



Monthly Receiving Waters Monitoring Report for the South Bay Ocean Outfall

(South Bay Water Reclamation Plant)

NPDES Permit No. CA0109045

January 2015



City of San Diego
Ocean Monitoring Program
Public Utilities Department
Environmental Monitoring and Technical Services Division



THE CITY OF SAN DIEGO

February 28, 2015

Mr. 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 January 2015 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,

A handwritten signature in black ink, appearing to read "Peter S. Vroom".

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

TDS:mln

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



Environmental Monitoring and Technical Services Division • Public Utilities

2392 Kincaid Road • San Diego, CA 92101-0811

Tel (619) 758-2300 Fax (619) 758-2309



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 S8–12).

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 stations (I19, I24, I25, I26, I32, I39, I40) were sampled according to NPDES permit specifications in order to monitor water quality compliance within a kelp bed-suitable area. The seven kelp stations 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 seven stations are only occasionally located within an area where kelp is actually found. 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.

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.

All water samples were collected using Van Dorn bottles arrayed at the required depths and messenger-tripped in series. 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, Seasoft, to create water column profiles equivalent to one reading per meter. Additionally, CTD profile data for each water sample depth are presented with the bacteriological data. However, it should be noted that the CTD measurements and bacteriological samples were taken from separate hydrocasts.

Offshore Stations

Quarterly offshore water quality sampling was 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 three 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 chromomorphic 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)^[1]. This document defines membrane filtration limits of 20–80 colonies per plate for total coliforms and 20–60 colonies per plate for fecal coliforms and *Enterococcus*. No Data (ND) is reported if plate counts from all dilutions have a total colony count of >200 per plate.

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

30-day Geometric Mean: The following standards are based on the geometric mean of the five most recent samples from each site.

- (1) Total coliform density shall not exceed 1000 CFU/100 mL;
- (2) Fecal coliform density shall not exceed 200 CFU/100 mL;

^[1]Bordner, R., J. Winter, and P. Scarpino (eds.). (1978). Microbiological Methods for Monitoring the Environment: Water and Wastes, EPA Research and Development, EPA-600/8-78-017. 337 p.

(3) *Enterococcus* density shall not exceed 35 CFU/100 mL.

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 2015 Quality Assurance Report, which will be completed in March 2016.

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 January, four 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 standards for total coliforms and fecal coliforms were each exceeded at stations S4, S5, and S10 on multiple days during the month.

- The 30-day geometric mean standard for *Enterococcus* was exceeded at stations S4, S5, S10, and S11 on multiple days during the month.
- The single sample maximum (SSM) standards for total coliforms and the standard that states total coliform densities shall not exceed 1000 CFU/100 mL when the fecal:total ratio exceeds 0.1 were each exceeded at stations S4, S5, and S10 on one or more days during the month.
- The SSM standards for fecal coliforms and *Enterococcus* were each exceeded at stations S4, S5, S10, and S11 on one or more days during the month.
- Per 2012 Ocean Plan requirements, resamples were collected in response to these SSM exceedances (see Table 2.8 for details).
- Although the Ocean Plan standards do not apply to these stations, bacteria densities exceeded one or more benchmark levels (i.e., total coliforms >10,000 CFU/100mL; fecal coliforms >400 CFU/100 mL; *Enterococcus* >104 CFU/100 mL; total >1000 CFU/100 mL & F:T ratio >0.1) in the seawater samples collected at stations S0 and S3 on one or more days during the month.
- Historical analyses of Ocean Plan compliance rates for the South Bay outfall 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 *Annual Receiving Waters Monitoring Report for the South Bay Ocean Outfall* for details (<http://www.sandiego.gov/mwwd/environment/reports.shtml>).
- Notable visual observations for January included: water flowing from a storm drain at stations S0 and S3. These observations were made on one or more days during the month.

➤ **Kelp Bed Water Quality Sampling**

- The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled five times during January (i.e. January 5, 10, 15, 20, 28).
- During January, two of the seven stations were out of compliance with various Ocean Plan water contact standards (see below).
 - The 30-day geometric mean standards for total coliforms and fecal coliforms were each exceeded at I40 on January 5 and 6.
 - The 30-day geometric mean standard for *Enterococcus* was exceeded at stations I25 and I40 on multiple days during the month.
 - The SSM standards for total coliforms, fecal coliforms, and *Enterococcus* were each exceeded at station I40 on January 5.
 - Per 2012 Ocean Plan requirements, resamples were collected in response to these SSM exceedances (see Table 3.8 for details).
- Water column temperatures ranged from 15.27 to 16.82°C. The difference between surface and bottom waters ranged from approximately 0.05 to 0.72°C, indicating the water column was not stratified at these sites.
- Chlorophyll *a* concentrations ranged from 0.21 to 5.08 µg/L at these stations, suggesting the presence of phytoplankton blooms during the month.
- Nothing of sewage origin was observed at any of the kelp bed stations.

➤ **Offshore Water Quality Sampling**

- Quarterly sampling was not conducted during January at the offshore stations. The next quarterly sampling is scheduled for February 2015.

This page intentionally left blank

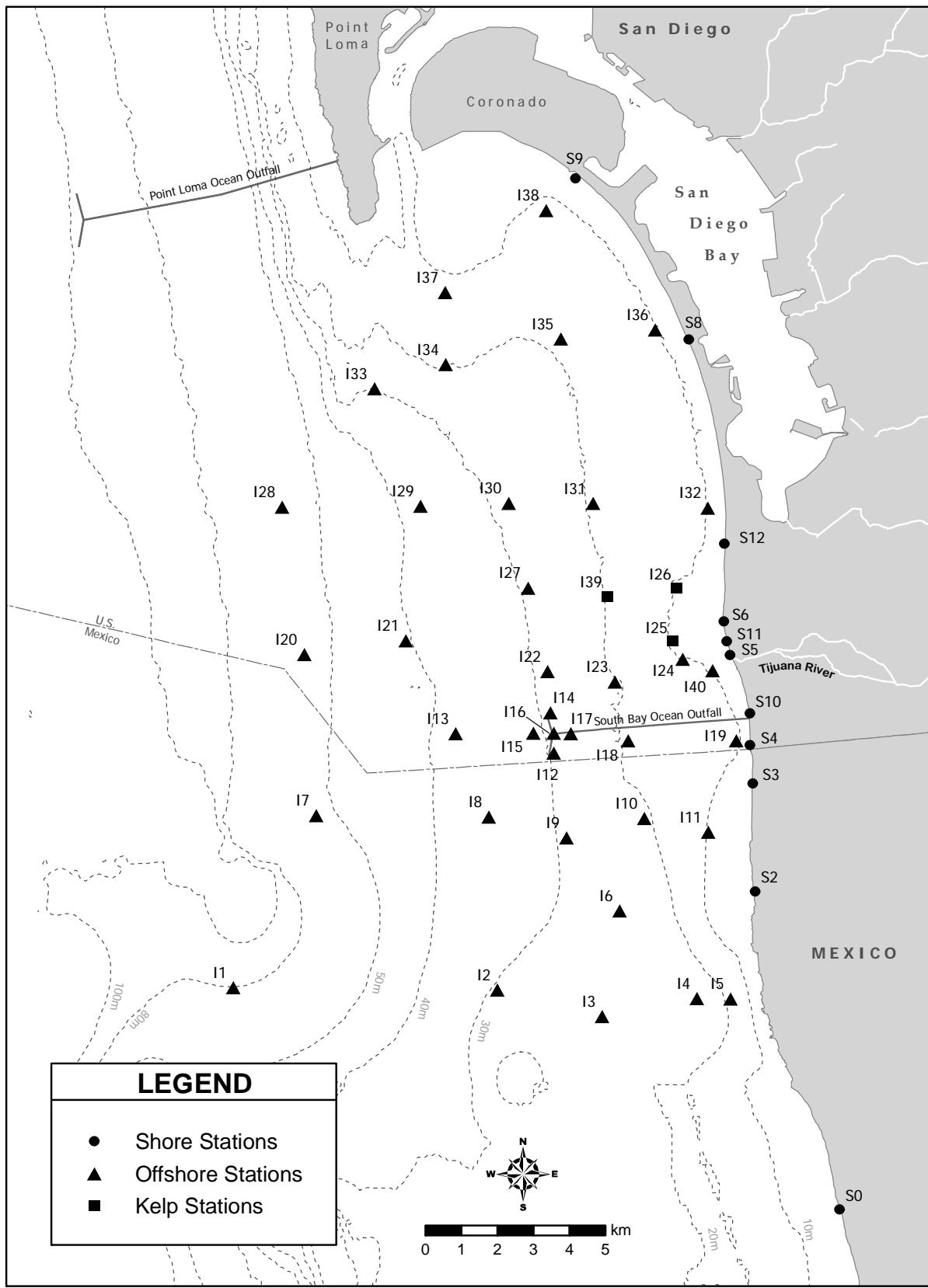


Figure 1.1 Station Map

This page intentionally left blank

SHORE STATIONS

Table 2.1

Summary of compliance with the 2012 Ocean Plan's 30-day Geometric Mean standard for total coliforms at the SBOO shore stations located north of the USA/Mexico border. 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 >1000 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
05 Jan 2015	1452	833	64	11*	29*	1759	149	16*
06 Jan 2015	797	964	87	8	46	1371	266	12
07 Jan 2015	797	964	87	8	46	1371	266	12
08 Jan 2015	947	1655	116	6*	48*	1688	294	8*
09 Jan 2015	947	1224	116	6*	48*	1688	294	8*
10 Jan 2015	947	1224	116	6*	48*	1688	294	8*
11 Jan 2015	947	1224	116	6*	48*	1688	294	8*
12 Jan 2015	947	1224	116	6*	48*	1688	294	8*
13 Jan 2015	1348	1688	77	6	29	2236	530	6
14 Jan 2015	1348	1688	77	6	29	2236	530	6
15 Jan 2015	1251	2167	34	4*	32*	2236	525	4*
16 Jan 2015	1251	2647	34	4*	32*	2629	525	4*
17 Jan 2015	869	2167	30*	4*	32*	2097	878	4*
18 Jan 2015	686	1951	30*	4*	32*	1459	878	4*
19 Jan 2015	686	1951	30*	4*	32*	1459	878	4*
20 Jan 2015	352	1601	28	6	29	807	450	7
21 Jan 2015	352	1601	28	6	29	807	450	7
22 Jan 2015	267	2098	30*	4*	32*	732	731	5*
23 Jan 2015	267	2098	30*	4*	32*	732	731	5*
24 Jan 2015	267	2098	30*	4*	32*	732	731	5*
25 Jan 2015	267	2098	30*	4*	32*	732	731	5*
26 Jan 2015	267	2098	30*	4*	32*	732	731	5*
27 Jan 2015	118	1318	17	6	18	467	401	4
28 Jan 2015	118	1318	17	6	18	467	401	4
29 Jan 2015	232	1344	20*	8*	15*	921	636	5*
30 Jan 2015	232	1344	20*	8*	15*	921	636	5*
31 Jan 2015	232	1344	20*	8*	15*	921	636	5*

* Geometric mean calculated using an n<5

Table 2.2

Summary of compliance with the 2012 Ocean Plan's 30-day Geometric Mean standard for fecal coliform at the SBOO shore stations located north of the USA/Mexico border. 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 Jan 2015	1452	833	64	11*	29*	1759	149	16*
02 Jan 2015	1452	833	64	11*	29*	1759	149	16*
03 Jan 2015	1452	833	64	11*	29*	1759	149	16*
04 Jan 2015	1452	833	64	11*	29*	1759	149	16*
05 Jan 2015	194	472	17	3*	5*	276	20	6*
06 Jan 2015	110	442	18	2	8	171	30	5
07 Jan 2015	110	442	18	2	8	171	30	5
08 Jan 2015	142	647	19	3*	8*	250	36	3*
09 Jan 2015	142	463	19	3*	8*	250	36	3*
10 Jan 2015	142	463	19	3*	8*	250	36	3*
11 Jan 2015	142	463	19	3*	8*	250	36	3*
12 Jan 2015	142	463	19	3*	8*	250	36	3*
13 Jan 2015	211	641	13	2	6	374	60	3
14 Jan 2015	211	641	13	2	6	374	60	3
15 Jan 2015	126	641	6	3*	8*	309	53	2*
16 Jan 2015	126	778	6	3*	8*	305	53	2*
17 Jan 2015	94	592	5*	3*	8*	206	73	2*
18 Jan 2015	80	336	5*	3*	8*	114	73	2*
19 Jan 2015	80	336	5*	3*	8*	114	73	2*
20 Jan 2015	42	263	7	3	8	63	45	3
21 Jan 2015	42	263	7	3	8	63	45	3
22 Jan 2015	35	350	6*	3*	12*	58	59	4*
23 Jan 2015	35	350	6*	3*	12*	58	59	4*
24 Jan 2015	35	350	6*	3*	12*	58	59	4*
25 Jan 2015	35	350	6*	3*	12*	58	59	4*
26 Jan 2015	35	350	6*	3*	12*	58	59	4*
27 Jan 2015	21	240	6	5	8	38	33	3
28 Jan 2015	21	240	6	5	8	38	33	3
29 Jan 2015	35	293	8*	6*	7*	58	51	4*
30 Jan 2015	35	293	8*	6*	7*	58	51	4*
31 Jan 2015	35	293	8*	6*	7*	58	51	4*

* Geometric mean calculated using an n<5

Table 2.3

Summary of compliance with the 2012 Ocean Plan's 30-day Geometric Mean standard for *Enterococcus* at the SBOO shore stations located north of the USA/Mexico border. 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 Jan 2015	163	759	14	4*	6*	232	27	9*
02 Jan 2015	163	1079	14	4*	6*	232	27	9*
03 Jan 2015	163	1079	14	4*	6*	232	27	9*
04 Jan 2015	163	1373	14	4*	6*	232	27	9*
05 Jan 2015	163	1373	14	4*	6*	232	27	9*
06 Jan 2015	108	1091	15	3	5	170	34	6
07 Jan 2015	108	1091	15	3	5	170	34	6
08 Jan 2015	155	1389	20	4*	6*	236	60	9*
09 Jan 2015	155	1132	20	4*	6*	236	48	9*
10 Jan 2015	155	1132	20	4*	6*	236	48	9*
11 Jan 2015	155	816	20	4*	6*	236	48	9*
12 Jan 2015	155	816	20	4*	6*	236	48	9*
13 Jan 2015	189	989	14	3	5	306	58	6
14 Jan 2015	189	989	14	3	5	306	58	6
15 Jan 2015	114	989	9	3*	4*	242	56	5*
16 Jan 2015	114	1043	9	3*	4*	233	47	5*
17 Jan 2015	85	876	6*	3*	4*	169	50	5*
18 Jan 2015	67	608	6*	3*	4*	119	50	5*
19 Jan 2015	67	608	6*	3*	4*	119	50	5*
20 Jan 2015	45	542	8	3	6	68	41	8
21 Jan 2015	45	542	8	3	6	68	41	8
22 Jan 2015	39	688	7*	2*	5*	63	44	6*
23 Jan 2015	34	688	7*	2*	5*	60	44	6*
24 Jan 2015	34	688	7*	2*	5*	60	44	6*
25 Jan 2015	34	688	7*	2*	5*	60	44	6*
26 Jan 2015	34	688	7*	2*	5*	60	44	6*
27 Jan 2015	21	587	5	2	4	56	34	5
28 Jan 2015	21	587	5	2	4	56	34	5
29 Jan 2015	27	638	7*	2*	4*	82	37	5*
30 Jan 2015	27	541	7*	2*	4*	82	37	5*
31 Jan 2015	27	541	7*	2*	4*	82	37	5*

* Geometric mean calculated using an n<5

Table 2.4

Summary of compliance at the SBOO shore stations located north of the USA/Mexico border with the 2012 Ocean Plan's Single Sample Maximum standard for total coliform bacteria, which states that total coliform density shall not exceed 10,000 CFU/100 mL.

Date	S4	S5	S6	S8	S9	S10	S11	S12
06 Jan 2015	IC	IC	IC	IC	IC	IC	IC	IC
08 Jan 2015	ns	IC	ns	ns	ns	ns	ns	ns
09 Jan 2015	ns	IC	ns	ns	ns	ns	ns	ns
13 Jan 2015	E	E	IC	IC	IC	E	IC	IC
15 Jan 2015	IC	E	ns	ns	ns	E	IC	ns
16 Jan 2015	ns	E	ns	ns	ns	IC	ns	ns
18 Jan 2015	ns	IC	ns	ns	ns	IC	ns	ns
20 Jan 2015	IC	IC	IC	IC	IC	IC	IC	IC
27 Jan 2015	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 located north of the USA/Mexico border with the 2012 Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria, which states that fecal coliform density shall not exceed 400 CFU/100 mL.

Date	S4	S5	S6	S8	S9	S10	S11	S12
06 Jan 2015	IC	IC	IC	IC	IC	IC	IC	IC
08 Jan 2015	ns	E	ns	ns	ns	ns	ns	ns
09 Jan 2015	ns	IC	ns	ns	ns	ns	ns	ns
13 Jan 2015	E	E	IC	IC	IC	E	E	IC
15 Jan 2015	IC	E	ns	ns	ns	E	IC	ns
16 Jan 2015	ns	E	ns	ns	ns	IC	ns	ns
18 Jan 2015	ns	IC	ns	ns	ns	IC	ns	ns
20 Jan 2015	IC	IC	IC	IC	IC	IC	IC	IC
27 Jan 2015	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 located north of the USA/Mexico border with the 2012 Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 104 CFU/100 mL.

Date	S4	S5	S6	S8	S9	S10	S11	S12
02 Jan 2015	ns	E	ns	ns	ns	ns	ns	ns
04 Jan 2015	ns	E	ns	ns	ns	ns	ns	ns
06 Jan 2015	IC	E	IC	IC	IC	IC	E	IC
08 Jan 2015	ns	E	ns	ns	ns	ns	E	ns
09 Jan 2015	ns	E	ns	ns	ns	ns	IC	ns
11 Jan 2015	ns	IC	ns	ns	ns	ns	ns	ns
13 Jan 2015	E	E	IC	IC	IC	E	E	IC
15 Jan 2015	IC	E	ns	ns	ns	E	E	ns
16 Jan 2015	ns	E	ns	ns	ns	E	IC	ns
18 Jan 2015	ns	IC	ns	ns	ns	IC	ns	ns
20 Jan 2015	IC	IC	IC	IC	IC	IC	IC	IC
27 Jan 2015	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 located north of the USA/Mexico border with the 2012 Ocean Plan's Single Sample Maximum standard for total coliforms and the fecal/total coliform ratio (F:T), which states that total coliform density shall not exceed 1,000 CFU/100 mL when F:T > 0.1.

Date	S4	S5	S6	S8	S9	S10	S11	S12
06 Jan 2015	IC	E	IC	IC	IC	IC	IC	IC
08 Jan 2015	ns	E	ns	ns	ns	ns	ns	ns
09 Jan 2015	ns	IC	ns	ns	ns	ns	ns	ns
13 Jan 2015	E	E	IC	IC	IC	E	IC	IC
15 Jan 2015	IC	E	ns	ns	ns	E	IC	ns
16 Jan 2015	ns	E	ns	ns	ns	IC	ns	ns
18 Jan 2015	ns	IC	ns	ns	ns	IC	ns	ns
20 Jan 2015	IC	IC	IC	IC	IC	IC	IC	IC
27 Jan 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.8

Concentrations of total coliform (Total), fecal coliform (Fecal), *Enterococcus* (Enter) and the fecal:total coliform ratio (F:T) at each SBOO shore station by sample date. Densities are reported as CFU/100 mL; F:T is unitless. Comments follow the data summary.

Station	Date	Time	Total	Fecal	Enter	F:T
S0	06 Jan 2015	1058	220e	8e	22e	0.04
S0	13 Jan 2015	1100	540	30e	120e	0.06
S0	20 Jan 2015	1044	3000e	240e	340e	0.08
S0	27 Jan 2015	1102	12e	<2	4e	0.17
S2	06 Jan 2015	1014	2e	<2	2e	1.00
S2	13 Jan 2015	1019	520	34e	48	0.07
S2	20 Jan 2015	1245	600e	80	100	0.13
S2	27 Jan 2015	1000	4e	<2	<2	0.50
S3	06 Jan 2015	922	120e	<2	14e	0.02
S3	13 Jan 2015	935	2000e	100e	180e	0.05
S3	20 Jan 2015	1128	120e	40	84	0.33
S3	27 Jan 2015	924	4e	<2	2e	0.50
S4	06 Jan 2015	1102	12e	<2	4e	0.17
S4	13 Jan 2015	1047	>16000	3400e	940	0.21
S4	15 Jan 2015	921	8800	180e	52	0.02
S4	20 Jan 2015	1037	200e	20e	40	0.10
S4	27 Jan 2015	1048	2e	<2	2e	1.00
S5	02 Jan 2015	1029	ns	ns	18000e	ns
S5	04 Jan 2015	1215	ns	ns	>12000	ns
S5	06 Jan 2015	938	2000e	280e	110	0.14
S5	08 Jan 2015	801	7200	840	340e	0.12
S5	09 Jan 2015	1355	200e	32e	120	0.16
S5	11 Jan 2015	1155	ns	ns	16e	ns
S5	13 Jan 2015	924	>16000	>12000	>12000	0.75
S5	15 Jan 2015	820	>16000	>12000	>12000	0.75
S5	16 Jan 2015	839	>16000	5400	2200e	0.34
S5	18 Jan 2015	824	760	42	72	0.06
S5	20 Jan 2015	920	80e	8e	24e	0.10
S5	27 Jan 2015	925	<20	8e	74	0.40
S6	06 Jan 2015	953	400	24e	26e	0.06
S6	13 Jan 2015	935	10e	2e	<2	0.20
S6	20 Jan 2015	935	<20	18e	20e	0.90
S6	27 Jan 2015	937	2e	4e	2e	2.00
S8	06 Jan 2015	816	2e	<2	<2	1.00
S8	13 Jan 2015	800	4e	<2	<2	0.50
S8	20 Jan 2015	756	20e	10e	4e	0.50
S8	27 Jan 2015	800	20e	26e	2e	1.30
S9	06 Jan 2015	752	300e	56	2e	0.19
S9	13 Jan 2015	745	4e	<2	2e	0.50
S9	20 Jan 2015	742	20e	10e	20e	0.50
S9	27 Jan 2015	740	2e	<2	2e	1.00

Station	Date	Time	Total	Fecal	Enteric	F:T
S10	06 Jan 2015	1108	240e	6e	14e	0.02
S10	13 Jan 2015	1051	>16000	6200	2400e	0.39
S10	15 Jan 2015	926	>16000	2600e	640	0.16
S10	16 Jan 2015	1020	9600	280e	160e	0.03
S10	18 Jan 2015	940	340e	4e	16e	0.01
S10	20 Jan 2015	1041	140e	10e	12e	0.07
S10	27 Jan 2015	1051	<20	<2	38e	0.10
S11	06 Jan 2015	949	4800	240e	110	0.05
S11	08 Jan 2015	819	ns	ns	240e	ns
S11	09 Jan 2015	1406	ns	ns	12e	ns
S11	13 Jan 2015	929	10000	700	220e	0.07
S11	15 Jan 2015	827	6800	260e	160e	0.04
S11	16 Jan 2015	901	ns	ns	10e	ns
S11	20 Jan 2015	929	16e	4e	8e	0.25
S11	27 Jan 2015	932	<20	<2	4e	0.10
S12	06 Jan 2015	1004	4e	<2	<2	0.50
S12	13 Jan 2015	946	<2	<2	<2	1.00
S12	20 Jan 2015	946	40e	22e	74	0.55
S12	27 Jan 2015	951	<2	<2	<2	1.00

ns = not sampled

Comments

Station	Date	Depth	Parameter	Comments
S5	02 Jan 2015			Resample
S5	04 Jan 2015			Resample
S5	08 Jan 2015			Resample
S11	08 Jan 2015			Resample
S5	09 Jan 2015			Resample
S11	09 Jan 2015			Resample
S5	11 Jan 2015			Resample
S4	15 Jan 2015			Resample
S5	15 Jan 2015			Resample
S10	15 Jan 2015			Resample
S11	15 Jan 2015			Resample
S5	16 Jan 2015			Resample
S10	16 Jan 2015			Resample
S11	16 Jan 2015			Resample
S5	18 Jan 2015			Resample
S10	18 Jan 2015			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	06 Jan 2015	Arrive Time	1058
S0	06 Jan 2015	Weather	Sunny
S0	06 Jan 2015	Wind Speed (kts)	1.5
S0	06 Jan 2015	Wind Dir	E
S0	06 Jan 2015	Animal Life	5 Shorebirds
S0	06 Jan 2015	Floatables	None
S0	06 Jan 2015	Water Color	Green
S0	06 Jan 2015	Current Direction	E
S0	06 Jan 2015	Water Temp (C)	15.2
S0	06 Jan 2015	Wave Height Low (ft)	3
S0	06 Jan 2015	High Tide (ft)	5.7
S0	06 Jan 2015	High Tide Time	903
S0	06 Jan 2015	Low Tide (ft)	-0.6
S0	06 Jan 2015	Low Tide Time	1609
S0	06 Jan 2015	Comments	5 Persons; Water clear; Flow from stormdrain 1 L/sec
S0	13 Jan 2015	Arrive Time	1100
S0	13 Jan 2015	Weather	Sunny
S0	13 Jan 2015	Wind Speed (kts)	3.9
S0	13 Jan 2015	Wind Dir	NW
S0	13 Jan 2015	Animal Life	5 Shorebirds; 1 Dog
S0	13 Jan 2015	Floatables	None
S0	13 Jan 2015	Water Color	Green
S0	13 Jan 2015	Current Direction	N
S0	13 Jan 2015	Water Temp (C)	17.5
S0	13 Jan 2015	Wave Height Low (ft)	2
S0	13 Jan 2015	High Tide (ft)	2.7
S0	13 Jan 2015	High Tide Time	1514
S0	13 Jan 2015	Low Tide (ft)	1.8
S0	13 Jan 2015	Low Tide Time	1001
S0	13 Jan 2015	Comments	Kelp; Algae; 5 Persons; Water clear; Flow from stormdrain 0.5 L/sec
S0	20 Jan 2015	Arrive Time	1044
S0	20 Jan 2015	Weather	Cloudy
S0	20 Jan 2015	Wind Speed (kts)	1.7
S0	20 Jan 2015	Wind Dir	SW
S0	20 Jan 2015	Animal Life	>20 Shorebirds
S0	20 Jan 2015	Floatables	None
S0	20 Jan 2015	Water Color	Green
S0	20 Jan 2015	Current Direction	N

Station	Date	Parameter	Value
S0	20 Jan 2015	Water Temp (C)	13
S0	20 Jan 2015	Wave Height Low (ft)	3
S0	20 Jan 2015	High Tide (ft)	6.6
S0	20 Jan 2015	High Tide Time	817
S0	20 Jan 2015	Low Tide (ft)	-1.6
S0	20 Jan 2015	Low Tide Time	1520
S0	20 Jan 2015	Comments	Kelp; Water turbid; Flow from stormdrain 0.5 L/sec
S0	27 Jan 2015	Arrive Time	1102
S0	27 Jan 2015	Weather	Sunny
S0	27 Jan 2015	Wind Speed (kts)	1
S0	27 Jan 2015	Wind Dir	SW
S0	27 Jan 2015	Animal Life	1 Dog; 5 Seagulls
S0	27 Jan 2015	Floatables	None
S0	27 Jan 2015	Water Color	Green
S0	27 Jan 2015	Current Direction	S
S0	27 Jan 2015	Water Temp (C)	20
S0	27 Jan 2015	Wave Height Low (ft)	7
S0	27 Jan 2015	High Tide (ft)	2.9
S0	27 Jan 2015	High Tide Time	1550
S0	27 Jan 2015	Low Tide (ft)	0.9
S0	27 Jan 2015	Low Tide Time	959
S0	27 Jan 2015	Comments	5 Persons; Water clear; Flow from stormdrain 0.6 L/sec
S2	06 Jan 2015	Arrive Time	1014
S2	06 Jan 2015	Weather	Sunny
S2	06 Jan 2015	Wind Speed (kts)	2.8
S2	06 Jan 2015	Wind Dir	E
S2	06 Jan 2015	Animal Life	5 Shorebirds; 3 Dogs; 1 Horse
S2	06 Jan 2015	Floatables	None
S2	06 Jan 2015	Water Color	Green
S2	06 Jan 2015	Current Direction	E
S2	06 Jan 2015	Water Temp (C)	15.6
S2	06 Jan 2015	Wave Height Low (ft)	5
S2	06 Jan 2015	High Tide (ft)	5.7
S2	06 Jan 2015	High Tide Time	903
S2	06 Jan 2015	Low Tide (ft)	-0.6
S2	06 Jan 2015	Low Tide Time	1609
S2	06 Jan 2015	Comments	Kelp; 25 Persons; Water clear; No flow from stormdrain
S2	13 Jan 2015	Arrive Time	1019
S2	13 Jan 2015	Weather	Sunny
S2	13 Jan 2015	Wind Speed (kts)	1.9
S2	13 Jan 2015	Wind Dir	NW

Station	Date	Parameter	Value
S2	13 Jan 2015	Animal Life	5 Shorebirds; 3 Dogs; 1 Horse
S2	13 Jan 2015	Floatables	None
S2	13 Jan 2015	Water Color	Green
S2	13 Jan 2015	Current Direction	N
S2	13 Jan 2015	Water Temp (C)	17.5
S2	13 Jan 2015	Wave Height Low (ft)	2
S2	13 Jan 2015	High Tide (ft)	2.7
S2	13 Jan 2015	High Tide Time	1514
S2	13 Jan 2015	Low Tide (ft)	1.8
S2	13 Jan 2015	Low Tide Time	1001
S2	13 Jan 2015	Comments	Kelp; 15 Persons; Water clear; No flow from stormdrain
S2	20 Jan 2015	Arrive Time	1245
S2	20 Jan 2015	Weather	Sunny
S2	20 Jan 2015	Wind Speed (kts)	1.7
S2	20 Jan 2015	Wind Dir	SW
S2	20 Jan 2015	Animal Life	3 Dogs; >20 Seagulls
S2	20 Jan 2015	Floatables	None
S2	20 Jan 2015	Water Color	Green
S2	20 Jan 2015	Current Direction	N
S2	20 Jan 2015	Water Temp (C)	14
S2	20 Jan 2015	Wave Height Low (ft)	3
S2	20 Jan 2015	High Tide (ft)	6.6
S2	20 Jan 2015	High Tide Time	817
S2	20 Jan 2015	Low Tide (ft)	-1.6
S2	20 Jan 2015	Low Tide Time	1520
S2	20 Jan 2015	Comments	Kelp; Water turbid; No flow from stormdrain
S2	27 Jan 2015	Arrive Time	1000
S2	27 Jan 2015	Weather	Sunny
S2	27 Jan 2015	Wind Speed (kts)	0
S2	27 Jan 2015	Wind Dir	
S2	27 Jan 2015	Animal Life	4 Dogs; 5 Seagulls
S2	27 Jan 2015	Floatables	None
S2	27 Jan 2015	Water Color	Green
S2	27 Jan 2015	Current Direction	S
S2	27 Jan 2015	Water Temp (C)	20
S2	27 Jan 2015	Wave Height Low (ft)	6
S2	27 Jan 2015	High Tide (ft)	2.9
S2	27 Jan 2015	High Tide Time	1550
S2	27 Jan 2015	Low Tide (ft)	0.9
S2	27 Jan 2015	Low Tide Time	959
S2	27 Jan 2015	Comments	8 Persons; Water clear; No flow from stormdrain
S3	06 Jan 2015	Arrive Time	922

Station	Date	Parameter	Value
S3	06 Jan 2015	Weather	Sunny
S3	06 Jan 2015	Wind Speed (kts)	3.6
S3	06 Jan 2015	Wind Dir	W
S3	06 Jan 2015	Animal Life	5 Shorebirds; 10 Dolphins
S3	06 Jan 2015	Floatables	None
S3	06 Jan 2015	Water Color	Green
S3	06 Jan 2015	Current Direction	W
S3	06 Jan 2015	Water Temp (C)	15.2
S3	06 Jan 2015	Wave Height Low (ft)	6
S3	06 Jan 2015	High Tide (ft)	5.7
S3	06 Jan 2015	High Tide Time	903
S3	06 Jan 2015	Low Tide (ft)	1.7
S3	06 Jan 2015	Low Tide Time	305
S3	06 Jan 2015	Comments	Kelp; 5 Persons; Water clear; No flow from stormdrain
S3	13 Jan 2015	Arrive Time	935
S3	13 Jan 2015	Weather	Sunny
S3	13 Jan 2015	Wind Speed (kts)	2
S3	13 Jan 2015	Wind Dir	NW
S3	13 Jan 2015	Animal Life	5 Shorebirds; 3 Dogs
S3	13 Jan 2015	Floatables	None
S3	13 Jan 2015	Water Color	Green
S3	13 Jan 2015	Current Direction	N
S3	13 Jan 2015	Water Temp (C)	18
S3	13 Jan 2015	Wave Height Low (ft)	1.7
S3	13 Jan 2015	High Tide (ft)	2.7
S3	13 Jan 2015	High Tide Time	1514
S3	13 Jan 2015	Low Tide (ft)	1.8
S3	13 Jan 2015	Low Tide Time	1001
S3	13 Jan 2015	Comments	Kelp; Algae; >10 Persons; Water clear; No flow from stormdrain
S3	20 Jan 2015	Arrive Time	1128
S3	20 Jan 2015	Weather	Cloudy
S3	20 Jan 2015	Wind Speed (kts)	0.9
S3	20 Jan 2015	Wind Dir	SW
S3	20 Jan 2015	Animal Life	1 Dog; 5 Seagulls
S3	20 Jan 2015	Floatables	None
S3	20 Jan 2015	Water Color	Green
S3	20 Jan 2015	Current Direction	N
S3	20 Jan 2015	Water Temp (C)	13
S3	20 Jan 2015	Wave Height Low (ft)	3
S3	20 Jan 2015	High Tide (ft)	6.6
S3	20 Jan 2015	High Tide Time	817
S3	20 Jan 2015	Low Tide (ft)	-1.6
S3	20 Jan 2015	Low Tide Time	1520

Station	Date	Parameter	Value
S3	20 Jan 2015	Comments	Kelp; Water turbid; Flow from stormdrain 0.3 L/sec
S3	27 Jan 2015	Arrive Time	924
S3	27 Jan 2015	Weather	Sunny
S3	27 Jan 2015	Wind Speed (kts)	0.2
S3	27 Jan 2015	Wind Dir	SW
S3	27 Jan 2015	Animal Life	5 Seagulls
S3	27 Jan 2015	Floatables	None
S3	27 Jan 2015	Water Color	Green
S3	27 Jan 2015	Current Direction	S
S3	27 Jan 2015	Water Temp (C)	20
S3	27 Jan 2015	Wave Height Low (ft)	5
S3	27 Jan 2015	High Tide (ft)	2.9
S3	27 Jan 2015	High Tide Time	1550
S3	27 Jan 2015	Low Tide (ft)	0.9
S3	27 Jan 2015	Low Tide Time	959
S3	27 Jan 2015	Comments	11 Persons; Water clear; No flow from stormdrain
S4	06 Jan 2015	Arrive Time	1102
S4	06 Jan 2015	Weather	Sunny
S4	06 Jan 2015	Wind Speed (kts)	13.6
S4	06 Jan 2015	Wind Dir	SE
S4	06 Jan 2015	Animal Life	None
S4	06 Jan 2015	Floatables	None
S4	06 Jan 2015	Water Color	Green
S4	06 Jan 2015	Current Direction	SE
S4	06 Jan 2015	Water Temp (C)	117.1
S4	06 Jan 2015	Wave Height Low (ft)	2
S4	06 Jan 2015	High Tide (ft)	5.7
S4	06 Jan 2015	High Tide Time	903
S4	06 Jan 2015	Low Tide (ft)	-0.6
S4	06 Jan 2015	Low Tide Time	1609
S4	06 Jan 2015	Comments	Seagrass; Water clear
S4	13 Jan 2015	Arrive Time	1047
S4	13 Jan 2015	Weather	Partly Cloudy
S4	13 Jan 2015	Wind Speed (kts)	6.9
S4	13 Jan 2015	Wind Dir	NW
S4	13 Jan 2015	Animal Life	1 Seal
S4	13 Jan 2015	Floatables	None
S4	13 Jan 2015	Water Color	Green
S4	13 Jan 2015	Current Direction	NW
S4	13 Jan 2015	Water Temp (C)	15.6
S4	13 Jan 2015	Wave Height Low (ft)	3
S4	13 Jan 2015	High Tide (ft)	2.7

Station	Date	Parameter	Value
S4	13 Jan 2015	High Tide Time	1514
S4	13 Jan 2015	Low Tide (ft)	1.8
S4	13 Jan 2015	Low Tide Time	1001
S4	13 Jan 2015	Comments	Water clear
S4	15 Jan 2015	Arrive Time	921
S4	15 Jan 2015	Weather	Sunny
S4	15 Jan 2015	Wind Speed (kts)	4.2
S4	15 Jan 2015	Wind Dir	W
S4	15 Jan 2015	Animal Life	None
S4	15 Jan 2015	Floatables	None
S4	15 Jan 2015	Water Color	Green
S4	15 Jan 2015	Current Direction	W
S4	15 Jan 2015	Water Temp (C)	16
S4	15 Jan 2015	Wave Height Low (ft)	2
S4	15 Jan 2015	High Tide (ft)	4.8
S4	15 Jan 2015	High Tide Time	439
S4	15 Jan 2015	Low Tide (ft)	0.6
S4	15 Jan 2015	Low Tide Time	1203
S4	15 Jan 2015	Comments	Seagrass; Water clear
S4	20 Jan 2015	Arrive Time	1037
S4	20 Jan 2015	Weather	Foggy
S4	20 Jan 2015	Wind Speed (kts)	4.2
S4	20 Jan 2015	Wind Dir	E
S4	20 Jan 2015	Animal Life	None
S4	20 Jan 2015	Floatables	None
S4	20 Jan 2015	Water Color	Green
S4	20 Jan 2015	Current Direction	E
S4	20 Jan 2015	Water Temp (C)	16.4
S4	20 Jan 2015	Wave Height Low (ft)	4
S4	20 Jan 2015	High Tide (ft)	6.6
S4	20 Jan 2015	High Tide Time	817
S4	20 Jan 2015	Low Tide (ft)	-1.6
S4	20 Jan 2015	Low Tide Time	1520
S4	20 Jan 2015	Comments	Water clear
S4	27 Jan 2015	Arrive Time	1048
S4	27 Jan 2015	Weather	Sunny
S4	27 Jan 2015	Wind Speed (kts)	5.4
S4	27 Jan 2015	Wind Dir	W
S4	27 Jan 2015	Animal Life	None
S4	27 Jan 2015	Floatables	None
S4	27 Jan 2015	Water Color	Green
S4	27 Jan 2015	Current Direction	W
S4	27 Jan 2015	Water Temp (C)	16
S4	27 Jan 2015	Wave Height Low (ft)	3

Station	Date	Parameter	Value
S4	27 Jan 2015	High Tide (ft)	2.9
S4	27 Jan 2015	High Tide Time	1550
S4	27 Jan 2015	Low Tide (ft)	0.9
S4	27 Jan 2015	Low Tide Time	959
S4	27 Jan 2015	Comments	Water clear
S5	02 Jan 2015	Arrive Time	1029
S5	02 Jan 2015	Weather	Sunny
S5	02 Jan 2015	Wind Speed (kts)	5.7
S5	02 Jan 2015	Wind Dir	SE
S5	02 Jan 2015	Animal Life	None
S5	02 Jan 2015	Floatables	None
S5	02 Jan 2015	Water Color	Green
S5	02 Jan 2015	Current Direction	SE
S5	02 Jan 2015	Water Temp (C)	16
S5	02 Jan 2015	Wave Height Low (ft)	2
S5	02 Jan 2015	High Tide (ft)	6
S5	02 Jan 2015	High Tide Time	642
S5	02 Jan 2015	Low Tide (ft)	-0.7
S5	02 Jan 2015	Low Tide Time	1356
S5	02 Jan 2015	Comments	Seagrass; Water clear
S5	04 Jan 2015	Arrive Time	1215
S5	04 Jan 2015	Weather	Sunny
S5	04 Jan 2015	Wind Speed (kts)	7
S5	04 Jan 2015	Wind Dir	W
S5	04 Jan 2015	Animal Life	None
S5	04 Jan 2015	Floatables	None
S5	04 Jan 2015	Water Color	Green
S5	04 Jan 2015	Current Direction	W
S5	04 Jan 2015	Water Temp (C)	15
S5	04 Jan 2015	Wave Height Low (ft)	2
S5	04 Jan 2015	High Tide (ft)	6.1
S5	04 Jan 2015	High Tide Time	756
S5	04 Jan 2015	Low Tide (ft)	-0.9
S5	04 Jan 2015	Low Tide Time	1505
S5	04 Jan 2015	Comments	1 Jogger; 1 Person; Water turbid; Detergent smell
S5	06 Jan 2015	Arrive Time	938
S5	06 Jan 2015	Weather	Sunny
S5	06 Jan 2015	Wind Speed (kts)	18.6
S5	06 Jan 2015	Wind Dir	SW
S5	06 Jan 2015	Animal Life	1 Bird
S5	06 Jan 2015	Floatables	None
S5	06 Jan 2015	Water Color	Green
S5	06 Jan 2015	Current Direction	SW

Station	Date	Parameter	Value
S5	06 Jan 2015	Water Temp (C)	17
S5	06 Jan 2015	Wave Height Low (ft)	2
S5	06 Jan 2015	High Tide (ft)	5.7
S5	06 Jan 2015	High Tide Time	903
S5	06 Jan 2015	Low Tide (ft)	1.7
S5	06 Jan 2015	Low Tide Time	305
S5	06 Jan 2015	Comments	Kelp; Water turbid
S5	08 Jan 2015	Arrive Time	801
S5	08 Jan 2015	Weather	Cloudy
S5	08 Jan 2015	Wind Speed (kts)	1.7
S5	08 Jan 2015	Wind Dir	NE
S5	08 Jan 2015	Animal Life	None
S5	08 Jan 2015	Floatables	None
S5	08 Jan 2015	Water Color	Green
S5	08 Jan 2015	Current Direction	NE
S5	08 Jan 2015	Water Temp (C)	15.2
S5	08 Jan 2015	Wave Height Low (ft)	2
S5	08 Jan 2015	High Tide (ft)	5
S5	08 Jan 2015	High Tide Time	1009
S5	08 Jan 2015	Low Tide (ft)	1.9
S5	08 Jan 2015	Low Tide Time	419
S5	08 Jan 2015	Comments	Seagrass; Water clear
S5	09 Jan 2015	Arrive Time	1355
S5	09 Jan 2015	Weather	Cloudy
S5	09 Jan 2015	Wind Speed (kts)	3
S5	09 Jan 2015	Wind Dir	W
S5	09 Jan 2015	Animal Life	None
S5	09 Jan 2015	Floatables	None
S5	09 Jan 2015	Water Color	Green
S5	09 Jan 2015	Current Direction	W
S5	09 Jan 2015	Water Temp (C)	12
S5	09 Jan 2015	Wave Height Low (ft)	2
S5	09 Jan 2015	High Tide (ft)	4.6
S5	09 Jan 2015	High Tide Time	1043
S5	09 Jan 2015	Low Tide (ft)	0.3
S5	09 Jan 2015	Low Tide Time	1744
S5	09 Jan 2015	Comments	Kelp; Seagrass; Water turbid; Detergent-like odor
S5	11 Jan 2015	Arrive Time	1155
S5	11 Jan 2015	Weather	Drizzle
S5	11 Jan 2015	Wind Speed (kts)	3
S5	11 Jan 2015	Wind Dir	W
S5	11 Jan 2015	Animal Life	None
S5	11 Jan 2015	Floatables	None

Station	Date	Parameter	Value
S5	11 Jan 2015	Water Color	Green
S5	11 Jan 2015	Current Direction	W
S5	11 Jan 2015	Water Temp (C)	13
S5	11 Jan 2015	Wave Height Low (ft)	2
S5	11 Jan 2015	High Tide (ft)	3.5
S5	11 Jan 2015	High Tide Time	1209
S5	11 Jan 2015	Low Tide (ft)	2.2
S5	11 Jan 2015	Low Tide Time	659
S5	11 Jan 2015	Comments	Kelp; Seagrass; Water clear; 5 Dead birds between S6 and S11; Detergent like odor
S5	13 Jan 2015	Arrive Time	924
S5	13 Jan 2015	Weather	Sunny
S5	13 Jan 2015	Wind Speed (kts)	0.9
S5	13 Jan 2015	Wind Dir	W
S5	13 Jan 2015	Animal Life	None
S5	13 Jan 2015	Floatables	None
S5	13 Jan 2015	Water Color	Yellow
S5	13 Jan 2015	Current Direction	NW
S5	13 Jan 2015	Water Temp (C)	15.6
S5	13 Jan 2015	Wave Height Low (ft)	2
S5	13 Jan 2015	High Tide (ft)	2.7
S5	13 Jan 2015	High Tide Time	1514
S5	13 Jan 2015	Low Tide (ft)	1.8
S5	13 Jan 2015	Low Tide Time	1001
S5	13 Jan 2015	Comments	Seagrass; Water turbid; Chemical odor
S5	15 Jan 2015	Arrive Time	820
S5	15 Jan 2015	Weather	Sunny
S5	15 Jan 2015	Wind Speed (kts)	3.1
S5	15 Jan 2015	Wind Dir	E
S5	15 Jan 2015	Animal Life	None
S5	15 Jan 2015	Floatables	None
S5	15 Jan 2015	Water Color	Green
S5	15 Jan 2015	Current Direction	N
S5	15 Jan 2015	Water Temp (C)	16.4
S5	15 Jan 2015	Wave Height Low (ft)	3
S5	15 Jan 2015	High Tide (ft)	4.8
S5	15 Jan 2015	High Tide Time	439
S5	15 Jan 2015	Low Tide (ft)	0.6
S5	15 Jan 2015	Low Tide Time	1203
S5	15 Jan 2015	Comments	Water turbid
S5	16 Jan 2015	Arrive Time	839
S5	16 Jan 2015	Weather	Sunny
S5	16 Jan 2015	Wind Speed (kts)	2.7
S5	16 Jan 2015	Wind Dir	S

Station	Date	Parameter	Value
S5	16 Jan 2015	Animal Life	None
	16 Jan 2015	Floatables	None
	16 Jan 2015	Water Color	Green
	16 Jan 2015	Current Direction	S
	16 Jan 2015	Water Temp (C)	14.8
	16 Jan 2015	Wave Height Low (ft)	2
	16 Jan 2015	High Tide (ft)	5.3
	16 Jan 2015	High Tide Time	525
	16 Jan 2015	Low Tide (ft)	-0.1
	16 Jan 2015	Low Tide Time	1245
	16 Jan 2015	Comments	Seagrass; Water clear
S5	18 Jan 2015	Arrive Time	824
	18 Jan 2015	Weather	Sunny
	18 Jan 2015	Wind Speed (kts)	3.7
	18 Jan 2015	Wind Dir	SE
	18 Jan 2015	Animal Life	None
	18 Jan 2015	Floatables	None
	18 Jan 2015	Water Color	Green
	18 Jan 2015	Current Direction	SE
	18 Jan 2015	Water Temp (C)	16
	18 Jan 2015	Wave Height Low (ft)	3
	18 Jan 2015	High Tide (ft)	6.2
	18 Jan 2015	High Tide Time	651
S5	18 Jan 2015	Low Tide (ft)	-1.2
	18 Jan 2015	Low Tide Time	1402
	18 Jan 2015	Comments	Seagrass; Water clear
S5	20 Jan 2015	Arrive Time	920
	20 Jan 2015	Weather	Foggy
	20 Jan 2015	Wind Speed (kts)	4.2
	20 Jan 2015	Wind Dir	E
	20 Jan 2015	Animal Life	None
	20 Jan 2015	Floatables	None
	20 Jan 2015	Water Color	Green
	20 Jan 2015	Current Direction	E
	20 Jan 2015	Water Temp (C)	16.4
	20 Jan 2015	Wave Height Low (ft)	4
	20 Jan 2015	High Tide (ft)	6.6
	20 Jan 2015	High Tide Time	817
S5	20 Jan 2015	Low Tide (ft)	-1.6
	20 Jan 2015	Low Tide Time	1520
S5	20 Jan 2015	Comments	Water clear
	27 Jan 2015	Arrive Time	925
	27 Jan 2015	Weather	Sunny
S5	27 Jan 2015	Wind Speed (kts)	3.4

Station	Date	Parameter	Value
S5	27 Jan 2015	Wind Dir	SE
S5	27 Jan 2015	Animal Life	None
S5	27 Jan 2015	Floatables	None
S5	27 Jan 2015	Water Color	Green
S5	27 Jan 2015	Current Direction	SE
S5	27 Jan 2015	Water Temp (C)	15.6
S5	27 Jan 2015	Wave Height Low (ft)	2
S5	27 Jan 2015	High Tide (ft)	2.9
S5	27 Jan 2015	High Tide Time	1550
S5	27 Jan 2015	Low Tide (ft)	0.9
S5	27 Jan 2015	Low Tide Time	959
S5	27 Jan 2015	Comments	Seagrass; Water clear
S6	06 Jan 2015	Arrive Time	953
S6	06 Jan 2015	Weather	Sunny
S6	06 Jan 2015	Wind Speed (kts)	14.3
S6	06 Jan 2015	Wind Dir	SW
S6	06 Jan 2015	Animal Life	None
S6	06 Jan 2015	Floatables	None
S6	06 Jan 2015	Water Color	Green
S6	06 Jan 2015	Current Direction	SW
S6	06 Jan 2015	Water Temp (C)	16.8
S6	06 Jan 2015	Wave Height Low (ft)	3
S6	06 Jan 2015	High Tide (ft)	5.7
S6	06 Jan 2015	High Tide Time	903
S6	06 Jan 2015	Low Tide (ft)	-0.6
S6	06 Jan 2015	Low Tide Time	1609
S6	06 Jan 2015	Comments	Water clear
S6	13 Jan 2015	Arrive Time	935
S6	13 Jan 2015	Weather	Sunny
S6	13 Jan 2015	Wind Speed (kts)	3.4
S6	13 Jan 2015	Wind Dir	SW
S6	13 Jan 2015	Animal Life	None
S6	13 Jan 2015	Floatables	None
S6	13 Jan 2015	Water Color	Green
S6	13 Jan 2015	Current Direction	NW
S6	13 Jan 2015	Water Temp (C)	15.6
S6	13 Jan 2015	Wave Height Low (ft)	3
S6	13 Jan 2015	High Tide (ft)	2.7
S6	13 Jan 2015	High Tide Time	1514
S6	13 Jan 2015	Low Tide (ft)	1.8
S6	13 Jan 2015	Low Tide Time	1001
S6	13 Jan 2015	Comments	Kelp; Water clear
S6	20 Jan 2015	Arrive Time	935
S6	20 Jan 2015	Weather	Sunny

Station	Date	Parameter	Value
S6	20 Jan 2015	Wind Speed (kts)	2.3
	20 Jan 2015	Wind Dir	E
	20 Jan 2015	Animal Life	None
	20 Jan 2015	Floatables	None
	20 Jan 2015	Water Color	Green
	20 Jan 2015	Current Direction	E
	20 Jan 2015	Water Temp (C)	16.4
	20 Jan 2015	Wave Height Low (ft)	5
	20 Jan 2015	High Tide (ft)	6.6
	20 Jan 2015	High Tide Time	817
	20 Jan 2015	Low Tide (ft)	-1.6
	20 Jan 2015	Low Tide Time	1520
	20 Jan 2015	Comments	Water clear
S6	27 Jan 2015	Arrive Time	937
	27 Jan 2015	Weather	Sunny
	27 Jan 2015	Wind Speed (kts)	1.5
	27 Jan 2015	Wind Dir	SE
	27 Jan 2015	Animal Life	None
	27 Jan 2015	Floatables	None
	27 Jan 2015	Water Color	Green
	27 Jan 2015	Current Direction	SE
	27 Jan 2015	Water Temp (C)	16.3
	27 Jan 2015	Wave Height Low (ft)	2
	27 Jan 2015	High Tide (ft)	2.9
	27 Jan 2015	High Tide Time	1550
	27 Jan 2015	Low Tide (ft)	0.9
	27 Jan 2015	Low Tide Time	959
S8	27 Jan 2015	Comments	Water clear
S8	06 Jan 2015	Arrive Time	816
	06 Jan 2015	Weather	Sunny
	06 Jan 2015	Wind Speed (kts)	1.6
	06 Jan 2015	Wind Dir	W
	06 Jan 2015	Animal Life	None
	06 Jan 2015	Floatables	None
	06 Jan 2015	Water Color	Green
	06 Jan 2015	Current Direction	W
	06 Jan 2015	Water Temp (C)	15
	06 Jan 2015	Wave Height Low (ft)	2
	06 Jan 2015	High Tide (ft)	5.7
	06 Jan 2015	High Tide Time	903
S8	06 Jan 2015	Low Tide (ft)	1.7
	06 Jan 2015	Low Tide Time	305
S8	06 Jan 2015	Comments	Kelp; 1 Jogger; Water clear
	13 Jan 2015	Arrive Time	800

Station	Date	Parameter	Value
S8	13 Jan 2015	Weather	Overcast
S8	13 Jan 2015	Wind Speed (kts)	1.1
S8	13 Jan 2015	Wind Dir	SE
S8	13 Jan 2015	Animal Life	None
S8	13 Jan 2015	Floatables	None
S8	13 Jan 2015	Water Color	Green
S8	13 Jan 2015	Current Direction	SE
S8	13 Jan 2015	Water Temp (C)	15
S8	13 Jan 2015	Wave Height Low (ft)	2
S8	13 Jan 2015	High Tide (ft)	4.2
S8	13 Jan 2015	High Tide Time	252
S8	13 Jan 2015	Low Tide (ft)	1.8
S8	13 Jan 2015	Low Tide Time	1001
S8	13 Jan 2015	Comments	Kelp; Water clear
S8	20 Jan 2015	Arrive Time	756
S8	20 Jan 2015	Weather	Foggy
S8	20 Jan 2015	Wind Speed (kts)	2.4
S8	20 Jan 2015	Wind Dir	E
S8	20 Jan 2015	Animal Life	None
S8	20 Jan 2015	Floatables	None
S8	20 Jan 2015	Water Color	Green
S8	20 Jan 2015	Current Direction	E
S8	20 Jan 2015	Water Temp (C)	16.2
S8	20 Jan 2015	Wave Height Low (ft)	3
S8	20 Jan 2015	High Tide (ft)	6.6
S8	20 Jan 2015	High Tide Time	817
S8	20 Jan 2015	Low Tide (ft)	1.2
S8	20 Jan 2015	Low Tide Time	211
S8	20 Jan 2015	Comments	Kelp; Water turbid
S8	27 Jan 2015	Arrive Time	800
S8	27 Jan 2015	Weather	Sunny
S8	27 Jan 2015	Wind Speed (kts)	4
S8	27 Jan 2015	Wind Dir	E
S8	27 Jan 2015	Animal Life	None
S8	27 Jan 2015	Floatables	None
S8	27 Jan 2015	Water Color	Green
S8	27 Jan 2015	Current Direction	E
S8	27 Jan 2015	Water Temp (C)	16
S8	27 Jan 2015	Wave Height Low (ft)	2
S8	27 Jan 2015	High Tide (ft)	4.8
S8	27 Jan 2015	High Tide Time	242
S8	27 Jan 2015	Low Tide (ft)	0.9
S8	27 Jan 2015	Low Tide Time	959
S8	27 Jan 2015	Comments	Water clear

Station	Date	Parameter	Value
S9	06 Jan 2015	Arrive Time	752
S9	06 Jan 2015	Weather	Sunny
S9	06 Jan 2015	Wind Speed (kts)	1.2
S9	06 Jan 2015	Wind Dir	W
S9	06 Jan 2015	Animal Life	None
S9	06 Jan 2015	Floatables	None
S9	06 Jan 2015	Water Color	Green
S9	06 Jan 2015	Current Direction	W
S9	06 Jan 2015	Water Temp (C)	15
S9	06 Jan 2015	Wave Height Low (ft)	1
S9	06 Jan 2015	High Tide (ft)	5.7
S9	06 Jan 2015	High Tide Time	903
S9	06 Jan 2015	Low Tide (ft)	1.7
S9	06 Jan 2015	Low Tide Time	305
S9	06 Jan 2015	Comments	Kelp; Water clear
S9	13 Jan 2015	Arrive Time	745
S9	13 Jan 2015	Weather	Overcast
S9	13 Jan 2015	Wind Speed (kts)	1.1
S9	13 Jan 2015	Wind Dir	SE
S9	13 Jan 2015	Animal Life	5 Shorebirds
S9	13 Jan 2015	Floatables	None
S9	13 Jan 2015	Water Color	Green
S9	13 Jan 2015	Current Direction	SE
S9	13 Jan 2015	Water Temp (C)	15
S9	13 Jan 2015	Wave Height Low (ft)	2
S9	13 Jan 2015	High Tide (ft)	4.2
S9	13 Jan 2015	High Tide Time	252
S9	13 Jan 2015	Low Tide (ft)	1.8
S9	13 Jan 2015	Low Tide Time	1001
S9	13 Jan 2015	Comments	Water clear
S9	20 Jan 2015	Arrive Time	742
S9	20 Jan 2015	Weather	Foggy
S9	20 Jan 2015	Wind Speed (kts)	1.9
S9	20 Jan 2015	Wind Dir	E
S9	20 Jan 2015	Animal Life	None
S9	20 Jan 2015	Floatables	None
S9	20 Jan 2015	Water Color	Green
S9	20 Jan 2015	Current Direction	E
S9	20 Jan 2015	Water Temp (C)	16.4
S9	20 Jan 2015	Wave Height Low (ft)	4
S9	20 Jan 2015	High Tide (ft)	6.6
S9	20 Jan 2015	High Tide Time	817
S9	20 Jan 2015	Low Tide (ft)	1.2
S9	20 Jan 2015	Low Tide Time	211
S9	20 Jan 2015	Comments	Kelp; Water turbid

Station	Date	Parameter	Value
S9	27 Jan 2015	Arrive Time	740
	27 Jan 2015	Weather	Sunny
	27 Jan 2015	Wind Speed (kts)	2.4
	27 Jan 2015	Wind Dir	E
	27 Jan 2015	Animal Life	2 Shorebirds
	27 Jan 2015	Floatables	None
	27 Jan 2015	Water Color	Green
	27 Jan 2015	Current Direction	E
	27 Jan 2015	Water Temp (C)	16
	27 Jan 2015	Wave Height Low (ft)	2
	27 Jan 2015	High Tide (ft)	4.8
	27 Jan 2015	High Tide Time	242
	27 Jan 2015	Low Tide (ft)	0.9
	27 Jan 2015	Low Tide Time	959
	27 Jan 2015	Comments	Water clear
S10	06 Jan 2015	Arrive Time	1108
	06 Jan 2015	Weather	Sunny
	06 Jan 2015	Wind Speed (kts)	9.9
	06 Jan 2015	Wind Dir	E
	06 Jan 2015	Animal Life	None
	06 Jan 2015	Floatables	None
	06 Jan 2015	Water Color	Green
	06 Jan 2015	Current Direction	E
	06 Jan 2015	Water Temp (C)	17.2
	06 Jan 2015	Wave Height Low (ft)	3
	06 Jan 2015	High Tide (ft)	5.7
	06 Jan 2015	High Tide Time	903
	06 Jan 2015	Low Tide (ft)	-0.6
	06 Jan 2015	Low Tide Time	1609
	06 Jan 2015	Comments	Kelp; Water clear
S10	13 Jan 2015	Arrive Time	1051
	13 Jan 2015	Weather	Sunny
	13 Jan 2015	Wind Speed (kts)	6.9
	13 Jan 2015	Wind Dir	NW
	13 Jan 2015	Animal Life	None
	13 Jan 2015	Floatables	None
	13 Jan 2015	Water Color	Green
	13 Jan 2015	Current Direction	NW
	13 Jan 2015	Water Temp (C)	15.6
	13 Jan 2015	Wave Height Low (ft)	4
	13 Jan 2015	High Tide (ft)	2.7
	13 Jan 2015	High Tide Time	1514
	13 Jan 2015	Low Tide (ft)	1.8
	13 Jan 2015	Low Tide Time	1001

Station	Date	Parameter	Value
S10	13 Jan 2015	Comments	Water clear; Dairymart flowing
S10	15 Jan 2015	Arrive Time	926
S10	15 Jan 2015	Weather	Sunny
S10	15 Jan 2015	Wind Speed (kts)	3.6
S10	15 Jan 2015	Wind Dir	W
S10	15 Jan 2015	Animal Life	None
S10	15 Jan 2015	Floatables	None
S10	15 Jan 2015	Water Color	Green
S10	15 Jan 2015	Current Direction	W
S10	15 Jan 2015	Water Temp (C)	16
S10	15 Jan 2015	Wave Height Low (ft)	3
S10	15 Jan 2015	High Tide (ft)	4.8
S10	15 Jan 2015	High Tide Time	439
S10	15 Jan 2015	Low Tide (ft)	0.6
S10	15 Jan 2015	Low Tide Time	1203
S10	15 Jan 2015	Comments	Seagrass; Water clear
S10	16 Jan 2015	Arrive Time	1020
S10	16 Jan 2015	Weather	Sunny
S10	16 Jan 2015	Wind Speed (kts)	5.7
S10	16 Jan 2015	Wind Dir	SE
S10	16 Jan 2015	Animal Life	None
S10	16 Jan 2015	Floatables	None
S10	16 Jan 2015	Water Color	Green
S10	16 Jan 2015	Current Direction	SE
S10	16 Jan 2015	Water Temp (C)	15.8
S10	16 Jan 2015	Wave Height Low (ft)	3
S10	16 Jan 2015	High Tide (ft)	5.3
S10	16 Jan 2015	High Tide Time	525
S10	16 Jan 2015	Low Tide (ft)	-0.1
S10	16 Jan 2015	Low Tide Time	1245
S10	16 Jan 2015	Comments	Water clear
S10	18 Jan 2015	Arrive Time	940
S10	18 Jan 2015	Weather	Sunny
S10	18 Jan 2015	Wind Speed (kts)	4.9
S10	18 Jan 2015	Wind Dir	N
S10	18 Jan 2015	Animal Life	None
S10	18 Jan 2015	Floatables	None
S10	18 Jan 2015	Water Color	Green
S10	18 Jan 2015	Current Direction	N
S10	18 Jan 2015	Water Temp (C)	15.8
S10	18 Jan 2015	Wave Height Low (ft)	3
S10	18 Jan 2015	High Tide (ft)	6.2
S10	18 Jan 2015	High Tide Time	651
S10	18 Jan 2015	Low Tide (ft)	-1.2

Station	Date	Parameter	Value
S10	18 Jan 2015	Low Tide Time	1402
S10	18 Jan 2015	Comments	Water clear
S10	20 Jan 2015	Arrive Time	1041
S10	20 Jan 2015	Weather	Foggy
S10	20 Jan 2015	Wind Speed (kts)	3.3
S10	20 Jan 2015	Wind Dir	E
S10	20 Jan 2015	Animal Life	None
S10	20 Jan 2015	Floatables	None
S10	20 Jan 2015	Water Color	Green
S10	20 Jan 2015	Current Direction	E
S10	20 Jan 2015	Water Temp (C)	16.4
S10	20 Jan 2015	Wave Height Low (ft)	4
S10	20 Jan 2015	High Tide (ft)	6.6
S10	20 Jan 2015	High Tide Time	817
S10	20 Jan 2015	Low Tide (ft)	-1.6
S10	20 Jan 2015	Low Tide Time	1520
S10	20 Jan 2015	Comments	Water clear
S10	27 Jan 2015	Arrive Time	1051
S10	27 Jan 2015	Weather	Sunny
S10	27 Jan 2015	Wind Speed (kts)	6.6
S10	27 Jan 2015	Wind Dir	W
S10	27 Jan 2015	Animal Life	None
S10	27 Jan 2015	Floatables	None
S10	27 Jan 2015	Water Color	Green
S10	27 Jan 2015	Current Direction	W
S10	27 Jan 2015	Water Temp (C)	15.8
S10	27 Jan 2015	Wave Height Low (ft)	3
S10	27 Jan 2015	High Tide (ft)	2.9
S10	27 Jan 2015	High Tide Time	1550
S10	27 Jan 2015	Low Tide (ft)	0.9
S10	27 Jan 2015	Low Tide Time	959
S10	27 Jan 2015	Comments	Water clear; Dairymart sampled at 1117
S11	06 Jan 2015	Arrive Time	949
S11	06 Jan 2015	Weather	Sunny
S11	06 Jan 2015	Wind Speed (kts)	15.9
S11	06 Jan 2015	Wind Dir	SW
S11	06 Jan 2015	Animal Life	None
S11	06 Jan 2015	Floatables	None
S11	06 Jan 2015	Water Color	Green
S11	06 Jan 2015	Current Direction	SW
S11	06 Jan 2015	Water Temp (C)	17
S11	06 Jan 2015	Wave Height Low (ft)	3
S11	06 Jan 2015	High Tide (ft)	5.7
S11	06 Jan 2015	High Tide Time	903

Station	Date	Parameter	Value
S11	06 Jan 2015	Low Tide (ft)	-0.6
S11	06 Jan 2015	Low Tide Time	1609
S11	06 Jan 2015	Comments	Water clear
S11	08 Jan 2015	Arrive Time	819
S11	08 Jan 2015	Weather	Cloudy
S11	08 Jan 2015	Wind Speed (kts)	1.5
S11	08 Jan 2015	Wind Dir	E
S11	08 Jan 2015	Animal Life	None
S11	08 Jan 2015	Floatables	None
S11	08 Jan 2015	Water Color	Green
S11	08 Jan 2015	Current Direction	E
S11	08 Jan 2015	Water Temp (C)	15.2
S11	08 Jan 2015	Wave Height Low (ft)	2
S11	08 Jan 2015	High Tide (ft)	5
S11	08 Jan 2015	High Tide Time	1009
S11	08 Jan 2015	Low Tide (ft)	1.9
S11	08 Jan 2015	Low Tide Time	419
S11	08 Jan 2015	Comments	Water clear
S11	09 Jan 2015	Arrive Time	1406
S11	09 Jan 2015	Weather	Cloudy
S11	09 Jan 2015	Wind Speed (kts)	3
S11	09 Jan 2015	Wind Dir	W
S11	09 Jan 2015	Animal Life	None
S11	09 Jan 2015	Floatables	None
S11	09 Jan 2015	Water Color	Green
S11	09 Jan 2015	Current Direction	W
S11	09 Jan 2015	Water Temp (C)	12
S11	09 Jan 2015	Wave Height Low (ft)	2
S11	09 Jan 2015	High Tide (ft)	4.6
S11	09 Jan 2015	High Tide Time	1043
S11	09 Jan 2015	Low Tide (ft)	0.3
S11	09 Jan 2015	Low Tide Time	1744
S11	09 Jan 2015	Comments	Kelp; Seagrass; Water turbid; Detergent-like odor
S11	13 Jan 2015	Arrive Time	929
S11	13 Jan 2015	Weather	Sunny
S11	13 Jan 2015	Wind Speed (kts)	2.9
S11	13 Jan 2015	Wind Dir	SE
S11	13 Jan 2015	Animal Life	None
S11	13 Jan 2015	Floatables	None
S11	13 Jan 2015	Water Color	Green
S11	13 Jan 2015	Current Direction	NW
S11	13 Jan 2015	Water Temp (C)	15.6
S11	13 Jan 2015	Wave Height Low (ft)	3

Station	Date	Parameter	Value
S11	13 Jan 2015	High Tide (ft)	2.7
S11	13 Jan 2015	High Tide Time	1514
S11	13 Jan 2015	Low Tide (ft)	1.8
S11	13 Jan 2015	Low Tide Time	1001
S11	13 Jan 2015	Comments	Water clear
S11	15 Jan 2015	Arrive Time	827
S11	15 Jan 2015	Weather	Sunny
S11	15 Jan 2015	Wind Speed (kts)	4.2
S11	15 Jan 2015	Wind Dir	E
S11	15 Jan 2015	Animal Life	None
S11	15 Jan 2015	Floatables	None
S11	15 Jan 2015	Water Color	Green
S11	15 Jan 2015	Current Direction	E
S11	15 Jan 2015	Water Temp (C)	16.4
S11	15 Jan 2015	Wave Height Low (ft)	4
S11	15 Jan 2015	High Tide (ft)	4.8
S11	15 Jan 2015	High Tide Time	439
S11	15 Jan 2015	Low Tide (ft)	0.6
S11	15 Jan 2015	Low Tide Time	1203
S11	15 Jan 2015	Comments	Water clear
S11	16 Jan 2015	Arrive Time	901
S11	16 Jan 2015	Weather	Sunny
S11	16 Jan 2015	Wind Speed (kts)	4.2
S11	16 Jan 2015	Wind Dir	S
S11	16 Jan 2015	Animal Life	None
S11	16 Jan 2015	Floatables	None
S11	16 Jan 2015	Water Color	Green
S11	16 Jan 2015	Current Direction	S
S11	16 Jan 2015	Water Temp (C)	15.8
S11	16 Jan 2015	Wave Height Low (ft)	3
S11	16 Jan 2015	High Tide (ft)	5.3
S11	16 Jan 2015	High Tide Time	525
S11	16 Jan 2015	Low Tide (ft)	-0.1
S11	16 Jan 2015	Low Tide Time	1245
S11	16 Jan 2015	Comments	Water clear
S11	20 Jan 2015	Arrive Time	929
S11	20 Jan 2015	Weather	Sunny
S11	20 Jan 2015	Wind Speed (kts)	3.6
S11	20 Jan 2015	Wind Dir	E
S11	20 Jan 2015	Animal Life	None
S11	20 Jan 2015	Floatables	None
S11	20 Jan 2015	Water Color	Green
S11	20 Jan 2015	Current Direction	E
S11	20 Jan 2015	Water Temp (C)	16.4

Station	Date	Parameter	Value
S11	20 Jan 2015	Wave Height Low (ft)	5
S11	20 Jan 2015	High Tide (ft)	6.6
S11	20 Jan 2015	High Tide Time	817
S11	20 Jan 2015	Low Tide (ft)	-1.6
S11	20 Jan 2015	Low Tide Time	1520
S11	20 Jan 2015	Comments	Water clear
S11	27 Jan 2015	Arrive Time	932
S11	27 Jan 2015	Weather	Sunny
S11	27 Jan 2015	Wind Speed (kts)	1.3
S11	27 Jan 2015	Wind Dir	SE
S11	27 Jan 2015	Animal Life	None
S11	27 Jan 2015	Floatables	None
S11	27 Jan 2015	Water Color	Green
S11	27 Jan 2015	Current Direction	SE
S11	27 Jan 2015	Water Temp (C)	16.2
S11	27 Jan 2015	Wave Height Low (ft)	3
S11	27 Jan 2015	High Tide (ft)	2.9
S11	27 Jan 2015	High Tide Time	1550
S11	27 Jan 2015	Low Tide (ft)	0.9
S11	27 Jan 2015	Low Tide Time	959
S11	27 Jan 2015	Comments	Water clear
S12	06 Jan 2015	Arrive Time	1004
S12	06 Jan 2015	Weather	Sunny
S12	06 Jan 2015	Wind Speed (kts)	6.8
S12	06 Jan 2015	Wind Dir	W
S12	06 Jan 2015	Animal Life	None
S12	06 Jan 2015	Floatables	None
S12	06 Jan 2015	Water Color	Green
S12	06 Jan 2015	Current Direction	W
S12	06 Jan 2015	Water Temp (C)	17
S12	06 Jan 2015	Wave Height Low (ft)	2
S12	06 Jan 2015	High Tide (ft)	5.7
S12	06 Jan 2015	High Tide Time	903
S12	06 Jan 2015	Low Tide (ft)	-0.6
S12	06 Jan 2015	Low Tide Time	1609
S12	06 Jan 2015	Comments	Water clear
S12	13 Jan 2015	Arrive Time	946
S12	13 Jan 2015	Weather	Sunny
S12	13 Jan 2015	Wind Speed (kts)	3.3
S12	13 Jan 2015	Wind Dir	NW
S12	13 Jan 2015	Animal Life	None
S12	13 Jan 2015	Floatables	None
S12	13 Jan 2015	Water Color	Green
S12	13 Jan 2015	Current Direction	NW

Station	Date	Parameter	Value
S12	13 Jan 2015	Water Temp (C)	15.6
S12	13 Jan 2015	Wave Height Low (ft)	3
S12	13 Jan 2015	High Tide (ft)	2.7
S12	13 Jan 2015	High Tide Time	1514
S12	13 Jan 2015	Low Tide (ft)	1.8
S12	13 Jan 2015	Low Tide Time	1001
S12	13 Jan 2015	Comments	Water clear
S12	20 Jan 2015	Arrive Time	946
S12	20 Jan 2015	Weather	Sunny
S12	20 Jan 2015	Wind Speed (kts)	1.7
S12	20 Jan 2015	Wind Dir	E
S12	20 Jan 2015	Animal Life	None
S12	20 Jan 2015	Floatables	None
S12	20 Jan 2015	Water Color	Green
S12	20 Jan 2015	Current Direction	E
S12	20 Jan 2015	Water Temp (C)	16.4
S12	20 Jan 2015	Wave Height Low (ft)	4
S12	20 Jan 2015	High Tide (ft)	6.6
S12	20 Jan 2015	High Tide Time	817
S12	20 Jan 2015	Low Tide (ft)	-1.6
S12	20 Jan 2015	Low Tide Time	1520
S12	20 Jan 2015	Comments	1 Person; 3 Surfers; Water clear
S12	27 Jan 2015	Arrive Time	951
S12	27 Jan 2015	Weather	Sunny
S12	27 Jan 2015	Wind Speed (kts)	2.1
S12	27 Jan 2015	Wind Dir	SE
S12	27 Jan 2015	Animal Life	None
S12	27 Jan 2015	Floatables	None
S12	27 Jan 2015	Water Color	Green
S12	27 Jan 2015	Current Direction	SE
S12	27 Jan 2015	Water Temp (C)	16.2
S12	27 Jan 2015	Wave Height Low (ft)	3
S12	27 Jan 2015	High Tide (ft)	2.9
S12	27 Jan 2015	High Tide Time	1550
S12	27 Jan 2015	Low Tide (ft)	0.9
S12	27 Jan 2015	Low Tide Time	959
S12	27 Jan 2015	Comments	Seagrass; Water clear

This page intentionally left blank

KELP BED STATIONS

Table 3.1

Summary of compliance with the 2012 Ocean Plan's 30-day Geometric Mean standard for total coliforms 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 >1000 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Jan 2015	ns	ns	348	89	ns	51	ns
02 Jan 2015	ns	ns	923	166	ns	73*	ns
03 Jan 2015	ns	ns	923	166	ns	73*	ns
04 Jan 2015	ns	ns	923	166	ns	73*	ns
05 Jan 2015	257*	42*	332	80	2*	37	6013*
06 Jan 2015	257*	42*	332	80	2*	37	6013*
07 Jan 2015	257*	42*	445	71	2*	52*	245*
08 Jan 2015	257*	42*	445	71	2*	52*	245*
09 Jan 2015	257*	42*	445	71	2*	52*	245*
10 Jan 2015	125*	15*	241	39	3*	45	59*
11 Jan 2015	125*	15*	241	39	3*	45	59*
12 Jan 2015	125*	15*	241	39	3*	45	59*
13 Jan 2015	125*	15*	241	39	3*	45	59*
14 Jan 2015	125*	15*	241	39	3*	45	59*
15 Jan 2015	203*	18*	75	13	3*	15	100*
16 Jan 2015	203*	18*	75	13	3*	15	100*
17 Jan 2015	203*	18*	29	11	3*	15	100*
18 Jan 2015	203*	18*	9*	4*	3*	4*	100*
19 Jan 2015	203*	18*	9*	4*	3*	4*	100*
20 Jan 2015	138*	17*	5*	2*	2*	4*	46
21 Jan 2015	138*	17*	5*	2*	2*	4*	46
22 Jan 2015	138*	17*	5*	2*	2*	4*	46
23 Jan 2015	138*	17*	5*	2*	2*	4*	46
24 Jan 2015	138*	17*	5*	2*	2*	4*	46
25 Jan 2015	138*	17*	5*	2*	2*	4*	46
26 Jan 2015	138*	17*	5*	2*	2*	4*	46
27 Jan 2015	138*	17*	5*	2*	2*	4*	46
28 Jan 2015	78	11	4	3	2	4	34
29 Jan 2015	78	11	4	3	2	4	34
30 Jan 2015	78	11	4	3	2	4	34
31 Jan 2015	78	11	4	3	2	4	34

* Geometric mean calculated using an n<5

Table 3.2

Summary of compliance with the 2012 Ocean Plan's 30-day Geometric Mean standard for fecal coliform 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 Jan 2015	ns	ns	53	15	ns	10	ns
02 Jan 2015	ns	ns	103	23	ns	16*	ns
03 Jan 2015	ns	ns	103	23	ns	16*	ns
04 Jan 2015	ns	ns	103	23	ns	16*	ns
05 Jan 2015	25*	4*	53	15	3*	10	295*
06 Jan 2015	25*	4*	53	15	3*	10	295*
07 Jan 2015	25*	4*	87	17	3*	16*	24*
08 Jan 2015	25*	4*	87	17	3*	16*	24*
09 Jan 2015	25*	4*	87	17	3*	16*	24*
10 Jan 2015	16*	3*	48	12	3*	11	11*
11 Jan 2015	16*	3*	48	12	3*	11	11*
12 Jan 2015	16*	3*	48	12	3*	11	11*
13 Jan 2015	16*	3*	48	12	3*	11	11*
14 Jan 2015	16*	3*	48	12	3*	11	11*
15 Jan 2015	26*	3*	20	6	2*	6	19*
16 Jan 2015	26*	3*	20	6	2*	6	19*
17 Jan 2015	26*	3*	8	5	2*	6	19*
18 Jan 2015	26*	3*	3*	2*	2*	2*	19*
19 Jan 2015	26*	3*	3*	2*	2*	2*	19*
20 Jan 2015	20*	2*	2*	2*	2*	2*	12
21 Jan 2015	20*	2*	2*	2*	2*	2*	12
22 Jan 2015	20*	2*	2*	2*	2*	2*	12
23 Jan 2015	20*	2*	2*	2*	2*	2*	12
24 Jan 2015	20*	2*	2*	2*	2*	2*	12
25 Jan 2015	20*	2*	2*	2*	2*	2*	12
26 Jan 2015	20*	2*	2*	2*	2*	2*	12
27 Jan 2015	20*	2*	2*	2*	2*	2*	12
28 Jan 2015	13	2	2	2	2	2	9
29 Jan 2015	13	2	2	2	2	2	9
30 Jan 2015	13	2	2	2	2	2	9
31 Jan 2015	13	2	2	2	2	2	9

* Geometric mean calculated using an n<5

Table 3.3

Summary of compliance with the 2012 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 Jan 2015	ns	ns	34	10	ns	8	ns
02 Jan 2015	ns	ns	61	15*	ns	12*	ns
03 Jan 2015	ns	ns	61	15*	ns	12*	ns
04 Jan 2015	ns	ns	61	15*	ns	12*	ns
05 Jan 2015	10*	2*	34	10	2*	8	275*
06 Jan 2015	10*	2*	34	10	2*	8	275*
07 Jan 2015	10*	2*	55	15*	2*	12*	23*
08 Jan 2015	10*	2*	55	15*	2*	12*	23*
09 Jan 2015	10*	2*	55	15*	2*	12*	23*
10 Jan 2015	8*	2*	32	10	2*	9	11*
11 Jan 2015	8*	2*	32	10	2*	9	11*
12 Jan 2015	8*	2*	32	10	2*	9	11*
13 Jan 2015	8*	2*	32	10	2*	9	11*
14 Jan 2015	8*	2*	32	10	2*	9	11*
15 Jan 2015	5*	2*	17	5	2*	8	14*
16 Jan 2015	5*	2*	17	5	2*	8	14*
17 Jan 2015	5*	2*	7	5	2*	8	14*
18 Jan 2015	5*	2*	3*	2*	2*	4*	14*
19 Jan 2015	5*	2*	3*	2*	2*	4*	14*
20 Jan 2015	7*	2*	2*	2*	2*	4*	10
21 Jan 2015	7*	2*	2*	2*	2*	4*	10
22 Jan 2015	7*	2*	2*	2*	2*	4*	10
23 Jan 2015	7*	2*	2*	2*	2*	4*	10
24 Jan 2015	7*	2*	2*	2*	2*	4*	10
25 Jan 2015	7*	2*	2*	2*	2*	4*	10
26 Jan 2015	7*	2*	2*	2*	2*	4*	10
27 Jan 2015	7*	2*	2*	2*	2*	4*	10
28 Jan 2015	5	2	2	2	2	3	7
29 Jan 2015	5	2	2	2	2	3	7
30 Jan 2015	5	2	2	2	2	3	7
31 Jan 2015	5	2	2	2	2	3	7

* Geometric mean calculated using an n<5

Table 3.4

Summary of compliance at the SBOO kelp stations with the 2012 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 Jan 2015	IC	IC	IC	IC	IC	IC	E
07 Jan 2015	ns	ns	ns	ns	ns	ns	IC
10 Jan 2015	IC						
15 Jan 2015	IC						
20 Jan 2015	IC						
28 Jan 2015	IC						

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.5

Summary of compliance at the SBOO kelp stations with the 2012 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 Jan 2015	IC	IC	IC	IC	IC	IC	E
07 Jan 2015	ns	ns	ns	ns	ns	ns	IC
10 Jan 2015	IC						
15 Jan 2015	IC						
20 Jan 2015	IC						
28 Jan 2015	IC						

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.6

Summary of compliance at the SBOO kelp stations with the 2012 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 Jan 2015	IC	IC	IC	IC	IC	IC	E
07 Jan 2015	ns	ns	ns	ns	ns	ns	IC
10 Jan 2015	IC						
15 Jan 2015	IC						
20 Jan 2015	IC						
28 Jan 2015	IC						

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.7

Summary of compliance at the SBOO kelp stations with the 2012 Ocean Plan's Single Sample Maximum standard for total coliforms 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 Jan 2015	IC						
07 Jan 2015	ns	ns	ns	ns	ns	ns	IC
10 Jan 2015	IC						
15 Jan 2015	IC						
20 Jan 2015	IC						
28 Jan 2015	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* (Enter) 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. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Enter	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I19	05 Jan 2015	1232	2	30e	2e	<2	0.07	15.9	82.58	8.1	33.41	8.2	ns	ns
I19	05 Jan 2015	1232	6	100e	8e	8e	0.08	15.8	82.05	8.1	33.41	8.2	ns	ns
I19	05 Jan 2015	1232	11	640	66	20e	0.10	15.6	79.92	8.0	33.40	8.2	ns	ns
I19	10 Jan 2015	1157	2	2e	6e	2e	3.00	16.6	70.01	8.2	33.41	8.2	ns	ns
I19	10 Jan 2015	1157	6	80e	20e	2e	0.25	16.3	67.53	8.3	33.41	8.2	ns	ns
I19	10 Jan 2015	1157	11	100e	4e	14e	0.04	16.2	65.60	7.9	33.43	8.2	ns	ns
I19	15 Jan 2015	1133	2	1000e	160e	2e	0.16	16.4	65.92	8.0	33.24	8.2	ns	ns
I19	15 Jan 2015	1133	6	400e	24e	<2	0.06	16.4	76.18	7.8	33.40	8.2	ns	ns
I19	15 Jan 2015	1133	11	<200	20e	2e	0.10	16.2	47.62	7.4	33.42	8.2	ns	ns
I19	20 Jan 2015	1119	2	52	16e	18e	0.31	16.5	68.82	8.2	33.42	8.2	ns	ns
I19	20 Jan 2015	1119	6	60e	10e	24e	0.17	16.5	68.85	8.2	33.42	8.2	ns	ns
I19	20 Jan 2015	1119	11	<20	4e	4e	0.20	16.4	67.70	8.0	33.42	8.2	ns	ns
I19	28 Jan 2015	1132	2	<2	<2	<2	1.00	16.1	66.29	7.0	33.48	8.2	ns	ns
I19	28 Jan 2015	1132	6	<20	<2	<2	0.10	15.9	60.19	7.4	33.49	8.2	ns	ns
I19	28 Jan 2015	1132	11	<2	2e	<2	1.00	15.8	52.35	7.7	33.47	8.2	ns	ns
I24	05 Jan 2015	1259	2	6e	<2	<2	0.33	15.4	80.84	8.0	33.42	8.2	ns	ns
I24	05 Jan 2015	1259	6	60e	<2	<2	0.03	15.3	79.81	8.1	33.42	8.2	ns	ns
I24	05 Jan 2015	1259	11	60e	8e	2e	0.13	15.3	79.28	8.1	33.42	8.2	ns	ns
I24	10 Jan 2015	1227	2	<2	<2	<2	1.00	16.4	78.03	8.1	33.41	8.2	ns	ns
I24	10 Jan 2015	1227	6	<2	<2	<2	1.00	16.2	74.23	8.0	33.43	8.2	ns	ns
I24	10 Jan 2015	1227	11	12e	<2	2e	0.17	16.2	70.77	7.9	33.43	8.2	ns	ns
I24	15 Jan 2015	1203	2	14e	<2	<2	0.14	16.5	81.17	7.9	33.42	8.2	ns	ns
I24	15 Jan 2015	1203	6	6e	<2	<2	0.33	16.4	78.29	7.9	33.42	8.2	ns	ns
I24	15 Jan 2015	1203	11	56	<2	<2	0.04	16.4	78.00	7.8	33.42	8.2	ns	ns
I24	20 Jan 2015	1144	2	8e	2e	<2	0.25	16.6	72.43	8.2	33.42	8.2	ns	ns
I24	20 Jan 2015	1144	6	8e	2e	<2	0.25	16.4	78.76	8.1	33.42	8.2	ns	ns
I24	20 Jan 2015	1144	11	30e	<2	6e	0.07	16.2	67.75	7.9	33.42	8.2	ns	ns
I24	28 Jan 2015	1201	2	<2	<2	<2	1.00	16.3	70.45	7.0	33.47	8.2	ns	ns
I24	28 Jan 2015	1201	6	<2	<2	<2	1.00	16.1	66.84	7.3	33.52	8.2	ns	ns
I24	28 Jan 2015	1201	11	<2	<2	<2	1.00	16.0	64.94	7.3	33.48	8.2	ns	ns
I25	05 Jan 2015	1309	2	<2	<2	<2	1.00	15.6	81.52	8.0	33.45	8.2	ns	ns
I25	05 Jan 2015	1309	6	2e	<2	<2	1.00	15.5	80.72	8.1	33.44	8.2	ns	ns
I25	05 Jan 2015	1309	9	<2	<2	<2	1.00	15.4	79.41	8.0	33.44	8.2	ns	ns
I25	10 Jan 2015	1236	2	<2	<2	<2	1.00	16.5	78.96	8.1	33.42	8.2	ns	ns
I25	10 Jan 2015	1236	6	12e	4e	<2	0.33	16.2	75.18	8.0	33.43	8.2	ns	ns

Station	Date	Time	Depth	Total	Fecal	Enter	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I25	10 Jan 2015	1236	9	20e	<2	2e	0.10	16.2	72.00	7.8	33.43	8.2	ns	ns
I25	15 Jan 2015	1213	2	<2	<2	<2	1.00	16.5	82.55	7.9	33.42	8.2	ns	ns
I25	15 Jan 2015	1213	6	4e	<2	<2	0.50	16.5	80.81	8.0	33.42	8.2	ns	ns
I25	15 Jan 2015	1213	9	<2	<2	<2	1.00	16.4	78.12	8.1	33.42	8.3	ns	ns
I25	20 Jan 2015	1154	2	12e	6e	<2	0.50	16.6	69.71	8.2	33.42	8.2	ns	ns
I25	20 Jan 2015	1154	6	8e	2e	<2	0.25	16.3	73.45	7.8	33.43	8.2	ns	ns
I25	20 Jan 2015	1154	9	4e	2e	<2	0.50	16.3	67.51	7.8	33.43	8.2	ns	ns
I25	28 Jan 2015	1212	2	<2	<2	<2	1.00	16.3	71.99	7.4	33.47	8.2	ns	ns
I25	28 Jan 2015	1212	6	2e	<2	<2	1.00	16.0	67.47	7.4	33.46	8.2	ns	ns
I25	28 Jan 2015	1212	9	2e	<2	<2	1.00	16.0	64.87	7.5	33.46	8.2	ns	ns
I26	05 Jan 2015	1323	2	<2	<2	<2	1.00	15.8	84.17	8.0	33.45	8.2	ns	ns
I26	05 Jan 2015	1323	6	<2	<2	<2	1.00	15.5	81.50	8.2	33.44	8.2	ns	ns
I26	05 Jan 2015	1323	9	<2	<2	<2	1.00	15.5	80.25	8.2	33.44	8.2	ns	ns
I26	10 Jan 2015	1245	2	<2	<2	<2	1.00	16.5	76.17	8.1	33.40	8.2	ns	ns
I26	10 Jan 2015	1245	6	<2	<2	<2	1.00	16.2	76.86	8.1	33.41	8.2	ns	ns
I26	10 Jan 2015	1245	9	<2	<2	2e	1.00	16.2	76.89	8.0	33.41	8.2	ns	ns
I26	15 Jan 2015	1228	2	<2	<2	<2	1.00	16.6	83.30	7.9	33.44	8.2	ns	ns
I26	15 Jan 2015	1228	6	<2	<2	<2	1.00	16.5	81.05	7.9	33.43	8.2	ns	ns
I26	15 Jan 2015	1228	9	<2	<2	<2	1.00	16.5	75.78	8.1	33.43	8.2	ns	ns
I26	20 Jan 2015	1209	2	<2	<2	<2	1.00	16.6	71.56	8.1	33.44	8.2	ns	ns
I26	20 Jan 2015	1209	6	<2	<2	<2	1.00	16.4	77.69	8.0	33.44	8.2	ns	ns
I26	20 Jan 2015	1209	9	2e	<2	<2	1.00	16.3	73.93	7.8	33.43	8.2	ns	ns
I26	28 Jan 2015	1227	2	<2	<2	<2	1.00	16.1	71.93	7.0	33.50	8.2	ns	ns
I26	28 Jan 2015	1227	6	20e	<2	<2	0.10	16.0	68.23	7.5	33.51	8.2	ns	ns
I26	28 Jan 2015	1227	9	<20	<2	<2	0.10	16.0	63.76	7.2	33.48	8.2	ns	ns
I32	05 Jan 2015	1340	2	<2	<2	<2	1.00	15.7	83.25	8.1	33.44	8.2	ns	ns
I32	05 Jan 2015	1340	6	<2	<2	<2	1.00	15.5	75.22	8.4	33.44	8.2	ns	ns
I32	05 Jan 2015	1340	9	2e	6e	<2	3.00	15.3	70.57	8.5	33.44	8.2	ns	ns
I32	10 Jan 2015	1305	2	<2	<2	<2	1.00	16.2	76.27	8.6	33.42	8.3	ns	ns
I32	10 Jan 2015	1305	6	<2	<2	<2	1.00	16.1	75.44	8.5	33.43	8.2	ns	ns
I32	10 Jan 2015	1305	9	10e	<2	<2	0.20	16.0	75.01	8.3	33.43	8.2	ns	ns
I32	15 Jan 2015	1244	2	<2	<2	<2	1.00	16.6	76.66	7.9	33.44	8.2	ns	ns
I32	15 Jan 2015	1244	6	<2	<2	<2	1.00	16.5	75.18	7.8	33.43	8.2	ns	ns
I32	15 Jan 2015	1244	9	<2	<2	<2	1.00	16.5	66.46	7.8	33.43	8.2	ns	ns
I32	20 Jan 2015	1224	2	<2	<2	<2	1.00	16.6	66.67	8.0	33.46	8.2	ns	ns
I32	20 Jan 2015	1224	6	<2	<2	2e	1.00	16.5	61.61	7.9	33.45	8.2	ns	ns
I32	20 Jan 2015	1224	9	<2	2e	<2	1.00	16.4	54.14	7.8	33.45	8.2	ns	ns
I32	28 Jan 2015	1242	2	<2	<2	<2	1.00	16.4	67.21	7.8	33.45	8.2	ns	ns
I32	28 Jan 2015	1242	6	<2	<2	<2	1.00	15.9	56.96	7.6	33.45	8.2	ns	ns
I32	28 Jan 2015	1242	9	<2	<2	<2	1.00	15.9	57.04	7.8	33.46	8.2	ns	ns
I39	05 Jan 2015	1210	2	<2	<2	<2	1.00	15.8	85.34	7.9	33.44	8.1	ns	ns
I39	05 Jan 2015	1210	12	2e	<2	<2	1.00	15.7	83.47	7.8	33.45	8.2	ns	ns

Station	Date	Time	Depth	Total	Fecal	Enter	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I39	05 Jan 2015	1210	18	4e	<2	<2	0.50	15.7	83.42	7.8	33.45	8.1	ns	ns
I39	10 Jan 2015	1134	2	4e	<2	<2	0.50	16.3	79.68	8.0	33.43	8.2	ns	ns
I39	10 Jan 2015	1134	12	50	4e	4e	0.08	16.1	76.01	7.9	33.43	8.2	ns	ns
I39	10 Jan 2015	1134	18	20e	2e	2e	0.10	16.1	73.33	7.8	33.42	8.2	ns	ns
I39	15 Jan 2015	1105	2	<2	<2	<2	1.00	16.6	85.85	7.8	33.43	8.2	ns	ns
I39	15 Jan 2015	1105	12	<2	<2	<2	1.00	16.4	84.46	7.5	33.43	8.2	ns	ns
I39	15 Jan 2015	1105	18	<2	2e	44	1.00	16.1	73.87	7.2	33.43	8.2	ns	ns
I39	20 Jan 2015	1055	2	<2	<2	<2	1.00	16.4	79.59	8.0	33.44	8.2	ns	ns
I39	20 Jan 2015	1055	12	<2	<2	<2	1.00	16.3	84.61	8.0	33.43	8.2	ns	ns
I39	20 Jan 2015	1055	18	<2	2e	<2	1.00	16.2	80.19	7.6	33.43	8.2	ns	ns
I39	28 Jan 2015	1108	2	<2	<2	<2	1.00	16.3	89.85	7.8	33.41	8.3	ns	ns
I39	28 Jan 2015	1108	12	<2	<2	<2	1.00	15.7	79.35	7.2	33.41	8.2	ns	ns
I39	28 Jan 2015	1108	18	<2	<2	<2	1.00	15.6	62.33	6.7	33.41	8.2	ns	ns
I40	05 Jan 2015	1248	2	>16000	780	720	0.05	15.6	72.11	8.4	33.30	8.2	ns	ns
I40	05 Jan 2015	1248	6	840	66	22e	0.08	15.3	75.20	8.5	33.39	8.2	ns	ns
I40	05 Jan 2015	1248	9	1200e	40e	84	0.03	15.3	74.69	8.5	33.39	8.2	ns	ns
I40	07 Jan 2015	1149	2	10e	2e	2e	0.20	ns	ns	ns	ns	ns	ns	ns
I40	10 Jan 2015	1211	2	<2	<2	<2	1.00	16.5	75.61	8.2	33.42	8.2	ns	ns
I40	10 Jan 2015	1211	6	<2	<2	2e	1.00	16.3	72.53	8.3	33.42	8.2	ns	ns
I40	10 Jan 2015	1211	9	6e	<2	4e	0.33	16.2	71.85	8.1	33.42	8.2	ns	ns
I40	15 Jan 2015	1150	2	280e	98	6e	0.35	16.5	71.49	7.8	33.35	8.2	ns	ns
I40	15 Jan 2015	1150	6	600e	86	14e	0.14	16.3	74.59	8.0	33.42	8.2	ns	ns
I40	15 Jan 2015	1150	9	600e	180e	68	0.30	16.2	63.63	7.8	33.42	8.2	ns	ns
I40	20 Jan 2015	1134	2	2e	<2	<2	1.00	16.6	62.88	7.9	33.45	8.2	ns	ns
I40	20 Jan 2015	1134	6	2e	<2	2e	1.00	16.5	59.41	8.0	33.45	8.2	ns	ns
I40	20 Jan 2015	1134	9	2e	2e	2e	1.00	16.5	59.52	7.9	33.45	8.2	ns	ns
I40	28 Jan 2015	1148	2	<2	<2	<2	1.00	16.2	54.34	7.2	33.51	8.2	ns	ns
I40	28 Jan 2015	1148	6	<2	<2	<2	1.00	16.0	53.30	7.7	33.53	8.2	ns	ns
I40	28 Jan 2015	1148	9	<20	<2	<2	0.10	15.9	54.47	7.7	33.50	8.2	ns	ns

ns = not sampled

Comments

Station	Date	Depth	Parameter	Comments
I40	07 Jan 2015	2		Resample

Table 3.9

Summary of visual observations made during the month at the SBOO kelp stations for each sample date.

Station	Date	Parameter	Value
I19	05 Jan 2015	Depth (m)	10
I19	05 Jan 2015	Arrive Time	1232
I19	05 Jan 2015	Depart Time	1235
I19	05 Jan 2015	Air Temp (C)	19
I19	05 Jan 2015	Weather	Partly Cloudy
I19	05 Jan 2015	Visibility (mi)	9
I19	05 Jan 2015	Wind Speed (kts)	8
I19	05 Jan 2015	Wind Dir	E
I19	05 Jan 2015	Water Color	Greenish-Blue
I19	05 Jan 2015	Wave Ht Low (ft)	2
I19	05 Jan 2015	Wave Period (sec)	9
I19	05 Jan 2015	Sea State	Calm
I19	05 Jan 2015	High Tide (ft)	5.92
I19	05 Jan 2015	High Tide Time	830
I19	05 Jan 2015	Low Tide (ft)	-0.79
I19	05 Jan 2015	Low Tide Time	1537
I19	05 Jan 2015	Comments	
I19	10 Jan 2015	Depth (m)	12
I19	10 Jan 2015	Arrive Time	1157
I19	10 Jan 2015	Depart Time	1205
I19	10 Jan 2015	Air Temp (C)	17
I19	10 Jan 2015	Weather	Partly Cloudy
I19	10 Jan 2015	Visibility (mi)	5
I19	10 Jan 2015	Wind Speed (kts)	4
I19	10 Jan 2015	Wind Dir	N
I19	10 Jan 2015	Water Color	Green
I19	10 Jan 2015	Wave Ht Low (ft)	4
I19	10 Jan 2015	Wave Period (sec)	9
I19	10 Jan 2015	Sea State	Calm
I19	10 Jan 2015	High Tide (ft)	4.05
I19	10 Jan 2015	High Tide Time	1121
I19	10 Jan 2015	Low Tide (ft)	2.16
I19	10 Jan 2015	Low Tide Time	551
I19	10 Jan 2015	Comments	
I19	15 Jan 2015	Depth (m)	11
I19	15 Jan 2015	Arrive Time	1133
I19	15 Jan 2015	Depart Time	1142
I19	15 Jan 2015	Air Temp (C)	17
I19	15 Jan 2015	Weather	Clear
I19	15 Jan 2015	Visibility (mi)	12

Station	Date	Parameter	Value
I19	15 Jan 2015	Wind Speed (kts)	9
I19	15 Jan 2015	Wind Dir	S
I19	15 Jan 2015	Water Color	Green
I19	15 Jan 2015	Wave Ht Low (ft)	3
I19	15 Jan 2015	Wave Period (sec)	9
I19	15 Jan 2015	Sea State	Calm
I19	15 Jan 2015	High Tide (ft)	4.83
I19	15 Jan 2015	High Tide Time	439
I19	15 Jan 2015	Low Tide (ft)	0.56
I19	15 Jan 2015	Low Tide Time	1203
I19	15 Jan 2015	Comments	Lobster floats
I19	20 Jan 2015	Depth (m)	11
I19	20 Jan 2015	Arrive Time	1119
I19	20 Jan 2015	Depart Time	1125
I19	20 Jan 2015	Air Temp (C)	14
I19	20 Jan 2015	Weather	Cloudy
I19	20 Jan 2015	Visibility (mi)	8
I19	20 Jan 2015	Wind Speed (kts)	4
I19	20 Jan 2015	Wind Dir	N
I19	20 Jan 2015	Water Color	Greenish-Blue
I19	20 Jan 2015	Wave Ht Low (ft)	2
I19	20 Jan 2015	Wave Period (sec)	9
I19	20 Jan 2015	Sea State	Calm
I19	20 Jan 2015	High Tide (ft)	6.59
I19	20 Jan 2015	High Tide Time	817
I19	20 Jan 2015	Low Tide (ft)	-1.58
I19	20 Jan 2015	Low Tide Time	1520
I19	20 Jan 2015	Comments	
I19	28 Jan 2015	Depth (m)	10
I19	28 Jan 2015	Arrive Time	1132
I19	28 Jan 2015	Depart Time	1138
I19	28 Jan 2015	Air Temp (C)	17
I19	28 Jan 2015	Weather	Partly Cloudy
I19	28 Jan 2015	Visibility (mi)	12
I19	28 Jan 2015	Wind Speed (kts)	7
I19	28 Jan 2015	Wind Dir	E
I19	28 Jan 2015	Water Color	Green
I19	28 Jan 2015	Wave Ht Low (ft)	4
I19	28 Jan 2015	Wave Period (sec)	13
I19	28 Jan 2015	Sea State	Wind ripples
I19	28 Jan 2015	High Tide (ft)	4.97
I19	28 Jan 2015	High Tide Time	351
I19	28 Jan 2015	Low Tide (ft)	0.45
I19	28 Jan 2015	Low Tide Time	1124
I19	28 Jan 2015	Comments	

Station	Date	Parameter	Value
I24	05 Jan 2015	Depth (m)	9
I24	05 Jan 2015	Arrive Time	1259
I24	05 Jan 2015	Depart Time	1303
I24	05 Jan 2015	Air Temp (C)	18
I24	05 Jan 2015	Weather	Partly Cloudy
I24	05 Jan 2015	Visibility (mi)	5
I24	05 Jan 2015	Wind Speed (kts)	6
I24	05 Jan 2015	Wind Dir	SE
I24	05 Jan 2015	Water Color	Brownish-Green
I24	05 Jan 2015	Wave Ht Low (ft)	3
I24	05 Jan 2015	Wave Period (sec)	9
I24	05 Jan 2015	Sea State	Calm
I24	05 Jan 2015	High Tide (ft)	5.92
I24	05 Jan 2015	High Tide Time	830
I24	05 Jan 2015	Low Tide (ft)	-0.79
I24	05 Jan 2015	Low Tide Time	1537
I24	05 Jan 2015	Comments	
I24	10 Jan 2015	Depth (m)	10
I24	10 Jan 2015	Arrive Time	1227
I24	10 Jan 2015	Depart Time	1232
I24	10 Jan 2015	Air Temp (C)	17
I24	10 Jan 2015	Weather	Partly Cloudy
I24	10 Jan 2015	Visibility (mi)	5
I24	10 Jan 2015	Wind Speed (kts)	5
I24	10 Jan 2015	Wind Dir	E
I24	10 Jan 2015	Water Color	Green
I24	10 Jan 2015	Wave Ht Low (ft)	4
I24	10 Jan 2015	Wave Period (sec)	9
I24	10 Jan 2015	Sea State	Calm
I24	10 Jan 2015	High Tide (ft)	4.05
I24	10 Jan 2015	High Tide Time	1121
I24	10 Jan 2015	Low Tide (ft)	2.16
I24	10 Jan 2015	Low Tide Time	551
I24	10 Jan 2015	Comments	Unable to obtain station depth
I24	15 Jan 2015	Depth (m)	11
I24	15 Jan 2015	Arrive Time	1203
I24	15 Jan 2015	Depart Time	1211
I24	15 Jan 2015	Air Temp (C)	17
I24	15 Jan 2015	Weather	Clear
I24	15 Jan 2015	Visibility (mi)	12
I24	15 Jan 2015	Wind Speed (kts)	6
I24	15 Jan 2015	Wind Dir	NE
I24	15 Jan 2015	Water Color	Green
I24	15 Jan 2015	Wave Ht Low (ft)	3

Station	Date	Parameter	Value
I24	15 Jan 2015	Wave Period (sec)	9
I24	15 Jan 2015	Sea State	Calm
I24	15 Jan 2015	High Tide (ft)	4.83
I24	15 Jan 2015	High Tide Time	439
I24	15 Jan 2015	Low Tide (ft)	0.56
I24	15 Jan 2015	Low Tide Time	1203
I24	15 Jan 2015	Comments	
I24	20 Jan 2015	Depth (m)	9
I24	20 Jan 2015	Arrive Time	1144
I24	20 Jan 2015	Depart Time	1151
I24	20 Jan 2015	Air Temp (C)	14
I24	20 Jan 2015	Weather	Cloudy
I24	20 Jan 2015	Visibility (mi)	8
I24	20 Jan 2015	Wind Speed (kts)	4
I24	20 Jan 2015	Wind Dir	W
I24	20 Jan 2015	Water Color	Green
I24	20 Jan 2015	Wave Ht Low (ft)	2
I24	20 Jan 2015	Wave Period (sec)	9
I24	20 Jan 2015	Sea State	Calm
I24	20 Jan 2015	High Tide (ft)	6.59
I24	20 Jan 2015	High Tide Time	817
I24	20 Jan 2015	Low Tide (ft)	-1.58
I24	20 Jan 2015	Low Tide Time	1520
I24	20 Jan 2015	Comments	
I24	28 Jan 2015	Depth (m)	9
I24	28 Jan 2015	Arrive Time	1201
I24	28 Jan 2015	Depart Time	1207
I24	28 Jan 2015	Air Temp (C)	17
I24	28 Jan 2015	Weather	Partly Cloudy
I24	28 Jan 2015	Visibility (mi)	12
I24	28 Jan 2015	Wind Speed (kts)	6
I24	28 Jan 2015	Wind Dir	S
I24	28 Jan 2015	Water Color	Green
I24	28 Jan 2015	Wave Ht Low (ft)	4
I24	28 Jan 2015	Wave Period (sec)	13
I24	28 Jan 2015	Sea State	Wind ripples
I24	28 Jan 2015	High Tide (ft)	4.97
I24	28 Jan 2015	High Tide Time	351
I24	28 Jan 2015	Low Tide (ft)	0.45
I24	28 Jan 2015	Low Tide Time	1124
I24	28 Jan 2015	Comments	
I25	05 Jan 2015	Depth (m)	9
I25	05 Jan 2015	Arrive Time	1309
I25	05 Jan 2015	Depart Time	1312

Station	Date	Parameter	Value
I25	05 Jan 2015	Air Temp (C)	18
I25	05 Jan 2015	Weather	Partly Cloudy
I25	05 Jan 2015	Visibility (mi)	5
I25	05 Jan 2015	Wind Speed (kts)	6
I25	05 Jan 2015	Wind Dir	NE
I25	05 Jan 2015	Water Color	Brownish-Green
I25	05 Jan 2015	Wave Ht Low (ft)	3
I25	05 Jan 2015	Wave Period (sec)	9
I25	05 Jan 2015	Sea State	Calm
I25	05 Jan 2015	High Tide (ft)	5.92
I25	05 Jan 2015	High Tide Time	830
I25	05 Jan 2015	Low Tide (ft)	-0.79
I25	05 Jan 2015	Low Tide Time	1537
I25	05 Jan 2015	Comments	
I25	10 Jan 2015	Depth (m)	10
I25	10 Jan 2015	Arrive Time	1236
I25	10 Jan 2015	Depart Time	1240
I25	10 Jan 2015	Air Temp (C)	17
I25	10 Jan 2015	Weather	Partly Cloudy
I25	10 Jan 2015	Visibility (mi)	5
I25	10 Jan 2015	Wind Speed (kts)	6
I25	10 Jan 2015	Wind Dir	N
I25	10 Jan 2015	Water Color	Green
I25	10 Jan 2015	Wave Ht Low (ft)	4
I25	10 Jan 2015	Wave Period (sec)	9
I25	10 Jan 2015	Sea State	Calm
I25	10 Jan 2015	High Tide (ft)	4.05
I25	10 Jan 2015	High Tide Time	1121
I25	10 Jan 2015	Low Tide (ft)	2.16
I25	10 Jan 2015	Low Tide Time	551
I25	10 Jan 2015	Comments	
I25	15 Jan 2015	Depth (m)	9
I25	15 Jan 2015	Arrive Time	1213
I25	15 Jan 2015	Depart Time	1222
I25	15 Jan 2015	Air Temp (C)	18
I25	15 Jan 2015	Weather	Clear
I25	15 Jan 2015	Visibility (mi)	12
I25	15 Jan 2015	Wind Speed (kts)	5
I25	15 Jan 2015	Wind Dir	SW
I25	15 Jan 2015	Water Color	Green
I25	15 Jan 2015	Wave Ht Low (ft)	3
I25	15 Jan 2015	Wave Period (sec)	9
I25	15 Jan 2015	Sea State	Calm
I25	15 Jan 2015	High Tide (ft)	4.83
I25	15 Jan 2015	High Tide Time	439

Station	Date	Parameter	Value
I25	15 Jan 2015	Low Tide (ft)	0.56
I25	15 Jan 2015	Low Tide Time	1203
I25	15 Jan 2015	Comments	
I25	20 Jan 2015	Depth (m)	9
I25	20 Jan 2015	Arrive Time	1154
I25	20 Jan 2015	Depart Time	1203
I25	20 Jan 2015	Air Temp (C)	14
I25	20 Jan 2015	Weather	Cloudy
I25	20 Jan 2015	Visibility (mi)	8
I25	20 Jan 2015	Wind Speed (kts)	4
I25	20 Jan 2015	Wind Dir	SW
I25	20 Jan 2015	Water Color	Green
I25	20 Jan 2015	Wave Ht Low (ft)	2
I25	20 Jan 2015	Wave Period (sec)	9
I25	20 Jan 2015	Sea State	Calm
I25	20 Jan 2015	High Tide (ft)	6.59
I25	20 Jan 2015	High Tide Time	817
I25	20 Jan 2015	Low Tide (ft)	-1.58
I25	20 Jan 2015	Low Tide Time	1520
I25	20 Jan 2015	Comments	
I25	28 Jan 2015	Depth (m)	8
I25	28 Jan 2015	Arrive Time	1212
I25	28 Jan 2015	Depart Time	1217
I25	28 Jan 2015	Air Temp (C)	17
I25	28 Jan 2015	Weather	Partly Cloudy
I25	28 Jan 2015	Visibility (mi)	12
I25	28 Jan 2015	Wind Speed (kts)	8
I25	28 Jan 2015	Wind Dir	SW
I25	28 Jan 2015	Water Color	Green
I25	28 Jan 2015	Wave Ht Low (ft)	4
I25	28 Jan 2015	Wave Period (sec)	13
I25	28 Jan 2015	Sea State	Light chop
I25	28 Jan 2015	High Tide (ft)	4.97
I25	28 Jan 2015	High Tide Time	351
I25	28 Jan 2015	Low Tide (ft)	0.45
I25	28 Jan 2015	Low Tide Time	1124
I25	28 Jan 2015	Comments	
I26	05 Jan 2015	Depth (m)	9
I26	05 Jan 2015	Arrive Time	1323
I26	05 Jan 2015	Depart Time	1329
I26	05 Jan 2015	Air Temp (C)	18
I26	05 Jan 2015	Weather	Partly Cloudy
I26	05 Jan 2015	Visibility (mi)	5
I26	05 Jan 2015	Wind Speed (kts)	8

Station	Date	Parameter	Value
I26	05 Jan 2015	Wind Dir	SW
I26	05 Jan 2015	Water Color	Brownish-Green
I26	05 Jan 2015	Wave Ht Low (ft)	3
I26	05 Jan 2015	Wave Period (sec)	9
I26	05 Jan 2015	Sea State	Calm
I26	05 Jan 2015	High Tide (ft)	5.92
I26	05 Jan 2015	High Tide Time	830
I26	05 Jan 2015	Low Tide (ft)	-0.79
I26	05 Jan 2015	Low Tide Time	1537
I26	05 Jan 2015	Comments	
I26	10 Jan 2015	Depth (m)	11
I26	10 Jan 2015	Arrive Time	1245
I26	10 Jan 2015	Depart Time	1251
I26	10 Jan 2015	Air Temp (C)	17
I26	10 Jan 2015	Weather	Partly Cloudy
I26	10 Jan 2015	Visibility (mi)	5
I26	10 Jan 2015	Wind Speed (kts)	5
I26	10 Jan 2015	Wind Dir	E
I26	10 Jan 2015	Water Color	Green
I26	10 Jan 2015	Wave Ht Low (ft)	4
I26	10 Jan 2015	Wave Period (sec)	9
I26	10 Jan 2015	Sea State	Calm
I26	10 Jan 2015	High Tide (ft)	4.05
I26	10 Jan 2015	High Tide Time	1121
I26	10 Jan 2015	Low Tide (ft)	2.16
I26	10 Jan 2015	Low Tide Time	551
I26	10 Jan 2015	Comments	
I26	15 Jan 2015	Depth (m)	11
I26	15 Jan 2015	Arrive Time	1228
I26	15 Jan 2015	Depart Time	1236
I26	15 Jan 2015	Air Temp (C)	17
I26	15 Jan 2015	Weather	Clear
I26	15 Jan 2015	Visibility (mi)	12
I26	15 Jan 2015	Wind Speed (kts)	4
I26	15 Jan 2015	Wind Dir	E
I26	15 Jan 2015	Water Color	Green
I26	15 Jan 2015	Wave Ht Low (ft)	4
I26	15 Jan 2015	Wave Period (sec)	9
I26	15 Jan 2015	Sea State	Light chop
I26	15 Jan 2015	High Tide (ft)	4.83
I26	15 Jan 2015	High Tide Time	439
I26	15 Jan 2015	Low Tide (ft)	0.56
I26	15 Jan 2015	Low Tide Time	1203
I26	15 Jan 2015	Comments	Kelp debris

Station	Date	Parameter	Value
I26	20 Jan 2015	Depth (m)	10
I26	20 Jan 2015	Arrive Time	1209
I26	20 Jan 2015	Depart Time	1214
I26	20 Jan 2015	Air Temp (C)	14
I26	20 Jan 2015	Weather	Cloudy
I26	20 Jan 2015	Visibility (mi)	8
I26	20 Jan 2015	Wind Speed (kts)	3
I26	20 Jan 2015	Wind Dir	NW
I26	20 Jan 2015	Water Color	Green
I26	20 Jan 2015	Wave Ht Low (ft)	2
I26	20 Jan 2015	Wave Period (sec)	9
I26	20 Jan 2015	Sea State	Calm
I26	20 Jan 2015	High Tide (ft)	6.59
I26	20 Jan 2015	High Tide Time	817
I26	20 Jan 2015	Low Tide (ft)	-1.58
I26	20 Jan 2015	Low Tide Time	1520
I26	20 Jan 2015	Comments	
I26	28 Jan 2015	Depth (m)	8
I26	28 Jan 2015	Arrive Time	1227
I26	28 Jan 2015	Depart Time	1232
I26	28 Jan 2015	Air Temp (C)	17
I26	28 Jan 2015	Weather	Partly Cloudy
I26	28 Jan 2015	Visibility (mi)	12
I26	28 Jan 2015	Wind Speed (kts)	8
I26	28 Jan 2015	Wind Dir	E
I26	28 Jan 2015	Water Color	Green
I26	28 Jan 2015	Wave Ht Low (ft)	4
I26	28 Jan 2015	Wave Period (sec)	13
I26	28 Jan 2015	Sea State	Light chop
I26	28 Jan 2015	High Tide (ft)	4.97
I26	28 Jan 2015	High Tide Time	351
I26	28 Jan 2015	Low Tide (ft)	0.45
I26	28 Jan 2015	Low Tide Time	1124
I26	28 Jan 2015	Comments	
I32	05 Jan 2015	Depth (m)	9
I32	05 Jan 2015	Arrive Time	1340
I32	05 Jan 2015	Depart Time	1345
I32	05 Jan 2015	Air Temp (C)	19
I32	05 Jan 2015	Weather	Partly Cloudy
I32	05 Jan 2015	Visibility (mi)	5
I32	05 Jan 2015	Wind Speed (kts)	5
I32	05 Jan 2015	Wind Dir	NE
I32	05 Jan 2015	Water Color	Brownish-Green
I32	05 Jan 2015	Wave Ht Low (ft)	3
I32	05 Jan 2015	Wave Period (sec)	9

Station	Date	Parameter	Value
I32	05 Jan 2015	Sea State	Calm
I32	05 Jan 2015	High Tide (ft)	5.92
I32	05 Jan 2015	High Tide Time	830
I32	05 Jan 2015	Low Tide (ft)	-0.79
I32	05 Jan 2015	Low Tide Time	1537
I32	05 Jan 2015	Comments	
I32	10 Jan 2015	Depth (m)	11
I32	10 Jan 2015	Arrive Time	1305
I32	10 Jan 2015	Depart Time	1312
I32	10 Jan 2015	Air Temp (C)	17
I32	10 Jan 2015	Weather	Partly Cloudy
I32	10 Jan 2015	Visibility (mi)	5
I32	10 Jan 2015	Wind Speed (kts)	3
I32	10 Jan 2015	Wind Dir	W
I32	10 Jan 2015	Water Color	Green
I32	10 Jan 2015	Wave Ht Low (ft)	4
I32	10 Jan 2015	Wave Period (sec)	9
I32	10 Jan 2015	Sea State	Calm
I32	10 Jan 2015	High Tide (ft)	4.05
I32	10 Jan 2015	High Tide Time	1121
I32	10 Jan 2015	Low Tide (ft)	2.16
I32	10 Jan 2015	Low Tide Time	551
I32	10 Jan 2015	Comments	
I32	15 Jan 2015	Depth (m)	10
I32	15 Jan 2015	Arrive Time	1244
I32	15 Jan 2015	Depart Time	1252
I32	15 Jan 2015	Air Temp (C)	17
I32	15 Jan 2015	Weather	Clear
I32	15 Jan 2015	Visibility (mi)	12
I32	15 Jan 2015	Wind Speed (kts)	9
I32	15 Jan 2015	Wind Dir	SW
I32	15 Jan 2015	Water Color	Green
I32	15 Jan 2015	Wave Ht Low (ft)	5
I32	15 Jan 2015	Wave Period (sec)	9
I32	15 Jan 2015	Sea State	Light chop
I32	15 Jan 2015	High Tide (ft)	4.83
I32	15 Jan 2015	High Tide Time	439
I32	15 Jan 2015	Low Tide (ft)	0.56
I32	15 Jan 2015	Low Tide Time	1203
I32	15 Jan 2015	Comments	
I32	20 Jan 2015	Depth (m)	11
I32	20 Jan 2015	Arrive Time	1224
I32	20 Jan 2015	Depart Time	1230
I32	20 Jan 2015	Air Temp (C)	14

Station	Date	Parameter	Value
I32	20 Jan 2015	Weather	Cloudy
I32	20 Jan 2015	Visibility (mi)	8
I32	20 Jan 2015	Wind Speed (kts)	5
I32	20 Jan 2015	Wind Dir	N
I32	20 Jan 2015	Water Color	Green
I32	20 Jan 2015	Wave Ht Low (ft)	2
I32	20 Jan 2015	Wave Period (sec)	9
I32	20 Jan 2015	Sea State	Calm
I32	20 Jan 2015	High Tide (ft)	6.59
I32	20 Jan 2015	High Tide Time	817
I32	20 Jan 2015	Low Tide (ft)	-1.58
I32	20 Jan 2015	Low Tide Time	1520
I32	20 Jan 2015	Comments	
I32	28 Jan 2015	Depth (m)	9
I32	28 Jan 2015	Arrive Time	1242
I32	28 Jan 2015	Depart Time	1249
I32	28 Jan 2015	Air Temp (C)	18
I32	28 Jan 2015	Weather	Partly Cloudy
I32	28 Jan 2015	Visibility (mi)	12
I32	28 Jan 2015	Wind Speed (kts)	8
I32	28 Jan 2015	Wind Dir	S
I32	28 Jan 2015	Water Color	Green
I32	28 Jan 2015	Wave Ht Low (ft)	4
I32	28 Jan 2015	Wave Period (sec)	13
I32	28 Jan 2015	Sea State	Light chop
I32	28 Jan 2015	High Tide (ft)	4.97
I32	28 Jan 2015	High Tide Time	351
I32	28 Jan 2015	Low Tide (ft)	0.45
I32	28 Jan 2015	Low Tide Time	1124
I32	28 Jan 2015	Comments	
I39	05 Jan 2015	Depth (m)	18
I39	05 Jan 2015	Arrive Time	1210
I39	05 Jan 2015	Depart Time	1215
I39	05 Jan 2015	Air Temp (C)	18
I39	05 Jan 2015	Weather	Partly Cloudy
I39	05 Jan 2015	Visibility (mi)	9
I39	05 Jan 2015	Wind Speed (kts)	9
I39	05 Jan 2015	Wind Dir	NE
I39	05 Jan 2015	Water Color	Greenish-Blue
I39	05 Jan 2015	Wave Ht Low (ft)	2
I39	05 Jan 2015	Wave Period (sec)	9
I39	05 Jan 2015	Sea State	Calm
I39	05 Jan 2015	High Tide (ft)	5.92
I39	05 Jan 2015	High Tide Time	830
I39	05 Jan 2015	Low Tide (ft)	-0.79

Station	Date	Parameter	Value
I39	05 Jan 2015	Low Tide Time	1537
I39	05 Jan 2015	Comments	
I39	10 Jan 2015	Depth (m)	20
I39	10 Jan 2015	Arrive Time	1134
I39	10 Jan 2015	Depart Time	1145
I39	10 Jan 2015	Air Temp (C)	17
I39	10 Jan 2015	Weather	Partly Cloudy
I39	10 Jan 2015	Visibility (mi)	5
I39	10 Jan 2015	Wind Speed (kts)	3
I39	10 Jan 2015	Wind Dir	N
I39	10 Jan 2015	Water Color	Green
I39	10 Jan 2015	Wave Ht Low (ft)	4
I39	10 Jan 2015	Wave Period (sec)	9
I39	10 Jan 2015	Sea State	Calm
I39	10 Jan 2015	High Tide (ft)	4.05
I39	10 Jan 2015	High Tide Time	1121
I39	10 Jan 2015	Low Tide (ft)	2.16
I39	10 Jan 2015	Low Tide Time	551
I39	10 Jan 2015	Comments	Lobster float
I39	15 Jan 2015	Depth (m)	19
I39	15 Jan 2015	Arrive Time	1105
I39	15 Jan 2015	Depart Time	1112
I39	15 Jan 2015	Air Temp (C)	17
I39	15 Jan 2015	Weather	Clear
I39	15 Jan 2015	Visibility (mi)	12
I39	15 Jan 2015	Wind Speed (kts)	9
I39	15 Jan 2015	Wind Dir	SW
I39	15 Jan 2015	Water Color	Green
I39	15 Jan 2015	Wave Ht Low (ft)	3
I39	15 Jan 2015	Wave Period (sec)	9
I39	15 Jan 2015	Sea State	Calm
I39	15 Jan 2015	High Tide (ft)	4.83
I39	15 Jan 2015	High Tide Time	439
I39	15 Jan 2015	Low Tide (ft)	0.56
I39	15 Jan 2015	Low Tide Time	1203
I39	15 Jan 2015	Comments	Kelp
I39	20 Jan 2015	Depth (m)	20
I39	20 Jan 2015	Arrive Time	1055
I39	20 Jan 2015	Depart Time	1101
I39	20 Jan 2015	Air Temp (C)	14
I39	20 Jan 2015	Weather	Cloudy
I39	20 Jan 2015	Visibility (mi)	8
I39	20 Jan 2015	Wind Speed (kts)	3
I39	20 Jan 2015	Wind Dir	NE

Station	Date	Parameter	Value
I39	20 Jan 2015	Water Color	Greenish-Blue
I39	20 Jan 2015	Wave Ht Low (ft)	2
I39	20 Jan 2015	Wave Period (sec)	9
I39	20 Jan 2015	Sea State	Calm
I39	20 Jan 2015	High Tide (ft)	6.59
I39	20 Jan 2015	High Tide Time	817
I39	20 Jan 2015	Low Tide (ft)	-1.58
I39	20 Jan 2015	Low Tide Time	1520
I39	20 Jan 2015	Comments	Kelp debris
I39	28 Jan 2015	Depth (m)	18
I39	28 Jan 2015	Arrive Time	1108
I39	28 Jan 2015	Depart Time	1116
I39	28 Jan 2015	Air Temp (C)	16
I39	28 Jan 2015	Weather	Partly Cloudy
I39	28 Jan 2015	Visibility (mi)	12
I39	28 Jan 2015	Wind Speed (kts)	6
I39	28 Jan 2015	Wind Dir	W
I39	28 Jan 2015	Water Color	Bluish-Green
I39	28 Jan 2015	Wave Ht Low (ft)	4
I39	28 Jan 2015	Wave Period (sec)	13
I39	28 Jan 2015	Sea State	Wind ripples
I39	28 Jan 2015	High Tide (ft)	4.97
I39	28 Jan 2015	High Tide Time	351
I39	28 Jan 2015	Low Tide (ft)	0.45
I39	28 Jan 2015	Low Tide Time	1124
I39	28 Jan 2015	Comments	
I40	05 Jan 2015	Depth (m)	9
I40	05 Jan 2015	Arrive Time	1248
I40	05 Jan 2015	Depart Time	1253
I40	05 Jan 2015	Air Temp (C)	18
I40	05 Jan 2015	Weather	Partly Cloudy
I40	05 Jan 2015	Visibility (mi)	5
I40	05 Jan 2015	Wind Speed (kts)	7
I40	05 Jan 2015	Wind Dir	W
I40	05 Jan 2015	Water Color	Brownish-Green
I40	05 Jan 2015	Wave Ht Low (ft)	3
I40	05 Jan 2015	Wave Period (sec)	9
I40	05 Jan 2015	Sea State	Calm
I40	05 Jan 2015	High Tide (ft)	5.92
I40	05 Jan 2015	High Tide Time	830
I40	05 Jan 2015	Low Tide (ft)	-0.79
I40	05 Jan 2015	Low Tide Time	1537
I40	05 Jan 2015	Comments	Fresh water lense on surface
I40	07 Jan 2015	Depth (m)	10

Station	Date	Parameter	Value
I40	07 Jan 2015	Arrive Time	1149
I40	07 Jan 2015	Depart Time	1154
I40	07 Jan 2015	Air Temp (C)	17
I40	07 Jan 2015	Weather	Partly Cloudy
I40	07 Jan 2015	Visibility (mi)	8
I40	07 Jan 2015	Wind Speed (kts)	7
I40	07 Jan 2015	Wind Dir	E
I40	07 Jan 2015	Water Color	Green
I40	07 Jan 2015	Wave Ht Low (ft)	3
I40	07 Jan 2015	Wave Period (sec)	11
I40	07 Jan 2015	Sea State	Wind ripples
I40	07 Jan 2015	High Tide (ft)	5.41
I40	07 Jan 2015	High Tide Time	936
I40	07 Jan 2015	Low Tide (ft)	1.77
I40	07 Jan 2015	Low Tide Time	341
I40	07 Jan 2015	Comments	Resample at 2m; Lots of birds on station
I40	10 Jan 2015	Depth (m)	11
I40	10 Jan 2015	Arrive Time	1211
I40	10 Jan 2015	Depart Time	1221
I40	10 Jan 2015	Air Temp (C)	17
I40	10 Jan 2015	Weather	Partly Cloudy
I40	10 Jan 2015	Visibility (mi)	5
I40	10 Jan 2015	Wind Speed (kts)	3
I40	10 Jan 2015	Wind Dir	NW
I40	10 Jan 2015	Water Color	Green
I40	10 Jan 2015	Wave Ht Low (ft)	2
I40	10 Jan 2015	Wave Period (sec)	9
I40	10 Jan 2015	Sea State	Calm
I40	10 Jan 2015	High Tide (ft)	4.05
I40	10 Jan 2015	High Tide Time	1121
I40	10 Jan 2015	Low Tide (ft)	2.16
I40	10 Jan 2015	Low Tide Time	551
I40	10 Jan 2015	Comments	
I40	15 Jan 2015	Depth (m)	10
I40	15 Jan 2015	Arrive Time	1150
I40	15 Jan 2015	Depart Time	1158
I40	15 Jan 2015	Air Temp (C)	17
I40	15 Jan 2015	Weather	Clear
I40	15 Jan 2015	Visibility (mi)	12
I40	15 Jan 2015	Wind Speed (kts)	6
I40	15 Jan 2015	Wind Dir	E
I40	15 Jan 2015	Water Color	Green
I40	15 Jan 2015	Wave Ht Low (ft)	3
I40	15 Jan 2015	Wave Period (sec)	9
I40	15 Jan 2015	Sea State	Calm

Station	Date	Parameter	Value
I40	15 Jan 2015	High Tide (ft)	4.83
I40	15 Jan 2015	High Tide Time	439
I40	15 Jan 2015	Low Tide (ft)	0.56
I40	15 Jan 2015	Low Tide Time	1203
I40	15 Jan 2015	Comments	
I40	20 Jan 2015	Depth (m)	11
I40	20 Jan 2015	Arrive Time	1134
I40	20 Jan 2015	Depart Time	1138
I40	20 Jan 2015	Air Temp (C)	14
I40	20 Jan 2015	Weather	Cloudy
I40	20 Jan 2015	Visibility (mi)	8
I40	20 Jan 2015	Wind Speed (kts)	3
I40	20 Jan 2015	Wind Dir	E
I40	20 Jan 2015	Water Color	Green
I40	20 Jan 2015	Wave Ht Low (ft)	2
I40	20 Jan 2015	Wave Period (sec)	9
I40	20 Jan 2015	Sea State	Calm
I40	20 Jan 2015	High Tide (ft)	6.59
I40	20 Jan 2015	High Tide Time	817
I40	20 Jan 2015	Low Tide (ft)	-1.58
I40	20 Jan 2015	Low Tide Time	1520
I40	20 Jan 2015	Comments	
I40	28 Jan 2015	Depth (m)	9
I40	28 Jan 2015	Arrive Time	1148
I40	28 Jan 2015	Depart Time	1154
I40	28 Jan 2015	Air Temp (C)	17
I40	28 Jan 2015	Weather	Partly Cloudy
I40	28 Jan 2015	Visibility (mi)	12
I40	28 Jan 2015	Wind Speed (kts)	4
I40	28 Jan 2015	Wind Dir	S
I40	28 Jan 2015	Water Color	Green
I40	28 Jan 2015	Wave Ht Low (ft)	4
I40	28 Jan 2015	Wave Period (sec)	13
I40	28 Jan 2015	Sea State	Wind ripples
I40	28 Jan 2015	High Tide (ft)	4.97
I40	28 Jan 2015	High Tide Time	351
I40	28 Jan 2015	Low Tide (ft)	0.45
I40	28 Jan 2015	Low Tide Time	1124
I40	28 Jan 2015	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 (σ-t)	Chlor (μg/L)
I19	05 Jan 2015	1	15.87	82.62	8.0	33.41	8.2	24.6	0.91
I19	05 Jan 2015	2	15.86	82.58	8.1	33.41	8.2	24.6	0.97
I19	05 Jan 2015	3	15.84	82.51	8.0	33.41	8.2	24.6	1.31
I19	05 Jan 2015	4	15.81	82.27	8.1	33.41	8.2	24.6	1.61
I19	05 Jan 2015	5	15.80	82.24	8.1	33.41	8.2	24.6	2.03
I19	05 Jan 2015	6	15.75	82.05	8.1	33.41	8.2	24.6	2.21
I19	05 Jan 2015	7	15.71	81.46	8.1	33.41	8.2	24.6	2.50
I19	05 Jan 2015	8	15.68	81.19	8.1	33.41	8.2	24.6	2.57
I19	05 Jan 2015	9	15.67	81.10	8.1	33.41	8.2	24.6	2.77
I19	05 Jan 2015	10	15.63	79.92	8.0	33.40	8.2	24.6	3.14
I19	10 Jan 2015	1	16.73	70.15	8.2	33.42	8.2	24.4	1.96
I19	10 Jan 2015	2	16.62	70.01	8.2	33.41	8.2	24.4	2.36
I19	10 Jan 2015	3	16.40	69.95	8.3	33.40	8.2	24.4	3.28
I19	10 Jan 2015	4	16.35	69.81	8.3	33.41	8.2	24.4	4.27
I19	10 Jan 2015	5	16.33	68.16	8.3	33.41	8.2	24.5	4.58
I19	10 Jan 2015	6	16.31	67.53	8.3	33.41	8.2	24.5	4.65
I19	10 Jan 2015	7	16.30	67.51	8.1	33.42	8.2	24.5	4.47
I19	10 Jan 2015	8	16.28	66.27	8.0	33.43	8.2	24.5	4.11
I19	10 Jan 2015	9	16.27	65.51	8.0	33.43	8.2	24.5	3.75
I19	10 Jan 2015	10	16.25	65.60	7.9	33.43	8.2	24.5	3.84
I19	15 Jan 2015	1	16.43	65.85	8.0	33.23	8.2	24.3	1.43
I19	15 Jan 2015	2	16.43	65.92	8.0	33.24	8.2	24.3	1.56
I19	15 Jan 2015	3	16.42	65.87	8.0	33.31	8.2	24.4	2.15
I19	15 Jan 2015	4	16.41	67.82	7.9	33.37	8.2	24.4	2.58
I19	15 Jan 2015	5	16.41	72.54	7.8	33.39	8.2	24.4	2.79
I19	15 Jan 2015	6	16.35	76.18	7.8	33.40	8.2	24.4	3.15
I19	15 Jan 2015	7	16.25	74.39	7.7	33.41	8.2	24.5	3.82
I19	15 Jan 2015	8	16.21	67.60	7.7	33.41	8.2	24.5	4.17
I19	15 Jan 2015	9	16.21	57.32	7.6	33.42	8.2	24.5	4.02
I19	15 Jan 2015	10	16.20	47.62	7.4	33.42	8.2	24.5	3.73
I19	20 Jan 2015	1	16.50	68.83	8.2	33.42	8.2	24.4	1.93
I19	20 Jan 2015	2	16.49	68.82	8.2	33.42	8.2	24.4	1.98
I19	20 Jan 2015	3	16.50	68.84	8.2	33.42	8.2	24.4	2.08
I19	20 Jan 2015	4	16.50	68.83	8.2	33.42	8.2	24.4	2.32
I19	20 Jan 2015	5	16.49	68.78	8.2	33.42	8.2	24.4	2.38
I19	20 Jan 2015	6	16.50	68.85	8.2	33.42	8.2	24.4	2.47
I19	20 Jan 2015	7	16.48	69.01	8.2	33.42	8.2	24.4	2.71
I19	20 Jan 2015	8	16.44	69.00	8.2	33.42	8.2	24.4	2.77
I19	20 Jan 2015	9	16.42	68.75	8.1	33.42	8.2	24.4	2.91
I19	20 Jan 2015	10	16.41	67.70	8.0	33.42	8.2	24.4	3.09
I19	28 Jan 2015	1	16.08	66.60	7.0	33.49	8.2	24.6	0.63
I19	28 Jan 2015	2	16.08	66.29	7.0	33.48	8.2	24.6	0.65
I19	28 Jan 2015	3	16.06	66.32	7.1	33.49	8.2	24.6	1.42
I19	28 Jan 2015	4	15.99	66.19	7.4	33.53	8.2	24.6	1.61
I19	28 Jan 2015	5	15.90	65.22	7.4	33.52	8.2	24.6	1.63
I19	28 Jan 2015	6	15.89	60.19	7.4	33.49	8.2	24.6	1.67
I19	28 Jan 2015	7	15.88	56.51	7.6	33.49	8.2	24.6	1.71

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I19	28 Jan 2015	8	15.86	55.35	7.5	33.49	8.2	24.6	2.00
I19	28 Jan 2015	9	15.85	54.20	7.5	33.48	8.2	24.6	2.64
I19	28 Jan 2015	10	15.85	52.35	7.7	33.47	8.2	24.6	2.90
I24	05 Jan 2015	1	15.46	80.87	8.0	33.42	8.2	24.7	1.10
I24	05 Jan 2015	2	15.43	80.84	8.0	33.42	8.2	24.7	1.27
I24	05 Jan 2015	3	15.42	80.81	8.0	33.42	8.2	24.7	1.41
I24	05 Jan 2015	4	15.38	80.49	8.1	33.42	8.2	24.7	1.79
I24	05 Jan 2015	5	15.35	79.94	8.1	33.42	8.2	24.7	2.11
I24	05 Jan 2015	6	15.34	79.81	8.1	33.42	8.2	24.7	2.29
I24	05 Jan 2015	7	15.33	79.55	8.1	33.42	8.2	24.7	2.42
I24	05 Jan 2015	8	15.33	79.65	8.1	33.42	8.2	24.7	2.30
I24	05 Jan 2015	9	15.33	79.49	8.2	33.42	8.2	24.7	2.32
I24	05 Jan 2015	10	15.32	79.28	8.1	33.42	8.2	24.7	2.34
I24	10 Jan 2015	1	16.82	78.31	8.1	33.43	8.2	24.4	1.66
I24	10 Jan 2015	2	16.45	78.03	8.1	33.41	8.2	24.4	1.94
I24	10 Jan 2015	3	16.26	77.93	8.0	33.43	8.2	24.5	2.20
I24	10 Jan 2015	4	16.22	77.42	8.0	33.43	8.2	24.5	2.74
I24	10 Jan 2015	5	16.20	76.80	8.0	33.43	8.2	24.5	3.11
I24	10 Jan 2015	6	16.19	74.23	8.0	33.43	8.2	24.5	3.06
I24	10 Jan 2015	7	16.19	71.65	8.0	33.43	8.2	24.5	2.90
I24	10 Jan 2015	8	16.19	71.10	7.9	33.43	8.2	24.5	2.79
I24	10 Jan 2015	9	16.19	70.77	7.9	33.43	8.2	24.5	2.68
I24	15 Jan 2015	1	16.50	81.34	7.9	33.42	8.2	24.4	0.77
I24	15 Jan 2015	2	16.49	81.17	7.9	33.42	8.2	24.4	0.84
I24	15 Jan 2015	3	16.49	81.04	7.9	33.42	8.2	24.4	0.95
I24	15 Jan 2015	4	16.46	80.86	7.9	33.42	8.2	24.4	1.06
I24	15 Jan 2015	5	16.44	78.82	7.9	33.42	8.2	24.4	1.20
I24	15 Jan 2015	6	16.45	78.29	7.9	33.42	8.2	24.4	1.32
I24	15 Jan 2015	7	16.46	78.62	7.9	33.42	8.2	24.4	1.36
I24	15 Jan 2015	8	16.44	78.92	7.9	33.42	8.2	24.4	1.39
I24	15 Jan 2015	9	16.44	79.09	7.9	33.42	8.2	24.4	1.34
I24	15 Jan 2015	10	16.43	78.32	7.9	33.42	8.2	24.4	1.37
I24	15 Jan 2015	11	16.43	78.00	7.8	33.42	8.2	24.4	1.42
I24	20 Jan 2015	1	16.65	72.37	8.1	33.42	8.2	24.4	1.88
I24	20 Jan 2015	2	16.55	72.43	8.2	33.42	8.2	24.4	1.94
I24	20 Jan 2015	3	16.51	74.59	8.2	33.42	8.2	24.4	2.05
I24	20 Jan 2015	4	16.50	75.57	8.2	33.42	8.2	24.4	1.96
I24	20 Jan 2015	5	16.44	76.92	8.1	33.43	8.2	24.4	1.94
I24	20 Jan 2015	6	16.39	78.76	8.1	33.42	8.2	24.4	2.27
I24	20 Jan 2015	7	16.37	75.52	8.0	33.42	8.2	24.4	2.50
I24	20 Jan 2015	8	16.28	72.99	7.9	33.42	8.2	24.5	2.45
I24	20 Jan 2015	9	16.24	67.75	7.9	33.42	8.2	24.5	2.19
I24	28 Jan 2015	1	16.29	70.79	7.1	33.46	8.2	24.5	0.63
I24	28 Jan 2015	2	16.28	70.45	7.0	33.47	8.2	24.5	0.65
I24	28 Jan 2015	3	16.21	70.33	6.7	33.50	8.2	24.5	0.72
I24	28 Jan 2015	4	16.15	68.81	6.8	33.52	8.2	24.6	0.76
I24	28 Jan 2015	5	16.11	67.07	7.2	33.53	8.2	24.6	1.31
I24	28 Jan 2015	6	16.07	66.84	7.3	33.52	8.2	24.6	1.39
I24	28 Jan 2015	7	16.04	66.82	7.2	33.50	8.2	24.6	1.39
I24	28 Jan 2015	8	16.03	66.37	7.2	33.48	8.2	24.6	1.41

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I24	28 Jan 2015	9	16.03	65.98	7.2	33.48	8.2	24.6	1.41
I24	28 Jan 2015	10	16.03	64.94	7.3	33.48	8.2	24.6	0.21
I25	05 Jan 2015	1	15.66	81.56	8.0	33.45	8.2	24.6	1.27
I25	05 Jan 2015	2	15.62	81.52	8.0	33.45	8.2	24.6	1.39
I25	05 Jan 2015	3	15.55	81.31	8.0	33.44	8.2	24.7	1.60
I25	05 Jan 2015	4	15.50	80.89	8.0	33.44	8.2	24.7	1.81
I25	05 Jan 2015	5	15.47	80.75	8.1	33.44	8.2	24.7	2.00
I25	05 Jan 2015	6	15.46	80.72	8.1	33.44	8.2	24.7	2.13
I25	05 Jan 2015	7	15.45	80.56	8.0	33.44	8.2	24.7	2.20
I25	05 Jan 2015	8	15.45	80.70	8.0	33.44	8.2	24.7	2.12
I25	05 Jan 2015	9	15.45	79.41	8.0	33.44	8.2	24.7	2.08
I25	10 Jan 2015	1	16.67	78.94	8.1	33.43	8.2	24.4	1.42
I25	10 Jan 2015	2	16.47	78.96	8.1	33.42	8.2	24.4	1.63
I25	10 Jan 2015	3	16.25	78.55	8.1	33.43	8.2	24.5	1.64
I25	10 Jan 2015	4	16.24	77.18	8.0	33.43	8.2	24.5	2.02
I25	10 Jan 2015	5	16.22	76.15	8.0	33.43	8.2	24.5	2.64
I25	10 Jan 2015	6	16.20	75.18	8.0	33.43	8.2	24.5	2.96
I25	10 Jan 2015	7	16.20	73.78	7.9	33.43	8.2	24.5	2.95
I25	10 Jan 2015	8	16.20	72.86	7.9	33.43	8.2	24.5	2.97
I25	10 Jan 2015	9	16.20	72.00	7.8	33.43	8.2	24.5	2.83
I25	15 Jan 2015	1	16.53	82.59	7.9	33.42	8.2	24.4	0.77
I25	15 Jan 2015	2	16.53	82.55	7.9	33.42	8.2	24.4	0.86
I25	15 Jan 2015	3	16.50	82.45	7.9	33.42	8.2	24.4	1.00
I25	15 Jan 2015	4	16.48	81.57	8.0	33.42	8.2	24.4	1.17
I25	15 Jan 2015	5	16.48	80.84	8.0	33.42	8.2	24.4	1.26
I25	15 Jan 2015	6	16.47	80.81	8.0	33.42	8.2	24.4	1.37
I25	15 Jan 2015	7	16.45	80.55	8.1	33.42	8.2	24.4	1.39
I25	15 Jan 2015	8	16.45	78.94	8.1	33.42	8.3	24.4	1.41
I25	15 Jan 2015	9	16.45	78.12	8.1	33.42	8.3	24.4	1.36
I25	20 Jan 2015	1	16.63	69.85	8.2	33.42	8.2	24.4	2.20
I25	20 Jan 2015	2	16.55	69.71	8.2	33.42	8.2	24.4	2.22
I25	20 Jan 2015	3	16.49	71.54	8.2	33.42	8.2	24.4	2.14
I25	20 Jan 2015	4	16.45	74.70	8.1	33.42	8.2	24.4	2.14
I25	20 Jan 2015	5	16.35	76.26	8.0	33.42	8.2	24.5	2.12
I25	20 Jan 2015	6	16.28	73.45	7.8	33.43	8.2	24.5	1.99
I25	20 Jan 2015	7	16.27	69.45	7.8	33.43	8.2	24.5	1.88
I25	20 Jan 2015	8	16.27	68.07	7.8	33.43	8.2	24.5	1.72
I25	20 Jan 2015	9	16.27	67.51	7.8	33.43	8.2	24.5	1.67
I25	28 Jan 2015	1	16.29	72.35	7.4	33.46	8.2	24.5	1.06
I25	28 Jan 2015	2	16.28	71.99	7.4	33.47	8.2	24.5	1.08
I25	28 Jan 2015	3	16.15	71.51	7.5	33.50	8.2	24.6	1.13
I25	28 Jan 2015	4	16.09	71.02	7.5	33.49	8.2	24.6	1.19
I25	28 Jan 2015	5	16.03	69.69	7.4	33.48	8.2	24.6	1.36
I25	28 Jan 2015	6	16.02	67.47	7.4	33.46	8.2	24.6	1.75
I25	28 Jan 2015	7	16.02	65.95	7.5	33.46	8.2	24.6	2.14
I25	28 Jan 2015	8	16.02	65.37	7.5	33.46	8.2	24.6	2.11
I25	28 Jan 2015	9	16.02	64.87	7.5	33.46	8.2	24.6	2.09
I26	05 Jan 2015	1	15.85	84.28	8.0	33.45	8.2	24.6	0.94
I26	05 Jan 2015	2	15.82	84.17	8.0	33.45	8.2	24.6	0.94

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I26	05 Jan 2015	3	15.77	84.00	8.0	33.45	8.2	24.6	1.12
I26	05 Jan 2015	4	15.68	83.50	8.0	33.45	8.2	24.6	1.29
I26	05 Jan 2015	5	15.58	82.66	8.1	33.45	8.2	24.6	1.69
I26	05 Jan 2015	6	15.52	81.50	8.2	33.44	8.2	24.7	1.98
I26	05 Jan 2015	7	15.47	80.90	8.2	33.44	8.2	24.7	2.26
I26	05 Jan 2015	8	15.47	80.36	8.2	33.44	8.2	24.7	2.40
I26	05 Jan 2015	9	15.46	80.25	8.2	33.44	8.2	24.7	2.39
I26	10 Jan 2015	1	16.74	75.96	8.1	33.42	8.2	24.4	2.17
I26	10 Jan 2015	2	16.54	76.17	8.1	33.40	8.2	24.4	2.43
I26	10 Jan 2015	3	16.25	76.48	8.1	33.41	8.2	24.5	2.87
I26	10 Jan 2015	4	16.22	76.41	8.1	33.41	8.2	24.5	3.21
I26	10 Jan 2015	5	16.21	76.66	8.1	33.41	8.2	24.5	3.34
I26	10 Jan 2015	6	16.20	76.86	8.1	33.41	8.2	24.5	3.33
I26	10 Jan 2015	7	16.19	76.96	8.0	33.41	8.2	24.5	3.31
I26	10 Jan 2015	8	16.18	76.66	8.0	33.41	8.2	24.5	3.16
I26	10 Jan 2015	9	16.18	76.89	8.0	33.41	8.2	24.5	2.72
I26	10 Jan 2015	10	16.19	76.48	8.0	33.41	8.2	24.5	2.60
I26	15 Jan 2015	1	16.58	83.12	7.9	33.43	8.2	24.4	0.74
I26	15 Jan 2015	2	16.58	83.30	7.9	33.44	8.2	24.4	0.81
I26	15 Jan 2015	3	16.57	83.16	7.9	33.43	8.2	24.4	0.89
I26	15 Jan 2015	4	16.54	83.21	7.9	33.43	8.2	24.4	1.06
I26	15 Jan 2015	5	16.48	82.19	7.9	33.43	8.2	24.4	1.25
I26	15 Jan 2015	6	16.48	81.05	7.9	33.43	8.2	24.4	1.38
I26	15 Jan 2015	7	16.47	80.27	7.9	33.43	8.2	24.4	1.51
I26	15 Jan 2015	8	16.46	78.65	8.0	33.43	8.2	24.4	1.49
I26	15 Jan 2015	9	16.46	75.78	8.1	33.43	8.2	24.4	1.58
I26	20 Jan 2015	1	16.71	71.49	8.0	33.45	8.2	24.4	1.74
I26	20 Jan 2015	2	16.60	71.56	8.1	33.44	8.2	24.4	2.00
I26	20 Jan 2015	3	16.48	71.47	8.1	33.43	8.2	24.4	2.21
I26	20 Jan 2015	4	16.41	72.05	8.1	33.43	8.2	24.4	2.13
I26	20 Jan 2015	5	16.40	75.38	8.0	33.44	8.2	24.5	2.08
I26	20 Jan 2015	6	16.36	77.69	8.0	33.44	8.2	24.5	2.11
I26	20 Jan 2015	7	16.33	78.90	7.9	33.44	8.2	24.5	2.10
I26	20 Jan 2015	8	16.31	77.77	7.8	33.43	8.2	24.5	1.98
I26	20 Jan 2015	9	16.31	73.93	7.8	33.43	8.2	24.5	1.83
I26	28 Jan 2015	1	16.25	72.03	7.2	33.50	8.2	24.5	0.64
I26	28 Jan 2015	2	16.15	71.93	7.0	33.50	8.2	24.6	0.68
I26	28 Jan 2015	3	16.10	71.39	6.9	33.49	8.2	24.6	0.66
I26	28 Jan 2015	4	16.14	70.71	7.1	33.45	8.2	24.5	0.81
I26	28 Jan 2015	5	16.08	70.32	7.3	33.52	8.2	24.6	1.41
I26	28 Jan 2015	6	16.02	68.23	7.5	33.51	8.2	24.6	1.44
I26	28 Jan 2015	7	15.99	66.21	7.4	33.49	8.2	24.6	1.47
I26	28 Jan 2015	8	15.99	65.34	7.4	33.48	8.2	24.6	1.52
I26	28 Jan 2015	9	15.99	63.76	7.2	33.48	8.2	24.6	1.54
I32	05 Jan 2015	1	15.83	83.74	8.1	33.45	8.2	24.6	1.04
I32	05 Jan 2015	2	15.73	83.25	8.1	33.44	8.2	24.6	1.46
I32	05 Jan 2015	3	15.59	79.98	8.2	33.45	8.2	24.6	2.01
I32	05 Jan 2015	4	15.58	78.83	8.3	33.44	8.2	24.6	2.42
I32	05 Jan 2015	5	15.55	77.56	8.3	33.44	8.2	24.6	3.06
I32	05 Jan 2015	6	15.53	75.22	8.4	33.44	8.2	24.7	3.70

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (µg/L)
I32	05 Jan 2015	7	15.44	73.51	8.5	33.44	8.2	24.7	4.54
I32	05 Jan 2015	8	15.31	71.32	8.6	33.44	8.2	24.7	5.08
I32	05 Jan 2015	9	15.27	70.57	8.5	33.44	8.2	24.7	4.79
I32	10 Jan 2015	1	16.29	75.09	8.6	33.42	8.3	24.5	3.67
I32	10 Jan 2015	2	16.24	76.27	8.6	33.42	8.3	24.5	3.63
I32	10 Jan 2015	3	16.19	76.67	8.6	33.42	8.3	24.5	4.20
I32	10 Jan 2015	4	16.13	77.13	8.6	33.42	8.3	24.5	4.95
I32	10 Jan 2015	5	16.09	76.71	8.6	33.43	8.3	24.5	4.81
I32	10 Jan 2015	6	16.08	75.44	8.5	33.43	8.2	24.5	4.54
I32	10 Jan 2015	7	16.07	75.09	8.5	33.43	8.2	24.5	4.73
I32	10 Jan 2015	8	16.04	75.19	8.4	33.43	8.2	24.5	5.01
I32	10 Jan 2015	9	16.02	75.01	8.3	33.43	8.2	24.5	4.83
I32	10 Jan 2015	10	16.02	74.74	8.2	33.43	8.2	24.5	4.63
I32	15 Jan 2015	1	16.55	73.93	7.9	33.44	8.2	24.4	1.01
I32	15 Jan 2015	2	16.56	76.66	7.9	33.44	8.2	24.4	1.05
I32	15 Jan 2015	3	16.55	77.24	7.9	33.44	8.2	24.4	1.25
I32	15 Jan 2015	4	16.53	77.28	7.8	33.44	8.2	24.4	1.72
I32	15 Jan 2015	5	16.53	75.39	7.8	33.43	8.2	24.4	1.93
I32	15 Jan 2015	6	16.53	75.18	7.8	33.43	8.2	24.4	2.11
I32	15 Jan 2015	7	16.53	75.21	7.8	33.43	8.2	24.4	2.15
I32	15 Jan 2015	8	16.52	73.43	7.8	33.43	8.2	24.4	2.16
I32	15 Jan 2015	9	16.51	66.46	7.8	33.43	8.2	24.4	2.18
I32	15 Jan 2015	10	16.51	61.33	7.8	33.43	8.2	24.4	2.30
I32	20 Jan 2015	1	16.61	66.64	8.0	33.46	8.2	24.4	1.12
I32	20 Jan 2015	2	16.58	66.67	8.0	33.46	8.2	24.4	1.31
I32	20 Jan 2015	3	16.56	65.52	8.0	33.46	8.2	24.4	1.63
I32	20 Jan 2015	4	16.54	64.73	8.0	33.46	8.2	24.4	2.05
I32	20 Jan 2015	5	16.51	63.92	7.9	33.46	8.2	24.4	2.39
I32	20 Jan 2015	6	16.47	61.61	7.9	33.45	8.2	24.5	2.60
I32	20 Jan 2015	7	16.45	58.44	7.9	33.46	8.2	24.5	2.66
I32	20 Jan 2015	8	16.44	56.36	7.8	33.45	8.2	24.5	2.68
I32	20 Jan 2015	9	16.39	54.14	7.8	33.45	8.2	24.5	2.86
I32	20 Jan 2015	10	16.34	53.20	7.7	33.45	8.2	24.5	3.12
I32	28 Jan 2015	1	16.35	67.55	7.8	33.45	8.2	24.5	1.39
I32	28 Jan 2015	2	16.35	67.21	7.8	33.45	8.2	24.5	1.56
I32	28 Jan 2015	3	16.28	67.21	7.8	33.45	8.2	24.5	2.14
I32	28 Jan 2015	4	16.06	66.02	7.8	33.45	8.2	24.5	2.65
I32	28 Jan 2015	5	15.95	60.03	7.6	33.45	8.2	24.6	2.72
I32	28 Jan 2015	6	15.91	56.96	7.6	33.45	8.2	24.6	2.81
I32	28 Jan 2015	7	15.91	57.21	7.6	33.46	8.2	24.6	2.89
I32	28 Jan 2015	8	15.91	57.22	7.7	33.46	8.2	24.6	2.92
I32	28 Jan 2015	9	15.91	57.04	7.8	33.46	8.2	24.6	2.88
I32	28 Jan 2015	10	15.92	56.31	7.7	33.46	8.2	24.6	2.83
I39	05 Jan 2015	1	15.86	85.40	7.9	33.45	8.1	24.6	0.72
I39	05 Jan 2015	2	15.83	85.34	7.9	33.44	8.1	24.6	0.78
I39	05 Jan 2015	3	15.81	85.25	7.9	33.45	8.1	24.6	0.83
I39	05 Jan 2015	4	15.79	85.13	7.9	33.44	8.1	24.6	0.93
I39	05 Jan 2015	5	15.75	84.71	7.9	33.44	8.2	24.6	1.09
I39	05 Jan 2015	6	15.73	84.30	7.9	33.45	8.1	24.6	1.33
I39	05 Jan 2015	7	15.72	84.06	7.8	33.45	8.1	24.6	1.48

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I39	05 Jan 2015	8	15.71	83.88	7.8	33.45	8.2	24.6	1.52
I39	05 Jan 2015	9	15.70	83.40	7.8	33.45	8.2	24.6	1.69
I39	05 Jan 2015	10	15.69	83.25	7.8	33.45	8.1	24.6	1.78
I39	05 Jan 2015	11	15.69	83.34	7.8	33.45	8.1	24.6	1.86
I39	05 Jan 2015	12	15.68	83.47	7.8	33.45	8.2	24.6	1.89
I39	05 Jan 2015	13	15.68	83.43	7.8	33.45	8.2	24.6	2.02
I39	05 Jan 2015	14	15.68	83.35	7.9	33.45	8.2	24.6	1.93
I39	05 Jan 2015	15	15.68	83.46	7.9	33.45	8.2	24.6	1.95
I39	05 Jan 2015	16	15.68	83.42	7.8	33.45	8.1	24.6	2.06
I39	05 Jan 2015	17	15.68	83.33	7.8	33.45	8.1	24.6	2.00
I39	05 Jan 2015	18	15.68	83.42	7.8	33.45	8.1	24.6	2.00
I39	10 Jan 2015	1	16.39	80.08	8.0	33.41	8.2	24.4	0.97
I39	10 Jan 2015	2	16.27	79.68	8.0	33.43	8.2	24.5	1.09
I39	10 Jan 2015	3	16.22	78.98	8.0	33.42	8.2	24.5	1.45
I39	10 Jan 2015	4	16.16	78.38	8.0	33.43	8.2	24.5	2.00
I39	10 Jan 2015	5	16.15	78.17	8.0	33.43	8.2	24.5	2.48
I39	10 Jan 2015	6	16.13	77.69	8.0	33.43	8.2	24.5	3.14
I39	10 Jan 2015	7	16.12	77.36	8.0	33.43	8.2	24.5	3.25
I39	10 Jan 2015	8	16.11	77.05	8.0	33.43	8.2	24.5	3.08
I39	10 Jan 2015	9	16.11	76.50	8.0	33.43	8.2	24.5	3.22
I39	10 Jan 2015	10	16.11	76.23	7.9	33.43	8.2	24.5	3.11
I39	10 Jan 2015	11	16.11	76.10	7.9	33.43	8.2	24.5	3.06
I39	10 Jan 2015	12	16.10	76.01	7.9	33.43	8.2	24.5	2.80
I39	10 Jan 2015	13	16.10	75.81	7.9	33.43	8.2	24.5	2.75
I39	10 Jan 2015	14	16.10	75.44	7.8	33.43	8.2	24.5	2.69
I39	10 Jan 2015	15	16.10	74.91	7.8	33.43	8.2	24.5	2.83
I39	10 Jan 2015	16	16.10	74.11	7.9	33.43	8.2	24.5	2.72
I39	10 Jan 2015	17	16.10	73.67	7.8	33.43	8.2	24.5	2.64
I39	10 Jan 2015	18	16.10	73.33	7.8	33.42	8.2	24.5	2.50
I39	10 Jan 2015	19	16.09	72.86	7.8	33.43	8.2	24.5	2.62
I39	15 Jan 2015	1	16.61	84.65	7.8	33.43	8.2	24.4	0.61
I39	15 Jan 2015	2	16.60	85.85	7.8	33.43	8.2	24.4	0.61
I39	15 Jan 2015	3	16.59	86.36	7.8	33.43	8.2	24.4	0.64
I39	15 Jan 2015	4	16.58	86.43	7.8	33.43	8.2	24.4	0.75
I39	15 Jan 2015	5	16.52	86.37	7.8	33.43	8.2	24.4	0.87
I39	15 Jan 2015	6	16.51	85.99	7.8	33.43	8.2	24.4	0.98
I39	15 Jan 2015	7	16.50	85.78	7.8	33.43	8.2	24.4	1.13
I39	15 Jan 2015	8	16.50	85.59	7.7	33.43	8.2	24.4	1.25
I39	15 Jan 2015	9	16.49	85.54	7.7	33.43	8.2	24.4	1.38
I39	15 Jan 2015	10	16.47	85.61	7.6	33.43	8.2	24.4	1.49
I39	15 Jan 2015	11	16.45	85.23	7.6	33.43	8.2	24.4	1.51
I39	15 Jan 2015	12	16.42	84.46	7.5	33.43	8.2	24.4	1.67
I39	15 Jan 2015	13	16.40	83.65	7.5	33.43	8.2	24.4	1.72
I39	15 Jan 2015	14	16.36	83.13	7.4	33.43	8.2	24.5	1.63
I39	15 Jan 2015	15	16.29	82.90	7.3	33.43	8.2	24.5	1.63
I39	15 Jan 2015	16	16.15	80.17	7.2	33.43	8.2	24.5	1.78
I39	15 Jan 2015	17	16.12	76.46	7.2	33.43	8.2	24.5	1.93
I39	15 Jan 2015	18	16.13	73.87	7.2	33.43	8.2	24.5	2.02
I39	20 Jan 2015	1	16.45	79.74	8.0	33.44	8.2	24.4	1.27
I39	20 Jan 2015	2	16.44	79.59	8.0	33.44	8.2	24.4	1.34
I39	20 Jan 2015	3	16.41	79.60	8.0	33.44	8.2	24.5	1.45
I39	20 Jan 2015	4	16.40	80.07	8.0	33.44	8.2	24.5	1.56

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I39	20 Jan 2015	5	16.39	80.28	8.0	33.44	8.2	24.5	1.66
I39	20 Jan 2015	6	16.37	80.51	8.0	33.43	8.2	24.5	1.68
I39	20 Jan 2015	7	16.34	80.94	8.0	33.43	8.2	24.5	1.71
I39	20 Jan 2015	8	16.33	82.13	8.0	33.43	8.2	24.5	1.74
I39	20 Jan 2015	9	16.32	83.06	8.0	33.43	8.2	24.5	1.76
I39	20 Jan 2015	10	16.31	83.47	8.0	33.43	8.2	24.5	1.91
I39	20 Jan 2015	11	16.30	84.16	8.0	33.43	8.2	24.5	1.89
I39	20 Jan 2015	12	16.29	84.61	8.0	33.43	8.2	24.5	1.87
I39	20 Jan 2015	13	16.28	84.58	8.0	33.43	8.2	24.5	1.82
I39	20 Jan 2015	14	16.27	84.48	7.9	33.43	8.2	24.5	1.84
I39	20 Jan 2015	15	16.26	84.34	7.8	33.43	8.2	24.5	1.79
I39	20 Jan 2015	16	16.24	83.99	7.8	33.43	8.2	24.5	1.73
I39	20 Jan 2015	17	16.23	82.26	7.7	33.43	8.2	24.5	1.67
I39	20 Jan 2015	18	16.22	80.19	7.6	33.43	8.2	24.5	1.62
I39	20 Jan 2015	19	16.21	78.47	7.6	33.43	8.2	24.5	1.54
I39	20 Jan 2015	20	16.21	74.44	7.5	33.43	8.2	24.5	1.53
I39	28 Jan 2015	1	16.33	89.93	7.8	33.41	8.3	24.4	0.53
I39	28 Jan 2015	2	16.29	89.85	7.8	33.41	8.3	24.5	0.59
I39	28 Jan 2015	3	16.12	89.57	7.8	33.41	8.2	24.5	0.74
I39	28 Jan 2015	4	16.06	88.13	7.7	33.42	8.2	24.5	0.88
I39	28 Jan 2015	5	15.98	86.69	7.6	33.41	8.2	24.5	0.99
I39	28 Jan 2015	6	15.94	85.28	7.5	33.42	8.2	24.5	1.11
I39	28 Jan 2015	7	15.91	83.57	7.4	33.42	8.2	24.6	1.24
I39	28 Jan 2015	8	15.87	82.25	7.4	33.42	8.2	24.6	1.33
I39	28 Jan 2015	9	15.83	81.89	7.4	33.42	8.2	24.6	1.45
I39	28 Jan 2015	10	15.81	81.64	7.3	33.42	8.2	24.6	1.65
I39	28 Jan 2015	11	15.80	80.99	7.2	33.42	8.2	24.6	1.69
I39	28 Jan 2015	12	15.73	79.35	7.2	33.41	8.2	24.6	1.65
I39	28 Jan 2015	13	15.65	75.64	7.1	33.41	8.2	24.6	1.60
I39	28 Jan 2015	14	15.63	73.11	7.1	33.40	8.2	24.6	1.53
I39	28 Jan 2015	15	15.61	72.20	7.0	33.41	8.2	24.6	1.51
I39	28 Jan 2015	16	15.61	71.84	7.0	33.41	8.2	24.6	1.59
I39	28 Jan 2015	17	15.61	69.65	6.8	33.41	8.2	24.6	1.62
I39	28 Jan 2015	18	15.61	62.33	6.7	33.41	8.2	24.6	1.72
I40	05 Jan 2015	1	15.73	68.15	8.3	33.13	8.2	24.4	1.43
I40	05 Jan 2015	2	15.60	72.11	8.4	33.30	8.2	24.5	2.11
I40	05 Jan 2015	3	15.47	77.91	8.4	33.36	8.2	24.6	2.45
I40	05 Jan 2015	4	15.45	77.99	8.4	33.36	8.2	24.6	2.69
I40	05 Jan 2015	5	15.32	76.18	8.5	33.37	8.2	24.6	2.85
I40	05 Jan 2015	6	15.29	75.20	8.5	33.39	8.2	24.7	2.97
I40	05 Jan 2015	7	15.28	75.00	8.5	33.39	8.2	24.7	2.99
I40	05 Jan 2015	8	15.28	74.65	8.5	33.39	8.2	24.7	3.00
I40	05 Jan 2015	9	15.28	74.69	8.5	33.39	8.2	24.7	2.96
I40	05 Jan 2015	10	15.28	74.11	8.5	33.39	8.2	24.7	2.88
I40	10 Jan 2015	1	16.75	75.39	8.2	33.41	8.2	24.4	1.82
I40	10 Jan 2015	2	16.52	75.61	8.2	33.42	8.2	24.4	2.06
I40	10 Jan 2015	3	16.43	75.56	8.2	33.42	8.2	24.4	2.76
I40	10 Jan 2015	4	16.40	72.98	8.3	33.42	8.2	24.4	3.21
I40	10 Jan 2015	5	16.35	72.58	8.3	33.42	8.2	24.5	4.21
I40	10 Jan 2015	6	16.33	72.53	8.3	33.42	8.2	24.5	4.42
I40	10 Jan 2015	7	16.30	71.82	8.2	33.42	8.2	24.5	4.27
I40	10 Jan 2015	8	16.27	72.06	8.2	33.42	8.2	24.5	4.39

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I40	10 Jan 2015	9	16.25	71.85	8.1	33.42	8.2	24.5	4.41
I40	10 Jan 2015	10	16.24	71.24	8.1	33.42	8.2	24.5	4.21
I40	15 Jan 2015	1	16.47	71.62	7.8	33.36	8.2	24.4	1.22
I40	15 Jan 2015	2	16.46	71.49	7.8	33.35	8.2	24.4	1.37
I40	15 Jan 2015	3	16.43	71.54	7.8	33.36	8.2	24.4	1.66
I40	15 Jan 2015	4	16.35	71.89	8.0	33.41	8.2	24.4	1.95
I40	15 Jan 2015	5	16.32	73.29	8.0	33.42	8.2	24.5	2.21
I40	15 Jan 2015	6	16.29	74.59	8.0	33.42	8.2	24.5	2.63
I40	15 Jan 2015	7	16.24	73.61	7.9	33.42	8.2	24.5	3.16
I40	15 Jan 2015	8	16.23	69.47	7.8	33.42	8.2	24.5	3.45
I40	15 Jan 2015	9	16.21	63.63	7.8	33.42	8.2	24.5	3.84
I40	15 Jan 2015	10	16.22	61.32	7.7	33.42	8.2	24.5	3.99
I40	20 Jan 2015	1	16.65	62.89	7.8	33.46	8.2	24.4	1.62
I40	20 Jan 2015	2	16.63	62.88	7.9	33.45	8.2	24.4	1.85
I40	20 Jan 2015	3	16.58	62.82	7.9	33.45	8.2	24.4	2.23
I40	20 Jan 2015	4	16.55	61.17	7.9	33.45	8.2	24.4	2.49
I40	20 Jan 2015	5	16.54	60.49	8.0	33.45	8.2	24.4	2.61
I40	20 Jan 2015	6	16.53	59.41	8.0	33.45	8.2	24.4	2.60
I40	20 Jan 2015	7	16.53	59.20	8.0	33.45	8.2	24.4	2.56
I40	20 Jan 2015	8	16.53	59.57	8.0	33.45	8.2	24.4	2.47
I40	20 Jan 2015	9	16.52	59.52	7.9	33.45	8.2	24.4	2.44
I40	20 Jan 2015	10	16.50	59.43	7.9	33.45	8.2	24.4	2.52
I40	28 Jan 2015	1	16.23	50.85	7.3	33.48	8.2	24.5	0.64
I40	28 Jan 2015	2	16.16	54.34	7.2	33.51	8.2	24.6	0.64
I40	28 Jan 2015	3	16.11	54.26	7.0	33.51	8.2	24.6	0.72
I40	28 Jan 2015	4	16.06	53.65	7.0	33.52	8.2	24.6	0.79
I40	28 Jan 2015	5	16.03	53.30	7.6	33.53	8.2	24.6	1.07
I40	28 Jan 2015	6	15.98	53.30	7.7	33.53	8.2	24.6	1.56
I40	28 Jan 2015	7	15.92	53.22	7.5	33.51	8.2	24.6	1.53
I40	28 Jan 2015	8	15.90	54.63	7.6	33.50	8.2	24.6	1.65
I40	28 Jan 2015	9	15.90	54.47	7.7	33.50	8.2	24.6	2.02
I40	28 Jan 2015	10	15.88	53.39	7.6	33.50	8.2	24.6	2.32

This page intentionally left blank

APPENDIX A
QUALITY ASSURANCE

Table A.1

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

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Enter
I19	05 Jan 2015	6	SR	LAB DUPLICATE	120e	ns	8e
I19	05 Jan 2015	6	ZV	LAB DUPLICATE	ns	20e	ns
I19	10 Jan 2015	6	ZV	LAB DUPLICATE	40e	22e	4e
I19	15 Jan 2015	6	SR	LAB DUPLICATE	<200	30e	<2
I19	20 Jan 2015	6	JLT	LAB DUPLICATE	40e	18e	24e
I19	28 Jan 2015	6	ZV	LAB DUPLICATE	<2	<2	<2
I40	10 Jan 2015	6	JT	LAB DUPLICATE	2e	<2	2e
I40	15 Jan 2015	6	SR	LAB DUPLICATE	560	100	22e
I40	20 Jan 2015	6	JLT	LAB DUPLICATE	4e	<2	2e
I40	28 Jan 2015	6	ZV	LAB DUPLICATE	2e	2e	<2
S12	06 Jan 2015		LMA	FIELD DUPLICATE	<2	<2	2e
S12	06 Jan 2015		LMA	LAB DUPLICATE	<2	<2	<2
S12	13 Jan 2015		JLT	FIELD DUPLICATE	<20	<2	<2
S12	13 Jan 2015		JLT	LAB DUPLICATE	<20	<2	<2
S12	20 Jan 2015		LMA	FIELD DUPLICATE	60e	10e	100
S12	20 Jan 2015		LMA	LAB DUPLICATE	40e	30e	82
S12	27 Jan 2015		LMA	FIELD DUPLICATE	8e	<2	<2
S12	27 Jan 2015		LMA	LAB DUPLICATE	2e	<2	<2

ns = not sampled

This page intentionally left blank