



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

(SOUTH BAY WATER RECLAMATION PLANT)  
NPDES PERMIT No. CA 0109045

## **MAY 2016**

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





THE CITY OF SAN DIEGO

June 30, 2016

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 2016 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

TDS/ger

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

**Environmental Monitoring and Technical Services Division • Public Utilities**

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## 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 2016 Quality Assurance Report, which will be completed in March 2017.

## **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 multiple days during the month.
  - The single sample maximum (SSM) standards for total coliforms, fecal coliforms, *Enterococcus*, and the SSM standard that states total coliform densities shall not exceed 1000 CFU/100 mL when the fecal:total ratio exceeds

0.1, were exceeded at stations S5, S6 and S11 on one or more days during the month.

- 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 S2 on multiple days during the month.
- Historical analyses of Ocean Plan compliance rates for the South Bay outfall shoreline 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>).
- Notable visual observations for May included: a sewage-like odor at station S5 on May 12.

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

- The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled five times over six days during May (i.e. May 5, 10, 11, 16, 22, 31).
- During May, one of the seven stations was out of compliance with various California Ocean Plan (Ocean Plan) water contact standards (see below).
  - The SSM standard for *Enterococcus* was exceeded at station I24 on May 10.
- Water column temperatures ranged from 11.82 to 18.29°C. The difference between surface and bottom waters ranged from approximately 0.17 to 5.96°C, indicating the water column was stratified at some of these sites during the month.
- Chlorophyll *a* concentrations ranged from 0.65 to 25.97 µg/L at these stations, suggesting the presence of phytoplankton blooms during the month.
- Suspended solid values ranged from 0.2 to 11.3 mg/L in May. Elevated levels of suspended solids (i.e., values ≥ 8 mg/L) occurred in seawater samples collected at stations I19 (11 m depth), I24 (11 m depth), and I40 (9 m depth).
- Oil and grease values were < 0.2 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 9, 10, 11).
- 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 10.61 to 18.11°C at the offshore sites. The difference between surface and bottom waters ranged from 1.67 to 6.6°C, indicating that the water column was stratified at all of the offshore stations during the month.
- Chlorophyll *a* concentrations ranged from 0.51 to 8.27 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 8.9 mg/L in May. Elevated levels of suspended solids (i.e., values  $\geq 8$  mg/L) occurred in seawater samples collected from stations I20 (2 m depth), and I37 (11 m depth).
- Oil and grease values were  $< 0.2$  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



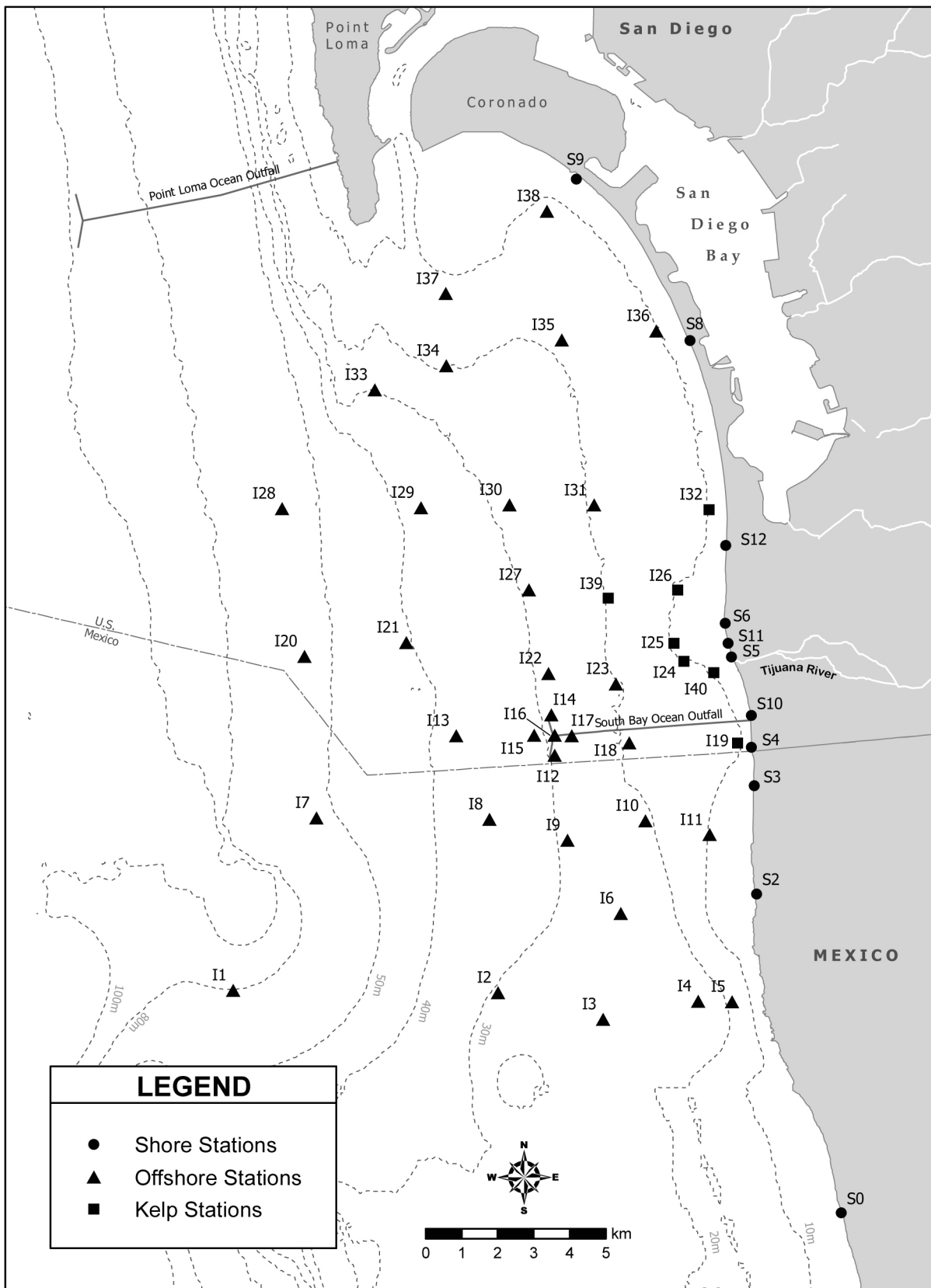


Figure 1.1 Station Map



# 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 2016	5*	8*	6*	2*	4*	5*	5*	4*
02 May 2016	5*	8*	6*	2*	4*	5*	5*	4*
03 May 2016	4	6	5	2	3	4	4	4
04 May 2016	4	6	5	2	3	4	4	4
05 May 2016	3*	8*	5*	2*	4*	3*	5*	5*
06 May 2016	3*	8*	5*	2*	4*	3*	5*	5*
07 May 2016	3*	8*	5*	2*	4*	3*	5*	5*
08 May 2016	3*	8*	5*	2*	4*	3*	5*	5*
09 May 2016	3*	8*	5*	2*	4*	3*	5*	5*
10 May 2016	5	35	24	2	6	5	24	8
11 May 2016	5	35	24	2	6	5	24	8
12 May 2016	5*	73	47	2*	8*	4*	30	12*
13 May 2016	5*	179	47	2*	8*	4*	30	12*
14 May 2016	5*	179	47	2*	8*	4*	30	12*
15 May 2016	5*	131	47	2*	8*	4*	30	12*
16 May 2016	5*	131	47	2*	8*	4*	30	12*
17 May 2016	7	113	41	4	9	6	32	13
18 May 2016	7	113	41	4	9	6	32	13
19 May 2016	8*	201	47	4*	13*	6*	55	17*
20 May 2016	8*	201	47	4*	13*	6*	55	17*
21 May 2016	8*	201	47	4*	13*	6*	55	17*
22 May 2016	8*	201	47	4*	13*	6*	55	17*
23 May 2016	8*	201	47	4*	13*	6*	55	17*
24 May 2016	6	113	28	4	9	8	32	18
25 May 2016	6	113	28	4	9	8	32	18
26 May 2016	6*	201	38	4*	8*	11*	35	17*
27 May 2016	6*	201	38	4*	8*	11*	35	17*
28 May 2016	6*	201	38	4*	8*	11*	35	17*
29 May 2016	6*	201	38	4*	8*	11*	35	17*
30 May 2016	6*	201	38	4*	8*	11*	35	17*
31 May 2016	12	164	34	6	9	17	38	25

\* 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 2016	3*	6*	2*	2*	2*	2*	3*	2*
02 May 2016	3*	6*	2*	2*	2*	2*	3*	2*
03 May 2016	3	5	2	2	2	2	2	2
04 May 2016	3	5	2	2	2	2	2	2
05 May 2016	2*	6*	2*	2*	2*	2*	3*	2*
06 May 2016	2*	6*	2*	2*	2*	2*	3*	2*
07 May 2016	2*	6*	2*	2*	2*	2*	3*	2*
08 May 2016	2*	6*	2*	2*	2*	2*	3*	2*
09 May 2016	2*	6*	2*	2*	2*	2*	3*	2*
10 May 2016	2	26	8	2	2	2	14	3
11 May 2016	2	26	8	2	2	2	14	3
12 May 2016	2*	58	10	2*	2*	2*	16	3*
13 May 2016	2*	128	10	2*	2*	2*	16	3*
14 May 2016	2*	128	10	2*	2*	2*	16	3*
15 May 2016	2*	70	10	2*	2*	2*	16	3*
16 May 2016	2*	70	10	2*	2*	2*	16	3*
17 May 2016	2	52	8	2	2	2	11	3
18 May 2016	2	52	8	2	2	2	11	3
19 May 2016	2*	82	10	2*	2*	3*	16	3*
20 May 2016	2*	82	10	2*	2*	3*	16	3*
21 May 2016	2*	82	10	2*	2*	3*	16	3*
22 May 2016	2*	82	10	2*	2*	3*	16	3*
23 May 2016	2*	82	10	2*	2*	3*	16	3*
24 May 2016	2	52	8	2	2	2	11	3
25 May 2016	2	52	8	2	2	2	11	3
26 May 2016	2*	82	10	2*	2*	3*	13	3*
27 May 2016	2*	82	10	2*	2*	3*	13	3*
28 May 2016	2*	82	10	2*	2*	3*	13	3*
29 May 2016	2*	82	10	2*	2*	3*	13	3*
30 May 2016	2*	82	10	2*	2*	3*	13	3*
31 May 2016	3	52	8	2	2	2	11	4

\* Geometric mean calculated using n<5

**Table 2.3**

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for *Enterococcus* at the SBOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (\*). Values >35 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 May 2016	3*	4*	2*	2*	2*	4*	2*	2*
02 May 2016	3*	4*	2*	2*	2*	4*	2*	2*
03 May 2016	4	4	2	2	2	3	2	2
04 May 2016	4	4	2	2	2	3	2	2
05 May 2016	3*	4*	2*	2*	2*	3*	2*	2*
06 May 2016	3*	4*	2*	2*	2*	3*	2*	2*
07 May 2016	3*	4*	2*	2*	2*	3*	2*	2*
08 May 2016	3*	4*	2*	2*	2*	3*	2*	2*
09 May 2016	3*	4*	2*	2*	2*	3*	2*	2*
10 May 2016	3	21	7	3	2	3	13	3
11 May 2016	3	21	7	3	2	3	13	3
12 May 2016	3*	61	12	3*	2*	3*	14	3*
13 May 2016	3*	107	12	3*	2*	3*	14	3*
14 May 2016	3*	107	12	3*	2*	3*	14	3*
15 May 2016	3*	96	12	3*	2*	3*	14	3*
16 May 2016	3*	96	12	3*	2*	3*	14	3*
17 May 2016	4	80	10	3	2	3	15	3
18 May 2016	4	80	10	3	2	3	15	3
19 May 2016	4*	136	14	3*	2*	4*	22	3*
20 May 2016	4*	136	14	3*	2*	4*	22	3*
21 May 2016	4*	136	14	3*	2*	4*	22	3*
22 May 2016	4*	136	14	3*	2*	4*	22	3*
23 May 2016	4*	136	14	3*	2*	4*	22	3*
24 May 2016	4	80	10	3	2	3	15	3
25 May 2016	4	80	10	3	2	3	15	3
26 May 2016	4*	136	14	3*	2*	4*	19	3*
27 May 2016	4*	136	14	3*	2*	4*	19	3*
28 May 2016	4*	136	14	3*	2*	4*	19	3*
29 May 2016	4*	136	14	3*	2*	4*	19	3*
30 May 2016	4*	136	14	3*	2*	4*	19	3*
31 May 2016	6	104	13	3	2	4	17	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
03 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
10 May 2016	IC	E	E	IC	IC	IC	E	IC
12 May 2016	ns	E	IC	ns	ns	ns	IC	ns
13 May 2016	ns	E	ns	ns	ns	ns	ns	ns
15 May 2016	ns	IC	ns	ns	ns	ns	ns	ns
17 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
24 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
31 May 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**Table 2.5**

Summary of compliance at the 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
03 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
10 May 2016	IC	E	E	IC	IC	IC	E	IC
12 May 2016	ns	E	IC	ns	ns	ns	IC	ns
13 May 2016	ns	E	ns	ns	ns	ns	ns	ns
15 May 2016	ns	IC	ns	ns	ns	ns	ns	ns
17 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
24 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
31 May 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**Table 2.6**

Summary of compliance at the 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
03 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
10 May 2016	IC	E	E	IC	IC	IC	E	IC
12 May 2016	ns	E	IC	ns	ns	ns	IC	ns
13 May 2016	ns	E	ns	ns	ns	ns	ns	ns
15 May 2016	ns	IC	ns	ns	ns	ns	ns	ns
17 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
24 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
31 May 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**Table 2.7**

Summary of compliance at the 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
03 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
10 May 2016	IC	E	E	IC	IC	IC	E	IC
12 May 2016	ns	E	IC	ns	ns	ns	IC	ns
13 May 2016	ns	E	ns	ns	ns	ns	ns	ns
15 May 2016	ns	IC	ns	ns	ns	ns	ns	ns
17 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
24 May 2016	IC	IC	IC	IC	IC	IC	IC	IC
31 May 2016	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

**Table 2.8**

Summary of water quality parameters at the 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	03 May 2016	1025	120	12e	36e	0.10
S0	10 May 2016	1100	80e	2e	4e	0.02
S0	17 May 2016	1040	200e	30e	80	0.15
S0	24 May 2016	1110	2200e	160e	700	0.07
S0	31 May 2016	1108	<20	12e	20e	0.60
S2	03 May 2016	1201	<2	<2	<2	1.00
S2	10 May 2016	1010	4e	<2	4e	0.50
S2	17 May 2016	1140	320e	22e	420	0.07
S2	24 May 2016	1020	2e	<2	<2	1.00
S2	31 May 2016	955	40e	<2	2e	0.05
S3	03 May 2016	1115	2e	<2	<2	1.00
S3	10 May 2016	920	40	<2	2e	0.05
S3	17 May 2016	1210	200e	6e	80	0.03
S3	24 May 2016	945	<20	<2	<2	0.10
S3	31 May 2016	910	60e	20e	32e	0.33
S4	03 May 2016	1241	<2	<2	6e	1.00
S4	10 May 2016	1150	20e	<2	4e	0.10
S4	17 May 2016	953	<20	2e	8e	0.10
S4	24 May 2016	956	<2	<2	<2	1.00
S4	31 May 2016	853	160e	26e	20e	0.16
S5	03 May 2016	1059	<2	<2	<2	1.00
S5	10 May 2016	923	>16000	>12000	>12000	0.75
S5	12 May 2016	1123	>16000	7000	8800	0.44
S5	13 May 2016	1015	>16000	6400	1800e	0.40
S5	15 May 2016	856	<20	<2	48	0.10
S5	17 May 2016	1114	40e	6e	24e	0.15
S5	24 May 2016	1104	<2	<2	<2	1.00
S5	31 May 2016	1010	40e	2e	16e	0.05
S6	03 May 2016	1044	<2	<2	<2	1.00
S6	10 May 2016	953	>16000	1800e	880	0.11
S6	12 May 2016	1041	60e	8e	40	0.13
S6	17 May 2016	1055	20e	<2	4e	0.10
S6	24 May 2016	1051	<2	<2	<2	1.00
S6	31 May 2016	958	20e	2e	8e	0.10
S8	03 May 2016	953	<2	<2	<2	1.00
S8	10 May 2016	1030	4e	<2	10e	0.50
S8	17 May 2016	1236	<20	<2	<2	0.10
S8	24 May 2016	1223	<2	<2	<2	1.00
S8	31 May 2016	1137	<20	<2	<2	0.10
S9	03 May 2016	930	<2	<2	<2	1.00
S9	10 May 2016	1111	40e	<2	2e	0.05
S9	17 May 2016	1258	<20	<2	<2	0.10



Station	Date	Time	Total	Fecal	Entero	F:T
S9	24 May 2016	1249	<2	<2	<2	1.00
S9	31 May 2016	1205	<20	<2	<2	0.10
S10	03 May 2016	1234	<2	<2	<2	1.00
S10	10 May 2016	1210	20e	<2	8e	0.10
S10	17 May 2016	944	<20	6e	6e	0.30
S10	24 May 2016	949	<20	<2	2e	0.10
S10	31 May 2016	859	80e	<2	6e	0.02
S11	03 May 2016	1051	<2	<2	<2	1.00
S11	10 May 2016	938	> 16000	11000	10000	0.69
S11	12 May 2016	1056	<20	4e	4e	0.20
S11	17 May 2016	1103	40e	2e	16e	0.05
S11	24 May 2016	1057	<2	<2	<2	1.00
S11	31 May 2016	1004	60e	6e	8e	0.10
S12	03 May 2016	1022	4e	<2	<2	0.50
S12	10 May 2016	1019	56	10e	8e	0.18
S12	17 May 2016	1040	<20	2e	4e	0.10
S12	24 May 2016	1038	<20	<2	<2	0.10
S12	31 May 2016	941	100e	10e	4e	0.10

ns = not sampled

ND = no data

**Comments**

Station	Date	Depth	Parameter	Comments
S11	12 May 2016			Resample
S5	12 May 2016			Resample
S6	12 May 2016			Resample
S5	13 May 2016			Resample
S5	15 May 2016			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	03 May 2016	Arrive Time	1025
S0	03 May 2016	Weather	Partly Cloudy
S0	03 May 2016	Wind Speed (kts)	2.6
S0	03 May 2016	Wind Dir	NE
S0	03 May 2016	Animal Life	5 Shorebirds
S0	03 May 2016	Floatables	None
S0	03 May 2016	Water Color	Green
S0	03 May 2016	Current Direction	N
S0	03 May 2016	Water Temp (C)	16
S0	03 May 2016	Wave Height Low (ft)	4
S0	03 May 2016	High Tide (ft)	4.6
S0	03 May 2016	High Tide Time	706
S0	03 May 2016	Low Tide (ft)	0
S0	03 May 2016	Low Tide Time	1322
S0	03 May 2016	Comments	Kelp; Water clear; Flow from stormdrain 1 L/sec
S0	10 May 2016	Arrive Time	1100
S0	10 May 2016	Weather	Sunny
S0	10 May 2016	Wind Speed (kts)	2.1
S0	10 May 2016	Wind Dir	NE
S0	10 May 2016	Animal Life	5 Shorebirds; 1 Dog
S0	10 May 2016	Floatables	None
S0	10 May 2016	Water Color	Green
S0	10 May 2016	Current Direction	N
S0	10 May 2016	Water Temp (C)	17.5
S0	10 May 2016	Wave Height Low (ft)	3
S0	10 May 2016	High Tide (ft)	3.7
S0	10 May 2016	High Tide Time	1334
S0	10 May 2016	Low Tide (ft)	-0.8
S0	10 May 2016	Low Tide Time	700
S0	10 May 2016	Comments	Kelp; Water clear; Flow from stormdrain 0.5 L/sec
S0	17 May 2016	Arrive Time	1040
S0	17 May 2016	Weather	Cloudy
S0	17 May 2016	Wind Speed (kts)	2.4
S0	17 May 2016	Wind Dir	SE
S0	17 May 2016	Animal Life	5 Shorebirds
S0	17 May 2016	Floatables	None
S0	17 May 2016	Water Color	Green
S0	17 May 2016	Current Direction	SE
S0	17 May 2016	Water Temp (C)	17
S0	17 May 2016	Wave Height Low (ft)	3
S0	17 May 2016	High Tide (ft)	3.8
S0	17 May 2016	High Tide Time	729
S0	17 May 2016	Low Tide (ft)	0.9
S0	17 May 2016	Low Tide Time	1321
S0	17 May 2016	Comments	Kelp; Water clear; Flow from stormdrain 1 L/sec
S0	24 May 2016	Arrive Time	1110
S0	24 May 2016	Weather	Sunny
S0	24 May 2016	Wind Speed (kts)	2.2

Station	Date	Parameter	Value
S0	24 May 2016	Wind Dir	W
S0	24 May 2016	Animal Life	5 Shorebirds; 1 Dog
S0	24 May 2016	Floatables	None
S0	24 May 2016	Water Color	Green
S0	24 May 2016	Current Direction	S
S0	24 May 2016	Water Temp (C)	19
S0	24 May 2016	Wave Height Low (ft)	3
S0	24 May 2016	High Tide (ft)	3.5
S0	24 May 2016	High Tide Time	1203
S0	24 May 2016	Low Tide (ft)	-0.4
S0	24 May 2016	Low Tide Time	542
S0	24 May 2016	Comments	Kelp; Water clear; Flow from stormdrain 1 Lt/sec
S0	31 May 2016	Arrive Time	1108
S0	31 May 2016	Weather	Cloudy
S0	31 May 2016	Wind Speed (kts)	1.6
S0	31 May 2016	Wind Dir	SE
S0	31 May 2016	Animal Life	5 Shorebirds
S0	31 May 2016	Floatables	None
S0	31 May 2016	Water Color	Green
S0	31 May 2016	Current Direction	N
S0	31 May 2016	Water Temp (C)	16
S0	31 May 2016	Wave Height Low (ft)	3
S0	31 May 2016	High Tide (ft)	3.9
S0	31 May 2016	High Tide Time	545
S0	31 May 2016	Low Tide (ft)	0.6
S0	31 May 2016	Low Tide Time	1154
S0	31 May 2016	Comments	Kelp; Water clear; Flow from stormdrain 0.5 L/sec; >100 Dead tuna crabs
S2	03 May 2016	Arrive Time	1201
S2	03 May 2016	Weather	Partly Cloudy
S2	03 May 2016	Wind Speed (kts)	2.4
S2	03 May 2016	Wind Dir	NE
S2	03 May 2016	Animal Life	5 Shorebirds
S2	03 May 2016	Floatables	None
S2	03 May 2016	Water Color	Green
S2	03 May 2016	Current Direction	N
S2	03 May 2016	Water Temp (C)	17
S2	03 May 2016	Wave Height Low (ft)	3
S2	03 May 2016	High Tide (ft)	4.6
S2	03 May 2016	High Tide Time	706
S2	03 May 2016	Low Tide (ft)	0
S2	03 May 2016	Low Tide Time	1322
S2	03 May 2016	Comments	Kelp; Water clear; No flow from stormdrain
S2	10 May 2016	Arrive Time	1010
S2	10 May 2016	Weather	Sunny
S2	10 May 2016	Wind Speed (kts)	4.6
S2	10 May 2016	Wind Dir	NE
S2	10 May 2016	Animal Life	5 Shorebirds; 3 Dogs
S2	10 May 2016	Floatables	None
S2	10 May 2016	Water Color	Green
S2	10 May 2016	Current Direction	N
S2	10 May 2016	Water Temp (C)	17.5

Station	Date	Parameter	Value
S2	10 May 2016	Wave Height Low (ft)	3
S2	10 May 2016	High Tide (ft)	3.7
S2	10 May 2016	High Tide Time	1334
S2	10 May 2016	Low Tide (ft)	-0.8
S2	10 May 2016	Low Tide Time	700
S2	10 May 2016	Comments	Kelp; Water clear; No flow from stormdrain
S2	17 May 2016	Arrive Time	1140
S2	17 May 2016	Weather	Cloudy
S2	17 May 2016	Wind Speed (kts)	3.6
S2	17 May 2016	Wind Dir	SE
S2	17 May 2016	Animal Life	5 Shorebirds
S2	17 May 2016	Floatables	None
S2	17 May 2016	Water Color	Green
S2	17 May 2016	Current Direction	N
S2	17 May 2016	Water Temp (C)	18
S2	17 May 2016	Wave Height Low (ft)	2
S2	17 May 2016	High Tide (ft)	3.8
S2	17 May 2016	High Tide Time	729
S2	17 May 2016	Low Tide (ft)	0.9
S2	17 May 2016	Low Tide Time	1321
S2	17 May 2016	Comments	Kelp; Water clear; No flow from stormdrain
S2	24 May 2016	Arrive Time	1020
S2	24 May 2016	Weather	Sunny
S2	24 May 2016	Wind Speed (kts)	2.1
S2	24 May 2016	Wind Dir	W
S2	24 May 2016	Animal Life	5 Shorebirds
S2	24 May 2016	Floatables	None
S2	24 May 2016	Water Color	Green
S2	24 May 2016	Current Direction	S
S2	24 May 2016	Water Temp (C)	19
S2	24 May 2016	Wave Height Low (ft)	3
S2	24 May 2016	High Tide (ft)	3.5
S2	24 May 2016	High Tide Time	1203
S2	24 May 2016	Low Tide (ft)	-0.4
S2	24 May 2016	Low Tide Time	542
S2	24 May 2016	Comments	Kelp; 5 Persons; Water clear; 1 Dead Seal; No flow from stormdrain
S2	31 May 2016	Arrive Time	955
S2	31 May 2016	Weather	Cloudy
S2	31 May 2016	Wind Speed (kts)	1.5
S2	31 May 2016	Wind Dir	SE
S2	31 May 2016	Animal Life	5 Shorebirds
S2	31 May 2016	Floatables	None
S2	31 May 2016	Water Color	Green
S2	31 May 2016	Current Direction	N
S2	31 May 2016	Water Temp (C)	16.5
S2	31 May 2016	Wave Height Low (ft)	3
S2	31 May 2016	High Tide (ft)	3.9
S2	31 May 2016	High Tide Time	545
S2	31 May 2016	Low Tide (ft)	0.6
S2	31 May 2016	Low Tide Time	1154
S2	31 May 2016	Comments	Kelp; Water clear; No flow from stormdrain; 1 Dead sealion

Station	Date	Parameter	Value
S3	03 May 2016	Arrive Time	1115
S3	03 May 2016	Weather	Partly Cloudy
S3	03 May 2016	Wind Speed (kts)	2.2
S3	03 May 2016	Wind Dir	NE
S3	03 May 2016	Animal Life	5 Shorebirds
S3	03 May 2016	Floatables	None
S3	03 May 2016	Water Color	Green
S3	03 May 2016	Current Direction	N
S3	03 May 2016	Water Temp (C)	18
S3	03 May 2016	Wave Height Low (ft)	3
S3	03 May 2016	High Tide (ft)	4.6
S3	03 May 2016	High Tide Time	706
S3	03 May 2016	Low Tide (ft)	0
S3	03 May 2016	Low Tide Time	1322
S3	03 May 2016	Comments	Kelp; Water clear; No flow from stormdrain
S3	10 May 2016	Arrive Time	920
S3	10 May 2016	Weather	Cloudy
S3	10 May 2016	Wind Speed (kts)	1.8
S3	10 May 2016	Wind Dir	NE
S3	10 May 2016	Animal Life	5 Shorebirds; 1 Dog
S3	10 May 2016	Floatables	None
S3	10 May 2016	Water Color	Green
S3	10 May 2016	Current Direction	N
S3	10 May 2016	Water Temp (C)	17
S3	10 May 2016	Wave Height Low (ft)	3
S3	10 May 2016	High Tide (ft)	3.7
S3	10 May 2016	High Tide Time	1334
S3	10 May 2016	Low Tide (ft)	-0.8
S3	10 May 2016	Low Tide Time	700
S3	10 May 2016	Comments	Kelp; 5 Persons; 6 Surfers; Water clear; No flow from stormdrain
S3	17 May 2016	Arrive Time	1210
S3	17 May 2016	Weather	Cloudy
S3	17 May 2016	Wind Speed (kts)	3.8
S3	17 May 2016	Wind Dir	SE
S3	17 May 2016	Animal Life	5 Shorebirds
S3	17 May 2016	Floatables	None
S3	17 May 2016	Water Color	Green
S3	17 May 2016	Current Direction	S
S3	17 May 2016	Water Temp (C)	18
S3	17 May 2016	Wave Height Low (ft)	3
S3	17 May 2016	High Tide (ft)	3.8
S3	17 May 2016	High Tide Time	729
S3	17 May 2016	Low Tide (ft)	0.9
S3	17 May 2016	Low Tide Time	1321
S3	17 May 2016	Comments	Kelp; Water clear; No flow from stormdrain; Crew removing rocks from ramp access
S3	24 May 2016	Arrive Time	945
S3	24 May 2016	Weather	Sunny
S3	24 May 2016	Wind Speed (kts)	4.4
S3	24 May 2016	Wind Dir	W
S3	24 May 2016	Animal Life	5 Shorebirds
S3	24 May 2016	Floatables	None

Station	Date	Parameter	Value
S3	24 May 2016	Water Color	Green
S3	24 May 2016	Current Direction	S
S3	24 May 2016	Water Temp (C)	19
S3	24 May 2016	Wave Height Low (ft)	3
S3	24 May 2016	High Tide (ft)	3.5
S3	24 May 2016	High Tide Time	1203
S3	24 May 2016	Low Tide (ft)	-0.4
S3	24 May 2016	Low Tide Time	542
S3	24 May 2016	Comments	Kelp; 2 Persons; Water clear; No flow from stormdrain
S3	31 May 2016	Arrive Time	910
S3	31 May 2016	Weather	Cloudy
S3	31 May 2016	Wind Speed (kts)	0.8
S3	31 May 2016	Wind Dir	SE
S3	31 May 2016	Animal Life	5 Shorebirds
S3	31 May 2016	Floatables	None
S3	31 May 2016	Water Color	Green
S3	31 May 2016	Current Direction	SE
S3	31 May 2016	Water Temp (C)	16
S3	31 May 2016	Wave Height Low (ft)	2
S3	31 May 2016	High Tide (ft)	3.9
S3	31 May 2016	High Tide Time	545
S3	31 May 2016	Low Tide (ft)	0.6
S3	31 May 2016	Low Tide Time	1154
S3	31 May 2016	Comments	Kelp; 8 Surfers; Water clear; No flow from stormdrain
S4	03 May 2016	Arrive Time	1241
S4	03 May 2016	Weather	Cloudy
S4	03 May 2016	Wind Speed (kts)	5.8
S4	03 May 2016	Wind Dir	N
S4	03 May 2016	Animal Life	20 Birds
S4	03 May 2016	Floatables	None
S4	03 May 2016	Water Color	Green
S4	03 May 2016	Current Direction	N
S4	03 May 2016	Water Temp (C)	18
S4	03 May 2016	Wave Height Low (ft)	4
S4	03 May 2016	High Tide (ft)	4.6
S4	03 May 2016	High Tide Time	706
S4	03 May 2016	Low Tide (ft)	0
S4	03 May 2016	Low Tide Time	1322
S4	03 May 2016	Comments	Water clear
S4	10 May 2016	Arrive Time	1150
S4	10 May 2016	Weather	Cloudy
S4	10 May 2016	Wind Speed (kts)	4
S4	10 May 2016	Wind Dir	N
S4	10 May 2016	Animal Life	None
S4	10 May 2016	Floatables	None
S4	10 May 2016	Water Color	Green
S4	10 May 2016	Current Direction	N
S4	10 May 2016	Water Temp (C)	19
S4	10 May 2016	Wave Height Low (ft)	2
S4	10 May 2016	High Tide (ft)	3.7
S4	10 May 2016	High Tide Time	1334
S4	10 May 2016	Low Tide (ft)	-0.8

Station	Date	Parameter	Value
S4	10 May 2016	Low Tide Time	700
S4	10 May 2016	Comments	Kelp; Seagrass; Water turbid; Biofilm present on water surface; Strong odor of detergent present
S4	17 May 2016	Arrive Time	953
S4	17 May 2016	Weather	Cloudy
S4	17 May 2016	Wind Speed (kts)	8.5
S4	17 May 2016	Wind Dir	SW
S4	17 May 2016	Animal Life	None
S4	17 May 2016	Floatables	None
S4	17 May 2016	Water Color	Green
S4	17 May 2016	Current Direction	SW
S4	17 May 2016	Water Temp (C)	17.2
S4	17 May 2016	Wave Height Low (ft)	2
S4	17 May 2016	High Tide (ft)	3.8
S4	17 May 2016	High Tide Time	729
S4	17 May 2016	Low Tide (ft)	0.9
S4	17 May 2016	Low Tide Time	1321
S4	17 May 2016	Comments	Kelp; Seagrass; Debris; Water clear; Detergent odor
S4	24 May 2016	Arrive Time	956
S4	24 May 2016	Weather	Partly Cloudy
S4	24 May 2016	Wind Speed (kts)	2.4
S4	24 May 2016	Wind Dir	N
S4	24 May 2016	Animal Life	None
S4	24 May 2016	Floatables	None
S4	24 May 2016	Water Color	Green
S4	24 May 2016	Current Direction	N
S4	24 May 2016	Water Temp (C)	18.4
S4	24 May 2016	Wave Height Low (ft)	3
S4	24 May 2016	High Tide (ft)	3.5
S4	24 May 2016	High Tide Time	1203
S4	24 May 2016	Low Tide (ft)	-0.4
S4	24 May 2016	Low Tide Time	542
S4	24 May 2016	Comments	Water clear
S4	31 May 2016	Arrive Time	853
S4	31 May 2016	Weather	Overcast
S4	31 May 2016	Wind Speed (kts)	2.1
S4	31 May 2016	Wind Dir	SW
S4	31 May 2016	Animal Life	None
S4	31 May 2016	Floatables	None
S4	31 May 2016	Water Color	Green
S4	31 May 2016	Current Direction	S
S4	31 May 2016	Water Temp (C)	16.4
S4	31 May 2016	Wave Height Low (ft)	3
S4	31 May 2016	High Tide (ft)	3.9
S4	31 May 2016	High Tide Time	545
S4	31 May 2016	Low Tide (ft)	0.6
S4	31 May 2016	Low Tide Time	1154
S4	31 May 2016	Comments	Seagrass; Water clear
S5	03 May 2016	Arrive Time	1059
S5	03 May 2016	Weather	Partly Cloudy
S5	03 May 2016	Wind Speed (kts)	6.9



Station	Date	Parameter	Value
S5	03 May 2016	Wind Dir	N
S5	03 May 2016	Animal Life	None
S5	03 May 2016	Floatables	None
S5	03 May 2016	Water Color	Green
S5	03 May 2016	Current Direction	N
S5	03 May 2016	Water Temp (C)	17.8
S5	03 May 2016	Wave Height Low (ft)	5
S5	03 May 2016	High Tide (ft)	4.6
S5	03 May 2016	High Tide Time	706
S5	03 May 2016	Low Tide (ft)	0
S5	03 May 2016	Low Tide Time	1322
S5	03 May 2016	Comments	Water clear
S5	10 May 2016	Arrive Time	923
S5	10 May 2016	Weather	Cloudy
S5	10 May 2016	Wind Speed (kts)	3.8
S5	10 May 2016	Wind Dir	W
S5	10 May 2016	Animal Life	None
S5	10 May 2016	Floatables	None
S5	10 May 2016	Water Color	Green
S5	10 May 2016	Current Direction	W
S5	10 May 2016	Water Temp (C)	18
S5	10 May 2016	Wave Height Low (ft)	2
S5	10 May 2016	High Tide (ft)	3.7
S5	10 May 2016	High Tide Time	1334
S5	10 May 2016	Low Tide (ft)	-0.8
S5	10 May 2016	Low Tide Time	700
S5	10 May 2016	Comments	Kelp; Seagrass; Water turbid; Biofilm present on surface of water; Strong detergent odor present
S5	12 May 2016	Arrive Time	1123
S5	12 May 2016	Weather	Cloudy
S5	12 May 2016	Wind Speed (kts)	1.5
S5	12 May 2016	Wind Dir	N
S5	12 May 2016	Animal Life	None
S5	12 May 2016	Floatables	None
S5	12 May 2016	Water Color	Green
S5	12 May 2016	Current Direction	N
S5	12 May 2016	Water Temp (C)	19.4
S5	12 May 2016	Wave Height Low (ft)	3
S5	12 May 2016	High Tide (ft)	3.7
S5	12 May 2016	High Tide Time	1615
S5	12 May 2016	Low Tide (ft)	0
S5	12 May 2016	Low Tide Time	909
S5	12 May 2016	Comments	Sewage-like odor; Water clear
S5	13 May 2016	Arrive Time	1015
S5	13 May 2016	Weather	Partly Cloudy
S5	13 May 2016	Wind Speed (kts)	4
S5	13 May 2016	Wind Dir	W
S5	13 May 2016	Animal Life	None
S5	13 May 2016	Floatables	None
S5	13 May 2016	Water Color	Green
S5	13 May 2016	Current Direction	W
S5	13 May 2016	Water Temp (C)	20

Station	Date	Parameter	Value
S5	13 May 2016	Wave Height Low (ft)	2
S5	13 May 2016	High Tide (ft)	4
S5	13 May 2016	High Tide Time	1721
S5	13 May 2016	Low Tide (ft)	0.3
S5	13 May 2016	Low Tide Time	1017
S5	13 May 2016	Comments	Resample; Kelp; Seagrass; Water turbid; Strong odor of detergent
S5	15 May 2016	Arrive Time	856
S5	15 May 2016	Weather	Cloudy
S5	15 May 2016	Wind Speed (kts)	11
S5	15 May 2016	Wind Dir	SW
S5	15 May 2016	Animal Life	None
S5	15 May 2016	Floatables	None
S5	15 May 2016	Water Color	Green
S5	15 May 2016	Current Direction	SW
S5	15 May 2016	Water Temp (C)	18
S5	15 May 2016	Wave Height Low (ft)	3
S5	15 May 2016	High Tide (ft)	3.7
S5	15 May 2016	High Tide Time	539
S5	15 May 2016	Low Tide (ft)	0.7
S5	15 May 2016	Low Tide Time	1208
S5	15 May 2016	Comments	Kelp; Seagrass; Water turbid
S5	17 May 2016	Arrive Time	1114
S5	17 May 2016	Weather	Cloudy
S5	17 May 2016	Wind Speed (kts)	8.7
S5	17 May 2016	Wind Dir	SW
S5	17 May 2016	Animal Life	None
S5	17 May 2016	Floatables	None
S5	17 May 2016	Water Color	Green
S5	17 May 2016	Current Direction	SW
S5	17 May 2016	Water Temp (C)	17.8
S5	17 May 2016	Wave Height Low (ft)	2
S5	17 May 2016	High Tide (ft)	3.8
S5	17 May 2016	High Tide Time	729
S5	17 May 2016	Low Tide (ft)	0.9
S5	17 May 2016	Low Tide Time	1321
S5	17 May 2016	Comments	Kelp; Seagrass; Water clear; Detergent odor
S5	24 May 2016	Arrive Time	1104
S5	24 May 2016	Weather	Partly Cloudy
S5	24 May 2016	Wind Speed (kts)	3.6
S5	24 May 2016	Wind Dir	N
S5	24 May 2016	Animal Life	None
S5	24 May 2016	Floatables	None
S5	24 May 2016	Water Color	Green
S5	24 May 2016	Current Direction	N
S5	24 May 2016	Water Temp (C)	16.8
S5	24 May 2016	Wave Height Low (ft)	3
S5	24 May 2016	High Tide (ft)	3.5
S5	24 May 2016	High Tide Time	1203
S5	24 May 2016	Low Tide (ft)	-0.4
S5	24 May 2016	Low Tide Time	542
S5	24 May 2016	Comments	Water clear

Station	Date	Parameter	Value
S5	31 May 2016	Arrive Time	1010
S5	31 May 2016	Weather	Overcast
S5	31 May 2016	Wind Speed (kts)	3.1
S5	31 May 2016	Wind Dir	W
S5	31 May 2016	Animal Life	None
S5	31 May 2016	Floatables	None
S5	31 May 2016	Water Color	Green
S5	31 May 2016	Current Direction	S
S5	31 May 2016	Water Temp (C)	16.8
S5	31 May 2016	Wave Height Low (ft)	2
S5	31 May 2016	High Tide (ft)	3.9
S5	31 May 2016	High Tide Time	545
S5	31 May 2016	Low Tide (ft)	0.6
S5	31 May 2016	Low Tide Time	1154
S5	31 May 2016	Comments	Seagrass; Water clear
S6	03 May 2016	Arrive Time	1044
S6	03 May 2016	Weather	Partly Cloudy
S6	03 May 2016	Wind Speed (kts)	6.4
S6	03 May 2016	Wind Dir	N
S6	03 May 2016	Animal Life	None
S6	03 May 2016	Floatables	None
S6	03 May 2016	Water Color	Green
S6	03 May 2016	Current Direction	N
S6	03 May 2016	Water Temp (C)	17.6
S6	03 May 2016	Wave Height Low (ft)	4
S6	03 May 2016	High Tide (ft)	4.6
S6	03 May 2016	High Tide Time	706
S6	03 May 2016	Low Tide (ft)	0
S6	03 May 2016	Low Tide Time	1322
S6	03 May 2016	Comments	Water clear
S6	10 May 2016	Arrive Time	953
S6	10 May 2016	Weather	Cloudy
S6	10 May 2016	Wind Speed (kts)	4
S6	10 May 2016	Wind Dir	W
S6	10 May 2016	Animal Life	None
S6	10 May 2016	Floatables	None
S6	10 May 2016	Water Color	Green
S6	10 May 2016	Current Direction	W
S6	10 May 2016	Water Temp (C)	17
S6	10 May 2016	Wave Height Low (ft)	2
S6	10 May 2016	High Tide (ft)	3.7
S6	10 May 2016	High Tide Time	1334
S6	10 May 2016	Low Tide (ft)	-0.8
S6	10 May 2016	Low Tide Time	700
S6	10 May 2016	Comments	Kelp; Seagrass; Water turbid; Biofilm present on watr surface; Strong detergent odor
S6	12 May 2016	Arrive Time	1041
S6	12 May 2016	Weather	Cloudy
S6	12 May 2016	Wind Speed (kts)	4.4
S6	12 May 2016	Wind Dir	N
S6	12 May 2016	Animal Life	1 Dog
S6	12 May 2016	Floatables	None

Station	Date	Parameter	Value
S6	12 May 2016	Water Color	Green
S6	12 May 2016	Current Direction	N
S6	12 May 2016	Water Temp (C)	18
S6	12 May 2016	Wave Height Low (ft)	3
S6	12 May 2016	High Tide (ft)	3.7
S6	12 May 2016	High Tide Time	1615
S6	12 May 2016	Low Tide (ft)	0
S6	12 May 2016	Low Tide Time	909
S6	12 May 2016	Comments	1 Person; Water clear
S6	17 May 2016	Arrive Time	1055
S6	17 May 2016	Weather	Cloudy
S6	17 May 2016	Wind Speed (kts)	8.3
S6	17 May 2016	Wind Dir	SW
S6	17 May 2016	Animal Life	None
S6	17 May 2016	Floatables	None
S6	17 May 2016	Water Color	Green
S6	17 May 2016	Current Direction	SW
S6	17 May 2016	Water Temp (C)	17.6
S6	17 May 2016	Wave Height Low (ft)	4
S6	17 May 2016	High Tide (ft)	3.8
S6	17 May 2016	High Tide Time	729
S6	17 May 2016	Low Tide (ft)	0.9
S6	17 May 2016	Low Tide Time	1321
S6	17 May 2016	Comments	Kelp; Seagrass; 5 Persons; Water clear
S6	24 May 2016	Arrive Time	1051
S6	24 May 2016	Weather	Partly Cloudy
S6	24 May 2016	Wind Speed (kts)	3.4
S6	24 May 2016	Wind Dir	N
S6	24 May 2016	Animal Life	None
S6	24 May 2016	Floatables	None
S6	24 May 2016	Water Color	Green
S6	24 May 2016	Current Direction	N
S6	24 May 2016	Water Temp (C)	18.6
S6	24 May 2016	Wave Height Low (ft)	3
S6	24 May 2016	High Tide (ft)	3.5
S6	24 May 2016	High Tide Time	1203
S6	24 May 2016	Low Tide (ft)	-0.4
S6	24 May 2016	Low Tide Time	542
S6	24 May 2016	Comments	Water clear
S6	31 May 2016	Arrive Time	958
S6	31 May 2016	Weather	Overcast
S6	31 May 2016	Wind Speed (kts)	2.9
S6	31 May 2016	Wind Dir	W
S6	31 May 2016	Animal Life	None
S6	31 May 2016	Floatables	None
S6	31 May 2016	Water Color	Green
S6	31 May 2016	Current Direction	S
S6	31 May 2016	Water Temp (C)	16.2
S6	31 May 2016	Wave Height Low (ft)	3
S6	31 May 2016	High Tide (ft)	3.9
S6	31 May 2016	High Tide Time	545
S6	31 May 2016	Low Tide (ft)	0.6

Station	Date	Parameter	Value
S6	31 May 2016	Low Tide Time	1154
S6	31 May 2016	Comments	Seagrass; Water clear
S8	03 May 2016	Arrive Time	953
S8	03 May 2016	Weather	Sunny
S8	03 May 2016	Wind Speed (kts)	7.3
S8	03 May 2016	Wind Dir	N
S8	03 May 2016	Animal Life	None
S8	03 May 2016	Floatables	None
S8	03 May 2016	Water Color	Green
S8	03 May 2016	Current Direction	N
S8	03 May 2016	Water Temp (C)	17.3
S8	03 May 2016	Wave Height Low (ft)	4
S8	03 May 2016	High Tide (ft)	4.6
S8	03 May 2016	High Tide Time	706
S8	03 May 2016	Low Tide (ft)	0
S8	03 May 2016	Low Tide Time	1322
S8	03 May 2016	Comments	Water clear
S8	10 May 2016	Arrive Time	1030
S8	10 May 2016	Weather	Cloudy
S8	10 May 2016	Wind Speed (kts)	4
S8	10 May 2016	Wind Dir	W
S8	10 May 2016	Animal Life	None
S8	10 May 2016	Floatables	None
S8	10 May 2016	Water Color	Green
S8	10 May 2016	Current Direction	W
S8	10 May 2016	Water Temp (C)	19.7
S8	10 May 2016	Wave Height Low (ft)	2
S8	10 May 2016	High Tide (ft)	3.7
S8	10 May 2016	High Tide Time	1334
S8	10 May 2016	Low Tide (ft)	-0.8
S8	10 May 2016	Low Tide Time	700
S8	10 May 2016	Comments	Kelp; Seagrass; Water turbid; Contaminaton signs posted
S8	17 May 2016	Arrive Time	1236
S8	17 May 2016	Weather	Cloudy
S8	17 May 2016	Wind Speed (kts)	5.2
S8	17 May 2016	Wind Dir	W
S8	17 May 2016	Animal Life	None
S8	17 May 2016	Floatables	None
S8	17 May 2016	Water Color	Green
S8	17 May 2016	Current Direction	W
S8	17 May 2016	Water Temp (C)	17.6
S8	17 May 2016	Wave Height Low (ft)	2
S8	17 May 2016	High Tide (ft)	3.8
S8	17 May 2016	High Tide Time	729
S8	17 May 2016	Low Tide (ft)	0.9
S8	17 May 2016	Low Tide Time	1321
S8	17 May 2016	Comments	Kelp; Seagrass; Water clear
S8	24 May 2016	Arrive Time	1223
S8	24 May 2016	Weather	Partly Cloudy
S8	24 May 2016	Wind Speed (kts)	5.8
S8	24 May 2016	Wind Dir	N

Station	Date	Parameter	Value
S8	24 May 2016	Animal Life	None
S8	24 May 2016	Floatables	None
S8	24 May 2016	Water Color	Green
S8	24 May 2016	Current Direction	N
S8	24 May 2016	Water Temp (C)	20
S8	24 May 2016	Wave Height Low (ft)	3
S8	24 May 2016	High Tide (ft)	3.5
S8	24 May 2016	High Tide Time	1203
S8	24 May 2016	Low Tide (ft)	2.1
S8	24 May 2016	Low Tide Time	1649
S8	24 May 2016	Comments	Water clear
S8	31 May 2016	Arrive Time	1137
S8	31 May 2016	Weather	Overcast
S8	31 May 2016	Wind Speed (kts)	5.4
S8	31 May 2016	Wind Dir	W
S8	31 May 2016	Animal Life	None
S8	31 May 2016	Floatables	None
S8	31 May 2016	Water Color	Green
S8	31 May 2016	Current Direction	S
S8	31 May 2016	Water Temp (C)	18.1
S8	31 May 2016	Wave Height Low (ft)	3
S8	31 May 2016	High Tide (ft)	3.9
S8	31 May 2016	High Tide Time	545
S8	31 May 2016	Low Tide (ft)	0.6
S8	31 May 2016	Low Tide Time	1154
S8	31 May 2016	Comments	Seagrass; Water clear
S9	03 May 2016	Arrive Time	930
S9	03 May 2016	Weather	Sunny
S9	03 May 2016	Wind Speed (kts)	3.1
S9	03 May 2016	Wind Dir	N
S9	03 May 2016	Animal Life	None
S9	03 May 2016	Floatables	None
S9	03 May 2016	Water Color	Green
S9	03 May 2016	Current Direction	N
S9	03 May 2016	Water Temp (C)	17
S9	03 May 2016	Wave Height Low (ft)	3
S9	03 May 2016	High Tide (ft)	4.6
S9	03 May 2016	High Tide Time	706
S9	03 May 2016	Low Tide (ft)	0
S9	03 May 2016	Low Tide Time	1322
S9	03 May 2016	Comments	2 Surfers; Water clear
S9	10 May 2016	Arrive Time	1111
S9	10 May 2016	Weather	Cloudy
S9	10 May 2016	Wind Speed (kts)	4
S9	10 May 2016	Wind Dir	W
S9	10 May 2016	Animal Life	None
S9	10 May 2016	Floatables	None
S9	10 May 2016	Water Color	Green
S9	10 May 2016	Current Direction	W
S9	10 May 2016	Water Temp (C)	19
S9	10 May 2016	Wave Height Low (ft)	2
S9	10 May 2016	High Tide (ft)	3.7

Station	Date	Parameter	Value
S9	10 May 2016	High Tide Time	1334
S9	10 May 2016	Low Tide (ft)	-0.8
S9	10 May 2016	Low Tide Time	700
S9	10 May 2016	Comments	Kelp; Seagrass; Water turbid; Construction in area
S9	17 May 2016	Arrive Time	1258
S9	17 May 2016	Weather	Cloudy
S9	17 May 2016	Wind Speed (kts)	4.6
S9	17 May 2016	Wind Dir	W
S9	17 May 2016	Animal Life	None
S9	17 May 2016	Floatables	None
S9	17 May 2016	Water Color	Green
S9	17 May 2016	Current Direction	W
S9	17 May 2016	Water Temp (C)	18
S9	17 May 2016	Wave Height Low (ft)	2
S9	17 May 2016	High Tide (ft)	3.8
S9	17 May 2016	High Tide Time	729
S9	17 May 2016	Low Tide (ft)	0.9
S9	17 May 2016	Low Tide Time	1321
S9	17 May 2016	Comments	Kelp; Seagrass; Water clear
S9	24 May 2016	Arrive Time	1249
S9	24 May 2016	Weather	Partly Cloudy
S9	24 May 2016	Wind Speed (kts)	3.6
S9	24 May 2016	Wind Dir	N
S9	24 May 2016	Animal Life	None
S9	24 May 2016	Floatables	None
S9	24 May 2016	Water Color	Green
S9	24 May 2016	Current Direction	N
S9	24 May 2016	Water Temp (C)	19.8
S9	24 May 2016	Wave Height Low (ft)	2
S9	24 May 2016	High Tide (ft)	3.5
S9	24 May 2016	High Tide Time	1203
S9	24 May 2016	Low Tide (ft)	2.1
S9	24 May 2016	Low Tide Time	1649
S9	24 May 2016	Comments	Water clear
S9	31 May 2016	Arrive Time	1205
S9	31 May 2016	Weather	Overcast
S9	31 May 2016	Wind Speed (kts)	4.6
S9	31 May 2016	Wind Dir	W
S9	31 May 2016	Animal Life	None
S9	31 May 2016	Floatables	None
S9	31 May 2016	Water Color	Green
S9	31 May 2016	Current Direction	S
S9	31 May 2016	Water Temp (C)	17.8
S9	31 May 2016	Wave Height Low (ft)	3
S9	31 May 2016	High Tide (ft)	3.9
S9	31 May 2016	High Tide Time	545
S9	31 May 2016	Low Tide (ft)	0.6
S9	31 May 2016	Low Tide Time	1154
S9	31 May 2016	Comments	Kelp; Seagrass; Water clear
S10	03 May 2016	Arrive Time	1234
S10	03 May 2016	Weather	Cloudy

Station	Date	Parameter	Value
S10	03 May 2016	Wind Speed (kts)	5.6
S10	03 May 2016	Wind Dir	N
S10	03 May 2016	Animal Life	None
S10	03 May 2016	Floatables	None
S10	03 May 2016	Water Color	Green
S10	03 May 2016	Current Direction	N
S10	03 May 2016	Water Temp (C)	18
S10	03 May 2016	Wave Height Low (ft)	4
S10	03 May 2016	High Tide (ft)	4.6
S10	03 May 2016	High Tide Time	706
S10	03 May 2016	Low Tide (ft)	0
S10	03 May 2016	Low Tide Time	1322
S10	03 May 2016	Comments	Water clear
S10	10 May 2016	Arrive Time	1210
S10	10 May 2016	Weather	Cloudy
S10	10 May 2016	Wind Speed (kts)	4
S10	10 May 2016	Wind Dir	W
S10	10 May 2016	Animal Life	None
S10	10 May 2016	Floatables	None
S10	10 May 2016	Water Color	Green
S10	10 May 2016	Current Direction	W
S10	10 May 2016	Water Temp (C)	19
S10	10 May 2016	Wave Height Low (ft)	2
S10	10 May 2016	High Tide (ft)	3.7
S10	10 May 2016	High Tide Time	1334
S10	10 May 2016	Low Tide (ft)	-0.8
S10	10 May 2016	Low Tide Time	700
S10	10 May 2016	Comments	Kelp; Seagrass; Water turbid; Biofilm present
S10	17 May 2016	Arrive Time	944
S10	17 May 2016	Weather	Cloudy
S10	17 May 2016	Wind Speed (kts)	6.6
S10	17 May 2016	Wind Dir	SW
S10	17 May 2016	Animal Life	None
S10	17 May 2016	Floatables	None
S10	17 May 2016	Water Color	Green
S10	17 May 2016	Current Direction	SW
S10	17 May 2016	Water Temp (C)	17
S10	17 May 2016	Wave Height Low (ft)	2
S10	17 May 2016	High Tide (ft)	3.8
S10	17 May 2016	High Tide Time	729
S10	17 May 2016	Low Tide (ft)	0.9
S10	17 May 2016	Low Tide Time	1321
S10	17 May 2016	Comments	Kelp; Seagrass; Water clear; Detergent odor
S10	24 May 2016	Arrive Time	949
S10	24 May 2016	Weather	Partly Cloudy
S10	24 May 2016	Wind Speed (kts)	4.4
S10	24 May 2016	Wind Dir	N
S10	24 May 2016	Animal Life	None
S10	24 May 2016	Floatables	None
S10	24 May 2016	Water Color	Green
S10	24 May 2016	Current Direction	N
S10	24 May 2016	Water Temp (C)	19



Station	Date	Parameter	Value
S10	24 May 2016	Wave Height Low (ft)	3
S10	24 May 2016	High Tide (ft)	3.5
S10	24 May 2016	High Tide Time	1203
S10	24 May 2016	Low Tide (ft)	-0.4
S10	24 May 2016	Low Tide Time	542
S10	24 May 2016	Comments	Water clear
S10	31 May 2016	Arrive Time	859
S10	31 May 2016	Weather	Overcast
S10	31 May 2016	Wind Speed (kts)	1.7
S10	31 May 2016	Wind Dir	W
S10	31 May 2016	Animal Life	None
S10	31 May 2016	Floatables	None
S10	31 May 2016	Water Color	Green
S10	31 May 2016	Current Direction	S
S10	31 May 2016	Water Temp (C)	16.6
S10	31 May 2016	Wave Height Low (ft)	3
S10	31 May 2016	High Tide (ft)	3.9
S10	31 May 2016	High Tide Time	545
S10	31 May 2016	Low Tide (ft)	0.6
S10	31 May 2016	Low Tide Time	1154
S10	31 May 2016	Comments	Seagrass; Water clear
S11	03 May 2016	Arrive Time	1051
S11	03 May 2016	Weather	Partly Cloudy
S11	03 May 2016	Wind Speed (kts)	6.4
S11	03 May 2016	Wind Dir	N
S11	03 May 2016	Animal Life	None
S11	03 May 2016	Floatables	None
S11	03 May 2016	Water Color	Green
S11	03 May 2016	Current Direction	N
S11	03 May 2016	Water Temp (C)	18.4
S11	03 May 2016	Wave Height Low (ft)	4
S11	03 May 2016	High Tide (ft)	4.6
S11	03 May 2016	High Tide Time	706
S11	03 May 2016	Low Tide (ft)	0
S11	03 May 2016	Low Tide Time	1322
S11	03 May 2016	Comments	Water clear
S11	10 May 2016	Arrive Time	938
S11	10 May 2016	Weather	Cloudy
S11	10 May 2016	Wind Speed (kts)	4
S11	10 May 2016	Wind Dir	W
S11	10 May 2016	Animal Life	None
S11	10 May 2016	Floatables	None
S11	10 May 2016	Water Color	Green
S11	10 May 2016	Current Direction	W
S11	10 May 2016	Water Temp (C)	16
S11	10 May 2016	Wave Height Low (ft)	2
S11	10 May 2016	High Tide (ft)	3.7
S11	10 May 2016	High Tide Time	1334
S11	10 May 2016	Low Tide (ft)	-0.8
S11	10 May 2016	Low Tide Time	700
S11	10 May 2016	Comments	Kelp; Seagrass; Water turbid; Very strong detergent-like odor

Station	Date	Parameter	Value
S11	12 May 2016	Arrive Time	1056
S11	12 May 2016	Weather	Cloudy
S11	12 May 2016	Wind Speed (kts)	3.8
S11	12 May 2016	Wind Dir	N
S11	12 May 2016	Animal Life	None
S11	12 May 2016	Floatables	None
S11	12 May 2016	Water Color	Green
S11	12 May 2016	Current Direction	N
S11	12 May 2016	Water Temp (C)	17.8
S11	12 May 2016	Wave Height Low (ft)	3
S11	12 May 2016	High Tide (ft)	3.7
S11	12 May 2016	High Tide Time	1615
S11	12 May 2016	Low Tide (ft)	0
S11	12 May 2016	Low Tide Time	909
S11	12 May 2016	Comments	Water clear
S11	17 May 2016	Arrive Time	1103
S11	17 May 2016	Weather	Cloudy
S11	17 May 2016	Wind Speed (kts)	8.5
S11	17 May 2016	Wind Dir	SW
S11	17 May 2016	Animal Life	None
S11	17 May 2016	Floatables	None
S11	17 May 2016	Water Color	Green
S11	17 May 2016	Current Direction	SW
S11	17 May 2016	Water Temp (C)	17.6
S11	17 May 2016	Wave Height Low (ft)	4
S11	17 May 2016	High Tide (ft)	3.8
S11	17 May 2016	High Tide Time	729
S11	17 May 2016	Low Tide (ft)	0.9
S11	17 May 2016	Low Tide Time	1321
S11	17 May 2016	Comments	Kelp; Seagrass; Water clear
S11	24 May 2016	Arrive Time	1057
S11	24 May 2016	Weather	Partly Cloudy
S11	24 May 2016	Wind Speed (kts)	5.2
S11	24 May 2016	Wind Dir	N
S11	24 May 2016	Animal Life	None
S11	24 May 2016	Floatables	None
S11	24 May 2016	Water Color	Green
S11	24 May 2016	Current Direction	N
S11	24 May 2016	Water Temp (C)	19
S11	24 May 2016	Wave Height Low (ft)	3
S11	24 May 2016	High Tide (ft)	3.5
S11	24 May 2016	High Tide Time	1203
S11	24 May 2016	Low Tide (ft)	-0.4
S11	24 May 2016	Low Tide Time	542
S11	24 May 2016	Comments	Water clear
S11	31 May 2016	Arrive Time	1004
S11	31 May 2016	Weather	Overcast
S11	31 May 2016	Wind Speed (kts)	2.7
S11	31 May 2016	Wind Dir	W
S11	31 May 2016	Animal Life	None
S11	31 May 2016	Floatables	None
S11	31 May 2016	Water Color	Green

Station	Date	Parameter	Value
S11	31 May 2016	Current Direction	S
S11	31 May 2016	Water Temp (C)	16.2
S11	31 May 2016	Wave Height Low (ft)	4
S11	31 May 2016	High Tide (ft)	3.9
S11	31 May 2016	High Tide Time	545
S11	31 May 2016	Low Tide (ft)	0.6
S11	31 May 2016	Low Tide Time	1154
S11	31 May 2016	Comments	Seagrass; Water clear
S12	03 May 2016	Arrive Time	1022
S12	03 May 2016	Weather	Sunny
S12	03 May 2016	Wind Speed (kts)	3.4
S12	03 May 2016	Wind Dir	N
S12	03 May 2016	Animal Life	None
S12	03 May 2016	Floatables	None
S12	03 May 2016	Water Color	Green
S12	03 May 2016	Current Direction	N
S12	03 May 2016	Water Temp (C)	17.6
S12	03 May 2016	Wave Height Low (ft)	5
S12	03 May 2016	High Tide (ft)	4.6
S12	03 May 2016	High Tide Time	706
S12	03 May 2016	Low Tide (ft)	0
S12	03 May 2016	Low Tide Time	1322
S12	03 May 2016	Comments	3 Persons; Water clear
S12	10 May 2016	Arrive Time	1019
S12	10 May 2016	Weather	Cloudy
S12	10 May 2016	Wind Speed (kts)	4
S12	10 May 2016	Wind Dir	W
S12	10 May 2016	Animal Life	None
S12	10 May 2016	Floatables	None
S12	10 May 2016	Water Color	Green
S12	10 May 2016	Current Direction	W
S12	10 May 2016	Water Temp (C)	18
S12	10 May 2016	Wave Height Low (ft)	2
S12	10 May 2016	High Tide (ft)	3.7
S12	10 May 2016	High Tide Time	1334
S12	10 May 2016	Low Tide (ft)	-0.8
S12	10 May 2016	Low Tide Time	700
S12	10 May 2016	Comments	Kelp; Seagrass; Water turbid; Contamination sign posted
S12	17 May 2016	Arrive Time	1040
S12	17 May 2016	Weather	Cloudy
S12	17 May 2016	Wind Speed (kts)	5.8
S12	17 May 2016	Wind Dir	SW
S12	17 May 2016	Animal Life	20 Crab
S12	17 May 2016	Floatables	None
S12	17 May 2016	Water Color	Green
S12	17 May 2016	Current Direction	SW
S12	17 May 2016	Water Temp (C)	17.6
S12	17 May 2016	Wave Height Low (ft)	3
S12	17 May 2016	High Tide (ft)	3.8
S12	17 May 2016	High Tide Time	729
S12	17 May 2016	Low Tide (ft)	0.9
S12	17 May 2016	Low Tide Time	1321

Station	Date	Parameter	Value
S12	17 May 2016	Comments	Kelp; Seagrass; Water clear
S12	24 May 2016	Arrive Time	1038
S12	24 May 2016	Weather	Partly Cloudy
S12	24 May 2016	Wind Speed (kts)	5
S12	24 May 2016	Wind Dir	N
S12	24 May 2016	Animal Life	None
S12	24 May 2016	Floatables	None
S12	24 May 2016	Water Color	Green
S12	24 May 2016	Current Direction	N
S12	24 May 2016	Water Temp (C)	18.4
S12	24 May 2016	Wave Height Low (ft)	3
S12	24 May 2016	High Tide (ft)	3.5
S12	24 May 2016	High Tide Time	1203
S12	24 May 2016	Low Tide (ft)	-0.4
S12	24 May 2016	Low Tide Time	542
S12	24 May 2016	Comments	Water clear
S12	31 May 2016	Arrive Time	941
S12	31 May 2016	Weather	Overcast
S12	31 May 2016	Wind Speed (kts)	1.7
S12	31 May 2016	Wind Dir	NW
S12	31 May 2016	Animal Life	None
S12	31 May 2016	Floatables	None
S12	31 May 2016	Water Color	Green
S12	31 May 2016	Current Direction	S
S12	31 May 2016	Water Temp (C)	17.2
S12	31 May 2016	Wave Height Low (ft)	2
S12	31 May 2016	High Tide (ft)	3.9
S12	31 May 2016	High Tide Time	545
S12	31 May 2016	Low Tide (ft)	0.6
S12	31 May 2016	Low Tide Time	1154
S12	31 May 2016	Comments	Seagrass; Water clear

# Kelp Stations



**Table 3.1**

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

Date	I19	I24	I25	I26	I32	I39	I40
01 May 2016	13	4	4	3	7	3	17
02 May 2016	13	4	4	3	7	3	17
03 May 2016	13	4	4	3	7	3	17
04 May 2016	20*	5*	5*	3*	7*	3*	20*
05 May 2016	17	6	4	3	6	3	17
06 May 2016	17	6	4	3	6	3	17
07 May 2016	17	6	4	3	6	3	17
08 May 2016	12*	4*	2*	2*	5*	2*	12*
09 May 2016	12*	4*	2*	2*	5*	2*	12*
10 May 2016	14	12	5	3	5*	3	17
11 May 2016	14	12	5	3	7	3	17
12 May 2016	14	12	5	3	7	3	17
13 May 2016	8*	19*	6*	3*	6*	3*	7*
14 May 2016	8*	19*	6*	3*	6*	3*	7*
15 May 2016	8*	19*	6*	3*	6*	3*	7*
16 May 2016	8	12	5	3	7	5	6
17 May 2016	8	12	5	3	7	5	6
18 May 2016	8	12	5	3	7	5	6
19 May 2016	8*	13*	5*	3*	9*	7*	7*
20 May 2016	8*	13*	5*	3*	9*	7*	7*
21 May 2016	8*	13*	5*	3*	9*	7*	7*
22 May 2016	6	9	4	3	7	5	7
23 May 2016	6	9	4	3	7	5	7
24 May 2016	6	9	4	3	7	5	7
25 May 2016	6	9	4	3	7	5	7
26 May 2016	6	9	4	3	7	5	7
27 May 2016	6	9	4	3	7	5	7
28 May 2016	6	9	4	3	7	5	7
29 May 2016	8*	13*	5*	3*	5*	7*	10*
30 May 2016	8*	13*	5*	3*	5*	7*	10*
31 May 2016	12	18	5	3	5	5	15

\* 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 2016	4	2	2	2	2	2	4
02 May 2016	4	2	2	2	2	2	4
03 May 2016	4	2	2	2	2	2	4
04 May 2016	4*	2*	2*	2*	2*	2*	5*
05 May 2016	4	2	2	2	2	2	4
06 May 2016	4	2	2	2	2	2	4
07 May 2016	4	2	2	2	2	2	4
08 May 2016	3*	2*	2*	2*	2*	2*	5*
09 May 2016	3*	2*	2*	2*	2*	2*	5*
10 May 2016	3	3	2	2	2*	2	5
11 May 2016	3	3	2	2	2	2	5
12 May 2016	3	3	2	2	2	2	5
13 May 2016	2*	4*	2*	2*	2*	2*	3*
14 May 2016	2*	4*	2*	2*	2*	2*	3*
15 May 2016	2*	4*	2*	2*	2*	2*	3*
16 May 2016	2	3	2	2	2	2	2
17 May 2016	2	3	2	2	2	2	2
18 May 2016	2	3	2	2	2	2	2
19 May 2016	2*	4*	2*	2*	2*	2*	3*
20 May 2016	2*	4*	2*	2*	2*	2*	3*
21 May 2016	2*	4*	2*	2*	2*	2*	3*
22 May 2016	2	3	2	2	2	2	2
23 May 2016	2	3	2	2	2	2	2
24 May 2016	2	3	2	2	2	2	2
25 May 2016	2	3	2	2	2	2	2
26 May 2016	2	3	2	2	2	2	2
27 May 2016	2	3	2	2	2	2	2
28 May 2016	2	3	2	2	2	2	2
29 May 2016	2*	4*	2*	2*	2*	2*	3*
30 May 2016	2*	4*	2*	2*	2*	2*	3*
31 May 2016	2	3	2	2	2	2	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 2016	3	2	2	2	2	2	3
02 May 2016	3	2	2	2	2	2	3
03 May 2016	3	2	2	2	2	2	3
04 May 2016	4*	2*	2*	2*	2*	2*	4*
05 May 2016	3	2	2	2	2	2	3
06 May 2016	3	2	2	2	2	2	3
07 May 2016	3	2	2	2	2	2	3
08 May 2016	3*	2*	2*	2*	2*	2*	4*
09 May 2016	3*	2*	2*	2*	2*	2*	4*
10 May 2016	3	4	3	2	2*	2	6
11 May 2016	3	4	3	2	2	2	6
12 May 2016	3	4	3	2	2	2	6
13 May 2016	3*	5*	3*	2*	2*	2*	4*
14 May 2016	3*	5*	3*	2*	2*	2*	4*
15 May 2016	3*	5*	3*	2*	2*	2*	4*
16 May 2016	2	4	3	2	2	2	3
17 May 2016	2	4	3	2	2	2	3
18 May 2016	2	4	3	2	2	2	3
19 May 2016	3*	5*	3*	2*	2*	2*	4*
20 May 2016	3*	5*	3*	2*	2*	2*	4*
21 May 2016	3*	5*	3*	2*	2*	2*	4*
22 May 2016	2	4	3	2	2	2	3
23 May 2016	2	4	3	2	2	2	3
24 May 2016	2	4	3	2	2	2	3
25 May 2016	2	4	3	2	2	2	3
26 May 2016	2	4	3	2	2	2	3
27 May 2016	2	4	3	2	2	2	3
28 May 2016	2	4	3	2	2	2	3
29 May 2016	3*	5*	3*	2*	2*	2*	4*
30 May 2016	3*	5*	3*	2*	2*	2*	4*
31 May 2016	3	4	3	2	2	2	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
05 May 2016	IC	IC	IC	IC	IC	IC	IC
10 May 2016	IC	IC	IC	IC	ns	IC	IC
11 May 2016	ns	ns	ns	ns	IC	ns	ns
16 May 2016	IC	IC	IC	IC	IC	IC	IC
22 May 2016	IC	IC	IC	IC	IC	IC	IC
31 May 2016	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
05 May 2016	IC	IC	IC	IC	IC	IC	IC
10 May 2016	IC	IC	IC	IC	ns	IC	IC
11 May 2016	ns	ns	ns	ns	IC	ns	ns
16 May 2016	IC	IC	IC	IC	IC	IC	IC
22 May 2016	IC	IC	IC	IC	IC	IC	IC
31 May 2016	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
05 May 2016	IC	IC	IC	IC	IC	IC	IC
10 May 2016	IC	E	IC	IC	ns	IC	IC
11 May 2016	ns	ns	ns	ns	IC	ns	ns
16 May 2016	IC	IC	IC	IC	IC	IC	IC
22 May 2016	IC	IC	IC	IC	IC	IC	IC
31 May 2016	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
05 May 2016	IC	IC	IC	IC	IC	IC	IC
10 May 2016	IC	IC	IC	IC	ns	IC	IC
11 May 2016	ns	ns	ns	ns	IC	ns	ns
16 May 2016	IC	IC	IC	IC	IC	IC	IC
22 May 2016	IC	IC	IC	IC	IC	IC	IC
31 May 2016	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	05 May 2016	1118	2	<2	2e	<2	1.00	17.4	75.06	8.2	33.56	8.2	ns	ns
I19	05 May 2016	1118	6	<2	<2	<2	1.00	16.5	68.00	7.5	33.54	8.2	ns	ns
I19	05 May 2016	1118	11	<20	<2	<2	0.10	13.6	70.08	5.0	33.48	8.0	ns	ns
I19	10 May 2016	1257	2	<20	4e	4e	0.20	17.4	57.37	8.1	33.39	8.2	<0.2	6.0
I19	10 May 2016	1257	6	40e	2e	<2	0.05	15.9	52.89	7.4	33.43	8.1	ns	6.6
I19	10 May 2016	1257	11	20e	<2	10e	0.10	14.8	40.47	6.5	33.47	8.0	ns	10.5
I19	16 May 2016	1125	2	<2	<2	<2	1.00	16.9	73.66	8.3	33.51	8.2	ns	ns
I19	16 May 2016	1125	6	6e	<2	2e	0.33	16.6	68.28	8.2	33.50	8.2	ns	ns
I19	16 May 2016	1125	11	<20	<2	<2	0.10	15.7	36.01	7.5	33.47	8.1	ns	ns
I19	22 May 2016	1202	2	<2	<2	<2	1.00	17.8	76.70	7.5	33.56	8.2	ns	ns
I19	22 May 2016	1202	6	<2	<2	<2	1.00	17.6	71.93	7.4	33.56	8.2	ns	ns
I19	22 May 2016	1202	11	<2	<2	<2	1.00	16.8	49.63	6.6	33.50	8.1	ns	ns
I19	31 May 2016	1140	2	16e	6e	2e	0.38	16.7	52.81	8.2	33.51	8.2	ns	ns
I19	31 May 2016	1140	6	60e	2e	<2	0.03	14.9	60.10	6.7	33.51	8.0	ns	ns
I19	31 May 2016	1140	11	120e	4e	10e	0.03	14.2	62.34	5.8	33.49	8.0	ns	ns
I24	05 May 2016	1141	2	<2	<2	<2	1.00	17.7	68.92	8.8	33.57	8.3	ns	ns
I24	05 May 2016	1141	6	<2	<2	<2	1.00	17.4	66.75	8.3	33.56	8.2	ns	ns
I24	05 May 2016	1141	11	<20	<2	<2	0.10	14.4	64.57	4.9	33.52	8.0	ns	ns
I24	10 May 2016	1006	2	2800e	82	120e	0.03	16.9	41.05	7.2	33.26	8.1	<0.2	5.7
I24	10 May 2016	1006	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	6.7*
I24	10 May 2016	1006	6	120e	4e	18e	0.03	15.7	60.84	6.4	33.45	8.0	ns	6.1
I24	10 May 2016	1006	11	60e	8e	16e	0.13	14.9	56.12	6.4	33.47	8.0	ns	8.9
I24	16 May 2016	1150	2	<2	<2	<2	1.00	17.1	75.71	7.7	33.51	8.2	ns	ns
I24	16 May 2016	1150	6	<2	<2	<2	1.00	17.0	74.32	7.6	33.51	8.2	ns	ns
I24	16 May 2016	1150	11	<2	<2	<2	1.00	16.8	54.89	7.6	33.51	8.2	ns	ns
I24	22 May 2016	1233	2	<2	<2	<2	1.00	18.0	82.67	7.8	33.57	8.2	ns	ns
I24	22 May 2016	1233	6	<2	<2	<2	1.00	17.8	82.59	7.9	33.56	8.2	ns	ns
I24	22 May 2016	1233	11	<2	<2	<2	1.00	14.6	68.72	5.7	33.49	8.0	ns	ns
I24	31 May 2016	1211	2	8e	<2	<2	0.25	16.9	63.96	7.7	33.53	8.2	ns	ns
I24	31 May 2016	1211	6	140e	<2	4e	0.01	14.3	69.22	6.3	33.49	8.0	ns	ns
I24	31 May 2016	1211	11	20e	<2	<2	0.10	13.1	60.31	4.5	33.49	7.9	ns	ns
I25	05 May 2016	1148	2	<2	<2	<2	1.00	17.7	73.56	8.4	33.57	8.2	ns	ns
I25	05 May 2016	1148	6	<2	<2	<2	1.00	17.4	68.98	7.6	33.57	8.2	ns	ns
I25	05 May 2016	1148	9	<2	<2	2e	1.00	13.9	70.77	4.7	33.51	7.9	ns	ns
I25	10 May 2016	948	2	20e	2e	4e	0.10	17.5	68.63	8.5	33.40	8.2	<0.2	<0.2

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I25	10 May 2016	948	6	60e	2e	16e	0.03	16.1	54.45	7.0	33.47	8.1	ns	4.1
I25	10 May 2016	948	9	80	<2	<2	0.02	15.4	68.49	7.1	33.47	8.1	ns	4.5
I25	16 May 2016	1159	2	<2	<2	<2	1.00	17.2	81.21	7.9	33.52	8.2	ns	ns
I25	16 May 2016	1159	6	<2	<2	<2	1.00	17.1	79.78	7.6	33.52	8.2	ns	ns
I25	16 May 2016	1159	9	<2	<2	<2	1.00	16.7	69.32	7.6	33.52	8.2	ns	ns
I25	22 May 2016	1239	2	<2	<2	<2	1.00	17.7	81.93	7.9	33.56	8.2	ns	ns
I25	22 May 2016	1239	6	<2	<2	<2	1.00	17.6	82.17	7.9	33.56	8.2	ns	ns
I25	22 May 2016	1239	9	<2	<2	<2	1.00	16.1	79.61	7.0	33.53	8.1	ns	ns
I25	31 May 2016	1221	2	2e	<2	<2	1.00	17.6	64.76	8.1	33.55	8.2	ns	ns
I25	31 May 2016	1221	6	12e	<2	2e	0.17	14.7	64.57	6.1	33.50	8.0	ns	ns
I25	31 May 2016	1221	9	10e	<2	<2	0.20	13.5	64.44	5.0	33.48	7.9	ns	ns
I26	05 May 2016	1159	2	<2	<2	<2	1.00	17.5	74.83	8.6	33.56	8.2	ns	ns
I26	05 May 2016	1159	6	<2	<2	<2	1.00	17.3	67.75	7.8	33.55	8.2	ns	ns
I26	05 May 2016	1159	9	4e	<2	4e	0.50	13.8	73.99	5.2	33.53	8.0	ns	ns
I26	10 May 2016	934	2	<2	<2	2e	1.00	17.5	71.93	8.3	33.38	8.3	<0.2	<0.2
I26	10 May 2016	934	6	<20	<2	<2	0.10	15.0	76.45	7.4	33.47	8.1	ns	3.6
I26	10 May 2016	934	9	<20	<2	<2	0.10	14.8	75.64	6.6	33.47	8.0	ns	3.6
I26	16 May 2016	1211	2	<2	<2	<2	1.00	17.2	81.35	7.9	33.52	8.2	ns	ns
I26	16 May 2016	1211	6	<2	<2	<2	1.00	17.1	80.69	7.9	33.52	8.2	ns	ns
I26	16 May 2016	1211	9	<2	<2	<2	1.00	16.9	75.04	7.5	33.52	8.2	ns	ns
I26	22 May 2016	1251	2	<2	<2	<2	1.00	18.0	82.17	7.8	33.54	8.2	ns	ns
I26	22 May 2016	1251	6	<2	<2	<2	1.00	17.5	82.26	7.9	33.55	8.2	ns	ns
I26	22 May 2016	1251	9	<2	<2	<2	1.00	16.5	72.11	7.1	33.53	8.1	ns	ns
I26	31 May 2016	1236	2	<2	<2	<2	1.00	17.9	71.38	8.1	33.56	8.2	ns	ns
I26	31 May 2016	1236	6	<2	<2	<2	1.00	15.9	65.81	6.7	33.51	8.1	ns	ns
I26	31 May 2016	1236	9	2e	<2	<2	1.00	13.1	76.94	6.0	33.48	8.0	ns	ns
I32	05 May 2016	1214	2	<2	<2	<2	1.00	17.9	72.32	8.6	33.58	8.3	ns	ns
I32	05 May 2016	1214	6	<2	<2	<2	1.00	17.8	71.10	8.4	33.58	8.2	ns	ns
I32	05 May 2016	1214	9	<2	<2	<2	1.00	17.5	65.78	8.0	33.58	8.2	ns	ns
I32	11 May 2016	1010	2	2e	<2	2e	1.00	16.4	63.52	6.9	33.45	8.2	<0.2	3.2
I32	11 May 2016	1010	6	40e	<2	<2	0.05	14.8	68.96	5.5	33.47	8.0	ns	4.9
I32	11 May 2016	1010	9	40e	<2	4e	0.05	14.7	56.67	5.4	33.48	8.0	ns	4.9
I32	16 May 2016	1226	2	<2	<2	<2	1.00	17.3	81.34	8.0	33.52	8.2	ns	ns
I32	16 May 2016	1226	6	<2	<2	<2	1.00	17.1	77.20	8.0	33.52	8.2	ns	ns
I32	16 May 2016	1226	9	20e	<2	<2	0.10	16.8	54.20	7.8	33.50	8.2	ns	ns
I32	22 May 2016	1307	2	<2	<2	<2	1.00	18.3	76.92	7.8	33.57	8.2	ns	ns
I32	22 May 2016	1307	6	<2	<2	<2	1.00	18.2	76.30	7.8	33.57	8.2	ns	ns
I32	22 May 2016	1307	9	<2	<2	<2	1.00	18.1	70.42	7.6	33.57	8.2	ns	ns
I32	31 May 2016	1251	2	<2	<2	<2	1.00	17.8	67.29	8.0	33.55	8.2	ns	ns
I32	31 May 2016	1251	6	6e	<2	<2	0.33	17.3	61.04	7.8	33.55	8.2	ns	ns
I32	31 May 2016	1251	9	6e	4e	4e	0.67	17.1	58.05	7.1	33.53	8.2	ns	ns

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I39	05 May 2016	1052	2	<2	<2	<2	1.00	17.3	78.93	8.2	33.56	8.2	ns	ns
I39	05 May 2016	1052	12	4e	<2	<2	0.50	14.6	78.33	6.1	33.50	8.0	ns	ns
I39	05 May 2016	1052	18	<2	<2	<2	1.00	13.2	79.87	4.8	33.50	7.9	ns	ns
I39	10 May 2016	918	2	<2	<2	<2	1.00	17.2	75.54	8.4	33.42	8.2	<0.2	3.4
I39	10 May 2016	918	12	18e	<2	<2	0.11	14.8	78.45	6.1	33.48	8.0	ns	2.8
I39	10 May 2016	918	18	8e	<2	<2	0.25	14.1	76.21	6.0	33.48	8.0	ns	3.7
I39	16 May 2016	1057	2	<2	<2	4e	1.00	17.2	81.51	8.0	33.52	8.2	ns	ns
I39	16 May 2016	1057	12	120e	4e	<2	0.03	16.1	75.08	7.7	33.51	8.2	ns	ns
I39	16 May 2016	1057	18	10e	<2	<2	0.20	13.8	68.53	6.1	33.46	8.0	ns	ns
I39	22 May 2016	1137	2	<2	<2	<2	1.00	17.3	81.22	8.0	33.55	8.2	ns	ns
I39	22 May 2016	1137	12	<2	<2	<2	1.00	15.0	78.77	6.4	33.48	8.1	ns	ns
I39	22 May 2016	1137	18	2e	<2	<2	1.00	13.0	80.42	5.0	33.47	7.9	ns	ns
I39	31 May 2016	1116	2	<2	<2	<2	1.00	17.7	77.22	8.0	33.56	8.2	ns	ns
I39	31 May 2016	1116	12	<2	<2	<2	1.00	12.6	78.72	5.1	33.49	7.9	ns	ns
I39	31 May 2016	1116	18	2e	<2	<2	1.00	11.8	81.74	4.6	33.50	7.9	ns	ns
I40	05 May 2016	1131	2	<2	<2	<2	1.00	17.6	69.75	8.3	33.57	8.2	ns	ns
I40	05 May 2016	1131	6	<2	<2	<2	1.00	17.3	68.09	8.0	33.57	8.2	ns	ns
I40	05 May 2016	1131	9	<20	<2	<2	0.10	16.6	64.35	6.7	33.55	8.2	ns	ns
I40	10 May 2016	1029	2	120e	4e	8e	0.03	16.3	58.32	7.8	33.37	8.1	<0.2	4.4
I40	10 May 2016	1029	6	40e	4e	6e	0.10	15.5	60.66	7.0	33.45	8.1	ns	5.3
I40	10 May 2016	1029	9	100e	8e	72	0.08	15.2	53.62	6.3	33.46	8.0	ns	11.3
I40	16 May 2016	1139	2	<2	<2	<2	1.00	17.1	76.29	8.1	33.52	8.2	ns	ns
I40	16 May 2016	1139	6	<2	<2	<2	1.00	17.0	73.02	8.0	33.52	8.2	ns	ns
I40	16 May 2016	1139	9	2e	<2	<2	1.00	16.6	56.60	7.8	33.52	8.2	ns	ns
I40	22 May 2016	1217	2	<2	<2	<2	1.00	18.2	71.41	7.8	33.30	8.2	ns	ns
I40	22 May 2016	1217	6	<20	<2	<2	0.10	16.7	66.76	6.9	33.54	8.1	ns	ns
I40	22 May 2016	1217	9	<2	<2	<2	1.00	15.3	57.07	6.6	33.47	8.1	ns	ns
I40	31 May 2016	1157	2	44	2e	4e	0.05	16.9	60.04	7.9	33.51	8.2	ns	ns
I40	31 May 2016	1157	6	40e	4e	4e	0.10	14.8	51.35	6.7	33.49	8.0	ns	ns
I40	31 May 2016	1157	9	140	<2	<2	0.01	13.9	64.05	5.5	33.49	8.0	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	05 May 2016	Depth (m)	10
I19	05 May 2016	Arrive Time	1118
I19	05 May 2016	Depart Time	1120
I19	05 May 2016	Air Temp (C)	17
I19	05 May 2016	Weather	Continuous layer of clouds
I19	05 May 2016	Visibility (mi)	8
I19	05 May 2016	Wind Speed (kts)	10
I19	05 May 2016	Wind Dir	S
I19	05 May 2016	Water Color	Brownish-Green
I19	05 May 2016	Wave Ht Low (ft)	2
I19	05 May 2016	Wave Period (sec)	13
I19	05 May 2016	Sea State	Calm
I19	05 May 2016	High Tide (ft)	4.75
I19	05 May 2016	High Tide Time	851
I19	05 May 2016	Low Tide (ft)	0.22
I19	05 May 2016	Low Tide Time	1443
I19	05 May 2016	Comments	
I19	10 May 2016	Depth (m)	11
I19	10 May 2016	Arrive Time	1257
I19	10 May 2016	Depart Time	1304
I19	10 May 2016	Air Temp (C)	17
I19	10 May 2016	Weather	Overcast
I19	10 May 2016	Visibility (mi)	10
I19	10 May 2016	Wind Speed (kts)	9
I19	10 May 2016	Wind Dir	SW
I19	10 May 2016	Water Color	Brownish-Green
I19	10 May 2016	Wave Ht Low (ft)	4
I19	10 May 2016	Wave Period (sec)	16
I19	10 May 2016	Sea State	Light chop
I19	10 May 2016	High Tide (ft)	3.67
I19	10 May 2016	High Tide Time	1334
I19	10 May 2016	Low Tide (ft)	-0.75
I19	10 May 2016	Low Tide Time	700
I19	10 May 2016	Comments	Water sample missed, so revisit at end of day. All CTD data and Water collected at this visit.
I19	16 May 2016	Depth (m)	10
I19	16 May 2016	Arrive Time	1125
I19	16 May 2016	Depart Time	1128
I19	16 May 2016	Air Temp (C)	16
I19	16 May 2016	Weather	Partly Cloudy
I19	16 May 2016	Visibility (mi)	7
I19	16 May 2016	Wind Speed (kts)	10
I19	16 May 2016	Wind Dir	SW
I19	16 May 2016	Water Color	Green
I19	16 May 2016	Wave Ht Low (ft)	4
I19	16 May 2016	Wave Period (sec)	11
I19	16 May 2016	Sea State	Confused swell
I19	16 May 2016	High Tide (ft)	3.74
I19	16 May 2016	High Tide Time	640

Station	Date	Parameter	Value
I19	16 May 2016	Low Tide (ft)	0.8
I19	16 May 2016	Low Tide Time	1248
I19	16 May 2016	Comments	
I19	22 May 2016	Depth (m)	9
I19	22 May 2016	Arrive Time	1202
I19	22 May 2016	Depart Time	1207
I19	22 May 2016	Air Temp (C)	16
I19	22 May 2016	Weather	Partly Cloudy
I19	22 May 2016	Visibility (mi)	4
I19	22 May 2016	Wind Speed (kts)	8
I19	22 May 2016	Wind Dir	W
I19	22 May 2016	Water Color	Green
I19	22 May 2016	Wave Ht Low (ft)	3
I19	22 May 2016	Wave Period (sec)	9
I19	22 May 2016	Sea State	Light chop
I19	22 May 2016	High Tide (ft)	3.71
I19	22 May 2016	High Tide Time	1038
I19	22 May 2016	Low Tide (ft)	-0.45
I19	22 May 2016	Low Tide Time	429
I19	22 May 2016	Comments	
I19	31 May 2016	Depth (m)	10
I19	31 May 2016	Arrive Time	1140
I19	31 May 2016	Depart Time	1145
I19	31 May 2016	Air Temp (C)	17
I19	31 May 2016	Weather	Continuous layer of clouds
I19	31 May 2016	Visibility (mi)	6
I19	31 May 2016	Wind Speed (kts)	6
I19	31 May 2016	Wind Dir	E
I19	31 May 2016	Water Color	Brown
I19	31 May 2016	Wave Ht Low (ft)	4
I19	31 May 2016	Wave Period (sec)	16
I19	31 May 2016	Sea State	Light chop
I19	31 May 2016	High Tide (ft)	3.85
I19	31 May 2016	High Tide Time	545
I19	31 May 2016	Low Tide (ft)	0.57
I19	31 May 2016	Low Tide Time	1154
I19	31 May 2016	Comments	
I24	05 May 2016	Depth (m)	10
I24	05 May 2016	Arrive Time	1141
I24	05 May 2016	Depart Time	1144
I24	05 May 2016	Air Temp (C)	17
I24	05 May 2016	Weather	Continuous layer of clouds
I24	05 May 2016	Visibility (mi)	8
I24	05 May 2016	Wind Speed (kts)	10
I24	05 May 2016	Wind Dir	SE
I24	05 May 2016	Water Color	Brownish-Green
I24	05 May 2016	Wave Ht Low (ft)	2
I24	05 May 2016	Wave Period (sec)	13
I24	05 May 2016	Sea State	Calm
I24	05 May 2016	High Tide (ft)	4.75
I24	05 May 2016	High Tide Time	851
I24	05 May 2016	Low Tide (ft)	0.22

Station	Date	Parameter	Value
I24	05 May 2016	Low Tide Time	1443
I24	05 May 2016	Comments	
I24	10 May 2016	Depth (m)	9
I24	10 May 2016	Arrive Time	1006
I24	10 May 2016	Depart Time	1022
I24	10 May 2016	Air Temp (C)	17
I24	10 May 2016	Weather	Overcast
I24	10 May 2016	Visibility (mi)	10
I24	10 May 2016	Wind Speed (kts)	6
I24	10 May 2016	Wind Dir	NE
I24	10 May 2016	Water Color	Brownish-Green
I24	10 May 2016	Wave Ht Low (ft)	4
I24	10 May 2016	Wave Period (sec)	16
I24	10 May 2016	Sea State	Wind ripples
I24	10 May 2016	High Tide (ft)	3.67
I24	10 May 2016	High Tide Time	1334
I24	10 May 2016	Low Tide (ft)	-0.75
I24	10 May 2016	Low Tide Time	700
I24	10 May 2016	Comments	Trouble finding depth - three casts; Unable to obtain station depth
I24	16 May 2016	Depth (m)	11
I24	16 May 2016	Arrive Time	1150
I24	16 May 2016	Depart Time	1153
I24	16 May 2016	Air Temp (C)	16
I24	16 May 2016	Weather	Partly Cloudy
I24	16 May 2016	Visibility (mi)	9
I24	16 May 2016	Wind Speed (kts)	10
I24	16 May 2016	Wind Dir	E
I24	16 May 2016	Water Color	Green
I24	16 May 2016	Wave Ht Low (ft)	4
I24	16 May 2016	Wave Period (sec)	11
I24	16 May 2016	Sea State	Confused swell
I24	16 May 2016	High Tide (ft)	3.74
I24	16 May 2016	High Tide Time	640
I24	16 May 2016	Low Tide (ft)	0.8
I24	16 May 2016	Low Tide Time	1248
I24	16 May 2016	Comments	
I24	22 May 2016	Depth (m)	10
I24	22 May 2016	Arrive Time	1233
I24	22 May 2016	Depart Time	1234
I24	22 May 2016	Air Temp (C)	16
I24	22 May 2016	Weather	Partly Cloudy
I24	22 May 2016	Visibility (mi)	4
I24	22 May 2016	Wind Speed (kts)	10
I24	22 May 2016	Wind Dir	NE
I24	22 May 2016	Water Color	Green
I24	22 May 2016	Wave Ht Low (ft)	3
I24	22 May 2016	Wave Period (sec)	9
I24	22 May 2016	Sea State	Light chop
I24	22 May 2016	High Tide (ft)	3.71
I24	22 May 2016	High Tide Time	1038
I24	22 May 2016	Low Tide (ft)	-0.45
I24	22 May 2016	Low Tide Time	429

Station	Date	Parameter	Value
I24	22 May 2016	Comments	
I24	31 May 2016	Depth (m)	11
I24	31 May 2016	Arrive Time	1211
I24	31 May 2016	Depart Time	1214
I24	31 May 2016	Air Temp (C)	17
I24	31 May 2016	Weather	Continuous layer of clouds
I24	31 May 2016	Visibility (mi)	6
I24	31 May 2016	Wind Speed (kts)	10
I24	31 May 2016	Wind Dir	S
I24	31 May 2016	Water Color	Brown
I24	31 May 2016	Wave Ht Low (ft)	4
I24	31 May 2016	Wave Period (sec)	16
I24	31 May 2016	Sea State	Light chop
I24	31 May 2016	High Tide (ft)	3.85
I24	31 May 2016	High Tide Time	545
I24	31 May 2016	Low Tide (ft)	0.57
I24	31 May 2016	Low Tide Time	1154
I24	31 May 2016	Comments	
I25	05 May 2016	Depth (m)	9
I25	05 May 2016	Arrive Time	1148
I25	05 May 2016	Depart Time	1151
I25	05 May 2016	Air Temp (C)	17
I25	05 May 2016	Weather	Continuous layer of clouds
I25	05 May 2016	Visibility (mi)	8
I25	05 May 2016	Wind Speed (kts)	11
I25	05 May 2016	Wind Dir	S
I25	05 May 2016	Water Color	Brownish-Green
I25	05 May 2016	Wave Ht Low (ft)	2
I25	05 May 2016	Wave Period (sec)	13
I25	05 May 2016	Sea State	Calm
I25	05 May 2016	High Tide (ft)	4.75
I25	05 May 2016	High Tide Time	851
I25	05 May 2016	Low Tide (ft)	0.22
I25	05 May 2016	Low Tide Time	1443
I25	05 May 2016	Comments	
I25	10 May 2016	Depth (m)	10
I25	10 May 2016	Arrive Time	948
I25	10 May 2016	Depart Time	1004
I25	10 May 2016	Air Temp (C)	17
I25	10 May 2016	Weather	Overcast
I25	10 May 2016	Visibility (mi)	10
I25	10 May 2016	Wind Speed (kts)	5
I25	10 May 2016	Wind Dir	SW
I25	10 May 2016	Water Color	Brownish-Green
I25	10 May 2016	Wave Ht Low (ft)	4
I25	10 May 2016	Wave Period (sec)	16
I25	10 May 2016	Sea State	Wind ripples
I25	10 May 2016	High Tide (ft)	3.67
I25	10 May 2016	High Tide Time	1334
I25	10 May 2016	Low Tide (ft)	-0.75
I25	10 May 2016	Low Tide Time	700
I25	10 May 2016	Comments	A Tuna Crab seen on station; Tough getting depth; 3 casts

Station	Date	Parameter	Value
I25	16 May 2016	Depth (m)	8
I25	16 May 2016	Arrive Time	1159
I25	16 May 2016	Depart Time	1203
I25	16 May 2016	Air Temp (C)	16
I25	16 May 2016	Weather	Partly Cloudy
I25	16 May 2016	Visibility (mi)	9
I25	16 May 2016	Wind Speed (kts)	10
I25	16 May 2016	Wind Dir	SE
I25	16 May 2016	Water Color	Green
I25	16 May 2016	Wave Ht Low (ft)	4
I25	16 May 2016	Wave Period (sec)	11
I25	16 May 2016	Sea State	Confused swell
I25	16 May 2016	High Tide (ft)	3.74
I25	16 May 2016	High Tide Time	640
I25	16 May 2016	Low Tide (ft)	0.8
I25	16 May 2016	Low Tide Time	1248
I25	16 May 2016	Comments	Unable to obtain station target depth of 9 m within 0.05 nm of station because of low tide
I25	22 May 2016	Depth (m)	10
I25	22 May 2016	Arrive Time	1239
I25	22 May 2016	Depart Time	1244
I25	22 May 2016	Air Temp (C)	16
I25	22 May 2016	Weather	Partly Cloudy
I25	22 May 2016	Visibility (mi)	4
I25	22 May 2016	Wind Speed (kts)	7
I25	22 May 2016	Wind Dir	N
I25	22 May 2016	Water Color	Green
I25	22 May 2016	Wave Ht Low (ft)	3
I25	22 May 2016	Wave Period (sec)	9
I25	22 May 2016	Sea State	Light chop
I25	22 May 2016	High Tide (ft)	3.71
I25	22 May 2016	High Tide Time	1038
I25	22 May 2016	Low Tide (ft)	-0.45
I25	22 May 2016	Low Tide Time	429
I25	22 May 2016	Comments	
I25	31 May 2016	Depth (m)	9
I25	31 May 2016	Arrive Time	1221
I25	31 May 2016	Depart Time	1226
I25	31 May 2016	Air Temp (C)	16
I25	31 May 2016	Weather	Continuous layer of clouds
I25	31 May 2016	Visibility (mi)	6
I25	31 May 2016	Wind Speed (kts)	8
I25	31 May 2016	Wind Dir	NE
I25	31 May 2016	Water Color	Brown
I25	31 May 2016	Wave Ht Low (ft)	4
I25	31 May 2016	Wave Period (sec)	16
I25	31 May 2016	Sea State	Light chop
I25	31 May 2016	High Tide (ft)	3.85
I25	31 May 2016	High Tide Time	545
I25	31 May 2016	Low Tide (ft)	0.57
I25	31 May 2016	Low Tide Time	1154
I25	31 May 2016	Comments	

Station	Date	Parameter	Value
I26	05 May 2016	Depth (m)	9
I26	05 May 2016	Arrive Time	1159
I26	05 May 2016	Depart Time	1201
I26	05 May 2016	Air Temp (C)	16
I26	05 May 2016	Weather	Continuous layer of clouds
I26	05 May 2016	Visibility (mi)	8
I26	05 May 2016	Wind Speed (kts)	10
I26	05 May 2016	Wind Dir	W
I26	05 May 2016	Water Color	Greenish-Brown
I26	05 May 2016	Wave Ht Low (ft)	2
I26	05 May 2016	Wave Period (sec)	13
I26	05 May 2016	Sea State	Calm
I26	05 May 2016	High Tide (ft)	4.75
I26	05 May 2016	High Tide Time	851
I26	05 May 2016	Low Tide (ft)	0.22
I26	05 May 2016	Low Tide Time	1443
I26	05 May 2016	Comments	
I26	10 May 2016	Depth (m)	10
I26	10 May 2016	Arrive Time	934
I26	10 May 2016	Depart Time	942
I26	10 May 2016	Air Temp (C)	17
I26	10 May 2016	Weather	Overcast
I26	10 May 2016	Visibility (mi)	10
I26	10 May 2016	Wind Speed (kts)	4
I26	10 May 2016	Wind Dir	NW
I26	10 May 2016	Water Color	Greenish-Brown
I26	10 May 2016	Wave Ht Low (ft)	4
I26	10 May 2016	Wave Period (sec)	16
I26	10 May 2016	Sea State	Wind ripples
I26	10 May 2016	High Tide (ft)	3.67
I26	10 May 2016	High Tide Time	1334
I26	10 May 2016	Low Tide (ft)	-0.75
I26	10 May 2016	Low Tide Time	700
I26	10 May 2016	Comments	Chl-a spike @3.5m to 27mg/m3; Sample taken for analysis
I26	16 May 2016	Depth (m)	9
I26	16 May 2016	Arrive Time	1211
I26	16 May 2016	Depart Time	1215
I26	16 May 2016	Air Temp (C)	16
I26	16 May 2016	Weather	Partly Cloudy
I26	16 May 2016	Visibility (mi)	9
I26	16 May 2016	Wind Speed (kts)	10
I26	16 May 2016	Wind Dir	SW
I26	16 May 2016	Water Color	Green
I26	16 May 2016	Wave Ht Low (ft)	4
I26	16 May 2016	Wave Period (sec)	11
I26	16 May 2016	Sea State	Confused swell
I26	16 May 2016	High Tide (ft)	3.74
I26	16 May 2016	High Tide Time	640
I26	16 May 2016	Low Tide (ft)	0.8
I26	16 May 2016	Low Tide Time	1248
I26	16 May 2016	Comments	

Station	Date	Parameter	Value
I26	22 May 2016	Depth (m)	10
I26	22 May 2016	Arrive Time	1251
I26	22 May 2016	Depart Time	1256
I26	22 May 2016	Air Temp (C)	16
I26	22 May 2016	Weather	Partly Cloudy
I26	22 May 2016	Visibility (mi)	4
I26	22 May 2016	Wind Speed (kts)	9
I26	22 May 2016	Wind Dir	N
I26	22 May 2016	Water Color	Green
I26	22 May 2016	Wave Ht Low (ft)	3
I26	22 May 2016	Wave Period (sec)	9
I26	22 May 2016	Sea State	Light chop
I26	22 May 2016	High Tide (ft)	3.71
I26	22 May 2016	High Tide Time	1038
I26	22 May 2016	Low Tide (ft)	-0.45
I26	22 May 2016	Low Tide Time	429
I26	22 May 2016	Comments	
I26	31 May 2016	Depth (m)	9
I26	31 May 2016	Arrive Time	1236
I26	31 May 2016	Depart Time	1239
I26	31 May 2016	Air Temp (C)	17
I26	31 May 2016	Weather	Continuous layer of clouds
I26	31 May 2016	Visibility (mi)	6
I26	31 May 2016	Wind Speed (kts)	9
I26	31 May 2016	Wind Dir	SE
I26	31 May 2016	Water Color	Brown
I26	31 May 2016	Wave Ht Low (ft)	4
I26	31 May 2016	Wave Period (sec)	16
I26	31 May 2016	Sea State	Light chop
I26	31 May 2016	High Tide (ft)	3.85
I26	31 May 2016	High Tide Time	545
I26	31 May 2016	Low Tide (ft)	0.57
I26	31 May 2016	Low Tide Time	1154
I26	31 May 2016	Comments	
I32	05 May 2016	Depth (m)	9
I32	05 May 2016	Arrive Time	1214
I32	05 May 2016	Depart Time	1216
I32	05 May 2016	Air Temp (C)	17
I32	05 May 2016	Weather	Continuous layer of clouds
I32	05 May 2016	Visibility (mi)	8
I32	05 May 2016	Wind Speed (kts)	12
I32	05 May 2016	Wind Dir	SW
I32	05 May 2016	Water Color	Greenish-Brown
I32	05 May 2016	Wave Ht Low (ft)	2
I32	05 May 2016	Wave Period (sec)	13
I32	05 May 2016	Sea State	Calm
I32	05 May 2016	High Tide (ft)	4.75
I32	05 May 2016	High Tide Time	851
I32	05 May 2016	Low Tide (ft)	0.22
I32	05 May 2016	Low Tide Time	1443
I32	05 May 2016	Comments	
I32	11 May 2016	Depth (m)	8

Station	Date	Parameter	Value
I32	11 May 2016	Arrive Time	1010
I32	11 May 2016	Depart Time	1018
I32	11 May 2016	Air Temp (C)	17
I32	11 May 2016	Weather	Continuous layer of clouds
I32	11 May 2016	Visibility (mi)	10
I32	11 May 2016	Wind Speed (kts)	7
I32	11 May 2016	Wind Dir	NW
I32	11 May 2016	Water Color	Green
I32	11 May 2016	Wave Ht Low (ft)	4
I32	11 May 2016	Wave Period (sec)	13
I32	11 May 2016	Sea State	Wind ripples
I32	11 May 2016	High Tide (ft)	3.6
I32	11 May 2016	High Tide Time	1452
I32	11 May 2016	Low Tide (ft)	-0.33
I32	11 May 2016	Low Tide Time	801
I32	11 May 2016	Comments	
I32	16 May 2016	Depth (m)	9
I32	16 May 2016	Arrive Time	1226
I32	16 May 2016	Depart Time	1228
I32	16 May 2016	Air Temp (C)	16
I32	16 May 2016	Weather	Partly Cloudy
I32	16 May 2016	Visibility (mi)	9
I32	16 May 2016	Wind Speed (kts)	11
I32	16 May 2016	Wind Dir	SE
I32	16 May 2016	Water Color	Green
I32	16 May 2016	Wave Ht Low (ft)	4
I32	16 May 2016	Wave Period (sec)	11
I32	16 May 2016	Sea State	Confused swell
I32	16 May 2016	High Tide (ft)	3.74
I32	16 May 2016	High Tide Time	640
I32	16 May 2016	Low Tide (ft)	0.8
I32	16 May 2016	Low Tide Time	1248
I32	16 May 2016	Comments	
I32	22 May 2016	Depth (m)	9
I32	22 May 2016	Arrive Time	1307
I32	22 May 2016	Depart Time	1313
I32	22 May 2016	Air Temp (C)	16
I32	22 May 2016	Weather	Partly Cloudy
I32	22 May 2016	Visibility (mi)	4
I32	22 May 2016	Wind Speed (kts)	12
I32	22 May 2016	Wind Dir	S
I32	22 May 2016	Water Color	Green
I32	22 May 2016	Wave Ht Low (ft)	3
I32	22 May 2016	Wave Period (sec)	9
I32	22 May 2016	Sea State	Light chop
I32	22 May 2016	High Tide (ft)	3.71
I32	22 May 2016	High Tide Time	1038
I32	22 May 2016	Low Tide (ft)	-0.45
I32	22 May 2016	Low Tide Time	429
I32	22 May 2016	Comments	
I32	31 May 2016	Depth (m)	9
I32	31 May 2016	Arrive Time	1251



Station	Date	Parameter	Value
I32	31 May 2016	Depart Time	1254
I32	31 May 2016	Air Temp (C)	17
I32	31 May 2016	Weather	Continuous layer of clouds
I32	31 May 2016	Visibility (mi)	6
I32	31 May 2016	Wind Speed (kts)	9
I32	31 May 2016	Wind Dir	NE
I32	31 May 2016	Water Color	Brown
I32	31 May 2016	Wave Ht Low (ft)	4
I32	31 May 2016	Wave Period (sec)	16
I32	31 May 2016	Sea State	Light chop
I32	31 May 2016	High Tide (ft)	3.85
I32	31 May 2016	High Tide Time	545
I32	31 May 2016	Low Tide (ft)	0.57
I32	31 May 2016	Low Tide Time	1154
I32	31 May 2016	Comments	
I39	05 May 2016	Depth (m)	19
I39	05 May 2016	Arrive Time	1052
I39	05 May 2016	Depart Time	1054
I39	05 May 2016	Air Temp (C)	16
I39	05 May 2016	Weather	Continuous layer of clouds
I39	05 May 2016	Visibility (mi)	8
I39	05 May 2016	Wind Speed (kts)	9
I39	05 May 2016	Wind Dir	E
I39	05 May 2016	Water Color	Greenish-Blue
I39	05 May 2016	Wave Ht Low (ft)	2
I39	05 May 2016	Wave Period (sec)	13
I39	05 May 2016	Sea State	Calm
I39	05 May 2016	High Tide (ft)	4.75
I39	05 May 2016	High Tide Time	851
I39	05 May 2016	Low Tide (ft)	0.22
I39	05 May 2016	Low Tide Time	1443
I39	05 May 2016	Comments	
I39	10 May 2016	Depth (m)	19
I39	10 May 2016	Arrive Time	918
I39	10 May 2016	Depart Time	924
I39	10 May 2016	Air Temp (C)	17
I39	10 May 2016	Weather	Overcast
I39	10 May 2016	Visibility (mi)	10
I39	10 May 2016	Wind Speed (kts)	4
I39	10 May 2016	Wind Dir	N
I39	10 May 2016	Water Color	Brown
I39	10 May 2016	Wave Ht Low (ft)	4
I39	10 May 2016	Wave Period (sec)	16
I39	10 May 2016	Sea State	Wind ripples
I39	10 May 2016	High Tide (ft)	3.67
I39	10 May 2016	High Tide Time	1334
I39	10 May 2016	Low Tide (ft)	-0.75
I39	10 May 2016	Low Tide Time	700
I39	10 May 2016	Comments	
I39	16 May 2016	Depth (m)	18
I39	16 May 2016	Arrive Time	1057
I39	16 May 2016	Depart Time	1059

Station	Date	Parameter	Value
I39	16 May 2016	Air Temp (C)	16
I39	16 May 2016	Weather	Partly Cloudy
I39	16 May 2016	Visibility (mi)	7
I39	16 May 2016	Wind Speed (kts)	9
I39	16 May 2016	Wind Dir	NE
I39	16 May 2016	Water Color	Greenish-Blue
I39	16 May 2016	Wave Ht Low (ft)	4
I39	16 May 2016	Wave Period (sec)	11
I39	16 May 2016	Sea State	Confused swell
I39	16 May 2016	High Tide (ft)	3.74
I39	16 May 2016	High Tide Time	640
I39	16 May 2016	Low Tide (ft)	0.8
I39	16 May 2016	Low Tide Time	1248
I39	16 May 2016	Comments	
I39	22 May 2016	Depth (m)	19
I39	22 May 2016	Arrive Time	1137
I39	22 May 2016	Depart Time	1143
I39	22 May 2016	Air Temp (C)	16
I39	22 May 2016	Weather	Partly Cloudy
I39	22 May 2016	Visibility (mi)	4
I39	22 May 2016	Wind Speed (kts)	10
I39	22 May 2016	Wind Dir	NE
I39	22 May 2016	Water Color	Green
I39	22 May 2016	Wave Ht Low (ft)	3
I39	22 May 2016	Wave Period (sec)	9
I39	22 May 2016	Sea State	Light chop
I39	22 May 2016	High Tide (ft)	3.71
I39	22 May 2016	High Tide Time	1038
I39	22 May 2016	Low Tide (ft)	-0.45
I39	22 May 2016	Low Tide Time	429
I39	22 May 2016	Comments	
I39	31 May 2016	Depth (m)	18
I39	31 May 2016	Arrive Time	1116
I39	31 May 2016	Depart Time	1120
I39	31 May 2016	Air Temp (C)	17
I39	31 May 2016	Weather	Continuous layer of clouds
I39	31 May 2016	Visibility (mi)	6
I39	31 May 2016	Wind Speed (kts)	8
I39	31 May 2016	Wind Dir	E
I39	31 May 2016	Water Color	Greenish-Brown
I39	31 May 2016	Wave Ht Low (ft)	4
I39	31 May 2016	Wave Period (sec)	16
I39	31 May 2016	Sea State	Calm
I39	31 May 2016	High Tide (ft)	3.85
I39	31 May 2016	High Tide Time	545
I39	31 May 2016	Low Tide (ft)	0.57
I39	31 May 2016	Low Tide Time	1154
I39	31 May 2016	Comments	
I40	05 May 2016	Depth (m)	10
I40	05 May 2016	Arrive Time	1131
I40	05 May 2016	Depart Time	1134
I40	05 May 2016	Air Temp (C)	17

Station	Date	Parameter	Value
I40	05 May 2016	Weather	Continuous layer of clouds
I40	05 May 2016	Visibility (mi)	8
I40	05 May 2016	Wind Speed (kts)	9
I40	05 May 2016	Wind Dir	W
I40	05 May 2016	Water Color	Brownish-Green
I40	05 May 2016	Wave Ht Low (ft)	2
I40	05 May 2016	Wave Period (sec)	13
I40	05 May 2016	Sea State	Calm
I40	05 May 2016	High Tide (ft)	4.75
I40	05 May 2016	High Tide Time	851
I40	05 May 2016	Low Tide (ft)	0.22
I40	05 May 2016	Low Tide Time	1443
I40	05 May 2016	Comments	
I40	10 May 2016	Depth (m)	9
I40	10 May 2016	Arrive Time	1029
I40	10 May 2016	Depart Time	1037
I40	10 May 2016	Air Temp (C)	17
I40	10 May 2016	Weather	Overcast
I40	10 May 2016	Visibility (mi)	10
I40	10 May 2016	Wind Speed (kts)	6
I40	10 May 2016	Wind Dir	NE
I40	10 May 2016	Water Color	Brownish-Green
I40	10 May 2016	Wave Ht Low (ft)	4
I40	10 May 2016	Wave Period (sec)	16
I40	10 May 2016	Sea State	Wind ripples
I40	10 May 2016	High Tide (ft)	3.67
I40	10 May 2016	High Tide Time	1334
I40	10 May 2016	Low Tide (ft)	-0.75
I40	10 May 2016	Low Tide Time	700
I40	10 May 2016	Comments	
I40	16 May 2016	Depth (m)	9
I40	16 May 2016	Arrive Time	1139
I40	16 May 2016	Depart Time	1149
I40	16 May 2016	Air Temp (C)	16
I40	16 May 2016	Weather	Partly Cloudy
I40	16 May 2016	Visibility (mi)	9
I40	16 May 2016	Wind Speed (kts)	10
I40	16 May 2016	Wind Dir	E
I40	16 May 2016	Water Color	Green
I40	16 May 2016	Wave Ht Low (ft)	4
I40	16 May 2016	Wave Period (sec)	11
I40	16 May 2016	Sea State	Confused swell
I40	16 May 2016	High Tide (ft)	3.74
I40	16 May 2016	High Tide Time	640
I40	16 May 2016	Low Tide (ft)	0.8
I40	16 May 2016	Low Tide Time	1248
I40	16 May 2016	Comments	
I40	22 May 2016	Depth (m)	9
I40	22 May 2016	Arrive Time	1217
I40	22 May 2016	Depart Time	1221
I40	22 May 2016	Air Temp (C)	16
I40	22 May 2016	Weather	Partly Cloudy

Station	Date	Parameter	Value
I40	22 May 2016	Visibility (mi)	4
I40	22 May 2016	Wind Speed (kts)	8
I40	22 May 2016	Wind Dir	W
I40	22 May 2016	Water Color	Green
I40	22 May 2016	Wave Ht Low (ft)	3
I40	22 May 2016	Wave Period (sec)	9
I40	22 May 2016	Sea State	Light chop
I40	22 May 2016	High Tide (ft)	3.71
I40	22 May 2016	High Tide Time	1038
I40	22 May 2016	Low Tide (ft)	-0.45
I40	22 May 2016	Low Tide Time	429
I40	22 May 2016	Comments	
I40	31 May 2016	Depth (m)	9
I40	31 May 2016	Arrive Time	1157
I40	31 May 2016	Depart Time	1200
I40	31 May 2016	Air Temp (C)	16
I40	31 May 2016	Weather	Continuous layer of clouds
I40	31 May 2016	Visibility (mi)	6
I40	31 May 2016	Wind Speed (kts)	7
I40	31 May 2016	Wind Dir	NW
I40	31 May 2016	Water Color	Brown
I40	31 May 2016	Wave Ht Low (ft)	4
I40	31 May 2016	Wave Period (sec)	16
I40	31 May 2016	Sea State	Light chop
I40	31 May 2016	High Tide (ft)	3.85
I40	31 May 2016	High Tide Time	545
I40	31 May 2016	Low Tide (ft)	0.57
I40	31 May 2016	Low Tide Time	1154
I40	31 May 2016	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	05 May 2016	1	17.37	75.09	8.2	33.56	8.2	24.3	1.28
I19	05 May 2016	2	17.36	75.06	8.2	33.56	8.2	24.3	1.35
I19	05 May 2016	3	17.34	74.85	8.1	33.56	8.2	24.3	1.45
I19	05 May 2016	4	16.94	72.92	7.8	33.56	8.2	24.4	1.69
I19	05 May 2016	5	16.64	69.48	7.6	33.55	8.2	24.5	1.86
I19	05 May 2016	6	16.49	68.00	7.5	33.54	8.2	24.5	2.10
I19	05 May 2016	7	16.07	65.95	6.8	33.53	8.1	24.6	2.59
I19	05 May 2016	8	14.68	63.47	5.9	33.52	8.1	24.9	3.29
I19	05 May 2016	9	13.94	66.25	5.3	33.49	8.0	25.0	3.23
I19	05 May 2016	10	13.55	70.08	5.0	33.48	8.0	25.1	2.77
I19	10 May 2016	1	17.54	58.93	8.3	33.39	8.2	24.1	2.13
I19	10 May 2016	2	17.39	57.37	8.1	33.39	8.2	24.2	2.22
I19	10 May 2016	3	16.87	52.42	7.9	33.40	8.2	24.3	2.89
I19	10 May 2016	4	16.48	50.85	7.8	33.41	8.1	24.4	5.11
I19	10 May 2016	5	16.21	49.51	7.7	33.42	8.1	24.5	7.20
I19	10 May 2016	6	15.88	52.89	7.4	33.43	8.1	24.6	6.35
I19	10 May 2016	7	15.59	50.30	6.9	33.44	8.1	24.6	5.20
I19	10 May 2016	8	14.94	51.36	6.5	33.47	8.0	24.8	4.18
I19	10 May 2016	9	14.85	49.97	6.5	33.47	8.0	24.8	3.41
I19	10 May 2016	10	14.82	40.47	6.5	33.47	8.0	24.8	3.04
I19	16 May 2016	1	16.93	73.23	8.3	33.50	8.2	24.4	1.17
I19	16 May 2016	2	16.91	73.66	8.3	33.51	8.2	24.4	1.19
I19	16 May 2016	3	16.90	73.54	8.3	33.50	8.2	24.4	1.30
I19	16 May 2016	4	16.87	73.53	8.3	33.50	8.2	24.4	1.46
I19	16 May 2016	5	16.80	72.18	8.3	33.50	8.2	24.4	1.72
I19	16 May 2016	6	16.65	68.28	8.2	33.50	8.2	24.4	2.17
I19	16 May 2016	7	16.51	63.71	8.0	33.49	8.2	24.5	2.84
I19	16 May 2016	8	16.33	57.80	7.7	33.48	8.2	24.5	3.77
I19	16 May 2016	9	15.91	47.71	7.5	33.48	8.1	24.6	4.62
I19	16 May 2016	10	15.67	36.01	7.5	33.47	8.1	24.6	5.06
I19	22 May 2016	1	17.79	75.25	7.4	33.56	8.2	24.2	0.81
I19	22 May 2016	2	17.79	76.70	7.5	33.56	8.2	24.2	0.82
I19	22 May 2016	3	17.81	77.27	7.4	33.56	8.2	24.2	0.83
I19	22 May 2016	4	17.81	77.35	7.5	33.56	8.2	24.2	0.84
I19	22 May 2016	5	17.78	76.72	7.4	33.56	8.2	24.2	0.90
I19	22 May 2016	6	17.60	71.93	7.4	33.56	8.2	24.3	1.14
I19	22 May 2016	7	17.58	70.69	7.3	33.55	8.2	24.3	1.37
I19	22 May 2016	8	17.55	70.26	7.4	33.55	8.2	24.3	1.56
I19	22 May 2016	9	17.41	69.03	7.2	33.54	8.2	24.3	1.85
I19	22 May 2016	10	16.78	49.63	6.6	33.50	8.1	24.4	2.84
I19	31 May 2016	1	16.91	57.63	8.2	33.51	8.2	24.4	5.89
I19	31 May 2016	2	16.67	52.81	8.2	33.51	8.2	24.4	10.27
I19	31 May 2016	3	16.29	43.54	8.1	33.51	8.2	24.5	19.27
I19	31 May 2016	4	15.90	47.91	7.5	33.51	8.1	24.6	25.97
I19	31 May 2016	5	15.39	56.54	6.9	33.51	8.1	24.7	19.38
I19	31 May 2016	6	14.87	60.10	6.7	33.51	8.0	24.9	10.68
I19	31 May 2016	7	14.46	62.36	6.3	33.51	8.0	24.9	6.96

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I19	31 May 2016	8	14.19	63.81	5.8	33.50	8.0	25.0	5.20
I19	31 May 2016	9	14.17	63.28	5.7	33.49	8.0	25.0	4.40
I19	31 May 2016	10	14.19	62.34	5.8	33.49	8.0	25.0	4.05
I24	05 May 2016	1	17.67	69.25	8.7	33.57	8.3	24.3	4.95
I24	05 May 2016	2	17.66	68.92	8.8	33.57	8.3	24.3	5.47
I24	05 May 2016	3	17.64	68.70	8.7	33.57	8.3	24.3	6.27
I24	05 May 2016	4	17.62	68.81	8.6	33.57	8.3	24.3	6.70
I24	05 May 2016	5	17.53	68.07	8.4	33.57	8.2	24.3	7.29
I24	05 May 2016	6	17.40	66.75	8.3	33.56	8.2	24.3	7.51
I24	05 May 2016	7	17.34	64.78	8.0	33.56	8.2	24.3	8.21
I24	05 May 2016	8	16.84	61.48	7.2	33.56	8.2	24.4	8.71
I24	05 May 2016	9	16.00	65.09	6.0	33.53	8.1	24.6	7.29
I24	05 May 2016	10	14.42	64.57	4.9	33.52	8.0	25.0	4.00
I24	10 May 2016	1	17.02	40.62	7.5	33.20	8.1	24.1	3.22
I24	10 May 2016	2	16.88	41.05	7.2	33.26	8.1	24.2	3.60
I24	10 May 2016	3	16.37	43.30	6.7	33.38	8.1	24.4	3.07
I24	10 May 2016	4	15.78	54.19	6.4	33.46	8.0	24.6	2.34
I24	10 May 2016	5	15.74	58.09	6.4	33.45	8.0	24.6	2.15
I24	10 May 2016	6	15.68	60.84	6.4	33.45	8.0	24.6	2.06
I24	10 May 2016	7	15.61	62.32	6.4	33.45	8.0	24.6	1.90
I24	10 May 2016	8	15.41	63.91	6.4	33.46	8.0	24.7	1.79
I24	10 May 2016	9	15.03	62.69	6.5	33.47	8.0	24.8	1.74
I24	10 May 2016	10	14.95	56.12	6.4	33.47	8.0	24.8	1.71
I24	16 May 2016	1	17.07	75.62	7.7	33.51	8.2	24.4	0.81
I24	16 May 2016	2	17.07	75.71	7.7	33.51	8.2	24.4	0.84
I24	16 May 2016	3	17.07	75.93	7.7	33.51	8.2	24.4	0.86
I24	16 May 2016	4	17.07	75.94	7.7	33.51	8.2	24.4	0.94
I24	16 May 2016	5	17.07	75.96	7.7	33.51	8.2	24.4	1.04
I24	16 May 2016	6	17.03	74.32	7.6	33.51	8.2	24.4	1.21
I24	16 May 2016	7	16.99	73.19	7.6	33.51	8.2	24.4	1.44
I24	16 May 2016	8	16.89	72.84	7.5	33.51	8.2	24.4	1.66
I24	16 May 2016	9	16.82	62.98	7.6	33.51	8.2	24.4	1.78
I24	16 May 2016	10	16.78	54.89	7.6	33.51	8.2	24.4	1.83
I24	22 May 2016	1	18.01	82.55	7.9	33.57	8.2	24.2	0.67
I24	22 May 2016	2	18.02	82.67	7.8	33.57	8.2	24.2	0.68
I24	22 May 2016	3	18.01	82.33	7.8	33.57	8.2	24.2	0.71
I24	22 May 2016	4	17.91	81.74	7.7	33.57	8.2	24.2	0.76
I24	22 May 2016	5	17.84	82.49	7.8	33.57	8.2	24.2	0.78
I24	22 May 2016	6	17.79	82.59	7.9	33.56	8.2	24.2	0.84
I24	22 May 2016	7	17.71	82.57	7.8	33.56	8.2	24.2	0.88
I24	22 May 2016	8	17.31	81.86	7.7	33.56	8.2	24.3	0.98
I24	22 May 2016	9	16.94	79.42	7.1	33.53	8.2	24.4	1.14
I24	22 May 2016	10	15.17	70.35	5.8	33.51	8.0	24.8	1.50
I24	22 May 2016	11	14.56	68.72	5.7	33.49	8.0	24.9	1.73
I24	31 May 2016	1	17.00	63.89	7.8	33.53	8.2	24.4	3.59
I24	31 May 2016	2	16.86	63.96	7.7	33.53	8.2	24.4	3.81
I24	31 May 2016	3	16.37	62.21	7.3	33.51	8.1	24.5	5.11
I24	31 May 2016	4	15.31	62.16	6.9	33.52	8.1	24.8	6.11
I24	31 May 2016	5	14.67	66.32	6.6	33.51	8.1	24.9	5.88
I24	31 May 2016	6	14.31	69.22	6.3	33.49	8.0	25.0	5.15

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I24	31 May 2016	7	14.13	66.92	5.9	33.49	8.0	25.0	4.74
I24	31 May 2016	8	13.77	67.40	5.3	33.49	8.0	25.1	4.39
I24	31 May 2016	9	13.32	62.16	4.8	33.49	7.9	25.2	3.75
I24	31 May 2016	10	13.14	60.32	4.5	33.49	7.9	25.2	3.23
I24	31 May 2016	11	13.11	60.31	4.5	33.49	7.9	25.2	3.02
I25	05 May 2016	1	17.67	73.67	8.4	33.57	8.2	24.3	2.08
I25	05 May 2016	2	17.67	73.56	8.4	33.57	8.2	24.3	2.15
I25	05 May 2016	3	17.66	73.63	8.4	33.57	8.2	24.3	2.40
I25	05 May 2016	4	17.63	72.68	8.3	33.57	8.2	24.3	2.84
I25	05 May 2016	5	17.59	71.77	8.1	33.57	8.2	24.3	3.27
I25	05 May 2016	6	17.44	68.98	7.6	33.57	8.2	24.3	3.74
I25	05 May 2016	7	17.00	66.35	6.5	33.55	8.2	24.4	4.00
I25	05 May 2016	8	14.40	68.95	5.0	33.59	8.0	25.0	3.59
I25	05 May 2016	9	13.95	70.77	4.7	33.51	7.9	25.0	2.31
I25	10 May 2016	1	17.61	69.83	8.6	33.39	8.2	24.1	2.09
I25	10 May 2016	2	17.54	68.63	8.5	33.40	8.2	24.2	2.72
I25	10 May 2016	3	17.50	66.49	8.4	33.39	8.2	24.2	4.15
I25	10 May 2016	4	17.46	65.81	8.2	33.39	8.2	24.2	5.12
I25	10 May 2016	5	17.14	63.15	7.6	33.41	8.2	24.3	7.10
I25	10 May 2016	6	16.09	54.45	7.0	33.47	8.1	24.6	11.82
I25	10 May 2016	7	15.42	65.91	7.0	33.48	8.1	24.7	9.91
I25	10 May 2016	8	15.39	73.32	6.9	33.47	8.1	24.7	5.72
I25	10 May 2016	9	15.43	68.49	7.1	33.47	8.1	24.7	3.50
I25	16 May 2016	1	17.16	80.49	7.9	33.52	8.2	24.3	0.70
I25	16 May 2016	2	17.16	81.21	7.9	33.52	8.2	24.3	0.72
I25	16 May 2016	3	17.16	81.22	7.8	33.52	8.2	24.3	0.73
I25	16 May 2016	4	17.14	80.83	7.9	33.52	8.2	24.3	0.78
I25	16 May 2016	5	17.13	80.59	7.8	33.52	8.2	24.3	0.85
I25	16 May 2016	6	17.07	79.78	7.6	33.52	8.2	24.4	0.95
I25	16 May 2016	7	17.04	78.98	7.6	33.52	8.2	24.4	1.09
I25	16 May 2016	8	16.68	69.32	7.6	33.52	8.2	24.5	1.33
I25	22 May 2016	1	17.73	81.94	7.9	33.56	8.2	24.2	0.73
I25	22 May 2016	2	17.71	81.93	7.9	33.56	8.2	24.2	0.75
I25	22 May 2016	3	17.69	81.97	7.9	33.56	8.2	24.2	0.80
I25	22 May 2016	4	17.66	81.98	7.8	33.56	8.2	24.3	0.87
I25	22 May 2016	5	17.62	82.13	7.8	33.56	8.2	24.3	0.91
I25	22 May 2016	6	17.59	82.17	7.9	33.56	8.2	24.3	0.96
I25	22 May 2016	7	17.56	82.14	7.8	33.56	8.2	24.3	0.98
I25	22 May 2016	8	17.08	81.14	7.4	33.55	8.2	24.4	1.05
I25	22 May 2016	9	16.13	79.61	7.0	33.53	8.1	24.6	1.10
I25	31 May 2016	1	17.58	63.58	8.1	33.55	8.2	24.3	5.31
I25	31 May 2016	2	17.62	64.76	8.1	33.55	8.2	24.3	5.16
I25	31 May 2016	3	17.32	62.47	8.2	33.55	8.2	24.3	7.53
I25	31 May 2016	4	17.15	56.04	7.8	33.54	8.2	24.4	11.28
I25	31 May 2016	5	15.63	55.43	6.9	33.54	8.1	24.7	13.76
I25	31 May 2016	6	14.70	64.57	6.1	33.50	8.0	24.9	8.90
I25	31 May 2016	7	14.68	66.27	5.8	33.48	8.0	24.9	5.61
I25	31 May 2016	8	13.68	64.93	5.2	33.50	8.0	25.1	4.19
I25	31 May 2016	9	13.54	64.44	5.0	33.48	7.9	25.1	3.68

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I26	05 May 2016	1	17.52	75.14	8.6	33.56	8.2	24.3	2.45
I26	05 May 2016	2	17.52	74.83	8.6	33.56	8.2	24.3	2.48
I26	05 May 2016	3	17.51	74.31	8.6	33.56	8.2	24.3	2.89
I26	05 May 2016	4	17.51	73.92	8.6	33.56	8.2	24.3	3.27
I26	05 May 2016	5	17.38	70.73	8.3	33.56	8.2	24.3	4.40
I26	05 May 2016	6	17.27	67.75	7.8	33.55	8.2	24.3	5.37
I26	05 May 2016	7	15.86	66.49	6.2	33.56	8.1	24.7	5.95
I26	05 May 2016	8	14.78	73.58	5.4	33.51	8.0	24.9	4.25
I26	05 May 2016	9	13.78	73.99	5.2	33.53	8.0	25.1	3.16
I26	10 May 2016	1	17.67	72.30	8.8	33.37	8.3	24.1	2.26
I26	10 May 2016	2	17.51	71.93	8.3	33.38	8.3	24.2	3.43
I26	10 May 2016	3	16.60	61.54	7.6	33.45	8.2	24.4	15.79
I26	10 May 2016	4	16.04	57.82	7.3	33.47	8.1	24.6	17.34
I26	10 May 2016	5	15.30	74.12	7.3	33.48	8.1	24.7	10.37
I26	10 May 2016	6	15.04	76.45	7.4	33.47	8.1	24.8	7.12
I26	10 May 2016	7	14.87	76.10	7.0	33.47	8.1	24.8	5.47
I26	10 May 2016	8	14.83	76.12	6.7	33.47	8.0	24.8	4.03
I26	10 May 2016	9	14.82	75.64	6.6	33.47	8.0	24.8	3.34
I26	16 May 2016	1	17.21	81.26	7.9	33.52	8.2	24.3	0.68
I26	16 May 2016	2	17.21	81.35	7.9	33.52	8.2	24.3	0.70
I26	16 May 2016	3	17.21	81.69	7.9	33.52	8.2	24.3	0.70
I26	16 May 2016	4	17.20	81.62	7.9	33.52	8.2	24.3	0.73
I26	16 May 2016	5	17.15	80.71	7.9	33.52	8.2	24.3	0.86
I26	16 May 2016	6	17.13	80.69	7.9	33.52	8.2	24.3	0.98
I26	16 May 2016	7	17.16	80.96	7.9	33.52	8.2	24.3	1.00
I26	16 May 2016	8	17.04	77.45	7.9	33.52	8.2	24.4	1.10
I26	16 May 2016	9	16.87	75.04	7.5	33.52	8.2	24.4	1.26
I26	22 May 2016	1	18.01	80.83	7.8	33.57	8.2	24.2	0.65
I26	22 May 2016	2	18.00	82.17	7.8	33.54	8.2	24.2	0.66
I26	22 May 2016	3	17.73	82.40	7.9	33.57	8.2	24.2	0.71
I26	22 May 2016	4	17.59	82.41	8.0	33.56	8.2	24.3	0.80
I26	22 May 2016	5	17.58	82.19	7.9	33.56	8.2	24.3	0.86
I26	22 May 2016	6	17.51	82.26	7.9	33.55	8.2	24.3	0.97
I26	22 May 2016	7	17.39	81.24	7.8	33.55	8.2	24.3	1.05
I26	22 May 2016	8	17.19	79.01	7.6	33.54	8.2	24.3	1.09
I26	22 May 2016	9	16.52	72.11	7.1	33.53	8.1	24.5	1.18
I26	31 May 2016	1	18.02	72.00	8.1	33.56	8.2	24.2	1.87
I26	31 May 2016	2	17.95	71.38	8.1	33.56	8.2	24.2	2.07
I26	31 May 2016	3	17.94	71.29	8.0	33.56	8.2	24.2	2.29
I26	31 May 2016	4	17.60	70.86	7.7	33.55	8.2	24.3	3.01
I26	31 May 2016	5	16.47	66.20	7.4	33.54	8.2	24.5	5.38
I26	31 May 2016	6	15.88	65.81	6.7	33.51	8.1	24.6	6.72
I26	31 May 2016	7	14.48	69.52	6.1	33.51	8.0	24.9	5.49
I26	31 May 2016	8	13.67	73.34	5.9	33.49	8.0	25.1	3.81
I26	31 May 2016	9	13.13	76.94	6.0	33.48	8.0	25.2	3.15
I32	05 May 2016	1	17.85	72.42	8.6	33.58	8.3	24.2	2.06
I32	05 May 2016	2	17.85	72.32	8.6	33.58	8.3	24.2	2.32
I32	05 May 2016	3	17.85	72.36	8.5	33.58	8.3	24.2	2.38
I32	05 May 2016	4	17.81	71.81	8.5	33.58	8.3	24.2	2.85
I32	05 May 2016	5	17.78	71.13	8.5	33.58	8.2	24.2	3.11



Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I32	05 May 2016	6	17.78	71.10	8.4	33.58	8.2	24.2	3.35
I32	05 May 2016	7	17.72	69.95	8.3	33.58	8.2	24.2	3.61
I32	05 May 2016	8	17.68	69.04	8.2	33.57	8.2	24.3	3.71
I32	05 May 2016	9	17.51	65.78	8.0	33.58	8.2	24.3	4.43
I32	05 May 2016	10	17.44	61.54	8.1	33.57	8.2	24.3	5.36
I32	11 May 2016	1	16.88	65.58	7.4	33.45	8.2	24.4	2.41
I32	11 May 2016	2	16.38	63.52	6.9	33.45	8.2	24.5	2.83
I32	11 May 2016	3	15.52	63.87	6.5	33.48	8.1	24.7	3.36
I32	11 May 2016	4	15.05	70.00	6.0	33.48	8.0	24.8	3.26
I32	11 May 2016	5	14.87	68.74	5.7	33.48	8.0	24.8	3.07
I32	11 May 2016	6	14.79	68.96	5.5	33.47	8.0	24.8	2.87
I32	11 May 2016	7	14.75	65.62	5.4	33.47	8.0	24.8	2.67
I32	11 May 2016	8	14.75	60.98	5.3	33.47	8.0	24.8	2.42
I32	11 May 2016	9	14.73	56.67	5.4	33.48	8.0	24.9	2.45
I32	16 May 2016	1	17.30	81.08	7.9	33.52	8.2	24.3	0.68
I32	16 May 2016	2	17.29	81.34	8.0	33.52	8.2	24.3	0.72
I32	16 May 2016	3	17.28	81.11	8.0	33.52	8.2	24.3	0.75
I32	16 May 2016	4	17.22	77.99	7.9	33.52	8.2	24.3	0.87
I32	16 May 2016	5	17.19	75.81	7.9	33.51	8.2	24.3	1.01
I32	16 May 2016	6	17.14	77.20	8.0	33.52	8.2	24.3	1.13
I32	16 May 2016	7	17.12	77.02	7.9	33.51	8.2	24.3	1.23
I32	16 May 2016	8	16.96	65.94	7.8	33.51	8.2	24.4	1.59
I32	16 May 2016	9	16.81	54.20	7.8	33.50	8.2	24.4	2.49
I32	22 May 2016	1	18.29	77.10	7.8	33.57	8.2	24.1	0.80
I32	22 May 2016	2	18.27	76.92	7.8	33.57	8.2	24.1	0.83
I32	22 May 2016	3	18.25	76.94	7.8	33.57	8.2	24.1	0.89
I32	22 May 2016	4	18.23	76.80	7.8	33.57	8.2	24.1	0.97
I32	22 May 2016	5	18.18	76.50	7.8	33.57	8.2	24.1	1.07
I32	22 May 2016	6	18.17	76.30	7.8	33.57	8.2	24.1	1.16
I32	22 May 2016	7	18.16	76.13	7.8	33.57	8.2	24.1	1.25
I32	22 May 2016	8	18.15	74.45	7.7	33.57	8.2	24.1	1.38
I32	22 May 2016	9	18.12	70.42	7.6	33.57	8.2	24.1	1.55
I32	31 May 2016	1	17.79	67.54	8.1	33.56	8.2	24.2	2.58
I32	31 May 2016	2	17.76	67.29	8.0	33.55	8.2	24.2	2.72
I32	31 May 2016	3	17.59	65.23	8.0	33.55	8.2	24.3	3.70
I32	31 May 2016	4	17.50	62.76	7.9	33.55	8.2	24.3	4.69
I32	31 May 2016	5	17.39	61.33	7.8	33.55	8.2	24.3	5.16
I32	31 May 2016	6	17.34	61.04	7.8	33.55	8.2	24.3	5.13
I32	31 May 2016	7	17.29	60.82	7.7	33.54	8.2	24.3	4.93
I32	31 May 2016	8	17.23	60.40	7.6	33.54	8.2	24.3	4.78
I32	31 May 2016	9	17.06	58.05	7.1	33.53	8.2	24.4	4.87
I32	31 May 2016	10	14.60	28.77	6.9	33.61	8.1	25.0	5.39
I39	05 May 2016	1	17.31	78.98	8.3	33.56	8.2	24.3	0.98
I39	05 May 2016	2	17.31	78.93	8.2	33.56	8.2	24.3	0.99
I39	05 May 2016	3	17.27	78.91	8.2	33.56	8.2	24.3	1.10
I39	05 May 2016	4	17.24	78.88	8.2	33.56	8.2	24.3	1.26
I39	05 May 2016	5	16.98	79.65	7.9	33.55	8.2	24.4	1.60
I39	05 May 2016	6	16.31	76.35	7.3	33.53	8.2	24.5	2.46
I39	05 May 2016	7	15.05	76.59	6.5	33.52	8.1	24.8	3.00
I39	05 May 2016	8	14.92	77.25	6.3	33.50	8.1	24.8	3.06

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I39	05 May 2016	9	14.80	77.61	6.3	33.49	8.1	24.9	3.22
I39	05 May 2016	10	14.62	78.18	6.2	33.49	8.1	24.9	3.14
I39	05 May 2016	11	14.59	78.30	6.1	33.50	8.0	24.9	2.90
I39	05 May 2016	12	14.59	78.33	6.1	33.50	8.0	24.9	2.75
I39	05 May 2016	13	14.59	78.35	6.1	33.50	8.0	24.9	2.87
I39	05 May 2016	14	14.54	78.29	6.0	33.51	8.0	24.9	2.82
I39	05 May 2016	15	14.26	78.58	5.6	33.51	8.0	25.0	2.40
I39	05 May 2016	16	13.47	79.72	5.0	33.52	8.0	25.2	2.08
I39	05 May 2016	17	13.22	79.61	4.8	33.51	7.9	25.2	1.84
I39	05 May 2016	18	13.19	79.87	4.8	33.50	7.9	25.2	1.76
I39	10 May 2016	1	17.75	75.59	8.5	33.39	8.2	24.1	2.16
I39	10 May 2016	2	17.19	75.54	8.4	33.42	8.2	24.3	3.45
I39	10 May 2016	3	16.61	75.13	8.3	33.45	8.2	24.4	5.37
I39	10 May 2016	4	16.50	75.14	8.2	33.44	8.2	24.4	6.21
I39	10 May 2016	5	16.13	75.73	8.0	33.46	8.1	24.5	5.69
I39	10 May 2016	6	15.76	78.17	7.6	33.47	8.1	24.6	4.85
I39	10 May 2016	7	15.61	78.40	7.2	33.46	8.1	24.7	3.62
I39	10 May 2016	8	15.45	78.04	7.1	33.47	8.1	24.7	3.26
I39	10 May 2016	9	15.39	78.38	7.1	33.46	8.1	24.7	3.28
I39	10 May 2016	10	15.18	78.91	7.0	33.47	8.1	24.8	2.93
I39	10 May 2016	11	14.98	78.80	6.5	33.48	8.0	24.8	2.66
I39	10 May 2016	12	14.81	78.45	6.1	33.48	8.0	24.8	2.22
I39	10 May 2016	13	14.61	78.27	6.0	33.48	8.0	24.9	2.06
I39	10 May 2016	14	14.49	78.22	6.1	33.48	8.0	24.9	1.99
I39	10 May 2016	15	14.40	78.04	6.0	33.48	8.0	24.9	2.02
I39	10 May 2016	16	14.21	77.65	6.0	33.48	8.0	25.0	2.05
I39	10 May 2016	17	14.18	76.84	6.0	33.48	8.0	25.0	1.99
I39	10 May 2016	18	14.14	76.21	6.0	33.48	8.0	25.0	1.94
I39	16 May 2016	1	17.16	80.66	8.0	33.52	8.2	24.3	0.87
I39	16 May 2016	2	17.16	81.51	8.0	33.52	8.2	24.3	0.91
I39	16 May 2016	3	17.16	81.43	8.0	33.52	8.2	24.3	0.95
I39	16 May 2016	4	17.15	82.00	7.9	33.52	8.2	24.3	1.02
I39	16 May 2016	5	17.15	81.89	8.0	33.52	8.2	24.3	1.06
I39	16 May 2016	6	17.15	81.96	7.9	33.52	8.2	24.3	1.10
I39	16 May 2016	7	17.14	81.84	8.0	33.52	8.2	24.3	1.28
I39	16 May 2016	8	17.14	81.74	8.0	33.52	8.2	24.3	1.55
I39	16 May 2016	9	17.13	81.74	7.9	33.52	8.2	24.4	1.76
I39	16 May 2016	10	16.99	79.97	7.9	33.52	8.2	24.4	2.72
I39	16 May 2016	11	16.61	75.23	7.8	33.52	8.2	24.5	4.23
I39	16 May 2016	12	16.15	75.08	7.7	33.51	8.2	24.6	4.59
I39	16 May 2016	13	15.46	72.44	7.5	33.50	8.2	24.7	4.70
I39	16 May 2016	14	15.07	72.60	7.2	33.46	8.1	24.8	4.63
I39	16 May 2016	15	14.38	72.62	6.8	33.42	8.1	24.9	4.24
I39	16 May 2016	16	14.03	73.74	6.5	33.38	8.0	24.9	3.88
I39	16 May 2016	17	14.04	73.30	6.4	33.41	8.0	25.0	3.57
I39	16 May 2016	18	13.83	68.53	6.1	33.46	8.0	25.0	2.83
I39	22 May 2016	1	17.30	81.23	8.0	33.55	8.2	24.3	0.92
I39	22 May 2016	2	17.29	81.22	8.0	33.55	8.2	24.3	0.91
I39	22 May 2016	3	17.23	81.17	8.0	33.55	8.2	24.3	1.00
I39	22 May 2016	4	17.20	81.18	8.0	33.55	8.2	24.4	1.07
I39	22 May 2016	5	17.08	81.22	7.9	33.54	8.2	24.4	1.18
I39	22 May 2016	6	16.78	80.89	7.8	33.54	8.2	24.4	1.42

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I39	22 May 2016	7	16.33	79.28	7.5	33.52	8.2	24.5	1.88
I39	22 May 2016	8	16.04	78.05	7.4	33.51	8.1	24.6	2.45
I39	22 May 2016	9	15.83	77.00	7.2	33.50	8.1	24.6	3.24
I39	22 May 2016	10	15.53	78.10	6.9	33.49	8.1	24.7	3.13
I39	22 May 2016	11	15.09	78.33	6.5	33.49	8.1	24.8	2.87
I39	22 May 2016	12	14.97	78.77	6.4	33.48	8.1	24.8	2.54
I39	22 May 2016	13	14.71	79.31	6.0	33.48	8.0	24.9	2.42
I39	22 May 2016	14	13.43	79.33	5.3	33.49	8.0	25.1	2.00
I39	22 May 2016	15	13.50	79.29	5.2	33.47	7.9	25.1	1.84
I39	22 May 2016	16	13.02	79.70	5.1	33.48	7.9	25.2	1.81
I39	22 May 2016	17	12.92	80.50	5.0	33.48	7.9	25.2	1.80
I39	22 May 2016	18	13.00	80.42	5.0	33.47	7.9	25.2	1.77
I39	31 May 2016	1	17.78	77.33	8.0	33.57	8.2	24.2	1.28
I39	31 May 2016	2	17.74	77.22	8.0	33.56	8.2	24.2	1.37
I39	31 May 2016	3	17.14	77.29	8.1	33.56	8.2	24.4	1.65
I39	31 May 2016	4	16.15	76.01	8.4	33.53	8.2	24.6	2.40
I39	31 May 2016	5	15.06	73.22	8.6	33.51	8.2	24.8	3.33
I39	31 May 2016	6	14.59	71.80	8.5	33.49	8.2	24.9	4.22
I39	31 May 2016	7	14.31	70.95	8.5	33.49	8.2	25.0	5.14
I39	31 May 2016	8	14.25	70.81	8.3	33.49	8.2	25.0	5.92
I39	31 May 2016	9	14.03	71.78	7.2	33.48	8.1	25.0	5.75
I39	31 May 2016	10	13.44	74.15	5.9	33.49	8.0	25.1	5.11
I39	31 May 2016	11	12.99	76.71	5.4	33.49	8.0	25.2	3.63
I39	31 May 2016	12	12.59	78.72	5.1	33.49	7.9	25.3	3.03
I39	31 May 2016	13	12.16	80.93	4.8	33.50	7.9	25.4	2.49
I39	31 May 2016	14	12.04	81.55	4.6	33.50	7.9	25.4	2.03
I39	31 May 2016	15	11.97	81.68	4.6	33.50	7.9	25.4	1.89
I39	31 May 2016	16	11.92	81.97	4.6	33.50	7.9	25.4	1.81
I39	31 May 2016	17	11.82	82.03	4.6	33.50	7.9	25.5	1.69
I39	31 May 2016	18	11.82	81.74	4.6	33.50	7.9	25.5	1.61
I40	05 May 2016	1	17.62	69.96	8.4	33.57	8.2	24.3	3.00
I40	05 May 2016	2	17.63	69.75	8.3	33.57	8.2	24.3	3.18
I40	05 May 2016	3	17.56	69.08	8.3	33.57	8.2	24.3	3.76
I40	05 May 2016	4	17.51	68.65	8.2	33.57	8.2	24.3	4.33
I40	05 May 2016	5	17.43	68.37	8.1	33.57	8.2	24.3	4.60
I40	05 May 2016	6	17.27	68.09	8.0	33.57	8.2	24.4	4.90
I40	05 May 2016	7	17.00	67.12	7.7	33.56	8.2	24.4	4.59
I40	05 May 2016	8	16.87	66.30	7.5	33.56	8.2	24.4	4.20
I40	05 May 2016	9	16.58	64.35	6.7	33.55	8.2	24.5	3.63
I40	05 May 2016	10	14.44	45.16	5.4	33.66	8.0	25.1	3.42
I40	10 May 2016	1	16.38	59.12	7.9	33.37	8.1	24.4	3.21
I40	10 May 2016	2	16.32	58.32	7.8	33.37	8.1	24.4	3.37
I40	10 May 2016	3	15.95	59.44	7.8	33.44	8.1	24.6	3.37
I40	10 May 2016	4	15.77	63.31	7.6	33.44	8.1	24.6	3.54
I40	10 May 2016	5	15.66	62.40	7.3	33.45	8.1	24.6	3.57
I40	10 May 2016	6	15.54	60.66	7.0	33.45	8.1	24.7	3.29
I40	10 May 2016	7	15.44	57.67	6.7	33.45	8.0	24.7	3.06
I40	10 May 2016	8	15.37	56.19	6.5	33.46	8.0	24.7	2.78
I40	10 May 2016	9	15.23	53.62	6.3	33.46	8.0	24.7	2.70
I40	10 May 2016	10	15.07	46.19	6.3	33.47	8.0	24.8	2.86
I40	16 May 2016	1	17.07	76.13	8.1	33.52	8.2	24.4	1.36

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I40	16 May 2016	2	17.07	76.29	8.1	33.52	8.2	24.4	1.41
I40	16 May 2016	3	17.05	75.83	8.1	33.52	8.2	24.4	1.49
I40	16 May 2016	4	17.05	75.56	8.1	33.52	8.2	24.4	1.65
I40	16 May 2016	5	17.02	74.44	8.0	33.52	8.2	24.4	1.92
I40	16 May 2016	6	17.00	73.02	8.0	33.52	8.2	24.4	2.35
I40	16 May 2016	7	16.98	71.56	7.9	33.52	8.2	24.4	2.72
I40	16 May 2016	8	16.96	70.60	7.8	33.52	8.2	24.4	2.91
I40	16 May 2016	9	16.65	56.60	7.8	33.52	8.2	24.5	3.39
I40	22 May 2016	1	18.14	73.90	7.8	33.56	8.2	24.1	0.72
I40	22 May 2016	2	18.16	71.41	7.8	33.30	8.2	23.9	0.73
I40	22 May 2016	3	18.14	75.84	7.8	33.55	8.2	24.1	0.76
I40	22 May 2016	4	17.97	73.75	7.8	33.56	8.2	24.2	0.96
I40	22 May 2016	5	17.75	71.90	7.4	33.55	8.2	24.2	1.19
I40	22 May 2016	6	16.73	66.76	6.9	33.54	8.1	24.5	1.74
I40	22 May 2016	7	16.38	61.35	7.0	33.51	8.1	24.5	2.73
I40	22 May 2016	8	15.75	61.92	7.2	33.48	8.1	24.6	4.80
I40	22 May 2016	9	15.30	57.07	6.6	33.47	8.1	24.7	5.99
I40	22 May 2016	10	14.99	52.29	5.8	33.47	8.0	24.8	6.10
I40	31 May 2016	1	16.96	60.01	8.1	33.52	8.2	24.4	5.70
I40	31 May 2016	2	16.95	60.04	7.9	33.51	8.2	24.4	5.83
I40	31 May 2016	3	16.19	56.61	7.8	33.51	8.2	24.6	9.32
I40	31 May 2016	4	15.67	48.89	7.5	33.50	8.1	24.7	16.77
I40	31 May 2016	5	15.07	50.24	7.0	33.50	8.1	24.8	18.55
I40	31 May 2016	6	14.82	51.35	6.7	33.49	8.0	24.8	19.25
I40	31 May 2016	7	14.64	56.67	6.2	33.49	8.0	24.9	15.81
I40	31 May 2016	8	14.17	65.13	5.6	33.50	8.0	25.0	9.82
I40	31 May 2016	9	13.94	64.05	5.5	33.49	8.0	25.0	6.13

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
10 May 2016	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
11 May 2016	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

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
10 May 2016	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
11 May 2016	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

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
10 May 2016	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
11 May 2016	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

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
10 May 2016	IC	IC	IC	IC	IC	IC	ns	ns	ns	ns
11 May 2016	ns	ns	ns	ns	ns	ns	IC	IC	IC	IC

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	09 May 2016	1051	2	<2	<2	<2	1.00	17.2	81.85	8.0	33.43	8.1	<0.2	<0.2
I3	09 May 2016	1051	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.2*
I3	09 May 2016	1051	18	<2	<2	2e	1.00	13.7	78.07	7.1	33.47	8.0	ns	<0.2
I3	09 May 2016	1051	27	<2	<2	<2	1.00	13.0	79.50	6.4	33.48	7.9	ns	3.5
I5	09 May 2016	1116	2	8e	<2	<2	0.25	16.8	70.64	8.2	33.44	8.1	<0.2	4.2
I5	09 May 2016	1116	6	10e	<2	4e	0.20	16.4	67.61	8.2	33.44	8.1	ns	5.7
I5	09 May 2016	1116	11	10e	<2	12e	0.20	15.4	77.01	8.2	33.46	8.1	ns	4.0
I7	09 May 2016	929	2	<2	<2	<2	1.00	17.1	83.75	7.8	33.50	8.1	<0.2	4.8
I7	09 May 2016	929	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	3.4*
I7	09 May 2016	929	18	<2	<2	<2	1.00	13.2	83.20	6.8	33.45	7.9	ns	4.3
I7	09 May 2016	929	52	<2	<2	2e	1.00	10.8	87.09	4.4	33.60	7.7	ns	3.3
I8	09 May 2016	1247	2	<2	<2	<2	1.00	17.7	84.08	7.7	33.48	8.1	<0.2	4.0
I8	09 May 2016	1247	18	<2	<2	<2	1.00	13.6	86.31	6.8	33.49	8.0	ns	5.5
I8	09 May 2016	1247	37	<2	<2	<2	1.00	12.2	80.87	5.1	33.51	7.8	ns	4.2
I9	09 May 2016	1230	2	<2	<2	<2	1.00	17.9	83.94	8.0	33.42	8.1	<0.2	4.6
I9	09 May 2016	1230	18	<2	<2	<2	1.00	13.0	83.95	6.3	33.46	7.9	ns	3.4
I9	09 May 2016	1230	27	2e	<2	<2	1.00	12.6	84.73	5.6	33.50	7.8	ns	5.9
I10	09 May 2016	1213	2	<2	<2	<2	1.00	17.9	78.49	8.2	33.42	8.1	<0.2	3.6
I10	09 May 2016	1213	12	110	2e	14e	0.02	14.3	70.91	7.5	33.47	8.0	ns	3.8
I10	09 May 2016	1213	18	68	2e	2e	0.03	13.6	72.16	6.6	33.49	7.9	ns	4.1
I11	09 May 2016	1157	2	8e	<2	<2	0.25	17.5	74.91	8.3	33.41	8.1	<0.2	4.6
I11	09 May 2016	1157	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	3.7*
I11	09 May 2016	1157	6	22e	<2	<2	0.09	15.9	78.62	8.6	33.45	8.1	ns	4.0
I11	09 May 2016	1157	11	100e	<2	36e	0.02	15.3	61.94	7.5	33.45	8.0	ns	6.5
I12	10 May 2016	1148	2	<2	<2	<2	1.00	17.6	84.37	8.2	33.45	8.2	<0.2	<0.2
I12	10 May 2016	1148	18	80e	2e	4e	0.02	13.0	82.60	5.9	33.42	8.0	ns	2.7
I12	10 May 2016	1148	27	8e	2e	<2	0.25	12.6	85.38	5.2	33.50	7.9	ns	<0.2
I13	09 May 2016	1051	2	<2	<2	<2	1.00	17.6	87.32	7.7	33.48	8.1	<0.2	2.7
I13	09 May 2016	1051	18	<2	<2	<2	1.00	13.7	86.94	6.9	33.49	8.0	ns	4.9
I13	09 May 2016	1051	37	<2	<2	<2	1.00	12.1	86.09	4.9	33.51	7.8	ns	3.8
I14	10 May 2016	1214	2	<2	<2	<2	1.00	17.6	85.08	8.2	33.45	8.2	<0.2	4.0
I14	10 May 2016	1214	18	4e	<2	<2	0.50	15.9	81.64	8.1	33.45	8.2	ns	2.6
I14	10 May 2016	1214	27	10e	<2	<2	0.20	12.7	83.43	5.4	33.49	7.9	ns	3.4
I16	10 May 2016	1133	2	<2	<2	<2	1.00	17.6	84.73	8.3	33.45	8.2	<0.2	<0.2
I16	10 May 2016	1133	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.2*
I16	10 May 2016	1133	18	14e	<2	<2	0.14	15.8	81.51	8.1	33.44	8.2	ns	2.9

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I16	10 May 2016	1133	27	<2	<2	<2	1.00	12.6	84.92	5.3	33.49	7.9	ns	4.0
I18	10 May 2016	1107	2	<2	<2	2e	1.00	18.0	74.86	8.7	33.40	8.2	<0.2	3.7
I18	10 May 2016	1107	12	8e	<2	<2	0.25	14.2	79.26	7.4	33.47	8.1	ns	2.9
I18	10 May 2016	1107	18	8e	<2	<2	0.25	13.6	74.68	6.5	33.48	8.0	ns	3.7
I20	09 May 2016	903	2	<2	<2	8e	1.00	17.2	87.27	7.6	33.50	8.0	<0.2	8.9
I20	09 May 2016	903	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	2.7*
I20	09 May 2016	903	18	<2	<2	<2	1.00	15.7	84.96	7.4	33.50	8.0	ns	3.4
I20	09 May 2016	903	55	<2	<2	<2	1.00	10.6	87.14	4.3	33.62	7.7	ns	<0.2
I21	09 May 2016	1325	2	<2	<2	<2	1.00	17.7	86.76	7.7	33.46	8.1	<0.2	4.3
I21	09 May 2016	1325	18	<2	<2	<2	1.00	13.8	87.33	6.6	33.49	8.0	ns	3.2
I21	09 May 2016	1325	37	<2	<2	<2	1.00	11.8	86.72	4.9	33.51	7.8	ns	2.9
I22	10 May 2016	1226	2	<2	<2	<2	1.00	17.9	84.38	8.3	33.44	8.2	<0.2	3.4
I22	10 May 2016	1226	18	8e	<2	<2	0.25	14.1	77.74	6.6	33.47	8.1	ns	<0.2
I22	10 May 2016	1226	27	<2	<2	<2	1.00	12.8	82.87	5.5	33.49	8.0	ns	3.0
I23	10 May 2016	1239	2	<2	<2	<2	1.00	18.1	80.71	8.5	33.43	8.2	<0.2	3.1
I23	10 May 2016	1239	12	<2	<2	<2	1.00	14.9	78.28	7.4	33.47	8.1	ns	<0.2
I23	10 May 2016	1239	18	10e	<2	2e	0.20	13.4	75.02	5.8	33.47	8.0	ns	<0.2
I30	11 May 2016	936	2	<2	<2	<2	1.00	16.8	75.30	7.6	33.48	8.2	<0.2	<0.2
I30	11 May 2016	936	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.2*
I30	11 May 2016	936	18	<2	<2	<2	1.00	14.8	83.30	6.9	33.48	8.1	ns	4.5
I30	11 May 2016	936	27	2e	<2	<2	1.00	12.7	83.41	5.2	33.49	7.9	ns	<0.2
I33	11 May 2016	820	2	<2	<2	<2	1.00	16.7	77.73	7.4	33.49	8.2	<0.2	<0.2
I33	11 May 2016	820	18	<2	<2	<2	1.00	14.4	83.79	6.3	33.48	8.1	ns	<0.2
I33	11 May 2016	820	27	<2	<2	<2	1.00	13.3	84.59	5.6	33.50	8.0	ns	<0.2
I36	11 May 2016	1036	2	<2	<2	<2	1.00	16.7	66.80	7.7	33.47	8.2	<0.2	3.3
I36	11 May 2016	1036	6	<2	<2	<2	1.00	15.0	76.10	6.0	33.48	8.0	ns	2.7
I36	11 May 2016	1036	11	20e	<2	<2	0.10	14.6	52.38	4.4	33.48	7.9	ns	7.1
I37	11 May 2016	747	2	<2	<2	<2	1.00	16.3	67.69	6.5	33.49	8.1	<0.2	<0.2
I37	11 May 2016	747	2	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	<0.2*
I37	11 May 2016	747	6	4e	<2	<2	0.50	14.8	68.28	5.7	33.48	8.0	ns	4.0
I37	11 May 2016	747	11	<2	<2	<2	1.00	13.7	66.62	5.6	33.48	8.0	ns	8.7
I38	11 May 2016	1113	2	<2	<2	<2	1.00	16.5	68.96	7.9	33.47	8.2	<0.2	3.3
I38	11 May 2016	1113	6	2e	<2	<2	1.00	14.8	76.40	6.7	33.48	8.1	ns	<0.2
I38	11 May 2016	1113	11	18e	<2	2e	0.11	14.4	73.32	4.1	33.48	7.9	ns	<0.2

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	09 May 2016	Depth (m)	60
I1	09 May 2016	Arrive Time	959
I1	09 May 2016	Depart Time	1005
I1	09 May 2016	Air Temp (C)	17
I1	09 May 2016	Weather	Overcast
I1	09 May 2016	Visibility (mi)	7
I1	09 May 2016	Wind Speed (kts)	5
I1	09 May 2016	Wind Dir	W
I1	09 May 2016	Water Color	Green
I1	09 May 2016	Wave Ht Low (ft)	2
I1	09 May 2016	Wave Period (sec)	9
I1	09 May 2016	Sea State	Calm
I1	09 May 2016	High Tide (ft)	3.89
I1	09 May 2016	High Tide Time	1227
I1	09 May 2016	Low Tide (ft)	-1.11
I1	09 May 2016	Low Tide Time	604
I1	09 May 2016	Comments	200 dolphins on station
I2	09 May 2016	Depth (m)	33
I2	09 May 2016	Arrive Time	1035
I2	09 May 2016	Depart Time	1040
I2	09 May 2016	Air Temp (C)	17
I2	09 May 2016	Weather	Overcast
I2	09 May 2016	Visibility (mi)	7
I2	09 May 2016	Wind Speed (kts)	8
I2	09 May 2016	Wind Dir	NE
I2	09 May 2016	Water Color	Green
I2	09 May 2016	Wave Ht Low (ft)	2
I2	09 May 2016	Wave Period (sec)	9
I2	09 May 2016	Sea State	Calm
I2	09 May 2016	High Tide (ft)	3.89
I2	09 May 2016	High Tide Time	1227
I2	09 May 2016	Low Tide (ft)	-1.11
I2	09 May 2016	Low Tide Time	604
I2	09 May 2016	Comments	
I3	09 May 2016	Depth (m)	27
I3	09 May 2016	Arrive Time	1051
I3	09 May 2016	Depart Time	1055
I3	09 May 2016	Air Temp (C)	17
I3	09 May 2016	Weather	Overcast
I3	09 May 2016	Visibility (mi)	10
I3	09 May 2016	Wind Speed (kts)	7
I3	09 May 2016	Wind Dir	E
I3	09 May 2016	Water Color	Green
I3	09 May 2016	Wave Ht Low (ft)	2
I3	09 May 2016	Wave Period (sec)	9
I3	09 May 2016	Sea State	Calm
I3	09 May 2016	High Tide (ft)	3.89
I3	09 May 2016	High Tide Time	1227
I3	09 May 2016	Low Tide (ft)	-1.11

Station	Date	Parameter	Value
I3	09 May 2016	Low Tide Time	604
I3	09 May 2016	Comments	
I4	09 May 2016	Depth (m)	20
I4	09 May 2016	Arrive Time	1108
I4	09 May 2016	Depart Time	1112
I4	09 May 2016	Air Temp (C)	17
I4	09 May 2016	Weather	Overcast
I4	09 May 2016	Visibility (mi)	10
I4	09 May 2016	Wind Speed (kts)	7
I4	09 May 2016	Wind Dir	S
I4	09 May 2016	Water Color	Green
I4	09 May 2016	Wave Ht Low (ft)	2
I4	09 May 2016	Wave Period (sec)	9
I4	09 May 2016	Sea State	Calm
I4	09 May 2016	High Tide (ft)	3.89
I4	09 May 2016	High Tide Time	1227
I4	09 May 2016	Low Tide (ft)	-1.11
I4	09 May 2016	Low Tide Time	604
I4	09 May 2016	Comments	
I5	09 May 2016	Depth (m)	14
I5	09 May 2016	Arrive Time	1116
I5	09 May 2016	Depart Time	1125
I5	09 May 2016	Air Temp (C)	17
I5	09 May 2016	Weather	Overcast
I5	09 May 2016	Visibility (mi)	10
I5	09 May 2016	Wind Speed (kts)	7
I5	09 May 2016	Wind Dir	SE
I5	09 May 2016	Water Color	Green
I5	09 May 2016	Wave Ht Low (ft)	2
I5	09 May 2016	Wave Period (sec)	9
I5	09 May 2016	Sea State	Calm
I5	09 May 2016	High Tide (ft)	3.89
I5	09 May 2016	High Tide Time	1227
I5	09 May 2016	Low Tide (ft)	-1.11
I5	09 May 2016	Low Tide Time	604
I5	09 May 2016	Comments	Birds on station ; Kelp debris
I6	09 May 2016	Depth (m)	25
I6	09 May 2016	Arrive Time	1138
I6	09 May 2016	Depart Time	1140
I6	09 May 2016	Air Temp (C)	17
I6	09 May 2016	Weather	Overcast
I6	09 May 2016	Visibility (mi)	10
I6	09 May 2016	Wind Speed (kts)	8
I6	09 May 2016	Wind Dir	SW
I6	09 May 2016	Water Color	Green
I6	09 May 2016	Wave Ht Low (ft)	2
I6	09 May 2016	Wave Period (sec)	9
I6	09 May 2016	Sea State	Wind ripples
I6	09 May 2016	High Tide (ft)	3.89
I6	09 May 2016	High Tide Time	1227
I6	09 May 2016	Low Tide (ft)	-1.11
I6	09 May 2016	Low Tide Time	604

Station	Date	Parameter	Value
16	09 May 2016	Comments	
17	09 May 2016	Depth (m)	52
17	09 May 2016	Arrive Time	929
17	09 May 2016	Depart Time	933
17	09 May 2016	Air Temp (C)	17
17	09 May 2016	Weather	Overcast
17	09 May 2016	Visibility (mi)	7
17	09 May 2016	Wind Speed (kts)	4
17	09 May 2016	Wind Dir	W
17	09 May 2016	Water Color	Green
17	09 May 2016	Wave Ht Low (ft)	2
17	09 May 2016	Wave Period (sec)	9
17	09 May 2016	Sea State	Calm
17	09 May 2016	High Tide (ft)	3.89
17	09 May 2016	High Tide Time	1227
17	09 May 2016	Low Tide (ft)	-1.11
17	09 May 2016	Low Tide Time	604
17	09 May 2016	Comments	
18	09 May 2016	Depth (m)	37
18	09 May 2016	Arrive Time	1247
18	09 May 2016	Depart Time	1251
18	09 May 2016	Air Temp (C)	17
18	09 May 2016	Weather	Partly Cloudy
18	09 May 2016	Visibility (mi)	12
18	09 May 2016	Wind Speed (kts)	7
18	09 May 2016	Wind Dir	SW
18	09 May 2016	Water Color	Green
18	09 May 2016	Wave Ht Low (ft)	2
18	09 May 2016	Wave Period (sec)	9
18	09 May 2016	Sea State	Wind ripples
18	09 May 2016	High Tide (ft)	3.89
18	09 May 2016	High Tide Time	1227
18	09 May 2016	Low Tide (ft)	-1.11
18	09 May 2016	Low Tide Time	604
18	09 May 2016	Comments	
19	09 May 2016	Depth (m)	29
19	09 May 2016	Arrive Time	1230
19	09 May 2016	Depart Time	1234
19	09 May 2016	Air Temp (C)	17
19	09 May 2016	Weather	Partly Cloudy
19	09 May 2016	Visibility (mi)	12
19	09 May 2016	Wind Speed (kts)	10
19	09 May 2016	Wind Dir	N
19	09 May 2016	Water Color	Green
19	09 May 2016	Wave Ht Low (ft)	2
19	09 May 2016	Wave Period (sec)	9
19	09 May 2016	Sea State	Wind ripples
19	09 May 2016	High Tide (ft)	3.89
19	09 May 2016	High Tide Time	1227
19	09 May 2016	Low Tide (ft)	-1.11
19	09 May 2016	Low Tide Time	604
19	09 May 2016	Comments	

Station	Date	Parameter	Value
I10	09 May 2016	Depth (m)	20
I10	09 May 2016	Arrive Time	1213
I10	09 May 2016	Depart Time	1217
I10	09 May 2016	Air Temp (C)	17
I10	09 May 2016	Weather	Partly Cloudy
I10	09 May 2016	Visibility (mi)	12
I10	09 May 2016	Wind Speed (kts)	8
I10	09 May 2016	Wind Dir	NE
I10	09 May 2016	Water Color	Green
I10	09 May 2016	Wave Ht Low (ft)	2
I10	09 May 2016	Wave Period (sec)	9
I10	09 May 2016	Sea State	Wind ripples
I10	09 May 2016	High Tide (ft)	3.89
I10	09 May 2016	High Tide Time	1227
I10	09 May 2016	Low Tide (ft)	-1.11
I10	09 May 2016	Low Tide Time	604
I10	09 May 2016	Comments	Kelp debris
I11	09 May 2016	Depth (m)	14
I11	09 May 2016	Arrive Time	1157
I11	09 May 2016	Depart Time	1202
I11	09 May 2016	Air Temp (C)	17
I11	09 May 2016	Weather	Overcast
I11	09 May 2016	Visibility (mi)	10
I11	09 May 2016	Wind Speed (kts)	7
I11	09 May 2016	Wind Dir	NE
I11	09 May 2016	Water Color	Green
I11	09 May 2016	Wave Ht Low (ft)	2
I11	09 May 2016	Wave Period (sec)	9
I11	09 May 2016	Sea State	Wind ripples
I11	09 May 2016	High Tide (ft)	3.89
I11	09 May 2016	High Tide Time	1227
I11	09 May 2016	Low Tide (ft)	-1.11
I11	09 May 2016	Low Tide Time	604
I11	09 May 2016	Comments	
I12	10 May 2016	Depth (m)	28
I12	10 May 2016	Arrive Time	1148
I12	10 May 2016	Depart Time	1151
I12	10 May 2016	Air Temp (C)	17
I12	10 May 2016	Weather	Overcast
I12	10 May 2016	Visibility (mi)	10
I12	10 May 2016	Wind Speed (kts)	8
I12	10 May 2016	Wind Dir	NW
I12	10 May 2016	Water Color	Bluish-Green
I12	10 May 2016	Wave Ht Low (ft)	4
I12	10 May 2016	Wave Period (sec)	16
I12	10 May 2016	Sea State	Wind ripples
I12	10 May 2016	High Tide (ft)	3.67
I12	10 May 2016	High Tide Time	1334
I12	10 May 2016	Low Tide (ft)	-0.75
I12	10 May 2016	Low Tide Time	700
I12	10 May 2016	Comments	



Station	Date	Parameter	Value
I13	09 May 2016	Depth (m)	39
I13	09 May 2016	Arrive Time	1305
I13	09 May 2016	Depart Time	1309
I13	09 May 2016	Air Temp (C)	17
I13	09 May 2016	Weather	Partly Cloudy
I13	09 May 2016	Visibility (mi)	12
I13	09 May 2016	Wind Speed (kts)	8
I13	09 May 2016	Wind Dir	N
I13	09 May 2016	Water Color	Green
I13	09 May 2016	Wave Ht Low (ft)	2
I13	09 May 2016	Wave Period (sec)	9
I13	09 May 2016	Sea State	Wind ripples
I13	09 May 2016	High Tide (ft)	3.89
I13	09 May 2016	High Tide Time	1227
I13	09 May 2016	Low Tide (ft)	-1.11
I13	09 May 2016	Low Tide Time	604
I13	09 May 2016	Comments	
I14	10 May 2016	Depth (m)	28
I14	10 May 2016	Arrive Time	1214
I14	10 May 2016	Depart Time	1217
I14	10 May 2016	Air Temp (C)	17
I14	10 May 2016	Weather	Overcast
I14	10 May 2016	Visibility (mi)	10
I14	10 May 2016	Wind Speed (kts)	9
I14	10 May 2016	Wind Dir	SW
I14	10 May 2016	Water Color	Bluish-Green
I14	10 May 2016	Wave Ht Low (ft)	4
I14	10 May 2016	Wave Period (sec)	16
I14	10 May 2016	Sea State	Light chop
I14	10 May 2016	High Tide (ft)	3.67
I14	10 May 2016	High Tide Time	1334
I14	10 May 2016	Low Tide (ft)	-0.75
I14	10 May 2016	Low Tide Time	700
I14	10 May 2016	Comments	
I15	10 May 2016	Depth (m)	32
I15	10 May 2016	Arrive Time	1205
I15	10 May 2016	Depart Time	1208
I15	10 May 2016	Air Temp (C)	17
I15	10 May 2016	Weather	Overcast
I15	10 May 2016	Visibility (mi)	10
I15	10 May 2016	Wind Speed (kts)	7
I15	10 May 2016	Wind Dir	N
I15	10 May 2016	Water Color	Bluish-Green
I15	10 May 2016	Wave Ht Low (ft)	4
I15	10 May 2016	Wave Period (sec)	16
I15	10 May 2016	Sea State	Light chop
I15	10 May 2016	High Tide (ft)	3.67
I15	10 May 2016	High Tide Time	1334
I15	10 May 2016	Low Tide (ft)	-0.75
I15	10 May 2016	Low Tide Time	700
I15	10 May 2016	Comments	
I16	10 May 2016	Depth (m)	28

Station	Date	Parameter	Value
I16	10 May 2016	Arrive Time	1133
I16	10 May 2016	Depart Time	1137
I16	10 May 2016	Air Temp (C)	17
I16	10 May 2016	Weather	Overcast
I16	10 May 2016	Visibility (mi)	10
I16	10 May 2016	Wind Speed (kts)	6
I16	10 May 2016	Wind Dir	S
I16	10 May 2016	Water Color	Bluish-Green
I16	10 May 2016	Wave Ht Low (ft)	4
I16	10 May 2016	Wave Period (sec)	16
I16	10 May 2016	Sea State	Wind ripples
I16	10 May 2016	High Tide (ft)	3.67
I16	10 May 2016	High Tide Time	1334
I16	10 May 2016	Low Tide (ft)	-0.75
I16	10 May 2016	Low Tide Time	700
I16	10 May 2016	Comments	
I17	10 May 2016	Depth (m)	25
I17	10 May 2016	Arrive Time	1124
I17	10 May 2016	Depart Time	1128
I17	10 May 2016	Air Temp (C)	17
I17	10 May 2016	Weather	Overcast
I17	10 May 2016	Visibility (mi)	10
I17	10 May 2016	Wind Speed (kts)	6
I17	10 May 2016	Wind Dir	W
I17	10 May 2016	Water Color	Bluish-Green
I17	10 May 2016	Wave Ht Low (ft)	4
I17	10 May 2016	Wave Period (sec)	16
I17	10 May 2016	Sea State	Wind ripples
I17	10 May 2016	High Tide (ft)	3.67
I17	10 May 2016	High Tide Time	1334
I17	10 May 2016	Low Tide (ft)	-0.75
I17	10 May 2016	Low Tide Time	700
I17	10 May 2016	Comments	
I18	10 May 2016	Depth (m)	20
I18	10 May 2016	Arrive Time	1107
I18	10 May 2016	Depart Time	1114
I18	10 May 2016	Air Temp (C)	17
I18	10 May 2016	Weather	Overcast
I18	10 May 2016	Visibility (mi)	10
I18	10 May 2016	Wind Speed (kts)	8
I18	10 May 2016	Wind Dir	W
I18	10 May 2016	Water Color	Bluish-Green
I18	10 May 2016	Wave Ht Low (ft)	4
I18	10 May 2016	Wave Period (sec)	16
I18	10 May 2016	Sea State	Wind ripples
I18	10 May 2016	High Tide (ft)	3.67
I18	10 May 2016	High Tide Time	1334
I18	10 May 2016	Low Tide (ft)	-0.75
I18	10 May 2016	Low Tide Time	700
I18	10 May 2016	Comments	
I20	09 May 2016	Depth (m)	54
I20	09 May 2016	Arrive Time	903

Station	Date	Parameter	Value
I20	09 May 2016	Depart Time	907
I20	09 May 2016	Air Temp (C)	17
I20	09 May 2016	Weather	Overcast
I20	09 May 2016	Visibility (mi)	5
I20	09 May 2016	Wind Speed (kts)	5
I20	09 May 2016	Wind Dir	SE
I20	09 May 2016	Water Color	Green
I20	09 May 2016	Wave Ht Low (ft)	3
I20	09 May 2016	Wave Period (sec)	9
I20	09 May 2016	Sea State	Calm
I20	09 May 2016	High Tide (ft)	3.89
I20	09 May 2016	High Tide Time	1227
I20	09 May 2016	Low Tide (ft)	-1.11
I20	09 May 2016	Low Tide Time	604
I20	09 May 2016	Comments	Boats
I21	09 May 2016	Depth (m)	41
I21	09 May 2016	Arrive Time	1325
I21	09 May 2016	Depart Time	1335
I21	09 May 2016	Air Temp (C)	17
I21	09 May 2016	Weather	Partly Cloudy
I21	09 May 2016	Visibility (mi)	12
I21	09 May 2016	Wind Speed (kts)	8
I21	09 May 2016	Wind Dir	S
I21	09 May 2016	Water Color	Green
I21	09 May 2016	Wave Ht Low (ft)	2
I21	09 May 2016	Wave Period (sec)	9
I21	09 May 2016	Sea State	Wind ripples
I21	09 May 2016	High Tide (ft)	3.89
I21	09 May 2016	High Tide Time	1227
I21	09 May 2016	Low Tide (ft)	-1.11
I21	09 May 2016	Low Tide Time	604
I21	09 May 2016	Comments	
I22	10 May 2016	Depth (m)	28
I22	10 May 2016	Arrive Time	1226
I22	10 May 2016	Depart Time	1231
I22	10 May 2016	Air Temp (C)	17
I22	10 May 2016	Weather	Overcast
I22	10 May 2016	Visibility (mi)	10
I22	10 May 2016	Wind Speed (kts)	9
I22	10 May 2016	Wind Dir	SW
I22	10 May 2016	Water Color	Bluish-Green
I22	10 May 2016	Wave Ht Low (ft)	4
I22	10 May 2016	Wave Period (sec)	16
I22	10 May 2016	Sea State	Light chop
I22	10 May 2016	High Tide (ft)	3.67
I22	10 May 2016	High Tide Time	1334
I22	10 May 2016	Low Tide (ft)	-0.75
I22	10 May 2016	Low Tide Time	700
I22	10 May 2016	Comments	
I23	10 May 2016	Depth (m)	21
I23	10 May 2016	Arrive Time	1239
I23	10 May 2016	Depart Time	1246

Station	Date	Parameter	Value
I23	10 May 2016	Air Temp (C)	17
I23	10 May 2016	Weather	Overcast
I23	10 May 2016	Visibility (mi)	10
I23	10 May 2016	Wind Speed (kts)	8
I23	10 May 2016	Wind Dir	W
I23	10 May 2016	Water Color	Bluish-Green
I23	10 May 2016	Wave Ht Low (ft)	4
I23	10 May 2016	Wave Period (sec)	16
I23	10 May 2016	Sea State	Light chop
I23	10 May 2016	High Tide (ft)	3.67
I23	10 May 2016	High Tide Time	1334
I23	10 May 2016	Low Tide (ft)	-0.75
I23	10 May 2016	Low Tide Time	700
I23	10 May 2016	Comments	Kelp debris
I27	10 May 2016	Depth (m)	27
I27	10 May 2016	Arrive Time	902
I27	10 May 2016	Depart Time	911
I27	10 May 2016	Air Temp (C)	17
I27	10 May 2016	Weather	Overcast
I27	10 May 2016	Visibility (mi)	10
I27	10 May 2016	Wind Speed (kts)	4
I27	10 May 2016	Wind Dir	NE
I27	10 May 2016	Water Color	Bluish-Green
I27	10 May 2016	Wave Ht Low (ft)	4
I27	10 May 2016	Wave Period (sec)	16
I27	10 May 2016	Sea State	Wind ripples
I27	10 May 2016	High Tide (ft)	3.67
I27	10 May 2016	High Tide Time	1334
I27	10 May 2016	Low Tide (ft)	-0.75
I27	10 May 2016	Low Tide Time	700
I27	10 May 2016	Comments	
I28	11 May 2016	Depth (m)	38
I28	11 May 2016	Arrive Time	845
I28	11 May 2016	Depart Time	906
I28	11 May 2016	Air Temp (C)	16
I28	11 May 2016	Weather	Continuous layer of clouds
I28	11 May 2016	Visibility (mi)	8
I28	11 May 2016	Wind Speed (kts)	6
I28	11 May 2016	Wind Dir	SE
I28	11 May 2016	Water Color	Green
I28	11 May 2016	Wave Ht Low (ft)	4
I28	11 May 2016	Wave Period (sec)	13
I28	11 May 2016	Sea State	Wind ripples
I28	11 May 2016	High Tide (ft)	3.6
I28	11 May 2016	High Tide Time	1452
I28	11 May 2016	Low Tide (ft)	-0.33
I28	11 May 2016	Low Tide Time	801
I28	11 May 2016	Comments	
I29	11 May 2016	Depth (m)	36
I29	11 May 2016	Arrive Time	913
I29	11 May 2016	Depart Time	924
I29	11 May 2016	Air Temp (C)	17

Station	Date	Parameter	Value
I29	11 May 2016	Weather	Continuous layer of clouds
I29	11 May 2016	Visibility (mi)	8
I29	11 May 2016	Wind Speed (kts)	3
I29	11 May 2016	Wind Dir	S
I29	11 May 2016	Water Color	Green
I29	11 May 2016	Wave Ht Low (ft)	4
I29	11 May 2016	Wave Period (sec)	13
I29	11 May 2016	Sea State	Wind ripples
I29	11 May 2016	High Tide (ft)	3.6
I29	11 May 2016	High Tide Time	1452
I29	11 May 2016	Low Tide (ft)	-0.33
I29	11 May 2016	Low Tide Time	801
I29	11 May 2016	Comments	Gill netting vessel on station; Unable to get better location to obtain depth
I30	11 May 2016	Depth (m)	27
I30	11 May 2016	Arrive Time	936
I30	11 May 2016	Depart Time	944
I30	11 May 2016	Air Temp (C)	16
I30	11 May 2016	Weather	Continuous layer of clouds
I30	11 May 2016	Visibility (mi)	8
I30	11 May 2016	Wind Speed (kts)	6
I30	11 May 2016	Wind Dir	SW
I30	11 May 2016	Water Color	Green
I30	11 May 2016	Wave Ht Low (ft)	4
I30	11 May 2016	Wave Period (sec)	13
I30	11 May 2016	Sea State	Wind ripples
I30	11 May 2016	High Tide (ft)	3.6
I30	11 May 2016	High Tide Time	1452
I30	11 May 2016	Low Tide (ft)	-0.33
I30	11 May 2016	Low Tide Time	801
I30	11 May 2016	Comments	
I31	11 May 2016	Depth (m)	18
I31	11 May 2016	Arrive Time	953
I31	11 May 2016	Depart Time	1000
I31	11 May 2016	Air Temp (C)	17
I31	11 May 2016	Weather	Continuous layer of clouds
I31	11 May 2016	Visibility (mi)	10
I31	11 May 2016	Wind Speed (kts)	6
I31	11 May 2016	Wind Dir	NW
I31	11 May 2016	Water Color	Green
I31	11 May 2016	Wave Ht Low (ft)	4
I31	11 May 2016	Wave Period (sec)	13
I31	11 May 2016	Sea State	Wind ripples
I31	11 May 2016	High Tide (ft)	3.6
I31	11 May 2016	High Tide Time	1452
I31	11 May 2016	Low Tide (ft)	-0.33
I31	11 May 2016	Low Tide Time	801
I31	11 May 2016	Comments	
I33	11 May 2016	Depth (m)	29
I33	11 May 2016	Arrive Time	820
I33	11 May 2016	Depart Time	829
I33	11 May 2016	Air Temp (C)	16

Station	Date	Parameter	Value
I33	11 May 2016	Weather	Continuous layer of clouds
I33	11 May 2016	Visibility (mi)	8
I33	11 May 2016	Wind Speed (kts)	4
I33	11 May 2016	Wind Dir	W
I33	11 May 2016	Water Color	Green
I33	11 May 2016	Wave Ht Low (ft)	4
I33	11 May 2016	Wave Period (sec)	13
I33	11 May 2016	Sea State	Wind ripples
I33	11 May 2016	High Tide (ft)	3.6
I33	11 May 2016	High Tide Time	1452
I33	11 May 2016	Low Tide (ft)	-0.33
I33	11 May 2016	Low Tide Time	801
I33	11 May 2016	Comments	
I34	11 May 2016	Depth (m)	18
I34	11 May 2016	Arrive Time	804
I34	11 May 2016	Depart Time	813
I34	11 May 2016	Air Temp (C)	17
I34	11 May 2016	Weather	Continuous layer of clouds
I34	11 May 2016	Visibility (mi)	8
I34	11 May 2016	Wind Speed (kts)	3
I34	11 May 2016	Wind Dir	N
I34	11 May 2016	Water Color	Green
I34	11 May 2016	Wave Ht Low (ft)	4
I34	11 May 2016	Wave Period (sec)	13
I34	11 May 2016	Sea State	Wind ripples
I34	11 May 2016	High Tide (ft)	3.6
I34	11 May 2016	High Tide Time	1452
I34	11 May 2016	Low Tide (ft)	-0.33
I34	11 May 2016	Low Tide Time	801
I34	11 May 2016	Comments	
I35	11 May 2016	Depth (m)	18
I35	11 May 2016	Arrive Time	1056
I35	11 May 2016	Depart Time	1101
I35	11 May 2016	Air Temp (C)	17
I35	11 May 2016	Weather	Continuous layer of clouds
I35	11 May 2016	Visibility (mi)	10
I35	11 May 2016	Wind Speed (kts)	6
I35	11 May 2016	Wind Dir	N
I35	11 May 2016	Water Color	Green
I35	11 May 2016	Wave Ht Low (ft)	4
I35	11 May 2016	Wave Period (sec)	13
I35	11 May 2016	Sea State	Wind ripples
I35	11 May 2016	High Tide (ft)	3.6
I35	11 May 2016	High Tide Time	1452
I35	11 May 2016	Low Tide (ft)	-0.33
I35	11 May 2016	Low Tide Time	801
I35	11 May 2016	Comments	
I36	11 May 2016	Depth (m)	10
I36	11 May 2016	Arrive Time	1036
I36	11 May 2016	Depart Time	1043
I36	11 May 2016	Air Temp (C)	17
I36	11 May 2016	Weather	Continuous layer of clouds

Station	Date	Parameter	Value
I36	11 May 2016	Visibility (mi)	10
I36	11 May 2016	Wind Speed (kts)	6
I36	11 May 2016	Wind Dir	N
I36	11 May 2016	Water Color	Green
I36	11 May 2016	Wave Ht Low (ft)	4
I36	11 May 2016	Wave Period (sec)	13
I36	11 May 2016	Sea State	Wind ripples
I36	11 May 2016	High Tide (ft)	3.6
I36	11 May 2016	High Tide Time	1452
I36	11 May 2016	Low Tide (ft)	-0.33
I36	11 May 2016	Low Tide Time	801
I36	11 May 2016	Comments	
I37	11 May 2016	Depth (m)	11
I37	11 May 2016	Arrive Time	747
I37	11 May 2016	Depart Time	753
I37	11 May 2016	Air Temp (C)	16
I37	11 May 2016	Weather	Continuous layer of clouds
I37	11 May 2016	Visibility (mi)	8
I37	11 May 2016	Wind Speed (kts)	2
I37	11 May 2016	Wind Dir	NE
I37	11 May 2016	Water Color	Green
I37	11 May 2016	Wave Ht Low (ft)	4
I37	11 May 2016	Wave Period (sec)	13
I37	11 May 2016	Sea State	Wind ripples
I37	11 May 2016	High Tide (ft)	3.6
I37	11 May 2016	High Tide Time	1452
I37	11 May 2016	Low Tide (ft)	-0.33
I37	11 May 2016	Low Tide Time	801
I37	11 May 2016	Comments	
I38	11 May 2016	Depth (m)	11
I38	11 May 2016	Arrive Time	1113
I38	11 May 2016	Depart Time	1123
I38	11 May 2016	Air Temp (C)	17
I38	11 May 2016	Weather	Continuous layer of clouds
I38	11 May 2016	Visibility (mi)	10
I38	11 May 2016	Wind Speed (kts)	7
I38	11 May 2016	Wind Dir	NW
I38	11 May 2016	Water Color	Green
I38	11 May 2016	Wave Ht Low (ft)	4
I38	11 May 2016	Wave Period (sec)	13
I38	11 May 2016	Sea State	Wind ripples
I38	11 May 2016	High Tide (ft)	3.6
I38	11 May 2016	High Tide Time	1452
I38	11 May 2016	Low Tide (ft)	-0.33
I38	11 May 2016	Low Tide Time	801
I38	11 May 2016	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	09 May 2016	1	17.10	84.10	7.7	33.48	8.1	24.3	0.80
I1	09 May 2016	2	17.11	84.10	7.6	33.49	8.1	24.3	0.82
I1	09 May 2016	3	17.07	84.06	7.6	33.49	8.1	24.3	0.88
I1	09 May 2016	4	17.00	83.92	7.7	33.49	8.1	24.4	0.96
I1	09 May 2016	5	16.88	84.40	7.6	33.49	8.0	24.4	0.97
I1	09 May 2016	6	16.68	86.08	7.5	33.50	8.0	24.4	0.93
I1	09 May 2016	7	16.48	86.73	7.4	33.50	8.0	24.5	0.86
I1	09 May 2016	8	15.62	83.05	7.7	33.50	8.0	24.7	1.12
I1	09 May 2016	9	15.49	82.83	7.7	33.48	8.0	24.7	1.54
I1	09 May 2016	10	15.17	82.43	7.6	33.49	8.0	24.8	1.87
I1	09 May 2016	11	14.86	81.65	7.6	33.48	8.0	24.8	2.25
I1	09 May 2016	12	14.36	82.96	7.1	33.49	8.0	24.9	2.45
I1	09 May 2016	13	13.29	85.24	6.6	33.50	7.9	25.2	2.36
I1	09 May 2016	14	12.89	86.15	6.1	33.47	7.9	25.2	2.45
I1	09 May 2016	15	12.67	86.67	5.9	33.47	7.9	25.3	2.21
I1	09 May 2016	16	12.56	86.75	5.8	33.47	7.9	25.3	2.24
I1	09 May 2016	17	12.35	86.92	5.6	33.48	7.8	25.3	2.07
I1	09 May 2016	18	12.20	87.08	5.5	33.48	7.8	25.4	1.80
I1	09 May 2016	19	12.05	87.49	5.4	33.48	7.8	25.4	1.73
I1	09 May 2016	20	11.91	87.45	5.3	33.49	7.8	25.4	1.60
I1	09 May 2016	21	11.76	87.69	5.2	33.49	7.8	25.5	1.47
I1	09 May 2016	22	11.73	87.72	5.1	33.50	7.8	25.5	1.32
I1	09 May 2016	23	11.67	87.80	5.1	33.50	7.8	25.5	1.36
I1	09 May 2016	24	11.63	87.71	5.1	33.51	7.8	25.5	1.38
I1	09 May 2016	25	11.61	87.56	5.0	33.51	7.8	25.5	1.27
I1	09 May 2016	26	11.59	87.67	5.0	33.51	7.8	25.5	1.27
I1	09 May 2016	27	11.57	87.81	5.0	33.51	7.8	25.5	1.22
I1	09 May 2016	28	11.56	87.87	5.0	33.51	7.8	25.5	1.21
I1	09 May 2016	29	11.56	87.80	5.0	33.51	7.8	25.5	1.21
I1	09 May 2016	30	11.54	87.74	5.0	33.51	7.8	25.5	1.17
I1	09 May 2016	31	11.53	87.69	4.9	33.51	7.8	25.5	1.19
I1	09 May 2016	32	11.52	87.81	5.0	33.51	7.8	25.5	1.19
I1	09 May 2016	33	11.51	87.91	5.0	33.51	7.8	25.5	1.25
I1	09 May 2016	34	11.51	88.01	5.0	33.51	7.8	25.5	1.16
I1	09 May 2016	35	11.51	88.05	5.0	33.51	7.8	25.5	1.19
I1	09 May 2016	36	11.48	88.00	5.0	33.52	7.8	25.5	1.26
I1	09 May 2016	37	11.47	87.97	5.0	33.52	7.8	25.5	1.18
I1	09 May 2016	38	11.44	87.93	4.9	33.52	7.8	25.5	1.23
I1	09 May 2016	39	11.42	87.94	4.9	33.52	7.8	25.5	1.13
I1	09 May 2016	40	11.38	87.91	4.9	33.52	7.8	25.6	1.19
I1	09 May 2016	41	11.27	87.89	4.8	33.53	7.8	25.6	1.11
I1	09 May 2016	42	11.23	87.89	4.8	33.53	7.7	25.6	1.03
I1	09 May 2016	43	11.06	87.56	4.7	33.55	7.7	25.6	0.94
I1	09 May 2016	44	11.04	87.46	4.6	33.55	7.7	25.6	0.89
I1	09 May 2016	45	10.97	87.58	4.6	33.56	7.7	25.7	0.83
I1	09 May 2016	46	10.86	87.53	4.5	33.57	7.7	25.7	0.77
I1	09 May 2016	47	10.80	87.35	4.5	33.58	7.7	25.7	0.72
I1	09 May 2016	48	10.76	87.12	4.5	33.58	7.7	25.7	0.67
I1	09 May 2016	49	10.74	86.99	4.4	33.59	7.7	25.7	0.64
I1	09 May 2016	50	10.74	86.91	4.5	33.59	7.7	25.7	0.64
I1	09 May 2016	51	10.74	86.79	4.4	33.59	7.7	25.7	0.64



Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I1	09 May 2016	52	10.74	86.56	4.4	33.59	7.7	25.7	0.64
I1	09 May 2016	53	10.73	86.69	4.4	33.59	7.7	25.7	0.61
I1	09 May 2016	54	10.72	86.73	4.4	33.59	7.7	25.7	0.61
I1	09 May 2016	55	10.69	86.68	4.4	33.60	7.7	25.7	0.59
I1	09 May 2016	56	10.67	86.52	4.3	33.60	7.7	25.7	0.56
I1	09 May 2016	57	10.65	86.33	4.3	33.61	7.7	25.8	0.56
I1	09 May 2016	58	10.64	86.30	4.3	33.61	7.7	25.8	0.54
I1	09 May 2016	59	10.64	86.31	4.3	33.61	7.7	25.8	0.53
I1	09 May 2016	60	10.64	86.33	4.3	33.61	7.7	25.8	0.53
I2	09 May 2016	1	17.11	84.06	8.0	33.44	8.1	24.3	0.94
I2	09 May 2016	2	17.11	84.16	8.0	33.44	8.1	24.3	0.96
I2	09 May 2016	3	17.10	84.26	8.0	33.44	8.1	24.3	1.02
I2	09 May 2016	4	17.09	84.22	8.0	33.44	8.1	24.3	1.10
I2	09 May 2016	5	17.09	84.23	7.9	33.44	8.1	24.3	1.15
I2	09 May 2016	6	17.07	83.88	7.9	33.44	8.1	24.3	1.18
I2	09 May 2016	7	17.05	83.75	7.9	33.44	8.1	24.3	1.28
I2	09 May 2016	8	16.96	83.36	7.9	33.44	8.1	24.3	1.35
I2	09 May 2016	9	16.59	82.51	8.1	33.46	8.1	24.4	1.54
I2	09 May 2016	10	16.43	81.66	8.3	33.46	8.1	24.5	1.76
I2	09 May 2016	11	15.84	80.70	8.6	33.47	8.1	24.6	2.26
I2	09 May 2016	12	15.38	80.32	8.7	33.46	8.1	24.7	3.12
I2	09 May 2016	13	14.97	82.05	7.8	33.47	8.1	24.8	3.81
I2	09 May 2016	14	13.92	78.39	7.2	33.47	8.0	25.0	4.51
I2	09 May 2016	15	12.97	79.67	6.4	33.49	7.9	25.2	4.53
I2	09 May 2016	16	12.60	82.74	5.8	33.47	7.9	25.3	3.78
I2	09 May 2016	17	12.57	82.82	5.8	33.46	7.9	25.3	3.48
I2	09 May 2016	18	12.54	82.66	5.8	33.46	7.8	25.3	3.54
I2	09 May 2016	19	12.50	83.01	5.7	33.46	7.8	25.3	3.40
I2	09 May 2016	20	12.47	83.85	5.7	33.47	7.8	25.3	2.95
I2	09 May 2016	21	12.43	83.56	5.7	33.47	7.8	25.3	2.72
I2	09 May 2016	22	12.40	83.83	5.7	33.48	7.8	25.3	2.69
I2	09 May 2016	23	12.38	83.75	5.6	33.48	7.8	25.3	2.70
I2	09 May 2016	24	12.37	84.22	5.6	33.48	7.8	25.3	2.42
I2	09 May 2016	25	12.36	84.58	5.6	33.48	7.8	25.3	2.30
I2	09 May 2016	26	12.35	84.52	5.6	33.49	7.8	25.3	2.31
I2	09 May 2016	27	12.33	84.70	5.5	33.49	7.8	25.4	2.40
I2	09 May 2016	28	12.33	85.24	5.5	33.49	7.8	25.4	2.36
I2	09 May 2016	29	12.31	85.55	5.5	33.49	7.8	25.4	1.95
I2	09 May 2016	30	12.29	86.04	5.4	33.50	7.8	25.4	1.73
I2	09 May 2016	31	12.28	86.25	5.4	33.50	7.8	25.4	1.63
I2	09 May 2016	32	12.27	85.45	5.3	33.50	7.8	25.4	1.65
I3	09 May 2016	1	17.27	81.89	8.1	33.43	8.1	24.2	0.73
I3	09 May 2016	2	17.25	81.85	8.0	33.43	8.1	24.2	0.75
I3	09 May 2016	3	17.20	81.68	8.1	33.43	8.1	24.3	0.83
I3	09 May 2016	4	17.16	81.44	8.1	33.43	8.1	24.3	0.91
I3	09 May 2016	5	17.11	81.20	8.0	33.43	8.1	24.3	1.02
I3	09 May 2016	6	17.00	80.86	8.0	33.43	8.1	24.3	1.14
I3	09 May 2016	7	16.86	80.51	8.1	33.44	8.1	24.3	1.28
I3	09 May 2016	8	16.76	80.26	8.0	33.44	8.1	24.4	1.35
I3	09 May 2016	9	16.51	80.46	8.1	33.45	8.1	24.4	1.43
I3	09 May 2016	10	16.42	80.88	8.2	33.46	8.1	24.5	1.55
I3	09 May 2016	11	16.40	80.90	8.1	33.46	8.1	24.5	1.66
I3	09 May 2016	12	16.33	81.01	8.0	33.46	8.1	24.5	1.74

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I3	09 May 2016	13	15.86	80.78	8.0	33.49	8.1	24.6	2.01
I3	09 May 2016	14	15.07	79.40	7.9	33.50	8.1	24.8	2.80
I3	09 May 2016	15	14.06	76.96	7.6	33.49	8.0	25.0	4.29
I3	09 May 2016	16	13.78	77.19	7.2	33.47	8.0	25.1	4.98
I3	09 May 2016	17	13.70	77.64	7.1	33.47	8.0	25.1	5.16
I3	09 May 2016	18	13.69	78.07	7.1	33.47	8.0	25.1	5.25
I3	09 May 2016	19	13.62	78.89	7.0	33.47	8.0	25.1	4.93
I3	09 May 2016	20	13.52	79.80	6.9	33.47	8.0	25.1	4.35
I3	09 May 2016	21	13.41	80.54	6.8	33.47	7.9	25.1	4.17
I3	09 May 2016	22	13.23	80.82	6.6	33.48	7.9	25.2	3.91
I3	09 May 2016	23	13.07	80.83	6.4	33.48	7.9	25.2	3.78
I3	09 May 2016	24	13.03	80.51	6.4	33.47	7.9	25.2	3.63
I3	09 May 2016	25	13.02	80.18	6.3	33.48	7.9	25.2	3.60
I3	09 May 2016	26	13.01	79.84	6.4	33.48	7.9	25.2	3.66
I3	09 May 2016	27	13.00	79.50	6.4	33.48	7.9	25.2	3.83
I4	09 May 2016	1	17.08	73.61	8.3	33.42	8.1	24.3	1.18
I4	09 May 2016	2	16.99	73.57	8.3	33.43	8.1	24.3	1.27
I4	09 May 2016	3	16.79	73.78	8.3	33.43	8.1	24.4	1.50
I4	09 May 2016	4	16.63	74.86	8.2	33.43	8.1	24.4	1.76
I4	09 May 2016	5	16.48	76.86	8.2	33.44	8.1	24.4	1.91
I4	09 May 2016	6	16.32	79.05	8.2	33.45	8.1	24.5	2.03
I4	09 May 2016	7	16.30	79.59	8.2	33.45	8.1	24.5	2.13
I4	09 May 2016	8	16.26	79.59	8.2	33.45	8.1	24.5	2.32
I4	09 May 2016	9	16.00	79.43	8.2	33.46	8.1	24.6	2.64
I4	09 May 2016	10	15.72	78.36	8.2	33.47	8.1	24.6	3.11
I4	09 May 2016	11	15.22	76.22	8.1	33.47	8.1	24.7	3.92
I4	09 May 2016	12	15.11	76.57	8.1	33.48	8.0	24.8	4.48
I4	09 May 2016	13	15.10	78.03	8.0	33.48	8.0	24.8	4.63
I4	09 May 2016	14	15.00	78.04	8.0	33.49	8.0	24.8	4.46
I4	09 May 2016	15	14.80	74.53	7.9	33.48	8.0	24.8	4.52
I4	09 May 2016	16	14.63	72.28	7.8	33.47	8.0	24.9	4.66
I4	09 May 2016	17	14.57	72.28	7.8	33.47	8.0	24.9	4.73
I4	09 May 2016	18	14.52	72.48	7.7	33.47	8.0	24.9	4.66
I5	09 May 2016	1	16.80	70.85	8.2	33.44	8.1	24.4	1.41
I5	09 May 2016	2	16.78	70.64	8.2	33.44	8.1	24.4	1.47
I5	09 May 2016	3	16.72	70.08	8.2	33.44	8.1	24.4	1.84
I5	09 May 2016	4	16.63	69.41	8.2	33.44	8.1	24.4	2.22
I5	09 May 2016	5	16.51	68.49	8.2	33.44	8.1	24.4	2.58
I5	09 May 2016	6	16.43	67.61	8.2	33.44	8.1	24.4	3.00
I5	09 May 2016	7	16.05	72.10	8.2	33.46	8.1	24.6	3.27
I5	09 May 2016	8	15.85	78.08	8.3	33.47	8.1	24.6	3.08
I5	09 May 2016	9	15.74	77.59	8.3	33.46	8.1	24.6	3.23
I5	09 May 2016	10	15.55	76.58	8.2	33.46	8.1	24.7	3.54
I5	09 May 2016	11	15.37	77.01	8.2	33.46	8.1	24.7	3.73
I5	09 May 2016	12	15.33	73.70	8.2	33.46	8.1	24.7	3.87
I5	09 May 2016	13	15.24	61.53	8.1	33.47	8.0	24.7	3.84
I5	09 May 2016	14	15.13	39.35	8.0	33.47	8.0	24.8	4.14
I6	09 May 2016	1	17.81	73.36	8.2	33.42	8.1	24.1	0.99
I6	09 May 2016	2	17.80	75.08	8.2	33.42	8.1	24.1	1.03
I6	09 May 2016	3	17.74	75.12	8.2	33.42	8.1	24.1	1.17
I6	09 May 2016	4	17.57	75.03	8.2	33.43	8.1	24.2	1.37
I6	09 May 2016	5	17.28	76.72	8.1	33.43	8.1	24.2	1.76

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I6	09 May 2016	6	16.86	80.67	8.2	33.45	8.1	24.4	1.93
I6	09 May 2016	7	16.78	81.47	8.3	33.44	8.1	24.4	1.91
I6	09 May 2016	8	16.37	81.16	8.4	33.45	8.1	24.5	1.89
I6	09 May 2016	9	16.02	80.00	8.6	33.45	8.1	24.6	2.10
I6	09 May 2016	10	15.68	79.20	8.8	33.46	8.1	24.6	2.39
I6	09 May 2016	11	15.15	78.10	9.0	33.47	8.1	24.8	2.81
I6	09 May 2016	12	14.61	76.15	8.9	33.47	8.1	24.9	3.50
I6	09 May 2016	13	14.27	73.43	8.5	33.47	8.1	24.9	4.55
I6	09 May 2016	14	13.91	73.41	7.6	33.47	8.0	25.0	5.63
I6	09 May 2016	15	13.62	76.31	7.1	33.47	8.0	25.1	6.15
I6	09 May 2016	16	13.57	76.50	7.0	33.47	8.0	25.1	6.29
I6	09 May 2016	17	13.43	76.98	6.8	33.47	8.0	25.1	6.29
I6	09 May 2016	18	13.24	77.18	6.7	33.47	7.9	25.2	5.81
I6	09 May 2016	19	13.17	78.62	6.6	33.47	7.9	25.2	4.99
I6	09 May 2016	20	13.13	79.91	6.4	33.48	7.9	25.2	4.08
I6	09 May 2016	21	13.11	79.42	6.3	33.48	7.9	25.2	3.52
I6	09 May 2016	22	13.11	78.96	6.3	33.48	7.9	25.2	3.20
I6	09 May 2016	23	13.11	78.59	6.3	33.48	7.9	25.2	3.15
I6	09 May 2016	24	13.11	78.12	6.3	33.48	7.9	25.2	3.03
I6	09 May 2016	25	13.11	77.76	6.3	33.49	7.9	25.2	3.19
I6	09 May 2016	26	13.11	74.91	6.4	33.49	7.9	25.2	3.26
I7	09 May 2016	1	17.05	83.67	7.8	33.50	8.1	24.3	1.29
I7	09 May 2016	2	17.05	83.75	7.8	33.50	8.1	24.3	1.35
I7	09 May 2016	3	17.05	83.75	7.8	33.50	8.1	24.3	1.43
I7	09 May 2016	4	17.03	83.63	7.8	33.50	8.1	24.4	1.48
I7	09 May 2016	5	16.99	83.60	7.7	33.50	8.1	24.4	1.57
I7	09 May 2016	6	16.91	83.45	7.6	33.50	8.1	24.4	1.63
I7	09 May 2016	7	16.78	83.70	7.6	33.50	8.1	24.4	1.70
I7	09 May 2016	8	16.62	84.47	7.5	33.49	8.0	24.4	1.66
I7	09 May 2016	9	16.13	85.29	7.4	33.50	8.0	24.6	1.58
I7	09 May 2016	10	15.67	85.11	7.5	33.49	8.0	24.7	1.73
I7	09 May 2016	11	15.39	82.88	7.7	33.49	8.0	24.7	2.26
I7	09 May 2016	12	14.91	80.39	7.6	33.48	8.0	24.8	3.14
I7	09 May 2016	13	14.23	78.19	7.3	33.48	8.0	25.0	3.93
I7	09 May 2016	14	13.64	80.29	7.1	33.47	8.0	25.1	4.14
I7	09 May 2016	15	13.36	82.01	7.0	33.45	8.0	25.1	3.97
I7	09 May 2016	16	13.31	82.63	6.9	33.45	7.9	25.1	3.68
I7	09 May 2016	17	13.30	83.03	6.9	33.45	7.9	25.1	3.54
I7	09 May 2016	18	13.25	83.20	6.8	33.45	7.9	25.1	3.54
I7	09 May 2016	19	13.08	83.86	6.6	33.45	7.9	25.2	3.36
I7	09 May 2016	20	13.01	84.44	6.4	33.45	7.9	25.2	3.26
I7	09 May 2016	21	12.89	84.94	6.3	33.45	7.9	25.2	2.94
I7	09 May 2016	22	12.72	85.65	6.1	33.45	7.9	25.3	2.66
I7	09 May 2016	23	12.55	86.00	6.0	33.47	7.9	25.3	2.43
I7	09 May 2016	24	12.51	86.25	5.9	33.48	7.9	25.3	2.19
I7	09 May 2016	25	12.44	86.08	5.8	33.49	7.8	25.3	2.08
I7	09 May 2016	26	12.36	86.49	5.7	33.49	7.8	25.3	1.99
I7	09 May 2016	27	12.26	86.53	5.6	33.49	7.8	25.4	1.96
I7	09 May 2016	28	12.17	86.51	5.5	33.49	7.8	25.4	1.90
I7	09 May 2016	29	12.09	86.61	5.5	33.50	7.8	25.4	1.91
I7	09 May 2016	30	11.99	86.58	5.3	33.50	7.8	25.4	1.83
I7	09 May 2016	31	11.82	86.46	5.2	33.51	7.8	25.5	1.78
I7	09 May 2016	32	11.69	86.57	5.1	33.51	7.8	25.5	1.71
I7	09 May 2016	33	11.64	86.75	5.1	33.51	7.8	25.5	1.72

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
17	09 May 2016	34	11.55	87.08	5.0	33.52	7.8	25.5	1.63
17	09 May 2016	35	11.49	87.36	5.0	33.52	7.8	25.5	1.56
17	09 May 2016	36	11.43	87.50	5.0	33.53	7.8	25.6	1.41
17	09 May 2016	37	11.37	87.39	4.9	33.53	7.8	25.6	1.32
17	09 May 2016	38	11.31	87.47	4.8	33.54	7.8	25.6	1.32
17	09 May 2016	39	11.25	87.36	4.7	33.54	7.8	25.6	1.21
17	09 May 2016	40	11.18	87.02	4.7	33.55	7.7	25.6	1.14
17	09 May 2016	41	11.09	87.16	4.7	33.55	7.7	25.6	1.05
17	09 May 2016	42	11.03	87.23	4.7	33.56	7.7	25.7	0.98
17	09 May 2016	43	10.99	87.14	4.6	33.56	7.7	25.7	0.93
17	09 May 2016	44	10.95	87.04	4.5	33.57	7.7	25.7	0.89
17	09 May 2016	45	10.89	86.94	4.5	33.58	7.7	25.7	0.84
17	09 May 2016	46	10.85	86.93	4.5	33.58	7.7	25.7	0.81
17	09 May 2016	47	10.84	87.20	4.5	33.58	7.7	25.7	0.75
17	09 May 2016	48	10.80	87.20	4.5	33.59	7.7	25.7	0.72
17	09 May 2016	49	10.77	87.04	4.4	33.59	7.7	25.7	0.69
17	09 May 2016	50	10.76	87.07	4.4	33.59	7.7	25.7	0.68
17	09 May 2016	51	10.75	87.09	4.4	33.60	7.7	25.7	0.65
18	09 May 2016	1	17.74	87.27	7.7	33.48	8.1	24.2	0.51
18	09 May 2016	2	17.74	84.08	7.7	33.48	8.1	24.2	0.52
18	09 May 2016	3	17.72	87.42	7.6	33.48	8.1	24.2	0.53
18	09 May 2016	4	17.57	87.34	7.6	33.48	8.1	24.2	0.56
18	09 May 2016	5	17.50	87.31	7.8	33.48	8.1	24.2	0.59
18	09 May 2016	6	17.45	87.23	7.7	33.48	8.1	24.2	0.65
18	09 May 2016	7	17.31	87.35	7.8	33.49	8.1	24.3	0.66
18	09 May 2016	8	17.19	87.01	7.8	33.49	8.1	24.3	0.77
18	09 May 2016	9	17.18	87.04	7.8	33.49	8.1	24.3	0.81
18	09 May 2016	10	17.18	86.95	7.7	33.49	8.1	24.3	0.81
18	09 May 2016	11	17.07	83.77	7.7	33.49	8.1	24.3	0.82
18	09 May 2016	12	16.94	87.18	7.8	33.48	8.1	24.4	0.87
18	09 May 2016	13	16.74	87.41	7.8	33.49	8.1	24.4	0.91
18	09 May 2016	14	16.66	87.17	7.8	33.48	8.1	24.4	1.00
18	09 May 2016	15	16.53	86.69	7.7	33.49	8.1	24.5	1.14
18	09 May 2016	16	16.12	86.02	7.4	33.48	8.1	24.6	1.46
18	09 May 2016	17	14.50	84.82	7.1	33.53	8.0	24.9	2.07
18	09 May 2016	18	13.56	86.31	6.8	33.49	8.0	25.1	2.05
18	09 May 2016	19	13.17	86.23	6.4	33.48	7.9	25.2	1.95
18	09 May 2016	20	12.89	86.43	6.2	33.47	7.9	25.2	2.24
18	09 May 2016	21	12.73	87.52	6.0	33.47	7.9	25.3	2.02
18	09 May 2016	22	12.59	84.99	5.8	33.46	7.9	25.3	1.74
18	09 May 2016	23	12.46	88.01	5.7	33.47	7.8	25.3	1.65
18	09 May 2016	24	12.30	87.79	5.5	33.48	7.8	25.3	1.69
18	09 May 2016	25	12.27	87.91	5.4	33.48	7.8	25.4	1.48
18	09 May 2016	26	12.25	87.79	5.3	33.49	7.8	25.4	1.50
18	09 May 2016	27	12.24	87.61	5.2	33.49	7.8	25.4	1.35
18	09 May 2016	28	12.24	87.01	5.2	33.49	7.8	25.4	1.21
18	09 May 2016	29	12.24	86.20	5.2	33.50	7.8	25.4	1.35
18	09 May 2016	30	12.22	86.78	5.2	33.50	7.8	25.4	1.34
18	09 May 2016	31	12.21	86.65	5.1	33.50	7.8	25.4	1.44
18	09 May 2016	32	12.20	86.56	5.1	33.50	7.8	25.4	1.86
18	09 May 2016	33	12.18	86.04	5.1	33.50	7.8	25.4	1.60
18	09 May 2016	34	12.17	86.37	5.1	33.51	7.8	25.4	1.52
18	09 May 2016	35	12.17	86.01	5.1	33.51	7.8	25.4	1.45
18	09 May 2016	36	12.17	80.87	5.1	33.51	7.8	25.4	1.43

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I9	09 May 2016	1	17.89	83.47	8.0	33.42	8.1	24.1	0.65
I9	09 May 2016	2	17.90	83.94	8.0	33.42	8.1	24.1	0.65
I9	09 May 2016	3	17.85	83.77	8.0	33.42	8.1	24.1	0.72
I9	09 May 2016	4	17.77	83.50	8.0	33.41	8.1	24.1	0.80
I9	09 May 2016	5	17.70	83.85	8.0	33.41	8.1	24.1	0.94
I9	09 May 2016	6	17.66	83.54	8.0	33.42	8.1	24.1	0.91
I9	09 May 2016	7	17.61	82.52	7.9	33.42	8.1	24.2	1.09
I9	09 May 2016	8	17.37	82.74	7.9	33.46	8.1	24.2	1.33
I9	09 May 2016	9	17.06	82.90	8.0	33.48	8.1	24.3	1.77
I9	09 May 2016	10	16.70	82.78	8.0	33.49	8.1	24.4	2.13
I9	09 May 2016	11	16.46	83.26	7.9	33.48	8.1	24.5	2.26
I9	09 May 2016	12	16.12	83.61	8.0	33.47	8.1	24.5	2.42
I9	09 May 2016	13	14.87	80.82	8.2	33.48	8.1	24.8	3.00
I9	09 May 2016	14	13.86	73.69	8.0	33.48	8.0	25.0	4.66
I9	09 May 2016	15	13.58	72.68	7.4	33.46	8.0	25.1	6.06
I9	09 May 2016	16	13.19	76.84	6.8	33.46	8.0	25.2	5.88
I9	09 May 2016	17	13.05	81.81	6.4	33.46	7.9	25.2	4.58
I9	09 May 2016	18	13.03	83.95	6.3	33.46	7.9	25.2	3.84
I9	09 May 2016	19	12.88	85.56	6.1	33.47	7.9	25.2	3.08
I9	09 May 2016	20	12.86	85.93	6.0	33.47	7.9	25.2	2.24
I9	09 May 2016	21	12.85	85.97	6.0	33.48	7.9	25.2	1.94
I9	09 May 2016	22	12.83	86.51	5.9	33.48	7.9	25.3	1.86
I9	09 May 2016	23	12.76	85.95	5.8	33.49	7.9	25.3	1.93
I9	09 May 2016	24	12.70	85.35	5.7	33.50	7.8	25.3	2.00
I9	09 May 2016	25	12.66	85.99	5.7	33.50	7.8	25.3	1.77
I9	09 May 2016	26	12.63	85.28	5.6	33.50	7.8	25.3	1.92
I9	09 May 2016	27	12.62	84.73	5.6	33.50	7.8	25.3	2.04
I9	09 May 2016	28	12.61	84.16	5.6	33.50	7.8	25.3	1.82
I9	09 May 2016	29	12.61	82.13	5.5	33.50	7.8	25.3	1.83
I10	09 May 2016	1	17.90	78.55	8.3	33.42	8.1	24.1	0.90
I10	09 May 2016	2	17.88	78.49	8.2	33.42	8.1	24.1	0.91
I10	09 May 2016	3	17.17	77.86	8.2	33.45	8.1	24.3	1.19
I10	09 May 2016	4	16.65	77.58	8.3	33.44	8.1	24.4	1.57
I10	09 May 2016	5	15.39	72.24	8.3	33.48	8.1	24.7	1.82
I10	09 May 2016	6	14.85	68.88	8.1	33.46	8.0	24.8	2.53
I10	09 May 2016	7	14.76	67.94	7.9	33.45	8.0	24.8	2.96
I10	09 May 2016	8	14.64	67.86	7.8	33.46	8.0	24.9	3.34
I10	09 May 2016	9	14.60	68.33	7.7	33.46	8.0	24.9	3.74
I10	09 May 2016	10	14.48	68.87	7.6	33.46	8.0	24.9	4.01
I10	09 May 2016	11	14.35	70.14	7.6	33.47	8.0	24.9	4.44
I10	09 May 2016	12	14.29	70.91	7.5	33.47	8.0	24.9	4.46
I10	09 May 2016	13	14.12	71.45	7.4	33.48	8.0	25.0	4.25
I10	09 May 2016	14	14.10	72.50	7.3	33.47	8.0	25.0	4.03
I10	09 May 2016	15	13.88	73.22	7.1	33.48	8.0	25.0	3.75
I10	09 May 2016	16	13.84	74.07	7.0	33.48	8.0	25.0	3.49
I10	09 May 2016	17	13.78	73.30	6.8	33.48	8.0	25.1	3.22
I10	09 May 2016	18	13.65	72.16	6.6	33.49	7.9	25.1	2.87
I10	09 May 2016	19	13.65	72.16	6.5	33.49	7.9	25.1	2.72
I11	09 May 2016	1	17.72	75.84	8.4	33.42	8.1	24.1	1.19
I11	09 May 2016	2	17.52	74.91	8.3	33.41	8.1	24.2	1.42
I11	09 May 2016	3	16.87	69.17	8.3	33.43	8.1	24.3	2.46
I11	09 May 2016	4	16.38	69.58	8.5	33.45	8.1	24.5	3.41

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I11	09 May 2016	5	16.12	77.95	8.6	33.44	8.1	24.5	3.16
I11	09 May 2016	6	15.91	78.62	8.6	33.45	8.1	24.6	2.53
I11	09 May 2016	7	15.83	76.49	8.5	33.45	8.1	24.6	2.51
I11	09 May 2016	8	15.77	72.35	8.4	33.44	8.1	24.6	2.62
I11	09 May 2016	9	15.52	66.68	8.0	33.45	8.1	24.7	2.80
I11	09 May 2016	10	15.37	64.12	7.7	33.45	8.0	24.7	2.94
I11	09 May 2016	11	15.30	61.94	7.5	33.45	8.0	24.7	2.94
I11	09 May 2016	12	15.29	61.28	7.5	33.45	8.0	24.7	2.92
I11	09 May 2016	13	15.29	60.51	7.5	33.45	8.0	24.7	2.88
I12	10 May 2016	1	17.56	84.37	8.2	33.45	8.2	24.2	0.81
I12	10 May 2016	2	17.55	84.37	8.2	33.45	8.2	24.2	0.82
I12	10 May 2016	3	17.55	84.41	8.2	33.45	8.2	24.2	0.83
I12	10 May 2016	4	17.54	84.30	8.2	33.45	8.2	24.2	0.90
I12	10 May 2016	5	17.53	84.27	8.2	33.45	8.2	24.2	0.96
I12	10 May 2016	6	17.52	84.17	8.2	33.45	8.2	24.2	0.99
I12	10 May 2016	7	17.51	84.23	8.2	33.45	8.2	24.2	1.03
I12	10 May 2016	8	17.51	84.23	8.2	33.45	8.2	24.2	1.07
I12	10 May 2016	9	17.50	84.25	8.1	33.45	8.2	24.2	1.11
I12	10 May 2016	10	17.42	83.53	8.2	33.45	8.2	24.2	1.14
I12	10 May 2016	11	17.41	83.61	8.3	33.45	8.2	24.2	1.22
I12	10 May 2016	12	17.36	83.57	8.2	33.45	8.2	24.2	1.31
I12	10 May 2016	13	17.10	83.15	8.2	33.45	8.2	24.3	1.41
I12	10 May 2016	14	16.66	83.42	8.0	33.45	8.2	24.4	1.48
I12	10 May 2016	15	16.02	83.66	7.4	33.42	8.2	24.5	1.61
I12	10 May 2016	16	14.29	84.68	6.4	33.36	8.1	24.9	1.63
I12	10 May 2016	17	13.04	84.94	5.8	33.34	8.0	25.1	1.57
I12	10 May 2016	18	13.04	82.60	5.9	33.42	8.0	25.2	1.91
I12	10 May 2016	19	13.10	82.07	6.1	33.45	8.0	25.2	2.24
I12	10 May 2016	20	13.13	81.71	6.1	33.47	8.0	25.2	2.64
I12	10 May 2016	21	13.11	81.77	6.0	33.48	8.0	25.2	2.61
I12	10 May 2016	22	13.07	82.55	6.0	33.48	8.0	25.2	2.70
I12	10 May 2016	23	12.91	83.74	5.9	33.48	8.0	25.2	2.63
I12	10 May 2016	24	12.90	84.85	5.8	33.48	8.0	25.2	2.41
I12	10 May 2016	25	12.64	85.11	5.5	33.50	8.0	25.3	2.28
I12	10 May 2016	26	12.57	85.60	5.3	33.50	7.9	25.3	2.01
I12	10 May 2016	27	12.56	85.38	5.2	33.50	7.9	25.3	1.96
I12	10 May 2016	28	12.54	85.40	5.3	33.50	7.9	25.3	1.94
I13	09 May 2016	1	17.58	87.24	7.7	33.48	8.1	24.2	0.53
I13	09 May 2016	2	17.60	87.32	7.7	33.48	8.1	24.2	0.51
I13	09 May 2016	3	17.45	87.31	7.6	33.49	8.1	24.2	0.52
I13	09 May 2016	4	17.31	88.03	7.7	33.49	8.1	24.3	0.53
I13	09 May 2016	5	17.09	87.85	7.6	33.49	8.1	24.3	0.55
I13	09 May 2016	6	16.96	87.65	7.8	33.49	8.1	24.4	0.58
I13	09 May 2016	7	16.84	87.61	7.7	33.49	8.1	24.4	0.62
I13	09 May 2016	8	16.72	87.62	7.7	33.49	8.1	24.4	0.68
I13	09 May 2016	9	16.63	87.92	7.6	33.49	8.1	24.4	0.64
I13	09 May 2016	10	16.19	87.88	7.6	33.49	8.0	24.5	0.66
I13	09 May 2016	11	15.87	87.30	7.6	33.49	8.0	24.6	0.68
I13	09 May 2016	12	15.66	88.03	7.6	33.49	8.0	24.7	0.70
I13	09 May 2016	13	15.61	88.23	7.5	33.48	8.0	24.7	0.78
I13	09 May 2016	14	15.46	88.14	7.4	33.49	8.0	24.7	0.79
I13	09 May 2016	15	15.22	87.79	7.5	33.49	8.0	24.8	0.88
I13	09 May 2016	16	15.02	87.35	7.5	33.49	8.0	24.8	1.06

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I13	09 May 2016	17	14.45	86.27	7.2	33.49	8.0	24.9	1.38
I13	09 May 2016	18	13.74	86.94	6.9	33.49	8.0	25.1	1.50
I13	09 May 2016	19	13.47	87.52	6.5	33.48	7.9	25.1	1.51
I13	09 May 2016	20	12.96	87.83	6.1	33.49	7.9	25.2	1.37
I13	09 May 2016	21	12.81	88.26	5.9	33.48	7.9	25.3	1.31
I13	09 May 2016	22	12.63	88.28	5.8	33.48	7.9	25.3	1.28
I13	09 May 2016	23	12.55	88.07	5.7	33.48	7.8	25.3	1.31
I13	09 May 2016	24	12.39	88.35	5.5	33.48	7.8	25.3	1.33
I13	09 May 2016	25	12.32	88.49	5.3	33.49	7.8	25.4	1.23
I13	09 May 2016	26	12.29	88.45	5.2	33.49	7.8	25.4	1.11
I13	09 May 2016	27	12.28	88.05	5.1	33.50	7.8	25.4	0.99
I13	09 May 2016	28	12.23	87.88	5.0	33.50	7.8	25.4	1.17
I13	09 May 2016	29	12.19	87.45	5.0	33.50	7.8	25.4	1.22
I13	09 May 2016	30	12.17	87.28	5.0	33.50	7.8	25.4	1.29
I13	09 May 2016	31	12.14	87.08	5.0	33.51	7.8	25.4	1.31
I13	09 May 2016	32	12.12	87.06	4.9	33.51	7.8	25.4	1.38
I13	09 May 2016	33	12.11	87.00	4.9	33.51	7.8	25.4	1.39
I13	09 May 2016	34	12.07	86.61	4.9	33.51	7.8	25.4	1.44
I13	09 May 2016	35	12.06	86.56	4.9	33.51	7.8	25.4	1.54
I13	09 May 2016	36	12.05	86.74	4.9	33.51	7.8	25.4	1.47
I13	09 May 2016	37	12.05	86.09	4.9	33.51	7.8	25.4	1.44
I13	09 May 2016	38	12.05	85.98	4.9	33.51	7.8	25.4	1.38
I14	10 May 2016	1	17.63	85.73	8.2	33.45	8.2	24.2	0.80
I14	10 May 2016	2	17.61	85.08	8.2	33.45	8.2	24.2	0.84
I14	10 May 2016	3	17.59	85.20	8.2	33.45	8.2	24.2	0.88
I14	10 May 2016	4	17.59	85.10	8.1	33.45	8.2	24.2	0.92
I14	10 May 2016	5	17.58	85.24	8.2	33.45	8.2	24.2	1.01
I14	10 May 2016	6	17.58	85.23	8.2	33.45	8.2	24.2	1.01
I14	10 May 2016	7	17.47	85.00	8.2	33.45	8.2	24.2	1.03
I14	10 May 2016	8	17.42	85.06	8.3	33.45	8.2	24.2	1.06
I14	10 May 2016	9	17.40	84.94	8.2	33.45	8.2	24.2	1.17
I14	10 May 2016	10	17.39	84.95	8.2	33.45	8.2	24.2	1.17
I14	10 May 2016	11	17.33	84.68	8.2	33.45	8.2	24.2	1.23
I14	10 May 2016	12	17.30	84.30	8.3	33.45	8.2	24.3	1.28
I14	10 May 2016	13	17.20	84.26	8.3	33.45	8.2	24.3	1.50
I14	10 May 2016	14	17.11	83.80	8.3	33.45	8.2	24.3	1.69
I14	10 May 2016	15	16.93	83.43	8.3	33.45	8.2	24.3	2.03
I14	10 May 2016	16	16.64	82.76	8.3	33.45	8.2	24.4	2.13
I14	10 May 2016	17	16.12	82.44	8.2	33.46	8.2	24.5	2.32
I14	10 May 2016	18	15.88	81.64	8.1	33.45	8.2	24.6	2.56
I14	10 May 2016	19	14.83	80.64	7.7	33.46	8.1	24.8	2.70
I14	10 May 2016	20	14.28	80.45	7.4	33.45	8.1	24.9	3.10
I14	10 May 2016	21	13.75	79.97	7.1	33.47	8.1	25.1	3.32
I14	10 May 2016	22	13.53	79.16	6.7	33.47	8.0	25.1	3.42
I14	10 May 2016	23	13.39	79.15	6.3	33.47	8.0	25.1	3.37
I14	10 May 2016	24	13.13	82.70	6.0	33.48	8.0	25.2	2.96
I14	10 May 2016	25	13.02	84.30	5.8	33.48	8.0	25.2	2.66
I14	10 May 2016	26	12.85	83.92	5.6	33.49	8.0	25.2	2.45
I14	10 May 2016	27	12.74	83.43	5.4	33.49	7.9	25.3	2.28
I14	10 May 2016	28	12.70	83.15	5.4	33.49	7.9	25.3	2.23
I15	10 May 2016	1	17.73	85.34	8.2	33.44	8.2	24.1	0.76
I15	10 May 2016	2	17.68	85.27	8.2	33.44	8.2	24.2	0.77
I15	10 May 2016	3	17.60	84.84	8.2	33.44	8.2	24.2	0.79

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I15	10 May 2016	4	17.59	84.77	8.3	33.44	8.2	24.2	0.83
I15	10 May 2016	5	17.57	84.74	8.3	33.44	8.2	24.2	0.91
I15	10 May 2016	6	17.56	84.71	8.2	33.44	8.2	24.2	0.96
I15	10 May 2016	7	17.54	84.61	8.3	33.44	8.2	24.2	1.10
I15	10 May 2016	8	17.52	84.62	8.2	33.44	8.2	24.2	1.10
I15	10 May 2016	9	17.49	84.57	8.3	33.44	8.2	24.2	1.15
I15	10 May 2016	10	17.46	84.74	8.2	33.44	8.2	24.2	1.21
I15	10 May 2016	11	17.44	84.52	8.3	33.44	8.2	24.2	1.37
I15	10 May 2016	12	17.39	84.39	8.3	33.44	8.2	24.2	1.40
I15	10 May 2016	13	17.29	84.07	8.3	33.44	8.2	24.3	1.64
I15	10 May 2016	14	17.23	83.97	8.3	33.44	8.2	24.3	1.61
I15	10 May 2016	15	17.19	83.69	8.2	33.44	8.2	24.3	1.81
I15	10 May 2016	16	17.08	83.54	8.2	33.45	8.2	24.3	1.78
I15	10 May 2016	17	16.94	83.88	8.2	33.45	8.2	24.3	1.90
I15	10 May 2016	18	16.57	83.52	7.9	33.45	8.2	24.4	1.82
I15	10 May 2016	19	15.65	83.76	7.5	33.41	8.1	24.6	1.94
I15	10 May 2016	20	15.34	83.62	7.1	33.37	8.1	24.6	2.23
I15	10 May 2016	21	13.78	83.42	6.4	33.41	8.1	25.0	2.06
I15	10 May 2016	22	13.05	83.47	5.9	33.39	8.0	25.1	2.16
I15	10 May 2016	23	13.09	82.55	6.0	33.42	8.0	25.2	2.43
I15	10 May 2016	24	13.13	82.02	6.1	33.44	8.0	25.2	2.62
I15	10 May 2016	25	13.16	81.27	6.1	33.47	8.0	25.2	2.83
I15	10 May 2016	26	13.07	82.33	6.1	33.48	8.0	25.2	2.79
I15	10 May 2016	27	12.98	83.90	6.0	33.48	8.0	25.2	2.86
I15	10 May 2016	28	12.86	84.69	5.8	33.49	8.0	25.2	2.83
I15	10 May 2016	29	12.76	85.17	5.5	33.49	8.0	25.3	2.30
I15	10 May 2016	30	12.50	85.51	5.3	33.50	7.9	25.3	2.15
I15	10 May 2016	31	12.45	85.50	5.2	33.50	7.9	25.3	1.85
I16	10 May 2016	1	17.58	84.35	8.2	33.45	8.2	24.2	0.79
I16	10 May 2016	2	17.55	84.73	8.3	33.45	8.2	24.2	0.83
I16	10 May 2016	3	17.55	84.77	8.2	33.45	8.2	24.2	0.82
I16	10 May 2016	4	17.55	84.74	8.2	33.45	8.2	24.2	0.87
I16	10 May 2016	5	17.55	84.61	8.2	33.45	8.2	24.2	0.90
I16	10 May 2016	6	17.55	84.69	8.3	33.45	8.2	24.2	0.92
I16	10 May 2016	7	17.55	84.77	8.2	33.45	8.2	24.2	0.94
I16	10 May 2016	8	17.53	84.66	8.3	33.45	8.2	24.2	1.04
I16	10 May 2016	9	17.50	84.14	8.2	33.45	8.2	24.2	1.08
I16	10 May 2016	10	17.34	83.66	8.2	33.45	8.2	24.2	1.18
I16	10 May 2016	11	17.25	83.99	8.3	33.45	8.2	24.3	1.23
I16	10 May 2016	12	17.23	84.10	8.3	33.45	8.2	24.3	1.27
I16	10 May 2016	13	17.16	84.09	8.2	33.45	8.2	24.3	1.33
I16	10 May 2016	14	17.10	83.80	8.2	33.45	8.2	24.3	1.40
I16	10 May 2016	15	17.05	83.86	8.2	33.45	8.2	24.3	1.41
I16	10 May 2016	16	16.91	83.67	8.1	33.45	8.2	24.3	1.48
I16	10 May 2016	17	16.03	82.27	8.2	33.46	8.2	24.6	1.87
I16	10 May 2016	18	15.80	81.51	8.1	33.44	8.2	24.6	2.27
I16	10 May 2016	19	14.65	80.49	7.5	33.43	8.2	24.9	2.65
I16	10 May 2016	20	13.56	80.86	6.9	33.44	8.1	25.1	2.82
I16	10 May 2016	21	13.31	80.82	6.3	33.46	8.0	25.1	3.00
I16	10 May 2016	22	13.29	80.67	6.2	33.46	8.0	25.1	3.02
I16	10 May 2016	23	13.24	80.64	6.1	33.47	8.0	25.2	2.82
I16	10 May 2016	24	13.09	82.78	6.0	33.48	8.0	25.2	2.63
I16	10 May 2016	25	12.96	84.46	5.8	33.48	8.0	25.2	2.47
I16	10 May 2016	26	12.68	84.21	5.5	33.49	8.0	25.3	2.22



Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I16	10 May 2016	27	12.62	84.92	5.3	33.49	7.9	25.3	1.85
I16	10 May 2016	28	12.58	84.86	5.3	33.49	7.9	25.3	1.76
I17	10 May 2016	1	17.55	84.03	8.3	33.45	8.2	24.2	0.82
I17	10 May 2016	2	17.56	83.94	8.3	33.44	8.2	24.2	0.82
I17	10 May 2016	3	17.44	83.85	8.3	33.45	8.2	24.2	0.82
I17	10 May 2016	4	17.41	83.78	8.3	33.45	8.2	24.2	0.87
I17	10 May 2016	5	17.37	83.72	8.2	33.45	8.2	24.2	0.96
I17	10 May 2016	6	17.09	83.85	8.3	33.45	8.2	24.3	1.07
I17	10 May 2016	7	16.78	83.48	8.2	33.45	8.2	24.4	1.25
I17	10 May 2016	8	15.81	82.52	8.1	33.48	8.2	24.6	1.72
I17	10 May 2016	9	14.81	80.92	7.8	33.47	8.1	24.8	1.89
I17	10 May 2016	10	14.19	79.75	7.5	33.45	8.1	24.9	2.18
I17	10 May 2016	11	13.91	79.44	7.3	33.45	8.1	25.0	2.45
I17	10 May 2016	12	13.55	80.24	7.0	33.46	8.1	25.1	2.79
I17	10 May 2016	13	13.44	80.37	6.6	33.47	8.0	25.1	2.90
I17	10 May 2016	14	13.36	79.84	6.4	33.47	8.0	25.1	2.87
I17	10 May 2016	15	13.33	79.70	6.3	33.47	8.0	25.1	2.86
I17	10 May 2016	16	13.31	79.73	6.2	33.48	8.0	25.2	2.89
I17	10 May 2016	17	13.27	80.38	6.1	33.48	8.0	25.2	2.79
I17	10 May 2016	18	13.13	81.65	5.9	33.48	8.0	25.2	2.63
I17	10 May 2016	19	13.02	82.76	5.8	33.49	8.0	25.2	2.37
I17	10 May 2016	20	12.86	83.79	5.6	33.49	8.0	25.3	2.10
I17	10 May 2016	21	12.73	83.78	5.4	33.49	7.9	25.3	2.05
I17	10 May 2016	22	12.71	83.44	5.3	33.49	7.9	25.3	1.95
I17	10 May 2016	23	12.71	83.49	5.3	33.50	7.9	25.3	2.07
I17	10 May 2016	24	12.72	83.08	5.3	33.50	7.9	25.3	1.91
I17	10 May 2016	25	12.71	83.30	5.3	33.50	7.9	25.3	1.92
I18	10 May 2016	1	17.91	75.03	8.8	33.41	8.2	24.1	1.68
I18	10 May 2016	2	17.99	74.86	8.7	33.40	8.2	24.1	1.53
I18	10 May 2016	3	17.85	74.78	8.6	33.41	8.2	24.1	1.79
I18	10 May 2016	4	17.55	74.81	8.7	33.43	8.2	24.2	2.83
I18	10 May 2016	5	17.55	74.73	8.7	33.42	8.2	24.2	3.94
I18	10 May 2016	6	17.22	75.65	8.4	33.45	8.2	24.3	4.65
I18	10 May 2016	7	16.71	78.55	8.4	33.45	8.2	24.4	5.30
I18	10 May 2016	8	15.97	80.08	7.9	33.47	8.2	24.6	4.89
I18	10 May 2016	9	15.04	80.07	7.8	33.49	8.1	24.8	4.07
I18	10 May 2016	10	14.60	80.28	7.8	33.48	8.1	24.9	3.83
I18	10 May 2016	11	14.44	79.35	7.6	33.47	8.1	24.9	3.71
I18	10 May 2016	12	14.23	79.26	7.4	33.47	8.1	25.0	3.57
I18	10 May 2016	13	14.02	79.54	7.3	33.47	8.1	25.0	3.67
I18	10 May 2016	14	13.90	77.21	7.1	33.47	8.1	25.0	3.69
I18	10 May 2016	15	13.85	76.51	6.9	33.47	8.1	25.0	3.51
I18	10 May 2016	16	13.78	76.00	6.8	33.48	8.1	25.1	3.31
I18	10 May 2016	17	13.70	76.13	6.6	33.48	8.0	25.1	3.13
I18	10 May 2016	18	13.57	74.68	6.5	33.48	8.0	25.1	3.10
I18	10 May 2016	19	13.51	68.88	6.4	33.48	8.0	25.1	2.88
I20	09 May 2016	1	17.21	87.07	7.6	33.50	8.0	24.3	0.91
I20	09 May 2016	2	17.21	87.27	7.6	33.50	8.0	24.3	0.94
I20	09 May 2016	3	17.21	87.31	7.6	33.50	8.0	24.3	0.98
I20	09 May 2016	4	17.21	87.11	7.6	33.50	8.0	24.3	1.02
I20	09 May 2016	5	17.21	87.25	7.6	33.50	8.0	24.3	1.00
I20	09 May 2016	6	17.16	87.12	7.6	33.50	8.0	24.3	1.01

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I20	09 May 2016	7	17.12	87.25	7.5	33.50	8.0	24.3	0.96
I20	09 May 2016	8	17.07	87.32	7.5	33.50	8.0	24.3	0.99
I20	09 May 2016	9	17.02	87.62	7.6	33.50	8.0	24.4	0.95
I20	09 May 2016	10	16.90	87.63	7.6	33.50	8.0	24.4	0.94
I20	09 May 2016	11	16.65	87.49	7.5	33.50	8.0	24.4	1.00
I20	09 May 2016	12	16.57	86.48	7.6	33.49	8.0	24.5	1.13
I20	09 May 2016	13	16.36	86.46	7.5	33.50	8.0	24.5	1.27
I20	09 May 2016	14	16.22	86.00	7.5	33.49	8.0	24.5	1.45
I20	09 May 2016	15	16.16	85.76	7.5	33.49	8.0	24.6	1.57
I20	09 May 2016	16	16.07	85.45	7.5	33.49	8.0	24.6	1.70
I20	09 May 2016	17	15.96	85.30	7.4	33.49	8.0	24.6	1.95
I20	09 May 2016	18	15.66	84.96	7.4	33.50	8.0	24.7	2.03
I20	09 May 2016	19	15.46	84.11	7.1	33.48	8.0	24.7	2.19
I20	09 May 2016	20	13.98	83.23	6.9	33.50	8.0	25.0	2.45
I20	09 May 2016	21	13.64	83.16	6.8	33.48	7.9	25.1	2.55
I20	09 May 2016	22	13.43	83.99	6.6	33.46	7.9	25.1	2.74
I20	09 May 2016	23	12.85	84.03	6.2	33.45	7.9	25.2	2.68
I20	09 May 2016	24	12.40	84.82	5.8	33.45	7.9	25.3	2.71
I20	09 May 2016	25	12.22	86.26	5.6	33.45	7.8	25.3	2.42
I20	09 May 2016	26	12.01	86.79	5.4	33.46	7.8	25.4	2.21
I20	09 May 2016	27	11.86	87.13	5.3	33.46	7.8	25.4	2.23
I20	09 May 2016	28	11.80	87.16	5.3	33.47	7.8	25.4	2.05
I20	09 May 2016	29	11.70	87.20	5.2	33.49	7.8	25.5	1.99
I20	09 May 2016	30	11.59	87.13	5.1	33.50	7.8	25.5	1.77
I20	09 May 2016	31	11.58	87.38	5.1	33.51	7.8	25.5	1.73
I20	09 May 2016	32	11.47	87.41	5.0	33.51	7.8	25.5	1.53
I20	09 May 2016	33	11.33	87.43	4.9	33.52	7.8	25.6	1.34
I20	09 May 2016	34	11.31	87.32	4.8	33.52	7.8	25.6	1.29
I20	09 May 2016	35	11.31	87.18	4.8	33.52	7.8	25.6	1.21
I20	09 May 2016	36	11.26	86.94	4.7	33.53	7.8	25.6	1.16
I20	09 May 2016	37	11.23	86.65	4.7	33.54	7.7	25.6	1.11
I20	09 May 2016	38	11.22	86.57	4.7	33.54	7.7	25.6	1.10
I20	09 May 2016	39	11.18	86.53	4.6	33.54	7.7	25.6	1.05
I20	09 May 2016	40	11.15	86.31	4.6	33.55	7.7	25.6	1.00
I20	09 May 2016	41	11.10	86.28	4.6	33.55	7.7	25.6	0.97
I20	09 May 2016	42	11.08	86.42	4.6	33.55	7.7	25.6	0.96
I20	09 May 2016	43	11.01	86.03	4.5	33.56	7.7	25.7	0.91
I20	09 May 2016	44	11.00	86.17	4.5	33.56	7.7	25.7	0.84
I20	09 May 2016	45	10.95	86.41	4.5	33.57	7.7	25.7	0.82
I20	09 May 2016	46	10.90	86.70	4.5	33.58	7.7	25.7	0.80
I20	09 May 2016	47	10.87	86.66	4.5	33.58	7.7	25.7	0.78
I20	09 May 2016	48	10.78	86.45	4.4	33.59	7.7	25.7	0.72
I20	09 May 2016	49	10.69	86.69	4.4	33.60	7.7	25.7	0.63
I20	09 May 2016	50	10.67	87.20	4.4	33.61	7.7	25.7	0.58
I20	09 May 2016	51	10.64	87.50	4.4	33.61	7.7	25.8	0.56
I20	09 May 2016	52	10.62	87.49	4.3	33.62	7.7	25.8	0.54
I20	09 May 2016	53	10.62	87.49	4.3	33.62	7.7	25.8	0.54
I20	09 May 2016	54	10.61	87.26	4.3	33.62	7.7	25.8	0.56
I20	09 May 2016	55	10.61	87.14	4.3	33.62	7.7	25.8	0.52
I21	09 May 2016	1	17.71	86.82	7.7	33.46	8.1	24.2	0.59
I21	09 May 2016	2	17.67	86.76	7.7	33.46	8.1	24.2	0.61
I21	09 May 2016	3	17.44	86.81	7.7	33.47	8.1	24.2	0.61
I21	09 May 2016	4	17.21	87.40	7.6	33.48	8.1	24.3	0.59
I21	09 May 2016	5	16.82	87.90	7.6	33.50	8.1	24.4	0.55

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I21	09 May 2016	6	16.74	88.04	7.6	33.49	8.1	24.4	0.56
I21	09 May 2016	7	16.50	87.45	7.6	33.49	8.1	24.5	0.58
I21	09 May 2016	8	16.20	87.06	7.6	33.49	8.0	24.5	0.67
I21	09 May 2016	9	16.12	86.87	7.6	33.48	8.0	24.6	0.75
I21	09 May 2016	10	15.89	86.96	7.5	33.48	8.0	24.6	0.78
I21	09 May 2016	11	15.31	87.07	7.5	33.49	8.0	24.7	0.79
I21	09 May 2016	12	15.16	86.67	7.5	33.48	8.0	24.8	0.88
I21	09 May 2016	13	15.00	86.48	7.5	33.48	8.0	24.8	0.97
I21	09 May 2016	14	14.83	86.18	7.4	33.48	8.0	24.8	1.00
I21	09 May 2016	15	14.74	86.33	7.5	33.47	8.0	24.9	1.07
I21	09 May 2016	16	14.66	86.89	7.4	33.48	8.0	24.9	1.05
I21	09 May 2016	17	14.32	87.51	7.0	33.48	8.0	24.9	1.04
I21	09 May 2016	18	13.76	87.33	6.6	33.49	8.0	25.1	0.95
I21	09 May 2016	19	13.33	88.60	6.4	33.49	7.9	25.2	0.92
I21	09 May 2016	20	13.07	88.49	6.0	33.47	7.9	25.2	0.97
I21	09 May 2016	21	12.45	88.49	5.6	33.48	7.9	25.3	0.95
I21	09 May 2016	22	12.17	88.60	5.2	33.49	7.8	25.4	1.07
I21	09 May 2016	23	12.12	88.46	5.0	33.49	7.8	25.4	0.87
I21	09 May 2016	24	12.12	88.32	5.0	33.49	7.8	25.4	0.88
I21	09 May 2016	25	12.11	88.25	5.0	33.49	7.8	25.4	0.96
I21	09 May 2016	26	12.11	88.53	5.0	33.49	7.8	25.4	1.03
I21	09 May 2016	27	12.10	88.37	5.0	33.50	7.8	25.4	1.02
I21	09 May 2016	28	12.09	87.76	5.0	33.50	7.8	25.4	1.09
I21	09 May 2016	29	12.05	87.77	5.0	33.50	7.8	25.4	1.03
I21	09 May 2016	30	11.99	87.53	4.9	33.50	7.8	25.4	1.03
I21	09 May 2016	31	11.97	87.53	4.9	33.51	7.8	25.4	1.28
I21	09 May 2016	32	11.95	87.69	4.9	33.51	7.8	25.4	1.24
I21	09 May 2016	33	11.93	87.47	4.9	33.51	7.8	25.4	1.20
I21	09 May 2016	34	11.92	86.95	4.9	33.51	7.8	25.4	1.21
I21	09 May 2016	35	11.89	86.96	4.9	33.51	7.8	25.5	1.43
I21	09 May 2016	36	11.85	86.62	4.9	33.51	7.8	25.5	1.54
I21	09 May 2016	37	11.84	86.72	4.9	33.51	7.8	25.5	1.64
I21	09 May 2016	38	11.82	86.44	4.9	33.51	7.8	25.5	1.62
I21	09 May 2016	39	11.82	85.63	4.8	33.52	7.8	25.5	1.65
I21	09 May 2016	40	11.82	85.12	4.8	33.52	7.8	25.5	2.15
I21	09 May 2016	41	11.82	85.14	4.9	33.52	7.8	25.5	2.07
I22	10 May 2016	1	17.97	84.46	8.4	33.44	8.2	24.1	0.99
I22	10 May 2016	2	17.93	84.38	8.3	33.44	8.2	24.1	0.99
I22	10 May 2016	3	17.66	84.41	8.2	33.44	8.2	24.2	1.01
I22	10 May 2016	4	17.55	84.63	8.2	33.45	8.2	24.2	1.04
I22	10 May 2016	5	17.51	84.69	8.2	33.45	8.2	24.2	1.08
I22	10 May 2016	6	17.41	84.89	8.3	33.45	8.2	24.2	1.16
I22	10 May 2016	7	17.38	84.92	8.3	33.45	8.2	24.2	1.22
I22	10 May 2016	8	17.36	84.95	8.2	33.45	8.2	24.2	1.33
I22	10 May 2016	9	17.30	84.70	8.2	33.45	8.2	24.3	1.44
I22	10 May 2016	10	17.01	84.62	8.2	33.46	8.2	24.3	1.60
I22	10 May 2016	11	16.72	83.11	8.2	33.47	8.2	24.4	2.18
I22	10 May 2016	12	16.59	82.74	8.2	33.47	8.2	24.4	2.35
I22	10 May 2016	13	16.44	82.38	8.3	33.47	8.2	24.5	2.79
I22	10 May 2016	14	16.33	82.28	8.3	33.46	8.2	24.5	3.14
I22	10 May 2016	15	16.15	82.22	8.3	33.46	8.2	24.5	3.15
I22	10 May 2016	16	15.84	81.88	8.0	33.45	8.2	24.6	3.13
I22	10 May 2016	17	14.87	80.38	7.3	33.45	8.1	24.8	3.05
I22	10 May 2016	18	14.14	77.74	6.6	33.47	8.1	25.0	3.21

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I22	10 May 2016	19	14.08	77.50	6.5	33.47	8.0	25.0	3.32
I22	10 May 2016	20	13.92	76.89	6.8	33.47	8.0	25.0	3.47
I22	10 May 2016	21	13.87	77.50	6.8	33.47	8.1	25.0	3.62
I22	10 May 2016	22	13.65	78.18	6.5	33.47	8.0	25.1	3.62
I22	10 May 2016	23	13.57	78.65	6.3	33.48	8.0	25.1	3.48
I22	10 May 2016	24	13.45	79.44	6.1	33.47	8.0	25.1	3.21
I22	10 May 2016	25	13.03	82.56	5.8	33.48	8.0	25.2	2.86
I22	10 May 2016	26	12.87	83.17	5.6	33.49	8.0	25.2	2.54
I22	10 May 2016	27	12.83	82.87	5.5	33.49	8.0	25.3	2.30
I22	10 May 2016	28	12.78	82.37	5.5	33.49	8.0	25.3	2.33
I23	10 May 2016	1	18.11	80.71	8.5	33.43	8.2	24.0	1.18
I23	10 May 2016	2	18.10	80.71	8.5	33.43	8.2	24.0	1.22
I23	10 May 2016	3	18.08	80.66	8.5	33.43	8.2	24.1	1.27
I23	10 May 2016	4	18.03	80.63	8.4	33.43	8.2	24.1	1.33
I23	10 May 2016	5	17.99	80.79	8.3	33.43	8.2	24.1	1.35
I23	10 May 2016	6	17.78	81.33	8.5	33.44	8.2	24.1	1.60
I23	10 May 2016	7	17.63	82.78	8.5	33.44	8.2	24.2	1.70
I23	10 May 2016	8	17.33	82.77	8.5	33.45	8.2	24.2	1.83
I23	10 May 2016	9	17.06	82.27	8.5	33.45	8.2	24.3	2.14
I23	10 May 2016	10	16.05	78.19	8.1	33.47	8.2	24.6	2.81
I23	10 May 2016	11	15.34	78.24	7.5	33.47	8.1	24.7	2.71
I23	10 May 2016	12	14.92	78.28	7.4	33.47	8.1	24.8	2.80
I23	10 May 2016	13	14.76	76.82	7.3	33.46	8.1	24.8	3.09
I23	10 May 2016	14	14.54	76.03	7.1	33.47	8.1	24.9	3.40
I23	10 May 2016	15	14.14	75.68	6.8	33.47	8.1	25.0	3.66
I23	10 May 2016	16	13.88	76.76	6.2	33.47	8.0	25.0	3.51
I23	10 May 2016	17	13.57	75.84	5.9	33.48	8.0	25.1	3.16
I23	10 May 2016	18	13.44	75.02	5.8	33.47	8.0	25.1	2.90
I23	10 May 2016	19	13.28	74.13	5.7	33.47	8.0	25.2	2.53
I23	10 May 2016	20	13.26	72.90	5.7	33.48	8.0	25.2	2.60
I23	10 May 2016	21	13.25	72.89	5.8	33.48	8.0	25.2	2.54
I27	10 May 2016	1	17.97	81.67	8.9	33.40	8.2	24.1	1.18
I27	10 May 2016	2	17.97	81.50	8.8	33.40	8.2	24.1	1.22
I27	10 May 2016	3	17.82	81.58	8.6	33.42	8.2	24.1	1.31
I27	10 May 2016	4	17.25	82.81	8.4	33.46	8.2	24.3	1.35
I27	10 May 2016	5	17.11	84.40	8.3	33.45	8.2	24.3	1.43
I27	10 May 2016	6	16.77	84.87	7.9	33.46	8.2	24.4	1.55
I27	10 May 2016	7	15.68	84.12	7.9	33.48	8.1	24.7	2.32
I27	10 May 2016	8	15.47	84.21	7.9	33.47	8.1	24.7	2.97
I27	10 May 2016	9	14.97	82.34	8.2	33.47	8.1	24.8	3.92
I27	10 May 2016	10	14.80	81.07	8.5	33.46	8.2	24.8	3.68
I27	10 May 2016	11	14.30	80.19	8.2	33.46	8.2	24.9	3.71
I27	10 May 2016	12	13.62	77.17	7.4	33.47	8.1	25.1	4.47
I27	10 May 2016	13	13.50	78.56	6.8	33.46	8.1	25.1	4.50
I27	10 May 2016	14	13.46	79.40	6.6	33.46	8.0	25.1	4.10
I27	10 May 2016	15	13.45	79.88	6.6	33.46	8.0	25.1	4.09
I27	10 May 2016	16	13.45	79.35	6.7	33.47	8.0	25.1	4.25
I27	10 May 2016	17	13.45	79.75	6.7	33.47	8.0	25.1	3.90
I27	10 May 2016	18	13.44	79.30	6.6	33.47	8.0	25.1	3.83
I27	10 May 2016	19	13.42	80.92	6.3	33.48	8.0	25.1	3.13
I27	10 May 2016	20	13.41	81.28	6.1	33.48	8.0	25.1	2.46
I27	10 May 2016	21	13.31	81.87	5.7	33.48	8.0	25.2	2.14
I27	10 May 2016	22	13.23	82.62	5.6	33.49	8.0	25.2	2.00

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I27	10 May 2016	23	13.14	82.29	5.5	33.49	8.0	25.2	1.92
I27	10 May 2016	24	12.95	82.04	5.5	33.49	7.9	25.2	1.79
I27	10 May 2016	25	12.89	81.12	5.4	33.49	7.9	25.2	1.83
I27	10 May 2016	26	12.89	80.88	5.5	33.49	7.9	25.2	1.91
I27	10 May 2016	27	12.89	80.07	5.4	33.49	7.9	25.2	1.92
I27	10 May 2016	28	12.90	79.94	5.4	33.49	7.9	25.2	1.80
I28	11 May 2016	1	16.62	77.98	7.6	33.49	8.2	24.4	3.53
I28	11 May 2016	2	16.62	77.88	7.5	33.49	8.2	24.4	3.55
I28	11 May 2016	3	16.62	78.01	7.5	33.49	8.2	24.4	3.71
I28	11 May 2016	4	16.61	78.04	7.5	33.49	8.2	24.4	3.79
I28	11 May 2016	5	16.59	78.46	7.6	33.49	8.2	24.5	3.86
I28	11 May 2016	6	16.57	79.15	7.6	33.49	8.2	24.5	3.73
I28	11 May 2016	7	16.51	79.63	7.6	33.49	8.2	24.5	3.51
I28	11 May 2016	8	16.47	80.06	7.5	33.48	8.2	24.5	3.48
I28	11 May 2016	9	16.40	80.78	7.5	33.48	8.2	24.5	3.35
I28	11 May 2016	10	16.34	81.00	7.4	33.48	8.2	24.5	3.35
I28	11 May 2016	11	16.20	81.33	7.4	33.49	8.2	24.5	3.40
I28	11 May 2016	12	16.12	81.86	7.4	33.49	8.2	24.6	3.40
I28	11 May 2016	13	15.98	82.60	7.3	33.49	8.2	24.6	3.21
I28	11 May 2016	14	15.85	83.82	7.1	33.48	8.1	24.6	2.85
I28	11 May 2016	15	14.36	85.44	6.7	33.49	8.1	24.9	2.57
I28	11 May 2016	16	13.53	86.68	6.5	33.47	8.1	25.1	2.33
I28	11 May 2016	17	13.38	86.55	6.4	33.47	8.1	25.1	2.14
I28	11 May 2016	18	13.03	86.03	6.3	33.46	8.0	25.2	2.20
I28	11 May 2016	19	12.90	85.87	6.3	33.46	8.0	25.2	2.26
I28	11 May 2016	20	12.87	86.14	6.2	33.46	8.0	25.2	2.26
I28	11 May 2016	21	12.79	86.48	6.1	33.46	8.0	25.2	2.26
I28	11 May 2016	22	12.69	86.73	6.0	33.46	8.0	25.3	2.07
I28	11 May 2016	23	12.58	87.10	5.9	33.47	8.0	25.3	1.88
I28	11 May 2016	24	12.37	87.60	5.7	33.48	8.0	25.3	1.75
I28	11 May 2016	25	11.96	88.19	5.3	33.48	8.0	25.4	1.53
I28	11 May 2016	26	11.67	88.38	5.0	33.50	7.9	25.5	1.31
I28	11 May 2016	27	11.66	88.44	5.0	33.50	7.9	25.5	1.27
I28	11 May 2016	28	11.63	88.39	4.9	33.51	7.9	25.5	1.20
I28	11 May 2016	29	11.61	88.43	4.9	33.51	7.9	25.5	1.18
I28	11 May 2016	30	11.59	88.31	4.9	33.52	7.9	25.5	1.17
I28	11 May 2016	31	11.58	88.55	4.9	33.52	7.9	25.5	1.19
I28	11 May 2016	32	11.55	88.40	4.9	33.51	7.9	25.5	1.23
I28	11 May 2016	33	11.52	88.42	4.9	33.51	7.9	25.5	1.21
I28	11 May 2016	34	11.52	88.40	4.9	33.52	7.9	25.5	1.22
I28	11 May 2016	35	11.52	88.42	4.9	33.52	7.9	25.5	1.21
I28	11 May 2016	36	11.52	88.47	4.9	33.52	7.9	25.5	1.30
I28	11 May 2016	37	11.51	88.42	4.8	33.52	7.9	25.5	1.18
I28	11 May 2016	38	11.50	88.48	4.8	33.52	7.9	25.5	1.16
I28	11 May 2016	39	11.50	88.52	4.9	33.52	7.9	25.5	1.21
I28	11 May 2016	40	11.51	88.42	4.8	33.52	7.9	25.5	1.17
I28	11 May 2016	41	11.51	88.46	4.8	33.53	7.9	25.5	1.13
I28	11 May 2016	42	11.51	88.47	4.8	33.53	7.9	25.5	1.14
I28	11 May 2016	43	11.51	88.36	4.8	33.53	7.9	25.5	1.13
I28	11 May 2016	44	11.50	88.49	4.8	33.53	7.9	25.5	1.15
I28	11 May 2016	45	11.47	88.30	4.8	33.53	7.9	25.5	1.18
I28	11 May 2016	46	11.43	88.31	4.8	33.53	7.9	25.6	1.20
I28	11 May 2016	47	11.42	88.26	4.8	33.53	7.9	25.6	1.24
I28	11 May 2016	48	11.39	88.18	4.8	33.53	7.9	25.6	1.20

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I28	11 May 2016	49	11.36	88.19	4.7	33.54	7.9	25.6	1.19
I28	11 May 2016	50	11.34	88.08	4.7	33.54	7.9	25.6	1.17
I28	11 May 2016	51	11.30	87.87	4.6	33.54	7.9	25.6	1.18
I28	11 May 2016	52	11.24	87.43	4.6	33.55	7.9	25.6	1.23
I28	11 May 2016	53	11.20	86.66	4.5	33.56	7.9	25.6	1.22
I28	11 May 2016	54	11.18	86.35	4.5	33.56	7.9	25.6	1.23
I28	11 May 2016	55	10.98	84.84	4.4	33.58	7.9	25.7	1.22
I29	11 May 2016	1	16.54	77.87	7.6	33.49	8.2	24.5	3.65
I29	11 May 2016	2	16.54	77.61	7.5	33.49	8.2	24.5	3.73
I29	11 May 2016	3	16.52	77.25	7.5	33.49	8.2	24.5	3.96
I29	11 May 2016	4	16.44	77.21	7.4	33.49	8.2	24.5	4.04
I29	11 May 2016	5	16.35	78.49	7.3	33.49	8.2	24.5	3.85
I29	11 May 2016	6	16.19	79.41	7.2	33.49	8.1	24.5	3.75
I29	11 May 2016	7	16.12	79.84	7.3	33.49	8.1	24.6	3.61
I29	11 May 2016	8	16.01	80.18	7.2	33.48	8.1	24.6	3.54
I29	11 May 2016	9	15.74	81.20	7.0	33.48	8.1	24.6	3.24
I29	11 May 2016	10	15.55	81.76	6.8	33.48	8.1	24.7	3.06
I29	11 May 2016	11	14.73	83.19	6.6	33.49	8.1	24.9	2.66
I29	11 May 2016	12	14.31	84.57	6.3	33.48	8.1	24.9	2.66
I29	11 May 2016	13	14.23	84.77	6.2	33.48	8.1	25.0	2.23
I29	11 May 2016	14	14.20	84.85	6.3	33.48	8.1	25.0	2.16
I29	11 May 2016	15	14.18	84.80	6.3	33.48	8.1	25.0	2.05
I29	11 May 2016	16	14.09	84.64	6.3	33.48	8.0	25.0	2.12
I29	11 May 2016	17	14.04	84.63	6.3	33.48	8.0	25.0	2.17
I29	11 May 2016	18	13.96	84.74	6.3	33.48	8.0	25.0	2.24
I29	11 May 2016	19	13.71	84.64	6.3	33.48	8.0	25.1	2.59
I29	11 May 2016	20	13.50	84.81	6.2	33.48	8.0	25.1	2.55
I29	11 May 2016	21	13.27	84.66	5.6	33.48	8.0	25.2	2.35
I29	11 May 2016	22	13.15	84.89	5.5	33.48	8.0	25.2	2.07
I29	11 May 2016	23	13.05	85.15	5.6	33.48	8.0	25.2	2.46
I29	11 May 2016	24	12.99	85.61	5.6	33.49	8.0	25.2	2.38
I29	11 May 2016	25	12.96	85.28	5.6	33.49	8.0	25.2	2.29
I29	11 May 2016	26	12.95	85.15	5.6	33.49	8.0	25.2	2.33
I29	11 May 2016	27	12.95	85.31	5.5	33.49	8.0	25.2	2.33
I29	11 May 2016	28	12.91	85.62	5.5	33.49	8.0	25.2	2.13
I29	11 May 2016	29	12.65	84.79	5.2	33.51	8.0	25.3	1.83
I29	11 May 2016	30	12.45	84.37	5.0	33.51	7.9	25.3	1.64
I29	11 May 2016	31	12.42	84.48	5.0	33.51	7.9	25.4	1.44
I29	11 May 2016	32	12.34	84.14	4.9	33.51	7.9	25.4	1.38
I29	11 May 2016	33	12.32	84.15	4.9	33.51	7.9	25.4	1.38
I29	11 May 2016	34	12.30	84.11	4.9	33.51	7.9	25.4	1.37
I29	11 May 2016	35	12.28	84.32	4.9	33.51	7.9	25.4	1.40
I29	11 May 2016	36	12.28	84.04	4.9	33.51	7.9	25.4	1.40
I29	11 May 2016	37	12.28	84.15	4.9	33.51	7.9	25.4	1.39
I30	11 May 2016	1	16.80	75.30	7.7	33.48	8.2	24.4	3.48
I30	11 May 2016	2	16.80	75.30	7.6	33.48	8.2	24.4	3.93
I30	11 May 2016	3	16.79	75.02	7.6	33.48	8.2	24.4	4.09
I30	11 May 2016	4	16.79	74.98	7.6	33.48	8.2	24.4	4.31
I30	11 May 2016	5	16.77	75.48	7.6	33.48	8.2	24.4	4.33
I30	11 May 2016	6	16.76	76.00	7.6	33.48	8.2	24.4	4.05
I30	11 May 2016	7	16.74	76.74	7.5	33.48	8.2	24.4	3.88
I30	11 May 2016	8	16.73	77.40	7.6	33.48	8.2	24.4	3.72
I30	11 May 2016	9	16.70	77.62	7.6	33.48	8.2	24.4	3.45

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I30	11 May 2016	10	16.67	78.41	7.6	33.48	8.2	24.4	3.36
I30	11 May 2016	11	16.60	78.89	7.6	33.48	8.2	24.4	3.52
I30	11 May 2016	12	16.47	79.76	7.5	33.48	8.2	24.5	3.24
I30	11 May 2016	13	16.28	80.42	7.3	33.47	8.2	24.5	3.14
I30	11 May 2016	14	15.89	81.18	7.2	33.48	8.1	24.6	3.03
I30	11 May 2016	15	15.76	82.26	7.1	33.47	8.1	24.6	2.68
I30	11 May 2016	16	15.45	82.81	7.1	33.47	8.1	24.7	2.59
I30	11 May 2016	17	15.26	83.03	7.0	33.47	8.1	24.7	2.42
I30	11 May 2016	18	14.85	83.30	6.9	33.48	8.1	24.8	2.57
I30	11 May 2016	19	14.54	83.36	6.7	33.47	8.1	24.9	2.79
I30	11 May 2016	20	13.87	84.10	6.3	33.48	8.1	25.0	2.45
I30	11 May 2016	21	13.63	84.92	5.9	33.47	8.0	25.1	2.22
I30	11 May 2016	22	13.59	84.43	5.7	33.47	8.0	25.1	2.19
I30	11 May 2016	23	13.38	84.21	5.4	33.48	8.0	25.1	2.10
I30	11 May 2016	24	13.10	84.27	5.3	33.48	8.0	25.2	1.92
I30	11 May 2016	25	12.81	84.00	5.2	33.49	8.0	25.3	1.99
I30	11 May 2016	26	12.73	83.66	5.2	33.49	8.0	25.3	1.76
I30	11 May 2016	27	12.70	83.41	5.2	33.49	7.9	25.3	1.58
I30	11 May 2016	28	12.69	83.26	5.2	33.49	7.9	25.3	1.60
I31	11 May 2016	1	17.18	77.96	8.2	33.46	8.2	24.3	2.44
I31	11 May 2016	2	17.17	78.02	8.2	33.46	8.2	24.3	2.47
I31	11 May 2016	3	17.16	77.70	8.1	33.46	8.2	24.3	3.03
I31	11 May 2016	4	16.87	76.01	7.8	33.46	8.2	24.4	4.39
I31	11 May 2016	5	15.91	74.06	7.6	33.48	8.2	24.6	4.99
I31	11 May 2016	6	15.42	77.83	7.6	33.47	8.1	24.7	4.02
I31	11 May 2016	7	14.75	80.72	7.5	33.47	8.1	24.8	3.36
I31	11 May 2016	8	14.37	81.22	7.3	33.46	8.1	24.9	3.16
I31	11 May 2016	9	14.10	82.00	7.0	33.47	8.1	25.0	2.81
I31	11 May 2016	10	14.05	82.30	6.7	33.46	8.1	25.0	2.57
I31	11 May 2016	11	13.96	82.54	6.5	33.47	8.1	25.0	2.26
I31	11 May 2016	12	13.72	82.76	6.4	33.47	8.1	25.1	2.30
I31	11 May 2016	13	13.59	83.28	6.2	33.47	8.1	25.1	2.42
I31	11 May 2016	14	13.38	83.28	5.7	33.48	8.0	25.1	2.31
I31	11 May 2016	15	13.32	81.75	5.4	33.48	8.0	25.1	2.04
I31	11 May 2016	16	13.30	80.81	5.4	33.48	8.0	25.2	1.91
I31	11 May 2016	17	13.29	80.56	5.4	33.48	8.0	25.2	1.95
I31	11 May 2016	18	13.29	80.73	5.4	33.48	8.0	25.2	1.96
I31	11 May 2016	19	13.29	80.65	5.4	33.48	8.0	25.2	1.91
I33	11 May 2016	1	16.74	77.70	7.4	33.49	8.2	24.4	2.93
I33	11 May 2016	2	16.74	77.73	7.4	33.49	8.2	24.4	2.98
I33	11 May 2016	3	16.72	78.02	7.4	33.50	8.2	24.4	3.06
I33	11 May 2016	4	16.72	78.38	7.4	33.50	8.2	24.4	3.11
I33	11 May 2016	5	16.66	79.02	7.3	33.50	8.2	24.4	2.99
I33	11 May 2016	6	16.42	79.48	7.2	33.51	8.2	24.5	3.07
I33	11 May 2016	7	16.31	80.17	7.2	33.50	8.1	24.5	3.08
I33	11 May 2016	8	16.20	80.42	7.2	33.49	8.1	24.5	3.16
I33	11 May 2016	9	16.06	80.68	7.1	33.49	8.1	24.6	3.15
I33	11 May 2016	10	15.85	80.95	7.0	33.49	8.1	24.6	3.13
I33	11 May 2016	11	15.34	81.85	6.8	33.49	8.1	24.7	3.12
I33	11 May 2016	12	14.98	82.56	6.6	33.49	8.1	24.8	2.76
I33	11 May 2016	13	14.82	82.77	6.5	33.48	8.1	24.8	2.70
I33	11 May 2016	14	14.67	83.29	6.5	33.48	8.1	24.9	2.62
I33	11 May 2016	15	14.56	83.37	6.4	33.48	8.1	24.9	2.42

Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I33	11 May 2016	16	14.49	83.70	6.4	33.48	8.1	24.9	2.50
I33	11 May 2016	17	14.46	83.88	6.3	33.48	8.1	24.9	2.30
I33	11 May 2016	18	14.43	83.79	6.3	33.48	8.1	24.9	2.29
I33	11 May 2016	19	14.24	83.95	6.2	33.49	8.1	25.0	2.20
I33	11 May 2016	20	14.17	83.93	6.2	33.49	8.0	25.0	2.11
I33	11 May 2016	21	14.02	84.08	6.0	33.49	8.0	25.0	2.02
I33	11 May 2016	22	13.82	84.33	6.0	33.50	8.0	25.1	1.95
I33	11 May 2016	23	13.66	84.30	5.9	33.50	8.0	25.1	1.83
I33	11 May 2016	24	13.56	84.47	5.8	33.50	8.0	25.1	1.86
I33	11 May 2016	25	13.51	84.33	5.8	33.49	8.0	25.1	1.84
I33	11 May 2016	26	13.42	84.44	5.8	33.50	8.0	25.1	1.68
I33	11 May 2016	27	13.28	84.59	5.6	33.50	8.0	25.2	1.72
I33	11 May 2016	28	12.87	84.84	5.4	33.51	8.0	25.3	1.58
I33	11 May 2016	29	12.80	84.96	5.3	33.51	8.0	25.3	1.53
I33	11 May 2016	30	12.73	85.15	5.3	33.51	8.0	25.3	1.46
I34	11 May 2016	1	16.49	76.74	7.3	33.48	8.1	24.5	3.41
I34	11 May 2016	2	16.50	76.84	7.3	33.48	8.1	24.5	3.52
I34	11 May 2016	3	16.46	76.59	7.1	33.48	8.1	24.5	3.53
I34	11 May 2016	4	16.19	74.84	6.6	33.50	8.1	24.5	4.01
I34	11 May 2016	5	16.12	71.54	6.4	33.49	8.1	24.6	4.48
I34	11 May 2016	6	16.00	70.11	6.3	33.49	8.1	24.6	4.93
I34	11 May 2016	7	15.98	70.48	6.3	33.49	8.1	24.6	4.74
I34	11 May 2016	8	15.96	70.46	6.3	33.49	8.1	24.6	4.72
I34	11 May 2016	9	15.91	70.55	6.3	33.49	8.1	24.6	4.45
I34	11 May 2016	10	15.89	70.96	6.3	33.49	8.1	24.6	4.35
I34	11 May 2016	11	15.87	70.94	6.2	33.49	8.1	24.6	4.25
I34	11 May 2016	12	15.80	70.79	6.2	33.49	8.1	24.6	4.21
I34	11 May 2016	13	15.72	70.84	6.1	33.49	8.1	24.7	4.16
I34	11 May 2016	14	15.60	70.57	6.0	33.49	8.0	24.7	4.19
I34	11 May 2016	15	15.14	71.51	6.0	33.50	8.0	24.8	3.76
I34	11 May 2016	16	15.07	75.32	6.0	33.48	8.0	24.8	2.91
I34	11 May 2016	17	14.34	79.49	5.7	33.50	8.0	25.0	2.62
I34	11 May 2016	18	13.24	80.00	5.4	33.51	8.0	25.2	2.04
I34	11 May 2016	19	13.07	76.76	5.3	33.49	8.0	25.2	1.75
I35	11 May 2016	1	17.60	77.21	8.9	33.44	8.3	24.2	1.70
I35	11 May 2016	2	17.56	77.20	8.8	33.44	8.3	24.2	1.85
I35	11 May 2016	3	17.19	74.27	8.2	33.45	8.3	24.3	5.55
I35	11 May 2016	4	16.44	63.74	7.4	33.48	8.2	24.5	8.27
I35	11 May 2016	5	16.18	71.79	7.0	33.48	8.1	24.5	6.40
I35	11 May 2016	6	16.09	74.01	6.8	33.47	8.1	24.6	5.01
I35	11 May 2016	7	15.99	75.15	6.6	33.48	8.1	24.6	4.06
I35	11 May 2016	8	15.68	75.34	6.4	33.47	8.1	24.6	3.56
I35	11 May 2016	9	15.03	77.71	6.3	33.48	8.1	24.8	2.93
I35	11 May 2016	10	14.65	80.30	6.5	33.47	8.1	24.9	2.64
I35	11 May 2016	11	14.26	82.40	6.7	33.46	8.1	24.9	2.80
I35	11 May 2016	12	13.99	82.33	6.6	33.45	8.1	25.0	3.08
I35	11 May 2016	13	13.77	82.25	6.4	33.46	8.1	25.0	3.25
I35	11 May 2016	14	13.68	82.94	5.9	33.47	8.0	25.1	3.02
I35	11 May 2016	15	13.66	82.59	5.2	33.47	8.0	25.1	2.56
I35	11 May 2016	16	13.64	80.44	4.4	33.48	7.9	25.1	2.01
I35	11 May 2016	17	13.62	73.31	3.8	33.49	7.9	25.1	1.69
I35	11 May 2016	18	13.62	66.65	3.7	33.49	7.8	25.1	1.63
I35	11 May 2016	19	13.63	63.93	3.7	33.49	7.8	25.1	1.53



Station	Date	Depth (m)	Temp (°C)	XMS (‰)	DO (mg/L)	Sal (ppt)	pH	Dens ( $\sigma$ -t)	Chlor ( $\mu$ g/L)
I36	11 May 2016	1	16.74	67.01	7.7	33.47	8.2	24.4	2.71
I36	11 May 2016	2	16.72	66.80	7.7	33.47	8.2	24.4	2.96
I36	11 May 2016	3	16.62	66.89	7.6	33.46	8.2	24.4	3.67
I36	11 May 2016	4	15.81	67.12	7.4	33.48	8.2	24.6	5.58
I36	11 May 2016	5	15.36	71.29	6.6	33.49	8.1	24.7	5.28
I36	11 May 2016	6	14.99	76.10	6.0	33.48	8.0	24.8	4.05
I36	11 May 2016	7	14.78	78.95	5.6	33.48	8.0	24.8	3.28
I36	11 May 2016	8	14.67	77.51	5.2	33.48	8.0	24.9	3.08
I36	11 May 2016	9	14.63	70.54	4.8	33.48	7.9	24.9	3.04
I36	11 May 2016	10	14.61	60.48	4.5	33.48	7.9	24.9	3.03
I36	11 May 2016	11	14.60	52.38	4.4	33.48	7.9	24.9	2.68
I37	11 May 2016	1	16.37	68.46	6.6	33.49	8.1	24.5	4.90
I37	11 May 2016	2	16.27	67.69	6.5	33.49	8.1	24.5	5.20
I37	11 May 2016	3	16.11	67.58	6.2	33.49	8.1	24.6	4.74
I37	11 May 2016	4	15.58	68.26	6.0	33.49	8.0	24.7	4.18
I37	11 May 2016	5	15.03	68.14	5.8	33.48	8.0	24.8	3.53
I37	11 May 2016	6	14.75	68.28	5.7	33.48	8.0	24.9	3.03
I37	11 May 2016	7	14.53	68.83	5.6	33.48	8.0	24.9	2.66
I37	11 May 2016	8	14.13	70.61	5.5	33.48	8.0	25.0	2.37
I37	11 May 2016	9	13.78	71.92	5.6	33.48	8.0	25.1	2.09
I37	11 May 2016	10	13.73	69.40	5.6	33.48	8.0	25.1	2.09
I37	11 May 2016	11	13.73	66.62	5.6	33.48	8.0	25.1	2.15
I37	11 May 2016	12	13.74	60.98	5.5	33.48	8.0	25.1	2.21
I38	11 May 2016	1	16.59	69.16	8.1	33.47	8.2	24.4	2.95
I38	11 May 2016	2	16.51	68.96	7.9	33.47	8.2	24.5	3.11
I38	11 May 2016	3	16.11	67.09	7.6	33.47	8.2	24.5	3.92
I38	11 May 2016	4	15.63	66.16	7.2	33.48	8.2	24.7	5.43
I38	11 May 2016	5	15.01	69.45	7.0	33.49	8.1	24.8	6.33
I38	11 May 2016	6	14.77	76.40	6.7	33.48	8.1	24.8	5.32
I38	11 May 2016	7	14.57	81.88	6.6	33.48	8.1	24.9	3.97
I38	11 May 2016	8	14.48	82.66	6.4	33.47	8.1	24.9	3.32
I38	11 May 2016	9	14.42	82.31	5.9	33.47	8.0	24.9	3.02
I38	11 May 2016	10	14.42	79.36	5.0	33.48	8.0	24.9	2.89
I38	11 May 2016	11	14.39	73.32	4.1	33.48	7.9	24.9	2.59

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	09 May 2016	18	SR	LAB DUPLICATE	<2	<2	<2
I9	09 May 2016	27	SR	LAB DUPLICATE	2e	<2	<2
I12	10 May 2016	18	SR	LAB DUPLICATE	20e	<2	<2
I13	09 May 2016	18	SR	LAB DUPLICATE	<2	<2	<2
I14	10 May 2016	2	SR	LAB DUPLICATE	<2	<2	<2
I16	10 May 2016	18	SR	LAB DUPLICATE	24e	2e	4e
I19	05 May 2016	6	ZV	LAB DUPLICATE	<2	<2	<2
I19	10 May 2016	6	LMA	FIELD DUPLICATE	80e	<2	<2
I19	10 May 2016	6	LMA	LAB DUPLICATE	ns	ns	ns
I19	16 May 2016	6	LMA	LAB DUPLICATE	4e	<2	<2
I19	22 May 2016	6	SR	LAB DUPLICATE	<2	<2	<2
I19	31 May 2016	6	ZV	LAB DUPLICATE	80e	<2	<2
I20	09 May 2016	55	LMA	LAB DUPLICATE	<2	<2	<2
I32	11 May 2016	9	LMA	LAB DUPLICATE	40e	<2	4e
I36	11 May 2016	11	LMA	LAB DUPLICATE	20e	<2	<2
I40	05 May 2016	6	SR	LAB DUPLICATE	<2	<2	<2
I40	16 May 2016	6	JT	LAB DUPLICATE	<2	<2	<2
I40	22 May 2016	6	JT	LAB DUPLICATE	<2	<2	<2
I40	31 May 2016	6	ZV	LAB DUPLICATE	8e	2e	2e
S12	03 May 2016		JT	FIELD DUPLICATE	4e	2e	<2
S12	03 May 2016		JT	LAB DUPLICATE	2e	<2	<2
S12	10 May 2016		GA	FIELD DUPLICATE	80e	6e	16e
S12	10 May 2016		GA	LAB DUPLICATE	20e	10e	16e
S12	17 May 2016		SR	FIELD DUPLICATE	ns	<2	2e
S12	17 May 2016		ZV	FIELD DUPLICATE	20e	ns	ns
S12	17 May 2016		SR	LAB DUPLICATE	<20	<2	2e
S12	24 May 2016		ZV	FIELD DUPLICATE	<20	<2	<2
S12	24 May 2016		ZV	LAB DUPLICATE	<20	<2	<2
S12	31 May 2016		SR	FIELD DUPLICATE	40e	24e	2e
S12	31 May 2016		SR	LAB DUPLICATE	40e	10e	6e

ns = not sampled

ND = no data

