24	03 May 2017	1	18.04	72.40	9.96	33.48	8.3	24.1	2.09
I24	03 May 2017	2	18.03	72.29	9.98	33.49	8.3	24.1	2.11
I24	03 May 2017	3	17.64	72.07	10.02	33.52	8.3	24.2	2.20
I24	03 May 2017	4	17.53	72.26	9.97	33.48	8.3	24.2	2.13
I24	03 May 2017	5	17.51	74.41	9.71	33.48	8.3	24.2	2.73
I24	03 May 2017	6	17.44	73.71	9.79	33.49	8.3	24.2	3.87
I24	03 May 2017	7	17.19	76.59	9.92	33.51	8.3	24.3	4.46
I24	03 May 2017	8	16.93	75.94	9.48	33.53	8.2	24.4	6.02
I24	03 May 2017	9	14.98	72.24	8.82	33.68	8.2	25.0	5.24
I24	03 May 2017	10	13.91	69.18	8.20	33.60	8.1	25.1	4.21
I24	11 May 2017	1	17.09	71.61	8.82	33.43	8.2	24.3	1.64
I24	11 May 2017	2	17.08	71.61	8.81	33.43	8.2	24.3	1.80
I24	11 May 2017	3	17.03	71.25	8.75	33.43	8.2	24.3	2.63
I24	11 May 2017	4	16.89	71.02	8.39	33.43	8.2	24.3	6.00
I24	11 May 2017	5	16.15	67.72	7.66	33.44	8.2	24.5	5.12
I24	11 May 2017	6	15.31	65.67	7.44	33.45	8.1	24.7	3.79
I24	11 May 2017	7	15.18	70.09	7.50	33.44	8.1	24.7	3.02
I24	11 May 2017	8	15.14	71.83	7.45	33.44	8.1	24.7	2.38
I24	11 May 2017	9	15.12	72.80	7.07	33.44	8.1	24.7	1.81
I24	11 May 2017	10	14.99	69.77	6.30	33.45	8.1	24.8	1.36
I24	11 May 2017	11	14.76	65.53	6.35	33.45	8.0	24.8	1.55
I24	19 May 2017	1	17.39	73.92	8.67	33.52	8.2	24.3	1.03
I24	19 May 2017	2	17.36	74.38	8.52	33.53	8.2	24.3	1.40
I24	19 May 2017	3	17.08	75.11	8.14	33.53	8.2	24.4	2.87
I24	19 May 2017	4	16.59	73.09	7.74	33.57	8.2	24.5	5.11
I24	19 May 2017	5	15.50	67.08	7.12	33.59	8.2	24.8	6.15
I24	19 May 2017	6	15.04	65.58	5.29	33.53	8.1	24.8	5.74
I24	19 May 2017	7	14.13	68.83	3.61	33.59	8.0	25.1	4.19
I24	19 May 2017	8	13.49	71.11	2.70	33.55	7.9	25.2	2.50
I24	19 May 2017	9	12.42	75.62	2.56	33.58	7.8	25.4	1.76
I24	25 May 2017	1	14.32	56.42	7.94	33.51	8.2	25.0	15.72
I24	25 May 2017	2	14.27	56.47	5.78	33.52	8.2	25.0	11.98
I24	25 May 2017	3	12.98	56.94	3.61	33.55	8.0	25.3	8.06
I24	25 May 2017	4	12.37	58.35	2.60	33.55	7.9	25.4	6.34
I24	25 May 2017	5	12.08	64.48	2.05	33.56	7.8	25.5	5.27
I24	25 May 2017	6	11.71	69.56	1.95	33.55	7.8	25.5	4.55
I24	25 May 2017	7	11.62	71.36	2.09	33.54	7.7	25.5	4.01
I24	25 May 2017	8	11.56	71.11	2.23	33.54	7.7	25.5	3.75
I24	25 May 2017	9	11.51	66.25	2.37	33.54	7.7	25.5	3.32
I24	25 May 2017	10	11.50	59.84	2.52	33.54	7.7	25.5	3.32
I24	30 May 2017	1	15.25	78.02	8.54	33.54	8.2	24.8	6.49
I24	30 May 2017	2	15.08	78.00	7.89	33.52	8.2	24.8	7.08
I24	30 May 2017	3	14.43	76.97	6.42	33.52	8.2	25.0	5.25
I24	30 May 2017	4	14.09	72.36	4.36	33.52	8.1	25.0	3.61
I24	30 May 2017	5	13.71	71.44	3.00	33.48	8.0	25.1	2.78
I24	30 May 2017	6	12.17	70.99	2.63	33.49	7.9	25.4	1.96
I24	30 May 2017	7	11.86	76.96	2.70	33.50	7.8	25.5	1.73

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I24	30 May 2017	8	11.69	82.03	2.86	33.47	7.8	25.5	1.69
I24	30 May 2017	9	11.49	81.66	3.29	33.49	7.7	25.5	1.71
I24	30 May 2017	10	11.61	79.34	3.52	33.49	7.7	25.5	1.59
I25	03 May 2017	1	18.32	78.91	9.38	33.49	8.3	24.0	1.03
I25	03 May 2017	2	18.10	78.44	9.40	33.52	8.3	24.1	1.02
I25	03 May 2017	3	17.75	77.91	9.48	33.51	8.3	24.2	1.04
I25	03 May 2017	4	17.53	79.04	9.52	33.51	8.3	24.2	1.04
I25	03 May 2017	5	17.21	78.93	9.58	33.50	8.3	24.3	1.19
I25	03 May 2017	6	17.13	75.47	9.61	33.47	8.3	24.3	1.22
I25	03 May 2017	7	17.12	73.48	9.43	33.48	8.2	24.3	1.29
I25	03 May 2017	8	15.80	73.27	9.38	33.77	8.2	24.8	1.99
I25	03 May 2017	9	14.63	72.62	9.13	33.55	8.1	24.9	3.00
I25	11 May 2017	1	17.16	68.88	9.18	33.43	8.3	24.3	2.84
I25	11 May 2017	2	17.14	68.97	9.12	33.43	8.3	24.3	4.96
I25	11 May 2017	3	17.04	68.48	8.86	33.43	8.3	24.3	6.25
I25	11 May 2017	4	16.82	67.75	8.22	33.44	8.2	24.4	5.92
I25	11 May 2017	5	16.31	67.15	7.65	33.43	8.2	24.5	4.56
I25	11 May 2017	6	15.93	69.51	7.31	33.43	8.2	24.6	3.42
I25	11 May 2017	7	15.17	72.37	6.85	33.45	8.1	24.7	2.12
I25	11 May 2017	8	15.04	72.49	6.29	33.44	8.1	24.8	1.40
I25	11 May 2017	9	14.85	75.18	6.54	33.45	8.0	24.8	1.88
I25	19 May 2017	1	16.81	73.46	8.43	33.51	8.2	24.4	1.18
I25	19 May 2017	2	16.85	73.63	8.28	33.51	8.2	24.4	1.32
I25	19 May 2017	3	16.25	74.63	8.15	33.56	8.2	24.6	1.77
I25	19 May 2017	4	15.59	74.02	8.02	33.56	8.2	24.7	2.69
I25	19 May 2017	5	14.82	69.87	7.76	33.55	8.1	24.9	3.86
I25	19 May 2017	6	14.64	67.83	6.32	33.51	8.1	24.9	4.69
I25	19 May 2017	7	14.29	67.02	3.73	33.55	8.1	25.0	4.15
I25	19 May 2017	8	12.14	71.81	3.14	33.69	7.8	25.5	3.04
I25	19 May 2017	9	12.66	76.91	4.35	33.43	7.7	25.2	3.16
I25	25 May 2017	1	15.49	62.16	9.83	33.52	8.4	24.7	13.21
I25	25 May 2017	2	15.23	63.02	8.04	33.54	8.4	24.8	14.87
I25	25 May 2017	3	14.45	61.90	5.08	33.55	8.3	25.0	11.52
I25	25 May 2017	4	13.31	60.23	3.02	33.61	8.1	25.3	8.47
I25	25 May 2017	5	12.48	60.01	2.12	33.59	7.9	25.4	6.82
I25	25 May 2017	6	11.92	65.42	1.91	33.58	7.8	25.5	5.37
I25	25 May 2017	7	11.68	70.17	2.26	33.54	7.8	25.5	4.53
I25	25 May 2017	8	11.63	72.70	2.66	33.53	7.8	25.5	3.69
I25	25 May 2017	9	11.61	74.32	2.94	33.53	7.8	25.5	3.36
I25	30 May 2017	1	14.30	71.95	7.57	33.52	8.1	25.0	6.50
I25	30 May 2017	2	14.02	72.24	7.03	33.52	8.1	25.0	6.42
I25	30 May 2017	3	13.71	72.64	6.11	33.53	8.1	25.1	4.55
I25	30 May 2017	4	13.63	73.52	4.67	33.52	8.0	25.1	3.29
I25	30 May 2017	5	13.03	73.40	3.40	33.49	8.0	25.2	2.37
I25	30 May 2017	6	12.16	75.53	3.12	33.51	7.8	25.4	1.95
I25	30 May 2017	7	11.85	78.11	3.36	33.50	7.8	25.5	1.89
I25	30 May 2017	8	11.79	79.97	3.78	33.50	7.8	25.5	1.91
I25	30 May 2017	9	11.81	78.00	4.05	33.50	7.8	25.5	2.01
I26	03 May 2017	1	18.23	76.00	9.25	33.49	8.3	24.1	1.56

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I26	03 May 2017	2	18.15	76.13	9.31	33.52	8.3	24.1	1.61
I26	03 May 2017	3	17.71	75.91	9.35	33.57	8.3	24.2	1.65
I26	03 May 2017	4	17.49	75.86	9.02	33.51	8.3	24.3	1.68
I26	03 May 2017	5	17.43	73.21	8.85	33.51	8.3	24.3	1.77
I26	03 May 2017	6	17.33	71.43	8.81	33.51	8.3	24.3	1.61
I26	03 May 2017	7	17.06	70.25	8.89	33.55	8.3	24.4	1.72
I26	03 May 2017	8	16.17	70.45	8.96	33.87	8.2	24.8	2.05
I26	03 May 2017	9	14.50	73.16	9.11	33.93	8.1	25.3	2.10
I26	11 May 2017	1	16.95	74.90	8.84	33.45	8.2	24.3	1.17
I26	11 May 2017	2	16.98	76.51	8.80	33.45	8.2	24.3	1.21
I26	11 May 2017	3	16.98	77.32	8.79	33.44	8.2	24.3	1.48
I26	11 May 2017	4	16.96	77.81	8.89	33.45	8.2	24.3	2.57
I26	11 May 2017	5	16.79	76.79	8.58	33.45	8.2	24.4	4.81
I26	11 May 2017	6	16.61	72.48	7.70	33.44	8.2	24.4	5.75
I26	11 May 2017	7	16.25	65.04	6.65	33.45	8.2	24.5	4.34
I26	11 May 2017	8	15.63	67.65	5.39	33.47	8.1	24.7	2.45
I26	11 May 2017	9	15.08	69.15	6.08	33.48	8.0	24.8	2.50
I26	19 May 2017	1	16.88	54.36	9.06	33.53	8.2	24.4	4.90
I26	19 May 2017	2	16.91	54.66	8.81	33.53	8.2	24.4	5.67
I26	19 May 2017	3	16.92	54.72	8.21	33.53	8.2	24.4	7.60
I26	19 May 2017	4	16.15	53.52	7.54	33.61	8.2	24.6	7.76
I26	19 May 2017	5	14.58	57.66	6.51	33.59	8.2	25.0	7.13
I26	19 May 2017	6	14.32	66.32	5.04	33.54	8.1	25.0	5.87
I26	19 May 2017	7	13.54	67.76	3.70	33.61	8.1	25.2	4.21
I26	19 May 2017	8	12.47	76.09	3.76	33.56	7.8	25.4	3.27
I26	19 May 2017	9	12.61	80.24	4.31	33.49	7.8	25.3	2.84
I26	25 May 2017	1	15.34	71.56	9.82	33.53	8.3	24.8	7.29
I26	25 May 2017	2	15.31	71.60	9.81	33.53	8.3	24.8	12.22
I26	25 May 2017	3	15.09	70.00	8.99	33.53	8.3	24.8	14.91
I26	25 May 2017	4	14.91	64.73	6.94	33.53	8.3	24.9	14.05
I26	25 May 2017	5	13.60	59.61	4.87	33.60	8.2	25.2	11.03
I26	25 May 2017	6	12.87	60.59	3.99	33.56	8.1	25.3	8.59
I26	25 May 2017	7	12.59	65.32	3.43	33.54	8.0	25.3	6.26
I26	25 May 2017	8	12.15	70.27	2.89	33.56	7.9	25.4	3.97
I26	25 May 2017	9	11.73	78.70	3.09	33.54	7.8	25.5	2.61
I26	30 May 2017	1	15.19	76.57	8.62	33.55	8.1	24.8	5.77
I26	30 May 2017	2	15.13	76.23	8.14	33.54	8.2	24.8	6.90
I26	30 May 2017	3	14.32	75.82	7.50	33.52	8.1	25.0	6.11
I26	30 May 2017	4	13.94	73.29	5.52	33.52	8.1	25.1	5.44
I26	30 May 2017	5	13.03	73.68	3.05	33.50	8.0	25.2	3.34
I26	30 May 2017	6	12.24	76.59	2.28	33.51	7.9	25.4	2.40
I26	30 May 2017	7	11.62	78.00	2.67	33.51	7.7	25.5	2.15
I26	30 May 2017	8	11.58	81.67	3.14	33.50	7.7	25.5	2.14
I26	30 May 2017	9	11.60	82.39	3.47	33.50	7.7	25.5	2.31
I32	02 May 2017	1	16.86	59.25	8.90	33.51	8.2	24.4	2.81
I32	02 May 2017	2	16.83	58.85	8.84	33.51	8.2	24.4	3.21
I32	02 May 2017	3	16.63	57.97	8.73	33.52	8.2	24.5	4.69
I32	02 May 2017	4	16.45	57.56	8.59	33.51	8.2	24.5	6.20
I32	02 May 2017	5	16.34	57.07	8.38	33.52	8.1	24.5	6.68
I32	02 May 2017	6	15.75	54.77	8.00	33.53	8.1	24.7	6.38



Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I32	02 May 2017	7	15.04	54.82	7.74	33.54	8.1	24.8	6.32
I32	02 May 2017	8	14.72	61.34	7.70	33.51	8.0	24.9	5.96
I32	02 May 2017	9	14.61	68.70	7.76	33.52	8.0	24.9	5.21
I32	11 May 2017	1	16.92	67.70	9.15	33.44	8.3	24.3	2.95
I32	11 May 2017	2	16.91	68.90	9.15	33.44	8.3	24.3	3.20
I32	11 May 2017	3	16.91	69.13	9.12	33.44	8.3	24.3	4.89
I32	11 May 2017	4	16.91	69.57	8.95	33.44	8.3	24.3	7.90
I32	11 May 2017	5	16.84	68.73	8.66	33.44	8.3	24.4	9.56
I32	11 May 2017	6	16.70	66.25	8.33	33.43	8.2	24.4	10.12
I32	11 May 2017	7	16.57	62.09	8.10	33.43	8.2	24.4	10.25
I32	11 May 2017	8	16.42	60.00	7.98	33.43	8.2	24.4	9.43
I32	11 May 2017	9	16.18	60.58	7.94	33.44	8.2	24.5	7.66
I32	11 May 2017	10	16.13	64.19	7.92	33.44	8.2	24.5	7.47
I32	19 May 2017	1	17.22	59.19	9.39	33.52	8.3	24.3	3.43
I32	19 May 2017	2	17.24	62.22	8.14	33.53	8.3	24.3	5.50
I32	19 May 2017	3	16.40	61.17	6.89	33.62	8.2	24.6	8.50
I32	19 May 2017	4	15.64	60.03	6.07	33.57	8.1	24.7	8.15
I32	19 May 2017	5	15.39	60.06	5.09	33.56	8.1	24.8	6.79
I32	19 May 2017	6	14.46	60.51	4.11	33.64	8.1	25.0	5.31
I32	19 May 2017	7	13.10	57.92	3.33	33.63	7.9	25.3	4.28
I32	19 May 2017	8	12.07	65.52	3.34	33.60	7.8	25.5	3.72
I32	19 May 2017	9	11.96	55.57	4.16	33.52	7.8	25.4	3.31
I32	19 May 2017	10	12.13	49.85	4.73	33.49	7.8	25.4	3.52
I32	25 May 2017	1	15.69	55.85	10.38	33.53	8.4	24.7	15.49
I32	25 May 2017	2	15.63	54.99	9.93	33.53	8.4	24.7	18.53
I32	25 May 2017	3	15.54	53.97	9.07	33.53	8.4	24.7	19.65
I32	25 May 2017	4	15.09	52.38	8.35	33.55	8.3	24.8	19.16
I32	25 May 2017	5	14.98	51.26	7.15	33.52	8.3	24.8	15.55
I32	25 May 2017	6	14.04	55.48	5.77	33.55	8.2	25.1	13.26
I32	25 May 2017	7	13.61	63.70	4.62	33.55	8.1	25.1	11.43
I32	25 May 2017	8	12.65	63.79	3.66	33.59	8.0	25.4	10.89
I32	25 May 2017	9	11.93	56.68	3.97	33.55	7.9	25.5	10.30
I32	25 May 2017	10	12.12	49.16	4.49	33.50	7.9	25.4	10.07
I32	30 May 2017	1	15.48	69.29	8.59	33.54	8.2	24.7	8.94
I32	30 May 2017	2	15.43	65.90	7.05	33.52	8.2	24.7	7.76
I32	30 May 2017	3	14.55	55.53	4.81	33.53	8.2	24.9	5.29
I32	30 May 2017	4	14.26	67.45	1.62	33.49	8.1	25.0	4.33
I32	30 May 2017	5	11.88	72.13	0.59	33.52	7.8	25.5	3.61
I32	30 May 2017	6	11.71	71.19	1.45	33.52	7.6	25.5	3.31
I32	30 May 2017	7	11.69	70.26	1.85	33.49	7.6	25.5	3.22
I32	30 May 2017	8	11.52	68.80	2.17	33.50	7.6	25.5	2.75
I32	30 May 2017	9	11.59	67.59	2.28	33.50	7.6	25.5	2.77
I32	30 May 2017	10	11.53	66.42	2.35	33.51	7.6	25.5	3.00
I39	03 May 2017	1	18.17	79.84	8.76	33.50	8.3	24.1	0.61
I39	03 May 2017	2	18.06	79.62	8.83	33.54	8.3	24.1	0.60
I39	03 May 2017	3	17.83	80.00	8.82	33.55	8.3	24.2	0.58
I39	03 May 2017	4	17.62	80.37	8.88	33.54	8.3	24.2	0.60
I39	03 May 2017	5	17.50	81.02	8.93	33.53	8.3	24.3	0.63
I39	03 May 2017	6	16.96	81.84	9.05	33.72	8.3	24.5	0.63
I39	03 May 2017	7	15.14	81.85	9.47	33.76	8.3	25.0	0.62

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I39	03 May 2017	8	14.56	78.87	10.32	33.60	8.3	25.0	0.60
I39	03 May 2017	9	14.06	76.26	10.44	33.57	8.2	25.1	0.62
I39	03 May 2017	10	13.66	74.08	9.94	33.66	8.2	25.2	0.72
I39	03 May 2017	11	13.03	73.12	9.53	33.69	8.1	25.4	0.93
I39	03 May 2017	12	12.89	72.26	8.47	33.60	8.1	25.3	1.18
I39	03 May 2017	13	12.70	71.85	7.68	33.61	8.0	25.4	1.67
I39	03 May 2017	14	12.64	72.34	7.41	33.58	8.0	25.4	2.31
I39	03 May 2017	15	12.62	73.19	7.11	33.58	8.0	25.4	3.27
I39	03 May 2017	16	12.61	73.51	6.88	33.57	8.0	25.4	4.22
I39	03 May 2017	17	12.59	73.69	6.58	33.58	8.0	25.4	6.29
I39	03 May 2017	18	12.60	67.32	6.31	33.57	8.0	25.4	5.91
I39	11 May 2017	1	16.89	68.98	8.56	33.41	8.2	24.3	2.83
I39	11 May 2017	2	16.92	68.58	8.52	33.41	8.2	24.3	2.88
I39	11 May 2017	3	16.90	68.55	8.54	33.41	8.2	24.3	3.32
I39	11 May 2017	4	16.86	68.38	8.60	33.42	8.2	24.3	3.83
I39	11 May 2017	5	16.77	70.39	8.54	33.43	8.2	24.4	4.05
I39	11 May 2017	6	16.62	75.63	8.39	33.45	8.2	24.4	4.20
I39	11 May 2017	7	16.32	77.32	7.70	33.47	8.2	24.5	4.35
I39	11 May 2017	8	15.55	73.45	6.86	33.54	8.1	24.7	5.03
I39	11 May 2017	9	14.79	71.42	6.77	33.52	8.1	24.9	5.66
I39	11 May 2017	10	14.57	72.64	6.66	33.51	8.1	24.9	5.66
I39	11 May 2017	11	14.32	74.13	6.37	33.48	8.0	24.9	5.19
I39	11 May 2017	12	13.94	74.59	5.95	33.50	8.0	25.0	4.06
I39	11 May 2017	13	13.61	73.85	5.38	33.54	8.0	25.1	3.19
I39	11 May 2017	14	13.27	68.44	4.82	33.55	7.9	25.2	2.44
I39	11 May 2017	15	12.56	75.51	4.49	33.58	7.9	25.4	1.88
I39	11 May 2017	16	12.51	75.20	4.58	33.55	7.9	25.4	1.61
I39	11 May 2017	17	12.50	74.35	4.68	33.54	7.8	25.4	1.46
I39	11 May 2017	18	12.49	72.68	4.66	33.54	7.8	25.4	1.32
I39	19 May 2017	1	17.36	76.63	8.44	33.53	8.2	24.3	0.73
I39	19 May 2017	2	17.35	76.05	8.39	33.53	8.2	24.3	0.89
I39	19 May 2017	3	17.33	75.85	7.95	33.49	8.2	24.3	1.10
I39	19 May 2017	4	16.84	76.31	7.48	33.57	8.2	24.5	1.80
I39	19 May 2017	5	14.96	76.45	7.08	33.70	8.2	25.0	2.78
I39	19 May 2017	6	13.74	74.64	6.26	33.64	8.1	25.2	3.79
I39	19 May 2017	7	13.38	70.15	5.01	33.53	8.1	25.2	4.45
I39	19 May 2017	8	12.07	72.92	4.08	33.59	8.0	25.5	4.28
I39	19 May 2017	9	11.72	77.54	3.54	33.55	7.9	25.5	3.54
I39	19 May 2017	10	11.61	81.49	3.13	33.55	7.9	25.5	3.34
I39	19 May 2017	11	11.34	81.44	3.06	33.59	7.8	25.6	3.24
I39	19 May 2017	12	11.28	80.71	3.21	33.53	7.8	25.6	3.36
I39	19 May 2017	13	11.27	80.33	3.31	33.51	7.8	25.6	2.98
I39	19 May 2017	14	11.22	79.82	3.39	33.54	7.8	25.6	3.02
I39	19 May 2017	15	11.21	79.57	3.45	33.56	7.7	25.6	2.37
I39	19 May 2017	16	11.21	79.72	3.47	33.56	7.7	25.6	2.05
I39	19 May 2017	17	11.19	78.88	3.49	33.55	7.7	25.6	1.70
I39	19 May 2017	18	11.20	78.40	3.51	33.55	7.7	25.6	1.77
I39	25 May 2017	1	15.09	75.16	8.57	33.52	8.2	24.8	5.01
I39	25 May 2017	2	14.89	75.11	8.41	33.54	8.2	24.9	7.57
I39	25 May 2017	3	14.75	73.21	8.12	33.53	8.2	24.9	9.94
I39	25 May 2017	4	14.62	70.56	7.64	33.53	8.2	24.9	12.85
I39	25 May 2017	5	14.28	68.98	7.02	33.53	8.2	25.0	15.03

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I39	25 May 2017	6	13.92	66.45	6.27	33.53	8.2	25.1	15.47
I39	25 May 2017	7	13.58	62.63	5.16	33.53	8.1	25.1	13.76
I39	25 May 2017	8	13.02	59.55	3.83	33.55	8.1	25.3	10.47
I39	25 May 2017	9	12.29	60.50	3.00	33.56	8.0	25.4	8.35
I39	25 May 2017	10	11.74	66.83	2.66	33.55	7.9	25.5	6.81
I39	25 May 2017	11	11.59	73.85	2.53	33.54	7.8	25.5	5.32
I39	25 May 2017	12	11.62	76.47	2.38	33.54	7.8	25.5	4.41
I39	25 May 2017	13	11.42	75.52	2.35	33.55	7.8	25.6	3.72
I39	25 May 2017	14	11.38	76.37	2.51	33.54	7.7	25.6	2.80
I39	25 May 2017	15	11.33	78.87	2.64	33.54	7.7	25.6	2.28
I39	25 May 2017	16	11.28	79.89	2.70	33.54	7.7	25.6	1.79
I39	25 May 2017	17	11.24	80.44	2.74	33.55	7.7	25.6	1.71
I39	25 May 2017	18	11.23	80.86	2.76	33.55	7.7	25.6	1.66
I39	30 May 2017	1	13.78	76.39	6.89	33.52	8.1	25.1	3.92
I39	30 May 2017	2	13.44	76.47	5.82	33.50	8.1	25.1	3.63
I39	30 May 2017	3	12.74	75.71	4.95	33.51	8.0	25.3	3.48
I39	30 May 2017	4	12.41	75.36	4.35	33.48	8.0	25.3	3.41
I39	30 May 2017	5	11.82	78.39	3.96	33.50	7.9	25.5	2.91
I39	30 May 2017	6	11.43	80.76	3.78	33.51	7.8	25.5	2.42
I39	30 May 2017	7	11.21	82.81	3.67	33.52	7.8	25.6	1.94
I39	30 May 2017	8	11.17	85.02	3.56	33.51	7.8	25.6	1.72
I39	30 May 2017	9	11.08	85.32	3.47	33.52	7.8	25.6	1.46
I39	30 May 2017	10	11.00	86.13	3.36	33.54	7.8	25.6	1.42
I39	30 May 2017	11	10.96	86.37	3.29	33.54	7.7	25.6	1.24
I39	30 May 2017	12	10.90	86.78	3.29	33.55	7.7	25.7	1.40
I39	30 May 2017	13	10.82	86.92	3.29	33.56	7.7	25.7	1.42
I39	30 May 2017	14	10.78	87.95	3.29	33.57	7.7	25.7	1.31
I39	30 May 2017	15	10.78	87.31	3.31	33.57	7.7	25.7	1.26
I39	30 May 2017	16	10.77	86.84	3.33	33.57	7.7	25.7	1.40
I39	30 May 2017	17	10.78	85.87	3.34	33.58	7.7	25.7	1.60
I39	30 May 2017	18	10.78	85.30	3.36	33.58	7.7	25.7	1.37
I40	03 May 2017	1	17.98	72.00	8.56	33.42	8.2	24.1	0.81
I40	03 May 2017	2	17.90	71.88	8.60	33.43	8.2	24.1	0.82
I40	03 May 2017	3	17.63	71.46	8.56	33.47	8.3	24.2	0.83
I40	03 May 2017	4	17.52	73.52	8.78	33.49	8.3	24.2	0.84
I40	03 May 2017	5	17.46	76.46	9.20	33.49	8.3	24.2	0.88
I40	03 May 2017	6	17.29	75.95	9.23	33.49	8.3	24.3	1.06
I40	03 May 2017	7	17.27	73.88	8.93	33.48	8.3	24.3	1.45
I40	03 May 2017	8	17.18	73.14	8.78	33.50	8.2	24.3	1.87
I40	03 May 2017	9	15.58	72.62	8.94	33.96	8.2	25.0	2.26
I40	11 May 2017	1	17.29	70.89	7.99	33.41	8.2	24.2	1.31
I40	11 May 2017	2	17.27	71.41	8.46	33.41	8.2	24.2	3.40
I40	11 May 2017	3	16.82	70.77	8.93	33.42	8.2	24.3	3.95
I40	11 May 2017	4	15.99	69.81	8.21	33.44	8.2	24.5	4.03
I40	11 May 2017	5	15.66	69.19	7.92	33.43	8.2	24.6	4.16
I40	11 May 2017	6	15.60	71.03	8.01	33.43	8.2	24.6	4.18
I40	11 May 2017	7	15.58	71.24	8.09	33.43	8.2	24.6	4.53
I40	11 May 2017	8	15.58	71.17	8.15	33.43	8.2	24.6	4.59
I40	11 May 2017	9	15.58	71.13	8.16	33.44	8.2	24.6	4.50
I40	11 May 2017	10	15.58	71.29	8.16	33.44	8.2	24.6	4.52
I40	19 May 2017	1	16.55	58.55	7.60	33.51	8.1	24.5	2.48

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I40	19 May 2017	2	16.45	60.15	7.37	33.53	8.1	24.5	2.76
I40	19 May 2017	3	16.26	60.78	6.80	33.54	8.1	24.6	3.25
I40	19 May 2017	4	15.74	61.86	6.37	33.57	8.1	24.7	4.31
I40	19 May 2017	5	15.08	66.23	5.18	33.58	8.1	24.9	5.52
I40	19 May 2017	6	14.38	66.72	3.48	33.58	8.0	25.0	5.42
I40	19 May 2017	7	12.87	62.05	2.89	33.64	7.8	25.4	4.69
I40	19 May 2017	8	12.80	58.95	2.89	33.55	7.8	25.3	3.39
I40	19 May 2017	9	12.41	61.17	3.06	33.56	7.7	25.4	2.36
I40	19 May 2017	10	12.45	56.91	3.34	33.53	7.7	25.4	2.12
I40	25 May 2017	1	14.27	51.63	8.37	33.48	8.2	25.0	15.89
I40	25 May 2017	2	14.29	51.97	7.05	33.50	8.2	25.0	13.80
I40	25 May 2017	3	13.34	53.25	6.13	33.50	8.1	25.2	12.11
I40	25 May 2017	4	13.14	56.12	5.95	33.50	8.0	25.2	10.81
I40	25 May 2017	5	13.08	57.59	5.83	33.50	8.0	25.2	9.85
I40	25 May 2017	6	12.94	58.50	5.44	33.51	7.9	25.2	8.78
I40	25 May 2017	7	12.72	59.13	4.97	33.52	7.9	25.3	7.58
I40	25 May 2017	8	12.42	61.21	3.92	33.54	7.9	25.4	6.13
I40	25 May 2017	9	12.20	63.41	2.17	33.54	7.8	25.4	4.76
I40	25 May 2017	10	11.68	59.59	2.01	33.57	7.8	25.5	4.53
I40	30 May 2017	1	14.87	74.41	7.37	33.54	8.1	24.9	3.32
I40	30 May 2017	2	14.56	72.81	4.76	33.51	8.1	24.9	3.14
I40	30 May 2017	3	13.42	69.59	2.95	33.53	8.0	25.2	2.27
I40	30 May 2017	4	13.09	69.98	1.97	33.51	7.8	25.2	1.71
I40	30 May 2017	5	12.45	71.08	1.80	33.51	7.7	25.3	1.29
I40	30 May 2017	6	12.05	74.28	1.91	33.51	7.7	25.4	1.14
I40	30 May 2017	7	11.67	78.14	1.88	33.51	7.6	25.5	1.35
I40	30 May 2017	8	11.46	80.12	2.01	33.52	7.6	25.5	1.27
I40	30 May 2017	9	11.44	75.95	2.35	33.52	7.6	25.5	1.27

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
02 May 2017	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC
03 May 2017	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns

IC = In Compliance

E = Exceedance

ns = not sampled

**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
02 May 2017	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC
03 May 2017	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns

IC = In Compliance

E = Exceedance

ns = not sampled



**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
02 May 2017	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC
03 May 2017	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns

IC = In Compliance

E = Exceedance

ns = not sampled

**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
02 May 2017	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC
03 May 2017	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns

IC = In Compliance

E = Exceedance

ns = not sampled

**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; oil and grease samples (OG) and suspended solids (SUSO) data are reported as mg/L. Duplicates are indicated by \*. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I3	04 May 2017	923	2	<2	<2	<2	1.00	18.2	85.37	8.7	33.51	8.2	1.59	2.6
I3	04 May 2017	923	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	2.9*
I3	04 May 2017	923	18	<2	<2	<2	1.00	11.2	80.62	4.6	33.53	7.8	ns	3.6
I3	04 May 2017	923	27	<20	<2	<2	0.10	11.2	71.85	4.4	33.55	7.8	ns	4.1
I5	04 May 2017	944	2	24e	4e	10e	0.17	18.4	81.19	9.1	33.49	8.2	0.88	4.0
I5	04 May 2017	944	6	580	24e	80	0.04	15.9	75.11	9.3	33.56	8.2	ns	12.6
I5	04 May 2017	944	11	560	16e	14e	0.03	14.2	68.86	8.6	33.52	8.1	ns	2.8
I7	04 May 2017	824	2	<2	<2	<2	1.00	18.6	84.61	8.7	33.50	8.2	1.24	<0.2
I7	04 May 2017	824	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.2*
I7	04 May 2017	824	18	<2	<2	<2	1.00	11.7	79.06	6.1	33.55	7.9	ns	3.5
I7	04 May 2017	824	52	<2	<2	<2	1.00	10.5	87.49	3.9	33.67	7.7	ns	4.3
I8	04 May 2017	1053	2	<2	<2	<2	1.00	18.4	85.75	8.6	33.49	8.2	1.21	2.6
I8	04 May 2017	1053	18	<2	<2	<2	1.00	12.2	70.11	7.0	33.54	8.0	ns	<0.2
I8	04 May 2017	1053	37	<2	<2	<2	1.00	10.8	81.94	4.2	33.62	7.8	ns	<0.2
I9	04 May 2017	1040	2	<2	<2	<2	1.00	18.9	81.21	8.6	33.51	8.2	1.22	4.0
I9	04 May 2017	1040	18	<2	<2	<2	1.00	11.5	78.75	5.2	33.57	7.9	ns	2.9
I9	04 May 2017	1040	27	<2	<2	<2	1.00	11.0	79.70	4.4	33.59	7.8	ns	4.2
I10	04 May 2017	1027	2	<2	<2	<2	1.00	18.5	84.93	8.7	33.49	8.2	1.24	3.1
I10	04 May 2017	1027	12	14e	<2	<2	0.14	13.9	74.66	9.2	33.50	8.2	ns	5.8
I10	04 May 2017	1027	18	40e	4e	<2	0.10	12.4	67.20	6.4	33.54	8.0	ns	4.3
I11	04 May 2017	1016	2	<2	<2	<2	1.00	18.3	84.48	8.8	33.49	8.2	0.48	2.9
I11	04 May 2017	1016	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	3.8*
I11	04 May 2017	1016	6	<2	<2	<2	1.00	17.6	80.47	9.2	33.50	8.2	ns	4.6
I11	04 May 2017	1016	11	200e	<2	14e	0.01	14.9	68.53	9.0	33.52	8.2	ns	5.3
I12	03 May 2017	1009	2	<2	<2	<2	1.00	18.1	82.38	8.7	33.52	8.2	3.36	<0.2
I12	03 May 2017	1009	18	18e	<2	<2	0.11	11.5	79.18	5.5	33.58	7.9	ns	<0.2
I12	03 May 2017	1009	27	<20	<2	<2	0.10	11.2	77.84	4.8	33.59	7.8	ns	3.2
I13	04 May 2017	1108	2	<2	<2	<2	1.00	18.3	86.33	8.5	33.49	8.2	1.31	<0.2
I13	04 May 2017	1108	18	<2	<2	<2	1.00	11.5	73.43	5.8	33.60	7.9	ns	<0.2
I13	04 May 2017	1108	37	2e	<2	<2	1.00	10.8	70.02	4.0	33.63	7.8	ns	4.6
I14	03 May 2017	1027	2	<2	<2	<2	1.00	18.2	82.02	8.7	33.51	8.3	1.49	<0.2
I14	03 May 2017	1027	18	4e	<2	<2	0.50	11.7	75.26	5.7	33.58	7.9	ns	<0.2
I14	03 May 2017	1027	27	<20	2e	<2	0.10	11.2	74.91	4.6	33.61	7.8	ns	3.8
I16	03 May 2017	1002	2	<2	<2	<2	1.00	18.0	80.72	8.7	33.51	8.3	1.52	<0.2
I16	03 May 2017	1002	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.2*
I16	03 May 2017	1002	18	32e	<2	<2	0.06	11.6	77.86	5.6	33.57	7.9	ns	2.8

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I16	03 May 2017	1002	27	4e	<2	<2	0.50	11.2	76.81	4.7	33.60	7.8	ns	3.1
I18	03 May 2017	943	2	<2	<2	<2	1.00	17.9	83.41	8.9	33.52	8.3	1.92	<0.2
I18	03 May 2017	943	12	<20	6e	<2	0.30	12.9	69.92	9.1	33.55	8.1	ns	<0.2
I18	03 May 2017	943	18	40e	<2	<2	0.05	12.4	73.47	6.8	33.57	8.0	ns	<0.2
I20	04 May 2017	804	2	<2	<2	<2	1.00	17.9	85.60	8.7	33.47	8.2	1.73	<0.2
I20	04 May 2017	804	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.2*
I20	04 May 2017	804	18	<2	<2	<2	1.00	11.6	83.48	5.3	33.52	7.8	ns	2.7
I20	04 May 2017	804	55	<2	<2	<2	1.00	10.4	88.65	3.9	33.67	7.7	ns	<0.2
I21	04 May 2017	1125	2	<2	<2	<2	1.00	18.0	86.13	8.4	33.48	8.2	0.84	3.0
I21	04 May 2017	1125	18	<2	<2	<2	1.00	11.7	82.30	5.8	33.58	7.9	ns	<0.2
I21	04 May 2017	1125	37	<2	<2	<2	1.00	10.8	81.13	4.1	33.64	7.8	ns	3.3
I22	03 May 2017	1039	2	<2	<2	<2	1.00	18.1	82.88	8.7	33.54	8.3	2.26	<0.2
I22	03 May 2017	1039	18	<20	<2	<2	0.10	11.8	75.54	6.0	33.57	8.0	ns	2.9
I22	03 May 2017	1039	27	<20	<2	<2	0.10	11.3	72.25	4.8	33.59	7.8	ns	3.4
I23	03 May 2017	1050	2	<2	<2	<2	1.00	17.9	82.53	8.9	33.53	8.2	3.45	<0.2
I23	03 May 2017	1050	12	<20	4e	2e	0.20	13.4	75.18	9.5	33.54	8.2	ns	<0.2
I23	03 May 2017	1050	18	12e	<2	<2	0.17	12.5	72.81	7.0	33.54	8.0	ns	3.3
I30	02 May 2017	952	2	<2	<2	<2	1.00	17.1	79.83	8.9	33.51	8.2	1.11	2.7
I30	02 May 2017	952	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.2*
I30	02 May 2017	952	18	20e	<2	<2	0.10	11.8	76.37	5.0	33.57	7.8	ns	<0.2
I30	02 May 2017	952	27	<2	<2	<2	1.00	11.2	70.24	4.1	33.59	7.8	ns	2.8
I33	02 May 2017	850	2	<2	<2	<2	1.00	15.8	79.07	8.7	33.47	8.2	1.06	<0.2
I33	02 May 2017	850	18	<2	<2	<2	1.00	11.6	83.78	4.8	33.53	7.8	ns	2.9
I33	02 May 2017	850	27	2e	<2	<2	1.00	11.5	75.07	3.9	33.56	7.7	ns	3.0
I36	02 May 2017	1048	2	<2	<2	<2	1.00	17.5	62.92	9.3	33.51	8.2	1.55	4.2
I36	02 May 2017	1048	6	<2	<2	<2	1.00	14.6	56.70	7.9	33.55	8.1	ns	3.7
I36	02 May 2017	1048	11	<2	<2	<2	1.00	13.2	72.09	6.4	33.51	8.0	ns	2.9
I37	02 May 2017	820	2	<2	<2	<2	1.00	16.7	77.54	8.6	33.52	8.2	2.2	<0.2
I37	02 May 2017	820	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	6.8*
I37	02 May 2017	820	6	<2	<2	<2	1.00	14.0	74.61	7.9	33.50	8.0	ns	3.9
I37	02 May 2017	820	11	<2	<2	<2	1.00	12.3	72.75	5.2	33.51	7.8	ns	<0.2
I38	02 May 2017	1126	2	<2	<2	<2	1.00	17.8	67.06	10.0	33.52	8.3	2.51	6.0
I38	02 May 2017	1126	6	4e	<2	<2	0.50	15.8	70.86	8.6	33.52	8.2	ns	4.2
I38	02 May 2017	1126	11	<2	<2	<2	1.00	12.8	70.82	5.7	33.52	7.9	ns	3.3

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	04 May 2017	Depth (m)	62
I1	04 May 2017	Arrive Time	845
I1	04 May 2017	Depart Time	854
I1	04 May 2017	Air Temp (C)	17
I1	04 May 2017	Weather	Overcast
I1	04 May 2017	Visibility (mi)	5
I1	04 May 2017	Wind Speed (kts)	4
I1	04 May 2017	Wind Dir	NE
I1	04 May 2017	Water Color	Blue
I1	04 May 2017	Wave Ht Low (ft)	3
I1	04 May 2017	Wave Period (sec)	9
I1	04 May 2017	Sea State	Calm
I1	04 May 2017	High Tide (ft)	4.2
I1	04 May 2017	High Tide Time	505
I1	04 May 2017	Low Tide (ft)	0.1
I1	04 May 2017	Low Tide Time	1200
I1	04 May 2017	Comments	
I2	04 May 2017	Depth (m)	34
I2	04 May 2017	Arrive Time	910
I2	04 May 2017	Depart Time	913
I2	04 May 2017	Air Temp (C)	18
I2	04 May 2017	Weather	Partly Cloudy
I2	04 May 2017	Visibility (mi)	7
I2	04 May 2017	Wind Speed (kts)	3
I2	04 May 2017	Wind Dir	SE
I2	04 May 2017	Water Color	Green
I2	04 May 2017	Wave Ht Low (ft)	3
I2	04 May 2017	Wave Period (sec)	9
I2	04 May 2017	Sea State	Calm
I2	04 May 2017	High Tide (ft)	4.2
I2	04 May 2017	High Tide Time	505
I2	04 May 2017	Low Tide (ft)	0.1
I2	04 May 2017	Low Tide Time	1200
I2	04 May 2017	Comments	
I3	04 May 2017	Depth (m)	28
I3	04 May 2017	Arrive Time	923
I3	04 May 2017	Depart Time	926
I3	04 May 2017	Air Temp (C)	18
I3	04 May 2017	Weather	Haze
I3	04 May 2017	Visibility (mi)	10
I3	04 May 2017	Wind Speed (kts)	4
I3	04 May 2017	Wind Dir	W
I3	04 May 2017	Water Color	Green
I3	04 May 2017	Wave Ht Low (ft)	3
I3	04 May 2017	Wave Period (sec)	9
I3	04 May 2017	Sea State	Calm
I3	04 May 2017	High Tide (ft)	4.2
I3	04 May 2017	High Tide Time	505
I3	04 May 2017	Low Tide (ft)	0.1

Station	Date	Parameter	Value
I3	04 May 2017	Low Tide Time	1200
I3	04 May 2017	Comments	
I4	04 May 2017	Depth (m)	18
I4	04 May 2017	Arrive Time	936
I4	04 May 2017	Depart Time	941
I4	04 May 2017	Air Temp (C)	18
I4	04 May 2017	Weather	Haze
I4	04 May 2017	Visibility (mi)	10
I4	04 May 2017	Wind Speed (kts)	2
I4	04 May 2017	Wind Dir	SE
I4	04 May 2017	Water Color	Green
I4	04 May 2017	Wave Ht Low (ft)	3
I4	04 May 2017	Wave Period (sec)	9
I4	04 May 2017	Sea State	Calm
I4	04 May 2017	High Tide (ft)	4.2
I4	04 May 2017	High Tide Time	505
I4	04 May 2017	Low Tide (ft)	0.1
I4	04 May 2017	Low Tide Time	1200
I4	04 May 2017	Comments	
I5	04 May 2017	Depth (m)	14
I5	04 May 2017	Arrive Time	944
I5	04 May 2017	Depart Time	947
I5	04 May 2017	Air Temp (C)	18
I5	04 May 2017	Weather	Clear
I5	04 May 2017	Visibility (mi)	12
I5	04 May 2017	Wind Speed (kts)	6
I5	04 May 2017	Wind Dir	SW
I5	04 May 2017	Water Color	Green
I5	04 May 2017	Wave Ht Low (ft)	3
I5	04 May 2017	Wave Period (sec)	9
I5	04 May 2017	Sea State	Calm
I5	04 May 2017	High Tide (ft)	4.2
I5	04 May 2017	High Tide Time	505
I5	04 May 2017	Low Tide (ft)	0.1
I5	04 May 2017	Low Tide Time	1200
I5	04 May 2017	Comments	
I6	04 May 2017	Depth (m)	26
I6	04 May 2017	Arrive Time	1001
I6	04 May 2017	Depart Time	1005
I6	04 May 2017	Air Temp (C)	18
I6	04 May 2017	Weather	Clear
I6	04 May 2017	Visibility (mi)	12
I6	04 May 2017	Wind Speed (kts)	6
I6	04 May 2017	Wind Dir	W
I6	04 May 2017	Water Color	Green
I6	04 May 2017	Wave Ht Low (ft)	3
I6	04 May 2017	Wave Period (sec)	9
I6	04 May 2017	Sea State	Calm
I6	04 May 2017	High Tide (ft)	4.2
I6	04 May 2017	High Tide Time	505
I6	04 May 2017	Low Tide (ft)	0.1
I6	04 May 2017	Low Tide Time	1200

Station	Date	Parameter	Value
I6	04 May 2017	Comments	
I7	04 May 2017	Depth (m)	52
I7	04 May 2017	Arrive Time	824
I7	04 May 2017	Depart Time	829
I7	04 May 2017	Air Temp (C)	17
I7	04 May 2017	Weather	Overcast
I7	04 May 2017	Visibility (mi)	5
I7	04 May 2017	Wind Speed (kts)	5
I7	04 May 2017	Wind Dir	S
I7	04 May 2017	Water Color	Green
I7	04 May 2017	Wave Ht Low (ft)	3
I7	04 May 2017	Wave Period (sec)	9
I7	04 May 2017	Sea State	Calm
I7	04 May 2017	High Tide (ft)	4.2
I7	04 May 2017	High Tide Time	505
I7	04 May 2017	Low Tide (ft)	0.1
I7	04 May 2017	Low Tide Time	1200
I7	04 May 2017	Comments	
I8	04 May 2017	Depth (m)	37
I8	04 May 2017	Arrive Time	1053
I8	04 May 2017	Depart Time	1105
I8	04 May 2017	Air Temp (C)	17
I8	04 May 2017	Weather	Clear
I8	04 May 2017	Visibility (mi)	12
I8	04 May 2017	Wind Speed (kts)	10
I8	04 May 2017	Wind Dir	E
I8	04 May 2017	Water Color	Green
I8	04 May 2017	Wave Ht Low (ft)	3
I8	04 May 2017	Wave Period (sec)	9
I8	04 May 2017	Sea State	Calm
I8	04 May 2017	High Tide (ft)	4.2
I8	04 May 2017	High Tide Time	505
I8	04 May 2017	Low Tide (ft)	0.1
I8	04 May 2017	Low Tide Time	1200
I8	04 May 2017	Comments	Lobster floats
I9	04 May 2017	Depth (m)	31
I9	04 May 2017	Arrive Time	1040
I9	04 May 2017	Depart Time	1043
I9	04 May 2017	Air Temp (C)	17
I9	04 May 2017	Weather	Clear
I9	04 May 2017	Visibility (mi)	12
I9	04 May 2017	Wind Speed (kts)	8
I9	04 May 2017	Wind Dir	N
I9	04 May 2017	Water Color	Green
I9	04 May 2017	Wave Ht Low (ft)	3
I9	04 May 2017	Wave Period (sec)	9
I9	04 May 2017	Sea State	Calm
I9	04 May 2017	High Tide (ft)	4.2
I9	04 May 2017	High Tide Time	505
I9	04 May 2017	Low Tide (ft)	0.1
I9	04 May 2017	Low Tide Time	1200
I9	04 May 2017	Comments	Boats

Station	Date	Parameter	Value
I10	04 May 2017	Depth (m)	21
I10	04 May 2017	Arrive Time	1027
I10	04 May 2017	Depart Time	1030
I10	04 May 2017	Air Temp (C)	17
I10	04 May 2017	Weather	Clear
I10	04 May 2017	Visibility (mi)	12
I10	04 May 2017	Wind Speed (kts)	7
I10	04 May 2017	Wind Dir	SE
I10	04 May 2017	Water Color	Green
I10	04 May 2017	Wave Ht Low (ft)	3
I10	04 May 2017	Wave Period (sec)	9
I10	04 May 2017	Sea State	Calm
I10	04 May 2017	High Tide (ft)	4.2
I10	04 May 2017	High Tide Time	505
I10	04 May 2017	Low Tide (ft)	0.1
I10	04 May 2017	Low Tide Time	1200
I10	04 May 2017	Comments	
I11	04 May 2017	Depth (m)	14
I11	04 May 2017	Arrive Time	1016
I11	04 May 2017	Depart Time	1018
I11	04 May 2017	Air Temp (C)	18
I11	04 May 2017	Weather	Clear
I11	04 May 2017	Visibility (mi)	12
I11	04 May 2017	Wind Speed (kts)	7
I11	04 May 2017	Wind Dir	E
I11	04 May 2017	Water Color	Green
I11	04 May 2017	Wave Ht Low (ft)	3
I11	04 May 2017	Wave Period (sec)	9
I11	04 May 2017	Sea State	Calm
I11	04 May 2017	High Tide (ft)	4.2
I11	04 May 2017	High Tide Time	505
I11	04 May 2017	Low Tide (ft)	0.1
I11	04 May 2017	Low Tide Time	1200
I11	04 May 2017	Comments	
I12	03 May 2017	Depth (m)	28
I12	03 May 2017	Arrive Time	1009
I12	03 May 2017	Depart Time	1015
I12	03 May 2017	Air Temp (C)	17
I12	03 May 2017	Weather	Partly Cloudy
I12	03 May 2017	Visibility (mi)	5
I12	03 May 2017	Wind Speed (kts)	6
I12	03 May 2017	Wind Dir	NW
I12	03 May 2017	Water Color	Greenish-Brown
I12	03 May 2017	Wave Ht Low (ft)	3
I12	03 May 2017	Wave Period (sec)	9
I12	03 May 2017	Sea State	Calm
I12	03 May 2017	High Tide (ft)	4.3
I12	03 May 2017	High Tide Time	339
I12	03 May 2017	Low Tide (ft)	0
I12	03 May 2017	Low Tide Time	1100
I12	03 May 2017	Comments	



Station	Date	Parameter	Value
I13	04 May 2017	Depth (m)	38
I13	04 May 2017	Arrive Time	1108
I13	04 May 2017	Depart Time	1113
I13	04 May 2017	Air Temp (C)	17
I13	04 May 2017	Weather	Clear
I13	04 May 2017	Visibility (mi)	12
I13	04 May 2017	Wind Speed (kts)	7
I13	04 May 2017	Wind Dir	W
I13	04 May 2017	Water Color	Green
I13	04 May 2017	Wave Ht Low (ft)	3
I13	04 May 2017	Wave Period (sec)	9
I13	04 May 2017	Sea State	Calm
I13	04 May 2017	High Tide (ft)	4.2
I13	04 May 2017	High Tide Time	505
I13	04 May 2017	Low Tide (ft)	0.1
I13	04 May 2017	Low Tide Time	1200
I13	04 May 2017	Comments	Sea gulls on station
I14	03 May 2017	Depth (m)	28
I14	03 May 2017	Arrive Time	1027
I14	03 May 2017	Depart Time	1033
I14	03 May 2017	Air Temp (C)	17
I14	03 May 2017	Weather	Partly Cloudy
I14	03 May 2017	Visibility (mi)	5
I14	03 May 2017	Wind Speed (kts)	8
I14	03 May 2017	Wind Dir	E
I14	03 May 2017	Water Color	Greenish-Brown
I14	03 May 2017	Wave Ht Low (ft)	3
I14	03 May 2017	Wave Period (sec)	9
I14	03 May 2017	Sea State	Calm
I14	03 May 2017	High Tide (ft)	4.3
I14	03 May 2017	High Tide Time	339
I14	03 May 2017	Low Tide (ft)	0
I14	03 May 2017	Low Tide Time	1100
I14	03 May 2017	Comments	
I15	03 May 2017	Depth (m)	30
I15	03 May 2017	Arrive Time	1020
I15	03 May 2017	Depart Time	1025
I15	03 May 2017	Air Temp (C)	17
I15	03 May 2017	Weather	Partly Cloudy
I15	03 May 2017	Visibility (mi)	5
I15	03 May 2017	Wind Speed (kts)	5
I15	03 May 2017	Wind Dir	W
I15	03 May 2017	Water Color	Greenish-Brown
I15	03 May 2017	Wave Ht Low (ft)	3
I15	03 May 2017	Wave Period (sec)	9
I15	03 May 2017	Sea State	Calm
I15	03 May 2017	High Tide (ft)	4.3
I15	03 May 2017	High Tide Time	339
I15	03 May 2017	Low Tide (ft)	0
I15	03 May 2017	Low Tide Time	1100
I15	03 May 2017	Comments	
I16	03 May 2017	Depth (m)	29

Station	Date	Parameter	Value
I16	03 May 2017	Arrive Time	1002
I16	03 May 2017	Depart Time	1006
I16	03 May 2017	Air Temp (C)	17
I16	03 May 2017	Weather	Partly Cloudy
I16	03 May 2017	Visibility (mi)	5
I16	03 May 2017	Wind Speed (kts)	5
I16	03 May 2017	Wind Dir	NE
I16	03 May 2017	Water Color	Brownish-Green
I16	03 May 2017	Wave Ht Low (ft)	3
I16	03 May 2017	Wave Period (sec)	9
I16	03 May 2017	Sea State	Calm
I16	03 May 2017	High Tide (ft)	4.3
I16	03 May 2017	High Tide Time	339
I16	03 May 2017	Low Tide (ft)	0
I16	03 May 2017	Low Tide Time	1100
I16	03 May 2017	Comments	
I17	03 May 2017	Depth (m)	26
I17	03 May 2017	Arrive Time	954
I17	03 May 2017	Depart Time	958
I17	03 May 2017	Air Temp (C)	17
I17	03 May 2017	Weather	Partly Cloudy
I17	03 May 2017	Visibility (mi)	5
I17	03 May 2017	Wind Speed (kts)	5
I17	03 May 2017	Wind Dir	NE
I17	03 May 2017	Water Color	Brownish-Green
I17	03 May 2017	Wave Ht Low (ft)	3
I17	03 May 2017	Wave Period (sec)	9
I17	03 May 2017	Sea State	Calm
I17	03 May 2017	High Tide (ft)	4.3
I17	03 May 2017	High Tide Time	339
I17	03 May 2017	Low Tide (ft)	0
I17	03 May 2017	Low Tide Time	1100
I17	03 May 2017	Comments	
I18	03 May 2017	Depth (m)	20
I18	03 May 2017	Arrive Time	943
I18	03 May 2017	Depart Time	947
I18	03 May 2017	Air Temp (C)	17
I18	03 May 2017	Weather	Partly Cloudy
I18	03 May 2017	Visibility (mi)	5
I18	03 May 2017	Wind Speed (kts)	5
I18	03 May 2017	Wind Dir	SW
I18	03 May 2017	Water Color	Brownish-Green
I18	03 May 2017	Wave Ht Low (ft)	3
I18	03 May 2017	Wave Period (sec)	9
I18	03 May 2017	Sea State	Calm
I18	03 May 2017	High Tide (ft)	4.3
I18	03 May 2017	High Tide Time	339
I18	03 May 2017	Low Tide (ft)	0
I18	03 May 2017	Low Tide Time	1100
I18	03 May 2017	Comments	
I20	04 May 2017	Depth (m)	57
I20	04 May 2017	Arrive Time	804

Station	Date	Parameter	Value
I20	04 May 2017	Depart Time	810
I20	04 May 2017	Air Temp (C)	17
I20	04 May 2017	Weather	Overcast
I20	04 May 2017	Visibility (mi)	3
I20	04 May 2017	Wind Speed (kts)	4
I20	04 May 2017	Wind Dir	W
I20	04 May 2017	Water Color	Green
I20	04 May 2017	Wave Ht Low (ft)	3
I20	04 May 2017	Wave Period (sec)	9
I20	04 May 2017	Sea State	Calm
I20	04 May 2017	High Tide (ft)	4.2
I20	04 May 2017	High Tide Time	505
I20	04 May 2017	Low Tide (ft)	0.1
I20	04 May 2017	Low Tide Time	1200
I20	04 May 2017	Comments	Kelp
I21	04 May 2017	Depth (m)	41
I21	04 May 2017	Arrive Time	1125
I21	04 May 2017	Depart Time	1129
I21	04 May 2017	Air Temp (C)	17
I21	04 May 2017	Weather	Clear
I21	04 May 2017	Visibility (mi)	12
I21	04 May 2017	Wind Speed (kts)	7
I21	04 May 2017	Wind Dir	E
I21	04 May 2017	Water Color	Green
I21	04 May 2017	Wave Ht Low (ft)	3
I21	04 May 2017	Wave Period (sec)	9
I21	04 May 2017	Sea State	Calm
I21	04 May 2017	High Tide (ft)	4.2
I21	04 May 2017	High Tide Time	505
I21	04 May 2017	Low Tide (ft)	0.1
I21	04 May 2017	Low Tide Time	1200
I21	04 May 2017	Comments	
I22	03 May 2017	Depth (m)	28
I22	03 May 2017	Arrive Time	1039
I22	03 May 2017	Depart Time	1044
I22	03 May 2017	Air Temp (C)	17
I22	03 May 2017	Weather	Partly Cloudy
I22	03 May 2017	Visibility (mi)	8
I22	03 May 2017	Wind Speed (kts)	6
I22	03 May 2017	Wind Dir	SE
I22	03 May 2017	Water Color	Greenish-Brown
I22	03 May 2017	Wave Ht Low (ft)	3
I22	03 May 2017	Wave Period (sec)	9
I22	03 May 2017	Sea State	Calm
I22	03 May 2017	High Tide (ft)	4.3
I22	03 May 2017	High Tide Time	339
I22	03 May 2017	Low Tide (ft)	0
I22	03 May 2017	Low Tide Time	1100
I22	03 May 2017	Comments	
I23	03 May 2017	Depth (m)	21
I23	03 May 2017	Arrive Time	1050
I23	03 May 2017	Depart Time	1055

Station	Date	Parameter	Value
I23	03 May 2017	Air Temp (C)	18
I23	03 May 2017	Weather	Partly Cloudy
I23	03 May 2017	Visibility (mi)	8
I23	03 May 2017	Wind Speed (kts)	5
I23	03 May 2017	Wind Dir	SW
I23	03 May 2017	Water Color	Greenish-Brown
I23	03 May 2017	Wave Ht Low (ft)	3
I23	03 May 2017	Wave Period (sec)	9
I23	03 May 2017	Sea State	Calm
I23	03 May 2017	High Tide (ft)	4.3
I23	03 May 2017	High Tide Time	339
I23	03 May 2017	Low Tide (ft)	0
I23	03 May 2017	Low Tide Time	1100
I23	03 May 2017	Comments	none
I27	03 May 2017	Depth (m)	20
I27	03 May 2017	Arrive Time	801
I27	03 May 2017	Depart Time	820
I27	03 May 2017	Air Temp (C)	17
I27	03 May 2017	Weather	Clear
I27	03 May 2017	Visibility (mi)	12
I27	03 May 2017	Wind Speed (kts)	1
I27	03 May 2017	Wind Dir	E
I27	03 May 2017	Water Color	Brownish-Green
I27	03 May 2017	Wave Ht Low (ft)	3
I27	03 May 2017	Wave Period (sec)	9
I27	03 May 2017	Sea State	Calm
I27	03 May 2017	High Tide (ft)	4.3
I27	03 May 2017	High Tide Time	339
I27	03 May 2017	Low Tide (ft)	0
I27	03 May 2017	Low Tide Time	1100
I27	03 May 2017	Comments	
I28	02 May 2017	Depth (m)	56
I28	02 May 2017	Arrive Time	914
I28	02 May 2017	Depart Time	922
I28	02 May 2017	Air Temp (C)	14
I28	02 May 2017	Weather	Fog
I28	02 May 2017	Visibility (mi)	< 1
I28	02 May 2017	Wind Speed (kts)	1
I28	02 May 2017	Wind Dir	W
I28	02 May 2017	Water Color	Bluish-Green
I28	02 May 2017	Wave Ht Low (ft)	4
I28	02 May 2017	Wave Period (sec)	13
I28	02 May 2017	Sea State	Wind ripples
I28	02 May 2017	High Tide (ft)	3.7
I28	02 May 2017	High Tide Time	1653
I28	02 May 2017	Low Tide (ft)	-0.1
I28	02 May 2017	Low Tide Time	947
I28	02 May 2017	Comments	
I29	02 May 2017	Depth (m)	37
I29	02 May 2017	Arrive Time	936
I29	02 May 2017	Depart Time	942
I29	02 May 2017	Air Temp (C)	14

Station	Date	Parameter	Value
I29	02 May 2017	Weather	Fog
I29	02 May 2017	Visibility (mi)	< 1
I29	02 May 2017	Wind Speed (kts)	3
I29	02 May 2017	Wind Dir	W
I29	02 May 2017	Water Color	Bluish-Green
I29	02 May 2017	Wave Ht Low (ft)	4
I29	02 May 2017	Wave Period (sec)	13
I29	02 May 2017	Sea State	Wind ripples
I29	02 May 2017	High Tide (ft)	3.7
I29	02 May 2017	High Tide Time	1653
I29	02 May 2017	Low Tide (ft)	-0.1
I29	02 May 2017	Low Tide Time	947
I29	02 May 2017	Comments	
I30	02 May 2017	Depth (m)	27
I30	02 May 2017	Arrive Time	952
I30	02 May 2017	Depart Time	958
I30	02 May 2017	Air Temp (C)	15
I30	02 May 2017	Weather	Fog
I30	02 May 2017	Visibility (mi)	1
I30	02 May 2017	Wind Speed (kts)	4
I30	02 May 2017	Wind Dir	S
I30	02 May 2017	Water Color	Bluish-Green
I30	02 May 2017	Wave Ht Low (ft)	4
I30	02 May 2017	Wave Period (sec)	13
I30	02 May 2017	Sea State	Wind ripples
I30	02 May 2017	High Tide (ft)	3.7
I30	02 May 2017	High Tide Time	1653
I30	02 May 2017	Low Tide (ft)	-0.1
I30	02 May 2017	Low Tide Time	947
I30	02 May 2017	Comments	
I31	02 May 2017	Depth (m)	18
I31	02 May 2017	Arrive Time	1006
I31	02 May 2017	Depart Time	1014
I31	02 May 2017	Air Temp (C)	15
I31	02 May 2017	Weather	Fog
I31	02 May 2017	Visibility (mi)	1
I31	02 May 2017	Wind Speed (kts)	6
I31	02 May 2017	Wind Dir	NE
I31	02 May 2017	Water Color	Green
I31	02 May 2017	Wave Ht Low (ft)	4
I31	02 May 2017	Wave Period (sec)	13
I31	02 May 2017	Sea State	Wind ripples
I31	02 May 2017	High Tide (ft)	3.7
I31	02 May 2017	High Tide Time	1653
I31	02 May 2017	Low Tide (ft)	-0.1
I31	02 May 2017	Low Tide Time	947
I31	02 May 2017	Comments	
I33	02 May 2017	Depth (m)	29
I33	02 May 2017	Arrive Time	850
I33	02 May 2017	Depart Time	858
I33	02 May 2017	Air Temp (C)	14
I33	02 May 2017	Weather	Fog

Station	Date	Parameter	Value
I33	02 May 2017	Visibility (mi)	< 1
I33	02 May 2017	Wind Speed (kts)	2
I33	02 May 2017	Wind Dir	SW
I33	02 May 2017	Water Color	Bluish-Green
I33	02 May 2017	Wave Ht Low (ft)	4
I33	02 May 2017	Wave Period (sec)	13
I33	02 May 2017	Sea State	Wind ripples
I33	02 May 2017	High Tide (ft)	3.7
I33	02 May 2017	High Tide Time	1653
I33	02 May 2017	Low Tide (ft)	-0.1
I33	02 May 2017	Low Tide Time	947
I33	02 May 2017	Comments	
I34	02 May 2017	Depth (m)	19
I34	02 May 2017	Arrive Time	837
I34	02 May 2017	Depart Time	841
I34	02 May 2017	Air Temp (C)	14
I34	02 May 2017	Weather	Fog
I34	02 May 2017	Visibility (mi)	< 1
I34	02 May 2017	Wind Speed (kts)	3
I34	02 May 2017	Wind Dir	E
I34	02 May 2017	Water Color	Bluish-Green
I34	02 May 2017	Wave Ht Low (ft)	4
I34	02 May 2017	Wave Period (sec)	13
I34	02 May 2017	Sea State	Wind ripples
I34	02 May 2017	High Tide (ft)	3.7
I34	02 May 2017	High Tide Time	1653
I34	02 May 2017	Low Tide (ft)	-0.1
I34	02 May 2017	Low Tide Time	947
I34	02 May 2017	Comments	
I35	02 May 2017	Depth (m)	19
I35	02 May 2017	Arrive Time	1105
I35	02 May 2017	Depart Time	1112
I35	02 May 2017	Air Temp (C)	15
I35	02 May 2017	Weather	Fog
I35	02 May 2017	Visibility (mi)	1
I35	02 May 2017	Wind Speed (kts)	7
I35	02 May 2017	Wind Dir	SW
I35	02 May 2017	Water Color	Green
I35	02 May 2017	Wave Ht Low (ft)	4
I35	02 May 2017	Wave Period (sec)	13
I35	02 May 2017	Sea State	Wind ripples
I35	02 May 2017	High Tide (ft)	3.7
I35	02 May 2017	High Tide Time	1653
I35	02 May 2017	Low Tide (ft)	-0.1
I35	02 May 2017	Low Tide Time	947
I35	02 May 2017	Comments	
I36	02 May 2017	Depth (m)	12
I36	02 May 2017	Arrive Time	1048
I36	02 May 2017	Depart Time	1055
I36	02 May 2017	Air Temp (C)	15
I36	02 May 2017	Weather	Fog
I36	02 May 2017	Visibility (mi)	1

Station	Date	Parameter	Value
I36	02 May 2017	Wind Speed (kts)	8
I36	02 May 2017	Wind Dir	NE
I36	02 May 2017	Water Color	Green
I36	02 May 2017	Wave Ht Low (ft)	4
I36	02 May 2017	Wave Period (sec)	13
I36	02 May 2017	Sea State	Wind ripples
I36	02 May 2017	High Tide (ft)	3.7
I36	02 May 2017	High Tide Time	1653
I36	02 May 2017	Low Tide (ft)	-0.1
I36	02 May 2017	Low Tide Time	947
I36	02 May 2017	Comments	
I37	02 May 2017	Depth (m)	13
I37	02 May 2017	Arrive Time	820
I37	02 May 2017	Depart Time	829
I37	02 May 2017	Air Temp (C)	14
I37	02 May 2017	Weather	Fog
I37	02 May 2017	Visibility (mi)	< 1
I37	02 May 2017	Wind Speed (kts)	0
I37	02 May 2017	Wind Dir	
I37	02 May 2017	Water Color	Bluish-Green
I37	02 May 2017	Wave Ht Low (ft)	4
I37	02 May 2017	Wave Period (sec)	13
I37	02 May 2017	Sea State	Wind ripples
I37	02 May 2017	High Tide (ft)	3.7
I37	02 May 2017	High Tide Time	1653
I37	02 May 2017	Low Tide (ft)	-0.1
I37	02 May 2017	Low Tide Time	947
I37	02 May 2017	Comments	
I38	02 May 2017	Depth (m)	11
I38	02 May 2017	Arrive Time	1126
I38	02 May 2017	Depart Time	1134
I38	02 May 2017	Air Temp (C)	15
I38	02 May 2017	Weather	Fog
I38	02 May 2017	Visibility (mi)	2
I38	02 May 2017	Wind Speed (kts)	9
I38	02 May 2017	Wind Dir	SW
I38	02 May 2017	Water Color	Green
I38	02 May 2017	Wave Ht Low (ft)	4
I38	02 May 2017	Wave Period (sec)	13
I38	02 May 2017	Sea State	Wind ripples
I38	02 May 2017	High Tide (ft)	3.7
I38	02 May 2017	High Tide Time	1653
I38	02 May 2017	Low Tide (ft)	-0.1
I38	02 May 2017	Low Tide Time	947
I38	02 May 2017	Comments	

**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 ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I1	04 May 2017	1	18.07	87.36	8.2	33.46	8.2	24.1	0.42
I1	04 May 2017	2	18.06	87.43	8.2	33.47	8.2	24.1	0.43
I1	04 May 2017	3	17.96	87.29	8.2	33.47	8.2	24.1	0.43
I1	04 May 2017	4	17.88	87.35	8.3	33.47	8.2	24.1	0.42
I1	04 May 2017	5	17.75	87.26	8.3	33.48	8.2	24.2	0.47
I1	04 May 2017	6	17.16	86.93	8.3	33.57	8.2	24.4	0.49
I1	04 May 2017	7	16.61	85.85	8.5	33.50	8.2	24.5	0.57
I1	04 May 2017	8	16.44	84.24	8.5	33.49	8.2	24.5	0.94
I1	04 May 2017	9	16.20	83.48	8.5	33.50	8.2	24.5	1.22
I1	04 May 2017	10	15.64	82.84	8.5	33.55	8.2	24.7	1.49
I1	04 May 2017	11	15.31	81.24	8.5	33.55	8.2	24.8	2.13
I1	04 May 2017	12	14.45	80.06	8.7	33.56	8.2	25.0	2.86
I1	04 May 2017	13	14.17	78.09	8.7	33.52	8.1	25.0	3.91
I1	04 May 2017	14	13.78	76.34	8.5	33.56	8.1	25.1	5.00
I1	04 May 2017	15	13.58	73.71	8.2	33.52	8.1	25.1	6.19
I1	04 May 2017	16	13.39	73.89	7.8	33.54	8.1	25.2	10.20
I1	04 May 2017	17	12.99	76.46	7.5	33.60	8.0	25.3	10.95
I1	04 May 2017	18	12.19	77.59	6.8	33.66	8.0	25.5	9.67
I1	04 May 2017	19	11.95	79.30	6.1	33.58	7.9	25.5	7.65
I1	04 May 2017	20	11.89	81.20	5.9	33.56	7.9	25.5	6.85
I1	04 May 2017	21	11.88	81.94	5.8	33.56	7.9	25.5	6.49
I1	04 May 2017	22	11.86	82.83	5.7	33.56	7.9	25.5	5.48
I1	04 May 2017	23	11.81	82.79	5.6	33.56	7.9	25.5	5.03
I1	04 May 2017	24	11.67	83.77	5.5	33.58	7.9	25.6	4.30
I1	04 May 2017	25	11.57	84.96	5.4	33.57	7.9	25.6	4.37
I1	04 May 2017	26	11.52	84.91	5.2	33.57	7.9	25.6	4.16
I1	04 May 2017	27	11.44	85.44	5.1	33.58	7.9	25.6	3.31
I1	04 May 2017	28	11.36	85.05	5.1	33.58	7.8	25.6	3.62
I1	04 May 2017	29	11.30	86.50	5.0	33.59	7.8	25.6	3.26
I1	04 May 2017	30	11.05	87.19	4.9	33.63	7.8	25.7	3.54
I1	04 May 2017	31	10.97	87.94	4.7	33.62	7.8	25.7	2.69
I1	04 May 2017	32	10.95	88.27	4.6	33.61	7.8	25.7	2.58
I1	04 May 2017	33	10.94	88.80	4.5	33.61	7.8	25.7	1.96
I1	04 May 2017	34	10.93	88.75	4.5	33.61	7.8	25.7	1.45
I1	04 May 2017	35	10.86	88.94	4.5	33.61	7.8	25.7	1.12
I1	04 May 2017	36	10.85	89.41	4.5	33.60	7.8	25.7	1.11
I1	04 May 2017	37	10.85	89.44	4.4	33.60	7.8	25.7	1.00
I1	04 May 2017	38	10.84	89.67	4.4	33.60	7.8	25.7	0.84
I1	04 May 2017	39	10.83	89.39	4.4	33.60	7.8	25.7	0.97
I1	04 May 2017	40	10.82	89.46	4.4	33.60	7.8	25.7	0.78
I1	04 May 2017	41	10.81	89.64	4.4	33.60	7.8	25.7	0.97
I1	04 May 2017	42	10.81	89.73	4.4	33.60	7.8	25.7	0.86
I1	04 May 2017	43	10.80	89.73	4.4	33.60	7.8	25.7	0.88
I1	04 May 2017	44	10.79	89.51	4.3	33.60	7.8	25.7	1.06
I1	04 May 2017	45	10.78	89.49	4.3	33.60	7.8	25.7	0.97
I1	04 May 2017	46	10.77	89.75	4.3	33.60	7.8	25.7	0.86
I1	04 May 2017	47	10.77	89.95	4.3	33.60	7.8	25.7	0.82
I1	04 May 2017	48	10.77	90.11	4.3	33.60	7.8	25.7	0.89
I1	04 May 2017	49	10.77	90.03	4.3	33.60	7.8	25.7	0.84
I1	04 May 2017	50	10.77	90.01	4.3	33.60	7.8	25.7	0.79
I1	04 May 2017	51	10.77	90.30	4.3	33.60	7.8	25.7	0.78



Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I1	04 May 2017	52	10.76	90.22	4.3	33.60	7.8	25.7	0.91
I1	04 May 2017	53	10.76	90.23	4.3	33.60	7.8	25.7	0.65
I1	04 May 2017	54	10.73	90.23	4.3	33.62	7.8	25.7	0.62
I1	04 May 2017	55	10.51	89.64	4.2	33.68	7.8	25.8	0.68
I1	04 May 2017	56	10.35	88.37	4.0	33.70	7.7	25.9	0.61
I1	04 May 2017	57	10.33	87.41	4.0	33.70	7.7	25.9	0.52
I1	04 May 2017	58	10.33	87.14	3.9	33.69	7.7	25.9	0.43
I1	04 May 2017	59	10.33	86.84	3.9	33.69	7.7	25.9	0.42
I1	04 May 2017	60	10.33	86.77	3.9	33.69	7.7	25.9	0.46
I2	04 May 2017	1	18.85	82.93	8.6	33.51	8.2	23.9	0.60
I2	04 May 2017	2	18.82	82.86	8.6	33.52	8.2	23.9	0.60
I2	04 May 2017	3	18.65	82.82	8.6	33.53	8.2	24.0	0.63
I2	04 May 2017	4	17.49	83.90	9.0	33.55	8.2	24.3	0.57
I2	04 May 2017	5	16.80	84.53	9.4	33.50	8.2	24.4	0.50
I2	04 May 2017	6	16.28	83.98	9.5	33.49	8.2	24.5	0.54
I2	04 May 2017	7	15.67	83.24	9.4	33.48	8.2	24.7	0.78
I2	04 May 2017	8	15.01	82.07	9.7	33.47	8.2	24.8	1.09
I2	04 May 2017	9	14.71	81.28	9.5	33.44	8.2	24.8	1.47
I2	04 May 2017	10	14.24	79.21	9.4	33.44	8.2	24.9	2.44
I2	04 May 2017	11	13.86	77.35	9.6	33.44	8.2	25.0	3.08
I2	04 May 2017	12	13.73	76.74	9.4	33.45	8.2	25.0	4.01
I2	04 May 2017	13	13.46	74.22	9.1	33.46	8.2	25.1	5.70
I2	04 May 2017	14	13.29	72.39	9.1	33.47	8.2	25.2	6.99
I2	04 May 2017	15	13.06	71.10	8.8	33.46	8.1	25.2	9.77
I2	04 May 2017	16	12.82	66.89	8.4	33.46	8.1	25.2	11.91
I2	04 May 2017	17	12.78	70.80	8.2	33.47	8.1	25.2	11.47
I2	04 May 2017	18	12.45	68.55	7.5	33.47	8.0	25.3	13.48
I2	04 May 2017	19	12.22	68.59	7.0	33.48	8.0	25.4	12.46
I2	04 May 2017	20	12.12	69.66	6.7	33.48	8.0	25.4	12.99
I2	04 May 2017	21	12.05	69.78	6.4	33.50	8.0	25.4	13.71
I2	04 May 2017	22	11.69	74.16	5.7	33.56	7.9	25.5	9.82
I2	04 May 2017	23	11.26	78.28	5.1	33.61	7.8	25.6	6.91
I2	04 May 2017	24	10.94	81.48	4.6	33.60	7.8	25.7	4.25
I2	04 May 2017	25	10.87	83.65	4.5	33.60	7.8	25.7	3.18
I2	04 May 2017	26	10.82	83.33	4.4	33.60	7.8	25.7	2.24
I2	04 May 2017	27	10.81	83.55	4.4	33.61	7.8	25.7	2.10
I2	04 May 2017	28	10.79	83.54	4.3	33.61	7.8	25.7	2.09
I2	04 May 2017	29	10.78	83.19	4.3	33.61	7.8	25.7	1.92
I2	04 May 2017	30	10.77	82.84	4.3	33.62	7.8	25.7	1.79
I2	04 May 2017	31	10.77	82.27	4.3	33.62	7.8	25.7	1.97
I2	04 May 2017	32	10.77	81.79	4.3	33.62	7.8	25.7	2.18
I3	04 May 2017	1	18.45	85.35	8.7	33.50	8.2	24.0	0.35
I3	04 May 2017	2	18.18	85.37	8.7	33.51	8.2	24.1	0.37
I3	04 May 2017	3	17.00	85.14	9.1	33.48	8.2	24.4	0.40
I3	04 May 2017	4	16.62	84.25	9.3	33.47	8.2	24.4	0.47
I3	04 May 2017	5	16.17	83.09	9.4	33.47	8.2	24.5	0.69
I3	04 May 2017	6	15.91	81.63	9.4	33.46	8.2	24.6	1.00
I3	04 May 2017	7	15.77	80.85	9.5	33.46	8.2	24.6	1.30
I3	04 May 2017	8	15.46	79.98	9.7	33.47	8.2	24.7	1.79
I3	04 May 2017	9	15.10	78.44	9.9	33.46	8.2	24.8	2.22
I3	04 May 2017	10	14.90	78.74	9.8	33.46	8.2	24.8	2.67
I3	04 May 2017	11	14.70	78.74	9.7	33.47	8.2	24.9	2.94
I3	04 May 2017	12	14.46	78.73	9.7	33.47	8.2	24.9	3.66

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I3	04 May 2017	13	14.33	77.38	9.9	33.46	8.2	24.9	4.27
I3	04 May 2017	14	14.09	76.80	9.8	33.48	8.2	25.0	4.09
I3	04 May 2017	15	12.92	76.30	8.4	33.55	8.1	25.3	4.50
I3	04 May 2017	16	11.85	72.67	6.5	33.53	8.0	25.5	8.42
I3	04 May 2017	17	11.34	77.20	5.0	33.53	7.8	25.6	7.67
I3	04 May 2017	18	11.25	80.62	4.6	33.53	7.8	25.6	5.85
I3	04 May 2017	19	11.25	81.47	4.6	33.53	7.8	25.6	4.90
I3	04 May 2017	20	11.21	81.00	4.6	33.54	7.8	25.6	4.58
I3	04 May 2017	21	11.21	80.23	4.5	33.54	7.8	25.6	4.98
I3	04 May 2017	22	11.21	78.55	4.5	33.55	7.8	25.6	5.04
I3	04 May 2017	23	11.21	78.76	4.5	33.55	7.8	25.6	5.02
I3	04 May 2017	24	11.21	79.00	4.5	33.55	7.8	25.6	4.58
I3	04 May 2017	25	11.21	77.95	4.4	33.55	7.8	25.6	4.66
I3	04 May 2017	26	11.21	71.85	4.4	33.55	7.8	25.6	6.22
I4	04 May 2017	1	18.39	83.19	8.9	33.49	8.2	24.0	0.71
I4	04 May 2017	2	18.37	83.14	8.9	33.49	8.2	24.0	0.74
I4	04 May 2017	3	18.09	82.65	9.2	33.51	8.2	24.1	0.98
I4	04 May 2017	4	17.86	80.25	9.4	33.50	8.2	24.2	1.53
I4	04 May 2017	5	17.24	78.12	9.6	33.54	8.2	24.3	1.78
I4	04 May 2017	6	16.55	79.60	9.9	33.51	8.2	24.5	1.78
I4	04 May 2017	7	15.73	79.04	10.1	33.56	8.2	24.7	1.98
I4	04 May 2017	8	14.99	78.24	10.4	33.52	8.2	24.8	2.45
I4	04 May 2017	9	14.49	76.86	9.7	33.52	8.2	24.9	3.09
I4	04 May 2017	10	14.00	74.68	8.8	33.53	8.2	25.1	4.22
I4	04 May 2017	11	13.52	72.78	8.5	33.52	8.1	25.1	5.58
I4	04 May 2017	12	13.29	72.46	8.1	33.53	8.1	25.2	6.62
I4	04 May 2017	13	12.93	72.63	7.7	33.54	8.1	25.3	6.99
I4	04 May 2017	14	12.68	73.70	7.3	33.54	8.0	25.3	7.27
I4	04 May 2017	15	12.48	73.62	6.6	33.56	8.0	25.4	7.55
I4	04 May 2017	16	12.34	72.29	6.3	33.55	8.0	25.4	7.30
I4	04 May 2017	17	12.34	64.82	6.2	33.55	8.0	25.4	7.52
I4	04 May 2017	18	12.34	61.63	6.2	33.55	7.9	25.4	7.29
I5	04 May 2017	1	18.41	81.33	9.2	33.49	8.2	24.0	1.02
I5	04 May 2017	2	18.36	81.19	9.1	33.49	8.2	24.0	1.13
I5	04 May 2017	3	17.91	80.44	9.3	33.50	8.2	24.1	1.79
I5	04 May 2017	4	17.42	77.03	9.4	33.50	8.2	24.3	2.36
I5	04 May 2017	5	17.34	75.69	9.2	33.49	8.2	24.3	2.50
I5	04 May 2017	6	15.89	75.11	9.3	33.56	8.2	24.7	2.71
I5	04 May 2017	7	15.43	72.99	9.3	33.51	8.2	24.7	3.12
I5	04 May 2017	8	15.02	73.88	9.2	33.51	8.2	24.8	3.68
I5	04 May 2017	9	14.75	73.72	9.0	33.50	8.2	24.9	4.20
I5	04 May 2017	10	14.49	71.57	8.8	33.52	8.2	24.9	4.82
I5	04 May 2017	11	14.18	68.86	8.6	33.52	8.1	25.0	5.61
I5	04 May 2017	12	14.00	69.83	8.4	33.52	8.1	25.0	5.90
I5	04 May 2017	13	13.52	70.93	8.0	33.53	8.1	25.2	5.90
I5	04 May 2017	14	12.99	67.15	7.3	33.56	8.0	25.3	5.90
I6	04 May 2017	1	18.36	84.43	8.7	33.49	8.2	24.0	0.45
I6	04 May 2017	2	18.31	84.42	8.7	33.50	8.2	24.0	0.44
I6	04 May 2017	3	18.04	84.45	8.7	33.51	8.2	24.1	0.46
I6	04 May 2017	4	17.49	84.61	8.8	33.51	8.2	24.3	0.50
I6	04 May 2017	5	16.80	84.20	9.1	33.51	8.2	24.4	0.61
I6	04 May 2017	6	16.21	82.90	9.4	33.48	8.2	24.5	0.80

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I6	04 May 2017	7	15.78	81.70	9.6	33.48	8.2	24.6	0.99
I6	04 May 2017	8	15.59	80.76	9.7	33.46	8.2	24.7	1.16
I6	04 May 2017	9	15.43	80.40	9.7	33.47	8.2	24.7	1.41
I6	04 May 2017	10	15.14	80.44	9.7	33.47	8.2	24.8	1.62
I6	04 May 2017	11	14.82	80.20	9.5	33.47	8.2	24.8	2.34
I6	04 May 2017	12	14.31	77.68	9.7	33.48	8.2	24.9	3.30
I6	04 May 2017	13	14.22	75.74	9.7	33.45	8.2	24.9	4.41
I6	04 May 2017	14	14.01	75.99	9.7	33.47	8.2	25.0	4.66
I6	04 May 2017	15	13.75	76.54	9.6	33.48	8.2	25.1	4.28
I6	04 May 2017	16	13.05	75.81	8.7	33.52	8.1	25.2	4.19
I6	04 May 2017	17	12.60	74.06	7.5	33.54	8.1	25.3	6.89
I6	04 May 2017	18	12.04	72.73	6.1	33.55	7.9	25.5	9.77
I6	04 May 2017	19	11.70	73.39	5.5	33.53	7.9	25.5	10.30
I6	04 May 2017	20	11.66	74.79	5.3	33.54	7.9	25.5	8.67
I6	04 May 2017	21	11.63	74.93	5.2	33.54	7.9	25.5	7.96
I6	04 May 2017	22	11.55	75.37	5.1	33.55	7.9	25.5	7.64
I6	04 May 2017	23	11.50	75.69	5.0	33.55	7.8	25.6	7.49
I6	04 May 2017	24	11.49	71.08	4.9	33.55	7.8	25.6	7.09
I6	04 May 2017	25	11.49	66.03	4.9	33.55	7.8	25.6	8.11
I7	04 May 2017	1	18.55	84.57	8.6	33.50	8.2	24.0	0.54
I7	04 May 2017	2	18.55	84.61	8.7	33.50	8.2	24.0	0.54
I7	04 May 2017	3	18.53	84.59	8.7	33.51	8.2	24.0	0.56
I7	04 May 2017	4	18.29	84.56	8.8	33.53	8.2	24.1	0.63
I7	04 May 2017	5	18.01	83.44	8.9	33.53	8.2	24.1	0.70
I7	04 May 2017	6	17.53	83.03	9.1	33.54	8.2	24.3	0.79
I7	04 May 2017	7	17.19	82.29	9.1	33.55	8.2	24.4	0.93
I7	04 May 2017	8	15.88	81.13	9.5	33.68	8.2	24.8	1.11
I7	04 May 2017	9	14.89	81.03	9.9	33.56	8.2	24.9	1.29
I7	04 May 2017	10	14.33	81.34	9.8	33.62	8.2	25.0	1.50
I7	04 May 2017	11	13.17	80.16	9.3	33.64	8.2	25.3	1.54
I7	04 May 2017	12	12.98	71.29	8.6	33.53	8.1	25.3	2.71
I7	04 May 2017	13	12.62	63.81	8.1	33.55	8.1	25.3	6.57
I7	04 May 2017	14	12.40	62.21	7.3	33.53	8.0	25.4	15.68
I7	04 May 2017	15	12.16	64.54	6.8	33.53	8.0	25.4	21.41
I7	04 May 2017	16	12.03	73.40	6.6	33.52	8.0	25.4	18.53
I7	04 May 2017	17	11.99	76.62	6.4	33.51	8.0	25.4	13.96
I7	04 May 2017	18	11.73	79.06	6.1	33.55	7.9	25.5	13.02
I7	04 May 2017	19	11.67	81.40	5.8	33.51	7.9	25.5	9.49
I7	04 May 2017	20	11.53	83.63	5.6	33.55	7.9	25.5	6.69
I7	04 May 2017	21	11.33	86.36	5.4	33.58	7.9	25.6	6.27
I7	04 May 2017	22	11.21	88.57	5.1	33.58	7.8	25.6	4.29
I7	04 May 2017	23	11.18	89.31	5.0	33.57	7.8	25.6	3.17
I7	04 May 2017	24	11.13	89.46	5.0	33.58	7.8	25.6	2.24
I7	04 May 2017	25	11.11	89.60	4.9	33.57	7.8	25.6	1.86
I7	04 May 2017	26	11.09	89.56	4.8	33.58	7.8	25.7	1.79
I7	04 May 2017	27	11.04	89.88	4.8	33.59	7.8	25.7	1.71
I7	04 May 2017	28	10.96	90.06	4.7	33.60	7.8	25.7	1.55
I7	04 May 2017	29	10.86	90.42	4.6	33.61	7.8	25.7	1.42
I7	04 May 2017	30	10.72	91.11	4.5	33.64	7.8	25.8	1.09
I7	04 May 2017	31	10.64	90.88	4.4	33.64	7.8	25.8	0.81
I7	04 May 2017	32	10.64	90.77	4.3	33.64	7.8	25.8	0.94
I7	04 May 2017	33	10.59	90.92	4.3	33.64	7.8	25.8	0.61
I7	04 May 2017	34	10.58	90.87	4.3	33.64	7.8	25.8	0.54
I7	04 May 2017	35	10.58	90.90	4.3	33.64	7.8	25.8	0.52

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I7	04 May 2017	36	10.57	91.05	4.3	33.63	7.8	25.8	0.52
I7	04 May 2017	37	10.57	91.16	4.3	33.63	7.8	25.8	0.56
I7	04 May 2017	38	10.57	91.03	4.3	33.63	7.8	25.8	0.49
I7	04 May 2017	39	10.58	90.79	4.2	33.63	7.8	25.8	0.52
I7	04 May 2017	40	10.57	90.43	4.2	33.64	7.8	25.8	0.55
I7	04 May 2017	41	10.55	90.09	4.1	33.65	7.8	25.8	0.56
I7	04 May 2017	42	10.54	90.19	4.1	33.65	7.8	25.8	0.47
I7	04 May 2017	43	10.54	89.87	4.1	33.65	7.8	25.8	0.46
I7	04 May 2017	44	10.52	89.90	4.1	33.65	7.8	25.8	0.49
I7	04 May 2017	45	10.52	89.47	4.0	33.66	7.8	25.8	0.47
I7	04 May 2017	46	10.52	89.07	4.0	33.66	7.8	25.8	0.43
I7	04 May 2017	47	10.51	88.88	4.0	33.66	7.7	25.8	0.45
I7	04 May 2017	48	10.50	88.82	4.0	33.66	7.7	25.8	0.45
I7	04 May 2017	49	10.48	88.45	4.0	33.67	7.7	25.8	0.50
I7	04 May 2017	50	10.47	87.69	3.9	33.67	7.7	25.8	0.50
I7	04 May 2017	51	10.47	87.49	3.9	33.67	7.7	25.8	0.42
I8	04 May 2017	1	18.48	85.31	8.6	33.49	8.2	24.0	0.35
I8	04 May 2017	2	18.45	85.75	8.6	33.49	8.2	24.0	0.38
I8	04 May 2017	3	18.40	85.75	8.6	33.50	8.2	24.0	0.37
I8	04 May 2017	4	18.21	85.42	8.6	33.51	8.2	24.1	0.38
I8	04 May 2017	5	18.07	83.94	8.7	33.51	8.2	24.1	0.42
I8	04 May 2017	6	17.35	82.36	9.0	33.61	8.2	24.4	0.48
I8	04 May 2017	7	16.68	81.60	9.4	33.63	8.2	24.5	0.54
I8	04 May 2017	8	15.87	80.20	9.9	33.58	8.3	24.7	0.65
I8	04 May 2017	9	14.61	78.58	10.0	33.62	8.2	25.0	0.85
I8	04 May 2017	10	14.03	77.60	9.8	33.60	8.2	25.1	1.08
I8	04 May 2017	11	13.43	76.84	9.7	33.57	8.2	25.2	1.36
I8	04 May 2017	12	13.13	75.77	9.5	33.56	8.2	25.2	1.72
I8	04 May 2017	13	12.93	73.66	9.2	33.51	8.2	25.3	2.97
I8	04 May 2017	14	12.77	69.79	8.8	33.54	8.1	25.3	5.49
I8	04 May 2017	15	12.60	68.15	8.4	33.54	8.1	25.3	6.32
I8	04 May 2017	16	12.44	68.46	7.8	33.53	8.1	25.4	10.73
I8	04 May 2017	17	12.31	68.97	7.4	33.53	8.0	25.4	14.08
I8	04 May 2017	18	12.16	70.11	7.0	33.54	8.0	25.4	14.74
I8	04 May 2017	19	12.13	75.77	6.7	33.52	8.0	25.4	12.45
I8	04 May 2017	20	12.00	77.59	6.5	33.54	8.0	25.5	9.34
I8	04 May 2017	21	11.91	77.81	6.2	33.53	8.0	25.5	9.00
I8	04 May 2017	22	11.62	76.90	5.8	33.60	7.9	25.6	7.87
I8	04 May 2017	23	11.39	69.14	5.0	33.58	7.8	25.6	8.52
I8	04 May 2017	24	11.27	77.79	4.9	33.62	7.8	25.7	14.78
I8	04 May 2017	25	10.97	81.81	4.8	33.67	7.8	25.7	11.69
I8	04 May 2017	26	10.86	83.26	4.5	33.66	7.8	25.8	9.19
I8	04 May 2017	27	10.84	84.33	4.4	33.65	7.8	25.7	4.23
I8	04 May 2017	28	10.79	84.54	4.3	33.64	7.8	25.8	3.72
I8	04 May 2017	29	10.79	83.43	4.3	33.63	7.8	25.7	2.65
I8	04 May 2017	30	10.78	83.71	4.3	33.63	7.8	25.8	2.73
I8	04 May 2017	31	10.78	83.57	4.3	33.63	7.8	25.8	2.02
I8	04 May 2017	32	10.77	83.73	4.2	33.63	7.8	25.8	2.26
I8	04 May 2017	33	10.76	83.63	4.2	33.63	7.8	25.7	2.18
I8	04 May 2017	34	10.75	83.10	4.2	33.63	7.8	25.7	1.87
I8	04 May 2017	35	10.75	81.94	4.2	33.62	7.8	25.7	1.82
I9	04 May 2017	1	18.89	81.24	8.6	33.51	8.2	23.9	0.61
I9	04 May 2017	2	18.87	81.21	8.6	33.51	8.2	23.9	0.63

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I9	04 May 2017	3	18.78	81.37	8.6	33.52	8.2	23.9	0.69
I9	04 May 2017	4	18.67	81.13	8.7	33.51	8.2	24.0	0.74
I9	04 May 2017	5	18.43	81.72	8.7	33.53	8.2	24.0	0.72
I9	04 May 2017	6	17.69	82.21	9.2	33.53	8.2	24.2	0.71
I9	04 May 2017	7	16.73	83.09	9.8	33.51	8.2	24.4	0.75
I9	04 May 2017	8	15.77	81.91	10.1	33.50	8.2	24.6	0.93
I9	04 May 2017	9	15.01	81.00	10.3	33.48	8.3	24.8	1.18
I9	04 May 2017	10	14.19	80.12	10.6	33.47	8.3	25.0	1.36
I9	04 May 2017	11	13.55	78.18	10.7	33.45	8.3	25.1	1.63
I9	04 May 2017	12	13.26	77.60	10.5	33.47	8.2	25.2	1.90
I9	04 May 2017	13	12.96	76.17	10.1	33.47	8.2	25.2	2.21
I9	04 May 2017	14	12.67	73.61	9.5	33.48	8.2	25.3	2.53
I9	04 May 2017	15	12.41	71.26	8.6	33.52	8.1	25.4	3.52
I9	04 May 2017	16	11.76	73.40	6.4	33.57	7.9	25.5	7.31
I9	04 May 2017	17	11.51	77.73	5.4	33.57	7.9	25.6	8.45
I9	04 May 2017	18	11.48	78.75	5.2	33.57	7.9	25.6	7.52
I9	04 May 2017	19	11.44	78.71	5.1	33.56	7.9	25.6	6.62
I9	04 May 2017	20	11.42	78.41	5.0	33.57	7.8	25.6	5.94
I9	04 May 2017	21	11.30	78.28	4.8	33.58	7.8	25.6	5.85
I9	04 May 2017	22	11.23	79.98	4.7	33.59	7.8	25.6	5.56
I9	04 May 2017	23	11.21	80.18	4.6	33.59	7.8	25.6	4.43
I9	04 May 2017	24	11.21	79.23	4.6	33.59	7.8	25.6	4.13
I9	04 May 2017	25	11.12	78.08	4.5	33.59	7.8	25.7	4.02
I9	04 May 2017	26	11.03	77.65	4.4	33.59	7.8	25.7	3.92
I9	04 May 2017	27	11.01	79.70	4.4	33.59	7.8	25.7	3.63
I9	04 May 2017	28	10.99	77.48	4.3	33.59	7.8	25.7	3.26
I9	04 May 2017	29	10.99	73.68	4.3	33.59	7.8	25.7	2.73
I10	04 May 2017	1	18.51	84.89	8.8	33.49	8.2	24.0	0.36
I10	04 May 2017	2	18.46	84.93	8.7	33.49	8.2	24.0	0.38
I10	04 May 2017	3	18.08	85.01	8.8	33.51	8.2	24.1	0.40
I10	04 May 2017	4	17.23	84.70	9.3	33.50	8.2	24.3	0.41
I10	04 May 2017	5	16.55	83.74	9.7	33.48	8.2	24.5	0.48
I10	04 May 2017	6	15.97	82.60	9.6	33.46	8.2	24.6	0.69
I10	04 May 2017	7	15.43	80.78	9.7	33.47	8.2	24.7	1.02
I10	04 May 2017	8	15.18	79.51	9.8	33.45	8.2	24.7	1.31
I10	04 May 2017	9	14.89	79.00	9.9	33.46	8.2	24.8	1.57
I10	04 May 2017	10	14.15	78.49	9.8	33.50	8.2	25.0	1.82
I10	04 May 2017	11	13.87	76.87	9.4	33.50	8.2	25.1	2.75
I10	04 May 2017	12	13.86	74.66	9.2	33.50	8.2	25.1	3.95
I10	04 May 2017	13	13.85	74.10	9.1	33.51	8.2	25.1	4.70
I10	04 May 2017	14	13.80	73.06	8.8	33.51	8.1	25.1	5.37
I10	04 May 2017	15	13.66	72.53	8.5	33.52	8.1	25.1	6.05
I10	04 May 2017	16	12.97	71.21	7.5	33.57	8.1	25.3	6.70
I10	04 May 2017	17	12.51	68.14	6.7	33.55	8.0	25.4	7.18
I10	04 May 2017	18	12.38	67.20	6.4	33.54	8.0	25.4	8.13
I10	04 May 2017	19	12.18	63.33	6.1	33.54	7.9	25.4	9.06
I11	04 May 2017	1	18.36	84.38	8.7	33.49	8.2	24.0	0.68
I11	04 May 2017	2	18.32	84.48	8.8	33.49	8.2	24.0	0.72
I11	04 May 2017	3	18.27	84.28	8.8	33.49	8.2	24.0	0.96
I11	04 May 2017	4	18.24	83.32	8.9	33.49	8.2	24.1	1.19
I11	04 May 2017	5	18.12	82.48	8.9	33.49	8.2	24.1	1.62
I11	04 May 2017	6	17.59	80.47	9.2	33.50	8.2	24.2	1.67
I11	04 May 2017	7	16.69	81.13	9.6	33.51	8.2	24.4	1.56

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I11	04 May 2017	8	16.28	67.43	9.6	33.49	8.2	24.5	2.70
I11	04 May 2017	9	15.91	65.87	9.6	33.48	8.2	24.6	3.94
I11	04 May 2017	10	15.61	69.69	9.4	33.51	8.2	24.7	3.99
I11	04 May 2017	11	14.89	68.53	9.0	33.52	8.2	24.9	4.22
I11	04 May 2017	12	14.26	70.14	8.7	33.52	8.2	25.0	3.98
I11	04 May 2017	13	14.18	70.22	8.7	33.50	8.1	25.0	3.59
I12	03 May 2017	1	18.23	82.35	8.7	33.51	8.2	24.1	0.45
I12	03 May 2017	2	18.13	82.38	8.7	33.52	8.2	24.1	0.45
I12	03 May 2017	3	17.88	82.21	8.7	33.52	8.2	24.2	0.45
I12	03 May 2017	4	17.71	82.05	8.8	33.53	8.2	24.2	0.44
I12	03 May 2017	5	16.09	82.07	9.1	33.72	8.3	24.7	0.45
I12	03 May 2017	6	14.05	81.88	10.4	33.53	8.3	25.0	0.49
I12	03 May 2017	7	13.74	76.31	11.5	33.47	8.3	25.1	0.54
I12	03 May 2017	8	13.53	73.43	10.9	33.47	8.2	25.1	0.67
I12	03 May 2017	9	13.27	73.68	10.1	33.47	8.2	25.2	1.16
I12	03 May 2017	10	13.04	74.98	9.3	33.47	8.2	25.2	1.94
I12	03 May 2017	11	12.79	77.36	8.9	33.51	8.2	25.3	2.36
I12	03 May 2017	12	12.41	75.41	8.6	33.52	8.1	25.4	2.62
I12	03 May 2017	13	12.08	67.05	8.3	33.57	8.1	25.5	2.87
I12	03 May 2017	14	11.92	71.19	7.2	33.56	8.0	25.5	8.49
I12	03 May 2017	15	11.67	75.93	6.4	33.56	7.9	25.5	12.75
I12	03 May 2017	16	11.67	78.02	5.8	33.57	7.9	25.5	13.29
I12	03 May 2017	17	11.57	78.89	5.7	33.57	7.9	25.6	8.54
I12	03 May 2017	18	11.50	79.18	5.5	33.58	7.9	25.6	7.94
I12	03 May 2017	19	11.44	79.27	5.4	33.58	7.9	25.6	6.54
I12	03 May 2017	20	11.40	79.12	5.3	33.59	7.9	25.6	6.78
I12	03 May 2017	21	11.35	79.01	5.2	33.58	7.9	25.6	6.06
I12	03 May 2017	22	11.34	78.31	5.1	33.59	7.9	25.6	5.93
I12	03 May 2017	23	11.31	78.40	5.0	33.59	7.9	25.6	6.95
I12	03 May 2017	24	11.30	77.84	5.0	33.58	7.9	25.6	6.12
I12	03 May 2017	25	11.28	77.71	4.9	33.59	7.8	25.6	5.84
I12	03 May 2017	26	11.24	78.19	4.8	33.60	7.8	25.6	5.21
I12	03 May 2017	27	11.20	77.84	4.8	33.59	7.8	25.6	5.15
I12	03 May 2017	28	11.20	76.39	4.7	33.59	7.8	25.6	4.88
I13	04 May 2017	1	18.35	86.15	8.6	33.48	8.2	24.0	0.32
I13	04 May 2017	2	18.29	86.33	8.5	33.49	8.2	24.0	0.32
I13	04 May 2017	3	18.11	86.48	8.6	33.51	8.2	24.1	0.32
I13	04 May 2017	4	17.92	86.27	8.7	33.51	8.2	24.1	0.32
I13	04 May 2017	5	17.63	85.46	8.8	33.53	8.2	24.2	0.37
I13	04 May 2017	6	17.05	83.61	9.0	33.60	8.2	24.4	0.41
I13	04 May 2017	7	15.97	81.08	9.4	33.66	8.2	24.7	0.52
I13	04 May 2017	8	14.53	79.32	9.8	33.60	8.2	25.0	0.73
I13	04 May 2017	9	13.82	76.55	9.7	33.52	8.2	25.1	1.10
I13	04 May 2017	10	13.67	75.21	9.6	33.50	8.2	25.1	1.57
I13	04 May 2017	11	13.42	74.26	9.5	33.51	8.2	25.2	2.20
I13	04 May 2017	12	13.15	72.66	9.4	33.50	8.2	25.2	3.62
I13	04 May 2017	13	12.94	69.18	8.9	33.52	8.2	25.3	5.52
I13	04 May 2017	14	12.22	66.91	7.7	33.53	8.0	25.4	7.99
I13	04 May 2017	15	12.13	71.15	6.8	33.51	8.0	25.4	12.87
I13	04 May 2017	16	12.03	74.75	6.6	33.51	8.0	25.4	12.50
I13	04 May 2017	17	11.86	76.02	6.3	33.56	8.0	25.5	11.17
I13	04 May 2017	18	11.54	73.43	5.8	33.60	7.9	25.6	10.34
I13	04 May 2017	19	11.43	70.66	5.0	33.58	7.8	25.6	10.89

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I13	04 May 2017	20	11.23	77.61	4.7	33.60	7.8	25.6	13.14
I13	04 May 2017	21	11.12	84.21	4.7	33.62	7.8	25.7	12.46
I13	04 May 2017	22	10.99	85.35	4.6	33.65	7.8	25.7	8.29
I13	04 May 2017	23	10.91	85.02	4.5	33.65	7.8	25.7	5.23
I13	04 May 2017	24	10.85	84.87	4.4	33.65	7.8	25.8	3.51
I13	04 May 2017	25	10.85	84.43	4.4	33.65	7.8	25.8	2.68
I13	04 May 2017	26	10.78	84.39	4.3	33.65	7.8	25.8	2.62
I13	04 May 2017	27	10.76	84.70	4.2	33.65	7.8	25.8	1.94
I13	04 May 2017	28	10.74	83.47	4.2	33.64	7.8	25.8	1.96
I13	04 May 2017	29	10.74	82.00	4.2	33.64	7.8	25.8	1.67
I13	04 May 2017	30	10.74	81.04	4.1	33.64	7.8	25.8	2.07
I13	04 May 2017	31	10.74	81.34	4.1	33.64	7.8	25.8	2.11
I13	04 May 2017	32	10.74	81.83	4.1	33.64	7.8	25.8	1.97
I13	04 May 2017	33	10.74	81.08	4.1	33.63	7.8	25.8	2.29
I13	04 May 2017	34	10.74	80.93	4.1	33.63	7.8	25.8	2.24
I13	04 May 2017	35	10.74	81.01	4.1	33.63	7.8	25.8	2.02
I13	04 May 2017	36	10.75	78.44	4.1	33.63	7.8	25.8	1.62
I13	04 May 2017	37	10.75	70.02	4.0	33.63	7.8	25.8	2.05
I14	03 May 2017	1	18.28	82.21	8.7	33.51	8.3	24.1	0.58
I14	03 May 2017	2	18.22	82.02	8.7	33.51	8.3	24.1	0.63
I14	03 May 2017	3	18.12	82.17	8.7	33.51	8.3	24.1	0.68
I14	03 May 2017	4	18.01	82.35	8.7	33.52	8.3	24.1	0.70
I14	03 May 2017	5	17.72	82.35	8.8	33.53	8.3	24.2	0.77
I14	03 May 2017	6	17.18	82.35	8.9	33.59	8.3	24.4	0.83
I14	03 May 2017	7	16.33	82.56	9.4	33.52	8.3	24.5	0.79
I14	03 May 2017	8	15.52	82.36	10.3	33.62	8.3	24.8	0.76
I14	03 May 2017	9	14.55	81.41	11.2	33.66	8.3	25.0	0.80
I14	03 May 2017	10	13.04	75.83	11.7	33.57	8.2	25.3	0.86
I14	03 May 2017	11	12.78	76.63	9.9	33.52	8.1	25.3	1.04
I14	03 May 2017	12	12.39	76.24	8.6	33.53	8.1	25.4	1.12
I14	03 May 2017	13	12.10	67.94	8.3	33.57	8.1	25.5	1.83
I14	03 May 2017	14	11.87	72.56	7.8	33.59	8.0	25.5	2.41
I14	03 May 2017	15	11.76	76.35	6.3	33.58	7.9	25.5	5.77
I14	03 May 2017	16	11.72	76.33	5.8	33.58	7.9	25.5	11.04
I14	03 May 2017	17	11.70	75.83	5.8	33.58	7.9	25.5	9.58
I14	03 May 2017	18	11.70	75.26	5.7	33.58	7.9	25.5	8.40
I14	03 May 2017	19	11.60	75.80	5.6	33.60	7.9	25.6	7.91
I14	03 May 2017	20	11.48	76.08	5.6	33.60	7.9	25.6	8.08
I14	03 May 2017	21	11.47	76.07	5.3	33.59	7.9	25.6	8.17
I14	03 May 2017	22	11.44	76.60	5.2	33.60	7.9	25.6	7.97
I14	03 May 2017	23	11.38	76.29	5.1	33.60	7.9	25.6	7.98
I14	03 May 2017	24	11.30	76.18	4.9	33.61	7.8	25.6	7.52
I14	03 May 2017	25	11.23	75.43	4.8	33.62	7.8	25.7	6.79
I14	03 May 2017	26	11.20	74.12	4.6	33.61	7.8	25.7	5.85
I14	03 May 2017	27	11.18	74.91	4.6	33.61	7.8	25.7	5.68
I15	03 May 2017	1	18.30	80.04	8.7	33.50	8.3	24.1	0.51
I15	03 May 2017	2	18.24	80.47	8.7	33.51	8.3	24.1	0.51
I15	03 May 2017	3	18.13	81.90	8.7	33.51	8.3	24.1	0.51
I15	03 May 2017	4	18.02	82.37	8.7	33.51	8.3	24.1	0.54
I15	03 May 2017	5	17.94	82.48	8.7	33.51	8.3	24.1	0.56
I15	03 May 2017	6	17.74	82.44	8.8	33.52	8.3	24.2	0.58
I15	03 May 2017	7	17.32	82.52	8.9	33.57	8.3	24.3	0.66
I15	03 May 2017	8	16.19	82.31	9.3	33.57	8.3	24.6	0.74

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I15	03 May 2017	9	15.50	82.70	10.1	33.54	8.3	24.7	0.76
I15	03 May 2017	10	14.39	82.61	10.8	33.50	8.3	24.9	0.81
I15	03 May 2017	11	13.52	79.60	10.6	33.54	8.2	25.2	0.90
I15	03 May 2017	12	12.59	73.31	9.2	33.50	8.1	25.3	1.19
I15	03 May 2017	13	12.02	73.47	8.6	33.44	8.0	25.4	2.07
I15	03 May 2017	14	11.56	74.97	7.3	33.34	7.9	25.4	2.94
I15	03 May 2017	15	11.82	73.43	5.9	33.41	7.9	25.4	3.64
I15	03 May 2017	16	11.79	69.32	5.7	33.53	8.0	25.5	4.84
I15	03 May 2017	17	11.62	73.94	6.2	33.57	7.9	25.5	6.81
I15	03 May 2017	18	11.51	77.82	5.9	33.57	7.9	25.6	12.62
I15	03 May 2017	19	11.43	78.73	5.5	33.57	7.9	25.6	12.25
I15	03 May 2017	20	11.36	78.48	5.3	33.58	7.9	25.6	8.74
I15	03 May 2017	21	11.31	77.55	5.2	33.58	7.9	25.6	7.99
I15	03 May 2017	22	11.27	77.89	5.1	33.59	7.9	25.6	7.38
I15	03 May 2017	23	11.24	78.13	5.0	33.59	7.9	25.6	6.67
I15	03 May 2017	24	11.20	79.69	4.9	33.59	7.9	25.6	6.16
I15	03 May 2017	25	11.20	80.19	4.8	33.60	7.8	25.6	5.79
I15	03 May 2017	26	11.12	79.95	4.8	33.61	7.8	25.7	5.64
I15	03 May 2017	27	11.09	79.38	4.7	33.60	7.8	25.7	5.75
I15	03 May 2017	28	11.09	79.77	4.6	33.60	7.8	25.7	4.54
I15	03 May 2017	29	11.09	79.81	4.5	33.60	7.8	25.7	4.18
I15	03 May 2017	30	11.09	78.92	4.5	33.60	7.8	25.7	3.91
I15	03 May 2017	31	11.09	78.45	4.5	33.60	7.8	25.7	3.96
I16	03 May 2017	1	18.07	80.18	8.7	33.51	8.3	24.1	0.51
I16	03 May 2017	2	18.04	80.72	8.7	33.51	8.3	24.1	0.51
I16	03 May 2017	3	18.03	81.52	8.7	33.51	8.3	24.1	0.53
I16	03 May 2017	4	17.84	81.85	8.7	33.52	8.3	24.2	0.54
I16	03 May 2017	5	17.67	81.69	8.8	33.51	8.3	24.2	0.61
I16	03 May 2017	6	17.56	81.81	8.9	33.52	8.3	24.2	0.66
I16	03 May 2017	7	16.98	82.11	9.1	33.58	8.3	24.4	0.70
I16	03 May 2017	8	14.55	83.04	9.9	33.80	8.3	25.1	0.76
I16	03 May 2017	9	13.11	77.88	10.9	33.55	8.2	25.2	0.78
I16	03 May 2017	10	12.72	77.29	9.7	33.52	8.1	25.3	0.84
I16	03 May 2017	11	12.56	75.79	8.7	33.49	8.1	25.3	1.25
I16	03 May 2017	12	12.40	75.53	8.2	33.52	8.1	25.4	1.98
I16	03 May 2017	13	12.03	70.54	8.3	33.57	8.1	25.5	2.25
I16	03 May 2017	14	11.85	66.33	7.9	33.57	8.0	25.5	2.76
I16	03 May 2017	15	11.74	73.65	6.8	33.59	7.9	25.5	3.74
I16	03 May 2017	16	11.68	76.97	6.0	33.57	7.9	25.5	9.51
I16	03 May 2017	17	11.63	77.60	5.7	33.58	7.9	25.6	11.64
I16	03 May 2017	18	11.58	77.86	5.6	33.57	7.9	25.6	8.52
I16	03 May 2017	19	11.55	77.59	5.5	33.57	7.9	25.6	7.59
I16	03 May 2017	20	11.54	77.80	5.5	33.57	7.9	25.6	6.92
I16	03 May 2017	21	11.46	77.18	5.4	33.59	7.9	25.6	6.88
I16	03 May 2017	22	11.41	76.98	5.4	33.58	7.9	25.6	6.81
I16	03 May 2017	23	11.38	77.25	5.2	33.59	7.9	25.6	6.67
I16	03 May 2017	24	11.36	77.09	5.0	33.59	7.9	25.6	6.45
I16	03 May 2017	25	11.36	77.52	4.8	33.59	7.8	25.6	6.45
I16	03 May 2017	26	11.28	77.09	4.8	33.61	7.8	25.6	5.53
I16	03 May 2017	27	11.20	76.81	4.7	33.60	7.8	25.6	5.18
I16	03 May 2017	28	11.20	76.14	4.7	33.59	7.8	25.6	5.08
I17	03 May 2017	1	18.05	82.54	8.6	33.51	8.2	24.1	0.44
I17	03 May 2017	2	17.95	82.45	8.6	33.54	8.2	24.2	0.44



Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I17	03 May 2017	3	17.70	82.33	8.6	33.53	8.3	24.2	0.45
I17	03 May 2017	4	17.13	82.20	8.8	33.71	8.3	24.5	0.45
I17	03 May 2017	5	15.16	82.34	9.2	33.75	8.3	25.0	0.47
I17	03 May 2017	6	14.27	80.66	10.3	33.59	8.3	25.0	0.48
I17	03 May 2017	7	13.76	77.53	10.8	33.54	8.2	25.1	0.51
I17	03 May 2017	8	13.48	77.70	10.0	33.51	8.2	25.1	0.60
I17	03 May 2017	9	13.07	78.71	9.3	33.60	8.2	25.3	0.79
I17	03 May 2017	10	12.66	74.01	9.1	33.56	8.1	25.3	1.00
I17	03 May 2017	11	12.48	68.71	8.7	33.56	8.1	25.4	1.30
I17	03 May 2017	12	12.18	67.51	8.2	33.59	8.0	25.5	2.41
I17	03 May 2017	13	11.98	72.86	7.5	33.58	8.0	25.5	7.21
I17	03 May 2017	14	11.93	74.96	6.7	33.59	8.0	25.5	11.98
I17	03 May 2017	15	11.83	75.52	6.2	33.59	8.0	25.5	15.25
I17	03 May 2017	16	11.81	76.57	5.9	33.58	7.9	25.5	12.44
I17	03 May 2017	17	11.78	76.51	5.8	33.58	7.9	25.5	9.45
I17	03 May 2017	18	11.76	76.48	5.8	33.58	7.9	25.5	7.29
I17	03 May 2017	19	11.73	76.36	5.7	33.59	7.9	25.5	7.00
I17	03 May 2017	20	11.67	75.24	5.7	33.59	7.9	25.6	7.11
I17	03 May 2017	21	11.54	74.54	5.6	33.60	7.9	25.6	6.94
I17	03 May 2017	22	11.48	74.61	5.5	33.59	7.9	25.6	7.11
I17	03 May 2017	23	11.48	74.52	5.3	33.59	7.9	25.6	6.75
I17	03 May 2017	24	11.48	72.59	5.1	33.59	7.9	25.6	7.73
I17	03 May 2017	25	11.48	71.25	5.1	33.59	7.9	25.6	7.53
I18	03 May 2017	1	17.92	83.61	8.9	33.51	8.3	24.1	0.34
I18	03 May 2017	2	17.86	83.41	8.9	33.52	8.3	24.2	0.34
I18	03 May 2017	3	17.73	83.28	8.9	33.52	8.3	24.2	0.34
I18	03 May 2017	4	17.64	83.09	9.0	33.51	8.3	24.2	0.34
I18	03 May 2017	5	17.09	83.22	9.1	33.58	8.3	24.4	0.40
I18	03 May 2017	6	15.98	80.33	9.6	33.51	8.3	24.6	0.47
I18	03 May 2017	7	15.02	68.25	10.2	33.48	8.2	24.8	0.53
I18	03 May 2017	8	14.57	62.45	10.0	33.45	8.2	24.9	0.97
I18	03 May 2017	9	13.95	69.75	9.5	33.53	8.2	25.1	3.03
I18	03 May 2017	10	13.73	75.46	9.4	33.51	8.2	25.1	6.15
I18	03 May 2017	11	13.50	75.49	9.3	33.58	8.2	25.2	5.96
I18	03 May 2017	12	12.95	69.92	9.1	33.55	8.1	25.3	4.88
I18	03 May 2017	13	12.87	73.21	8.0	33.52	8.1	25.3	5.80
I18	03 May 2017	14	12.76	74.68	7.5	33.54	8.1	25.3	7.74
I18	03 May 2017	15	12.64	73.83	7.3	33.54	8.0	25.3	6.75
I18	03 May 2017	16	12.59	73.58	7.0	33.54	8.0	25.3	5.83
I18	03 May 2017	17	12.52	73.16	6.9	33.54	8.0	25.4	5.60
I18	03 May 2017	18	12.39	73.47	6.8	33.57	8.0	25.4	5.64
I18	03 May 2017	19	12.25	72.26	6.6	33.56	8.0	25.4	5.33
I20	04 May 2017	1	17.94	85.56	8.7	33.47	8.2	24.1	0.63
I20	04 May 2017	2	17.93	85.60	8.7	33.47	8.2	24.1	0.62
I20	04 May 2017	3	17.83	85.77	8.8	33.48	8.2	24.2	0.66
I20	04 May 2017	4	17.50	85.66	9.0	33.48	8.2	24.2	0.74
I20	04 May 2017	5	17.24	84.50	9.1	33.48	8.2	24.3	0.85
I20	04 May 2017	6	17.09	84.04	9.1	33.47	8.2	24.3	1.02
I20	04 May 2017	7	16.90	83.62	9.1	33.48	8.2	24.4	1.30
I20	04 May 2017	8	16.31	83.14	9.2	33.50	8.2	24.5	1.88
I20	04 May 2017	9	15.41	80.11	9.2	33.49	8.2	24.7	2.41
I20	04 May 2017	10	14.76	77.04	9.1	33.50	8.2	24.9	2.86
I20	04 May 2017	11	14.00	76.10	9.4	33.46	8.2	25.0	2.93

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I20	04 May 2017	12	13.35	77.80	9.2	33.48	8.2	25.1	3.96
I20	04 May 2017	13	12.87	73.35	8.2	33.47	8.1	25.2	12.32
I20	04 May 2017	14	12.57	60.72	7.1	33.47	8.0	25.3	24.55
I20	04 May 2017	15	12.13	59.55	6.2	33.50	7.9	25.4	17.26
I20	04 May 2017	16	11.84	73.75	5.8	33.51	7.9	25.5	7.89
I20	04 May 2017	17	11.73	81.10	5.5	33.51	7.9	25.5	4.96
I20	04 May 2017	18	11.59	83.48	5.3	33.52	7.8	25.5	4.39
I20	04 May 2017	19	11.51	84.70	5.2	33.52	7.8	25.5	3.42
I20	04 May 2017	20	11.41	84.84	5.1	33.53	7.8	25.6	3.20
I20	04 May 2017	21	11.29	86.48	5.0	33.53	7.8	25.6	1.85
I20	04 May 2017	22	11.28	88.43	4.9	33.54	7.8	25.6	1.43
I20	04 May 2017	23	11.25	88.53	4.8	33.54	7.8	25.6	1.35
I20	04 May 2017	24	11.23	88.55	4.8	33.54	7.8	25.6	1.22
I20	04 May 2017	25	11.18	88.96	4.7	33.55	7.8	25.6	1.20
I20	04 May 2017	26	11.01	89.62	4.6	33.58	7.8	25.7	0.94
I20	04 May 2017	27	10.89	90.03	4.5	33.59	7.8	25.7	0.80
I20	04 May 2017	28	10.84	90.39	4.4	33.59	7.8	25.7	0.75
I20	04 May 2017	29	10.84	90.19	4.4	33.59	7.8	25.7	0.74
I20	04 May 2017	30	10.71	90.38	4.4	33.61	7.8	25.7	0.72
I20	04 May 2017	31	10.54	91.10	4.4	33.62	7.8	25.8	0.61
I20	04 May 2017	32	10.52	91.42	4.4	33.62	7.8	25.8	0.61
I20	04 May 2017	33	10.50	91.63	4.4	33.62	7.8	25.8	0.58
I20	04 May 2017	34	10.50	91.46	4.3	33.62	7.8	25.8	0.60
I20	04 May 2017	35	10.50	91.43	4.3	33.62	7.8	25.8	0.55
I20	04 May 2017	36	10.50	91.44	4.3	33.62	7.8	25.8	0.54
I20	04 May 2017	37	10.50	91.56	4.3	33.62	7.8	25.8	0.53
I20	04 May 2017	38	10.50	91.51	4.3	33.62	7.8	25.8	0.54
I20	04 May 2017	39	10.49	91.39	4.3	33.62	7.8	25.8	0.52
I20	04 May 2017	40	10.45	91.23	4.3	33.63	7.8	25.8	0.53
I20	04 May 2017	41	10.41	91.39	4.3	33.64	7.8	25.8	0.48
I20	04 May 2017	42	10.41	91.73	4.3	33.64	7.8	25.8	0.50
I20	04 May 2017	43	10.40	91.49	4.3	33.64	7.8	25.8	0.45
I20	04 May 2017	44	10.40	91.47	4.2	33.65	7.8	25.8	0.43
I20	04 May 2017	45	10.41	90.03	4.0	33.67	7.7	25.8	0.46
I20	04 May 2017	46	10.41	89.03	3.9	33.67	7.7	25.8	0.44
I20	04 May 2017	47	10.41	88.87	3.9	33.67	7.7	25.8	0.45
I20	04 May 2017	48	10.41	88.80	4.0	33.67	7.7	25.8	0.46
I20	04 May 2017	49	10.41	88.89	4.0	33.67	7.7	25.8	0.45
I20	04 May 2017	50	10.41	89.06	3.9	33.67	7.7	25.8	0.45
I20	04 May 2017	51	10.41	88.91	3.9	33.67	7.7	25.8	0.49
I20	04 May 2017	52	10.41	88.96	3.9	33.67	7.7	25.8	0.46
I20	04 May 2017	53	10.41	88.95	3.9	33.67	7.7	25.8	0.51
I20	04 May 2017	54	10.42	88.74	3.9	33.67	7.7	25.8	0.41
I20	04 May 2017	55	10.42	88.65	3.9	33.67	7.7	25.8	0.41
I21	04 May 2017	1	18.06	86.17	8.4	33.48	8.2	24.1	0.27
I21	04 May 2017	2	18.03	86.13	8.4	33.48	8.2	24.1	0.28
I21	04 May 2017	3	17.89	86.67	8.4	33.51	8.2	24.2	0.30
I21	04 May 2017	4	17.60	86.61	8.7	33.51	8.2	24.2	0.31
I21	04 May 2017	5	17.14	85.48	8.9	33.50	8.2	24.3	0.35
I21	04 May 2017	6	16.94	84.47	8.8	33.51	8.2	24.4	0.36
I21	04 May 2017	7	16.03	82.94	8.8	33.73	8.2	24.8	0.44
I21	04 May 2017	8	14.43	80.62	9.3	33.76	8.2	25.1	0.63
I21	04 May 2017	9	13.57	76.80	9.4	33.71	8.2	25.3	0.76
I21	04 May 2017	10	12.91	73.94	9.3	33.63	8.2	25.3	1.04

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I21	04 May 2017	11	12.73	66.94	8.9	33.58	8.1	25.3	1.86
I21	04 May 2017	12	12.52	62.98	8.1	33.56	8.1	25.4	4.52
I21	04 May 2017	13	12.38	68.94	7.4	33.55	8.0	25.4	8.67
I21	04 May 2017	14	12.18	74.61	7.0	33.56	8.0	25.4	9.51
I21	04 May 2017	15	12.07	75.51	6.6	33.55	8.0	25.4	8.51
I21	04 May 2017	16	11.95	77.73	6.3	33.57	8.0	25.5	8.40
I21	04 May 2017	17	11.80	80.54	6.0	33.57	7.9	25.5	8.39
I21	04 May 2017	18	11.66	82.30	5.8	33.58	7.9	25.6	6.92
I21	04 May 2017	19	11.44	83.23	5.5	33.60	7.9	25.6	6.23
I21	04 May 2017	20	11.32	84.25	5.2	33.59	7.8	25.6	5.68
I21	04 May 2017	21	11.18	85.13	5.0	33.63	7.8	25.7	3.97
I21	04 May 2017	22	10.93	85.64	4.7	33.68	7.8	25.8	4.33
I21	04 May 2017	23	10.89	85.92	4.5	33.67	7.8	25.8	3.03
I21	04 May 2017	24	10.83	85.16	4.3	33.67	7.8	25.8	2.67
I21	04 May 2017	25	10.82	84.27	4.3	33.66	7.8	25.8	2.61
I21	04 May 2017	26	10.80	84.06	4.3	33.66	7.8	25.8	1.80
I21	04 May 2017	27	10.78	84.09	4.2	33.66	7.8	25.8	1.75
I21	04 May 2017	28	10.77	84.64	4.2	33.66	7.8	25.8	1.79
I21	04 May 2017	29	10.76	84.28	4.2	33.66	7.8	25.8	1.56
I21	04 May 2017	30	10.76	83.38	4.1	33.66	7.8	25.8	1.67
I21	04 May 2017	31	10.76	82.62	4.1	33.66	7.8	25.8	1.83
I21	04 May 2017	32	10.76	80.93	4.1	33.65	7.8	25.8	1.64
I21	04 May 2017	33	10.75	79.90	4.1	33.65	7.8	25.8	1.83
I21	04 May 2017	34	10.75	78.98	4.1	33.65	7.8	25.8	1.69
I21	04 May 2017	35	10.75	79.81	4.1	33.65	7.8	25.8	1.57
I21	04 May 2017	36	10.75	80.71	4.1	33.65	7.8	25.8	1.62
I21	04 May 2017	37	10.75	81.13	4.1	33.64	7.8	25.8	1.85
I21	04 May 2017	38	10.75	80.92	4.1	33.64	7.8	25.8	1.66
I21	04 May 2017	39	10.75	81.05	4.1	33.63	7.8	25.8	2.00
I21	04 May 2017	40	10.76	79.78	4.1	33.63	7.8	25.8	1.39
I22	03 May 2017	1	18.26	82.96	8.7	33.51	8.2	24.1	0.48
I22	03 May 2017	2	18.08	82.88	8.7	33.54	8.3	24.1	0.48
I22	03 May 2017	3	17.93	82.69	8.7	33.51	8.3	24.2	0.48
I22	03 May 2017	4	17.82	82.41	8.8	33.53	8.3	24.2	0.50
I22	03 May 2017	5	17.22	82.19	8.9	33.65	8.2	24.4	0.48
I22	03 May 2017	6	15.80	82.73	9.2	33.60	8.3	24.7	0.55
I22	03 May 2017	7	15.02	83.04	10.2	33.58	8.3	24.9	0.62
I22	03 May 2017	8	14.00	82.55	11.2	33.55	8.3	25.1	0.67
I22	03 May 2017	9	13.51	78.39	11.8	33.56	8.3	25.2	0.74
I22	03 May 2017	10	12.88	73.24	12.0	33.56	8.2	25.3	0.70
I22	03 May 2017	11	12.67	75.84	10.2	33.50	8.1	25.3	0.88
I22	03 May 2017	12	12.25	71.11	8.5	33.63	8.1	25.5	1.80
I22	03 May 2017	13	11.97	70.90	8.1	33.58	8.0	25.5	2.57
I22	03 May 2017	14	11.89	73.92	6.9	33.58	8.0	25.5	3.74
I22	03 May 2017	15	11.87	75.64	6.2	33.56	8.0	25.5	7.01
I22	03 May 2017	16	11.87	75.73	6.0	33.56	8.0	25.5	9.73
I22	03 May 2017	17	11.87	75.48	6.0	33.57	8.0	25.5	9.20
I22	03 May 2017	18	11.85	75.54	6.0	33.57	8.0	25.5	8.13
I22	03 May 2017	19	11.79	75.42	6.0	33.57	7.9	25.5	8.08
I22	03 May 2017	20	11.74	75.47	5.9	33.57	7.9	25.5	7.77
I22	03 May 2017	21	11.66	75.56	5.8	33.58	7.9	25.6	7.04
I22	03 May 2017	22	11.55	74.99	5.7	33.59	7.9	25.6	7.87
I22	03 May 2017	23	11.46	75.90	5.5	33.59	7.9	25.6	8.33
I22	03 May 2017	24	11.44	77.30	5.2	33.58	7.9	25.6	7.34

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I22	03 May 2017	25	11.41	77.25	5.1	33.59	7.9	25.6	6.15
I22	03 May 2017	26	11.36	76.06	5.0	33.59	7.8	25.6	5.97
I22	03 May 2017	27	11.31	72.25	4.8	33.59	7.8	25.6	5.34
I23	03 May 2017	1	18.06	82.85	8.8	33.51	8.2	24.1	0.38
I23	03 May 2017	2	17.95	82.53	8.9	33.53	8.2	24.2	0.35
I23	03 May 2017	3	17.76	82.07	8.9	33.53	8.2	24.2	0.35
I23	03 May 2017	4	17.56	82.23	8.9	33.52	8.3	24.2	0.35
I23	03 May 2017	5	16.41	82.18	9.2	33.72	8.3	24.7	0.37
I23	03 May 2017	6	15.03	81.06	9.6	33.50	8.3	24.8	0.41
I23	03 May 2017	7	14.86	76.04	10.4	33.44	8.3	24.8	0.50
I23	03 May 2017	8	14.67	70.22	10.3	33.45	8.2	24.9	0.61
I23	03 May 2017	9	14.37	68.34	10.0	33.47	8.2	24.9	1.32
I23	03 May 2017	10	14.05	70.98	9.8	33.51	8.2	25.0	2.94
I23	03 May 2017	11	13.72	73.16	9.7	33.52	8.2	25.1	5.00
I23	03 May 2017	12	13.42	75.18	9.5	33.54	8.2	25.2	5.77
I23	03 May 2017	13	13.24	66.98	9.2	33.55	8.1	25.2	5.62
I23	03 May 2017	14	12.96	63.60	8.8	33.55	8.1	25.3	4.58
I23	03 May 2017	15	12.77	69.43	8.2	33.54	8.1	25.3	7.31
I23	03 May 2017	16	12.65	72.93	7.6	33.54	8.0	25.3	11.55
I23	03 May 2017	17	12.58	73.05	7.3	33.54	8.0	25.3	10.47
I23	03 May 2017	18	12.49	72.81	7.0	33.54	8.0	25.4	9.01
I23	03 May 2017	19	12.42	72.15	6.8	33.55	8.0	25.4	7.62
I23	03 May 2017	20	12.35	71.29	6.7	33.55	8.0	25.4	7.22
I27	03 May 2017	1	18.24	81.69	8.7	33.50	8.2	24.1	0.56
I27	03 May 2017	2	18.22	81.69	8.7	33.50	8.2	24.1	0.56
I27	03 May 2017	3	18.02	81.65	8.7	33.53	8.3	24.1	0.58
I27	03 May 2017	4	17.82	81.92	8.8	33.54	8.3	24.2	0.59
I27	03 May 2017	5	17.69	82.69	8.8	33.51	8.3	24.2	0.60
I27	03 May 2017	6	17.48	82.34	8.8	33.56	8.3	24.3	0.61
I27	03 May 2017	7	16.79	81.71	8.9	33.62	8.2	24.5	0.62
I27	03 May 2017	8	16.38	80.47	9.3	33.60	8.2	24.6	0.60
I27	03 May 2017	9	16.03	80.14	9.6	33.57	8.2	24.6	0.60
I27	03 May 2017	10	15.18	80.65	9.8	33.62	8.3	24.9	0.70
I27	03 May 2017	11	14.28	81.24	10.4	33.70	8.3	25.1	0.85
I27	03 May 2017	12	12.85	71.62	11.3	33.62	8.2	25.4	1.05
I27	03 May 2017	13	12.68	73.45	10.3	33.59	8.2	25.4	1.12
I27	03 May 2017	14	12.34	76.51	8.8	33.62	8.1	25.5	1.43
I27	03 May 2017	15	12.17	72.58	8.3	33.60	8.0	25.5	2.98
I27	03 May 2017	16	12.07	71.72	7.4	33.62	8.0	25.5	3.65
I27	03 May 2017	17	11.98	73.00	6.7	33.61	8.0	25.5	3.50
I27	03 May 2017	18	11.98	73.35	6.2	33.60	7.9	25.5	5.24
I27	03 May 2017	19	11.97	74.39	5.8	33.59	7.9	25.5	8.35
I27	03 May 2017	20	11.95	74.20	5.8	33.60	7.9	25.5	10.01
I27	03 May 2017	21	11.85	74.21	5.7	33.62	7.9	25.5	8.83
I27	03 May 2017	22	11.81	74.66	5.6	33.61	7.9	25.5	7.99
I27	03 May 2017	23	11.72	74.57	5.5	33.62	7.9	25.6	7.53
I27	03 May 2017	24	11.68	75.17	5.4	33.60	7.9	25.6	6.76
I27	03 May 2017	25	11.54	74.99	5.2	33.63	7.9	25.6	6.42
I27	03 May 2017	26	11.40	74.87	5.0	33.64	7.8	25.6	6.49
I27	03 May 2017	27	11.35	75.92	4.8	33.62	7.8	25.6	5.82
I27	03 May 2017	28	11.30	77.09	4.6	33.63	7.8	25.7	5.85
I28	02 May 2017	1	16.79	84.17	8.9	33.46	8.2	24.4	0.96

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I28	02 May 2017	2	16.77	84.09	8.9	33.46	8.2	24.4	1.05
I28	02 May 2017	3	16.70	84.05	8.9	33.46	8.2	24.4	1.24
I28	02 May 2017	4	16.58	83.72	8.9	33.46	8.2	24.4	1.42
I28	02 May 2017	5	16.40	83.61	8.9	33.46	8.2	24.5	1.69
I28	02 May 2017	6	16.15	83.31	8.9	33.47	8.2	24.5	1.88
I28	02 May 2017	7	15.63	82.75	8.9	33.48	8.2	24.7	2.49
I28	02 May 2017	8	15.06	81.41	8.8	33.48	8.2	24.8	3.28
I28	02 May 2017	9	14.50	80.02	8.4	33.48	8.2	24.9	4.70
I28	02 May 2017	10	13.66	77.52	7.8	33.52	8.1	25.1	4.43
I28	02 May 2017	11	13.17	75.96	7.3	33.48	8.0	25.2	4.14
I28	02 May 2017	12	13.00	77.18	7.1	33.47	8.0	25.2	4.50
I28	02 May 2017	13	12.80	76.84	7.1	33.47	8.0	25.2	5.06
I28	02 May 2017	14	12.70	75.34	7.1	33.47	8.0	25.3	5.09
I28	02 May 2017	15	12.50	74.90	7.2	33.48	8.0	25.3	4.80
I28	02 May 2017	16	12.32	73.20	7.4	33.48	8.0	25.3	5.03
I28	02 May 2017	17	12.21	72.49	7.3	33.48	8.0	25.4	5.36
I28	02 May 2017	18	11.99	71.88	6.8	33.50	8.0	25.4	4.99
I28	02 May 2017	19	11.51	73.17	5.6	33.53	7.9	25.5	4.21
I28	02 May 2017	20	11.37	78.38	4.9	33.52	7.8	25.6	3.72
I28	02 May 2017	21	11.30	80.90	4.7	33.53	7.8	25.6	3.57
I28	02 May 2017	22	11.16	82.24	4.6	33.55	7.8	25.6	3.56
I28	02 May 2017	23	11.03	83.77	4.4	33.56	7.8	25.6	2.66
I28	02 May 2017	24	11.02	85.72	4.1	33.58	7.8	25.7	1.86
I28	02 May 2017	25	11.02	82.65	4.0	33.59	7.7	25.7	1.54
I28	02 May 2017	26	11.01	80.13	4.0	33.59	7.7	25.7	1.53
I28	02 May 2017	27	11.01	79.42	4.0	33.60	7.7	25.7	1.52
I28	02 May 2017	28	10.98	78.84	4.0	33.60	7.7	25.7	1.50
I28	02 May 2017	29	10.95	78.95	4.0	33.61	7.7	25.7	1.62
I28	02 May 2017	30	10.87	80.55	4.0	33.62	7.7	25.7	1.46
I28	02 May 2017	31	10.80	81.52	4.0	33.62	7.8	25.7	1.29
I28	02 May 2017	32	10.73	83.51	4.0	33.63	7.8	25.8	0.97
I28	02 May 2017	33	10.69	84.99	4.0	33.64	7.7	25.8	0.85
I28	02 May 2017	34	10.68	85.17	3.9	33.64	7.7	25.8	0.78
I28	02 May 2017	35	10.67	85.16	3.9	33.64	7.7	25.8	0.61
I28	02 May 2017	36	10.66	85.52	3.9	33.64	7.7	25.8	0.59
I28	02 May 2017	37	10.65	85.35	3.9	33.65	7.7	25.8	0.58
I28	02 May 2017	38	10.63	85.10	3.9	33.65	7.7	25.8	0.57
I28	02 May 2017	39	10.62	85.05	3.9	33.65	7.7	25.8	0.50
I28	02 May 2017	40	10.62	85.14	3.9	33.65	7.7	25.8	0.58
I28	02 May 2017	41	10.62	84.78	3.9	33.65	7.7	25.8	0.56
I28	02 May 2017	42	10.62	84.37	3.8	33.65	7.7	25.8	0.53
I28	02 May 2017	43	10.62	84.20	3.8	33.65	7.7	25.8	0.48
I28	02 May 2017	44	10.60	83.72	3.8	33.65	7.7	25.8	0.51
I28	02 May 2017	45	10.60	84.39	3.8	33.66	7.7	25.8	0.45
I28	02 May 2017	46	10.58	84.46	3.7	33.66	7.7	25.8	0.44
I28	02 May 2017	47	10.57	83.87	3.7	33.66	7.7	25.8	0.44
I28	02 May 2017	48	10.57	83.31	3.7	33.66	7.7	25.8	0.48
I28	02 May 2017	49	10.56	82.55	3.6	33.66	7.7	25.8	0.44
I28	02 May 2017	50	10.56	81.86	3.6	33.66	7.7	25.8	0.48
I28	02 May 2017	51	10.54	81.79	3.6	33.67	7.7	25.8	0.48
I28	02 May 2017	52	10.53	80.93	3.6	33.67	7.7	25.8	0.49
I28	02 May 2017	53	10.49	80.45	3.5	33.68	7.7	25.8	0.47
I28	02 May 2017	54	10.32	79.12	3.5	33.72	7.7	25.9	0.40
I28	02 May 2017	55	10.18	79.41	3.5	33.74	7.7	25.9	0.34

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I29	02 May 2017	1	16.82	81.39	9.0	33.48	8.2	24.4	0.79
I29	02 May 2017	2	16.73	79.93	9.0	33.49	8.2	24.4	0.92
I29	02 May 2017	3	16.39	79.72	9.0	33.49	8.2	24.5	1.16
I29	02 May 2017	4	16.19	79.63	9.0	33.49	8.2	24.5	1.42
I29	02 May 2017	5	15.88	79.19	8.9	33.50	8.2	24.6	2.06
I29	02 May 2017	6	14.97	78.09	8.9	33.54	8.2	24.9	2.88
I29	02 May 2017	7	14.44	76.02	8.7	33.51	8.2	24.9	3.94
I29	02 May 2017	8	13.73	74.71	8.4	33.53	8.1	25.1	5.14
I29	02 May 2017	9	13.11	75.41	8.3	33.51	8.1	25.2	5.31
I29	02 May 2017	10	12.51	75.28	8.3	33.53	8.1	25.3	5.05
I29	02 May 2017	11	12.20	73.78	7.9	33.48	8.1	25.4	5.11
I29	02 May 2017	12	12.08	74.24	7.5	33.48	8.0	25.4	6.20
I29	02 May 2017	13	11.95	71.30	7.0	33.49	8.0	25.4	9.29
I29	02 May 2017	14	11.81	67.52	6.4	33.50	7.9	25.5	14.95
I29	02 May 2017	15	11.76	66.44	5.9	33.51	7.9	25.5	17.74
I29	02 May 2017	16	11.60	69.14	5.4	33.54	7.9	25.5	14.76
I29	02 May 2017	17	11.34	73.11	5.0	33.56	7.8	25.6	11.39
I29	02 May 2017	18	11.32	78.05	4.6	33.56	7.8	25.6	7.47
I29	02 May 2017	19	11.38	77.53	4.5	33.56	7.8	25.6	6.19
I29	02 May 2017	20	11.31	76.68	4.3	33.58	7.8	25.6	4.30
I29	02 May 2017	21	11.28	77.52	4.2	33.58	7.8	25.6	3.42
I29	02 May 2017	22	11.27	77.65	4.2	33.58	7.8	25.6	3.34
I29	02 May 2017	23	11.24	77.75	4.2	33.59	7.8	25.6	3.02
I29	02 May 2017	24	11.19	78.90	4.2	33.59	7.8	25.6	3.39
I29	02 May 2017	25	11.17	80.52	4.2	33.59	7.8	25.6	3.15
I29	02 May 2017	26	11.06	82.79	4.2	33.60	7.8	25.7	2.76
I29	02 May 2017	27	10.98	82.17	4.1	33.61	7.8	25.7	2.52
I29	02 May 2017	28	10.92	82.47	4.0	33.61	7.8	25.7	2.04
I29	02 May 2017	29	10.91	82.42	4.0	33.61	7.7	25.7	1.82
I29	02 May 2017	30	10.90	81.86	3.9	33.61	7.7	25.7	1.74
I29	02 May 2017	31	10.90	81.04	3.9	33.61	7.7	25.7	2.05
I29	02 May 2017	32	10.89	80.46	3.9	33.62	7.7	25.7	1.76
I29	02 May 2017	33	10.89	80.41	3.9	33.62	7.7	25.7	1.71
I29	02 May 2017	34	10.88	80.18	3.9	33.62	7.7	25.7	1.94
I29	02 May 2017	35	10.87	79.72	3.9	33.62	7.7	25.7	2.07
I29	02 May 2017	36	10.87	77.66	3.8	33.62	7.7	25.7	1.87
I30	02 May 2017	1	17.31	79.91	9.0	33.48	8.2	24.3	0.95
I30	02 May 2017	2	17.07	79.83	8.9	33.51	8.2	24.4	1.00
I30	02 May 2017	3	16.55	79.39	8.8	33.50	8.2	24.5	1.20
I30	02 May 2017	4	16.30	77.78	8.8	33.51	8.2	24.5	1.50
I30	02 May 2017	5	16.02	77.73	8.8	33.51	8.2	24.6	1.74
I30	02 May 2017	6	15.64	77.85	8.8	33.52	8.2	24.7	1.97
I30	02 May 2017	7	15.30	78.11	8.7	33.53	8.2	24.8	2.24
I30	02 May 2017	8	14.45	77.96	8.7	33.58	8.1	25.0	2.57
I30	02 May 2017	9	13.97	77.07	8.6	33.54	8.1	25.1	3.21
I30	02 May 2017	10	13.12	74.77	8.2	33.55	8.1	25.2	3.68
I30	02 May 2017	11	12.91	74.47	7.5	33.53	8.0	25.3	4.26
I30	02 May 2017	12	12.84	75.02	7.0	33.53	8.0	25.3	4.76
I30	02 May 2017	13	12.77	75.80	6.7	33.53	8.0	25.3	4.67
I30	02 May 2017	14	12.57	76.64	6.2	33.56	7.9	25.4	4.20
I30	02 May 2017	15	12.21	75.66	5.6	33.59	7.9	25.5	3.79
I30	02 May 2017	16	12.10	74.14	5.3	33.53	7.8	25.4	3.42
I30	02 May 2017	17	11.85	75.95	5.2	33.60	7.8	25.5	3.56
I30	02 May 2017	18	11.76	76.37	5.0	33.57	7.8	25.5	3.75

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I30	02 May 2017	19	11.72	76.93	4.8	33.56	7.8	25.5	3.95
I30	02 May 2017	20	11.69	76.95	4.6	33.56	7.8	25.5	3.80
I30	02 May 2017	21	11.66	76.19	4.5	33.56	7.8	25.5	3.82
I30	02 May 2017	22	11.64	76.00	4.5	33.57	7.8	25.5	3.70
I30	02 May 2017	23	11.59	75.22	4.4	33.57	7.8	25.6	3.50
I30	02 May 2017	24	11.54	75.02	4.4	33.57	7.8	25.6	3.69
I30	02 May 2017	25	11.47	74.58	4.3	33.58	7.8	25.6	3.86
I30	02 May 2017	26	11.33	72.49	4.1	33.59	7.8	25.6	3.19
I30	02 May 2017	27	11.24	70.24	4.1	33.59	7.8	25.6	2.88
I31	02 May 2017	1	16.87	63.68	9.4	33.50	8.2	24.4	5.03
I31	02 May 2017	2	16.87	63.49	9.3	33.51	8.2	24.4	5.38
I31	02 May 2017	3	16.48	64.26	9.2	33.54	8.2	24.5	5.50
I31	02 May 2017	4	15.95	66.30	9.1	33.52	8.2	24.6	4.99
I31	02 May 2017	5	15.82	70.71	9.0	33.52	8.2	24.6	4.21
I31	02 May 2017	6	15.51	72.48	8.7	33.56	8.2	24.8	4.01
I31	02 May 2017	7	13.84	73.71	8.4	33.70	8.1	25.2	3.89
I31	02 May 2017	8	13.40	75.50	7.9	33.45	8.0	25.1	4.11
I31	02 May 2017	9	13.10	76.01	7.3	33.65	8.0	25.3	4.10
I31	02 May 2017	10	12.43	76.74	6.5	33.55	7.9	25.4	4.04
I31	02 May 2017	11	12.35	77.09	6.0	33.52	7.9	25.4	3.94
I31	02 May 2017	12	12.29	78.05	5.6	33.52	7.9	25.4	3.56
I31	02 May 2017	13	12.23	78.57	5.5	33.52	7.9	25.4	3.28
I31	02 May 2017	14	12.27	78.74	5.5	33.53	7.8	25.4	3.18
I31	02 May 2017	15	12.13	78.46	5.4	33.53	7.8	25.4	3.27
I31	02 May 2017	16	12.12	78.20	5.4	33.53	7.8	25.4	3.51
I31	02 May 2017	17	12.13	78.04	5.4	33.53	7.8	25.4	3.55
I31	02 May 2017	18	12.01	76.60	5.2	33.55	7.8	25.5	3.89
I31	02 May 2017	19	11.95	73.62	5.0	33.55	7.8	25.5	4.03
I33	02 May 2017	1	15.88	78.39	8.8	33.46	8.2	24.6	2.09
I33	02 May 2017	2	15.77	79.07	8.7	33.47	8.2	24.6	2.42
I33	02 May 2017	3	15.53	78.83	8.7	33.47	8.1	24.7	3.17
I33	02 May 2017	4	15.43	77.97	8.6	33.47	8.1	24.7	3.96
I33	02 May 2017	5	15.36	77.50	8.6	33.47	8.1	24.7	4.08
I33	02 May 2017	6	15.29	77.20	8.4	33.47	8.1	24.7	4.21
I33	02 May 2017	7	15.27	76.78	8.2	33.48	8.1	24.7	4.34
I33	02 May 2017	8	15.26	76.65	8.0	33.48	8.1	24.7	4.22
I33	02 May 2017	9	15.11	76.85	7.8	33.50	8.1	24.8	4.31
I33	02 May 2017	10	14.94	77.09	7.6	33.50	8.1	24.8	3.85
I33	02 May 2017	11	14.25	77.72	7.6	33.55	8.1	25.0	3.13
I33	02 May 2017	12	13.31	79.26	7.2	33.57	8.0	25.2	2.54
I33	02 May 2017	13	12.30	79.75	6.5	33.54	7.9	25.4	2.68
I33	02 May 2017	14	11.82	80.40	5.8	33.49	7.9	25.5	3.29
I33	02 May 2017	15	11.73	79.16	5.3	33.50	7.8	25.5	3.13
I33	02 May 2017	16	11.69	81.14	5.1	33.53	7.8	25.5	2.85
I33	02 May 2017	17	11.66	82.64	5.0	33.53	7.8	25.5	2.56
I33	02 May 2017	18	11.64	83.78	4.8	33.53	7.8	25.5	2.27
I33	02 May 2017	19	11.62	83.05	4.5	33.54	7.8	25.5	2.09
I33	02 May 2017	20	11.61	81.01	4.2	33.54	7.7	25.5	1.82
I33	02 May 2017	21	11.61	78.55	4.1	33.54	7.7	25.5	1.75
I33	02 May 2017	22	11.61	77.61	4.1	33.55	7.7	25.5	1.73
I33	02 May 2017	23	11.61	77.78	4.0	33.55	7.7	25.5	1.65
I33	02 May 2017	24	11.58	77.59	4.0	33.55	7.7	25.5	1.45
I33	02 May 2017	25	11.54	76.73	4.0	33.55	7.7	25.6	1.61

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I33	02 May 2017	26	11.56	75.80	4.0	33.56	7.7	25.6	1.73
I33	02 May 2017	27	11.51	75.07	3.9	33.56	7.7	25.6	1.59
I33	02 May 2017	28	11.50	74.36	3.9	33.56	7.7	25.6	1.48
I33	02 May 2017	29	11.50	71.37	3.9	33.56	7.7	25.6	1.62
I34	02 May 2017	1	16.38	72.22	8.0	33.50	8.1	24.5	3.67
I34	02 May 2017	2	16.38	72.06	8.0	33.50	8.1	24.5	4.07
I34	02 May 2017	3	16.31	72.08	7.9	33.51	8.1	24.5	4.20
I34	02 May 2017	4	16.14	74.04	7.9	33.51	8.1	24.6	3.95
I34	02 May 2017	5	16.12	74.98	7.7	33.49	8.1	24.6	3.68
I34	02 May 2017	6	15.24	75.33	7.5	33.56	8.1	24.8	3.44
I34	02 May 2017	7	14.50	76.34	7.7	33.52	8.0	24.9	3.02
I34	02 May 2017	8	13.88	78.24	7.9	33.53	8.1	25.1	3.13
I34	02 May 2017	9	13.31	78.34	7.7	33.52	8.0	25.2	3.61
I34	02 May 2017	10	12.90	75.36	7.5	33.50	8.0	25.3	4.01
I34	02 May 2017	11	12.65	72.58	7.1	33.51	8.0	25.3	3.95
I34	02 May 2017	12	12.28	77.71	6.3	33.53	7.9	25.4	2.85
I34	02 May 2017	13	12.06	81.52	5.5	33.54	7.9	25.4	2.25
I34	02 May 2017	14	11.83	81.56	4.6	33.54	7.8	25.5	2.25
I34	02 May 2017	15	11.74	76.86	4.1	33.53	7.7	25.5	1.84
I34	02 May 2017	16	11.68	74.62	4.0	33.53	7.7	25.5	1.80
I34	02 May 2017	17	11.68	71.98	4.0	33.54	7.7	25.5	2.00
I34	02 May 2017	18	11.68	71.40	4.0	33.54	7.7	25.5	1.75
I34	02 May 2017	19	11.68	69.46	4.0	33.54	7.7	25.5	1.85
I35	02 May 2017	1	16.89	78.53	8.9	33.48	8.2	24.4	1.00
I35	02 May 2017	2	16.85	78.27	8.9	33.49	8.2	24.4	1.16
I35	02 May 2017	3	16.39	77.88	8.9	33.51	8.2	24.5	1.81
I35	02 May 2017	4	15.99	76.56	8.8	33.50	8.2	24.6	2.19
I35	02 May 2017	5	14.99	75.21	8.6	33.56	8.2	24.9	2.28
I35	02 May 2017	6	13.99	75.43	8.2	33.55	8.1	25.1	2.44
I35	02 May 2017	7	12.81	76.12	7.6	33.54	8.1	25.3	2.91
I35	02 May 2017	8	12.30	75.52	6.9	33.49	8.0	25.4	3.58
I35	02 May 2017	9	12.17	76.01	6.3	33.48	7.9	25.4	3.99
I35	02 May 2017	10	12.13	79.52	6.0	33.49	7.9	25.4	4.26
I35	02 May 2017	11	12.10	80.38	5.7	33.51	7.9	25.4	4.47
I35	02 May 2017	12	12.02	80.39	5.4	33.52	7.9	25.4	4.70
I35	02 May 2017	13	11.96	78.77	5.2	33.53	7.8	25.5	4.38
I35	02 May 2017	14	11.96	76.33	5.1	33.53	7.8	25.5	4.38
I35	02 May 2017	15	11.95	76.31	5.0	33.54	7.8	25.5	3.83
I35	02 May 2017	16	11.92	72.91	4.6	33.54	7.8	25.5	3.13
I35	02 May 2017	17	11.91	60.35	4.4	33.55	7.8	25.5	3.16
I35	02 May 2017	18	11.90	53.19	4.1	33.55	7.7	25.5	2.83
I35	02 May 2017	19	11.90	45.08	3.9	33.54	7.7	25.5	2.76
I36	02 May 2017	1	17.51	63.22	9.3	33.51	8.2	24.3	3.60
I36	02 May 2017	2	17.50	62.92	9.3	33.51	8.2	24.3	3.91
I36	02 May 2017	3	17.40	63.22	9.1	33.52	8.2	24.3	4.93
I36	02 May 2017	4	16.92	61.94	8.6	33.55	8.2	24.4	7.61
I36	02 May 2017	5	15.61	57.44	8.0	33.59	8.2	24.7	9.20
I36	02 May 2017	6	14.58	56.70	7.9	33.55	8.1	24.9	7.99
I36	02 May 2017	7	14.14	65.86	7.7	33.51	8.1	25.0	6.41
I36	02 May 2017	8	13.78	71.35	7.5	33.52	8.0	25.1	5.24
I36	02 May 2017	9	13.61	73.58	7.2	33.51	8.0	25.1	3.84
I36	02 May 2017	10	13.39	75.95	6.8	33.51	8.0	25.2	2.83



Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I36	02 May 2017	11	13.24	72.09	6.4	33.51	8.0	25.2	2.19
I37	02 May 2017	1	16.79	77.73	8.7	33.50	8.2	24.4	2.10
I37	02 May 2017	2	16.69	77.54	8.6	33.52	8.2	24.4	2.22
I37	02 May 2017	3	16.15	77.51	8.3	33.52	8.1	24.6	2.62
I37	02 May 2017	4	15.03	76.80	8.2	33.56	8.1	24.9	2.93
I37	02 May 2017	5	14.22	75.85	8.0	33.51	8.1	25.0	3.03
I37	02 May 2017	6	14.00	74.61	7.9	33.50	8.0	25.0	3.32
I37	02 May 2017	7	13.74	73.95	7.8	33.50	8.0	25.1	3.44
I37	02 May 2017	8	13.32	75.72	7.2	33.52	8.0	25.2	3.26
I37	02 May 2017	9	12.74	77.74	6.3	33.51	7.9	25.3	2.97
I37	02 May 2017	10	12.58	75.89	5.7	33.50	7.8	25.3	2.57
I37	02 May 2017	11	12.34	72.75	5.2	33.51	7.8	25.4	2.07
I37	02 May 2017	12	12.26	70.26	5.0	33.51	7.8	25.4	1.91
I38	02 May 2017	1	17.78	66.95	10.1	33.51	8.3	24.2	2.90
I38	02 May 2017	2	17.76	67.06	10.0	33.52	8.3	24.2	2.97
I38	02 May 2017	3	17.20	66.27	9.6	33.55	8.3	24.4	4.15
I38	02 May 2017	4	16.50	65.25	9.1	33.53	8.2	24.5	4.81
I38	02 May 2017	5	16.09	69.89	8.9	33.52	8.2	24.6	4.47
I38	02 May 2017	6	15.81	70.86	8.6	33.52	8.2	24.6	4.29
I38	02 May 2017	7	15.12	71.20	8.1	33.55	8.1	24.8	4.03
I38	02 May 2017	8	14.15	70.38	7.4	33.52	8.0	25.0	3.86
I38	02 May 2017	9	13.93	71.17	7.1	33.51	8.0	25.0	3.32
I38	02 May 2017	10	13.51	75.39	6.9	33.50	8.0	25.1	2.33
I38	02 May 2017	11	12.77	70.82	5.7	33.52	7.9	25.3	1.63

NA = not available

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# 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	04 May 2017	18	AR	LAB DUPLICATE	<2	<2	<2
I9	04 May 2017	27	AR	LAB DUPLICATE	2e	<2	<2
I12	03 May 2017	18	JT	LAB DUPLICATE	180e	<2	<2
I13	04 May 2017	18	AR	LAB DUPLICATE	<2	<2	<2
I14	03 May 2017	2	JT	LAB DUPLICATE	<2	<2	<2
I16	03 May 2017	18	JT	LAB DUPLICATE	28e	<2	<2
I19	03 May 2017	6	JT	FIELD DUPLICATE	60e	2e	4e
I19	03 May 2017	6	JT	LAB DUPLICATE	20e	<2	2e
I19	11 May 2017	6	ZV	LAB DUPLICATE	260e	50	22e
I19	19 May 2017	6	LMA	LAB DUPLICATE	<2	<2	<2
I19	25 May 2017	6	AR	LAB DUPLICATE	<20	6e	4e
I19	30 May 2017	6	LMA	LAB DUPLICATE	ns	2e	ns
I19	30 May 2017	6	ZV	LAB DUPLICATE	40e	ns	10e
I20	04 May 2017	55	AR	LAB DUPLICATE	<2	<2	<2
I32	02 May 2017	9	AR	LAB DUPLICATE	4e	4e	<2
I36	02 May 2017	11	AR	LAB DUPLICATE	<2	<2	<2
I40	11 May 2017	6	ZV	LAB DUPLICATE	80e	8e	26e
I40	19 May 2017	6	LMA	LAB DUPLICATE	<20	<2	<2
I40	25 May 2017	6	AR	LAB DUPLICATE	20e	<2	10e
I40	30 May 2017	6	LMA	LAB DUPLICATE	ns	<2	ns
I40	30 May 2017	6	ZV	LAB DUPLICATE	<2	ns	2e
S12	02 May 2017		ZV	FIELD DUPLICATE	<20	2e	<2
S12	02 May 2017		ZV	LAB DUPLICATE	<20	8e	<2
S12	09 May 2017		AR	FIELD DUPLICATE	400e	<2	<2
S12	09 May 2017		AR	LAB DUPLICATE	20e	<2	2e
S12	16 May 2017		ZV	FIELD DUPLICATE	<20	<2	<2
S12	16 May 2017		ZV	LAB DUPLICATE	<20	<2	<2
S12	23 May 2017		LMA	FIELD DUPLICATE	40e	8e	<2
S12	23 May 2017		LMA	LAB DUPLICATE	100e	4e	<2
S12	30 May 2017		AR	FIELD DUPLICATE	20e	6e	26e
S12	30 May 2017		AR	LAB DUPLICATE	<20	<2	22e

ns = not sampled

ND = no data

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