

**FINAL**  
**2020 SHELTER ISLAND YACHT BASIN**  
**DISSOLVED COPPER TOTAL MAXIMUM DAILY LOAD**  
**MONITORING AND PROGRESS REPORT**



**Submitted to:**  
**California Regional Water Quality Control Board**  
**San Diego Region**

**Prepared by:**



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**Prepared for:**



**Port of San Diego**

**March 2021**

**Wood Project No. 2015100105**

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March 29, 2021

California Regional Water Quality Control  
Board San Diego Region  
2375 Northside Drive,  
Suite 100 San Diego, CA  
92108-2700  
Attn: Mr. Wayne Chiu

Subject: Submittal of the 2020 Shelter Island Yacht Basin Total Maximum  
Daily Load Monitoring and Progress Report

Dear Mr. Chiu,

Please find enclosed a digital copy of the 2020 Shelter Island Yacht Basin Total Maximum Daily Load Monitoring and Progress Report. This digital submittal assists in adhering to safe practices during the COVID-19 pandemic. If you would like a hard copy, please do not hesitate to request one.

Following submission of this report, the Port and the Shelter Island Yacht Basin stakeholders would like to meet with you and go over the report, address any of your questions, and continue discussions about the final compliance expectations for the TMDL.

I will be following up shortly to schedule a meeting at your convenience.

Please feel free to contact me at (619) 725-6073 if you have any questions on the information provided above.

Respectfully,

A handwritten signature in blue ink, appearing to read "Karen Holman", with a large, stylized loop at the end.

Karen Holman  
Director, Environmental Protection  
San Diego Unified Port District

Attachments: 2020 Shelter Island Yacht Basin Total Maximum Daily Load Monitoring and  
Progress Report

cc: Jason H. Giffen  
John Carter

KH/KT/aa

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**March 2021**

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.

A handwritten signature in blue ink, appearing to read 'Karen Holman', with a large, stylized loop at the end.

Karen Holman  
Director, Environmental Protection  
San Diego Unified Port District

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## ACRONYMS AND ABBREVIATIONS

303(d) list	Clean Water Act Section 303(d) list of water quality impaired segments
AB	Assembly Bill
AFP	antifoulant paint
ASTM	ASTM International
Basin Plan	Water Quality Control Plan for the San Diego Basin – Region 9
BMP	best management practice
CCC	criterion continuous concentration
CCR	California Code of Regulations
CMANC	California Marine Affairs and Navigation Conference
CMC	criterion maximum concentration
COC	chain-of-custody
CTD	conductivity, temperature, and depth
CTR	California Toxics Rule
CWA	Clean Water Act
DO	dissolved oxygen
DOC	dissolved organic carbon
DPR	California Department of Pesticide Regulation
DPR Rule	Section 6190 of Title 3, California Code of Regulations
EC <sub>50</sub>	median effective concentration
ELAP	California Environmental Laboratory Accreditation Program
ER	equipment rinsate
FAQ	frequently asked question
FB	field blank
HCl	hydrochloric acid
HPD	Harbor Police dock
Investigative Order	Investigative Order No. R9-2011-0036
JRMP	Jurisdictional Runoff Management Plan
LC <sub>50</sub>	median lethal concentration
LCS	laboratory control sample
LID	low-impact development
LIMS	Laboratory Information Management System
MAR	marine habitat beneficial use
MIACC	Marina Inter-Agency Coordinating Committee
Monitoring Plan	SIYB Dissolved Copper TMDL Monitoring Plan
MS	matrix spike
MS4	Municipal Separate Storm Sewer System
MSD	matrix spike duplicate
N/A	not applicable
Named TMDL Parties	the parties named in the TMDL, namely the Port, marinas and yacht clubs, hull cleaners, boaters, and the City of San Diego
ND	non-detect
NOEC	no observed effect concentration
OAL	Office of Administrative Law
PDF	Portable Data Format
pH	hydrogen ion concentration
PMSD	percent minimum significant difference
Port	San Diego Unified Port District
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
REF	reference
Regional Board	San Diego Regional Water Quality Control Board
SB	Senate Bill

## ACRONYMS AND ABBREVIATIONS (continued)

SBE	Sea-Bird Electronics
SIML	Shelter Island Master Leaseholders
SIYB	Shelter Island Yacht Basin
SM	Standard Method
SOP	standard operating procedure
SPAWAR	Space and Naval Warfare Systems Command
SUSMP	Standard Urban Stormwater Mitigation Plan
SWAMP	Surface Water Ambient Monitoring Program
SWQMP	Stormwater Quality Management Plan
SWRCB	State Water Resources Control Board
TIE	toxicity identification evaluation
TMDL	Total Maximum Daily Load
TOC	total organic carbon
TSS	total suspended solids
TST	test of significant toxicity
USEPA	United States Environmental Protection Agency
Weck	Weck Laboratories, Inc.
WER	Water-Effect Ratio
Weston	Weston Solutions, Inc.
WILD	wildlife habitat beneficial use
Wood	Wood Environment & Infrastructure Solutions, Inc.
WQO	water quality objective
YSI	YSI Incorporated

## UNITS OF MEASURE

~	approximately
%	percent
±	plus or minus
°C	degree(s) Celsius
<	less than
>	greater than
≤	less than or equal to
≥	greater than or equal to
µg/cm <sup>2</sup> /day	microgram(s) per square centimeter per day
µg/L	microgram(s) per liter
µm	micrometer(s)
µS/cm	microSiemens per centimeter
kg/yr	kilogram(s) per year
m <sup>2</sup>	square meter(s)
mg/L	milligram(s) per liter
mL	milliliter(s)
ppt	part(s) per thousand

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## **EXECUTIVE SUMMARY**

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This report is the annual Shelter Island Yacht Basin (SIYB) Dissolved Copper Total Maximum Daily Load (TMDL) Monitoring and Progress Report for 2020, which has been prepared by the San Diego Unified Port District (Port) in compliance with Investigative Order No. R9-2011-0036 (Investigative Order), issued to the Port by the San Diego Regional Water Quality Control Board (Regional Board) on March 11, 2011. The report includes information on the following:

1. Best management practice (BMP) planning and implementation conducted by the Port. The report also includes information provided by the SIYB marinas and yacht clubs related to their BMP efforts.
2. The progress on the number of vessels that have converted from using copper-based hull antifoulant paints (AFPs) to using alternative AFPs (low- and non-copper based). It should be noted that this effort relies primarily on third-party data provided by the SIYB marinas and yacht clubs' annual vessel tracking census.
3. Water quality monitoring conducted by the Port to assess dissolved copper concentrations and toxicity in the water column.
4. An assessment of the trajectories of dissolved copper load and water quality measurements to evaluate progress toward attaining the TMDL compliance requirement and water quality objectives (WQOs).

The 2020 monitoring period is the third year in the final phase of the TMDL compliance period. Per the TMDL implementation, the continuation of a 40 percent (%) load reduction is required. Looking ahead, a 76% load reduction is required to meet TMDL compliance by the end of 2022. Per the requirements of the Investigative Order, the SIYB TMDL Monitoring Plan (Wood Environment & Infrastructure Solutions, Inc. [Wood], 2020a) describes the monitoring program that is used to track the progress of implementing the SIYB Dissolved Copper TMDL and achieving the required dissolved copper load reductions.

This 2020 Monitoring and Progress Report follows the approach described in the most recent Monitoring Plan. It presents BMP implementation in SIYB and San Diego Bay, vessel conversions to low-copper paints and non-copper alternatives, and water quality monitoring results, as required by the Investigative Order.

This report is an annual requirement of the Investigative Order that was issued to the Port. The assessments of BMP implementation, loading, and water quality follow the Port's SIYB TMDL Monitoring Plan prepared in compliance with the Investigative Order. It should be noted that the Port works collaboratively with the marinas and yacht clubs to receive and review the vessel hull paint data used to assess dissolved copper load reductions and evaluate progress toward attaining the final TMDL load reduction requirement. While the vessel data collection is a collaborative effort, the findings, data interpretations, and conclusions made in this report are those of the Port, and are not intended to represent all TMDL parties. Other TMDL parties may identify alternative data interpretations as it relates to data included in the report or other data that were collected separate from this Investigative Order effort. In such instances, the other TMDL Parties may choose to independently provide alternative data interpretations and conclusions to the Regional Board.

## Best Management Practice Implementation

A variety of BMPs intended to reduce dissolved copper loading and improve water quality have been implemented in SIYB and throughout San Diego Bay. A summary of the highlights from 2020 is included below and further detailed in Section 3.1 of this report.

- Continuing to keep all Port vessels copper-free by painting with non-copper hull paints, which contribute no load to SIYB
- Continuing to implement, inspect, and enforce the In-Water Hull Cleaning Permit requirements and BMP implementation during hull cleaning events
- Formation of a working group between the Port and SIYB marina and yacht club tenants to ensure close coordination on management strategies aimed at both meeting TMDL compliance and preserving, protecting, and enhancing water quality in SIYB and San Diego Bay
- Ongoing education and outreach efforts, such as regular meetings with stakeholders and up-to-date web content, workshops, and invited speaker presentations
- Pursuing alternative methods for copper reduction and removal in marine waters through the Port's Blue Economy Incubator, which supports research and development of pilot projects aimed at solving environmental issues (e.g., Rentunder Boatwash Pilot Project)
- Collaborating with the California Department of Pesticide Regulation (DPR) and Los Angeles County Department of Beaches and Harbors to stay engaged on state and regional copper-related initiatives, TMDL issues and progress

## Vessel Conversions and Reduction of Dissolved Copper

Based on the vessel tracking assumptions discussed in Section 2.2.3 of this report, the transition of a vessel from a high-copper to non-copper hull paint was assumed to reduce annual loading by 0.9 kilogram per year (kg/yr) and the transition to DPR Category I or low-copper hull paints was assumed to reduce loading by 50% (i.e., 0.45 kg/yr). Vessel tracking indicates that, in 2020, there has been a reduction of 48.0% (approximately 1,008 kg/yr) in annual dissolved copper loading to SIYB from vessels when compared with the SIYB TMDL assumed baseline load of 2,100 kg/yr<sup>1</sup>.

The 2020 load reduction of 48.0% indicates the continued achievement of the required 40% load reduction. Notable points from the 2020 vessel tracking data are as follows:

- A 95% response rate was accomplished for the 2020 vessel tracking dataset. This response rate may be attributed to continual invested efforts by marina and yacht club representatives in vessel tracking from year to year.
- The vessel tracking data indicate continued transitions to DPR Category I paints since the implementation of the DPR Rule (an increase of 47% since 2018).
- Only 63 vacancies were observed in yacht clubs and marinas in 2020. This number represents the lowest number of vacancies reported since the monitoring program began.

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<sup>1</sup> The total dissolved copper load per the SIYB TMDL equals 2,100 kilograms per year (kg/yr) from vessel paints (the total includes contributions from passive leaching and in-water hull cleaning). The estimated load contributions from background sources, urban runoff, and atmospheric deposition are not included in this total.

## Water Quality Monitoring

Monitoring of water column dissolved copper and toxicity is required to track progress toward WQOs. In August 2020, water quality was sampled at six stations in SIYB and at two reference stations<sup>2</sup> (located adjacent to SIYB in the main San Diego Bay navigation channel) to determine dissolved copper concentrations in the basin, test for acute and chronic toxicity, and assess water quality trends.

Results from the August 2020 monitoring event showed that the basin-wide average dissolved copper level was 8.3 micrograms per liter ( $\mu\text{g/L}$ ), which was similar to the 2005–2008 baseline average (8.3  $\mu\text{g/L}$ ). Dissolved copper concentrations at five of the six SIYB sampling stations exceeded both the California Toxics Rule (CTR) criterion continuous concentration (CCC) WQO of 3.1  $\mu\text{g/L}$  and the CTR acute criterion maximum concentration (CMC) WQO of 4.8  $\mu\text{g/L}$ . These results are consistent with those observed in previous monitoring years.

The results from the 2020 monitoring program indicated that one station (SIYB-1, the station farthest inside the basin) had statistically significant effects on developing mussel larvae. This finding is consistent with results of previous studies. The Pacific topsmelt acute toxicity tests were performed twice for the 2020 SIYB TMDL Monitoring Program. The combined results of the initial and follow-up tests suggest that there did not appear to be an acute toxic response related to ambient water quality in SIYB in 2020.

## Adaptive Management through the Final TMDL Phase

Since the initiation of the TMDL monitoring program, multiple copper load reduction strategies have been developed and implemented. While these strategies have resulted in copper load reduction that has met TMDL interim compliance targets, annual water quality monitoring has not shown a corresponding decrease in water column dissolved copper levels. Given this disconnect, further efforts are needed to analyze existing and potential sources of copper and their relationship to water quality.

From an adaptive management standpoint, the water quality monitoring results to date indicate that further copper load reduction strategies should emphasize a direct relation to water quality improvement. Consequently, greater emphasis by all Named TMDL Parties needs to be focused on identifying additional load reduction strategies or other sources within their operations that will reduce copper loads and produce measurable improvements in water quality and movement toward the CTR CCC WQO (3.1  $\mu\text{g/L}$ ). Meeting the final TMDL compliance point is likely to require additional direct load reductions coupled with the load reduction efforts already in place (e.g., the 2018 DPR Rule and continued transition to non-copper alternatives), further understanding of sources and their load contributions, and a better understanding of how these efforts directly impact water quality. The Port continues to reassess copper loading attributed to in-water hull cleaning as one such strategy that needs to be further evaluated.

In addition, as continued transition to DPR Category I paints occurs, it will also be critical to understand the effect the transition has on water quality. It is important to note that the full hull paint transition and its effect on water quality is likely to extend beyond the TMDL timeline. It will

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<sup>2</sup> To supplement the TMDL compliance monitoring, a second reference station (SIYB-REF-2) was added to the sample locations for the 2020 monitoring program (further described in Section 2.3.1).

be important to observe this transition and incorporate adaptive management strategies reflective of such findings over time.

A suite of recommendations has been provided in this report to identify the implementation strategies the Port intends to undertake for the final years of the TMDL. It is expected that the other Named TMDL Parties will continue BMP implementation as required by the TMDL. The Port will continue to conduct outreach and engage with individual marinas and yacht clubs, hull cleaners, and boaters as well as with the Regional Board to continue progress on the TMDL and determine the best suite of actions for the final years of the TMDL.



## **1.0 INTRODUCTION**

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This report is the annual Shelter Island Yacht Basin (SIYB) Dissolved Copper Total Maximum Daily Load (TMDL) Monitoring and Progress Report for 2020, which has been prepared by the San Diego Unified Port District (Port) in compliance with Investigative Order No. R9-2011-0036 (Investigative Order), issued by the San Diego Regional Water Quality Control Board (Regional Board) to the Port on March 11, 2011 (Regional Board, 2011). The Investigative Order, issued under Section 13325 of the Porter-Cologne Water Quality Control Act, requires that the Port provide technical reports on the progress of implementation of the SIYB TMDL. To evaluate progress, the annual monitoring program is composed of three components: (1) best management practice (BMP) planning and implementation to reduce dissolved copper loading, (2) the tracking of vessel paint use to assess the number of vessel hulls converted from using copper-based antifoulant paints (AFPs) to using non-copper or low-copper alternatives, and (3) water quality monitoring to measure dissolved copper concentrations and toxicity in the water column. Data collected annually through the monitoring program is then used to assess trajectories of dissolved copper load and water quality measurements to evaluate progress toward attaining the TMDL and water quality objectives (WQOs).

The assessments of BMP implementation, loading, and water quality follow the Port's SIYB TMDL Monitoring Plan prepared in compliance with the Investigative Order. The Port works collaboratively with the marinas and yacht clubs to receive and review the vessel hull paint data used to assess dissolved copper load reductions and evaluate progress toward attaining the final TMDL load reduction requirement. The annual vessel tracking is conducted both by the Port and the SIYB marinas and yacht clubs. However, the SIYB marinas and yacht clubs' data are collected independently from the Port and provided to the Port for review and inclusion in the annual report. Data from the SIYB marinas and yacht clubs are included, as received, in the appendices of this report. The loading analyses provided in the report incorporates this third-party vessel hull paint data with other Port datasets using the methodology identified in the SIYB TMDL Monitoring Plan.

It should be noted that this report is an annual requirement of the Investigative Order that was issued to the Port. While the vessel data collection is a collaborative effort, the findings, data interpretations and conclusions made in this report are those of the Port, and are not intended to represent all TMDL parties. Other TMDL parties may identify alternative data interpretations as it relates to data included in the report or other data that were collected separate from this Investigative Order effort. In such instances, the other TMDL Parties may choose to independently provide alternative data interpretations and conclusions to the Regional Board.

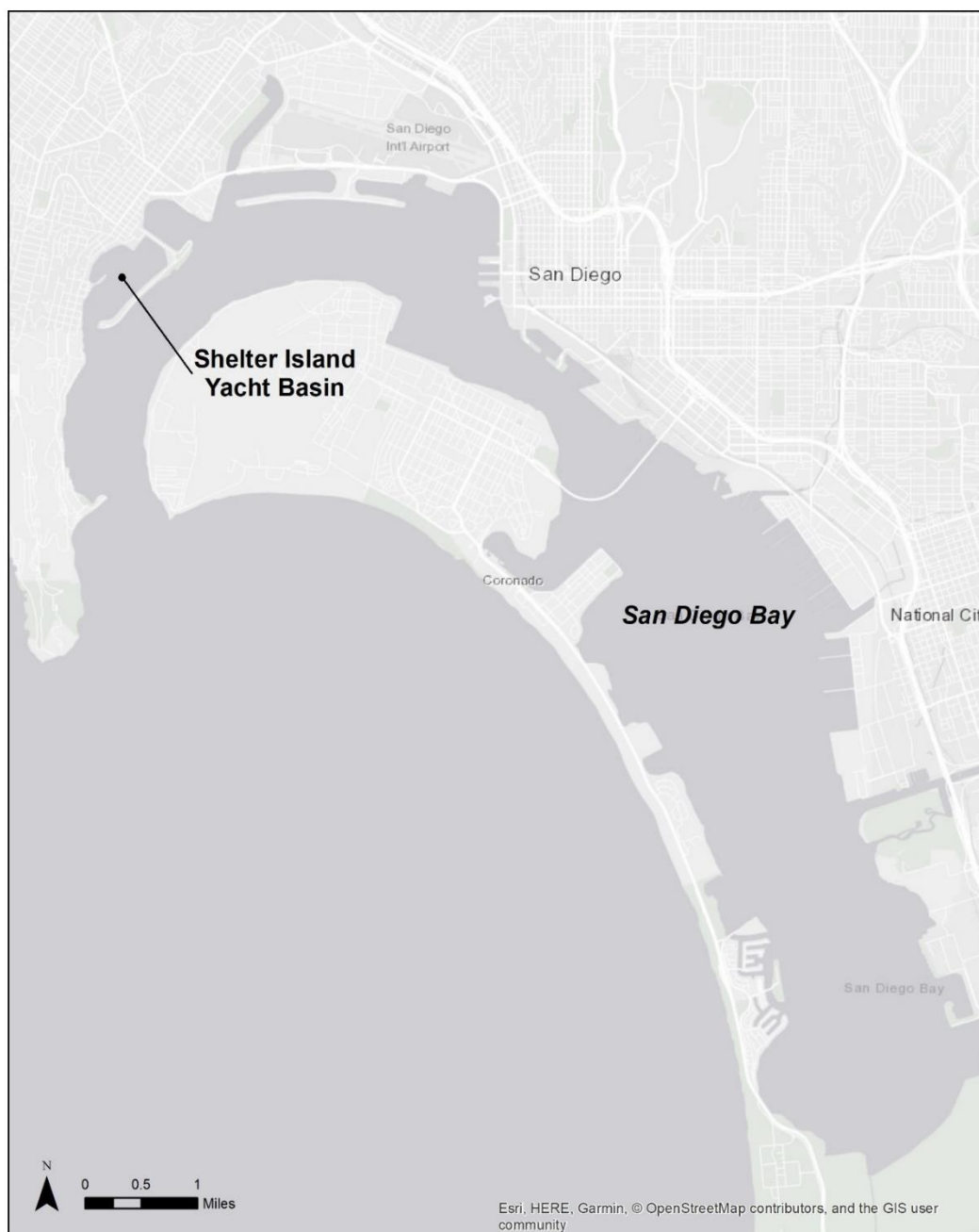
### **1.1 Background**

Shelter Island Yacht Basin is a recreational yacht basin near the mouth of San Diego Bay, California, and is composed of marinas and yacht clubs, an anchorage, a fuel dock, and other facilities that support recreational boating (Figure 1-1).

Copper is commonly used as a biocide in vessel AFPs because of its effectiveness in reducing fouling of vessel hulls. In the State of California, the Department of Pesticide Regulation (DPR) regulates the use of copper in vessel paints; it is currently legal to use copper-based paints that are registered with, and meet the DPR's registration requirements for pesticide usage. However, these paints leach copper into the water column. Copper is toxic not only to the targeted fouling

organisms on vessel hulls, but possibly also to other non-targeted organisms that inhabit the basin.

SIYB waters contain dissolved copper concentrations that have exceeded the dissolved copper numeric WQOs, as well as the toxicity and pesticides narrative WQOs, and may threaten and impair the wildlife habitat and marine habitat beneficial uses in the basin. Because of this exceedance, SIYB was placed on the list of impaired water bodies compiled pursuant to federal Clean Water Act (CWA) Section 303(d) (the 303(d) list). The SIYB TMDL was developed to address and resolve this impairment by requiring reductions to the loading of dissolved copper into SIYB waters.



**Figure 1-1. Location of Shelter Island Yacht Basin Within San Diego Bay**

## 1.2 SIYB TMDL Compliance Schedule

Under Resolution R9-2005-0019, the SIYB TMDL requires that the parties named in the TMDL, namely the Port, marinas and yacht clubs, hull cleaners, boaters, and the City of San Diego (Named TMDL Parties), reduce loading of dissolved copper into the water column by 76 percent (%), from 2,163 kilograms per year (kg/yr) to 567 kg/yr over a 17-year period (Regional Board, 2005). This period extends to 2022, based on the official SIYB TMDL approval date<sup>3</sup> of February 9, 2005. No reductions in dissolved copper loading were required during the initial two-year orientation period (2005–2007). The subsequent 15-year period requires incremental reductions of dissolved copper loading by 10% within 7 years (2012); by 40% within 12 years (2017); and by 76% within 17 years (2022) (Table 1-1).

**Table 1-1.  
Loading Targets for SIYB TMDL Attainment**

Stage	Time Period	% Reduction from SIYB TMDL Estimated Loading	Reduction to be Attained by End of Year	Estimated Target Loading (kg/yr of Dissolved Copper)
1	2005–2007	0	N/A	N/A
2	2008–2012	10 <sup>a</sup>	2012 (7 years)	1,900
3	2013–2017	40 <sup>b</sup>	2017 (12 years)	1,300
4	2018–2022	76	2022 (17 years)	567

Notes:

a. Loading calculations presented in the 2012 SIYB TMDL Monitoring and Progress Report showed that a 17% load reduction had been achieved. Compliance with the 2012 load reduction goal of 10% or greater was confirmed by the Regional Board in a letter to the Port dated July 26, 2013.

b. Loading calculations presented in the 2017 SIYB TMDL Monitoring and Progress Report showed that a 40% load reduction had been achieved. Compliance with the 2017 load reduction goal of 40% or greater was confirmed by the Regional Board October 10, 2018 Executive Officer's Report as part of the monthly Regional Board meeting.

% = percent; kg/yr = kilogram(s) per year; N/A = not applicable; SIYB = Shelter Island Yacht Basin; TMDL = Total Maximum Daily Load

For the first SIYB TMDL compliance year (2012), loading calculation estimates presented in the 2012 Monitoring Report (AMEC Environment & Infrastructure, Inc., 2013) indicated a 17% reduction in dissolved copper loading to SIYB, thus exceeding the 10% requirement. In a letter to the Port dated July 26, 2013, the Regional Board stated, *“Based on the data submitted and information provided in the Report [2012 SIYB TMDL Monitoring and Progress Report], the 10 percent reduction in dissolved copper loading required to demonstrate compliance with the SIYB TMDL by the December 1, 2012 compliance date was achieved”* (Regional Board, 2013). This letter is provided in Appendix E.

Similarly, loading calculation estimates presented in the 2017 Monitoring Report (Amec Foster Wheeler Environment & Infrastructure, Inc., 2018) indicated a 45% reduction in dissolved copper loading to SIYB, exceeding the 40% compliance requirement for the third stage of the SIYB TMDL (2017). In a letter to the Port dated September 11, 2018, the Regional Board stated, *“The Port District's 2017 Report marks the end of Stage 3 of the interim loading targets, and suggests that overall the Yacht Basin is meeting the 40 percent reduction target as a result of improved use of best management practices and vessel conversions to less toxic hull coatings”* (Regional Board,

<sup>3</sup> For a TMDL to be incorporated into the *Water Quality Control Plan for the San Diego Basin – Region 9* (Basin Plan; 1994), it must be approved by the Regional Board, State Water Resources Control Board (SWRCB), Office of Administrative Law (OAL), and United States Environmental Protection Agency (USEPA) Region 9. The official TMDL approval date is the OAL approval date.

2018). At the October 10, 2018 Regional Board Monthly Meeting, the Executive Officer's Report confirmed and memorialized that the SIYB TMDL efforts had successfully achieved the 2017 compliance requirement. The letter from the Regional Board and the October 2018 Executive Officer's Report are included in Appendix E.

The fourth and final stage of the TMDL began in 2018. The TMDL requires a 76% reduction in the loading of dissolved copper into SIYB by the end of 2022.

### 1.3 Sources of Dissolved Copper

Based on the Regional Board's source analysis, the total mass load of dissolved copper to SIYB was estimated to be 2,163 kg/yr, of which 98% of the inputs were attributable to passive leaching of copper from copper-based hull paints on vessels and to hull cleaning activities (Table 1-2). The TMDL identifies the Port, marinas and yacht clubs, hull cleaners, and boaters as responsible for reducing loads in their respective areas, operations, and activities. The total copper load from the SIYB TMDL equals 2,100 kg/yr from vessel paints. The estimated load reduction resulting from background, urban runoff, and atmospheric deposition (which equates to approximately 63 kg/yr) is not included in this total. This report evaluates the dissolved copper loading based on the vessel-related contribution, totaling 2,100 kg/yr, originating from the Harbor Police dock, transient dock, and weekend anchorage, as well as marinas and yacht clubs, where boats reside and hull cleaning activities occur.

**Table 1-2.**  
**Sources of Dissolved Copper per the SIYB TMDL**

Source	Estimated Mass Load to SIYB (kg/yr)	Contribution to SIYB (% Dissolved Copper)
Passive Leaching	2,000	93
Hull Cleaning	100	5
Urban Runoff	30	1
Background	30	1
Direct Atmospheric Deposition	3	<1
Sediment	0	0
Total	2,163	100

Notes:

< = less than; % = percent; kg/yr = kilogram(s) per year; SIYB = Shelter Island Yacht Basin

### 1.4 Water Quality Objective Criteria

The WQO for dissolved copper in SIYB is equal to the National Recommended Water Quality Criteria for Aquatic Life of the United States Environmental Protection Agency (USEPA) and the California Toxics Rule (CTR) water quality criteria for dissolved copper in marine environments (USEPA, 2000). Continuous or chronic exposures may not exceed 3.1 micrograms per liter (µg/L) over a 4-day average; acute exposures may not exceed 4.8 µg/L over a 1-hour average. In addition, numeric WQOs must not be exceeded more than once every three years.

In addition to numeric WQOs, the *Water Quality Control Plan for the San Diego Basin – Region 9* (Basin Plan) established narrative WQOs for toxicity and pesticides (Regional Board, 1994) as follows:

**Toxicity Objective** – *All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods as specified by the Regional Board.*

**Pesticide Objective** – *No individual pesticide or combination of pesticides shall be present in the water column, sediments or biota at concentration(s) that adversely affect beneficial uses. Pesticides shall not be present at levels which will bioaccumulate in aquatic organisms to levels which are harmful to human health, wildlife or aquatic organisms.*

Two beneficial uses within SIYB are threatened by elevated dissolved copper concentrations: marine habitat (MAR) and wildlife habitat (WILD). The Regional Board indicated that if numeric WQOs are met for dissolved copper, then narrative WQOs will also be considered to be met. However, because current numeric WQOs are not site-specific, direct assessments of toxicity, as well as SIYB biota, also directly indicate basin-wide attainment of beneficial uses and narrative WQOs.

## 1.5 Monitoring Purpose

The Investigative Order requires the Port to complete an annual evaluation, interpretation, and tabulation of vessel information, BMPs, and water quality sampling. Because of the proportional contribution of copper loading to SIYB from copper-based hull paints, tracking of vessel conversions from copper to non-copper or lower copper hull paints is the primary method used to assess compliance with SIYB TMDL load reduction targets. Water quality monitoring is required because it assesses long-term trends in the basin and provides comparisons with the numeric and narrative WQOs, as measured by surface water dissolved copper concentrations and toxicity. Monitoring is a necessary component to evaluate whether the trajectory of water quality measurements will meet WQOs. By conducting both vessel tracking and water quality monitoring on an annual basis, the program may eventually be able to evaluate the relationship between load reductions and water quality. Additionally, this approach will provide the data needed to assess the overall effectiveness of the SIYB TMDL implementation in attaining both loading reductions and numeric WQOs to protect the basin's MAR and WILD beneficial uses.

## 1.6 Revision of Monitoring Plan

The Monitoring Plan (Revision 6) (Wood Environment & Infrastructure Solutions, Inc. [Wood], 2020a) was updated for the 2020 monitoring year to reflect the 2020 monitoring period dates and to include safety measures enacted to address the COVID-19 pandemic. In addition, the following components were added to the TMDL water quality monitoring program to supplement compliance monitoring, as described further in Section 2.3:

- Addition of a second reference site (SIYB-REF-2) to the water quality monitoring locations
- Addition of a second water quality monitoring event to be conducted during the winter<sup>4</sup>

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<sup>4</sup> Results from the winter water quality monitoring event will be included in the 2021 annual monitoring and progress report.

## 1.7 Implementation of Best Management Practices

The Port has developed a comprehensive copper reduction program and is implementing BMPs to reduce copper loads at the Harbor Police dock, transient dock, and weekend anchorage, as well as supporting the other Named TMDL Parties with their load reduction and BMP implementation efforts in SIYB and throughout San Diego Bay. The five elements of this program are:

- Testing and research
- Transition to non-copper hull paints and DPR Category I paints (i.e., paints with leach rates less than or equal to ( $\leq$ ) 9.5 micrograms per square centimeter per day [ $\mu\text{g}/\text{cm}^2/\text{day}$ ])
- Policy development and legislation
- Education and outreach to boaters
- Monitoring and data assessment

The marinas and yacht clubs in SIYB also implement BMPs and compile vessel information from boat owners to assist in the preparation of this report.

Over the course of the SIYB TMDL program, multiple quality control measures have been integrated to build on previous knowledge and to help effectively implement the SIYB TMDL program.

Additional measures include:

- Meetings between the Port and other stakeholders in SIYB about the SIYB TMDL, including formation of a working group between the Port and SIYB marina and yacht club tenants in 2020 (further described in Section 1.8)
- Increased scrutiny of water quality data and analytical methods
- Ongoing reassessment of field sampling techniques, including additional oversight of field procedures
- Review of methods used to track the types of hull paints used on vessels in SIYB
- Updates and improvements to modeling of copper loads, including assessments of in-water hull cleaning

These measures have been implemented to collect relevant useful data and to enhance communication among the marinas and yacht clubs and other Named TMDL Parties. The intent of this iterative and collaborative process is to provide transparency and provide a known and scientifically defensible dataset to support the SIYB TMDL compliance requirements.

## 1.8 New Initiatives and Adaptive Management

The following new program initiatives were implemented or planned during the 2020 monitoring year:

1. Starting in 2020, a supplemental second reference station (SIYB-REF-2), located farther from the mouth of SIYB, was added as a sampling location, as described in Section 2.3.

The addition of a second reference station farther away from SIYB may provide a better understanding of the gradient of dissolved copper levels in San Diego Bay moving away from the mouth of SIYB, as well as a better understanding of the background conditions within San Diego Bay outside of SIYB. Chemistry results for the additional reference station are provided in Section 3.3.

2. In May 2020, a working group was formed between the Port and SIYB marina and yacht club tenants to ensure close coordination on management strategies that both meet TMDL compliance and preserve, protect, and enhance water quality in SIYB and San Diego Bay. The Regional Board began participating in working group meetings in December 2020.
3. The Port included a winter monitoring event in SIYB in the Monitoring Plan update (Revision 6) completed in 2020 (Wood, 2020a). This winter monitoring event was added to supplement the annual compliance monitoring, which occurs in the summer. Water quality monitoring was conducted using the same sampling and analysis methodologies as those employed for the summer compliance monitoring, as discussed in Section 2.3. The purpose of this winter monitoring event is to provide a better understanding of the seasonal variability of dissolved copper levels in SIYB and at the reference locations during a period of cooler water temperatures and lower frequency of hull cleaning and vessel usage relative to the summer months. Monitoring for this winter event was conducted in February 2021, and results will be included in the 2021 monitoring report.
4. The Port continued to evaluate the trajectories of dissolved copper loading and water quality in 2020. To date, there has been a disconnect between copper load reduction and water quality in SIYB. Despite the continued transition to low-copper alternative AFPs, the water quality has not demonstrated a correlated improvement. The Port has continued efforts to fill data gaps related to in-water hull cleaning to better understand the effects of in-water hull cleaning on water quality.

## **1.9 Content of Report**

This TMDL Monitoring and Progress Report for SIYB presents the monitoring results for 2020 and includes the following:

- BMP implementation, including those implemented by the Port in SIYB and throughout San Diego Bay, as well as those implemented by the Shelter Island Master Leaseholders (SIML) TMDL Group, marinas, and yacht clubs in SIYB
- Methods to assess, estimate, and reduce copper loads
- Evaluation, interpretation, and tabulation of data collected by the Port, marinas, and yacht clubs on vessel tracking and hull paint conversions
- Water quality monitoring data, including results from chemical and toxicological evaluations of surface water samples collected in August 2020
- Information regarding ongoing copper initiatives and other copper-related issues considered germane to the SIYB TMDL
- Discussion of the 2020 TMDL monitoring program findings
- A summary of the Port's recommendations related to its Copper Reduction Program



The report also includes several appendices with additional supporting information and data. Appendix A is the 2020 SIYB TMDL Monitoring Plan. Appendix B contains BMP plans for the Port, as well as marinas and yacht clubs. Appendix C includes vessel tracking data (including information for each available slip) for the entire SIYB. Appendix D contains the water quality monitoring results for the August 2020 sampling event, including field-collected data, the analytical chemistry report, and the toxicity testing report. Appendix E includes SIYB-related correspondence between the Port and other agencies, as well as other pertinent information.

## 2.0 METHODS

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This section describes in detail the BMP plans in place to reduce copper loads, methods used to estimate load reductions (e.g., vessel hull paint tracking), field program methods to assess dissolved copper levels in SIYB, and project-specific quality assurance (QA) and quality control (QC) procedures used during water quality monitoring and data analysis.

### 2.1 Implementation of Best Management Practices in SIYB and San Diego Bay

The Port has developed a copper reduction program and maintains a cumulative list of copper reduction BMPs implemented in support of the TMDL (Appendix B). In addition, the marinas and yacht clubs created specific BMP plans. Information is submitted annually to the Port that details the BMPs and actions that marinas and yacht clubs have implemented throughout the year to reduce dissolved copper loads to SIYB. The BMP plans are also provided in Appendix B.

The report in Appendix B also describes BMPs or other actions implemented by the Port to reduce dissolved copper discharges from vessel hulls into harbors or marinas bay-wide within San Diego Bay. In addition, as required by the IO, the Port reported the actions that were taken to reduce dissolved copper discharges to marinas beyond San Diego Bay, including actions with statewide or national applicability.

### 2.2 Dissolved Copper Load Analysis

This section describes the methods and procedures used to estimate dissolved copper loading into SIYB during the 2020 monitoring period, including vessel tracking methodologies and estimates of the contribution of dissolved copper into SIYB attributable to passive leaching and in-water hull cleaning.

#### 2.2.1 Tracking Hull Paint Use: DPR Product/Label Database

The DPR Rule (3 California Code of Regulations [CCR] section 6190) went into effect on July 1, 2018, establishing a maximum leach rate for copper antifouling paints that is protective of aquatic environments. Under this regulation, paint manufacturers are no longer allowed to import or sell copper-based paints with leach rates greater than 9.5  $\mu\text{g}/\text{cm}^2/\text{day}$  in the state of California. It should be noted that any existing stock could be sold until June 30, 2020.

Since the implementation of the DPR Rule in July 2018, many copper-based AFPs have been reformulated to meet maximum allowable copper leach rate requirements for AFP products registered in California for use on recreational vessels. To assist with vessel tracking efforts, the DPR California Product/Label Database Application<sup>5</sup> was used to determine whether copper-based AFP products are actively registered (i.e., DPR Category I paints with leach rates  $\leq 9.5 \mu\text{g}/\text{cm}^2/\text{day}$ ). This database identifies the registration status of AFP products, as well as relevant product information such as paint name, copper content, and USEPA registration number. Copper-based AFP products that exceed the maximum copper leach rate of

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<sup>5</sup> The DPR California Product/Label Database Application can be accessed at: <https://apps.cdpr.ca.gov/docs/label/labelque.cfm>

9.5 µg/cm<sup>2</sup>/day (i.e., non-Category I paints) can no longer be registered through the DPR and are classified as “Inactive” in the DPR Product/Label Database registration status.

In addition to copper-based AFPs, the DPR Product/Label Database was used to track other non-copper biocide AFPs (e.g., zinc, Irgarol, etc.) that are registered through the DPR. Non-biocide paints and products (which do not require registration through the DPR) were tracked using information obtained from the product manufacturers’ websites.

## 2.2.2 Vessel Tracking

Annual reduction of copper loading was assessed by tracking conversions of hull paints from copper to non-copper or lower copper products (i.e., either by leach rate or copper content) for vessels moored in SIYB. The annual vessel tracking is conducted both by the Port (for the Harbor Police dock, transient dock, and weekend anchorage) and the SIYB marinas and yacht clubs. SIYB marinas and yacht clubs’ data were collected independently from the Port and provided to the Port for review and inclusion in this report, as described below.

Yacht club and marina operators collect vessel data by surveying their boaters for vessel-related information listed in Table 2-1. A standard survey form has been made available to all marinas and yacht clubs in SIYB. An example of this survey form is in Appendix B.

**Table 2-1.**  
**Vessel Survey Data Collected in 2020**

Vessel Tracking Data Fields	
1.	Name of Marina or Yacht Club
2.	Slip/Mooring Reference Number
3.	Percentage of Time Occupied
4.	Vessel Type (power or sail)
5.	Vessel Length
6.	Vessel Beam Width
7.	Paint Type (Copper, DPR Category I, Low-copper, or Non-copper)
8.	Paint Product Name
9.	Paint Product Number
10.	Boatyard Name or Purchase Date
11.	Painting Date (month)
12.	Painting Date (year) <sup>a</sup>
13.	% Copper
14.	USEPA Registration Number (when applicable)

Notes:

a. Aged-copper paints are determined by the painting date. To be considered an aged paint for the 2020 survey, the vessel would have had to be painted on or prior to December 31, 2017.

% = percent; DPR = Department of Pesticide Regulation; USEPA = United States Environmental Protection Agency

If no response was initially received or if the vessel tracking survey form lacked pertinent information, yacht clubs and marina operators made follow-up efforts to obtain missing or incomplete records. Vessel information was then submitted to the Port in mid-January 2021 for review and inclusion in this report. Data from the SIYB marinas and yacht clubs are included, as received, in Appendix C of this report.

Since 2018, the Port has also required all marinas and yacht clubs as Named TMDL Parties to provide a self-certification statement to the Port along with their vessel tracking data submittals. For each facility, the signed self-certification statement states that the data were prepared under the signatories' knowledge and direction and that the data represented truthful, accurate, and complete information. Self-certification letters for each marina and yacht club are provided in Appendix E.

Once the survey results were received by the Port, annual hull survey data from marinas and yacht clubs were cross-checked against the USEPA registration number (when applied) and then by the product name in the DPR California Product/Label Database. If the information conformed to the DPR California Product/Label Database, the vessel's paint was tracked as identified in the aforementioned categories. Non-biocide paints and products (which do not require registration through the DPR) were verified using information obtained from the product manufacturers' websites.

Vessel tracking data from SIYB also included the percentage of time that slips were unoccupied or were occupied by vessels with copper, lower copper (DPR Category I and low-copper paints), aged-copper paints, non-copper, or unknown hull paints, as required by the Investigative Order (Table 2-2). The occupancy rate at most marinas and yacht clubs in SIYB was calculated using a nightly count of empty slips. The annual percentage of time that the slip was occupied was determined by dividing the total number of days occupied by 365 days.

**Table 2-2.**  
**Vessel Tracking Data Collected for 2020**

Vessel Tracking Data Fields	
1.	Total number of slips or buoys in facility available to be occupied by vessels
2.	Number of unoccupied slips or buoys and length of time unoccupied during each year
3.	Number of vessels confirmed with copper-based hull paints and approximate length of time occupying a slip or buoy in facility each year
4.	Number of vessels confirmed with aged-copper-based hull paints <sup>a</sup> and approximate length of time occupying a slip or buoy in facility each year
5.	Number of vessels confirmed with DPR Category I or low-copper paints <sup>b</sup> and approximate length of time occupying a slip or buoy in facility each year
6.	Number of vessels confirmed with alternative hull paints, by hull paint type, and approximate length of time occupying a slip or buoy in facility each year
7.	Number of vessels with unconfirmed information regarding hull paints and approximate length of time occupying a slip or buoy in facility each year
8.	Estimate of the dissolved copper load reduction achieved for the year (kg/yr and percent)

Notes:

a. Per Regional Board letter dated July 26, 2013.

b. Per Regional Board email dated October 21, 2015.

DPR = Department of Pesticide Regulation; kg/yr = kilogram(s) per year

For all vessel tracking data submittals, lower copper (DPR Category I or low-copper) and non-copper hull paints were confirmed if the required supporting data that were provided (i.e., all of the required data fields were completed) for a given hull paint were consistent with the DPR Product/Label Database (biocide paints) or product manufacturer's website (non-biocide paints or products). Vessels stored out of the water (e.g., on HydroHoists®) or in slip liners, or reported to have no bottom paint, were also confirmed as having non-copper paint for that slip. For vessels

to be considered as having hulls with aged-copper paints, the painting date submitted must have been on or before December 31, 2017 for the 2020 monitoring year.

To be conservative, loading was calculated for unconfirmed paints by assuming that paint was copper-based (i.e., non-Category I) if the vessel owner did not know the paint's registration number or product name, or if information provided was inconsistent with the DPR database (e.g., paint name and/or registration number provided were for different paints).

As previously mentioned, the DPR Rule went into effect on July 1, 2018, establishing a maximum leach rate of 9.5  $\mu\text{g}/\text{cm}^2/\text{day}$  for copper-based AFPs registered through the DPR and sold in California. As a result of the full implementation of the DPR Rule, a majority of vessels painted since July 2018 will have DPR Category I paints. However, it should be noted that the existing stock of paints with leach rates exceeding the DPR maximum leach rate criterion could be sold until June 30, 2020. Therefore, vessels with unknown and unconfirmed paints from the 2020 survey were still assumed to be copper (i.e., non-Category I paints) to be conservative in load calculations and in accordance with assumptions listed in the SIYB TMDL Monitoring Plan.

Data obtained from the annual vessel tracking survey were used to estimate the annual dissolved copper load to SIYB from vessels under both confirmed and unconfirmed scenarios, as described further in Section 2.2.3.

### 2.2.3 Annual Dissolved Copper Load

To estimate dissolved copper loads attributed to vessels for the SIYB TMDL monitoring program, the in-water hull-cleaning load (100 kg/yr) and passive leaching load (2,000 kg/yr) identified in Appendix 2 of the SIYB TMDL<sup>6</sup> were combined to form a total vessel-related load of 2,100 kg/yr. This vessel-related baseline load was divided by the total vessel population identified in the TMDL (2,363 vessels), which resulted in an annual per-vessel load of 0.89 kg/yr (rounded to 0.9 kg/yr). Therefore, any reference to the annual per-vessel dissolved copper load is considered to be 0.9 kg/yr.

The dissolved copper load attributed to in-water hull cleaning was identified in Appendix 2 of the SIYB TMDL (Regional Board, 2005) as approximately 100 kg/yr. As part of the Regional Board's load estimation, it was assumed that all SIYB vessel hulls were painted with copper paint, all hulls were cleaned approximately monthly, and in-water hull cleaning BMPs were used during half of the cleaning events. As discussed above, the annual per-vessel dissolved copper load is 0.9 kg/yr. This total annual per-vessel load is composed of the load from passive leaching (approximately 0.86 kg/yr) and in-water hull cleaning<sup>7</sup> (approximately 0.04 kg/yr) per Appendix 2 of the SIYB TMDL (Regional Board, 2005).

The SIYB TMDL copper load reduction is assessed by tracking the number of vessel hulls with copper paint, lower copper paint (DPR Category I or low-copper), aged-copper paint, or non-copper paint, as well as by counting the number of vacant slips in SIYB. Vessels that have

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<sup>6</sup> Appendix 2 of the SIYB TMDL is at the following website address: [http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/watershed/souwatershed.shtml](http://www.waterboards.ca.gov/sandiego/water_issues/programs/watershed/souwatershed.shtml)

<sup>7</sup> The annual copper load contribution from in-water hull cleaning (0.04 kg/yr) presented in this report is based on the TMDL load assumption of 5%.

aged-copper paint are considered to have a lower copper load (i.e., 0.45 kg/yr), but are tracked separately.

The vessel tracking program estimates loading reductions conservatively. If the hull paint name and type are unknown, the paint is assumed to be copper-based. Additionally, if the most recent painting date is unknown, the vessel is assumed to be painted recently. Lastly, if the occupancy time of a slip or mooring is not reported, the slip or mooring is assumed to be occupied 100% of the time (i.e., 365 days per year). Data on paint categories for transient vessels visiting the transient dock and weekend anchorage were not available; therefore, these vessels were assumed to have copper hull paints.

The assumptions below were used by the Regional Board to derive the baseline copper loading identified in Appendix 2 of the SIYB TMDL (Regional Board, 2005). Calculation of loading reductions for the 2020 SIYB TMDL monitoring program was based on comparisons with these baseline conditions:

- All 2,363 SIYB slips or buoys were occupied by a number of vessels ( $N_v$ ).
- All 2,363 recreational vessels moored within SIYB have copper-based paints 100% of the time.
- Annual loading from passive leaching basin wide ( $L_p$ ) equals 2,000 kg/yr.
- Annual loading from hull cleaning ( $L_h$ ) equals 100 kg/yr.
- Average annual loading per vessel ( $L_v$ ) with copper hull paint equals 0.9 kg/yr, where  $L_v = (L_p + L_h)/N_v$ .

In accordance with the SIYB TMDL, this loading reduction analysis assumed an average loading reduction of approximately 0.9 kg/yr for every vessel in SIYB that converted from copper-based to non-copper-based paints. The use of lower copper hull paints was also recognized in the SIYB TMDL as a viable means of reducing copper loading to the basin. Lower copper paints are identified as DPR Category I paints and paints having a copper content of less than 40% (i.e., low-copper). This loading reduction analysis also assumed that, on average, each vessel that transitioned to lower copper hull paints reduced annual dissolved copper loading by 50% (0.43 kg/yr for passive leaching + 0.02 kg/yr for in-water hull cleaning). Aged-copper paints also were considered as a 0.45 kg/yr load if they were applied prior to December 31, 2017.

Annual loading was calculated for each slip by multiplying the reported dissolved annual loading for a given hull paint category by the percentage of time a slip was reported to be occupied (e.g., the product of 0.9 kg/yr for copper hull paints and 90% occupancy results in an annual loading of 0.81 kg/yr). In the case of the weekend anchorage and transient dock, data on the length of stay indicated by each permit issued were used to calculate annual occupancy and loading. Because no hull paint data were collected, all vessels at the weekend anchorage and transient dock were assumed to have copper paints. Therefore, annual dissolved copper loading due to passive leaching and hull cleaning was calculated by multiplying the annual dissolved copper load (0.9 kg/yr) by the average number of vessels occupying the anchorage or transient dock in 2020 and the average percentage of time that slips were occupied.

Calculations of annual dissolved copper loading were performed using assumptions listed in Table 2-3. As recommended in the 2015 Monitoring and Progress Report, starting in 2016 and

continuing through 2020, the copper loads from passive leaching and in-water hull cleaning are calculated and presented separately. The copper loading estimates in Section 3.2.4 present both a combined total load estimate, as well as separate load estimates for passive leaching and in-water hull cleaning contributions using the assumption in Appendix 2 of the SIYB TMDL (Regional Board, 2005).

**Table 2-3.  
Dissolved Copper Loading Calculation Assumptions**

Dissolved Copper Loading Assumptions	
1.	All vessels moored in SIYB at the enactment of the TMDL had copper hull paints.
2.	Average annual dissolved copper load from a vessel with copper paint equals 0.9 kg/yr.
	a. The passive leaching load from a vessel with copper paint equals 0.86 kg/yr.
	b. The cleaning load from a vessel with copper paint equals 0.04 kg/yr.
3.	Vessels with unknown hull paints have copper paint.
4.	Slips/moorings for which occupancy data are not provided are considered to be 100% occupied.
5.	Annual dissolved copper load from a vessel with non-copper hull paint equals 0 kg/yr.
6.	DPR Category I paints are paints with leach rates $\leq 9.5 \mu\text{g}/\text{cm}^2/\text{day}$ . These paints are considered as lower copper.
7.	Low-copper hull paints are paints with less than 40% copper. These paints are also considered as lower copper.
8.	Average annual dissolved copper load from a vessel with lower copper paint equals 0.45 kg/yr.
	a. The passive leaching load from a vessel with lower copper paint equals 0.43 kg/yr.
	b. The cleaning load from a vessel with lower copper paint equals 0.02 kg/yr.
9.	Vessels determined to have aged-copper paint (i.e., copper paint applied to a vessel hull prior to December 31, 2017 <sup>a</sup> ) have an annual dissolved copper load equal to 0.45 kg/yr.
10.	Annual loads are normalized by the percentage of time vessels are docked in SIYB.

Notes:

a. December 31, 2017 is the cutoff date for vessels to be considered to have aged-copper paint for the 2020 annual monitoring and progress report load calculation. This cutoff date will advance by one year for each subsequent annual load calculation.  
% = percent;  $\mu\text{g}/\text{cm}^2/\text{day}$  = microgram(s) per square centimeter per day;  $\leq$  = less than or equal to; DPR = Department of Pesticide Regulation; kg/yr = kilogram(s) per year; SIYB = Shelter Island Yacht Basin; TMDL = total maximum daily load

## 2.3 Water Quality Monitoring

Water quality samples were collected to measure the average concentration of dissolved copper in the basin. The monitoring methods used were consistent with those of prior studies conducted by the Regional Board in SIYB, as reported in Appendix 6 of the SIYB TMDL Technical Report (Regional Board, 2005). To maintain consistency with these prior studies, water quality was monitored at six stations in SIYB and at a reference station in the main channel of San Diego Bay adjacent to SIYB. An additional reference station was included during the 2020 monitoring year<sup>8</sup>. These station locations were similar to those sampled by the Regional Board and met the Investigative Order requirement of spatially representing dissolved copper concentrations in SIYB, as described in the original Monitoring Plan and most recent update (Weston Solutions, Inc. [Weston], 2011; Wood, 2020a).

<sup>8</sup> To supplement the TMDL compliance monitoring, a second reference station (SIYB-REF-2) was added to the sample locations for the 2020 monitoring program (further described in Section 2.3.1).



Dissolved copper concentrations were compared with the surface water baseline level of  $8.3 \pm 1.4 \mu\text{g/L}$  (mean plus or minus standard error). This baseline value was calculated using surface water quality data collected between 2005 and 2008 from stations in the immediate vicinity of the Regional Board monitoring station network (Weston, 2011).

### 2.3.1 Sampling Station Locations

To date, the annual compliance monitoring program has been conducted at six stations within SIYB and one reference station (SIYB-REF-1<sup>9</sup>) in the main channel of San Diego Bay (Table 2-4 and Figure 2-1). A supplemental second reference station (SIYB-REF-2), located farther from the mouth of SIYB, was added as a sample location in 2020 to provide a better understanding of the gradient of dissolved copper levels in San Diego Bay moving away from the mouth of SIYB, as well as a better understanding of the background conditions within San Diego Bay outside of SIYB. Station locations are provided in Table 2-4 and Figure 2-1. To the greatest extent possible, samples were collected within approximately  $\pm 3$  meters of the target coordinates.

**Table 2-4.**  
**Sampling Station Coordinates**

Station	Target		Actual	
	Latitude	Longitude	Latitude	Longitude
SIYB-1	32.71821	-117.22601	32.71823	-117.22604
SIYB-2	32.71412	-117.22921	32.71414	-117.22922
SIYB-3	32.71550	-117.22989	32.71549	-117.22990
SIYB-4 <sup>a</sup>	32.71683	-117.23203	32.71682	-117.23201
SIYB-5	32.71217	-117.23297	32.71218	-117.23298
SIYB-6	32.70858	-117.23514	32.70883	-117.23511
SIYB-REF-1 <sup>a</sup>	32.70406	-117.23232	32.70407	-117.23234
SIYB-REF-2 <sup>b</sup>	32.70926	-117.22544	32.70947	-117.22516

Notes:

a. SIYB-REF-1 was identified as SIYB-REF in prior reports.

b. SIYB-REF-2 was added as a second reference station in 2020 to supplement the TMDL compliance monitoring.

<sup>9</sup> Previously identified as "SIYB-REF".



Figure 2-1. Shelter Island Yacht Basin TMDL Sampling Station Locations for the 2020 Monitoring Program

## 2.3.2 Sampling Date

Surface water at the eight sampling stations (six SIYB stations and two San Diego Bay reference stations) was sampled on August 20, 2020. In accordance with the Monitoring Plan, water sampling bracketed slack high tide during the summer<sup>10</sup>, as depicted in Figure 2-2.

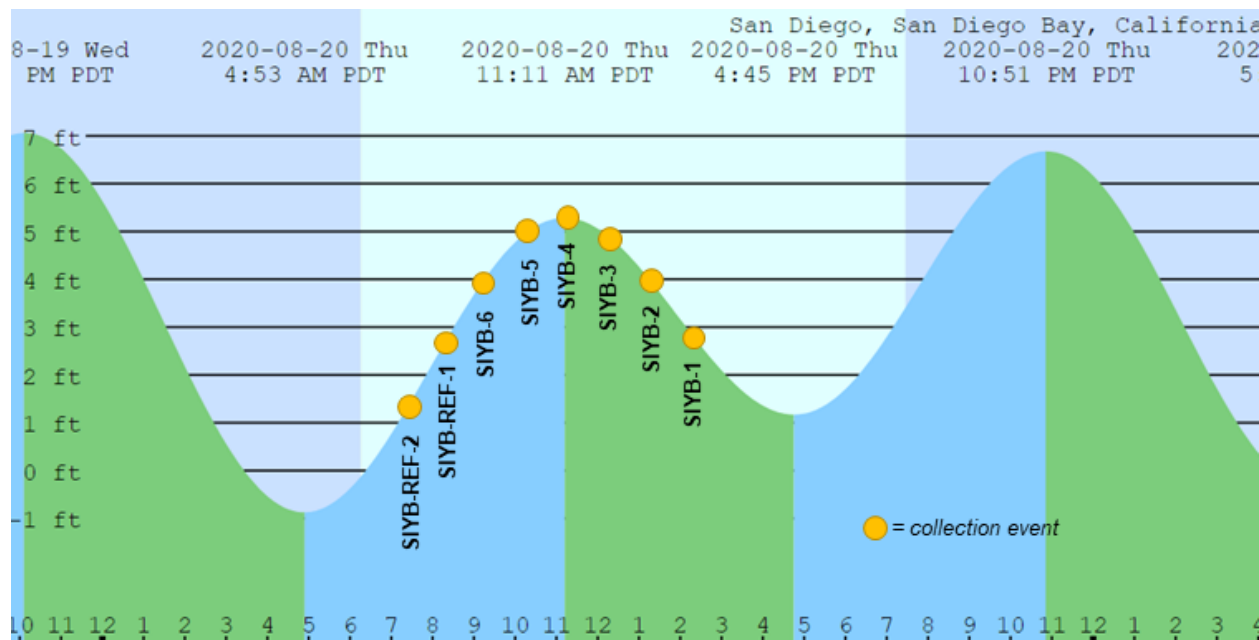


Figure 2-2. August 20, 2020 Sample Collection Times Versus Tide

## 2.3.3 Sample Collection

Discrete water samples were collected at each station using a Niskin bottle deployed from a sample collection vessel. “Clean-hands” sampling techniques were used, consistent with the project-specific and approved SIYB TMDL Quality Assurance Project Plan (QAPP) (Wood, 2020b). All stations were located using the Differential Global Positioning System.

Samples were collected within the top 1 meter of the basin surface; these samples are referred to as “surface water.” Field measurements were taken at each station for temperature, conductivity, salinity, hydrogen ion concentration (pH), and dissolved oxygen (DO) using a YSI Incorporated (YSI) Pro Plus data sonde. Following the collection and preservation of water samples, a top-to-bottom water quality profile using a Sea-Bird Electronics (SBE) Conductivity, Temperature, and Depth (CTD) profile instrument was captured to evaluate temperature, conductivity, salinity, pH, DO, and light transmittance at the station.<sup>11</sup> In situ analytical methods and detection limits are listed in Table 2-5.

<sup>10</sup> To supplement the annual TMDL compliance monitoring, a second water quality monitoring event was conducted in February 2021 using the same sampling and analysis methodologies as the compliance monitoring event performed in the summer. Results from the winter monitoring event will be included in the 2021 monitoring report.

<sup>11</sup> Due to field collection schedule limitations, no CTD water quality profile was captured at station SIYB-REF-2.

**Table 2-5.  
In Situ Analytical Methods and Detection Limits**

Water Quality Measurement	Method	Instrument Sensitivity
Temperature	SBE CTD and YSI Pro Plus	± 0.1 °C
Specific Conductance	SBE CTD and YSI Pro Plus	± 1 µS/cm
Salinity	SBE CTD and YSI Pro Plus	± 0.1 ppt
pH	SBE CTD and YSI Pro Plus	± 0.1 pH unit
Dissolved Oxygen	SBE CTD and YSI Pro Plus	± 0.1 mg/L
Light Transmittance	SBE CTD	± 0.1%

Notes:

± = plus or minus; % = percent; °C = degrees Celsius; µS/cm = microSiemens per centimeter; CTD = conductivity, temperature, and depth; mg/L = milligram(s) per liter; pH = hydrogen ion concentration; ppt = part(s) per thousand; SBE = Sea-Bird Electronics; YSI = YSI Incorporated

After collection, water samples were transferred to labeled containers for analysis of total and dissolved copper and zinc, total organic carbon (TOC), dissolved organic carbon (DOC), total suspended solids (TSS), and toxicity<sup>12</sup>.

Detailed field notes were recorded during sample collection at each station and all samples were logged on a chain-of-custody (COC) form, and then placed in a cooler on ice. Samples were stored at 4 degrees Celsius (°C) in the dark until delivered to the appropriate laboratory for analysis, within 24 hours of collection. Water chemistry analyses were conducted by Weck Laboratories, Inc. (Weck) of City of Industry, California; toxicity tests were conducted by Wood Aquatic Toxicology Lab of San Diego, California. Both laboratories are accredited through the California Environmental Laboratory Accreditation Program (ELAP). Photographs taken during field sampling are presented in Figure 2-3.

### 2.3.4 Equipment Decontamination and Cleaning

The Niskin bottle was cleaned prior to sampling with clean, soapy water and thoroughly rinsed with deionized water. Upon deployment, the Niskin bottle received a thorough site water rinse at each station prior to sample collection. After collection, water samples were transferred using the clean-hands method from the Niskin bottle to laboratory-certified, contaminant-free, high-density polyethylene bottles.

<sup>12</sup> Because the sample from SIYB-REF-2 was only collected to assess variability in dissolved copper levels at the reference stations, this sample was not tested for toxicity.





**Photo A.** Water quality readings of temperature, conductivity, salinity, pH, and dissolved oxygen are taken before, during, and after sampling using a YSI Pro Plus data sonde.



**Photo B.** Recording of weather conditions, activities such as boat cleaning, and any other observations that may have an impact on water quality is an important component of the field monitoring program.



**Photo C.** Water samples are collected using a Niskin bottle and following clean sampling techniques.



**Photo D.** Water samples are filtered in the field immediately after collection for analysis of dissolved metals.

**Figure 2-3. Field Sampling Photographs**

## 2.3.5 COVID-19 Safety Protocols

### Field

Water quality monitoring conducted in compliance with the TMDL was considered to be an essential activity during the COVID-19 response. As such, field efforts were conducted following safety protocols to adhere to local, state, and federal COVID-19 guidelines. The project-specific Monitoring Plan (Wood, 2020a) and Health and Safety Plan (Wood, 2020c) were revised in 2020 to include additional safety protocols to prevent the spread of COVID-19.

Field staff were required to drive to the field site in separate vehicles to allow for social distancing. Prior to sampling, field staff were required to certify that they had no known exposure to persons with COVID-19 within the past 14 days and had no symptoms of COVID-19 (e.g., fever, cough, sore throat, or breathing difficulty). Face coverings were worn by all personnel for the duration of the field operations. In addition, field staff distanced and remained on the rear deck of the vessel in the open air to the maximum possible extent. Typically, a Port representative is present on the vessel during the sampling activities; however, due to the COVID-19 restrictions, the field team was limited to Wood staff to allow for social distancing when possible. While Port staff were unable to participate in field activities, Wood's Field QA Officer was present to oversee the sample and data collection process, as described further in Section 2.4.1.

### Laboratory

Additional COVID-19 safety protocols were also implemented by chemistry and toxicology laboratory staff including, but not limited to, the following:

- All personnel were required to check their temperature prior to entering the laboratory and review questions related to personal health before starting work.
- All personnel were required to wear a mask or face covering at all times while in the laboratory.
- In-house personnel were required to maintain a safe social distance (i.e., a minimum of 6 feet) from each other as much as possible.
- All client meetings and communication were performed through digital media (i.e., no in-person communication).

There were no changes to standard laboratory procedures, and all samples were analyzed in accordance with the test methods, as described in Section 2.3.6.

## 2.3.6 Laboratory Analyses

After collection was completed, samples were transported to the laboratory under customary COC protocols. Samples were analyzed for total and dissolved copper, total and dissolved zinc, TOC, DOC, and TSS, following certified USEPA or Standard Method (SM) test methods. Test method selection was based on the best available combination of sensitivity (low-level detection limits), accuracy (minimum susceptibility to bias or matrix interference), and precision (reproducibility), in accordance with the QAPP.

General water quality measurements (of temperature, conductivity, salinity, pH, DO, light transmittance, TOC/DOC, and TSS) were also taken at each station. Natural water quality parameters such as DOC are well known to affect the bioavailability and toxicity of copper in marine environments (Delgadillo-Hinojosa et al., 2008; Rosen et al., 2005; and Zirino et al., 2002). Zinc was also included for testing because it can be used as an alternative biocide in AFPs. Both total zinc and dissolved zinc were measured to determine whether concentrations are increasing as vessel hull paints are converted from copper-based to non-copper-based paints.

Analysis of water quality data included calculations of average surface water dissolved copper concentrations to compare with the dissolved copper CTR criterion continuous concentration (CCC) WQO (3.1 µg/L). In Section 3.3, the 2020 dissolved copper results are compared with the 2005–2008 baseline data as reported in the original Monitoring Plan (Weston, 2011) to evaluate the change in dissolved copper levels in the surface waters over time.

The laboratory analytical methods and target detection and reporting limits are specified in Table 2-6. Actual method detection and reporting limits are provided in the chemistry laboratory report in Appendix D.

**Table 2-6.**  
**Laboratory Analytical Methods**

Water Quality Measurement	Method	Target Method Detection Limit	Target Reporting Limit
Total Copper	USEPA 1640	0.0038 µg/L	0.010 µg/L
Dissolved Copper	USEPA 1640	0.0038 µg/L	0.010 µg/L
Total Zinc	USEPA 1640	0.036 µg/L	0.20 µg/L
Dissolved Zinc	USEPA 1640	0.036 µg/L	0.20 µg/L
TOC	SM 5310 B	0.016 mg/L	0.10 mg/L
DOC	SM 5310 B	0.016 mg/L	0.10 mg/L
TSS	USEPA 2450 D	1.0 mg/L	5.0 mg/L

Notes:

µg/L = microgram(s) per liter; DOC = dissolved organic carbon; mg/L = milligram(s) per liter; SM = Standard Method; TOC = total organic carbon; TSS = total suspended solids; USEPA = United States Environmental Protection Agency

Toxicity testing consisted of a 96-hour acute bioassay test to be consistent with the SIYB TMDL guidance (Regional Board, 2005) using Pacific topsmelt (*Atherinops affinis*). Additionally, a 48-hour chronic bioassay test using mussel larvae (*Mytilus galloprovincialis*) was performed. Previous studies have used the 48-hour mussel larvae chronic test as their primary indicator of toxicity because *Mytilus galloprovincialis* is considered one of the most sensitive species used in the calculation of the water quality criterion for copper in marine environments (USEPA, 1995a). However, both tests were used to assess compliance with the narrative toxicity objective.

### 2.3.6.1 Topsmelt 96-Hour Acute Bioassay

Topsmelt acute toxicity tests were initiated on August 21, 2020 following the procedures described in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (USEPA, 2002). Juvenile topsmelt were exposed for 96 hours to three sample concentrations (0.5 dilution series) and a control. Each concentration was tested with six replicates and five topsmelt per replicate. Water quality measurements of DO, temperature, pH, and salinity were conducted daily. Test conditions are summarized in Table 2-7. After 96 hours,

percent survival was calculated. The test was considered acceptable if mean survival was greater than or equal to 90% in the controls.

During the topsmelt acute toxicity tests (initiated on August 21, 2020), there was an issue with the health of the test organisms which required follow-up testing, as discussed further in Section 3.3.2. A follow-up test was performed on August 27, 2020 on the undiluted<sup>13</sup> samples using a different batch of topsmelt to supplement the initial test data. Test conditions for the follow-up test are also summarized in Table 2-7.

**Table 2-7.**  
**Conditions for the 96-Hour Pacific Topsmelt Bioassay**

96-Hour Acute Fish Survival Bioassay Conditions	
Samples Tested <sup>a</sup>	SIYB-1, SIYB-2, SIYB-3, SIYB-4, SIYB-5, SIYB-6, SIYB-REF-1
Date Sampled	August 20, 2020
Test Dates	August 21–25, 2020 (initial test) August 27–31, 2020 (follow-up test)
Test Species	Pacific topsmelt ( <i>Atherinops affinis</i> )
Test Protocol	USEPA Acute Manual, 2002 (EPA/821/R-02/012)
Test Acceptability Criterion	≥90% mean survival in the laboratory control
Test Type and Duration	Acute survival/96-hour static-renewal (48-hour water renewal)
Organism Supplier	Aquatic BioSystems, Fort Collins, Colorado
Control Water Source	Scripps Pier seawater, 20-µm filtered
Acclimation Time <sup>b</sup>	August 21, 2020 test: 3 days August 27, 2020 test: 2 days
Age at Test Initiation <sup>c</sup>	August 21, 2020 test: 14 days old August 27, 2020 test: 13 days old
Test Concentrations	August 21, 2020 test: 0 (laboratory control), 25, 50, and 100% sample August 27, 2020 test: 0 (laboratory control) and 100% sample
Replicates per Sample	6
Organisms Exposed per Replicate	5
Exposure Volume	250 mL

Notes:

- Because the sample from SIYB-REF-2 was only collected to assess variability in dissolved copper levels at the reference stations, this sample was not tested for toxicity.
  - There is no USEPA method requirement for acclimation time (USEPA, 2002). However, the toxicity laboratory recommends a minimum 1- to 2-day acclimation time prior to testing. Both topsmelt batches used for testing were acclimated for at least 2 days, as recommended by the laboratory.
  - The USEPA method requires topsmelt to be 7 to 15 days old at test initiation (USEPA, 2002). Both topsmelt batches used for testing were within this age range.
- ≥ = greater than or equal to; µm = micrometer(s); mL = milliliter(s); % = percent; USEPA = United States Environmental Protection Agency

<sup>13</sup> Due to an insufficient number of test specimens available for the August 27, 2020 follow-up test, only the undiluted sample from each station (100% concentration) and control samples could be tested.



A 96-hour reference toxicant test using copper chloride was conducted concurrently with the initial<sup>14</sup> topsmelt acute toxicity test to evaluate the relative sensitivity of test organisms to a single known chemical, as well as the laboratory's proficiency with the test procedure. The topsmelt reference toxicant tests were conducted with copper concentrations of 0, 25, 50, 100, 200, and 400 µg/L. The reference toxicant test was conducted concurrently with the initial SIYB acute toxicity tests and used test organisms from the same batch. Following test termination, the median lethal concentration (LC<sub>50</sub>) was calculated and compared with historical laboratory reference toxicant test data for this species. Test organisms are considered appropriately sensitive when the test LC<sub>50</sub> is within two standard deviations of the historical laboratory mean.

### 2.3.6.2 Bivalve 48-Hour Bioassay

The 48-hour bivalve larvae tests were initiated on August 21, 2020 for all samples collected in SIYB and followed the procedures described in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (USEPA, 1995b).

Bivalves were exposed to five sample concentrations and a control. Each concentration was tested with five replicates and approximately 150 larvae were targeted for inoculation into each replicate. Daily water quality measurements included DO, temperature, pH, and salinity. Test conditions are summarized in Table 2-8.

After test termination, the percentage of surviving embryos with normal development was calculated to determine whether normality had been significantly reduced. The test was considered acceptable if (1) at least 50% of larvae survived in the controls, and (2) an average of 90% of surviving larvae developed normally in the controls. In addition, the percent minimum significant difference in the test must be less than 25. A combined endpoint of normal surviving embryos is reported.

A 48-hour reference toxicant test using copper chloride was conducted concurrently with the project sampling to evaluate the relative sensitivity of test organisms and the laboratory's proficiency with the test procedure. The bivalve reference toxicant test was conducted with copper concentrations of 0, 2.5, 5.0, 10, 20, and 40 µg/L. The same batch of test organisms was used for both the reference toxicant test and the project samples. At test termination, the median effective concentration (EC<sub>50</sub>) was calculated and compared with historical laboratory reference toxicant test data for this species. Test organisms are considered to be responsive and appropriately sensitive if the test EC<sub>50</sub> was within two standard deviations of the respective historical laboratory mean.

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<sup>14</sup> Due to the limited availability of test organisms, no reference toxicant test was performed concurrently with the follow-up test initiated on August 27, 2020. The controls for the initial Pacific topsmelt reference toxicant test initiated on August 21, 2020 met corresponding minimum test acceptability criteria. Results of this reference toxicant test are discussed in Section 3.3.2.3.

**Table 2-8.**  
**Conditions for the 48-Hour Mussel Development Bioassay**

<b>48-Hour Chronic Bivalve Survival and Shell Development Bioassay Conditions</b>	
Samples Tested <sup>a</sup>	SIYB-1, SIYB-2, SIYB-3, SIYB-4, SIYB-5, SIYB-6, SIYB-REF-1
Date Sampled	August 20, 2020
Test Dates	August 21–23, 2020
Test Species	Mediterranean mussel ( <i>Mytilus galloprovincialis</i> )
Test Protocol	USEPA/600/R-95/136 (USEPA, 1995b); ASTM, 1998
Test Acceptability Criteria	Mean percent survival in the laboratory control must be 50%, and 90% of surviving organisms must have normal shell development. The PMSD in the test must be less than 25.
Test Type/Duration	Bivalve larvae survival and development (endpoint reported as normal development of surviving embryos) – Static/48 hours
Organism Source	Mission Bay, San Diego, California
Control Water Source	Scripps Pier seawater, 20-µm filtered
Age Class of Mussels Exposed	<4 hour-old embryos
Test Concentrations	0 (laboratory control), 6.25, 12.5, 25, 50, and 100% sample
Replicates/Sample	5
Initial Density of Organisms Exposed per Replicate	~200
Exposure Volume	10 mL

Notes:

a. Because the sample from SIYB-REF-2 was only collected to assess variability in dissolved copper levels at the reference stations, this sample was not tested for toxicity.

~ = approximately; < = less than; µm = micrometer(s); % = percent; ASTM = ASTM International; mL = milliliter(s); PMSD = percent minimum significant difference; USEPA = United States Environmental Protection Agency

### 2.3.7 Toxicity Statistical Analyses

Determinations of toxicity using the 96-hour topsmelt and 48-hour mussel bioassays were statistically assessed using the Comprehensive Environmental Toxicity Information System™, Tidepool Scientific Software. Survival of topsmelt fish and normal development of surviving mussel embryos in each test dilution from SIYB were compared with organism performance observed in control exposures to filtered clean seawater collected from the end of the pier at Scripps Institution of Oceanography in La Jolla, California. Results were used to determine LC<sub>50</sub> and EC<sub>50</sub> values. If fish survival and normal embryo development in the controls did not differ significantly from those of the treatments, then conditions within were considered nontoxic at the station. The test of significant toxicity (TST) method was used to identify any samples that exhibited a statistically significant difference from the control (USEPA, 2010).

### 2.4 Quality Assurance and Quality Control

This section describes the QA/QC procedures for all field activities and laboratory analyses. Specific QA/QC procedures are provided in detail in the approved project-specific SIYB TMDL QAPP (Wood, 2020b).

## 2.4.1 Field QA/QC

Sampling process QA/QC included preparation prior to, during, and after sample collection to minimize the possibility of compromising sample integrity. The sample collection team was trained in and followed field sampling standard operating procedures (SOPs), as described in the SIYB QAPP (Wood, 2020b).

As discussed in Section 2.3.5, a Port representative is typically present on the vessel to oversee sampling activities; however, due to the COVID-19 restrictions, the field team was limited to Wood staff to allow for social distancing when possible. While Port staff were unable to participate in field activities, Wood's Field QA Officer was onboard the sampling vessel at all times to review each step of the sample and data collection process. Additionally, Port-approved field checklists were used throughout the sampling event to ensure that all procedures were consistent at each station, all samples were collected in exactly the same manner at every station, and all required field data were properly recorded (see Appendix D). Observations of activities (e.g., vessel hull cleaning) surrounding the sampling area were recorded on field data sheets at each station and during movement between stations.

Field staff members were careful to avoid contamination of samples at all times, wore powder-free nitrile gloves during sample collection, and used the clean-hands technique. All samples were collected in laboratory-supplied, laboratory-certified, contaminant-free sample bottles. Field measurement equipment was checked for operation in accordance with the manufacturer's specifications and was inspected for damage prior to use and when returned from use. The QA/QC checks for the 2020 monitoring year are summarized as follows:

- QAPP updates
- Verification of laboratory certifications
- Field mobilization and equipment checklists
- Field sampling QA/QC checklists
- Field equipment calibrations records
- Observations of water clarity
- Staff training on QAPP-required field procedures
- Field conditions and water quality data sheets
- Onboard QA/QC oversight
- Observations for hull cleaning or other water-quality-impacting activities near sampling station locations

As required by Surface Water Ambient Monitoring Program (SWAMP) protocols, the monitoring program also included the addition of a field replicate. The field replicate sample consisted of a second complete set of samples collected at one of the sampling stations (SIYB-1 in the 2020 monitoring program). The purpose of the field replicate is to assess variability in sampling procedures as well as ambient conditions.

Chemistry and toxicity samples were uniquely identified on sample labels using indelible ink. All sample containers were identified by the project title, appropriate identification number, date and time of sample collection, and preservation method. Sample labels were inspected by a QA reviewer before and after bottles were filled at each station to ensure that every sample and analysis type was labeled correctly before moving to the next station. All samples were kept on ice from the time of sample collection until delivery to the analytical laboratory for analysis within method-specified holding times (Table 2-9). Wood delivered toxicity samples on the same day as

sample collection to Wood Aquatic Toxicology Lab; chemistry samples were delivered by courier to Weck the following day (August 21, 2020). Both Weck and Wood Aquatic Toxicology Lab are accredited by the California ELAP for the specific tests that were performed at the time they were conducted.

**Table 2-9.  
Sample Holding Times**

Analyte	Holding Time
TOC	28 days
DOC	28 days <sup>a</sup>
Total Copper	180 days
Dissolved Copper	48 hours <sup>b</sup>
Total Zinc	180 days
Dissolved Zinc	48 hours <sup>b</sup>
TSS	7 days
48-hour Acute Bioassay	36 hours
96-hour Chronic Bioassay	36 hours

Notes:

- The holding time is applicable to preserved sample. The sample is filtered in the field into a bottle with HCl preservative for DOC analysis.
  - The holding time for metals after preservation is 180 days. The dissolved fraction is filtered in the field through a 0.45- $\mu$ m glass fiber filter using a bottle top vacuum filtration system. Samples are preserved at the laboratory immediately upon receipt from the courier, within 24 hours of sample collection.
- $\mu$ m = micrometer(s); DOC = dissolved organic carbon; HCl = hydrochloric acid; TOC = total organic carbon; TSS = total suspended solids

## 2.4.2 Laboratory Analytical QA/QC

The QA objectives for chemical analysis conducted by the participating analytical laboratories are provided in their individual laboratory QA manuals. The objectives for accuracy and precision involved all aspects of the testing process, including:

- Methods and SOPs
- Calibration methods and frequency
- Data analysis, validation, and reporting
- Internal QC
- Preventive maintenance
- Procedures to ensure data accuracy and completeness

Results of all laboratory QA/QC analyses are reported in Appendix D. Any QC samples that failed to meet the specified QA/QC criteria in the methodology or QAPP were identified, and the corresponding data were appropriately qualified. Furthermore, in cases where laboratory data were not within control limits, follow-up testing was performed by the laboratory to verify results wherever applicable. All QA/QC records for the various testing programs are kept on file for review, as applicable.

## **2.5 Chain-of-Custody Procedures**

COC procedures were used for all samples throughout the collection, transport, and analytical process. The principal documents used to identify samples and to document possession were COC records, field logbooks, and field tracking forms. COC procedures were initiated during sample collection. A COC record was provided with each sample or group of samples. Each Wood employee who had custody of the samples signed the form and ensured that the samples were always attended unless properly secured.

Documentation of sample handling and custody included the following:

- Client and project name
- Sample identifier
- Sample collection date and time
- Any special notations on sample characteristics or analysis
- Initials of the person collecting the sample
- Date the sample was sent to the analytical laboratory

Completed COC forms were placed in a plastic envelope and kept inside the cooler containing the samples. As previously noted, the water samples were couriered to Wood Aquatic Toxicology Lab and Weck on the same day that the samples were collected or the following day (August 20–21, 2020). This level of effort provided additional security for the COC process and ensured that all holding times were met.

Upon sample delivery to the analytical laboratory, the COC form was signed by the person receiving the samples. COC records were included in the final reports prepared by the analytical laboratories. Following completion of the analytical analyses, remaining sample material was stored until the holding time expired; samples were then disposed of properly.

## **2.6 Data Review and Management**

Field and laboratory data were reviewed for completeness and accuracy prior to data analysis and reporting, and were stored in a database, as described in Sections 2.6.1 and 2.6.2.

### **2.6.1 Data Review**

After each survey, field data sheets were checked for completeness and accuracy by the field staff and the QA reviewer. In addition, all sample COC forms were checked against sample labels at the end of the day prior to sample transport to the laboratories. In the laboratory, technicians documented sample receipt in laboratory logbooks, and samples were logged into the electronic Laboratory Information Management System (LIMS) for sample tracking purposes to ensure that holding times were met and samples were efficiently analyzed. Logbooks were maintained at each instrument to provide hardcopy documentation of analytical runs, and data generated by each instrument were directly uploaded to the LIMS system for data review and processing. Data validation was performed within the LIMS and included application of both performance-based and project-specific QC criteria to reject or accept specific data. Data for laboratory analyses were entered directly onto data sheets. The technician who generated the data had primary

responsibility for the accuracy and completeness of the data. Each technician reviewed the data to ensure the following:

- The sample description information was correct and complete.
- The analysis information was correct and complete.
- The results were correct and complete.
- The documentation was complete.

All data were subsequently reviewed and verified by each section supervisor and released to the laboratory project manager to determine whether data quality objectives had been met for final reporting, and whether appropriate corrective actions had been taken when necessary. Any necessary corrective actions were coordinated with the laboratory project manager, the laboratory QA/QC director, and the Wood project manager for resolution.

### **2.6.2 Data Management**

All laboratories supplied analytical results in Adobe Portable Data Format (PDF) files. After completion of the data review by participating team laboratories, laboratory results were forwarded to Wood for review and reporting. All laboratory records that were submitted, including any raw data, are included in Appendix D with each laboratory report.

## 3.0 RESULTS

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This section provides details on the Port's dissolved copper BMP implementation activities; the marinas and yacht clubs' dissolved copper BMP implementation activities; results of the vessel tracking census; estimates of copper load reduction; and results of the ambient water quality and toxicity monitoring performed in SIYB in 2020.

### 3.1 BMP Implementation

All Named TMDL Parties have obligations to implement BMPs and meet copper loading reduction requirements outlined in the SIYB TMDL (i.e., a 76% reduction in copper loading by the end of 2022). The Port continues to address copper loading at the Harbor Police dock, the transient dock, and the weekend anchorage, and continues to support the load reduction efforts of the other Named TMDL Parties. The Port has implemented or is in the process of planning and implementing several categories of BMPs and other actions to reduce dissolved copper loads to SIYB, including:

- Hull paint transition
- Hull-cleaning BMPs
- Education and outreach
- Grant funding and incentives
- Alternative hull paint studies
- Agency-wide activities
- Monitoring
- Reporting
- Policy/regulation
- Testing and research
- Structural and mechanical BMPs

Marinas and yacht clubs have also indicated to the Port that they are implementing BMPs. Sections 3.1.1. and 3.1.2 describe specific BMPs used during the 2020 monitoring year. Section 3.1.1 was provided directly by the Port. Section 3.1.2 of this report was provided directly by individual marinas and yacht clubs and the SIML TMDL Group.

#### 3.1.1 Port of San Diego BMPs to Reduce Copper Loading

The Port has taken the lead in developing a program to reduce copper in SIYB and throughout San Diego Bay. A critical "launch" component of the program was the adoption of the Board of Port Commissioner's Resolution 2009-230 in 2009. This resolution memorialized the strategies and commitments the Port would employ for the Copper Reduction Program to reduce dissolved copper in and around San Diego Bay. As part of its Copper Reduction Program, the Port has initiated, and is in the process of planning and implementing, a number of BMPs and other actions to reduce discharges of dissolved copper into harbors and marinas within SIYB, throughout San Diego Bay, and statewide. The Port's program is a pragmatic approach that complied with the interim goals and is currently implementing strategies aimed at achieving the final goal of the SIYB TMDL. The program focuses on the largest source contributions of copper, identifies a strategic approach for implementing projects over the short and long term aimed at copper reduction, and seeks to effectively achieve regulatory compliance for loading and improved water quality while balancing economic and public interests.

The projects implemented by the Port since the Regional Board adopted the SIYB TMDL have reduced dissolved copper discharges to SIYB and also have supported the load reduction efforts

of the other Named TMDL Parties, including the SIYB marinas and yacht clubs, hull cleaners, and boaters. The Port's Copper Reduction Program began in 2007 and identified over 30 key initiatives, many of which enabled the Port and the other Named TMDL Parties to comply with the SIYB TMDL's first and second interim targets.

During the 2020 reporting period, the Port continued to focus on policy and regulation approaches aimed at improving water quality as well as reducing copper loading. In May 2020, the Port and SIYB marinas and yacht clubs formed the Port Marina Working Group, which was established to ensure close coordination on management strategies aimed at achieving TMDL compliance and preserving, protecting, and enhancing water quality in SIYB and San Diego Bay. Outreach and education remained a valuable component to continue to engage stakeholders and interested parties in both the In-Water Hull Cleaning Permit and Ordinance review process that continued into 2020 and other load reduction discussions.

In 2020, Port staff began the planning process for a special study to better understand the effects of in-water hull cleaning on water quality. Feedback from stakeholder engagement sessions in 2019 identified this data gap and also suggested the frequency of cleaning and types of tools used vary greatly from vessel to vessel and between divers and in-water hull cleaning companies. This highlighted the need to better understand in-water hull cleaning behaviors and how those connect with water quality.

Lastly, the Port continued to support and encourage the other Named TMDL Parties (i.e., boaters, in-water hull cleaners, and SIYB marinas and yacht clubs) in copper reduction efforts within their leaseholds and operations/activities.

In addition to continued focus on policy and regulation, as well as education and outreach, the Port made progress across all focused areas of the Copper Reduction Program:

- **Policies and Regulation:** The Port continued the implementation of its In-Water Hull Cleaning Ordinance which requires that BMPs be implemented by hull cleaners during all in-water hull cleaning activities. A variety of additional initiatives were completed, including: submitting a comment letter to provide input on the State Water Resources Control Board (SWRCB) Draft 2020–2025 Nonpoint Source Program Implementation Plan; monthly conference calls with Los Angeles County Department of Beaches and Harbors to stay engaged on regional TMDL issues and progress; and continued implementation of a high-frequency in-water hull cleaning inspection schedule.
- **Testing and Research:** Under the Port's Blue Economy Incubator, an agreement was finalized with the Rentunder Boatwash company and the Port for Phase 2 testing of the Rentunder Boatwash Pilot project. Phases 1 and 2 of the pilot project evaluate how the technology may assist with copper remediation.
- **Implementation and Facilitation of Hull Paint Transitions:** All Port vessels continue to be painted with non-copper hull paints, contributing no load to SIYB.
- **Education and Outreach:** All interested parties were exposed to the issues via outreach efforts such as TMDL status updates to stakeholder groups, information dissemination through digital efforts, conference presentations, newspaper articles, and other outreach initiatives. Of note for 2020 is the formation of the Port Marina Working Group, which



included bi-weekly meetings with marina and yacht club representatives aimed at improving water quality.

- **Companion Programs:** Construction site inspections, commercial business inspections, and Standard Urban Stormwater Mitigation Plan (SUSMP) implementation continued.
- **Monitoring and Reporting:** In addition to annual TMDL monitoring, the 2018 Regional Harbor Monitoring Program Core Monitoring Final Report was completed. This report takes an in-depth look at water and sediment quality throughout San Diego Bay, including SIYB.

The main elements of the Port's 2020 Copper Reduction Program efforts are described below. A complete list of the Port's BMPs, the status of each, and brief effectiveness assessments are in Appendix B.

### **Policies and Regulation to Reduce Copper Loading**

Policies, regulations, and legislative efforts to reduce copper loading are instrumental to the Port's Copper Reduction Program, not only to help meet regulatory compliance requirements, but also to work toward reducing copper throughout San Diego Bay.

When the Port adopted Resolution 2009-230 in 2009, the objective was to specifically detail strategies for reducing copper throughout San Diego Bay, including the following:

- Complying with the provisions of regulatory requirements and achieving reductions in copper levels within or in advance of the time frames specified in the SIYB TMDL;
- Identifying viable options for reducing copper levels in San Diego Bay;
- Supporting regulations on hull paints at a state or federal level;
- Developing, as necessary, policies, ordinances, procedures, and/or programs to achieve load reductions;
- Working with tenants and stakeholders to identify and implement copper reduction strategies; and
- Maintaining the Port vessel fleet as 100% non-copper.

Strategies outlined in Resolution 2009-230 have resulted in the Port's policy, regulation, and legislative efforts to date, all of which are in place to assist in copper reduction throughout San Diego Bay.

### **DPR Copper Paint Rule: Implementation and Coordination**

The DPR Rule (3 CCR section 6190) went into effect on July 1, 2018, establishing a maximum leach rate for copper antifouling paints. This regulation is the result of joint efforts by the Port and state legislators with the passing of Assembly Bill (AB) 425, requiring the DPR to adopt a leach rate protective of aquatic environments. Starting July 1, 2018 paint manufacturers were no longer allowed to import or sell paints in the state of California with leach rates greater than 9.5 µg/cm<sup>2</sup>/day. However, it was noted existing stock could be sold until June 30, 2020. While this point-of-sale regulation is expected to assist in TMDLs, it is unknown when and how the effects of the regulation will translate to improved water quality. Further, the DPR has cautioned that additional mitigation measures are still required.

**For the 2020 reporting year, the grace period for all high-copper paints that were in stock at stores and boatyards expired on June 30, 2020. It is expected that any vessel painted after this date in California with copper-based AFPs will be painted with the lower-leach rate paints (i.e., DPR Category I paints).**

Port and DPR staff held several conference calls, continuing their ongoing collaborative partnership that promotes consistency in copper paint-related regulations across the state. In 2020, the Port continued collaboration with the DPR for their statewide special study to evaluate whether Category I paints are improving water quality in impaired basins over time. This study was first conducted in 2019 and is anticipated to be conducted every other year for the next several years, if DPR funding is available.

The Port assisted DPR staff in conducting their 2019 study with efforts that included providing access to SIYB for sampling, providing a sampling vessel, facilitating communications between the DPR and the marinas, yacht clubs, and other SIYB stakeholders during the special study planning process, and data sharing. The Port plans to continue collaborating with the DPR by offering similar support in future years.

**This partnership enables long-term copper reduction planning to align with state efforts. Specifically, the special study being conducted by the DPR will inform the Port on the effectiveness of the 2018 DPR Rule in improving water quality.**

#### Correspondence with State and Federal Agencies

Regular communications with state and federal agencies, policy makers, and legislators promote consistency in requirements being developed across the state. They also provide a valuable networking mechanism to discuss strategies for implementation of activities and lessons learned and to build upon successful activity models. During 2020, the following correspondences occurred:

#### State Water Resources Control Board

The *2020–2025 Nonpoint Source Program Implementation Plan* was prepared by the SWRCB, the Regional Water Quality Control Boards, and the California Coastal Commission. It presents the general goals and objectives for addressing nonpoint source pollution between July 2020 and June 2025 using both statewide and regional approaches. On June 13, 2020, the SWRCB released the draft and solicited feedback from the public. The document was organized by general topics, and within subsections both the SWRCB and various Regional Boards discussed strategic plans to address water and sediment quality issues associated with each topic. **The Port provided comments that highlighted the need for statewide solutions to the copper issue, highlighting that the Draft Implementation Plan itself had identified copper impairments as a statewide problem. The comment letter is included in Appendix E.**

Specifically, comments discussed the challenge of regionally controlling copper loading from a legally available product which is regulated at the state level, and also addressed the need for loading reduction strategies and enforcement to be uniform across the state. **The Port also suggested the need to better understand how the 2018 DPR Rule (i.e., capping the leach rate on paints) and recent findings related to the water quality impacts from in-water hull cleaning are both affecting water quality in impaired water bodies such as SIYB.**

### 2020 California Marine Affairs and Navigation Conference Winter Meeting

From January 15–17, 2020 Port staff attended the California Marine Affairs and Navigation Conference (CMANC) Winter Meeting in Los Angeles, California. Port staff were invited to speak on a TMDL-specific panel and shared lessons learned and updates regarding the SIYB TMDL. Other panelists included staff from the Port of Los Angeles and the Los Angeles County Department of Public Works.

### California State Lands Commission

The Port was approached by the California State Lands Commission to discuss their commercial vessel in-water hull cleaning full capture device special study. Port Staff held multiple calls with the State Lands Commission to assess whether San Diego Bay would be a good candidate to serve as one of several study sites across the country. **While it was ultimately determined that San Diego Bay was not going to be utilized for this study, the Port continues coordination on copper reduction efforts with other agencies such as the State Lands Commission to identify areas where collaboration could be beneficial to copper reduction efforts.**

### Marina Inter-Agency Coordinating Committee

Two Marina Inter-Agency Coordinating Committee (MIACC) meetings occurred during the 2020 reporting year, one on June 17, 2020, and the second on December 7, 2020. Topics of discussion for the June 2020 meeting included a review of the 2019 California Ocean Plan and a presentation by the DPR on the monitoring of dissolved copper in California waterways. The December 2020 meeting covered topics including the San Diego Regional Board's presentation on the TMDL for dissolved copper in SIYB from their perspective, the coastal sediment workgroup, and coastal and marina response to comments for the 2020–2025 Nonpoint Source Implementation Plan. **Port staff participated in the meeting discussions. The Port's participation in this working group remains valuable as it serves as a venue for the discussion of copper impairment issues across the state, acting as a conduit to address said issues at the state level.**

### Coordination with Other Regions on Copper TMDLs and Impairments

In 2020, Port staff held monthly “Copper Catch Up” calls with the Los Angeles County Department of Beaches and Harbors to discuss both agencies' TMDL programs and share lessons learned for copper reduction efforts. Staff from both agencies discussed alignment in regional approaches to copper reduction, where applicable, that greatly strengthen both programs, such as discussing a regional approach to better understand in-water hull cleaning contributions to water quality and potential grant opportunities related to in-water hull cleaning BMPs. Seven meetings were held in 2020.

On January 29, 2020, Port staff attended a webinar update on the Marina del Rey Harbor Copper Site-Specific Objectives study presented for the Technical Advisory Committee and stakeholders. The web meeting provided a summary of progress on the project and included results for the second and third Water-Effect Ratio (WER) sampling events that were conducted in 2019.

On May 14, 2020, Port staff attended another webinar update on the Marina del Rey Harbor Copper Site-Specific Objectives study presented for the Technical Advisory Committee and stakeholders. This meeting provided a summary of progress on the project and included results for the fourth and fifth WER sampling events held in 2019.

## Regulations for In-Water Hull Cleaning

Since October 2011, the Port's in-water hull-cleaning regulations have been in place requiring hull-cleaning businesses to obtain Port-issued permits to conduct hull cleaning on tidelands, develop BMP plans and implement BMPs during all cleaning activities, and ensure that all hull cleaners are trained on the BMPs. The regulations also require marinas to check each hull cleaner for proof of a valid permit and to prohibit non-permitted divers from working in their facilities. At the end of 2012, the Port began issuing identification cards to all permitted hull cleaners to facilitate check-in at the marinas, a process that continued into 2020.



In-Water Hull Cleaning Permit requirements continued in 2020. Tracking efforts occurred via collaborative efforts made by the Port, marinas, and yacht clubs to continue implementing the check-in process. Port staff conducted inspections of the Harbor Police and transient docks, marinas, yacht clubs, and the hull cleaners that were conducting business in these areas to ensure Permit requirements, including BMP implementation, were being followed.

***The Port conducted 80 inspections for In-Water Hull Cleaning activities and 60 marina and yacht club inspections bay-wide in 2020. Consistent with the recent overall programmatic adjustment to place a greater focus on Port areas, in-water hull cleaning inspections of the Harbor Police dock and transient docks, accounted for 31 percent (25 of 80) of the completed inspections.***

In September 2019, the Port started a review of its current In-Water Hull Cleaning Ordinance, Permit, and required BMPs. During this review process, the current Ordinance and Permit structure remained in place and enforceable, and BMPs were required for all hull cleaning businesses. In 2020, the review process continued with Port staff assessing public comments received during 2019 outreach events and determining the next steps in the review process. A common theme from comments received focused on the need to address existing data gaps (such as how the act of in-water hull cleaning effects water quality) prior to amending the Ordinance and Permit. Efforts to address these data gaps are underway.

For the 2020 reporting period, all existing Permits remained in place and new permits were issued on a conditional basis, with their expiration/reissuance process coinciding with any upcoming Ordinance revisions. Key permitting statistics are as follows:

- 102 permits have been issued since the onset of the regulation.
- 58 hull-cleaning permits are active (as of December 31, 2020)
- 9 new conditional hull-cleaning permits were issued in 2020.



***Boat hull before and after cleaning***

To date, the regulations helped to reduce copper loads from in-water hull cleaning by requiring the use of diver BMPs. Until a revised Ordinance and Permit Program is finalized, the in-water hull cleaning regulations remain in place and enforceable as they have in previous years.

## **Testing and Research**

The Testing and Research component of the Copper Reduction Program was developed to assist all Named TMDL Parties in finding solutions to reduce their copper loads, conduct detailed assessments of water quality, and identify new or innovative solutions to improve water quality. Additional testing and research strategies that could further assist with copper reduction in SIYB include the following:

### **Copper Removal Approaches**

The Port's Blue Economy Incubator was established in 2016 to support entrepreneurship, foster sustainable aquaculture, and help drive blue tech innovation. Ideal candidates for the Port's Blue Economy Incubator include technologies that may help improve sediment and water quality in San Diego Bay. In 2017, two copper-related pilot projects were identified:

1. A San Diego-based company, Red Lion Chem Tech, proposed a one-year pilot project to demonstrate their core technology to remove soluble copper in seawater through an active and passive filtration system. This project has been delayed.
2. A Sweden-based company, Rentunder, proposed a multi-year pilot project to demonstrate their drive-in boatwash technology, a new approach that offers an alternative to current in-slip hull cleaning practices, which may help reduce copper particulates released into San Diego Bay.

In 2018, the Rentunder Boatwash Pilot Project commenced, demonstrating technology that offers an alternative to current in-slip hull cleaning practices. Using this technology, vessel hulls are cleaned in an enclosed basin; a gate is opened and allows for boats to enter prior to cleaning; the gate is then raised for the duration of cleaning and lowered again after cleaning to allow the boat to exit. In addition, particulate matter resulting from the cleaning is captured in the basin floor and removed via vacuuming.

The Boatwash Pilot Project consists of two phases. Phase 1 was conducted from 2018 through 2019 and results were published in a Phase 1 Final Report in June 2019 (Wood, 2019). **In 2020, recommendations for Phase 2 of the Rentunder Boatwash Pilot Project were submitted by Rentunder to the San Diego Regional Board and stakeholders. An agreement was finalized with Rentunder and the Port for Phase 2 testing, estimated to begin in 2021.**

### **Hull Paint Transitions**

The transition from copper to non-copper alternatives is one of the most direct approaches to reduce copper loading. By transitioning to the available non-copper alternatives, load reduction is achieved by both active removal during in-water hull cleaning and passive leaching. The Port recognizes that while the 2018 DPR Rule will assist in attaining TMDL goals, additional mitigation measures will still be necessary to achieve full compliance with the final loading target in SIYB. **In 2020, Port staff held several phone calls with representatives from two alternative hull coating companies (SeaCoat and Nature Coat) to learn about progress in bringing their respective products to the recreational boating market.**

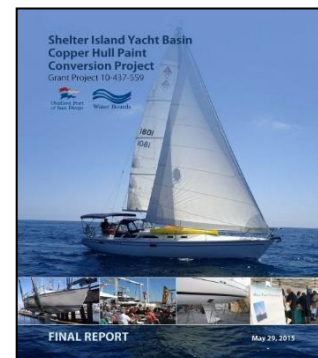
***In addition to its proactive efforts to convert its own fleet of vessels, the Port continues to support efforts to assist other Named TMDL Parties in reducing their copper loads by encouraging hull paint transitions.***

## Conversion of Port Fleet

During the first interim compliance phase, the Port completed the transition of its fleet of boats to non-copper paints. Boats were painted with various alternatives, largely depending on their use patterns. In 2020, the Port continued to maintain a copper-free fleet, therefore eliminating any copper loading contributions from both in-water hull cleaning and passive leaching from its fleet of vessels. **All 15 of the Port's boats continue to use non-copper paints, resulting in a 13.5-kg/yr copper load reduction, and zero copper loading to SIYB.**

## Private Boaters

In 2011, the Port successfully secured a CWA Section 319(h) nonpoint source program grant from the SWRCB for \$600,000 to help with hull paint transitions. The grant-funded SIYB Hull Paint Conversion Project provided cost offsets for SIYB boaters who use non-biocide paints. This project supported efforts to assist other Named TMDL Parties in reducing their copper loads and was completed in May 2015, and it is believed that some participants continue to use non-biocide paints. **A total of 41 boats were transitioned as a result of this effort, and it is the Port's understanding that most of these conversions currently remain in place. This effort resulted in a direct load reduction of 36.9 kg/yr.**



## Education and Outreach

The Port has developed an extensive education and outreach program geared toward educating Named TMDL Parties and other stakeholders on the use of alternative hull paints and increasing their awareness of the environmental impacts of copper paints. The education and outreach program also serves to engage stakeholders in the TMDL issues at the local, regional, state, and federal level.

## Audiences Reached in 2020

The Port continued to ensure that frequent and consistent messages were delivered through multiple media avenues. Outreach efforts continued via email and phone-call responses to public inquiries, regular meetings with marinas and yacht clubs, “one-on-one” meetings when requested with SIYB marina and yacht club managers to discuss the TMDL and copper reduction efforts, and continued hosting of web-access to brochures and information. A new and significant effort in the 2020 reporting year included the creation of the Port Marina Working Group, which was formed in May 2020, led by a Port Commissioner and focused on achieving TMDL compliance and improving water quality in SIYB.

The efforts under the Education and Outreach component of the Copper Reduction Program were designed to reach different stakeholders and audiences, depending on the outreach mechanism (Table 3-1). While each component was designed for a primary audience, secondary audiences may also benefit from the information. In 2020, the Education and Outreach component of the Copper Reduction Program was affected by the COVID-19 pandemic in terms of audiences reached; however, several efforts were still able to be undertaken. The 2020 outreach efforts are summarized below.

**Table 3-1.  
Target Audiences Reached by Outreach Events**

Outreach Component	Audience Reached							
	Regulators	Academics	Government Agencies	Boaters	Marinas	Boatyards	Paint Manufacturers	General Public
Booths at Events <sup>1</sup>	-	-	-	-	-	-	-	-
Conference Attendance	P	P	P	-	-	-	-	-
Guest Speaking Engagements	P	P	P	P	P	P	S	S
Workshops <sup>1</sup>	-	-	-	-	-	-	-	-
Printed Outreach Material	S	S	S	P	P	S	S	P
Dedicated Web Address to Copper Reduction Program	P	P	P	P	P	P	P	P
Peer-Based Testimonials	S	S	S	P	P	S	S	P
Newspaper Articles	P	S	P	P	P	P	P	P
“One-on-One” Meetings	-	-	-	P	P	-	-	-
Public Engagement Sessions <sup>1</sup>	-	-	-	-	-	-	-	-

Notes:

P = Primary Audience, indicating the most likely audience reached with the associated outreach effort.

S = Secondary Audience, indicating audiences that could be potentially reached with the associated outreach effort.

<sup>1</sup>Efforts under these initiative topics were did not occur in 2020 due to COVID-19.

### SIYB TMDL Stakeholder Meetings

In 2018, Port staff began a series of one-on-one meetings with marina and yacht club managers to personalize outreach efforts and to foster collaborative relationships. The Port fostered these efforts with the goals of improving vessel tracking data, re-engaging other Named TMDL parties on TMDL progress and to discuss the additional copper reduction efforts needed to reach full TMDL compliance.

One-on-one meetings continued in 2020 when requested by individual marinas and yacht clubs.

### Port Marina Working Group

**In May 2020, representatives from the marinas and yacht clubs in SIYB, Port staff, and a Port Commissioner formed the Port Marina Working Group to collaborate (where applicable) on efforts aimed to improve water quality and achieve TMDL compliance.** This group met bi-weekly through October 2020 and monthly thereafter for a total of 12 meetings during this reporting period. The Working Group established the following vision and mission:

**Vision:** Water Quality First

**Mission:** A working group between the Port and Shelter Island Yacht Basin Marina Tenants to ensure close coordination on management strategies that meet TMDL compliance and preserve, protect, and enhance water quality in Shelter Island Yacht Basin and San Diego Bay.

These meetings fostered discussions on topics including existing data gaps and how to address them to better understand the connection between in-water hull cleaning and water quality, current copper loading models, annual TMDL monitoring and reporting, and state-level discussions on the TMDL. **This group also started including the Regional Board in these meetings to discuss the SIYB progress to date and challenges remaining. The Regional Board will continue to be an integral part of these meetings for the final two TMDL years.**

### Workshops, Seminars, Conferences, and Public Engagement Sessions

Ongoing public education and outreach also can occur in the form of conference attendance and invited speaker opportunities. In addition to providing information on the Port's Copper Reduction Program and TMDL status, staff in attendance may also gain valuable insight from other presentations that discuss regulatory framework and project examples. Further, seminars and workshops allow for more focused topics to be discussed in depth and at length, thus providing the opportunity to both disseminate proper information and provide additional learning experiences for Port staff.

### Conferences

In 2020, conferences relevant to the SIYB TMDL were postponed or cancelled as a result of COVID-19.

### Guest Speaker Invitations

In 2020, Port staff were invited to present at three speaking engagements at the local, regional, and national/international levels. It should be noted that meetings after March 2020 were held in a virtual format due to COVID-19 social distancing requirements. Topics covered included the Port's In-Water Hull Cleaning Ordinance and Permit Program review process, an update on the Blue Economy Incubator program (including the Rentunder Boatwash) and an overview on water quality challenges facing the Port.

The following guest speaker appearances were made:

- *San Diego Port Tenants Association Marine Recreation Committee, San Diego, CA* – Port staff were invited to present on the status of the Ordinance and Permit review process.



The Marine Recreation Committee is comprised of a variety of Port tenants with many directly involved with the SIYB (January 21, 2020). Approximately 35 people attended.

- *Environmental Advisory Committee* – Port staff gave a Blue Economy Incubator update which included discussing the Rentunder Boatwash Pilot Project (September 16, 2020). Approximately 30 people virtually attended.
- *Ports Water Quality Meeting 2020* – Port staff were invited to present on water quality challenges and initiatives to a group of representatives from several ports from across the country (November 2, 2020). Approximately 25 people virtually attended.

#### Dedicated Web Address

The Port has developed a dedicated web address, [www.sandiegobaycopperreduction.org](http://www.sandiegobaycopperreduction.org), that links viewers to all elements of its Copper Reduction Program. The link, which was started in 2010, provides information on hull paint conversion efforts such as the 319(h) grant project, hull cleaning regulations, and general paint research information. The site also contains downloadable materials such as frequently asked questions (FAQs), applications to obtain a hull cleaning permit, data relevant to copper impairment, and recent press releases relevant to copper reduction. Monitoring studies are also available on the website.

**In 2020, the Copper Reduction Program website was completely updated and reorganized to offer a more user-friendly experience. Port staff provided updated lists of permitted hull cleaners as new information became available.** The website was also updated with current information regarding the In-Water Hull Cleaning Ordinance and Permit review process. In addition, a dedicated email address, [hullcleaning@portofsandiego.org](mailto:hullcleaning@portofsandiego.org), continued to remain available to facilitate information transfer among interested parties. Staff also ensured that the website was readily available and that information remained current and easy to find.

#### Peer-Based Testimonials

Another media tool is peer-based marketing, with local boaters discussing their experiences using alternative paint products. During 2012, video testimonials were developed and displayed at the 2012 expo. In 2013, the video was posted on the Port's website. Additional written testimonials were also included so that readers could learn about other local boaters' experiences. ***As of December 31, 2020, the video had been viewed 1,133 times.***

#### Newspaper Articles

The Log newspaper has a 52,000-person readership in southern California and is available at more than 500 boating-related locations throughout the region. **In 2020, one article appeared in The Log related to the Port's Copper Reduction Program, and specifically SIYB. The Log publication reaches many in the local boating community and has served as an important vehicle for informing the public about the Port's efforts regarding copper reduction in San Diego Bay:**

- January 9, 2020: This article, "Port of San Diego hopes to fine-tune in-water hull cleaning policy" summarized the Port's review of the In-Water Hull Cleaning Ordinance and Permit program and the decision to extend the period of stakeholder feedback review.

### Internal Education

Increasing Port-wide awareness about the Copper Reduction Program, alternative paint use, and status of water quality regulations is vital to a successful program. A solid understanding of the program attracts support by the Port's decision makers, such as the Board of Port Commissioners and executive team, and so enables projects and policy decisions to move forward. An informed executive team can also ensure that adequate funding is available to implement the program. As such, Port staff continually seek opportunities to provide information on key items of the Copper Reduction Program. The following information was provided to the Port Board and executives during 2020:

- January 30, 2020: A Port Board memorandum provided a summary of the Marina del Rey Harbor Site-Specific Objective Study Technical Advisory Committee Review meeting.
- February 11, 2020: Port staff appeared before the Board during the President's Report to provide a status update on the draft amended Ordinance review.
- March 5, 2020: A Port Board memorandum provided notification of an upcoming public scoping meeting for an in-water hull cleaning pilot study to be held April 2, 2020 (*note this meeting was postponed due to COVID-19*).
- April 16, 2020: A Port Board memorandum provided notification of the submittal of the SIYB 2019 Annual TMDL Compliance Report to the Regional Board.
- August 6, 2020: A Port Board memorandum provided notification of the submittal of a comment letter in response to the SWRCB Draft 2020–2025 Nonpoint Source Program Implementation Plan.
- August 13, 2020: A Port Board memorandum provided notification of the 2020 SIYB TMDL annual monitoring event.

### Long Term Vessel Planning Committee

In September 2020, the Harbor Police department created a committee to strategically plan for long-term vessel acquisitions for the Harbor Police fleet. Port staff that work with the Copper Reduction Program are on the committee to ensure vessels added to the fleet remain copper free.

### Partnerships and Collaboration

Since the inception of the SIYB TMDL, the Port has been working to identify opportunities with other Named TMDL Parties, academia, and other agencies to develop and provide outreach, testing opportunities, funding opportunities, and policies. In 2020, the Port participated in multiple collaborative opportunities with groups within San Diego, throughout the California boating and regulatory communities, and with other Ports across the country. These activities and groups include:

- Coordination with the SIML TMDL Group and other SIYB marinas on SIYB TMDL annual reporting;
- Regular participation in state-led MIACC meetings for antifouling and marina-related topics;

- One-on-one meetings with SIYB TMDL listed tenants (i.e., marinas and yacht clubs) when requested to continue to foster collaborative relationships that may result in accurate vessel tracking and innovative copper reduction efforts that are facility-specific;
- Collaborative discussions with Los Angeles County Department of Beaches and Harbors to discuss Copper Reduction Program efforts and lessons learned from the SIYB TMDL to date; and
- Port staff discussions with the Port of Seattle to learn about their innovative bioremediation efforts that use oyster barrels to remove copper from water.

### **Additional Efforts (Companion Programs)**

Several other Port programs directly or indirectly support the Copper Reduction Program's efforts. The Blue Economy Incubator (discussed above) continues to be instrumental in identifying potential pilot studies that may assist in continued efforts to reduce copper concentrations and improve water quality throughout San Diego Bay.

The Port's Stormwater Program incorporates BMPs to decrease copper loading from landside activities bay-wide and specifically into SIYB. These efforts, described below, are primarily related to compliance requirements set forth in the Municipal Separate Storm Sewer System (MS4) Permit. Information related to the implementation efforts for these programs can be found in the Port Jurisdictional Runoff Management Plan (JRMP) Annual Report at:

[https://pantheonstorage.blob.core.windows.net/environment/SDUPD-JRMP-Report-Form-and-Supplemental-Tables\\_FY19-20\\_Submitted-1-28-2021.pdf](https://pantheonstorage.blob.core.windows.net/environment/SDUPD-JRMP-Report-Form-and-Supplemental-Tables_FY19-20_Submitted-1-28-2021.pdf)

### **Construction Site Inspections**

Construction inspections ensure that sites undergoing development or redevelopment control pollution and prevent discharges. For construction sites and facilities that do not comply, the Port takes enforcement action.

### **Commercial Business Inspection Program**

Per the requirements of the Municipal Permit, the Port inspects commercial facilities in SIYB and bay-wide. One component, the Port's marina inspection program, provides opportunities to educate boat owners about pollution prevention, focusing on visual observations to identify sources of pollution and the pollution prevention practices implemented at the marinas and yacht clubs, including over-water work and boat maintenance. The goal of the inspections is to help implement behavior changes that will help reduce pollution (including copper) in bay waters.

### **Stormwater Quality Management Plan and Development of Regulations**

The Port incorporates Stormwater Quality Management Plan (SWQMP) requirements on applicable development and redevelopment projects bay-wide. Depending on the type and size of the projects, SWQMP requirements could include site design, source controls, and treatment controls such as low-impact development (LID). All efforts help reduce copper loading into San Diego Bay. Since 2009, 34 bay-wide projects overall with metals as priority pollutants have been implemented, treating a total of 114.25 acres. In SIYB, there have been five existing projects overall with metals as priority pollutants, treating a total of 9.19 acres.

## **Monitoring and Reporting**

The main goal of the Monitoring and Reporting component of the Copper Reduction Program is to assess long-term improvements in water quality. Several special studies have been implemented to address data gaps in basin water quality dynamics and copper loading. The data collected for the annual monitoring program and through various special studies have all contributed to a better understanding of basin water quality dynamics in SIYB.

### **Regional Harbor Monitoring Program**

This bay-wide monitoring program assesses the ambient conditions in San Diego Bay and other southern California harbors on the basis of comparisons with historical data and comparisons of contaminant concentrations with known surface water and sediment thresholds. The program samples water, sediment, benthic infauna, and a variety of fish species in San Diego Bay. Upon completion of the study, a comprehensive report is generated. The Port is the lead agency on this project.

The core monitoring program was conducted at 58 stations in San Diego Bay from July through September 2018, with 10 of these stations in marina strata. Each station was sampled for water quality, sediment quality, and benthic community health. **In December 2020, the 2018 San Diego Regional Harbor Monitoring Program Final Report was published and can be found at:**

**<https://pantheonstorage.blob.core.windows.net/environment/Regional-Harbor-Monitoring-Program-2018-Final-Report.pdf>**

### **3.1.2 Marina, Yacht Club, and SIML TMDL Group BMPs to Reduce Copper Loading**

Section 3.1.2 of this report has been provided directly by individual marinas and yacht clubs and the SIML TMDL Group. This information is being included by the Port to comply with the requirements of the Investigative Order. Questions pertaining to the BMP selection or descriptions of information within this section should be directed to the Named TMDL Parties, as applicable.

The SIYB marinas and yacht clubs implement BMPs annually to reduce copper loading from their respective facilities and operations. The marinas and yacht clubs' BMP manual and summary of marina and leasehold vessel tracking was provided to the Port and is included in Appendix B of this report.

#### **SIML TMDL Group**

The Shelter Island Master Leaseholder Group adopts and follows the below BMP's on an ongoing basis. Numerous BMPs, over the past ten years, have been developed, applied, modified and assessed for effectiveness. We continue to adapt BMPs to regulatory developments, and local ordinance. We measure the success of these BMPs by projected load reductions. Accordingly, we have as in improvement of the process, we have refined the method by which load reductions are made. We are encouraged by the load reductions accomplished to date and feel that we are better informed on the effectiveness of BMPs from the refined method. These and additional BMP actions are described in more detail in Appendix B.

### Program Improvement

- **Assess and Improve-** Adapt to scientific findings and adopt independent model for load calculation
- **Collaboration-** Participate in meetings and coordination with Port staff and Port consultants on new and ongoing scientific studies
- **BMP Subcommittee** –conducted 4 meetings in 2020
- **Consultancy and Guidance** – retained an environmental professional
- **Seek Alternative Methods** – Facilitation of dry storage on land and support of inter-club sailing regattas using dry storage boats reduce copper load



### Technical Improvement

- Fish and wildlife Consults
- Developed advisory groups with scientists and experts in field

### Bay Club Marina

In addition to the BMP information mentioned above, the Bay Club Marina revised its wharfage agreement in 2019 to include a number of environmental conditions, including those related to copper loading and the TMDL. These facility-specific BMPs are included as part of the Bay Club Marina contract for private wharfage that is signed by the owners that berth their vessels at this facility. The portions of the Bay Club Marina Hotel contract with its vessel-owner tenants that specifically address copper reduction are summarized below.

### Outreach

- **Hull Surveys-** 95% of boaters holding slips in member organizations were contacted about antifouling paint usage.
- **Communication** – email blasts and were sent to boatowners with information on TMDL

**Across Companies-** Reached out to boatyards and paint manufacturers

### Education

- **Meetings** – Participation and attendance at SIYB TMDL Group meetings since 2005 including 12 group meetings in 2020
- **Training** - Ongoing staff trainings for existing and new marina employees
- **Procedures** – Ongoing procedures for verifying and monitoring Port Diver Permit
- **Signage**-Posting diver BMP signs at marinas and yacht club entrances



*Posted sign informing hull cleaners and boat owners about BMPs*

- “Owner also understands that he/she will be required to provide an annual bottom paint questionnaire to the marina office by November 15 each year that includes the following information: paint name, color, product number, brand, copper percentage, boatyard name, and date of paint was applied.”
- “Marina recommends the use of non-toxic, biocide free bottom paints.”
- “Hull cleaning must utilize Best Management Practices to minimize discharge of bottom paint into the water.”
- “Vessel Owners are required to use environmentally friendly hull cleaning companies who are licensed by the Port of San Diego and use Best Management Practices and monitor their divers.”

### 3.2 SIYB TMDL Vessel Tracking

Evaluation, interpretation, and tabulation of vessel tracking data are provided in this section. Through enhanced activities by marina and yacht club managers to survey boaters, approximately 95% of boat owners responded (based on the final combined 2020 survey) and reported information regarding their hull paint. This response rate is indicative of continual invested effort from year to year. Figure 3-1 illustrates the changes in response rate over previous surveys.

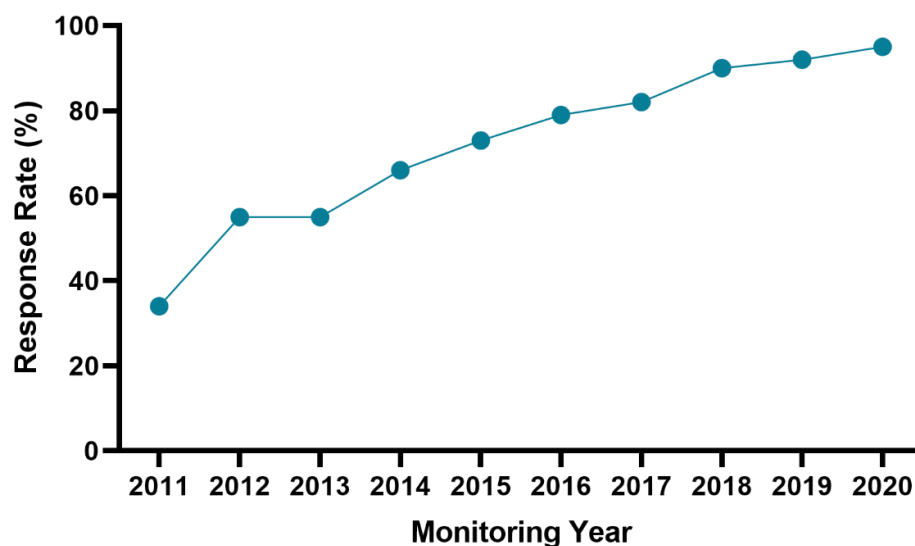


Figure 3-1. Vessel Census Response Rate by Monitoring Year

#### 3.2.1 Vessel Counts by Hull Paint Type

Vessel conversion calculations were based on data provided by SIYB marinas and yacht clubs, in addition to data from the Harbor Police dock, transient dock, and weekend anchorage.

The 2020 census of the hull paint types reported by all SIYB marinas and yacht clubs is as follows:

- A total of 2,169 vessels were included in the 2020 census of hull paint types in marinas and yacht clubs.
- 511 vessels have copper or unknown (assumed to be copper) hull paint.

- 998 vessels have paints considered as lower copper. These vessels consist of the following:
  - 985 vessels<sup>15</sup> have paint that is listed as a DPR Category I (low-leach) paint.
  - 13 vessels have low-copper paint (non-Category I with less than 40% copper content).
- 542 vessels have aged-copper hull paint.
- 118 vessels have either non-copper paints, no bottom paint, or are stored in slip liners or HydroHoists®.

The 2020 census of the hull paint types reported from the Harbor Police dock, transient dock, and weekend anchorage is as follows:

- 15 Port vessels berthed at the Harbor Police dock have non-copper paints or no bottom paint.
- There are 66 spaces in SIYB where transient vessels can be berthed (26 slips at the transient dock and 40 mooring locations at the weekend anchorage). All vessels that were berthed at these two locations in 2020 are considered to have unknown (assumed to be copper) hull paint.

### 3.2.2 Slip Count and Occupancy

Based on the information provided by the Port and SIYB marinas and yacht clubs, 2,315 slips<sup>16</sup> in SIYB were available to be occupied by vessels in 2020, including the weekend anchorage with a capacity of up to 40 guest vessels, 26 transient dock slips, and 17 slips at the Harbor Police dock. There was a decrease of 48 slips in 2020 compared with the baseline of 2,363 identified slips and moorings reported in the SIYB TMDL.

Of the 2,315 slips and moorings in SIYB during 2020, 65 slips (63 slips in the marinas and yacht clubs and 2 slips at the Harbor Police dock) were reported to be vacant year-round, leaving 2,250 slips that were occupied for at least a portion of time in 2020. Slip occupancy rates for each hull paint type are also shown in Tables 3-3 through Table 3-6. On average, slips and moorings in SIYB were occupied 91% of the time.

### 3.2.3 Vessel Dimensions

The average-size vessel in SIYB in 2020, based on reported hull lengths and beam widths, was 11.8 meters (38.7 feet, total length) by 3.7 meters (12.2 feet, beam width) (Appendix C). The average wetted hull surface area of 2020 SIYB vessels was calculated to be 37.2 square meters (m<sup>2</sup>). Figure 3-2 depicts average wetted hull surface area from 2012–2020.

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<sup>15</sup> This includes six vessels painted with Coppercoat®. Coppercoat® is classified as “non-leaching” on the manufacturer’s website; however, this product is registered as a pesticide with the DPR. Vessels with Coppercoat® were classified as “DPR Category I” for load calculations based on the DPR Product/Label Database, as described in Section 2.2.1. This issue is discussed further in Section 4.1.3.

<sup>16</sup> At several locations in SIYB, single slips can be occupied by more than one vessel. In these cases, the slip count may include each vessel within the slip. For example, if two vessels occupy a single slip, the slip count for this location may have been reported as two slips, not one. Efforts to improve consistency on this issue remain ongoing.



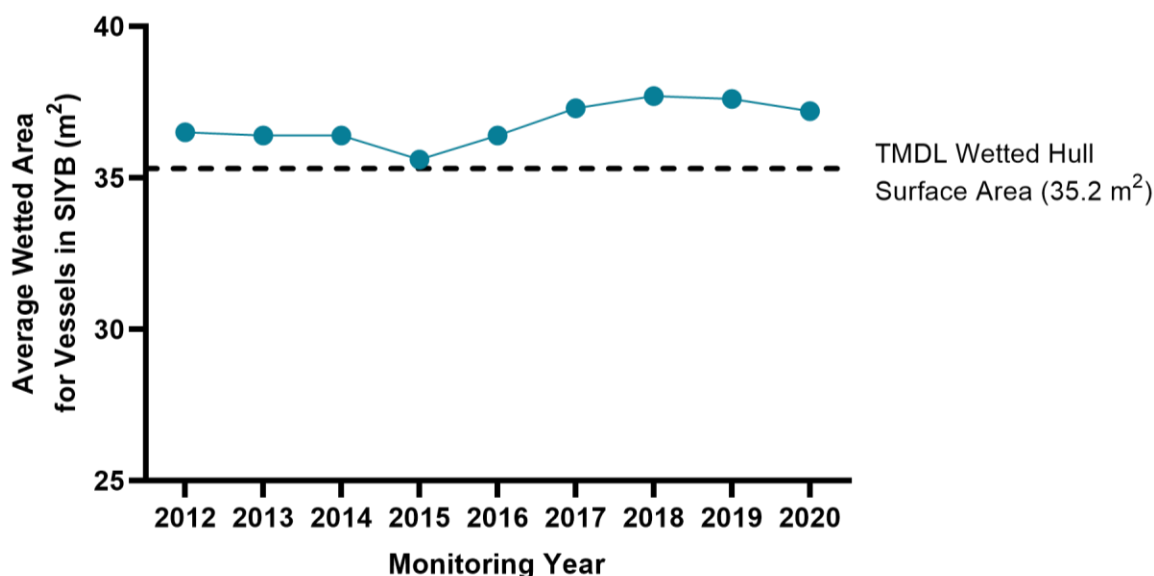


Figure 3-2. Average Wetted Hull Surface Area in SIYB by Monitoring Year, 2012–2020

### 3.2.4 Estimated Copper Load and Load Reduction

Estimates of the dissolved copper load and load reduction for 2020 are presented in this section. Dissolved copper load estimates are presented first as a total load including load attributed to passive leaching and in-water hull cleaning combined (Table 3-2). Dissolved copper load estimates are then parsed out to show loads attributed to passive leaching (Tables 3-3 and 3-4) and in-water hull cleaning (Tables 3-5 and 3-6) separately.

Based on the assumptions described in Section 2.2.3, combined total dissolved copper load estimates were calculated by multiplying the number of vessels in each AFP category by the total per-vessel load (0.9 kg/yr for copper, assumed copper, and unconfirmed paints, or 0.45 kg/yr for DPR Category I, low-copper, and aged-copper paints). The load estimate for each category was then corrected for average vessel occupancy. The total 2020 load estimates from passive leaching and in-water hull cleaning sources combined are presented in Table 3-2 and as follows:

- Vessels with copper (or assumed copper) paints contributed a load of 447 kg/yr. This total includes 424 kg/yr from vessels in yacht clubs and marinas and hull cleaning activities occurring in those facilities, roughly 95% of the loading from this paint type category, and 23.4 kg/yr from vessels at the transient dock and weekend anchorage and hull cleaning activities occurring in those locations, roughly 5% of the loading from this paint category.
- DPR Category I paints are present in marinas and yacht clubs and contributed a dissolved copper load of approximately 416 kg/yr.
- Low-copper hull paints are present in marinas and yacht clubs and contributed a dissolved copper load of 5.3 kg/yr.
- Aged-copper paints are present in marinas and yacht clubs and contributed an annual dissolved copper load of 224 kg/yr.
- No dissolved copper load was contributed to SIYB by 133 vessels with either confirmed non-copper paint, vessels in slip liners or HydroHoists®, or vessels that were unpainted.



This includes 118 vessels in marinas and yacht clubs and all 15 Port vessels berthed at the Harbor Police dock.

- A total of 63 slips within the SIYB marinas and yacht clubs and 2 slips at the Harbor Police dock were reported to be vacant year-round, and therefore did not contribute a dissolved copper load into the basin.

In summary, vessels painted with copper paints, DPR Category I paints, low-copper hull paints, and aged-copper paints contributed a combined passive and in-water hull cleaning load of 1,092 kg/yr of dissolved copper to SIYB in 2020. This total dissolved copper load is composed of approximately 1,069 kg/yr (97.9%) for vessels in yacht clubs and marinas and hull cleaning activities occurring in those facilities plus approximately 23.4 kg/yr (2.1%) for vessels at the Harbor Police dock, transient dock, and weekend anchorage and hull cleaning activities occurring in those locations.

**Table 3-2.**  
**2020 Estimated Copper Load and Load Reduction from TMDL Baseline**

Copper Loading Category	Total Copper Load (kg/yr)
SIYB Vessels in Yacht Clubs and Marinas with Copper or Unknown Paint (Assumed Copper)	424
SIYB Vessels in Yacht Clubs and Marinas with DPR Category I (Low Leach Paint)	416
SIYB Vessels in Yacht Clubs and Marinas with Confirmed Low-Copper Paint	5.3
SIYB Vessels in Yacht Clubs and Marinas with Unconfirmed Low-Copper Paint	N/A
SIYB Vessels in Yacht Clubs and Marinas with Aged-copper Paint	224
SIYB Vessels in Yacht Clubs and Marinas with Confirmed Non-Copper Paint or No Paint	0
SIYB Vessels in Yacht Clubs and Marinas with Unconfirmed Non-Copper Paint	N/A
Port HPD Fleet	0
Transient Dock and Weekend Anchorage in SIYB	23.4
SIYB Yacht Club and Marina Year-Round Vacancies	0 <sup>a</sup>
Port HPD Year-Round Vacancies	0 <sup>b</sup>
Grand Total Load	1,092
<b>Load Reduction from TMDL Baseline<sup>c</sup></b>	<b>1,008 (48.0%)</b>

Notes:

a. 63 slips within the SIYB marinas and yacht clubs were reported to be vacant year-round and therefore contributed no dissolved copper load to SIYB.

b. 2 slips at the Harbor Police dock were reported to be vacant year-round and therefore contributed no dissolved copper load to SIYB.

c. The total copper load from the TMDL equals 2,100 kg/yr from vessel paints (passive leaching and in-water hull cleaning, combined). The estimated load due to background, urban runoff, and atmospheric deposition is not included in this total.

% = percent; DPR = Department of Pesticide Regulation; HPD = Harbor Police dock; kg/yr = kilograms per year; N/A = not applicable; SIYB = Shelter Island Yacht Basin; TMDL = Total Maximum Daily Load

In addition to combined total dissolved copper load estimates presented in Table 3-2, load estimates are presented separately for passive leaching and in-water hull cleaning for the 2020 monitoring year. Estimated dissolved copper loads in 2020 attributed to the TMDL-derived

passive leaching load allocation are shown in Table 3-3 (yacht clubs and marinas) and Table 3-4 (Harbor Police dock, transient dock, and weekend anchorage). Estimated dissolved copper loads in 2020 attributed to the TMDL-derived in-water hull cleaning load allocation are shown in Table 3-5 (yacht clubs and marinas) and Table 3-6 (Harbor Police dock, transient dock, and weekend anchorage).

Passive load estimates were calculated by multiplying the number of vessels in each category by either 0.86 kg/yr (for copper, assumed copper, and unconfirmed paints) or 0.43 kg/yr (for DPR Category I, low-copper, and aged-copper paints). In-water hull cleaning load estimates were calculated by multiplying the number of vessels in each category by either 0.04 kg/yr (for copper, assumed copper, and unconfirmed paints) or 0.02 kg/yr (for DPR Category I, low-copper, and aged-copper paints). The load estimate for each category was then corrected for average vessel occupancy (i.e., Average Time Occupied in Tables 3-3 through 3-6).

**Table 3-3.**  
**2020 Copper Load by Vessel Hull Type and Reported Occupancy**  
**at Yacht Clubs and Marinas as a Result of Passive Leaching Using TMDL Assumptions**

Vessel Hull Paint Category	Number per Category	Average Time Occupied <sup>d</sup>	Copper Load per Vessel (kg/yr) <sup>e</sup>	Total Copper Load (kg/yr)
Copper or Unknown (Assumed Copper)	511	92.1%	0.86	405
DPR Category I (Low Leach)	985 <sup>c</sup>	93.8%	0.43	397
Low-Copper (Confirmed)	13	90.5%	0.43	5.06
Low-Copper (Unconfirmed) <sup>a</sup>	0	N/A	0.86	N/A
Aged-Copper Paint <sup>b</sup>	542	91.9%	0.43	214
Non-Copper (Confirmed or Not Painted)	118	92.3%	0	0
Non-Copper (Unconfirmed) <sup>a</sup>	0	N/A	0.86	N/A
Vacant Slips (Yacht Clubs and Marinas)	63	--	--	0
<b>Total Vessels (Yacht Clubs and Marinas)</b>	<b>2,169<sup>f</sup></b>	<b>--</b>	<b>--</b>	<b>1,021</b>

Notes:

- a. Low- or non-copper paints that were not confirmed are counted as high-copper paint (0.86 kg/yr load for passive leaching), per the Monitoring Plan.
- b. Calculations for aged-copper paints are similar to those for low-copper paints (0.43 kg/yr load for passive leaching).
- c. This includes six vessels painted with Coppercoat®. Coppercoat® is classified as "non-leaching" on the manufacturer's website; however, this product is registered as a pesticide with the DPR. Vessels with Coppercoat® were classified as "DPR Category I" for load calculations based on the DPR Product/Label Database, as described in Sections 2.2.1 and 4.1.3.
- d. The average total occupancy was derived by the count within each vessel hull paint category multiplied by the average percent occupancy for that category; values are presented to three significant figures.
- e. Based on per-vessel load identified for passive leaching in Appendix 2 of the SIYB TMDL.
- f. Note: Vacant slips are not included in this total.
- % = percent; DPR = Department of Pesticide Regulation; kg/yr = kilogram(s) per year; N/A = not applicable

**Table 3-4.**  
**2020 Copper Load by Vessel Hull Type and Reported Occupancy**  
**at the Harbor Police Dock, Transient Dock, and Weekend Anchorage as a Result of**  
**Passive Leaching Using TMDL Assumptions**

Vessel Hull Paint Category	Number per Category	Average Time Occupied <sup>b</sup>	Copper Load per Vessel (kg/yr) <sup>c</sup>	Total Copper Load (kg/yr)
Port Fleet (Confirmed Non-Copper)	15	92.9%	0	0
Transient Dock <sup>a</sup> (Copper or Unknown and Assumed to be Copper)	26	58.6%	0.86	13.1
Weekend Anchorage <sup>a</sup> (Copper or Unknown and Assumed to be Copper)	40	26.9%	0.86	9.26
Vacant Slips (Port HPD Dock)	2	--	--	0
<b>Total Vessels (HPD, Transient Dock, and Weekend Anchorage)</b>	<b>81<sup>d</sup></b>	<b>--</b>	<b>--</b>	<b>22.4</b>

Notes:

- a. Calculated as an average, based on total number of days a slip was occupied by a guest vessel.
- b. The average total occupancy was derived by the count within each vessel hull paint category multiplied by the average percent occupancy for that category; values are presented to three significant figures.
- c. Based upon per vessel load identified for passive leaching in Appendix 2 of the SIYB TMDL.
- d. Note: Vacant slips are not included in this total.
- % = percent; kg/yr = kilogram(s) per year; HPD = Harbor Police dock; N/A = not applicable

**Table 3-5.**  
**2020 Copper Load by Vessel Hull Type and Reported Occupancy at Yacht Clubs and Marinas as a Result of In-Water Hull Cleaning Using TMDL Assumptions**

Vessel Hull Paint Category	Number per Category	Average Time Occupied <sup>d</sup>	Copper Load per Vessel (kg/yr) <sup>e</sup>	Total Copper Load (kg/yr)
Copper or Unknown (Assumed Copper)	511	92.1%	0.04	18.8
DPR Category I (Low Leach)	985 <sup>c</sup>	93.8%	0.02	18.5
Low-Copper (Confirmed)	13	90.5%	0.02	0.24
Low-Copper (Unconfirmed) <sup>a</sup>	0	N/A	0.04	N/A
Aged-Copper Paint <sup>b</sup>	542	91.9%	0.02	9.96
Non-Copper (Confirmed or Not Painted)	118	92.3%	0	0
Non-Copper (Unconfirmed) <sup>a</sup>	0	N/A	0.04	N/A
Vacant Slips (Yacht Clubs and Marinas)	63	--	--	0
<b>Total Vessels (Yacht Clubs and Marinas)</b>	<b>2,169<sup>f</sup></b>	<b>--</b>	<b>--</b>	<b>47.5</b>

Notes:

- a. Low- or non-copper paints that were not confirmed are counted as high-copper paint (0.04 kg/yr load for hull cleaning), per the Monitoring Plan.
- b. Calculations for aged-copper paints are similar to those for low-copper paints (0.02 kg/yr load for hull cleaning).
- c. This includes six vessels painted with Coppercoat®. Coppercoat® is classified as "non-leaching" on the manufacturer's website; however, this product is registered as a pesticide with the DPR. Vessels with Coppercoat® were classified as "DPR Category I" for load calculations based on the DPR Product/Label Database, as described in Sections 2.2.1 and 4.1.3.
- d. The average total occupancy was derived by the count within each vessel hull paint category multiplied by the average percent occupancy for that category; values are presented to three significant figures.
- e. Based upon per vessel load identified for in-water hull cleaning in Appendix 2 of the SIYB TMDL.
- f. Note: Vacant slips are not included in this total.
- % = percent; DPR = Department of Pesticide Regulation; kg/yr = kilogram(s) per year; N/A = not applicable

**Table 3-6.**  
**2020 Copper Load by Vessel Hull Type and Reported Occupancy at the Harbor Police Dock, Transient Dock, and Weekend Anchorage as a Result of In-Water Hull Cleaning Using TMDL Assumptions**

Vessel Hull Paint Category	Number per Category	Average Time Occupied <sup>b</sup>	Copper Load per Vessel (kg/yr) <sup>c</sup>	Total Copper Load (kg/yr)
Port Fleet (Confirmed Non-Copper)	15	92.9%	0	0
Transient Dock <sup>a</sup> (Copper or Unknown and Assumed to be Copper)	26	58.6%	0.04	0.61
Weekend Anchorage <sup>a</sup> (Copper or Unknown and Assumed to be Copper)	40	26.9%	0.04	0.43
Vacant Slips (Port HPD Dock)	2	--	--	0
<b>Total Vessels (HPD, Transient Dock, and Weekend Anchorage)</b>	<b>81<sup>d</sup></b>	<b>--</b>	<b>--</b>	<b>1.04</b>

Notes:

- a. Calculated as an average, based on total number of days a slip was occupied by a guest vessel.
- b. The average total occupancy was derived by the count within each vessel hull paint category multiplied by the average percent occupancy for that category; values are presented to three significant figures.
- c. Based upon per vessel load identified for in-water hull cleaning in Appendix 2 of the SIYB TMDL.
- d. Note: Vacant slips are not included in this total.
- % = percent; HPD = Harbor Police dock; kg/yr = kilogram(s) per year

Based on the estimated total dissolved copper load from passive leaching and in-water hull cleaning combined (1,092 kg/yr), the load reduction for 2020 was calculated and presented in Table 3-2. Load reduction is determined by subtracting the estimated dissolved copper load from the 2,100-kg/yr baseline load attributed to vessels identified in the SIYB TMDL Technical Report (passive leaching = 2,000 kg/yr and in-water hull cleaning = 100 kg/yr). Based upon these calculations, the 2020 estimated copper load reduction is 1,008 kg/yr (i.e., 2,100 kg/yr minus 1,092 kg/yr = 1,008 kg/yr), which is a 48.0% reduction compared with the baseline load identified in the TMDL.

### 3.3 SIYB TMDL Water Quality Monitoring

This section summarizes the results of the 2020 annual analytical chemistry and toxicity monitoring program conducted by the Port in SIYB. Detailed laboratory reports are provided in Appendix D.

#### 3.3.1 Surface Water Chemistry

Annual water quality monitoring was performed on August 20, 2020. Surface water samples were tested for concentrations of total and dissolved copper and zinc, DOC, TOC, and TSS. Results of the monitoring survey are presented in Table 3-7; a QA/QC summary of all analytical laboratory data is in Section 3.3.1.2. The chemistry results report submitted by the analytical laboratory is in Appendix D.

**Table 3-7.**  
**Chemistry Results for SIYB Surface Waters, August 2020 Event**

Station	Dissolved Copper (µg/L)	Total Copper (µg/L)	Dissolved Zinc (µg/L)	Total Zinc (µg/L)	DOC (mg/L)	TOC (mg/L)	TSS (mg/L)
SIYB-1	<b>15</b>	15	42	43	2.8	2.7	11
SIYB-2	<b>10</b>	9.5	29	110	2.6	2.7	8
SIYB-3	<b>9.9</b>	9.6	27	27	2.6	2.5	7
SIYB-4	<b>9.0</b>	8.4	24	25	2.8	2.6	8
SIYB-5	<b>5.4</b>	5.2	16	17	2.9	2.5	5
SIYB-6	0.77	1.3	2.2	3.0	1.6	2.6	7
SIYB-REF-1	0.29	0.43	0.83	1.2	1.5	1.4	9
SIYB-REF-2	1.0	1.2	4.1	4.9	1.8	2.3	11

Notes:

Values in **bold** are above the USEPA National Recommended Water Quality criterion continuous concentration (CCC) for dissolved copper of 3.1 µg/L in marine waters.

No values were above the CCC for dissolved zinc of 81 µg/L.

High tide on 08/20/2020 was +5.29 feet at 11:12AM; tidesandcurrents.noaa.gov

µg/L = microgram(s) per liter; DOC = dissolved organic carbon; mg/L = milligram(s) per liter; REF = reference; SIYB = Shelter Island Yacht Basin; TOC = total organic carbon; TSS = total suspended solids

**Dissolved Copper** – Dissolved copper levels within SIYB ranged from 0.77 to 15 µg/L. The lowest concentration within the basin occurred at the outermost station (SIYB-6); the highest concentration was recorded at the innermost station (SIYB-1). The concentrations of dissolved copper at the reference stations (SIYB-REF-1 and SIYB-REF-2) were 0.29 µg/L and 1.0 µg/L, respectively. Dissolved copper concentrations at five of the six SIYB stations exceeded the

dissolved copper USEPA National Recommended Water Quality CTR CCC WQO of 3.1 µg/L and criterion maximum concentration (CMC) WQO of 4.8 µg/L. The concentrations of dissolved copper at the outermost station in SIYB (SIYB-6), as well as both reference stations located outside of SIYB, were below both WQOs.

**Total Copper** – Total copper concentrations measured in SIYB followed a similar spatial pattern, ranging from 1.3 µg/L at the outermost station (SIYB-6) to 15 µg/L at the innermost station (SIYB-1). The total copper concentrations at the reference stations (SIYB-REF-1 and SIYB-REF-2) were 0.43 µg/L and 1.2 µg/L, respectively.

**Dissolved Zinc** – Dissolved zinc concentrations in SIYB followed a spatial pattern similar to that of dissolved copper. Concentrations ranged from 2.2 to 42 µg/L within SIYB (lowest at SIYB-6 and highest at SIYB-1). The concentrations at SIYB-REF-1 and SIYB-REF-2 were 0.83 µg/L and 4.1 µg/L, respectively. Dissolved zinc levels in SIYB have remained well below the USEPA CCC of 81 µg/L during all SIYB TMDL monitoring events.

**Total Zinc** – Total zinc concentrations followed a similar spatial pattern, with values ranging from 3.0 µg/L at SIYB-6 to 110 µg/L at SIYB-2. The concentrations of total zinc at SIYB-REF-1 and SIYB-REF-2 were 1.2 µg/L and 4.9 µg/L, respectively.

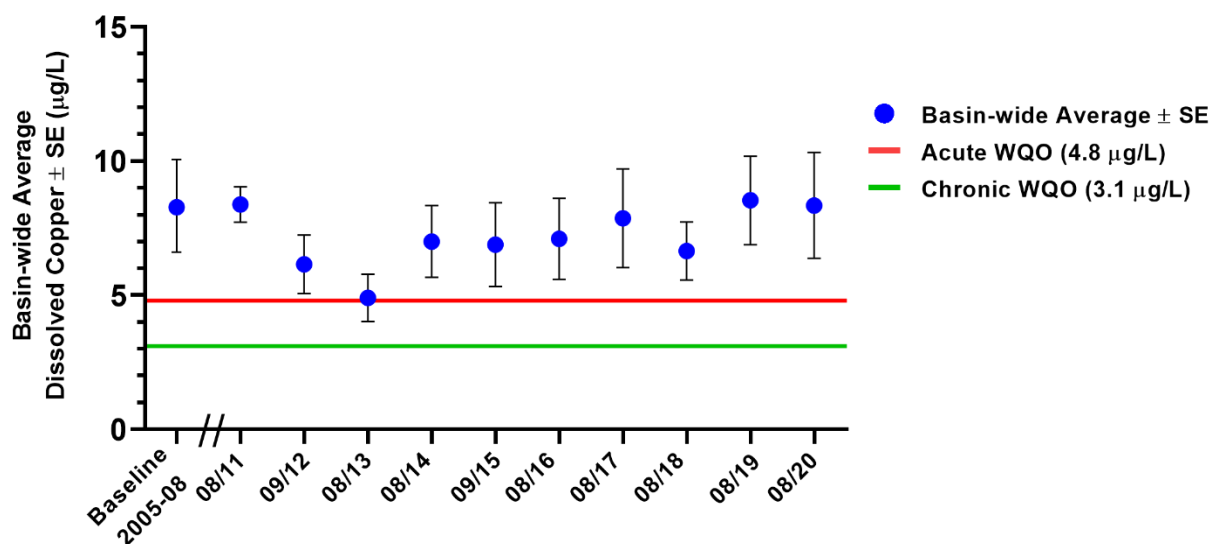
**DOC** – DOC concentrations in the water column, which have been shown to affect the bioavailability of free copper, were relatively consistent at stations SIYB-1 through SIYB-5, ranging from 2.6 milligram(s) per liter (mg/L) to 2.9 mg/L. The concentrations of DOC at the outermost station in SIYB (SIYB-6) and the reference stations outside of SIYB were slightly lower, ranging from 1.5 to 1.8 mg/L.

**TOC** – Similarly, measured concentrations of TOC were relatively consistent for all samples in SIYB, ranging from 2.5 mg/L to 2.7 mg/L. The concentrations of TOC at SIYB-REF-1 and SIYB-REF-2 were 1.4 mg/L and 2.3 mg/L, respectively.

**TSS** – Measured concentrations of TSS were relatively consistent for all six stations in SIYB, ranging from 5 mg/L at SIYB-5 to 11 mg/L at SIYB-1. The concentrations of TSS at SIYB-REF-1 and SIYB-REF-2 were 9 mg/L and 11 mg/L, respectively.

### 3.3.1.1 Comparison of SIYB Dissolved Copper Levels over Time

An average basin-wide dissolved copper concentration was calculated (excluding the reference stations) for comparison with the prior SIYB TMDL monitoring results (Figure 3-3). The basin-wide average concentration of dissolved copper measured in 2020 was 8.3 µg/L ± 2.0 µg/L (mean ± standard error), which is equal to the 2005–2008 baseline level (8.3 µg/L). The 2020 basin-wide average dissolved copper concentration in the surface waters is consistent with that observed in 2019. However, dissolved copper concentrations have increased compared with results from prior monitoring events (2012–2018).



**Figure 3-3. Average Dissolved Copper Concentrations by Year in SIYB Relative to Baseline Conditions**

### 3.3.1.2 Analytical Chemistry QA/QC

All samples were submitted to the analytical laboratory on the day after they were collected (August 21, 2020). The samples were received in good condition at Weck at 2.6°C and on ice. The samples for dissolved metals analyses were field-filtered by Wood and preserved by the laboratory immediately upon receipt. All samples met holding time requirements for analysis.

Analytical chemistry results underwent a thorough QA/QC evaluation; they were determined to meet the data quality objectives in the QAPP and were deemed acceptable for reporting purposes, with the qualifications noted in the QA section of the individual laboratory reports (these issues are summarized below). The analytical laboratory report in Appendix D has a specific QA/QC section that highlights any qualified data.

The following information summarizes the relevant data QA/QC-related findings associated with the 2020 SIYB TMDL study:

- **Issue** – Seawater samples were diluted for copper and zinc between 1 to 20 times due to matrix interference, resulting in elevated detection limits.
  - **Resolution** – The analytical laboratory routinely dilutes samples to ensure sample concentrations are within instrument calibration ranges. Diluting the samples also allows the laboratory to provide more accurate results by eliminating the potential matrix effect often observed in metal analyses of seawater samples. The final analyte concentrations reported by the laboratory are well above the associated reporting limits for all affected samples. Therefore, the analytical QA/QC officer determined that there is no impact on data usability.
- **Issue** – Similar to results in previous events (e.g., 2016–2019) low-level detections of dissolved and total zinc were observed in the equipment rinsate (ER) blank.
  - **Resolution** – Ideally, the level of metals in this QA sample should be very low or non-detect. Total and dissolved concentrations of zinc were reported as non-detect (ND) in the field blank (FB), indicating that the low-level detections reported in the

ER sample may be due to potential trace contamination of the Niskin sampler. However, the concentrations of zinc in the ER were negligible relative to sample concentrations measured within SIYB and therefore are not considered a significant data bias.

- **Issue** – Dissolved concentrations for copper were higher than the corresponding total copper concentrations in 4 of 9 of the samples (3–7% higher).
  - **Resolution** – Review of the analytic blank, ER, and FB results for copper did not indicate any significant contamination that may have resulted during field filtration or laboratory analysis. The laboratory (Weck) was consulted to evaluate possible analytical details that may have influenced these deviations. They include:
    - Different calibration run between the total metals and dissolved metals, which can result in slight differences in the calculated result.
    - Different dilutions performed between total and dissolved metals, with a small margin of error in performing dilutions.
    - Concentrations of total and dissolved copper in the lab blanks were reported as ND (including the dissolved filtration step) ruling out the possibility of lab contamination in the dissolved aliquot.

These slight deviations are not considered significant enough to warrant retesting or recollection of samples and/or reconfirmation testing. All results were reported within acceptance criteria determined by the method and SOP and therefore considered usable for their intended data purposes and reported as provided by the laboratory.

- **Issue** – Sample concentrations were within the expected ranges of values compared to historical concentrations, with the exception of total zinc at station SIYB-2 (110 µg/L).
  - Since the corresponding QA/QC samples (SIYB-1 replicate, matrix spike [MS] and matrix spike duplicates [MSDs]) had acceptable recoveries and RPDs, the elevated total zinc at SIYB-2 appears to be due to sample heterogeneity (e.g., a stray particle of zinc) and considered anomalous in nature. The corresponding SIYB-2 dissolved zinc concentration is 29 µg/L, which is in line with historical values and appears to be representative of the site.
- **Issue** – Spiking levels were appropriate as requested for all analytes with the exception of the DOC/TOC laboratory control samples (LCS), which was spiked at 1 mg/L (one-half of the MS/MSD spike level of 2 mg/L).
  - **Resolution** – There is no data impact from the lower DOC/TOC LCS spiking level. Results are therefore considered usable for their intended data purposes and are reported as provided by the laboratory.
- **Issue** – Low-level detections of DOC/TOC were observed in the ER blank and the FB.
  - **Resolution** – Trace detections of DOC and TOC measured in the ER and FB are of a range similar to those of previous events and may be representative of trace field and/or laboratory contamination. Corresponding laboratory QA/QC samples met all project-specific limits in the QAPP. As similar low-level detections have been observed in previous events, extra care is taken in the field to ensure that sampling equipment is thoroughly cleaned and rinsed prior to collection of each



sample. However, due to the ubiquitous nature of these constituents, some combined low-level contamination from the field and analytical testing is expected, even under clean room conditions. These low-level detections are not considered significant enough to warrant retesting or recollection of samples and testing. All results are considered usable for their intended data purposes and are reported as provided by the laboratory.

- **Issue** – DOC values in several cases were higher than the TOC values reported for the same sample.
  - **Resolution** – Water samples for TOC and DOC analyses are dispensed to separate sample vials in the field, and laboratory analyses are conducted separately. This sample collection and testing approach can sometimes result in TOC levels being slightly lower than DOC levels. The magnitudes of these minor differences are in general agreement with results from previous events. Corresponding laboratory QA/QC samples met all QAPP limits, and concentrations measured in the associated laboratory blanks were very low to non-detect. The differences were not considered significant enough to warrant retesting or recollection of samples and testing. All results are considered usable for their intended data purposes and are reported as provided by the laboratory.

### 3.3.2 Toxicity

In addition to water chemistry analyses, the samples were tested for toxicity using an acute 96-hour survival exposure with a marine larval fish (Pacific topsmelt) and a chronic 48-hour survival and development test using bivalve embryos (Mediterranean mussel). The complete toxicity laboratory report for the 2020 summer monitoring event is in Appendix D.

#### 3.3.2.1 Pacific Topsmelt 96-Hour Acute Bioassay

As mentioned in Section 2.3.6.1, the Pacific topsmelt acute bioassay was conducted twice for the 2020 monitoring program. The initial test was initiated the day following sample collection within the method holding time of 36 hours, while the follow-up test was initiated one week later (August 27, 2020) outside of the holding time referenced in the USEPA whole effluent toxicity test methods.

During the initial Pacific topsmelt bioassay conducted on August 21, 2020, two of the four sets of laboratory controls did not meet the minimum test acceptability criterion of 90% mean survival. In addition, there was a 20 to 25% reduction in fish survival in all test samples (including the reference site), regardless of site or sample concentration (Table 3-8). Because the initial topsmelt test did not meet the control test acceptability criteria the test was deemed invalid. However, a thorough evaluation of the results of the initial test (presented in Table 3-8) suggests that the observed effects in both the control and test samples were not due to a toxic response but rather attributable to test organism health based on the following lines of evidence:

- There was no consistent dose-response relationship observed in the samples during the initial topsmelt test. In other words, survival of topsmelt did not decrease with increasing sample concentration. Rather, mean survival was relatively consistent across sample concentrations from all sites, ranging from 73.3 to 83.3%. This type of flat dose response curve would not be expected if a toxicant was responsible for the observed effect.

- During the initial topsmelt test, two of the four sets of laboratory controls had a mean survival of 80% (which did not meet test acceptability criteria of 90%). This finding indicates that the issue with organism health was observed in clean filtered laboratory control water, in addition to the SIYB and reference water samples.

The reduction in survival across sample concentrations from all sites in SIYB and the reference site in San Diego Bay, as well as in two of the four controls, suggests that there was no toxic response observed but rather the batch of fish used to initiate the initial topsmelt test was suboptimal. Further discussion regarding issues with topsmelt health is provided in the Toxicity QA/QC Section 3.3.2.3.

**Table 3-8.**  
**Results of the 96-Hour Pacific Topsmelt Bioassay – 8/21/2020 Test**

Concentration (% Sample)	Station/Mean Survival (%)						
	SIYB-1	SIYB-2	SIYB-3	SIYB-4	SIYB-5	SIYB-6	SIYB-REF-1
Laboratory Control <sup>a</sup>	90.0	80.0 <sup>b</sup>	80.0 <sup>b</sup>	90.0	90.0	80.0 <sup>b</sup>	80.0 <sup>b</sup>
25	76.7	76.7	76.7	83.3	73.3	73.3	73.3
50	80.0	76.7	76.7	76.7	73.3	76.7	73.3
100	76.7	80.0	76.7	76.7	76.7	76.7	76.7
Test Results							
TST (Pass/Fail) <sup>a,c</sup>	Pass	Pass	Pass	Fail	Pass	Pass	Pass
NOEC (%) <sup>a,c</sup>	50	100	100	100	100	100	100
LC <sub>50</sub> (%)	>100	>100	>100	>100	>100	>100	>100

Notes:

Values in **bold** indicate a statistically significant decrease in survival compared to the lab control using both the TST and the USEPA 2002 acute method guidance flowchart statistical methods.

The reference toxicant LC<sub>50</sub> value (102 µg/L copper) for this test was within two standard deviations of the Wood Aquatic Toxicology Laboratory historical mean (70.7–276 µg/L copper), indicating typical organism sensitivity to copper.

a. Statistical comparisons presented in Table 3-8 (above) were performed using control survival associated with each site. To be conservative, statistical comparisons presented in the toxicity laboratory report (Appendix D) were performed using only the controls that met test acceptability criteria (90% survival). This did not affect overall conclusions.

b. Two of the four laboratory controls did not meet the minimum test acceptability criterion of 90% mean survival; therefore, the test was considered invalid. The undiluted (100%) samples were retested on 8/27/2020 with a different batch of fish (see Table 3-9).

c. Because the minimum test acceptability criterion of 90% mean survival was not met in all laboratory controls, the test was considered invalid, and statistics are provided for informational purposes only. However, a thorough evaluation of the results of the initial test suggests that the observed effects in both the control and test samples were not due to a toxic response but rather attributable to test organism health. To supplement the initial test data, a follow-up test was performed using a different batch of topsmelt.

µg/L = microgram(s) per liter; > = greater than; % = percent; LC<sub>50</sub> = concentration estimated to be lethal to 50% of the organisms; NOEC = no observed effect concentration; TST (Pass/Fail) = test of significant toxicity; TST Pass = sample is nontoxic according to the TST calculation; TST Fail = sample is toxic according to the TST calculation; USEPA = United States Environmental Protection Agency

To supplement the initial test data, a follow-up test was performed on August 27, 2020<sup>17</sup> on the undiluted<sup>18</sup> samples collected on August 20, 2020 using a different batch of topsmelt. The follow-up test passed all control test acceptability criteria and showed no statistically significant toxic responses using both traditional Student's t-test comparisons and the TST pass/fail

<sup>17</sup> The follow-up test was performed outside of the required holding time of 36 hours. Results of this test are considered to be qualified.

<sup>18</sup> Due to the limited availability of test organisms, only the undiluted samples from each station and control samples were tested on August 27, 2020.

approach (Table 3-9). The follow-up test was performed 7 days post-sample collection, which exceeds the USEPA holding time requirement of 36 hours. Consequently, the results of the follow-up testing are considered qualified but supportive of the conclusion that toxicity was also not present in the initial test.

**Table 3-9.**  
**Results of the 96-Hour Pacific Topsmelt Bioassay – 8/27/2020 Test<sup>a</sup>**

Concentration (% Sample)	Station/Mean Survival (%)						
	SIYB-1	SIYB-2	SIYB-3	SIYB-4	SIYB-5	SIYB-6	SIYB-REF-1
Laboratory Control	93.3	93.3	93.3	93.3	93.3	90.0	90.0
100	100	96.7	90.0	90.0	93.3	83.3	90.0
Test Results							
TST (Pass/Fail)	Pass	Pass	Pass	Pass	Pass	Pass	Pass
NOEC (%)	100	100	100	100	100	100	100
LC <sub>50</sub> (%)	>100	>100	>100	>100	>100	>100	>100

Notes:

Values in **bold** indicate a statistically significant decrease in survival compared to the lab control using both the TST and the USEPA 2002 acute method guidance flowchart statistical methods.

a. To supplement the initial test, which had an issue with test organism health, a follow-up test was performed on August 27, 2020 using a different batch of topsmelt. The follow-up test was performed 7 days post-sample collection, which exceeds the USEPA holding time requirement of 36 hours. Consequently, the results of the follow-up testing are considered qualified.

> = greater than; % = percent; LC<sub>50</sub> = concentration estimated to be lethal to 50% of the organisms; NOEC = no observed effect concentration; TST (Pass/Fail) = test of significant toxicity; TST Pass = sample is nontoxic according to the TST calculation; USEPA = United States Environmental Protection Agency

Overall, based on the combined results of the initial and follow-up acute toxicity tests, there did not appear to be an acute toxic response related to ambient water quality in SIYB in 2020. Rather, the observed across-the-board reduction in fish survival of approximately 20-25% (regardless of test site) in the initial test indicates that there was an issue with this specific batch of topsmelt. This determination was further supported by the results of the follow-up test, in which no toxic response was observed using a different batch of fish.

Detailed results and QA/QC summaries for the toxicity testing performed by Wood Aquatic Toxicology Laboratory are presented in the laboratory report in Appendix D.

### 3.3.2.2 Bivalve Larvae 48-Hour Chronic Bioassay

Results of the mussel development tests conducted on SIYB surface water samples are summarized in Table 3-10. Results are presented as a combined endpoint of survival and development per the USEPA (1995b) protocol.

Bivalve tests were conducted on both filtered and unfiltered samples (for the 100% treatments only). Filtration on the 100% concentration samples was conducted to safeguard against potential undesirable effects from resident organisms in the raw water samples.

A bivalve larvae test is considered acceptable (i.e., valid) if at least 50% of the control larvae survived and an average of 90% of surviving control larvae developed normally. Control survival for the 2020 tests ranged from 84.3% to 98.6%; average control survival was 92.2% (which exceeds the test acceptability criteria of 50% survival; see toxicity report in Appendix D). Bivalve

larvae normality in the controls ranged from 95.8% to 97.6%; average control normality was 96.9% (which exceeds the test acceptability criteria of 90% normal development). Based upon these high levels of control survival and normal development, the 2020 SIYB bivalve larvae tests met the required acceptability criteria and the tests were deemed valid.

A statistically significant decrease in the combined survival and development endpoint using the TST test was observed in one of the six samples tested (SIYB-1) from within the basin. Exposure of bivalve larvae to the undiluted and unfiltered SIYB-1 sample (i.e., 100% concentration) resulted in 49.7% combined survival and normal development compared with the laboratory control level (91.0%); these effects were statistically significant using both the USEPA (1995b) statistical approach and the TST analysis. For the undiluted and filtered samples tested, a statistically significant decrease in the combined survival and normal development endpoint was also observed in the SIYB-1 sample (62.6% combined survival and normal development). Bivalve larvae toxicity was not observed in samples collected from any of the other stations in SIYB or the reference station (SIYB-REF-1). The full toxicity testing report is provided in Appendix D.

**Table 3-10.**  
**Results of the 48-Hour Bivalve Larvae Bioassay**

Concentration (% Sample)	Mean Combined Survival and Normal Development						
	SIYB-1	SIYB-2	SIYB-3	SIYB-4	SIYB-5	SIYB-6	SIYB-REF-1
Laboratory Control	91.0	93.0	87.0	88.9	80.7	94.8	90.1
6.25	93.4	94.4	90.9	83.5	81.0	93.8	87.3
12.5	92.2	92.8	90.9	86.0	87.0	95.6	94.4
25	95.1	92.1	92.3	87.9	84.6	96.2	93.3
50	87.2	93.8	90.0	84.6	87.3	93.6	90.2
100	<b>49.7</b>	87.6	80.1	87.0	82.3	93.2	94.0
100 (1.2-µm filtered) <sup>a</sup>	<b>62.6</b>	91.8	86.9	91.3	82.2	95.5	90.1
Test Results							
TST (Pass/Fail) unfiltered sample	Fail	Pass	Pass	Pass	Pass	Pass	Pass
TST (Pass/Fail) filtered sample	Fail	Pass	Pass	Pass	Pass	Pass	Pass
EC <sub>50</sub> (% unfiltered sample)	<100	>100	>100	>100	>100	>100	>100
EC <sub>50</sub> (% filtered sample)	>100	>100	>100	>100	>100	>100	>100

Notes:

Values in **bold** indicate a statistically significant decrease compared to control.

The reference toxicant EC<sub>50</sub> value (5.37 µg/L copper) for this test was within two standard deviations of the Wood Aquatic Toxicology Laboratory historical mean (4.79–15.1 µg/L copper), indicating typical organism sensitivity to copper.

a. Each undiluted sample was also tested filtered through 1.2-µm filter to remove potentially harmful native algae that might interfere with test organism performance. Mean combined survival and normal development in the filtered control was 90.6%.

µg/L = microgram(s) per liter; µm = micrometer(s); > = greater than; < = less than; % = percent; EC<sub>50</sub> = concentration estimated to cause an adverse effect on 50% of the organisms; TST (Pass/Fail) = test of significant toxicity; TST Pass = sample is nontoxic according to the TST calculation; TST Fail = sample is toxic according to the TST calculation

### 3.3.2.3 Toxicity QA/QC

#### Field Observations

On August 17, 2020, as well as the day prior to sample collection (August 19, 2020), reconnaissance surveys were conducted in SIYB to evaluate the study area for the presence of algal blooms and for general water clarity. In addition to these visual assessments, the reconnaissance surveys also included collection of water samples that were sent to the laboratory to be analyzed for the presence of harmful algal species. The analyses showed that the water clarity in SIYB was acceptable and that the collected water samples did not contain an abundance of harmful algae species. Based upon these findings, it was determined that the sample collection should proceed as planned.

#### Sample Receipt

Samples were received in good condition on the same day that they were collected (August 20, 2020). The SIYB samples were delivered on ice and received in the laboratory within the USEPA recommended temperature range of 0–6°C. The mussel test and initial topsmelt test were initiated on August 21, 2020 within the 36-hour holding time requirement. The follow-up topsmelt test was performed 7 days post-sample collection, which exceeds the USEPA method 36-hour holding time.

#### Toxicity Test Validity

##### Pacific Topsmelt 96-Hour Acute Bioassay

As discussed in Section 3.3.2.1, the Pacific topsmelt acute bioassay was conducted twice for the 2020 monitoring program. After issues with test organism health were observed during the initial testing, follow-up testing was conducted to supplement initial test results. A thorough evaluation<sup>19</sup> was performed to assess issues observed with test organism health, as well as interpret overall results of the initial and follow-up acute toxicity tests. The evaluation is summarized below.

During the initial Pacific topsmelt bioassay conducted on August 21, 2020, two of the four laboratory controls did not meet the minimum test acceptability criterion of 90% mean survival; therefore, this test was determined to be invalid. However, the reduction in survival across sample concentrations from all sites in SIYB and the reference site in San Diego Bay, as well as in two of the four controls, indicates that the batch of fish used to initiate the initial topsmelt test was suboptimal. Therefore, based upon review of the initial test results, the reduced and variable survival observed was determined to not be a toxic response, but rather attributable to overall organism health.

Topsmelt larvae used by Wood's testing laboratory are obtained from Aquatic BioSystems, Inc. and shipped from their culturing facility in Colorado to San Diego. Aquatic BioSystems is the only supplier of topsmelt for toxicity testing in the United States. For the 2020 monitoring event, mortality of fish on arrival and during acclimation at the Wood Aquatic Toxicology Laboratory was

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<sup>19</sup> Results of this evaluation were provided to the Port by Wood in response to a letter received by SIMLG, which requested clarification of acute toxicity testing results. This correspondence is included in Appendix E for reference.

slightly greater than desired, but not enough (in the opinion of the laboratory manager) to delay testing. Consequently, the topsmelt test proceeded as planned.

After observing the obvious reduction in topsmelt survival in all test samples and the controls, Wood Aquatic Toxicology Laboratory evaluated potential factors that could have impacted test organism health. Upon further review, it was noted that the receipt temperature for the batch of topsmelt used for the initial testing (23–24°C) was elevated compared to a typical receipt temperature goal of 20°C or less. The timing of this shipment from the culture facility in Colorado to San Diego coincided with a record heat wave in the southwest, which likely had an impact on the quality of fish. However, as mentioned previously, the initial topsmelt testing proceeded as planned because fish mortality upon arrival and during acclimation was not great enough to delay testing.

To supplement the initial study data, Wood Aquatics Toxicology Laboratory performed a follow-up test on the undiluted (100% concentration) samples using a different batch of topsmelt. The topsmelt used for the follow-up test appeared much healthier based on visual observations including their active movement, vibrant appearance, rapid response to feeding, and fewer mortalities during holding and acclimation. The follow-up test passed all control test acceptability criteria and showed no statistically significant toxic responses. The follow-up test was performed 7 days post-sample collection, which exceeds the USEPA holding time requirement of 36 hours. Consequently, the results of the follow-up testing are considered qualified but supportive of the conclusion that toxicity was also not present in the initial test. While the recommended holding time of 36 hours was exceeded for the follow-up test, samples were held at 4°C in enclosed containers with no headspace during that time, as required by USEPA (2002).

Overall, based on the combined results of the initial and follow-up acute toxicity tests, there did not appear to be an acute toxic response related to ambient water quality in SIYB in 2020. Rather, the observed across-the-board reduction in fish survival of approximately 20-25% (regardless of test site) in the initial test indicates that there was an issue with this specific batch of topsmelt. This determination was further supported by the results of the follow-up test, in which no toxic response was observed using a different batch of fish.

#### Bivalve Larvae 48-Hour Chronic Bioassay

The bivalve embryo development test met all test acceptability criteria set by the USEPA, as well as internal laboratory QA program requirements. All bivalve embryo development test data is considered valid and acceptable for reporting purposes with no qualifiers.

The QA/QC summary of the toxicity test results provided by Wood Aquatic Toxicology Laboratory is in Appendix D.

### **Reference Toxicant Tests**

Concurrent reference toxicant results for the initial<sup>20</sup> Pacific topsmelt test and the bivalve larvae test are summarized in Table 3-11 and Table 3-12, respectively. The controls for the initial Pacific topsmelt and bivalve larvae reference toxicant tests initiated on August 21, 2020 both met

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<sup>20</sup> Due to the limited availability of test organisms, no reference toxicant test was performed concurrently with the follow-up test initiated on August 27, 2020.

corresponding minimum test acceptability criteria. The calculated LC<sub>50</sub> for the Pacific topsmelt was within the acceptable range (i.e., within two standard deviations of the laboratory historical mean); however, it was at the low end of the acceptable range (Table 3-11), further indicating suboptimal organism health. The calculated EC<sub>50</sub> value for the bivalve test fell within two standard deviations of the laboratory historical mean, indicating that the test organisms used during this round of testing exhibited typical sensitivity to copper.

**Table 3-11.**  
**Summary of Reference Toxicant Test Results for Pacific Topsmelt – 8/21/2020**

Copper Chloride Reference Toxicant Test			
Concentration (µg/L Copper)	Mean Percent Survival	LC <sub>50</sub> (µg/L Copper)	Historical LC <sub>50</sub> ± 2SD Range (µg/L Copper)
Laboratory Control	90	102	70.7 – 276
25	80		
50	65		
100	45		
200	30		
400	0		

Notes:

µg/L = microgram(s) per liter; LC<sub>50</sub> = concentration estimated to be lethal to 50% of the organisms; SD = standard deviation

**Table 3-12.**  
**Summary of Reference Toxicant Test Results for Bivalve Larvae**

Copper Chloride Reference Toxicant Test			
Concentration (µg/L Copper)	Mean Combined Survival and Normal Development	EC <sub>50</sub> (µg/L Copper)	Historical EC <sub>50</sub> ± 2SD Range (µg/L Copper)
Laboratory Control	92.4	5.37	4.79 – 15.1
2.5	85.6		
5.0	57.4		
10	0		
20	0		
40	0		

Notes:

µg/L = microgram(s) per liter; EC<sub>50</sub> = concentration estimated to cause an adverse effect on 50% of the organisms; SD = standard deviation

## Curved Hinged Larvae

During the 2014 monitoring, it was noted that some of the abnormal larvae (approximately 70%) were enumerated as “abnormal” because they had a slightly curve-hinged shell (i.e., bean-shaped) rather than a straight-hinged D-shaped shell.<sup>21</sup> To evaluate the recurrence of this observation for future TMDL bivalve larvae tests, the laboratory scored the larvae as (1) larvae with a fully developed shell with a straight-hinged D-shape, (2) partially developed larvae with a

<sup>21</sup> Photographs of bivalve larvae with slightly curved hinged shells were included in the 2014 SIYB TMDL report (AMEC Environment & Infrastructure, Inc., 2015).

concave or curved hinge, and (3) larvae that fail to develop a shell or display severe morphological defects.

As described in Appendix D, approximately 0.1 to 3.4% of the bivalve larvae in the undiluted, unfiltered samples for SIYB-1, SIYB-2, SIYB-3, SIYB-4, SIYB-5 for the 2020 study were partially developed but did not possess a straight hinge. One of these samples, from SIYB-1, resulted in statistically significant toxicity to bivalve larvae. No curved hinges were observed in samples from SIYB-6 or SIYB-REF-1. A smaller percentage of the larvae were partially developed with a curve-hinged shell in 2020 compared with 2014. The factor(s) that contributed to the elevated number of curve-hinged shells observed in the SIYB-1 sample in 2014 (>70%) did not recur in 2020 (see the Wood Aquatic Toxicology Laboratory report contained in Appendix D for more information).



## 4.0 DISCUSSION

This section provides discussion related to copper loading, water quality, and TMDL trajectory based on data and information collected during this and previous reporting periods.

### 4.1 Dissolved Copper Load

The 2020 vessel tracking program estimated an annual dissolved copper load to SIYB of 1,092 kg/yr. The relative allocation of loading attributed to passive leaching for vessels moored in SIYB yacht clubs and marinas and hull cleaning occurring in these facilities was approximately 1,069 kg/yr (97.9%). Approximately 23.4 kg/yr (2.1%) was attributed to passive leaching for vessels located at the Harbor Police dock, transient dock, and weekend anchorage, as well as hull cleaning occurring within these locations. These values were calculated by adding together the estimated contributions from (1) copper and assumed-copper paints, (2) DPR Category I and confirmed low-copper paints, and (3) aged-copper paints, and taking occupancy rate into account.

Figure 4-1 presents dissolved copper loads from 2012 to 2020 compared with the TMDL baseline load (2,100 kg/yr). This figure also includes the estimated annual load in relation to the TMDL interim and final load reduction targets. The results of the vessel tracking efforts were used to estimate a dissolved copper load reduction of 48.0% (1,008 kg/yr) for 2020 compared with the TMDL baseline load (2,100 kg/yr). The data indicate a lessening trend toward meeting the final TMDL target of 567 kg/yr by 2022.

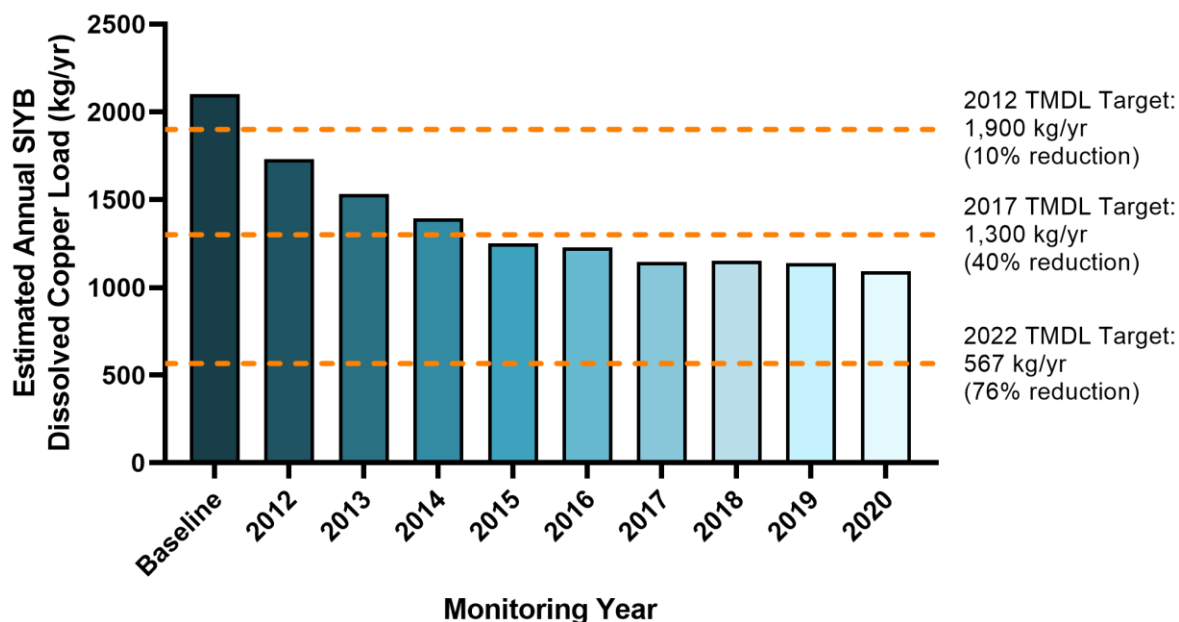
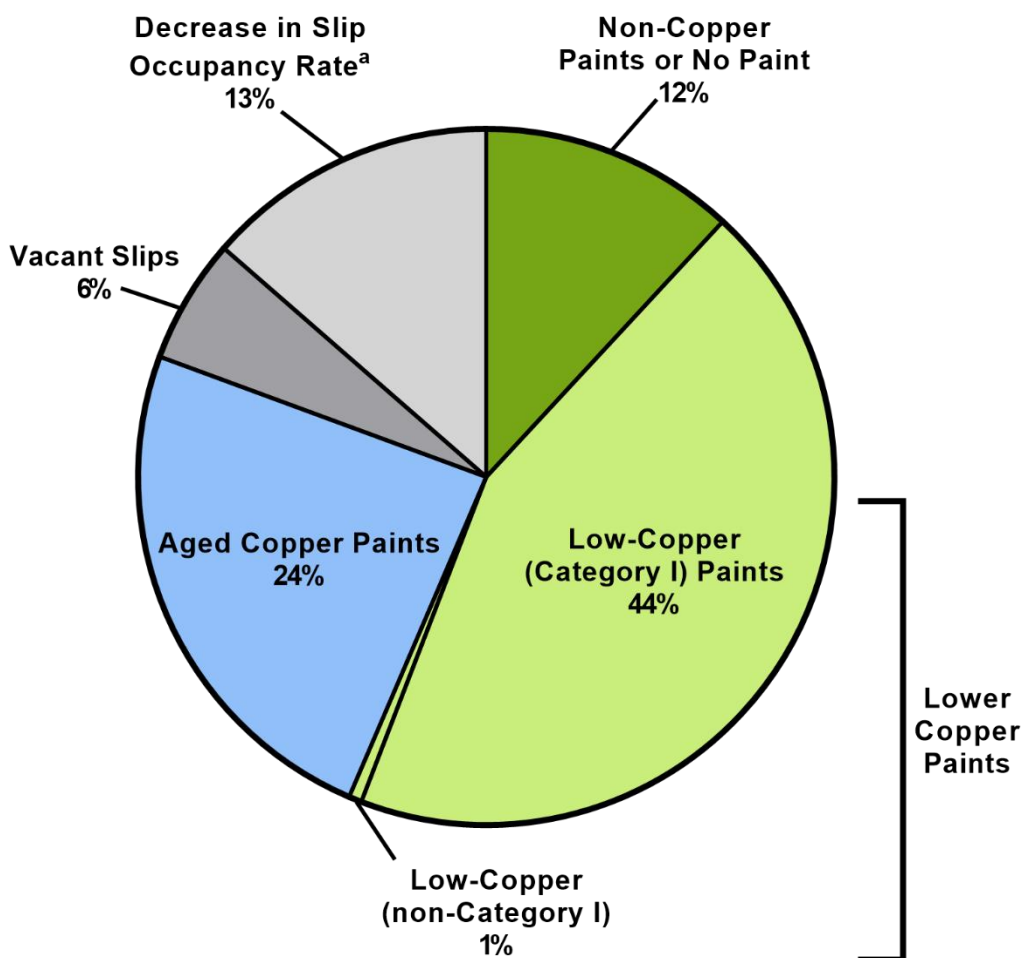


Figure 4-1. Annual SIYB Copper Load per Monitoring Year

#### 4.1.1 Dissolved Copper Load Reduction Sources

The estimated load reduction of 48.0% was calculated by summing all individual load contribution sources and then subtracting this total from the TMDL baseline (i.e., 2,100 kg/yr minus 1,092 kg/yr equals 1,008 kg/yr). Load reduction sources include use of lower copper paints, aged-copper paints, non-copper paints or no paints, vacant slips, and decreased slip occupancy rate. The relative input from each category contributing to the total load reduction is shown in Figure 4-2.



**Figure 4-2. 2020 Estimated Load Reduction (1,008 kg/yr) Relative Percentage per Category<sup>b</sup>**

Notes:

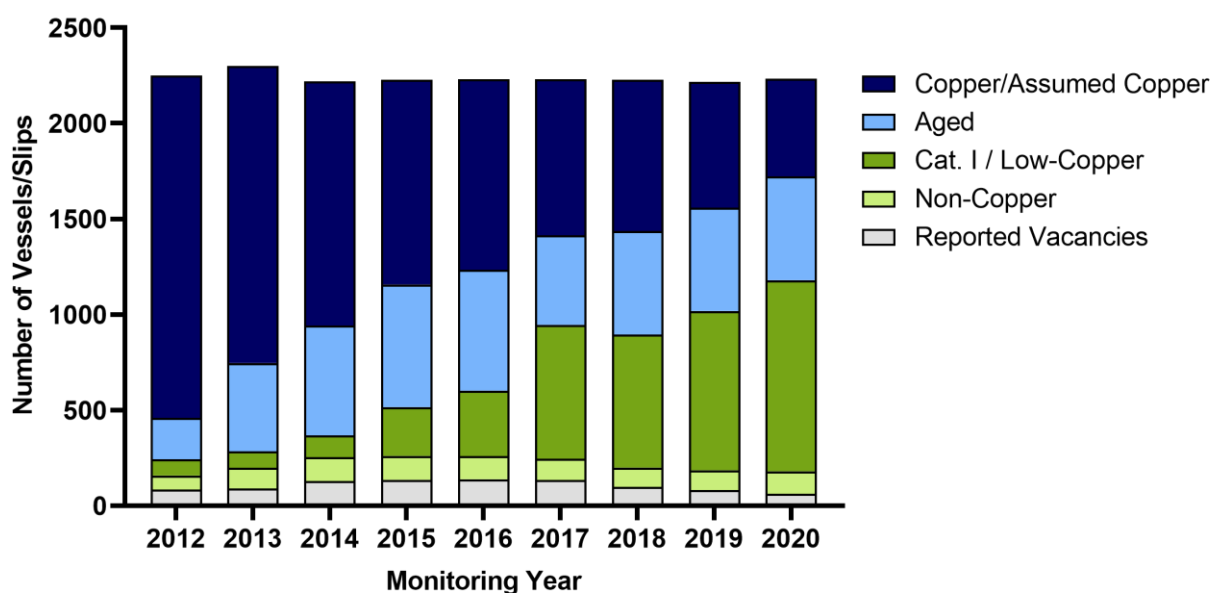
- Decrease in average slip occupancy represents the load reduction due to an average occupancy rate of 91% for all vessels in SIYB.
- The 2020 estimated load reduction (1,008 kg/yr) does not include the load reduction due to the difference between the number of total slips used in the TMDL load calculation (2,363) and the number of slips reported in 2020 (2,315). Therefore, the percent breakdown per category is relative to the 1,008-kg/yr estimated load reduction.

Overall, the data from 2020 indicate that low-copper paints (specifically DPR Category I paints) and aged-copper paints account for approximately 70% of the decrease in annual copper loads. Reductions in the overall occupancy rate (relative to the occupancy rate specified in the TMDL), as well as full vacancies (i.e., slips that are vacant for the entire 2020 monitoring year), account for the second largest copper load decrease. Non-copper paints, slip liners, and HydroHoists<sup>®</sup> are all considered non-copper alternatives, which do not contribute a copper load (i.e., zero-load

alternatives). Notably, the use of non-copper alternatives, which can provide the greatest load reduction benefit, accounted for the smallest fraction of copper reduction strategies in 2020. It should be noted that the Port fleet was converted to non-copper paints in 2012 and does not contribute to copper loading in SIYB.

#### 4.1.2 Annual Variation in Dissolved Copper Load Categories

The annual vessel tracking program has been a part of the SIYB TMDL Monitoring Plan since 2012. Tracking of the load attributed to various classes of vessel paints allows for documentation of changes in paint use, as well as any changes in the other load categories (e.g., slip occupancy, aged-copper paints). Figure 4-3 presents the distribution of paint load categories from 2012 to 2020.



**Figure 4-3. Load Categories per TMDL Year, 2012–2020**

Since the implementation of the Port's monitoring program in 2011, there has been a notable shift from the use of high-copper paints to DPR Category I/low-copper paints. In particular, the number of vessels with DPR Category I paints in 2020 (985 vessels) increased by 47% relative to 2018 (672 vessels) when the DPR Rule was first implemented. In addition, the total number of vessels with high-copper (confirmed, unconfirmed, or unknown) paints in 2020 was lower (35%) than that reported in 2018. The number of vessels with non-copper alternatives has remained relatively consistent since 2013. Further, only 63 vacancies were observed in yacht clubs and marinas in 2020, which is the lowest number of vacancies reported since the inception of the monitoring program (Figure 4-4). This shift in paint use is expected since the DPR Rule was designed to phase out the use of high-copper paints applied in California, and is expected to continue over the next several years.

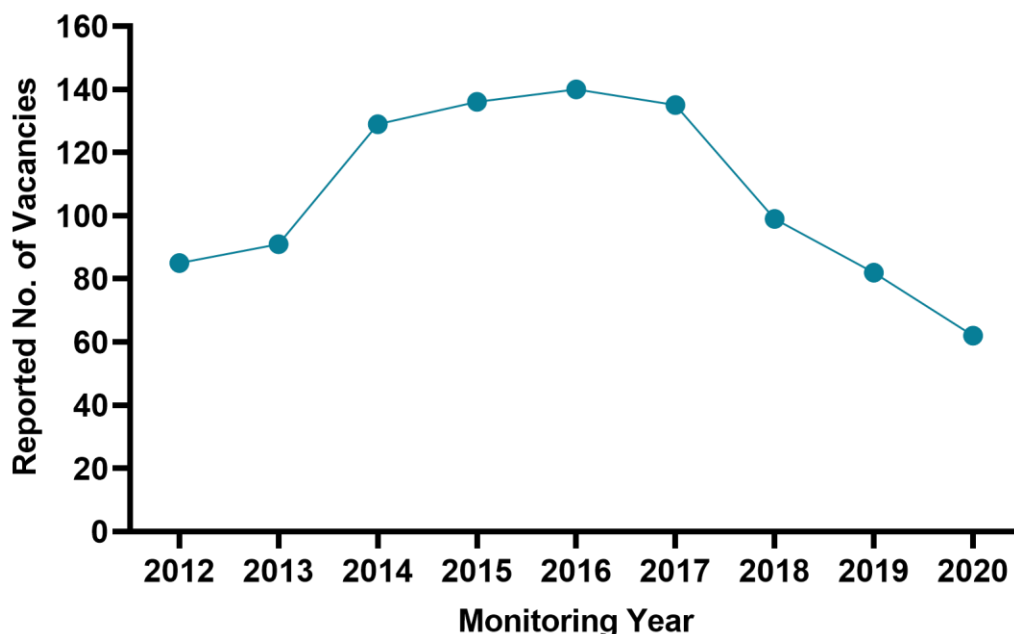


Figure 4-4. Reported Vacancies per TMDL Year, 2012–2020

#### 4.1.3 Alternative Load Reduction Scenarios: Category I Paint Tracking Efforts during the DPR Rule Transition Period

Following the DPR Rule implementation in July 2018, the transition to Category I low-leach paints began to be noticeable in paint use trends, as the majority of newly painted vessels were confirmed to be painted with DPR Category I paints. However, the DPR Rule allowed for existing stock of high copper paints (those exceeding the maximum leach rate requirement of  $9.5 \mu\text{g}/\text{cm}^2/\text{day}$ ) to be sold until June 30, 2020. During this transitional period (July 1, 2018 through June 30, 2020), it became increasingly difficult to track paint use and distinguish between original paint formulations with leach rates exceeding  $9.5 \mu\text{g}/\text{cm}^2/\text{day}$  and paints that were reformulated to meet the DPR maximum leach rate requirements. In many cases, a particular paint name could be associated with both a high-copper and DPR Category I paint. For example, a high-copper paint “Ultra-Kote” was reformulated to meet DPR Rule maximum leach rate requirements; however, its name has not changed, and only the USEPA registration number (which is not always known or provided) can be used to distinguish between the DPR Category I and high-copper formulations. In addition, some uncertainty exists with paint classification due to inconsistent product information obtained from different sources. For example, Coppercoat® is classified as “non-leaching” on the manufacturer’s website<sup>22</sup>, but is a registered pesticide with the DPR.

While the DPR maintains a database of paints, it is continually updated as products are reformulated. In addition, boatyards may refer to paints by a more general nomenclature, making it difficult to truly understand what product was applied. As such, the accuracy and knowledge of specific vessel paint data such as the paint’s name, USEPA registration number, and product

<sup>22</sup> <https://www.coppercoatusa.com/faq.php>

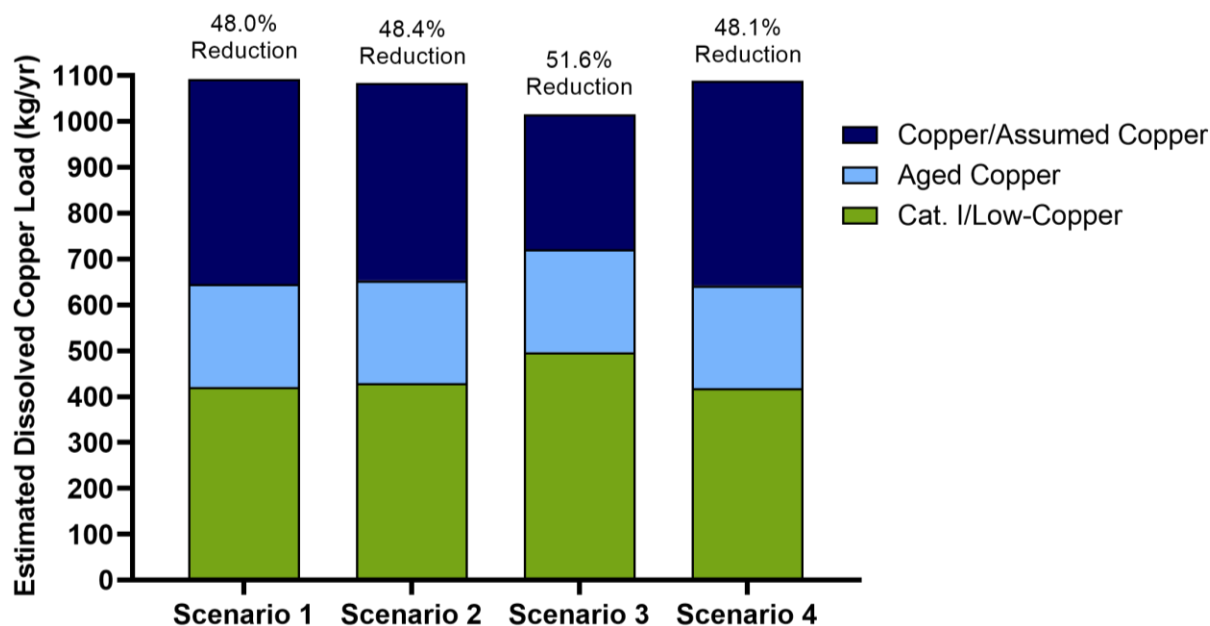
number become critical to understanding the specific product that was applied and whether that product is high copper or DPR Category I.

The vessel tracking approach defined in the SIYB TMDL Monitoring Plan estimates loads conservatively. If a vessel's paint is unknown or cannot be confirmed to be low copper or non-copper based upon the product information supplied, the paint is assumed to be high copper and assigned a full load of 0.9 kg/yr. Therefore, vessels painted during the 2020 reporting period that were unknown or could not be confirmed to have DPR Category I or non-copper paints are assumed to be high copper and assigned a full load of 0.9 kg/yr. The load estimate of 1,092 kg/yr presented in this report was calculated using these conservative assumptions.

However, it is possible that vessels with unknown or unconfirmed paints were actually painted with DPR Category I paints as a result of the DPR Rule implementation and paint availability in the boatyards. To account for potential inconsistencies associated with vessel tracking since the implementation of the DPR Rule and the DPR Product/Label database, alternative load estimates were also calculated for four possible scenarios, each using different assumptions, as follows:

- Scenario 1- Original Loading Approach: This scenario represents the dissolved copper load estimate using the original SIYB TMDL Monitoring Plan assumptions presented in Table 2-3 in Section 2.2.3. Any vessels painted after December 31, 2017 (or with an unknown painting date) with unknown or unconfirmed paints were conservatively assumed to have copper paint (0.9 kg/yr/vessel).
- Scenario 2 – Paint-Date Driven Loading Approach After Surplus Phase Out: This scenario represents the dissolved copper load estimate assuming that all vessels painted after June 30, 2020 (when non-Category I copper-based paints can no longer be sold) have DPR Category I paint (0.45 kg/yr/vessel). Any vessels painted with unknown or unconfirmed paints and unknown painting dates were conservatively assumed have copper paint (0.9 kg/yr/vessel).
- Scenario 3 – Paint-Date Driven Loading Approach After DPR Rule Implementation: This scenario represents the dissolved copper load estimate assuming that all vessels painted after the original DPR Rule implementation date, July 1, 2018, have DPR Category I paint (0.45 kg/yr/vessel). This scenario assumes that boatyards did not have any surplus of high copper paints, and boaters therefore had no access to stockpiles. Any vessels painted with unknown or unconfirmed paints and unknown painting dates were conservatively assumed have copper paint (0.9 kg/yr/vessel).
- Scenario 4 – Loading Approach Assuming Coppercoat® is “Non-Leaching”: This scenario represents the dissolved copper load estimate assuming that all vessels painted with Coppercoat® are “non-leaching”, as classified on the manufacturer’s website, and therefore not contributing dissolved copper load to SIYB (0.0 kg/yr/vessel). As previously described, Coppercoat® is classified as “non-leaching” by the manufacturer, but is a registered pesticide with the DPR. Based on the DPR Product/Label Database and in accordance with the methods described in Section 2.2.1, all six vessels painted with Coppercoat® were classified as “DPR Category I” (0.45 kg/yr/vessel) for the 2020 load calculations presented in Section 3.2 of this report (Scenario 1 in Figure 4-5).

Loading estimates for each scenario are presented in Figure 4-5.



**Notes:**

Scenario 1: Original assumptions

Scenario 2: Assume vessels painted after June 30, 2020 are Category I

Scenario 3: Assume vessels painted after June 30, 2018 are Category I

Scenario 4: Assume vessels painted with Coppercoat® are "non-leaching"

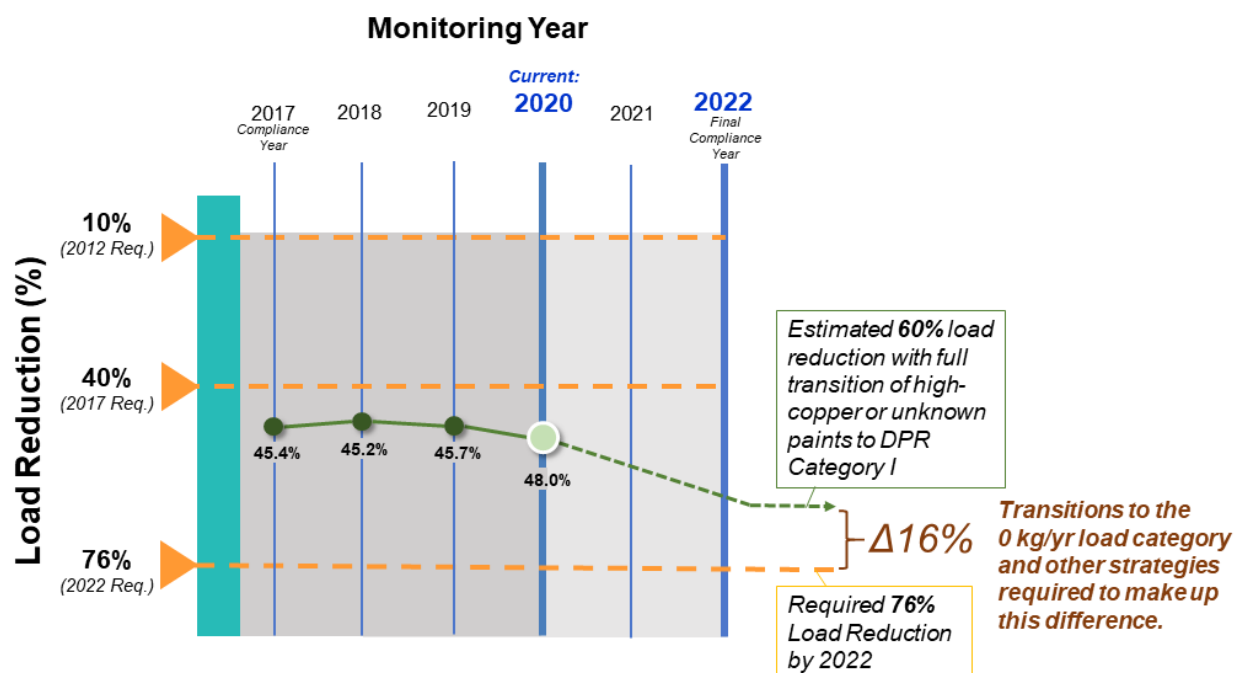
**Figure 4-5. Loading Estimate Scenarios Based on Painting Date**

Dissolved copper load estimates calculated for Scenarios 2 and 3 based on painting date assumptions result in a slight increase in calculated load reduction relative to that calculated using the original SIYB TMDL Monitoring Plan assumptions. However, even with the adjustments that assume boatyards predominantly apply DPR Category I paints during the DPR Rule transition, a number of vessels remain with unknown paints and unknown painting dates that are conservatively assumed to have copper paints. However, three years following the end of the DPR Rule transition period (June 30, 2023), all copper paints, if painted in California and/or paint is purchased in California by the boater, will be either DPR Category I paints or aged paints.

#### 4.1.4 Dissolved Copper Load Trajectory Following DPR Rule Implementation

Moving forward, a key assumption is that all or most vessels in SIYB are expected to have DPR Category I, aged, or non-copper paints by June 30, 2023 due to the DPR Rule. This assumption is valid because the vessel tracking data supplied by the SIYB marinas and yacht clubs indicate the majority of vessels are painted in California boatyards. While the ongoing transition to DPR Category I paints is critical to future load reductions in SIYB, the complete transition process will require time for full implementation. It is anticipated that the timeline for full realization of the DPR Rule will exceed the SIYB TMDL schedule that requires that the final compliance requirement for copper loading be achieved by the end of 2022.

Using the 2020 vessel count and occupancy information as a guide, a future loading scenario (i.e., the transition from high-copper paints to DPR Category I paints) over the final phase of the TMDL would result in an approximately 60 percent copper load reduction compared with the TMDL baseline load (Figure 4-6).



**Figure 4-6. Estimated Load Reduction with Fully Realized DPR Rule and Required Reductions for TMDL Compliance**

It is anticipated that even with a full transition to DPR Category I paints under the DPR Rule, based upon the current TMDL's loading assumptions, the final target load of 567 kg/yr will not be achieved by the end of 2022 or beyond that date without additional load reduction measures, such as conversions to non-copper alternatives instead of opting for low-copper products.

## 4.2 Water Quality Monitoring

This section discusses the findings from the water quality monitoring conducted in SIYB in 2020.

### 4.2.1 Dissolved Copper Levels

The basin-wide average dissolved copper level during the 2020 monitoring program was 8.3 µg/L. Copper levels at the five innermost stations in SIYB (SIYB-1 through SIYB-5) exceeded the CTR CCC WQO of 3.1 µg/L on the day of sample collection. Dissolved copper concentrations at these five stations also exceeded the CTR acute CMC water quality objective (4.8 µg/L) in 2020, which is consistent with previous monitoring years.

The two most recent monitoring years (i.e., 2019 and 2020) resulted in the two highest basin-wide dissolved copper average concentrations (8.5 µg/L and 8.3 µg/L, respectively) measured since monitoring was initiated in 2011. Baseline water quality monitoring conducted during the 2005–2008 period prior to the Port's TMDL monitoring efforts were consistent with the most recent results (8.3 ± 1.4 µg/L).

Figure 4-7 presents the dissolved copper levels measured at each station from 2011 through 2020. A gradient in dissolved copper levels in SIYB exists where higher concentrations are found near the head of the basin (Station SIYB-1) and dissolved copper levels decrease moving toward the mouth (i.e., Station SIYB-6 and within San Diego Bay [SIYB-REF-1 and SIYB-REF-2]). In



most years, copper levels at SIYB-6 have been below both WQOs and close to or below the acute WQO at SIYB-5.

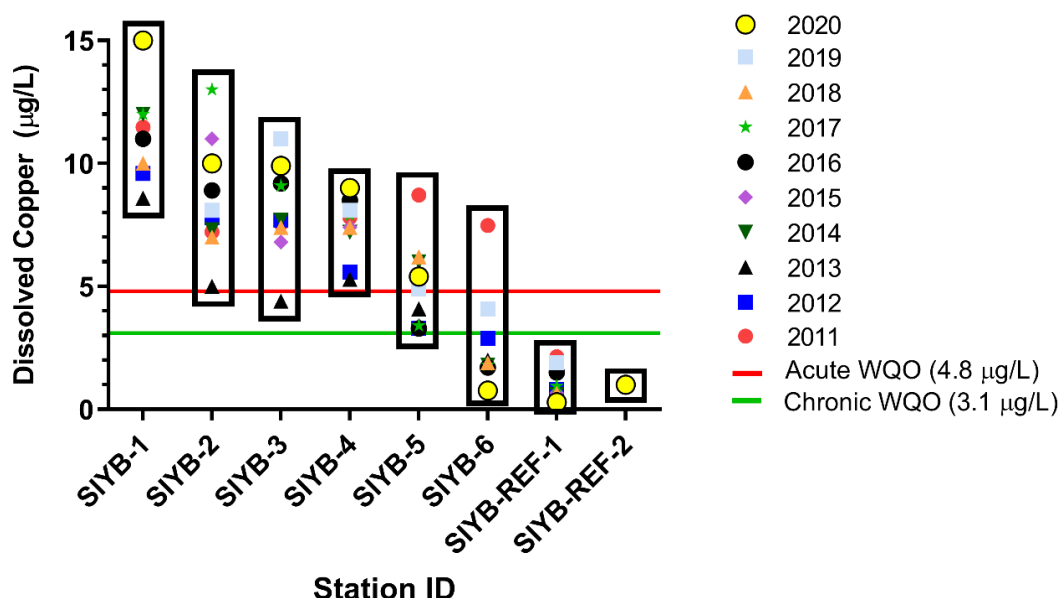


Figure 4-7. Dissolved Copper Comparison by Sampling Station

## 4.2.2 Toxicity

Bivalve larvae chronic survival and development is considered a primary indicator of copper toxicity, because the mussel species (*Mytilus galloprovincialis*) is considered one of the most sensitive genera used in the calculation of the water quality criterion for copper in marine environments (USEPA, 1995a). Since 2012, chronic toxicity of bivalve larvae has only been observed at two sampling stations (SIYB-1 and SIYB-2). Station SIYB-1 has shown a toxic response during all monitoring events since the program began in 2011. While no toxic response has been observed in station SIYB-2 for the past three years (2018–2020), toxicity has been observed at this station periodically since the program began in 2011. Stations SIYB-1 and SIYB-2 are the closest to the head of the basin and have the highest concentrations of vessels within the immediate vicinity, as well as the highest copper concentrations, compared with other stations. Consistent with previous SIYB monitoring events, results from the 2020 monitoring indicated no chronic toxicity at the sampling stations in the middle or near the mouth of the basin.

As discussed in Section 3.3.2, Pacific topsmelt acute toxicity tests were performed twice for the 2020 SIYB TMDL Monitoring Program. Although the results of the follow-up test were considered qualified due to a sample holding time exceedance, the combined results of the initial and follow-up tests suggest that there did not appear to be an acute toxic response related to ambient water quality in SIYB in 2020.

It is also important to note that a toxic response in Pacific topsmelt was observed at station SIYB-4 in 2018 and 2019; however, the cause of this toxicity is unknown. In accordance with the Monitoring Plan<sup>23</sup>, samples were recollected at this site for confirmation testing in 2019, and

<sup>23</sup> Due to unexplained toxicity observed during the 2018 monitoring program, toxicity testing methods in the Monitoring Plan were updated in 2019 to include conditions that may necessitate a toxicity identification evaluation (TIE).



toxicity was no longer present; therefore, no additional evaluation (i.e., a toxicity identification evaluation) was warranted. Similarly, there did not appear to be a toxic response observed at station SIYB-4 in 2020. However, given the transient nature of acute toxicity observed at SIYB-4, this site will continue to be monitored closely in future monitoring events.

### 4.3 Comparison of Achieved Load Reduction to Monitored Water Column Dissolved Copper Concentrations

The calculated dissolved copper loading has decreased approximately 48% since the implementation of the TMDL in 2011. As more vessels transition to use of lower copper paints, the calculated annual load has decreased because lower copper paints are assigned a dissolved copper load of 0.45 kg/yr/vessel in comparison to a full copper load (0.9 kg/yr/vessel). However, the rate of load reduction has slowed substantially since 2017 (Figure 4-1) and appears to be in a steady state of copper loading.

In contrast, although the average basin-wide water column dissolved copper levels decreased slightly between 2012 and 2018, the average basin-wide water column dissolved copper levels in 2019 and 2020 were similar to pre-TMDL baseline levels (8.3 µg/L) (Figures 3-3 and 4-8).

Conceptually, the observed concentrations of dissolved copper in the water column should be positively correlated to the calculated copper loading in SIYB. The primary goal of copper load reduction efforts is to decrease water column copper concentrations to meet the CTR regulatory criterion target of 3.1 µg/L. Hence, with greater copper load reduction, an associated decrease in water column dissolved copper concentrations is expected; however, to date, this has not occurred consistently. Potential factors that may influence water column concentrations in enclosed basins include vessel paint practices, hull management practices, and potential influences from the bay or elsewhere. These topics are identified and analyzed below.

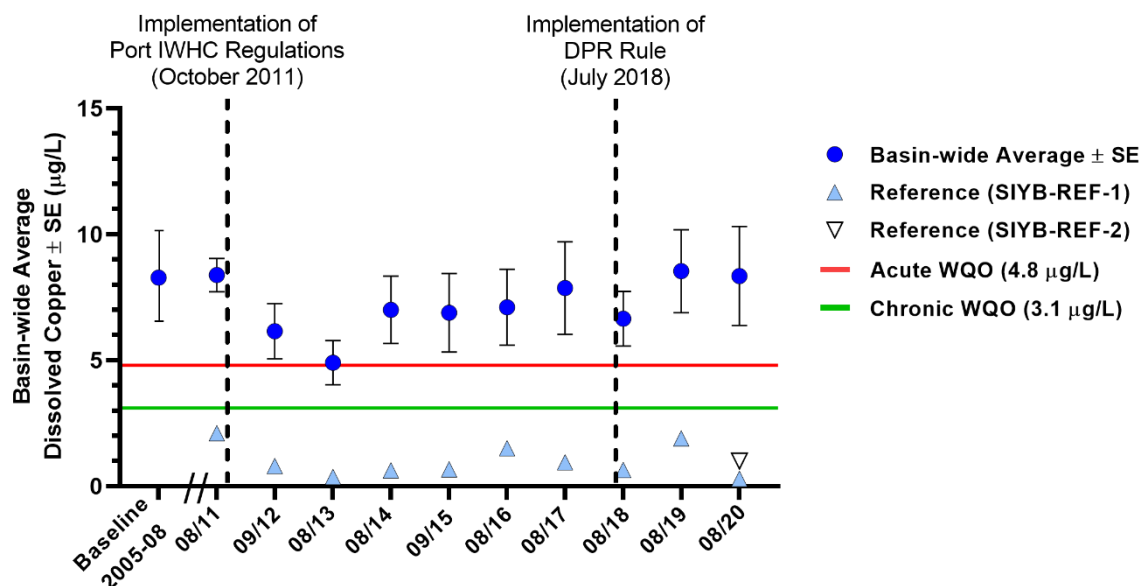


Figure 4-8. Key Load Reduction Initiatives and Water Quality

**Vessel Paint:** A notable 47% conversion of vessels painted with high copper paint to low-leach copper DPR Category I paints has occurred since 2018 and DPR Rule implementation (Figure 4-8). Predictions using the paint type conversions and original TMDL loading assumptions would be expected to result in concurrent improvement in SIYB water column dissolved copper levels, or, at minimum, a downward shift in the water quality trajectory as more lower leaching DPR Category I copper paints are used.

The DPR Rule requiring the use of DPR Category I paints for recreational vessels (Figure 4-8) was implemented in 2018. Since that time, monitoring results in 2019 and 2020 indicate an increase of nearly 2 µg/L in the basin-wide average of water column dissolved copper concentration. It is unknown at this time whether a full transition to lower leaching DPR Category I paints would change the water quality trajectory, especially given the initial two years (and an almost 50% shift) of transitioning to DPR Category I paints without an observed decrease in dissolved copper levels.

Moreover, as shown in Figure 4-6 and discussed earlier in Section 4.1.4, the expected load reduction resulting from DPR Rule implementation alone is not anticipated to achieve the ultimate TMDL target load of 567 kg/yr, even beyond the TMDL timeline.

Another notable paint use behavior observed over the past five years is extremely limited use of non-biocide paints in SIYB. Despite longstanding education efforts and grant initiatives to supplement paint application, the number of vessels with non-copper alternatives has remained relatively consistent since 2013. Port paint studies and discussions with boatyards, paint manufacturers, and boaters identify higher upfront application costs, difficulty in cleaning, and product unfamiliarity as some reasons for having copper AFP remain the paint of choice. Given that copper AFPs remain a legal and familiar paint choice, behavior changes become increasingly difficult to encourage through voluntary means. While it is difficult to discern the exact reasons for boaters' lack of non-biocide paint use, the adoption of the DPR Rule demonstrates that copper AFPs will likely remain a legally available product on the market which may ultimately be an unintended consequence limiting the transition to non-copper alternatives.

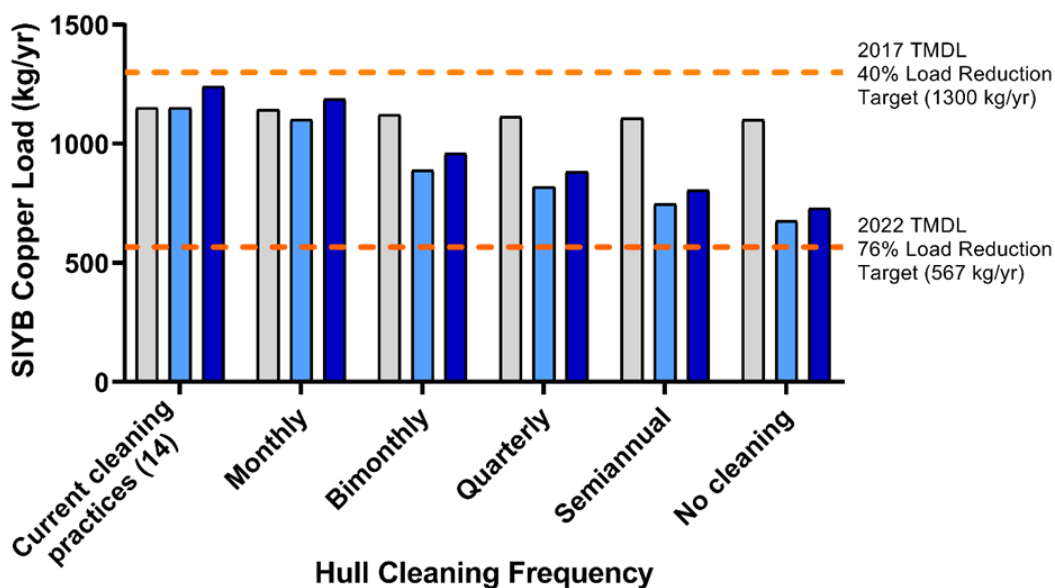
To date, it appears that increased usage of DPR Category I paints is not having the anticipated positive effect on improving water quality, nor is it encouraging boaters to use non-copper alternatives. This issue remains a significant limitation in further reducing copper loads into SIYB and changing the water quality patterns being observed in SIYB.

**In-Water Hull Cleaning:** Figure 4-8 presents an evaluation of large-scale programmatic shifts and/or policy actions and their potential correlated loading adjustments in comparison to water quality findings. As shown in Figure 4-8, the greatest reduction in the average basin-wide dissolved copper level occurred between 2011 and 2013, decreasing from 8.4 µg/L to 4.9 µg/L. One potential contributing factor to this pattern could be that this timeframe corresponded with the initial introduction of the Port's in-water hull cleaning regulations. However, it is important to note that there is not a direct study that evaluated this, only the anecdotal water quality shift that was identified during the annual TMDL monitoring.

Additional support suggesting that in-water hull cleaning may have more of an impact on copper loading and water quality than originally estimated comes from modeling studies conducted after the TMDL was adopted. Scientific investigations conducted by Space and Naval Warfare Systems Command (SPAWAR) (Earley et al. ,2013) are considered updates to sound science that take

into account vessel paint life cycle load contributions from both passive leaching and in-water hull cleaning. Findings suggest that loading from hull cleaning occurs over an extended period following each hull cleaning event over the life cycle of the paint. When viewed from a paint life cycle perspective, loading associated with in-water hull cleaning may contribute up to 40% of total copper loading. This estimate exceeds the original TMDL in-water hull cleaning loading assumption of 5%.

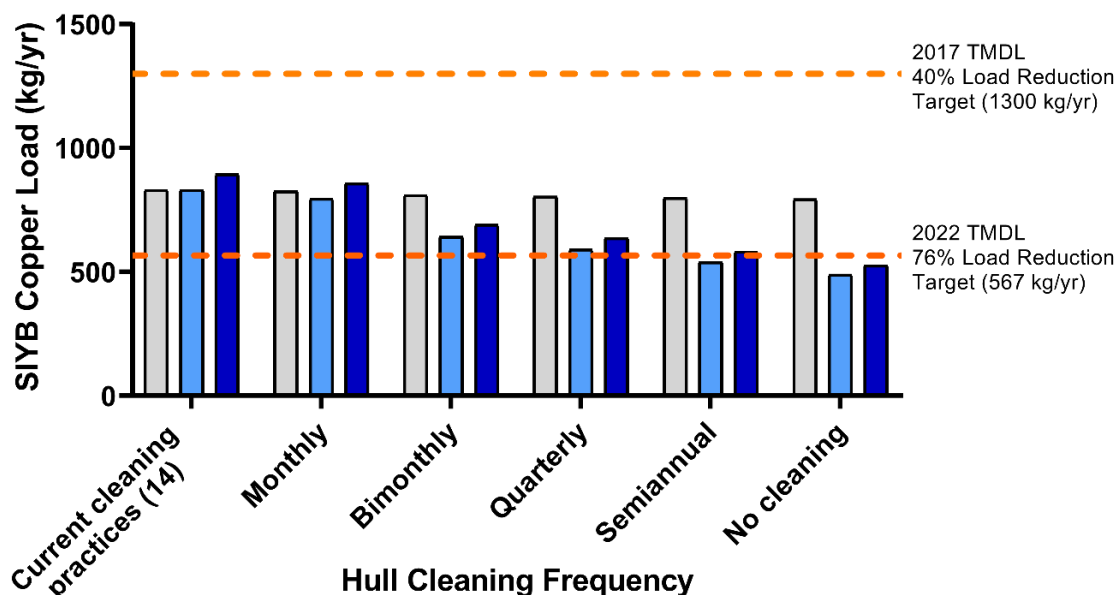
In addition, a TMDL Conceptual Model review was conducted by the Port in 2019 (Wood and Dudek, 2019) comparing available data from the TMDL, the SPAWAR study (Earley et al., 2013) and SIYB-specific information. This model review demonstrated that the recent Life Cycle Dynamic Model and the robust data analyses set forth within that model, provide total load calculations that are consistent with the TMDL and best represent real-time use conditions occurring in marina basins. Further, this TMDL Conceptual Model Review evaluated the different modeled loading contributions related to in-water hull cleaning frequencies and suggested adaptive management measures to vessel hull cleaning frequency and adjustments to implementation practices may lead to copper load reductions and water quality improvements (see Figures 4-9 and 4-10 and additional discussion in Wood and Dudek, 2019).



\* Projections use 2018 SIYB vessel tracking data

- 2005 TMDL Instantaneous Model  
(0.9 kg/yr for high-leach copper paints;  
0.45 kg/yr for low-leach or low copper paints;  
3.4-m beam width)
- TMDL (2005) using Earley et al. (2013) Life Cycle Dynamic Model  
(0.9 kg/yr for high-leach copper paints;  
0.45 kg/yr for low-leach or low copper paints;  
3.4-m beam width)
- Earley et al. (2013) Life Cycle Dynamic Model  
(0.97 kg/yr for high-leach copper paints;  
0.485 kg/yr for low-leach or low copper paints;  
4-m beam width)

**Figure 4-9. Copper Loading Estimates for Different Hull Cleaning Frequencies Using the 2005 TMDL Instantaneous and Life Cycle Dynamic Models\***  
(Source: Wood and Dudek, 2019)



\* Projections use 2018 SIYB vessel tracking data

- 2005 TMDL Instantaneous Model  
(0.45 kg/yr for Category I paints;  
3.4-m beam width)
- TMDL (2005) using Earley et al. (2013) Life Cycle Dynamic Model  
(0.45 kg/yr for Category I paints;  
3.4-m beam width)
- Earley et al. (2013) Life Cycle Dynamic Model  
(0.485 kg/yr for Category I paints;  
4-m beam width)

**Figure 4-10. Copper Loading Estimates for Various Hull Cleaning Frequencies Using TMDL Instantaneous and Life Cycle Dynamic Models after Fully-Realized DPR Rule\* (Source: Wood and Dudek, 2019)**

In 2019, the Port conducted outreach efforts related to potential amendments to its in-water hull cleaning ordinance. It is important to note that BMPs and permit requirements remained in effect during the ordinance review efforts and continue through this time. However, new BMP approaches aimed at aligning with DPR mitigation strategies, such as once-per-month cleaning and use of soft carpet, were not supported by any of the other Named TMDL Parties. Industry professionals indicated during these outreach events that DPR Category I paints often require a higher frequency of cleaning and additional effort (e.g., enhanced cleaning pressure and/or more abrasive tools) compared to high-copper (non-Category I) paints. If loading from hull cleaning is associated with cleaning frequency, these factors may contribute to the increase in dissolved copper observed in SIYB in 2019 and 2020. While there is not enough existing information to determine whether this behavior change is accurate or could be linked to the upward shift in the basin's copper levels, the correlation between the factors is nonetheless interesting.

In addition, a previous study conducted by the Port evaluated the particulate copper emissions resulting from in-water hull cleaning activities. This study found that, in addition to the dissolved copper load associated with in-water hull cleaning, the average estimated particulate copper load

from all recreational vessels in SIYB from hull cleaning is approximately 2,080 kg/yr (Amec Earth & Environmental, Inc., 2006). As such, this demonstrates the importance of fully understanding the environmental impacts of in-water hull cleaning activities.

Additional data and information are needed to confirm the relative contribution of copper loading associated with the TMDL or the Life Cycle Dynamic Model's in-water hull cleaning assumptions, cleaning behaviors, BMP use, and water quality.

**Bay Influences on SIYB:** Water column dissolved copper concentrations in basins, harbors, and bays can vary with annual and seasonal climatic patterns, localized winds and tides, and other factors. Although there has been some slight variation in San Diego Bay's dissolved copper concentrations as measured at SIYB-REF-1 from 2011–2020, the ambient bay dissolved copper concentration was measured below the CTR CCC and CMC regulatory thresholds (3.1 µg/L and 4.8 µg/L, respectively) in all annual monitoring events. Further, dissolved copper concentrations measured during the 2018 Regional Harbor Monitoring Program throughout San Diego Bay were generally below the CTR CCC of 3.1 µg/L, with the exception of areas within marinas (particularly SIYB), industrial/port areas, and freshwater-influenced areas, as depicted in Figure 4-11 (Wood, 2020d).

In contrast, with only minor exceptions, dissolved copper concentrations measured in the most enclosed portions of SIYB have exceeded the CCC and CMC regulatory thresholds during each monitored event (Figure 4-7). In addition, dissolved copper concentrations measured in SIYB during the 2018 Regional Harbor Monitoring Program were higher in SIYB than observed anywhere else in San Diego Bay (Figure 4-11) (Wood, 2020d). These data suggest that dissolved copper concentrations measured within SIYB, including the recent uptick in dissolved copper, are not directly correlated with dissolved copper concentrations in ambient bay conditions. Further, a supplemental reference station (SIYB-REF-2) was added to the sampling locations in 2020 to provide a better understanding of the background ambient conditions within San Diego Bay outside of SIYB. While some variability was observed in dissolved copper concentrations between reference stations (0.29 µg/L at SIYB-REF-1 and 1.0 µg/L at SIYB-REF-2), concentrations at both reference stations were well below the WQOs, and consistent with those measured in all previous TMDL monitoring events. This suggests that other factors may be driving changes observed in dissolved copper levels in SIYB, rather than the bay itself.

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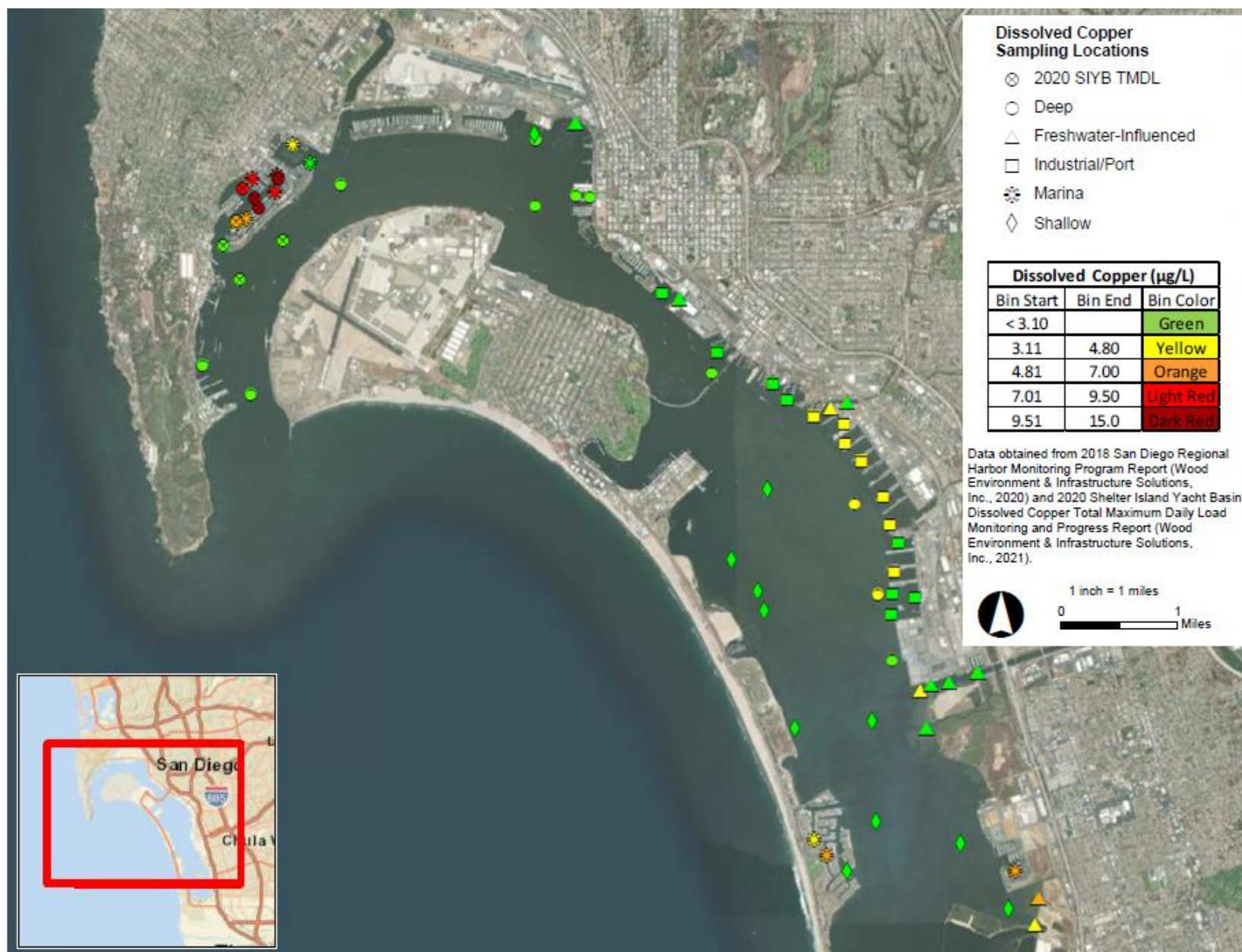


Figure 4-11. San Diego Bay Dissolved Copper Concentrations (Source: Wood, 2020d)

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## 4.4 Future Load Reductions

Since monitoring for the Investigative Order began, there have been observed annual reductions in loading (including meeting the 10 and 40% interim loading reduction goals); however, continued annual loading reductions have slowed more recently and have somewhat leveled off. Further, as stated previously, while loading has decreased according to the TMDL model, water quality has not followed suit. Dissolved copper in the waters of SIYB has remained above WQOs, and more recently has increased, even after the implementation of the DPR Rule (low-leach paints), which all but eliminated the application of high-copper leaching AFPs on recreational boats.

The remaining TMDL timeline is critically short with two years to meet the final target, a 76% load reduction. Currently, the water quality trajectory is not matching the load reduction trends despite considerable implementation efforts that have been, and continue to be made by the Port and other Named TMDL Parties (1) to transition boats away from high-leaching copper AFPs, (2) to employ in-water hull cleaning BMPs and, (3) to educate boaters. These efforts follow closely in line with the copper reduction approaches identified in the Regional Board's SIYB TMDL Technical Report as well as the Port's TMDL Implementation Plan. While that finding does not suggest that those implementation strategies should be discarded, it signals that more should be done to increase the use of non-copper alternatives, to fully understand the current sources and their loading potential, and to evaluate other possible sources in facilities, sediments, and the basin itself.

Over the past several years, the Port has been carefully analyzing its Copper Reduction Program components, conducting special studies to better understand water quality dynamics in SIYB, and evaluating the copper loading sources to determine where programmatic adjustments will most impactfully and directly address water quality. The following sections highlight some of the challenges that remain in addressing the most significant loading sources, namely copper AFP use and in-water hull cleaning, and provide an outlook for some key next steps.

### Hull Paint Use

The DPR has primary jurisdiction over the registration of copper AFPs and their use in California. A pesticide product must be registered with the state (i.e., DPR) before it can be used or offered for sale in California. The DPR is also responsible for the scientific evaluation and registration of pesticide products including copper AFPs and is responsible for conducting assessments of human and environmental impacts related to product use prior to a product being registered for use.

Throughout the TMDL, the Port has actively pursued state actions and the DPR involvement in appropriately regulating paint use. During adoption of the TMDL in 2005, the Port coordinated with the State and Regional Boards to incorporate a provision requiring DPR to take action to address water quality concerns associated with copper AFPs (State Board Resolution 2005-0071; Appendix E). The Port also has promoted legislative initiatives to prompt the DPR to make state-level changes to copper AFP use. Such efforts included Senate Bill (SB) 623 (Kehoe), a legislative initiative in 2013 to eliminate copper hull paint. SB 623 (Kehoe) was ultimately pulled from the legislative docket, and a second initiative, AB 425 (Atkins) was adopted that required the DPR to set a copper AFP leach rate to address the protection of aquatic environments from the effects of exposure to that paint.

The 2018 DPR Rule requiring a maximum leach rate of 9.5 µg/cm<sup>2</sup>/day for copper AFPs was the outcome of the legislative effort, AB 425, to regulate leaching at the state level. However, although it is still relatively early in the transition process, data collected in 2019 and 2020 in SIYB suggests that the paints may not be working as intended. While reported SIYB vessel paint data for 2019 and 2020 indicates the notable shift towards using DPR Category I low-leach copper AFPs (a 47% increase in use since 2018), the dissolved copper levels in SIYB have also continued to increase in the same time frame, rather than decrease, and there has been no increase or change in the use of non-copper alternatives. In addition, it has been discovered that the in-water hull cleaning practices for the DPR Category I paints are not well understood.

Given that copper AFPs are DPR-registered products and legal to use throughout California, the tools available to the Port to successfully address impacts from copper AFPs in SIYB are limited. As such, it is critical that the Regional Board and DPR become more actively involved in discussions and decision-making about the DPR Category I paints and their effects on water quality and re-examine loading assumptions in relation to vessel paint type and water quality. Further, while DPR Category I paints will likely become more prevalent, the use of non-copper alternatives remains a strategy that should be strongly pursued by the Regional Board, DPR, and the boating community.

#### In-Water Hull Cleaning

The TMDL attributes the most significant sources of dissolved copper in SIYB to passive leaching from copper-based hull paints (93%) and also to the in-water hull cleaning of vessels with copper-based hull paints (5%). However, while DPR regulates copper AFP use, currently there is no State or Regional Board NPDES program, permit, or Waste Discharge Requirements regulating the in-water hull cleaning industry. In addition, the Port's recent efforts to update BMP requirements to align with the DPR mitigation strategies (once-per-month cleaning, soft carpet, etc.) were met with resistance, suggesting limited support for changing hull cleaning behaviors. Further, because hull cleaning occurs within the water, the use of BMPs to fully capture or control copper discharges appears limited.

The studies completed after the adoption of the TMDL suggest that in-water hull cleaning is closely inter-connected to passive leaching of paints; their contributions cannot be easily proportioned. However, as discussed previously, those studies also suggest that in-water hull cleaning loading may be significantly greater than originally estimated, especially if the particulate load to the sediments is also considered.

To date, a link between in-water hull cleaning load modeling and water quality has not been developed. Based on the aforementioned modeling efforts showing the potential for in-water hull cleaning to be anywhere between 5% or greater than 40% of the copper load, understanding the relationship between water quality and in-water hull cleaning is critical to advance the next suite of management actions. Moreover, if significant water quality impacts are discovered, the potential for water quality impairment in all marina basins may warrant further state attention. Active involvement from the Regional Board will be essential in evaluating in-water hull cleaning activities and the threat to water quality and addressing the loading from the hull cleaning industry.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The SIYB TMDL monitoring program results indicate that the third interim target achieved in 2017, a 40% load reduction, continued through the third year of the final TMDL compliance phase. Current achievements have been a result of vessel tracking (95% response rate), implementation of various BMPs (see Section 3.1), and conversions from high-copper paints to DPR Category I paints, low-copper paints, and non-copper alternatives (i.e., non-copper paints, slip liners, HydroHoists®, etc.). The 2020 vessel tracking data show a load reduction of 48.0% (approximately 1,008 kg/yr) in annual dissolved copper loading to SIYB from vessels when compared with the SIYB TMDL-assumed baseline loading of 2,100 kg/yr (Table 5-1).

**Table 5-1.**  
**TMDL Interim Requirements and Achievements**

<b>TMDL Stage</b>	<b>Compliance Year</b>	<b>Required Load Reduction (%)</b>	<b>Required Load (kg/yr)</b>	<b>Actual Load Reduction (%)</b>
1	2007	0%	2,163	Baseline
2	2012	10%	1,900	17.6% ✓
3	2017	40%	1,300	45.4% ✓
3	<i>2020</i>	<i>40%</i>	<i>1,300</i>	<i>48.0%</i> ✓
4	2022	76%	567	--

Notes: *Italicized line indicates current (2020) load reduction presented in this report.*

The reduction in dissolved copper load in 2020 was driven primarily by an increase in the number of vessels with DPR Category I paints as a result of the implementation of the DPR Rule. It is anticipated that the increase in the number of vessels in SIYB with DPR Category I paints will accelerate in the coming years as high-copper paints are phased out with the full realization of the DPR Rule, and will then level off as the transition becomes complete. It will be critical to understand the effects on water quality as this change progresses.

The average basin-wide dissolved copper concentration observed in 2020 was similar to that observed in 2019. However, dissolved copper levels observed in 2019 and 2020 are the highest measured since the monitoring program began in 2011. Chronic toxicity continues to be limited to SIYB-1 <sup>24</sup>, which is located in the head of the basin where dissolved copper concentrations have consistently been the highest. The combined results of the initial and follow-up acute toxicity tests suggest that there did not appear to be an acute toxic response related to ambient water quality in SIYB in 2020.

The Port has assumed a leadership role by developing a Copper Reduction Program that supports hull paint research, administering voluntary and policy-based copper reduction initiatives, and hosting outreach events for the recreational boating community to educate the community on copper water quality issues and solutions. The goal of these efforts is to reduce copper loading and improve the water quality in San Diego Bay.

<sup>24</sup> Chronic toxicity has been limited to SIYB-1 only for three consecutive monitoring events (2018–2020).

The robust water quality and vessel paint tracking data provided in this and previous annual reports have enabled the Port to evaluate how the aforementioned efforts to date have translated to loading reductions and water quality changes, as well as identify where data gaps exist. While copper AFPs remain legally available statewide, most boaters will continue to use and maintain these products. Without modifying paint availability at the state level or regulating the pollution from the in-water hull cleaning industry, achieving desired loading reductions and water quality standards may not be attainable, especially within the TMDL timeline that exists today.

As mentioned in this report, there remains a disconnect in the loading and water quality trajectory. Improving the understanding of the water quality impacts associated with in-water hull cleaning and the effects of the DPR Category I paint transition are critical when finding the most effective solutions to improve water quality. With a limited amount of time until the end of the TMDL, it is important that these factors be carefully considered by the state's regulatory agencies, the Regional Board and DPR, and have their active involvement with the Port to determine the next steps. Further, it is imperative moving forward that the DPR take a larger role in managing the use of copper paints and coordinating with the Regional Boards to implement approaches consistently across the state.

### ***Continuing Actions for the Final TMDL Phase: Port***

Based on review of the 2011–2020 monitoring data, it is anticipated that additional activities to reduce copper loads will be needed to meet final TMDL load reduction targets and lower SIYB dissolved copper concentrations to meet CTR criteria. However, addressing the significant data gaps related to in-water hull cleaning and DPR Category I paint use requires more input from the state's regulatory agencies. The Port will continue its implementation efforts throughout the remaining TMDL timeline. During this period, an emphasis will be placed on evaluating the water quality impacts from in-water hull cleaning and working with the DPR and Regional Board to identify strategic approaches to address paint use and in-water hull cleaning locally and at the state level.

Potential next steps that the Port will consider for the final two years of this TMDL include the following:

- Improve the understanding of in-water hull cleaning and how industry behaviors impact water quality. Consider pilot study(ies) that evaluate water quality in relation to in-water hull cleaning activities; assess the relative impact of cleaning frequency, tools, and methods on various vessel hull paint types and ages; and evaluate recent modeling projections.
- Partner with the Regional Board to share and discuss findings related to loading and water quality; identify potential policy actions that address water quality at a broader scale than SIYB; develop strategies for increasing the use of and addressing limitations of non-biocide alternatives; and analyze the timing of recent initiatives and their impact on the TMDL timeline and load allocations, making adjustments as warranted.
- Coordinate with the Regional Board to update the SIYB TMDL Conceptual Model to (1) incorporate the loading assumptions provided in the Earley et al. (2013) Life Cycle Dynamic Model, and (2) use the Life Cycle Dynamic Model moving forward for annually calculating copper loads for TMDL compliance and reporting purposes.

- Continue collaborative communication with the DPR to evaluate potential ancillary effects of conversion to DPR Category I paints and other alternative paints.
- Engage the Regional Board, the DPR, and state legislative offices to consider legislative actions or broader statewide policy(ies) related to hull paint use or in-water hull cleaning, dependent upon the outcomes of the hull cleaning water quality studies
- Consider ordinances and/or other administrative measures to reduce or eliminate in-water hull cleaning activities at the Harbor Police dock, transient dock, and weekend anchorage.

SIYB marinas and yacht clubs and other Named TMDL Parties also have a responsibility to conduct load reduction actions throughout the entire duration of the TMDL. Moving forward, each Named TMDL Party will need to evaluate practices and activities within their purview leading to load contributions. Non-copper transitions, implementation of additional BMPs at SIYB facilities, adjustments to hull cleaning practices and/or frequencies, and other alternative mechanisms that have the potential to result in direct copper load reductions should be evaluated by the other Named Parties and implemented as appropriate. Direct load reductions should focus on closing the gap between the copper load reduction expected from the full realization of the DPR Rule and the TMDL compliance requirement of a 76% load reduction by 2022, as well as meeting the WQO for the basin.

The Port remains committed to working with the Regional Board, the DPR, and the other Named TMDL Parties to identify and implement processes founded in sound science in a manner that is most beneficial to water quality in SIYB, San Diego Bay, and across the state, which may include but is not limited to TMDL adjustments, state regulations, and balancing water quality and recreational beneficial uses on the bay.

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**APPENDIX A**

**SIYB DISSOLVED COPPER TMDL MONITORING PLAN  
(REVISION 6)**

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**FINAL  
SHELTER ISLAND YACHT BASIN  
DISSOLVED COPPER TOTAL MAXIMUM DAILY LOAD  
MONITORING PLAN (REVISION 6)**



**Prepared for:  
California Regional Water Quality Control Board  
San Diego Region**

**Prepared by:**



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**Port of San Diego**

**May 2011  
Revised: August 2020**



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ATTACHMENT A VESSEL TRACKING DATABASE TEMPLATE
ATTACHMENT B CHAIN-OF-CUSTODY FORMS

## **ACRONYMS AND ABBREVIATIONS**

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APHA	American Public Health Association
Basin Plan	<i>Water Quality Control Plan for the San Diego Basin – Region 9</i>
BMPs	best management practices
COC	chain-of-custody
CTD	Conductivity, Temperature, and Depth
CTR	California Toxics Rule
DO	dissolved oxygen
DOC	dissolved organic carbon
DPR	Department of Pesticide Regulation
EC <sub>50</sub>	median effect concentration
ELAP	California Environmental Laboratory Accreditation Program
Implementation Plan	SIYB Dissolved Copper TMDL Implementation Plan
Investigative Order	Investigative Order No. R9-2011-0036
L <sub>h</sub>	hull cleaning annual loading
L <sub>p</sub>	passive leaching annual loading
LC <sub>50</sub>	median lethal concentration
MAR	marine habitat beneficial use
Monitoring Plan	SIYB Dissolved Copper TMDL Monitoring Plan
N/A	not applicable
N <sub>v</sub>	number of vessels
OAL	Office of Administrative Law
pH	hydrogen ion concentration
Port	Port of San Diego
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
RHMP	Regional Harbor Monitoring Program
Regional Board	San Diego Regional Water Quality Control Board
SBE	SeaBird Electronics
SIML	Shelter Island Master Leaseholders
SIYB	Shelter Island Yacht Basin
SM	Standard Methods
SOPs	Standard Operating Procedures
SWAMP	Surface Water Ambient Monitoring Program
State Board	State Water Resources Control Board
TIE	toxicity identification evaluation
TMDL	total maximum daily load
TOC	total organic carbon
TSS	total suspended solids
TST	test of significant toxicity
USEPA	United States Environmental Protection Agency
Weston	Weston Solutions, Inc.
WILD	wildlife habitat beneficial use
Wood	Wood Environment & Infrastructure Solutions, Inc.
WQO	water quality objective
YSI	YSI Incorporated

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## **UNITS OF MEASURE**

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<	less than
≤	less than or equal to
%	percent
°C	degrees Celsius
µg/L	microgram(s) per liter
µg/cm <sup>2</sup> /day	microgram(s) per square centimeter per day
cm	centimeter(s)
kg/yr	kilogram(s) per year
µm	micrometer(s)
m	meter(s)
mg/L	milligram(s) per liter
mL	milliliter(s)
nm	nanometer(s)
ppt	part(s) per thousand
yr	year(s)



## 1.0 INTRODUCTION

---

The *Shelter Island Yacht Basin (SIYB) Dissolved Copper Total Maximum Daily Load (TMDL) Monitoring Plan* (Monitoring Plan) describes the approach for assessing load reductions through tracking conversion of vessels from copper to non-copper hull paints to determine compliance with TMDL load reduction targets. The Monitoring Plan also details the specific elements of the water quality monitoring program that are performed in SIYB to quantify ambient dissolved copper concentrations and toxicity. Water quality monitoring is used to evaluate annual basin-wide improvements in dissolved copper concentrations and toxicity levels, and to determine progress towards compliance with the numeric and narrative objectives of the final TMDL.

The original Monitoring Plan was submitted to the San Diego Regional Water Quality Control Board (Regional Board) in May 2011 in response to a requirement specified in Resolution No. R9-2005-0019 (in which the Regional Board incorporated the dissolved copper TMDL into the *Water Quality Control Plan for the San Diego Basin – Region 9 [Basin Plan]*) (Regional Board, 2005).

Revision 1 was submitted in 2013 and included program modifications that were made as recommendations to the Regional Board in the *2012 SIYB Dissolved Copper TMDL Monitoring and Progress Report* (AMEC, 2013). The modifications presented in Revision 1 were:

- Addition of the “aged-copper paint” category to the vessel classification template
- Modifications to the methods used to collect annual vessel census information
- Discontinuation of conducting *in situ* free copper analyses
- Analytical and data analysis method revisions

Revision 2 was submitted in March 2016 and included an additional paint tracking category to the annual SIYB vessel census. Department of Pesticide Regulation (DPR) Category I (low leach) was added as a paint tracking category for 2015. This category was added in response to the DPR’s February 23, 2015 list of hull paints by leach rate category. The Port of San Diego (Port) recommended that Category I paint be added as tracking category during a 2015 project status meeting with the Regional Board held on October 5. This modification was approved by the Regional Board.<sup>1</sup> In addition, beginning in the 2015 monitoring year, the copper load contributions from passive leaching and in-water hull cleaning were presented separately. This is consistent with the loads provided in Appendix 2 of the SIYB TMDL (Regional Board, 2005). The vessel tracking template was also adjusted to include more relevant information for vessel tracking purposes.

Revision 3, submitted in August 2017, included the modification of several field procedures for the annual TMDL water quality monitoring program, as follows:

- Field filtration of samples collected for dissolved copper and zinc analyses, in agreement with the United States Environmental Protection Agency (USEPA) 1640 protocol

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<sup>1</sup> Per E-mail correspondence between the Regional Board and Port dated October 21 and November 9, 2015.

- Performing a top-to-bottom vertical water quality profile (using a conductivity, temperature, and depth [CTD] profiler) at each station to evaluate pH, temperature, light transmittance, salinity, and dissolved oxygen (DO) with depth in the water column
- Addition of total suspended solids (TSS) analyses

Revision 4, submitted in July 2018, updated the language regarding the compliance schedule (further described in Section 1.1), as the second compliance period concluded in 2017. Modifications in Revision 4 of the Monitoring Plan were informational and did not require a response from the Regional Board.

Revision 5 was updated in July 2019 to reflect the 2019 monitoring period dates. Due to unexplained toxicity observed during the 2018 monitoring program, toxicity testing methods (Section 4.1.6.1) were updated to include conditions that may necessitate a toxicity identification evaluation (TIE).

Revision 6, submitted in August 2020, includes additions to the TMDL water quality monitoring program to supplement compliance monitoring as follows:

- Addition of a second reference site (SIYB-REF-2) to the water quality monitoring locations
- Addition of a second water quality monitoring event to be conducted during the winter
- Addition of language detailing safety measures enacted to address the COVID-19 pandemic

This Monitoring Plan meets the requirements of Investigative Order No. R9-2011-0036 (Investigative Order), which directs the Port to develop and submit a Monitoring Plan to track the progress of implementing the TMDL, and to revise the plan as needed. In addition, the project-specific Quality Assurance Project Plan (QAPP) is revised yearly (prior to the annual compliance monitoring event). The QAPP defines project-specific objectives and organization, monitoring activities, data quality objectives, and quality assurance and quality control (QA/QC) procedures in compliance with the State Water Resources Control Board (State Board) *Surface Water Ambient Monitoring Program* (SWAMP) protocols.

## 1.1 Compliance Schedule

Under Resolution R9-2005-0019, the SIYB dissolved copper TMDL (herein referred to as “SIYB TMDL”) requires that loading of dissolved copper into the water column be reduced by 76 percent to 567 kilograms per year (kg/yr) over a 17-year period (Regional Board, 2005). Based on the official TMDL approval date<sup>2</sup>, this time period is scheduled to end in 2022. No reductions in dissolved copper loading were required during the initial two-year orientation period (2005–2007). The subsequent 15-year period requires incremental reductions of dissolved copper loadings: a 10-percent reduction within seven years; a 40-percent reduction within 12 years; and a 76-percent reduction within 17 years (Table 1-1).

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<sup>2</sup> For a TMDL to be incorporated into the Basin Plan, it must be approved by the Regional Board, State Board, Office of Administrative Law (OAL), and USEPA Region 9. The official TMDL approval date is the date of OAL approval.

**Table 1-1.  
Loading Targets for TMDL Attainment**

Stage	Time Period	Target Reduction from SIYB TMDL Estimated Loading	Reduction To Be Attained by End of Year	Estimated Target Loading (kg/yr of Dissolved Copper)
1	2005–2007	0%	N/A	N/A
2	2008–2012	10% <sup>a</sup>	2012 (7 years)	1,900
3	2013–2017	40% <sup>b</sup>	2017 (12 years)	1,300
4	2018–2022	76%	2022 (17 years)	567

Notes:

- a. Loading calculations in the 2012 *SIYB Dissolved Copper TMDL Monitoring and Progress Report* showed that a 17-percent load reduction had been achieved. Compliance with the 2012 load reduction goal of 10 percent was confirmed by the Regional Board in a letter to the Port dated July 26, 2013.
  - b. Loading calculations presented in the 2017 *SIYB Dissolved Copper TMDL Monitoring and Progress Report* showed that a 40-percent load reduction had been achieved. Compliance with the 2017 load reduction goal of 40 percent or greater was confirmed by the Regional Board October 10, 2018 Executive Officer's Report as part of the monthly Regional Board meeting.
- % = percent; kg/yr = kilograms per year; N/A = not applicable; SIYB = Shelter Island Yacht Basin; TMDL = Total Maximum Daily Load

The first compliance year for the TMDL was 2012. Loading reduction estimates presented in the 2012 *SIYB Dissolved Copper TMDL Monitoring and Progress Report* (AMEC, 2013) indicated that dissolved copper loading to SIYB by the end of compliance year 2012 had been reduced by 17 percent, exceeding the 10-percent target. In a letter dated July 26, 2013, the Regional Board stated the following, "Based on the data submitted and information provided in the Report [2012 TMDL Monitoring and Progress Report], the 10-percent reduction in dissolved copper loading required to demonstrate compliance with the SIYB TMDL by the December 1, 2012, compliance date was achieved" (Regional Board, 2013).

The second compliance period began in January 2013 and concluded in December 2017. Based on the results of the 2017 *SIYB Dissolved Copper TMDL Monitoring and Progress Report* (Amec Foster Wheeler, 2018), the 40-percent reduction in dissolved copper loading required by December 31, 2017 was achieved. In a letter to the Port dated September 11, 2018, the Regional Board stated, "The Port District's 2017 Report marks the end of Stage 3 of the interim loading targets, and suggests that overall the Yacht Basin is meeting the 40 percent reduction target as a result of improved use of best management practices and vessel conversions to less toxic hull coatings" (Regional Board, 2018). At the October 10, 2018 Regional Board Monthly Meeting, the Executive Officer's Report confirmed and memorialized that the SIYB TMDL efforts had successfully achieved the 2017 compliance requirement.

The third and final compliance period began in January 2018 and will continue through 2022.

## 1.2 TMDL Implementation Plan

The 2011 *SIYB TMDL Implementation Plan* (Implementation Plan) is the Named Parties' implementation strategy to reduce the loading of copper into the water column of SIYB, as directed by the SIYB TMDL and the Investigative Order. The Implementation Plan describes the approach to reducing copper loading into SIYB to preserve and restore water quality and beneficial uses of associated marine habitat (MAR) and wildlife habitat (WILD). The Implementation Plan takes a solutions-oriented approach of establishing and implementing best management practices (BMPs) that directly and indirectly help reduce copper loading into the basin to meet the SIYB TMDL interim and final dissolved copper loading compliance thresholds.

The Port has reviewed the BMP initiatives that were detailed in the SIYB TMDL Implementation Plan (Weston Solutions, Inc. [Weston], 2011). Based upon this review, the strategic approach to planning and implementing copper reduction BMPs has not changed. The ongoing copper reduction program being implemented by the Port and the marinas and yacht clubs is following the same adaptive management strategy and concept for selecting BMPs as was outlined in the Implementation Plan. The Port and the marinas and yacht clubs provide updates on the BMP program in each annual monitoring and progress report submitted to the Regional Board. Consequently, no revisions to the Implementation Plan are necessary at this time.

### 1.3 Sources of Dissolved Copper

Based on the Regional Board's source analysis in the TMDL, the total mass load of dissolved copper to SIYB was estimated to be 2,163 kg/yr, of which 98 percent of inputs were attributable to (a) passive leaching of copper from copper-based hull paints on vessels, and (b) hull cleaning activities (Table 1-2).

**Table 1-2.**  
**Sources of Dissolved Copper to SIYB per the TMDL**

Source	Estimated Mass Load (kg/yr)	Contribution to SIYB (Dissolved Copper)
Passive Leaching	2,000	93%
Hull Cleaning	100	5%
Urban Runoff	30	1%
Background	30	1%
Direct Atmospheric Deposition	3	<1%
Sediment	0	0
Total	2,163	100%

Notes:

< = less than; % = percent; kg/yr = kilogram(s) per year; SIYB = Shelter Island Yacht Basin

### 1.4 Water Quality Objective Criteria

The numeric water quality objective (WQO) for dissolved copper in SIYB is equal to the USEPA National Recommended Water Quality Criteria for Aquatic Life and California Toxics Rule (CTR) water quality values for dissolved copper in marine environments (USEPA, 2000). Continuous or chronic exposures may not exceed 3.1 micrograms per liter ( $\mu\text{g/L}$ ) over a 4-day average; acute exposures should not exceed 4.8  $\mu\text{g/L}$  over a 1-hour average. In addition, numeric WQOs must not be exceeded more than once every three years. Based on these numeric targets and existing monitoring data available at the time when the TMDL was implemented, the final waste load allocation was estimated to be 567 kg/yr. This includes a 10-percent margin of safety calculated to be 57 kg/yr.

In addition to numeric WQOs, the Basin Plan established narrative WQOs for toxicity and pesticides (Regional Board, 1994) as follows:

**Toxicity Objective** – All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms; analyses of species diversity, population density, and growth anomalies; bioassays of appropriate duration; or other appropriate methods as specified by the Regional Board.

**Pesticide Objective** – No individual pesticide or combination of pesticides shall be present in the water column, sediments, or biota at concentration(s) that adversely affect beneficial uses. Pesticides shall not be present at levels that will bioaccumulate in aquatic organisms to levels that are harmful to human health, wildlife or aquatic organisms.

Beneficial uses within SIYB threatened by elevated dissolved copper concentrations are MAR and WILD. The Regional Board indicated that if numeric WQOs are met for dissolved copper, then narrative WQOs will also be met.

## **1.5 Monitoring Purpose**

Results of the vessel tracking program will be used to assess both interim and final compliance with the TMDL loading reduction requirements for dissolved copper into SIYB. Water quality monitoring will be used to assess dissolved copper concentrations and toxicity levels, and also to determine progress towards final numeric and narrative objectives. These objectives are defined in Resolution No. R9-2005-0019, in which the Regional Board incorporated the dissolved copper TMDL into the Basin Plan (Regional Board, 2005). By annually tracking vessels and monitoring water quality, the program will eventually be able to evaluate the relationship between reducing loads and improving water quality. Additionally, this approach will provide the data needed to assess the overall effectiveness of the TMDL implementation in attaining both loading reductions and numeric WQOs that protect the basin's MAR and WILD beneficial uses.

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## **2.0 BEST MANAGEMENT PRACTICE IMPLEMENTATION FOR SIYB**

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The Port has incorporated an adaptive management approach to reducing copper loads in SIYB and throughout San Diego Bay. This process is outlined in the SIYB TMDL Implementation Plan. The five elements of the Port's program are: (a) alternative hull paint testing and research, (b) hull paint transition, (c) policy development and legislation (e.g., required permits for in-water hull-cleaning businesses), (d) education of and outreach to boaters, and (e) monitoring and data assessment.

In addition to ongoing Port management efforts, marina and yacht club facilities located in SIYB have also developed and overseen the implementation of BMPs. BMP programs have been developed by the Shelter Island Master Leaseholders (SIML) TMDL Group, as well as individual marinas and yacht club facilities, to reduce dissolved copper loading to SIYB.

Over the course of developing the TMDL, multiple additional BMPs have been integrated to build on previous knowledge and to facilitate effective implementation of the SIYB TMDL program. Additional measures include meetings between the Port and other stakeholders in SIYB about the TMDL; increased scrutiny of water quality data and analytical methods; reassessment of field sampling techniques, including additional oversight of field procedures; and review of methods to track the type of bottom paints on vessels in SIYB. These measures were intended to collect relevant, quality data; enhance communication among all involved parties; and develop an iterative and collaborative process that provides both transparency to the process and a known and scientifically defensible dataset to support the TMDL compliance objectives.

The Port has developed a comprehensive copper reduction program and maintains a cumulative list of copper reduction BMPs implemented in support of the TMDL since 2007. In addition, the marinas and yacht clubs are involved in selecting and implementing BMPs that contribute to the dissolved copper load reductions in SIYB. In compliance with Investigative Order reporting requirements, the marinas and yacht clubs submit information annually to the Port detailing the BMPs and actions implemented throughout the year to reduce dissolved copper loads to SIYB. The various Port and marina and yacht club BMP activities undertaken throughout the year will be tracked and reported in detail in the annual monitoring and progress report. In addition, any updates regarding the copper reduction BMP strategies outlined in the TMDL Implementation Plan will be included in an appendix to the annual monitoring and progress report.

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### 3.0 TRACKING VESSEL CONVERSIONS

Based on the Regional Board's TMDL source analysis, the vast majority (98 percent) of copper loading to SIYB was attributed to antifouling paints on vessels moored within the basin.

#### 3.1 Vessel Tracking

Annual reduction of copper loading will be assessed by (a) tracking conversions of hull paints from copper to non-copper or lower copper (either DPR Category I paints or paints containing less than 40 percent copper) products, (b) identifying vessels with aged-copper paints, and (c) estimating the resultant contribution from in-water hull cleaning of copper paints for vessels moored within SIYB.

##### 3.1.1 Tracking Approach

On an annual basis, marina and yacht club owners/operators are responsible for soliciting pertinent information from SIYB boat owners of the percent of time slips in their facilities are unoccupied or are occupied by vessels with copper, non-copper, lower copper paints, aged copper, and unknown hull paints. The information will be gathered by distributing a survey form prepared by the SIML TMDL Group to the SIYB yacht club and marina operators. It will be the responsibility of the operators to ensure the survey form is disseminated to individual vessel owners. The SIML TMDL Group and marina and yacht club operators will collect and compile the completed survey forms into a database. If no initial response is received, the marina and yacht club operators will follow up with telephone calls and emails to gather the requested information. An example of the current survey form is in Attachment A.

After compiling the information, the SIML TMDL Group and other individual marinas and yacht clubs will submit the vessel tracking information to the Port annually, no later than January 15 for the previous calendar year. The vessel tracking data requested is listed in Table 3-1. The tracking reports will be submitted to the Regional Board as an appendix to the annual monitoring and progress report.

**Table 3-1.**  
**Required Vessel Tracking Data**

Vessel Tracking Data Fields	
1.	Name of marina or yacht club
2.	Date of report
3.	Slip/Mooring reference number
4.	Slip/mooring occupation data (percent of year occupied)
5.	Vessel-specific information
	a. Vessel type (sail, power, multi-hull, etc.)
	b. Vessel length
	c. Vessel beam width
6.	Paint Type (copper, low copper, non-copper, no paint, etc.)

As a data QA/QC and confirmation check, additional information on paint type will be required for vessels reported to have lower copper (either DPR Category I paints or paints containing less than 40 percent copper) or non-copper hull paints (Table 3-2).

**Table 3-2.**  
**Required Lower Copper and Non-Copper Hull Paint Vessel Data**

Vessel Tracking Data Fields	
1.	Paint brand name
2.	Product number
3.	USEPA Registration Number (if applicable)
4.	Name of boatyard that applied paint or purchase date
5. <sup>a</sup>	Painting date (month and year)
6.	Percent copper

Notes:

a. This information is required for determining whether a vessel has aged-copper paint.

The Port will evaluate the vessel tracking data from the marinas and yacht clubs to determine the percentage of time that slips are unoccupied or are occupied by vessels with copper, lower copper, aged-copper paint, non-copper, or unknown hull paints as required by the Investigative Order (Table 3-3). These data will be used to calculate the annual dissolved copper load to SIYB from vessels, the number of vessels converted from copper to lower copper or non-copper hull paints, and the reduction in dissolved copper loading achieved annually, as described in Section 3.2 (Annual Dissolved Copper Load Analysis). Estimates of the reductions in basin-wide loading and annual loading reductions will be presented in the annual monitoring and progress reports.

**Table 3-3.**  
**Vessel Tracking Data for Annual Monitoring  
as Required in Investigative Order**

Vessel Tracking Data Fields	
1.	Total number of slips or buoys in facility available to be occupied by vessels
2.	Number of unoccupied slips or buoys and length of time unoccupied during each year
3.	Number of vessels confirmed with copper-based hull paints and approximate length of time occupying a slip or buoy in facility each year
4. <sup>a</sup>	Number of vessels confirmed with aged-copper hull paints and approximate length of time occupying a slip or buoy in facility each year
5. <sup>b</sup>	Number of vessels confirmed with DPR Category I or low-copper paints and approximate length of time occupying a slip or buoy in facility each year
6.	Number of vessels confirmed with alternative hull paints, by hull paint type, and approximate length of time occupying a slip or buoy in facility each year
7.	Number of vessels with unconfirmed information about hull paints and approximate length of time occupying a slip or buoy in facility each year
8.	Estimate of the dissolved copper load reduction achieved for the year (kg/yr and percent)

Notes:

- a. This vessel tracking category was not included in the Investigative Order, but was added as a recommendation in the 2012 Monitoring and Progress Report. The recommendation was approved July 26, 2013, letter signed by David Gibson, executive officer of the San Diego Regional Water Quality Control Board titled, "Comments on 2012 Shelter Island Yacht Basin Total Maximum Daily Load Monitoring and Progress Report."
- b. This vessel tracking category was not included in the Investigative Order, but was added in 2015 response to the DPR's February 23, 2015 list of hull paints by leach rate category. The Regional Board approved the modification in an email correspondence with the Port dated October 21 and November 9, 2015.

### **3.1.2 Tracking Templates**

The marina and yacht club owners and operators are responsible for soliciting pertinent vessel information from SIYB boat owners. This includes tracking the number and paint types of all vessels moored at the respective marinas and/or yacht clubs within SIYB (if known and reported). The Port will be responsible for collecting vessel tracking information for the Port-operated facilities in SIYB, including the Harbor Police dock, transient dock, and weekend anchorage. Vessel data submitted in the annual report will consist of (a) the information provided by the marina and yacht club owners and operators, and (b) the information gathered by the Port for the facilities it operates.

The vessel tracking templates are in a spreadsheet format and contain fields for required vessel tracking information such as facility name, slip reference number, type and size of vessel, boatyard used for hull painting, type of hull paint (brand, product number, USEPA registration number, and percent copper, if applicable), the date (month and year) the hull was last painted (this information will be used to determine whether the vessel qualifies as having aged-copper paint), and approximate percentage of time occupying a slip in SIYB during the monitoring year. An example of the vessel tracking template is provided in Attachment A.

### **3.2 Annual Dissolved Copper Load Analysis**

Compliance with interim and final TMDL loading reduction goals will be assessed through basin-wide vessel tracking. Annual dissolved copper loading will be assessed through tracking the number of vessel hulls with copper paint, lower copper paint, aged-copper paint, or non-copper paint, the number of slips using BMPs to isolate hulls from water (i.e., slip liners, HydroHoists®) as well as the number of vacant slips in SIYB and input from in-water hull cleaning. Vessels that have aged-copper paint are considered to be in the low-copper category, but will be tracked separately.

The annual tracking program will use a conservative approach to estimating loading reductions. If the hull paint name and type are unknown, the paint will be assumed to be copper-based. Additionally, if the occupancy time of a slip or mooring is not reported, the slip or mooring will be assumed to be occupied 100 percent of the time (i.e., 365 days). If the paint categories for transient vessels visiting the transient dock and weekend anchorage are not collected, these vessels will be assumed to have copper hull paints.

This annual assessment will incorporate the following assumptions that were used by the Regional Board in determining loading allocations (Regional Board 2005, Appendix 2).

- All 2,363 SIYB slips or buoys were occupied by vessels ( $N_v$ ).
- All 2,363 recreational vessels moored within SIYB have copper-based paints 100 percent of the time.
- Annual loading from passive leaching basin-wide ( $L_p$ ) equals 2,000 kg/yr.

- Annual loading from hull cleaning ( $L_h$ ) equals 100 kg/yr<sup>3</sup>.
- Average annual loading per vessel ( $L_v$ ) with copper hull paint equals 0.9 kg/yr, where:  
$$L_v = (L_p + L_h) / N_v.$$

Based on the Regional Board assumptions in determining dissolved copper loading via passive leaching and hull cleaning combined, there will be an average loading reduction of 0.9 kg/yr for every vessel in SIYB that converts from copper-based to non-copper-based paint (a reduction of 0.86 kg/yr from passive leaching, and 0.04 kg/yr from the cleaning load). Beginning in 2015, the Regional Board recognized the use of DPR Category I hull paints (i.e., paints with leach rates less than or equal to ( $\leq$ ) 9.5 micrograms per square centimeter per day [ $\mu\text{g}/\text{cm}^2/\text{day}$ ]) as a viable means of reducing copper to the basin. This category coincides with the use of low-copper hull paints (i.e., hull coatings with less than 40-percent copper but leach rates greater than 9.5  $\mu\text{g}/\text{cm}^2/\text{day}$ ). Category I hull paints and low-copper hull paints are grouped together to represent the lower copper group. This loading reduction analysis assumes that each vessel transitioned to low-copper hull paint will reduce (on average) annual dissolved copper loading by 0.45 kg/yr. Aged-copper paints (boat hulls that have not been repainted as of the cutoff date [Table 3-4]) will be considered to have low-copper hull paint (i.e., 0.45 kg/yr per vessel). Calculations of annual dissolved copper loading will be based on the assumptions listed in Table 3-4.

Annual loading will be calculated for each slip by multiplying the reported annual dissolved copper loading for a given hull paint category by the percent of time a slip is reported to be occupied (e.g., the product of 0.9 kg/yr for copper hull paints and 90-percent occupancy results in an annual loading of 0.81 kg/yr). In the case of the weekend anchorage, data on the number of three-day permits issued weekly will be used to calculate annual occupancy and loading. For each issued permit, it will be assumed that the vessel occupied the anchorage for an average of three days. If no hull paint data is collected for a vessel that occupies the weekend anchorage, it will be assumed to have copper paint. Therefore, annual dissolved copper loading due to passive leaching is calculated by multiplying the annual dissolved copper load (0.9 kg/yr) by the average number of vessels occupying the anchorage on a weekly basis and the average percentage of time slips are occupied.

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<sup>3</sup> The TMDL assumed that 50 percent of the in-water hull cleaning in SIYB would be conducted using BMPs. The Port's hull cleaning ordinance requires 100 percent use of BMPs; therefore, the load calculations assume that 100 percent of in-water hull cleaning is conducted using BMPs.

**Table 3-4.**  
**Dissolved Copper Loading Calculation Assumptions**

<b>Dissolved Copper Loading Assumptions</b>	
1.	All vessels moored in SIYB at the enactment of the TMDL had copper hull paints.
2.	Average annual dissolved copper load from a vessel with copper paint equals 0.9 kg/yr.
	a. The passive leaching load from a vessel with copper paint equals 0.86 kg/yr.
	b. The cleaning load from a vessel with copper paint equals 0.04 kg/yr.
3.	Vessels with unknown hull paints have copper paint
4.	Slips/moorings for which occupancy data are not provided are considered to be 100-percent occupied.
5.	Annual dissolved copper load from a vessel with non-copper hull paint equals 0 kg/yr.
6.	DPR Category I paints are paints with leach rates $\leq 9.5 \mu\text{g}/\text{cm}^2/\text{day}$ . These paints are considered as lower copper.
7.	Low-copper hull paints are paints with less than 40-percent copper. These paints are also considered as lower copper.
8.	Average annual dissolved copper load from a vessel with lower copper paint equals 0.45 kg/yr
	a. The passive leaching load from a vessel with lower copper paint equals 0.43 kg/yr.
	b. The cleaning load from a vessel with lower copper paint equals 0.02 kg/yr.
9.	Vessels determined to have aged-copper paint (i.e., copper paint applied to a vessel hull prior to December 31, 2017 <sup>a</sup> ) will have an annual dissolved copper load equal to 0.45 kg/yr.
10.	Annual loads will be normalized by the percent of time vessels are docked in SIYB.

Notes:

a. December 31, 2017 is the cutoff date for vessels to be considered to have aged-copper paint for the 2020 annual monitoring and progress report load calculation. This cutoff date will advance by one year for each subsequent annual load calculation.  
 $\mu\text{g}/\text{cm}^2/\text{day}$  = micrograms per square-centimeter per day;  $\leq$  = less than or equal to; DPR = Department of Pesticide Regulation;  
 kg/yr = kilogram(s) per year; SIYB = Shelter Island Yacht Basin; TMDL = total maximum daily load

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## 4.0 WATER QUALITY MONITORING

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Water quality will be assessed to determine the average concentration of dissolved copper and toxicity levels in SIYB using a spatially representative sampling design. Water quality monitoring will supplement vessel tracking studies to assess long-term improvements in dissolved copper concentrations and toxicity levels that occur as a consequence of loading reductions throughout the interim stages. Water quality monitoring will also be used to determine attainment of final WQOs.

### 4.1 Water Quality Sampling and Analyses

For TMDL compliance monitoring, water quality will be sampled annually throughout SIYB during the summer to determine the average concentration of dissolved copper in the basin and to assess water quality trends over time. The monitoring will use methods consistent with prior studies conducted by the Regional Board within SIYB (Appendix 6 of the TMDL, Regional Board, 2005). To be consistent with studies conducted by the Regional Board, this monitoring program will include sampling at six stations in SIYB and two<sup>4</sup> reference stations (SIYB-REF-1 and SIYB-REF-2) in the main channel of San Diego Bay adjacent to SIYB. These station locations are similar to those sampled by the Regional Board for development of the TMDL and meet the Investigative Order requirement of spatially representing dissolved copper concentrations in SIYB.

Based on an assessment of water quality data collected between 2005 and 2008 in SIYB from the Regional Harbor Monitoring Program (RHMP) Pilot Study (Weston, 2008), the 2008 RHMP (Weston, 2010), and the Neira et al. study (2009), surface water dissolved copper concentrations ranged from 3.4–13.5 µg/L, and the average concentration was  $8.28 \pm 1.36$  µg/L (mean  $\pm$  standard error). This average concentration was determined by using the surface water dissolved copper monitoring data collected from six stations in the immediate vicinity of the sampling stations that comprise the monitoring network.

To supplement the TMDL compliance monitoring, a second water quality monitoring event will be conducted in the winter (January or February 2021<sup>5</sup>) using the same sampling and analysis methodologies as the compliance monitoring event performed in the summer. This winter water quality monitoring event may provide a better understanding of the seasonal variability of dissolved copper levels in SIYB and at the reference locations during a period of cooler water temperatures and lower frequency of hull cleaning and vessel usage relative to the summer months.

#### 4.1.1 SIYB Sample Locations

To date, the annual compliance monitoring program has been conducted at six stations within SIYB and one reference station (SIYB-REF-1<sup>6</sup>) in the main channel of San Diego Bay (Table 4-1 and Figure 4-1). Monitoring has been conducted at these stations for all SIYB TMDL

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<sup>4</sup> To supplement the TMDL compliance monitoring, a second reference station (SIYB-REF-2) will be added to the sample locations for the 2020 monitoring program (further described in Section 4.1.1).

<sup>5</sup> Results from the winter water quality monitoring event will be included in the 2021 monitoring report.

<sup>6</sup> Previously identified as “SIYB-REF”

monitoring events since 2011. Starting in 2020, a supplemental second reference station (SIYB-REF-2), located farther from the mouth of SIYB, will be added as a sample location. The addition of a second reference station farther away from SIYB may provide a better understanding of the gradient of dissolved copper levels in San Diego Bay moving away from the mouth of SIYB, as well as a better understanding of the background conditions within San Diego Bay outside of SIYB.

**Table 4-1.**  
**Sampling Station Coordinates**

Station	Target	
	Latitude	Longitude
SIYB-1	32.71821	-117.22601
SIYB-2	32.71412	-117.22921
SIYB-3	32.71550	-117.22989
SIYB-4	32.71683	-117.23203
SIYB-5	32.71217	-117.23297
SIYB-6	32.70858	-117.23514
SIYB-REF-1	32.70406	-117.23232
SIYB-REF-2	32.70926	-117.22544

#### 4.1.2 Frequency of Sampling

Sampling will be conducted at the eight water quality stations twice per year—once during the summer (i.e., in August or September) to satisfy compliance monitoring requirements and once during the winter (i.e., in January or February) to supplement compliance monitoring. By sampling in the summer for compliance monitoring, dissolved copper concentrations are likely to be at their highest level in the water column because the release rates of copper from antifouling paints is higher at warmer sea surface temperatures and with a greater frequency of hull cleaning. As a consequence, this sampling design will provide the most conservative estimate for dissolved copper concentrations in SIYB. In addition, monitoring during the summer will facilitate integration with the RHMP, which includes sampling of a broader range of chemical and biological parameters once every five years during the summer.

In contrast, dissolved copper concentrations are expected to be lower in the winter due to the cooler sea surface temperatures and the lower frequency of hull cleaning and boat usage. Monitoring in both the summer and winter may provide a better understanding of the seasonal variability of dissolved copper levels in SIYB and at the reference locations.

Sampling to bracket the slack high tide at the same station locations and time of year for compliance monitoring will allow repeated measurements and temporal trend analyses to determine changes in dissolved copper concentrations with time<sup>7</sup>. Revisiting the same spatially representative stations allows for basin-wide assessments of water quality, facilitating better detection of trends. Additionally, correlation analyses can be used to assess relationships between estimated loading reductions from vessel conversions with surface water dissolved copper concentrations to track progress of the TMDL.

<sup>7</sup> Sampling schedule is adjusted annually to ensure that station SIYB-4 is sampled during the slack high tide to ensure consistency between monitoring years.



### 4.1.3 Sample Collection

Sample collection will start at the second reference station (SIYB-REF-2) followed by the first reference station (SIYB-REF-1), both located in the main channel of San Diego Bay. After collection at the reference stations, sampling will continue northward to Station SIYB-1 located near the head of basin. Samples will be collected in the following order: SIYB-REF-2, SIYB-REF-1, SIYB-6, SIYB-5, SIYB-4, SIYB-3, SIYB-2, and SIYB-1. Collection of the samples will be timed so that the midpoint of the collection (SIYB-4) will occur as close to the slack high tide as possible. This sample collection approach will be followed for all water quality monitoring events to ensure consistency and repeatability. In addition, a 72-hour dry period (at a minimum) will be required prior to sampling during the winter to minimize the effects of storm water runoff on the sample results.

Discrete water samples will be collected at each station using the “clean hands” techniques with a Niskin bottle deployed from a sampling vessel. In addition, the field manager will ensure that the sample collection boat is painted with a non-copper or non-zinc-containing hull paint. All stations will be located using the differential Global Positioning System. Samples will be collected within one meter (m) of the surface. Upon collection, water samples will be transferred to labeled containers for analysis of total and dissolved copper, total and dissolved zinc, total organic carbon (TOC), dissolved organic carbon (DOC), total suspended solids (TSS), and toxicity testing<sup>8</sup>. Water samples collected for dissolved metals analyses will be filtered in the field and preserved immediately upon arrival to the analytical laboratory. DOC samples will be filtered in the field into a bottle with sulfuric acid. Field measurements of the hydrogen ion concentration (pH), temperature, and salinity of the surface water at each station (i.e., within 1m of the surface), will be made using a YSI meter according to manufacturer’s specifications.

Following the collection and preservation of water samples, a water column profile will be captured at each<sup>9</sup> station using a Seabird Electronics SBE-19 Plus CTD instrument equipped with a YSI DO sensor (model SBE 43), a pH meter (model SBE 18 with Innovative pH Sensor), and a WET Labs C-Star laser transmissometer (25-centimeter [cm], 660-nanometer [nm]). The water quality characteristics collected by the CTD will be used for informational purposes only. For example, the CTD data can show how water quality parameters, such as water temperature and clarity, vary from top to bottom, at different locations in the basin, and from year to year.

All water samples will be logged on a chain-of-custody (COC) form (Attachment B) and placed in a cooler on ice. Samples will be stored at 4 degrees Celsius (°C) in the dark until delivered to the appropriate laboratory for analysis.

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<sup>8</sup> Because the sample from SIYB-REF-2 is only being collected to assess variability in dissolved copper levels at the reference stations, this sample will not be tested for toxicity.

<sup>9</sup> No CTD cast will be performed at station SIYB-REF-2; due to time constraints, only surface water quality readings will be taken.

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Figure 4-1. Shelter Island Yacht Basin TMDL Monitoring Network

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#### 4.1.4 Equipment Decontamination and Cleaning

The Niskin bottle will be cleaned prior to sampling using clean soapy water and thoroughly rinsed with deionized water. Upon deployment, the Niskin bottle will be rinsed with site water prior to sample collection. After collection, water samples will be transferred from the Niskin bottle to laboratory-certified, contaminant-free bottles that are of the appropriate type and contain the appropriate preservative for the required analyses.

#### 4.1.5 Chemical Analysis

Water samples will be analyzed for total and dissolved copper, total and dissolved zinc, TOC, DOC, TSS, salinity, temperature, pH, DO, and transmissivity (Table 4-2). Zinc is commonly used as an alternative biocide in antifouling paints; therefore, total and dissolved zinc levels will be measured to assess changes in the ambient zinc levels in SIYB as vessels are converted from copper-based to non-copper-based paints.

**Table 4-2.**  
**Laboratory Analytical Methods and Detection Limits**

Water Quality Measurement	Method	Method Detection Limit	Reporting Limit	Instrument Sensitivity
Total Copper	USEPA 1640	0.0038 µg/L	0.010 µg/L	N/A
Dissolved Copper	USEPA 1640	0.0038 µg/L	0.010 µg/L	N/A
Total Zinc	USEPA 1640	0.036 µg/L	0.20 µg/L	N/A
Dissolved Zinc	USEPA 1640	0.036 µg/L	0.20 µg/L	N/A
TOC	SM 5310B	0.016 mg/L	0.10 mg/L	N/A
DOC	SM 5310B	0.016 mg/L	0.10 mg/L	N/A
TSS	SM 2450D	1.0 mg/L	5.0 mg/L	N/A
Salinity	SBE CTD and YSI Pro Plus	N/A	N/A	± 0.1 ppt
Temperature	SBE CTD and YSI Pro Plus	N/A	N/A	± 0.1 °C
pH	SBE CTD and YSI Pro Plus	N/A	N/A	± 0.1 pH unit
Dissolved Oxygen	SBE CTD	N/A	N/A	± 0.1 mg/L
Light Transmissivity	SBE CTD	N/A	N/A	± 0.1 %

Notes:

% = percent; µg/L = microgram(s) per liter; °C = degrees Celsius; CTD = conductivity, temperature, and depth profiler; DOC = dissolved organic carbon; mg/L = milligram(s) per liter; N/A = not applicable; pH = hydrogen ion concentration; ppt = part(s) per thousand; SBE = SeaBird Electronics; SM = Standard Methods; TOC = total organic carbon; TSS = total suspended solids; USEPA = United States Environmental Protection Agency; YSI = YSI Incorporated

Surface water characteristics (salinity, temperature, pH, DO, and visual observations of water clarity) will be collected to compare ambient conditions from year to year. All analytical methods will follow USEPA or Standard Methods (SM) of the American Public Health Association (APHA; 1998). Required analytical methods, detection, and reporting limits are presented in Table 4-2.

#### 4.1.6 Toxicity Testing

Water column toxicity will be assessed at the six SIYB sampling stations and one<sup>10</sup> reference station (SIYB-REF-1). Toxicity testing will consist of a 96-hour acute bioassay test using Pacific

<sup>10</sup> Because the sample from SIYB-REF-2 is only being collected to assess variability in dissolved copper levels at the reference stations, this sample will not be tested for toxicity.

topsmelt (*Atherinops affinis*), consistent with the TMDL guidance (Regional Board, 2005). Additionally, a 48-hour chronic bioassay test using a mussel (*Mytilus galloprovincialis*) will also be conducted because previous studies have used the 48-hour mussel chronic test as the primary indicator of toxicity. Both tests will be used to assess the narrative toxicity objective described in Section 1.4 (Water Quality Objective Criteria) because both species have ecological relevance to the marina environment and have previously been found to be sensitive to dissolved copper.

The 96-hour acute bioassay with topsmelt will be conducted in accordance with procedures described in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (USEPA, 2002). Testing will be initiated within 36 hours of sample collection. Topsmelt will be exposed for 96 hours to three sample concentrations (25, 50, and 100 percent) and to a control. Each concentration will be tested with six replicates and five topsmelt per replicate. Water quality will be analyzed daily and include dissolved oxygen (DO), temperature, pH, and salinity. After 96 hours, percent survival will be calculated. The test will be considered acceptable if 90 percent or more of exposed fish survive in the controls. Test conditions are summarized in Table 4-3.

A 96-hour reference toxicant test using copper chloride will be conducted concurrently with the SIYB project samples and using the same batch of test organisms to evaluate the relative sensitivity of test organisms as well as the laboratory's proficiency with the test procedure. The topsmelt reference toxicant test will be conducted with copper concentrations of 0, 25, 50, 100, 200, and 400 µg/L. At test termination, the median lethal concentration (LC<sub>50</sub>) will be calculated and compared to historical laboratory reference toxicant test data for this species. Test organisms will be considered to be responsive and appropriately sensitive if the test LC<sub>50</sub> is within two standard deviations of the historical mean from the previous 20 tests.

The 48-hour bivalve larvae test will be performed in accordance with procedures outlined in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (USEPA, 1995). Testing will be initiated within 36 hours of sample collection. The test will be run for 48 hours or up to 54 hours if necessary to ensure development of the bivalve larvae to the D-hinge stage in the control. Bivalves will be exposed to five sample concentrations (6.25, 12.5, 25, 50, and 100 percent), and a control. Each concentration will be run with five replicates and 150–300 larvae will be targeted for inoculation into each replicate. Water quality measurements will include DO, temperature, pH, and salinity at test initiation and termination. The test will be considered acceptable if at least 50 percent of larvae survived and an average of 90 percent of surviving larvae developed normally in the controls. A combined endpoint of normal surviving embryos will be reported. Test conditions are summarized in Table 4-4.

**Table 4-3.**  
**Conditions for the 96-Hour Pacific Topsmelt Bioassay**

Test Conditions 96-Hour Acute Bioassay		
Test Species		<i>Atherinops affinis</i>
Test Procedures		EPA/821/R-02/012 (USEPA, 2002)
Age and Size Class		7–15 days
Test Type and Duration		Acute static-renewal / 96-hours
Sample Storage Conditions		4°C, dark, minimal head space
Holding Time		36 hours
Control Water Source		Scripps Pier seawater, 20-µm filtered
Recommended Water Quality Parameters	Temperature	21 ± 1°C
	Salinity	33 ± 1 ppt
	Dissolved Oxygen	>4.0 mg/L
	pH	Monitor for pH drift
Photoperiod		16 hours light, 8 hours dark
Test Chamber		400-mL beaker or plastic cup
Concentrations		3 (25, 50, and 100 percent) and a control
Number of Replicates per Sample		6
Number of Organisms per Replicate		5
Exposure Volume		250 mL
Aeration		None, unless DO falls below 4.0 mg/L
Feeding		once daily with <i>Artemia</i> nauplii
Water Renewal		48 hours
Statistical Analysis		Test of Significant Toxicity (TST) - Control and test sample comparisons

Notes:

µg/L = microgram(s) per liter; µm = micrometer; °C = degrees Celsius; mg/L = milligram(s) per liter; mL = milliliter(s); pH = hydrogen ion concentration; ppt = part(s) per thousand; USEPA = United States Environmental Protection Agency

A 48-hour reference toxicant test using copper chloride will be conducted concurrently with the SIYB project samples and using the same batch of test organisms; this test will evaluate the relative sensitivity of test organisms as well as the laboratory's proficiency with the test procedure. The bivalve reference toxicant test will be conducted with copper concentrations of 0, 2.5, 5.0, 10, 20 and 40 µg/L. At test termination, the median effect concentration (EC<sub>50</sub>) will be calculated and compared to historical laboratory reference toxicant test data for this species. Test organisms will be considered to be responsive and appropriately sensitive if the test EC<sub>50</sub> is within two standard deviations of the respective historical laboratory mean. At the termination of the study, survival and shell development will be compared between the control and test concentrations to determine whether significant mortality or reduction in normality exists.

A close look at the test receiving waters for any potentially interfering algal species is recommended prior to initiating tests with *Mytilus* embryos. If algae are prevalent and densities appear to be of concern, filtration of a subsample of water from each site through a 1 to 2-micrometer ( $\mu\text{m}$ ) mesh filter to remove the algae is highly recommended. This filtered sample is then tested side-by-side to the unfiltered sample for comparison purposes.

**Table 4-4.**  
**Conditions for the 48-Hour Mussel Development Bioassay**

Test Conditions 48-Hour Chronic Bioassay		
Test Species		<i>Mytilus galloprovincialis</i>
Test Procedures		EPA/600/R-95/136 (USEPA, 1995)
Age and Size Class		<4-hour-old embryos
Test Type and Duration		Bivalve Larvae - Static / 48 hours
Sample Storage Conditions		4°C, dark, minimal head space
Holding Time		36 hours
Control Water Source		Scripps Pier seawater, 1-µm filtered
Recommended Water Quality Parameters	Temperature	15 ± 1°C
	Salinity	30 ± 2 ppt
	Dissolved Oxygen	> 4.0 mg/L
	pH	Monitor for pH drift
Photoperiod		16 hours light, 8 hours dark
Test Chamber		26-mL glass shell vials
Concentrations		5 (6.25, 12.5, 25, 50, and 100 percent) and a control
Replicates and Sample		5
Number of Organisms/Replicate		150-300/replicate
Exposure Volume		10 mL
Feeding		None
Water Renewal		None
Statistical Analysis		TST - Control and test sample comparisons

Notes:

$\mu\text{m}$  = micrometer; °C = degrees Celsius; mg/L = milligram(s) per liter; mL = milliliter(s); pH = hydrogen ion concentration; ppt = part(s) per thousand; USEPA = U.S. Environmental Protection Agency

#### 4.1.6.1 Toxicity Identification Evaluation

During the 2018 TMDL monitoring program, unexplained toxicity was observed in the Pacific topsmelt bioassay. If similar results are observed in subsequent monitoring events, a toxicity identification evaluation (TIE) may be considered to identify potential sources of toxicity. If a TIE is deemed necessary, samples will be recollected from the station(s) in question, according to methods described in Section 4.1.3, and the toxicology laboratory will perform a TIE.

#### 4.1.7 Water Quality Analysis

##### 4.1.7.1 Water Chemistry

The basin-wide dissolved copper results (excluding the reference stations) will be used to calculate an average dissolved copper concentration. This average will be used to determine



basin-wide compliance with the CTR dissolved copper chronic target (3.1 µg/L) or a potential site-specific objective. Because the same station locations will be revisited each year, repeated measurements will be used to evaluate reductions in dissolved copper levels with time. As previously mentioned, water quality results from the winter monitoring event will be presented in the 2021 monitoring report to supplement the compliance monitoring conducted during the summer of 2021.

#### **4.1.7.2 Toxicity**

Toxicity will be statistically assessed using the software program Comprehensive Environmental Toxicity Information System™ from Tidepool Scientific Software. With this software, survival of topsmelt fish and normal development of surviving mussel embryos in each test dilution from SIYB are compared to organism performance observed in control exposures to filtered clean seawater collected from the end of the pier at Scripps Institution of Oceanography in La Jolla, California. Results are used to determine LC<sub>50</sub> and EC<sub>50</sub> values. If fish survival and normal bivalve embryo development in the controls do not differ significantly from that of the treatments, then conditions are considered to be non-toxic at the station. The USEPA Test of Significant Toxicity (TST)<sup>11</sup> (USEPA, 2010) approach will be used to determine statistically significant effects for this study.

## **4.2 Field and Analytical QA/QC Procedures**

Strict QA/QC procedures will be employed throughout the entire study, from mobilization through delivery of samples to the laboratories. Extra care will be taken to minimize the possibility of compromising sample integrity. The sample collection team will be trained in, and follow, field sampling standard operating procedures (SOPs), as described in the SIYB QAPP (Wood Environment & Infrastructure Solutions, Inc. [Wood], 2020). As part of the field collection procedures identified in the 2012 and 2013 QAPP updates, a QA/QC reviewer from both the Port<sup>12</sup> and the field contractor will be present onboard the sampling vessel at all times to review each step of the sample and data collection process. Additionally, Port-approved field and QA/QC checklists will be used throughout the sampling event to ensure that all procedures are consistent at each location; samples are collected in exactly the same manner at every station; and all required field data are recorded correctly and completely.

Field staff members will take care to avoid contamination of samples at all times by employing the clean hands technique and will wear powder-free nitrile gloves during sample collection. In addition, the field manager will ensure that the sample collection boat is painted with a non-copper or non-zinc containing hull paint. All samples will be collected in laboratory-supplied, laboratory-certified, contaminant-free sample bottles containing the correct preservative (if applicable). The sampling team will be provided the updated QAPP and field sampling SOPs to ensure all sampling personnel are trained accordingly. Additionally, the field staff will be made aware of the significance of the project's detection limits and the requirement to avoid

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<sup>11</sup> A recommendation was made by the Port to the Regional Board in the 2012 monitoring report to begin using this new statistical method in place of previous statistical tests. The Regional Board agreed with this recommendation in its July 26, 2013, letter regarding SIYB TMDL progress. The TST method was used to identify any samples that exhibited a statistically significant difference from the control.

<sup>12</sup> Depending on the status of the COVID-19 pandemic at the time of sampling, a Port-designated QA observer may not be present during the monitoring events.

contamination of samples at all times. Field measurement equipment will be checked and calibrated for operation in accordance with the manufacturer's specifications (calibration records will be recorded and maintained), and will be inspected for damage prior to use and when returned from use. Observations of activities surrounding the sampling area will be recorded on field data sheets at each station and during movement between stations (e.g., boat hull cleaning).

As required by SWAMP protocols, the monitoring program will include the addition of a field replicate. The field replicate sample will consist of a second complete set of samples collected at one of the monitoring locations and will be analyzed for chemical constituents only (no toxicity analyses will be conducted on the field replicate sample). The purpose of the field replicate is to assess variability in sampling procedures as well as ambient conditions. In addition to the field replicate, each batch of samples that is submitted to the laboratories for analyses will be accompanied by an equipment rinse blank and field blank, as specified under SWAMP.

Chemistry and toxicity samples will be uniquely identified with sample labels in indelible ink. All sample containers will be identified with the project title, appropriate identification number, date and time of sample collection, and preservation method. Sample labels are inspected by Port<sup>13</sup> and field contractor QA reviewers before and after bottles are filled at each station to ensure that every sample and analysis type are labeled correctly before moving to the next station; this information will be recorded on the field checklist. All samples will be kept on ice from the time of sample collection until delivery to the analytical laboratory for analysis within method-specified holding times (Table 4-5). Samples will be delivered by courier to the analytical laboratories following the day of collection. All analyses will be conducted by laboratories that are accredited by the California Environmental Laboratory Accreditation Program (ELAP) for the specific tests that are required to be performed at the time they are conducted.

**Table 4-5.  
Sample Holding Times**

Analyte	Holding Time
TOC	28 days
DOC	28 days <sup>a</sup>
Total Copper	180 days <sup>b</sup>
Dissolved Copper	48 hours <sup>c</sup>
Total Zinc	180 days <sup>b</sup>
Dissolved Zinc	48 hours <sup>c</sup>
Total Suspended Solids	7 days
48-hour chronic bioassay	36 hours
96-hour acute bioassay	36 hours

Notes:

- a The holding time is applicable to preserved sample. The sample will be filtered in the field into a bottle with hydrochloric acid (HCl) preservative for DOC analysis.
  - b The holding time for total metals after preservation is 180 days. The total fraction samples will be preserved at the laboratory immediately upon receipt from the courier, within one day of sample collection.
  - c The holding time for metals after preservation is 180 days. The dissolved fraction will be filtered in the field through a 0.45-micrometer (µm) glass fiber filter using a bottle top vacuum filtration system. Samples will be preserved at the laboratory immediately upon receipt from the courier, the next day after sample collection.
- DOC = dissolved organic carbon; TOC = total organic carbon

<sup>13</sup> Depending on the status of the COVID-19 pandemic at the time of sampling, a Port-designated QA observer may not be present during the monitoring events.

The annual TMDL monitoring program will include the following QA/QC elements:

- |                                               |                                                                                                               |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| ✓ QAPP and SOP updates                        | ✓ Staff training on QAPP-required field procedures                                                            |
| ✓ Verification of laboratory certifications   | ✓ Field conditions and water quality data sheets                                                              |
| ✓ Field mobilization and equipment checklists | ✓ On-board QA/QC oversight                                                                                    |
| ✓ Field sampling QA/QC checklists             | ✓ Observations for hull cleaning or other water-quality-impacting activities near sample collection locations |
| ✓ Field equipment calibrations records        |                                                                                                               |

The analytical laboratory will (a) be certified to conduct the analyses for the constituents of concern for the SIYB TMDL study, (b) be certified for the specific analysis methods required for this program, and (c) hold a valid ELAP certificate at the time the monitoring program is initiated and the samples are analyzed. The QA objectives for chemical analysis to be followed by the participating analytical laboratories are detailed in their laboratory QA manuals and the QAPP. The objectives for accuracy and precision involve all aspects of the testing process, including the following:

- Methods and SOPs
- Calibration methods and frequency
- Data analysis, validation, and reporting
- Internal QC
- Preventive maintenance
- Procedures to ensure data accuracy and completeness

Results of all laboratory QC analyses will be reported with the final data. Any QC samples that fail to meet the specified QC criteria in the methodology or QAPP will be identified and the corresponding data will be appropriately qualified in the final report. The final report will include a separate section that discusses any QA/QC issues encountered during the monitoring event, as well as the corrective actions taken to satisfactorily address any issues.

All QA/QC records of the various testing programs will be kept on file for review by regulatory agency personnel.

### **4.3 Chain-of-Custody Procedures**

Proper COC procedures will be used throughout the sample collection, transport, and analytical process. The principal documents used to identify samples and to document possession are COC records, field logbooks, checklists, and field tracking forms. The COC process is initiated during sample collection. A COC record will be provided with each sample or group of samples. Each employee who has custody of the samples will sign the form and ensure that the samples are not left unattended and are properly secured. COC forms are provided in Attachment B.

Documentation of sample handling and custody included the following:

- Client and project name
- Sample identifier
- Sample collection date and time
- Any special notations on sample characteristics or analysis
- Initials of the person collecting the sample
- Date the sample was sent to the analytical laboratory
- Shipping company and waybill information

Completed COC forms will be placed into a plastic envelope and kept inside the cooler containing the samples. If possible, field staff should physically courier the bay water samples from the dock at SIYB to the analytical laboratory on the same day as collection. This level of effort will provide an additional level of security to the COC process as well as ensure that all holding times are met. Upon delivery to the analytical laboratory, the COC form will be signed by the person receiving the samples. Copies of the COC records will be included in the final reports prepared by the analytical laboratories.

#### **4.4 Health and Safety**

Because sampling will be conducted from a boat, dangerous situations can arise. Field personnel need to be aware of safety hazards and take appropriate precautions. A health and safety tailgate meeting will be held prior to any on-site activity. During this meeting, site-specific hazards will be discussed and addressed appropriately.

##### **4.4.1 Use of Boats and Working over Water**

Work will be conducted from a boat over and around SIYB; therefore, special considerations are required. All watercraft will be operated according to the applicable navigational rules and regulations. The boat will be operated by a certified captain with U.S. Coast Guard small vessel training. Personnel working on the boat will be trained according to internal SOPs. The hazards associated with the operation and use of boats include drowning and injuries from falling. An approved personal flotation device must be available for each person onboard. Wet conditions increase the chances of slipping; therefore, engineering controls such as guardrails will be used.

The compliance monitoring event will be conducted in the summer, which increases the risk of heat stress. To reduce this risk, plenty of water will be made available to field staff and wearing short pants will be acceptable. Field staff may be exposed to cooler temperatures during the winter monitoring event. To reduce the risk of cold stress, field staff will wear layers of clothing appropriate for potentially cold, wet, and windy conditions. A weather forecast will be reviewed prior to field sampling. High winds may pose potential hazardous conditions within the harbor.

A float plan will be prepared for each trip and submitted to the safety officer or project manager. At a minimum, it will include destination, expected time of return, personnel on board, and description of vessel. The float plan will be used if the field crew does not return or notify the shore contact at a specified time and a rescue is needed.

#### **4.4.2 COVID-19 Safety Precautions**

Wood staff will adhere to local, state, and federal guidelines, as well as corporate policy, to prevent the spread of COVID-19 during all monitoring efforts. Given the ever-evolving nature of the COVID-19 pandemic, the site-specific Health and Safety Plan will be updated with the most up-to-date information regarding COVID-19 prevention strategies prior to each sampling event.

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## **5.0 DATA REVIEW AND MANAGEMENT**

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Field and laboratory data will be reviewed for completeness and accuracy prior to analysis and reporting, and will be stored in a database, as described in the following sections.

### **5.1 Data Review**

After each survey, field data sheets and checklists will be checked for completeness and accuracy by the field crew and the QA reviewer(s). In addition, all sample COCs will be checked against sample labels at the end of the day prior to samples being transported to the laboratories. In the laboratory, technicians will document sample receipt and sample preparation activities in laboratory logbooks or on bench sheets.

Data validation will include dated and signed entries by technicians on the data sheets and logbooks used for samples, the use of sample tracking and numbering systems to track the progress of samples through the laboratory, and the use of QC criteria to reject or accept specific data. Data for laboratory analyses will be entered directly onto data sheets. Data sheets will be filled out in ink and signed by the technician, who is responsible for checking the sheet to ensure completeness and accuracy. The technician who generated the data will have the primary responsibility for the accuracy and completeness of the data.

Each technician will review the data to ensure the following:

- Sample description information is correct and complete
- Analysis information is correct and complete
- Results are correct and complete
- Documentation is complete

All data will be reviewed and verified by participating team laboratories to determine whether data quality objectives have been met and that appropriate corrective actions have been taken, when necessary, as detailed in the QAPP.

### **5.2 Data Management**

The chemistry and toxicity laboratories will supply analytical results in both hard copy and electronic formats. Laboratories will have the responsibility of ensuring that both forms are accurate. After completion of the data review by participating team laboratories, hard copy results will be placed in a project file; results in electronic format will be imported into a database system. Additional details regarding data management are provided in the project-specific QAPP.

### **5.3 Laboratory Quality Assurance and Quality Control**

Analytical laboratories will provide a QA/QC narrative that describes the results of the standard QA/QC protocols that accompany analysis of field samples. All hard copies of results will be maintained in the project files. In addition, back-up copies of results generated by each laboratory will be maintained at their respective facilities. At a minimum, the laboratory reports will contain results of the laboratory analysis, QA/QC results, all protocols and any deviations from the project Monitoring Plan, and a case narrative of COC details.

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## 6.0 REPORTING

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Reporting under the SIYB TMDL will include annual monitoring and progress reports to be submitted to the Regional Board by the Port no later than March 31 of each year. The purpose of the report is to document the methods and results of annual vessel tracking surveys and water quality monitoring. Reports will detail the number of vessels converted to non-copper or lower copper paints within SIYB to calculate loading reductions. Additionally, annual progress reports will describe water quality conditions, specifically focused on the concentrations of dissolved copper within the basin and observed toxicity levels.

At a minimum, the following information will be included in annual monitoring and progress reports.

**SIYB TMDL Implementation:** An evaluation, interpretation, and tabulation of data and information on SIYB Dissolved Copper TMDL activities undertaken by the Named Parties.

1. *Vessel Conversions.* Assess vessel conversions from copper-based antifouling paints to non-copper and lower copper hull paints, including:
  - a. Total number of slips or buoys in SIYB available to be occupied by vessels
  - b. Number of unoccupied slips or buoys and length of time unoccupied during each year
  - c. Number of vessels confirmed with copper-based hull paint and approximate length of time occupying a slip or buoy in SIYB during each year
  - d. Number of vessels confirmed with lower copper hull paint and approximate length of time occupying a slip or buoy in SIYB during each year
  - e. Number of vessels confirmed with alternative hull paints, by alternative hull paint type, and approximate length of time occupying a slip or buoy in SIYB during each year
  - f. Number of vessels with aged-copper paint and approximate length of time occupying a slip or buoy in SIYB during each year
  - g. Number of vessels with unconfirmed information about hull paint and approximate length of time occupying a slip or buoy in SIYB during each year;
  - h. An estimate of the dissolved copper load reduction achieved, in terms of kilograms and percent, for the year
  - i. Any other data or information relevant to annual tracking of vessels in SIYB occupying slips or buoys and conversions from copper-based hull paints to alternative (non-copper or lower copper) hull paints.

**SIYB BMP Implementation.** Describe BMPs or other actions that have been implemented by the Named Parties to reduce dissolved copper discharges from boat hulls into SIYB. BMPs and other actions implemented and required to be implemented by in-water hull cleaners are also described in the BMP section of the annual monitoring and progress report. In addition, any updates of the copper reduction BMP strategies outlined in the TMDL Implementation Plan will be included in an appendix to the annual monitoring and progress report.

**San Diego Baywide BMP Implementation.** Describe BMPs or other actions that can be, will be, or have been implemented by the Port to reduce dissolved copper discharges from boat hulls into harbors or marinas, other than SIYB, within San Diego Bay.

**SIYB TMDL Monitoring.** An evaluation, interpretation, and tabulation of water quality sampling and analysis data, including:

1. *Sampling Locations and Numbers.* The locations, type, and number of samples must be identified and shown on a site map.
2. *Sample Analyses.* The sample collection and laboratory analytical methods, QA/QC results, time and date of sample collection, and other pertinent information must be described.
3. *QA/QC Summary.* Discusses the adherence to project-specific QAPP requirements, QA/QC issues that needed to be addressed, and any necessary corrective actions.
4. *Water Quality Trends.* Interpretations and conclusions, as to whether the “trajectory” of the measured water quality values points toward attainment of the dissolved copper water quality objectives, must be provided.

## 7.0 REFERENCES

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Weston. 2011. Shelter Island Yacht Basin TMDL Monitoring Plan. Prepared for the California Regional Water Quality Control Board, San Diego Region. May.

Wood Environment & Infrastructure Solutions, Inc. (Wood). 2020. *2020 Shelter Island Yacht Basin Dissolved Copper TMDL Quality Assurance Project Plan*.

**ATTACHMENT A**

**VESSEL TRACKING DATABASE TEMPLATE**

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**Attachment A**  
**SIYB Dissolved Copper TMDL**

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**ATTACHMENT B**  
**CHAIN-OF-CUSTODY FORMS**

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## CHAIN OF CUSTODY RECORD

## STANDARD

Page 1 Of 1

CLIENT NAME:				PROJECT:		ANALYSES REQUESTED										SPECIAL HANDLING	
ADDRESS:				PHONE: FAX: EMAIL:		<div>SIYB Dissolved Copper TMDL Monitoring</div>										<input type="checkbox"/> Same Day Rush 150%	
																<input type="checkbox"/> 24 Hour Rush 100%	
PROJECT MANAGER				SAMPLER		<div>Total Copper<sup>1</sup> Method EPA 1640 MDL 0.0038 µg/L, RL= 0.01 µg/L</div> <div>Dissolved Copper<sup>1,2</sup> Method EPA 1640 MDL 0.0038 µg/L, RL= 0.01 µg/L</div> <div>Total Zinc<sup>1</sup> Method EPA 1640 MDL 0.036 µg/L, RL= 0.20 µg/L</div> <div>Dissolved Zinc<sup>1,2</sup> Method EPA 1640 MDL 0.036 µg/L, RL= 0.20 µg/L</div> <div>Total Organic Carbon (TOC) Method USEPA 5310B MDL = 0.016 mg/L, RL = 0.10 mg/L</div> <div>Dissolved Organic Carbon (DOC)<sup>3</sup> Method USEPA 5310B MDL = 0.016 mg/L, RL = 0.10 mg/L</div> <div>Total Suspended Solids Method USEPA 2540 D, MDL = 1 mg/L, RL = 5 mg/L</div>										<input type="checkbox"/> 48-72 Hour Rush 75%	
ID# (For lab Use Only)				DATE SAMPLED												TIME SAMPLED	
						<input type="checkbox"/> Rush Extractions 50%											
														<input checked="" type="checkbox"/> 10 Business Days			
														<input type="checkbox"/> QA/QC Data Package			
														Charges will apply for weekends/holidays			
														Method of Shipment:			
														COMMENTS			
										</							

**Cd-a:** Acute Ceriodaphnia      **Sc-c:** Chronic Green Algae  
**Cd-c:** Chronic Ceriodaphnia    **Ha-a:** Acute Hyalella amphipod  
**Pp-a:** Acute Fathead Minnow   **Ha-c:** Chronic Hyalella amphipod  
**Pp-c:** Chronic Fathead Minnow **T-22:** CA Title 22 Hazardous Waste

## **APPENDIX B**

### **BEST MANAGEMENT PRACTICE PLANS**

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## **SAN DIEGO UNIFIED PORT DISTRICT BMP PLAN IMPLEMENTATION**

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**Shelter Island Yacht Basin Total Maximum Daily Load BMP Workplan – San Diego Unified Port District**  
**Summary of efforts completed /in progress (Jan–Dec 2020)**

BMP TYPE	PROJECT NAME / DESCRIPTION	LOCATION	PURPOSE(S)	TARGETED OUTCOME(S)	ASSESSMENT MECHANISM	SCHEDULE / STATUS	FINDINGS / ACCOMPLISHMENTS
<b>Defined Projects for Stage 4 (2018-2022)</b>							
Policy/ Regulation	<i>Copper Hull Paint Legislation AB 425 (Atkins): The Port is involved in the development of state legislation that will require the Dept of Pesticide Regulation to adopt a leach rate that is protective of aquatic environments.</i>	State-wide	<i>This bill supports the Port's efforts to reduce copper pollution in San Diego Bay marinas by controlling copper loading throughout the state.</i>	<p><i>Completeness: Adoption of bill</i></p> <p><i>Load Reduction: (1) establish leach rate that is protective of aquatic environments. (2) Limit paints to only those meeting the leach rate.</i></p>		<p><i>Start Date: Feb 2013</i></p> <p><i>Completion Date: (1) Bill Complete – Oct 2013 (2) Establish Leach Rate – Feb 2014 (3) Leach Rate Use – TBD</i></p> <p><i>Status: Legislation Complete</i></p>	<ul style="list-style-type: none"> <li><i>AB425 was signed in October 2013.</i></li> <li><i>The final DPR report was completed on January 30, 2014, and established the following:</i> <ul style="list-style-type: none"> <li><i>Max Leach Rate of 9.5 µg/cm<sup>2</sup>/day for paints w/ monthly soft carpet.</i></li> <li><i>Max Leach Rate of 13.4 µg/cm<sup>2</sup>/day for paints where cleaning is prohibited.</i></li> <li><i>7 additional mitigation measures identified to be implemented.</i></li> </ul> </li> </ul>
Policy/ Regulation	In-water Hull Cleaning Regulations – New Permits Issued	Bay-wide	In-Water Hull Cleaning regulations are intended to reduce or eliminate copper pollution caused by hull cleaning activities in San Diego Bay.	<p>Completeness: Issue Permits to 100% of In-Water Hull Cleaning businesses operating in San Diego Bay.</p> <p>Load reduction: All hull cleaning businesses operating on Port Tidelands have obtained permits &amp; use BMPs.</p>	# of permitted in-water hull cleaning businesses/ total in-water hull cleaning businesses known to operate.	<p>Start Date: FY10</p> <p>Status: Ongoing Annually</p>	<ul style="list-style-type: none"> <li>102 companies were issued permits since the onset of regulation. There are currently 58 active permits as of December 2020.</li> <li>0 new hull cleaning permits issued in 2020*.</li> <li>9 conditional hull cleaning permits issued in 2020**.</li> </ul> <p><i>*From January 1, 2020- December 31, 2020, the Ordinance and Permit Program Review process remained in place. The Port continued the implementation of its In-Water Hull Cleaning Ordinance which requires that BMPs be implemented by hull cleaners during all in-water hull cleaning activities. During this process, permits already issued remained in effect.</i></p> <p><i>** During this period, conditional hull cleaning permits, which require the use of BMPs, continued being issued to new businesses on a case-by-case basis until the Ordinance and Permit revisions are complete.</i></p>
Policy/ Regulation	In-water Hull Cleaning- Permit Renewals	Bay-wide	In-Water Hull Cleaning Permit renewals are required every two years. A regular renewal process is intended to ensure divers stay up-to-date on education and training.	<p>Completeness: Permit renewals issued</p> <p>Load reduction: All hull cleaning businesses operating on Port Tidelands possess valid permits &amp; use BMPs.</p>	# of permitted in-water hull cleaning businesses having permits expiring in 2018/ total # in-water hull cleaning businesses	<p>Start Date: Jan 2013</p> <p>Completion Date: Annually</p> <p>Status: Ongoing annually</p>	<ul style="list-style-type: none"> <li>0 Hull cleaning businesses renewed permits in 2020*.</li> <li>0 permits expired in 2020*.</li> <li>Overall, 44 permits have expired since the onset of the regulation due to either companies going out of business or being sold to another already permitted in-water hull cleaning company.</li> </ul> <p><i>*From January 1, 2020- December 31, 2020, the Ordinance and Permit Program Review process remained in place. The Port continued the implementation of its In-Water Hull Cleaning Ordinance which requires that BMPs be implemented by hull cleaners during all in-water hull cleaning activities. During this process, permits already issued remained in effect even if expired. During this period, conditional hull cleaning permits continued being issued on a case-by-case basis until the Ordinance and Permit revisions are complete. As a result, no renewals were issued.</i></p>

**Shelter Island Yacht Basin Total Maximum Daily Load BMP Workplan – San Diego Unified Port District**  
**Summary of efforts completed /in progress (Jan–Dec 2020)**

BMP TYPE	PROJECT NAME / DESCRIPTION	LOCATION	PURPOSE(S)	TARGETED OUTCOME(S)	ASSESSMENT MECHANISM	SCHEDULE / STATUS	FINDINGS / ACCOMPLISHMENTS
Policy/ Regulation	In-water Hull Cleaning – Diver/Marina Inspections	Bay-wide	<p>Inspections for IWHC activities and review of marinas’ check-in practices verify whether businesses are complying with permit requirements.</p> <p>In general, compliance with permit requirements is indicative of divers using BMPs and controlling their pollution.</p>	<p>Completeness: compliance with regulations confirmed through visual inspections.</p> <p>Load reduction: All hull cleaning businesses operating on Port Tidelands have obtained permits &amp; use BMPs.</p>	# of inspections conducted/ # of citations/warnings issued	<p>Start Date: FY10</p> <p>Status: Ongoing Annually</p>	<ul style="list-style-type: none"> <li>80 In-Water Hull Cleaning Inspections completed in 2020.</li> <li>60 Marina Inspections completed in 2020.</li> <li>1 Citation issued in 2020.</li> </ul>
Policy/Regulation	In-Water Hull Cleaning-Ordinance and Permit Program Review	Bay-wide	To amend the Port’s In-Water Hull Cleaning Ordinance and Permit as necessary to address loading from In-Water Hull Cleaning.	<p>Achieve Water Quality Standards</p> <p>Further reduce direct loading of dissolved copper into San Diego Bay</p>	<p>Water Quality Monitoring</p> <p>Improved direct load reduction calculations</p>	<p>New Initiative</p> <p>Start Date: August 2019</p> <p>Status: Ongoing</p>	<ul style="list-style-type: none"> <li>Continued assessing public comments and determining next steps.</li> <li>Identified data gaps needing to be addressed prior to adopting an amended ordinance .</li> <li>Met with the newly formed Port Marina Working Group and the San Diego Regional Water Quality Control Board to discuss identified data gaps.</li> </ul>
Policy/ Regulation	Correspondence with State & Federal Agencies	State-wide	Promote consistency in requirements being developed across the state; discuss strategies for implementation activities, lessons learned, and build upon successful activity models.	Completeness: submittal of letters; response to request(s); public meeting comments	# of letters sent / # of requests satisfied/# of meetings present to comment on	<p>Ongoing Annually</p> <ul style="list-style-type: none"> <li>2019: 1 state agency regularly corresponded with, 1 TMDL discussion at state meeting, 1 presentation at regional meeting, 1 TMDL discussion at federal meeting, 1 correspondence with FL state agency</li> </ul>	<ul style="list-style-type: none"> <li>Port and DPR staff continued an on-going collaborative partnership by holding multiple conference calls to discuss copper-related issues and the DPR special study (throughout 2020).</li> <li>Port staff attended and were invited to speak at the California Marine Affairs and Navigation Conference (CMANC) in Los Angeles. Port Staff spoke on a TMDL-specific panel and shared lessons learned and updates regarding the SIYB TMDL (January 2020).</li> <li>Port Staff held multiple calls with the State Lands Commission (SLC) to assist the SLC with planning an in-water hull cleaning full capture device special study (January-February 2020).</li> <li>Submitted comment letter to provide input on the State Water Resources Control Board’s Draft 2020-2025 Nonpoint Source Program Implementation Plan (July 2020).</li> <li>Submitted letter to DPR requesting updated registered paint list on behalf of Shelter Island tenants for vessel tracking and reporting (December 2020).</li> </ul>

**Shelter Island Yacht Basin Total Maximum Daily Load BMP Workplan – San Diego Unified Port District**  
**Summary of efforts completed /in progress (Jan–Dec 2020)**

BMP TYPE	PROJECT NAME / DESCRIPTION	LOCATION	PURPOSE(S)	TARGETED OUTCOME(S)	ASSESSMENT MECHANISM	SCHEDULE / STATUS	FINDINGS / ACCOMPLISHMENTS
<i>Policy/Regulation</i>	<i>Support for DPR Paint Reformulation</i>	<i>State-wide</i>	<i>Establish timeline to phase out high leach copper paint.</i>	<i>Completeness</i>	<i>Removal of high leach products from the market</i>	<i>Started: 2018 Status: Completed June 30, 2020</i>	<ul style="list-style-type: none"> <li><i>This DPR regulation set a maximum leach rate rule of 9.5 µg/cm<sup>2</sup>/day for copper-based hull paints and became effective July 1, 2018.</i></li> <li><i>The 2018 regulation was the result of efforts associated with AB425.</i></li> <li><i>June 30, 2020 marked the end of the grace period for all high copper paints that were in-stock at stores and boatyards. It is understood that after June 30,2020, high copper paints are no longer available in California.</i></li> </ul>
Policy/ Regulation	Coordination with other Regions on Copper TMDLs/impairments	State-wide	Promote consistency in requirements being developed across the state; discuss lessons learned, strategies for implementation activities, etc.	Consistency in regulations	Assessment mechanism is dependent on information being considered.	As-needed coordination	<ul style="list-style-type: none"> <li>Port held monthly calls with LA County Department of Beaches and Harbors to discuss respective TMDL programs and identify areas for collaboration on copper reduction efforts at both a regional and state level (monthly throughout 2020).</li> <li>Port staff attended two public workshops for the Marina del Rey TMDL Site-Specific Objective Study (January and May 2020).</li> </ul>
Policy/ Regulation	Legislative or Policy Efforts	State-wide	Seek options for additional state controls on copper through legislative efforts.	Completeness: Adoption of bill  Load Reduction: TBD dependent on bill content		Start Date: TBD Completion Date: TBD  Status: As-Needed	<ul style="list-style-type: none"> <li>Will be analyzed and coordinated as needed.</li> </ul>
Policy/ Regulation	Policy Efforts as deemed applicable and appropriate	SIYB/Bay-wide	Evaluate potential policy efforts locally and statewide, as deemed appropriate.	Completeness: Adoption of policy  Load Reduction: TBD dependent on policy content		Start Date: TBD Completion Date: TBD  Status: As-Needed	<ul style="list-style-type: none"> <li>Will be analyzed and coordinated as needed.</li> </ul>
<i>Testing and Research</i>	<i>Hull Paint Research Grants</i>	<i>State-wide</i>	<i>Projects advance the understanding of available alternative technologies; 3 new technologies being tested (nanotechnology, surface adhesion, natural antifouling compounds).</i>	<i>Completeness: Development of test products</i>	<i>Deliverable of final report and ability to test product in Port panel testing.</i>	<i>Start Date: FY11 Completion Date: FY13  Status: Completed</i>	<ul style="list-style-type: none"> <li><i>ePaint – Completed 2012</i></li> <li><i>University of Washington – Completed March 2013</i></li> <li><i>Xurex – Completed July 2013</i></li> </ul>

**Shelter Island Yacht Basin Total Maximum Daily Load BMP Workplan – San Diego Unified Port District**  
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BMP TYPE	PROJECT NAME / DESCRIPTION	LOCATION	PURPOSE(S)	TARGETED OUTCOME(S)	ASSESSMENT MECHANISM	SCHEDULE / STATUS	FINDINGS / ACCOMPLISHMENTS
Testing and Research	Hull Paint Testing Program: Development of a testing program to evaluate new and emerging coatings	SIYB	The objective of the project was to identify effective non-copper antifouling paints through panel testing.	Completeness/Change in Awareness	Identification of alternative hull paints that are comparable to copper hull paints.	<p><i>Start Date: FY09</i> <i>Status: Complete</i></p> <p><i>Annual Totals:</i></p> <ul style="list-style-type: none"> <li>2011: Five of 17 non-copper hull paints identified to be effective</li> <li>2010: Four of 21 non-copper hull paints identified to be effective.</li> </ul>	<ul style="list-style-type: none"> <li>Paint testing efforts have been completed; no new work anticipated for the paint testing program.</li> </ul>
Testing and Research	Blue Economy Incubator (BEI):  Testing New Innovation and Technologies	SIYB	Utilize the Port's Blue Economy Incubator (BEI) to discover, test, and implement, where applicable, new and innovative copper reduction and/or water quality improvement technologies.	Successful trials and subsequent installations of demonstrated technologies.	Measured reduction in copper concentrations in the water column.	<ul style="list-style-type: none"> <li>2019: Phase 1 of Rentunder Boatwash pilot project completed, results analyzed and Phase 1 Report published.</li> <li>2018: Phase 1 of Rentunder Boatwash pilot project initiated; Red Lion Chem Tech Pilot Project submitted draft Work Plan</li> <li>2017: Two BEI agreements to conduct copper-related pilot projects</li> <li>2016: RFP issued for innovative hull cleaning and remediation technologies 7 proposal submitted</li> </ul>	<ul style="list-style-type: none"> <li>The Rentunder Boatwash uses a technology that offers an alternative to current in-slip hull cleaning practices. The pilot project consists of two phases that test the technology: Phase 1 was initiated in 2018 and ran through 2019, while it is anticipated Phase 2 will begin in 2021.</li> <li>In 2020, recommendations for Phase 2 of the Rentunder Boatwash Pilot Project were submitted by Rentunder to the San Diego Regional Water Quality Control Board and stakeholders (January-March 2020).</li> <li>An agreement was finalized with Rentunder and the Port for Phase 2 testing, estimated to begin in 2021 (September 2020).</li> </ul>
Testing and Research	Hull Paint Testing Program: Implementation of a testing program to evaluate new and emerging coatings	SIYB	The objective of the project is to identify effective non-copper antifouling paints through panel testing or other processes.	Completeness/Change in Awareness	A standardized protocol for testing the effectiveness of new coatings has been developed.	Implementation: On-going, as-needed.	<ul style="list-style-type: none"> <li>Program will be implemented as needed for new products and as budget allows.</li> <li>In 2020, Port staff met with representatives from two alternative coating companies (SeaCoat and Nature Coat) to discuss progress in product development for recreational vessels.</li> </ul>

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<i>Hull Paint Transition</i>	<i>Transition of Port Fleet to Non-copper Hull Paints</i>	<i>SIYB/Bay-wide</i>	<i>To facilitate the reduction of copper loading to SIYB in compliance with interim and final loading reduction targets.</i>	<i>Load reduction: 100% of fleet transitioned to non-copper hull paints Completeness: conversion of entire Port fleet</i>	<i># converted/ total</i>	<i>Start Date: FY09 Completion Date: FY11  Status: Complete. 16 of 16 converted</i>	<ul style="list-style-type: none"> <li><i>All 15 Port boats remain converted, resulting in a 13.5 kg/yr load reduction for 2020.</i></li> <li><i>The project was completed in 2011, the full fleet remains copper free through 2020.</i></li> <li><i>In September 2020, Harbor Police formed a committee for future vessel purchases. Staff are ensuring future vessels added to the fleet remain copper free.</i></li> </ul>
<i>Hull Paint Transition</i>	<i>Vessel Tracking Templates</i>	<i>SIYB/Bay-wide</i>	<i>Excel-based data sheets for marinas and yacht clubs to use to track hull paint in a consistent manner for reporting purposes.</i>	<i>Completeness/Change in Behavior</i>	<i># of facilities using templates and tracking hull paint information</i>	<i>Start Date: FY11 Completion Date: FY13  Status: complete</i>	<ul style="list-style-type: none"> <li><i>The Port and all 11 facilities are currently using the template to track hull paint.</i></li> </ul>
<i>Hull Paint Transition</i>	<i>Web-based Vessel Tracking System</i>	<i>SIYB/Bay-wide</i>	<i>A web-based database to track vessel paint information for District and tenant facilities.</i>	<i>Completeness/Change in Behavior</i>	<i>Presence/absence of usable/accessible online vessel tracking database that calculates annual loading reductions.</i>	<i>Start Date: FY12 Completion Date: FY13  Status: Database complete</i>	<ul style="list-style-type: none"> <li><i>No new work was conducted on the database. Per stakeholder feedback, the database is not currently in use.</i></li> </ul>
<i>Grant Funding/ Incentives</i>	<i>319h Hull Paint Conversion Project</i>	<i>SIYB</i>	<i>The project is designed to reduce the levels of copper in Shelter Island Yacht Basin by incentivizing boaters to switch from copper to non-biocide hull paint.</i>	<i>Load reduction targets (as of 2012 cost reallocation): 107 vessels converted to non-toxic hull paints and estimated 96.3 kg/yr copper load reduction</i>	<i># of vessels converted and loading reduction as compared to targets.</i>	<i>Start Date: FY11 Completion Date: May 30, 2015  Status: Completed</i>	<ul style="list-style-type: none"> <li><i>7 boats converted in 2015</i></li> <li><i>41 vessels converted overall</i></li> <li><i>2015 Load reduction = 6.3 kg/yr</i></li> <li><i>Overall load reduction = 36.9 kg/yr</i></li> <li><i>Final report submitted to State Board on May 30, 2015</i></li> <li><i>Report posted to website at <a href="https://www.portofsandiego.org/environment/copper-reduction-program/hull-paint-transition.html">https://www.portofsandiego.org/environment/copper-reduction-program/hull-paint-transition.html</a></i></li> </ul>



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Education/ Outreach	Workshops/seminars to boating community & Stakeholders	SIYB/Bay-wide	Educate boat owners on environmental impacts of copper-based hull paints; provide information on alternative hull paints; inform boat owners of the Hull Paint Conversion Project; inform stakeholders of programs or policies.	Change in Awareness/Change in Behavior	# of people attending; results from public opinion/awareness surveys or pre/post-tests (as applicable)	<p>Start Date: FY 09</p> <p>Status: On-going</p> <p>Past Annual Totals:</p> <ul style="list-style-type: none"> <li>• 2019- 11 events</li> <li>• 2018 – 12 events</li> <li>• 2017-- 7 events</li> <li>• 2016 – 6 events</li> <li>• 2015 – 5 events</li> <li>• 2014 – 6 events</li> <li>• 2013 – 1 event</li> <li>• 2012 – 3 events</li> <li>• 2011 – 2 events</li> <li>• 2010 – 1 event</li> </ul>	<ul style="list-style-type: none"> <li>• Guest Speaker Invitations: <ul style="list-style-type: none"> <li>○ San Diego Port Tenants Association Marine Recreation Committee- Port staff were invited to present on the Ordinance and Permit Review process. The Marine Recreation Committee group is comprised of a variety of Port tenants with many directly involved with SIYB (January 21, 2020). Approximately 35 people attended.</li> <li>○ Environmental Advisory Committee- Port staff gave a Blue Economy Incubator Update which included discussing the Rentunder Boatwash Pilot Project (September 16, 2020). Approximately 30 people attended.</li> <li>○ Ports Water Quality Meeting 2020- Port staff were invited to present on water quality initiatives to a group of representatives from several ports (November 2, 2020). Approximately 25 people attended.</li> </ul> </li> <li>• Port Board Memorandums <ul style="list-style-type: none"> <li>○ 5 Board Memorandums <ul style="list-style-type: none"> <li>▪ Summary of the Marina del Rey Harbor Site-Specific Objective Study for Dissolved Copper: Technical Advisory Committee Review Meeting (January 30, 2020).</li> <li>▪ Public Meeting on In-Water Hull Cleaning Pilot Study to be Held on April 2, 2020 (March 5, 2020). <i>Note this meeting was postponed due to COVID-19</i></li> <li>▪ Shelter Island Yacht Basin 2019 Annual TMDL Compliance Report Submittal (April 16, 2020).</li> <li>▪ Submittal of Comment Letter in Response to the California Water Board’s Draft 2020-2025 Nonpoint Source Program Implementation Plan (August 6, 2020).</li> <li>▪ Notification of Upcoming Shelter Island Yacht Basin Dissolved Copper Total Maximum Daily Load Annual Water Quality Monitoring (August 13, 2020).</li> </ul> </li> </ul> </li> <li>• Port Board Meeting Agendas <ul style="list-style-type: none"> <li>○ 1 President’s Report <ul style="list-style-type: none"> <li>▪ Status update on the draft amended Ordinance review (February 11, 2020).</li> </ul> </li> </ul> </li> </ul>

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Education/ Outreach	Booths at Outreach Events	SIYB/Bay-wide	The Port makes efforts to host a booth at various boating-related events. The purpose is to educate the boating community on environmental impacts of copper-based hull paints; provide information on alternative hull paints; inform boat owners of the Hull Paint Conversion Project (2013-2015).	Change in Awareness/Change in Behavior	# of attendees; # of posted advertisements or pamphlets distributed  Results from public opinion/awareness surveys (as applicable)	Start Date: FY 09  Status: On-going  Past Annual Totals: <ul style="list-style-type: none"> <li>• 2019- 1 event</li> <li>• 2018 – 1 event</li> <li>• 2017 – 0 events</li> <li>• 2016 – 6 events</li> <li>• 2015 – 6 events</li> <li>• 2014 – 5 events</li> <li>• 2013 – 5 events</li> <li>• 2012 – 4 events</li> <li>• 2011 – 4 events</li> <li>• 2010 – 1 event</li> <li>• 2009 – 1 event</li> </ul>	<ul style="list-style-type: none"> <li>• Due to COVID-19 this initiative was unable to be utilized for 2020.</li> </ul>
Education/ Outreach	Develop Partnerships/ Collaboration	SIYB/Bay-wide	Identify opportunities to collaborate with tenants, academia, and other agencies to develop and provide outreach, testing opportunities, funding opportunities, and policies.	Change in Awareness/Change in Behavior	# partnerships developed	Start Date: FY 09 Completion Date: On-going  Status: In progress	<ul style="list-style-type: none"> <li>• Marina and Yacht Club “1 on 1 Meetings” <ul style="list-style-type: none"> <li>○ Port staff met individually with marina and yacht club managers that elected to evaluate their Vessel Tracking Data with Port staff and consultants prior to data submittal (January 2020).</li> </ul> </li> <li>• Coordination with SIMLG and SIYB TMDL Stakeholders on SIYB TMDL annual report and copper reduction efforts.</li> <li>• Regular participation in state-led Marina Interagency Coordinating Committee (MIACC) meetings for antifouling and marina-related topics (June 17 and December 7, 2020).</li> <li>• Port staff met with the Port of Seattle to discuss their bioremediation efforts using oyster barrels to remove copper from water (September 17, 2020).</li> <li>• Regular meetings with SIMLG and other SIYB TMDL stakeholders to discuss copper reduction efforts and TMDL status. <ul style="list-style-type: none"> <li>○ In May 2020, the Port-Marina Working Group was formed and led by a Port Commissioner. Meetings were held bi-weekly through December with a focus on achieving TMDL compliance.</li> </ul> </li> </ul>

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Education/ Outreach	Website Development	SIYB/Bay-wide	Be an information source for staying up-to-date with boating trends, news, events and environmental issues. Provide tenants, stakeholders, and public information on copper hull paint related projects, policies and other items.	Change in Awareness/Change in Behavior	Web pages created and posted. Periodic updates to webpages (as necessary)	Start Date: FY 10  Status: On-going  Past Annual Totals: <ul style="list-style-type: none"> <li>• 2019- 25 updates</li> <li>• 2018 – 40 updates</li> <li>• 2017 – 36 updates</li> <li>• 2016 – 2 updates</li> <li>• 2015 – 2 updates</li> <li>• 2014 – 1 update</li> <li>• 2013 – 2 updates</li> <li>• 2012 – 2 updates</li> <li>• 2011 – 1 update</li> </ul>	<ul style="list-style-type: none"> <li>• The website was routinely checked to ensure content was available to the public and that information remained current and easy to find.</li> <li>• 2 website updates were performed in 2020: the Copper Reduction Program page was fully updated with up-to-date programmatic information and documents and an update to the public on the Ordinance review process and public engagement sessions were provided.</li> <li>• Approximately* 24 Updates to the In-Water Hull Cleaning permitted divers list (the list is updated and distributed to marinas and yacht clubs weekly, unless there are not changes to the list from the previous week).</li> <li>• A dedicated email address continued to be utilized for stakeholders to facilitate correspondence and Q&amp;A for In-Water Hull Cleaners during the continued review process: <a href="mailto:hulcleaning@portofsandiego.org">hulcleaning@portofsandiego.org</a></li> </ul> <p><i>*For the entirety of 2020, the Ordinance and Permit Program Review process remained in place. During this process current permits remained in effect and new Conditional Permits were only issued on a case-by-case basis. This resulted in fewer updates to the permitted divers list compared to previous years.</i></p>
Education/ Outreach	Literature Development: (brochures, handouts, print materials)	Bay-wide	Development and distribution of brochures and other educational materials for the public addressing the bay's copper problems and providing information on non-copper hull paint alternative hull paints.	Change in awareness	# of brochures or pamphlets created	Start Date: FY 10  Past Annual Totals: <ul style="list-style-type: none"> <li>• 2019- 1 item</li> <li>• 2018 – 1 item</li> <li>• 2017 – 0 items</li> <li>• 2016 – 1 item</li> <li>• 2015 – 1 item</li> <li>• 2014 – 2 items</li> <li>• 2013 – 4 items</li> <li>• 2012 – 1 item</li> <li>• 2011 – 2 items</li> </ul>	<ul style="list-style-type: none"> <li>• There were no new educational materials produced in 2020. The 2019 update to the Boater's Guide to Hull Paints in California was made available on the Copper Reduction Program website.</li> </ul>



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Education/ Outreach	Media Development: (Videos, Web tools, Testimonials, Press releases)	SIYB/Bay- wide	Development and distribution of information for the public addressing the bay's copper problems, non-copper hull paints, policies, and testimonials from boaters/tenants using non-copper hull paints.	Change in awareness	# of press releases or videos created	<p>Start Date: FY 09</p> <p>Status: On-going</p> <p>Past Annual Totals:</p> <ul style="list-style-type: none"> <li>• 2019- 3 items completed</li> <li>• 2018- 1 item completed</li> <li>• 2017- 1 press release; 1 item completed</li> <li>• 2016 – 1 press release; 3 items completed</li> <li>• 2015 – 1 press release; 2 items completed</li> <li>• 2014 – 7 press releases; 1 item completed</li> <li>• 2013 – 5 press releases, 3 items completed</li> <li>• 2012 – 9 press releases; 1 video, 2 posters</li> <li>• 2011 – 7 press releases</li> <li>• 2010 – 5 press releases</li> <li>• 2009 – 2 press releases</li> </ul>	<ul style="list-style-type: none"> <li>• The Log Newspaper article <ul style="list-style-type: none"> <li>○ Article discussing the Port's review of the In-Water Hull Cleaning Ordinance and Permit Program and the decision to extend the period of stakeholder feedback review titled "Port of San Diego hopes to fine-tune in-water hull cleaning policy (January 9, 2020).  <a href="https://www.thelog.com/local/port-of-san-diego-hopes-to-fine-tune-in-water-hull-cleaning-policy/">https://www.thelog.com/local/port-of-san-diego-hopes-to-fine-tune-in-water-hull-cleaning-policy/</a></li> </ul> </li> </ul>
Agency-Wide Activities	Construction Site Inspections	Bay-wide	Construction inspections ensure that sites undergoing (re-)development control pollution and prevent discharges. For construction sites and facilities that do not comply, the Port will take enforcement action.	Change in Behavior	<p>Total # of sites, # of Inspections; # of follow-up inspections</p> <p>Overall BMP rate</p>	Status: On-going	<ul style="list-style-type: none"> <li>• 14 construction projects bay-wide.</li> <li>• 197 inspections and 11 violations.</li> </ul>

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Agency-Wide Activities	Commercial Business Inspections Program	Bay-wide	The Port inspects commercial facilities per the Municipal Permit in SIYB and bay-wide. One component, the Port's marina inspection program, has been an effort to educate boat owners about pollution prevention, focusing on visual observations designed to identify sources of pollution and the pollution prevention practices being implemented at the marinas.	Change in Behavior	Total # of Inspections; # of follow-up inspections	<p>Status: On-going</p> <p>Past Annual Totals:</p> <ul style="list-style-type: none"> <li>• 2019: 65 inspections bay-wide, 22 follow-ups required.</li> <li>• 2018: 67 inspections bay-wide, 57 follow-ups required.</li> <li>• 2017: 77 inspections bay-wide, 38 follow-ups required.</li> <li>• 2015: 57 inspection bay-wide, 16 follow-ups required.</li> <li>• 2014: 45 inspections bay-wide; 18 follow-ups required.</li> <li>• 2013 - 26 inspections bay-wide; 4 follow-ups required.</li> <li>• 2012 - 9 inspections bay-wide, 0 follow-ups required.</li> </ul>	<ul style="list-style-type: none"> <li>• Bay-wide, 8 commercial facility inspections were conducted through the Existing Development Management Program. No follow-up inspections were required</li> <li>• Bay-wide, 1 commercial facility received an administrative citation through the Illicit Discharge Detection and Elimination Program.</li> <li>• No SIYB commercial facilities received administrative citations or written warnings.</li> <li>• Bay-wide, 95 commercial facilities completed stormwater training and submitted BMP implementation certifications. 18 of the 95 facilities are located within SIYB.</li> </ul> <p><i>Notes:</i></p> <p><i>Data gathered from the Jurisdictional Runoff Management Program (JRMP), which has a permit-required data collection period of July 1, 2019—June 30, 2020. To stay consistent with previous SIYB BMP workplan reporting, these dates were used for this report.</i></p> <p><i>In FY 2020, the inspection approach was adapted to focus resources on new commercial and industrial facilities, industrial facilities located on the marine terminals, and addressing municipal facilities requiring additional oversight and support.</i></p>
Structural and Mechanical BMP Implementation	SUSMP and Development Regulations	Bay-wide	The Port incorporates SUSMP requirements on applicable development and redevelopment projects bay-wide. Depending on the type and size of the projects, SUSMP requirements could include site design, source controls, and treatment controls such as LID.	Change in Behavior: Compliance	# of projects having metals as priority pollutant / # of completed SUSMP BMPs / # of acres (sq. ft)	Status: On-going	<ul style="list-style-type: none"> <li>• No new projects occurred in SIYB in 2020 having metals as a priority pollutant.</li> </ul>

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<i>Monitoring/ Reporting</i>	<i>SIYB Special Study – Time Series Special Study</i>	<i>SIYB</i>	<i>Gain a better understanding on the effects tidal variations may have on concentrations of dissolved copper in surface waters at SIYB</i>	<i>Change in SIYB water quality concentrations during different stages of a full mixed semidiurnal tidal cycle.</i>	<i>Completeness: Assess water quality monitoring data and compare to previous water quality and modeling efforts.</i>	<i>Status: Completed</i>	<ul style="list-style-type: none"> <li>• <i>3 Special Study sites were located throughout SIYB and sampled every 2 hours for an entire mixed semidiurnal tidal cycle (26 hours).</i></li> <li>• <i>Samples collected in January 2018 at mouth, mid-basin and back-basin.</i></li> <li>• <i>Findings submitted as part of the 2017 Annual SIYB TMDL Report (March 2018)</i></li> </ul>
Monitoring/ Reporting	Conduct annual SIYB TMDL Water Quality Monitoring	SIYB	Assess water quality in SIYB basin; determine when vessel conversion starts to show water quality improvements	Completeness	Completed Report	Status: 2020 Monitoring Complete	<ul style="list-style-type: none"> <li>• For 2020: Basin average for dissolved copper was 8.3 µg/L.</li> <li>• The trajectory does not show water quality improvement at this time.</li> </ul>
Monitoring/ Reporting	Revisions to QAPP & Monitoring Plan	SIYB	Develop a water sampling and vessel tracking program to 1) use annually to assess conditions in SIYB, and 2) determine compliance with the TMDL.	Completeness	Submittal of plan updates	Start Date: May 2020 Completion Date: July 2020  Status: 2020 Revisions Complete	<ul style="list-style-type: none"> <li>• Another round of revisions included various QA updates, the addition of a second reference location and the addition of a winter sampling event were added to the QAPP and Monitoring Plan. The winter sampling event is estimated to occur in February 2021.</li> </ul>
<i>Monitoring/ Reporting</i>	<i>Updates to SIYB TMDL Conceptual Model (as-needed)</i>	<i>SIYB</i>	<i>Update model using accepted modeling techniques that can predict current conditions and copper loading changes as paints are transitioned from current leach rates to AB425 Category 1 leach rates. Updates would include list of data inputs and comparisons to existing modeling efforts and data.</i>	<i>Completeness; annual review and update (when applicable)</i>	<i>Completed report; updates as needed</i>	<i>Start Date: March 2013 Completion Date: By March 2016  Status: Completed</i>	<ul style="list-style-type: none"> <li>• <i>Data from DPR Report was included in conceptual model.</i></li> <li>• <i>SIYB-Specific MAMPEC model study completed; Identification of recent studies to fill data gaps and uncertainties completed.</i></li> <li>• <i>Information provided in the SIYB 2015 Annual Report as Appendix E. (March 2016; see link below) <a href="https://www.portofsandiego.org/environment/copper-reduction-program/monitoring-and-data-assessment/shelter-island-yacht-basin-tmdl-annual-reports/7286-shelter-island-yacht-basin-tmdl-annual-report-2015.html">https://www.portofsandiego.org/environment/copper-reduction-program/monitoring-and-data-assessment/shelter-island-yacht-basin-tmdl-annual-reports/7286-shelter-island-yacht-basin-tmdl-annual-report-2015.html</a></i></li> </ul>

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BMP TYPE	PROJECT NAME / DESCRIPTION	LOCATION	PURPOSE(S)	TARGETED OUTCOME(S)	ASSESSMENT MECHANISM	SCHEDULE / STATUS	FINDINGS / ACCOMPLISHMENTS
Monitoring/ Reporting	Conceptual Model Technical Review	SIYB	Update model using accepted modeling techniques that predict current conditions and copper loading changes as paints are transitioned from current leach rates to AB425 Category 1 leach rates and the contributions of In-Water Hull Cleaning from cleaning frequencies.	Completeness	Completed report; updates as needed	Start Date: August 2019 Completion Date: September 2019  Status: Completed	<ul style="list-style-type: none"> <li>The Technical Review of the conceptual model reassessed the 2005 SIYB TMDL's loading assumptions to determine whether the SIYB TMDL copper targets may be achieved by reducing the frequency of, or eliminating, in-water hull cleaning.</li> <li>Key findings suggest adaptive management measures to vessel hull cleaning frequency and adjustments to implementation practices may lead to copper load reductions and water quality improvements.</li> </ul>
Monitoring/ Reporting	Support DPR Special WQ Study to evaluate effectiveness of Category 1 Paints	State-wide	Establish baseline and perform bi-annual subsequent sampling to determine if Category 1 paints are improving water quality around the state.	Currently impaired basins meeting Water Quality Objectives as the Category 1 Paint Rule is fully recognized	Water quality measurements compared to WQOs	Started: 2019 Completion Expected: TBD	<ul style="list-style-type: none"> <li>In 2019, the Port was approached by the DPR to include SIYB in their special study to evaluate the Category 1 paints and their effect on water quality in impaired basins over time.</li> <li>In 2020, Port staff continued to work with the DPR to facilitate the sampling efforts for 2021 and communications between the DPR and interested SIYB stakeholders. Note that the DPR has postponed sampling due to budget restrictions resulting from COVID-19.</li> </ul>
Monitoring/ Reporting	Regional Harbor Monitoring Program (RHMP): 2018 Core Monitoring Program	Bay-wide	Assesses conditions found in San Diego Bay based on comparisons to historical data and comparisons of contaminant concentrations to known surface water and sediment thresholds.	Completeness	Water, sediment, & fish sampling in bay  Report on findings of the study	Start Date: FY17 Completion Date: FY22  Status: Completed	<ul style="list-style-type: none"> <li>Final report completed December 2020 (see link below)  <a href="https://pantheonstorage.blob.core.windows.net/environment/Regional-Harbor-Monitoring-Program-2018-Final-Report.pdf">https://pantheonstorage.blob.core.windows.net/environment/Regional-Harbor-Monitoring-Program-2018-Final-Report.pdf</a> </li> </ul>

**Shelter Island Yacht Basin Total Maximum Daily Load BMP Workplan – San Diego Unified Port District**  
**Summary of efforts completed /in progress (Jan–Dec 2020)**

BMP TYPE	PROJECT NAME / DESCRIPTION	LOCATION	PURPOSE(S)	TARGETED OUTCOME(S)	ASSESSMENT MECHANISM	SCHEDULE / STATUS	FINDINGS / ACCOMPLISHMENTS
Monitoring/ Reporting	Regional Harbor Monitoring Program (RHMP): 2013 Core Monitoring Program	Bay-wide	Assesses conditions in San Diego Bay based on comparisons of historical data and contaminant concentrations to known water and sediment thresholds.	Completeness	Water, sediment, & fish sampling in bay  Report on findings of the study	Start Date: FY13 Completion Date: FY15  Status: 2013 Completed	<ul style="list-style-type: none"> <li>Final report completed January 2016 (see link below)  <a href="https://www.portofsandiego.org/document/environment/regional-harbor-monitoring-program/rhmp-2013.html">https://www.portofsandiego.org/document/environment/regional-harbor-monitoring-program/rhmp-2013.html</a> </li> </ul>
Monitoring/ Reporting	SIYB Hydrology Study	SIYB	Evaluate the potential for enhanced flushing of SIYB by adding culverts or pipes through to America's Cup Harbor or directly to the bay's main channel. Develop a preliminary engineering feasibility and cost assessment for the modeled scenarios.	Completeness	Completed report	Start Date: FY11 Completion Date: FY13  Status: Completed Feb 2013	<ul style="list-style-type: none"> <li>A culvert between SIYB and ACH was modeled to provide the greatest benefit in reducing copper in SIYB. The study predicted a potential 17% reduction on average throughout the basin and 21% reduction at the head (or enclosed end) of the basin.</li> </ul>
<b>Ongoing Partnerships &amp; Cooperative Efforts</b>							
Policy/ Regulation	Coordination with other Regions on Copper TMDLs/impairments	State-wide	Promote consistency in requirements being developed across the state; discuss implementation strategies, lessons learned, etc.	Consistency in regulations	Assessment mechanism is dependent on information being considered.	As-needed coordination	<ul style="list-style-type: none"> <li>TBD</li> </ul>
Vessel Tracking Program	Track vessel conversion from copper to non-copper and low-copper hull paints to determine annual loading reductions	SIYB	Monitor implementation progress and assess progress towards interim and final loading targets	Interim and final loading reduction targets	Annual basin-wide vessel tracking assessments and loading reduction calculations	Annually beginning in 2011; reporting to Regional Board March 31 annually	<ul style="list-style-type: none"> <li>All Named Parties.</li> </ul>

**Shelter Island Yacht Basin Total Maximum Daily Load BMP Workplan – San Diego Unified Port District**  
**Summary of efforts completed /in progress (Jan–Dec 2020)**

BMP TYPE	PROJECT NAME / DESCRIPTION	LOCATION	PURPOSE(S)	TARGETED OUTCOME(S)	ASSESSMENT MECHANISM	SCHEDULE / STATUS	FINDINGS / ACCOMPLISHMENTS
Water Quality Monitoring	Monitor water quality basin wide to assess long term trends in dissolved copper levels and attainment of WQOs	SIYB	Monitor implementation progress and assess progress towards attaining dissolved copper concentrations protective of SIYB beneficial uses	Water quality conditions protective of beneficial uses	Annual basin-wide chemistry and toxicity assessments	Annually beginning August 2011; reporting to Regional Board March 31 annually	<ul style="list-style-type: none"> <li>All Named Parties.</li> </ul>
Education/ Outreach	MIACC Meetings	State-wide	Promote consistency in requirements being developed across the state; discuss strategies for implementation activities, lessons learned, and build upon successful activity models.	Information transfer; consistency in messaging	Assessment mechanism is dependent on information being considered.	As-needed coordination	<ul style="list-style-type: none"> <li>TBD</li> </ul>

\* This list is subject to modification based on the availability of resources and results from other projects.

\*\*Projects in bold italics denote projects completed during or prior to this reporting period

## **SHELTER ISLAND MASTER LEASEHOLDERS TMDL GROUP BMP PLAN IMPLEMENTATION**

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2020

BEST MANAGEMENT  
PRACTICES AND  
RECOMMENDED ACTIONS  
FOR SHELTER ISLAND  
MARINAS AND YACHT  
CLUBS

Prepared by:  
Shelter Island Master Leaseholder TMDL Group  
For the Marinas and Yacht Clubs in Shelter Island Yacht Basin

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**This document is prepared solely for exclusive use by  
participating members of the  
Shelter Island Master Leaseholders TMDL Group**

# MISSION STATEMENT

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Our goal is to apply Best Management Practices to marinas and yacht clubs to help reduce non-point sources of copper.

## DEFINITIONS

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- **SIYB** - The following entities make up the leaseholders in Shelter Island Yacht Basin (SIYB): Kona Kai Marina, Shelter Island Marina, Silver Gate Yacht Club, Bay Club Hotel and Marina, Humphrey's Half Moon Inn, Gold Coast Marina, Tonga Landing, Crow's Nest, San Diego Yacht Club, Southwestern Yacht Club, and La Playa Yacht Club.
- **SIMLG**- In an effort to comply with the TMDL, the Shelter Island Master Leaseholders TMDL Group (SIMLG) was formed in 2007. This group, which has proven to be an extremely important tool for compliance, unifies numerous individual efforts so that a single entity does not fail to comply. While participation in the group is voluntary, all Marina Operators (MO's) working in the SIYB are strongly urged to participate as much as possible. The following entities make up the SIMLG: Kona Kai Marina, Shelter Island Marina, Silver Gate Yacht Club, Bay Club Hotel and Marina, Humphrey's Half Moon Inn, Gold Coast Marina, Tonga Landing, Crow's Nest, San Diego Yacht Club, Southwestern Yacht Club, and La Playa Yacht Club.
- **BMP's** – Best Management Practices.

BMPs are practices or procedures. They include methods to lessen or prevent identified substances from reaching receiving waters. A BMP plan organizes these actions, identifies goals, documents implementation, and evaluates progress and thereby assures effective use.

BMPs are qualitative.

They are designed to address a particular goal and the identification of that goal is a crucial part of the guidance plan.

BMPs are flexible.

Similar environmentally protective results can be achieved by multiple differing different practices. Marinas may elect to either use BMPs recommended by this guidance or selected by the marina.

BMPs fill an unfilled role.

Copper antifouling paints are legally sold for use in California. The use of these coatings however has been identified as a source of water quality impairment. Marinas have been identified as a responsible party in this impairment. Communicating this possible impairment seems to have been placed upon the shoulders of marina operators.



# Background

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Impairment of water quality due to dissolved copper, SIYB TMDL Resolution No. R9-2005-0019 amended the Water Quality Control Plan for the San Diego Basin (Basin Plan) to incorporate the SIYB TMDL, on February 9, 2005. The purpose of the TMDL is to identify and implement actions to reduce dissolved copper loads discharging into the SIYB to attain numeric water quality objectives for dissolved copper in San Diego Bay, which are equal to the California Toxics Rule (CTR) water quality values for dissolved copper in sea water. Chronic exposure concentrations must not exceed 3.1 micrograms per liter ( $\mu\text{g/L}$ ) over a 4-day average, and acute exposure concentrations must not exceed 4.8  $\mu\text{g/L}$  over a 1-hour average.

The SIYB TMDL requires that loading of dissolved copper into the water column be reduced by 76 percent to 567 kg/yr over a 17-year period (Regional Board, 2005). A 10 percent reduction in dissolved copper loading is required within seven years (December 2012); a 40 percent reduction in loading is required within 12 years, and a 76 percent reduction within 17 years (December 2022).

## BMPs and the Investigative Order

Investigative Order, No. R9-2011-0036, issued to the Port on March 11, 2011, requires that the Port prepare and submit designated plans and annual technical reports on the progress of the SIYB TMDL implementation.

- The order states that data on the number of boat hulls converted from copper to alternative hull paints are needed to monitor the progress of implementing the SIYB Dissolved Copper TMDL and achieving the required dissolved copper load reductions.
- Water quality monitoring data are needed to quantify the dissolved copper concentrations in the water column in SIYB to determine when the water quality objectives are attained and beneficial uses restored.
- “Annual monitoring and progress reports must include a discussion of any BMPs or other actions that have been implemented by the Dischargers to reduce dissolved copper discharges from boat hulls into SIYB.”

## BMPs selection and use under Section 319

Amendments to the Clean Water Act (CWA) established the Section 319 Nonpoint Source Management Program. Under this program, parties must identify best management practices and measures for impaired non-point sources, along with an implementation plan.

# GUIDELINES

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## **BMP 1-Marina Operators: TMDL Introduction, Compliance, Shelter Island Master Leaseholders Group (SIMLG), and Key Reference Articles**

- **OVERVIEW**-The Total Maximum Daily Load (TMDL) for copper in Shelter Island Yacht Basin (SIYB) was adopted by the California Regional Water Quality Control Board (CRWQCB) in 2005, and over the years its implications have grown in complexity. The document adopting the CRWQCB's efforts is known as Resolution R9-2005-0019. Among many other important issues, the Resolution named Marina Operators (MO's), marina owners, boat owners, the Unified Port of San Diego (Port), and underwater hull cleaners (Divers) as "Dischargers."
- **VESSEL TRACKING**- Each MO is ultimately responsible for reporting the composition of hulls painted using copper, non-copper, and low-copper paint to the Port. The SIMLG offers a great deal of help on this submission, mainly through the hiring of a consultant, John Adrian, who is the Principal Scientist at ChemMetrics. The importance of complying with this aspect of the TMDL cannot be overstated. Completion and submission of an accurate report to the Port is mandatory for all MO's. Each year, our report is due by approximately January 15<sup>th</sup>. At this time, our report of BMP's is also submitted. A sheet of Guidelines can be found in the Appendix.
- **COLLECTING SURVEYS**- Each MO must determine the most effective way to ensure the Vessel Tracking report discussed above is as complete and accurate as possible. Therefore, it is imperative to make every effort to reach out to your boaters. From time to time a boater may completely ignore the request(s) to fill out the survey. Therefore, MO's are encouraged to record the number and types of (e.g. phone, email, etc.) of attempts made. It is acceptable to shift focus to other boaters more likely to submit a survey after three unsuccessful attempts. If three unsuccessful attempts are made, a MO should record those attempts and retain that record for seven years.
- **COMPLIANCE** -As "dischargers accountable for copper load and wasteload reductions" (R9-2005-0019 Technical Report), it is imperative that all MO's in Shelter Island Yacht Basin understand specific components of the TMDL. Examples of these components include surveying boaters, meeting copper loading reduction timelines, and the utilization of Best Management Practices (BMP's) in an effort to voluntarily comply with the TMDL.
- **TIMELINE**- As of the date of this document, the TMDL is in stage three, of four (Port Presentation, 2007). Stage three entails meeting a benchmark of a 40% reduction of the number of hulls in our marina with copper paint by the end of 2017. The next and final stage involves a 76% reduction in the number of hulls, *and* a measurement of 3.1 parts per billion (ppb), or less, of copper in the water column. Stage four ends in 2022.



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## **BMP 2-Port of San Diego: Port's Role, Grant, Expectations, and Diver Regulations**

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- **OVERVIEW-SIYB**, which consists of 153 acres, was placed onto the 303(d) Impaired Water Bodies List in 1996. This List currently categorizes our TMDL as a “high” priority.
- **TECHNICAL REPORT**- The 2005 Technical Report directed the Port to develop an Implementation Plan. A draft of this Plan was developed in 2009, and a final draft was submitted in May, 2011. This Plan pointed to BMP's to facilitate the conversion of boat hulls with copper anti-fouling paints (AFP) to AFP's with little or no copper.
- **INVESTIGATIVE ORDER** - On March 11, 2011, an Investigative Order (R9-2011-0036) was issued by the Water Board to the Port. This Order dictates that the Port reports to the Board measurements toward successful compliance by monitoring and tracking data on the number of hulls that have converted from copper to a non-copper or low-copper alternative, and monitoring the concentrations of dissolved copper and levels of toxicity in the water. This Order also requires the Port to submit BMP's as part of their report. Accordingly, this document will be updated as necessary and submitted to the Port each year.
- **IMPLEMENTATION PLAN**- In May, 2011 the Port submitted their Implementation Plan to the Water Board. This document contains the quality assurance plan lays the groundwork for the efforts made to achieve appropriate reductions of copper in SIYB (Shelter Island Yacht Basin Dissolved Copper TMDL Implementation Plan, May, 2011).
- **MONITORING PLAN**- The Monitoring plan, which includes a quality assurance plan described below, and a Conceptual Model, details the annual water quality testing conducted by the Port.
- **QAPP**- The Quality Assurance Project Plan (QAPP), which is part of the Implementation Plan, provides details for the methods used to assess reductions of dissolved copper by tracking the number of hulls converted from copper to non-copper paint. In addition, this document details the project's objectives and quality assurance (QAPP, 2017).
- **DISCHARGERS**- The 2005 Technical Report within Resolution R9-2005-19 named the Port of San Diego (Port) a Discharger. Due to the Port's role in managing the tidelands around San Diego Bay, the Water Board recognized their ability to regulate the environmental impact of copper. The Board points to the Port to manage the TMDL in SIYB, and reiterates their authority to hold MO's, owners, divers, and boat owners accountable for reducing copper loading.
- **REGULATIONS**- According to the Port's 2007 presentation of a plan to reduce copper in Shelter Island Yacht Basin (SIYB), regulatory mechanisms may be put in place to ensure compliance of the aforementioned benchmark. It is our intention to avoid such measures by voluntarily complying; and creating, following, and submitting BMP's is necessary to comply.

- **GRANT-** In an effort to increase the number of hulls converted to non-copper, the Port applied for and won grant monies (\$600,000) to offset the cost of such conversion for boaters. With the help of the grant, 41 hulls were converted from 2012 through 2015.
- **DIVER ORDINANCE-** Port Ordinance 2681 originated in July, 2011, and became enforceable following a 90-day grace period that ended in November of the same year. This ordinance mandates Divers obtain a permit from the Port in order to clean hulls. In order to obtain a permit, Divers must display working knowledge of BMP's related to cleaning hulls in the SIYB. One example of these BMP's is Divers are supposed to use the least abrasive cleaning method possible to accomplish the job of cleaning the hull. The Port sends a list of Divers who are permitted to each MO in the SIYB. It is incumbent upon the MO's to disallow any Diver without a valid permit to work in their marina. Once permitted, a Diver will receive from the Port a card, which has green trim and a photo of the Diver. This card shall be displayed in a place where it can be observed by an MO or the Port.

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**BMP 3-Staff: Training Staff on Basic TMDL Fundamentals, Essential Information, and BMP's**

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- **OVERVIEW-** In general, compliance efforts have proven to be demanding. And if your office has the ability to dedicate a staff person(s) to assist with the efforts, it is suggested that they undergo thorough and ongoing training, and receive updates regarding the TMDL and BMP's. Marina staff should be made available and become familiarized with this BMP document, Port deadlines, and have input on expanding BMP's.
- **DISSEMINATING GENERAL INFORMATION-** Having a staff that is informed about the TMDL can be very helpful. A MO may or may not be the first person a boater reaches out to about their questions regarding the TMDL and their bottom paint. And it is important that the correct information is disseminated, whether a tenant or member reaches the MO or someone else on their staff.
- **DISSEMINATING PORT INFORMATION-** Staff should be encouraged to assist, whenever possible, efforts made by the Port to educate boaters on the TMDL. From "literature and print media" to "booths at local events," and "internal education" to an "Eco-friendly hull paint expo," the Port has made a concerted effort to inform and assist boaters who are moored in the SIYB switch to non-copper paint (Shelter Island Yacht Basin Hull Paint Conversion Project, 2015). These efforts, which began in 2011, should be clearly, routinely and effectively communicated to boaters in our marinas. Staff in a marina office should remain current with knowledge related to such efforts, so they can refer boaters to the appropriate materials.



#### **BMP 4- Divers: Check-In/Check-Out Procedures, Permits, and Monitoring**

- **WARNING-** It is ultimately the job of the MO to ensure no work takes place in our marinas by unpermitted Divers. If work is taking place by an unpermitted Diver, and said Diver is noticed by the Port during an inspection, adverse action against your marina by the Port could take place. If a MO or their staff knew that the Diver did not have their permit, you can count on action being taken against your marina.
- **DIVER BMP'S:** The BMP's that each diver uses should be known. Each MO must ensure that every diver is performing cleanings in line with the California Professional Divers Association (CPDA), or using BMP's that are more stringent.
- **SIGNAGE-** It is helpful to convey messages to divers in English and Spanish. And signage can help facilitate the exchange with a Diver. This is especially true if you are unable to allow a Diver to work on a particular day because they do not have their card from the Port, discussed in BMP 2 above. You may be able to curtail any above occurrences by placing signage at the desk where Divers sign in. There are at least three reasons for having signs notifying Divers of the fact that they cannot work without a permit. First, signs offer a clear statement to Divers about your office's policy. Second, if anyone on your staff is uncomfortable disallowing a Diver to work, they can more easily adhere to your office's policy if it is in writing, in front of both them and the Diver. Finally, if the Port were to reach an unpermitted Diver working, having a sign that the Diver must've passed when signing in could go a long way in convincing the Port that your office genuinely tries to manage this practice.
- **SIGN IN SHEETS-**Sign in sheets should be used in order to track Diver activity. For reasons beyond the TMDL, MO's should know who is in their marina working on boats or conducting business. Regarding the TMDL, the sign-in process is a great time to verify the Diver has their valid permit with them.
- **SIGN IN WHEN ARRIVE BY WATER-** All divers, whether arriving by water or land, must check in with the marina office. Each MO must determine and make known to divers the process by which sign in occurs when they arrive by boat.
- **DOCK WALKS-** While on dock walks it is important to check for permits. We recognize that the sign-in process can be skirted when vendors walk through our entrance gates behind boaters, etc. And this is especially true of Divers who arrive by water. Just because a Diver arrives by water does not mean they are skirting the sign-in process; they may not know a policy is in place. By walking the docks, you can inspect permits for yourself, and direct any Diver arriving by water to visit your office.

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**BMP 5- Boaters: Communicating TMDL Basics to Boaters and Slip Holders.**

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- **OVERVIEW-** One BMP that is imperative to accomplish is communicating the latest news and information concerning the TMDL to your marina tenants or yacht club members. Choosing the medium for accomplishing this rests on the individual MO's, however it is very important that communication occurs. It is important to remember that, while MO's and long-time tenants/members may be familiar with this topic, it is likely to be a foreign topic to new boaters. And new boaters may be just as likely to convert their paint to non-copper; painting their bottom is sometimes one of the first moderately large maintenance tasks taken on.
- **NEWSLETTERS-** In general, newsletters are a great way to communicate with your boaters. Most marinas send them via email on a monthly basis. The SIMLG suggests mentioning the latest news concerning TMDL monthly. It can also be done via emails, events aimed at boater education, wharfage agreements, personal conversations, etc.
- **EMAILS-** Dedicated emails are effective because sending an email blast to tenants/members is usually a relatively easy task nowadays. News and updates are easily conveyed in emails dedicated to the TMDL.
- **EVENTS-** Hosting tenant events, such as potlucks, tenant appreciation parties, and picnics is a good idea. You may benefit from grabbing some of your tenants' attention at such events to discuss the TMDL.
- **SIGNAGE-** Wharfage contracts or Slip agreements set forth the arrangement you have with your tenants or members. As such, they may be an effective source for requiring bottom paint that is non-copper or low-copper. Or incentives, such as wait list priority or discounts, can be outlined in the slip agreement. At a minimum, each tenant should sign an agreement, whether it is in their contract or a supplemental contract, stating they will supply the TMDL Survey prior to November 1<sup>st</sup> each year.

DATE	TOPIC/SUBJECT	EMPLOYEE NAME	SIGNATURE

# RECORD KEEPING

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## BMP 1- Sign-In Sheets

- **DIVER INFO-** All divers must sign in with their business name, diver name, date, time, slip locations. They should also sign out when done. The sign in sheet should include basic diver BMP info, such as no hard scrapers, no abrasives, no plumes, etc. Some marinas and yacht clubs will also require independent contractors, such as divers, to sign other documents and waivers, as needed. A copy of a sign in sheet can be found in the appendix. A web link to the Port of San Diego's In Water Hull Cleaning Permit program can be found in the Appendix on page 18.
  - It is suggested that divers either sign in using a different sign-in sheet, or are highlighted or noted upon signing in. This will assist your office when the Port of SD inspects for Diver Permits and/or conducts an audit at another time (updated for 2019 Manual).
- **PAPERWORK-** All paperwork such as sign in sheets and other paperwork should be kept in file for a minimum of 7 years.
- **SIGN IN SHEET-** Sign in sheets and other paperwork will help the Port of San Diego track divers permitted by the Port in addition to ensure they are following Port and diver established BMPs.
- **SIGN IN SHEETS FOR TRAINING-** Sign in sheets should be used in staff training, to help the employee understand the impact of diver activity at their marina/yacht club. Understanding which divers are on property, for which company they are working and if they have a Port issued diver ID card.
- **SIGN IN SHEETS FOR TMDL COMPLIANCE-** Sign in sheets help individual marinas and yacht clubs establish TMDL compliance as it relates to tracking the divers, who they work for, which boats they are working on and how often. This info should be used with dock walks and other interactions with divers and tenants.

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## **BMP 2- Staff Training**

- **DOCUMENT BMP TRAINING-** All marinas and yacht clubs should be documenting BMP training of their staff. This can be done by using this document as a guideline for individual training records as well as TMDL compliance. At the bottom of each page of this document, as an example, is a place for each employee to sign off they have reviewed the page and understand the contents. A copy of training records can be found in the appendix.
- **DOCUMENT DIVER POLICY/INTERACTIONS-** It is also important to document diver policy education and interactions. This includes the sign in sheets, independent contractor rules and policies, property waivers, other documentation given to divers. Other training can involve dock walks, diver interactions at the slips, other handouts and brochures given to divers, etc. Dates, times, locations and the diver info should all be kept in written form and on file in the marina manager/dockmaster office.
- **VESSEL TRACKING SURVEYS-** Another source of staff training can include boater/tenant vessel hull paint tracking surveys (used to collect hull paint data and diver information). Surveys can include items like type of bottom paint used, last date applied, boatyard who applied paint, dive company used and many other sources of data. The annual vessel tracking survey should be used as a training tool as well, as it can give a great overview of how the bottom paint and diver activity at your location is impacting the water. A copy of the vessel tracking survey is in the appendix.



### **BMP 3- Boater Education**

- **EMAIL-** There are many ways to document how you educate and inform your tenants of the ever changing hull paint choices and their impacts on the water and your marina/yacht club. All emails sent to your tenants/members should be kept on file in their individual folders. Emails may contain info about the various hull paint options, current strategies to minimize copper loading of our waterways, upcoming events in the area focusing on hull paint applications and diver information, such as BMPs and your marina's/yacht club's approach to tracking and educating divers.
- **MARINA/YC EVENTS-** Another great option is to document tenant events at your location. These can be during other events, such as seasonal parties, clean up days, national marina day or other events. You can have local yard representatives on hand to help answer boater questions re bottom paint choices and cost estimates. If you have never had a tenant event , reach out to your marina/YC manager/dockmaster as many have done them in the past and may be able to give some ideas. Dates, times, who spoke at the event and who attended needs to be recorded.
- **HANDOUTS-** Tenant handouts can provide simple, relevant information about hull paint options and costs as well as who to contact for more information. Handouts are available from the Port of SD, hull paint manufacturers and boatyards. Keeping track of what is being handed out and how often can help show you are educating boaters on a regular basis.
- **MARKETING-** Keeping records of marketing done by the marina to your tenants/members helps to show a continual effort to educate. Keeping copies of the marketing materials and who received them is a good idea. Marketing could include discounts at local boatyards, slip fee reductions, wait list priorities for slip applicants, etc.

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**BMP 4- Meetings**

- **INTERNAL/STAFF MEETINGS-** Internal organizational meetings should be documented with topics, date, time, who attended and any goals set.
- **EXTERNAL/PORT/CITY MEETINGS-** Document other meetings times, locations and items discussed. These could be local group meetings, dockmaster group meetings and other meetings with local boatyards, etc.

DATE	TOPIC/SUBJECT	EMPLOYEE NAME	SIGNATURE

# STAFF TRAINING/BOATER EDUCATION

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## BMP 1- Staff Training

- **OVERVIEW-** Staff training should include a review of office procedures, marina/YC policies/bylaws, and policies for allowing independent contractors/divers on property and associated documents.
- **RECORDING INFORMATION-** All employees should be shown how to properly record important information and where that information is kept. Training should include reviewing past training efforts to other staff.
- **ROLES-** Part of the employee training should include their role in the TMDL process. Information should include TMDL history, impacts to local waterways, impacts to the tenants and marina/YC, efforts to comply with the TMDL as well as future regulations/fines if TMDL compliance is not met.
- **BOATERS AND DIVERS-** TMDL regulations have changed how boaters interact with their divers and the boatyards as well as the myriad of new hull paints being brought to market. This impacts the boaters not only from a time stand point (more time devoted to speaking with their hull cleaners, the boat yards and possibly local stores selling hull paints), but also the economics of annual boating costs. These additional expenses may play into where a boater decides to moor their boats, which impacts every marina. Divers are impacted as they are regulated by the Port of SD and must show they are using BMPs in their daily operations and to minimize copper loading from their in-water activities. Staff training should take this into account.

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## BMP 2 – Boater Education

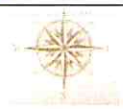
- **EMAILS-** Email blasts are a great way to "get the word out" quickly and cheaply to your boaters. Email can be used as a marketing tool as well as an educational tool. These emails can be to the entire marina/YC, small groups of boaters or even to individual boaters. Email also allows quick interactions as well as Q&A with your boat owners.
- **MAILINGS-** Next step up from an email is a mailing. This obviously costs more and takes longer, but is also a great way to reach out. Sometimes sending a letter is taken as a more formal way to notify your tenants/members about important news or other education information. It lacks a quick way to get more immediate feedback, but may give a longer lasting impression of the information sent.
- **MEETINGS-** Sometimes face to face meetings with your boaters is the best way to communicate news and educate them on topics such as hull paints, local water quality studies and other pertinent information. It allows for immediate Q&A as well as an avenue to hand out new marketing/educational materials. Having speakers from the local boatyards and chandleries may help boat owners a more personal educational experience. Port of SD hull paint expos and marina events are great ways to gather your boaters together.
- **MARKETING-** Internal and external marketing is another way to reach out to your boaters and educate them on issues impacting the boating community. Marketing could include bottom paints, boat yard discounts, marina/YC incentives, etc.
- **ONE ON ONE-** Day to day conversations with tenants allows a more "one on one" experience. This allows the boat owner to ask specific questions and take the time needed to help them understand their bottom paint choices and maybe even make recommendations, such as category 1 hull paints (non-copper, biocide free and low leach copper bottom paints). A web link to the Port's list of alternative hull paint can be found in the Appendix on page 18. Also, a link to the Port's Alternative Hull Paint website can be found on the same page.

DATE	TOPIC/SUBJECT	EMPLOYEE NAME	SIGNATURE



## APPENDIX

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## BOTTOM PAINT SURVEY FORM

The California Regional Water Quality Control Board has stipulated that the Marinas and Yacht Clubs of Shelter Island Yacht Basin are legally required to reduce copper concentrations in our basin. Please help us complete our annual report, in order to fulfill our legal obligation, for the Port of San Diego by completing this questionnaire ASAP and returning it to your Marina or Club office by (date).

Today's Date: \_\_\_\_\_

Slip #: \_\_\_\_\_

### SECTION A

Percentage of Time Slip is occupied: \_\_\_\_\_

Vessel Type (circle one):                      Power                      Sail                      Multi-hull

Registered Vessel Length: \_\_\_\_\_ Vessel Beam: \_\_\_\_\_

Paint Type: (circle one)                      Copper                      Low Copper (&lt;36%)                      Non-Copper

Paint Product Name \_\_\_\_\_ Product Number: \_\_\_\_\_ Color: \_\_\_\_\_

Bottom paint last applied:                      Month \_\_\_\_\_                      Year \_\_\_\_\_

Boatyard name that applied paint: \_\_\_\_\_

If paint is unknown due to a recent purchase, please provide purchase date: Month \_\_\_\_\_ Year \_\_\_\_\_

### SECTION B (all information below will remain confidential and is not submitted in our report)

Owner Name: \_\_\_\_\_

Vessel Doc./Reg. #: \_\_\_\_\_ Boat Name \_\_\_\_\_ Make \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Thank you for your cooperation completing and returning this required survey. Please contact the marina office if you have any questions...619-999-9999 or email@yourmarina.com.

**Attachment I**  
**SIYB Dissolved Copper TMDL**  
**Hull Tracking Template Form**

[illegible]

All hulls with paint greater than 40% copper are counted as high-copper

All hulls equal to zero are counted as non-copper

All hulls between 1 and 39.9% copper are counted as low-copper

Non and low-copper paint types are considered "confirmed" if the paint brand and product number is listed and can be cross checked with the SIML TMDL Group and/or Port paint list

Hulls with aged-copper paint are considered low-copper

---

## Guidelines to Port's Vessel Tracking Template

COMPLETENESS. ACCUARACY. CONSISTENCY.

**DO NOT FORMAT ANY CELLS.** TO ENABLE US TO MERGE ALL DOCUMENTS SUCCESSFULLY FOR FINAL SUBMISSION, PLEASE FOLLOW THESE GUIDELINES-

- 1) **FACILITY** – Your marina or yacht club name or abbreviation
- 2) **SLIP/MOORING REFERENCE NUMBER** – Use the correct slip number according your slip assignments. We will assign reference numbers for privacy reasons before we submit merged data.
- 3) **PERCENTAGE OF TIME OCCUPIED** – Do not format cell. Example – For 98% occupied, use 98, if left blank, the Port will default it to 100 percent occupied. Make sure you calculate in vacant slips here.
- 4) **VESSEL TYPE (POWER OR SAIL)** – Use a P or S
- 5) **VESSEL LENGTH** – Use what you have
- 6) **VESSEL BEAM** - Use what you have
- 7) **PAINT TYPE: COPPER, LOW OR NON**
  - All hulls with paint greater than 40% copper are reported as **Copper**
  - All hulls equal to zero are counted as non-copper and reported as **Non**
  - All hulls between 1 and 39.9% copper are counted as low-copper and reported as **Low**
  - No-copper and low-copper paint types are considered "confirmed" if the paint brand and product number is listed and can be cross-checked with Port paint lists
  - Aged paints are calculated by painting date Month and Year and must have the Boatyard name to qualify. Do not write LOW for aged paints. You must include the painting date with the month, year and name of boat yard or purchase date to qualify the data.
- 8) **PAINT PRODUCT NAME** – Please spell out the word, do not abbreviate.
- 9) **PRODUCT NUMBER** – To qualify for non-copper or low-copper, you must record this information.
- 10) **BOATYARD NAME or PURCHASE DATE** – Necessary to qualify aged paints. Use “self” if the boater self-applied the paint.
- 11) **PAINTING DATE MONTH MM** – Use 2 digits such as 01 for January or 02 for February, etc.
- 12) **PAINTING YEAR YYYY** – Use 4 digits such as 2005.
- 13) **PERCENTAGE OF COPPER** – Do not format cells. If you have the paint product information record the % associated with that product. If the product is unknown leave the space blank.
- 14) **NO RESPONSE**- If a boater does not complete a particular question, leave corresponding cell in spreadsheet blank.

## Important Links

**Port Alternative Hull Paint Website:**

<http://www.sandiegobaycopperreduction.org/>

**February 2005 Technical Report**

<https://www.portofsandiego.org/document/environment/alternative-hull-paint/3061-total-maximum-daily-load-for-dissolved-copper-in-shelter-island-yacht-basin-technical-report/file.html>

**March 2013 Annual Monitoring Report**

<https://www.portofsandiego.org/environmental/copper-reduction-program/monitoring-and-data-assessment/shelter-island-yacht-basin-tmdl-annual-reports/7283-shelter-island-yacht-basin-tmdl-annual-report-2012/file.html>

**Port Alternative Hull Paint Partial List**

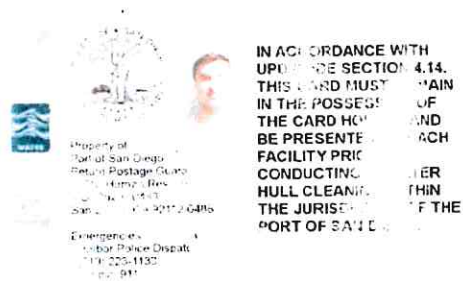
<https://www.portofsandiego.org/environment/environmental-downloads/copper-reduction-program/3530-how-to-select-an-alternative-hull-paint/file.html>

**Port of San Diego Issued Diver Permit Card\***

## Front



## Back



\*Note: Diver, Juan Aravena furnished Joe Ravitch, of Shelter Island Marina permission to use his Diver card as an example on Friday, January 13, 2017.

## BMP Tracking and Self-Certification

BMP Type	Project Name Description	Purpose	Participant	Manager	Start Date	Assessment Mechanism	Results	Modifications	End Date
Education	communicate the availability of low leach copper paints	Reduce copper load							



# Port of San Diego Alternative Hull Paint Options Brochure

**BOATER'S GUIDE TO USING HULL PAINT IN CALIFORNIA**  
**PAINT OPTIONS**

Non-Biocide Paints The most environmentally friendly approach	Non-Copper Biocide Paints	Lower Leach Rate <sup>1</sup> Copper Paints	Higher Leach Rate <sup>1</sup> Copper Paints
<ul style="list-style-type: none"> <li>Hull paints that do not contain metals (such as copper or zinc) or other active ingredients.</li> <li>Estimated average useful life<sup>2</sup>: 5-10 years</li> <li>Recommended cleaning: Every 2 to 4 weeks (frequency and method vary by product and season)</li> <li>Long term benefits include longer useful life (reduced haul outs). This may offset higher upfront application cost when compared to copper paints</li> <li><b>Use of non-biocide paints is encouraged statewide, especially in waters impacted by copper pollution.</b></li> </ul> <p><b>Paint Examples<sup>4</sup></b></p> <ul style="list-style-type: none"> <li>International Paint Intersleek 900</li> <li>Interlux VC Performance Epoxy</li> <li>Ram Protective Coatings CeRam-Kote</li> </ul>	<ul style="list-style-type: none"> <li>Hull paints containing zinc or other non-copper active ingredients (e.g., Ecomea) to prevent marine growth on boat hulls.</li> <li>Estimated average useful life<sup>2</sup>: up to 2 years</li> <li>Recommended cleaning: Every 3 to 4 weeks (frequency and method vary by product and season)</li> <li>Non-copper biocide paints do not result in the release of copper. However, these paints release other active ingredients that may lead to future water quality impacts.</li> </ul> <p><b>Paint Examples<sup>4</sup></b></p> <ul style="list-style-type: none"> <li>Epaint Ecominder</li> <li>Interlux Interspeed 5640</li> <li>Pettit Hydrocoat Eco</li> <li>Sherwin Williams Seaguard HMF</li> </ul>	<ul style="list-style-type: none"> <li>Hull paints with leach rates at or below 9.5 µg/cm<sup>2</sup>/day</li> <li>Estimated average useful life: 2-3 years</li> <li>Recommended cleaning: Wait a minimum of 90 days after applying new hull paint before initiating cleaning. Boaters are encouraged to clean these hull paints only when needed, no more frequently than once every 30 days.<sup>3</sup></li> <li><b>Use of lower leach rate copper paints is encouraged statewide, especially in waters impacted by copper pollution.</b></li> </ul> <p><b>Paint Examples<sup>4</sup></b></p> <ul style="list-style-type: none"> <li>Nautical Super ProGuard</li> <li>Pettit Trinidad Pro</li> <li>Pettit Vivid Antifouling Marine Paint</li> <li>Seahawk Sharkskin</li> </ul>	<p><b>Use of higher leach rate copper paints is discouraged statewide.</b></p> <ul style="list-style-type: none"> <li>Hull paints with leach rates above 9.5 µg/cm<sup>2</sup>/day</li> <li>Estimated average useful life: 2-3 years</li> <li>These paints may be discontinued in the future due to leaching concerns.</li> <li>Frequent and aggressive cleaning of higher leach rate copper paints is discouraged, as cleaning increases the release of copper into the water.</li> </ul> <p><b>Paint Examples<sup>4</sup></b></p> <ul style="list-style-type: none"> <li>Interlux Ultra</li> <li>Kop-Coat ZSpar The Protector VOC</li> <li>Sherwin Williams Pro-line 1088</li> </ul>

<sup>1</sup>California Department of Pesticide Regulation (DPR) has categorized registered copper paints into two categories (<9.5 and >9.5 µg/cm<sup>2</sup>/day) based on their product-specific leach rates

<sup>2</sup>Hull paint life expectancies based on paint manufacturers' claims

<sup>3</sup>Cleaning frequency recommendation based on use of soft-pile carpet for hull cleaning and Southern California fouling conditions

<sup>4</sup>Paints are listed by manufacturer and paint name. Paint examples represent products known to be used by California boaters

The mention of trade names or commercial products here does not constitute endorsement or recommendation for use

For a more complete list of available copper hull paints and more information on DPR's mitigation efforts, visit the website  
[http://www.cdpr.ca.gov/docs/registration/toxevaluation/chemicals/antifoulant\\_paints.htm](http://www.cdpr.ca.gov/docs/registration/toxevaluation/chemicals/antifoulant_paints.htm)  
 January 2016

**BOATER'S GUIDE TO USING HULL PAINT IN CALIFORNIA**

**What is the difference between biocide hull paint and non-biocide hull paint?**

Biocide hull paints are toxic and act similarly to pesticides that prevent infestations of insects or weeds on your lawns.

Biocide paints contain copper or zinc or other active ingredients (e.g., Ecomea or Irgarol) to prevent fouling on boat hulls. However, biocide paints are also known to be toxic to marine organisms.

Non-biocide paints do not contain active ingredients, making them more environmentally friendly. These paints are typically made of silicone, ceramic or epoxy materials.

**BOATER'S GUIDE TO USING HULL PAINT IN CALIFORNIA**

**Marina del Rey**  
 LOS ANGELES REGION (4)  
[http://www.waterboards.ca.gov/losangeles/water\\_issues/programs/tmdl/](http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/)

**Newport Bay**  
 SANTA ANA REGION (8)  
[http://www.waterboards.ca.gov/santaana/water\\_issues/programs/tmdl/tmdl\\_metals.shtml](http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/tmdl_metals.shtml)

**Shelter Island Yacht Basin**  
 SAN DIEGO REGION (9)  
[http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/watershed/sanwatershed.shtml#sybtmdl](http://www.waterboards.ca.gov/sandiego/water_issues/programs/watershed/sanwatershed.shtml#sybtmdl)

This material was prepared by the Port of San Diego, in collaboration with the County of Los Angeles, Department of Beaches and Harbors.

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**JANUARY 2016**

**BOATER'S GUIDE TO USING HULL PAINT IN CALIFORNIA**

**Are you looking to re-paint your boat hull?**

Selecting a paint for your boat is far from a one-size-fits-all strategy. Key considerations include available hull paints, paint longevity, cleaning needs, and potential environmental concerns.

Copper is commonly used in hull paint to slow or stop the growth of marine life (fouling) on boat hulls by releasing copper (leaching). However, copper hull paints have been identified as the largest source of copper pollution in marinas.

Be a part of the solution! Use this guide to select a hull paint that eliminates (e.g., non-biocide paints) or reduces (lower leach rate copper paints) the release of copper into the local waters.

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Be a part of the solution! Use this guide to select a hull paint that eliminates (e.g., non-biocide paints) or reduces (lower leach rate copper paints) the release of copper into the local waters.



# Port of San Diego Diver BMP Notice for Marina Offices



SAN DIEGO PORT TENANTS ASSOCIATION



## ATTENTION DIVERS & BOAT OWNERS

Please help reduce pollution from bottom paints containing copper, zinc, biocides or any other toxic substance by following these basic best management practices when cleaning bottom paint.

**This marina and the other California marinas have established the following  
Rules for In-Water Hull Cleaning  
For Bottom Paints Containing Copper, Zinc, Biocides, or any other toxic substance:**

- All In-water hull cleaning must be done by hand only - no power equipment allowed.
- The Marina shall prohibit in-the-water hull scraping or any process that occurs under water which results in the removal of paint from boat hulls. This does not apply to bare metal parts.

### Remember:

- NO Scrapers (metal/plastic/wood)
- NO Abrasives (sandpaper/cleanser/soft scrub)
- NO Scotchbrite®/3M® pads except the White pad
- NO Powered Rotary Brushes
- USE soft cloth or fleece mitt only

According to paint manufacturers, properly functioning antifouling paint will repel all hard growth and requires only occasional light wiping with a soft cloth to remove slime. Use only soft rags or a sponge or fleece mitt when light wiping is required.

*Thank you for your cooperation.*

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## Marina Office Sign In Sheet Example



### Diver Sign in Sheet

By signing below I agree to assume all risk of working on marine property, including, but not limited to work in the water, and I agree, in the absence of gross negligence or willful misconduct by the marina, to indemnify, protect, defend, and hold the marina harmless from and against all actual or potential liability for personal injury, death or property damage, suffered by me or any other person.

DATE	PRINT NAME	SIGNATURE	COMPANY	SLIP #	TIME	
					IN	OUT

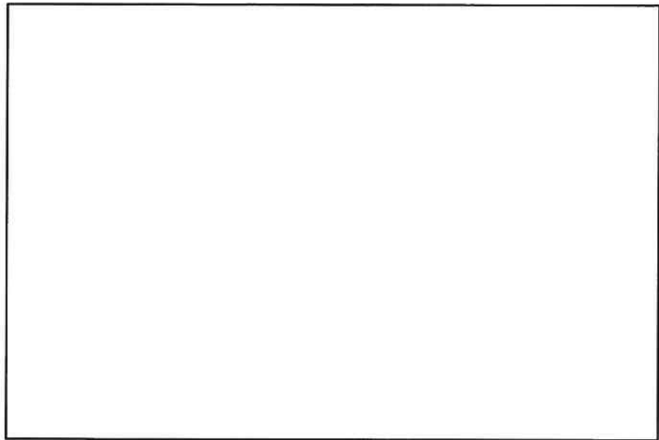
**PLEASE PRINT CLEARLY**



Divers: You must be on file with us to work in our marina! We require:

- \*Valid/current Port of San Diego Diver ID Card
- \*Proof of Ship Repairers Legal Liability insurance with \$500,000 minimum. Marina must be listed as additional insured)
- \*A signed copy of our vendor policy
- \*A copy of your current business license tax
- \*Proof of workman's comp insurance and a list of your employees

*If you're not sure, please ask an office staff member. Thank You!*



## DIVER REGISTRATION

By signing below I agree to assume all risk of working on marina property, including, but not limited to work in the water, and I agree, in the absence of gross negligence or willful misconduct by the marina, to indemnify, protect, defend, and hold the marina harmless from and against all actual or potential liability for personal injury, death or property damage, suffered by me or any other person.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

DATE	TIME IN	TIME OUT	SLIP #s



BMP Type	Project Name Description	Purpose	Partiticipant	Manager	Start Date	Assessment Mechanism	Results	Modifications	End Date
education	DPR mandate for low leach paints	Bring awareness to boaters	Group Members	Standing Committee	Mar-14	Compliance Realignment	on-going	TBD	Unknown
education	SIMLG Monthly Meetings	Liaise with and update management	Group Members	Chair	Jan-10	participation	on-going	TBD	Annual
education	Posting of Diving RQs	Bring awareness to boaters	Group Members	Standing Committee		none		TBD	None
technical improvement	Scientific Advisory Group	Improve Scientific basis of compliance	ChemMetrics	Standing Committee	Feb-20	group consensus	on-going	TBD	Unknown
program improvement	Port Working Group	Building Collaborative Efforts to Compliance	Port selected group	Port Staff	Jul-19	participation	on-going	TBD	Unknown
technical improvement	Fish and Wildlife Consults	Planning possible Mitigation Projects	ChemMetrics	Standing Committee	Jun-20	group consensus	on-going	TBD	Unknown
outreach	MRA conference	Sharing and Benchmark Compliance	ChemMetrics	Chair	Nov-19	group consensus		TBD	Does Not Apply
outreach	MIAPP meetings	Gain statewide perspective	Group Members	None	-	group consensus	on-going	TBD	Unknown
outreach	RBOC meetings	Prospect for Collaboration and funding opportunities	ChemMetrics	Chair	-	goal achievement	on-going	TBD	Unknown
program improvement	RWQCB, SD	Perspective on Healthy Bay Initiative	ChemMetrics	Chair	-	group consensus	on-going	TBD	Unknown
outreach	RWQCB Presentation	Healthy Bay Initiative	Group Members	Chair	-	none	improved understanding	TBD	Does Not Apply

program improvement	Dock Walk, activity log	Correlate Dockside Activities with water monitoring	Ad Hoc Group	Chair	-	none	-	TBD	Unknown
program improvement	Develop Copper Compliance model	Improve Scientific basis of compliance	ChemMetrics	Chair	-	third party review	-	TBD	Does Not Apply

## **APPENDIX C**

### **VESSEL TRACKING DATA**

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## **DATA FOR THE HARBOR POLICE DOCK, TRANSIENT DOCK, AND WEEKEND ANCHORAGE**

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### Port Fleet Hull Paint Information

Date	Facility	Slip / Mooring Number	Percent of Time Occupied	Vessel Document # or Registration #	Vessel Type	Vessel Length	Vessel Beam	Paint Type	Paint Name	Product Number	Boatyard	Painting Date	% Copper
01/15/21	HPD		100	Marine 1 (# 9157)	P - Fire Boat	39.1'	13'	Org	Interspeed 5640	BZA646	Marine Group	2020	N/A
01/15/21	HPD		100	Marine 2 (#9162)	P - Fire Boat	39.1'	13'	Org	Interspeed 5640	BZA646	Marine Group	2020	N/A
01/15/21	HPD		100	Marine 3 (# 9139)	P - Fire Boat	39.1'	13'	Org	Interspeed 5640	BZA646	Marine Group	2020	N/A
01/15/21	HPD		100	Marine 4 (# 9138)	P - Fire Boat	39.1'	13'	Org	Interspeed 5640	BZA646	Marine Group	2020	N/A
01/15/21	HPD		100	Marine 5 (#9163)	P - Fire Boat	39.1'	13'	Org	Interspeed 5640	BZA646	Marine Group	2020	N/A
01/15/21	HPD		100	Marine 6 (# 7762)	P - Patrol Boat	31'	10'	Org	Interspeed 5640	BZA646	Marine Group	2020	N/A
01/15/21	HPD		100	Marine 7 (# 7763)	P - Patrol Boat	31'	10'	Org	Interspeed 5640	BZA646	Marine Group	2020	N/A
01/15/21	HPD		100	Marine 8 (# 9066)	P - Patrol Boat	36'	10'	Org	Interspeed 5640	BZA646	Marine Group	2020	N/A
01/15/21	HPD	24	100	Coral Reef (# 7708)	P - GS Work Boat	40'	14'	Org	Intersleek 900	FXA972/A	Marine Group	2020	N/A
01/15/21	HPD		on trailer	Marine 10 (9079)	P - Patrol Boat	22'		Non	No bottom paint	N/A	N/A	N/A	N/A
01/15/21	GST		100	Tsunamii II (# 9144)	P - GS Boat	20'	6'	Non	Interspeed 5640	BZA646	Marine Group	2019	N/A
01/15/21	HPD		100	Marine 9 (#9229)	P - Patrol Boat	39'	11'	Org	Interspeed 5640	BZA646	Marine Group	2019	N/A
01/15/21	HPD		100	Tuff Boat (# 9274)	P - GS Work Boat	16'		Org	Interspeed 5640	BZA646	Marine Group	2020	N/A
01/15/21	HPD	23	100	Munson (# 9305)	P - GS Boat	38'	13'	Org	Intersleek 900	FXA972/A	Munson	2019	N/A
01/15/21	HPD		100	Metal Shark (# 9315)	P - ENV. Boat	21'	8.5	Org	Interspeed 5640	BZA646	Marine Group	2020	N/A

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	6	1/2/2020	Parks Central Reservations	Confirmed	1/1/2020	1/2/2020	37'	1
Guest Dock	28	12/31/2019	WEBSITE	Confirmed	1/1/2020	1/3/2020	32'	2
Guest Dock	27	1/1/2020	WEBSITE	Confirmed	1/1/2020	1/2/2020	35'	1
Guest Dock	4	1/1/2020	WEBSITE	Confirmed	1/1/2020	1/2/2020	37'	1
Guest Dock	8	1/1/2020	WEBSITE	Confirmed	1/1/2020	1/3/2020	27'	2
Guest Dock	14	12/31/2019	WEBSITE	Confirmed	1/1/2020	1/2/2020		1
Guest Dock	3	12/31/2019	WEBSITE	Confirmed	1/1/2020	1/3/2020	50'	2
Guest Dock	26	12/31/2019	WEBSITE	Confirmed	1/1/2020	1/2/2020	32'	1
Guest Dock	15	12/24/2019	WEBSITE	Confirmed	1/2/2020	1/3/2020	31'	1
Guest Dock	10	1/1/2020	WEBSITE	Confirmed	1/2/2020	1/3/2020	27'	1
Guest Dock	13	1/2/2020	WEBSITE	Confirmed	1/2/2020	1/3/2020		1
Guest Dock	2	12/31/2019	WEBSITE	Confirmed	1/2/2020	1/3/2020	33'	1
Guest Dock	21	1/2/2020	Parks Central Reservations	Confirmed	1/2/2020	1/3/2020	32'	1
Guest Dock	18	12/30/2019	Moorings	Confirmed	1/2/2020	1/3/2020	34'	1
Guest Dock	6	12/31/2019	WEBSITE	Confirmed	1/2/2020	1/3/2020	32'	1
Guest Dock	14	12/31/2019	WEBSITE	Confirmed	1/2/2020	1/3/2020		1
Guest Dock	7	12/29/2019	WEBSITE	Confirmed	1/2/2020	1/3/2020		1
Guest Dock	20	1/2/2020	Parks Central Reservations	Confirmed	1/2/2020	1/3/2020		1
Guest Dock	26	12/31/2019	WEBSITE	Confirmed	1/2/2020	1/3/2020	33'	1
Guest Dock	4	12/20/2019	WEBSITE	Confirmed	1/2/2020	1/3/2020	26'	1
Guest Dock	19	1/2/2020	Parks Central Reservations	Confirmed	1/2/2020	1/5/2020	46'	3
Guest Dock	5	12/16/2019	Parks Central Reservations	Confirmed	1/2/2020	1/3/2020	30'	1
Guest Dock	16	12/19/2019	WEBSITE	Confirmed	1/2/2020	1/3/2020	37'	1
Guest Dock	27	1/1/2020	WEBSITE	Confirmed	1/3/2020	1/6/2020	35'	3
Guest Dock	7	1/2/2020	WEBSITE	Confirmed	1/3/2020	1/4/2020		1
Guest Dock	8	1/2/2020	WEBSITE	Confirmed	1/3/2020	1/4/2020	27'	1
Guest Dock	9	1/2/2020	WEBSITE	Confirmed	1/3/2020	1/5/2020	32'	2
Guest Dock	10	1/2/2020	WEBSITE	Confirmed	1/3/2020	1/5/2020		2
Guest Dock	12	1/3/2020	WEBSITE	Confirmed	1/3/2020	1/6/2020	46'	3
Guest Dock	8	1/4/2020	WEBSITE	Confirmed	1/4/2020	1/5/2020	27'	1
Guest Dock	21	1/2/2020	Parks Central Reservations	Confirmed	1/4/2020	1/7/2020	31'	3
Guest Dock	2	1/1/2020	WEBSITE	Confirmed	1/4/2020	1/7/2020	26'	3
Guest Dock	13	1/4/2020	WEBSITE	Confirmed	1/4/2020	1/6/2020		2
Guest Dock	9	1/4/2020	WEBSITE	Confirmed	1/5/2020	1/6/2020	33'	1
Guest Dock	20	1/4/2020	WEBSITE	Confirmed	1/5/2020	1/10/2020	46'	5
Guest Dock	18	1/5/2020	WEBSITE	Confirmed	1/5/2020	1/6/2020	55'	1
Guest Dock	19	1/5/2020	WEBSITE	Confirmed	1/5/2020	1/6/2020	46'	1
Guest Dock	18	1/5/2020	WEBSITE	Confirmed	1/6/2020	1/7/2020	55'	1
Guest Dock	15	1/5/2020	WEBSITE	Confirmed	1/6/2020	1/10/2020	31'	4
Guest Dock	13	1/6/2020	WEBSITE	Confirmed	1/6/2020	1/7/2020	27'	1
Guest Dock	16	1/6/2020	WEBSITE	Confirmed	1/6/2020	1/7/2020	32'	1
Guest Dock	26	1/6/2020	Parks Central Reservations	Confirmed	1/6/2020	1/8/2020	34'	2
Guest Dock	8	1/6/2020	Moorings	Confirmed	1/6/2020	1/8/2020	26'	2
Guest Dock	7	1/5/2020	WEBSITE	Confirmed	1/6/2020	1/7/2020		1
Guest Dock	19	1/6/2020	Moorings	Confirmed	1/6/2020	1/7/2020	36'	1
Guest Dock	3	1/5/2020	WEBSITE	Confirmed	1/6/2020	1/8/2020		2
Guest Dock	10	1/6/2020	Parks Central Reservations	Confirmed	1/6/2020	1/7/2020		1
Guest Dock	9	1/6/2020	WEBSITE	Confirmed	1/6/2020	1/7/2020	33'	1
Guest Dock	6	1/3/2020	WEBSITE	Confirmed	1/6/2020	1/7/2020	26'	1
Guest Dock	4	12/30/2019	Parks Central Reservations	Confirmed	1/6/2020	1/9/2020	26'	3
Guest Dock	28	1/5/2020	WEBSITE	Confirmed	1/6/2020	1/9/2020	33'	3
Guest Dock	27	1/5/2020	WEBSITE	Confirmed	1/6/2020	1/9/2020	35'	3
Guest Dock	2	1/7/2020	WEBSITE	Confirmed	1/7/2020	1/8/2020	26'	1
Guest Dock	6	1/6/2020	WEBSITE	Confirmed	1/7/2020	1/8/2020	26'	1
Guest Dock	11	1/6/2020	Moorings	Confirmed	1/7/2020	1/9/2020	36'	2
Guest Dock	21	11/25/2019	Moorings	Confirmed	1/7/2020	1/10/2020	43'	3
Guest Dock	18	1/6/2020	WEBSITE	Confirmed	1/7/2020	1/8/2020	55'	1
Guest Dock	9	1/7/2020	WEBSITE	Confirmed	1/7/2020	1/9/2020	27'	2
Guest Dock	16	1/6/2020	WEBSITE	Confirmed	1/7/2020	1/8/2020	32'	1
Guest Dock	16	1/7/2020	WEBSITE	Confirmed	1/8/2020	1/9/2020	32'	1
Guest Dock	18	1/7/2020	WEBSITE	Confirmed	1/8/2020	1/9/2020	55'	1
Guest Dock	26	1/6/2020	Parks Central Reservations	Confirmed	1/8/2020	1/9/2020	34'	1
Guest Dock	3	1/5/2020	WEBSITE	Confirmed	1/8/2020	1/9/2020		1
Guest Dock	8	1/6/2020	Moorings	Confirmed	1/8/2020	1/10/2020	26'	2

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	6	1/7/2020	WEBSITE	Confirmed	1/8/2020	1/11/2020	26'	3
Guest Dock	3	1/5/2020	WEBSITE	Confirmed	1/9/2020	1/10/2020	38'	1
Guest Dock	27	1/8/2020	WEBSITE	Confirmed	1/9/2020	1/11/2020	35'	2
Guest Dock	11	1/6/2020	Moorings	Confirmed	1/9/2020	1/10/2020	36'	1
Guest Dock	9	1/8/2020	WEBSITE	Confirmed	1/9/2020	1/10/2020	27'	1
Guest Dock	16	1/9/2020	WEBSITE	Confirmed	1/9/2020	1/10/2020	32'	1
Guest Dock	29	1/6/2020	WEBSITE	Confirmed	1/9/2020	1/10/2020	43'	1
Guest Dock	15	1/10/2020	WEBSITE	Confirmed	1/10/2020	1/11/2020	32'	1
Guest Dock	14	1/8/2020	WEBSITE	Confirmed	1/10/2020	1/14/2020	45'	4
Guest Dock	7	1/6/2020	WEBSITE	Confirmed	1/10/2020	1/17/2020	43'	7
Guest Dock	20	1/6/2020	WEBSITE	Confirmed	1/10/2020	1/11/2020	46'	1
Guest Dock	8	1/10/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	24'	3
Guest Dock	13	1/9/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020		3
Guest Dock	26	1/7/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	38'	3
Guest Dock	6	1/9/2020	WEBSITE	Confirmed	1/11/2020	1/14/2020	26'	3
Guest Dock	22	1/10/2020	WEBSITE	Confirmed	1/11/2020	1/12/2020	50'	1
Guest Dock	5	1/4/2020	WEBSITE	Confirmed	1/11/2020	1/12/2020	32'	1
Guest Dock	11	1/11/2020	WEBSITE	Confirmed	1/11/2020	1/13/2020	20'	2
Guest Dock	21	12/31/2019	WEBSITE	Confirmed	1/11/2020	1/26/2020	50'	15
Guest Dock	18	1/8/2020	WEBSITE	Confirmed	1/11/2020	1/12/2020	55'	1
Guest Dock	15	1/11/2020	WEBSITE	Confirmed	1/11/2020	1/12/2020	32'	1
Guest Dock	10	1/11/2020	WEBSITE	Confirmed	1/11/2020	1/12/2020	39'	1
Guest Dock	9	1/12/2020	WEBSITE	Confirmed	1/12/2020	1/15/2020	39'	3
Guest Dock	15	1/12/2020	WEBSITE	Confirmed	1/12/2020	1/13/2020	30'	1
Guest Dock	18	1/8/2020	WEBSITE	Confirmed	1/12/2020	1/13/2020	55'	1
Guest Dock	16	1/12/2020	WEBSITE	Confirmed	1/12/2020	1/13/2020	38'	1
Guest Dock	5	1/11/2020	WEBSITE	Confirmed	1/12/2020	1/13/2020	32'	1
Guest Dock	12	1/12/2020	WEBSITE	Confirmed	1/12/2020	1/14/2020	32'	2
Guest Dock	1	1/13/2020	Moorings	Confirmed	1/13/2020	1/15/2020	30'	2
Guest Dock	20	1/13/2020	Parks Central Reservations	Confirmed	1/13/2020	1/14/2020	51'	1
Guest Dock	26	1/10/2020	WEBSITE	Confirmed	1/13/2020	1/18/2020	38'	5
Guest Dock	4	12/30/2019	Parks Central Reservations	Confirmed	1/13/2020	1/14/2020	26'	1
Guest Dock	2	1/13/2020	Parks Central Reservations	Confirmed	1/13/2020	1/16/2020	37'	3
Guest Dock	28	1/5/2020	WEBSITE	Confirmed	1/13/2020	1/17/2020	33'	4
Guest Dock	3	1/5/2020	WEBSITE	Confirmed	1/13/2020	1/17/2020	38'	4
Guest Dock	8	1/13/2020	Parks Central Reservations	Confirmed	1/13/2020	1/15/2020		2
Guest Dock	19	1/13/2020	Parks Central Reservations	Confirmed	1/13/2020	1/14/2020	38'	1
Guest Dock	27	1/13/2020	Parks Central Reservations	Confirmed	1/13/2020	1/16/2020		3
Guest Dock	18	1/8/2020	WEBSITE	Confirmed	1/13/2020	1/14/2020	55'	1
Guest Dock	15	1/12/2020	WEBSITE	Confirmed	1/13/2020	1/17/2020	31'	4
Guest Dock	13	1/13/2020	Parks Central Reservations	Confirmed	1/13/2020	1/15/2020	36'	2
Guest Dock	16	1/12/2020	WEBSITE	Confirmed	1/13/2020	1/17/2020		4
Guest Dock	10	1/14/2020	WEBSITE	Confirmed	1/14/2020	1/15/2020	32'	1
Guest Dock	5	1/14/2020	WEBSITE	Confirmed	1/14/2020	1/16/2020		2
Guest Dock	22	1/14/2020	WEBSITE	Confirmed	1/14/2020	1/15/2020	46'	1
Guest Dock	14	1/13/2020	WEBSITE	Confirmed	1/14/2020	1/15/2020	45'	1
Guest Dock	4	12/30/2019	Parks Central Reservations	Confirmed	1/14/2020	1/15/2020	26'	1
Guest Dock	6	1/10/2020	WEBSITE	Confirmed	1/14/2020	1/15/2020	26'	1
Guest Dock	12	1/13/2020	WEBSITE	Confirmed	1/14/2020	1/15/2020	32'	1
Guest Dock	1	1/13/2020	Moorings	Confirmed	1/15/2020	1/16/2020	30'	1
Guest Dock	13	1/14/2020	WEBSITE	Confirmed	1/15/2020	1/16/2020	32'	1
Guest Dock	10	1/14/2020	WEBSITE	Confirmed	1/15/2020	1/16/2020	27'	1
Guest Dock	8	1/15/2020	WEBSITE	Confirmed	1/15/2020	1/16/2020	35'	1
Guest Dock	6	1/12/2020	WEBSITE	Confirmed	1/15/2020	1/17/2020	26'	2
Guest Dock	4	12/30/2019	Parks Central Reservations	Confirmed	1/15/2020	1/17/2020	26'	2
Guest Dock	12	1/13/2020	Parks Central Reservations	Confirmed	1/15/2020	1/17/2020	43'	2
Guest Dock	19	1/10/2020	WEBSITE	Confirmed	1/15/2020	1/16/2020	52'	1
Guest Dock	14	1/13/2020	Parks Central Reservations	Confirmed	1/15/2020	1/17/2020	36'	2
Guest Dock	2	1/13/2020	Parks Central Reservations	Confirmed	1/16/2020	1/17/2020	37'	1
Guest Dock	9	1/16/2020	WEBSITE	Confirmed	1/16/2020	1/17/2020	32'	1
Guest Dock	8	1/13/2020	WEBSITE	Confirmed	1/16/2020	1/17/2020	30'	1
Guest Dock	18	1/16/2020	WEBSITE	Confirmed	1/16/2020	1/17/2020	46'	1
Guest Dock	10	1/15/2020	WEBSITE	Confirmed	1/16/2020	1/17/2020		1
Guest Dock	5	1/7/2020	WEBSITE	Confirmed	1/16/2020	1/17/2020	30'	1
Guest Dock	13	1/15/2020	WEBSITE	Confirmed	1/16/2020	1/17/2020	32'	1
Guest Dock	1	1/16/2020	Moorings	Confirmed	1/16/2020	1/17/2020	30'	1
Guest Dock	13	1/16/2020	WEBSITE	Confirmed	1/17/2020	1/18/2020	32'	1
Guest Dock	22	1/17/2020	WEBSITE	Confirmed	1/17/2020	1/18/2020	46'	1
Guest Dock	3	1/14/2020	WEBSITE	Confirmed	1/17/2020	1/18/2020	29'	1
Guest Dock	26	1/10/2020	WEBSITE	Confirmed	1/18/2020	1/19/2020	45'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	13	1/18/2020	WEBSITE	Confirmed	1/18/2020	1/19/2020	32'	1
Guest Dock	13	1/19/2020	WEBSITE	Confirmed	1/19/2020	1/21/2020	32'	2
Guest Dock	20	1/19/2020	WEBSITE	Confirmed	1/19/2020	1/23/2020	46'	4
Guest Dock	12	1/13/2020	Parks Central Reservations	Confirmed	1/20/2020	1/24/2020	43'	4
Guest Dock	5	1/14/2020	WEBSITE	Confirmed	1/21/2020	1/22/2020	30'	1
Guest Dock	6	1/21/2020	WEBSITE	Confirmed	1/21/2020	1/24/2020	26'	3
Guest Dock	4	1/20/2020	WEBSITE	Confirmed	1/21/2020	1/22/2020	26'	1
Guest Dock	3	1/20/2020	WEBSITE	Confirmed	1/21/2020	1/24/2020	38'	3
Guest Dock	8	1/16/2020	Moorings	Confirmed	1/21/2020	1/22/2020	26'	1
Guest Dock	13	1/21/2020	WEBSITE	Confirmed	1/21/2020	1/23/2020	32'	2
Guest Dock	7	1/20/2020	WEBSITE	Confirmed	1/21/2020	1/24/2020		3
Guest Dock	26	1/21/2020	Moorings	Confirmed	1/21/2020	1/26/2020	33'	5
Guest Dock	28	1/21/2020	WEBSITE	Confirmed	1/21/2020	1/23/2020	34'	2
Guest Dock	14	1/20/2020	WEBSITE	Confirmed	1/21/2020	1/24/2020	31'	3
Guest Dock	18	1/6/2020	WEBSITE	Confirmed	1/21/2020	1/22/2020	43'	1
Guest Dock	2	1/21/2020	WEBSITE	Confirmed	1/21/2020	1/23/2020	16'	2
Guest Dock	9	1/22/2020	WEBSITE	Confirmed	1/22/2020	1/23/2020	32'	1
Guest Dock	18	1/6/2020	WEBSITE	Confirmed	1/22/2020	1/24/2020	43'	2
Guest Dock	22	1/20/2020	WEBSITE	Confirmed	1/22/2020	1/24/2020	63'	2
Guest Dock	8	1/16/2020	Moorings	Confirmed	1/22/2020	1/24/2020	26'	2
Guest Dock	4	1/21/2020	WEBSITE	Confirmed	1/22/2020	1/23/2020	26'	1
Guest Dock	19	1/21/2020	Moorings	Confirmed	1/22/2020	1/24/2020	33'	2
Guest Dock	5	1/14/2020	WEBSITE	Confirmed	1/22/2020	1/23/2020	30'	1
Guest Dock	5	1/21/2020	WEBSITE	Confirmed	1/23/2020	1/24/2020	30'	1
Guest Dock	16	1/22/2020	WEBSITE	Confirmed	1/23/2020	1/24/2020	26'	1
Guest Dock	15	1/23/2020	Moorings	Confirmed	1/23/2020	1/24/2020	44'	1
Guest Dock	4	1/21/2020	WEBSITE	Confirmed	1/23/2020	2/6/2020	34'	14
Guest Dock	27	1/21/2020	WEBSITE	Confirmed	1/23/2020	1/24/2020	34'	1
Guest Dock	28	1/21/2020	Moorings	Confirmed	1/23/2020	1/26/2020		3
Guest Dock	9	1/22/2020	WEBSITE	Confirmed	1/23/2020	1/24/2020	32'	1
Guest Dock	13	1/22/2020	WEBSITE	Confirmed	1/23/2020	1/24/2020	32'	1
Guest Dock	19	1/24/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	46'	3
Guest Dock	11	1/13/2020	WEBSITE	Confirmed	1/24/2020	1/26/2020	20'	2
Guest Dock	13	1/24/2020	WEBSITE	Confirmed	1/24/2020	1/25/2020	32'	1
Guest Dock	5	1/24/2020	WEBSITE	Confirmed	1/24/2020	1/25/2020	30'	1
Guest Dock	3	1/21/2020	WEBSITE	Confirmed	1/24/2020	1/25/2020	29'	1
Guest Dock	7	1/11/2020	WEBSITE	Confirmed	1/24/2020	1/26/2020	26'	2
Guest Dock	15	1/24/2020	WEBSITE	Confirmed	1/24/2020	1/25/2020	44'	1
Guest Dock	6	1/22/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	37'	3
Guest Dock	2	1/13/2020	WEBSITE	Confirmed	1/24/2020	1/26/2020	22'	2
Guest Dock	3	1/21/2020	WEBSITE	Confirmed	1/25/2020	1/27/2020	46'	2
Guest Dock	5	1/22/2020	WEBSITE	Confirmed	1/25/2020	1/26/2020	38'	1
Guest Dock	12	1/25/2020	WEBSITE	Confirmed	1/25/2020	1/26/2020	34'	1
Guest Dock	16	1/22/2020	WEBSITE	Confirmed	1/25/2020	1/26/2020	39'	1
Guest Dock	8	1/24/2020	WEBSITE	Confirmed	1/25/2020	1/28/2020	40'	3
Guest Dock	9	1/25/2020	WEBSITE	Confirmed	1/25/2020	1/27/2020	30'	2
Guest Dock	10	1/24/2020	WEBSITE	Confirmed	1/25/2020	1/26/2020	16'	1
Guest Dock	13	1/26/2020	WEBSITE	Confirmed	1/26/2020	1/27/2020	32'	1
Guest Dock	7	1/26/2020	WEBSITE	Confirmed	1/26/2020	1/27/2020	27'	1
Guest Dock	12	1/25/2020	WEBSITE	Confirmed	1/26/2020	1/27/2020	34'	1
Guest Dock	11	1/27/2020	Moorings	Confirmed	1/27/2020	1/28/2020	36'	1
Guest Dock	13	1/27/2020	WEBSITE	Confirmed	1/27/2020	1/29/2020	32'	2
Guest Dock	9	1/27/2020	Moorings	Confirmed	1/27/2020	1/28/2020	26'	1
Guest Dock	16	1/27/2020	WEBSITE	Confirmed	1/27/2020	1/28/2020	27'	1
Guest Dock	27	1/27/2020	Moorings	Confirmed	1/27/2020	1/28/2020	34'	1
Guest Dock	21	1/22/2020	Moorings	Confirmed	1/27/2020	1/31/2020	30'	4
Guest Dock	12	1/23/2020	WEBSITE	Confirmed	1/27/2020	1/28/2020	43'	1
Guest Dock	5	1/27/2020	WEBSITE	Confirmed	1/27/2020	1/28/2020	37'	1
Guest Dock	2	1/27/2020	WEBSITE	Confirmed	1/27/2020	1/31/2020	26'	4
Guest Dock	26	1/21/2020	Moorings	Confirmed	1/27/2020	1/28/2020	33'	1
Guest Dock	22	1/20/2020	WEBSITE	Confirmed	1/27/2020	1/31/2020	38'	4
Guest Dock	10	1/27/2020	WEBSITE	Confirmed	1/27/2020	1/31/2020	30'	4
Guest Dock	6	1/25/2020	WEBSITE	Confirmed	1/27/2020	1/31/2020	43'	4
Guest Dock	3	1/26/2020	WEBSITE	Confirmed	1/28/2020	1/29/2020	45'	1
Guest Dock	5	1/28/2020	WEBSITE	Confirmed	1/28/2020	1/30/2020	14'	2
Guest Dock	8	1/27/2020	WEBSITE	Confirmed	1/28/2020	1/31/2020	30'	3
Guest Dock	12	1/23/2020	WEBSITE	Confirmed	1/28/2020	1/29/2020	43'	1
Guest Dock	19	1/27/2020	WEBSITE	Confirmed	1/28/2020	1/31/2020	50'	3
Guest Dock	9	1/27/2020	Moorings	Confirmed	1/28/2020	1/29/2020	26'	1
Guest Dock	11	1/27/2020	Moorings	Confirmed	1/28/2020	1/29/2020	36'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	26	1/27/2020	WEBSITE	Confirmed	1/28/2020	1/31/2020	33'	3
Guest Dock	20	1/28/2020	WEBSITE	Confirmed	1/28/2020	1/30/2020	65'	2
Guest Dock	14	1/24/2020	WEBSITE	Confirmed	1/28/2020	1/31/2020		3
Guest Dock	11	1/27/2020	Moorings	Confirmed	1/29/2020	1/31/2020	36'	2
Guest Dock	9	1/27/2020	Moorings	Confirmed	1/29/2020	1/31/2020	26'	2
Guest Dock	13	1/27/2020	WEBSITE	Confirmed	1/29/2020	1/31/2020	32'	2
Guest Dock	3	1/29/2020	WEBSITE	Confirmed	1/29/2020	1/30/2020	25'	1
Guest Dock	12	1/23/2020	WEBSITE	Confirmed	1/29/2020	1/30/2020	43'	1
Guest Dock	12	1/23/2020	WEBSITE	Confirmed	1/30/2020	1/31/2020	43'	1
Guest Dock	3	1/28/2020	WEBSITE	Confirmed	1/30/2020	2/2/2020	26'	3
Guest Dock	15	1/29/2020	WEBSITE	Confirmed	1/30/2020	2/6/2020	25'	7
Guest Dock	16	1/30/2020	WEBSITE	Confirmed	1/30/2020	1/31/2020	33'	1
Guest Dock	28	1/30/2020	WEBSITE	Confirmed	1/30/2020	1/31/2020	30'	1
Guest Dock	13	1/31/2020	WEBSITE	Confirmed	1/31/2020	2/1/2020	32'	1
Guest Dock	20	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/2/2020	65'	2
Guest Dock	7	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/1/2020	32'	1
Guest Dock	9	1/27/2020	WEBSITE	Confirmed	1/31/2020	2/5/2020	37'	5
Guest Dock	2	1/31/2020	WEBSITE	Confirmed	1/31/2020	2/15/2020	36'	15
Guest Dock	5	1/31/2020	WEBSITE	Confirmed	2/1/2020	2/3/2020	30'	2
Guest Dock	10	2/1/2020	WEBSITE	Confirmed	2/1/2020	2/2/2020	14'	1
Guest Dock	6	1/29/2020	WEBSITE	Confirmed	2/1/2020	2/4/2020	40'	3
Guest Dock	8	2/1/2020	WEBSITE	Confirmed	2/1/2020	2/8/2020	24'	7
Guest Dock	14	1/31/2020	WEBSITE	Confirmed	2/1/2020	2/2/2020	32'	1
Guest Dock	7	2/1/2020	WEBSITE	Confirmed	2/1/2020	2/2/2020	38'	1
Guest Dock	12	2/2/2020	WEBSITE	Confirmed	2/2/2020	2/3/2020	32'	1
Guest Dock	19	1/31/2020	WEBSITE	Confirmed	2/2/2020	2/4/2020	53'	2
Guest Dock	10	2/3/2020	Moorings	Confirmed	2/3/2020	2/7/2020	26'	4
Guest Dock	11	2/3/2020	Moorings	Confirmed	2/3/2020	2/5/2020	36'	2
Guest Dock	16	1/28/2020	WEBSITE	Confirmed	2/3/2020	2/4/2020		1
Guest Dock	12	1/29/2020	Moorings	Confirmed	2/3/2020	2/7/2020	43'	4
Guest Dock	3	2/3/2020	Moorings	Confirmed	2/3/2020	2/5/2020	55'	2
Guest Dock	5	2/3/2020	Moorings	Confirmed	2/3/2020	2/5/2020	46'	2
Guest Dock	18	1/31/2020	Moorings	Confirmed	2/3/2020	2/5/2020	32'	2
Guest Dock	27	2/4/2020	Moorings	Confirmed	2/4/2020	2/6/2020	30'	2
Guest Dock	21	1/31/2020	Moorings	Confirmed	2/4/2020	2/7/2020	30'	3
Guest Dock	26	2/3/2020	WEBSITE	Confirmed	2/4/2020	2/7/2020	33'	3
Guest Dock	16	2/3/2020	WEBSITE	Confirmed	2/4/2020	2/5/2020		1
Guest Dock	20	2/4/2020	WEBSITE	Confirmed	2/4/2020	2/6/2020	60'	2
Guest Dock	22	1/31/2020	WEBSITE	Confirmed	2/4/2020	2/6/2020	63'	2
Guest Dock	13	2/3/2020	WEBSITE	Confirmed	2/4/2020	2/5/2020	32'	1
Guest Dock	28	2/4/2020	WEBSITE	Confirmed	2/4/2020	2/5/2020	33'	1
Guest Dock	19	2/4/2020	Moorings	Confirmed	2/4/2020	2/7/2020	34'	3
Guest Dock	6	2/3/2020	WEBSITE	Confirmed	2/4/2020	2/5/2020		1
Guest Dock	14	2/4/2020	WEBSITE	Confirmed	2/4/2020	2/5/2020	31'	1
Guest Dock	14	2/4/2020	WEBSITE	Confirmed	2/5/2020	2/7/2020	31'	2
Guest Dock	28	2/5/2020	WEBSITE	Confirmed	2/5/2020	2/6/2020	33'	1
Guest Dock	13	2/3/2020	WEBSITE	Confirmed	2/5/2020	2/6/2020	32'	1
Guest Dock	3	1/29/2020	WEBSITE	Confirmed	2/5/2020	2/11/2020	55'	6
Guest Dock	5	2/5/2020	WEBSITE	Confirmed	2/5/2020	2/7/2020		2
Guest Dock	11	2/3/2020	Moorings	Confirmed	2/5/2020	2/7/2020	36'	2
Guest Dock	18	1/31/2020	Moorings	Confirmed	2/5/2020	2/7/2020	32'	2
Guest Dock	6	2/5/2020	WEBSITE	Confirmed	2/5/2020	2/8/2020	27'	3
Guest Dock	9	2/6/2020	WEBSITE	Confirmed	2/6/2020	2/8/2020	14'	2
Guest Dock	13	2/6/2020	WEBSITE	Confirmed	2/6/2020	2/7/2020	32'	1
Guest Dock	15	2/6/2020	WEBSITE	Confirmed	2/6/2020	2/7/2020	25'	1
Guest Dock	4	2/5/2020	WEBSITE	Confirmed	2/6/2020	2/8/2020	43'	2
Guest Dock	13	2/7/2020	WEBSITE	Confirmed	2/7/2020	2/8/2020	32'	1
Guest Dock	26	2/2/2020	WEBSITE	Confirmed	2/7/2020	2/9/2020	40'	2
Guest Dock	15	2/7/2020	WEBSITE	Confirmed	2/7/2020	2/14/2020	25'	7
Guest Dock	9	2/7/2020	WEBSITE	Confirmed	2/8/2020	2/11/2020	41'	3
Guest Dock	14	2/7/2020	WEBSITE	Confirmed	2/8/2020	2/11/2020	43'	3
Guest Dock	10	2/7/2020	WEBSITE	Confirmed	2/8/2020	2/10/2020	16'	2
Guest Dock	8	2/7/2020	WEBSITE	Confirmed	2/8/2020	2/9/2020	24'	1
Guest Dock	13	2/8/2020	WEBSITE	Confirmed	2/8/2020	2/9/2020	32'	1
Guest Dock	20	2/7/2020	WEBSITE	Confirmed	2/8/2020	2/9/2020	50'	1
Guest Dock	4	2/7/2020	WEBSITE	Confirmed	2/8/2020	2/11/2020	43'	3
Guest Dock	5	2/6/2020	WEBSITE	Confirmed	2/8/2020	2/9/2020	39'	1
Guest Dock	20	2/5/2020	WEBSITE	Confirmed	2/9/2020	2/13/2020	50'	4
Guest Dock	26	2/8/2020	WEBSITE	Confirmed	2/9/2020	2/10/2020	40'	1
Guest Dock	12	2/4/2020	Moorings	Confirmed	2/9/2020	2/14/2020	43'	5

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	16	2/9/2020	WEBSITE	Confirmed	2/9/2020	2/10/2020	32'	1
Guest Dock	5	2/9/2020	WEBSITE	Confirmed	2/9/2020	2/16/2020	30'	7
Guest Dock	13	2/6/2020	Moorings	Confirmed	2/10/2020	2/14/2020	25'	4
Guest Dock	22	2/10/2020	WEBSITE	Confirmed	2/10/2020	2/14/2020	32'	4
Guest Dock	28	2/9/2020	WEBSITE	Confirmed	2/10/2020	2/11/2020	40'	1
Guest Dock	27	2/9/2020	WEBSITE	Confirmed	2/10/2020	2/14/2020	33'	4
Guest Dock	7	2/4/2020	Moorings	Confirmed	2/10/2020	2/14/2020	26'	4
Guest Dock	18	1/31/2020	Moorings	Confirmed	2/10/2020	2/14/2020	38'	4
Guest Dock	6	2/10/2020	Moorings	Confirmed	2/10/2020	2/13/2020		3
Guest Dock	26	2/9/2020	WEBSITE	Confirmed	2/10/2020	2/12/2020	32'	2
Guest Dock	10	2/10/2020	Moorings	Confirmed	2/10/2020	2/14/2020	26'	4
Guest Dock	11	2/9/2020	WEBSITE	Confirmed	2/10/2020	2/11/2020	32'	1
Guest Dock	29	2/10/2020	Moorings	Confirmed	2/10/2020	2/12/2020	36'	2
Guest Dock	16	2/10/2020	Moorings	Confirmed	2/10/2020	2/11/2020		1
Guest Dock	8	2/9/2020	WEBSITE	Confirmed	2/10/2020	2/11/2020	27'	1
Guest Dock	19	2/10/2020	Moorings	Confirmed	2/10/2020	2/14/2020	32'	4
Guest Dock	4	2/10/2020	WEBSITE	Confirmed	2/11/2020	2/15/2020	43'	4
Guest Dock	16	2/10/2020	WEBSITE	Confirmed	2/11/2020	2/12/2020	27'	1
Guest Dock	3	2/11/2020	WEBSITE	Confirmed	2/11/2020	2/14/2020	34'	3
Guest Dock	8	2/10/2020	Moorings	Confirmed	2/11/2020	2/17/2020	37'	6
Guest Dock	28	2/11/2020	WEBSITE	Confirmed	2/11/2020	2/12/2020	40'	1
Guest Dock	11	2/11/2020	WEBSITE	Confirmed	2/11/2020	2/17/2020	38'	6
Guest Dock	14	2/7/2020	WEBSITE	Confirmed	2/11/2020	2/18/2020	43'	7
Guest Dock	9	2/8/2020	WEBSITE	Confirmed	2/11/2020	2/13/2020	41'	2
Guest Dock	21	2/12/2020	WEBSITE	Confirmed	2/12/2020	2/13/2020	41'	1
Guest Dock	26	2/12/2020	WEBSITE	Confirmed	2/12/2020	2/13/2020	32'	1
Guest Dock	29	2/10/2020	Moorings	Confirmed	2/12/2020	2/14/2020	36'	2
Guest Dock	20	2/13/2020	WEBSITE	Confirmed	2/13/2020	2/15/2020	46'	2
Guest Dock	21	2/12/2020	WEBSITE	Confirmed	2/13/2020	2/16/2020	41'	3
Guest Dock	26	2/13/2020	WEBSITE	Confirmed	2/13/2020	2/14/2020	32'	1
Guest Dock	28	2/10/2020	Moorings	Confirmed	2/13/2020	2/14/2020		1
Guest Dock	6	2/2/2020	WEBSITE	Confirmed	2/13/2020	2/14/2020		1
Guest Dock	16	2/11/2020	WEBSITE	Confirmed	2/13/2020	2/15/2020	32'	2
Guest Dock	26	2/14/2020	WEBSITE	Confirmed	2/14/2020	2/15/2020	32'	1
Guest Dock	27	2/14/2020	WEBSITE	Confirmed	2/14/2020	2/16/2020	33'	2
Guest Dock	6	2/13/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	34'	3
Guest Dock	3	2/12/2020	WEBSITE	Confirmed	2/14/2020	2/19/2020	40'	5
Guest Dock	7	2/13/2020	WEBSITE	Confirmed	2/14/2020	2/16/2020	29'	2
Guest Dock	9	2/14/2020	WEBSITE	Confirmed	2/14/2020	2/19/2020	32'	5
Guest Dock	15	2/13/2020	WEBSITE	Confirmed	2/14/2020	2/15/2020	25'	1
Guest Dock	13	2/6/2020	Moorings	Confirmed	2/14/2020	2/18/2020	25'	4
Guest Dock	15	2/14/2020	WEBSITE	Confirmed	2/15/2020	2/17/2020	30'	2
Guest Dock	12	2/15/2020	WEBSITE	Confirmed	2/15/2020	2/18/2020	46'	3
Guest Dock	18	2/10/2020	WEBSITE	Confirmed	2/15/2020	2/17/2020	39'	2
Guest Dock	4	2/15/2020	WEBSITE	Confirmed	2/15/2020	2/16/2020	27'	1
Guest Dock	10	2/16/2020	WEBSITE	Confirmed	2/16/2020	2/17/2020	27'	1
Guest Dock	27	2/16/2020	WEBSITE	Confirmed	2/16/2020	2/17/2020	33'	1
Guest Dock	21	2/12/2020	WEBSITE	Confirmed	2/16/2020	2/17/2020	41'	1
Guest Dock	4	2/13/2020	WEBSITE	Confirmed	2/16/2020	2/17/2020	26'	1
Guest Dock	22	2/15/2020	WEBSITE	Confirmed	2/16/2020	2/17/2020		1
Guest Dock	7	2/15/2020	WEBSITE	Confirmed	2/16/2020	2/17/2020	29'	1
Guest Dock	26	2/16/2020	WEBSITE	Confirmed	2/16/2020	2/17/2020	35'	1
Guest Dock	2	2/15/2020	WEBSITE	Confirmed	2/16/2020	2/22/2020	30'	6
Guest Dock	26	2/17/2020	WEBSITE	Confirmed	2/17/2020	2/19/2020	34'	2
Guest Dock	22	2/16/2020	WEBSITE	Confirmed	2/17/2020	2/19/2020		2
Guest Dock	7	2/16/2020	WEBSITE	Confirmed	2/17/2020	2/18/2020	29'	1
Guest Dock	11	2/17/2020	WEBSITE	Confirmed	2/17/2020	2/18/2020	38'	1
Guest Dock	18	2/17/2020	WEBSITE	Confirmed	2/17/2020	2/18/2020	41'	1
Guest Dock	27	2/17/2020	WEBSITE	Confirmed	2/17/2020	2/18/2020	33'	1
Guest Dock	10	2/17/2020	WEBSITE	Confirmed	2/17/2020	2/18/2020	27'	1
Guest Dock	15	2/16/2020	WEBSITE	Confirmed	2/17/2020	2/19/2020	34'	2
Guest Dock	11	2/18/2020	Moorings	Confirmed	2/18/2020	2/19/2020	36'	1
Guest Dock	6	2/18/2020	Moorings	Confirmed	2/18/2020	2/19/2020		1
Guest Dock	8	2/17/2020	WEBSITE	Confirmed	2/18/2020	2/19/2020	32'	1
Guest Dock	10	2/17/2020	WEBSITE	Confirmed	2/18/2020	2/19/2020	27'	1
Guest Dock	4	2/18/2020	Moorings	Confirmed	2/18/2020	2/19/2020		1
Guest Dock	12	2/11/2020	WEBSITE	Confirmed	2/18/2020	2/21/2020	26'	3
Guest Dock	19	2/18/2020	Moorings	Confirmed	2/18/2020	2/21/2020	33'	3
Guest Dock	7	2/18/2020	WEBSITE	Confirmed	2/18/2020	2/19/2020	29'	1
Guest Dock	14	2/7/2020	WEBSITE	Confirmed	2/18/2020	2/24/2020	43'	6



**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	17	2/16/2020	WEBSITE	Confirmed	2/18/2020	2/21/2020		3
Guest Dock	13	2/6/2020	Moorings	Confirmed	2/18/2020	2/19/2020	25'	1
Guest Dock	21	2/18/2020	Moorings	Confirmed	2/18/2020	2/22/2020	29'	4
Guest Dock	15	2/18/2020	WEBSITE	Confirmed	2/19/2020	2/20/2020	32'	1
Guest Dock	13	2/6/2020	Moorings	Confirmed	2/19/2020	2/21/2020	25'	2
Guest Dock	9	2/17/2020	WEBSITE	Confirmed	2/19/2020	2/21/2020	32'	2
Guest Dock	3	2/16/2020	WEBSITE	Confirmed	2/19/2020	2/22/2020	40'	3
Guest Dock	20	2/19/2020	Moorings	Confirmed	2/19/2020	2/21/2020	30'	2
Guest Dock	4	2/19/2020	Moorings	Confirmed	2/19/2020	2/21/2020		2
Guest Dock	18	2/14/2020	Moorings	Confirmed	2/19/2020	2/21/2020	38'	2
Guest Dock	22	2/19/2020	Moorings	Confirmed	2/19/2020	2/20/2020	41'	1
Guest Dock	7	2/19/2020	Moorings	Confirmed	2/19/2020	2/21/2020	34'	2
Guest Dock	10	2/18/2020	WEBSITE	Confirmed	2/19/2020	2/20/2020	27'	1
Guest Dock	8	2/18/2020	WEBSITE	Confirmed	2/19/2020	2/21/2020	32'	2
Guest Dock	6	2/18/2020	Moorings	Confirmed	2/19/2020	2/21/2020		2
Guest Dock	27	2/18/2020	Moorings	Confirmed	2/19/2020	2/20/2020	36'	1
Guest Dock	11	2/19/2020	WEBSITE	Confirmed	2/19/2020	2/20/2020	34'	1
Guest Dock	10	2/20/2020	WEBSITE	Confirmed	2/20/2020	2/21/2020	27'	1
Guest Dock	26	2/13/2020	WEBSITE	Confirmed	2/20/2020	2/23/2020	33'	3
Guest Dock	9	2/20/2020	WEBSITE	Confirmed	2/21/2020	2/22/2020	32'	1
Guest Dock	10	2/20/2020	Moorings	Confirmed	2/21/2020	2/25/2020	27'	4
Guest Dock	22	2/21/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	45'	3
Guest Dock	11	2/18/2020	WEBSITE	Confirmed	2/21/2020	2/22/2020	41'	1
Guest Dock	9	2/22/2020	WEBSITE	Confirmed	2/22/2020	2/23/2020	32'	1
Guest Dock	3	2/21/2020	WEBSITE	Confirmed	2/22/2020	2/25/2020	40'	3
Guest Dock	5	2/18/2020	WEBSITE	Confirmed	2/22/2020	2/23/2020	36'	1
Guest Dock	7	2/22/2020	WEBSITE	Confirmed	2/22/2020	2/23/2020	45'	1
Guest Dock	15	2/22/2020	WEBSITE	Confirmed	2/22/2020	2/24/2020	32'	2
Guest Dock	4	2/17/2020	WEBSITE	Confirmed	2/22/2020	2/23/2020	36'	1
Guest Dock	19	2/22/2020	WEBSITE	Confirmed	2/22/2020	2/23/2020	50'	1
Guest Dock	11	2/21/2020	WEBSITE	Confirmed	2/22/2020	2/23/2020	23'	1
Guest Dock	13	2/23/2020	WEBSITE	Confirmed	2/23/2020	2/25/2020	36'	2
Guest Dock	22	2/18/2020	Moorings	Confirmed	2/24/2020	2/26/2020	45'	2
Guest Dock	7	2/24/2020	Moorings	Confirmed	2/24/2020	2/25/2020	25'	1
Guest Dock	2	2/23/2020	WEBSITE	Confirmed	2/24/2020	2/29/2020	25'	5
Guest Dock	27	2/24/2020	Moorings	Confirmed	2/24/2020	2/29/2020		5
Guest Dock	29	2/24/2020	Moorings	Confirmed	2/24/2020	2/28/2020	36'	4
Guest Dock	28	2/24/2020	Moorings	Confirmed	2/24/2020	2/29/2020	33'	5
Guest Dock	6	2/23/2020	WEBSITE	Confirmed	2/24/2020	3/2/2020		7
Guest Dock	5	2/11/2020	WEBSITE	Confirmed	2/24/2020	2/25/2020	30'	1
Guest Dock	14	2/23/2020	WEBSITE	Confirmed	2/24/2020	2/26/2020	32'	2
Guest Dock	18	2/14/2020	Moorings	Confirmed	2/24/2020	2/28/2020	38'	4
Guest Dock	19	2/24/2020	Moorings	Confirmed	2/24/2020	2/28/2020	33'	4
Guest Dock	4	2/23/2020	WEBSITE	Confirmed	2/24/2020	2/25/2020	32'	1
Guest Dock	4	2/23/2020	WEBSITE	Confirmed	2/25/2020	2/26/2020	32'	1
Guest Dock	21	2/24/2020	Moorings	Confirmed	2/25/2020	3/6/2020	38'	10
Guest Dock	10	2/25/2020	WEBSITE	Confirmed	2/25/2020	2/28/2020	32'	3
Guest Dock	8	2/24/2020	Moorings	Confirmed	2/25/2020	2/26/2020	25'	1
Guest Dock	16	2/16/2020	WEBSITE	Confirmed	2/25/2020	2/28/2020		3
Guest Dock	3	2/24/2020	WEBSITE	Confirmed	2/25/2020	2/26/2020	40'	1
Guest Dock	3	2/25/2020	WEBSITE	Confirmed	2/26/2020	2/27/2020	40'	1
Guest Dock	11	2/24/2020	Moorings	Confirmed	2/26/2020	2/28/2020	25'	2
Guest Dock	9	2/24/2020	Moorings	Confirmed	2/26/2020	2/28/2020	26'	2
Guest Dock	22	2/26/2020	Moorings	Confirmed	2/26/2020	3/2/2020	47'	5
Guest Dock	12	2/26/2020	Moorings	Confirmed	2/26/2020	2/27/2020	38'	1
Guest Dock	14	2/25/2020	WEBSITE	Confirmed	2/26/2020	2/28/2020	32'	2
Guest Dock	4	2/23/2020	WEBSITE	Confirmed	2/26/2020	2/27/2020	32'	1
Guest Dock	8	2/26/2020	WEBSITE	Confirmed	2/26/2020	3/3/2020	37'	6
Guest Dock	5	2/24/2020	Moorings	Confirmed	2/27/2020	3/3/2020	37'	5
Guest Dock	20	2/27/2020	WEBSITE	Confirmed	2/27/2020	2/28/2020	47'	1
Guest Dock	3	2/15/2020	WEBSITE	Confirmed	2/27/2020	2/28/2020	42'	1
Guest Dock	13	2/26/2020	WEBSITE	Confirmed	2/27/2020	2/29/2020	40'	2
Guest Dock	9	2/24/2020	WEBSITE	Confirmed	2/28/2020	3/1/2020	36'	2
Guest Dock	19	2/26/2020	WEBSITE	Confirmed	2/28/2020	2/29/2020	65'	1
Guest Dock	18	2/28/2020	WEBSITE	Confirmed	2/29/2020	3/3/2020	63'	3
Guest Dock	3	2/28/2020	WEBSITE	Confirmed	2/29/2020	3/1/2020	56'	1
Guest Dock	14	2/28/2020	WEBSITE	Confirmed	2/29/2020	3/5/2020	43'	5
Guest Dock	27	3/1/2020	WEBSITE	Confirmed	3/1/2020	3/4/2020	39'	3
Guest Dock	3	2/24/2020	WEBSITE	Confirmed	3/1/2020	3/4/2020	56'	3
Guest Dock	20	3/1/2020	WEBSITE	Confirmed	3/1/2020	3/2/2020	63'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	19	3/1/2020	WEBSITE	Confirmed	3/1/2020	3/4/2020	45'	3
Guest Dock	20	2/21/2020	WEBSITE	Confirmed	3/2/2020	3/4/2020	50'	2
Guest Dock	12	2/25/2020	WEBSITE	Confirmed	3/2/2020	3/6/2020	43'	4
Guest Dock	13	2/25/2020	WEBSITE	Confirmed	3/2/2020	3/6/2020	26'	4
Guest Dock	11	2/28/2020	WEBSITE	Confirmed	3/2/2020	3/3/2020	26'	1
Guest Dock	22	2/26/2020	Moorings	Confirmed	3/2/2020	3/6/2020	47'	4
Guest Dock	6	3/2/2020	WEBSITE	Confirmed	3/2/2020	3/8/2020		6
Guest Dock	28	3/2/2020	WEBSITE	Confirmed	3/2/2020	3/4/2020	38'	2
Guest Dock	10	3/3/2020	Moorings	Confirmed	3/3/2020	3/4/2020	34'	1
Guest Dock	5	3/2/2020	WEBSITE	Confirmed	3/3/2020	3/6/2020	27'	3
Guest Dock	15	2/28/2020	Moorings	Confirmed	3/3/2020	3/5/2020		2
Guest Dock	4	3/2/2020	WEBSITE	Confirmed	3/3/2020	3/4/2020	27'	1
Guest Dock	9	3/2/2020	Moorings	Confirmed	3/3/2020	3/5/2020	26'	2
Guest Dock	18	3/2/2020	WEBSITE	Confirmed	3/3/2020	3/4/2020	63'	1
Guest Dock	11	3/1/2020	WEBSITE	Confirmed	3/3/2020	3/4/2020	26'	1
Guest Dock	29	3/3/2020	Moorings	Confirmed	3/3/2020	3/6/2020	33'	3
Guest Dock	8	3/1/2020	WEBSITE	Confirmed	3/3/2020	3/8/2020	37'	5
Guest Dock	16	2/24/2020	WEBSITE	Confirmed	3/3/2020	3/6/2020	30'	3
Guest Dock	4	2/24/2020	WEBSITE	Confirmed	3/4/2020	3/19/2020	34'	15
Guest Dock	2	3/4/2020	WEBSITE	Confirmed	3/4/2020	3/5/2020	25'	1
Guest Dock	3	3/3/2020	WEBSITE	Confirmed	3/4/2020	3/7/2020	56'	3
Guest Dock	7	3/3/2020	WEBSITE	Confirmed	3/4/2020	3/6/2020	30'	2
Guest Dock	27	3/3/2020	WEBSITE	Confirmed	3/4/2020	3/7/2020	35'	3
Guest Dock	10	3/4/2020	WEBSITE	Confirmed	3/4/2020	3/5/2020	25'	1
Guest Dock	10	3/5/2020	WEBSITE	Confirmed	3/5/2020	3/6/2020	25'	1
Guest Dock	18	2/28/2020	WEBSITE	Confirmed	3/5/2020	3/6/2020	43'	1
Guest Dock	2	3/5/2020	WEBSITE	Confirmed	3/5/2020	3/6/2020	25'	1
Guest Dock	14	3/5/2020	WEBSITE	Confirmed	3/5/2020	3/7/2020	43'	2
Guest Dock	26	3/5/2020	WEBSITE	Confirmed	3/5/2020	3/6/2020	32'	1
Guest Dock	5	2/24/2020	Moorings	Confirmed	3/6/2020	3/7/2020	37'	1
Guest Dock	9	3/5/2020	Moorings	Confirmed	3/6/2020	3/14/2020	35'	8
Guest Dock	7	3/3/2020	WEBSITE	Confirmed	3/6/2020	3/8/2020	32'	2
Guest Dock	2	3/4/2020	WEBSITE	Confirmed	3/6/2020	3/7/2020	20'	1
Guest Dock	15	3/4/2020	WEBSITE	Confirmed	3/6/2020	3/7/2020		1
Guest Dock	28	3/6/2020	WEBSITE	Confirmed	3/7/2020	3/10/2020	36'	3
Guest Dock	22	3/4/2020	WEBSITE	Confirmed	3/7/2020	3/9/2020	57'	2
Guest Dock	3	3/3/2020	WEBSITE	Confirmed	3/7/2020	3/10/2020	56'	3
Guest Dock	10	3/4/2020	WEBSITE	Confirmed	3/7/2020	3/8/2020	36'	1
Guest Dock	15	3/6/2020	WEBSITE	Confirmed	3/7/2020	3/8/2020	29'	1
Guest Dock	26	2/24/2020	Moorings	Confirmed	3/7/2020	3/22/2020	53'	15
Guest Dock	14	3/6/2020	WEBSITE	Confirmed	3/7/2020	3/9/2020	36'	2
Guest Dock	8	3/6/2020	WEBSITE	Confirmed	3/8/2020	3/9/2020	37'	1
Guest Dock	11	3/8/2020	WEBSITE	Confirmed	3/8/2020	3/14/2020	38'	6
Guest Dock	18	3/7/2020	WEBSITE	Confirmed	3/8/2020	3/9/2020	46'	1
Guest Dock	22	3/9/2020	WEBSITE	Confirmed	3/9/2020	3/10/2020	27'	1
Guest Dock	14	3/4/2020	WEBSITE	Confirmed	3/9/2020	3/10/2020		1
Guest Dock	13	3/8/2020	WEBSITE	Confirmed	3/9/2020	3/10/2020		1
Guest Dock	7	3/5/2020	WEBSITE	Confirmed	3/9/2020	3/10/2020	26'	1
Guest Dock	18	3/3/2020	Moorings	Confirmed	3/9/2020	3/10/2020	38'	1
Guest Dock	21	3/9/2020	WEBSITE	Confirmed	3/9/2020	3/12/2020	36'	3
Guest Dock	19	3/5/2020	WEBSITE	Confirmed	3/9/2020	3/12/2020	63'	3
Guest Dock	27	3/9/2020	Moorings	Confirmed	3/9/2020	3/10/2020	36'	1
Guest Dock	12	3/5/2020	WEBSITE	Confirmed	3/9/2020	3/13/2020		4
Guest Dock	8	3/8/2020	WEBSITE	Confirmed	3/9/2020	3/12/2020		3
Guest Dock	15	3/9/2020	Moorings	Confirmed	3/9/2020	3/13/2020	26'	4
Guest Dock	2	3/8/2020	WEBSITE	Confirmed	3/9/2020	3/10/2020	27'	1
Guest Dock	2	3/9/2020	WEBSITE	Confirmed	3/10/2020	3/11/2020	27'	1
Guest Dock	13	3/10/2020	WEBSITE	Confirmed	3/10/2020	3/13/2020		3
Guest Dock	10	3/7/2020	WEBSITE	Confirmed	3/10/2020	3/11/2020	32'	1
Guest Dock	28	3/10/2020	Moorings	Confirmed	3/10/2020	3/12/2020	36'	2
Guest Dock	27	3/10/2020	WEBSITE	Confirmed	3/10/2020	3/13/2020		3
Guest Dock	6	3/7/2020	WEBSITE	Confirmed	3/10/2020	3/12/2020	26'	2
Guest Dock	29	3/10/2020	WEBSITE	Confirmed	3/10/2020	3/11/2020		1
Guest Dock	14	3/8/2020	WEBSITE	Confirmed	3/10/2020	3/13/2020		3
Guest Dock	22	3/9/2020	WEBSITE	Confirmed	3/10/2020	3/11/2020	27'	1
Guest Dock	20	3/10/2020	WEBSITE	Confirmed	3/10/2020	3/13/2020	45'	3
Guest Dock	22	3/9/2020	WEBSITE	Confirmed	3/11/2020	3/12/2020	27'	1
Guest Dock	29	3/10/2020	WEBSITE	Confirmed	3/11/2020	3/12/2020		1
Guest Dock	10	3/10/2020	WEBSITE	Confirmed	3/11/2020	3/13/2020	32'	2
Guest Dock	2	3/10/2020	WEBSITE	Confirmed	3/12/2020	3/13/2020	30'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	21	3/11/2020	Moorings	Confirmed	3/12/2020	3/13/2020	36'	1
Guest Dock	19	3/10/2020	WEBSITE	Confirmed	3/12/2020	3/13/2020	63'	1
Guest Dock	6	3/9/2020	WEBSITE	Confirmed	3/12/2020	3/13/2020	26'	1
Guest Dock	28	3/6/2020	WEBSITE	Confirmed	3/12/2020	3/15/2020	40'	3
Guest Dock	5	3/10/2020	WEBSITE	Confirmed	3/12/2020	3/13/2020		1
Guest Dock	2	3/11/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	25'	3
Guest Dock	20	3/13/2020	WEBSITE	Confirmed	3/13/2020	3/14/2020	45'	1
Guest Dock	12	3/13/2020	WEBSITE	Confirmed	3/13/2020	3/14/2020		1
Guest Dock	12	3/14/2020	WEBSITE	Confirmed	3/14/2020	3/15/2020	31'	1
Guest Dock	15	3/12/2020	WEBSITE	Confirmed	3/14/2020	3/15/2020	39'	1
Guest Dock	9	3/5/2020	Moorings	Confirmed	3/14/2020	3/16/2020	35'	2
Guest Dock	5	3/10/2020	WEBSITE	Confirmed	3/14/2020	3/15/2020	44'	1
Guest Dock	19	3/14/2020	WEBSITE	Confirmed	3/14/2020	3/24/2020	48'	10
Guest Dock	11	3/14/2020	WEBSITE	Confirmed	3/14/2020	3/16/2020	39'	2
Guest Dock	13	3/14/2020	WEBSITE	Confirmed	3/14/2020	3/15/2020	20'	1
Guest Dock	7	3/9/2020	WEBSITE	Confirmed	3/14/2020	3/15/2020	36'	1
Guest Dock	13	3/15/2020	WEBSITE	Confirmed	3/15/2020	3/16/2020	27'	1
Guest Dock	5	3/12/2020	WEBSITE	Confirmed	3/15/2020	3/20/2020	27'	5
Guest Dock	7	3/15/2020	WEBSITE	Confirmed	3/15/2020	3/16/2020	31'	1
Guest Dock	20	3/16/2020	WEBSITE	Confirmed	3/16/2020	3/19/2020	31'	3
Guest Dock	9	3/14/2020	WEBSITE	Confirmed	3/16/2020	3/20/2020		4
Guest Dock	7	3/14/2020	WEBSITE	Confirmed	3/16/2020	3/17/2020		1
Guest Dock	15	3/12/2020	WEBSITE	Confirmed	3/16/2020	3/18/2020	36'	2
Guest Dock	22	3/16/2020	WEBSITE	Confirmed	3/16/2020	3/17/2020		1
Guest Dock	11	3/15/2020	WEBSITE	Confirmed	3/16/2020	3/18/2020	27'	2
Guest Dock	6	3/2/2020	WEBSITE	Confirmed	3/16/2020	3/17/2020		1
Guest Dock	14	3/16/2020	Moorings	Confirmed	3/16/2020	3/17/2020	43'	1
Guest Dock	8	3/16/2020	Moorings	Confirmed	3/16/2020	3/17/2020	26'	1
Guest Dock	21	3/16/2020	WEBSITE	Confirmed	3/16/2020	3/17/2020		1
Guest Dock	12	3/14/2020	WEBSITE	Confirmed	3/16/2020	3/20/2020		4
Guest Dock	28	3/12/2020	WEBSITE	Confirmed	3/16/2020	3/31/2020	37'	15
Guest Dock	27	3/14/2020	WEBSITE	Confirmed	3/16/2020	3/17/2020		1
Guest Dock	2	3/14/2020	WEBSITE	Confirmed	3/16/2020	3/19/2020	25'	3
Guest Dock	6	3/17/2020	Moorings	Confirmed	3/17/2020	3/18/2020	30'	1
Guest Dock	18	3/16/2020	Moorings	Confirmed	3/17/2020	3/19/2020	61'	2
Guest Dock	16	3/16/2020	WEBSITE	Confirmed	3/17/2020	3/20/2020	43'	3
Guest Dock	7	3/16/2020	WEBSITE	Confirmed	3/17/2020	3/18/2020		1
Guest Dock	14	3/14/2020	WEBSITE	Confirmed	3/17/2020	3/18/2020	32'	1
Guest Dock	27	3/18/2020	WEBSITE	Confirmed	3/18/2020	3/20/2020	30'	2
Guest Dock	7	3/16/2020	WEBSITE	Confirmed	3/18/2020	3/19/2020		1
Guest Dock	6	3/17/2020	Moorings	Confirmed	3/18/2020	3/22/2020	30'	4
Guest Dock	10	3/17/2020	WEBSITE	Confirmed	3/18/2020	3/19/2020	43'	1
Guest Dock	11	3/15/2020	WEBSITE	Confirmed	3/18/2020	3/26/2020	36'	8
Guest Dock	2	3/17/2020	WEBSITE	Confirmed	3/19/2020	3/22/2020	25'	3
Guest Dock	15	3/16/2020	WEBSITE	Confirmed	3/19/2020	3/21/2020		2
Guest Dock	21	3/13/2020	WEBSITE	Confirmed	3/19/2020	3/20/2020		1
Guest Dock	8	3/16/2020	WEBSITE	Confirmed	3/19/2020	3/20/2020	31'	1
Guest Dock	18	3/18/2020	WEBSITE	Confirmed	3/19/2020	3/20/2020	61'	1
Guest Dock	14	3/14/2020	WEBSITE	Confirmed	3/19/2020	3/24/2020	41'	5
Guest Dock	27	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/21/2020	38'	1
Guest Dock	9	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	43'	3
Guest Dock	20	3/20/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	46'	3
Guest Dock	12	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/22/2020	36'	2
Guest Dock	13	3/20/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	37'	3
Guest Dock	10	3/20/2020	WEBSITE	Confirmed	3/21/2020	3/22/2020	32'	1
Guest Dock	27	3/21/2020	WEBSITE	Confirmed	3/21/2020	3/22/2020	35'	1
Guest Dock	16	3/18/2020	WEBSITE	Confirmed	3/21/2020	3/25/2020	50'	4
Guest Dock	18	3/18/2020	WEBSITE	Confirmed	3/21/2020	3/24/2020	58'	3
Guest Dock	3	3/21/2020	WEBSITE	Confirmed	3/22/2020	3/24/2020	29'	2
Guest Dock	10	3/23/2020	Moorings	Confirmed	3/22/2020	3/23/2020	32'	1
Guest Dock	8	3/21/2020	WEBSITE	Confirmed	3/22/2020	3/25/2020		3
Guest Dock	27	3/21/2020	WEBSITE	Confirmed	3/22/2020	3/23/2020	35'	1
Guest Dock	2	3/20/2020	WEBSITE	Confirmed	3/22/2020	3/23/2020	25'	1
Guest Dock	26	3/16/2020	WEBSITE	Confirmed	3/22/2020	3/28/2020	40'	6
Guest Dock	21	3/23/2020	WEBSITE	Confirmed	3/23/2020	3/26/2020	30'	3
Guest Dock	5	3/20/2020	WEBSITE	Confirmed	3/23/2020	3/24/2020		1
Guest Dock	2	3/22/2020	WEBSITE	Confirmed	3/23/2020	3/24/2020	25'	1
Guest Dock	10	3/23/2020	Moorings	Confirmed	3/23/2020	3/24/2020	35'	1
Guest Dock	20	3/22/2020	WEBSITE	Confirmed	3/23/2020	3/25/2020	46'	2
Guest Dock	9	3/23/2020	WEBSITE	Confirmed	3/23/2020	3/26/2020	43'	3

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	6	3/22/2020	WEBSITE	Confirmed	3/23/2020	3/24/2020	30'	1
Guest Dock	13	3/20/2020	WEBSITE	Confirmed	3/23/2020	3/25/2020	32'	2
Guest Dock	12	3/23/2020	Moorings	Confirmed	3/23/2020	3/27/2020	26'	4
Guest Dock	22	3/23/2020	Moorings	Confirmed	3/23/2020	3/24/2020	63'	1
Guest Dock	15	3/17/2020	WEBSITE	Confirmed	3/23/2020	3/26/2020	43'	3
Guest Dock	27	3/23/2020	Moorings	Confirmed	3/23/2020	3/25/2020	33'	2
Guest Dock	7	3/23/2020	Moorings	Confirmed	3/23/2020	3/25/2020	26'	2
Guest Dock	18	3/13/2020	WEBSITE	Confirmed	3/24/2020	3/26/2020	58'	2
Guest Dock	22	3/24/2020	WEBSITE	Confirmed	3/24/2020	3/27/2020	63'	3
Guest Dock	2	3/23/2020	WEBSITE	Confirmed	3/24/2020	3/27/2020	33'	3
Guest Dock	5	3/23/2020	WEBSITE	Confirmed	3/24/2020	3/25/2020		1
Guest Dock	5	3/24/2020	WEBSITE	Confirmed	3/25/2020	3/27/2020		2
Guest Dock	10	3/22/2020	WEBSITE	Confirmed	3/25/2020	3/31/2020	36'	6
Guest Dock	20	3/24/2020	WEBSITE	Confirmed	3/25/2020	3/28/2020	48'	2
Guest Dock	7	3/25/2020	WEBSITE	Confirmed	3/25/2020	3/26/2020	37'	1
Guest Dock	8	3/23/2020	WEBSITE	Confirmed	3/25/2020	3/28/2020		3
Guest Dock	16	3/22/2020	WEBSITE	Confirmed	3/25/2020	3/28/2020	46'	3
Guest Dock	27	3/24/2020	Moorings	Confirmed	3/25/2020	3/28/2020	36'	3
Guest Dock	19	3/24/2020	WEBSITE	Confirmed	3/25/2020	3/29/2020	50'	4
Guest Dock	3	3/25/2020	WEBSITE	Confirmed	3/25/2020	3/26/2020	32'	1
Guest Dock	18	3/24/2020	WEBSITE	Confirmed	3/26/2020	3/28/2020	58'	2
Guest Dock	9	3/26/2020	WEBSITE	Confirmed	3/26/2020	3/29/2020	43'	3
Guest Dock	6	3/26/2020	Moorings	Confirmed	3/26/2020	3/27/2020	25'	1
Guest Dock	4	3/25/2020	WEBSITE	Confirmed	3/26/2020	3/27/2020	37'	1
Guest Dock	4	3/27/2020	WEBSITE	Confirmed	3/27/2020	3/28/2020	37'	1
Guest Dock	11	3/25/2020	WEBSITE	Confirmed	3/27/2020	3/28/2020	42'	1
Guest Dock	22	3/27/2020	WEBSITE	Confirmed	3/27/2020	3/28/2020	63'	1
Guest Dock	7	3/23/2020	Moorings	Confirmed	3/27/2020	3/28/2020	26'	1
Guest Dock	18	3/28/2020	WEBSITE	Confirmed	3/28/2020	3/29/2020	58'	1
Guest Dock	4	3/27/2020	WEBSITE	Confirmed	3/28/2020	3/29/2020	31'	1
Guest Dock	8	3/27/2020	WEBSITE	Confirmed	3/28/2020	4/1/2020		4
Guest Dock	16	3/21/2020	WEBSITE	Confirmed	3/28/2020	3/29/2020	39'	1
Guest Dock	2	3/28/2020	WEBSITE	Confirmed	3/28/2020	3/29/2020	35'	1
Guest Dock	2	3/29/2020	WEBSITE	Confirmed	3/29/2020	3/30/2020	35'	1
Guest Dock	4	3/29/2020	WEBSITE	Confirmed	3/29/2020	3/30/2020	36'	1
Guest Dock	12	3/17/2020	WEBSITE	Confirmed	3/29/2020	4/2/2020	43'	4
Guest Dock	27	3/23/2020	Moorings	Confirmed	3/30/2020	4/1/2020	33'	2
Guest Dock	19	3/30/2020	Moorings	Confirmed	3/30/2020	4/2/2020		3
Guest Dock	11	3/29/2020	WEBSITE	Confirmed	3/30/2020	3/31/2020	32'	1
Guest Dock	9	3/30/2020	WEBSITE	Confirmed	3/30/2020	3/31/2020	30'	1
Guest Dock	6	3/30/2020	WEBSITE	Confirmed	3/30/2020	3/31/2020	26'	1
Guest Dock	14	3/30/2020	WEBSITE	Confirmed	3/30/2020	4/1/2020		2
Guest Dock	2	3/25/2020	WEBSITE	Confirmed	3/30/2020	4/7/2020	18'	8
Guest Dock	13	3/28/2020	WEBSITE	Confirmed	3/30/2020	4/2/2020	30'	3
Guest Dock	15	3/28/2020	WEBSITE	Confirmed	3/30/2020	3/31/2020		1
Guest Dock	7	3/29/2020	WEBSITE	Confirmed	3/30/2020	3/31/2020	25'	1
Guest Dock	7	3/31/2020	WEBSITE	Confirmed	3/31/2020	4/1/2020	25'	1
Guest Dock	15	3/28/2020	WEBSITE	Confirmed	3/31/2020	4/1/2020		1
Guest Dock	4	3/26/2020	WEBSITE	Confirmed	3/31/2020	4/2/2020	30'	2
Guest Dock	3	3/29/2020	WEBSITE	Confirmed	3/31/2020	4/2/2020	22'	2
Guest Dock	6	3/31/2020	WEBSITE	Confirmed	3/31/2020	4/3/2020	26'	3
Guest Dock	21	3/31/2020	WEBSITE	Confirmed	3/31/2020	4/1/2020	47'	1
Guest Dock	26	3/31/2020	WEBSITE	Confirmed	3/31/2020	4/2/2020	36'	2
Guest Dock	11	3/31/2020	WEBSITE	Confirmed	3/31/2020	4/1/2020	32'	1
Guest Dock	10	3/30/2020	WEBSITE	Confirmed	3/31/2020	4/2/2020	30'	2
Guest Dock	28	3/31/2020	WEBSITE	Confirmed	3/31/2020	4/1/2020	30'	1
Guest Dock	28	3/31/2020	WEBSITE	Confirmed	4/1/2020	4/2/2020	30'	1
Guest Dock	8	3/31/2020	WEBSITE	Confirmed	4/1/2020	4/3/2020		2
Guest Dock	11	3/31/2020	WEBSITE	Confirmed	4/1/2020	4/2/2020	32'	1
Guest Dock	14	3/30/2020	WEBSITE	Confirmed	4/1/2020	4/3/2020		2
Guest Dock	27	3/23/2020	Moorings	Confirmed	4/1/2020	4/3/2020	33'	2
Guest Dock	21	4/1/2020	WEBSITE	Confirmed	4/1/2020	4/2/2020	47'	1
Guest Dock	9	4/1/2020	Moorings	Confirmed	4/1/2020	4/3/2020	27'	2
Guest Dock	15	3/31/2020	WEBSITE	Confirmed	4/1/2020	4/3/2020		2
Guest Dock	7	3/31/2020	WEBSITE	Confirmed	4/1/2020	4/3/2020	25'	2
Guest Dock	12	4/1/2020	WEBSITE	Confirmed	4/2/2020	4/3/2020	25'	1
Guest Dock	4	4/1/2020	WEBSITE	Confirmed	4/2/2020	4/3/2020	28'	1
Guest Dock	21	4/1/2020	WEBSITE	Confirmed	4/2/2020	4/3/2020	47'	1
Guest Dock	10	4/1/2020	WEBSITE	Confirmed	4/2/2020	4/3/2020	30'	1
Guest Dock	19	3/30/2020	Moorings	Confirmed	4/2/2020	4/3/2020		1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	28	4/2/2020	WEBSITE	Confirmed	4/2/2020	4/3/2020	30'	1
Guest Dock	8	4/2/2020	WEBSITE	Confirmed	4/3/2020	4/4/2020		1
Guest Dock	5	4/2/2020	WEBSITE	Confirmed	4/3/2020	4/5/2020	43'	2
Guest Dock	6	4/3/2020	WEBSITE	Confirmed	4/3/2020	4/4/2020	20'	1
Guest Dock	9	4/2/2020	WEBSITE	Confirmed	4/3/2020	4/4/2020	25'	1
Guest Dock	21	4/3/2020	WEBSITE	Confirmed	4/3/2020	4/4/2020	48'	1
Guest Dock	9	4/4/2020	WEBSITE	Confirmed	4/4/2020	4/5/2020	27'	1
Guest Dock	6	4/4/2020	WEBSITE	Confirmed	4/4/2020	4/5/2020	27'	1
Guest Dock	8	4/4/2020	WEBSITE	Confirmed	4/4/2020	4/5/2020		1
Guest Dock	26	4/2/2020	Moorings	Confirmed	4/4/2020	4/6/2020	36'	2
Guest Dock	3	4/3/2020	WEBSITE	Confirmed	4/4/2020	4/5/2020	32'	1
Guest Dock	4	4/4/2020	WEBSITE	Confirmed	4/5/2020	4/6/2020	32'	1
Guest Dock	5	3/30/2020	Moorings	Confirmed	4/5/2020	4/6/2020	30'	1
Guest Dock	16	4/4/2020	WEBSITE	Confirmed	4/5/2020	4/6/2020	27'	1
Guest Dock	11	4/5/2020	WEBSITE	Confirmed	4/5/2020	4/7/2020	43'	2
Guest Dock	3	4/4/2020	WEBSITE	Confirmed	4/5/2020	4/7/2020	25'	2
Guest Dock	13	4/6/2020	WEBSITE	Confirmed	4/6/2020	4/7/2020	27'	1
Guest Dock	20	3/31/2020	WEBSITE	Confirmed	4/6/2020	4/16/2020	36'	10
Guest Dock	19	4/6/2020	Moorings	Confirmed	4/6/2020	4/7/2020	58'	1
Guest Dock	12	4/2/2020	Moorings	Confirmed	4/6/2020	4/9/2020	43'	3
Guest Dock	5	4/6/2020	WEBSITE	Confirmed	4/6/2020	4/7/2020	32'	1
Guest Dock	26	4/2/2020	Moorings	Confirmed	4/6/2020	4/7/2020	36'	1
Guest Dock	14	4/6/2020	WEBSITE	Confirmed	4/6/2020	4/7/2020		1
Guest Dock	4	4/4/2020	WEBSITE	Confirmed	4/6/2020	4/7/2020	33'	1
Guest Dock	3	4/7/2020	WEBSITE	Confirmed	4/7/2020	4/8/2020	33'	1
Guest Dock	4	4/7/2020	WEBSITE	Confirmed	4/7/2020	4/8/2020	25'	1
Guest Dock	15	4/7/2020	WEBSITE	Confirmed	4/7/2020	4/8/2020	43'	1
Guest Dock	6	4/6/2020	WEBSITE	Confirmed	4/7/2020	4/8/2020	27'	1
Guest Dock	13	4/6/2020	WEBSITE	Confirmed	4/7/2020	4/10/2020		3
Guest Dock	26	4/2/2020	Moorings	Confirmed	4/7/2020	4/8/2020	36'	1
Guest Dock	18	4/2/2020	Moorings	Confirmed	4/7/2020	4/10/2020	63'	3
Guest Dock	7	4/7/2020	WEBSITE	Confirmed	4/7/2020	4/10/2020	36'	3
Guest Dock	5	4/7/2020	WEBSITE	Confirmed	4/7/2020	4/8/2020	32'	1
Guest Dock	9	4/6/2020	Moorings	Confirmed	4/7/2020	4/10/2020	26'	3
Guest Dock	11	4/7/2020	WEBSITE	Confirmed	4/7/2020	4/8/2020	39'	1
Guest Dock	21	4/3/2020	WEBSITE	Confirmed	4/7/2020	4/8/2020	48'	1
Guest Dock	10	4/7/2020	Moorings	Confirmed	4/7/2020	4/12/2020	26'	5
Guest Dock	14	4/7/2020	WEBSITE	Confirmed	4/7/2020	4/8/2020	27'	1
Guest Dock	16	4/7/2020	Moorings	Confirmed	4/7/2020	4/10/2020		3
Guest Dock	19	4/8/2020	Moorings	Confirmed	4/7/2020	4/9/2020	34'	2
Guest Dock	8	4/7/2020	Moorings	Confirmed	4/7/2020	4/8/2020	25'	1
Guest Dock	8	4/7/2020	Moorings	Confirmed	4/8/2020	4/9/2020	25'	1
Guest Dock	21	4/8/2020	WEBSITE	Confirmed	4/8/2020	4/9/2020	48'	1
Guest Dock	4	4/7/2020	WEBSITE	Confirmed	4/8/2020	4/10/2020	32'	2
Guest Dock	26	4/2/2020	Moorings	Confirmed	4/8/2020	4/9/2020	36'	1
Guest Dock	6	4/8/2020	WEBSITE	Confirmed	4/8/2020	4/9/2020	27'	1
Guest Dock	5	4/7/2020	WEBSITE	Confirmed	4/8/2020	4/10/2020	25'	2
Guest Dock	3	4/7/2020	WEBSITE	Confirmed	4/8/2020	4/9/2020	33'	1
Guest Dock	2	4/9/2020	WEBSITE	Confirmed	4/9/2020	4/10/2020	33'	1
Guest Dock	6	4/9/2020	WEBSITE	Confirmed	4/9/2020	4/10/2020	27'	1
Guest Dock	22	4/9/2020	WEBSITE	Confirmed	4/9/2020	4/13/2020	38'	4
Guest Dock	8	4/7/2020	Moorings	Confirmed	4/9/2020	4/10/2020	25'	1
Guest Dock	19	4/8/2020	Moorings	Confirmed	4/9/2020	4/10/2020	34'	1
Guest Dock	16	4/7/2020	Moorings	Confirmed	4/10/2020	4/12/2020		2
Guest Dock	19	4/10/2020	WEBSITE	Confirmed	4/10/2020	4/12/2020	51'	2
Guest Dock	12	4/8/2020	WEBSITE	Confirmed	4/10/2020	4/13/2020	45'	3
Guest Dock	26	4/7/2020	WEBSITE	Confirmed	4/10/2020	4/13/2020	40'	3
Guest Dock	11	4/10/2020	WEBSITE	Confirmed	4/10/2020	4/11/2020	27'	1
Guest Dock	6	4/9/2020	WEBSITE	Confirmed	4/10/2020	4/13/2020	25'	3
Guest Dock	7	4/9/2020	WEBSITE	Confirmed	4/10/2020	4/15/2020	36'	5
Guest Dock	2	4/11/2020	WEBSITE	Confirmed	4/11/2020	4/12/2020	27'	1
Guest Dock	4	4/10/2020	WEBSITE	Confirmed	4/11/2020	4/12/2020	42'	1
Guest Dock	4	4/12/2020	WEBSITE	Confirmed	4/12/2020	4/13/2020	30'	1
Guest Dock	16	4/12/2020	WEBSITE	Confirmed	4/12/2020	4/14/2020	32'	2
Guest Dock	4	4/13/2020	Moorings	Confirmed	4/13/2020	4/16/2020	40'	3
Guest Dock	12	4/8/2020	WEBSITE	Confirmed	4/13/2020	4/16/2020	45'	3
Guest Dock	6	4/13/2020	Moorings	Confirmed	4/13/2020	4/15/2020	25'	2
Guest Dock	26	4/11/2020	WEBSITE	Confirmed	4/13/2020	4/14/2020	40'	1
Guest Dock	22	4/11/2020	WEBSITE	Confirmed	4/13/2020	4/17/2020	38'	4
Guest Dock	5	4/9/2020	WEBSITE	Confirmed	4/13/2020	4/15/2020	32'	2

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	21	4/14/2020	Moorings	Confirmed	4/13/2020	4/16/2020	54'	3
Guest Dock	16	4/7/2020	Moorings	Confirmed	4/14/2020	4/15/2020		1
Guest Dock	15	4/15/2020	WEBSITE	Confirmed	4/15/2020	4/16/2020	36'	1
Guest Dock	6	4/1/2020	WEBSITE	Confirmed	4/15/2020	4/16/2020		1
Guest Dock	5	4/13/2020	Moorings	Confirmed	4/15/2020	4/16/2020	25'	1
Guest Dock	15	4/16/2020	WEBSITE	Confirmed	4/16/2020	4/18/2020	36'	2
Guest Dock	20	3/31/2020	WEBSITE	Confirmed	4/16/2020	4/23/2020	36'	7
Guest Dock	18	4/18/2020	WEBSITE	Confirmed	4/18/2020	4/20/2020	62'	2
Guest Dock	10	4/19/2020	WEBSITE	Confirmed	4/19/2020	4/20/2020		1
Guest Dock	11	4/20/2020	WEBSITE	Confirmed	4/20/2020	4/21/2020	27'	1
Guest Dock	6	4/20/2020	WEBSITE	Confirmed	4/21/2020	4/22/2020	31'	1
Guest Dock	7	4/21/2020	WEBSITE	Confirmed	4/22/2020	4/23/2020	31'	1
Guest Dock	4	4/23/2020	WEBSITE	Confirmed	4/23/2020	4/24/2020	31'	1
Guest Dock	20	3/31/2020	WEBSITE	Confirmed	4/23/2020	4/24/2020	36'	1
Guest Dock	12	4/23/2020	Moorings	Confirmed	4/24/2020	5/1/2020	43'	7
Guest Dock	16	4/20/2020	WEBSITE	Confirmed	4/25/2020	4/26/2020	39'	1
Guest Dock	9	4/24/2020	WEBSITE	Confirmed	4/25/2020	5/5/2020	25'	10
Guest Dock	4	4/22/2020	WEBSITE	Confirmed	4/26/2020	5/1/2020	42'	5
Guest Dock	21	4/26/2020	WEBSITE	Confirmed	4/26/2020	5/1/2020	50'	5
Guest Dock	15	4/26/2020	WEBSITE	Confirmed	4/26/2020	4/29/2020	43'	3
Guest Dock	7	4/27/2020	Moorings	Confirmed	4/27/2020	5/7/2020	26'	10
Guest Dock	18	4/27/2020	WEBSITE	Confirmed	4/27/2020	4/28/2020	62'	1
Guest Dock	3	4/28/2020	Moorings	Confirmed	4/28/2020	5/4/2020	51'	6
Guest Dock	5	4/28/2020	WEBSITE	Confirmed	4/30/2020	5/1/2020	42'	1
Guest Dock	13	5/1/2020	WEBSITE	Confirmed	5/1/2020	5/6/2020	25'	5
Guest Dock	12	4/23/2020	Moorings	Confirmed	5/1/2020	5/11/2020	43'	10
Guest Dock	16	4/30/2020	WEBSITE	Confirmed	5/1/2020	5/3/2020	30'	2
Guest Dock	15	5/2/2020	WEBSITE	Confirmed	5/2/2020	5/3/2020	26'	1
Guest Dock	5	5/1/2020	WEBSITE	Confirmed	5/2/2020	5/5/2020	26'	3
Guest Dock	19	5/1/2020	WEBSITE	Confirmed	5/3/2020	5/6/2020	41'	3
Guest Dock	6	5/2/2020	WEBSITE	Confirmed	5/3/2020	5/11/2020	23'	8
Guest Dock	2	5/1/2020	WEBSITE	Confirmed	5/3/2020	5/7/2020	26'	4
Guest Dock	14	5/2/2020	WEBSITE	Confirmed	5/3/2020	5/6/2020		3
Guest Dock	8	5/3/2020	WEBSITE	Confirmed	5/3/2020	5/4/2020	38'	1
Guest Dock	26	5/4/2020	WEBSITE	Confirmed	5/4/2020	5/5/2020	37'	1
Guest Dock	3	4/28/2020	Moorings	Confirmed	5/4/2020	5/11/2020	51'	7
Guest Dock	10	5/4/2020	WEBSITE	Confirmed	5/4/2020	5/6/2020	27'	2
Guest Dock	8	5/4/2020	WEBSITE	Confirmed	5/4/2020	5/8/2020	23'	4
Guest Dock	16	5/3/2020	WEBSITE	Confirmed	5/4/2020	5/5/2020	30'	1
Guest Dock	5	5/4/2020	WEBSITE	Confirmed	5/5/2020	5/8/2020	18'	3
Guest Dock	9	5/4/2020	Moorings	Confirmed	5/5/2020	5/21/2020	29'	16
Guest Dock	26	5/5/2020	WEBSITE	Confirmed	5/5/2020	5/6/2020	37'	1
Guest Dock	13	5/1/2020	WEBSITE	Confirmed	5/6/2020	5/7/2020	25'	1
Guest Dock	18	5/4/2020	WEBSITE	Confirmed	5/6/2020	5/8/2020	41'	2
Guest Dock	26	5/5/2020	WEBSITE	Confirmed	5/6/2020	5/8/2020	40'	2
Guest Dock	14	5/4/2020	WEBSITE	Confirmed	5/6/2020	5/9/2020		3
Guest Dock	10	5/6/2020	WEBSITE	Confirmed	5/6/2020	5/7/2020		1
Guest Dock	10	5/6/2020	WEBSITE	Confirmed	5/7/2020	5/8/2020		1
Guest Dock	2	5/6/2020	WEBSITE	Confirmed	5/7/2020	5/8/2020	26'	1
Guest Dock	7	4/27/2020	Moorings	Confirmed	5/7/2020	5/8/2020	26'	1
Guest Dock	20	5/7/2020	WEBSITE	Confirmed	5/7/2020	5/8/2020	65'	1
Guest Dock	22	5/6/2020	Moorings	Confirmed	5/7/2020	5/11/2020	26'	4
Guest Dock	16	5/8/2020	WEBSITE	Confirmed	5/8/2020	5/9/2020	27'	1
Guest Dock	2	5/6/2020	WEBSITE	Confirmed	5/8/2020	5/11/2020	33'	3
Guest Dock	8	5/5/2020	WEBSITE	Confirmed	5/8/2020	5/10/2020	18'	2
Guest Dock	21	5/7/2020	Moorings	Confirmed	5/8/2020	5/15/2020	38'	7
Guest Dock	4	5/7/2020	WEBSITE	Confirmed	5/8/2020	5/9/2020	24'	1
Guest Dock	26	5/4/2020	WEBSITE	Confirmed	5/8/2020	5/12/2020	30'	4
Guest Dock	20	5/4/2020	WEBSITE	Confirmed	5/8/2020	5/10/2020	63'	2
Guest Dock	10	5/5/2020	WEBSITE	Confirmed	5/8/2020	5/11/2020	30'	3
Guest Dock	16	5/3/2020	WEBSITE	Confirmed	5/9/2020	5/10/2020	39'	1
Guest Dock	18	4/27/2020	WEBSITE	Confirmed	5/9/2020	5/11/2020	38'	2
Guest Dock	4	5/1/2020	WEBSITE	Confirmed	5/9/2020	5/10/2020	28'	1
Guest Dock	28	5/9/2020	WEBSITE	Confirmed	5/10/2020	5/12/2020	30'	2
Guest Dock	8	5/10/2020	WEBSITE	Confirmed	5/10/2020	5/11/2020	27'	1
Guest Dock	20	5/10/2020	WEBSITE	Confirmed	5/10/2020	5/11/2020	63'	1
Guest Dock	10	5/11/2020	Moorings	Confirmed	5/11/2020	5/15/2020	32'	4
Guest Dock	16	5/11/2020	WEBSITE	Confirmed	5/11/2020	5/12/2020	27'	1
Guest Dock	18	5/11/2020	Moorings	Confirmed	5/11/2020	5/12/2020	32'	1
Guest Dock	4	5/9/2020	WEBSITE	Confirmed	5/11/2020	5/14/2020	39'	3

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	22	5/6/2020	Moorings	Confirmed	5/11/2020	5/13/2020	26'	2
Guest Dock	6	5/10/2020	WEBSITE	Confirmed	5/11/2020	5/12/2020	25'	1
Guest Dock	2	4/28/2020	Moorings	Confirmed	5/11/2020	5/14/2020	51'	3
Guest Dock	12	5/8/2020	WEBSITE	Confirmed	5/11/2020	5/26/2020	42'	15
Guest Dock	28	5/11/2020	WEBSITE	Confirmed	5/12/2020	5/14/2020	31'	2
Guest Dock	6	5/6/2020	WEBSITE	Confirmed	5/12/2020	5/15/2020	30'	3
Guest Dock	14	5/9/2020	WEBSITE	Confirmed	5/12/2020	5/14/2020	28'	2
Guest Dock	26	5/10/2020	WEBSITE	Confirmed	5/12/2020	5/15/2020	32'	3
Guest Dock	22	5/11/2020	WEBSITE	Confirmed	5/13/2020	5/20/2020	45'	7
Guest Dock	2	5/14/2020	Moorings	Confirmed	5/14/2020	5/15/2020	40'	1
Guest Dock	4	5/11/2020	WEBSITE	Confirmed	5/14/2020	5/15/2020	28'	1
Guest Dock	18	5/11/2020	Moorings	Confirmed	5/14/2020	5/15/2020	32'	1
Guest Dock	28	5/9/2020	WEBSITE	Confirmed	5/14/2020	5/15/2020	39'	1
Guest Dock	14	5/9/2020	WEBSITE	Confirmed	5/14/2020	5/15/2020		1
Guest Dock	6	5/11/2020	WEBSITE	Confirmed	5/15/2020	5/19/2020		4
Guest Dock	28	5/11/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	43'	3
Guest Dock	26	5/11/2020	Moorings	Confirmed	5/15/2020	5/17/2020	32'	2
Guest Dock	14	5/10/2020	WEBSITE	Confirmed	5/15/2020	5/17/2020	28'	2
Guest Dock	16	5/6/2020	WEBSITE	Confirmed	5/15/2020	5/17/2020	40'	2
Guest Dock	10	5/9/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	34'	3
Guest Dock	20	5/11/2020	Moorings	Confirmed	5/15/2020	5/16/2020	32'	1
Guest Dock	4	5/2/2020	WEBSITE	Confirmed	5/15/2020	5/17/2020	28'	2
Guest Dock	2	5/11/2020	WEBSITE	Confirmed	5/15/2020	5/17/2020	25'	2
Guest Dock	18	5/7/2020	WEBSITE	Confirmed	5/15/2020	5/16/2020	63'	1
Guest Dock	18	5/15/2020	WEBSITE	Confirmed	5/16/2020	5/18/2020	46'	2
Guest Dock	8	5/11/2020	WEBSITE	Confirmed	5/16/2020	5/17/2020	42'	1
Guest Dock	16	5/17/2020	WEBSITE	Confirmed	5/17/2020	5/18/2020	42'	1
Guest Dock	8	5/11/2020	Moorings	Confirmed	5/17/2020	5/19/2020	32'	2
Guest Dock	2	5/12/2020	WEBSITE	Confirmed	5/17/2020	5/19/2020	25'	2
Guest Dock	4	5/16/2020	WEBSITE	Confirmed	5/17/2020	5/18/2020	34'	1
Guest Dock	21	5/18/2020	Moorings	Confirmed	5/17/2020	5/19/2020	48'	2
Guest Dock	10	5/15/2020	WEBSITE	Confirmed	5/18/2020	5/21/2020	16'	3
Guest Dock	20	5/15/2020	WEBSITE	Confirmed	5/18/2020	5/21/2020	46'	3
Guest Dock	4	5/13/2020	WEBSITE	Confirmed	5/18/2020	5/24/2020	22'	6
Guest Dock	14	5/18/2020	WEBSITE	Confirmed	5/18/2020	5/20/2020	26'	2
Guest Dock	16	5/13/2020	WEBSITE	Confirmed	5/18/2020	5/21/2020	33'	3
Guest Dock	18	5/14/2020	Moorings	Confirmed	5/18/2020	5/22/2020	38'	4
Guest Dock	28	5/9/2020	WEBSITE	Confirmed	5/18/2020	5/19/2020	30'	1
Guest Dock	8	5/14/2020	WEBSITE	Confirmed	5/19/2020	5/22/2020	32'	3
Guest Dock	6	5/17/2020	WEBSITE	Confirmed	5/19/2020	5/21/2020	34'	2
Guest Dock	2	5/19/2020	WEBSITE	Confirmed	5/19/2020	5/20/2020	34'	1
Guest Dock	21	5/18/2020	Moorings	Confirmed	5/19/2020	5/20/2020	48'	1
Guest Dock	26	5/20/2020	Moorings	Confirmed	5/20/2020	5/22/2020	26'	2
Guest Dock	2	5/17/2020	WEBSITE	Confirmed	5/20/2020	5/21/2020	20'	1
Guest Dock	28	5/19/2020	WEBSITE	Confirmed	5/20/2020	5/21/2020	33'	1
Guest Dock	14	5/18/2020	Moorings	Confirmed	5/20/2020	5/21/2020	26'	1
Guest Dock	16	5/18/2020	Moorings	Confirmed	5/21/2020	5/24/2020	26'	3
Guest Dock	28	5/17/2020	WEBSITE	Confirmed	5/21/2020	5/22/2020	32'	1
Guest Dock	2	5/17/2020	WEBSITE	Confirmed	5/21/2020	5/22/2020	34'	1
Guest Dock	20	5/19/2020	WEBSITE	Confirmed	5/21/2020	5/22/2020	46'	1
Guest Dock	10	5/20/2020	Moorings	Confirmed	5/21/2020	5/22/2020	25'	1
Guest Dock	6	5/14/2020	WEBSITE	Confirmed	5/21/2020	6/1/2020	40'	11
Guest Dock	18	5/15/2020	WEBSITE	Confirmed	5/22/2020	5/24/2020	46'	2
Guest Dock	2	5/13/2020	WEBSITE	Confirmed	5/22/2020	5/29/2020	35'	7
Guest Dock	10	5/15/2020	WEBSITE	Confirmed	5/22/2020	5/26/2020	18'	4
Guest Dock	20	5/18/2020	Moorings	Confirmed	5/22/2020	6/1/2020	43'	10
Guest Dock	8	5/16/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020		3
Guest Dock	14	5/14/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	38'	3
Guest Dock	26	5/20/2020	WEBSITE	Confirmed	5/23/2020	5/24/2020	30'	1
Guest Dock	18	5/18/2020	Moorings	Confirmed	5/24/2020	5/25/2020	26'	1
Guest Dock	4	5/17/2020	WEBSITE	Confirmed	5/24/2020	5/25/2020	39'	1
Guest Dock	26	5/22/2020	WEBSITE	Confirmed	5/24/2020	5/31/2020	30'	7
Guest Dock	16	5/18/2020	WEBSITE	Confirmed	5/24/2020	5/27/2020	21'	3
Guest Dock	14	5/16/2020	WEBSITE	Confirmed	5/25/2020	5/28/2020		3
Guest Dock	8	5/21/2020	WEBSITE	Confirmed	5/26/2020	5/27/2020	32'	1
Guest Dock	18	5/17/2020	WEBSITE	Confirmed	5/26/2020	5/29/2020	63'	3
Guest Dock	4	5/14/2020	WEBSITE	Confirmed	5/26/2020	5/29/2020	30'	3
Guest Dock	12	5/18/2020	WEBSITE	Confirmed	5/26/2020	5/27/2020	25'	1
Guest Dock	10	5/17/2020	WEBSITE	Confirmed	5/26/2020	5/29/2020	30'	3
Guest Dock	12	5/17/2020	WEBSITE	Confirmed	5/27/2020	5/28/2020	25'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	28	5/25/2020	WEBSITE	Confirmed	5/27/2020	5/28/2020	31'	1
Guest Dock	8	5/22/2020	WEBSITE	Confirmed	5/27/2020	5/28/2020	32'	1
Guest Dock	28	5/25/2020	WEBSITE	Confirmed	5/28/2020	5/29/2020	38'	1
Guest Dock	16	5/18/2020	WEBSITE	Confirmed	5/28/2020	5/31/2020	33'	3
Guest Dock	12	5/18/2020	WEBSITE	Confirmed	5/28/2020	5/29/2020	25'	1
Guest Dock	14	5/20/2020	WEBSITE	Confirmed	5/28/2020	5/30/2020	37'	2
Guest Dock	8	5/21/2020	WEBSITE	Confirmed	5/28/2020	5/31/2020	16'	3
Guest Dock	22	5/22/2020	WEBSITE	Confirmed	5/28/2020	5/31/2020	63'	3
Guest Dock	4	5/19/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	22'	3
Guest Dock	2	5/21/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	19'	3
Guest Dock	10	5/23/2020	WEBSITE	Confirmed	5/29/2020	6/2/2020	22'	4
Guest Dock	12	5/20/2020	WEBSITE	Confirmed	5/29/2020	5/31/2020	29'	2
Guest Dock	28	5/18/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	33'	3
Guest Dock	14	5/18/2020	WEBSITE	Confirmed	5/30/2020	6/1/2020	28'	2
Guest Dock	22	5/31/2020	WEBSITE	Confirmed	5/31/2020	6/1/2020	63'	1
Guest Dock	8	5/29/2020	WEBSITE	Confirmed	5/31/2020	6/1/2020	25'	1
Guest Dock	26	5/30/2020	WEBSITE	Confirmed	5/31/2020	6/1/2020		1
Guest Dock	12	5/26/2020	Moorings	Confirmed	5/31/2020	6/1/2020	26'	1
Guest Dock	14	5/26/2020	Moorings	Confirmed	6/1/2020	6/4/2020	26'	3
Guest Dock	16	5/29/2020	WEBSITE	Confirmed	6/1/2020	6/4/2020	30'	3
Guest Dock	6	5/28/2020	Moorings	Confirmed	6/1/2020	6/4/2020	49'	3
Guest Dock	22	5/25/2020	WEBSITE	Confirmed	6/1/2020	6/4/2020	52'	3
Guest Dock	20	5/27/2020	Moorings	Confirmed	6/1/2020	6/6/2020	36'	5
Guest Dock	4	5/25/2020	WEBSITE	Confirmed	6/1/2020	6/4/2020	20'	3
Guest Dock	26	5/18/2020	WEBSITE	Confirmed	6/1/2020	6/5/2020	33'	4
Guest Dock	28	5/26/2020	WEBSITE	Confirmed	6/1/2020	6/3/2020	40'	2
Guest Dock	18	5/22/2020	Moorings	Confirmed	6/1/2020	6/5/2020	38'	4
Guest Dock	12	5/20/2020	WEBSITE	Confirmed	6/1/2020	6/4/2020	30'	3
Guest Dock	8	5/22/2020	WEBSITE	Confirmed	6/1/2020	6/3/2020	27'	2
Guest Dock	2	5/19/2020	WEBSITE	Confirmed	6/1/2020	6/6/2020	19'	5
Guest Dock	10	5/30/2020	WEBSITE	Confirmed	6/2/2020	6/4/2020	20'	2
Guest Dock	28	5/31/2020	WEBSITE	Confirmed	6/3/2020	6/4/2020	40'	1
Guest Dock	8	5/29/2020	WEBSITE	Confirmed	6/3/2020	6/5/2020	32'	2
Guest Dock	28	5/30/2020	WEBSITE	Confirmed	6/4/2020	6/6/2020	30'	2
Guest Dock	12	5/22/2020	WEBSITE	Confirmed	6/4/2020	6/5/2020	30'	1
Guest Dock	10	5/29/2020	WEBSITE	Confirmed	6/4/2020	6/5/2020	25'	1
Guest Dock	4	5/25/2020	WEBSITE	Confirmed	6/4/2020	6/5/2020	20'	1
Guest Dock	22	5/30/2020	WEBSITE	Confirmed	6/4/2020	6/7/2020	63'	3
Guest Dock	14	5/26/2020	Moorings	Confirmed	6/4/2020	6/5/2020	26'	1
Guest Dock	16	5/25/2020	WEBSITE	Confirmed	6/4/2020	6/5/2020	25'	1
Guest Dock	10	5/22/2020	WEBSITE	Confirmed	6/5/2020	6/7/2020	23'	2
Guest Dock	6	5/22/2020	WEBSITE	Confirmed	6/5/2020	6/7/2020	21'	2
Guest Dock	18	6/4/2020	Moorings	Confirmed	6/5/2020	6/7/2020		2
Guest Dock	12	5/30/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	20'	3
Guest Dock	16	6/1/2020	WEBSITE	Confirmed	6/5/2020	6/6/2020	25'	1
Guest Dock	14	5/22/2020	WEBSITE	Confirmed	6/5/2020	6/13/2020	19'	8
Guest Dock	4	5/26/2020	WEBSITE	Confirmed	6/6/2020	6/8/2020	27'	2
Guest Dock	26	6/1/2020	WEBSITE	Confirmed	6/6/2020	6/9/2020	28'	3
Guest Dock	2	6/2/2020	WEBSITE	Confirmed	6/6/2020	6/7/2020	21'	1
Guest Dock	20	5/27/2020	Moorings	Confirmed	6/6/2020	6/11/2020	36'	5
Guest Dock	16	5/29/2020	WEBSITE	Confirmed	6/6/2020	6/7/2020	36'	1
Guest Dock	22	6/1/2020	Moorings	Confirmed	6/7/2020	6/10/2020	65'	3
Guest Dock	16	6/4/2020	WEBSITE	Confirmed	6/7/2020	6/8/2020		1
Guest Dock	6	6/2/2020	WEBSITE	Confirmed	6/7/2020	6/8/2020		1
Guest Dock	18	6/2/2020	Moorings	Confirmed	6/7/2020	6/10/2020	60'	3
Guest Dock	4	6/5/2020	WEBSITE	Confirmed	6/8/2020	6/10/2020	43'	2
Guest Dock	12	5/29/2020	WEBSITE	Confirmed	6/8/2020	6/11/2020	40'	3
Guest Dock	16	6/4/2020	WEBSITE	Confirmed	6/8/2020	6/9/2020	45'	1
Guest Dock	10	6/8/2020	WEBSITE	Confirmed	6/8/2020	6/9/2020	36'	1
Guest Dock	8	6/5/2020	WEBSITE	Confirmed	6/8/2020	6/9/2020	34'	1
Guest Dock	16	6/5/2020	WEBSITE	Confirmed	6/9/2020	6/10/2020	34'	1
Guest Dock	28	6/8/2020	Moorings	Confirmed	6/9/2020	6/10/2020	25'	1
Guest Dock	26	6/8/2020	Moorings	Confirmed	6/9/2020	6/10/2020	25'	1
Guest Dock	10	6/5/2020	WEBSITE	Confirmed	6/9/2020	6/16/2020	26'	7
Guest Dock	16	6/5/2020	WEBSITE	Confirmed	6/10/2020	6/14/2020	50'	4
Guest Dock	4	6/2/2020	WEBSITE	Confirmed	6/10/2020	6/14/2020	33'	4
Guest Dock	8	6/10/2020	WEBSITE	Confirmed	6/10/2020	6/11/2020	18'	1
Guest Dock	6	6/6/2020	WEBSITE	Confirmed	6/10/2020	6/12/2020	25'	2
Guest Dock	12	6/9/2020	WEBSITE	Confirmed	6/11/2020	6/12/2020	43'	1
Guest Dock	20	6/3/2020	WEBSITE	Confirmed	6/11/2020	6/23/2020	60'	12



**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	26	6/8/2020	Moorings	Confirmed	6/11/2020	6/12/2020	25'	1
Guest Dock	28	6/5/2020	WEBSITE	Confirmed	6/11/2020	6/14/2020	39'	3
Guest Dock	26	6/8/2020	WEBSITE	Confirmed	6/12/2020	6/13/2020	40'	1
Guest Dock	2	6/1/2020	WEBSITE	Confirmed	6/12/2020	6/16/2020	26'	4
Guest Dock	12	6/8/2020	WEBSITE	Confirmed	6/12/2020	6/13/2020	28'	1
Guest Dock	6	6/4/2020	WEBSITE	Confirmed	6/12/2020	6/14/2020	28'	2
Guest Dock	26	6/8/2020	WEBSITE	Confirmed	6/13/2020	6/15/2020	30'	2
Guest Dock	14	6/8/2020	WEBSITE	Confirmed	6/13/2020	6/14/2020	40'	1
Guest Dock	12	6/8/2020	WEBSITE	Confirmed	6/13/2020	6/14/2020	27'	1
Guest Dock	4	6/12/2020	WEBSITE	Confirmed	6/14/2020	6/15/2020	33'	1
Guest Dock	14	6/7/2020	WEBSITE	Confirmed	6/14/2020	6/15/2020	50'	1
Guest Dock	8	6/1/2020	WEBSITE	Confirmed	6/14/2020	6/16/2020		2
Guest Dock	16	6/11/2020	WEBSITE	Confirmed	6/14/2020	6/15/2020	26'	1
Guest Dock	6	6/9/2020	Moorings	Confirmed	6/14/2020	6/16/2020	30'	2
Guest Dock	12	5/27/2020	Moorings	Confirmed	6/14/2020	6/18/2020	36'	4
Guest Dock	26	6/15/2020	Moorings	Confirmed	6/15/2020	6/20/2020	30'	5
Guest Dock	16	6/4/2020	WEBSITE	Confirmed	6/15/2020	6/18/2020	25'	3
Guest Dock	22	6/9/2020	Moorings	Confirmed	6/15/2020	6/20/2020	33'	5
Guest Dock	10	6/13/2020	WEBSITE	Confirmed	6/16/2020	6/18/2020	25'	2
Guest Dock	6	6/2/2020	WEBSITE	Confirmed	6/16/2020	6/17/2020		1
Guest Dock	14	6/15/2020	WEBSITE	Confirmed	6/16/2020	6/18/2020	36'	2
Guest Dock	2	6/14/2020	WEBSITE	Confirmed	6/16/2020	6/17/2020		1
Guest Dock	8	6/13/2020	WEBSITE	Confirmed	6/16/2020	6/19/2020		3
Guest Dock	2	6/13/2020	WEBSITE	Confirmed	6/17/2020	6/20/2020	36'	3
Guest Dock	18	6/13/2020	WEBSITE	Confirmed	6/17/2020	6/18/2020	63'	1
Guest Dock	6	6/13/2020	WEBSITE	Confirmed	6/17/2020	6/19/2020	30'	2
Guest Dock	28	6/12/2020	WEBSITE	Confirmed	6/17/2020	6/30/2020	34'	13
Guest Dock	14	6/15/2020	WEBSITE	Confirmed	6/18/2020	6/19/2020	29'	1
Guest Dock	12	6/11/2020	WEBSITE	Confirmed	6/18/2020	6/20/2020	36'	2
Guest Dock	10	6/18/2020	WEBSITE	Confirmed	6/18/2020	6/19/2020	28'	1
Guest Dock	18	6/5/2020	Moorings	Confirmed	6/18/2020	6/23/2020	46'	5
Guest Dock	16	6/8/2020	WEBSITE	Confirmed	6/18/2020	6/19/2020	25'	1
Guest Dock	10	6/15/2020	WEBSITE	Confirmed	6/19/2020	6/20/2020	20'	1
Guest Dock	14	6/14/2020	WEBSITE	Confirmed	6/19/2020	6/20/2020		1
Guest Dock	6	6/5/2020	WEBSITE	Confirmed	6/19/2020	6/29/2020	32'	10
Guest Dock	8	6/6/2020	WEBSITE	Confirmed	6/19/2020	6/21/2020	27'	2
Guest Dock	14	6/14/2020	WEBSITE	Confirmed	6/20/2020	6/23/2020		3
Guest Dock	26	6/15/2020	WEBSITE	Confirmed	6/20/2020	6/21/2020	38'	1
Guest Dock	2	6/14/2020	WEBSITE	Confirmed	6/20/2020	6/21/2020		1
Guest Dock	22	6/15/2020	Moorings	Confirmed	6/20/2020	6/22/2020	36'	2
Guest Dock	16	6/10/2020	WEBSITE	Confirmed	6/20/2020	6/21/2020	36'	1
Guest Dock	26	6/16/2020	WEBSITE	Confirmed	6/21/2020	6/22/2020	39'	1
Guest Dock	4	6/9/2020	WEBSITE	Confirmed	6/22/2020	6/26/2020	27'	4
Guest Dock	2	6/11/2020	WEBSITE	Confirmed	6/22/2020	7/7/2020	26'	15
Guest Dock	22	6/9/2020	WEBSITE	Confirmed	6/22/2020	6/23/2020	63'	1
Guest Dock	8	6/10/2020	WEBSITE	Confirmed	6/22/2020	6/25/2020	23'	3
Guest Dock	19	6/22/2020	Moorings	Confirmed	6/22/2020	6/23/2020	58'	1
Guest Dock	22	6/15/2020	Moorings	Confirmed	6/23/2020	6/25/2020	36'	2
Guest Dock	10	6/14/2020	WEBSITE	Confirmed	6/23/2020	6/25/2020	27'	2
Guest Dock	14	6/9/2020	WEBSITE	Confirmed	6/23/2020	6/28/2020	26'	5
Guest Dock	18	6/18/2020	Moorings	Confirmed	6/23/2020	6/24/2020	38'	1
Guest Dock	5	6/23/2020	Moorings	Confirmed	6/23/2020	6/25/2020	32'	2
Guest Dock	20	6/19/2020	WEBSITE	Confirmed	6/23/2020	6/29/2020	63'	6
Guest Dock	18	6/12/2020	WEBSITE	Confirmed	6/24/2020	6/26/2020	63'	2
Guest Dock	12	6/15/2020	WEBSITE	Confirmed	6/24/2020	6/25/2020	27'	1
Guest Dock	16	6/11/2020	WEBSITE	Confirmed	6/24/2020	6/26/2020	25'	2
Guest Dock	12	6/8/2020	WEBSITE	Confirmed	6/25/2020	6/29/2020	50'	4
Guest Dock	8	6/14/2020	WEBSITE	Confirmed	6/25/2020	6/26/2020	32'	1
Guest Dock	4	6/12/2020	WEBSITE	Confirmed	6/26/2020	7/5/2020	19'	9
Guest Dock	18	6/18/2020	Moorings	Confirmed	6/26/2020	6/27/2020	38'	1
Guest Dock	8	6/18/2020	WEBSITE	Confirmed	6/26/2020	6/27/2020	39'	1
Guest Dock	26	6/13/2020	WEBSITE	Confirmed	6/26/2020	6/28/2020	30'	2
Guest Dock	16	6/17/2020	WEBSITE	Confirmed	6/26/2020	6/30/2020	42'	4
Guest Dock	8	6/11/2020	Moorings	Confirmed	6/27/2020	6/28/2020	26'	1
Guest Dock	18	6/16/2020	WEBSITE	Confirmed	6/27/2020	6/28/2020	58'	1
Guest Dock	5	6/23/2020	Moorings	Confirmed	6/27/2020	6/29/2020	32'	2
Guest Dock	10	6/24/2020	Moorings	Confirmed	6/27/2020	6/29/2020	32'	2
Guest Dock	14	6/15/2020	WEBSITE	Confirmed	6/28/2020	7/1/2020	26'	3
Guest Dock	26	6/14/2020	WEBSITE	Confirmed	6/28/2020	6/29/2020	30'	1
Guest Dock	8	6/17/2020	WEBSITE	Confirmed	6/28/2020	6/29/2020	27'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	18	6/26/2020	WEBSITE	Confirmed	6/28/2020	6/29/2020	65'	1
Guest Dock	8	6/15/2020	WEBSITE	Confirmed	6/29/2020	7/2/2020	25'	3
Guest Dock	6	6/18/2020	WEBSITE	Confirmed	6/29/2020	7/1/2020	40'	2
Guest Dock	18	6/26/2020	WEBSITE	Confirmed	6/29/2020	7/1/2020	63'	2
Guest Dock	20	6/28/2020	WEBSITE	Confirmed	6/29/2020	6/30/2020	58'	1
Guest Dock	26	6/15/2020	WEBSITE	Confirmed	6/29/2020	6/30/2020	38'	1
Guest Dock	12	6/18/2020	WEBSITE	Confirmed	6/29/2020	6/30/2020	27'	1
Guest Dock	26	6/16/2020	WEBSITE	Confirmed	6/30/2020	7/1/2020	38'	1
Guest Dock	28	6/28/2020	WEBSITE	Confirmed	6/30/2020	7/1/2020		1
Guest Dock	20	6/30/2020	WEBSITE	Confirmed	6/30/2020	7/1/2020	60'	1
Guest Dock	14	6/18/2020	WEBSITE	Confirmed	7/1/2020	7/3/2020	25'	2
Guest Dock	26	6/17/2020	WEBSITE	Confirmed	7/1/2020	7/2/2020	38'	1
Guest Dock	6	6/22/2020	Moorings	Confirmed	7/1/2020	7/2/2020	26'	1
Guest Dock	16	6/16/2020	WEBSITE	Confirmed	7/1/2020	7/5/2020	22'	4
Guest Dock	12	6/17/2020	WEBSITE	Confirmed	7/1/2020	7/2/2020	40'	1
Guest Dock	28	6/18/2020	WEBSITE	Confirmed	7/1/2020	7/2/2020		1
Guest Dock	20	6/25/2020	WEBSITE	Confirmed	7/1/2020	7/3/2020	38'	2
Guest Dock	12	6/19/2020	WEBSITE	Confirmed	7/2/2020	7/6/2020	18'	4
Guest Dock	10	7/1/2020	WEBSITE	Confirmed	7/2/2020	7/3/2020	30'	1
Guest Dock	22	6/22/2020	Moorings	Confirmed	7/2/2020	7/3/2020	26'	1
Guest Dock	26	7/1/2020	WEBSITE	Confirmed	7/2/2020	7/4/2020	32'	2
Guest Dock	8	6/18/2020	WEBSITE	Confirmed	7/2/2020	7/5/2020	21'	3
Guest Dock	14	6/19/2020	Moorings	Confirmed	7/3/2020	7/4/2020	33'	1
Guest Dock	28	6/21/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	40'	3
Guest Dock	10	6/24/2020	WEBSITE	Confirmed	7/3/2020	7/5/2020	26'	2
Guest Dock	6	6/18/2020	WEBSITE	Confirmed	7/3/2020	7/5/2020	39'	2
Guest Dock	20	6/28/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	46'	3
Guest Dock	22	6/22/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	38'	3
Guest Dock	14	6/20/2020	WEBSITE	Confirmed	7/4/2020	7/6/2020	21'	2
Guest Dock	10	6/29/2020	WEBSITE	Confirmed	7/5/2020	7/6/2020	42'	1
Guest Dock	26	6/28/2020	WEBSITE	Confirmed	7/5/2020	7/15/2020	32'	10
Guest Dock	6	7/3/2020	WEBSITE	Confirmed	7/5/2020	7/8/2020	42'	3
Guest Dock	8	6/30/2020	Moorings	Confirmed	7/5/2020	7/6/2020	36'	1
Guest Dock	18	6/30/2020	Moorings	Confirmed	7/6/2020	7/9/2020	36'	3
Guest Dock	20	7/1/2020	WEBSITE	Confirmed	7/6/2020	7/9/2020	46'	3
Guest Dock	14	7/1/2020	WEBSITE	Confirmed	7/6/2020	7/7/2020		1
Guest Dock	7	7/6/2020	Moorings	Confirmed	7/6/2020	7/9/2020	26'	3
Guest Dock	12	7/1/2020	WEBSITE	Confirmed	7/6/2020	7/8/2020	34'	2
Guest Dock	28	7/4/2020	WEBSITE	Confirmed	7/6/2020	7/8/2020	38'	2
Guest Dock	8	6/23/2020	WEBSITE	Confirmed	7/6/2020	7/8/2020	27'	2
Guest Dock	22	7/6/2020	Moorings	Confirmed	7/6/2020	7/7/2020	32'	1
Guest Dock	10	7/4/2020	WEBSITE	Confirmed	7/7/2020	7/9/2020	43'	2
Guest Dock	14	6/23/2020	WEBSITE	Confirmed	7/7/2020	7/10/2020	40'	3
Guest Dock	22	6/29/2020	WEBSITE	Confirmed	7/7/2020	7/10/2020	45'	3
Guest Dock	28	7/2/2020	WEBSITE	Confirmed	7/8/2020	7/10/2020	37'	2
Guest Dock	8	6/30/2020	WEBSITE	Confirmed	7/8/2020	7/10/2020	25'	2
Guest Dock	12	6/30/2020	WEBSITE	Confirmed	7/8/2020	7/11/2020	23'	3
Guest Dock	16	7/6/2020	WEBSITE	Confirmed	7/8/2020	7/9/2020	27'	1
Guest Dock	6	6/30/2020	WEBSITE	Confirmed	7/8/2020	7/10/2020	19'	2
Guest Dock	18	7/3/2020	WEBSITE	Confirmed	7/9/2020	7/11/2020	46'	2
Guest Dock	20	5/23/2020	WEBSITE	Confirmed	7/9/2020	7/10/2020	32'	1
Guest Dock	7	7/6/2020	Moorings	Confirmed	7/9/2020	7/11/2020	26'	2
Guest Dock	10	6/25/2020	WEBSITE	Confirmed	7/9/2020	7/13/2020	22'	4
Guest Dock	8	6/26/2020	WEBSITE	Confirmed	7/10/2020	7/12/2020	20'	2
Guest Dock	16	6/26/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	31'	3
Guest Dock	6	6/27/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	26'	3
Guest Dock	20	7/6/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	47'	3
Guest Dock	22	7/10/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	46'	3
Guest Dock	2	7/7/2020	WEBSITE	Confirmed	7/10/2020	7/12/2020	32'	2
Guest Dock	28	6/29/2020	WEBSITE	Confirmed	7/10/2020	7/19/2020	40'	9
Guest Dock	14	6/26/2020	WEBSITE	Confirmed	7/10/2020	7/12/2020	29'	2
Guest Dock	12	6/28/2020	WEBSITE	Confirmed	7/11/2020	7/13/2020	27'	2
Guest Dock	18	7/6/2020	Moorings	Confirmed	7/11/2020	7/13/2020		2
Guest Dock	14	6/30/2020	Moorings	Confirmed	7/12/2020	7/13/2020	36'	1
Guest Dock	8	6/28/2020	WEBSITE	Confirmed	7/12/2020	7/13/2020	26'	1
Guest Dock	2	7/1/2020	WEBSITE	Confirmed	7/13/2020	7/17/2020	26'	4
Guest Dock	6	7/1/2020	WEBSITE	Confirmed	7/13/2020	7/16/2020	17'	3
Guest Dock	12	7/11/2020	WEBSITE	Confirmed	7/13/2020	7/16/2020	32'	3
Guest Dock	20	6/30/2020	Moorings	Confirmed	7/13/2020	7/14/2020	36'	1
Guest Dock	8	7/2/2020	WEBSITE	Confirmed	7/13/2020	7/17/2020	37'	4

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	16	6/29/2020	WEBSITE	Confirmed	7/13/2020	7/17/2020	23'	4
Guest Dock	10	7/13/2020	WEBSITE	Confirmed	7/13/2020	7/14/2020	27'	1
Guest Dock	22	7/13/2020	Moorings	Confirmed	7/13/2020	7/15/2020	33'	2
Guest Dock	14	7/2/2020	WEBSITE	Confirmed	7/13/2020	7/14/2020	25'	1
Guest Dock	10	7/13/2020	WEBSITE	Confirmed	7/14/2020	7/15/2020	27'	1
Guest Dock	20	7/6/2020	WEBSITE	Confirmed	7/14/2020	7/21/2020	55'	7
Guest Dock	14	7/6/2020	WEBSITE	Confirmed	7/14/2020	7/16/2020	43'	2
Guest Dock	22	7/1/2020	WEBSITE	Confirmed	7/15/2020	7/17/2020	63'	2
Guest Dock	10	6/30/2020	Moorings	Confirmed	7/15/2020	7/18/2020	36'	3
Guest Dock	12	7/2/2020	WEBSITE	Confirmed	7/16/2020	7/19/2020	20'	3
Guest Dock	18	7/2/2020	WEBSITE	Confirmed	7/16/2020	7/20/2020	46'	4
Guest Dock	6	7/2/2020	WEBSITE	Confirmed	7/16/2020	7/19/2020	27'	3
Guest Dock	22	7/14/2020	Moorings	Confirmed	7/17/2020	7/19/2020	33'	2
Guest Dock	16	7/12/2020	WEBSITE	Confirmed	7/17/2020	7/18/2020	26'	1
Guest Dock	2	7/10/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	29'	3
Guest Dock	8	7/16/2020	WEBSITE	Confirmed	7/17/2020	7/18/2020	34'	1
Guest Dock	8	7/16/2020	WEBSITE	Confirmed	7/18/2020	7/19/2020	34'	1
Guest Dock	14	6/30/2020	Moorings	Confirmed	7/18/2020	7/20/2020	36'	2
Guest Dock	16	7/5/2020	WEBSITE	Confirmed	7/18/2020	7/19/2020	25'	1
Guest Dock	10	7/10/2020	WEBSITE	Confirmed	7/19/2020	7/27/2020	23'	8
Guest Dock	6	7/16/2020	WEBSITE	Confirmed	7/19/2020	7/20/2020	30'	1
Guest Dock	12	7/7/2020	WEBSITE	Confirmed	7/19/2020	7/20/2020	33'	1
Guest Dock	22	7/13/2020	Moorings	Confirmed	7/19/2020	7/22/2020	26'	3
Guest Dock	16	7/17/2020	WEBSITE	Confirmed	7/19/2020	7/20/2020	42'	1
Guest Dock	4	7/5/2020	WEBSITE	Confirmed	7/19/2020	7/26/2020	21'	7
Guest Dock	8	7/13/2020	WEBSITE	Confirmed	7/19/2020	7/20/2020	20'	1
Guest Dock	28	7/14/2020	WEBSITE	Confirmed	7/19/2020	7/20/2020		1
Guest Dock	18	7/19/2020	WEBSITE	Confirmed	7/20/2020	7/22/2020	56'	2
Guest Dock	28	7/11/2020	WEBSITE	Confirmed	7/20/2020	7/22/2020	40'	2
Guest Dock	6	6/30/2020	Moorings	Confirmed	7/20/2020	7/23/2020	36'	3
Guest Dock	12	7/7/2020	WEBSITE	Confirmed	7/20/2020	7/22/2020	33'	2
Guest Dock	14	7/16/2020	WEBSITE	Confirmed	7/20/2020	7/23/2020	32'	3
Guest Dock	26	7/14/2020	Moorings	Confirmed	7/20/2020	7/24/2020	33'	4
Guest Dock	8	7/8/2020	WEBSITE	Confirmed	7/20/2020	7/24/2020	42'	4
Guest Dock	16	7/9/2020	WEBSITE	Confirmed	7/20/2020	7/21/2020	47'	1
Guest Dock	2	7/21/2020	Moorings	Confirmed	7/21/2020	7/23/2020	36'	2
Guest Dock	20	7/14/2020	Moorings	Confirmed	7/21/2020	7/22/2020	25'	1
Guest Dock	22	7/14/2020	Moorings	Confirmed	7/22/2020	7/27/2020	25'	5
Guest Dock	12	7/11/2020	WEBSITE	Confirmed	7/22/2020	8/1/2020	40'	10
Guest Dock	20	7/20/2020	Moorings	Confirmed	7/22/2020	7/29/2020	48'	7
Guest Dock	18	7/13/2020	WEBSITE	Confirmed	7/22/2020	7/24/2020	45'	2
Guest Dock	21	7/13/2020	Moorings	Confirmed	7/22/2020	7/24/2020	26'	2
Guest Dock	28	7/20/2020	WEBSITE	Confirmed	7/22/2020	7/23/2020	33'	1
Guest Dock	28	7/20/2020	WEBSITE	Confirmed	7/23/2020	7/24/2020	33'	1
Guest Dock	6	7/13/2020	WEBSITE	Confirmed	7/23/2020	7/26/2020	20'	3
Guest Dock	14	7/16/2020	WEBSITE	Confirmed	7/23/2020	7/24/2020	18'	1
Guest Dock	2	7/21/2020	WEBSITE	Confirmed	7/23/2020	7/24/2020	20'	1
Guest Dock	8	7/12/2020	WEBSITE	Confirmed	7/24/2020	7/26/2020	25'	2
Guest Dock	28	7/23/2020	WEBSITE	Confirmed	7/24/2020	7/25/2020	38'	1
Guest Dock	18	7/17/2020	Moorings	Confirmed	7/24/2020	7/28/2020	38'	4
Guest Dock	2	7/21/2020	WEBSITE	Confirmed	7/24/2020	7/26/2020	23'	2
Guest Dock	26	7/14/2020	WEBSITE	Confirmed	7/24/2020	7/26/2020	46'	2
Guest Dock	5	7/23/2020	Moorings	Confirmed	7/24/2020	7/27/2020	36'	3
Guest Dock	14	7/20/2020	WEBSITE	Confirmed	7/25/2020	7/26/2020	33'	1
Guest Dock	28	7/23/2020	WEBSITE	Confirmed	7/25/2020	7/26/2020		1
Guest Dock	14	7/18/2020	WEBSITE	Confirmed	7/26/2020	7/28/2020	29'	2
Guest Dock	2	7/22/2020	Moorings	Confirmed	7/26/2020	7/29/2020	36'	3
Guest Dock	4	7/12/2020	WEBSITE	Confirmed	7/26/2020	7/29/2020	30'	3
Guest Dock	28	7/26/2020	WEBSITE	Confirmed	7/26/2020	7/27/2020	30'	1
Guest Dock	6	7/23/2020	WEBSITE	Confirmed	7/26/2020	7/27/2020	29'	1
Guest Dock	8	7/25/2020	WEBSITE	Confirmed	7/26/2020	7/27/2020	34'	1
Guest Dock	6	7/23/2020	WEBSITE	Confirmed	7/27/2020	7/29/2020	26'	2
Guest Dock	22	7/20/2020	Moorings	Confirmed	7/27/2020	7/29/2020	32'	2
Guest Dock	10	7/15/2020	WEBSITE	Confirmed	7/27/2020	7/30/2020	33'	3
Guest Dock	28	7/7/2020	Moorings	Confirmed	7/27/2020	8/8/2020	44'	12
Guest Dock	8	7/25/2020	WEBSITE	Confirmed	7/27/2020	7/28/2020	25'	1
Guest Dock	8	7/24/2020	WEBSITE	Confirmed	7/28/2020	7/29/2020	27'	1
Guest Dock	18	7/20/2020	Moorings	Confirmed	7/28/2020	7/30/2020	26'	2
Guest Dock	6	7/24/2020	WEBSITE	Confirmed	7/29/2020	7/31/2020	27'	2
Guest Dock	8	7/26/2020	WEBSITE	Confirmed	7/29/2020	7/30/2020	42'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	4	7/15/2020	WEBSITE	Confirmed	7/29/2020	8/3/2020	18'	5
Guest Dock	20	7/20/2020	WEBSITE	Confirmed	7/29/2020	8/6/2020	48'	8
Guest Dock	2	7/27/2020	Moorings	Confirmed	7/29/2020	7/31/2020	29'	2
Guest Dock	26	7/30/2020	WEBSITE	Confirmed	7/30/2020	8/1/2020		2
Guest Dock	10	7/16/2020	WEBSITE	Confirmed	7/30/2020	8/2/2020	26'	3
Guest Dock	8	7/20/2020	Moorings	Confirmed	7/30/2020	8/1/2020	26'	2
Guest Dock	16	7/17/2020	WEBSITE	Confirmed	7/30/2020	8/14/2020	19'	15
Guest Dock	14	7/24/2020	WEBSITE	Confirmed	7/30/2020	7/31/2020	33'	1
Guest Dock	6	7/17/2020	WEBSITE	Confirmed	7/31/2020	8/1/2020		1
Guest Dock	22	7/20/2020	Moorings	Confirmed	7/31/2020	8/3/2020	33'	3
Guest Dock	2	7/17/2020	WEBSITE	Confirmed	7/31/2020	8/1/2020	30'	1
Guest Dock	14	7/18/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	29'	3
Guest Dock	18	7/19/2020	WEBSITE	Confirmed	8/1/2020	8/5/2020	45'	4
Guest Dock	8	7/18/2020	WEBSITE	Confirmed	8/1/2020	8/4/2020		3
Guest Dock	26	7/29/2020	Moorings	Confirmed	8/1/2020	8/2/2020	36'	1
Guest Dock	12	7/14/2020	WEBSITE	Confirmed	8/1/2020	8/4/2020	26'	3
Guest Dock	2	7/20/2020	Moorings	Confirmed	8/1/2020	8/3/2020	26'	2
Guest Dock	6	7/18/2020	WEBSITE	Confirmed	8/1/2020	8/3/2020	30'	2
Guest Dock	26	7/30/2020	Moorings	Confirmed	8/2/2020	8/3/2020	38'	1
Guest Dock	10	7/29/2020	Moorings	Confirmed	8/2/2020	8/9/2020	36'	7
Guest Dock	2	7/30/2020	Moorings	Confirmed	8/3/2020	8/7/2020	25'	4
Guest Dock	26	7/31/2020	WEBSITE	Confirmed	8/3/2020	8/4/2020	37'	1
Guest Dock	4	7/30/2020	Moorings	Confirmed	8/3/2020	8/13/2020	27'	10
Guest Dock	6	7/31/2020	Moorings	Confirmed	8/3/2020	8/7/2020	38'	4
Guest Dock	13	7/14/2020	WEBSITE	Confirmed	8/4/2020	8/11/2020	26'	7
Guest Dock	8	7/21/2020	WEBSITE	Confirmed	8/4/2020	8/7/2020	19'	3
Guest Dock	12	8/3/2020	WEBSITE	Confirmed	8/4/2020	8/7/2020	43'	3
Guest Dock	26	7/23/2020	WEBSITE	Confirmed	8/4/2020	8/5/2020		1
Guest Dock	5	8/4/2020	Moorings	Confirmed	8/4/2020	8/7/2020	31'	3
Guest Dock	7	8/4/2020	WEBSITE	Confirmed	8/4/2020	8/5/2020		1
Guest Dock	7	8/4/2020	WEBSITE	Confirmed	8/5/2020	8/6/2020		1
Guest Dock	3	8/4/2020	WEBSITE	Confirmed	8/5/2020	8/8/2020	23'	3
Guest Dock	21	8/5/2020	WEBSITE	Confirmed	8/5/2020	8/12/2020	40'	7
Guest Dock	26	7/23/2020	WEBSITE	Confirmed	8/5/2020	8/6/2020		1
Guest Dock	11	8/5/2020	WEBSITE	Confirmed	8/5/2020	8/6/2020	34'	1
Guest Dock	15	8/6/2020	WEBSITE	Confirmed	8/5/2020	8/7/2020	30'	2
Guest Dock	18	7/25/2020	WEBSITE	Confirmed	8/5/2020	8/8/2020	50'	3
Guest Dock	9	8/4/2020	WEBSITE	Confirmed	8/6/2020	8/7/2020		1
Guest Dock	26	7/23/2020	WEBSITE	Confirmed	8/6/2020	8/9/2020	30'	3
Guest Dock	7	8/5/2020	WEBSITE	Confirmed	8/6/2020	8/7/2020	34'	1
Guest Dock	19	8/5/2020	Moorings	Confirmed	8/6/2020	8/7/2020	26'	1
Guest Dock	22	7/20/2020	WEBSITE	Confirmed	8/6/2020	8/14/2020	45'	8
Guest Dock	20	8/4/2020	WEBSITE	Confirmed	8/6/2020	8/10/2020	48'	4
Guest Dock	11	8/6/2020	Moorings	Confirmed	8/6/2020	8/7/2020	20'	1
Guest Dock	15	8/4/2020	WEBSITE	Confirmed	8/7/2020	8/8/2020	22'	1
Guest Dock	11	8/5/2020	WEBSITE	Confirmed	8/7/2020	8/9/2020	27'	2
Guest Dock	9	8/3/2020	Moorings	Confirmed	8/7/2020	8/9/2020	26'	2
Guest Dock	5	8/3/2020	Moorings	Confirmed	8/7/2020	8/9/2020	35'	2
Guest Dock	8	7/24/2020	WEBSITE	Confirmed	8/7/2020	8/9/2020	20'	2
Guest Dock	6	7/30/2020	Moorings	Confirmed	8/7/2020	8/8/2020	30'	1
Guest Dock	7	8/3/2020	Moorings	Confirmed	8/7/2020	8/8/2020	27'	1
Guest Dock	19	8/5/2020	WEBSITE	Confirmed	8/7/2020	8/9/2020	50'	2
Guest Dock	12	8/3/2020	WEBSITE	Confirmed	8/7/2020	8/8/2020	36'	1
Guest Dock	2	7/29/2020	Moorings	Confirmed	8/7/2020	8/10/2020	26'	3
Guest Dock	18	8/5/2020	WEBSITE	Confirmed	8/8/2020	8/10/2020	50'	2
Guest Dock	3	8/5/2020	WEBSITE	Confirmed	8/8/2020	8/10/2020	31'	2
Guest Dock	6	8/6/2020	Moorings	Confirmed	8/8/2020	8/12/2020	25'	4
Guest Dock	12	7/25/2020	WEBSITE	Confirmed	8/8/2020	8/11/2020	29'	3
Guest Dock	15	8/5/2020	WEBSITE	Confirmed	8/8/2020	8/9/2020	20'	1
Guest Dock	28	8/1/2020	WEBSITE	Confirmed	8/8/2020	8/15/2020	40'	7
Guest Dock	7	8/5/2020	WEBSITE	Confirmed	8/8/2020	8/10/2020		2
Guest Dock	26	7/29/2020	WEBSITE	Confirmed	8/9/2020	8/14/2020	36'	5
Guest Dock	11	8/6/2020	Moorings	Confirmed	8/9/2020	8/14/2020	26'	5
Guest Dock	15	8/6/2020	WEBSITE	Confirmed	8/9/2020	8/12/2020	25'	3
Guest Dock	10	8/8/2020	WEBSITE	Confirmed	8/9/2020	8/11/2020	30'	2
Guest Dock	5	7/22/2020	Moorings	Confirmed	8/9/2020	8/10/2020	34'	1
Guest Dock	9	8/5/2020	WEBSITE	Confirmed	8/9/2020	8/15/2020	23'	6
Guest Dock	8	7/26/2020	WEBSITE	Confirmed	8/9/2020	8/11/2020	30'	2
Guest Dock	14	8/2/2020	WEBSITE	Confirmed	8/10/2020	8/12/2020	18'	2
Guest Dock	3	8/7/2020	WEBSITE	Confirmed	8/10/2020	8/11/2020	34'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	27	8/6/2020	WEBSITE	Confirmed	8/10/2020	8/14/2020	40'	4
Guest Dock	7	8/7/2020	WEBSITE	Confirmed	8/10/2020	8/11/2020		1
Guest Dock	19	8/6/2020	WEBSITE	Confirmed	8/10/2020	8/11/2020	45'	1
Guest Dock	2	7/28/2020	WEBSITE	Confirmed	8/10/2020	8/16/2020	22'	6
Guest Dock	5	8/7/2020	WEBSITE	Confirmed	8/10/2020	8/11/2020	31'	1
Guest Dock	19	8/5/2020	WEBSITE	Confirmed	8/11/2020	8/13/2020	63'	2
Guest Dock	5	8/10/2020	WEBSITE	Confirmed	8/11/2020	8/12/2020	30'	1
Guest Dock	10	8/10/2020	Moorings	Confirmed	8/11/2020	8/13/2020	26'	2
Guest Dock	8	8/11/2020	WEBSITE	Confirmed	8/11/2020	8/12/2020	24'	1
Guest Dock	7	8/10/2020	WEBSITE	Confirmed	8/11/2020	8/12/2020		1
Guest Dock	3	8/9/2020	WEBSITE	Confirmed	8/11/2020	8/12/2020	34'	1
Guest Dock	12	8/8/2020	WEBSITE	Confirmed	8/11/2020	8/13/2020	33'	2
Guest Dock	13	8/8/2020	WEBSITE	Confirmed	8/11/2020	8/12/2020	26'	1
Guest Dock	15	8/8/2020	WEBSITE	Confirmed	8/12/2020	8/13/2020	26'	1
Guest Dock	8	7/29/2020	WEBSITE	Confirmed	8/12/2020	8/14/2020		2
Guest Dock	3	8/10/2020	WEBSITE	Confirmed	8/12/2020	8/13/2020	34'	1
Guest Dock	5	8/6/2020	Moorings	Confirmed	8/12/2020	8/14/2020	25'	2
Guest Dock	13	8/5/2020	Moorings	Confirmed	8/12/2020	8/16/2020	36'	4
Guest Dock	21	8/5/2020	WEBSITE	Confirmed	8/12/2020	8/15/2020	40'	3
Guest Dock	7	8/4/2020	WEBSITE	Confirmed	8/12/2020	8/15/2020	23'	3
Guest Dock	6	8/10/2020	WEBSITE	Confirmed	8/12/2020	8/13/2020	31'	1
Guest Dock	14	7/29/2020	WEBSITE	Confirmed	8/12/2020	8/19/2020	47'	7
Guest Dock	6	7/30/2020	WEBSITE	Confirmed	8/13/2020	8/16/2020	26'	3
Guest Dock	18	8/10/2020	WEBSITE	Confirmed	8/13/2020	8/14/2020	31'	1
Guest Dock	15	8/11/2020	WEBSITE	Confirmed	8/13/2020	8/15/2020	34'	2
Guest Dock	19	8/10/2020	Moorings	Confirmed	8/13/2020	8/17/2020	26'	4
Guest Dock	12	8/10/2020	WEBSITE	Confirmed	8/13/2020	8/14/2020	34'	1
Guest Dock	20	8/11/2020	WEBSITE	Confirmed	8/13/2020	8/14/2020	63'	1
Guest Dock	10	8/8/2020	WEBSITE	Confirmed	8/13/2020	8/14/2020	26'	1
Guest Dock	3	8/11/2020	WEBSITE	Confirmed	8/13/2020	8/14/2020	32'	1
Guest Dock	4	7/30/2020	WEBSITE	Confirmed	8/13/2020	8/15/2020	25'	2
Guest Dock	8	8/1/2020	WEBSITE	Confirmed	8/14/2020	8/16/2020	23'	2
Guest Dock	12	8/11/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	22'	3
Guest Dock	22	8/5/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	30'	3
Guest Dock	27	8/4/2020	Moorings	Confirmed	8/14/2020	8/17/2020	33'	3
Guest Dock	10	7/31/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	32'	3
Guest Dock	11	8/11/2020	Moorings	Confirmed	8/14/2020	8/17/2020	26'	3
Guest Dock	3	8/7/2020	WEBSITE	Confirmed	8/14/2020	8/16/2020	29'	2
Guest Dock	26	8/11/2020	WEBSITE	Confirmed	8/14/2020	8/15/2020	40'	1
Guest Dock	18	8/6/2020	Moorings	Confirmed	8/14/2020	8/24/2020	26'	10
Guest Dock	20	8/9/2020	WEBSITE	Confirmed	8/14/2020	8/16/2020	63'	2
Guest Dock	5	7/22/2020	Moorings	Confirmed	8/14/2020	8/17/2020	34'	3
Guest Dock	16	7/31/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	29'	3
Guest Dock	9	8/5/2020	WEBSITE	Confirmed	8/15/2020	8/16/2020	27'	1
Guest Dock	7	8/7/2020	WEBSITE	Confirmed	8/15/2020	8/16/2020	25'	1
Guest Dock	28	8/13/2020	WEBSITE	Confirmed	8/15/2020	8/16/2020	40'	1
Guest Dock	21	8/13/2020	WEBSITE	Confirmed	8/15/2020	8/17/2020	34'	2
Guest Dock	4	8/5/2020	WEBSITE	Confirmed	8/15/2020	8/16/2020	25'	1
Guest Dock	26	8/1/2020	WEBSITE	Confirmed	8/15/2020	8/16/2020	40'	1
Guest Dock	15	8/5/2020	WEBSITE	Confirmed	8/15/2020	8/16/2020	26'	1
Guest Dock	6	8/2/2020	WEBSITE	Confirmed	8/16/2020	8/18/2020		2
Guest Dock	3	8/12/2020	WEBSITE	Confirmed	8/16/2020	8/18/2020	50'	2
Guest Dock	26	8/14/2020	WEBSITE	Confirmed	8/16/2020	8/17/2020	40'	1
Guest Dock	13	8/11/2020	WEBSITE	Confirmed	8/16/2020	8/18/2020	22'	2
Guest Dock	28	8/3/2020	WEBSITE	Confirmed	8/16/2020	8/21/2020		5
Guest Dock	9	8/4/2020	WEBSITE	Confirmed	8/16/2020	8/20/2020	27'	4
Guest Dock	8	8/15/2020	WEBSITE	Confirmed	8/16/2020	8/18/2020	42'	2
Guest Dock	15	8/6/2020	WEBSITE	Confirmed	8/17/2020	8/18/2020	29'	1
Guest Dock	26	8/16/2020	WEBSITE	Confirmed	8/17/2020	8/18/2020		1
Guest Dock	2	8/17/2020	WEBSITE	Confirmed	8/17/2020	8/22/2020	25'	5
Guest Dock	4	8/17/2020	WEBSITE	Confirmed	8/17/2020	8/19/2020	27'	2
Guest Dock	16	8/3/2020	WEBSITE	Confirmed	8/17/2020	8/23/2020		6
Guest Dock	27	8/11/2020	WEBSITE	Confirmed	8/17/2020	8/20/2020	35'	3
Guest Dock	10	8/13/2020	WEBSITE	Confirmed	8/17/2020	8/20/2020	25'	3
Guest Dock	5	8/6/2020	WEBSITE	Confirmed	8/17/2020	8/19/2020	43'	2
Guest Dock	12	8/12/2020	WEBSITE	Confirmed	8/17/2020	8/19/2020	26'	2
Guest Dock	19	8/12/2020	Moorings	Confirmed	8/17/2020	8/20/2020	41'	3
Guest Dock	26	8/12/2020	WEBSITE	Confirmed	8/18/2020	8/22/2020	36'	4
Guest Dock	20	8/7/2020	WEBSITE	Confirmed	8/18/2020	8/20/2020	47'	2
Guest Dock	15	8/12/2020	WEBSITE	Confirmed	8/18/2020	8/19/2020	38'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	8	8/17/2020	WEBSITE	Confirmed	8/18/2020	8/20/2020	45'	2
Guest Dock	3	8/17/2020	WEBSITE	Confirmed	8/18/2020	8/19/2020	51'	1
Guest Dock	7	8/13/2020	WEBSITE	Confirmed	8/18/2020	8/23/2020	33'	5
Guest Dock	21	8/15/2020	WEBSITE	Confirmed	8/18/2020	8/20/2020	34'	2
Guest Dock	6	8/17/2020	WEBSITE	Confirmed	8/18/2020	8/20/2020		2
Guest Dock	22	8/17/2020	WEBSITE	Confirmed	8/18/2020	8/19/2020	46'	1
Guest Dock	13	8/18/2020	WEBSITE	Confirmed	8/18/2020	8/19/2020		1
Guest Dock	4	8/17/2020	WEBSITE	Confirmed	8/19/2020	8/21/2020	27'	2
Guest Dock	14	8/17/2020	WEBSITE	Confirmed	8/19/2020	8/21/2020		2
Guest Dock	12	8/17/2020	WEBSITE	Confirmed	8/19/2020	8/20/2020	38'	1
Guest Dock	3	8/11/2020	WEBSITE	Confirmed	8/19/2020	8/21/2020	40'	2
Guest Dock	15	8/18/2020	WEBSITE	Confirmed	8/19/2020	8/20/2020		1
Guest Dock	22	8/17/2020	WEBSITE	Confirmed	8/19/2020	8/24/2020	46'	5
Guest Dock	19	8/17/2020	WEBSITE	Confirmed	8/20/2020	8/22/2020	45'	2
Guest Dock	10	8/19/2020	WEBSITE	Confirmed	8/20/2020	8/21/2020		1
Guest Dock	8	8/14/2020	Moorings	Confirmed	8/20/2020	8/23/2020	32'	3
Guest Dock	21	8/17/2020	WEBSITE	Confirmed	8/20/2020	9/3/2020	38'	14
Guest Dock	20	8/15/2020	WEBSITE	Confirmed	8/20/2020	8/21/2020	34'	1
Guest Dock	15	8/13/2020	WEBSITE	Confirmed	8/20/2020	8/23/2020	25'	3
Guest Dock	12	8/13/2020	WEBSITE	Confirmed	8/20/2020	8/23/2020	25'	3
Guest Dock	13	8/17/2020	WEBSITE	Confirmed	8/20/2020	8/22/2020	19'	2
Guest Dock	9	8/18/2020	WEBSITE	Confirmed	8/20/2020	8/21/2020	42'	1
Guest Dock	27	8/18/2020	WEBSITE	Confirmed	8/20/2020	8/21/2020	37'	1
Guest Dock	4	8/15/2020	WEBSITE	Confirmed	8/21/2020	8/23/2020	28'	2
Guest Dock	9	8/20/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	33'	3
Guest Dock	11	8/14/2020	WEBSITE	Confirmed	8/21/2020	8/23/2020	25'	2
Guest Dock	10	8/15/2020	WEBSITE	Confirmed	8/21/2020	8/23/2020		2
Guest Dock	3	8/11/2020	WEBSITE	Confirmed	8/21/2020	8/30/2020	34'	9
Guest Dock	28	8/15/2020	WEBSITE	Confirmed	8/21/2020	8/23/2020	18'	2
Guest Dock	27	8/14/2020	Moorings	Confirmed	8/21/2020	8/24/2020	33'	3
Guest Dock	20	8/18/2020	WEBSITE	Confirmed	8/22/2020	8/25/2020	26'	3
Guest Dock	19	8/18/2020	WEBSITE	Confirmed	8/22/2020	8/25/2020	43'	3
Guest Dock	5	8/8/2020	WEBSITE	Confirmed	8/22/2020	8/23/2020	39'	1
Guest Dock	13	8/13/2020	WEBSITE	Confirmed	8/22/2020	8/24/2020	48'	2
Guest Dock	2	8/10/2020	WEBSITE	Confirmed	8/22/2020	8/24/2020	30'	2
Guest Dock	28	8/20/2020	WEBSITE	Confirmed	8/23/2020	8/24/2020	35'	1
Guest Dock	11	8/24/2020	WEBSITE	Confirmed	8/23/2020	8/24/2020	40'	1
Guest Dock	8	8/21/2020	WEBSITE	Confirmed	8/23/2020	8/24/2020		1
Guest Dock	6	8/20/2020	WEBSITE	Confirmed	8/23/2020	8/27/2020	36'	4
Guest Dock	4	8/20/2020	WEBSITE	Confirmed	8/23/2020	8/24/2020	21'	1
Guest Dock	5	8/21/2020	WEBSITE	Confirmed	8/23/2020	8/26/2020	25'	3
Guest Dock	14	8/22/2020	WEBSITE	Confirmed	8/23/2020	8/24/2020	29'	1
Guest Dock	12	8/5/2020	Moorings	Confirmed	8/23/2020	8/28/2020	36'	5
Guest Dock	16	8/23/2020	WEBSITE	Confirmed	8/23/2020	8/24/2020	32'	1
Guest Dock	7	8/19/2020	WEBSITE	Confirmed	8/23/2020	8/25/2020	33'	2
Guest Dock	10	8/22/2020	WEBSITE	Confirmed	8/23/2020	8/24/2020		1
Guest Dock	15	8/12/2020	WEBSITE	Confirmed	8/23/2020	8/24/2020	38'	1
Guest Dock	18	8/22/2020	WEBSITE	Confirmed	8/24/2020	8/25/2020	46'	1
Guest Dock	26	8/24/2020	WEBSITE	Confirmed	8/24/2020	8/27/2020	32'	3
Guest Dock	22	8/17/2020	WEBSITE	Confirmed	8/24/2020	8/28/2020	38'	4
Guest Dock	10	8/23/2020	WEBSITE	Confirmed	8/24/2020	8/25/2020	27'	1
Guest Dock	11	8/24/2020	WEBSITE	Confirmed	8/24/2020	8/26/2020	34'	2
Guest Dock	13	8/24/2020	WEBSITE	Confirmed	8/24/2020	8/29/2020	26'	5
Guest Dock	28	8/18/2020	WEBSITE	Confirmed	8/24/2020	8/28/2020	37'	4
Guest Dock	14	8/23/2020	WEBSITE	Confirmed	8/24/2020	8/25/2020		1
Guest Dock	27	8/23/2020	WEBSITE	Confirmed	8/24/2020	8/27/2020	30'	3
Guest Dock	16	8/23/2020	WEBSITE	Confirmed	8/24/2020	8/28/2020		4
Guest Dock	8	8/24/2020	WEBSITE	Confirmed	8/24/2020	8/25/2020	23'	1
Guest Dock	2	8/24/2020	WEBSITE	Confirmed	8/24/2020	8/27/2020	21'	3
Guest Dock	9	8/19/2020	WEBSITE	Confirmed	8/24/2020	9/7/2020	27'	14
Guest Dock	15	8/23/2020	WEBSITE	Confirmed	8/24/2020	8/25/2020	34'	1
Guest Dock	4	8/15/2020	WEBSITE	Confirmed	8/25/2020	8/26/2020	31'	1
Guest Dock	8	8/25/2020	WEBSITE	Confirmed	8/25/2020	8/26/2020	40'	1
Guest Dock	14	8/24/2020	WEBSITE	Confirmed	8/25/2020	8/26/2020		1
Guest Dock	10	8/24/2020	WEBSITE	Confirmed	8/25/2020	8/26/2020	27'	1
Guest Dock	7	8/24/2020	WEBSITE	Confirmed	8/25/2020	8/27/2020	33'	2
Guest Dock	20	8/24/2020	WEBSITE	Confirmed	8/25/2020	9/1/2020	46'	7
Guest Dock	18	8/11/2020	WEBSITE	Confirmed	8/25/2020	9/1/2020	50'	7
Guest Dock	8	8/20/2020	WEBSITE	Confirmed	8/26/2020	8/28/2020		2
Guest Dock	14	8/24/2020	WEBSITE	Confirmed	8/26/2020	8/28/2020	34'	2

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	4	8/25/2020	WEBSITE	Confirmed	8/26/2020	8/27/2020	40'	1
Guest Dock	15	8/21/2020	WEBSITE	Confirmed	8/26/2020	8/29/2020	25'	3
Guest Dock	11	8/17/2020	WEBSITE	Confirmed	8/27/2020	8/30/2020	13'	3
Guest Dock	19	8/25/2020	WEBSITE	Confirmed	8/27/2020	8/28/2020	34'	1
Guest Dock	10	8/18/2020	WEBSITE	Confirmed	8/27/2020	8/31/2020	28'	4
Guest Dock	2	8/25/2020	WEBSITE	Confirmed	8/27/2020	8/30/2020	30'	3
Guest Dock	7	8/24/2020	WEBSITE	Confirmed	8/27/2020	8/30/2020	35'	3
Guest Dock	26	8/24/2020	WEBSITE	Confirmed	8/27/2020	9/8/2020	30'	12
Guest Dock	6	8/26/2020	WEBSITE	Confirmed	8/27/2020	8/28/2020	33'	1
Guest Dock	19	8/26/2020	WEBSITE	Confirmed	8/28/2020	8/29/2020	47'	1
Guest Dock	14	8/16/2020	WEBSITE	Confirmed	8/28/2020	8/30/2020	29'	2
Guest Dock	8	8/18/2020	WEBSITE	Confirmed	8/28/2020	8/29/2020	22'	1
Guest Dock	6	8/14/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	29'	3
Guest Dock	16	8/27/2020	Moorings	Confirmed	8/28/2020	8/29/2020	51'	1
Guest Dock	12	8/27/2020	WEBSITE	Confirmed	8/28/2020	8/29/2020	33'	1
Guest Dock	22	8/24/2020	WEBSITE	Confirmed	8/28/2020	9/4/2020	42'	7
Guest Dock	28	8/26/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	22'	3
Guest Dock	19	8/27/2020	Moorings	Confirmed	8/29/2020	8/30/2020	51'	1
Guest Dock	8	7/20/2020	Moorings	Confirmed	8/29/2020	8/31/2020	36'	2
Guest Dock	16	8/27/2020	Moorings	Confirmed	8/29/2020	8/30/2020	27'	1
Guest Dock	15	8/24/2020	WEBSITE	Confirmed	8/29/2020	8/31/2020	25'	2
Guest Dock	13	8/22/2020	WEBSITE	Confirmed	8/29/2020	9/13/2020	25'	15
Guest Dock	12	8/24/2020	WEBSITE	Confirmed	8/29/2020	8/31/2020	26'	2
Guest Dock	5	8/30/2020	WEBSITE	Confirmed	8/30/2020	8/31/2020	34'	1
Guest Dock	14	8/31/2020	Moorings	Confirmed	8/30/2020	9/2/2020	38'	3
Guest Dock	16	8/30/2020	WEBSITE	Confirmed	8/30/2020	8/31/2020	35'	1
Guest Dock	11	8/27/2020	WEBSITE	Confirmed	8/30/2020	9/1/2020	23'	2
Guest Dock	4	8/30/2020	WEBSITE	Confirmed	8/30/2020	8/31/2020	17'	1
Guest Dock	3	8/30/2020	WEBSITE	Confirmed	8/30/2020	8/31/2020	34'	1
Guest Dock	2	8/17/2020	WEBSITE	Confirmed	8/30/2020	9/1/2020	30'	2
Guest Dock	5	8/24/2020	WEBSITE	Confirmed	8/31/2020	9/2/2020	26'	2
Guest Dock	3	8/31/2020	Moorings	Confirmed	8/31/2020	9/1/2020	45'	1
Guest Dock	8	7/20/2020	Moorings	Confirmed	8/31/2020	9/2/2020	36'	2
Guest Dock	12	8/31/2020	Moorings	Confirmed	8/31/2020	9/3/2020	42'	3
Guest Dock	28	8/30/2020	WEBSITE	Confirmed	8/31/2020	9/2/2020		2
Guest Dock	4	8/29/2020	WEBSITE	Confirmed	8/31/2020	9/1/2020	24'	1
Guest Dock	10	8/28/2020	WEBSITE	Confirmed	8/31/2020	9/4/2020	38'	4
Guest Dock	27	8/29/2020	WEBSITE	Confirmed	8/31/2020	9/3/2020	32'	3
Guest Dock	6	8/29/2020	WEBSITE	Confirmed	8/31/2020	9/1/2020	32'	1
Guest Dock	16	8/21/2020	WEBSITE	Confirmed	8/31/2020	9/3/2020		3
Guest Dock	18	9/1/2020	WEBSITE	Confirmed	9/1/2020	9/2/2020	32'	1
Guest Dock	6	8/20/2020	WEBSITE	Confirmed	9/1/2020	9/5/2020	38'	4
Guest Dock	20	8/31/2020	WEBSITE	Confirmed	9/1/2020	9/2/2020	46'	1
Guest Dock	15	9/1/2020	Moorings	Confirmed	9/1/2020	9/2/2020	27'	1
Guest Dock	2	8/24/2020	WEBSITE	Confirmed	9/1/2020	9/2/2020	22'	1
Guest Dock	19	8/31/2020	Moorings	Confirmed	9/1/2020	9/2/2020	34'	1
Guest Dock	4	8/18/2020	WEBSITE	Confirmed	9/1/2020	9/15/2020	17'	14
Guest Dock	11	8/31/2020	Moorings	Confirmed	9/2/2020	9/3/2020	34'	1
Guest Dock	2	8/31/2020	WEBSITE	Confirmed	9/2/2020	9/4/2020	31'	2
Guest Dock	28	8/27/2020	WEBSITE	Confirmed	9/2/2020	9/5/2020	30'	3
Guest Dock	5	8/19/2020	WEBSITE	Confirmed	9/2/2020	9/7/2020	40'	5
Guest Dock	8	7/20/2020	Moorings	Confirmed	9/2/2020	9/4/2020	36'	2
Guest Dock	7	9/1/2020	WEBSITE	Confirmed	9/2/2020	9/3/2020	36'	1
Guest Dock	19	8/31/2020	Moorings	Confirmed	9/2/2020	9/4/2020	38'	2
Guest Dock	15	8/24/2020	WEBSITE	Confirmed	9/2/2020	9/5/2020	40'	3
Guest Dock	14	9/1/2020	WEBSITE	Confirmed	9/2/2020	9/3/2020	32'	1
Guest Dock	18	8/19/2020	WEBSITE	Confirmed	9/2/2020	9/8/2020	45'	6
Guest Dock	16	8/29/2020	WEBSITE	Confirmed	9/3/2020	9/5/2020	25'	2
Guest Dock	29	8/29/2020	WEBSITE	Confirmed	9/3/2020	9/4/2020	32'	1
Guest Dock	12	8/20/2020	WEBSITE	Confirmed	9/3/2020	9/4/2020	40'	1
Guest Dock	20	9/1/2020	WEBSITE	Confirmed	9/3/2020	9/4/2020	36'	1
Guest Dock	3	8/31/2020	Moorings	Confirmed	9/3/2020	9/4/2020	42'	1
Guest Dock	11	8/27/2020	WEBSITE	Confirmed	9/3/2020	9/7/2020	27'	4
Guest Dock	21	8/31/2020	Moorings	Confirmed	9/3/2020	9/8/2020	34'	5
Guest Dock	14	9/1/2020	WEBSITE	Confirmed	9/3/2020	9/4/2020	33'	1
Guest Dock	14	9/1/2020	WEBSITE	Confirmed	9/4/2020	9/5/2020	33'	1
Guest Dock	22	8/31/2020	WEBSITE	Confirmed	9/4/2020	9/8/2020	31'	4
Guest Dock	27	8/17/2020	WEBSITE	Confirmed	9/4/2020	9/5/2020	38'	1
Guest Dock	29	9/2/2020	WEBSITE	Confirmed	9/4/2020	9/8/2020	21'	4
Guest Dock	8	7/20/2020	Moorings	Confirmed	9/4/2020	9/6/2020	36'	2

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	10	8/25/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	21'	3
Guest Dock	19	8/31/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	63'	3
Guest Dock	20	8/31/2020	Moorings	Confirmed	9/4/2020	9/7/2020	38'	3
Guest Dock	3	8/11/2020	WEBSITE	Confirmed	9/4/2020	9/8/2020	50'	4
Guest Dock	12	8/27/2020	WEBSITE	Confirmed	9/4/2020	9/6/2020	22'	2
Guest Dock	2	8/21/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	36'	3
Guest Dock	15	8/24/2020	WEBSITE	Confirmed	9/5/2020	9/8/2020	40'	3
Guest Dock	16	8/22/2020	WEBSITE	Confirmed	9/5/2020	9/7/2020	26'	2
Guest Dock	28	8/30/2020	WEBSITE	Confirmed	9/5/2020	9/14/2020	34'	9
Guest Dock	6	9/1/2020	WEBSITE	Confirmed	9/5/2020	9/6/2020	34'	1
Guest Dock	14	8/17/2020	WEBSITE	Confirmed	9/5/2020	9/11/2020	38'	6
Guest Dock	27	8/27/2020	WEBSITE	Confirmed	9/5/2020	9/7/2020	20'	2
Guest Dock	7	8/24/2020	WEBSITE	Confirmed	9/5/2020	9/8/2020	41'	3
Guest Dock	6	8/25/2020	WEBSITE	Confirmed	9/6/2020	9/8/2020	18'	2
Guest Dock	8	7/20/2020	Moorings	Confirmed	9/6/2020	9/8/2020	36'	2
Guest Dock	12	8/27/2020	WEBSITE	Confirmed	9/6/2020	9/7/2020		1
Guest Dock	2	8/29/2020	WEBSITE	Confirmed	9/7/2020	9/9/2020	26'	2
Guest Dock	11	9/7/2020	WEBSITE	Confirmed	9/7/2020	9/8/2020	48'	1
Guest Dock	5	9/6/2020	WEBSITE	Confirmed	9/7/2020	9/8/2020	43'	1
Guest Dock	20	9/3/2020	Moorings	Confirmed	9/7/2020	9/9/2020	42'	2
Guest Dock	10	9/7/2020	WEBSITE	Confirmed	9/7/2020	9/8/2020	34'	1
Guest Dock	16	9/1/2020	WEBSITE	Confirmed	9/7/2020	9/12/2020	36'	5
Guest Dock	9	8/30/2020	WEBSITE	Confirmed	9/7/2020	9/12/2020	25'	5
Guest Dock	27	9/1/2020	WEBSITE	Confirmed	9/7/2020	9/11/2020	35'	4
Guest Dock	12	8/31/2020	WEBSITE	Confirmed	9/7/2020	9/22/2020	42'	15
Guest Dock	6	9/2/2020	WEBSITE	Confirmed	9/8/2020	9/18/2020	21'	10
Guest Dock	29	8/31/2020	WEBSITE	Confirmed	9/8/2020	9/17/2020	31'	9
Guest Dock	5	8/25/2020	WEBSITE	Confirmed	9/8/2020	9/13/2020	44'	5
Guest Dock	26	9/5/2020	WEBSITE	Confirmed	9/8/2020	9/10/2020	34'	2
Guest Dock	15	9/5/2020	WEBSITE	Confirmed	9/8/2020	9/11/2020	37'	3
Guest Dock	8	8/27/2020	WEBSITE	Confirmed	9/8/2020	9/11/2020	43'	3
Guest Dock	7	9/2/2020	WEBSITE	Confirmed	9/8/2020	9/10/2020	27'	2
Guest Dock	11	9/1/2020	WEBSITE	Confirmed	9/8/2020	9/9/2020	42'	1
Guest Dock	3	9/2/2020	WEBSITE	Confirmed	9/8/2020	9/9/2020	50'	1
Guest Dock	18	8/28/2020	WEBSITE	Confirmed	9/8/2020	9/11/2020	38'	3
Guest Dock	22	9/7/2020	WEBSITE	Confirmed	9/8/2020	9/11/2020	32'	3
Guest Dock	19	8/19/2020	WEBSITE	Confirmed	9/8/2020	9/18/2020	38'	10
Guest Dock	21	9/8/2020	WEBSITE	Confirmed	9/9/2020	9/11/2020	26'	2
Guest Dock	3	9/3/2020	Moorings	Confirmed	9/9/2020	9/10/2020	42'	1
Guest Dock	11	9/7/2020	WEBSITE	Confirmed	9/9/2020	9/11/2020		2
Guest Dock	20	9/3/2020	Moorings	Confirmed	9/9/2020	9/16/2020	46'	7
Guest Dock	2	9/4/2020	WEBSITE	Confirmed	9/9/2020	9/12/2020	27'	3
Guest Dock	10	9/5/2020	WEBSITE	Confirmed	9/9/2020	9/11/2020	25'	2
Guest Dock	3	9/5/2020	WEBSITE	Confirmed	9/10/2020	9/11/2020	34'	1
Guest Dock	7	8/27/2020	WEBSITE	Confirmed	9/10/2020	9/13/2020	36'	3
Guest Dock	26	8/28/2020	WEBSITE	Confirmed	9/10/2020	9/11/2020	40'	1
Guest Dock	8	9/2/2020	WEBSITE	Confirmed	9/11/2020	9/13/2020	30'	2
Guest Dock	10	9/6/2020	WEBSITE	Confirmed	9/11/2020	9/13/2020	29'	2
Guest Dock	21	9/8/2020	WEBSITE	Confirmed	9/11/2020	9/12/2020	26'	1
Guest Dock	18	9/9/2020	WEBSITE	Confirmed	9/11/2020	9/13/2020	47'	2
Guest Dock	3	9/3/2020	WEBSITE	Confirmed	9/11/2020	9/15/2020	23'	4
Guest Dock	26	9/6/2020	WEBSITE	Confirmed	9/11/2020	9/16/2020	36'	5
Guest Dock	27	9/7/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	45'	3
Guest Dock	22	9/9/2020	Moorings	Confirmed	9/11/2020	9/12/2020	40'	1
Guest Dock	11	8/29/2020	WEBSITE	Confirmed	9/11/2020	9/13/2020	23'	2
Guest Dock	15	8/17/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	38'	3
Guest Dock	14	8/30/2020	WEBSITE	Confirmed	9/11/2020	9/21/2020	26'	10
Guest Dock	22	9/8/2020	Moorings	Confirmed	9/12/2020	9/13/2020	36'	1
Guest Dock	2	9/8/2020	WEBSITE	Confirmed	9/12/2020	9/15/2020	26'	3
Guest Dock	16	9/2/2020	WEBSITE	Confirmed	9/12/2020	9/13/2020	30'	1
Guest Dock	9	9/7/2020	WEBSITE	Confirmed	9/12/2020	9/15/2020	45'	3
Guest Dock	21	9/3/2020	WEBSITE	Confirmed	9/12/2020	9/13/2020	60'	1
Guest Dock	11	9/9/2020	WEBSITE	Confirmed	9/13/2020	9/15/2020	32'	2
Guest Dock	7	9/8/2020	WEBSITE	Confirmed	9/13/2020	9/14/2020	27'	1
Guest Dock	21	9/8/2020	Moorings	Confirmed	9/13/2020	9/14/2020	36'	1
Guest Dock	8	9/10/2020	Moorings	Confirmed	9/13/2020	9/18/2020	25'	5
Guest Dock	22	9/3/2020	WEBSITE	Confirmed	9/13/2020	9/14/2020	63'	1
Guest Dock	10	9/9/2020	WEBSITE	Confirmed	9/13/2020	9/18/2020	25'	5
Guest Dock	5	9/13/2020	WEBSITE	Confirmed	9/13/2020	9/14/2020	34'	1
Guest Dock	18	9/9/2020	Moorings	Confirmed	9/13/2020	9/14/2020	40'	1



**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	16	9/12/2020	WEBSITE	Confirmed	9/13/2020	9/14/2020	42'	1
Guest Dock	15	9/9/2020	WEBSITE	Confirmed	9/14/2020	9/17/2020	45'	3
Guest Dock	21	8/31/2020	WEBSITE	Confirmed	9/14/2020	9/29/2020	65'	15
Guest Dock	22	9/8/2020	Moorings	Confirmed	9/14/2020	9/17/2020	36'	3
Guest Dock	13	9/5/2020	WEBSITE	Confirmed	9/14/2020	9/18/2020	37'	4
Guest Dock	7	9/3/2020	WEBSITE	Confirmed	9/14/2020	9/16/2020	27'	2
Guest Dock	5	9/11/2020	Moorings	Confirmed	9/14/2020	9/18/2020	38'	4
Guest Dock	28	9/12/2020	WEBSITE	Confirmed	9/14/2020	9/15/2020	33'	1
Guest Dock	16	9/7/2020	WEBSITE	Confirmed	9/14/2020	9/15/2020	36'	1
Guest Dock	18	8/31/2020	WEBSITE	Confirmed	9/14/2020	9/17/2020	50'	3
Guest Dock	28	9/12/2020	WEBSITE	Confirmed	9/15/2020	9/16/2020		1
Guest Dock	9	9/8/2020	WEBSITE	Confirmed	9/15/2020	9/17/2020	33'	2
Guest Dock	4	9/11/2020	WEBSITE	Confirmed	9/15/2020	9/18/2020	23'	3
Guest Dock	11	9/12/2020	WEBSITE	Confirmed	9/15/2020	9/16/2020	42'	1
Guest Dock	3	9/12/2020	WEBSITE	Confirmed	9/16/2020	9/18/2020	42'	2
Guest Dock	28	9/14/2020	WEBSITE	Confirmed	9/16/2020	9/17/2020		1
Guest Dock	11	9/14/2020	Moorings	Confirmed	9/16/2020	9/17/2020	36'	1
Guest Dock	20	9/14/2020	Moorings	Confirmed	9/16/2020	10/1/2020		15
Guest Dock	7	9/2/2020	WEBSITE	Confirmed	9/16/2020	9/17/2020		1
Guest Dock	18	9/3/2020	WEBSITE	Confirmed	9/17/2020	9/18/2020	50'	1
Guest Dock	22	9/14/2020	Moorings	Confirmed	9/17/2020	9/19/2020	26'	2
Guest Dock	26	9/13/2020	WEBSITE	Confirmed	9/17/2020	9/20/2020	33'	3
Guest Dock	16	9/8/2020	Moorings	Confirmed	9/17/2020	9/19/2020	36'	2
Guest Dock	28	9/11/2020	WEBSITE	Confirmed	9/17/2020	9/19/2020	34'	2
Guest Dock	27	9/15/2020	WEBSITE	Confirmed	9/17/2020	9/18/2020	32'	1
Guest Dock	7	9/15/2020	WEBSITE	Confirmed	9/17/2020	9/18/2020	13'	1
Guest Dock	15	9/15/2020	Moorings	Confirmed	9/17/2020	9/18/2020	45'	1
Guest Dock	9	9/3/2020	WEBSITE	Confirmed	9/17/2020	9/19/2020	33'	2
Guest Dock	7	9/5/2020	WEBSITE	Confirmed	9/18/2020	9/22/2020	41'	4
Guest Dock	18	9/15/2020	Moorings	Confirmed	9/18/2020	9/20/2020	45'	2
Guest Dock	27	9/7/2020	WEBSITE	Confirmed	9/18/2020	9/19/2020	30'	1
Guest Dock	8	9/7/2020	WEBSITE	Confirmed	9/18/2020	9/20/2020	17'	2
Guest Dock	5	9/11/2020	WEBSITE	Confirmed	9/18/2020	9/20/2020	23'	2
Guest Dock	13	9/10/2020	Moorings	Confirmed	9/18/2020	9/21/2020	16'	3
Guest Dock	6	9/4/2020	WEBSITE	Confirmed	9/18/2020	9/20/2020	29'	2
Guest Dock	10	9/8/2020	WEBSITE	Confirmed	9/18/2020	9/20/2020	38'	2
Guest Dock	3	9/6/2020	WEBSITE	Confirmed	9/18/2020	9/20/2020	25'	2
Guest Dock	11	9/9/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	17'	3
Guest Dock	15	9/6/2020	WEBSITE	Confirmed	9/18/2020	9/20/2020	29'	2
Guest Dock	19	9/15/2020	Moorings	Confirmed	9/18/2020	9/22/2020	35'	4
Guest Dock	2	9/4/2020	WEBSITE	Confirmed	9/18/2020	9/20/2020	23'	2
Guest Dock	4	9/13/2020	WEBSITE	Confirmed	9/18/2020	9/20/2020	25'	2
Guest Dock	9	9/7/2020	WEBSITE	Confirmed	9/19/2020	9/21/2020	27'	2
Guest Dock	16	9/9/2020	WEBSITE	Confirmed	9/19/2020	9/20/2020	33'	1
Guest Dock	27	9/17/2020	Moorings	Confirmed	9/19/2020	9/29/2020	22'	10
Guest Dock	28	9/19/2020	WEBSITE	Confirmed	9/19/2020	9/20/2020	31'	1
Guest Dock	2	9/18/2020	WEBSITE	Confirmed	9/20/2020	9/21/2020	25'	1
Guest Dock	26	9/17/2020	WEBSITE	Confirmed	9/20/2020	10/5/2020	39'	15
Guest Dock	15	9/15/2020	Moorings	Confirmed	9/20/2020	9/25/2020	45'	5
Guest Dock	6	9/7/2020	WEBSITE	Confirmed	9/20/2020	9/21/2020	29'	1
Guest Dock	28	9/18/2020	WEBSITE	Confirmed	9/20/2020	9/22/2020		2
Guest Dock	16	9/14/2020	Moorings	Confirmed	9/20/2020	9/21/2020	36'	1
Guest Dock	5	9/20/2020	WEBSITE	Confirmed	9/20/2020	9/21/2020	36'	1
Guest Dock	3	9/19/2020	WEBSITE	Confirmed	9/20/2020	9/21/2020	33'	1
Guest Dock	10	9/15/2020	WEBSITE	Confirmed	9/20/2020	9/26/2020	38'	6
Guest Dock	18	9/6/2020	WEBSITE	Confirmed	9/20/2020	9/23/2020	50'	3
Guest Dock	4	9/6/2020	WEBSITE	Confirmed	9/20/2020	9/22/2020	26'	2
Guest Dock	11	9/17/2020	WEBSITE	Confirmed	9/21/2020	9/25/2020	33'	4
Guest Dock	16	9/12/2020	WEBSITE	Confirmed	9/21/2020	9/24/2020	21'	3
Guest Dock	13	9/17/2020	WEBSITE	Confirmed	9/21/2020	9/22/2020	20'	1
Guest Dock	6	9/8/2020	WEBSITE	Confirmed	9/21/2020	9/25/2020	30'	4
Guest Dock	8	9/17/2020	WEBSITE	Confirmed	9/21/2020	9/22/2020	27'	1
Guest Dock	14	9/19/2020	WEBSITE	Confirmed	9/21/2020	9/24/2020	43'	3
Guest Dock	22	9/18/2020	WEBSITE	Confirmed	9/21/2020	9/22/2020	46'	1
Guest Dock	5	9/14/2020	Moorings	Confirmed	9/21/2020	9/22/2020	36'	1
Guest Dock	9	9/7/2020	WEBSITE	Confirmed	9/21/2020	9/28/2020	37'	7
Guest Dock	2	9/19/2020	WEBSITE	Confirmed	9/21/2020	9/24/2020	37'	3
Guest Dock	3	9/19/2020	WEBSITE	Confirmed	9/21/2020	9/22/2020	24'	1
Guest Dock	8	9/21/2020	WEBSITE	Confirmed	9/22/2020	9/23/2020	24'	1
Guest Dock	12	9/22/2020	WEBSITE	Confirmed	9/22/2020	9/23/2020	42'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	3	9/21/2020	WEBSITE	Confirmed	9/22/2020	9/25/2020	25'	3
Guest Dock	7	9/20/2020	WEBSITE	Confirmed	9/22/2020	9/23/2020	41'	1
Guest Dock	28	9/18/2020	WEBSITE	Confirmed	9/22/2020	9/23/2020		1
Guest Dock	4	9/8/2020	WEBSITE	Confirmed	9/22/2020	9/25/2020	34'	3
Guest Dock	22	9/22/2020	WEBSITE	Confirmed	9/22/2020	9/23/2020	47'	1
Guest Dock	22	9/22/2020	WEBSITE	Confirmed	9/23/2020	9/25/2020	47'	2
Guest Dock	8	9/21/2020	WEBSITE	Confirmed	9/23/2020	9/25/2020	17'	2
Guest Dock	28	9/18/2020	WEBSITE	Confirmed	9/23/2020	9/24/2020		1
Guest Dock	13	9/21/2020	WEBSITE	Confirmed	9/23/2020	9/24/2020	24'	1
Guest Dock	19	9/22/2020	Moorings	Confirmed	9/24/2020	9/28/2020	35'	4
Guest Dock	12	9/20/2020	WEBSITE	Confirmed	9/24/2020	9/27/2020	23'	3
Guest Dock	16	9/20/2020	WEBSITE	Confirmed	9/24/2020	9/26/2020	40'	2
Guest Dock	7	9/22/2020	Moorings	Confirmed	9/24/2020	9/25/2020	36'	1
Guest Dock	2	9/16/2020	WEBSITE	Confirmed	9/24/2020	9/29/2020	25'	5
Guest Dock	13	9/11/2020	WEBSITE	Confirmed	9/24/2020	9/28/2020	33'	4
Guest Dock	28	9/18/2020	WEBSITE	Confirmed	9/24/2020	9/25/2020		1
Guest Dock	5	9/23/2020	Moorings	Confirmed	9/24/2020	9/25/2020	38'	1
Guest Dock	14	9/22/2020	WEBSITE	Confirmed	9/24/2020	9/25/2020	43'	1
Guest Dock	5	9/24/2020	Moorings	Confirmed	9/25/2020	9/27/2020	34'	2
Guest Dock	14	9/13/2020	WEBSITE	Confirmed	9/25/2020	9/27/2020	28'	2
Guest Dock	22	9/23/2020	Moorings	Confirmed	9/25/2020	9/28/2020	26'	3
Guest Dock	4	9/18/2020	WEBSITE	Confirmed	9/25/2020	9/27/2020	30'	2
Guest Dock	7	9/16/2020	WEBSITE	Confirmed	9/25/2020	9/27/2020	36'	2
Guest Dock	15	9/13/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	29'	3
Guest Dock	3	9/22/2020	Moorings	Confirmed	9/25/2020	9/27/2020	36'	2
Guest Dock	28	9/23/2020	Moorings	Confirmed	9/25/2020	10/1/2020	35'	6
Guest Dock	6	9/21/2020	WEBSITE	Confirmed	9/25/2020	9/26/2020	25'	1
Guest Dock	11	9/11/2020	WEBSITE	Confirmed	9/25/2020	9/27/2020	23'	2
Guest Dock	8	9/15/2020	Moorings	Confirmed	9/25/2020	9/30/2020	45'	5
Guest Dock	16	9/21/2020	WEBSITE	Confirmed	9/26/2020	9/27/2020	25'	1
Guest Dock	6	9/17/2020	WEBSITE	Confirmed	9/26/2020	10/3/2020	28'	7
Guest Dock	10	9/22/2020	WEBSITE	Confirmed	9/26/2020	9/29/2020	15'	3
Guest Dock	4	9/24/2020	WEBSITE	Confirmed	9/27/2020	9/28/2020	25'	1
Guest Dock	7	9/14/2020	Moorings	Confirmed	9/27/2020	10/5/2020	27'	8
Guest Dock	12	9/25/2020	Moorings	Confirmed	9/27/2020	10/2/2020	43'	5
Guest Dock	14	9/22/2020	WEBSITE	Confirmed	9/27/2020	9/30/2020	27'	3
Guest Dock	16	9/13/2020	WEBSITE	Confirmed	9/27/2020	10/4/2020	35'	7
Guest Dock	11	9/23/2020	WEBSITE	Confirmed	9/27/2020	9/28/2020	33'	1
Guest Dock	5	9/17/2020	Moorings	Confirmed	9/27/2020	10/11/2020	45'	14
Guest Dock	9	9/18/2020	WEBSITE	Confirmed	9/28/2020	9/29/2020	27'	1
Guest Dock	4	9/27/2020	WEBSITE	Confirmed	9/28/2020	9/29/2020	36'	1
Guest Dock	22	9/27/2020	WEBSITE	Confirmed	9/28/2020	9/29/2020	65'	1
Guest Dock	15	9/22/2020	Moorings	Confirmed	9/28/2020	10/2/2020	35'	4
Guest Dock	13	9/25/2020	WEBSITE	Confirmed	9/28/2020	10/2/2020	37'	4
Guest Dock	18	9/16/2020	WEBSITE	Confirmed	9/28/2020	9/30/2020	50'	2
Guest Dock	11	9/25/2020	Moorings	Confirmed	9/28/2020	10/2/2020	38'	4
Guest Dock	3	9/27/2020	WEBSITE	Confirmed	9/28/2020	10/1/2020	32'	3
Guest Dock	19	9/22/2020	Moorings	Confirmed	9/28/2020	10/11/2020	33'	13
Guest Dock	2	9/29/2020	Moorings	Confirmed	9/29/2020	10/5/2020	62'	6
Guest Dock	9	9/25/2020	WEBSITE	Confirmed	9/29/2020	10/1/2020	34'	2
Guest Dock	10	9/28/2020	WEBSITE	Confirmed	9/29/2020	10/2/2020	34'	3
Guest Dock	27	9/28/2020	Moorings	Confirmed	9/29/2020	9/30/2020	23'	1
Guest Dock	4	9/15/2020	WEBSITE	Confirmed	9/29/2020	10/2/2020	34'	3
Guest Dock	14	9/28/2020	Moorings	Confirmed	9/30/2020	10/1/2020	23'	1
Guest Dock	8	9/26/2020	WEBSITE	Confirmed	9/30/2020	10/1/2020	13'	1
Guest Dock	27	9/20/2020	WEBSITE	Confirmed	9/30/2020	10/3/2020	33'	3
Guest Dock	18	9/17/2020	WEBSITE	Confirmed	9/30/2020	10/1/2020	50'	1
Guest Dock	28	9/18/2020	WEBSITE	Confirmed	10/1/2020	10/4/2020	30'	3
Guest Dock	8	9/29/2020	WEBSITE	Confirmed	10/1/2020	10/2/2020	23'	1
Guest Dock	3	9/27/2020	WEBSITE	Confirmed	10/1/2020	10/4/2020	26'	3
Guest Dock	14	9/19/2020	WEBSITE	Confirmed	10/1/2020	10/4/2020	27'	3
Guest Dock	9	9/29/2020	WEBSITE	Confirmed	10/1/2020	10/2/2020	29'	1
Guest Dock	15	9/19/2020	WEBSITE	Confirmed	10/2/2020	10/4/2020	29'	2
Guest Dock	8	9/16/2020	Moorings	Confirmed	10/2/2020	10/8/2020	21'	6
Guest Dock	4	9/28/2020	Moorings	Confirmed	10/2/2020	10/3/2020	20'	1
Guest Dock	13	9/22/2020	WEBSITE	Confirmed	10/2/2020	10/3/2020	23'	1
Guest Dock	11	9/22/2020	WEBSITE	Confirmed	10/2/2020	10/3/2020	22'	1
Guest Dock	12	9/22/2020	WEBSITE	Confirmed	10/2/2020	10/4/2020	25'	2
Guest Dock	10	9/18/2020	WEBSITE	Confirmed	10/2/2020	10/6/2020	23'	4
Guest Dock	9	9/18/2020	WEBSITE	Confirmed	10/2/2020	10/9/2020	19'	7

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	11	9/21/2020	WEBSITE	Confirmed	10/3/2020	10/6/2020	18'	3
Guest Dock	27	9/28/2020	WEBSITE	Confirmed	10/3/2020	10/4/2020	38'	1
Guest Dock	18	9/22/2020	WEBSITE	Confirmed	10/3/2020	10/4/2020	22'	1
Guest Dock	22	9/28/2020	Moorings	Confirmed	10/3/2020	10/4/2020	20'	1
Guest Dock	13	9/22/2020	WEBSITE	Confirmed	10/3/2020	10/4/2020	23'	1
Guest Dock	6	9/17/2020	Moorings	Confirmed	10/3/2020	10/4/2020	19'	1
Guest Dock	4	9/20/2020	WEBSITE	Confirmed	10/3/2020	10/5/2020	20'	2
Guest Dock	16	9/28/2020	WEBSITE	Confirmed	10/4/2020	10/5/2020	29'	1
Guest Dock	3	9/28/2020	WEBSITE	Confirmed	10/4/2020	10/5/2020	25'	1
Guest Dock	28	10/1/2020	Moorings	Confirmed	10/4/2020	10/6/2020	26'	2
Guest Dock	22	9/30/2020	WEBSITE	Confirmed	10/4/2020	10/6/2020	47'	2
Guest Dock	12	9/24/2020	WEBSITE	Confirmed	10/4/2020	10/6/2020	21'	2
Guest Dock	15	9/26/2020	WEBSITE	Confirmed	10/4/2020	10/6/2020	21'	2
Guest Dock	14	9/30/2020	WEBSITE	Confirmed	10/4/2020	10/5/2020	26'	1
Guest Dock	27	10/2/2020	WEBSITE	Confirmed	10/4/2020	10/5/2020	32'	1
Guest Dock	6	9/24/2020	WEBSITE	Confirmed	10/4/2020	10/6/2020	17'	2
Guest Dock	18	9/28/2020	Moorings	Confirmed	10/5/2020	10/9/2020	38'	4
Guest Dock	4	10/1/2020	WEBSITE	Confirmed	10/5/2020	10/6/2020	32'	1
Guest Dock	3	9/28/2020	WEBSITE	Confirmed	10/5/2020	10/6/2020	25'	1
Guest Dock	14	9/22/2020	Moorings	Confirmed	10/5/2020	10/10/2020	35'	5
Guest Dock	26	9/17/2020	WEBSITE	Confirmed	10/5/2020	10/20/2020	39'	15
Guest Dock	13	9/26/2020	WEBSITE	Confirmed	10/5/2020	10/6/2020	33'	1
Guest Dock	16	9/30/2020	WEBSITE	Confirmed	10/5/2020	10/6/2020	29'	1
Guest Dock	16	10/1/2020	Moorings	Confirmed	10/6/2020	10/10/2020	36'	4
Guest Dock	13	9/25/2020	WEBSITE	Confirmed	10/6/2020	10/8/2020	33'	2
Guest Dock	6	9/27/2020	WEBSITE	Confirmed	10/6/2020	10/11/2020	30'	5
Guest Dock	4	10/5/2020	WEBSITE	Confirmed	10/6/2020	10/7/2020	25'	1
Guest Dock	10	10/2/2020	WEBSITE	Confirmed	10/6/2020	10/21/2020	28'	15
Guest Dock	3	10/2/2020	WEBSITE	Confirmed	10/6/2020	10/14/2020	39'	8
Guest Dock	22	10/4/2020	WEBSITE	Confirmed	10/6/2020	10/7/2020	47'	1
Guest Dock	11	10/4/2020	WEBSITE	Confirmed	10/6/2020	10/8/2020	17'	2
Guest Dock	12	10/3/2020	WEBSITE	Confirmed	10/6/2020	10/7/2020	40'	1
Guest Dock	4	9/24/2020	Moorings	Confirmed	10/7/2020	10/8/2020	30'	1
Guest Dock	22	10/6/2020	WEBSITE	Confirmed	10/7/2020	10/8/2020	47'	1
Guest Dock	2	10/5/2020	WEBSITE	Confirmed	10/7/2020	10/8/2020	25'	1
Guest Dock	12	10/6/2020	Moorings	Confirmed	10/7/2020	10/8/2020	22'	1
Guest Dock	8	10/6/2020	Moorings	Confirmed	10/8/2020	10/12/2020	22'	4
Guest Dock	2	10/7/2020	WEBSITE	Confirmed	10/8/2020	10/9/2020	25'	1
Guest Dock	20	10/7/2020	WEBSITE	Confirmed	10/8/2020	10/9/2020	47'	1
Guest Dock	22	10/1/2020	WEBSITE	Confirmed	10/8/2020	10/11/2020	63'	3
Guest Dock	12	10/4/2020	WEBSITE	Confirmed	10/8/2020	10/11/2020	27'	3
Guest Dock	11	10/3/2020	WEBSITE	Confirmed	10/8/2020	10/11/2020	43'	3
Guest Dock	4	10/2/2020	WEBSITE	Confirmed	10/8/2020	10/9/2020	30'	1
Guest Dock	15	10/7/2020	Moorings	Confirmed	10/9/2020	10/12/2020	43'	3
Guest Dock	4	10/7/2020	WEBSITE	Confirmed	10/9/2020	10/10/2020	24'	1
Guest Dock	9	10/4/2020	WEBSITE	Confirmed	10/9/2020	10/13/2020	42'	4
Guest Dock	20	10/6/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	45'	3
Guest Dock	27	10/4/2020	WEBSITE	Confirmed	10/9/2020	10/13/2020	30'	4
Guest Dock	2	10/3/2020	WEBSITE	Confirmed	10/9/2020	10/10/2020	20'	1
Guest Dock	2	9/28/2020	WEBSITE	Confirmed	10/10/2020	10/12/2020	20'	2
Guest Dock	18	10/1/2020	Moorings	Confirmed	10/10/2020	10/11/2020	36'	1
Guest Dock	14	10/3/2020	WEBSITE	Confirmed	10/10/2020	10/11/2020	36'	1
Guest Dock	29	10/9/2020	Moorings	Confirmed	10/10/2020	10/16/2020	62'	6
Guest Dock	13	10/4/2020	WEBSITE	Confirmed	10/10/2020	10/12/2020	38'	2
Guest Dock	16	10/4/2020	WEBSITE	Confirmed	10/10/2020	10/11/2020	30'	1
Guest Dock	12	10/10/2020	WEBSITE	Confirmed	10/11/2020	10/12/2020	43'	1
Guest Dock	6	10/8/2020	Moorings	Confirmed	10/11/2020	10/12/2020	37'	1
Guest Dock	14	10/10/2020	WEBSITE	Confirmed	10/11/2020	10/12/2020	32'	1
Guest Dock	18	10/11/2020	WEBSITE	Confirmed	10/11/2020	10/12/2020	46'	1
Guest Dock	5	9/17/2020	Moorings	Confirmed	10/11/2020	10/12/2020	45'	1
Guest Dock	11	10/12/2020	Moorings	Confirmed	10/11/2020	10/12/2020	30'	1
Guest Dock	19	10/12/2020	Moorings	Confirmed	10/12/2020	10/14/2020	30'	2
Guest Dock	8	10/8/2020	Moorings	Confirmed	10/12/2020	10/13/2020	37'	1
Guest Dock	13	10/8/2020	WEBSITE	Confirmed	10/12/2020	10/15/2020	30'	3
Guest Dock	5	10/6/2020	WEBSITE	Confirmed	10/12/2020	10/13/2020	22'	1
Guest Dock	14	10/8/2020	WEBSITE	Confirmed	10/12/2020	10/13/2020	45'	1
Guest Dock	28	10/8/2020	WEBSITE	Confirmed	10/12/2020	10/20/2020	34'	8
Guest Dock	16	10/1/2020	WEBSITE	Confirmed	10/12/2020	10/13/2020	42'	1
Guest Dock	11	10/5/2020	WEBSITE	Confirmed	10/12/2020	10/13/2020	32'	1
Guest Dock	6	10/3/2020	WEBSITE	Confirmed	10/12/2020	10/14/2020	30'	2

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	15	10/12/2020	Moorings	Confirmed	10/12/2020	10/13/2020	18'	1
Guest Dock	12	10/5/2020	Moorings	Confirmed	10/12/2020	10/15/2020	43'	3
Guest Dock	18	10/1/2020	WEBSITE	Confirmed	10/12/2020	10/14/2020	50'	2
Guest Dock	20	10/9/2020	Moorings	Confirmed	10/12/2020	10/16/2020	38'	4
Guest Dock	2	10/9/2020	WEBSITE	Confirmed	10/12/2020	10/15/2020	33'	3
Guest Dock	14	10/12/2020	WEBSITE	Confirmed	10/13/2020	10/14/2020	32'	1
Guest Dock	5	10/12/2020	Moorings	Confirmed	10/13/2020	10/14/2020	18'	1
Guest Dock	16	10/7/2020	WEBSITE	Confirmed	10/13/2020	10/16/2020	37'	3
Guest Dock	11	10/12/2020	WEBSITE	Confirmed	10/13/2020	10/15/2020	36'	2
Guest Dock	15	10/6/2020	WEBSITE	Confirmed	10/13/2020	10/16/2020	33'	3
Guest Dock	9	10/8/2020	Moorings	Confirmed	10/13/2020	10/16/2020	37'	3
Guest Dock	21	10/12/2020	Moorings	Confirmed	10/13/2020	10/16/2020	36'	3
Guest Dock	27	10/10/2020	WEBSITE	Confirmed	10/13/2020	10/16/2020	34'	3
Guest Dock	8	10/12/2020	WEBSITE	Confirmed	10/13/2020	10/14/2020	29'	1
Guest Dock	5	10/12/2020	Moorings	Confirmed	10/14/2020	10/16/2020	30'	2
Guest Dock	3	10/13/2020	WEBSITE	Confirmed	10/14/2020	10/16/2020	39'	2
Guest Dock	14	10/12/2020	WEBSITE	Confirmed	10/14/2020	10/17/2020	24'	3
Guest Dock	18	10/5/2020	WEBSITE	Confirmed	10/14/2020	10/15/2020	47'	1
Guest Dock	6	10/12/2020	WEBSITE	Confirmed	10/14/2020	10/15/2020	32'	1
Guest Dock	12	10/11/2020	WEBSITE	Confirmed	10/15/2020	10/18/2020	27'	3
Guest Dock	13	10/9/2020	WEBSITE	Confirmed	10/15/2020	10/17/2020	27'	2
Guest Dock	6	10/8/2020	WEBSITE	Confirmed	10/15/2020	10/18/2020	37'	3
Guest Dock	18	10/14/2020	Moorings	Confirmed	10/15/2020	10/16/2020	46'	1
Guest Dock	2	10/9/2020	WEBSITE	Confirmed	10/15/2020	10/17/2020	13'	2
Guest Dock	21	10/14/2020	Moorings	Confirmed	10/16/2020	10/23/2020	40'	7
Guest Dock	3	9/30/2020	WEBSITE	Confirmed	10/16/2020	10/23/2020	42'	7
Guest Dock	15	10/14/2020	WEBSITE	Confirmed	10/16/2020	10/17/2020	23'	1
Guest Dock	18	10/13/2020	WEBSITE	Confirmed	10/16/2020	10/18/2020	46'	2
Guest Dock	27	10/14/2020	Moorings	Confirmed	10/16/2020	10/17/2020	46'	1
Guest Dock	11	10/12/2020	Moorings	Confirmed	10/16/2020	10/19/2020	36'	3
Guest Dock	29	10/9/2020	Moorings	Confirmed	10/16/2020	10/19/2020	62'	3
Guest Dock	8	10/11/2020	WEBSITE	Confirmed	10/16/2020	10/18/2020	29'	2
Guest Dock	9	10/12/2020	WEBSITE	Confirmed	10/16/2020	10/18/2020	29'	2
Guest Dock	5	10/11/2020	WEBSITE	Confirmed	10/16/2020	10/17/2020	38'	1
Guest Dock	13	10/14/2020	WEBSITE	Confirmed	10/17/2020	10/18/2020	21'	1
Guest Dock	2	10/6/2020	WEBSITE	Confirmed	10/17/2020	10/19/2020	40'	2
Guest Dock	15	10/9/2020	WEBSITE	Confirmed	10/17/2020	10/24/2020	34'	7
Guest Dock	5	10/5/2020	WEBSITE	Confirmed	10/17/2020	10/18/2020	27'	1
Guest Dock	27	10/11/2020	WEBSITE	Confirmed	10/17/2020	10/20/2020	32'	3
Guest Dock	16	10/14/2020	WEBSITE	Confirmed	10/17/2020	10/18/2020	20'	1
Guest Dock	5	10/14/2020	WEBSITE	Confirmed	10/18/2020	10/20/2020	20'	2
Guest Dock	9	10/4/2020	WEBSITE	Confirmed	10/18/2020	10/22/2020	33'	4
Guest Dock	16	10/4/2020	WEBSITE	Confirmed	10/18/2020	11/2/2020	45'	15
Guest Dock	20	10/19/2020	Moorings	Confirmed	10/18/2020	10/23/2020	37'	5
Guest Dock	4	10/17/2020	WEBSITE	Confirmed	10/18/2020	10/19/2020	27'	1
Guest Dock	8	10/16/2020	WEBSITE	Confirmed	10/18/2020	10/20/2020	37'	2
Guest Dock	12	10/18/2020	WEBSITE	Confirmed	10/18/2020	10/19/2020	39'	1
Guest Dock	22	10/12/2020	WEBSITE	Confirmed	10/18/2020	10/19/2020		1
Guest Dock	22	10/15/2020	WEBSITE	Confirmed	10/19/2020	10/20/2020	50'	1
Guest Dock	11	10/13/2020	Moorings	Confirmed	10/19/2020	10/22/2020	43'	3
Guest Dock	18	10/13/2020	Moorings	Confirmed	10/19/2020	10/23/2020	38'	4
Guest Dock	2	10/17/2020	WEBSITE	Confirmed	10/19/2020	10/20/2020	27'	1
Guest Dock	13	10/18/2020	WEBSITE	Confirmed	10/19/2020	10/20/2020	33'	1
Guest Dock	29	10/9/2020	Moorings	Confirmed	10/19/2020	10/21/2020	62'	2
Guest Dock	12	10/19/2020	Moorings	Confirmed	10/19/2020	10/20/2020	27'	1
Guest Dock	4	10/13/2020	WEBSITE	Confirmed	10/19/2020	10/22/2020	37'	3
Guest Dock	6	10/20/2020	WEBSITE	Confirmed	10/20/2020	10/21/2020	30'	1
Guest Dock	13	10/19/2020	Moorings	Confirmed	10/20/2020	10/21/2020	27'	1
Guest Dock	27	10/20/2020	Moorings	Confirmed	10/20/2020	10/21/2020	34'	1
Guest Dock	26	10/19/2020	WEBSITE	Confirmed	10/20/2020	10/22/2020	37'	2
Guest Dock	2	10/17/2020	WEBSITE	Confirmed	10/20/2020	10/23/2020	25'	3
Guest Dock	28	10/18/2020	WEBSITE	Confirmed	10/20/2020	10/23/2020	32'	3
Guest Dock	7	10/15/2020	WEBSITE	Confirmed	10/20/2020	10/22/2020	27'	2
Guest Dock	22	10/19/2020	WEBSITE	Confirmed	10/20/2020	10/23/2020	45'	3
Guest Dock	8	10/16/2020	WEBSITE	Confirmed	10/20/2020	10/21/2020	37'	1
Guest Dock	5	10/15/2020	Moorings	Confirmed	10/20/2020	10/22/2020	30'	2
Guest Dock	6	10/19/2020	Moorings	Confirmed	10/21/2020	10/23/2020	43'	2
Guest Dock	29	10/9/2020	Moorings	Confirmed	10/21/2020	10/24/2020	62'	3
Guest Dock	14	10/15/2020	WEBSITE	Confirmed	10/21/2020	10/26/2020	34'	5
Guest Dock	8	10/15/2020	WEBSITE	Confirmed	10/21/2020	10/22/2020	17'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	13	10/20/2020	WEBSITE	Confirmed	10/21/2020	10/22/2020	27'	1
Guest Dock	27	10/20/2020	Moorings	Confirmed	10/21/2020	10/22/2020	25'	1
Guest Dock	4	10/20/2020	Moorings	Confirmed	10/22/2020	10/28/2020	25'	6
Guest Dock	10	10/21/2020	WEBSITE	Confirmed	10/22/2020	10/23/2020	34'	1
Guest Dock	26	10/18/2020	WEBSITE	Confirmed	10/22/2020	10/27/2020	37'	5
Guest Dock	9	10/15/2020	WEBSITE	Confirmed	10/22/2020	10/24/2020	17'	2
Guest Dock	13	10/8/2020	WEBSITE	Confirmed	10/22/2020	10/26/2020	46'	4
Guest Dock	19	10/8/2020	WEBSITE	Confirmed	10/22/2020	10/24/2020	45'	2
Guest Dock	7	10/15/2020	WEBSITE	Confirmed	10/22/2020	10/23/2020	27'	1
Guest Dock	11	10/13/2020	Moorings	Confirmed	10/22/2020	10/23/2020	43'	1
Guest Dock	27	10/21/2020	Moorings	Confirmed	10/22/2020	10/23/2020	26'	1
Guest Dock	5	10/20/2020	WEBSITE	Confirmed	10/22/2020	10/23/2020	32'	1
Guest Dock	21	10/22/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	45'	3
Guest Dock	18	10/9/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	50'	3
Guest Dock	2	10/12/2020	WEBSITE	Confirmed	10/23/2020	10/25/2020	29'	2
Guest Dock	10	10/22/2020	WEBSITE	Confirmed	10/23/2020	10/24/2020	43'	1
Guest Dock	28	10/21/2020	WEBSITE	Confirmed	10/23/2020	10/27/2020	34'	4
Guest Dock	20	10/23/2020	Moorings	Confirmed	10/23/2020	10/24/2020	32'	1
Guest Dock	6	10/9/2020	WEBSITE	Confirmed	10/23/2020	11/2/2020	20'	10
Guest Dock	7	10/9/2020	Moorings	Confirmed	10/23/2020	10/26/2020	37'	3
Guest Dock	11	10/22/2020	Moorings	Confirmed	10/23/2020	10/25/2020	25'	2
Guest Dock	27	10/21/2020	WEBSITE	Confirmed	10/23/2020	10/25/2020	34'	2
Guest Dock	5	10/10/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	29'	3
Guest Dock	15	10/17/2020	WEBSITE	Confirmed	10/24/2020	11/8/2020	42'	15
Guest Dock	20	10/12/2020	WEBSITE	Confirmed	10/24/2020	10/26/2020	45'	2
Guest Dock	29	10/9/2020	Moorings	Confirmed	10/24/2020	10/28/2020	62'	4
Guest Dock	10	10/12/2020	WEBSITE	Confirmed	10/24/2020	10/25/2020	18'	1
Guest Dock	27	10/23/2020	WEBSITE	Confirmed	10/25/2020	10/27/2020	33'	2
Guest Dock	10	10/22/2020	WEBSITE	Confirmed	10/25/2020	10/28/2020	43'	3
Guest Dock	11	10/22/2020	WEBSITE	Confirmed	10/25/2020	10/28/2020	43'	3
Guest Dock	2	10/22/2020	WEBSITE	Confirmed	10/25/2020	10/30/2020	24'	5
Guest Dock	21	10/22/2020	WEBSITE	Confirmed	10/26/2020	10/31/2020	45'	5
Guest Dock	14	10/12/2020	WEBSITE	Confirmed	10/26/2020	10/30/2020	42'	4
Guest Dock	13	10/22/2020	WEBSITE	Confirmed	10/26/2020	10/27/2020	46'	1
Guest Dock	22	10/22/2020	Moorings	Confirmed	10/26/2020	10/29/2020	63'	3
Guest Dock	20	10/19/2020	Moorings	Confirmed	10/26/2020	10/29/2020	36'	3
Guest Dock	5	10/23/2020	Moorings	Confirmed	10/26/2020	10/28/2020	38'	2
Guest Dock	18	10/22/2020	WEBSITE	Confirmed	10/26/2020	10/27/2020	50'	1
Guest Dock	3	10/26/2020	WEBSITE	Confirmed	10/26/2020	10/27/2020	21'	1
Guest Dock	3	10/22/2020	WEBSITE	Confirmed	10/27/2020	10/29/2020	50'	2
Guest Dock	27	10/25/2020	WEBSITE	Confirmed	10/27/2020	10/28/2020	33'	1
Guest Dock	7	10/15/2020	WEBSITE	Confirmed	10/27/2020	11/1/2020	27'	5
Guest Dock	28	10/24/2020	WEBSITE	Confirmed	10/27/2020	10/30/2020	32'	3
Guest Dock	26	10/26/2020	Moorings	Confirmed	10/27/2020	10/29/2020	36'	2
Guest Dock	18	10/13/2020	WEBSITE	Confirmed	10/27/2020	10/28/2020	61'	1
Guest Dock	13	10/23/2020	WEBSITE	Confirmed	10/27/2020	10/28/2020	47'	1
Guest Dock	27	10/28/2020	Moorings	Confirmed	10/28/2020	10/29/2020	33'	1
Guest Dock	19	10/8/2020	WEBSITE	Confirmed	10/28/2020	10/29/2020	45'	1
Guest Dock	13	10/20/2020	Moorings	Confirmed	10/28/2020	10/29/2020	25'	1
Guest Dock	11	10/28/2020	WEBSITE	Confirmed	10/28/2020	10/30/2020	33'	2
Guest Dock	10	10/24/2020	WEBSITE	Confirmed	10/28/2020	10/30/2020	43'	2
Guest Dock	4	10/23/2020	Moorings	Confirmed	10/28/2020	10/30/2020	38'	2
Guest Dock	5	10/22/2020	WEBSITE	Confirmed	10/28/2020	10/30/2020	36'	2
Guest Dock	19	10/23/2020	Moorings	Confirmed	10/29/2020	10/30/2020	30'	1
Guest Dock	22	10/20/2020	Moorings	Confirmed	10/29/2020	10/30/2020	25'	1
Guest Dock	3	10/23/2020	WEBSITE	Confirmed	10/29/2020	11/2/2020	37'	4
Guest Dock	27	10/21/2020	WEBSITE	Confirmed	10/29/2020	11/1/2020	34'	3
Guest Dock	20	10/8/2020	WEBSITE	Confirmed	10/29/2020	11/12/2020	45'	14
Guest Dock	13	10/22/2020	WEBSITE	Confirmed	10/29/2020	11/2/2020	33'	4
Guest Dock	5	10/26/2020	WEBSITE	Confirmed	10/30/2020	11/1/2020	43'	2
Guest Dock	2	10/21/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	20'	3
Guest Dock	4	10/26/2020	WEBSITE	Confirmed	10/30/2020	10/31/2020	37'	1
Guest Dock	11	10/27/2020	Moorings	Confirmed	10/30/2020	11/4/2020	30'	5
Guest Dock	19	10/20/2020	Moorings	Confirmed	10/30/2020	11/2/2020	25'	3
Guest Dock	10	10/24/2020	WEBSITE	Confirmed	10/30/2020	11/7/2020	43'	8
Guest Dock	22	10/25/2020	WEBSITE	Confirmed	10/30/2020	11/1/2020	45'	2
Guest Dock	14	10/27/2020	WEBSITE	Confirmed	10/30/2020	11/1/2020	29'	2
Guest Dock	29	10/9/2020	Moorings	Confirmed	10/30/2020	11/3/2020	62'	4
Guest Dock	4	10/29/2020	WEBSITE	Confirmed	10/31/2020	11/2/2020	38'	2
Guest Dock	12	10/29/2020	Moorings	Confirmed	10/31/2020	11/1/2020	27'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	21	10/28/2020	WEBSITE	Confirmed	10/31/2020	11/7/2020	48'	7
Guest Dock	18	10/28/2020	Moorings	Confirmed	10/31/2020	11/1/2020	58'	1
Guest Dock	22	10/31/2020	WEBSITE	Confirmed	11/1/2020	11/3/2020	60'	2
Guest Dock	7	10/31/2020	WEBSITE	Confirmed	11/1/2020	11/3/2020	35'	2
Guest Dock	5	10/27/2020	WEBSITE	Confirmed	11/1/2020	11/4/2020	26'	3
Guest Dock	27	10/27/2020	WEBSITE	Confirmed	11/1/2020	11/3/2020	34'	2
Guest Dock	14	11/1/2020	WEBSITE	Confirmed	11/1/2020	11/2/2020	27'	1
Guest Dock	8	10/29/2020	WEBSITE	Confirmed	11/2/2020	11/4/2020	38'	2
Guest Dock	19	11/1/2020	WEBSITE	Confirmed	11/2/2020	11/3/2020	50'	1
Guest Dock	4	10/27/2020	Moorings	Confirmed	11/2/2020	11/6/2020	38'	4
Guest Dock	26	10/24/2020	WEBSITE	Confirmed	11/2/2020	11/5/2020	32'	3
Guest Dock	18	10/28/2020	Moorings	Confirmed	11/2/2020	11/5/2020	36'	3
Guest Dock	16	10/19/2020	WEBSITE	Confirmed	11/2/2020	11/6/2020	29'	4
Guest Dock	12	10/27/2020	WEBSITE	Confirmed	11/2/2020	11/17/2020	37'	15
Guest Dock	13	11/2/2020	Moorings	Confirmed	11/2/2020	11/9/2020	47'	7
Guest Dock	14	11/2/2020	Moorings	Confirmed	11/2/2020	11/3/2020	27'	1
Guest Dock	2	11/1/2020	WEBSITE	Confirmed	11/2/2020	11/6/2020	32'	4
Guest Dock	3	11/1/2020	WEBSITE	Confirmed	11/2/2020	11/4/2020	24'	2
Guest Dock	9	11/2/2020	WEBSITE	Confirmed	11/2/2020	11/3/2020	25'	1
Guest Dock	27	11/1/2020	WEBSITE	Confirmed	11/3/2020	11/6/2020	36'	3
Guest Dock	7	10/26/2020	WEBSITE	Confirmed	11/3/2020	11/6/2020	26'	3
Guest Dock	14	11/2/2020	Moorings	Confirmed	11/3/2020	11/4/2020	27'	1
Guest Dock	6	11/2/2020	Moorings	Confirmed	11/3/2020	11/4/2020	27'	1
Guest Dock	19	10/28/2020	WEBSITE	Confirmed	11/3/2020	11/4/2020	58'	1
Guest Dock	22	11/1/2020	WEBSITE	Confirmed	11/3/2020	11/4/2020	50'	1
Guest Dock	19	10/20/2020	Moorings	Confirmed	11/4/2020	11/9/2020	38'	5
Guest Dock	3	10/31/2020	WEBSITE	Confirmed	11/4/2020	11/5/2020	26'	1
Guest Dock	14	10/29/2020	WEBSITE	Confirmed	11/4/2020	11/7/2020	38'	3
Guest Dock	22	11/3/2020	Moorings	Confirmed	11/4/2020	11/5/2020	56'	1
Guest Dock	11	11/3/2020	Moorings	Confirmed	11/4/2020	11/5/2020	26'	1
Guest Dock	8	11/2/2020	Moorings	Confirmed	11/4/2020	11/5/2020	27'	1
Guest Dock	5	11/2/2020	WEBSITE	Confirmed	11/4/2020	11/5/2020	26'	1
Guest Dock	6	10/28/2020	WEBSITE	Confirmed	11/4/2020	11/7/2020	15'	3
Guest Dock	28	11/1/2020	WEBSITE	Confirmed	11/4/2020	11/7/2020	30'	3
Guest Dock	8	10/22/2020	WEBSITE	Confirmed	11/5/2020	11/9/2020	33'	4
Guest Dock	29	11/1/2020	WEBSITE	Confirmed	11/5/2020	11/8/2020	42'	3
Guest Dock	22	11/4/2020	Moorings	Confirmed	11/5/2020	11/6/2020	45'	1
Guest Dock	18	10/27/2020	WEBSITE	Confirmed	11/5/2020	11/20/2020	56'	15
Guest Dock	9	11/3/2020	Moorings	Confirmed	11/5/2020	11/6/2020	26'	1
Guest Dock	3	10/29/2020	WEBSITE	Confirmed	11/5/2020	11/7/2020	26'	2
Guest Dock	5	11/2/2020	WEBSITE	Confirmed	11/5/2020	11/6/2020	32'	1
Guest Dock	26	11/1/2020	WEBSITE	Confirmed	11/5/2020	11/6/2020	30'	1
Guest Dock	7	11/6/2020	Moorings	Confirmed	11/6/2020	11/7/2020	37'	1
Guest Dock	5	11/1/2020	WEBSITE	Confirmed	11/6/2020	11/7/2020	32'	1
Guest Dock	27	11/4/2020	Moorings	Confirmed	11/6/2020	11/8/2020	45'	2
Guest Dock	9	11/4/2020	Moorings	Confirmed	11/6/2020	11/16/2020	23'	10
Guest Dock	11	11/5/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	37'	3
Guest Dock	26	11/5/2020	Moorings	Confirmed	11/6/2020	11/9/2020	36'	3
Guest Dock	16	11/1/2020	WEBSITE	Confirmed	11/7/2020	11/9/2020	30'	2
Guest Dock	6	11/7/2020	WEBSITE	Confirmed	11/7/2020	11/8/2020		1
Guest Dock	5	11/7/2020	WEBSITE	Confirmed	11/7/2020	11/9/2020		2
Guest Dock	10	11/1/2020	WEBSITE	Confirmed	11/7/2020	11/8/2020	32'	1
Guest Dock	21	11/4/2020	WEBSITE	Confirmed	11/7/2020	11/13/2020	45'	6
Guest Dock	7	11/5/2020	WEBSITE	Confirmed	11/7/2020	11/9/2020	36'	2
Guest Dock	14	11/6/2020	Moorings	Confirmed	11/7/2020	11/8/2020	37'	1
Guest Dock	2	11/2/2020	WEBSITE	Confirmed	11/7/2020	11/9/2020	26'	2
Guest Dock	3	11/5/2020	Moorings	Confirmed	11/7/2020	11/11/2020	43'	4
Guest Dock	6	11/8/2020	WEBSITE	Confirmed	11/8/2020	11/9/2020	38'	1
Guest Dock	27	11/4/2020	Moorings	Confirmed	11/8/2020	11/9/2020	45'	1
Guest Dock	14	11/2/2020	Moorings	Confirmed	11/8/2020	11/20/2020	27'	12
Guest Dock	28	11/1/2020	WEBSITE	Confirmed	11/8/2020	11/10/2020	42'	2
Guest Dock	4	11/8/2020	WEBSITE	Confirmed	11/8/2020	11/9/2020	36'	1
Guest Dock	15	11/8/2020	WEBSITE	Confirmed	11/8/2020	11/9/2020	36'	1
Guest Dock	2	11/1/2020	WEBSITE	Confirmed	11/9/2020	11/13/2020	30'	4
Guest Dock	11	11/8/2020	WEBSITE	Confirmed	11/9/2020	11/11/2020	37'	2
Guest Dock	4	11/1/2020	WEBSITE	Confirmed	11/9/2020	11/12/2020	29'	3
Guest Dock	16	11/2/2020	Moorings	Confirmed	11/9/2020	11/10/2020	47'	1
Guest Dock	6	11/2/2020	Moorings	Confirmed	11/9/2020	11/13/2020	17'	4
Guest Dock	7	11/2/2020	Moorings	Confirmed	11/9/2020	11/13/2020	20'	4
Guest Dock	19	11/4/2020	Moorings	Confirmed	11/9/2020	11/24/2020	65'	15

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	27	11/8/2020	WEBSITE	Confirmed	11/9/2020	11/17/2020	30'	8
Guest Dock	8	11/5/2020	Moorings	Confirmed	11/9/2020	11/11/2020	27'	2
Guest Dock	13	11/6/2020	WEBSITE	Confirmed	11/9/2020	11/10/2020	33'	1
Guest Dock	15	11/6/2020	WEBSITE	Confirmed	11/9/2020	11/11/2020	26'	2
Guest Dock	5	11/9/2020	WEBSITE	Confirmed	11/9/2020	11/12/2020	32'	3
Guest Dock	26	11/9/2020	Moorings	Confirmed	11/9/2020	11/11/2020	24'	2
Guest Dock	16	11/9/2020	WEBSITE	Confirmed	11/10/2020	11/11/2020		1
Guest Dock	13	11/6/2020	WEBSITE	Confirmed	11/10/2020	11/12/2020	36'	2
Guest Dock	28	11/9/2020	Moorings	Confirmed	11/10/2020	11/11/2020	16'	1
Guest Dock	28	11/10/2020	Moorings	Confirmed	11/11/2020	11/16/2020	27'	5
Guest Dock	10	11/9/2020	Moorings	Confirmed	11/11/2020	11/14/2020		3
Guest Dock	8	11/9/2020	WEBSITE	Confirmed	11/11/2020	11/12/2020	40'	1
Guest Dock	3	11/10/2020	WEBSITE	Confirmed	11/11/2020	11/12/2020	27'	1
Guest Dock	15	11/8/2020	WEBSITE	Confirmed	11/11/2020	11/13/2020	45'	2
Guest Dock	22	11/11/2020	WEBSITE	Confirmed	11/11/2020	11/13/2020		2
Guest Dock	11	11/10/2020	WEBSITE	Confirmed	11/11/2020	11/13/2020	37'	2
Guest Dock	26	11/10/2020	Moorings	Confirmed	11/11/2020	11/16/2020	25'	5
Guest Dock	16	11/2/2020	WEBSITE	Confirmed	11/11/2020	11/12/2020	37'	1
Guest Dock	5	11/1/2020	WEBSITE	Confirmed	11/12/2020	11/13/2020	30'	1
Guest Dock	20	11/11/2020	WEBSITE	Confirmed	11/12/2020	11/14/2020	32'	2
Guest Dock	16	11/10/2020	WEBSITE	Confirmed	11/12/2020	11/13/2020	32'	1
Guest Dock	4	11/10/2020	WEBSITE	Confirmed	11/12/2020	11/16/2020	27'	4
Guest Dock	8	11/12/2020	WEBSITE	Confirmed	11/12/2020	11/14/2020	34'	2
Guest Dock	3	11/9/2020	WEBSITE	Confirmed	11/12/2020	11/13/2020		1
Guest Dock	13	11/10/2020	WEBSITE	Confirmed	11/12/2020	11/22/2020	40'	10
Guest Dock	2	11/11/2020	WEBSITE	Confirmed	11/13/2020	11/14/2020		1
Guest Dock	11	11/3/2020	WEBSITE	Confirmed	11/13/2020	11/14/2020	35'	1
Guest Dock	21	11/11/2020	WEBSITE	Confirmed	11/13/2020	11/15/2020	46'	2
Guest Dock	16	10/30/2020	WEBSITE	Confirmed	11/13/2020	11/19/2020	29'	6
Guest Dock	22	11/1/2020	WEBSITE	Confirmed	11/13/2020	11/15/2020	63'	2
Guest Dock	6	11/10/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	38'	3
Guest Dock	3	11/11/2020	WEBSITE	Confirmed	11/13/2020	11/15/2020		2
Guest Dock	15	11/1/2020	WEBSITE	Confirmed	11/14/2020	11/15/2020	26'	1
Guest Dock	2	11/12/2020	WEBSITE	Confirmed	11/14/2020	11/15/2020	30'	1
Guest Dock	10	11/13/2020	WEBSITE	Confirmed	11/14/2020	11/16/2020	32'	2
Guest Dock	5	11/10/2020	Moorings	Confirmed	11/14/2020	11/16/2020	27'	2
Guest Dock	8	11/12/2020	WEBSITE	Confirmed	11/14/2020	11/17/2020	34'	3
Guest Dock	7	11/9/2020	WEBSITE	Confirmed	11/14/2020	11/17/2020	27'	3
Guest Dock	2	11/9/2020	WEBSITE	Confirmed	11/15/2020	11/19/2020	31'	4
Guest Dock	3	11/15/2020	WEBSITE	Confirmed	11/15/2020	11/16/2020	36'	1
Guest Dock	15	11/13/2020	WEBSITE	Confirmed	11/15/2020	11/17/2020	20'	2
Guest Dock	20	11/16/2020	Moorings	Confirmed	11/15/2020	11/16/2020	37'	1
Guest Dock	21	11/16/2020	Moorings	Confirmed	11/16/2020	11/18/2020	37'	2
Guest Dock	20	11/2/2020	Moorings	Confirmed	11/16/2020	11/18/2020	60'	2
Guest Dock	4	11/12/2020	Moorings	Confirmed	11/16/2020	11/20/2020	38'	4
Guest Dock	28	11/16/2020	Moorings	Confirmed	11/16/2020	11/17/2020	27'	1
Guest Dock	5	11/14/2020	WEBSITE	Confirmed	11/16/2020	11/19/2020	35'	3
Guest Dock	26	11/16/2020	Moorings	Confirmed	11/16/2020	11/21/2020	25'	5
Guest Dock	9	11/16/2020	Moorings	Confirmed	11/16/2020	11/18/2020	36'	2
Guest Dock	3	11/13/2020	WEBSITE	Confirmed	11/16/2020	11/17/2020	34'	1
Guest Dock	10	11/4/2020	Moorings	Confirmed	11/16/2020	11/20/2020	23'	4
Guest Dock	6	11/14/2020	WEBSITE	Confirmed	11/16/2020	11/21/2020	40'	5
Guest Dock	11	11/13/2020	WEBSITE	Confirmed	11/16/2020	11/19/2020	31'	3
Guest Dock	15	11/15/2020	WEBSITE	Confirmed	11/17/2020	11/19/2020	34'	2
Guest Dock	7	11/9/2020	WEBSITE	Confirmed	11/17/2020	11/20/2020	27'	3
Guest Dock	27	11/13/2020	WEBSITE	Confirmed	11/17/2020	11/22/2020	30'	5
Guest Dock	22	11/9/2020	WEBSITE	Confirmed	11/17/2020	11/20/2020	63'	3
Guest Dock	28	11/15/2020	WEBSITE	Confirmed	11/17/2020	11/20/2020	33'	3
Guest Dock	12	11/12/2020	WEBSITE	Confirmed	11/17/2020	11/18/2020	32'	1
Guest Dock	21	11/5/2020	WEBSITE	Confirmed	11/18/2020	11/21/2020	55'	3
Guest Dock	12	11/16/2020	WEBSITE	Confirmed	11/18/2020	11/19/2020	30'	1
Guest Dock	9	11/5/2020	WEBSITE	Confirmed	11/18/2020	11/21/2020	33'	3
Guest Dock	8	11/16/2020	Moorings	Confirmed	11/18/2020	11/20/2020	36'	2
Guest Dock	16	11/16/2020	Moorings	Confirmed	11/19/2020	11/20/2020	30'	1
Guest Dock	11	11/13/2020	WEBSITE	Confirmed	11/19/2020	11/20/2020	31'	1
Guest Dock	2	11/10/2020	WEBSITE	Confirmed	11/19/2020	11/30/2020	31'	11
Guest Dock	5	11/4/2020	Moorings	Confirmed	11/19/2020	11/23/2020	30'	4
Guest Dock	15	11/16/2020	Moorings	Confirmed	11/19/2020	11/21/2020	27'	2
Guest Dock	12	11/16/2020	WEBSITE	Confirmed	11/19/2020	11/23/2020	38'	4
Guest Dock	10	11/17/2020	WEBSITE	Confirmed	11/20/2020	11/22/2020	26'	2

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	7	11/17/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020		3
Guest Dock	4	11/18/2020	Moorings	Confirmed	11/20/2020	11/22/2020	42'	2
Guest Dock	3	11/19/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020		3
Guest Dock	16	11/2/2020	Moorings	Confirmed	11/20/2020	11/21/2020	27'	1
Guest Dock	8	11/17/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	35'	3
Guest Dock	14	11/18/2020	WEBSITE	Confirmed	11/20/2020	11/26/2020	36'	6
Guest Dock	6	11/18/2020	WEBSITE	Confirmed	11/21/2020	11/23/2020	40'	2
Guest Dock	16	11/2/2020	Moorings	Confirmed	11/21/2020	11/23/2020	27'	2
Guest Dock	9	11/18/2020	WEBSITE	Confirmed	11/21/2020	11/24/2020	22'	3
Guest Dock	21	11/21/2020	WEBSITE	Confirmed	11/21/2020	11/22/2020	55'	1
Guest Dock	26	11/20/2020	WEBSITE	Confirmed	11/21/2020	11/26/2020	40'	5
Guest Dock	15	11/20/2020	WEBSITE	Confirmed	11/21/2020	11/23/2020	32'	2
Guest Dock	10	11/20/2020	WEBSITE	Confirmed	11/22/2020	11/24/2020	27'	2
Guest Dock	27	11/20/2020	WEBSITE	Confirmed	11/22/2020	11/23/2020	30'	1
Guest Dock	20	11/18/2020	Moorings	Confirmed	11/23/2020	11/25/2020	45'	2
Guest Dock	7	11/23/2020	WEBSITE	Confirmed	11/23/2020	11/24/2020	40'	1
Guest Dock	15	11/19/2020	Moorings	Confirmed	11/23/2020	11/25/2020	31'	2
Guest Dock	11	11/19/2020	WEBSITE	Confirmed	11/23/2020	11/27/2020	25'	4
Guest Dock	3	11/21/2020	WEBSITE	Confirmed	11/23/2020	11/24/2020	34'	1
Guest Dock	6	11/20/2020	WEBSITE	Confirmed	11/23/2020	11/25/2020	36'	2
Guest Dock	8	11/23/2020	WEBSITE	Confirmed	11/23/2020	11/24/2020	35'	1
Guest Dock	4	11/13/2020	WEBSITE	Confirmed	11/23/2020	11/28/2020	34'	5
Guest Dock	22	11/20/2020	Moorings	Confirmed	11/23/2020	11/26/2020	38'	3
Guest Dock	21	11/20/2020	Moorings	Confirmed	11/23/2020	11/27/2020	33'	4
Guest Dock	18	11/16/2020	Moorings	Confirmed	11/23/2020	11/24/2020	37'	1
Guest Dock	13	11/16/2020	Moorings	Confirmed	11/23/2020	11/26/2020	26'	3
Guest Dock	5	11/9/2020	WEBSITE	Confirmed	11/23/2020	11/26/2020	30'	3
Guest Dock	16	11/19/2020	WEBSITE	Confirmed	11/23/2020	11/26/2020	33'	3
Guest Dock	7	11/19/2020	Moorings	Confirmed	11/24/2020	11/26/2020	27'	2
Guest Dock	19	11/23/2020	WEBSITE	Confirmed	11/24/2020	11/27/2020	47'	3
Guest Dock	28	11/20/2020	WEBSITE	Confirmed	11/24/2020	12/1/2020	39'	7
Guest Dock	18	11/18/2020	WEBSITE	Confirmed	11/24/2020	11/26/2020	47'	2
Guest Dock	9	11/16/2020	Moorings	Confirmed	11/24/2020	11/25/2020	37'	1
Guest Dock	8	11/22/2020	WEBSITE	Confirmed	11/24/2020	11/25/2020	34'	1
Guest Dock	3	11/12/2020	WEBSITE	Confirmed	11/24/2020	11/28/2020	27'	4
Guest Dock	20	11/23/2020	WEBSITE	Confirmed	11/25/2020	11/26/2020	55'	1
Guest Dock	27	11/22/2020	WEBSITE	Confirmed	11/25/2020	11/28/2020	36'	3
Guest Dock	9	11/16/2020	Moorings	Confirmed	11/25/2020	11/28/2020	37'	3
Guest Dock	6	11/15/2020	WEBSITE	Confirmed	11/25/2020	11/28/2020		3
Guest Dock	8	11/11/2020	WEBSITE	Confirmed	11/25/2020	11/29/2020	38'	4
Guest Dock	26	11/9/2020	Moorings	Confirmed	11/26/2020	11/29/2020	40'	3
Guest Dock	7	11/16/2020	WEBSITE	Confirmed	11/26/2020	11/28/2020	32'	2
Guest Dock	14	11/19/2020	Moorings	Confirmed	11/26/2020	11/27/2020	27'	1
Guest Dock	10	11/16/2020	Moorings	Confirmed	11/26/2020	11/27/2020	27'	1
Guest Dock	12	11/20/2020	WEBSITE	Confirmed	11/26/2020	11/29/2020	36'	3
Guest Dock	13	11/23/2020	Moorings	Confirmed	11/26/2020	11/27/2020	27'	1
Guest Dock	5	11/16/2020	WEBSITE	Confirmed	11/26/2020	11/27/2020	28'	1
Guest Dock	14	11/19/2020	WEBSITE	Confirmed	11/27/2020	11/29/2020		2
Guest Dock	21	11/20/2020	Moorings	Confirmed	11/27/2020	11/29/2020	33'	2
Guest Dock	5	11/19/2020	WEBSITE	Confirmed	11/27/2020	11/29/2020	40'	2
Guest Dock	19	11/12/2020	Moorings	Confirmed	11/27/2020	12/2/2020	38'	5
Guest Dock	20	11/26/2020	WEBSITE	Confirmed	11/27/2020	11/29/2020	46'	2
Guest Dock	10	11/17/2020	WEBSITE	Confirmed	11/27/2020	12/7/2020	24'	10
Guest Dock	18	11/27/2020	WEBSITE	Confirmed	11/27/2020	11/28/2020	47'	1
Guest Dock	11	11/25/2020	WEBSITE	Confirmed	11/27/2020	11/28/2020	28'	1
Guest Dock	16	11/25/2020	WEBSITE	Confirmed	11/27/2020	11/29/2020	22'	2
Guest Dock	18	11/28/2020	WEBSITE	Confirmed	11/28/2020	11/29/2020	47'	1
Guest Dock	6	11/22/2020	WEBSITE	Confirmed	11/28/2020	11/29/2020		1
Guest Dock	7	11/25/2020	WEBSITE	Confirmed	11/28/2020	11/29/2020	25'	1
Guest Dock	27	11/27/2020	WEBSITE	Confirmed	11/28/2020	11/30/2020	38'	2
Guest Dock	3	11/28/2020	WEBSITE	Confirmed	11/28/2020	12/1/2020	36'	3
Guest Dock	9	11/28/2020	WEBSITE	Confirmed	11/28/2020	11/30/2020	41'	2
Guest Dock	4	11/26/2020	WEBSITE	Confirmed	11/28/2020	12/5/2020	30'	7
Guest Dock	15	11/28/2020	WEBSITE	Confirmed	11/28/2020	12/1/2020	31'	3
Guest Dock	26	11/29/2020	WEBSITE	Confirmed	11/29/2020	11/30/2020	36'	1
Guest Dock	11	11/27/2020	WEBSITE	Confirmed	11/29/2020	12/6/2020	38'	7
Guest Dock	16	11/28/2020	WEBSITE	Confirmed	11/29/2020	12/2/2020	20'	3
Guest Dock	18	11/24/2020	WEBSITE	Confirmed	11/29/2020	11/30/2020	47'	1
Guest Dock	6	11/28/2020	WEBSITE	Confirmed	11/29/2020	11/30/2020	45'	1
Guest Dock	21	11/29/2020	WEBSITE	Confirmed	11/29/2020	11/30/2020	47'	1



**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	12	11/30/2020	Moorings	Confirmed	11/30/2020	12/4/2020	26'	4
Guest Dock	13	11/30/2020	Moorings	Confirmed	11/30/2020	12/3/2020	32'	3
Guest Dock	8	11/29/2020	WEBSITE	Confirmed	11/30/2020	12/1/2020	45'	1
Guest Dock	18	11/30/2020	WEBSITE	Confirmed	11/30/2020	12/1/2020	47'	1
Guest Dock	5	11/16/2020	WEBSITE	Confirmed	11/30/2020	12/1/2020	30'	1
Guest Dock	2	11/29/2020	WEBSITE	Confirmed	11/30/2020	12/3/2020		3
Guest Dock	9	11/23/2020	WEBSITE	Confirmed	11/30/2020	12/2/2020		2
Guest Dock	6	11/17/2020	Moorings	Confirmed	11/30/2020	12/15/2020	41'	15
Guest Dock	7	11/29/2020	WEBSITE	Confirmed	11/30/2020	12/1/2020	27'	1
Guest Dock	27	11/30/2020	WEBSITE	Confirmed	11/30/2020	12/1/2020	36'	1
Guest Dock	15	12/1/2020	WEBSITE	Confirmed	12/1/2020	12/3/2020	40'	2
Guest Dock	8	11/30/2020	WEBSITE	Confirmed	12/1/2020	12/4/2020	45'	3
Guest Dock	18	11/30/2020	Moorings	Confirmed	12/1/2020	12/4/2020	38'	3
Guest Dock	5	11/30/2020	Moorings	Confirmed	12/1/2020	12/3/2020	37'	2
Guest Dock	7	11/19/2020	WEBSITE	Confirmed	12/1/2020	12/3/2020	27'	2
Guest Dock	26	12/1/2020	WEBSITE	Confirmed	12/2/2020	12/5/2020	32'	3
Guest Dock	19	12/2/2020	WEBSITE	Confirmed	12/2/2020	12/4/2020	61'	2
Guest Dock	14	11/20/2020	WEBSITE	Confirmed	12/2/2020	12/5/2020		3
Guest Dock	9	12/2/2020	WEBSITE	Confirmed	12/2/2020	12/6/2020	33'	4
Guest Dock	15	12/3/2020	WEBSITE	Confirmed	12/3/2020	12/4/2020	36'	1
Guest Dock	2	12/2/2020	WEBSITE	Confirmed	12/3/2020	12/4/2020		1
Guest Dock	5	12/3/2020	WEBSITE	Confirmed	12/3/2020	12/7/2020	36'	4
Guest Dock	27	12/3/2020	WEBSITE	Confirmed	12/3/2020	12/6/2020	35'	3
Guest Dock	7	12/3/2020	WEBSITE	Confirmed	12/3/2020	12/4/2020	27'	1
Guest Dock	13	11/30/2020	Moorings	Confirmed	12/3/2020	12/4/2020	32'	1
Guest Dock	13	11/30/2020	Moorings	Confirmed	12/4/2020	12/7/2020	32'	3
Guest Dock	12	11/30/2020	Moorings	Confirmed	12/4/2020	12/6/2020	26'	2
Guest Dock	20	12/4/2020	WEBSITE	Confirmed	12/4/2020	12/5/2020	61'	1
Guest Dock	19	11/30/2020	WEBSITE	Confirmed	12/4/2020	12/6/2020	63'	2
Guest Dock	8	11/30/2020	WEBSITE	Confirmed	12/4/2020	12/6/2020	45'	2
Guest Dock	28	12/2/2020	Moorings	Confirmed	12/4/2020	12/6/2020	33'	2
Guest Dock	2	12/3/2020	WEBSITE	Confirmed	12/4/2020	12/5/2020	34'	1
Guest Dock	7	12/3/2020	Moorings	Confirmed	12/4/2020	12/6/2020	25'	2
Guest Dock	16	11/30/2020	Moorings	Confirmed	12/4/2020	12/8/2020	36'	4
Guest Dock	3	12/4/2020	Moorings	Confirmed	12/4/2020	12/5/2020	22'	1
Guest Dock	22	12/4/2020	WEBSITE	Confirmed	12/5/2020	12/6/2020	45'	1
Guest Dock	14	11/27/2020	WEBSITE	Confirmed	12/5/2020	12/6/2020		1
Guest Dock	4	12/4/2020	WEBSITE	Confirmed	12/5/2020	12/7/2020	22'	2
Guest Dock	26	12/4/2020	WEBSITE	Confirmed	12/5/2020	12/9/2020	30'	4
Guest Dock	2	12/4/2020	WEBSITE	Confirmed	12/5/2020	12/8/2020		3
Guest Dock	3	12/4/2020	WEBSITE	Confirmed	12/5/2020	12/7/2020	43'	2
Guest Dock	20	12/5/2020	WEBSITE	Confirmed	12/5/2020	12/6/2020	32'	1
Guest Dock	28	12/5/2020	WEBSITE	Confirmed	12/6/2020	12/7/2020	33'	1
Guest Dock	19	12/5/2020	WEBSITE	Confirmed	12/6/2020	12/9/2020	45'	3
Guest Dock	14	12/5/2020	WEBSITE	Confirmed	12/6/2020	12/7/2020	32'	1
Guest Dock	11	11/30/2020	Moorings	Confirmed	12/6/2020	12/7/2020	26'	1
Guest Dock	15	12/1/2020	Moorings	Confirmed	12/6/2020	12/8/2020	27'	2
Guest Dock	27	12/5/2020	WEBSITE	Confirmed	12/6/2020	12/7/2020	35'	1
Guest Dock	8	12/5/2020	WEBSITE	Confirmed	12/6/2020	12/7/2020	27'	1
Guest Dock	20	12/5/2020	WEBSITE	Confirmed	12/6/2020	12/9/2020	48'	3
Guest Dock	21	12/6/2020	WEBSITE	Confirmed	12/7/2020	12/9/2020	53'	2
Guest Dock	14	12/6/2020	WEBSITE	Confirmed	12/7/2020	12/9/2020	43'	2
Guest Dock	13	12/6/2020	WEBSITE	Confirmed	12/7/2020	12/8/2020	22'	1
Guest Dock	22	11/4/2020	Moorings	Confirmed	12/7/2020	12/9/2020	65'	2
Guest Dock	10	12/6/2020	WEBSITE	Confirmed	12/7/2020	12/10/2020	36'	3
Guest Dock	28	12/7/2020	WEBSITE	Confirmed	12/7/2020	12/8/2020	36'	1
Guest Dock	3	11/23/2020	WEBSITE	Confirmed	12/7/2020	12/9/2020	37'	2
Guest Dock	7	12/7/2020	Moorings	Confirmed	12/7/2020	12/10/2020	26'	3
Guest Dock	4	12/7/2020	Moorings	Confirmed	12/7/2020	12/9/2020	38'	2
Guest Dock	8	12/7/2020	Moorings	Confirmed	12/7/2020	12/11/2020	33'	4
Guest Dock	5	11/27/2020	WEBSITE	Confirmed	12/7/2020	12/8/2020	30'	1
Guest Dock	5	12/8/2020	Moorings	Confirmed	12/8/2020	12/11/2020	32'	3
Guest Dock	15	12/7/2020	WEBSITE	Confirmed	12/8/2020	12/9/2020	32'	1
Guest Dock	28	12/8/2020	WEBSITE	Confirmed	12/8/2020	12/9/2020	36'	1
Guest Dock	2	12/6/2020	WEBSITE	Confirmed	12/8/2020	12/9/2020		1
Guest Dock	11	12/6/2020	WEBSITE	Confirmed	12/8/2020	12/9/2020	22'	1
Guest Dock	9	12/8/2020	Moorings	Confirmed	12/8/2020	12/12/2020	41'	4
Guest Dock	13	12/2/2020	WEBSITE	Confirmed	12/8/2020	12/11/2020	42'	3
Guest Dock	12	12/8/2020	WEBSITE	Confirmed	12/8/2020	12/11/2020	30'	3
Guest Dock	16	12/8/2020	WEBSITE	Confirmed	12/8/2020	12/9/2020	10'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	16	12/9/2020	WEBSITE	Confirmed	12/9/2020	12/10/2020	10'	1
Guest Dock	20	12/7/2020	WEBSITE	Confirmed	12/9/2020	12/10/2020	48'	1
Guest Dock	14	11/28/2020	WEBSITE	Confirmed	12/9/2020	12/12/2020	27'	3
Guest Dock	26	12/8/2020	WEBSITE	Confirmed	12/9/2020	12/10/2020	30'	1
Guest Dock	22	12/9/2020	WEBSITE	Confirmed	12/9/2020	12/12/2020	53'	3
Guest Dock	4	12/6/2020	WEBSITE	Confirmed	12/9/2020	12/10/2020	22'	1
Guest Dock	21	11/4/2020	Moorings	Confirmed	12/9/2020	12/11/2020	65'	2
Guest Dock	19	12/8/2020	WEBSITE	Confirmed	12/9/2020	12/12/2020	45'	3
Guest Dock	18	12/8/2020	WEBSITE	Confirmed	12/9/2020	12/10/2020	50'	1
Guest Dock	11	12/1/2020	WEBSITE	Confirmed	12/9/2020	12/13/2020	36'	4
Guest Dock	7	12/7/2020	Moorings	Confirmed	12/10/2020	12/11/2020	26'	1
Guest Dock	15	12/8/2020	WEBSITE	Confirmed	12/10/2020	12/14/2020	30'	4
Guest Dock	18	12/3/2020	WEBSITE	Confirmed	12/10/2020	12/11/2020	50'	1
Guest Dock	27	12/6/2020	WEBSITE	Confirmed	12/10/2020	12/11/2020	39'	1
Guest Dock	2	12/9/2020	WEBSITE	Confirmed	12/10/2020	12/11/2020		1
Guest Dock	20	12/7/2020	WEBSITE	Confirmed	12/10/2020	12/11/2020	48'	1
Guest Dock	16	12/10/2020	WEBSITE	Confirmed	12/10/2020	12/11/2020	10'	1
Guest Dock	4	12/9/2020	WEBSITE	Confirmed	12/10/2020	12/11/2020	36'	1
Guest Dock	2	12/11/2020	WEBSITE	Confirmed	12/11/2020	12/12/2020	23'	1
Guest Dock	5	12/11/2020	WEBSITE	Confirmed	12/11/2020	12/12/2020	10'	1
Guest Dock	12	12/11/2020	WEBSITE	Confirmed	12/11/2020	12/12/2020	28'	1
Guest Dock	13	12/11/2020	WEBSITE	Confirmed	12/11/2020	12/13/2020	30'	2
Guest Dock	28	12/11/2020	WEBSITE	Confirmed	12/11/2020	12/13/2020	32'	2
Guest Dock	26	12/11/2020	WEBSITE	Confirmed	12/11/2020	12/13/2020	35'	2
Guest Dock	3	12/8/2020	WEBSITE	Confirmed	12/11/2020	12/12/2020	34'	1
Guest Dock	16	12/7/2020	WEBSITE	Confirmed	12/11/2020	12/13/2020	40'	2
Guest Dock	21	12/11/2020	WEBSITE	Confirmed	12/11/2020	12/13/2020	47'	2
Guest Dock	7	12/2/2020	WEBSITE	Confirmed	12/11/2020	12/13/2020	27'	2
Guest Dock	8	12/7/2020	Moorings	Confirmed	12/11/2020	12/12/2020	26'	1
Guest Dock	8	12/7/2020	Moorings	Confirmed	12/12/2020	12/14/2020	26'	2
Guest Dock	5	12/6/2020	WEBSITE	Confirmed	12/12/2020	12/13/2020	30'	1
Guest Dock	18	12/11/2020	WEBSITE	Confirmed	12/12/2020	12/14/2020	45'	2
Guest Dock	12	12/7/2020	Moorings	Confirmed	12/12/2020	12/14/2020	36'	2
Guest Dock	10	12/12/2020	WEBSITE	Confirmed	12/12/2020	12/15/2020	42'	3
Guest Dock	14	12/8/2020	WEBSITE	Confirmed	12/12/2020	12/18/2020		6
Guest Dock	9	12/12/2020	WEBSITE	Confirmed	12/12/2020	12/13/2020	10'	1
Guest Dock	27	12/12/2020	WEBSITE	Confirmed	12/12/2020	12/15/2020	30'	3
Guest Dock	2	12/12/2020	WEBSITE	Confirmed	12/12/2020	12/13/2020	14'	1
Guest Dock	28	12/13/2020	WEBSITE	Confirmed	12/13/2020	12/16/2020	30'	3
Guest Dock	7	12/13/2020	WEBSITE	Confirmed	12/13/2020	12/15/2020	10'	2
Guest Dock	2	12/13/2020	WEBSITE	Confirmed	12/13/2020	12/14/2020	34'	1
Guest Dock	26	12/13/2020	WEBSITE	Confirmed	12/13/2020	12/14/2020	30'	1
Guest Dock	3	12/13/2020	WEBSITE	Confirmed	12/13/2020	12/14/2020	35'	1
Guest Dock	13	12/12/2020	WEBSITE	Confirmed	12/13/2020	12/15/2020	15'	2
Guest Dock	8	12/14/2020	Moorings	Confirmed	12/14/2020	12/16/2020	26'	2
Guest Dock	12	12/14/2020	Moorings	Confirmed	12/14/2020	12/16/2020	32'	2
Guest Dock	2	12/14/2020	WEBSITE	Confirmed	12/14/2020	12/18/2020	34'	4
Guest Dock	18	12/14/2020	WEBSITE	Confirmed	12/14/2020	12/15/2020	45'	1
Guest Dock	20	12/14/2020	Moorings	Confirmed	12/14/2020	12/15/2020	38'	1
Guest Dock	16	12/14/2020	Moorings	Confirmed	12/14/2020	12/16/2020	33'	2
Guest Dock	21	12/13/2020	WEBSITE	Confirmed	12/14/2020	12/16/2020	35'	2
Guest Dock	3	12/10/2020	WEBSITE	Confirmed	12/14/2020	12/18/2020	27'	4
Guest Dock	29	12/16/2020	Moorings	Confirmed	12/14/2020	12/17/2020	40'	3
Guest Dock	22	12/9/2020	WEBSITE	Confirmed	12/14/2020	12/23/2020	49'	9
Guest Dock	19	12/13/2020	WEBSITE	Confirmed	12/14/2020	12/15/2020	34'	1
Guest Dock	5	12/14/2020	WEBSITE	Confirmed	12/14/2020	12/15/2020	30'	1
Guest Dock	9	12/14/2020	Moorings	Confirmed	12/14/2020	12/17/2020	31'	3
Guest Dock	19	12/14/2020	WEBSITE	Confirmed	12/15/2020	12/17/2020	53'	2
Guest Dock	15	12/14/2020	WEBSITE	Confirmed	12/15/2020	12/18/2020	25'	3
Guest Dock	6	11/17/2020	Moorings	Confirmed	12/15/2020	12/16/2020	41'	1
Guest Dock	7	12/12/2020	WEBSITE	Confirmed	12/15/2020	12/16/2020	42'	1
Guest Dock	27	12/14/2020	Moorings	Confirmed	12/15/2020	12/20/2020	30'	5
Guest Dock	5	12/1/2020	WEBSITE	Confirmed	12/15/2020	12/16/2020	10'	1
Guest Dock	20	12/14/2020	Moorings	Confirmed	12/15/2020	12/16/2020	38'	1
Guest Dock	13	12/15/2020	Moorings	Confirmed	12/15/2020	12/16/2020	47'	1
Guest Dock	7	12/16/2020	Moorings	Confirmed	12/16/2020	12/18/2020	27'	2
Guest Dock	21	12/13/2020	WEBSITE	Confirmed	12/16/2020	12/17/2020	35'	1
Guest Dock	10	12/16/2020	Moorings	Confirmed	12/16/2020	12/18/2020	42'	2
Guest Dock	6	11/17/2020	Moorings	Confirmed	12/16/2020	12/19/2020	41'	3
Guest Dock	26	12/16/2020	WEBSITE	Confirmed	12/16/2020	12/19/2020		3

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	16	12/16/2020	WEBSITE	Confirmed	12/16/2020	12/21/2020	46'	5
Guest Dock	8	12/16/2020	WEBSITE	Confirmed	12/16/2020	12/17/2020	41'	1
Guest Dock	5	12/16/2020	Moorings	Confirmed	12/16/2020	12/19/2020	32'	3
Guest Dock	9	12/4/2020	WEBSITE	Confirmed	12/17/2020	12/19/2020	33'	2
Guest Dock	28	12/17/2020	Moorings	Confirmed	12/17/2020	12/18/2020	35'	1
Guest Dock	12	12/16/2020	WEBSITE	Confirmed	12/17/2020	12/18/2020	33'	1
Guest Dock	20	12/15/2020	Moorings	Confirmed	12/17/2020	12/18/2020	30'	1
Guest Dock	19	12/17/2020	WEBSITE	Confirmed	12/17/2020	12/18/2020	32'	1
Guest Dock	28	12/17/2020	Moorings	Confirmed	12/18/2020	12/20/2020	35'	2
Guest Dock	8	12/16/2020	Moorings	Confirmed	12/18/2020	12/21/2020	26'	3
Guest Dock	15	12/17/2020	WEBSITE	Confirmed	12/18/2020	12/19/2020	25'	1
Guest Dock	3	12/17/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	32'	3
Guest Dock	19	12/18/2020	WEBSITE	Confirmed	12/18/2020	12/20/2020	54'	2
Guest Dock	13	12/17/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	42'	3
Guest Dock	2	12/17/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	30'	3
Guest Dock	10	12/17/2020	Moorings	Confirmed	12/18/2020	12/19/2020	25'	1
Guest Dock	6	12/17/2020	Moorings	Confirmed	12/19/2020	12/27/2020	25'	8
Guest Dock	14	12/19/2020	WEBSITE	Confirmed	12/19/2020	12/20/2020	35'	1
Guest Dock	4	12/14/2020	WEBSITE	Confirmed	12/19/2020	12/20/2020	25'	1
Guest Dock	10	12/15/2020	Moorings	Confirmed	12/19/2020	12/30/2020	34'	11
Guest Dock	15	12/18/2020	WEBSITE	Confirmed	12/19/2020	12/20/2020	25'	1
Guest Dock	26	12/19/2020	WEBSITE	Confirmed	12/19/2020	12/22/2020	30'	3
Guest Dock	29	11/17/2020	Moorings	Confirmed	12/19/2020	12/22/2020	41'	3
Guest Dock	5	12/15/2020	WEBSITE	Confirmed	12/19/2020	12/21/2020	45'	2
Guest Dock	7	12/18/2020	Moorings	Confirmed	12/20/2020	12/21/2020	40'	1
Guest Dock	15	12/20/2020	WEBSITE	Confirmed	12/20/2020	12/21/2020	33'	1
Guest Dock	19	12/20/2020	WEBSITE	Confirmed	12/20/2020	12/21/2020	62'	1
Guest Dock	21	12/20/2020	WEBSITE	Confirmed	12/20/2020	12/21/2020	45'	1
Guest Dock	4	12/16/2020	WEBSITE	Confirmed	12/20/2020	12/21/2020	25'	1
Guest Dock	14	12/20/2020	WEBSITE	Confirmed	12/20/2020	12/21/2020	35'	1
Guest Dock	12	12/19/2020	WEBSITE	Confirmed	12/20/2020	12/23/2020	20'	3
Guest Dock	15	12/18/2020	Moorings	Confirmed	12/21/2020	12/22/2020	40'	1
Guest Dock	21	12/18/2020	WEBSITE	Confirmed	12/21/2020	12/26/2020	63'	5
Guest Dock	3	12/12/2020	WEBSITE	Confirmed	12/21/2020	12/26/2020		5
Guest Dock	11	12/21/2020	Moorings	Confirmed	12/21/2020	12/22/2020	42'	1
Guest Dock	18	12/18/2020	WEBSITE	Confirmed	12/21/2020	12/31/2020	46'	10
Guest Dock	14	12/8/2020	WEBSITE	Confirmed	12/21/2020	12/25/2020		4
Guest Dock	13	12/17/2020	WEBSITE	Confirmed	12/21/2020	12/25/2020	27'	4
Guest Dock	9	12/21/2020	Moorings	Confirmed	12/21/2020	12/23/2020	40'	2
Guest Dock	27	12/20/2020	WEBSITE	Confirmed	12/21/2020	12/23/2020	34'	2
Guest Dock	19	12/19/2020	WEBSITE	Confirmed	12/21/2020	12/22/2020	62'	1
Guest Dock	8	12/17/2020	WEBSITE	Confirmed	12/21/2020	12/29/2020	34'	8
Guest Dock	7	12/10/2020	WEBSITE	Confirmed	12/21/2020	12/23/2020	27'	2
Guest Dock	4	12/18/2020	Moorings	Confirmed	12/21/2020	12/24/2020	38'	3
Guest Dock	5	12/16/2020	Moorings	Confirmed	12/21/2020	12/22/2020	30'	1
Guest Dock	28	12/15/2020	WEBSITE	Confirmed	12/21/2020	12/24/2020	39'	3
Guest Dock	2	12/20/2020	WEBSITE	Confirmed	12/21/2020	12/23/2020	22'	2
Guest Dock	16	12/16/2020	WEBSITE	Confirmed	12/21/2020	12/22/2020	32'	1
Guest Dock	19	12/22/2020	Moorings	Confirmed	12/22/2020	12/26/2020	32'	4
Guest Dock	15	12/22/2020	Moorings	Confirmed	12/22/2020	12/24/2020	41'	2
Guest Dock	16	12/21/2020	WEBSITE	Confirmed	12/22/2020	12/24/2020	30'	2
Guest Dock	5	12/19/2020	WEBSITE	Confirmed	12/22/2020	12/26/2020	24'	4
Guest Dock	20	12/22/2020	Moorings	Confirmed	12/22/2020	12/23/2020	29'	1
Guest Dock	12	12/21/2020	WEBSITE	Confirmed	12/23/2020	12/24/2020	20'	1
Guest Dock	2	12/22/2020	WEBSITE	Confirmed	12/23/2020	12/24/2020	34'	1
Guest Dock	22	12/22/2020	Moorings	Confirmed	12/23/2020	12/24/2020	28'	1
Guest Dock	7	12/21/2020	WEBSITE	Confirmed	12/23/2020	12/24/2020		1
Guest Dock	27	12/21/2020	WEBSITE	Confirmed	12/23/2020	12/24/2020	32'	1
Guest Dock	12	12/21/2020	WEBSITE	Confirmed	12/24/2020	12/27/2020	45'	3
Guest Dock	2	12/24/2020	WEBSITE	Confirmed	12/24/2020	12/25/2020	28'	1
Guest Dock	28	12/23/2020	WEBSITE	Confirmed	12/24/2020	12/26/2020	34'	2
Guest Dock	7	12/19/2020	WEBSITE	Confirmed	12/24/2020	1/1/2021	37'	8
Guest Dock	16	12/14/2020	Moorings	Confirmed	12/24/2020	12/26/2020	36'	2
Guest Dock	2	12/25/2020	WEBSITE	Confirmed	12/25/2020	12/29/2020	40'	4
Guest Dock	14	12/24/2020	WEBSITE	Confirmed	12/25/2020	12/27/2020		2
Guest Dock	13	12/24/2020	WEBSITE	Confirmed	12/25/2020	1/1/2021	23'	7
Guest Dock	15	12/24/2020	WEBSITE	Confirmed	12/25/2020	12/27/2020	42'	2
Guest Dock	4	12/25/2020	WEBSITE	Confirmed	12/25/2020	12/26/2020	28'	1
Guest Dock	27	12/24/2020	WEBSITE	Confirmed	12/25/2020	12/26/2020	33'	1
Guest Dock	27	12/26/2020	WEBSITE	Confirmed	12/26/2020	12/27/2020	33'	1

**2020 Transient Dock Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
Guest Dock	19	12/18/2020	WEBSITE	Confirmed	12/26/2020	12/28/2020	58'	2
Guest Dock	5	12/25/2020	WEBSITE	Confirmed	12/26/2020	12/27/2020	28'	1
Guest Dock	3	12/26/2020	WEBSITE	Confirmed	12/26/2020	12/27/2020		1
Guest Dock	16	12/26/2020	WEBSITE	Confirmed	12/26/2020	12/27/2020	40'	1
Guest Dock	21	12/21/2020	WEBSITE	Confirmed	12/26/2020	12/27/2020	47'	1
Guest Dock	9	12/26/2020	WEBSITE	Confirmed	12/26/2020	12/27/2020	24'	1
Guest Dock	4	12/15/2020	WEBSITE	Confirmed	12/26/2020	12/29/2020	27'	3
Guest Dock	22	12/22/2020	Moorings	Confirmed	12/26/2020	1/8/2021		13
Guest Dock	20	12/27/2020	WEBSITE	Confirmed	12/27/2020	12/28/2020	48'	1
Guest Dock	5	12/22/2020	WEBSITE	Confirmed	12/27/2020	1/11/2021	40'	15
Guest Dock	21	12/27/2020	WEBSITE	Confirmed	12/27/2020	12/29/2020	40'	2
Guest Dock	15	12/24/2020	WEBSITE	Confirmed	12/27/2020	12/30/2020		3
Guest Dock	16	12/27/2020	WEBSITE	Confirmed	12/27/2020	12/28/2020	42'	1
Guest Dock	3	12/21/2020	Moorings	Confirmed	12/27/2020	12/29/2020	47'	2
Guest Dock	27	12/22/2020	WEBSITE	Confirmed	12/27/2020	12/31/2020	40'	4
Guest Dock	9	12/25/2020	WEBSITE	Confirmed	12/27/2020	12/29/2020	24'	2
Guest Dock	12	12/15/2020	Moorings	Confirmed	12/28/2020	1/1/2021	43'	4
Guest Dock	28	12/21/2020	Moorings	Confirmed	12/28/2020	12/31/2020	39'	3
Guest Dock	16	12/14/2020	WEBSITE	Confirmed	12/28/2020	12/31/2020	37'	3
Guest Dock	8	12/28/2020	WEBSITE	Confirmed	12/29/2020	12/30/2020	34'	1
Guest Dock	2	12/21/2020	Moorings	Confirmed	12/29/2020	12/31/2020	47'	2
Guest Dock	6	12/28/2020	WEBSITE	Confirmed	12/29/2020	12/31/2020	40'	2
Guest Dock	21	12/18/2020	WEBSITE	Confirmed	12/29/2020	1/1/2021	45'	3
Guest Dock	3	12/17/2020	WEBSITE	Confirmed	12/29/2020	1/1/2021		3
Guest Dock	4	12/27/2020	WEBSITE	Confirmed	12/29/2020	1/5/2021	39'	7
Guest Dock	9	12/27/2020	WEBSITE	Confirmed	12/29/2020	1/3/2021	30'	5
Guest Dock	15	12/29/2020	WEBSITE	Confirmed	12/30/2020	12/31/2020	33'	1
Guest Dock	10	12/28/2020	WEBSITE	Confirmed	12/30/2020	1/2/2021	30'	3
Guest Dock	8	12/27/2020	WEBSITE	Confirmed	12/30/2020	12/31/2020	27'	1
Guest Dock	8	12/31/2020	WEBSITE	Confirmed	12/31/2020	1/1/2021	27'	1
Guest Dock	20	12/29/2020	WEBSITE	Confirmed	12/31/2020	1/2/2021	58'	2
Guest Dock	28	12/17/2020	WEBSITE	Confirmed	12/31/2020	1/3/2021	40'	3
Guest Dock	2	12/17/2020	WEBSITE	Confirmed	12/31/2020	1/3/2021	29'	3
Guest Dock	19	12/29/2020	WEBSITE	Confirmed	12/31/2020	1/4/2021	65'	4
Guest Dock	27	12/30/2020	WEBSITE	Confirmed	12/31/2020	1/2/2021	35'	2
Guest Dock	15	12/29/2020	WEBSITE	Confirmed	12/31/2020	1/2/2021	33'	2
Guest Dock	16	12/29/2020	WEBSITE	Confirmed	12/31/2020	1/1/2021	34'	1

**2020 Weekend Anchorage Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	8/26/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020		3
A1 La Playa Cove	A1 Anchorage	12/12/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	37'	3
A1 La Playa Cove	A1 Anchorage	1/2/2020	WEBSITE	Confirmed	1/3/2020	1/6/2020	44'	3
A1 La Playa Cove	A1 Anchorage	12/18/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	40'	3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	34'	3
A1 La Playa Cove	A1 Anchorage	10/27/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	30'	3
A1 La Playa Cove	A1 Anchorage	12/26/2019	Moorings	Confirmed	1/3/2020	1/6/2020	43'	3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020		3
A1 La Playa Cove	A1 Anchorage	12/27/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	28'	3
A1 La Playa Cove	A1 Anchorage	12/22/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	38'	3
A1 La Playa Cove	A1 Anchorage	12/28/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	30'	3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	32'	3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	33'	3
A1 La Playa Cove	A1 Anchorage	12/20/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	26'	3
A1 La Playa Cove	A1 Anchorage	1/2/2020	Parks Central Reservations	Confirmed	1/3/2020	1/6/2020	26'	3
A1 La Playa Cove	A1 Anchorage	10/29/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020		3
A1 La Playa Cove	A1 Anchorage	1/2/2020	Parks Central Reservations	Confirmed	1/3/2020	1/6/2020	36'	3
A1 La Playa Cove	A1 Anchorage	12/17/2019	Parks Central Reservations	Confirmed	1/3/2020	1/6/2020		3
A1 La Playa Cove	A1 Anchorage	12/19/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	34'	3
A1 La Playa Cove	A1 Anchorage	12/8/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	32'	3
A1 La Playa Cove	A1 Anchorage	12/19/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	34'	3
A1 La Playa Cove	A1 Anchorage	1/2/2020	Parks Central Reservations	Confirmed	1/3/2020	1/6/2020	26'	3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	40'	3
A1 La Playa Cove	A1 Anchorage	12/27/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	32'	3
A1 La Playa Cove	A1 Anchorage	11/8/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020		3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	25'	3
A1 La Playa Cove	A1 Anchorage	1/2/2020	WEBSITE	Confirmed	1/3/2020	1/6/2020	38'	3
A1 La Playa Cove	A1 Anchorage	12/26/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	33'	3
A1 La Playa Cove	A1 Anchorage	1/1/2020	WEBSITE	Confirmed	1/3/2020	1/6/2020	50'	3
A1 La Playa Cove	A1 Anchorage	1/2/2020	WEBSITE	Confirmed	1/3/2020	1/6/2020	42'	3
A1 La Playa Cove	A1 Anchorage	12/28/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	24'	3
A1 La Playa Cove	A1 Anchorage	12/30/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	38'	3
A1 La Playa Cove	A1 Anchorage	12/30/2019	Moorings	Confirmed	1/3/2020	1/6/2020	34'	3
A1 La Playa Cove	A1 Anchorage	12/30/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	27'	3
A1 La Playa Cove	A1 Anchorage	12/20/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020		3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	25'	3
A1 La Playa Cove	A1 Anchorage	12/24/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	31'	3
A1 La Playa Cove	A1 Anchorage	1/1/2020	WEBSITE	Confirmed	1/3/2020	1/6/2020	42'	3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	1/3/2020	1/6/2020	35'	3
A1 La Playa Cove	A1 Anchorage	1/2/2020	WEBSITE	Confirmed	1/3/2020	1/6/2020		3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020		3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	28'	3
A1 La Playa Cove	A1 Anchorage	1/9/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	31'	3
A1 La Playa Cove	A1 Anchorage	11/8/2019	WEBSITE	Confirmed	1/10/2020	1/13/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	38'	3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	42'	3
A1 La Playa Cove	A1 Anchorage	1/9/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	52'	3
A1 La Playa Cove	A1 Anchorage	1/9/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	38'	3
A1 La Playa Cove	A1 Anchorage	1/9/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	25'	3
A1 La Playa Cove	A1 Anchorage	1/9/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020		3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	32'	3
A1 La Playa Cove	A1 Anchorage	12/19/2019	WEBSITE	Confirmed	1/10/2020	1/13/2020	34'	3
A1 La Playa Cove	A1 Anchorage	1/6/2020	Moorings	Confirmed	1/10/2020	1/13/2020	26'	3
A1 La Playa Cove	A1 Anchorage	1/7/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020		3
A1 La Playa Cove	A1 Anchorage	1/5/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	63'	3
A1 La Playa Cove	A1 Anchorage	12/2/2019	Moorings	Confirmed	1/10/2020	1/13/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/9/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	34'	3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020		3
A1 La Playa Cove	A1 Anchorage	1/6/2020	Moorings	Confirmed	1/10/2020	1/13/2020	36'	3
A1 La Playa Cove	A1 Anchorage	1/2/2020	Parks Central Reservations	Confirmed	1/10/2020	1/13/2020	26'	3
A1 La Playa Cove	A1 Anchorage	1/5/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	33'	3
A1 La Playa Cove	A1 Anchorage	1/9/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/7/2020	Parks Central Reservations	Confirmed	1/10/2020	1/13/2020	38'	3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020		3
A1 La Playa Cove	A1 Anchorage	1/9/2020	Parks Central Reservations	Confirmed	1/10/2020	1/13/2020	51'	3
A1 La Playa Cove	A1 Anchorage	12/26/2019	Moorings	Confirmed	1/10/2020	1/13/2020	43'	3
A1 La Playa Cove	A1 Anchorage	12/16/2019	Parks Central Reservations	Confirmed	1/10/2020	1/13/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/7/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	38'	3

**2020 Weekend Anchorage Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	1/7/2020	WEBSITE	Confirmed	1/10/2020	1/13/2020	30'	3
A1 La Playa Cove	A1 Anchorage	12/9/2019	WEBSITE	Confirmed	1/10/2020	1/13/2020	34'	3
A1 La Playa Cove	A1 Anchorage	8/26/2019	WEBSITE	Confirmed	1/10/2020	1/13/2020		3
A1 La Playa Cove	A1 Anchorage	12/10/2019	WEBSITE	Confirmed	1/10/2020	1/13/2020	35'	3
A1 La Playa Cove	A1 Anchorage	12/9/2019	WEBSITE	Confirmed	1/17/2020	1/20/2020	34'	3
A1 La Playa Cove	A1 Anchorage	1/13/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	37'	3
A1 La Playa Cove	A1 Anchorage	1/15/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/15/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	45'	3
A1 La Playa Cove	A1 Anchorage	1/13/2020	Parks Central Reservations	Confirmed	1/17/2020	1/20/2020	30'	3
A1 La Playa Cove	A1 Anchorage	12/26/2019	Moorings	Confirmed	1/17/2020	1/20/2020	43'	3
A1 La Playa Cove	A1 Anchorage	1/13/2020	Parks Central Reservations	Confirmed	1/17/2020	1/20/2020	43'	3
A1 La Playa Cove	A1 Anchorage	12/22/2019	WEBSITE	Confirmed	1/17/2020	1/20/2020	38'	3
A1 La Playa Cove	A1 Anchorage	1/9/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/12/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	26'	3
A1 La Playa Cove	A1 Anchorage	1/5/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	33'	3
A1 La Playa Cove	A1 Anchorage	12/30/2019	Parks Central Reservations	Confirmed	1/17/2020	1/20/2020	26'	3
A1 La Playa Cove	A1 Anchorage	1/14/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/15/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020		3
A1 La Playa Cove	A1 Anchorage	1/15/2020	Parks Central Reservations	Confirmed	1/17/2020	1/20/2020	36'	3
A1 La Playa Cove	A1 Anchorage	10/29/2019	WEBSITE	Confirmed	1/17/2020	1/20/2020		3
A1 La Playa Cove	A1 Anchorage	8/26/2019	WEBSITE	Confirmed	1/17/2020	1/20/2020		3
A1 La Playa Cove	A1 Anchorage	1/16/2020	Moorings	Confirmed	1/17/2020	1/20/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020		3
A1 La Playa Cove	A1 Anchorage	1/16/2020	Moorings	Confirmed	1/17/2020	1/20/2020	26'	3
A1 La Playa Cove	A1 Anchorage	12/19/2019	WEBSITE	Confirmed	1/17/2020	1/20/2020	34'	3
A1 La Playa Cove	A1 Anchorage	1/11/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	44'	3
A1 La Playa Cove	A1 Anchorage	1/14/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/13/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/9/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	25'	3
A1 La Playa Cove	A1 Anchorage	1/15/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	33'	3
A1 La Playa Cove	A1 Anchorage	1/16/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	42'	3
A1 La Playa Cove	A1 Anchorage	1/6/2020	Parks Central Reservations	Confirmed	1/17/2020	1/20/2020	38'	3
A1 La Playa Cove	A1 Anchorage	11/8/2019	WEBSITE	Confirmed	1/17/2020	1/20/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/13/2020	Parks Central Reservations	Confirmed	1/17/2020	1/20/2020	34'	3
A1 La Playa Cove	A1 Anchorage	1/15/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	27'	3
A1 La Playa Cove	A1 Anchorage	1/16/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	31'	3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020		3
A1 La Playa Cove	A1 Anchorage	1/15/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	28'	3
A1 La Playa Cove	A1 Anchorage	1/6/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	43'	3
A1 La Playa Cove	A1 Anchorage	1/11/2020	WEBSITE	Confirmed	1/17/2020	1/20/2020	27'	3
A1 La Playa Cove	A1 Anchorage	1/15/2020	Parks Central Reservations	Confirmed	1/17/2020	1/20/2020	39'	3
A1 La Playa Cove	A1 Anchorage	1/13/2020	Moorings	Confirmed	1/17/2020	1/20/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/22/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	36'	3
A1 La Playa Cove	A1 Anchorage	1/23/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	25'	3
A1 La Playa Cove	A1 Anchorage	1/23/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	40'	3
A1 La Playa Cove	A1 Anchorage	1/6/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	43'	3
A1 La Playa Cove	A1 Anchorage	1/8/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	48'	3
A1 La Playa Cove	A1 Anchorage	1/21/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	34'	3
A1 La Playa Cove	A1 Anchorage	11/8/2019	WEBSITE	Confirmed	1/24/2020	1/27/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/23/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020		3
A1 La Playa Cove	A1 Anchorage	1/23/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	33'	3
A1 La Playa Cove	A1 Anchorage	1/20/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/5/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/21/2020	Moorings	Confirmed	1/24/2020	1/27/2020	26'	3
A1 La Playa Cove	A1 Anchorage	1/5/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	63'	3
A1 La Playa Cove	A1 Anchorage	1/21/2020	Moorings	Confirmed	1/24/2020	1/27/2020	36'	3
A1 La Playa Cove	A1 Anchorage	1/5/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	48'	3
A1 La Playa Cove	A1 Anchorage	1/14/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/21/2020	Moorings	Confirmed	1/24/2020	1/27/2020	33'	3
A1 La Playa Cove	A1 Anchorage	1/22/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	26'	3
A1 La Playa Cove	A1 Anchorage	1/22/2020	Moorings	Confirmed	1/24/2020	1/27/2020	38'	3
A1 La Playa Cove	A1 Anchorage	1/19/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	47'	3
A1 La Playa Cove	A1 Anchorage	1/22/2020	Moorings	Confirmed	1/24/2020	1/27/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/5/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	48'	3
A1 La Playa Cove	A1 Anchorage	1/23/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	34'	3
A1 La Playa Cove	A1 Anchorage	1/19/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020		3
A1 La Playa Cove	A1 Anchorage	1/5/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	45'	3
A1 La Playa Cove	A1 Anchorage	1/7/2020	WEBSITE	Confirmed	1/24/2020	1/27/2020	38'	3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	36'	3
A1 La Playa Cove	A1 Anchorage	1/27/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	60'	3

## 2020 Weekend Anchorage Reservations Summary Table

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	1/27/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	37'	3
A1 La Playa Cove	A1 Anchorage	1/22/2020	Moorings	Confirmed	1/31/2020	2/3/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/29/2020	Moorings	Confirmed	1/31/2020	2/3/2020	43'	3
A1 La Playa Cove	A1 Anchorage	1/28/2020	Moorings	Confirmed	1/31/2020	2/3/2020		3
A1 La Playa Cove	A1 Anchorage	1/22/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	47'	3
A1 La Playa Cove	A1 Anchorage	1/24/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/27/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	50'	3
A1 La Playa Cove	A1 Anchorage	12/22/2019	WEBSITE	Confirmed	1/31/2020	2/3/2020	38'	3
A1 La Playa Cove	A1 Anchorage	1/29/2020	WEBSITE	Confirmed	1/31/2020	2/1/2020	26'	1
A1 La Playa Cove	A1 Anchorage	1/27/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020		3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	33'	3
A1 La Playa Cove	A1 Anchorage	1/27/2020	Moorings	Confirmed	1/31/2020	2/3/2020	36'	3
A1 La Playa Cove	A1 Anchorage	1/29/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020		3
A1 La Playa Cove	A1 Anchorage	1/17/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	63'	3
A1 La Playa Cove	A1 Anchorage	1/27/2020	Moorings	Confirmed	1/31/2020	2/3/2020	26'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020		3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	50'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	33'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020		3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	27'	3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	28'	3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	46'	3
A1 La Playa Cove	A1 Anchorage	1/27/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/29/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	25'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	Moorings	Confirmed	1/31/2020	2/3/2020	25'	3
A1 La Playa Cove	A1 Anchorage	1/31/2020	Moorings	Confirmed	1/31/2020	2/3/2020	27'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	42'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	38'	3
A1 La Playa Cove	A1 Anchorage	1/29/2020	Moorings	Confirmed	1/31/2020	2/3/2020	42'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	1/31/2020	2/3/2020	27'	3
A1 La Playa Cove	A1 Anchorage	1/31/2020	Moorings	Confirmed	1/31/2020	2/3/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/29/2020	WEBSITE	Confirmed	2/1/2020	2/2/2020	26'	1
A1 La Playa Cove	A1 Anchorage	1/29/2020	WEBSITE	Confirmed	2/2/2020	2/3/2020	26'	1
A1 La Playa Cove	A1 Anchorage	1/29/2020	Moorings	Confirmed	2/7/2020	2/10/2020	26'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	33'	3
A1 La Playa Cove	A1 Anchorage	2/2/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/5/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	41'	3
A1 La Playa Cove	A1 Anchorage	2/5/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	39'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020		3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020		3
A1 La Playa Cove	A1 Anchorage	2/6/2020	Moorings	Confirmed	2/7/2020	2/10/2020	51'	3
A1 La Playa Cove	A1 Anchorage	2/4/2020	Moorings	Confirmed	2/7/2020	2/10/2020	43'	3
A1 La Playa Cove	A1 Anchorage	1/31/2020	Moorings	Confirmed	2/7/2020	2/10/2020	30'	3
A1 La Playa Cove	A1 Anchorage	8/26/2019	WEBSITE	Confirmed	2/7/2020	2/10/2020		3
A1 La Playa Cove	A1 Anchorage	1/31/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	59'	3
A1 La Playa Cove	A1 Anchorage	1/31/2020	Moorings	Confirmed	2/7/2020	2/10/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	25'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/16/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/5/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	50'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	28'	3
A1 La Playa Cove	A1 Anchorage	2/4/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	31'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	27'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020		3
A1 La Playa Cove	A1 Anchorage	2/4/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	42'	3
A1 La Playa Cove	A1 Anchorage	2/4/2020	Moorings	Confirmed	2/7/2020	2/10/2020		3
A1 La Playa Cove	A1 Anchorage	2/3/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020		3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	25'	3
A1 La Playa Cove	A1 Anchorage	1/27/2020	Moorings	Confirmed	2/7/2020	2/10/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/23/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	40'	3
A1 La Playa Cove	A1 Anchorage	2/3/2020	Moorings	Confirmed	2/7/2020	2/10/2020	26'	3
A1 La Playa Cove	A1 Anchorage	1/23/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020		3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	34'	3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020	63'	3
A1 La Playa Cove	A1 Anchorage	1/20/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020		3

**2020 Weekend Anchorage Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	2/7/2020	2/10/2020		3
A1 La Playa Cove	A1 Anchorage	2/3/2020	Moorings	Confirmed	2/7/2020	2/10/2020	36'	3
A1 La Playa Cove	A1 Anchorage	2/10/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020		3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	19'	3
A1 La Playa Cove	A1 Anchorage	2/12/2020	Moorings	Confirmed	2/14/2020	2/17/2020	36'	3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	22'	3
A1 La Playa Cove	A1 Anchorage	8/26/2019	WEBSITE	Confirmed	2/14/2020	2/17/2020		3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	63'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	37'	3
A1 La Playa Cove	A1 Overflow	2/10/2020	Moorings	Confirmed	2/14/2020	2/17/2020	26'	3
A1 La Playa Cove	A1 Anchorage	2/12/2020	Moorings	Confirmed	2/14/2020	2/17/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/10/2020	Moorings	Confirmed	2/14/2020	2/17/2020		3
A1 La Playa Cove	A1 Anchorage	2/10/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	31'	3
A1 La Playa Cove	A1 Anchorage	1/16/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/27/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/2/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	42'	3
A1 La Playa Cove	A1 Anchorage	2/2/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	45'	3
A1 La Playa Cove	A1 Anchorage	2/2/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	25'	3
A1 La Playa Cove	A1 Anchorage	2/5/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	28'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	35'	3
A1 La Playa Cove	A1 Anchorage	1/31/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	28'	3
A1 La Playa Cove	A1 Anchorage	1/31/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	40'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	35'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	42'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	64'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	40'	3
A1 La Playa Cove	A1 Anchorage	1/30/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	20'	3
A1 La Playa Cove	A1 Anchorage	2/1/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	50'	3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	40'	3
A1 La Playa Cove	A1 Anchorage	1/24/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	40'	3
A1 La Playa Cove	A1 Anchorage	1/27/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/5/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	3'	3
A1 La Playa Cove	A1 Anchorage	2/1/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	40'	3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	2/14/2020	2/17/2020	35'	3
A1 La Playa Cove	A1 Anchorage	2/5/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	37'	3
A1 La Playa Cove	A1 Anchorage	12/27/2019	WEBSITE	Confirmed	2/14/2020	2/17/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/4/2020	Moorings	Confirmed	2/14/2020	2/17/2020	43'	3
A1 La Playa Cove	A1 Anchorage	1/31/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	34'	3
A1 La Playa Cove	A1 Anchorage	2/10/2020	WEBSITE	Confirmed	2/14/2020	2/17/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/31/2020	Moorings	Confirmed	2/14/2020	2/17/2020	38'	3
A1 La Playa Cove	A1 Anchorage	1/29/2020	WEBSITE	Confirmed	2/14/2020	2/15/2020	26'	1
A1 La Playa Cove	A1 Anchorage	1/29/2020	WEBSITE	Confirmed	2/15/2020	2/16/2020	26'	1
A1 La Playa Cove	A1 Anchorage	1/29/2020	WEBSITE	Confirmed	2/16/2020	2/17/2020	26'	1
A1 La Playa Cove	A1 Anchorage	2/16/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/18/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	33'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	42'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	33'	3
A1 La Playa Cove	A1 Anchorage	12/28/2019	WEBSITE	Confirmed	2/21/2020	2/24/2020	36'	3
A1 La Playa Cove	A1 Anchorage	12/25/2019	WEBSITE	Confirmed	2/21/2020	2/24/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/4/2020	Moorings	Confirmed	2/21/2020	2/24/2020	43'	3
A1 La Playa Cove	A1 Anchorage	2/20/2020	Moorings	Confirmed	2/21/2020	2/24/2020		3
A1 La Playa Cove	A1 Anchorage	2/15/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	39'	3
A1 La Playa Cove	A1 Anchorage	12/27/2019	WEBSITE	Confirmed	2/21/2020	2/24/2020	34'	3
A1 La Playa Cove	A1 Anchorage	12/27/2019	WEBSITE	Confirmed	2/21/2020	2/24/2020	35'	3
A1 La Playa Cove	A1 Anchorage	2/18/2020	Moorings	Confirmed	2/21/2020	2/24/2020		3
A1 La Playa Cove	A1 Anchorage	1/13/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020		3
A1 La Playa Cove	A1 Anchorage	1/24/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	32'	3
A1 La Playa Cove	A1 Anchorage	12/27/2019	WEBSITE	Confirmed	2/21/2020	2/24/2020	36'	3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	2/21/2020	2/24/2020	36'	3
A1 La Playa Cove	A1 Anchorage	2/13/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	38'	3
A1 La Playa Cove	A1 Anchorage	12/29/2019	WEBSITE	Confirmed	2/21/2020	2/24/2020	36'	3
A1 La Playa Cove	A1 Anchorage	2/19/2020	Moorings	Confirmed	2/21/2020	2/24/2020	25'	3
A1 La Playa Cove	A1 Anchorage	2/16/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	25'	3
A1 La Playa Cove	A1 Anchorage	2/13/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/14/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/16/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020		3
A1 La Playa Cove	A1 Anchorage	2/18/2020	Moorings	Confirmed	2/21/2020	2/24/2020	45'	3
A1 La Playa Cove	A1 Anchorage	2/19/2020	Moorings	Confirmed	2/21/2020	2/24/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/16/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	32'	3



## 2020 Weekend Anchorage Reservations Summary Table

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	2/19/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	27'	3
A1 La Playa Cove	A1 Anchorage	2/19/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	31'	3
A1 La Playa Cove	A1 Anchorage	2/7/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020		3
A1 La Playa Cove	A1 Anchorage	2/19/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020		3
A1 La Playa Cove	A1 Anchorage	2/18/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/14/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	34'	3
A1 La Playa Cove	A1 Anchorage	2/19/2020	Moorings	Confirmed	2/21/2020	2/24/2020	34'	3
A1 La Playa Cove	A1 Anchorage	1/29/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	48'	3
A1 La Playa Cove	A1 Anchorage	2/15/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	40'	3
A1 La Playa Cove	A1 Anchorage	2/6/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	34'	3
A1 La Playa Cove	A1 Anchorage	1/28/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	63'	3
A1 La Playa Cove	A1 Anchorage	1/20/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020		3
A1 La Playa Cove	A1 Anchorage	2/11/2020	WEBSITE	Confirmed	2/21/2020	2/24/2020	42'	3
A1 La Playa Cove	A1 Anchorage	2/18/2020	Moorings	Confirmed	2/21/2020	2/24/2020	36'	3
A1 La Playa Cove	A1 Anchorage	2/26/2020	Moorings	Confirmed	2/28/2020	3/2/2020	36'	3
A1 La Playa Cove	A1 Anchorage	2/24/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020		3
A1 La Playa Cove	A1 Anchorage	1/20/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020		3
A1 La Playa Cove	A1 Anchorage	2/26/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/24/2020	Moorings	Confirmed	2/28/2020	3/2/2020	26'	3
A1 La Playa Cove	A1 Anchorage	2/27/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	42'	3
A1 La Playa Cove	A1 Anchorage	1/23/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020		3
A1 La Playa Cove	A1 Anchorage	2/27/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	34'	3
A1 La Playa Cove	A1 Anchorage	2/18/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/27/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/24/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	33'	3
A1 La Playa Cove	A1 Anchorage	2/21/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	25'	3
A1 La Playa Cove	A1 Anchorage	2/20/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	27'	3
A1 La Playa Cove	A1 Anchorage	1/16/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	32'	3
A1 La Playa Cove	A1 Anchorage	1/16/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/20/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	28'	3
A1 La Playa Cove	A1 Anchorage	2/25/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	25'	3
A1 La Playa Cove	A1 Anchorage	2/20/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	27'	3
A1 La Playa Cove	A1 Anchorage	2/27/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/27/2020	Moorings	Confirmed	2/28/2020	3/2/2020	27'	3
A1 La Playa Cove	A1 Anchorage	2/16/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	40'	3
A1 La Playa Cove	A1 Anchorage	2/16/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020		3
A1 La Playa Cove	A1 Anchorage	2/7/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	43'	3
A1 La Playa Cove	A1 Anchorage	2/24/2020	Moorings	Confirmed	2/28/2020	3/2/2020	25'	3
A1 La Playa Cove	A1 Anchorage	2/27/2020	Moorings	Confirmed	2/28/2020	3/2/2020	40'	3
A1 La Playa Cove	A1 Anchorage	2/16/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	36'	3
A1 La Playa Cove	A1 Anchorage	2/23/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	44'	3
A1 La Playa Cove	A1 Anchorage	2/26/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	42'	3
A1 La Playa Cove	A1 Anchorage	2/26/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	34'	3
A1 La Playa Cove	A1 Anchorage	2/25/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	37'	3
A1 La Playa Cove	A1 Anchorage	2/27/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020		3
A1 La Playa Cove	A1 Anchorage	2/25/2020	Moorings	Confirmed	2/28/2020	3/2/2020	51'	3
A1 La Playa Cove	A1 Anchorage	12/25/2019	WEBSITE	Confirmed	2/28/2020	3/2/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/25/2020	Moorings	Confirmed	2/28/2020	3/2/2020	43'	3
A1 La Playa Cove	A1 Anchorage	2/16/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	50'	3
A1 La Playa Cove	A1 Anchorage	2/20/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/21/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/24/2020	Moorings	Confirmed	2/28/2020	3/2/2020	33'	3
A1 La Playa Cove	A1 Anchorage	2/20/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	26'	3
A1 La Playa Cove	A1 Anchorage	2/25/2020	WEBSITE	Confirmed	2/28/2020	3/2/2020	26'	3
A1 La Playa Cove	A1 Anchorage	3/3/2020	Moorings	Confirmed	3/6/2020	3/9/2020	33'	3
A1 La Playa Cove	A1 Anchorage	3/4/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	26'	3
A1 La Playa Cove	A1 Anchorage	2/25/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	42'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/25/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	38'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/3/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	43'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	47'	3
A1 La Playa Cove	A1 Anchorage	3/3/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/3/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	26'	3
A1 La Playa Cove	A1 Anchorage	3/3/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020		3
A1 La Playa Cove	A1 Anchorage	2/24/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	37'	3
A1 La Playa Cove	A1 Anchorage	2/23/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020		3
A1 La Playa Cove	A1 Anchorage	3/4/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020		3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	65'	3

## 2020 Weekend Anchorage Reservations Summary Table

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020		3
A1 La Playa Cove	A1 Anchorage	3/3/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/28/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	43'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020		3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/2/2020	Moorings	Confirmed	3/6/2020	3/9/2020	43'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	25'	3
A1 La Playa Cove	A1 Anchorage	2/21/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	42'	3
A1 La Playa Cove	A1 Anchorage	3/2/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	25'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	28'	3
A1 La Playa Cove	A1 Anchorage	1/16/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	27'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	25'	3
A1 La Playa Cove	A1 Anchorage	3/3/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	33'	3
A1 La Playa Cove	A1 Anchorage	3/4/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	Moorings	Confirmed	3/6/2020	3/9/2020	34'	3
A1 La Playa Cove	A1 Anchorage	2/27/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	27'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	34'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	46'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	26'	3
A1 La Playa Cove	A1 Anchorage	8/26/2019	WEBSITE	Confirmed	3/6/2020	3/9/2020		3
A1 La Playa Cove	A1 Anchorage	3/4/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020	63'	3
A1 La Playa Cove	A1 Anchorage	3/4/2020	WEBSITE	Confirmed	3/6/2020	3/9/2020		3
A1 La Playa Cove	A1 Anchorage	3/3/2020	Moorings	Confirmed	3/6/2020	3/9/2020	36'	3
A1 La Playa Cove	A1 Anchorage	3/9/2020	Moorings	Confirmed	3/13/2020	3/16/2020	36'	3
A1 La Playa Cove	A1 Anchorage	3/11/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020		3
A1 La Playa Cove	A1 Anchorage	3/12/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	36'	3
A1 La Playa Cove	A1 Anchorage	3/4/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	63'	3
A1 La Playa Cove	A1 Anchorage	3/11/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	47'	3
A1 La Playa Cove	A1 Anchorage	8/26/2019	WEBSITE	Confirmed	3/13/2020	3/16/2020		3
A1 La Playa Cove	A1 Anchorage	3/9/2020	Moorings	Confirmed	3/13/2020	3/16/2020	26'	3
A1 La Playa Cove	A1 Anchorage	2/27/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	27'	3
A1 La Playa Cove	A1 Anchorage	3/12/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	34'	3
A1 La Playa Cove	A1 Anchorage	3/10/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/10/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/11/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	33'	3
A1 La Playa Cove	A1 Anchorage	3/11/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	27'	3
A1 La Playa Cove	A1 Anchorage	3/10/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	25'	3
A1 La Playa Cove	A1 Anchorage	3/10/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020		3
A1 La Playa Cove	A1 Anchorage	1/16/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/12/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	35'	3
A1 La Playa Cove	A1 Anchorage	3/11/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	28'	3
A1 La Playa Cove	A1 Anchorage	3/11/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020		3
A1 La Playa Cove	A1 Anchorage	3/11/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/12/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	25'	3
A1 La Playa Cove	A1 Anchorage	3/12/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020		3
A1 La Playa Cove	A1 Anchorage	1/29/2020	Moorings	Confirmed	3/13/2020	3/16/2020	42'	3
A1 La Playa Cove	A1 Anchorage	3/10/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	28'	3
A1 La Playa Cove	A1 Anchorage	3/11/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	37'	3
A1 La Playa Cove	A1 Anchorage	3/10/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	50'	3
A1 La Playa Cove	A1 Anchorage	3/9/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/9/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	41'	3
A1 La Playa Cove	A1 Anchorage	3/4/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	43'	3
A1 La Playa Cove	A1 Anchorage	2/27/2020	Moorings	Confirmed	3/13/2020	3/16/2020	30'	3
A1 La Playa Cove	A1 Anchorage	2/25/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	38'	3
A1 La Playa Cove	A1 Anchorage	2/10/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	36'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/12/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	50'	3
A1 La Playa Cove	A1 Anchorage	3/8/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/11/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/10/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	33'	3
A1 La Playa Cove	A1 Anchorage	3/9/2020	WEBSITE	Confirmed	3/13/2020	3/16/2020	26'	3
A1 La Playa Cove	A1 Anchorage	3/11/2020	Moorings	Confirmed	3/13/2020	3/16/2020	26'	3
A1 La Playa Cove	A1 Anchorage	3/18/2020	Moorings	Confirmed	3/20/2020	3/23/2020	26'	3
A1 La Playa Cove	A1 Anchorage	2/25/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	38'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	42'	3
A1 La Playa Cove	A1 Anchorage	1/31/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/16/2020	Moorings	Confirmed	3/20/2020	3/23/2020	43'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	40'	3

## 2020 Weekend Anchorage Reservations Summary Table

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	47'	3
A1 La Playa Cove	A1 Anchorage	2/15/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	44'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	43'	3
A1 La Playa Cove	A1 Anchorage	3/17/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	45'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	37'	3
A1 La Playa Cove	A1 Anchorage	3/1/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	65'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	34'	3
A1 La Playa Cove	A1 Anchorage	3/10/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020		3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	42'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	Moorings	Confirmed	3/20/2020	3/23/2020	40'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	36'	3
A1 La Playa Cove	A1 Anchorage	3/18/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	Moorings	Confirmed	3/20/2020	3/23/2020	25'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020		3
A1 La Playa Cove	A1 Anchorage	3/18/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	27'	3
A1 La Playa Cove	A1 Anchorage	3/18/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	27'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	36'	3
A1 La Playa Cove	A1 Anchorage	3/12/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020		3
A1 La Playa Cove	A1 Anchorage	3/18/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/18/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	27'	3
A1 La Playa Cove	A1 Anchorage	3/17/2020	Moorings	Confirmed	3/20/2020	3/23/2020	34'	3
A1 La Playa Cove	A1 Anchorage	3/16/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	48'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	33'	3
A1 La Playa Cove	A1 Anchorage	3/15/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020		3
A1 La Playa Cove	A1 Anchorage	3/15/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/18/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	35'	3
A1 La Playa Cove	A1 Anchorage	3/4/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	63'	3
A1 La Playa Cove	A1 Anchorage	3/19/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	49'	3
A1 La Playa Cove	A1 Anchorage	3/14/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020		3
A1 La Playa Cove	A1 Anchorage	3/13/2020	WEBSITE	Confirmed	3/20/2020	3/23/2020	34'	3
A1 La Playa Cove	A1 Anchorage	3/20/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020		3
A1 La Playa Cove	A1 Anchorage	3/23/2020	Moorings	Confirmed	3/27/2020	3/30/2020	26'	3
A1 La Playa Cove	A1 Anchorage	3/25/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	33'	3
A1 La Playa Cove	A1 Anchorage	3/24/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	48'	3
A1 La Playa Cove	A1 Anchorage	3/25/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	42'	3
A1 La Playa Cove	A1 Anchorage	3/26/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020		3
A1 La Playa Cove	A1 Anchorage	3/26/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	50'	3
A1 La Playa Cove	A1 Anchorage	3/12/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020		3
A1 La Playa Cove	A1 Anchorage	3/26/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	30'	3
A1 La Playa Cove	A1 Anchorage	1/12/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/18/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	27'	3
A1 La Playa Cove	A1 Anchorage	3/22/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/22/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	35'	3
A1 La Playa Cove	A1 Anchorage	3/21/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	35'	3
A1 La Playa Cove	A1 Anchorage	3/22/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020		3
A1 La Playa Cove	A1 Anchorage	3/14/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	40'	3
A1 La Playa Cove	A1 Anchorage	3/24/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020		3
A1 La Playa Cove	A1 Anchorage	3/26/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	34'	3
A1 La Playa Cove	A1 Anchorage	3/25/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	27'	3
A1 La Playa Cove	A1 Anchorage	3/23/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	50'	3
A1 La Playa Cove	A1 Anchorage	3/24/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	29'	3
A1 La Playa Cove	A1 Anchorage	3/26/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/26/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	50'	3
A1 La Playa Cove	A1 Anchorage	3/26/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	59'	3
A1 La Playa Cove	A1 Anchorage	3/10/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020		3
A1 La Playa Cove	A1 Anchorage	3/22/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	48'	3
A1 La Playa Cove	A1 Anchorage	3/26/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	34'	3
A1 La Playa Cove	A1 Anchorage	3/26/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	59'	3
A1 La Playa Cove	A1 Anchorage	3/22/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	53'	3
A1 La Playa Cove	A1 Anchorage	3/25/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	42'	3
A1 La Playa Cove	A1 Anchorage	3/23/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	43'	3
A1 La Playa Cove	A1 Anchorage	3/23/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	39'	3
A1 La Playa Cove	A1 Anchorage	12/27/2019	WEBSITE	Confirmed	3/27/2020	3/30/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/25/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	42'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/26/2020	WEBSITE	Confirmed	3/27/2020	3/30/2020	62'	3

## 2020 Weekend Anchorage Reservations Summary Table

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## 2020 Weekend Anchorage Reservations Summary Table

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/8/2020	5/11/2020	53'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/8/2020	5/11/2020	52'	3
A1 La Playa Cove	A1 Anchorage	2/25/2020	WEBSITE	Confirmed	5/8/2020	5/11/2020	38'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/8/2020	5/11/2020	32'	3
A1 La Playa Cove	A1 Anchorage	4/27/2020	Moorings	Confirmed	5/8/2020	5/11/2020	26'	3
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	32'	3
A1 La Playa Cove	A1 Anchorage	2/4/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	31'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	41'	3
A1 La Playa Cove	A1 Anchorage	2/23/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	65'	3
A1 La Playa Cove	A1 Anchorage	5/7/2020	Moorings	Confirmed	5/15/2020	5/18/2020	38'	3
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/2/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	44'	3
A1 La Playa Cove	A1 Anchorage	1/26/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	40'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	47'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	36'	3
A1 La Playa Cove	A1 Anchorage	2/4/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	38'	3
A1 La Playa Cove	A1 Anchorage	4/9/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/5/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	40'	3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	5/15/2020	5/18/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	5/15/2020	5/18/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	5/15/2020	5/18/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	5/15/2020	5/18/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	5/15/2020	5/18/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	5/15/2020	5/18/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	5/15/2020	5/18/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	5/15/2020	5/18/2020		3
A1 La Playa Cove	A1 Anchorage	5/7/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	43'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/9/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	27'	3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	5/15/2020	5/18/2020	34'	3
A1 La Playa Cove	A1 Anchorage	3/10/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	43'	3
A1 La Playa Cove	A1 Anchorage	5/5/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	33'	3
A1 La Playa Cove	A1 Anchorage	5/9/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	55'	3
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	30'	3
A1 La Playa Cove	A1 Anchorage	4/4/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	63'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/7/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/7/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	37'	3
A1 La Playa Cove	A1 Anchorage	1/17/2020	WEBSITE	Confirmed	5/15/2020	5/18/2020	20'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	63'	3
A1 La Playa Cove	A1 Anchorage	5/5/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	40'	3
A1 La Playa Cove	A1 Anchorage	3/18/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	50'	3
A1 La Playa Cove	A1 Anchorage	8/29/2019	WEBSITE	Confirmed	5/22/2020	5/25/2020	35'	3
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	32'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/7/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	43'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	33'	3
A1 La Playa Cove	A1 Anchorage	5/5/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/21/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	56'	3
A1 La Playa Cove	A1 Anchorage	4/9/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	28'	3
A1 La Playa Cove	A1 Anchorage	3/14/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	46'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	50'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	47'	3
A1 La Playa Cove	A1 Anchorage	5/21/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	41'	3
A1 La Playa Cove	A1 Anchorage	3/23/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	53'	3
A1 La Playa Cove	A1 Anchorage	3/1/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	46'	3
A1 La Playa Cove	A1 Anchorage	3/2/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/7/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	52'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	34'	3

## 2020 Weekend Anchorage Reservations Summary Table

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	32'	3
A1 La Playa Cove	A1 Anchorage	5/21/2020	WEBSITE	Confirmed	5/22/2020	5/25/2020	39'	3
A1 La Playa Cove	A1 Anchorage	5/22/2020	Moorings	Confirmed	5/22/2020	5/25/2020		3
A1 La Playa Cove	A1 Anchorage	5/11/2020	Moorings	Confirmed	5/29/2020	6/1/2020	38'	3
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/2/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/9/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	38'	3
A1 La Playa Cove	A1 Anchorage	5/9/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	53'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/9/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	35'	3
A1 La Playa Cove	A1 Anchorage	5/9/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/5/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	40'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	33'	3
A1 La Playa Cove	A1 Anchorage	5/11/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	27'	3
A1 La Playa Cove	A1 Anchorage	5/11/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/9/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/9/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	27'	3
A1 La Playa Cove	A1 Anchorage	5/11/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	25'	3
A1 La Playa Cove	A1 Anchorage	5/10/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/11/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020		3
A1 La Playa Cove	A1 Anchorage	5/9/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/11/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	5/29/2020	6/1/2020	63'	3
A1 La Playa Cove	A1 Anchorage	1/13/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	34'	3
A1 La Playa Cove	A1 Anchorage	6/4/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	27'	3
A1 La Playa Cove	A1 Anchorage	5/15/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	35'	3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/5/2020	6/8/2020	34'	3
A1 La Playa Cove	A1 Anchorage	6/4/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/13/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/15/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	29'	3
A1 La Playa Cove	A1 Anchorage	5/17/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	56'	3
A1 La Playa Cove	A1 Anchorage	5/16/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	40'	3
A1 La Playa Cove	A1 Anchorage	4/4/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	35'	3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/5/2020	6/8/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/5/2020	6/8/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/5/2020	6/8/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/5/2020	6/8/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/5/2020	6/8/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/5/2020	6/8/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/5/2020	6/8/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/5/2020	6/8/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/5/2020	6/8/2020		3
A1 La Playa Cove	A1 Anchorage	12/27/2019	WEBSITE	Confirmed	6/5/2020	6/8/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	28'	3
A1 La Playa Cove	A1 Anchorage	12/27/2019	WEBSITE	Confirmed	6/5/2020	6/8/2020	36'	3
A1 La Playa Cove	A1 Anchorage	1/24/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	32'	3
A1 La Playa Cove	A1 Anchorage	12/31/2019	WEBSITE	Confirmed	6/5/2020	6/8/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/14/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	42'	3
A1 La Playa Cove	A1 Anchorage	12/29/2019	WEBSITE	Confirmed	6/5/2020	6/8/2020	36'	3
A1 La Playa Cove	A1 Anchorage	6/3/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	39'	3
A1 La Playa Cove	A1 Anchorage	5/15/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	41'	3
A1 La Playa Cove	A1 Anchorage	5/7/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/14/2020	Moorings	Confirmed	6/5/2020	6/8/2020	38'	3
A1 La Playa Cove	A1 Anchorage	5/13/2020	WEBSITE	Confirmed	6/5/2020	6/8/2020	33'	3
A1 La Playa Cove	A1 Anchorage	5/13/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	33'	3
A1 La Playa Cove	A1 Anchorage	5/14/2020	Moorings	Confirmed	6/12/2020	6/15/2020	38'	3
A1 La Playa Cove	A1 Anchorage	2/19/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	34'	3
A1 La Playa Cove	A1 Anchorage	6/8/2020	Moorings	Confirmed	6/12/2020	6/15/2020	40'	3
A1 La Playa Cove	A1 Anchorage	5/14/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	40'	3
A1 La Playa Cove	A1 Anchorage	5/15/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	39'	3
A1 La Playa Cove	A1 Anchorage	5/12/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3

## 2020 Weekend Anchorage Reservations Summary Table

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	5/16/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	40'	3
A1 La Playa Cove	A1 Anchorage	6/4/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	65'	3
A1 La Playa Cove	A1 Anchorage	6/8/2020	Moorings	Confirmed	6/12/2020	6/15/2020	27'	3
A1 La Playa Cove	A1 Anchorage	5/11/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/12/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/15/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/12/2020	6/15/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/17/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	25'	3
A1 La Playa Cove	A1 Anchorage	6/9/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020		3
A1 La Playa Cove	A1 Anchorage	6/11/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	25'	3
A1 La Playa Cove	A1 Anchorage	6/9/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	32'	3
A1 La Playa Cove	A1 Anchorage	6/8/2020	Moorings	Confirmed	6/12/2020	6/15/2020	25'	3
A1 La Playa Cove	A1 Anchorage	6/4/2020	WEBSITE	Confirmed	6/12/2020	6/15/2020	59'	3
A1 La Playa Cove	A1 Anchorage	5/21/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	14'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	33'	3
A1 La Playa Cove	A1 Anchorage	5/17/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	63'	3
A1 La Playa Cove	A1 Anchorage	5/13/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/15/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	29'	3
A1 La Playa Cove	A1 Anchorage	5/20/2020	Moorings	Confirmed	6/19/2020	6/22/2020	26'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	46'	3
A1 La Playa Cove	A1 Anchorage	5/16/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	40'	3
A1 La Playa Cove	A1 Anchorage	5/22/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	50'	3
A1 La Playa Cove	A1 Anchorage	5/12/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020		3
A1 La Playa Cove	A1 Anchorage	5/19/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	60'	3
A1 La Playa Cove	A1 Anchorage	5/20/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/20/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/14/2020	Moorings	Confirmed	6/19/2020	6/22/2020	38'	3
A1 La Playa Cove	A1 Anchorage	6/17/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	43'	3
A1 La Playa Cove	A1 Anchorage	5/20/2020	WEBSITE	Confirmed	6/19/2020	6/22/2020	50'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	40'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/24/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	44'	3
A1 La Playa Cove	A1 Anchorage	5/20/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	38'	3
A1 La Playa Cove	A1 Anchorage	5/20/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/26/2020	6/29/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/26/2020	6/29/2020		3
A1 La Playa Cove	A1 Anchorage	5/13/2020	Moorings	Confirmed	6/26/2020	6/29/2020		3
A1 La Playa Cove	A1 Anchorage	5/20/2020	Moorings	Confirmed	6/26/2020	6/29/2020	26'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	46'	3
A1 La Playa Cove	A1 Anchorage	5/15/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	30'	3
A1 La Playa Cove	A1 Anchorage	12/15/2019	WEBSITE	Confirmed	6/26/2020	6/29/2020	35'	3
A1 La Playa Cove	A1 Anchorage	12/15/2019	WEBSITE	Confirmed	6/26/2020	6/29/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/19/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	63'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	32'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	33'	3
A1 La Playa Cove	A1 Anchorage	12/15/2019	WEBSITE	Confirmed	6/26/2020	6/29/2020	55'	3
A1 La Playa Cove	A1 Anchorage	6/25/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020		3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	14'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	6/26/2020	6/29/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	30'	3
A1 La Playa Cove	A1 Anchorage	6/30/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	34'	3
A1 La Playa Cove	A1 Anchorage	6/19/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	43'	3
A1 La Playa Cove	A1 Anchorage	6/20/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	63'	3
A1 La Playa Cove	A1 Anchorage	12/15/2019	WEBSITE	Confirmed	7/3/2020	7/6/2020	55'	3
A1 La Playa Cove	A1 Anchorage	3/18/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	50'	3

## 2020 Weekend Anchorage Reservations Summary Table

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	7/15/2019	WEBSITE	Confirmed	7/3/2020	7/6/2020	44'	3
A1 La Playa Cove	A1 Anchorage	7/7/2019	WEBSITE	Confirmed	7/3/2020	7/6/2020	38'	3
A1 La Playa Cove	A1 Anchorage	5/10/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	45'	3
A1 La Playa Cove	A1 Anchorage	12/15/2019	WEBSITE	Confirmed	7/3/2020	7/6/2020	37'	3
A1 La Playa Cove	A1 Anchorage	1/29/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	25'	3
A1 La Playa Cove	A1 Anchorage	12/15/2019	WEBSITE	Confirmed	7/3/2020	7/6/2020	35'	3
A1 La Playa Cove	A1 Anchorage	3/5/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	45'	3
A1 La Playa Cove	A1 Anchorage	5/6/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	47'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/15/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	29'	3
A1 La Playa Cove	A1 Anchorage	6/21/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	46'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	46'	3
A1 La Playa Cove	A1 Anchorage	3/12/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020		3
A1 La Playa Cove	A1 Anchorage	5/10/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	48'	3
A1 La Playa Cove	A1 Anchorage	6/29/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	35'	3
A1 La Playa Cove	A1 Anchorage	3/14/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	46'	3
A1 La Playa Cove	A1 Anchorage	5/20/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/12/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	53'	3
A1 La Playa Cove	A1 Anchorage	5/11/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	50'	3
A1 La Playa Cove	A1 Anchorage	12/3/2019	WEBSITE	Confirmed	7/3/2020	7/6/2020	32'	3
A1 La Playa Cove	A1 Anchorage	5/4/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	41'	3
A1 La Playa Cove	A1 Anchorage	12/3/2019	WEBSITE	Confirmed	7/3/2020	7/6/2020	36'	3
A1 La Playa Cove	A1 Anchorage	3/23/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	53'	3
A1 La Playa Cove	A1 Anchorage	2/5/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	63'	3
A1 La Playa Cove	A1 Anchorage	3/1/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/8/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/20/2020	WEBSITE	Confirmed	7/3/2020	7/6/2020	51'	3
A1 La Playa Cove	A1 Anchorage	6/30/2020	Moorings	Confirmed	7/10/2020	7/13/2020	40'	3
A1 La Playa Cove	A1 Anchorage	5/11/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	45'	3
A1 La Playa Cove	A1 Anchorage	6/30/2020	Moorings	Confirmed	7/10/2020	7/13/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	35'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	32'	3
A1 La Playa Cove	A1 Anchorage	6/30/2020	Moorings	Confirmed	7/10/2020	7/13/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	42'	3
A1 La Playa Cove	A1 Anchorage	7/8/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	53'	3
A1 La Playa Cove	A1 Anchorage	7/1/2020	Moorings	Confirmed	7/10/2020	7/13/2020	40'	3
A1 La Playa Cove	A1 Anchorage	7/2/2020	Moorings	Confirmed	7/10/2020	7/13/2020	44'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	48'	3
A1 La Playa Cove	A1 Anchorage	6/30/2020	Moorings	Confirmed	7/10/2020	7/13/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	46'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	43'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	40'	3
A1 La Playa Cove	A1 Anchorage	6/30/2020	Moorings	Confirmed	7/10/2020	7/13/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	32'	3
A1 La Playa Cove	A1 Anchorage	5/20/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	37'	3
A1 La Playa Cove	A1 Anchorage	7/8/2020	Moorings	Confirmed	7/10/2020	7/13/2020	37'	3
A1 La Playa Cove	A1 Anchorage	6/30/2020	Moorings	Confirmed	7/10/2020	7/13/2020	38'	3
A1 La Playa Cove	A1 Anchorage	7/2/2020	Moorings	Confirmed	7/10/2020	7/13/2020	47'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	58'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	38'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	7/10/2020	7/13/2020	14'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	14'	3
A1 La Playa Cove	A1 Anchorage	5/26/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020		3
A1 La Playa Cove	A1 Anchorage	5/30/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/26/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/21/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	63'	3
A1 La Playa Cove	A1 Anchorage	5/27/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/27/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	25'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	43'	3
A1 La Playa Cove	A1 Anchorage	5/15/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/26/2020	Moorings	Confirmed	7/17/2020	7/20/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/27/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	38'	3



## 2020 Weekend Anchorage Reservations Summary Table

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	5/28/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	40'	3
A1 La Playa Cove	A1 Anchorage	5/30/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	44'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	32'	3
A1 La Playa Cove	A1 Anchorage	5/28/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	48'	3
A1 La Playa Cove	A1 Anchorage	6/2/2020	Moorings	Confirmed	7/17/2020	7/20/2020	62'	3
A1 La Playa Cove	A1 Anchorage	5/26/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/8/2020	WEBSITE	Confirmed	7/17/2020	7/20/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/26/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	32'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	22'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/30/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	44'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	40'	3
A1 La Playa Cove	A1 Anchorage	6/2/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	62'	3
A1 La Playa Cove	A1 Anchorage	5/28/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	37'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	44'	3
A1 La Playa Cove	A1 Anchorage	5/31/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	43'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	46'	3
A1 La Playa Cove	A1 Anchorage	6/2/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/27/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	25'	3
A1 La Playa Cove	A1 Anchorage	5/28/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	30'	3
A1 La Playa Cove	A1 Anchorage	6/4/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	27'	3
A1 La Playa Cove	A1 Anchorage	5/31/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	55'	3
A1 La Playa Cove	A1 Anchorage	5/31/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	30'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	42'	3
A1 La Playa Cove	A1 Anchorage	7/1/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	37'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	7/24/2020	7/27/2020	43'	3
A1 La Playa Cove	A1 Anchorage	5/25/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/5/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	40'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	32'	3
A1 La Playa Cove	A1 Anchorage	5/31/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/31/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	55'	3
A1 La Playa Cove	A1 Anchorage	5/18/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	63'	3
A1 La Playa Cove	A1 Anchorage	6/4/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	27'	3
A1 La Playa Cove	A1 Anchorage	6/7/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	35'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	28'	3
A1 La Playa Cove	A1 Anchorage	7/29/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/28/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	37'	3
A1 La Playa Cove	A1 Anchorage	6/5/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	34'	3
A1 La Playa Cove	A1 Anchorage	6/6/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	60'	3
A1 La Playa Cove	A1 Anchorage	5/30/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	44'	3
A1 La Playa Cove	A1 Anchorage	6/7/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	40'	3
A1 La Playa Cove	A1 Anchorage	6/7/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	32'	3
A1 La Playa Cove	A1 Anchorage	6/9/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/26/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	32'	3
A1 La Playa Cove	A1 Anchorage	6/7/2020	WEBSITE	Confirmed	7/31/2020	8/3/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/26/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	32'	3
A1 La Playa Cove	A1 Anchorage	6/3/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	40'	3
A1 La Playa Cove	A1 Anchorage	5/29/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/31/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	37'	3
A1 La Playa Cove	A1 Anchorage	8/3/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	30'	3
A1 La Playa Cove	A1 Anchorage	5/29/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	38'	3
A1 La Playa Cove	A1 Anchorage	7/31/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	60'	3
A1 La Playa Cove	A1 Anchorage	5/28/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/29/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	35'	3
A1 La Playa Cove	A1 Anchorage	6/4/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	27'	3
A1 La Playa Cove	A1 Anchorage	5/22/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	63'	3
A1 La Playa Cove	A1 Anchorage	5/29/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020		3
A1 La Playa Cove	A1 Anchorage	5/29/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	Moorings	Confirmed	8/7/2020	8/10/2020	35'	3
A1 La Playa Cove	A1 Anchorage	5/29/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	41'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/29/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	39'	3
A1 La Playa Cove	A1 Anchorage	5/29/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	40'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	43'	3

**2020 Weekend Anchorage Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	8/7/2020	8/10/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/16/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	25'	3
A1 La Playa Cove	A1 Anchorage	6/5/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	40'	3
A1 La Playa Cove	A1 Anchorage	6/4/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	43'	3
A1 La Playa Cove	A1 Anchorage	8/11/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	35'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/30/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/22/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	63'	3
A1 La Playa Cove	A1 Anchorage	6/11/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/10/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	56'	3
A1 La Playa Cove	A1 Anchorage	6/4/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	27'	3
A1 La Playa Cove	A1 Anchorage	6/9/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	34'	3
A1 La Playa Cove	A1 Anchorage	6/10/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	40'	3
A1 La Playa Cove	A1 Anchorage	6/10/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	35'	3
A1 La Playa Cove	A1 Anchorage	6/15/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020		3
A1 La Playa Cove	A1 Anchorage	6/12/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/30/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	44'	3
A1 La Playa Cove	A1 Anchorage	6/9/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/11/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	50'	3
A1 La Playa Cove	A1 Anchorage	8/11/2020	WEBSITE	Confirmed	8/14/2020	8/17/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/18/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	35'	3
A1 La Playa Cove	A1 Anchorage	6/18/2020	Moorings	Confirmed	8/21/2020	8/24/2020	38'	3
A1 La Playa Cove	A1 Anchorage	6/17/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	32'	3
A1 La Playa Cove	A1 Anchorage	5/30/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	44'	3
A1 La Playa Cove	A1 Anchorage	5/14/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	36'	3
A1 La Playa Cove	A1 Anchorage	6/12/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/2/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	62'	3
A1 La Playa Cove	A1 Anchorage	8/18/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	25'	3
A1 La Playa Cove	A1 Anchorage	6/5/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	34'	3
A1 La Playa Cove	A1 Anchorage	6/17/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	37'	3
A1 La Playa Cove	A1 Anchorage	6/16/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	25'	3
A1 La Playa Cove	A1 Anchorage	6/12/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	27'	3
A1 La Playa Cove	A1 Anchorage	6/18/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	28'	3
A1 La Playa Cove	A1 Anchorage	6/16/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	32'	3
A1 La Playa Cove	A1 Anchorage	5/22/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	63'	3
A1 La Playa Cove	A1 Anchorage	8/16/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	46'	3
A1 La Playa Cove	A1 Anchorage	6/16/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	25'	3
A1 La Playa Cove	A1 Anchorage	6/19/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	65'	3
A1 La Playa Cove	A1 Anchorage	6/19/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	27'	3
A1 La Playa Cove	A1 Anchorage	6/20/2020	WEBSITE	Confirmed	8/21/2020	8/24/2020	55'	3
A1 La Playa Cove	A1 Anchorage	6/16/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	25'	3
A1 La Playa Cove	A1 Anchorage	6/23/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020		3
A1 La Playa Cove	A1 Anchorage	6/18/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	46'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	14'	3
A1 La Playa Cove	A1 Anchorage	5/30/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	48'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/16/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	32'	3
A1 La Playa Cove	A1 Anchorage	6/18/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	28'	3
A1 La Playa Cove	A1 Anchorage	6/16/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	25'	3
A1 La Playa Cove	A1 Anchorage	6/23/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	27'	3
A1 La Playa Cove	A1 Anchorage	6/15/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/17/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	37'	3
A1 La Playa Cove	A1 Anchorage	6/10/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	40'	3
A1 La Playa Cove	A1 Anchorage	8/13/2020	Moorings	Confirmed	8/28/2020	8/31/2020	38'	3
A1 La Playa Cove	A1 Anchorage	6/9/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	42'	3
A1 La Playa Cove	A1 Anchorage	6/17/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	32'	3
A1 La Playa Cove	A1 Anchorage	6/18/2020	Moorings	Confirmed	8/28/2020	8/31/2020	38'	3
A1 La Playa Cove	A1 Anchorage	6/18/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	35'	3
A1 La Playa Cove	A1 Anchorage	8/27/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	30'	3
A1 La Playa Cove	A1 Anchorage	3/23/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	53'	3
A1 La Playa Cove	A1 Anchorage	6/25/2020	WEBSITE	Confirmed	8/28/2020	8/31/2020	45'	3
A1 La Playa Cove	A1 Anchorage	5/19/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	45'	3
A1 La Playa Cove	A1 Anchorage	9/1/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	37'	3
A1 La Playa Cove	A1 Anchorage	2/5/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	63'	3
A1 La Playa Cove	A1 Anchorage	9/3/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/19/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	32'	3
A1 La Playa Cove	A1 Anchorage	3/14/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	46'	3
A1 La Playa Cove	A1 Anchorage	6/5/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	48'	3
A1 La Playa Cove	A1 Anchorage	5/28/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	37'	3

## 2020 Weekend Anchorage Reservations Summary Table

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	6/7/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	35'	3
A1 La Playa Cove	A1 Anchorage	6/7/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	28'	3
A1 La Playa Cove	A1 Anchorage	5/22/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	34'	3
A1 La Playa Cove	A1 Anchorage	7/29/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	36'	3
A1 La Playa Cove	A1 Anchorage	5/26/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	30'	3
A1 La Playa Cove	A1 Anchorage	6/1/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	42'	3
A1 La Playa Cove	A1 Anchorage	5/26/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	35'	3
A1 La Playa Cove	A1 Anchorage	6/11/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	63'	3
A1 La Playa Cove	A1 Anchorage	5/22/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	63'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	14'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	19'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	33'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	31'	3
A1 La Playa Cove	A1 Anchorage	8/26/2020	WEBSITE	Confirmed	9/4/2020	9/7/2020	36'	3
A1 La Playa Cove	A1 Anchorage	9/8/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	37'	3
A1 La Playa Cove	A1 Anchorage	6/23/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020		3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	14'	3
A1 La Playa Cove	A1 Anchorage	6/24/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	26'	3
A1 La Playa Cove	A1 Anchorage	7/9/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	29'	3
A1 La Playa Cove	A1 Anchorage	6/29/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	37'	3
A1 La Playa Cove	A1 Anchorage	6/11/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	63'	3
A1 La Playa Cove	A1 Anchorage	6/12/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	27'	3
A1 La Playa Cove	A1 Anchorage	7/8/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	28'	3
A1 La Playa Cove	A1 Anchorage	6/25/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/6/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	30'	3
A1 La Playa Cove	A1 Anchorage	6/17/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	37'	3
A1 La Playa Cove	A1 Anchorage	6/10/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	40'	3
A1 La Playa Cove	A1 Anchorage	9/10/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	53'	3
A1 La Playa Cove	A1 Anchorage	6/27/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	50'	3
A1 La Playa Cove	A1 Anchorage	6/21/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	30'	3
A1 La Playa Cove	A1 Anchorage	7/7/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	34'	3
A1 La Playa Cove	A1 Anchorage	5/26/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/2/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	31'	3
A1 La Playa Cove	A1 Anchorage	6/29/2020	WEBSITE	Confirmed	9/11/2020	9/14/2020	35'	3
A1 La Playa Cove	A1 Anchorage	7/10/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	50'	3
A1 La Playa Cove	A1 Anchorage	7/14/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	31'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	33'	3
A1 La Playa Cove	A1 Anchorage	7/14/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	32'	3
A1 La Playa Cove	A1 Anchorage	6/17/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/11/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	27'	3
A1 La Playa Cove	A1 Anchorage	8/25/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	37'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	50'	3
A1 La Playa Cove	A1 Anchorage	5/30/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	44'	3
A1 La Playa Cove	A1 Anchorage	6/20/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	43'	3
A1 La Playa Cove	A1 Anchorage	8/30/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	35'	3
A1 La Playa Cove	A1 Anchorage	6/17/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	37'	3
A1 La Playa Cove	A1 Anchorage	7/8/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	34'	3
A1 La Playa Cove	A1 Anchorage	7/10/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	60'	3
A1 La Playa Cove	A1 Anchorage	6/23/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	27'	3
A1 La Playa Cove	A1 Anchorage	7/8/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	28'	3
A1 La Playa Cove	A1 Anchorage	6/12/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	27'	3
A1 La Playa Cove	A1 Anchorage	6/3/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	62'	3
A1 La Playa Cove	A1 Anchorage	6/11/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	63'	3
A1 La Playa Cove	A1 Anchorage	7/14/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	25'	3
A1 La Playa Cove	A1 Anchorage	7/14/2020	WEBSITE	Confirmed	9/18/2020	9/21/2020	40'	3
A1 La Playa Cove	A1 Anchorage	6/24/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	26'	3
A1 La Playa Cove	A1 Anchorage	7/20/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	37'	3
A1 La Playa Cove	A1 Anchorage	5/23/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	14'	3
A1 La Playa Cove	A1 Anchorage	7/15/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020		3
A1 La Playa Cove	A1 Anchorage	7/20/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	40'	3
A1 La Playa Cove	A1 Anchorage	7/14/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	25'	3
A1 La Playa Cove	A1 Anchorage	8/30/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	34'	3
A1 La Playa Cove	A1 Anchorage	7/24/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	27'	3
A1 La Playa Cove	A1 Anchorage	9/24/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	34'	3
A1 La Playa Cove	A1 Anchorage	7/23/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	34'	3
A1 La Playa Cove	A1 Anchorage	7/25/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	35'	3
A1 La Playa Cove	A1 Anchorage	9/20/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	28'	3
A1 La Playa Cove	A1 Anchorage	7/26/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	45'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	30'	3
A1 La Playa Cove	A1 Anchorage	7/10/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	43'	3

**2020 Weekend Anchorage Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	9/19/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	38'	3
A1 La Playa Cove	A1 Anchorage	7/23/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	33'	3
A1 La Playa Cove	A1 Anchorage	7/9/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/14/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/17/2020	Moorings	Confirmed	9/25/2020	9/28/2020	38'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	9/25/2020	9/28/2020	33'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	33'	3
A1 La Playa Cove	A1 Anchorage	7/14/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	31'	3
A1 La Playa Cove	A1 Anchorage	7/17/2020	Moorings	Confirmed	10/2/2020	10/5/2020	38'	3
A1 La Playa Cove	A1 Anchorage	9/30/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	30'	3
A1 La Playa Cove	A1 Anchorage	9/28/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	28'	3
A1 La Playa Cove	A1 Anchorage	7/30/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	36'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	35'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	50'	3
A1 La Playa Cove	A1 Anchorage	9/30/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	59'	3
A1 La Playa Cove	A1 Anchorage	7/31/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	42'	3
A1 La Playa Cove	A1 Anchorage	7/10/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	60'	3
A1 La Playa Cove	A1 Anchorage	8/6/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	37'	3
A1 La Playa Cove	A1 Anchorage	7/8/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	28'	3
A1 La Playa Cove	A1 Anchorage	7/24/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	27'	3
A1 La Playa Cove	A1 Anchorage	7/27/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	36'	3
A1 La Playa Cove	A1 Anchorage	6/15/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	63'	3
A1 La Playa Cove	A1 Anchorage	8/3/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	27'	3
A1 La Playa Cove	A1 Anchorage	8/3/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	41'	3
A1 La Playa Cove	A1 Anchorage	8/5/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	31'	3
A1 La Playa Cove	A1 Anchorage	9/22/2020	Moorings	Confirmed	10/2/2020	10/5/2020	35'	3
A1 La Playa Cove	A1 Anchorage	7/30/2020	WEBSITE	Confirmed	10/2/2020	10/5/2020	45'	3
A1 La Playa Cove	A1 Anchorage	7/30/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	45'	3
A1 La Playa Cove	A1 Anchorage	8/9/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	29'	3
A1 La Playa Cove	A1 Anchorage	8/6/2020	Moorings	Confirmed	10/9/2020	10/12/2020	25'	3
A1 La Playa Cove	A1 Anchorage	9/27/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	33'	3
A1 La Playa Cove	A1 Anchorage	10/6/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	25'	3
A1 La Playa Cove	A1 Anchorage	8/15/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	35'	3
A1 La Playa Cove	A1 Anchorage	9/28/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	32'	3
A1 La Playa Cove	A1 Anchorage	8/10/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	42'	3
A1 La Playa Cove	A1 Anchorage	7/29/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	36'	3
A1 La Playa Cove	A1 Anchorage	7/24/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	27'	3
A1 La Playa Cove	A1 Anchorage	8/8/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	42'	3
A1 La Playa Cove	A1 Anchorage	8/13/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	30'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	50'	3
A1 La Playa Cove	A1 Anchorage	10/4/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	40'	3
A1 La Playa Cove	A1 Anchorage	8/6/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	25'	3
A1 La Playa Cove	A1 Anchorage	7/26/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	36'	3
A1 La Playa Cove	A1 Anchorage	8/20/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	40'	3
A1 La Playa Cove	A1 Anchorage	6/21/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	30'	3
A1 La Playa Cove	A1 Anchorage	7/17/2020	Moorings	Confirmed	10/9/2020	10/12/2020	38'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	10/9/2020	10/12/2020	33'	3
A1 La Playa Cove	A1 Anchorage	10/9/2020	Moorings	Confirmed	10/9/2020	10/12/2020	26'	3
A1 La Playa Cove	A1 Anchorage	7/17/2020	Moorings	Confirmed	10/16/2020	10/19/2020	38'	3
A1 La Playa Cove	A1 Anchorage	8/29/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	44'	3
A1 La Playa Cove	A1 Anchorage	8/6/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	25'	3
A1 La Playa Cove	A1 Anchorage	8/23/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	38'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	50'	3
A1 La Playa Cove	A1 Anchorage	7/19/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	44'	3
A1 La Playa Cove	A1 Anchorage	9/26/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	42'	3
A1 La Playa Cove	A1 Anchorage	8/6/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	37'	3
A1 La Playa Cove	A1 Anchorage	8/22/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	35'	3
A1 La Playa Cove	A1 Anchorage	8/31/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	34'	3
A1 La Playa Cove	A1 Anchorage	8/23/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	34'	3
A1 La Playa Cove	A1 Anchorage	8/11/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	43'	3
A1 La Playa Cove	A1 Anchorage	8/30/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	33'	3
A1 La Playa Cove	A1 Anchorage	6/15/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	63'	3
A1 La Playa Cove	A1 Anchorage	8/28/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	32'	3
A1 La Playa Cove	A1 Anchorage	8/27/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	42'	3
A1 La Playa Cove	A1 Anchorage	9/8/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	46'	3
A1 La Playa Cove	A1 Anchorage	8/6/2020	Moorings	Confirmed	10/16/2020	10/19/2020	25'	3
A1 La Playa Cove	A1 Anchorage	8/9/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	29'	3
A1 La Playa Cove	A1 Anchorage	7/30/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	45'	3
A1 La Playa Cove	A1 Anchorage	7/14/2020	Moorings	Confirmed	10/16/2020	10/19/2020	28'	3

**2020 Weekend Anchorage Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	8/28/2020	WEBSITE	Confirmed	10/16/2020	10/19/2020	25'	3
A1 La Playa Cove	A1 Anchorage	9/8/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	27'	3
A1 La Playa Cove	A1 Anchorage	8/6/2020	Mooring	Confirmed	10/23/2020	10/26/2020	25'	3
A1 La Playa Cove	A1 Anchorage	8/28/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	25'	3
A1 La Playa Cove	A1 Anchorage	9/28/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	47'	3
A1 La Playa Cove	A1 Anchorage	8/30/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	33'	3
A1 La Playa Cove	A1 Anchorage	8/23/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	34'	3
A1 La Playa Cove	A1 Anchorage	7/8/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	28'	3
A1 La Playa Cove	A1 Anchorage	9/2/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	56'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	37'	3
A1 La Playa Cove	A1 Anchorage	9/9/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	62'	3
A1 La Playa Cove	A1 Anchorage	5/19/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	35'	3
A1 La Playa Cove	A1 Anchorage	7/20/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	53'	3
A1 La Playa Cove	A1 Anchorage	10/13/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	30'	3
A1 La Playa Cove	A1 Anchorage	10/21/2020	Mooring	Confirmed	10/23/2020	10/26/2020	18'	3
A1 La Playa Cove	A1 Anchorage	9/11/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	38'	3
A1 La Playa Cove	A1 Anchorage	10/21/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	40'	3
A1 La Playa Cove	A1 Anchorage	8/27/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	30'	3
A1 La Playa Cove	A1 Anchorage	10/22/2020	Mooring	Confirmed	10/23/2020	10/26/2020	38'	3
A1 La Playa Cove	A1 Anchorage	9/11/2020	WEBSITE	Confirmed	10/23/2020	10/26/2020	32'	3
A1 La Playa Cove	A1 Anchorage	9/11/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	33'	3
A1 La Playa Cove	A1 Anchorage	6/21/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	30'	3
A1 La Playa Cove	A1 Anchorage	9/13/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	40'	3
A1 La Playa Cove	A1 Anchorage	10/13/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	30'	3
A1 La Playa Cove	A1 Anchorage	8/8/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	50'	3
A1 La Playa Cove	A1 Anchorage	9/18/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	48'	3
A1 La Playa Cove	A1 Anchorage	6/17/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	37'	3
A1 La Playa Cove	A1 Anchorage	6/3/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	62'	3
A1 La Playa Cove	A1 Anchorage	7/24/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	27'	3
A1 La Playa Cove	A1 Anchorage	7/8/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	28'	3
A1 La Playa Cove	A1 Anchorage	8/23/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	34'	3
A1 La Playa Cove	A1 Anchorage	8/30/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	33'	3
A1 La Playa Cove	A1 Anchorage	6/15/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	63'	3
A1 La Playa Cove	A1 Anchorage	9/13/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	34'	3
A1 La Playa Cove	A1 Anchorage	9/14/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	40'	3
A1 La Playa Cove	A1 Anchorage	9/11/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	23'	3
A1 La Playa Cove	A1 Anchorage	9/27/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	27'	3
A1 La Playa Cove	A1 Anchorage	10/26/2020	Mooring	Confirmed	10/30/2020	11/2/2020	60'	3
A1 La Playa Cove	A1 Anchorage	8/9/2020	WEBSITE	Confirmed	10/30/2020	11/2/2020	29'	3
A1 La Playa Cove	A1 Anchorage	11/5/2020	Mooring	Confirmed	11/6/2020	11/9/2020	25'	3
A1 La Playa Cove	A1 Anchorage	9/12/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	23'	3
A1 La Playa Cove	A1 Anchorage	10/1/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	32'	3
A1 La Playa Cove	A1 Anchorage	9/24/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	39'	3
A1 La Playa Cove	A1 Anchorage	9/23/2020	Mooring	Confirmed	11/6/2020	11/9/2020	26'	3
A1 La Playa Cove	A1 Anchorage	11/3/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	50'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	42'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	27'	3
A1 La Playa Cove	A1 Anchorage	10/26/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	27'	3
A1 La Playa Cove	A1 Anchorage	9/17/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	37'	3
A1 La Playa Cove	A1 Anchorage	9/23/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	30'	3
A1 La Playa Cove	A1 Anchorage	8/4/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	42'	3
A1 La Playa Cove	A1 Anchorage	8/8/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	44'	3
A1 La Playa Cove	A1 Anchorage	9/30/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	36'	3
A1 La Playa Cove	A1 Anchorage	9/24/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	47'	3
A1 La Playa Cove	A1 Anchorage	11/6/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	50'	3
A1 La Playa Cove	A1 Anchorage	7/18/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	30'	3
A1 La Playa Cove	A1 Anchorage	11/5/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	47'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	33'	3
A1 La Playa Cove	A1 Anchorage	9/11/2020	WEBSITE	Confirmed	11/6/2020	11/9/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	33'	3
A1 La Playa Cove	A1 Anchorage	6/16/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	30'	3
A1 La Playa Cove	A1 Anchorage	9/24/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	47'	3
A1 La Playa Cove	A1 Anchorage	9/25/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	53'	3
A1 La Playa Cove	A1 Anchorage	8/8/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	44'	3
A1 La Playa Cove	A1 Anchorage	8/4/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	42'	3
A1 La Playa Cove	A1 Anchorage	9/23/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	30'	3
A1 La Playa Cove	A1 Anchorage	9/23/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	49'	3
A1 La Playa Cove	A1 Anchorage	9/3/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	34'	3
A1 La Playa Cove	A1 Anchorage	8/22/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	35'	3

**2020 Weekend Anchorage Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	27'	3
A1 La Playa Cove	A1 Anchorage	8/23/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	34'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	28'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	42'	3
A1 La Playa Cove	A1 Anchorage	9/23/2020	Moorings	Confirmed	11/13/2020	11/16/2020	26'	3
A1 La Playa Cove	A1 Anchorage	9/13/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	34'	3
A1 La Playa Cove	A1 Anchorage	11/8/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	31'	3
A1 La Playa Cove	A1 Anchorage	9/18/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	30'	3
A1 La Playa Cove	A1 Anchorage	10/26/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	32'	3
A1 La Playa Cove	A1 Anchorage	11/2/2020	WEBSITE	Confirmed	11/13/2020	11/16/2020	33'	3
A1 La Playa Cove	A1 Anchorage	11/19/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	25'	3
A1 La Playa Cove	A1 Anchorage	10/7/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	39'	3
A1 La Playa Cove	A1 Anchorage	10/12/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	48'	3
A1 La Playa Cove	A1 Anchorage	9/12/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	23'	3
A1 La Playa Cove	A1 Anchorage	10/14/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	39'	3
A1 La Playa Cove	A1 Anchorage	8/9/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	29'	3
A1 La Playa Cove	A1 Anchorage	9/23/2020	Moorings	Confirmed	11/20/2020	11/23/2020	26'	3
A1 La Playa Cove	A1 Anchorage	10/6/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	63'	3
A1 La Playa Cove	A1 Anchorage	10/6/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	48'	3
A1 La Playa Cove	A1 Anchorage	10/14/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	33'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	27'	3
A1 La Playa Cove	A1 Anchorage	11/12/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	60'	3
A1 La Playa Cove	A1 Anchorage	9/17/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	37'	3
A1 La Playa Cove	A1 Anchorage	8/4/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	42'	3
A1 La Playa Cove	A1 Anchorage	9/30/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	42'	3
A1 La Playa Cove	A1 Anchorage	10/12/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	40'	3
A1 La Playa Cove	A1 Anchorage	10/8/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	30'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	33'	3
A1 La Playa Cove	A1 Anchorage	11/17/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	32'	3
A1 La Playa Cove	A1 Anchorage	10/1/2020	WEBSITE	Confirmed	11/20/2020	11/23/2020	32'	3
A1 La Playa Cove	A1 Anchorage	10/8/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	30'	3
A1 La Playa Cove	A1 Anchorage	11/7/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	38'	3
A1 La Playa Cove	A1 Anchorage	5/24/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	30'	3
A1 La Playa Cove	A1 Anchorage	8/22/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	37'	3
A1 La Playa Cove	A1 Anchorage	8/28/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	60'	3
A1 La Playa Cove	A1 Anchorage	10/16/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	48'	3
A1 La Playa Cove	A1 Anchorage	7/8/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	28'	3
A1 La Playa Cove	A1 Anchorage	8/23/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	34'	3
A1 La Playa Cove	A1 Anchorage	10/14/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	33'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	42'	3
A1 La Playa Cove	A1 Anchorage	10/6/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	63'	3
A1 La Playa Cove	A1 Anchorage	9/13/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	34'	3
A1 La Playa Cove	A1 Anchorage	8/9/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	29'	3
A1 La Playa Cove	A1 Anchorage	10/16/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	26'	3
A1 La Playa Cove	A1 Anchorage	10/14/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	39'	3
A1 La Playa Cove	A1 Anchorage	9/12/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	23'	3
A1 La Playa Cove	A1 Anchorage	10/16/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	40'	3
A1 La Playa Cove	A1 Anchorage	10/17/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	34'	3
A1 La Playa Cove	A1 Anchorage	10/7/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	39'	3
A1 La Playa Cove	A1 Anchorage	11/23/2020	WEBSITE	Confirmed	11/27/2020	11/30/2020	78'	3
A1 La Playa Cove	A1 Anchorage	12/3/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	27'	3
A1 La Playa Cove	A1 Anchorage	10/18/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	45'	3
A1 La Playa Cove	A1 Anchorage	10/16/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	26'	3
A1 La Playa Cove	A1 Anchorage	8/9/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	29'	3
A1 La Playa Cove	A1 Anchorage	9/13/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	34'	3
A1 La Playa Cove	A1 Anchorage	10/6/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	63'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	42'	3
A1 La Playa Cove	A1 Anchorage	11/9/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	50'	3
A1 La Playa Cove	A1 Anchorage	8/23/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	34'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	28'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	27'	3
A1 La Playa Cove	A1 Anchorage	9/17/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	37'	3
A1 La Playa Cove	A1 Anchorage	8/4/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020		3
A1 La Playa Cove	A1 Anchorage	9/30/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	53'	3
A1 La Playa Cove	A1 Anchorage	10/29/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	35'	3
A1 La Playa Cove	A1 Anchorage	8/8/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	44'	3
A1 La Playa Cove	A1 Anchorage	9/3/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	30'	3
A1 La Playa Cove	A1 Anchorage	9/24/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	47'	3
A1 La Playa Cove	A1 Anchorage	11/13/2020	WEBSITE	Confirmed	12/4/2020	12/7/2020	39'	3
A1 La Playa Cove	A1 Anchorage	11/17/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	39'	3

**2020 Weekend Anchorage Reservations Summary Table**

Marina	Mooring	Date Reservation Made	Made At	Status	Arrival Date	Departure Date	Boat Length	Length of Stay (Nights)
A1 La Playa Cove	A1 Anchorage	10/8/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	30'	3
A1 La Playa Cove	A1 Anchorage	9/3/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	30'	3
A1 La Playa Cove	A1 Anchorage	10/28/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	34'	3
A1 La Playa Cove	A1 Anchorage	11/2/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	33'	3
A1 La Playa Cove	A1 Anchorage	10/27/2020	Moorings	Confirmed	12/11/2020	12/14/2020	38'	3
A1 La Playa Cove	A1 Anchorage	10/31/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	36'	3
A1 La Playa Cove	A1 Anchorage	11/4/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	50'	3
A1 La Playa Cove	A1 Anchorage	11/29/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	50'	3
A1 La Playa Cove	A1 Anchorage	8/4/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020		3
A1 La Playa Cove	A1 Anchorage	9/2/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	40'	3
A1 La Playa Cove	A1 Anchorage	8/23/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	34'	3
A1 La Playa Cove	A1 Anchorage	11/5/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	42'	3
A1 La Playa Cove	A1 Anchorage	10/6/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	63'	3
A1 La Playa Cove	A1 Anchorage	9/13/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	34'	3
A1 La Playa Cove	A1 Anchorage	10/16/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	26'	3
A1 La Playa Cove	A1 Anchorage	11/30/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	31'	3
A1 La Playa Cove	A1 Anchorage	11/2/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	41'	3
A1 La Playa Cove	A1 Anchorage	12/3/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	27'	3
A1 La Playa Cove	A1 Anchorage	11/2/2020	WEBSITE	Confirmed	12/11/2020	12/14/2020	38'	3
A1 La Playa Cove	A1 Anchorage	11/20/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	32'	3
A1 La Playa Cove	A1 Anchorage	11/17/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	27'	3
A1 La Playa Cove	A1 Anchorage	11/4/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	42'	3
A1 La Playa Cove	A1 Anchorage	12/17/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	41'	3
A1 La Playa Cove	A1 Anchorage	12/16/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	57'	3
A1 La Playa Cove	A1 Anchorage	12/18/2020	Moorings	Confirmed	12/18/2020	12/21/2020	40'	3
A1 La Playa Cove	A1 Anchorage	11/16/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	37'	3
A1 La Playa Cove	A1 Anchorage	8/9/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	29'	3
A1 La Playa Cove	A1 Anchorage	9/13/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	34'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	42'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	28'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	27'	3
A1 La Playa Cove	A1 Anchorage	8/4/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020		3
A1 La Playa Cove	A1 Anchorage	8/22/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	37'	3
A1 La Playa Cove	A1 Anchorage	9/30/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	53'	3
A1 La Playa Cove	A1 Anchorage	10/27/2020	Moorings	Confirmed	12/18/2020	12/21/2020	38'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	33'	3
A1 La Playa Cove	A1 Anchorage	11/2/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	32'	3
A1 La Playa Cove	A1 Anchorage	10/28/2020	WEBSITE	Confirmed	12/18/2020	12/21/2020	34'	3
A1 La Playa Cove	A1 Anchorage	9/24/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	47'	3
A1 La Playa Cove	A1 Anchorage	10/8/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	30'	3
A1 La Playa Cove	A1 Anchorage	12/15/2020	Moorings	Confirmed	12/25/2020	12/28/2020	43'	3
A1 La Playa Cove	A1 Anchorage	11/2/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	32'	3
A1 La Playa Cove	A1 Anchorage	7/13/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	33'	3
A1 La Playa Cove	A1 Anchorage	10/27/2020	Moorings	Confirmed	12/25/2020	12/28/2020	38'	3
A1 La Playa Cove	A1 Anchorage	12/4/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	60'	3
A1 La Playa Cove	A1 Anchorage	9/19/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	34'	3
A1 La Playa Cove	A1 Anchorage	8/22/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	37'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	27'	3
A1 La Playa Cove	A1 Anchorage	7/28/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	28'	3
A1 La Playa Cove	A1 Anchorage	8/23/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	34'	3
A1 La Playa Cove	A1 Anchorage	9/21/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	42'	3
A1 La Playa Cove	A1 Anchorage	11/9/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	50'	3
A1 La Playa Cove	A1 Anchorage	10/6/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	63'	3
A1 La Playa Cove	A1 Anchorage	8/9/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	29'	3
A1 La Playa Cove	A1 Anchorage	9/23/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	49'	3
A1 La Playa Cove	A1 Anchorage	11/20/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020		3
A1 La Playa Cove	A1 Anchorage	11/4/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	42'	3
A1 La Playa Cove	A1 Anchorage	11/1/2020	WEBSITE	Confirmed	12/25/2020	12/28/2020	32'	3

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## **DATA FOR SIYB MARINAS AND YACHT CLUBS**

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Facility	Slip	% Occupancy	Vessel Type	Vessel Length	Vessel Beam	PaintType	PaintProductName	Product #	Boatyard	Paint Month	Paint Year	EPA Registration Number	Percent Copper
BCM	1	100	P	36	14	LOW COPPER	ULTRA KOTE	Y3669U	SIBY	10	2016	2693-119-ZD	0.57
BCM	2	100	P	30	10.5	COPPER			82020				
BCM	3	100	S	32.5	11.9	LOW COPPER	PETTIT TRINIDAD HD	1271	SIBY	7	2020	60061-64-ZD	0.53
BCM	4	100	S	36	11	LOW COPPER	ULTRA BLUE	3669	SIBY	1	2014	2693-212-AA	0.55
BCM	5	100	S	32	10.1	LOW COPPER			DRISCOLL	7	2010		
BCM	6	100	P	32	12	LOW COPPER			62015				
BCM	7	99	S	34	11.5	LOW COPPER	ULTRA KOTE	Y3669U	SIBY	1	2017	2693-119-ZD	0.57
BCM	8	100	P	31	10.5	COPPER	ULTRA BLUE	3669	KOEHLER	6	2020	2693-212-AA	0.55
BCM	9	89	S	34.6	11.9	COPPER	ULTRA BLUE	Y3669F	SIBY	5	2019	2693-212-AA	0.55
BCM	10	100	P	36	12.11	COPPER			112020				
BCM	11	100	S	29	9.5	COPPER							
BCM	12	95	S	27	9	LOW COPPER			22017				
BCM	13	100	S	26	4.6	LOW COPPER			32012				
BCM	14	100	S	24	8	LOW COPPER	ULTRA-KOTE	Y3669U	SIBY	1	2016	2693-119-ZD	0.57
BCM	15	100	P	25	12	LOW COPPER	ULTRA BLACK	3779	SIBY	7	2017	2693-192-AA	0.55
BCM	16	0				NON COPPER	N/A						0
BCM	17	100	P	40	10.6	LOW COPPER	ULTRA GREEN	3559	SIBY	3	2012	2693-192-ZC	0.55
BCM	18	99	P	34	12	COPPER	ULTRA BLACK	3779	SIBY	10	2018	2693-192-AA	0.55
BCM	19	100	P	36	14	COPPER							
BCM	20	99	P	31	11.5	COPPER	ULTRA BLACK	3779	SUN CNTY MARINE	7	2019	2693-192-AA	0.55
BCM	21	100	P	34	11.6	COPPER	ULTRA BLACK	3779	KOEHLER	3	2019	2693-192-AA	0.55
BCM	22	100	P	32	10.6	COPPER	PETTIT TRINIDAD	1875	SIBY	10	2020	60061-49-ZJ	0.7
BCM	23	100	P	35	11.1	COPPER			12020				
BCM	24	100	P	32	11.6	LOW COPPER	PETTIT TRINIDAD HD	1871	SIBY	3	2020	60061-64-ZD	0.53
BCM	25	99	P	34	11	LOW COPPER	ULTRA-KOTE	Y3669U	SIBY	10	2016	2693-119-ZD	0.57
BCM	26	100	S	38	21.5	LOW COPPER	PETTIT TRINIDAD HD	1271	SIBY	6	2020	60061- 64-ZD	0.53
BCM	27	100	S	24	8	LOW COPPER	PETTIT TRINIDAD HD	1871	SIBY	8	2020	60061- 64-ZD	0.53
BCM	28	100	S	18.6	6.3	LOW COPPER	ULTRA KOTE BLUE	2669N		4	2016	2693-135-ZF	0.67
BCM	29	100	S	24	8	COPPER	ULTRAKOTE BLUE	2669N	MGBW	8	2018	2693-135-ZF	0.67
BCM	30	88	P	26	8.6	LOW COPPER	ULTRA-KOTE	Y3779U	DRISCOLL MB	9	2017	2693-119-ZD	0.57
BCM	31	0				NON COPPER	EMPTY SLIP						0
BCM	32	100	P	13.3	4	LOW COPPER			SELF	6	2011		
BCM	33	100	S	57	14	NON COPPER	INTERSLEEK 900	FXA979/A	SIBY	10	2013	Registration NR2	0
BCM	34	100	S	41	12	LOW COPPER	ULTRA BLACK	3779	SIBY	11	2017	2693-192-AA	0.55
BCM	35	96	P	48	12	LOW COPPER	PROLINE	1088C-02	SIBY	7	2012	577-551-ZC	0.56
BCM	36	99	P	38	13	LOW COPPER	ULTRA BLACK	3779	SIBY	8	2013	2693-192-AA	0.55
BCM	37	100	S	50	14.9	COPPER							
BCM	38	100	S	44.6	14	LOW COPPER	PROLINE	1088C-02	SIBY	10	2011	577-551-ZC	0.56
BCM	39	100	P	44	15	COPPER			82020				
BCM	40	100	P	40	14	LOW COPPER	PETTIT TRINIDAD HD	1871	SIBY	1	2020	60061-64-ZD	0.53
BCM	41	100	P	42	13.6	LOW COPPER	ULTRA-KOTE	Y3669U	SIBY	7	2017	2693-119-ZD	0.57
BCM	42	100	S	31	11	LOW COPPER	ULTRA-KOTE BLACK	2779N	SIBY	7	2017	2693-135-ZH	0.67
BCM	43	100	P	26	7	LOW COPPER	PROLINE	1088C-02	SELF	4	2016	577-551-ZC	0.56
BCM	44	93	S	29.11	10.1	COPPER	PROLINE	1088C-02	SIBY	8	2018	577-551-ZC	0.56
BCM	45	100	S	29	11	LOW COPPER	WEST MARINE		82005	8	2005		
BCM	46	100	S	35.5	11.5	LOW COPPER	PROLINE	1088C-02	SIBY	5	2011	577-551-ZC	0.56
BCM	47	100	S	29.11	10.1	LOW COPPER	PETTIT TRINIDAD PRO	A1088G	KOEHLER	8	2014	60061-94-ZB	0.6
BCM	48	100	S	34.5	12	COPPER	ULTRA BLACK	3779	SIBY	4	2018	2693-192-AA	0.55
BCM	49	100	S	32	9.6	LOW COPPER	PETTIT TRINIDAD PRO	A1088G	KOEHLER	6	2012	60061-94-ZB	0.6
BCM	50	96	S	31	10	LOW COPPER	MICRON CSC	5582	SIBY	7	2020	2693-132-ZR	0.37
BCM	51	100	S	41	12	LOW COPPER	Z*SPAR	B91	LONG BEACH	6	2011	60061-49-ZG	0.65

Facility	Slip	% Occupancy	Vessel Type	Vessel Length	Vessel Beam	PaintType	PaintProductName	Product #	Boatyard	Paint Month	Paint Year	EPA Registration Number	Percent Copper
BCM	52	100	P	57	16.5	COPPER							
BCM	53	100	P	41	13.6	LOW COPPER	PETTIT TRINIDAD HD	1871	SIBY	10	2019	60061-64	0.53
BCM	54	99	P	42	13.8	COPPER	ULTRA RED	3449	SIBY	2	2018	2693-192-ZA	0.55
BCM	55	100	P	46	14.6	LOW COPPER	ULTRA BLUE	3669	DRISCOLL	3	2010	2693-192-ZB	0.55
BCM	56	100	S	42	13.6	COPPER	ULTRA BLACK	3779	SIBY	8	2020	2693-192-AA	0.55
BCM	57	100	S	48	13	COPPER	PROLINE	1088C-02	DRISCOLL	2	2018	577-551-ZC	0.56
BCM	58	100	S	40	13	LOW COPPER	ULTRA-KOTE BLUE	Y3669U	SIBY	4	2017	2693-119-ZD	0.57
BCM	59	100	S	40	13	LOW COPPER			SIBY	3	2011		
BCM	60	100	S	42	13	LOW COPPER	ULTRA BLACK	3779	SIBY	1	2014	2693-192-AA	0.55
BCM	61	96	S	32	11.5	LOW COPPER	Z*SPAR BOTTOM PRO GOLD	41127706	DRISCOLL	5	2019	60061-94-ZE	0.65
BCM	62	100	S	30	10	LOW COPPER	ULTRA BLUE	Y3669F	SIBY	10	2018	2693-212-AA	0.55
BCM	63	96	S	25	8	LOW COPPER	PETTIT TRINIDAD HD	1271	SIBY	6	2020	60061- 64-ZD	0.53
BCM	64	94	S	30	9	LOW COPPER	ULTRA BLUE	3669	SIBY	7	2014	2693-192-ZB	0.55
BCM	65	100	S	30	10.1	COPPER			72020				
BCM	66	100	S	30	10	LOW COPPER	ULTRA BLUE	3669	SIBY	4	2017	2693-192-ZB	0.55
BCM	67	100	S	35	11.5	LOW COPPER	PETTIT TRINIDAD HD	1871	SIBY	8	2020	60061-64-ZD	0.53
BCM	68	100	S	27	8	COPPER	ULTRA BLUE	3669	SIBY	4	2019	2693-192-ZB	0.55
BCM	69	100	S	30	7.8	COPPER	ULTRA BLUE	3669	SIBY	12	2018	2693-192-ZB	0.55
BCM	70	100	P	33	10.5	COPPER			92020				
BCM	71	100	P	54	14	LOW COPPER			102017				
BCM	72	100	S	36	11.6	LOW COPPER			72013				
BCM	73	93	P	36	12	LOW COPPER	ULTRA BLACK	3779	SIBY	1	2013	2693-192-AA	0.55
BCM	74	100	P	38	13	LOW COPPER	ULTRA BLACK	3779	SIBY	2	2014	2693-192-AA	0.55
BCM	75	100	S	34	11	LOW COPPER	ULTRA-KOTE		SIBY	2	2017	2693-119-ZD	0.57
BCM	76	100	S	37	12	LOW COPPER	Z*SPAR	B90	DRISCOLL	9	2012	60061-50-ZE	0.76
BCM	77	100	P	34	12	LOW COPPER	PETTIT TRINIDAD HD	1871	SIBY	11	2020	60061-64-ZD	0.53
BCM	78	67	S	35	11.4	LOW COPPER	ULTRA BLUE	3669	SIBY	3	2015	2693-192-ZB	0.55
BCM	79	93	P	48	12	LOW COPPER	ULTRA BLACK	3779	SIBY	12	2014	2693-192-AA	0.55
BCM	80	96	P	37	13.9	COPPER	ULTRAKOTE	Y3669U	SIBY	8	2018	2693-119-ZD	0.57
BCM	81	99	S	43	12	LOW COPPER	MICRON CSC	5583G	KOEHLER	1	2020	2693-132-ZV	0.37
BCM	82	100	S	46	12.2	COPPER							
BCM	83	100	S	44	13	LOW COPPER	PETTIT ULTIMA SR 60	1109606	SIBY	8	2020	60061-94-ZC	0.6
BCM	84	96	S	36	10.5	NON-COPPER	INTERSHIELD 300V	ENA311	KOEHLER	3	2017	--	0
BCM	85	100	P	44	11	COPPER	ULTRA BLUE	3669	SIBY	2	2019	2693-192-ZB	0.55
BCM	86	100	S	38	14.11	LOW COPPER	WEST MARINE BOTTOMSHIELD	411186606	KOHLER KRAFT	2	2015	60061-129-AA	0.29
BCM	87	100	S	45	14.9	COPPER			82020				
BCM	88	82	P	49	15.6	LOW COPPER	Z*SPAR BOTTOM PRO GOLD	41127706	DRISCOLL	10	2018	60061-94-ZE	0.65
BCM	89	93	P	42	13.5	LOW COPPER	ULTRA RED	3449	SIBY	6	2017	2693-192-ZA	0.55
BCM	90	100	S	36	11.6	COPPER							
BCM	91	100	S	35	12	LOW COPPER	PETTIT TRINIDAD HD	1871	SIBY	9	2020	60061-64-ZD	0.53
BCM	92	100	S	36	11	LOW COPPER	Z*SPAR BOTTOM PRO GOLD	411187706	SIBY	2	2014	60061-94-ZE	0.65
BCM	93	90	S	35	11.6	LOW COPPER	PETTIT TRINIDAD HD	1871	SIBY	7	2020	60061-64-ZD	0.53
BCM	94	100	S	36	12.5	LOW COPPER	PETTIT TRINIDAD HD	1271	SIBY	11	2019	60061- 64-ZD	0.53
BCM	95	96	S	36	10	LOW COPPER			BAY MARINE	6	2011		
BCM	96	92	S	37	12.6	COPPER							
BCM	97	100	S	42	14	LOW COPPER	PETTIT TRINIDAD HD	1871	SIBY	9	2019	60061-64-ZD	0.53
BCM	98	73	S	44	13	COPPER	ULTRA BLACK	3779	SIBY	4	2018	2693-192-AA	0.55
BCM	99	100	S	34	11	COPPER	ULTRA GREEN	Y3559F	SIBY	5	2019	2693-192-ZC	0.55
BCM	100	100	S	42	14.5	LOW COPPER			KNIGHT & CARVER	8	2010		
BCM	101	100	S	38	12	COPPER			112018				
BCM	102	100	S	46	14	LOW COPPER	PROLINE	1088C-02	SIBY	2	2009	577-551-ZC	0.56

Facility	Slip	% Occupancy	Vessel Type	Vessel Length	Vessel Beam	PaintType	PaintProductName	Product #	Boatyard	Paint Month	Paint Year	EPA Registration Number	Percent Copper
BCM	103	99	S	37.6	12	LOW COPPER	ULTRA BLUE	3669	SIBY	1	2017	2693-192-ZB	0.55
BCM	104	96	S	38	12.11	COPPER	Z*SPAR	B91	OXNARD	4	2019	60061-49-ZG	0.65
BCM	105	100	P	33	11.5	COPPER	ULTRA BLACK	Y3779F	DRISCOLL	7	2020	2693-192-AA	0.55
BCM	106	82	P	46	14.5	LOW COPPER	Z*SPAR GOLD	411127706	SIBY	3	2015	60061-117-ZE	0.4
BCM	107	100	P	29.5	10.5	COPPER			72020				
BCM	108	99	S	32	11	LOW COPPER	PETTIT		SIBY	4	2009		
BCM	109	95	S	35	10	LOW COPPER	ULTRA BLACK	3779	SIBY	7	2010	2693-192-AA	0.55
BCM	110	97	S	36	11.5	COPPER							
BCM	111	100	P	30	9.9	LOW COPPER	ULTRA BLUE	3669	SIBY	7	2016	2693-192-ZB	0.55
BCM	112	80	P	32.5	11.1	LOW COPPER	Z*SPAR	B 94	DRISCOLL	9	2015	60061-49-ZH	65
BCM	113	99	S	33	10	COPPER	ULTRA BLACK	3779	SIBY	2	2019	2693-192-AA	0.55
BCM	114	100	S	27	7	NON COPPER	PACIFICA PLUS	YBB260	SVENDSENS BAY	3	2018	2693- 220-ZA	0
BCM	115	100	S	29	9.25	LOW COPPER	MICRON EXTRA	5793	DRISCOLL	4	2014	2693-190-ZJ	0.37
BCM	116	100	P	32	11	LOW COPPER			102012				
BCM	117	82	S	65	18	NON COPPER	SEAHAWK SMART SOLUTION	4705	GRENADA	3	2018	44891-19-AA	0
BCM	118	0				NON COPPER							0
BCM	119	99	S	32	11.8	LOW COPPER	PETTIT TRINIDAD PRO	A10882	SIBY	8	2018	60061-94-ZB	0.6
BCM	120	96	S	32	11.5	COPPER	PROLINE	1088C-02	SIBY	5	2018	577-551-ZC	0.56
BCM	121	99	S	30	10	LOW COPPER	PETTIT TRINIDAD HD	1871	SIBY	6	2020	60061- 64-ZD	0.53
BCM	122	100	S	30	10	LOW COPPER	ULTRA BLACK	3779	SIBY	6	2015	2693-192-AA	0.55
BCM	123	97	S	36	11.5	COPPER							
BCM	124	100	S	30	10	COPPER	PETTIT TRINIDAD	1875	SIBY	5	2020	60061-49-ZJ	0.7
BCM	125	100	S	33	9.7	LOW COPPER	PROLINE	1088C-02	DRISCOLL	5	2016	577-551-ZC	0.56
BCM	126	100	S	35	10.5	LOW COPPER	ULTRA BLACK	3779	KOEHLER	2	2013	2693-192-AA	0.55
BCM	127	96	S	33	9.7	LOW COPPER	ULTRA BLACK	3779	SIBY	6	2011	2693-192-AA	0.55
BCM	128	100	S	36	11	COPPER	ULTRA BLACK	3779	SIBY	2	2019	2693-192-AA	0.55
BCM	129	97	S	32	11	LOW COPPER	SUPER PROGUARD	NAU770	NB	7	2016	23566-20-ZR	0.55
BCM	130	100	S	33.5	11.5	LOW COPPER			122013				
BCM	131	100	S	34	11	LOW COPPER			22014				
BCM	132	100	S	28	8.5	COPPER							
BCM	133	100	S	30	10	COPPER	ULTRA BLACK	3779	SIBY	6	2018	2693-192-AA	0.55
BCM	134	100	S	33	11.5	LOW COPPER	PROLINE	1088C-02	SIBY	3	2016	577-551-ZC	0.56
BCM	135	100	S	30	10.1	COPPER	ULTRA BLUE	Y3669F	SIBY	8	2018	2693-192-ZB	0.55
BCM	136	90	S	34.8	10	LOW COPPER			62016				
BCM	137	100	S	29	8	COPPER							
BCM	138	92	S	34	11.9	COPPER	ULTRA BLUE	3669	SIBY	4	2019	2693-192-ZB	0.55
BCM	139	84	S	33	11.1	LOW COPPER	ULTRA BLACK	3779	DRISCOLL MB	4	2015	2693-192-AA	0.55
BCM	140	100	S	40	11.83	COPPER	ULTRA BLACK	Y3779F	KOEHLER	10	2020	2693-192-AA	0.55
BCM	141	100	S	28	10	LOW COPPER	ULTRA GREEN	3559	SIBY	9	2016	2693-192-ZC	0.55
BCM	142	82	S	27	9	LOW COPPER	Z*SPAR BOTTOM PRO GOLD	411127706	DRISCOLL	10	2017	60061-117-ZE	0.4
BCM	143	96	S	31	9.75	COPPER							
BCM	144	88	S	30	8.75	COPPER	ULTRA BLUE	3669	KOEHLER	6	2020	2693-192-ZB	0.55
BCM	145	100	S	34	9.11	COPPER	INTERLUX MICRON 66	YBA473	MGBW	1	2018	2693-192-AA	0.55
BCM	146	100	S	30	10.8	LOW COPPER	ULTRA BLACK	3779	SIBY	2	2017	2693-192-AA	0.55
BCM	147	68	S	31	10	LOW COPPER			72016				
BCM	148	96	S	30	9.6	LOW COPPER	WEST MARINE BOTTOM SHIELD	g	KOEHLER KRAFT	2	2019	60061-135-AA	0.25
BCM	149	90	S	32	9.8	LOW COPPER	Z*SPAR BOTTOM PRO GOLD	411127706	DRISCOLL	11	2018	60061-117-ZE	0.4
BCM	150	100	S	34	11.25	LOW COPPER	PETTIT TRINIDAD HD	1271	SIBY	10	2020	60061- 64-ZD	0.53
BCM	151	68	P	10.5	6	LOW COPPER	INTERLUX TRI-LUX	Y498	SELF	10	2020	2693-174-ZA	0.09
BCM	152	0				NON COPPER	NOT A USABLE SLIP						
BCM	153	0				NON COPPER	NOT A USABLE SLIP						

Facility	Slip	% Occupancy	Vessel Type	Vessel Length	Vessel Beam	PaintType	PaintProductName	Product #	Boatyard	Paint Month	Paint Year	EPA Registration Number	Percent Copper
BCM	154	0				NON COPPER	NOT A USABLE SLIP						
BCM	155	0				NON COPPER	NOT A USABLE SLIP						
BCM	156	0				NON COPPER	NOT A USABLE SLIP						

Facility	Slip	% Year Occupying Slip	Vessel Type Power or Sail (P or S)	Vessel Length	Vessel Beam	Paint Brand Name	EPA REGISTRATION NUMBER	Product Number	Paint Type (Copper, Low, NON, UNK)	% Copper	Boatyard Where Paint Was Applied	Month Painted	Year Painted
KKM	1												
KKM	2	10%	P	38	13	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
KKM	3	60%	S	32	9				UNK	NA	NA	NA	NA
KKM	4	60%	p	34	10	petit hydro coat		1840	UNK	NA	NA	06	2018
KKM	5	100%	p	31.5	10.4	INTERLUX ULTRA 3379F black		3379	COPPER	40%	Shelter Island Boat Yard	12	2018
KKM	6	100%	p	28.5	10.5								
KKM	7	95%	s	32	11	silicon			Non Copper	0%	NA	06	2011
KKM	8	95%	s	36	10.5	TRINIDAD PETTIT	60061-50	1675	unk	NA	driscolls	04	2015
KKM	9	90%	S	34	10				UNK	NA	NA	NA	NA
KKM	10	100%	S	30	10	Interlux Ultra Black		3779F	UNK	NA	Shelter Island Boat Yard	03	2018
KKM	11	100%	p	27	10								
KKM	12	80%	P	36	13	INTERLUX ULTRA		377F	LOW	NA	SHELTER ISLAND BOATYARD	02	2015
KKM	13	hydrohoist											
KKM	14	100%	s	36	10								
KKM	15												
KKM	16	100%	P	30	6.5	Interlux Ultra Black	2693-212		LOW	NA	shelter island boatyard	12	2017
KKM	17	95%	P	26	8	Interlux Ultrakote	2693-119-ZD	3779U	COPPER	NA	Shelter Island Boatyard	10	2017
KKM	18	100%	p	30	11.6								
KKM	19												
KKM	20	90%	P	35	11	interlux ultra black	2693-212-AA	3779F	copper	NA	shelter island boatyard	05	2018
KKM	21	98%	P	32.7	11.5				unk	unk	unk	unk	unk
KKM	22	90%	S	35	11	INTERLUX ULTRA BLACK		3779F	UNK	NA	Shelter Island Boatyard	05	2018
KKM	23												
KKM	24	90%	P	34	11.9	blue water porcoat hard		67	unk	unk	Shelter Island Boatyard	11	2016
KKM	25	90%	P	29	9.9				UNK	NA	Shelter Island Boatyard	10	2016
KKM	26	90%	P	32	11.5	INTERLUX ultra		3779f			SHELTER ISLAND BOATYARD	03	2019
KKM	27	100%	p	32.9	10.7								
KKM	28	25%	S	36	11	Proline 1088	577-550-ZE	168	COPPER	65%	Shelter Island Boatyard	06	2013
KKM	29												
KKM	30	90%	S	33	11.4	INTERLUX ULTRAKOTE	2693-119-ZD	366916	NON	NA	SHELTER ISLAND	NA	NA
KKM	31												
KKM	32	100%	P	31	9.8		103-5580-01		UNK	NA	Nick's Creative Marine	08	2019
KKM	33	100%	p	34	8	Trilux 33		yba063					
KKM	34	90%	p	30	10.6	Zspar Protect	na	na	.		King Harbor Marina	08	2015
KKM	35	100%	P	32	12	INTERLUX ULTRA	2693-212-AA	3669F	COPPER	55%	SHELTER ISLAND	12	2017
KKM	36	100%	P	33	9.6	Interlux Ultra Kote	2693-212	y3779u	unk	NA	Koehler	04	2017
KKM	37	100%	s	34	10								
KKM	38	55%	P	32	10	E PAINT EP2000	64684-6	35	UNK	NA	DRISCOLL	08	2012
KKM	39	100%	S	35	11.5	Interlux Ultra		y3669f			Shelter Island Boatyard	03	2018
KKM	40												
KKM	41	100%	p	30									
KKM	42	100%	P	35	10	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
KKM	43												
KKM	44	vacant											
KKM	45												
KKM	46	95%	S	36	11	NA		NA	LOW	NA	SHELTER ISLAND	11	2004
KKM	47	90%	p	31	11	Z*Spar Anti Fouling	#16471682		UNK	NA	Koeler Krafts	04	2017
KKM	48	80%	P	35	11	NA		NA	UNK	NA	SHELTER ISLAND	07	2013
KKM	49	100%	p	29.2	9.6								
KKM	50	100%	S	31	22	PROLINE	577-550-ZE	1088	copper	0%	Shelter Island Boatyard	12	2016
KKM	51	100%	S	34	11	INTERLUX ULTRAKOTE		NA	copper	76%	KOLAR MARINE	02	2010
KKM	52	100%	P	32	14	NA	2693-212	NA	NA	NA	NIELSON BEAUMONT	07	2019

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KKM	53	35%	S	44	13	PETTITE		NA	UNK	NA	SHELTER ISLAND BOAT YARD	10	2014
KKM	54												
KKM	55	95%	P	38	12	NA		NA	NA	NA	NA	NA	NA
KKM	56												
KKM	57	100%	p	42.7	12.8								
KKM	58	60%	P	24	8.5	Sherwin Williams		N51B301	non copper	0%	Driscoll	06	2019
KKM	59	96%	38	38	13	Interlux Ultra	mnde/2019/9283	3779f			SIBY	05	2019
KKM	60												
KKM	61												
KKM	62												
KKM	63	100%	P	35	16	NA		NA	NON	NA	Neilsen Boatyard	04	2014
KKM	64												
KKM	65	100%	P	40	14	INTERLUX ULTRA	2693-212	NA	NA	NA	Shelter Island Boatyard	04	2019
KKM	66					krypton	60061-134-89049	1147420			basin marine inc	11	2018
KKM	67	95%	p	37	12	trinidad	60061-64	1871			siby	11	2021
KKM	68	100%	P	26	8.5	Woolsey Defense	4301G	4301G			Neilsen Boatyard	06	2018
KKM	69	100%	p	40	13	seaguard p30	p30bq12	160-0634			delta boat works	03	2017
KKM	70	100%	p	18	10	zpar bottom pro gold	8109106	BP-001-BOTTOM PAINT		NA	Driscoll	11	2017
KKM	71	90%	P	42	16	NA		NA	UNK	0%	MARINE WORKS	05	2013
KKM	72	90%	S	27	9	NA		NA	LOW	NA	DRISCOLL	05	2013
KKM	73	100%	p	39	15								
KKM	74	60%	S	30	9	INTERSEEK 900	Registration NR2	35	LOW	NA	SHELTER ISLAND	09	2009
KKM	75	90%	P	40	14	INTERLUX ULTRAKOTE	2693-192-AA	3779	COPPER	55%	SHELTER ISLAND	06	2017
KKM	76	75%	P	22	8	Sherwin Williams Pro line		1088C	UNK	NA	SELF APPLIED	05	2018
KKM	77	98%	P	38	13.6	Interlux		K3669F			KOEHLER KRAFT	01	19
KKM	78	45%	S	25	8	NA		NA	UNK	NA	NA	NA	NA
KKM	79	100%	p	35.7	11.8	na		na	unk	na	na	na	na
KKM	80	100%	p	23	8.8								
KKM	81	100%	S	40.5	13.5	INTERLUX ULTRAKOTE	2693-119-ZD	3669U	COPPER	55%	Shelter Island Boatyard	08	2016
KKM	82	100%	p	30	10								
KKM	83	50%	P	36	12	NA		NA	UNK	NA	Shelter Island Boatyard	07	2014
KKM	84	90%	P	28	10	WEST BOTTOM PRO		NA	LOW	NA	MARINE WORKS	04	2009
KKM	85	100%	P	35	13	INTERLUX ULTRAKOTE		NA	NA	NA	SHELTER ISLAND	JAN	2018
KKM	86	90%	P	33.1	9.6	VIVID	60061-116-AA	6886170	LOW	40%	The Boat Yard Channel Islands	09	2011
KKM	87												
KKM	88	50%	p	33	9								
KKM	89	95%	P	40.1	14.1	Pettit Trinidad	60061-64	1871	UNK	NA	Shelter Island Boatyard	March	2020
KKM	90	100%	p	31	9.9	pettit trinidad	60061-64	1871 black			siby	03	2020
KKM	91	80%	P	40	13	NA		NA	UNK	NA	SHELTER ISLAND	05	2013
KKM	92	vacant											
KKM	93	75%	S	42	15	NA		NA	UNK	NA	SHELTER ISLAND	10	2013
KKM	94	75%	P	30	11	NA		NA	UNK	NA	SHELTER ISLAND	06	2012
KKM	95	100%	s	42	13.8	interlux ultra		3449f			shelter island	01	2019
KKM	96	50%	S	30	10	pettit hydracoat	60061-87-ZI	93-18406g	Non Copper	0%	NIELSON BEAUMONT	08	2016
KKM	97	100%	p	30	10	interlux ultra		3779f			shelter island	12	2018
KKM	98	50%	S	29	10	NA		NA	LOW COPPER	NA	SHELTER ISLAND	05	2010
KKM	99	100%	s	27	8	zspar bottom pro blue	60061-64				driscoll	02	2020
KKM	100	90%	S	30	9	INTERLUX ULTRAKOTE		NA	UNK	NA	KOEHLER KRAFT	03	2016
KKM	101	100%	S	30	11	NA		NA	NON	0%	SHELTER ISLAND BOATYARD	01	2017
KKM	102	70%	S	27	9	NA		NA	UNK	NA	NA	NA	NA
KKM	103	85%	P	48	15	NA		NA	UNK	NA	NA	NA	NA
KKM	104	100%											



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KKM	105												
KKM	106	100%	S	53	14	Interlux Micron CSC	2693-190	Y5582			Shelter Island Boatyard	06	2017
KKM	107	88%	P	35	13	INTERLUX ULTRAKOTE	2693-119-ZD	117598	COPPER	76%	SHELTER ISLAND BOATYARD	09	2017
KKM	108	85%	P	60	15	INTERLUX		NA	COPPER	NA	Shelter Island Boatyard	03	2012
KKM	109	90%	P	30	10	NA		NA	LOW COPPER	NA	NA	12	2010
KKM	110	30%	P	60	10	NA		NA	UNK	NA	NA	NA	NA
KKM	111	95%	P	42	13	NA		NA	UNK	NA	NA	12	2012
KKM	112	80%	P	55	15	PETTIT		NA	LOW COPPER	NA	PORT TOWNSEND SHIPYARD	06	2013
KKM	113	95%	P	41	13.5	SUPER PRO GUARD		NA	LOW COPPER	NA	Neilsen Boatyard	07	2016
KKM	114												
KKM	115	100%											
KKM	116	100%	P	57	15.5	interlux ultra	2693-212	3669F	UNK	NA	shelter island boatyard	04	2019
KKM	117	90%	S	42	14	INTERLUX ULTRA	2693-212-AA	3669F	copper	65%	SHELTER ISLAND BOAT YARD	07	2015
KKM	118	100%	P	50	15	pettit	60061-64	1871			SHELTER ISLAND	06	2019
KKM	119	95%	p	38	10	z spar	60061-49				SELF APPLIED	11	2017
KKM	120	100%	s	62	18.6	Pettet	60061-95	1088k1			jubens maryland	09	2018
KKM	121	100%	p	42	12	west marine pca gold	60061-117-66847						
KKM	122	60%	P	55	16	Z-SPAR		147	UNK	NA	Driscoll's Ship Yard	04	2016
KKM	123	40%	P	42	16	NA		NA	UNK	NA	SHELTER ISLAND BOAT YARD	07	2014
KKM	124	60%	S	54	14	NA		NA	UNK	NA	NA	NA	NA
KKM	125	100%	p	42	15	prettit	60061-135	1261g			shelter island	08	2019
KKM	126	100%	P	47	14	Interlux Ultra		3779F	UNK	NA	Shelter Island Boatyard	06	2016
KKM	127	70%	P	42	14	INTERLUX		NA	COPPER	NA	SHELTER ISLAND BOAT YARD	02	2014
KKM	128	99%	p	50	15.9	hydrocoat eco		NA	Non Copper	0%	NEWPORT	12	2015
KKM	129	100%	P	32	12	Interlux Ultra		3779f	unk	na	Shelter island boatyard	11	2019
KKM	130	20%	P	60	18	NA		NA	UNK	NA	NA	NA	NA
KKM	131	100%	P	45	15.9	interlux ultra	2693-212-AA	3779f	COPPER	NA	Shelter Island Boatyard	09	2018
KKM	132	70%	P	48	16	NA		NA	NA	NA	NA	NA	NA
KKM	133	80%	P	35	12	NA		NA	NA	NA	NA	NA	NA
KKM	134												
KKM	135	100%	p	28	9.5	Pettit trinidad	60061-64	1871			shelter island	02	2020
KKM	136	90%	S	52	16	INTERLUX ULTRA		NA	copper	67%	Shelter Island Boatyard	04	2014
KKM	137	25%	P	33	12	NA		NA	UNK	NA	Shelter Island Boatyard	10	2013
KKM	138	50%	p	61	18.7	sea hawk cukote		3400			cable marine	09	2019
KKM	139	95%	P	38	14	INTERLUX CSC	2693-132-ZV	319293	LOW COPPER	37%	Shelter Island Boatyard	05	2015
KKM	140	99%	P	57	16	interlux 3449F Red		3449	UNK	NA	Shelter Island Boatyard	02	2019
KKM	141	100%	s	43.5	14.3								
KKM	142	70%	P	59	15	INTERLUX ULTRA	2693-212-AA	3779F	LOW COPPER	NA	SHELTER ISLAND BOAT YARD	02	2011
KKM	143	100%	s	42	13	ZSPAR Bottom Pro Gold	60061-94-ZE	411187706				03	2017
KKM	144	80%	S	42	11	Z-SPAR bottom pro		bp91	COPPER	65%	DRISCOLL	03	2017
KKM	145	80%	P	43	15.2	INTERLUX 1088		168	NON	0%	Shelter Island Boatyard	04	2010
KKM	146	80%	P	38	13	Interlux Ultra	2693-212	3669F	UNK	NA	shelter island boatyard	07	2018
KKM	147	85%	P	51	15.5	INTERLUX ULTRA		3779f	COPPER	55%	SHELTER ISLAND BOAT YARD	07	2012
KKM	148												
KKM	149	100%	P	39	10	Interlux Ultra	2693-205	NA		NA	San Diego Boat Yard	07	2017
KKM	150	95%	P	52	15	PETIT trinidad PRO		1082	LOW	65%	Shelter Island Boatyard	10	2018
KKM	151	100%	s	40	13.9	Interlux-Ultra	117589	3669U	UNK	NA	Shelter Island	02	2018
KKM	152	90%	P	41	14	NA		NA	UNK	NA	NA	NA	NA
KKM	153	90%	S	40	12	NA		NA	UNK	NA	NA	NA	NA
KKM	154	95%	P	42.9	14.5	NA	593-4301-G	NA	LOW	NA	Neilsen Boatyard	11	2016
KKM	155	60%	S	40	14	NA		NA	UNK	NA	NA	NA	NA
KKM	156	60%	P	48	14	INTERLUX		NA	LOW	NA	SHELTER ISLAND BOAT YARD	05	2011

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KKM	157	100%	s	44.5	13								
KKM	158	100%	P	43	15	bluewater	74681-2				NA	12	2017
KKM	159	80%	S	42	14	PROLINE	577-550-ZE	1088	unk	NA	shelter island	05	2016
KKM	160	100%	P	42	15	unk	Unknown	na	unk	NA	Shelter Island Boatyard	03	2016
KKM	161	100%	s	44	13								
KKM	162	40%	P	40	16	pettit ultima ssa	1881g	NA	LOW	NA	Basin Marine	NA	NA
KKM	163	80%	p	43	12	pettit vivid black	60061-116				sunsdance xacxcts	02	2021
KKM	164	40%	S	44	12.8	NA		NA	UNK	NA	KNIGHT AND CARVER	06	2012
KKM	165	85%	S	41	13	petit trinidad	60061-87				SHELTER ISLAND	03	2017
KKM	166	50%	p	45	14.7	Interlude Ultra		3669f			Shelter Island Boatyard	07	2018
KKM	167	100%	p	42	13.1	pettit trinidad	60061-64				shelter island	08	2019
KKM	168	80%	S	46	13	NA		NA	UNK	NA	NA	NA	NA
KKM	169	100%	p	41	13.3	micron csc	2693-132-zv				Tiara Manufacturing	12	2019
KKM	170	95%	P	43	16	NA		NA	copper	60%	south coast boat yard	06	2014
KKM	171	100%	p	37	13								
KKM	172	92%	P	43	14	NA		NA	UNK	NA	NA	NA	NA
KKM	173	70%	P	38	14	PROLINE		1088	UNK	NA	NA	NA	NA
KKM	174	75%	P	42	14	Micron		NA	NON	0%	Shelter Island Boatyard	MAR	2016
KKM	175	80%	S	43	14	Interlux Ultra	2693-212-AA	3779f	Copper	55%	Shelter Island Boatyard	06	2015
KKM	176	100%	p	36	13	interlus ultra		94-3779f			shelter island	03	2018
KKM	177												
KKM	178	100%	P	42	13	interlux micron csc		NA	copper	NA	NA	02	15
KKM	179	95%	S	38	13	INTERLUX ULTRA		NA	Copper	NA	SHELTER ISLAND	10	2017
KKM	180	100%	p	40	15								
KKM	181	95%	P	43	14	INTERLUX ULTRA		NA	UNK	NA	SHELTER ISLAND BOAT YARD	05	2014
KKM	182	80%	S	44	14	interlux ultra blue		3669f	copper	NA	Shelter Island Boatyard	12	2017
KKM	183	70%	p	40	12.9	hempel's mille xtra	10250-32	71100			nimbus sweden	05	2019
KKM	184	90%	S	49	15	Z-SPAR	60061-50-ZE	B-90	NON	66%	SHELTER ISLAND	04	2015
KKM	185	100%	p	38.4	13								
KKM	186	95%	P	50	17	PETTIT TRINIDAD		NA	LOW	NA	Shelter Island Boatyard	01	2010
KKM	187	90%	P	38	13	INTERLUX		NA	NON	0%	DRISCOL	04	2011
KKM	188												
KKM	189	100%	S	42	13	NA		NA	UNK	NA	NA	NA	NA
KKM	190	90%	P	50	17	INTERLUX ULTRA		NA	COPPER	55%	SHELTER ISLAND	04	2014
KKM	191												
KKM	192	70%	P	80	19.8	Iterlux Ultra	2693-212	3779F	LOW	55%	Shelter Island Boatyard	01	2019
KKM	193	75%	P	55	16	NA		NA	UNK	NA	NA	NA	NA
KKM	194	90%	P	52.5	16	proline	577-550-ZE	1088	COPPER	66%	The boat yard, marina del rey	03	2015
KKM	195	100%	s	58	16								
KKM	196	40%	S	70	15	NA		NA	UNK	NA	DRISCOL	11	2014
KKM	197	90%	P	58	16	NA		4nk	UNK	40%	SHELTER ISLAND BOAT YARD	03	2014
KKM	198	95%	P	75.8	17.8	interlux ultra kote		NA	COPPER	NA	Shelter Island Boatyard	05	2016
KKM	199	100%	p	72	20	Pettit trinidad pro		1871			shelter island		
KKM	200	65%	P	86	22	PROLINE 1088c	577-550-ZE	168	LOW	40%	MARINE GROUP	09	2010
KKM	201	90%	P	57	14.5	INTERLUX			LOW	40%	Driscoll MB	03	2010
KKM	202	60%	P	57	16	NA		NA	UNK	NA	OXNARD	01	2012
KKM	203	100%	P	56	16	INTERLUX		NA	LOW	NA	SHELTER ISLAND	01	2014
KKM	204	90%	P	90	21	SHARKSKIN		NA	COPPER	NA	NA	01	2013
KKM	205	75%	P	62.8	19.4	INTERLUX ULTRA		NA	COPPER	40%	Delta Marine Seattle	12	2016
KKM	206	100%	p	70	20								
KKM	207	100%	p	57	17	interlux	11759g				shelter island boatyard	10	2018
KKM	208	90%	P	56	15	INTRULUX PACIFICA		yba163	LOW	40%	SHELTER ISLAND BOAT YARD	03	2016

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KKM	209												
KKM	210	60%	P	54	16	NA		NA	UNK	NA	NA	NA	NA
KKM	211	65%	P	55	17.6	Interlux Ultra		160	LOW	65%	Shelter Island Boatyard	05	2010
KKM	212	75%	S	70	18	NA		NA	UNK	NA	NA	NA	NA
KKM	213												
KKM	214												
KKM	215	95%	P	57	17	INTERLUX ULTRA	2693-212	3779F	copper	65%	Shelter Island Boatyard	06	2014
KKM	216	90%	P	75	20	NA		NA	UNK	NA	NA	NA	NA
KKM	217	100%	P	65	17	Interlux Micron 66 Antifowling		YBA473	UNK	NA	Shelter Island Boatyard	08	2016
KKM	218	100%	P	90	20	PROLINE	60061-94-ZB	1088-6	LOW	NA	NA	02	2009
KKM	219	95%	P	60	18	PETTITT TRINIDAD SR		NA	LOW	65%	Shelter Island Boatyard	12	2013
KKM	220	100%	p	80	19	Trilux 33		yba063					
KKM	221	100%	P	59	16	PETTIT		1661g	LOW	NA	Shelter Island Boatyard	07	2011
KKM	222	70%	P	78.9	21.2	NA		NA	UNK	NA	NA	NA	NA
KKM	223												
KKM	224	100%	P	95	23	zspar gold	60061-94-ze	41127706			Driscoll Boat Works	02	2020
KKM	225	45%	P	78	21	NA		NA	LOW	NA	NA	10	2005
KKM	226	60%	P	60	15	NA		NA	UNK	NA	NA	NA	NA
KKM	227	90%	P	57	15.6	ppg abc antifoul	7313-18	ABC3	UNK	NA	canal boat yard	06	2017
KKM	228	90%	p	74	18	petit sr 40 premium	60061-94	sr 40 premium			apex marine pampano		
KKM	229	60%	S	45	14	INTERLUX		NA	LOW	65%	SELF APPLIED	07	2011
KKM	230	70%	S	62	17	NA		NA	UNK	NA	NA	NA	NA
KKM	231	75%	P	58	16	NA		NA	LOW	40%	SHELTER ISLAND BOAT YARD	02	2010
KKM	232	95%	P	58	18	Interlux Ultra		160	LOW	65%	Shelter Island Boatyard	05	2010
KKM	233	90%	P	42	14	NA		NA	UNK	NA	NA	NA	NA
KKM	234	95%	S	57	16	INTERLUX BOTTOM KOTE	23566-6-AA	79	LOW	NA	ENSENADA	07	2008
KKM	235												
KKM	236	95%	P	70	18	PETTIT	60061-137-AA	1661g	NON	NA	Driscol	12	1013
KKM	237	50%	P	50	16	NA		NA	UNK	NA	NA	NA	NA
KKM	238	100%	p	64	16	interlus ultra kote	2693-144	3779n			Shelter island		
KKM	239	100%	P	58	16	interlux ultra		3779f					
KKM	240	10-15%	p	58	16	interlux micron csc	2693-tx-t	5583-4L			delta marina - sydney BC Canada	08	2020
KKM	241	90%	P	48.8	16.8	unk		unk	unk	unk	Shelter Island Boatyard	02	2017
KKM	242	65%	P	70	18	Ultrakote		3779 U	UNK	NA	Shelter Island Boatyard	04	20917
KKM	243	100%	S	55	15.3	Interlux VC		56	LOW	0%	Driscoll MB	08	2016
KKM	244	80%	P	78	17	ULTRA COTE BLACK	2693-119-ZD	169	COPPER	55%	NEWPORT	02	2014
KKM	245	100%	s	54	15								
KKM	246	90%	P	57	17	NA		NA	UNK	NA	shelter island	05	2016
KKM	247	80%	S	52	14	VIVID		72	UNK	NA	Shelter Island Boatyard	05	2012
KKM	248	90%	S	44	9	INTERLUX ULTRAKOTE	2693-119-ZD	3449U	COPPER	76%	Driscoll MB	12	2017
KKM	249	95%	P	52	15.3	INTERLUX ULTRA		3779U	copper	55%	Shelter Island Boatyard	06	2016
KKM	250	95%	P	74	18.2	INTERLUX ULTRA	2693-212-AA	3779F	copper	65%	Shelter Island Boatyard	08	2015
KKM	251	100%	p	45	15								
KKM	252	95%	P	69	18	PROLINE	557-550-ZJ	1088/01	UNK	NA	SHELTER ISLAND BOAT YARD	06	2019
KKM	253	95%	S	47	13	WEST BOTTOM PRO		NA	LOW	40%	Shelter Island Boatyard	01	2015
KKM	254	90%	P	60	17	interlux ultra		y3779f	non Copper	0%	Shelter Island Boatyard	07	2017
KKM	255	45%	S	52	13	NA		NA	UNK	NA	NA	NA	NA
KKM	256	99%	p	68	17	INTERLUX ULTRA	2693-119	y3779f	UNK	NA	MARINE GROUP	06	2019
KKM	257	100%	P	28	9	NA		NA	UNK	NA	DRISCOLL	07	2015
KKM	258					Iterlux Micron CSC	2693-190	Y5583-black			princess yachts	11	2019
KKM	259	95%	P	43	14	NA		NA	UNK	NA	NA	NA	NA
KKM	260	95%	S	48	11	WEST BOTTOM PRO		NA	UNK	NA	KOEHLER	10	2013

Facility	Slip	% Year Occupying Slip	Vessel Type Power or Sail (P or S)	Vessel Length	Vessel Beam	Paint Brand Name	EPA REGISTRATION NUMBER	Product Number	Paint Type (Copper, Low, NON, UNK)	% Copper	Boatyard Where Paint Was Applied	Month Painted	Year Painted
KKM	261	100%	s	46.1	14								
KKM	262	95%	S	50	13	PETTIT Z-SPAR	60061-49-ZH	B94	UNK	60%	Shelter Island Boatyard	12	2012
KKM	263	90%	S	39	12	NA		NA	UNK	NA	NA	NA	NA
KKM	264	100%	s	31	10	PETTIT	60061-116-AA	1261	LOW	NA	Shelter Island Boatyard	04	2005
KKM	265	100%	p	44	13	blue water	74681-2	8602				01	2016
KKM	266	90%	S	28	12	NA		NA	UNK	NA	NA	NA	NA
KKM	267	100%	9	43	13.6	interlux ultra	z693-212	3779-f			shelter island boatyard	08	2018
KKM	268	90%	S	27	10	pettit trinidad Ho	60061-64	1871	UNK	NA	NA	NA	NA
KKM	269	85%	P	42	15	pettit trinidad	60061-64	NA	LOW	NA	NA	06	2002
KKM	270	vacant											
KKM	271	95%	S	45	14	ULTRAKOTE		NA	Copper	NA	JK3	10	2016
KKM	272	100%	p	26	8.9								
KKM	273	100%	p	41	14.8	interlux ultrakote		37794			siby	07	2018
KKM	274	80%	S	32	11.2	INTERLUX ULTRA		NA	UNK	NA	SHELTER ISLAND BOAT YARD	01	2014
KKM	275	100%	P	44	13.6	Interlux Ultra		NA	COPPER	NA	SHELTER ISLAND BOAT YARD	05	2015
KKM	276												
KKM	277	100%	S	41	8	PETTIT	60061-49-ZG	B91	COPPER	53%	DRISCOLLS	07	2016
KKM	278	100%	p	32	13	interlux micron 66		yba473			dana point	04	2019
KKM	279	50%	P	28	8.6	interlux	2693-226				SELF APPLIED	04	2018
KKM	280	50%	P	26	8.5	intrerlux		y3779f	UNK	NA	NA	04	2017
KKM	281												
KKM	282												
KKM	283	95%	P	45	15	NA		NA	LOW	NA	NA	NA	NA
KKM	284	80%	P	28	10	ZSPAR		bp91	COPPER	66%	Bricks Marine	01	2018
KKM	285												
KKM	286												
KKM	287	95%	p	45	15	interlux ultra	2693-212				sun country marine	05	2019
KKM	288												
KKM	289												
KKM	290	100%	42	14									
KKM	291	95%	P	34	12	NA		NA	LOW	NA	DRISCOLL	02	2011
KKM	292	30%	P	45	14	NA		NA	UNK	NA	NA	NA	NA
KKM	293	45%	S	42	14	NA		NA	UNK	NA	NA	NA	NA
KKM	294	95%	P	33	11	pettit trinidad hd		hd1271			shelter island	08	2019
KKM	295	90%	s	44.5	14	NA		NA	non Copper	0%	NA	10	17
KKM	296	100%	p	17	6.2		2693-212				SELF APPLIED	10	2018
KKM	297	98%	S	35	11	Interlux		NA	LOW	65%	Driscoll MB	10	2010
KKM	298	95%	P	41.3	15	interlux	1282999	3669f	UNK	NA	NA	11	2017
KKM	299	80%	P	38	13	SEAHAWK	44891-11-AA	6145	copper	45%	Neilsen Beaumont	09	2006
KKM	300	vacant											
KKM	301	95%	p	45.2	14.6	sea hawk	44891-12-aa	af-33			Pacific Marine Center	02	2018
KKM	302	95%	S	24	5	interlux ultra	3669f				shelter island	05	2018
KKM	303	85%	P	44	13.5	NA		NA	LOW	NA	NA	09	2004
KKM	304	25%	P	30	11	NA		NA	UNK	NA	NA	NA	NA
KKM	305	30%	S	36	13	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
KKM	306	90%	P	32	11	ULTRAKOTE		NA	UNK	NA	NA	06	2016
KKM	307	60%	p	45	15	interlux micron	na	yba473			driscoll mission bay	03	20
KKM	308	100%	s	27	8								
KKM	309	100%	s	46	12								
KKM	310	100%	P	29	10.4	INTERLUX ULTRA		37794			Shelter Island Boatyard	03	2016
KKM	311	35%	P	43	14	PETTIT TRINIDAD		NA	LOW	NA	Shelter Island Boatyard	07	2011
KKM	312	88%	S	30	10	NA		NA	UNK	NA	NA	NA	NA

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KKM	313												
KKM	314	100%	P	29	10	No Bottom Paint		NA	NON	0%	NA	NA	NA
KKM	315	95%	P	42	14	Interlux ULTRAKOTE		NA	IOW	NA	Shelter Island Boatyard	05	2016
KKM	316	45%	S	30	10	NA		NA	UNK	NA	NA	NA	NA
KKM	317	100%	p	45	15.9								
KKM	318	85%	P	35	11.8	pettit vivid		1161			NA	10	2015
KKM	319	25%	P	47	12	NA		NA	UNK	NA	NA	NA	NA
KKM	320	100%	p	26	8								
KKM	321	15%	P	45	16	NA		NA	UNK	NA	NA	NA	NA
KKM	322	30%	S	35	11	NA		NA	UNK	NA	NA	NA	NA
KKM	323	95%	P	45	10	Pettit Trinidad Pro			LOW	40%	SHELTER ISLAND	03	2016
KKM	324	95%	P	35	13	interlux ultrakote		Y3559U			Balboa Boatyard Newport	01	2016
KKM	325	60%	S	45	13	coastal copper	9339-20-92804	250			SHELTER ISLAND	09	2020
KKM	326	25%	p	23	7	interlux ultra	43669f/1	Y3669f/1			shelter island		2015
KKM	327	100%	s	47	12.4								
KKM	328	100%	s	30	11								
KKM	329	100%	p	43	15.2								
KKM	330	75%	S	30	12	NA		NA	UNK	NA	NA	NA	NA
KKM	331												
KKM	332	100%	s	36	13	Bottom Pro Gold	60061-117-zd				BASIN MARINE	01	2014
KKM	333	100%	P	45	14	interlux ultra		3779f				01	2019
KKM	334	100%	p	28	10	pettit vivid	60061-64				basin marine inc	01	2019
KKM	335	100%	p	42	14.9	interlux ultra		3669F	UNK	NA	Shelter Island Boatyard	01	18
KKM	336	100%	s	31		trinidad					shelter island boatyard		
KKM	337	100%	p	42	14								
KKM	338												
KKM	339	90%	P	38	14	interlux ultra blue		36695	copper	55%	shelter island boatyard	01	2018
KKM	340												
KKM	341	95%	p	46	15.5	Trinidad Pro Red	1108600	1086	UNK	NA	Bay Marine	02	2019
KKM	342	95%	p	29	9	kop-coat pettit pro	60061-87					08	2018
KKM	343	100%	p	50	16.5	interlux bottom kite	2693-144	36694			siby	08	2017
KKM	344	95%	P	28	10	NA		NA	LOW	NA	NA	NA	NA
KKM	345	100%	p	31	10.5	zspar bottom gold	60061-49-2H		UNK	NA	driscoll boat yard	08	2019
KKM	346												
KKM	347	100%	HYDRAHOIST	30	12	NA		NA	UNK	NA	NA	NA	NA
KKM	348												
KKM	349	100%	S	35	19	INTERSLEEK 900		NA	NON	NA	DRISCOLL	NA	2009
KKM	350	90%	p	45	14	Z-SPAR	60061-94-ze				sunset aquatic	01	2020
KKM	351	98%	P	45	14	NA		NA	UNK	NA	HALES MARINE	06	2016
KKM	352	100%	p	41	14.3	interlux uld	2693212				driscolls		2020
KKM	353	95%	S	32	8	NA		NA	UNK	NA	Shelter Island Boatyard	06	2012
KKM	354		p	39	15	Interlux					shelter island	11	2019
KKM	355	100%	P	40	12.6	INTERLUX ULTRA	2693-212-AA	3779F	COPPER	67%	SHELTER ISLAND BOATYARD	11	2012
KKM	356	100%	S	40	12.6	INTRULUX ULTRA	2693-212-AA	3779F	copper	NA	NA	NA	NA
KKM	357												
KKM	358	75%	P	42	14	Interlux Ultra		160	LOW	65%	Neilsen Beaumont	07	2011
KKM	359												
KKM	360	100%	p	40.7	10.3	Zspar Bottom pro gold black	60061-94-2E	411187706	UNK	NA	driscoll boat yard	09	2019
KKM	361	95%	P	33	12	NA		NA	UNK	NA	NA	NA	NA
KKM	362	40%	S	39	12	NA		NA	LOW	NA	DRISCOLL	10	2010
KKM	363	vacant											
KKM	364	30%	S	36	11	Pettit Trinidad Pro		174	copper	65%	Shelter Island Boatyard	09	2012

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KKM	365												
KKM	366	95%	p	34	14.3	petite	4564	6546			chaneel islands	02	2017
KKM	367	95%	S	36	11	Interlux Ultrakote		36695	copper	NA	shelter island boatyard	02	2017
KKM	368	100%	S	42	13	PROLINE	577-550-ZE	1088	COPPER	66%	SHELTER ISLAND	06	2017
KKM	369	90%	P	39	13	interlux ultra black		NA	copper	NA	shelter island boatyard	11	2015
KKM	370	85%	P	33	13	INTRULUX ULTRA	2693-212-AA	3779F	COPPER	NA	shelter island boatyard	11	2017
KKM	371	70%	P	39	14	INTERLUX ULTRA		NA	LOW	67%	Neilsen Beaumont	07	2012
KKM	372	90%	P	38	13	NA		NA	UNK	NA	NA	NA	NA
KKM	373												
KKM	374	100%	P	39	13	NA		NA	LOW	NA	NA	10	2009
KKM	375	99%	p	45.6	15.5	zspar bottom pro gold blue	60061-94-ze	41127706			Driscoll	02	2019
KKM	376												
KKM	377												
KKM	378	95%	P	35	12	interlux ultra		3669f	LOW	NA	NA	06	2017
KKM	379	90%	P	44	15	Proline	577-550	1088-01	copper	65%	Shelter Island Boatyard	05	2012
KKM	380	25%	S	37	12	NA		NA	UNK	NA	NA	NA	NA
KKM	381	100%	P	47.3	15.1	zspar	60061-94-ze	411187706			driscoll	08	2018
KKM	382	100%	S	36	11	Interlux Ultra		3669F	UNK	NA	Shelter Island Boatyard	05	2019
KKM	383	35%	S	43	14	NA		NA	UNK	NA	NA	NA	NA
KKM	384	100%	p	36	13	interlux	3559F	6	LOW	NA	SHELTER ISLAND BOATYARD	09	2009
KKM	385	100%	P	38	14.6	Interlux Ultra		3779F	UNK	NA	Shelter Island Boatyard	01	2019
KKM	386	85%	P	37	12	NA		NA	UNK	NA	SHELTER ISLAND BOATYARD	03	2014
KKM	387	100%	S	48	15	interlux ultrakote	2693-119-ZD	168	LOW	67%	Shelter Island Boatyard	08	2017
KKM	388	88%	P	38	14	NA		NA	UNK	NA	NA	NA	NA
KKM	389	85%	P	42	14.3	pettit trinidad	60061-64	1871			siby	10	2020
KKM	390	90%	S	38	11	NA		NA	UNK	NA	NA	NA	NA
KKM	391	100%	p	45	14		2693212	3779f			driscoll	03	2018
KKM	392	100%	p	36	13	pettit paints trinidad pro	1108806	5215595			santa rosa boat center	04	2019
KKM	393	100%	p	50	14.2	interlux ultra black	2693-212	3779f			shelter island boatyard	01	2019
KKM	394	90%	P	38	12	PETTIT TRINIDAD			LOW	NA	Shelter Island Boatyard	02	2010
KKM	395												
KKM	396	50%	S	41	14	PETTIT TRINIDAD		NA	LOW	NA	ENSENADA	04	2008
KKM	397	100%	P	48	15	Interlux Ultra		3779F	non	0%	shelter island boatyard	06	2018
KKM	398												
KKM	399	85%	P	40	13.5	INTERLUX	2693-192-ZB	3669	copper	55%	NA	06	2012
KKM	400	vacant											
KKM	401	90%	P	40	16	PETTIT ULTIMA SSA		NA	LOW	NA	BASIN MARINE	04	2013
KKM	402	100%	P	36	13	NA		NA	UNK	NA	SHELTER ISLAND BOAT YARD	08	2017
KKM	403	100%	s	39	12.8	interlux ultra		3669F	UNK	NA	Shelter Island Boatyard	05	2019
KKM	404	90%	S	37	18	NA		NA	UNK	NA	NA	NA	NA
KKM	405	90%	P	38	13	NA		NA	UNK	NA	NA	NA	NA
KKM	406	35%	P	24	9	NA		NA	UNK	NA	NA	NA	NA
KKM	407	98%	P	36	13	NA		NA	UNK	NA	Shelter Island Boatyard	NA	NA
KKM	408	95%	S	36	12	EPOXY COPPERCOAT		NA	copper	NA	NA	06	2014
KKM	409	40%	P	37	14	NA		NA	UNK	NA	NA	NA	NA
KKM	410	85%	S	38	12	ZSPAR B94	60061-49-ZH	165	LOW	65%	self applied	01	2007
KKM	411	95%	S	38	11	Awlgrip SR			unk	unk	Shelter Island Boatyard	13	2016
KKM	412	100%	s	35.5	11.4	interlux ultracoat		3779u			shelter island		2016
KKM	413	20%	S	36.8	11.6	interlux ultracoat light		na	copper	55%	SHELTER ISLAND BOAT YARD	04	2017
KKM	414												
KKM	415	100%	p	36	13	trinidad petit hd black	60061-64-zd	1871			shelter island boat yard	12	2020
KKM	416	25%	S	36	11	NA		NA	UNK	NA	NA	NA	NA

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KKM	417	98%	p	40	15.9	na		na	unk	na	Hinkley, FL	09	2017
KKM	418	100%	s	35	9.6	pettit trinidad pro blue	60061-94				Marina Shipyard, Long Beach	05	2020
KKM	419	60%	P	40	14	Interlux Ultra		160	copper	65%	Neilsen Beaumont	07	2012
KKM	420	85%	P	32	11	NA		NA	UNK	NA	NA	NA	NA
KKM	421	100%	S	37	11	NA		NA	UNK	NA	NA	NA	NA
KKM	422	90%	P	36	13	INTERSLEEK 900 BLACK		NA	UNK	NA	Shelter island	05	2013
KKM	423	90%	S	36	11	NA		NA	UNK	NA	NA	NA	NA
KKM	424												
KKM	425	90%	S	40	11	NA		NA	LOW	NA	Shelter Island Boatyard	12	2007
KKM	426	98%	S	42	13	INTERLUX ULTRA		NA	LOW	67%	Shelter Island Boatyard	06	2010
KKM	427	15%	S	36	11	Interlux Ultrakote		3669U	UNK	NA	Shelter Island Boatyard	11	2015
KKM	428	100%	s	36	12								
KKM	429	95%	S	35	11	NA		NA	UNK	NA	NA	NA	NA
KKM	430	90%	p	36	14	interlux ultra blue		y3669f/1	LOW	40%	Shelter Island Boatyard	09	2018
KKM	431	100%	p	41	14	INTERLUX		YBA473	UNK	NA	West Marine	01	2018
KKM	432												
KKM	433	100%											
KKM	434	90%	p	44	16	pettite	2693-192-AA	na	UNK	NA	KKMI Sausalito	05	2018
KKM	435	90%	P	43	10	NA		NA	UNK	NA	NA	NA	NA
KKM	436	100%											
KKM	437	100%	p	47	14	interlux ultrakote					siby	08	2018
KKM	438	60%	s	43	12	INTERLUX BOTTOM KOTE		NA	UNK	NA	self applied	05	2013
KKM	439	95%	P	47.2	14.3	interlux micron 66	yba473/1				SHELTER ISLAND	11	2018
KKM	440	100%	p	46	15								
KKM	441	100%	s	50	14.7	Micron CSCHS	unk	ybc583	unk	unk	unk	07	2016
KKM	442	93%	P	25	9	NA		NA	UNK	NA	NA	NA	NA
KKM	443	93%	P	43	16	Proline 1088	577-550-ZE	168	LOW	40%	Shelter Island Boatyard	11	2011
KKM	444	65%	P	48	16	NA		NA	UNK	NA	NA	NA	NA
KKM	445	100%	P	46	16	zspar	60061-94-28	41187706	UNK	NA	driscoll	03	2018
KKM	446	100%	p	43	12								
KKM	447	90%	P	48	15	NA		NA	LOW	NA	NA	NOV	2005
KKM	448	85%	P	44	15	PROLINE 1088-6		NA	LOW	NA	NA	03	2006
KKM	449	75%	P	48	16	NA		NA	UNK	NA	NA	NA	NA
KKM	450	95%	S	46	12.9	INTRULUX ULTRA	2693-211	3779f	UNK	NA	SHELTER ISLAND BOATYARD	JAN	2017
KKM	451	95%	p	47.4	15.4	interlux ultra	2693-212	3779f			SHELTER ISLAND BOATYARD	12	2017
KKM	452	90%	P	43	15	NA		NA	UNK	NA	DRISCOLL MB	11	2013
KKM	453	90%	P	50	16	NA		NA	LOW	40%	Shelter Island Boatyard	07	2013
KKM	454												
KKM	455	88%	P	43	15'10"	PROLINE LOLO	577-550-ZE	1088	LOW	NA	SHELTER ISLAND BOATYARD	07	2013
KKM	456	vacant											
KKM	457	92%	P	39	14	PROIINE 1088-6		NA	LOW	NA	Shelter Island Boatyard	10	2010
KKM	458	90%	S	34	12	2000E EPOXY PRIMER WH		164	LOW	65%	Driscoll MB	05	2011
KKM	459	100%											
KKM	460	75%	P	34	12	Interlux Ultra	2693-212	3779f			Oceanside Marine Center	05	2019
KKM	461	100%	P	48	15	Interlux Ultra		3669U	copper	65%	Shelter Island Boatyard	08	2017
KKM	462	100%	s	34	11.5	interlux ultra	10324-117						
KKM	463	10%	P	50	16.8	interlux	2693.212				kohler kraft	04	2018
KKM	464	60%	P	27	9	interlux ultra kote		3779u				03	2015
KKM	465	80%	P	46	14	trinidad		blue			shelter island boat yard	12	2019
KKM	466	100%	P	32	10		60061-50					09	2017
KKM	467	100%	p	50	16.9	pettit		1871			shelter island	09	2019
KKM	468	65%	S	35	12	NA		NA	UNK	NA	NA	NA	NA

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KKM	469	90%	S	50	15	Pettit Trinidad	60061-64	1871	UNK	NA	SHELTER ISLAND BOATYARD	08	2019
KKM	470												
KKM	471	85%	P	54	16	interlux ultra	2693-212-AA	3779f	copper	NA	Shelter Island Boatyard	07	2015
KKM	472	100%	P	35	13	proline		1051	UNK	NA	marine group	10	2018
KKM	473	95%	P	47	14	NA		NA	UNK	NA	NA	NA	NA
KKM	474	90%	P	32	12	NA		NA	UNK	NA	NA	NA	NA
KKM	475	98%	S	50	14	NA		NA	LOW	40%	SHELTER ISLAND	08	2002
KKM	476	100%	s	36	12	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
KKM	477	90%	S	36	13	INTERLUX ULTRA			LOW	NA	SHELTER ISLAND	06	2009
KKM	478	80%	P	49	15	INTERLUX KL-6		NA	LOW	NA	Shelter Island Boatyard	03	2007
KKM	479	50%	S	34	12	NA		NA	UNK	NA	NA	NA	NA
KKM	480	95%	P	47	15	Z Spar	60061-50	NA	UNK	NA	DRISCOLLS	01	2018
KKM	481	100%	p										
KKM	482	90%	S	44	14	INTERLUX ULTRAKOTE		NA	COPPER	76%	Shelter Island Boatyard	03	2016
KKM	483												
KKM	484	90%	P	47	15	Woolsey Defense CA	60061- 49-ZO	593-4301G	COPPER	65%	Nielson Beumont	06	2017
KKM	485	40%	S	41	14	VC PERF		NA	NON	NA	SHELTER ISLAND BOAT YARD	11	2013
KKM	486	98%	S	50	16	MISSION BAY BLUE		4002	LOW	NA	DRISCOLL	09	2007
KKM	487	100%	P	45.4	15	Interlux Ultra	2693-212	3669F	UNK	NA	Sheler Island Boatyard	03	2019
KKM	488	35%	S	36	11	trinidad		NA	UNK	NA	shelter island	11	2020
KKM	489												
KKM	490	95%	P	43	15	Z Spar Gold		164	LOW	40%	Driscoll MB	02	2012
KKM	491	85%	S	50	13	Interlux Micro		NA	UNK	NA	Shelter Island Boatyard	03	2014
KKM	492	100%	p	43	10								
KKM	493	100%	p	45	14.9	interlux micron csc		y5583			nielson Beaumont	05	2018
KKM	494	45%	P	47	15	NA		NA	UNK	NA	NA	NA	NA
KKM	495	100%	P	43	13.11	Interlux	PB0001495 A870	2693-212	unk	na	SHELTER ISLAND BOATYARD	04	2019
KKM	496	100%	p	43	15								
KKM	497	95%	p	44	15	interlux	2693-132	y4258			siby	07	2017
KKM	498	100%	P	50	17	NA		NA	NON	NA	SHELTER ISLAND	04	2015
KKM	499	100%	P	48	16	Interlux Micron 66 Antifowling		YBA473	UNK	NA	Marine Group Los Labos	07	2018
KKM	500	100%	p	47	14	Proline		1088	NON	NA	SHELTER ISLAND	08	2019
KKM	501	100%	p	52	15	ral petroleum							
KKM	502	80%	S	50	13	NA		NA	UNK	NA	NA	NA	NA
KKM	503	100%	p	44	14								
KKM	504	100%	P	48	16	trinidad		NA	UNK	NA	shelter island	10	2020
KKM	505												
KKM	506	100%	P	44	13	NA		NA	UNK	NA	SHELTER ISLAND BOAT YARD	11	2013
KKM	507												
KKM	508	90%	P	54	17	Blue Water		NA	UNK	NA	NA	NA	NA
KKM	509	100%	P	45	15	Interlux Ultra		3669F			Shelter Island Boatyard	06	2019
KKM	510	98%	P	44	16	Woolsey Defense CA	60061- 49-ZO	4501G	COPPER	45%	Neilsen Beaumont	04	2016
KKM	511	25%	P	41	14	NA		NA	UNK	NA	NA	NA	NA
KKM	512	90%	P	65	16	INTERLUX ULTRAKOTE		NA	COPPER	76%	SHELTER ISLAND	11	2016
KKM	513	60%	S	78	17	PETTIT TRINIDAD PRO		1082	copper	67%	DRISCOLLS	01	2018
KKM	514	80%	P	97.6	24.5	TRILUX	2693-226-AA	33	UNK	UKN	Marine Group	10	2016
KKM	515	88%	P	140	25	SEA HAWK SHARKSKIN		NA	Combo	0%	Marine Group	10	2015
KKM	516	40%	p	87	22		22165	11251			Seminole Marine	06	2019
KKM	517	100%	p	150	27.8								
KKM	518	45%	P	142	25	NA		NA	UNK	NA	NA	NA	NA
KKM	519	10%	p	120	25	shermin-williams seagaurd vinyl anti foulant black	577-559	p30bq12			marine group	08	2019
KKM	520	25%	p	90	18.6		2693-212	y3779f			marine group	03	2019



Facility	Slip	% Year Occupying Slip	Vessel Type Power or Sail (P or S)	Vessel Length	Vessel Beam	Paint Brand Name	EPA REGISTRATION NUMBER	Product Number	Paint Type (Copper, Low, NON, UNK)	% Copper	Boatyard Where Paint Was Applied	Month Painted	Year Painted
KKM	521												
KKM	522	100%	p	60	29								
KKM	523	100%	p	149	35	None							
KKM	524	100%	p	61	18.6	pettit trinidad pro	60061-64	1871			Shelter Island Boatyard	06	2019
KKM	525	70%	S	40	16	NA		NA	UNK	NA	NA	NA	NA
KKM	526	65%	S	42	23	West Marine Bottom Shield	60061-129-AA	10175156	LOW	40%	Birkavitch La Paz MX	12	2016
KKM	527	10%	S	45	15	NA		NA	UNK	NA	NA	NA	NA
KKM	528	98%	m	45	25' 10"	Interlux Ultracoat		3779U			Shelter Island Boatyard	09	2017
KKM	529	25%	P	46	16	NA		NA	UNK	NA	DRISCOLLS MB	11	2014

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## **SIMLG ORIGINAL SURVEY**

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Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SDYC	2001		Vacant									0		
SDYC	2002	100	Power	31	10	Low Copper	Interlux Bottomkote Pro	79	Shelter Island Boatyard	May	2014	22		Port Supplied Reference
SDYC	2003	82	Sail	31	10.5	Non Copper	Has not painted since before 2007		Purchased 2015		2007	0		
SDYC	2004	99	Power	38	13	Low Copper	Super Proguard Epoxy	NAU773	Nielsen Beaumont	Mar	2018	55	23566-20-ZT	Port Supplied Reference
SDYC	2005	91	Sail	29	9	Low Copper	Interlux Ultra	Y3779F	Other	Dec	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2006	92	Power	45.9	12	Low Copper	Interlux Ultra Kote	Y3449U	Shelter Island Boatyard	Mar	2016	67		Port Supplied Reference
SDYC	2007	100	Sail	38	8	Low Copper	Interlux Bottomkote	10397	Nielsen Beaumont	Jun	2014	42.75		Port Supplied Reference
SDYC	2008		Power	36	13	Low Copper	Interlux Ultra	Y3779F	Other	May	2020	55	60061-64	Port Supplied Reference
SDYC	2009	89	Power	30	10	Low Copper	Trinidad HD	1271	Shelter Island Boatyard	Nov	2019	67	60061-94-ZD	DPR active
SDYC	2010	100	Sail	42	13.6	Low Copper	Zspar Bottom Pro Gold	411187706	Driscoll	Jun	2014	65	60061-94-ZE	Port Supplied Reference
SDYC	2011	100	Sail	57.3	15.3	Low Copper	Trilux 33-3	YBA060	Driscoll	Jul	2017	16.95	2693-203-AA	Port Supplied Reference
SDYC	2012	100	Sail	32	6	Low Copper	Interlux Bottomkote	10397	Shelter Island Boatyard	Jun	2014	42.75		Port Supplied Reference
SDYC	2014											65		
SDYC	2015	97	Power	25	8	Low Copper	Interlux Ultra Black	Y3779F	Shelter Island Boatyard	Mar	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2016	90	Power	38	13.5	Low Copper	Interlux Ultra	Y3779F	Koehler Kraft	Jun	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2017	96	Power	23	8	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Mar	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2018	94	Sail	47	26	Low Copper	Interlux Ultra	Y3779F	Outside SD County	Jan	2020	72	2693-212-AA	Port Supplied Reference
SDYC	2019	100	Sail	41.8	13.8	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jul	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2020	74	Sail	52	15.4	Low Copper	Pettit Ultima	1092	Driscolls	Apr	2016	40	60061-117-ZB	Port Supplied Reference
SDYC	2021	100	Power	47.3	14.3	Low Copper	Interlux Ultra	Y3779F			2018	55	2693-212-AA	Port Supplied Reference
SDYC	2023	100	Power	25	8	Low Copper	Pettit Vivid-3	1861	Driscoll - Mission Bay	Apr	2016	25	60061-116-AA	Port Supplied Reference
SDYC	2024	100	Power	25	9	Low Copper	Interlux	Y3779F	Shelter Island Boatyard	Oct	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2025	100	Sail	35	11	Low Copper	Interlux Ultra	Y3779F	Koehler	Oct	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2026	98	Sail	46.3	13.8	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Mar	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2027	67	Power	35	12	Low Copper	Interlux Ultra Blue	Y3669F	Shelter Island Boatyard	Jun	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2028	95	Sail	36	11	Non Copper	No Bottom Paint				N/A	0		
SDYC	2029	99	Sail	32	6.7	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Aug	2015	65		Port Supplied Reference
SDYC	2030	100	Power	28	9	Copper	Pettit Z-Spar Protector	B-94	Driscoll	Jun	2019	65		Port Supplied Reference
SDYC	2031	84	Sail	43	13	Low Copper	Zspar Bottom Pro Gold modified Epoxy	411187706	Shelter Island Boatyard	Feb	2019	65	60061-94-ZE	Port Supplied Reference
SDYC	2032	93	Power	23	6	Low Copper	Interlux Bottomkote	10397	Shelter Island Boatyard	Jan	2017	67		Port Supplied Reference
SDYC	2033	93	Sail	30	9.6	Non Copper	Hard Coat Exopox Primer - No Anti-Fouling Paint	V127/A	Driscoll	Oct	2016	0		
SDYC	2034	95	Sail	35	11	Non Copper	Interlux Epoxycop	V127/A	Applied by manufacturer	Sept	2001	0		
SDYC	2035	97	Power	35	10.5	Non Copper	Sea Hawk Biocop TF 1200-1 Antifoulant		Rybovich Shipyard West Palm Beach, FL	Jun	2019	0		
SDYC	2036	94	Power	48	14	Low Copper	Pettit Trinidad Blue	A1277Q	Shelter Island Boatyard	Feb	2020	60	60061-94-ZD	Port Supplied Reference
SDYC	2038	97	Power	47	16	Low Copper	Pettit Trinidad Black	1871	Shelter Island Boatyard	Nov	2020	55	60061-94-ZB	DPR active
SDYC	2039	100	Sail	50	12	Low Copper	Zspar Bottom Pro Gold	411187706	Driscoll	Feb	2016	65	60061-94-ZE	Port Supplied Reference
SDYC	2040	90	Power	36.4	10	Low Copper	Pettit-Pro	16471732	Driscoll	May	2015	65		Port Supplied Reference
SDYC	2041	97	Electric	25	8	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Nov	2016	60	60061-94-ZB	Port Supplied Reference
SDYC	2042	98	Power	61	16	Low Copper	Pettit Z-Spar Protector	B-94	Shelter Island Boatyard	Oct	2018	65		Port Supplied Reference
SDYC	2043	100	Power	58	17	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Aug	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2044	91	Sail	36	12.5	Low Copper	Ultrakote-6	Y3669U	Shelter Island Boatyard	Feb	2016	57		Port Supplied Reference
SDYC	2045	96	Power	17	6	Low Copper	Interlux Ultra	Y3779F	Marine Group Boat Works	Oct	2016	67	2693-212-AA	Port Supplied Reference
SDYC	2046	100	Power	40	13.5	Low Copper	Interlux Ultra	Y3779F	Driscoll	Feb	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2047	100	Sail	42	10.5	Low Copper	Interlux Ultra Blue	Y3669F	Koehler Kraft	Nov	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2048	97	Sail	46.9	11.1	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Apr	2016	60	60061-94-ZB	Port Supplied Reference
SDYC	2049	98	Sail	30	11	Low Copper	West Marine BottomPro Gold	411127906	Shelter Island Boatyard	Jun	2018	40	60061-117-ZE	Port Supplied Reference
SDYC	2050	84	Electric	18	6	Low Copper	Trinidad Pro-7	A1088G	Driscoll	Jun	2015	60	60061-94-ZB	Port Supplied Reference
SDYC	2051	95	Power	62	16.8	Low Copper	Interlux Aqua	YBA579	Driscoll	Mar	2016	46		Port Supplied Reference
SDYC	2052	95	Power	31	11	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Nov	2019	60	60061-94-ZB	Port Supplied Reference
SDYC	2053	75	Power	42	14	Low Copper	Pettit Hydrocoat red	1640	Driscoll	Feb	2017	40.43	60061-87-ZL	Port Supplied Reference
SDYC	2055	100	Sail	26	7	Low Copper	Super KL-6	K93	Driscoll	May	2010	70.2		Port Supplied Reference
SDYC	2056	100	Sail	35	11	Low Copper	Interlux Ultra	Y3779F	Driscoll	Feb	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2057	99	Electric	30	10	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Nov	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2058	100	Power	18	8	Copper	Interlux Aqua	YBA579	Other	Nov	2020	55		Port Supplied Reference
SDYC	2059	99	Power	26	9	Low Copper	Interlux UltraKote Blue	Y3669F	Shelter Island Boatyard	Nov	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2060	98	Sail	36	12	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Jun	2016	65		Port Supplied Reference
SDYC	2061	95	Sail	28.5	9.2	Low Copper	Interlux Ultra Kote	2779N	Shelter Island Boatyard	Aug	2017	66.5		Port Supplied Reference
SDYC	2062	92	Power	42	15	Low Copper	Interlux Ultra	Y3779F	Driscoll Mission Bay	Oct	2016	55	2693-212-AA	Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SDYC	2063	97	Sail	30	6.5	Low Copper	Interlux Ultra	Y3779F	Koehler	Mar	2015	55	2693-212-AA	Port Supplied Reference
SDYC	2064	100	Power	36	13	Low Copper	Bluewater Copper Pro	8101	Shelter Island Boatyard	Apr	2016	67		
SDYC	2065	100	Power	25	9	Low Copper	Interlux	Y3779F	Shelter Island Boatyard	Oct	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2066	100	Electric	18	6	Low Copper	Interlux Bottomkote Pro	79	Shelter Island Boatyard	Jun	2017	22		Port Supplied Reference
SDYC	2067	98	Power	24	9	Low Copper	Interlux Bottomkote	10397	Driscoll	Oct	2016	42.75		Port Supplied Reference
SDYC	2068	100	Power	38	10	Low Copper	Seahawk AF33	3345	Driscoll	Jan	2005	33	44891-12-AA	Port Supplied Reference
SDYC	2069	99	Power	21	7	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Nov	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2070	100	Sail	39	12	Low Copper	Interlux Ultra	Y3779F	Driscoll	Jun	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2071	93	Sail	43	11.6	Low Copper	Interlux Trilux 33	YBA060	Self Applied	May	2020	16.95	2693-203-AA	Port Supplied Reference
SDYC	2072	99	Power	33	12.8	Low Copper	Pettit Z-Spar Protector	B-94	Sunset Aquatic Shipyard	Mar	2017	65		Port Supplied Reference
SDYC	2073	100	Power	50	15	Low Copper	SeaHawk AF33	#3445	Other	Jun	2020	33	44891-12-ZC	Port Supplied Reference
SDYC	2074	99	Power	26	9	Low Copper	Proline 1088-6	A1088G	Driscoll	Jul	2018	60	60061-94-ZB	Port Supplied Reference
SDYC	2075	100	Power	38	13	Low Copper	Inuterlux Ultra Blue	Y3669F	Shelter Island Boatyard	Sept	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2076	98	Power	35	10.6	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Jan	2015	65		Port Supplied Reference
SDYC	2077	98	Power	38	13	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Mar	2016	67	2693-212-AA	Port Supplied Reference
SDYC	2078	97	Sail	37	11.4	Low Copper	Trinidad Pro Blue	A1088G	Shelter Island Boatyard	Aug	2019	67	60061-94-ZB	Port Supplied Reference
SDYC	2079	76	Power	42	14	Copper	Interlux Aqua	YBA579	Driscoll	Jan	2018	46		Port Supplied Reference
SDYC	2080	100	Power	32	11.5	Low Copper	Interlux Ultra Blue 3669 F	Y3669F	Shelter Island Boatyard	Jun	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2082	92	Power	48	15.5	Low Copper	Proline 1088-6	A10886	Driscoll	Aug	2018	60	60061-94-ZB	Port Supplied Reference
SDYC	2083	92	Power	68	18	Low Copper	Interlux Micron	5693	Shelter Island Boatyard	Jul	2019	35		Port Supplied Reference
SDYC	2084	98	Sail	30	11	Low Copper	Zspar Bottom Pro Black Gold	411187706	Driscolls Shelter Island	Nov	2018	65	60061-94-ZE	Port Supplied Reference
SDYC	2086	72	Power	33	10.8	Low Copper	Interlux Interspeed	BQA659/SGL	Koehler	Feb	2017	38	2693-176-ZB	Port Supplied Reference
SDYC	2088	100	Power	34	11	Low Copper	Seahawk Biocop	1230-1	Applied in WA state	July	2020	38.06	44891-15-AA	DPR active
SDYC	2089	96	Sail	53	14	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Aug	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2090	93	Sail	59	10	Low Copper	Interlux Ultra	Y3779F	Koehler	Apr	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2091	96	Sail	32	6.7	Non Copper	Interlux Interspeed	BZA646	Driscoll	Jun	2015	0		
SDYC	2092	98	Power	49	14.2	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Apr	2015	60	60061-94-ZB	Port Supplied Reference
SDYC	2093	100	Sail	35	11.6	Low Copper	Interlux White Epoxy Paint	V127/A	Driscoll	Apr	2017	0		
SDYC	2094	98	Power	42	13.5	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2095	100	Power	33	12.5	Low Copper	Interlux Ultra - "Ultra Coat"	2779N	Koehler	Jun	2017	66.5		Port Supplied Reference
SDYC	2096	95	Sail	25	8	Low Copper	Purchased 2016		Purchased Apr 2016		2016	55		
SDYC	2098	99	Power	22	8	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	May	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2099	100	Sail	43.8	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Nov	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2100	100	Power	39	12.5	Low Copper	Interlux Ultra	Y3779F	Mountain Marine Industries (Colorado)	Jun	2015	65	2693-212-AA	Port Supplied Reference
SDYC	2101	99	Sail	34	11.6	Low Copper	Pettit Z-Spar	411187706	Driscoll	Dec	2017	65	60061-94-ZE	Port Supplied Reference
SDYC	2102	95	Power	22	8	Low Copper	ABC3-2	ABC3-92	SD Boatyard	Oct	2006	48		Port Supplied Reference
SDYC	2103	96	Power	40	14	Low Copper	Pettit Black	1671	Shelter Island Boatyard	Jan	2019	55	60061-94-ZB	DPR active
SDYC	2104	97	Power	41	13	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Mar	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2105	100	Sail	30	10	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Aug	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2106	95	Power	47	15	Low Copper	SeaHawk Topikote Antifouling Blue	2145GL	Outside SD County	May	2019	75.8	44891-10-ZA	DPR active
SDYC	2107	99	Sail	30	21.2	Non Copper	Pettit Vivid Free-3	1862	Marine Group	Jul	2014	0		
SDYC	2108	96	Power	36	11.8	Low Copper	Interlux Ultra w/ Biolux	Y3559F	Koehler	Sept	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2109	99	Power	46.4	11.6	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jul	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2110	98	Power	46	15	Low Copper	Interlux Interprotect	B-94	Shelter Island Boatyard	Jun	2015	65		Port Supplied Reference
SDYC	2111	100	Sail	29.9	11.3	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Jun	2016	65		Port Supplied Reference
SDYC	2112	100	Power	32	12.5	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2113	98	Power	28	12	Low Copper	Pettit Ultima	1092	Other	Mar	2018	40	60061-71-ZB	Port Supplied Reference
SDYC	2114	76	Power	42	13	Copper	Interlux Bottomkote	10397	Koehler	Jun	2019	42.75		Port Supplied Reference
SDYC	2115	98	Sail	35	11	Low Copper	Interlux Ultra	Y3779F	Koehler	Apr	2019	17	2693-212-AA	Port Supplied Reference
SDYC	2116	0	Sail	28	7	Low Copper	Purchased Feb 2016				2016	65		
SDYC	2117	98	Sail	40	13	Non Copper	Intersleek -8	FXA979/A	Shelter Island Boatyard	Mar	2013	0		
SDYC	2118	100	Sail	42	13	Low Copper	Pettit 1271 Trinidad	1271	Shelter Island Boatyard	Oct	2019	55	60061-94-ZB	DPR active
SDYC	2119		Vacant									0		
SDYC	2120	99	Sail	40	12.5	Copper			Purchased July 2020			65		
SDYC	2121	98	Power	33	11.6	Low Copper	Interlux Ultra Black	Y3779F	Shelter Island Boatyard	Mar	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2122	100	Sail	35	11	Low Copper	Interlux Ultra	Y3779F	SD Boatyard	Jul	2004	55	2693-212-AA	Port Supplied Reference
SDYC	2123	100	Sail	15	5	Low Copper	Proline 1088	1088C-02	Driscoll Mission Bay	6	2010	55.7		Port Supplied Reference
SDYC	2124	84	Power	36	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Aug	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2125	95	Sail	29	11	Low Copper	Z-Spar Bottom Pro Gold Blue	411127906	Driscoll	Jan	2018	40	60061-117-ZE	Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SDYC	2126	100	Sail	40	12	Low Copper	Interlux Ultra	Y3779F	Driscoll	Jan	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2127	98	Sail	42	13.6	Low Copper	Interlux Ultra Black	Y3779F	Shelter Island Boatyard	Apr	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2128	100	Sail	32.6	10.1	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	May	2012	55	2693-212-AA	Port Supplied Reference
SDYC	2129	0	Sail	35	11	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2014	55	2693-212-AA	Port Supplied Reference
SDYC	2130	84	Power	32.2	12	Low Copper	Interlux Ultra-Kote Black	2779N		Feb	2017	66.5		Port Supplied Reference
SDYC	2131	98	Sail	37	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Oct	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2132	100	Power	40	14	Low Copper	Interlux Bottomkote	10397	Driscoll	Jun	2016	42.75		Port Supplied Reference
SDYC	2133	100	Power	32	10	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Nov	2020	67	2693-212-AA	Port Supplied Reference
SDYC	2134	92	Electric	31	11.3	Low Copper	Pettit Z-Spar	411187706	Driscoll	Dec	2011	65	60061-94-ZE	Port Supplied Reference
SDYC	2135	95	Power	21.3	8.4	Low Copper	Bottomshield	411186606	Cogswell Marine	Aug	2015	28.86	60061-129-AA	Port Supplied Reference
SDYC	2136	95	Power	66	18	Low Copper	Proline 1088-6	A1088G	Marine Group	Oct	2020	60	60061-94-ZB	Port Supplied Reference
SDYC	2137	99	Sail	38	13.2	Non Copper	SeaHawk Smart Solution	4702	Driscoll	Mar	2016	0		
SDYC	2138	78		32.8	9.25	Low Copper	Interlux Ultrakote	Y3669U	Shelter Island Boatyard	May	2016	67		Port Supplied Reference
SDYC	2139	89	Power	32	12	Low Copper	Hydrocoat	1840	Driscoll	Dec	2018	40.43	60061-87-ZI	Port Supplied Reference
SDYC	2140	95	Power	50	14	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	May	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2142	100	Power	24	8.5	Low Copper	Interlux Ultra Black	Y3779F	Driscolls Mission Bay	Jan	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2143	94	Power	36	13	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Nov	2018	60	60061-94-ZB	Port Supplied Reference
SDYC	2144		vacant									0		
SDYC	2145	100	Sail	31	5	Low Copper	Hydrocoat	1840	Shelter Island Boatyard	May	2020	40.43	60061-87-ZI	Port Supplied Reference
SDYC	2146	86	Power	36	13	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Jul	2017	65		Port Supplied Reference
SDYC	2147	99	Sail	33.8	11.5	Non Copper	Hydrolift				N/A	0		
SDYC	2149	0	Power	23	9	Low Copper	Trilux33-3	YBA060	Koehler	Jul	2017	16.95	2693-203-AA	Port Supplied Reference
SDYC	2150	94	Power	25.3	9.5	Low Copper	Pettit Vivid-3	1861	Driscoll	Jan	2014	25	60061-116-AA	Port Supplied Reference
SDYC	2151	96	Power	42	15	Low Copper	Pettit Ultima / Bottom Pro Gold - Kop Coat	411187706	Huntington Harbor Yard	Oct	2015	65	60061-94-ZE	Port Supplied Reference
SDYC	2152	95	Sail	34.5	11	Low Copper	Interlux VC Offshore	V118	Driscoll	Aug	2015	41.19		Port Supplied Reference
SDYC	2153	92	Power	34	12.6	Low Copper	Purchased Jun 2017				2017	65		
SDYC	2154	100	Power	55	16	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Dec	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2156	97	Power	39	11	Low Copper	Trinidad Pro-7	A1088G	Shelter Island Boatyard	Jun	2018	60	60061-94-ZB	Port Supplied Reference
SDYC	2157	100	Sail	32	7	Low Copper	Interlux Ultra	Y3779F	Koehler	Jun	2015	55	2693-212-AA	Port Supplied Reference
SDYC	2158	97	Sail	42	14	Low Copper	Interlux Ultra Black	Y3779F	Koehler	8	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2159	100	Power	33	11	Low Copper	Interlux Ultra Blue	Y3669F	Shelter Island Boatyard	Jan	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2160	92	Power	40	13.5	Non Copper	N/A		N/A		N/A	0		
SDYC	2161	78	Sail	50	15.11	Low Copper	Interlux Ultra Green	Y3559F	Shelter Island Boatyard	May	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2162	98	Sail	39	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Mar	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2163	98	Power	65	58	Low Copper	Interlux Ultra	Y3779F	Marine Group/South Bay	Jun	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2164	100	Sail	PC 31'	6.7	non Copper		No bottom paint applied ever		Sail		0		
SDYC	2165	90	Sail	41	12	Low Copper	Bluewater Copper Shield	8601	Shelter Island Boatyard	Jan	2017	45		
SDYC	2166	96	Power	56	16.9	Low Copper	Interlux Ultra Black	Y3779F	Shelter Island Boatyard	Oct	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2167	100	Sail	32	7	Non Copper	Coppercoat	85396-1-AA	Driscoll	Apr	2016	0		
SDYC	2168	100	Power	47	15	Copper			Purchased Oct 2018 in Seattle			67		
SDYC	2169	90	Sail	46	14.4	Copper	Purchased June 2018		JK3 Alameda		2018	67		
SDYC	2170	83	Power	30.4	11.5	Low Copper	Interlux UltraKote Blue	Y3669U	Shelter Island Boatyard	Feb	2016	57		Port Supplied Reference
SDYC	2171	100	Sail	49	12	Low Copper	Trinidad Pro-7	A1877G	Shelter Island Boatyard	Feb	2017	60	60061-94-ZD	Port Supplied Reference
SDYC	2172	92	Sail	59	10.6	Low Copper	Pettit Green	Y3559F	Koehler	Jun	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2173	98	Power	80	23.5	Low Copper	Interspeed 640	BRA642		Jan	2017	38	2693-142-ZM	Port Supplied Reference
SDYC	2174	100	Power	28	7	Low Copper	Interlux Bottomkote Pro	79	Driscoll	Mar	2015	22		Port Supplied Reference
SDYC	2175	90	Power	23.5	8.5	Low Copper	Interlux Black	Y3779F	Puerto Escondido, Mexico	Aug	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2176	100	Sail	40	13	Low Copper	Pettit Trinidad Pro HD Black	1871	Shelter Island Boatyard	Dec	2019	55	60061-94-ZB	DPR active
SDYC	2177	97	Power	29	9	Low Copper	Pettit Hydrocoat	1640	Florida	Feb	2018	40.43	60061-87-ZL	Port Supplied Reference
SDYC	2178	96	Power	78	20	Low Copper	Interlux Micron CSC HS	YBC582	Shelter Island Boatyard	Mar	2017	33.4	2693-225-AA	Port Supplied Reference
SDYC	2179	67	Sail	40	12	Copper	Pettit Z-Spar Protector	B-94	Driscoll	Oct	2018	65		Port Supplied Reference
SDYC	2180	95	Sail	43	13.7	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	Oct	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2181	100	Sail	38	12	Low Copper	Trinidad-6	A1088G	Shelter Island Boatyard	Jun	2015	60	60061-94-ZB	Port Supplied Reference
SDYC	2182		Vacant									0		
SDYC	2183	100	Sail	46	14.7	Low Copper	Nautical Progaud Ablative Blue	NAU990	Nielsen Beaumont	Jun	2019	41.97	2683-14-ZP	DPR active

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SDYC	2184	99	Sail	33.6	11.8	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2014	55	2693-212-AA	Port Supplied Reference
SDYC	2185	98	Power	36	12.5	Low Copper	Pettit Z-Spar	B-94	Shelter Island Boatyard	Mar	2015	65		Port Supplied Reference
SDYC	2186	100	Power	52	14	Low Copper	Interlux Calif Bottomkote - 7	YBA143	Driscoll	Jul	2017	35	2693-18-ZA	Port Supplied Reference
SDYC	2187	98	Power	32	12	Low Copper	Pettit Horizons	1850	Shelter Island Boatyard	Jul	2019	40.5	60061-101-AA	Port Supplied Reference
SDYC	2188	86	Power	35	9.5	Low Copper	Interlux VC Offshore	V118	Driscoll	May	2016	41.19		Port Supplied Reference
SDYC	2189	0	Sail	37	12	Non Copper	Purchased June 2019					65		
SDYC	2190	97	Power	48	15.1	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jan	2016	60	60061-94-ZB	Port Supplied Reference
SDYC	2191	90	Power	33	11.3	Low Copper	Proline 1088-6	A1088G	Driscoll	Dec	2013	60	60061-94-ZB	Port Supplied Reference
SDYC	2192	98	Power	29	10	Copper	Pettit Z-Spar Protector	B-94	Driscoll	Jan	2018	65		Port Supplied Reference
SDYC	2193	98	Power	21	8.3	Copper	Proguard Ablative Blue	NAU990	Explorer Marine Services	Apr	2018	41.97		Port Supplied Reference
SDYC	2194	97	Power	36	13	Low Copper	Trinidad Pro-7	A1088G	Shelter Island Boatyard	Oct	2019	60	60061-94-ZB	Port Supplied Reference
SDYC	2195	96	Power	21	9	Low Copper	Interlux Bottomkote	10397	Shelter Island Boatyard	Jan	2017	65		Port Supplied Reference
SDYC	2196	96	Power	22	8	Low Copper	Cukote	44891-7-AA	Koehler	Jan	2020	67	44891-7-AA	DPR active
SDYC	2197	99	Power	44	13.7	Non Copper	Bluewater Shelter Island	8242	Shelter Island Boatyard	Apr	2011	0		
SDYC	2198	100	Power	17	8	Low Copper	Pettit Trinidad HD Black	1871	Shelter Island Boatyard	Jun	2019	55	60061-94-ZB	DPR active
SDYC	2199	95	Power	37	13	Low Copper	Interlux Black	Y3779F	Driscoll Shelter Island	6	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2200	98	Sail	30	10	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jan	2012	60	60061-94-ZB	Port Supplied Reference
SDYC	2201	97	Power	20	8	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jan	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2202	99	Power	24	9	Low Copper	Interlux Bottomkote	10397	Driscoll	Oct	2016	42.75		Port Supplied Reference
SDYC	2203	100	Sail	34	11	Low Copper	Z-Spar Bottom Pro Gold	411127906	Driscoll	Mar	2018	40	60061-117-ZE	Port Supplied Reference
SDYC	2204	100	Sail	35	10	Low Copper	Interlux Ultra	Y3779F	Koehler	Aug	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2205	100	Power	34	12	Low Copper	Interlux Bottomkote Pro	79	Shelter Island Boatyard	Jan	2019	22		Port Supplied Reference
SDYC	2206	99	Power	48	15.2	Low Copper	Interlux Bottomkote	10397	Driscoll	Jul	2016	42.75		Port Supplied Reference
SDYC	2207	100	Power	36	12	Low Copper	Proline 1088-6	A1088G	Marine Group Boat Works	Feb	2019	57	60061-94-ZB	Port Supplied Reference
SDYC	2209	94	Power	42	15	Non Copper	Intersleek 9000	FXA979/A	Shelter Island Boatyard	Jun	2019	0		Port Supplied Reference
SDYC	2210	100	Power	64	19	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	May	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2211	63	Electric	18	6	Low Copper	Interlux Ultrakote Blue	Y3559U	Shelter Island Boatyard	Sept	2015	57		Port Supplied Reference
SDYC	2212	86	Sail	40	12	Low Copper	Interlux Ultra	Y3779F	Driscoll	Aug	2014	55	2693-212-AA	Port Supplied Reference
SDYC	2214	100	Sail	44.2	13	Low Copper	Interlux Ultra	A1088G	Shelter Island Boatyard	Nov	2018	60	60061-94-ZB	Port Supplied Reference
SDYC	2215	96	Power	38	14	Low Copper	Interlux Fiberglass Bottomkote Aqua	YBA579	Driscoll	May	2013	46		Port Supplied Reference
SDYC	2216	81	Power	63.5	16.6	Low Copper	Interlux Ultra	Y3779F	Driscoll	Mar	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2217	97	Power	40	14	Non Copper	Intersleek 900	FXA979/A	Shelter Island Boatyard	Feb	2013	0		Port Supplied Reference
SDYC	2218	100	Sail	20	7	Low Copper	Pettit Ultima	1092	Shelter Island Boatyard	Jul	2019	40	60061-71-ZB	Port Supplied Reference
SDYC	2219	59	Sail	35	11.9	Copper	Pettit Pro	A1108206	Shelter Island Boatyard	Oct	2019	65		Port Supplied Reference
SDYC	2220	100	Power	35	13	Low Copper	Interlux Ultra Red	Y3449F	Shelter Island Boatyard	Jul	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2221	100	Power	36	12	Copper	Interlux Bottomkote	10397	Shelter Island Boatyard	Jan	2018	42.75		Port Supplied Reference
SDYC	2222	99	Power	50	16.8	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	May	2015	55	2693-212-AA	Port Supplied Reference
SDYC	2223	100	Power	38	12	Low Copper	Interlux Intersmooth	BEA462/5	Shelter Island Boatyard	Oct	2015	40.41		Port Supplied Reference
SDYC	2224	70	Sail	29	9.3	Low Copper	Sharksin-7	6145	Shelter Island Boatyard	Jul	2014	45	44891-11-AA	Port Supplied Reference
SDYC	2225	0	Power	22	8	Low Copper	Interlux K91	K91	Driscoll	Mar	2007	70		Port Supplied Reference
SDYC	2226	66	Sail	35	10.6	Low Copper	Trinidad SR	A1877G	Driscoll	Oct	2018	60	60061-94-ZD	Port Supplied Reference
SDYC	2227	88	Sail	37	8	Copper	Pettit Z-Spar Protector	B-94	Koehler	Jul	2020	65		Port Supplied Reference
SDYC	2228	0	Power	32	11	Non Copper	Interlux Ultra Blue	Y3669F	Shelter Island Boatyard	Jun	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2229	96	Power	32	11.5	Low Copper	Interlux	Y3779F	Koehler	Jul	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2230	99	Power	31	12	Low Copper	Trinidad SR	A1877G	Shelter Island Boatyard	Jun	2020	60	60061-94-ZD	Port Supplied Reference
SDYC	2231	100	Power	40	12.6	Low Copper	Pettit Z-Spar Protector	B-94	Port Salerno Marine (Florida)	Jul	2017	65		Port Supplied Reference
SDYC	2232	97	Sail	41	10.3	Low Copper	Ultrakote - 6	Y3669U	Koehler Kraft	Mar	2017	57		Port Supplied Reference
SDYC	2233	100	Sail	38	11.7	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Mar	2015	60	60061-94-ZB	Port Supplied Reference
SDYC	2234	83	Sail	38	22.4	Low Copper	Interlux Ultra	Y3779F	Driscoll	Jul	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2235	100	Power	30	20.5	Low Copper	Purchased November 2016				2016	65		
SDYC	2236	99	Sail	27	7.5	Non Copper	Epoxy bottom	V127/A	Shelter Island Boatyard	Dec	2017	0		
SDYC	2237	99	Power	42	12.8	Low Copper	Purchased April 2017				2017	65		
SDYC	2238	100	Power	25	8	Low Copper	Interlux Ultra	Y3779F	Driscoll	July	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2239	99	Sail	41.7	13	Non Copper	Pettit Hydrocoat Eco	1240	Nielsen Beaumont	Jun	2017	40.5	60061-87-ZH	Port Supplied Reference
SDYC	2240	0	Sail	34.5	11	Non Copper	Proline 1088-6 Epoxy		Driscoll	Aug	2015	0		
SDYC	2241	95	Sail	45	11	Low Copper	Interlux Ultra	Y3779F	Svendsens Boat Yard (San Fran)	Oct	2015	55	2693-212-AA	Port Supplied Reference
SDYC	2242	80	Sail	35	11.3	Low Copper	Proline 1088-6	A10886	Driscoll	May	2019	60	60061-94-ZB	Port Supplied Reference
SDYC	2243	49	Power	60	16	Low Copper	Interlux Ultra	Y3779F	The Boat Yard, MDR	Mar	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2244	100	Power	47	14.6	Low Copper	Interlux Ultra Blue	Y3669F	Shelter Island BoatYard	Mar	2015	55	2693-212-AA	Port Supplied Reference



Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SDYC	2245	98	Power	52	15	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Nov	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2246	87	Sail	85	20	Non Copper	SeaHawk Smart Solution	4702	Outside SD County	Oct	2019	0		
SDYC	2247	70	Sail	35.3	11.6	Low Copper	Purchased July 2017				2017	65		
SDYC	2248	96	Sail	35	11	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jul	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2249											65		
SDYC	2250	99	Sail	34	11	Low Copper	Purchased 2015				2015	67		
SDYC	2251	100	Sail	28	6	Low Copper	Proline	A10886	Driscoll Mission Bay	Oct	2010	60	60061-94-ZB	Port Supplied Reference
SDYC	2252											65		
SDYC	2253	93	Power	50	15	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Nov	2014	60	60061-94-ZB	Port Supplied Reference
SDYC	2254	92	Sail	44.11	13	Low Copper	Interlux Ultrakote	2779N	Shelter Island Boatyard	Oct	2017	66.5		Port Supplied Reference
SDYC	2255	99	Sail	36	12	Low Copper	Interlux Ultra Antifouling Paint	Y3779F	Marine Group Boatworks	May	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2256	99	Sail	34	10.6	Low Copper	Pettit Vivid Blue	1261	Driscoll	Mar	2018	25	60061-116-AA	Port Supplied Reference
SDYC	2257	99	Sail	39	12	Low Copper	Interlux Ultra Blue	Y3669F	Driscoll Mission Bay	May	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2258	99	Sail	35	8	Non Copper	Epoxy	V127/A	Driscoll	Feb	2020	0		
SDYC	2259	93	Power	33	9.6	Low Copper	Interlux Ultra	Y3779F	Nielsen Beaumont	Jun	2013	55	2693-212-AA	Port Supplied Reference
SDYC	2261													
SDYC	2262	100	Power	38	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2263	99	Power	17	7	Copper	Interlux Aqua	YBA579	Driscoll	Aug	2019	46		Port Supplied Reference
SDYC	2264											65		
SDYC	2265	100	Power	40	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Mar	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2268	100	Power	21	8	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jan	2019	60	60061-94-ZB	Port Supplied Reference
SDYC	2269	99	Sail	36.3	11.9	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Jul	2017	67		Port Supplied Reference
SDYC	2270	87	Power	35	12	Non Copper	Intersleek Pro Black	FXA979/A	Koehler	July	2017	0		
SDYC	2271	99	Power	21	8	Low Copper	Pettit Copper-Guard	1048	Shelter Island Boatyard	Nov	2015	33.26		
SDYC	2273	100	Sail	48	14.75	Low Copper	Interlux Ultra	Y3779F	Driscoll	Jun	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2274	85	Power	36	13	Low Copper	Pettit Trinidad1871d SR Pro	1871	KKMI Boatyard Richmond, Ca	Feb	2020	55	60061-94-ZB	DPR active
SDYC	2275	95	Sail	32	7	Low Copper	Pettit Vivid-3	1861	Driscoll	Jun	2018	25	60061-116-AA	Port Supplied Reference
SDYC	2276	98	Power	26.7	9.5	Low Copper	Interlux Bottomkote	10397	Knight & Carver	Jun	2009	42.75		Port Supplied Reference
SDYC	2277	98	Power	48	14	Low Copper	Purchased Mar 2017	A1088G		Mar	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2278	86	Power	33	11	Low Copper	Interlux Ultra	Y3779F	Schock Boats (Manufacturer)	Jan	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2279	99	Power	21	8	Low Copper	Pettit Trinidad	1271	Shelter Island Boatyard	Aug	2019	55	60061-94-ZB	DPR active
SDYC	2280	95	Sail	30	10.5	Low Copper	Proline 1088-6	A10886	Shelter Island Boatyard	Sept	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2281	96	Power	38	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2282	99	Power	44	13	Low Copper	Interlux Ultra	Y3779F	Marine Group/South Bay	Jun	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2283	97	Power	48.6	16	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Feb	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2284	75	Power	46	14.6	Low Copper	Pettit Trinidad Black	A1088G	Self Applied	Aug	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2285	99	Sail	33	11.4	Low Copper	Trinidad SR	A1877G	Old Kettenberg Yard	Jun	2006	60	60061-94-ZD	Port Supplied Reference
SDYC	2286	95	Power	39.9	14.2	Low Copper	UNK Red Oxide	97N	Shelter Island Boatyard	Jun	2019	67	26883-7-AA	DPR active
SDYC	2287	99	Sail	39.3	13	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2014	55	2693-212-AA	Port Supplied Reference
SDYC	2288	97	Sail	28	9.3	Non Copper	Coppercoat	85396-1-AA	Driscoll	Apr	2013	0		
SDYC	2289	99	Power	50	15	Low Copper	Interlux Calif Bottomkote-7	YBA143	Outside SD County	Oct	2018	67	2693-18-ZA	Port Supplied Reference
SDYC	2290	86	Power	53	14	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Aug	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2291	91	Power	39.9	14.2	Low Copper	UNK Red Oxide	97N	Shelter Island Boatyard	Jun	2019	67	26883-7-AA	DPR active
SDYC	2292	98	Power	48	15	Low Copper	Interlux Ultra Black	Y3779F	Shelter Island Boatyard	Apr	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2293											67		
SDYC	2294	92	Sail	37	13.5	Low Copper	Pettit Trinidad Red	A1688G	Driscoll	Feb	2020	33	60061-94-ZB	DPR active
SDYC	2295	100	Sail	50	10	Low Copper	Pettit Vivid - 3	1861	Driscoll	Dec	2018	25	60061-116-AA	Port Supplied Reference
SDYC	2296	100	Sail	42	12	Copper	Interlux Bottomkote	10397	Shelter Island Boatyard	Mar	2020	42.75		Port Supplied Reference
SDYC	2297	100	Sail	32	11	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jun	2010	67	60061-94-ZB	Port Supplied Reference
SDYC	2298	98	Power	26	9	Low Copper	Trinidad VOC Black	1878	The Boat Yard, MDR	Jan	2013	75.8		Port Supplied Reference
SDYC	2299	86	Sail	40	9	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Mar	2015	65		Port Supplied Reference
SDYC	2300	98	Power	33	11.7	Low Copper	Pettit Trinidad Black	1871	Shelter Island Boatyard	Nov	2020	65	60061-94-ZB	Port Supplied Reference
SDYC	2301	93	Sail	37	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Sept	2011	55	2693-212-AA	Port Supplied Reference
SDYC	2302	100	Sail	32	11	Low Copper	Pettit Z-Spar Protector	B-94	Shelter Island Boatyard	May	2016	65		Port Supplied Reference
SDYC	2303	99	Sail	44.9	13	Low Copper	Interlux Bottomkote Pro	79	Nielsen Beaumont	Feb	2017	22		Port Supplied Reference
SDYC	2304	90	Sail	40	12	Non Copper	Sea Speed V 10 X - Clear		Shelter Island Boatyard	Mar	2020	0		
SDYC	2305	90	Power	70	19	Low Copper	SeaHawk AF33	3345	Marine Group / South Bay	Feb	2017	33	44891-12-AA	Port Supplied Reference
SDYC	2306	100	Sail	31.6	9.3	Low Copper	Proline 1088 Red	A10886	Shelter Island Boatyard	Mar	2016	60	60061-94-ZB	Port Supplied Reference
SDYC	2307	99	Power	34	12.3	Low Copper	Nautical Super Proguard NAU 770	NAU770	Nielsen Beaumont	Jun	2016	55	60061-64	Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SDYC	2308	97	Sail	40.1	12	Low Copper	Trinidad Blue 1271	1271	Shelter Island Boatyard	Nov	2020	55	60061-94-ZD	DPR active
SDYC	2309	96	Sail	32	6.7	Low Copper	Interlux Calif Bottomkote - 7	YBA143	Koehler	Jul	2016	35	2693-18-ZA	Port Supplied Reference
SDYC	2310	96	Sail	48	14	Low Copper	SeaHawk AF33	3345	Outside SD County	May	2019	33	44891-12-AA	DPR active
SDYC	2311	0	Power	33	11.5	Non Copper	Interlux Ultra-Kote Antifouling	Y3449F	Marine Group Boat Works	Aug	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2312	71	Sail	40	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	May	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2313	100	Sail	34	11.5	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Feb	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2314	95	Sail	55	16	Low Copper	Pettit Hydrocoat Antifouling Black	1840	Nielsen Beaumont	Jan	2019	40.43	60061-87-ZI	Port Supplied Reference
SDYC	2315	99	Power	42	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2316	100	Power	43	14	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	Jul	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2317	96	Power	34	11	Low Copper	Pettit Horizons	1850	Driscoll	Jul	2016	40.5	60061-101-AA	Port Supplied Reference
SDYC	2318	93	Power	52.8	15	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Feb	2014	55	2693-212-AA	Port Supplied Reference
SDYC	2319	95	Sail	35	11	Non Copper	Epoxy	V127/A			N/A	0		
SDYC	2320	100	Sail	36	12	Low Copper	Pettit Trinidad Pro	1271	Driscoll	Aug	2020	55	60061-94-ZB	DPR active
SDYC	2321	0	sail	22	9	Non Copper	Interlux		Shelter Island Boatyard	Feb	2016	65		
SDYC	2322	90	Power	25.5	7	Non	No Bottom Paint				N/A	0		
SDYC	2323	100	Power	24	9	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Nov	2018	60	60061-94-ZB	Port Supplied Reference
SDYC	2324	0	Sail	29.11	10.1	Copper	Interlux Bottomkote	10397	Shelter Island boatyard	May	2018	42.75		Port Supplied Reference
SDYC	2325	94	Electric	23	7.2	Low Copper	Interlux Ultra	Y3779F	Driscoll	Apr	2017	67	2693-212-AA	Port Supplied Reference
SDYC	2328	95	Power	37	12	Non Copper	Pacifica Plus	YBB263	Outside San Diego County	Jun	2017	0		
SDYC	2329	99	Power	30	10.3	Low Copper	Interlux Ultra	Y3449F	Shelter Island Boatyard	Jun	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2330	100	Sail	36	11	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Feb	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2331	95	Sail	41.8	12.5	Low Copper	Pettit-Vivid 3	1861	Driscoll	Mar	2018	25	60061-116-AA	Port Supplied Reference
SDYC	2332	100	Power	38	13.5	Low Copper	Purchased June 2014				2017	67		
SDYC	2333	96	Power	63	15.8	Low Copper	Interlux Ultra Black	Y3779F	Nielsen Beaumont	Jun	2015	55	2693-212-AA	Port Supplied Reference
SDYC	2334	97	Power	35	11	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	May	2019	50	2693-212-AA	Port Supplied Reference
SDYC	2335	100	Sail	39.5	12.6	Low Copper	Ultrakote-6	Y3669U	Shelter Island Boatyard	Oct	2015	67		Port Supplied Reference
SDYC	2336	99	Sail	48	14	Low Copper	Proline 1088-6	A1088G	Outside SD County	Apr	2019	60	60061-94-ZB	Port Supplied Reference
SDYC	2337											67		
SDYC	2338	99	Sail	34	11	Copper	Pettit Z-Spar Protector	B-94	Driscoll	Oct	2018	65		Port Supplied Reference
SDYC	2339	94	Sail	31.1	6	Low Copper	Pettit Vivid Blue	1261	Driscoll	Nov	2017	25	60061-116-AA	Port Supplied Reference
SDYC	2340	99	Sail	40	13	Non Copper	VC Performance Epoxy	V127/A	Shelter Island Boatyard	Jan	2018	0		
SDYC	2341	99	Power	34	11.5	Low Copper	Nautical, Super Proguard, Modified Epoxy	NK52	Nielsen Beaumont	Oct	2016	33.4	2693-70-ZA	Port Supplied Reference
SDYC	2342	95	Power	42	13.5	Low Copper	Interlux Ultra Blue Paint	Y3669F	Shelter Island Boatyard	Jul	2017	67	2693-212-AA	Port Supplied Reference
SDYC	2343	100	Sail	28	9.3	Non Copper	Coppercoat	85396-1-AA	Driscoll	Apr	2013	0		
SDYC	2344	100	Sail	27	9	Low Copper	Interlux Ultra	Y3779F	Driscoll Mission Bay	Jul	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2345	97	Sail	31	7	Non Copper	Intersleek-8	FXA979/A	Driscoll	Jun	2012	0		
SDYC	2346	100	Sail	40	12.1	Low Copper	Pettit 1271 Trinidad Blue	1271	Shelter Island Boatyard	Aug	2019	55	60061-94-ZB	DPR active
SDYC	2347	93	Power	23	8.6	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	Dec	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2348	100	Power	42	13.5	Low Copper	Trinidad Pro-7	A1088G	Driscoll	Aug	2014	60	60061-94-ZB	Port Supplied Reference
SDYC	2349	92	Power	25	6	Low Copper	Interlux Micron	5693	Shelter Island Boatyard	Apr	2018	35		Port Supplied Reference
SDYC	2350	100	Power	31	10	Non Copper	Epoxy Bottom	V127/A	Shelter Island Boatyard	Sept	2014	0		Port Supplied Reference
SDYC	2351	97	Power	26	9	Low Copper	Interlux Ultra	Y3779F	Outside SD County	Jan	2020	67	2693-212-AA	Port Supplied Reference
SDYC	2352	0	Sail	25.5	8	Low Copper	Purchased Aug 2017				2017	65		
SDYC	2353	98	Sail	52	14	Low Copper	Interlux Ultra	Y3779F	Driscoll	Jun	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2354											65		
SDYC	2355	78	Sail	40	12	Low Copper	Interlux Epoxycop	K51	Shelter Island Boatyard	Jun	2020	42.75		
SDYC	2356	100	Sail	62	35.7	Low Copper	VC Offshore Black	V118	New England Boat Works, Portsmouth, RI	July	2016	41.19		Port Supplied Reference
SDYC	2357	99	Power	47.3	14.9	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2358	100	Power	38	13	Low Copper	Interlux Calif Bottomkote - 7	YBA143	Outside SD County	May	2019	35	2693-18-ZA	Port Supplied Reference
SDYC	2359	100	Sail	33	10	Low Copper	Interlux Ultra	Y3779F	Driscoll	May	2014	55	2693-212-AA	Port Supplied Reference
SDYC	2360	98	Power	50	15.8	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Aug	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2362	95	Power	33	10	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Feb	2017	65		Port Supplied Reference
SDYC	2363	83	Sail	47	14	Low Copper	Trinidad Pro-7	A1088G	Shelter Island Boatyard	Oct	2020	67	60061-94-ZB	Port Supplied Reference
SDYC	2364	96	Sail	34	11	Non Copper	Bluewater Shelter Island	8242	Shelter Island boatyard	Apr	2015	0	74681-28-ZA	
SDYC	2365	100	Power	42	13	Low Copper	Pettit Trinidad Pro HD	1871	Shelter Island Boatyard	Jun	2019	55	60061-94-ZB	DPR active
SDYC	2366	79	Sail	57	16	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	May	2020	60	60061-94-ZB	Port Supplied Reference
SDYC	2367	99	Sail	79	16.4	Low Copper	Proline 1088-6	A1088G	Ventura Harbor Boatyard	Nov	2014	60	60061-94-ZB	Port Supplied Reference
SDYC	2369	96	Power	45.7	14.5	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Aug	2016	65		Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SDYC	2370	100	Sail	37	14	Low Copper	Z-Spar Bottom Pro Gold	411127906	Driscoll	Jun	2009	40	60061-117-ZE	Port Supplied Reference
SDYC	2371	99	Power	28	10	Low Copper	Pettit Single Season	1281G	Shelter Island Boatyard	Mar	2020	37.5	60061-71-ZB	DPR active
SDYC	2372	100	Power	40	12.5	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Oct	2016	65		Port Supplied Reference
SDYC	2373	0	Power	28	8	Low Copper	Interlux Ultra Black	Y3779F	Protector Services	Nov	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2374	100	Sail	35	11	Non Copper	Interlux Epoxycop	V127/A	Applied by manufacturer	Sept	2001	0		
SDYC	2375	98	Power	26	9.2	Low Copper			Purchased Mar 2017		2017	65		
SDYC	2376	97	Power	37	12	Low Copper	Pettit Trinidad Pro HD	1871	Shelter Island Boatyard	Jul	2019	55	60061-94-ZB	DPR active
SDYC	2377	93	Power	57	14.5	Copper	Interlux Bottomkote	10397	Shelter Island Boatyard	Sep	2019	42.75		Port Supplied Reference
SDYC	2378	98	Sail	33.1	9.7	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Mar	2013	55	2693-212-AA	Port Supplied Reference
SDYC	2379	98	Sail	36	11.9	Low Copper	Trinidad	1271	Kohler	Dec	2020	55	60061-94-ZB	DPR active
SDYC	2380	97	Power	42	13.6	Low Copper	Interlux Ultra	Y3779F	Koehler	Oct	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2381	98	Sail	32	7	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2382	100	Power	31	10.3	Low Copper	Interlux Ultra	Y3779F	SD Boatyard	May	2016	67	2693-212-AA	Port Supplied Reference
SDYC	2383	100	Power	33	12	Low Copper	Interlux Ultra Black	Y3779U	Driscoll	Feb	2017	67		Port Supplied Reference
SDYC	2384	100	Power	45.1	13.8	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Oct	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2385	99	Sail	38	12	Low Copper	Interlux Ultra	Y3779F	Marine Group / South Bay	Jun	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2386	100	Power	30.5	10.6	Low Copper	Interlux Bottomkote Pro	79	Shelter Island Boatyard	Aug	2014	22		Port Supplied Reference
SDYC	2387	100	Power	42	14	Low Copper	Trinidad HD	1271	Outside SD County	Oct	2020	67	60061-94-ZD	DPR active
SDYC	2388	97	Power	42	15	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Feb	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2389	98	Power	44	15	Low Copper	Seaguard Black	P30BQ12	Driscoll	Feb	2017	48		Port Supplied Reference
SDYC	2390	88	Power	25	8	Low Copper	Pettit Vivid-3	1861	Driscoll - Mission Bay	Apr	2016	25	60061-116-AA	Port Supplied Reference
SDYC	2391	91	Sail	41	10.5	Low Copper	Trinidad SR	A1877G	Driscoll	Jun	2014	65	60061-94-ZD	Port Supplied Reference
SDYC	2392	100	Power	31	25	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Dec	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2393		Vacant									0		
SDYC	2394	30	Power	23.5	8.5	Low Copper	Zspar Bottom Pro Gold Black	411127906	Driscoll	Aug	2018	67	60061-117-ZE	Port Supplied Reference
SDYC	2395	100	Sail	32	10	Low Copper	Pettit Z-spar Protector	B-94	Shelter Island Boatyard	May	2012	65		Port Supplied Reference
SDYC	2396	100	Power	42	13.6	Low Copper	Proline 1088-6 Black	A1088G	Shelter Island Boatyard	Aug	2017	60		
SDYC	2397	97	Power	21	8	Low Copper	Sharkskin-7	6145	Shelter island Boatyard	Jun	2013	45	44891-11-AA	Port Supplied Reference
SDYC	2398	86	Sail	30	11	Low Copper	Proline 1088-6	A10886	Shelter Island Boatyard	Aug	2015	60	60061-94-ZB	Port Supplied Reference
SDYC	2399	96	Sail	31.6	9.3	Low Copper	Proline 1088 Red	A10886	Shelter Island Boatyard	Mar	2016	60	60061-94-ZB	Port Supplied Reference
SDYC	2400	72	Sail	44	9.1	Low Copper	NAU 993 40% copper ablative	NAU993	Nielsen Beaumont	Jun	2016	41.97		Port Supplied Reference
SDYC	2401	99	Sail	34	11.5	Low Copper	Pettit Z-Spar Pro Gold	411187706	South Coast Shipyard / Newport Beach	Sept	2017	65	60061-94-ZE	Port Supplied Reference
SDYC	2402	99	Sail	32	6	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Mar	2015	60	60061-94-ZB	Port Supplied Reference
SDYC	2403	100	Sail	46	18.6	Low Copper	Z-Spar Bottom pro	A41187706	Driscoll	Aug	2017	65		Port Supplied Reference
SDYC	2405	97	Power	27	9	Copper			Purchased August 2020			65		
SDYC	2406	98	Power	47.9	15.5	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Nov	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2407	98	Power	36	12.5	Low Copper	Nautical Proguard Ablative	NAU993	Nielsen Beaumont	Nov	2016	41.97		Port Supplied Reference
SDYC	2408	90	Power	40	14	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll	Jul	2016	65		Port Supplied Reference
SDYC	2409	87	Sail	33.2	10	Low Copper	Boat Purchased in 2016				2016	65		
SDYC	2410	95	Power	58	16	Low Copper	Interlux Ultra Cote 3779U	Y3779U	Shelter Island Boatyard	Aug	2017	57		Port Supplied Reference
SDYC	2411	98	Sail	36.1	10.1	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2412	97	Sail	47	11.2	Low Copper	Interlux Micron Extra	5694	Driscoll Boatworks	May	2018	35		Port Supplied Reference
SDYC	2413	99	Sail	53	14	Copper	Interlux VC Offshore	V118	Outside SD County	Oct	2018	41.19		Port Supplied Reference
SDYC	2414		Power	43.9	14.6	Low Copper	Interlux Micron Ultra / blue	YBA472	Driscoll Shelter Island	May	2019	35	2693-187-ZE	Port Supplied Reference
SDYC	2415	100	Sail	40	12	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jul	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2416	99	Sail	40	12	Copper	Interlux Ultrakote Blue	2669N	Shelter Island Boatyard	2	2019	67		Port Supplied Reference
SDYC	2417	99	Sail	33.9	11.3	Low Copper	Pettit-Z Spar	411187706	Marine Group	Jun	2013	65	60061-94-ZE	Port Supplied Reference
SDYC	2418	100	Power	31	10	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2419	80	Sail	30	7	Low Copper	Pettit Black 1088	A1088G	Driscoll Mission Bay	Jun	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2420	94	Sail	30	11	Low Copper	Pettit Trinidad HD	1871	Shelter Island Boatyard	Jun	2019	55	60061-94-ZB	Port Supplied Reference
SDYC	2421	98	Power	27	8	Low Copper	Pettit Vivid White	11161	Nielsen Beaumont	Aug	2017	25	60061-116-AA	Port Supplied Reference
SDYC	2422	0	Sail	44	13	Non Copper	Interlux Ultra	Y3779F	Driscoll	Apr	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2423	91	Power	23	8.5	Low Copper	Interlux Calif Bottomkote-7	YBA143	Driscoll	Dec	2015	35	2693-18-ZA	Port Supplied Reference
SDYC	2424	98	Power	20	8	Low Copper	Z-spar bottom pro blue	411187706	Driscoll	Aug	2019	65	60061-94-ZE	Port Supplied Reference
SDYC	2425	98	Sail	36	6	Copper	Trinidad VOC Blue	1378	Koehler	Oct	2019	65		Port Supplied Reference
SDYC	2426	100	Power	35.7	12.6	Low Copper	Trinidad Black	A1877G	Shelter Island Boatyard	May	2016	60	60061-94-ZD	Port Supplied Reference
SDYC	2427	100	Sail	40	12.5	Low Copper	Pettit Vivid-3	1861	Driscoll	Mar	2018	25	60061-116-AA	Port Supplied Reference
SDYC	2428	100	Power	59.5	16.5	Copper	Interlux Ultra B 3669	3669	Shelter Island Boatyard	Jul	2018	55		Port Supplied Reference
SDYC	2429	98	Power	32.4	12.3	Non Copper	Ceramcoat	99M	Shelter Island Boatyard	Jun	2008	0		

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SDYC	2430	96	Sail	36	11.9	Low Copper	Proline Y1088C- 01 Blue	Y1088C-01	Shelter Island Boatyard	Jan	2014	67		Port Supplied Reference
SDYC	2431	88	Sail	42	13	Low Copper	SeaHawk Tropiccoat	2145GL	Boatyard in Mexico	Mar	2019	75.8	44891-10-ZA	DPR active
SDYC	2432	81	Sail	39.6	12	Low Copper	Ultrakote-6	Y3669U	Shelter Island Boatyard	Jan	2014	57		Port Supplied Reference
SDYC	2433		Vacant									0		
SDYC	2434	100	Power	53	19	Copper	Interlux Bottomkote	10397	Marine Group / South Bay	Nov	2018	42.75		Port Supplied Reference
SDYC	2435	100	Power	48	14.8	Low Copper	Trinidad-6	A1088G	Driscoll	Oct	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2436	84	Power	31	10	Copper	Interlux Bottomkote	10397	Shelter Island Boatyard	Jun	2018	42.75		Port Supplied Reference
SDYC	2437	99	Sail	31	10	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2015	55	2693-212-AA	Port Supplied Reference
SDYC	2438	98	Power	33.1	9.7	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Dec	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2439	97	Sail	43.8	13.6	Low Copper	Black Widow by Pettit Paint	1862	Shelter Island Boatyard	Aug	2016	25		
SDYC	2440	97	Sail	52	14	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jan	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2441	100	Power	17	6	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2016	67	2693-212-AA	Port Supplied Reference
SDYC	2442	99	Electric	21	7	Low Copper	Interlux Fiberglass Bottomkote Aqua	YBA579	Shelter Island Boatyard	Jun	2014	46		Port Supplied Reference
SDYC	2443	99	Power	38.6	12.3	Low Copper	Interlux Ultra Green	Y3559F	Shelter Island Boatyard	Nov	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2444	98	Power	25	6.5	Low Copper	Nautical Super Proguard Modified Epoxy - Blue	NAU770	Nielsen Beaumont	Mar	2017	55	23566-20-ZR	Port Supplied Reference
SDYC	2445	98	Power	35	11	Low Copper	Interlux Bottomkote	10397	Koehler	Nov	2016	42.75		Port Supplied Reference
SDYC	2446	83	Power	39	14	Low Copper	Zspar Bottom Pro Gold	411187706	Driscoll	Oct	2017	65	60061-94-ZE	Port Supplied Reference
SDYC	2447	95	Power	68	18	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2448	89	Sail	50	11	Low Copper	Interlux Ultra	Y3779F	Koehler	Nov	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2449	100	Sail	37	12	Low Copper	Pettit Trinidad HO	1271	Shelter Island Boatyard	Nov	2019	55	60061-64-ZB	DPR active
SDYC	2450	99	Sail	33	11	Low Copper	Nautical Proguard Ablative Blue	NAU990	Nielsen Beaumont	Jul	2017	41.97		
SDYC	2451	100	Sail	31.1	6	Low Copper	Pettit Vivid Blue	1261	Driscoll	Nov	2017	25	60061-116-AA	Port Supplied Reference
SDYC	2452	100	Sail	35	10	Low Copper	Interlux Ultra	Y3779F	Koehler	Jun	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2453	83	Sail	35	9	Low Copper			Purchased 2016		2016	65		
SDYC	2454	100	Sail	39.2	10.8	Low Copper	Pettit Z-Spar Protector	B-94	Driscoll Mission Bay	Aug	2017	67		Port Supplied Reference
SDYC	2455	96	Power	39	13	Low Copper	Zspar Bottom Pro Gold	411187706	Driscoll Boat Works	Mar	2019	65	60061-94-ZE	Port Supplied Reference
SDYC	2456	98	Sail	30	10	Non Copper	Intersleek 900	FXA979/A	Driscoll Mission Bay	Apr	2017	0		
SDYC	2457	100	Sail	36.4	11.9	Low Copper	Interlux Ultrakote	2779N	Shelter Island Boatyard	Jan	2017	66.5		Port Supplied Reference
SDYC	2458	90	Sail	36	12	Non Copper	Ceram-kote	99M	Shelter Island Boatyard	May	2018	0		
SDYC	2459	99	Sail	40	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Nov	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2460	98	Sail	35	13	Low Copper	Nautical Super Proguard NAU 770	NAU770	Nielsen Beaumont	Sept	2016	55	23566-20-ZR	Port Supplied Reference
SDYC	2461	92	Sail	48	13	Low Copper	Interlux Ultra	Y3779F	Washington	6	2020	65	2693-212-AA	Port Supplied Reference
SDYC	2462	99	Sail	42.5	13.5	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2463	92	Power	42	14.5	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Mar	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2464	96	Power	35.7	12.6	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Apr	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2465	99	Power	32	11.5	Low Copper	Interlux Bottomkote	10397	Koehler	Jan	2017	42.75		Port Supplied Reference
SDYC	2466	96	Sail	41	12.9	Low Copper	Interlux Ultra - Green	Y3559F	Shelter Island Boatyard	Jun	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2467	86	Sail	32.7	9.15	Low Copper	Interlux Ultra	Y3779F	Koehler Kraft	Jul	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2468	99	Power	32.9	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Dec	2017	67	2693-212-AA	Port Supplied Reference
SDYC	2469	82	Sail	34.1	10	Low Copper	Pettit-Vivid-3	1861	Koehler	May	2015	25	60061-116-AA	Port Supplied Reference
SDYC	2471	94	Sail	32	6.7	Low Copper	Interlux Ultra	3779	Koehler	Oct	2016	55		Port Supplied Reference
SDYC	2473	0	Power	22	8	Low Copper	Woolsey Defense Black	4301G	Nielsen Beaumont	Jul	2017	60	60061-117-ZA	
SDYC	2474		Vacant			Low Copper						65		
SDYC	2476	92	Power	62	16	Low Copper	Interlux Ultra Black	Y3779F	Shelter Island Boatyard	Jul	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2477		Vacant									0		
SDYC	2478	100	Power	32	11	Low Copper	Purchased Oct 2013				2016	67		
SDYC	2479	80	Sail	32	6.7	Low Copper	Interlux Ultra Blue	Y3669F	Self Applied	April	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2480	97	Power	46	14	Copper	Pettit Pro	A1108206	Marine Group Boat Works	Jul	2018	65		Port Supplied Reference
SDYC	2481	99	Sail	34.5	11	Low Copper	VP Performance Epoxy	V127/A	Driscoll Mission Bay	Apr	2011	0		
SDYC	2482	99	Sail	38	20	Low Copper	Pettit z-Spar Protector	B-94	Driscoll	Mar	2017	65		Port Supplied Reference
SDYC	2483	98	Power	40	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	May	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2484	100	Sail	39	12.6	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Oct	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2485	95	Power	37	13	Low Copper	Ultrakote-6	Y3669U	Koehler	Jun	2017	57		Port Supplied Reference
SDYC	2486	97	Sail	52	14	Low Copper	Micron Extra-2	5690	Other	Jan	2020	35		Port Supplied Reference
SDYC	2487	98	Power	33.6	10.3	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2015	55	2693-212-AA	Port Supplied Reference
SDYC	2488	80	Power	21	8	Low Copper	Interlux Ultra	Y3779F	Driscoll Mission Bay	Aug	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2489	99	Power	20	8	Low Copper	Z-spar bottom pro blue	411187706	Driscoll	Aug	2019	65	60061-94-ZE	Port Supplied Reference
SDYC	2490	100	Sail	40	12	Copper	Pettit Z-Spar Protector	B-94	Driscoll	Oct	2019	65		Port Supplied Reference



Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SDYC	2491	92	Power	42	13.9	Non Copper	Interlux Interspeed	BZA646	Shelter Island Boatyard	Apr	2018	0		
SDYC	2492	99	Power	48	15	Low Copper	Trinidad	1271	Shelter Island Boatyard	Nov	2019	67	60061-94-ZB	DPR active
SDYC	2493	94	Sail	50	12.2	Low Copper	Seaguard-2	P30BQ12	Driscoll	Mar	2017	48		Port Supplied Reference
SDYC	2494	99	Power	34	11	Low Copper	Interlux Ultra	Y3779F	Outside SD County	Jul	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2495	98	Sail	32	6.7	Low Copper	Interlux Ultra Green	Y3559F	Koehler	May	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2496	78	Power	26	8	Low Copper	ABC 3-2	ABC3-92	Outside SD County	Feb	2010	48		Port Supplied Reference
SDYC	2497	98	Sail	42	12	Low Copper	Pettit Ultima	1092	Shelter Island Boatyard	Oct	2020	40	60061-71-ZB	Port Supplied Reference
SDYC	2498	99	Power	35	11	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Mar	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2499	95	Power	37	13	Low Copper	Interlux Ultra	Y3779F	Koehler	Dec	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2500	94	Sail	50	13.8	Low Copper	SeaHawk AF33	3345	Shelter Island Boatyard	Apr	2006	33	44891-12-AA	Port Supplied Reference
SDYC	2501	84	Sail	38	11	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2502	92	Power	38.2	13.4	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	April	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2503	98	Power	43	14	Non Copper	Bluewater Shelter Island	8241	Shelter Island Boatyard	Mar	2018	0		
SDYC	2504	89	Sail	21	7	Low Copper	Pettit Vivid Black	1861	Koehler Kraft	Oct	2018	25	60061-116-AA	Port Supplied Reference
SDYC	2505	65	Sail	45	13	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2506	99	Sail	39.7	11.8	Low Copper	Pettit Vivid White	11161	Shelter Island Boatyard	Jan	2011	25	60061-116-AA	Port Supplied Reference
SDYC	2507	100	Power	36.3	16.5	Non Copper	Intersleek 900	FXA979/A	Shelter Island Boatyard	Jun	2013	0		
SDYC	2508	75	Power	51	14.4	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2510	100		32.5	11.75	Low Copper	Boat Purchased Apr 2017				2017	65		
SDYC	2511	97	Power	38.4	13.8	Low Copper	Interlux Ultrakote Black	2779N	Shelter Island Boatyard	Nov	2015	66.5		Port Supplied Reference
SDYC	2512	88	Power	73	16.4	Low Copper	Pettit Ultima	1092	Driscoll	Nov	2018	40	60061-117-ZB	Port Supplied Reference
SDYC	2513	99	Power	45.3	14.3	Low Copper	Interlux UltraKote Black	2779N	Shelter Island Boatyard	Mar	2017	67		Port Supplied Reference
SDYC	2514	95	Sail	37	11.8	Low Copper	Interlux Ultra-Kote Black	Y3779U	Driscoll Mission Bay	Feb	2017	57		Port Supplied Reference
SDYC	2516	92	Sail	33.3	10	Non Copper	Ceram-kote	99M	Shelter Island Boatyard	Oct	2014	0		
SDYC	2517	95	Power	26.5	8.5	Low Copper	Pettit-Vivid 3	1861	Driscoll	Jul	2016	25	60061-116-AA	Port Supplied Reference
SDYC	2518		Sail	40	12	Copper	Pettit Unepoxy Tropic Formula	1628	Shelter Island Boatyard	Dec	2018	53		Port Supplied Reference
SDYC	2519	95	Power	38	12	Low Copper	Interlux Ultra	Y3779F	Marine Group / South Bay	Oct	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2520	99	Sail	28	10	Low Copper	Interlux Ultra	Y3779F	Koehler	Oct	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2521	97	Sail	49.5	14.8	Low Copper	Interlux Bottomkote	10397	Shelter Island Boatyard	Apr	2016	42.75		Port Supplied Reference
SDYC	2522	100	Power	59	16	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Nov	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2523	94	Sail	36	13	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Feb	2014	55	2693-212-AA	Port Supplied Reference
SDYC	2524	100	Sail	30	10	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	July	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2525	98	Sail	52	14.8	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jul	2005	60	60061-94-ZB	Port Supplied Reference
SDYC	2526	92	Power	27.5	9.5	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Dec	2011	55	2693-212-AA	Port Supplied Reference
SDYC	2527	95	Sail	41	13	Low Copper	Interlux Bottomkote	10397	Driscoll	Oct	2015	42.75		Port Supplied Reference
SDYC	2528											65		
SDYC	2529	96	Sail			Low Copper	Interlux Ultra Black	Y3779F	Shelter Island Boatyard	Apr	2015	55	2693-212-AA	Port Supplied Reference
SDYC	2530	100	Sail	46.4	9.9	Low Copper	Interlux Ultra-Coat	2779N	Shelter Island Boatyard	Apr	2017	65		Port Supplied Reference
SDYC	2531	100	Sail	45	13.5	Low Copper	Zspar Bottom Pro Gold Blue	411187706	Driscoll	Oct	2018	65	60061-94-ZE	Port Supplied Reference
SDYC	2532	77	Power	22	8	Low Copper	Interlux Ultra	Y3779F	Driscoll	Jul	2020	55	2693-212-AA	Port Supplied Reference
SDYC	2533	9	Sail	35	11.7	Low Copper	Z-Spar Gold	A1088G	Driscoll	Aug	2020	60	60061-94-ZB	Port Supplied Reference
SDYC	2534	100	Sail	52	14	Low Copper	Trinidad SR	A1877G	Shelter Island Boatyard	May	2018	60	60061-94-ZD	Port Supplied Reference
SDYC	2535	94	Power	47.1	15.6	Low Copper	Sharkskin-7	6145	SD Boatyard	Nov	2012	45	44891-11-AA	Port Supplied Reference
SDYC	2536	75	Sail	42	13	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Dec	2013	60	60061-94-ZB	Port Supplied Reference
SDYC	2537	99	Power	36	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Oct	2015	55	2693-212-AA	Port Supplied Reference
SDYC	2538	73	Sail	28	9.6	Low Copper	Pettit Vivid White	11161	Shelter Island Boatyard	Jan	2015	25	60061-116-AA	Port Supplied Reference
SDYC	2539	96	Power	38	13	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jun	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2540	98	Power	40	14	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Apr	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2541	79	Power	35	10	Low Copper	Purchased Oct 2017				2017	65		
SDYC	2542	95	Power	32	9	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jul	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2543	100	Power	36.3	16.5	Non Copper	Intersleek 900	FXA979/A	Shelter Island Boatyard	Jun	2013	0		
SDYC	2544	99	Power	33	9	Low Copper	Interlux Ultra	Y3779F	Other	May	2019	55	2693-212-AA	Port Supplied Reference
SDYC	2545	100	Sail	28	9.5	non Copper	Ceram-kote	99M	Self applied	Jun	2010	0		
SDYC	2546	96	Sail	50	13.1	Low Copper	Pettit Vivid White	11161	Shelter Island Boatyard	Sept	2020	25	60061-116-AA	Port Supplied Reference
SDYC	2547	40	Sail	47	14.8	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jul	2015	60	60061-94-ZB	Port Supplied Reference
SDYC	2548	96	Sail	39	13.6	Low Copper	Purchased Jun 2016					67		
SDYC	2549	78	Sail	37.5	13	Low Copper	Hydrocoat	1840	Nielsen Beaumont	Jul	2015	40.3	60061-87-ZI	Port Supplied Reference
SDYC	2550	93	Sail	48	12	Low Copper	Zspar Bottom Pro Blue	411187706	Driscoll	Oct	2019	65	60061-94-ZE	Port Supplied Reference
SDYC	2551	100	Electric	19	7	Low copper			Purchased Feb 2017		2017	65		

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SDYC	2552	98	Power	17	6	Low Copper	Trinidad SR	A1877G	Shelter Island Boatyard	Jun	2019	60	60061-94-ZD	Port Supplied Reference
SDYC	2553	100	Sail	39	11	Low Copper	Pettit Trinidad Blue/Green	A1377G	Shelter island Boatyard	Jan	2020	67	60061-94-ZD	Port Supplied Reference
SDYC	2554					Copper						65		
SDYC	2555	97	Power	47	14	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jun	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2556	100	Power	59	16	Low Copper	Pettit Trinidad Black	1871	Shelter Island Boatyard	Jun	2020	67	60061-94-ZB	DPR active
SDYC	2557	96	Sail	37	9	Low Copper	Trinidad Pro-7	A1088G	Koehler	Mar	2020	60	60061-94-ZB	Port Supplied Reference
SDYC	2558	70	Power	36	12.6	Low Copper	Purchased Aug 2016				2016	65		
SDYC	2559	100	Power	31	10	Copper	Awlstar	BP502	Driscoll	Jun	2018	40.36		Port Supplied Reference
SDYC	2560	100	Power	46	15	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	May	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2561	100	Power	25	8	Low Copper	Interlux Ultra Red	YBA472	Self Applied	Jan	2017	35	2693-187-ZE	Port Supplied Reference
SDYC	2562	96	Power	33.5	11.6	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Mar	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2563	95	Sail	34.5	11	Low Copper	Proline 1088-G	A1088G	Shelter Island Boatyard	Aug	2017	60	60061-94-ZB	Port Supplied Reference
SDYC	2564	99	Power	28.2	9.5	Low Copper	Pettit Vivid White	11161	Shelter Island Boatyard	Nov	2017	25	60061-116-AA	Port Supplied Reference
SDYC	2565	69	Sail	41	11	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jun	2019	60	60061-94-ZB	Port Supplied Reference
SDYC	2566											65		
SDYC	2567	98	Power	31.7	11.4	Low Copper	Woolsey Defense Black	4901	Nielsen Beaumont Boat Yard	Jul	2017	60	60061-117-ZA	Port Supplied Reference
SDYC	2568	100	Power	42	13	Low Copper	Interlux Ultra	Y3779F	Marine Group / South Bay	Apr	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2569	95	Power	17	7	Low Copper	Trilux 33-3	YBA060	Aquarius Yacht Services	Feb	2020	16.95	2693-203-AA	Port Supplied Reference
SDYC	2570	99	Sail	28.5	10	Low Copper	Proline 1088	A1088G	Shelter Island Boatyard	Aug	2016	67	60061-94-ZB	Port Supplied Reference
SDYC	2571	94	Sail	46	14	Low Copper	Proline 1088-6	A10886	Shelter Island Boatyard	Jun	2014	60	60061-94-ZB	Port Supplied Reference
SDYC	2572	97	Sail	36.4	12.5	Low Copper	Pettit Z-Spar Protector	B-94	Shelter Island Boatyard	Mar	2017	65		Port Supplied Reference
SDYC	2573	94	Power	36.3	11.9	Low Copper	Interlux Ultrakote	2779N	Shelter Island Boatyard	Apr	2016	66.5		Port Supplied Reference
SDYC	2574	98	Electric	18	7	Low Copper	Interlux Ultra - Blue	Y3669F	Shelter Island Boatyard	May	2018	55	2693-212-AA	Port Supplied Reference
SDYC	2575	81	Power	32.5	12.3	Low Copper	Interlux Ultra	Y3779F	Koehler	Feb	2011	55	2693-212-AA	Port Supplied Reference
SDYC	2576	100	Sail	26	7	Low Copper	Super KL-6	K93	Driscoll	May	2010	70.2		Port Supplied Reference
SDYC	2577	75	Power	17	5	Low Copper	Monterey	5445	Self Applied	Sept	2016	58		Port Supplied Reference
SDYC	2578	100	Sail	34	11	Low Copper	Z-Spar Bottom Pro Gold	411127906	Driscoll	Mar	2018	67	60061-117-ZE	Port Supplied Reference
SDYC	2579	90	Sail	47	14	Non Copper	SeaHawk AF33	3345	Shelter Island Boatyard	Aug	2015	33	44891-12-AA	Port Supplied Reference
SDYC	2580	100	Sail	32	5.1	Low Copper	Inerlux Ultrakote Blue	2669N	Koehler Kraft	Jul	2016	66.5		Port Supplied Reference
SDYC	2581	100	Power	35	10	Low Copper	Interlux Ultrakote	2779N	Shelter Island Boatyard	Jun	2016	66.5		Port Supplied Reference
SDYC	2582	97	Sail	72	15	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	Jul	2016	55	2693-212-AA	Port Supplied Reference
SDYC	2583	98	Power	37	10	Low Copper	Interlux Nautical Proguard red	NAU772	Driscoll	Jul	2019	55	2693-42-ZQ	DPR active
SDYC	2584	100	Sail	68	15	Low Copper	SeaHawk AF33	3445	Outside SD County	Jun	2020	47	44891-12-AA	Port Supplied Reference
SDYC	2585	100	Sail	48	13.2	Low Copper	VC Offshore Interlux	V117	Driscoll	Feb	2013	41.19		Port Supplied Reference
SDYC	2586	98	Power	34	12	Low Copper	Zspar Bottom Pro Blue	411187706	Shelter Island Boatyard	Dec	2019	65	60061-94-ZE	Port Supplied Reference
SDYC	2587	91	Sail	53	15.4	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jun	2012	60	60061-94-ZB	Port Supplied Reference
SDYC	2588	96	Power	35.5	13.3	Non Copper	Pettit Ultima Eco	1808	Driscoll	Jun	2018	0		
SDYC	2589	100	Sail	26	8.6	Low Copper	Z Spar Bottom Pro Gold	411127906	Driscoll	Feb	2018	40	60061-117-ZE	Port Supplied Reference
SDYC	2590	95	Power	34	12	Low Copper	Interlux Ultra Black	Y3779F	Self Applied	Oct	2020	67	2693-212-AA	Port Supplied Reference
SDYC	2591	98	Power	30	11	Low Copper	Micron Extra-2	5690	Driscoll	Jan	2018	35		Port Supplied Reference
SDYC	2592	100	Power	50	16.5	Low Copper	Interlux Ultra Blue	Y3669F	Shelter Island Boatyard	May	2019	67	2693-212-AA	Port Supplied Reference
SDYC	2593	98	Sail	27	9	Low Copper	Proline 1088-6	A1088G	Shelter Island Boatyard	Jan	2015	67	60061-94-ZB	Port Supplied Reference
SDYC	2594	100	Power	43	14	Low copper	Pettit Z-Spar Protector	B-94	Shelter Island Boatyard	Aug	2015	65		Port Supplied Reference
SDYC	2595											65		
SDYC	2596		Sail	53	13	Low Copper	Interlux Ultra Black	Y3779F	Koehler	Nov	2019	67	2693-212-AA	Port Supplied Reference
SDYC	2597	94	Electric	30	8.5	non Copper	Ceramcote	99M	Shelter Island Boatyard	Jun	2002	0		
SDYC	2598	100	Sail	31.1	7.6	Low Copper	Pettit Vivid-3	1861	Driscoll - Mssion Bay	May	2016	25	60061-116-AA	Port Supplied Reference
SDYC	2599	91	Sail	36.6	13.1	Low Copper	Interluc Ultra	Y3779F	Shelter Island Boatyard	May	2017	55	2693-212-AA	Port Supplied Reference
SDYC	2600	100	Sail	30	10.8	Low Copper	Pettit Zspar Bottom Pro Gold/Trinidad Pro	411187706	Driscoll	Oct	2017	65	60061-94-ZE	Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SGYC	3005	95	S	32.5	11.7	COPPER	PETTIT Z-SPAR	B-91	KOEHLER KRAFT	04	2018	65		Port Supplied Reference
SGYC	3010	50	S	44	12.6	LOW COPPER	INTERLUX ULTRA	Y3449F	SHELTER ISLAND BOAT YARD	10	2018	55	2693-212-AA	Port Supplied Reference
SGYC	3013	100	S	31.3	10.9	LOW COPPER	INTERLUX	Y3779F	SHELTER ISLAND BOAT YARD	11	2018	55	2693-212-AA	Port Supplied Reference
SGYC	3014	99	S	36	12	LOW COPPER	INTERLUX	Y3669F	SHELTER ISLAND BOAT YARD	05	2013	55		Port Supplied Reference
SGYC	3028	100	S	27	9	COPPER	INTERLUX ULTRA	3669	SHELTER ISLAND BOAT YARD	3	2020	55		Port Supplied Reference
SGYC	3030	100	S	36	12	COPPER	INTERLEX ULTRA	3669	SHELTER ISLAND BOAT YARD	04	2019	55		Port Supplied Reference
SGYC	3031	100	P	24	9	COPPER						65		Port Supplied Reference
SGYC	3033	100	P	43	13.7	LOW COPPER	Z-SPAR	B-91	KOEHLER KRAFT	01	2017	65		Port Supplied Reference
SGYC	3034	90	S	32.8	10.8	COPPER						65		
SGYC	3036	90	S	36	12	LOW COPPER	INTERLUX ULTRA BIO LUX	3669	KOEHLER KRAFT	13	2014	55		Port Supplied Reference
SGYC	3039	100	S	35	12	LOW COPPER	PETTIT TRINIDAD	1271	SHELTER ISLAND BOAT YARD	01	2020	65	60061-94-ZB	DPR Active
SGYC	3040	90	S	32.5	11.9	LOW COPPER	PETTIT ZSPAR	B-91	DRISCOLL BOAT WORKS	11	2016	65		Port Supplied Reference
SGYC	3041	100	S	30	10.8	LOW COPPER	Z-SPAR BOTTOM PRO	41127706	DRISCOLL	09	2017	65	60061-94-ZE	Port Supplied Reference
SGYC	3045		vacant				NO IN BOAT SLIP							
SGYC	3047	100	S	38	12	LOW COPPER			SHELTER ISLAND BOAT YARD	01	2012	67		
SGYC	3049	100	S	39.5	13	LOW COPPER	PROLINE	Y1088C-01	MARINE GROUP	03	2017	67		Port Supplied Reference
SGYC	3050	99	S	34	10	LOW COPPER				10	1995	65		
SGYC	3051	75	P	59	18	LOW COPPER	INTERLUX ULTRA COAT	Y3779U	SHELTER ISLAND BOAT YARD	01	2016	55		Port Supplied Reference
SGYC	3055	99	S	32	11	LOW COPPER	PETTIT SR 60	1032	SHELTER ISLAND BOAT YARD	10	2017	60		Port Supplied Reference
SGYC	3058	100	P	43	15	LOW COPPER	INTERLUX ULTRA	Y3669U	DRISCOLLS MISSION BAY	07	2006	55		Port Supplied Reference
SGYC	3062	90	S	39.8	12.6	LOW COPPER	PETTIT TRINIDAD	1671	SHELTER ISLAND BOAT YARD	8	2020	65	60061-94-ZB	DPR Active
SGYC	3073	98	S	32	10	LOW COPPER	PETTITE	B-91	DRISCOLL	04	2016	65		Port Supplied Reference
SGYC	3078	95	P	50.3	15.7	LOW COPPER	TRINIDAD HD	1871	SHELTER ISLAND BOAT YARD	01	2020	55	60061-94-ZB	DPR Active
SGYC	3080	95	S	32	10.9	LOW COPPER	PETTIT TRINIDAD HD	1871	SHELTER ISLAND BOAT YARD	06	2020	65	60061-94-ZB	DPR Active
SGYC	3082	100	P	30	8.5	COPPER	PETTIT TRINIDAD BLACK	1875	SHELTER ISLAND BOAT YARD	05	2019	65		Port Supplied Reference
SGYC	3088	95	S	35	12	LOW COPPER	INTERLUX MICRON EXTRA VOC	5692	DRISCOLL	05	2014	35		Port Supplied Reference
SGYC	3092	90	S	33.3	10	LOW COPPER	PRO LINE	Y1088C-01	SHELTER ISLAND BOAT YARD	12	2014	67		Port Supplied Reference
SGYC	3094	90	S	32	JPAU	LOW COPPER	INTERLUX ULTRA KOTE	Y3559F	SHELTER ISLAND BOAT YARD	07	2017	55	2693-212-AA	Port Supplied Reference
SGYC	3099	95	S	42	13	LOW COPPER	INTERLUX ULTRA KOTE	Y3669F	SHELTER ISLAND BOAT YARD	02	2017	55	2693-212-AA	Port Supplied Reference
SGYC	3101	90	S	34	11	LOW COPPER	TRINIDAD PRO HD	1271	SHELTER ISLAND BOAT YARD	06	2020	65	60061-94-ZB	Port Supplied Reference
SGYC	3102	100	S	43	14.5	LOW COPPER	UNKNOWN		KNIGHT & CARVER	01	2009	67		
SGYC	3103	99	S	26	8	NON	SLIP LINER					0		
SGYC	3104	95	S	31	10.6	LOW COPPER	PRO LINE	Y1088C-02	SHELTER ISLAND BOAT YARD	07	2015	67		Port Supplied Reference
SGYC	3108	100	S	24	11	COPPER						65		
SGYC	3110	97	S	36	12.5	LOW COPPER	TRINIDAD PRO HD	1271	SHELTER ISLAND BOAT YARD	11	2019	65	60061-94ZB	DPR Active
SGYC	3111	100	S	32	11	LOW COPPER	UNKNOWN				2003	65		
SGYC	3113	100	P	34.5	11.8	COPPER	ZSPAR BP GOLD	3669	DRISCOLLS	01	2019	55		Port Supplied Reference
SGYC	3116	90	S	38	12	LOW COPPER	PETTIT TRINIDAD	A1108206	DRISCOLLS	09	2016	65		Port Supplied Reference
SGYC	3123	90	S	38	13	LOW COPPER	INTERLUX ULTRA	3669	SHELTER ISLAND BOAT YARD	07	2015	55		Port Supplied Reference
SGYC	3128	100	S	11.6	10.8	LOW COPPER	INTERLUX	2449H	SHELTER ISLAND BOAT YARD	05	2016	76		Port Supplied Reference
SGYC	3133	95	S	45	15	LOW COPPER	PETTIT PROTECTOR	B-91	DRISCOLLS	12	2016	65		Port Supplied Reference
SGYC	3135	100	P	42	15.7	LOW COPPER	PROLINE	Y1088C-01	SHELTER ISLAND BOAT YARD	06	2015	67		Port Supplied Reference
SGYC	3136	100	S	41.6	13.1	COPPER						65		
SGYC	3140	100	P	30	10	COPPER						65		
SGYC	3142	100	S	44	14.5	LOW COPPER	INTERLEX ULTRA	3669	SHELTER ISLAND BOAT YARD	06	2017	55		Port Supplied Reference
SGYC	3146	100	S	37.7	12.8	LOW COPPER	PROLINE	1088C-02	SHELTER ISLAND BOAT YARD	03	2016	56		Port Supplied Reference
SGYC	3148	100	S	30	10	LOW COPPER	INTERLUX NAUTICAL	3432	DRISCOLLS MISSION BAY	01	2006	47		Port Supplied Reference
SGYC	3150	90	S	42	11	LOW COPPER	PROLINE	Y1088C-02	SHELTER ISLAND BOAT YARD	06	2014	67		Port Supplied Reference
SGYC	3162	95	S	30	10.6	COPPER	PETTIT TRINIDAD BLUE	1275	SHELTER ISLAND BOAT YARD	07	2019	70		Port Supplied Reference
SGYC	3163	98	S	37	11.8	LOW COPPER	PETTIT TRINIDAD	1875	MARINA DEL REY BOAT YARD	05	2015	67		Port Supplied Reference
SGYC	3164	100	S	30	10.3	LOW COPPER	PETTIT TRINIDAD	1083	SHELTER ISLAND BOAT YARD	08	2020	65	60061-94-ZB	DPR Active
SGYC	3166	90	P	57	14.5	LOW COPPER	UNKNOWN			01	2013	65		
SGYC	3167	95	S	35	12	LOW COPPER	INTERLUX ULTRA	Y3669F	SHELTER ISLAND BOAT YARD	04	2019	55	2693-212-AA	Port Supplied Reference
SGYC	3168	99	S	30	10	NON	INTERSLEEK 900	FXA972/A	SHELTER ISLAND BOAT YARD	02	2013	0		
SGYC	3178	100	P	31.6	12	LOW COPPER	INTERLUX ULTRA BIOLUX	Y3559U	SHELTER ISLAND BOAT YARD	06	2017	57		Port Supplied Reference
SGYC	3179	98	P	43	14	LOW COPPER	PRO LINE	Y3779F	SHELTER ISLAND BOAT YARD	09	2017	55	2693-212-AA	Port Supplied Reference
SGYC	3181		vacant				NO IN BOAT SLIP		NO BOAT IN SLIP					
SGYC	3182	99	S	36	11.11	LOW COPPER	UNKNOWN		SHELTER ISLAND BOAT YARD	03	2007	65		
SGYC	3185	100	P	42	13.6	LOW COPPER	INTERLUX	Y3779F	SHELTER ISLAND BOAT YARD	07	2013	55	2693-212-AA	Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SGYC	3187	90	S	38	12.1	LOW COPPER	INTERLUX ULTRA KOTE	Y3669F	SHELTER ISLAND BOAT YARD	09	2017	55	2693-212-AA	Port Supplied Reference
SGYC	3192	85	S	36	12	LOW COPPER	INTERLUX ULTRA	3669	SHELTER ISLAND BOAT YARD	02	2013	55		Port Supplied Reference
SGYC	3202	99	S	27	8	LOW COPPER	INTERLUX ULTRAKOTE	Y3669U	SHELTER ISLAND BOAT YARD	11	2016	57		Port Supplied Reference
SGYC	3204	100	S	30	10	LOW COPPER	INTERLUX ULTRA	Y3669F	SHELTER ISLAND BOAT YARD	01	2013	55	2693-212-AA	Port Supplied Reference
SGYC	3207	100	S	39.8	12.8	LOW COPPER	PETTIT TRINIDAD PRO HD	1083	SHELTER ISLAND BOAT YARD	11	2019	65	60061-94-ZB	DPR Active
SGYC	3212	100	S	37	12.5	COPPER	PRO LINE 1088	Y1088C-01	KOEHLER KRAFT	11	2018	67		Port Supplied Reference
SGYC	3215	90	S	30	10.1	NON	INTERSLEEK 900	FXA970/A	SHELTER ISLAND BOAT YARD	05	2014	0		
SGYC	3216	98	S	38	12.6	LOW COPPER	INTERLUX ULTRA	Y3669F	SHELTER ISLAND BOAT YARD	2	2018	55	2693-212-AA	Port Supplied Reference
SGYC	3217	95	S	31	10.3	LOW COPPER	Z-SPAR PRO GOLD	411187706	DRISCOLL	02	2018	65	60061-94-ZE	Port Supplied Reference
SGYC	3221	95	S	34	11.6	COPPER	PETTIT TRINIDAD	1675	SHELTER ISLAND BOAT YARD	08	2020	65		Port Supplied Reference
SGYC	3224	75	P	42	15	COPPER	PROLINE 1088	Y1088C-01	SHELTER ISLAND BOAT YARD	05	2019	67		Port Supplied Reference
SGYC	3225	90	S	37	10.1	COPPER	PRO LINE	Y1088C-01	SHELTER ISLAND BOAT YARD	08	2018	67		Port Supplied Reference
SGYC	3226	98	S	39.25	12.5	LOW COPPER	TRINIDAD HD	1871	SHELTER ISLAND BOAT YARD	09	2019	65	60061-94-ZB	DPR Active
SGYC	3229	100	S	40	7	LOW COPPER	INTERLUX ULTRA KOTE	Y3449F	KOEHLER KRAFT	3	2018	55	2693-212-AA	Port Supplied Reference
SGYC	3239	90	P	37	13	COPPER						65		
SGYC	3240	100	P	50	16	LOW COPPER	INTERLUX ULTRA KOTE	Y3449U	SHELTER ISLAND BOAT YARD	10	2015	55		Port Supplied Reference
SGYC	3244	100	P	40	12.2	LOW COPPER				11	2010	65		
SGYC	3248	90	S	41	12.6	LOW COPPER	PETTIT	1240	KOHLER KRAFT	06	2020	65	60061-87-ZH	Port Supplied Reference
SGYC	3250	100	P	37	12	Low Copper	MICRON CSC	YBC583	NIELSON BEAUMONT	03	2009	33.4	2693-225-AA	Port Supplied Reference
SGYC	3254	100	P	45.5	13.8	LOW COPPER	INTERLUX ULTRA	Y3779F	SHELTER ISLAND BOAT YARD	02	2014	55	2693-212-AA	Port Supplied Reference
SGYC	3256	100	P	32.6	10.6	COPPER								
SGYC	3257	90	S	30	10.1	COPPER						65		
SGYC	3259	90	S	39	12.1	LOW COPPER	INTERLUX	Y3669F	SHELTER ISLAND BOAT YARD	07	2015	55	2693-212-AA	Port Supplied Reference
SGYC	3265	50	S	42	12	LOW COPPER	INTERLUX ULTRA KOTE	Y3779F	KOHLER KRAFT	2	2018	55	2693-212-AA	Port Supplied Reference
SGYC	3270	100	S	34	10	LOW COPPER		UNKNOWN			2003	65		
SGYC	3278	100	S	34	11.9	COPPER	INTERLUX ULTRA	3669	SHELTER ISLAND BOAT YARD	11	2018	55		Port Supplied Reference
SGYC	3279	98.5	S	46.9	14.2	COPPER	PETTIT ZSPAR	B-94	DRISCOLLS	6	2019	65		Port Supplied Reference
SGYC	3286	98	S	25.11	8	COPPER	INTERLUX ULTRA KOTE	Y3449U	KOHLER KRAFT	06	2018	57		Port Supplied Reference
SGYC	3296	100	P	43	14.6	LOW COPPER	ZSPAR BP GOLD	411187706	SHELTER ISLAND BOAT YARD	01	2019	55	60061-94-ZE	Port Supplied Reference
SGYC	3297	95	S	41.1	13.1	LOW COPPER	INTERNATIONAL ULTRA	Y3669U	SHELTER ISLAND BOAT YARD	10	2017	57		Port Supplied Reference
SGYC	3298	100	S	30	10	COPPER						65		
SGYC	3299	90	S	40	11.8	LOW COPPER	INTERLUX ULTRA	Y3779U	SHELTER ISLAND BOAT YARD	9	2016	57		Port Supplied Reference
SGYC	3302	90	S	40	10	LOW COPPER	INTERLUX ULTRA	Y3669F	SHELTER ISLAND BOAT YARD	01	2017	55	2693-212-AA	Port Supplied Reference
SGYC	3304	99	P	28	10	LOW COPPER	INTERLUX ULTRA	Y3779F	SHELTER ISLAND BOAT YARD	02	2017	55	2693-212-AA	Port Supplied Reference
SGYC	3308	100	S	32	10.6	LOW COPPER	UNKOWN			05	2007	65		
SGYC	3309	100	S	36	10.6	LOW COPPER	INTERLUX ULTRA KOTE	Y3779U	SHELTER ISLAND BOAT YARD	08	2016	55		Port Supplied Reference
SGYC	3313	96	S	34.6	11.9	COPPER	PETTIT TRINIDAD	1275	SHELTER ISLAND BOAT YARD	10	2020	70		Port Supplied Reference
SGYC	3315	100	S	38	13.5	LOW COPPER	INTERLUX ULTRA	3669	SHELTER ISLAND BOAT YARD	4	2017	55		Port Supplied Reference
SGYC	3316	100	P	28	10	LOW COPPER	TRINIDAD HD	1871	SHELTER ISLAND BOAT YARD	09	2020	55	60061-94-ZB	DPR Active
SGYC	3317	100	P	50	15	COPPER						65		
SGYC	3320	100	S	43	12.5	LOW COPPER	PROLINE	Y1088C-01	SHELTER ISLAND BOAT YARD	11	2016	67		Port Supplied Reference
SGYC	3333	100	S	30	10.6	COPPER						65		
SGYC	3339	90	S	36	6	LOW COPPER	TRINIDAD	1875	DRISCOLLS	03	2015	70		Port Supplied Reference
SGYC	3343	90	P	50	16	LOW COPPER	TROPIKOTE - MADE BY SEAHAWK	2141GL	BAJA NAVAL ENSENADA MX	08	2020	76	44891-10-AA	DPR Active
SGYC	3352	100	S	30	10.1	LOW COPPER	INTERLUX ULTRA	3669	SHELTER ISLAND BOAT YARD	10	2009	55		Port Supplied Reference
SGYC	3353	99	S	30	11	NON	COPPER COAT	85396	DRICOLLS	03	2016	0		
SGYC	3354	98	S	36.3	11.9	LOW COPPER	INTERLUX	YBA470	KOEHLER KRAFT	04	2019	35	2693-187-ZD	Port Supplied Reference
SGYC	3355	100	P	42	13.6	LOW COPPER		UNKNOWN		01	2011	65		
SGYC	3357	95	S	34	11.9	LOW COPPER	PETTIT TRINIDAD	1271	SHELTER ISLAND BOAT YARD	07	2020	65	60061-94-ZB	DPR Active
SGYC	3362	100	P	35	12.9	LOW COPPER	INTERLUX ULTRA	3779	SHELTER ISLAND BOAT YARD	12	2015	55		Port Supplied Reference
SGYC	3368	100	P	54	14	LOW COPPER	INTERLUX ULTRA	Y3779F	SHELTER ISLAND BOAT YARD	07	2017	55	2693-212-AA	Port Supplied Reference
SGYC	3370	100	P	27	8.8	LOW COPPER	PETTIT TRINIDAD HD	1871	SHELTER ISLAND BOAT YARD	06	2020	65	60061-94-ZB	Port Supplied Reference
SGYC	3371	100	P	38	12	LOW COPPER	PROLINE 1088	Y1088C-01	SHELTER ISLAND BOAT YARD	7	2016	70		Port Supplied Reference
SGYC	3372	90	S	49	13	NON	INTERLUX	YBA168	SHELTER ISLAND BOAT YARD	11	2017	0		
SGYC	3373	85	S	30	10.5	NON	INTERLUX	YBA168	SHELTER ISLAND BOAT YARD	01	2014	0		
SGYC	3376	100	P	42	13.7	LOW COPPER	INTERLUX ULTRA	Y3449F	SHELTER ISLAND BOAT YARD	06	2015	55	2693-212-AA	Port Supplied Reference



Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SGYC	3380	100	S	30	12	LOW COPPER	INTERLUX ULTRA BIO LUX	Y3669F	SHELTER ISLAND BOAT YARD	02	2018	55	2693-212-AA	Port Supplied Reference
SGYC	3383	98	S	27	8.1	COPPER	INTERLUX ULTRA	3669	SHELTER ISLAND BOAT YARD	07	2019	55		Port Supplied Reference
SGYC	3384	100	P	30	11.5	LOW COPPER	PETTIT TRINIDAD VOC	1278	MARINA SHIPYARD LONG BEACH	3	2017	65		Port Supplied Reference
SGYC	3386	90	S	34	11	LOW COPPER	INTERLUX ULTRA	Y3669U	SHELTER ISLAND BOAT YARD	5	2017	57		Port Supplied Reference
SGYC	3387	95	S	32	6.8	COPPER	PETTIT PROTECTOR	B-91	DRISCOLLS MISSION BAY	08	2019	65		Port Supplied Reference
SGYC	3389		vacant				NO BOAT SLIP		NO BOAT IN SLIP					
SGYC	3397	90	S	49.5	14.8	LOW COPPER	PETTIT TRINIDAD	1671	SHELTER ISLAND BOAT YARD	07	2020	65	60061-94-ZB	DPR Active
SGYC	3401	100	P	36	12.6	LOW COPPER	TRINIDAD PRO HD	1271	SHELTER ISLAND BOAT YARD	07	2019	65	60061-94-ZB	DPR Active
SGYC	3402	90	S	41	12	LOW COPPER	INERLUX ULTRA	Y3779F	SHELTER ISLAND BOAT YARD	10	2018	55	2693-212-AA	Port Supplied Reference
SGYC	3404	95	S	38	12	LOW COPPER	PRO LINE	1088C-01	SHELTER ISLAND BOAT YARD	03	2015	67		Port Supplied Reference
SGYC	3407	100	S	33	12.6	LOW COPPER	INTERLUX ULTRA	Y3779F	SHELTER ISLAND BOAT YARD	04	2014	55	2693-212-AA	Port Supplied Reference
SGYC	3410	95	S	51.6	15.3	LOW COPPER	UNTERLUX ULTRA	Y3779F	SHELTER ISLAND BOAT YARD	11	2017	55	2693-212-AA	Port Supplied Reference
SGYC	3411	100	S	46.3	13.8	COPPER						65		
SGYC	3413	100	S	34	11	LOW COPPER	INTERLUX ULTRA	Y3669F	SHELTER ISLAND BOAT YARD	09	2018	55	2693-212-AA	Port Supplied Reference
SGYC	3419	100	S	44	14.6	COPPER	INTERLUXE ULTRA KOTE	Y3669U	SHELTER ISLAND BOAT YARD	06	2018	57		Port Supplied Reference
SGYC	3425	100	S	34.5	12	LOW COPPER	INTERLUX ULTRA	3669	SHELTER ISLAND BOAT YARD	03	2017	55		Port Supplied Reference
SGYC	3431	99	S	42	13.9	LOW COPPER	INTERLEX ULTRA	Y3779F	KOEHLER KRAFT	6	2018	55	2693-212-AA	Port Supplied Reference
SGYC	3432	90	S	37	11.6	LOW COPPER	INTERLUX	Y3669F	SHELTER ISLAND BOAT YARD	07	2016	55	2693-212-AA	Port Supplied Reference
SGYC	3434	87	S	44	13.6	LOW COPPER	PETTIT PROTECTOR	B-91	DRISCOLLS	7	2016	57		Port Supplied Reference
SGYC	3436	100	S	30	10	COPPER						70		
SGYC	3438	90	P	50	16	LOW COPPER	INTERLUX ULTRA	Y3559U	NIELSON BEAUMONT	10	2015	57		Port Supplied Reference
SGYC	3440	98	S	30	10	LOW COPPER	INTERLUX ULTRA	Y3559F	KOEHLER KRAFT	11	2017	55	2693-212-AA	Port Supplied Reference
SGYC	3441	75	P	26	8	COPPER						65		
SGYC	3449	95	S	29	11	COPPER						65		
SGYC	3451	95	P	30	10.6	LOW COPPER	INTERLUX ULTRA KOTE	Y3669U	DRISCOLL'S	7	2017	55		Port Supplied Reference
SGYC	3459	100	S	30	9.6	LOW COPPER			SHELTER ISLAND BOAT YARD	03	2016	65		
SGYC	3483	100	P	27	8.9	NON	SLIP LINER		AQUARIUS BOAT YARD	06	2015	0		
SGYC	3497	100	S	30	11	LOW COPPER	INTERLUX	3779	SHELTER ISLAND BOAT YARD	06	2015	55		Port Supplied Reference
SGYC	3536	99	S	32.8	9.15	NON	SLIP LINER					0		
SGYC	3598	90	S	28	8	COPPER	INTERLUX ULTRA ANTIFOULING	Y3779U	MARINE GROUP BOAT WORKS	2	2019	55		Port Supplied Reference

Facility	Slip/Moor Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SWYC	4001	100	SAIL	33	11	low copper	ACT WITH SLIME FIGHTER	7790b	Dr SI	4	2017	30		Port Supplied Reference
SWYC	4004	100	POWER	24	8	copper	PRO-LINE 1088	Y1088C-02	SI	4	2019	67		Port Supplied Reference
SWYC	4005	100	SAIL	56	16	low copper	ULTRA-KOTE	Y3449U	SI	2	2017	57		Port Supplied Reference
SWYC	4008	100	SAIL	34	11	low copper	BLACK WIDOW ULTRA-SLICK RACING	1869		11	2020	25	60061-116-ZA	DPR Active
SWYC	4009	98	SAIL	29	8	low copper	ULTRA	Y3669F	SI	7	2016	55	2693-212-AA	Port Supplied Reference
SWYC	4011	92	SAIL	37	12	low copper	ULTRA	Y3669F	SI	10	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4012	98	SAIL	30	11	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	Dr SI	8	2014	65		Port Supplied Reference
SWYC	4016	98	POWER	36	11	low copper	ULTRA	Y3669F	SI	3	2013	55	2693-212-AA	Port Supplied Reference
SWYC	4017	88	SAIL	44	13	low copper	ULTRA	Y3779F	SI	1	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4018	100	POWER	36	11	copper	NOT LISTED ABOVE			10	2019	70		
SWYC	4020	98	POWER	37	11	low copper	WEST MARINE CPP ABLATIVE		SI	5	2017	24		
SWYC	4021	92	SAIL	33	11	low copper	ULTRA	Y3669F	SI	3	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4023	100	SAIL	40	13	low copper	ULTRA-KOTE	Y3669U	SI	7	2016	57		Port Supplied Reference
SWYC	4024	85	POWER	55	15	low copper	ULTRA	Y3779F	SI	5	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4025	100	SAIL	27	5	low copper			KK	1	2011	65		
SWYC	4026	98	SAIL	36	12	low copper	ULTRA	Y3669F	SI	1	2015	55	2693-212-AA	Port Supplied Reference
SWYC	4027	100	POWER	30	11	copper	TRINIDAD	1875	SI	6	2019	70		Port Supplied Reference
SWYC	4028	98	SAIL	31	11	copper	ULTRA 3669	3669	Dr SI	6	2020	55		Port Supplied Reference
SWYC	4029	92	POWER	0	0	copper	NOT LISTED ABOVE			7	2020	70		
SWYC	4030	100	POWER	32	11	non-biocide	NO PAINT - UNPAINTED			1	2019	0		
SWYC	4031	94	SAIL	34	11	low copper	ULTRA 3669	3669	Dr SI	12	2013	55		Port Supplied Reference
SWYC	4032	98	POWER	33	11	low copper	NOT LISTED ABOVE			12	2015	70		
SWYC	4033	96	POWER	63	15	low copper	AF33	3345	Dr SI	6	2013	33	44891-12-AA	Port Supplied Reference
SWYC	4034		VACANT											
SWYC	4036	100	SAIL	45	12	low copper	ULTRA	Y3669F	SI	2	2014	55	2693-212-AA	Port Supplied Reference
SWYC	4037	98	SAIL	34	11	copper	ULTRA-KOTE	Y3449U	KK	8	2020	57		Port Supplied Reference
SWYC	4038	100	POWER	35	10	copper						65		
SWYC	4040	96	SAIL	31	11	low copper	ULTRA	Y3669F	SI	10	2014	55	2693-212-AA	Port Supplied Reference
SWYC	4043	100	SAIL	25	8	copper	NOT LISTED ABOVE			10	2019	70		
SWYC	4045		DINGHY											
SWYC	4046	100	POWER	34	11	low copper	ULTRA	Y3669F	SI	11	2017	55	2693-212-AA	Port Supplied Reference
SWYC	4048	98	POWER	28	9	copper	TRINIDAD VOC	1278	SI	5	2019	65		Port Supplied Reference
SWYC	4050	100	POWER	25	8	copper	ULTRA 3669	3669	SI	9	2018	55		Port Supplied Reference
SWYC	4051	94	SAIL	37	12	low copper	PRO-LINE 1088	Y1088C-01	SI	5	2010	67		Port Supplied Reference
SWYC	4053		VACANT											
SWYC	4054	94	POWER	21	9	non	ULTIMA ECO	121509-BP		10	2020	0		
SWYC	4056	100	POWER	36	12	low copper	PRO-LINE 1088	Y1088C-01	MG	7	2016	67		Port Supplied Reference
SWYC	4058	100	SAIL	25	9	low copper	Z-SPAR BOTTOM PRO GOLD	41127706	Dr SI	6	2015	65	60061-94-ZE	Port Supplied Reference
SWYC	4061	96	POWER	35	10	low copper	ULTRA	Y3449F		10	2020	55	2693-212-AA	Port Supplied Reference
SWYC	4062	96	SAIL	36	10	low copper	TRINIDAD SR	A1277Q	SI	10	2013	60	60061-94-ZD	Port Supplied Reference
SWYC	4063	87	POWER	25	7	low copper	INTERSPEED 6400NA	BQA679/5GL	SI	9	2018	38	2693-132-ZY	Port Supplied Reference
SWYC	4064	100	SAIL	29	8	non-biocide	NO PAINT - UNPAINTED		SI	5	2000	0		
SWYC	4065	100	SAIL	36	9	copper	ULTRA-KOTE	Y3669U	Dr SI	1	2018	57		Port Supplied Reference
SWYC	4066	100	SAIL	38	12	low copper	ULTRA	Y3669F	SI	4	2010	55	2693-212-AA	Port Supplied Reference
SWYC	4067	100	POWER	36	12	low copper	ULTRA	Y3779F	SI	6	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4069	98	POWER	58	16	copper	ULTRA 3779	3779	Dr SI	7	2018	55		Port Supplied Reference
SWYC	4071	96	POWER	30	10	copper	ULTRA 3669	3669	SI	5	2018	55		Port Supplied Reference
SWYC	4072	96	SAIL	32	11	low copper	NOT LISTED ABOVE			8	2016	70		
SWYC	4074	96	SAIL	28	9	copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	SI	7	2020	65		Port Supplied Reference
SWYC	4075	100	POWER	48	16	low copper	PRO-LINE 1088	Y1088C-01	SI	5	2015	67		Port Supplied Reference
SWYC	4078	100	SAIL	31	10	low copper	ULTRA	Y3669F	SI	6	2013	55	2693-212-AA	Port Supplied Reference
SWYC	4079	98	SAIL	35	10	copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	Dr SI	2	2020	65		Port Supplied Reference
SWYC	4080	92	OTHER	37	11	copper	Z*SPAR THE PROTECTOR VOC HARD TYPE B-90	B90VOC		2	2020	76		Port Supplied Reference
SWYC	4081	92	POWER	40	13	copper	ULTRA 3779	3779	SI	7	2018	55		Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SWYC	4082	96	SAIL	37	12	low copper	ULTRA-KOTE	Y3669U	SI	8	2016	57		Port Supplied Reference
SWYC	4083	92	POWER	41	13	low copper	ULTRA-KOTE	Y3669U	SI	5	2016	57		Port Supplied Reference
SWYC	4084	81	SAIL	42	13	low copper	ULTRA	Y3779F	SI	5	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4085	100	POWER	31	9	non-biocide	PCM MARINE-RC		NB	11	2016	0		
SWYC	4088	94	SAIL	34	11	low copper	Z-SPAR BOTTOM PRO GOLD	411167706	Dr SI	7	2019	65	60061-94-ZE	Port Supplied Reference
SWYC	4089	98	SAIL	34	11	low copper	TRINIDAD PRO	A10882	SI	10	2019	60	60061-94-ZB	Port Supplied Reference
SWYC	4090	100	SAIL	38	11	low copper	NOT LISTED ABOVE		KK	11	2007	70		
SWYC	4091	100	SAIL	41	13	copper	NOT LISTED ABOVE		Dr SI	7	2019	70		
SWYC	4092	62	SAIL	33	8	low copper	VC-OFFSHORE	V116		11	2017	41		Port Supplied Reference
SWYC	4093	92	SAIL	43	13	low copper	ULTRA	Y3779F	SI	6	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4095	98	POWER	48	14	low copper	ULTRA	Y3669F	KK	1	2016	55	2693-212-AA	Port Supplied Reference
SWYC	4096	100	POWER	32	11	low copper	ULTRA	Y3449F	SI	1	2019	55	2693-212-AA	Port Supplied Reference
SWYC	4097	98	SAIL	31	10	low copper	Z-SPAR BOTTOM PRO GOLD	41127706	KK	11	2015	65	60061-94-ZE	Port Supplied Reference
SWYC	4098	94	SAIL	51	11	copper	BOTTOMKOTE	10397	SI	1	2020	43		Port Supplied Reference
SWYC	4099	88	POWER	40	13	low copper	PRO-LINE 1088	Y1088C-02	SI	12	2013	67		Port Supplied Reference
SWYC	4102	92	POWER	27	8	low copper	HYDROCOAT ABLATIVE	1240		2	2017	40	60061-87-ZH	Port Supplied Reference
SWYC	4104	96	POWER	29	10	low copper	ULTRA	Y3669F	Dr SI	2	2019	55	2693-212-AA	Port Supplied Reference
SWYC	4105	94	POWER	32	10	copper	NOT LISTED ABOVE			12	2018	70		
SWYC	4106	100	SAIL	30	10	low copper	TRINIDAD	1275	Dr SI	5	2008	70		Port Supplied Reference
SWYC	4108	100	POWER	34	11	copper	ULTRA 3669	3669	SI	5	2019	55		Port Supplied Reference
SWYC	4110	94	SAIL	28	10	copper	ULTRA-KOTE 2779N	2779N	KK	1	2019	67		Port Supplied Reference
SWYC	4111	92	POWER	46	13	low copper	TRINIDAD SR	A1877G		11	2017	60	60061-94-ZD	Port Supplied Reference
SWYC	4114	100	SAIL	41	14	copper						65		
SWYC	4115	98	POWER	38	14	low copper	ULTRA	Y3669F	SI	2	2019	55	2693-212-AA	Port Supplied Reference
SWYC	4116	98	SAIL	43	12	low copper	TRINIDAD PRO	A1088G	SI	7	2019	60	60061-94-ZB	Port Supplied Reference
SWYC	4118	87	SAIL	38	11	low copper	INTERSPEED 640 POLISHING	BRA641		11	2018	38	2693-142-ZO	Port Supplied Reference
SWYC	4119	96	SAIL	32	8	low copper	PRO-LINE 1088	Y1088C-02	SI	5	2017	67		Port Supplied Reference
SWYC	4121	92	POWER	21	8	low copper	ULTRA	Y3779F	SI	5	2017	55	2693-212-AA	Port Supplied Reference
SWYC	4124	100	POWER	14	7	copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	KK	11	2019	65		Port Supplied Reference
SWYC	4128	94	POWER	41	14	copper	SEAGUARD ABLATIVE	P30BQ12		7	2018	48		Port Supplied Reference
SWYC	4130	92	POWER	58	16	low copper	TRINIDAD SR	A1277Q	SI	7	20	60	60061-94-ZD	Port Supplied Reference
SWYC	4133	100	SAIL	33	10	low copper	VC-OFFSHORE	V118	KK	11	2017	41		Port Supplied Reference
SWYC	4135	100	OTHER	43	14	low copper	Z-SPAR BOTTOM PRO GOLD	411187706	Dr SI	9	2014	65	60061-94-ZE	Port Supplied Reference
SWYC	4136	100	POWER	41	13	copper	NOT LISTED ABOVE		Dr SI	3	2019	70		
SWYC	4139	100	POWER	18	1	low copper	AQUAGARD WATERBASE	10107	MG	6	2019	26	9339-19-AA-70383	Port Supplied Reference
SWYC	4144	94	SAIL	36	12	low copper	WEST MARINE PCA GOLD! ABLATIVE	A411129806	SI	6	2020	48	60061-117-ZD	Port Supplied Reference
SWYC	4145	98	SAIL	35	11	low copper	ACT WITH SLIME FIGHTER	6690b	SI	8	2017	30	2693-227-AA	Port Supplied Reference
SWYC	4147	85	POWER	40	14	copper	BOTTOMKOTE	10397	SI	6	2020	43		Port Supplied Reference
SWYC	4148	96	POWER	41	13	copper	PETTIT UNEPOXY TIN-FREE	1228	SI	9	2020	53		
SWYC	4149	100	POWER	35	12	low copper	ULTRA	Y3449F	SI	4	2016	55	2693-212-AA	Port Supplied Reference
SWYC	4150	100	SAIL	35	10	low copper	Z-SPAR BOTTOM PRO GOLD	41127706	Dr SI	11	2014	65	60061-94-ZE	Port Supplied Reference
SWYC	4152	77	SAIL	37	11	non-biocide	INTERSLEEK 900	FXA972/A	SI	3	2013	0		
SWYC	4153	98	POWER	41	14	copper	ULTRA 3669	3669	SI	4	2019	55		Port Supplied Reference
SWYC	4154		DINGY	9	1									
SWYC	4155	85	POWER	31	9	low copper	PRO-LINE 1088	Y1088C-01	SI	5	2017	67		Port Supplied Reference
SWYC	4156	100	POWER	33	12	low copper	ULTRA-KOTE	Y3449U	SI	6	2016	57		Port Supplied Reference
SWYC	4158	94	SAIL	34	12	low copper	ULTRA	Y3779F	SI	9	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4159	100	SAIL	38	11	low copper	ULTRA-KOTE	Y3669U	SI	8	2010	57		Port Supplied Reference
SWYC	4160	100	POWER	30	9	low copper	ULTRA	Y3779F	SI	1	2014	55	2693-212-AA	Port Supplied Reference
SWYC	4162	100	POWER	33	11	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-94	Dr SI	7	2014	65		Port Supplied Reference
SWYC	4163	90	POWER	40	13	low copper	ULTRA	Y3669F	SI	7	2015	55	2693-212-AA	Port Supplied Reference
SWYC	4167	100	SAIL	38	13	low copper	MICRON EXTRA VOC	5794	KK	6	2011	35	2693-190-ZK	Port Supplied Reference
SWYC	4170	96	SAIL	42	14	low copper	Z-SPAR BOTTOM PRO GOLD	41127706	Dr SI	6	2019	65	60061-94-ZE	Port Supplied Reference
SWYC	4171	100	SAIL	43	14	non	PACIFICA PLUS	YBB260		1	2017	0		Port Supplied Reference
SWYC	4173	96	POWER	30	11	copper	TRINIDAD	1875	SI	7	2019	70		Port Supplied Reference
SWYC	4174	100	POWER	30	11	non-biocide	INTERSLEEK 900	FXA970/A	SI	1	2013	0		

Facility	Slip/Moorings Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SWYC	4175	98	POWER	43	13	copper	PRO-LINE 1088	Y1088C-01	SI	5	2018	67		Port Supplied Reference
SWYC	4176	100	SAIL	49	13	copper	PRO-LINE 1088	Y1088C-02	SI	11	2018	67		Port Supplied Reference
SWYC	4177	98	SAIL	24	8	copper	ULTRA-KOTE	Y3669U	KK	7	2019	57		Port Supplied Reference
SWYC	4178	98	SAIL	51	14	low copper	ULTRA	Y3669F	SI	6	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4179	98	SAIL	49	14	copper	ULTRA 3779	3779	SI	1	2019	55		Port Supplied Reference
SWYC	4181	100	POWER	32	10	copper	NOT LISTED ABOVE		Dr MB	8	2020	70		
SWYC	4185	98	SAIL	41	12	low copper	ULTRA	Y3669F	SI	8	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4192	100	SAIL	32	10	copper						65		
SWYC	4193		SAIL	35	10	copper								
SWYC	4194	90	POWER	35	12	copper	ULTRA-KOTE	Y3669U	Dr MB	4	2020	57		Port Supplied Reference
SWYC	4196	58	SAIL	49	16	low copper	CALIFORNIA BOTTOMKOTE	YBA143	SI	10	2016	35	2693-18-ZA	Port Supplied Reference
SWYC	4197	100	SAIL	42	14	low copper	ULTRA	Y3779F	KK	4	2013	55	2693-212-AA	Port Supplied Reference
SWYC	4198	100	SAIL	34	11	non-biocide	CERAM-KOTE 99	99M	Dr SI	5	2019	0		
SWYC	4200	100	SAIL	39	11	low copper	ULTRA	Y3779F	SI	6	2016	55	2693-212-AA	Port Supplied Reference
SWYC	4201	100	POWER	42	14	low copper	ULTRA	Y3779F	Dr SI	3	2014	55	2693-212-AA	Port Supplied Reference
SWYC	4202	96	SAIL	27	9	copper	ULTRA 3669	3669	SI	3	2019	55		Port Supplied Reference
SWYC	4204	100	POWER	34	10	low copper	ULTRA-KOTE	Y3669U	SI	3	2015	57		Port Supplied Reference
SWYC	4204	98	POWER	24	9	low copper	411126606	411126606		10	2020	29	60061-129-AA	
SWYC	4205	100	POWER	39	13	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-94		3	2010	65		Port Supplied Reference
SWYC	4207	96	POWER	38	13	low copper	ULTRA	Y3779F	SI	2	2014	55	2693-212-AA	Port Supplied Reference
SWYC	4209	100	POWER	41	15	non	SHELTER ISLAND PLUS	8204	SI	12	2018	0		
SWYC	4210	92	SAIL	37	12	low copper	ULTRA	Y3779F	SI	5	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4211	50	SAIL	25	9	low copper	MICRON CSC	5584G		10	2019	37		Port Supplied Reference
SWYC	4212	100	SAIL	24	7	low copper	ULTRA	Y3669F		4	2014	55	2693-212-AA	Port Supplied Reference
SWYC	4213	98	SAIL	30	10	low copper	ULTRA	Y3669F	SI	11	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4214	100	SAIL	27	10	low copper	Z-SPAR BOTTOM PRO GOLD	41127706	Dr SI	12	2018	65	60061-94-ZE	Port Supplied Reference
SWYC	4215	100	SAIL	36	12	low copper	ULTRA	Y3669F	KK	6	2019	55	2693-212-AA	Port Supplied Reference
SWYC	4216	100	POWER	33	11	copper	NOT LISTED ABOVE			7	2018	70		
SWYC	4219	98	SAIL	31	10	low copper	WEST MARINE BOTTOMSHIELD	411126606		12	2011	29	60061-129-AA	Port Supplied Reference
SWYC	4223	90	SAIL	34	11	low copper	Z-SPAR BOTTOM PRO GOLD	41127706	SI	6	2015	65	60061-94-ZE	Port Supplied Reference
SWYC	4224	98	POWER	53	13	low copper	Z-SPAR BOTTOM PRO GOLD	411187706		9	2020	65	60061-94-ZE	Port Supplied Reference
SWYC	4226	100	POWER	36	12	copper	ULTRA 3779	3779	SI	2	2019	55		Port Supplied Reference
SWYC	4227	100	SAIL	32	10	organic biocide	ULTIMA ECO	1608		7	2012	0		
SWYC	4229	90	SAIL	34	11	copper	PRO-LINE 1088	Y1088C-01	SI	2	2020	67		Port Supplied Reference
SWYC	4231	98	POWER	22	7	low copper	INTERCLEN 245 NA	BRA570	SI	7	2017	27	2693-132-ZX	Port Supplied Reference
SWYC	4232	90	SAIL	31	10	copper	TRINIDAD	1275	SI	6	2020	70		Port Supplied Reference
SWYC	4236	94	SAIL	36	12	low copper	ULTRA	Y3669F	SI	6	2017	55	2693-212-AA	Port Supplied Reference
SWYC	4238	100	POWER	29	8	low copper	ULTRA-KOTE	Y3779U	SI	3	2016	57		Port Supplied Reference
SWYC	4240	96	SAIL	23	8	low copper	CALIFORNIA BOTTOMKOTE	YBA143	SI	8	2017	35	2693-18-ZA	Port Supplied Reference
SWYC	4242	90	SAIL	43	13	copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-94	Dr SI	5	2019	65		Port Supplied Reference
SWYC	4243	98	POWER	45	14	low copper	WEST MARINE CPP PLUS! ABLATIVE	411128006	SI	2	2019	38	60061-71-ZD	Port Supplied Reference
SWYC	4244	98	SAIL	33	11	copper	ULTRA-KOTE 2669N	2669N	MG	3	2018	67		Port Supplied Reference
SWYC	4245	96	POWER	41	13	low copper	CALIFORNIA BOTTOMKOTE	YBA140	SI	3	2019	35	2693-18-ZA	Port Supplied Reference
SWYC	4247	98	SAIL	40	13	copper	PRO-LINE 1088	Y1088C-01	Dr SI	11	2018	67		Port Supplied Reference
SWYC	4248	100	SAIL	43	14	low copper	ULTRA	Y3669F	SI	7	2013	55	2693-212-AA	Port Supplied Reference
SWYC	4249	98	POWER	27	8	copper	ULTRA-KOTE	Y3779U	SI	9	2020	57		Port Supplied Reference
SWYC	4251	98	POWER	71	13	low copper	ULTRA	Y3669F	KK	12	2013	55	2693-212-AA	Port Supplied Reference
SWYC	4253	98	POWER	30	10	copper	PRO-LINE 1088	Y1088C-01	KK	3	2019	67		Port Supplied Reference
SWYC	4254	100	SAIL	35	10	copper						65		
SWYC	4255	85	POWER	44	14	low copper	TRINIDAD SR	A1277Q		11	2017	60	60061-94-ZD	Port Supplied Reference
SWYC	4256	94	POWER	27	8	low copper	INTERCLEN 5170	BCA 170/5		9	2018	27	2693-176-AA	Port Supplied Reference
SWYC	4258	96	SAIL	31	10	low copper	ULTRA	Y3669F	SI	1	2015	55	2693-212-AA	Port Supplied Reference
SWYC	4259	100	SAIL	31	10	copper	TRINIDAD	1875	SI	8	2020	70		Port Supplied Reference
SWYC	4262	98	POWER	22	8	copper	ULTRA 3449	3449	SI	6	2019	55		Port Supplied Reference
SWYC	4263		VACANT											
SWYC	4264	94	SAIL	38	12	low copper	ULTRA-KOTE	Y3779U	SI	3	2017	57		Port Supplied Reference
SWYC	4265	98	POWER	41	12	low copper	ULTRA	Y3779F	SI	7	2017	55	2693-212-AA	Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SWYC	4266	96	SAIL	37	12	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	SI	7	2017	65		Port Supplied Reference
SWYC	4267	100	POWER	30	8	copper	ULTRA 3669	3669		10	2018	55		Port Supplied Reference
SWYC	4268	96	SAIL	49	9	copper	PRO-LINE 1088	Y1088C-01	KK	6	2019	67		Port Supplied Reference
SWYC	4269	100	SAIL	34	11	low copper	Z-SPAR BOTTOM PRO GOLD	41127706	Dr SI	2	2020	65	60061-94-ZE	Port Supplied Reference
SWYC	4272	100	SAIL	33	12	low copper	ULTRA	Y3779F	SI	2	2019	55	2693-212-AA	Port Supplied Reference
SWYC	4273	85	POWER	45	14	low copper	TRINIDAD	1875	Dr SI	3	2017	70		Port Supplied Reference
SWYC	4276	100	SAIL	38	12	copper	NOT LISTED ABOVE		SI	8	2019	70		
SWYC	4277	96	POWER	36	13	copper	ULTRA 3669	3669	SI	8	2018	55		Port Supplied Reference
SWYC	4278	98	SAIL	27	8	low copper	PRO-LINE 1088	Y1088C-03	SI	5	2010	67		
SWYC	4280	100	POWER	28	9	copper	EPOXYCOP ABLATIVE	K76	Dr SI	8	2018	43		Port Supplied Reference
SWYC	4285	100	SAIL	34	11	low copper	ULTRA-KOTE 2779N	2779N		6	2016	67		Port Supplied Reference
SWYC	4286	94	POWER	37	12	copper	TRINIDAD PRO	A1108206	SI	2	2020	65		Port Supplied Reference
SWYC	4289	98	SAIL	31	9	low copper	ULTRA	Y3779F	SI	9	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4290	96	SAIL	33	11	copper	PRO-LINE 1088	Y1088C-03	SI	10	2018	67	#N/A	
SWYC	4292	92	SAIL	32	8	low copper	PETTIT UNEPOXY TIN-FREE	1228	SI	3	2015	53		
SWYC	4294	100	SAIL	45	15	copper	NOT LISTED ABOVE		SI	9	2020	70		
SWYC	4295	81	SAIL	34	11	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	Dr SI	9	2016	65		Port Supplied Reference
SWYC	4296	100	POWER	47	15	copper						65		
SWYC	4297	25	SAIL	45	12	low copper	TRINIDAD	1275		10	2014	70		Port Supplied Reference
SWYC	4298	100	SAIL	40	13	low copper	PRO-LINE 1088	Y1088C-02	MG	4	2017	67		Port Supplied Reference
SWYC	4299	98	SAIL	31	9	copper	NOT LISTED ABOVE		SI	5	2020	70		
SWYC	4301	100	POWER	44	14	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	KK	7	2017	65		Port Supplied Reference
SWYC	4303	100	POWER	21	7	copper	ULTRA 3779	3779	SI	9	2018	55		Port Supplied Reference
SWYC	4307	75	SAIL	40	13	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	Dr SI	3	2017	65		Port Supplied Reference
SWYC	4308		VACANT											
SWYC	4309	100	SAIL	20	5	copper						65		
SWYC	4315	96	POWER	29	10	low copper	ULTRA	Y3669F	Dr SI	2	2019	55	2693-212-AA	Port Supplied Reference
SWYC	4316	100	SAIL	40	13	low copper	ULTRA	Y3779F	SI	4	2012	55	2693-212-AA	Port Supplied Reference
SWYC	4317	100	POWER	37	12	copper	ULTRA 3669	3669	SI	10	2018	55		Port Supplied Reference
SWYC	4318	100	SAIL	35	13	low copper	ULTRA	Y3779F	SI	4	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4319	94	POWER	26	9	low copper	NOT LISTED ABOVE			6	2015	70		
SWYC	4323	100	POWER	24	8	copper	TRINIDAD	1875	SI	1	2020	70		Port Supplied Reference
SWYC	4324	100	SAIL	36	12	low copper	ULTRA	Y3669F	MG	9	2019	55	2693-212-AA	Port Supplied Reference
SWYC	4325	96	POWER	47	17	low copper	ULTRA	Y3779F	SI	8	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4326	100	SAIL	43	14	low copper	ULTRA	Y3669F	KK	10	2019	55	2693-212-AA	Port Supplied Reference
SWYC	4328	100	OTHER	46	14	copper						65		
SWYC	4329	100	POWER	39	13	low copper	TRINIDAD SR	A1277Q	SI	6	2019	60	60061-94-ZD	Port Supplied Reference
SWYC	4330	100	POWER	37	12	non-biocide	NO PAINT - UNPAINTED			1	2015	0		
SWYC	4331	92	SAIL	34	11	low copper	Z-SPAR BOTTOM PRO GOLD	411187706	SI	8	2017	65	60061-94-ZE	Port Supplied Reference
SWYC	4334	100	SAIL	41	12	low copper	NOT LISTED ABOVE			10	2014	70		
SWYC	4335	100	SAIL	62	16	low copper	NOT LISTED ABOVE			10	2015	70		
SWYC	4336	85	SAIL	42	13	low copper	NOT LISTED ABOVE		Dr MB	10	2012	70		
SWYC	4337	100	POWER	33	10	copper						70		
SWYC	4338	98	SAIL	30	11	low copper	ULTRA	Y3669F	SI	7	2020	55	2693-212-AA	Port Supplied Reference
SWYC	4339	100	SAIL	28	6	copper	ULTRA 3449	3449	SI	9	2019	55		Port Supplied Reference
SWYC	4341	98	SAIL	44	12	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	KK	7	2017	65		Port Supplied Reference
SWYC	4342	94	SAIL	35	9	non-biocide	NO PAINT - UNPAINTED			1	2018	0		
SWYC	4343	100	POWER	28	9	copper	ULTRA-KOTE	Y3669U	SI	10	2020	57		Port Supplied Reference
SWYC	4344	100	POWER	39	13	low copper	ULTRA	Y3779F	SI	12	2017	55	2693-212-AA	Port Supplied Reference
SWYC	4345	92	POWER	36	12	low copper	MICRON 66	YBA473	SI	7	2019	35	2693-187-ZG	Port Supplied Reference
SWYC	4346	94	SAIL	35	11	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-94	Dr SI	9	2011	65		Port Supplied Reference
SWYC	4347	81	POWER	42	14	low copper	ULTRA	Y3669F	SI	2	2010	55	2693-212-AA	Port Supplied Reference
SWYC	4349	98	POWER	25	8	non	SHELTER ISLAND	8202	SI	5	2018	0		



Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SWYC	4350	100	SAIL	30	10	low copper	TRINIDAD SR	A1877G	SI	7	2020	60	60061-94-ZD	Port Supplied Reference
SWYC	4352	100	POWER	38	13	low copper	TRILUX 33	YBA062		2	2013	17	2693-203-ZA	Port Supplied Reference
SWYC	4354	100	SAIL	34	11	low copper			SI	1	2008	65		
SWYC	4356	92	POWER	39	12	copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-94	Dr SI	10	2019	65		Port Supplied Reference
SWYC	4359	100	SAIL	33	11	low copper	Z-SPAR BOTTOM PRO GOLD	411187706	Dr SI	11	2018	65	60061-94-ZE	Port Supplied Reference
SWYC	4360	100	SAIL	30	9	copper						65		
SWYC	4361	100	POWER	24	11	low copper				8	2016	65		
SWYC	4362	100	SAIL	30	9	copper	NOT LISTED ABOVE			11	2020	70		
SWYC	4363	96	SAIL	34	10	non-biocide	INTERSLEEK 900	FXA972/A	SI	7	2013	0		
SWYC	4364	96	SAIL	41	13	copper	TRINIDAD	1875	SI	2	2020	70		Port Supplied Reference
SWYC	4367	100	POWER	30	11	copper	ULTRA 3779	3779	SI	9	2019	55		Port Supplied Reference
SWYC	4368	96	POWER	24	9	low copper	BOTTOMKOTE NT	YBB379	Dr SI	7	2017	25	2693-228-AA	Port Supplied Reference
SWYC	4369	98	SAIL	26	7	low copper	ULTRA	Y3559F	KK	8	2017	55	2693-212-AA	Port Supplied Reference
SWYC	4370	100	SAIL	41	13	low copper	MICRON 66	YBA473	SI	9	2020	35	2693-187-ZG	Port Supplied Reference
SWYC	4371	100	POWER	32	12	low copper	ULTRA-KOTE	Y3779U	SI	7	2017	57		Port Supplied Reference
SWYC	4373	98	SAIL	31	12	non	SHELTER ISLAND PLUS	8204	SI	9	2018	0		
SWYC	4374	88	POWER	52	10	low copper	MICRON CSC	5583G		4	2017	37		Port Supplied Reference
SWYC	4375	94	POWER	24	8	low copper	ULTRA-KOTE	Y3669U	MG	9	2016	57		Port Supplied Reference
SWYC	4377	96	POWER	32	12	copper	TRINIDAD	1275	SI	11	2020	70		Port Supplied Reference
SWYC	4380	96	SAIL	30	11	low copper	ULTRA	Y3669F	SI	6	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4381	100	POWER	23	8	low copper	PRO-LINE 1088	Y1088C-02	SI	12	2016	67		Port Supplied Reference
SWYC	4382	81	POWER	66	14	low copper	NOT LISTED ABOVE			12	2014	70		
SWYC	4383	100	POWER	27	9	low copper	CALIFORNIA BOTTOMKOTE	YBA143	Dr SI	2	2013	35	2693-18-ZA	Port Supplied Reference
SWYC	4384	96	SAIL	38	12	copper	ULTRA-KOTE	Y3779U	SI	6	2020	57		Port Supplied Reference
SWYC	4386	100	SAIL	33	11	copper	TRINIDAD	1275	SI	10	2020	70		Port Supplied Reference
SWYC	4387	90	POWER	0	13	copper	ULTRA 3779	3779	SI	3	2018	55		Port Supplied Reference
SWYC	4390	100	POWER	32	10	low copper	ULTRA-KOTE	Y3779U	SI	5	2016	57		Port Supplied Reference
SWYC	4391	100	SAIL	29	10	low copper	ULTRA	Y3669F	SI	6	2015	55	2693-212-AA	Port Supplied Reference
SWYC	4394	100	SAIL	32	8	low copper	ULTRA	Y3669F	SI	10	2013	55	2693-212-AA	Port Supplied Reference
SWYC	4395	98	POWER	51	16	low copper	ULTRA-KOTE	Y3779U	SI	4	2017	57		Port Supplied Reference
SWYC	4397	96	SAIL	34	1	copper	NOT LISTED ABOVE		SI	10	2018	70		
SWYC	4398	100	POWER	34	10	copper	ULTRA 3779	3779	SI	12	2019	55		Port Supplied Reference
SWYC	4399	96	POWER	51	15	copper	PETTIT UNEPOXY TIN-FREE	1628	SI	3	2019	53		Port Supplied Reference
SWYC	4401	98	POWER	48	14	non-biocide	INTERSLEEK 900	FXA970/A	SI	4	2013	0		
SWYC	4402	98	POWER	28	11	copper	NOT LISTED ABOVE			6	2019	70		
SWYC	4403	88	SAIL	54	11	low copper	TRINIDAD SR	A1277Q	SI	9	2017	60	60061-94-ZD	Port Supplied Reference
SWYC	4404	98	SAIL	30	12	low copper	TRINIDAD PRO	A10882	SI	10	2019	60	60061-94-ZB	Port Supplied Reference
SWYC	4407	92	POWER	57	17	copper	TROPIKOTE	2145GL		10	2019	76		Port Supplied Reference
SWYC	4409	90	POWER	40	13	copper	ULTRA 3779	3779	SI	6	2018	55		Port Supplied Reference
SWYC	4411	100	SAIL	20	8	low copper	ULTRA	Y3669F		2	2011	55	2693-212-AA	Port Supplied Reference
SWYC	4414		VACANT											
SWYC	4416	100	SAIL	33	10	copper	PRO-LINE 1088	Y1088C-03		7	2018	67	#N/A	
SWYC	4417	96	POWER	55	16	copper	BOTTOMKOTE	10397	SI	12	2018	43		Port Supplied Reference
SWYC	4418	92	POWER	40	13	low copper	ULTRA	Y3669F	SI	10	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4420	100	SAIL	46	14	copper	ULTRA 3669	3669	SI	8	2018	55		Port Supplied Reference
SWYC	4421	100	SAIL	35	12	low copper	ULTRA-KOTE 2669N	2669N	SI	4	2017	67		Port Supplied Reference
SWYC	4422	98	SAIL	37	12	low copper	TRINIDAD PRO	A1088G	SI	12	2019	60	60061-94-ZB	Port Supplied Reference
SWYC	4423	100	POWER	41	13	low copper	ULTRA	Y3669F	SI	8	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4425	100	SAIL	27	8	low copper	Z-SPAR BOTTOM PRO GOLD	411187706	Dr SI	1	2019	65	60061-94-ZE	Port Supplied Reference
SWYC	4426	100	SAIL	40	12	low copper	TRINIDAD PRO	A1088G	SI	10	2019	60	60061-94-ZB	Port Supplied Reference
SWYC	4427		VACANT											
SWYC	4428	96	POWER	33	9	low copper	ULTRA-KOTE	Y3779U		7	2016	57		Port Supplied Reference
SWYC	4429		VACANT											
SWYC	4430	100	DINGY	10	1	copper	NOT LISTED ABOVE		SI	9	2020	70		
SWYC	4431		VACANT											
SWYC	4433	94	SAIL	36	12	low copper	ULTRA	Y3669F	MG	5	2020	55	2693-212-AA	Port Supplied Reference
SWYC	4436	100	POWER	36	12	low copper	NOT LISTED ABOVE			9	2017	70		
SWYC	4439	94	SAIL	28	9	copper	ULTRA-KOTE	Y3669U	Dr MB	2	2018	57		Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SWYC	4441	96	POWER	48	15	low copper	ULTRA	Y3779F	SI	2	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4442	77	POWER	46	15	low copper	BOTTOMKOTE CLASSIC	YBB669G	KK	6	2015	35	2693-18-ZB	Port Supplied Reference
SWYC	4443	88	SAIL	30	11	low copper	ULTRA	Y3669F	SI	6	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4444	85	POWER	44	14	low copper	BOTTOMKOTE ACT WITH IRGAROL	6690B	Dr SI	8	2011	30	2693-227-AA	Port Supplied Reference
SWYC	4445	98	SAIL	43	14	copper	ULTRA-KOTE	Y3669U	SI	1	2020	57		Port Supplied Reference
SWYC	4446	100	POWER	26	9	copper	TRINIDAD PRO	16471732	SI	6	2019	65		Port Supplied Reference
SWYC	4450	85	SAIL	41	13	low copper	TRINIDAD PRO	16471732		3	2016	65		Port Supplied Reference
SWYC	4451	100	SAIL	47	13	low copper	ULTRA	Y3669F	KK	4	2015	55	2693-212-AA	Port Supplied Reference
SWYC	4452	100	POWER	22	10	low copper	CALIFORNIA BOTTOMKOTE	YBA143	Dr SI	1	2016	35	2693-18-ZA	Port Supplied Reference
SWYC	4453	98	POWER	62	16	low copper	TRINIDAD VOC	1878	KK	4	2015	65		Port Supplied Reference
SWYC	4455	92	SAIL	38	11	low copper	TRINIDAD SR	A1688G	SI	7	2020	60	60061-94-ZD	Port Supplied Reference
SWYC	4456	100	SAIL	27	12	low copper	ULTRA	Y3669F	SI	9	2017	55	2693-212-AA	Port Supplied Reference
SWYC	4458		VACANT											
SWYC	4459	77	SAIL	12	12	copper	PRO-LINE 1088	Y1088C-01		1	2019	67		Port Supplied Reference
SWYC	4460	100	SAIL	47	13	low copper	Z-SPAR BOTTOM PRO GOLD	411187706	Dr SI	3	2015	65	60061-94-ZE	Port Supplied Reference
SWYC	4462	98	POWER	38	12	low copper	Z-SPAR BOTTOM PRO GOLD	411187706	Dr SI	11	2018	65	60061-94-ZE	Port Supplied Reference
SWYC	4463	100	POWER	38	12	copper	PRO-LINE COMMERCIAL MARINE FINISHES VINYL	1088C-01	SI	12	2018	67		Port Supplied Reference
SWYC	4464	98	SAIL	51	12	low copper	ULTRA	Y3449F	SI	6	2014	55	2693-212-AA	Port Supplied Reference
SWYC	4465	100	SAIL	31	11	low copper	NOT LISTED ABOVE			6	2017	70		
SWYC	4468	100	POWER	11	5	low copper	EPOXYCOP	NK52	SI	2	2019	33	2693-70-ZA	Port Supplied Reference
SWYC	4469	96	OTHER	32	6	copper	ULTRA 3779	3779	KK	7	2020	55		
SWYC	4471	62	SAIL	40	12	low copper	TRINIDAD PRO	A1088G		8	2018	60	60061-94-ZB	Port Supplied Reference
SWYC	4474	98	SAIL	48	13	low copper	ULTRA 3669	3669	SI	9	2015	55		Port Supplied Reference
SWYC	4475	94	SAIL	50	13	low copper	VIVID	11161	SI	9	2018	25	60061-116-AA	Port Supplied Reference
SWYC	4475	98	POWER	27	9	copper	BP201	BP201		9	2020	40	41750-1-ZE	
SWYC	4476	94	POWER	45	14	copper	ULTRA-KOTE	Y3669U	SI	2	2019	57		Port Supplied Reference
SWYC	4477	85	SAIL	37	12	copper	NOT LISTED ABOVE			9	2020	70		
SWYC	4478	81	POWER	25	9	copper	ULTRA-KOTE	Y3669U	MG	7	2018	57		Port Supplied Reference
SWYC	4479	98	POWER	36	12	low copper	ULTRA	Y3779F	SI	8	2017	55	2693-212-AA	Port Supplied Reference
SWYC	4480	100	SAIL	33	11	low copper	Z-SPAR BOTTOM PRO GOLD	411187706	Dr SI	6	2019	65	60061-94-ZE	Port Supplied Reference
SWYC	4483	100	SAIL	33	6	copper	TRINIDAD VOC	1278	SI	9	2018	65		Port Supplied Reference
SWYC	4484		POWER	13	0									
SWYC	4486	100	POWER	22	9	low copper	ULTRA	Y3449F	KK	8	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4487	96	POWER	37	13	low copper	TRINIDAD SR	A1277Q	SI	7	2019	60	60061-94-ZD	Port Supplied Reference
SWYC	4490	81	SAIL	58	20	copper	PRO-LINE 1088	Y1088C-01	SI	4	2018	67		Port Supplied Reference
SWYC	4492	92	SAIL	37	13	copper	TRINIDAD	1275	SI	3	2020	70		Port Supplied Reference
SWYC	4494	94	SAIL	38	12	copper	ULTRA-KOTE	Y3669U	SI	6	2020	57		Port Supplied Reference
SWYC	4496	90	SAIL	34	12	low copper	Z-SPAR BOTTOM PRO GOLD	411167706	Dr SI	8	2018	65	60061-94-ZE	Port Supplied Reference
SWYC	4497	98	POWER	13	6	copper	NOT LISTED ABOVE			6	2019	70		
SWYC	4498	98	SAIL	38	13	low copper			Dr SI	2	2011	65		
SWYC	4499	98	POWER	41	12	copper	PETTIT UNEPOXY TIN-FREE	1628	SI	11	2019	53		Port Supplied Reference
SWYC	4500	94	SAIL	36	12	non-biocide	INTERSLEEK 900	FXA979/A	SI	8	2013	0		
SWYC	4502	100	POWER	41	15	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	Dr SI	7	2015	65		Port Supplied Reference
SWYC	4503	94	SAIL	38	13	low copper	PRO-LINE 1088	Y1088C-02	SI	7	2017	67		Port Supplied Reference
SWYC	4504	94	SAIL	36	13	low copper	ULTRA-KOTE	Y3779U	SI	6	2017	57		Port Supplied Reference
SWYC	4506	90	SAIL	30	10	copper	PRO-LINE 1088	Y1088C-02	SI	10	2018	67		Port Supplied Reference
SWYC	4508	90	SAIL	35	11	low copper	MICRON CSC	5583G	KK	10	2018	37		Port Supplied Reference
SWYC	4509	98	SAIL	34	11	low copper	VIVID	1861	Dr SI	10	2018	25	60061-116-AA	Port Supplied Reference
SWYC	4512	92	POWER	33	13	copper	PRO-LINE 1088	Y1088C-02	SI	1	2018	67		Port Supplied Reference
SWYC	4514	100	SAIL	39	12	low copper	PRO-LINE 1088	Y1088C-01	KK	10	2017	67		Port Supplied Reference
SWYC	4517	100	POWER	53	15	low copper	NOT LISTED ABOVE		NB	6	2017	70		
SWYC	4522	96	SAIL	32	11	low copper	Z-SPAR BOTTOM PRO GOLD	411187706	Dr SI	10	2019	65	60061-94-ZE	Port Supplied Reference
SWYC	4523	100	SAIL	28	10	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-91	Dr SI	9	2015	65		Port Supplied Reference
SWYC	4524	100	OTHER	36	13	copper	TRINIDAD PRO	16471732	SI	6	2020	65		Port Supplied Reference
SWYC	4525	100	POWER	33	12	low copper	TRINIDAD PRO	A10882	SI	1	2020	60	60061-94-ZB	Port Supplied Reference
SWYC	4526	92	POWER	47	14	copper	NOT LISTED ABOVE		SI	6	2020	70		

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SWYC	4529	98	SAIL	41	12	low copper	TRINIDAD PRO	A10882	SI	3	2020	60	60061-94-ZB	Port Supplied Reference
SWYC	4531	98	POWER	54	15	copper	NOT LISTED ABOVE		SI	8	2019	70		
SWYC	4532	96	SAIL	39	12	copper	PETTIT UNEPOXY TIN-FREE	1628		8	2020	53		Port Supplied Reference
SWYC	4534	100	POWER	62	17	copper	ULTRA 3669	3669	SI	08	2018	55		Port Supplied Reference
SWYC	4535	94	POWER	46	15	low copper	AQUAGARD WATERBASE	10101	SI	3	2019	26	9339-19-AA-70383	Port Supplied Reference
SWYC	4536	100	SAIL	20	0	low copper	ULTRA	Y3449F		11	2020	55	2693-212-AA	Port Supplied Reference
SWYC	4537	100	POWER	22	9	copper						65		
SWYC	4538	98	POWER	41	13	low copper	ULTRA	Y3779F	SI	11	2014	55	2693-212-AA	Port Supplied Reference
SWYC	4540	100	SAIL	30	11	low copper	ULTRA-KOTE	Y3669U	SI	7	2016	57		Port Supplied Reference
SWYC	4542	96	SAIL	35	11	copper	PETTIT UNEPOXY TIN-FREE	1228	SI	11	2020	53	#N/A	
SWYC	4543	96	SAIL	41	14	copper	PRO-LINE 1088	Y1088C-01	SI	9	2019	67		Port Supplied Reference
SWYC	4544	100	POWER	34	11	copper						65		
SWYC	4545	98	POWER	21	8	low copper	BOTTOMKOTE PRO	79	Dr SI	10	2019	22		Port Supplied Reference
SWYC	4546	100	SAIL	34	11	low copper	PRO-LINE 1088	Y1088C-01	KC	9	2010	67		Port Supplied Reference
SWYC	4547	96	POWER	34	9	low copper	ULTRA 3779	3779	SI	12	2017	55		Port Supplied Reference
SWYC	4549	81	SAIL	47	11	low copper	PRO-LINE 1088	Y1088C-01		10	2012	67		Port Supplied Reference
SWYC	4550	98	SAIL	30	9	low copper	ULTRA	Y3669F	SI	4	2019	55	2693-212-AA	Port Supplied Reference
SWYC	4553	96	POWER	57	16	copper	PRO-LINE 1088	Y1088C-01	SI	4	2019	67		Port Supplied Reference
SWYC	4554	100	SAIL	34	11	copper	ULTRA 3449	3449	SI	7	2018	55		Port Supplied Reference
SWYC	4557	100	OTHER	29	9	low copper	TRILUX 33	YBA063		5	2016	17	2693-203-ZB	Port Supplied Reference
SWYC	4558	98	POWER	13	9	low copper	NOT LISTED ABOVE			6	2012	70		
SWYC	4559	100	POWER	37	12	low copper	NOT LISTED ABOVE			10	2017	70		
SWYC	4560	87	POWER	38	13	low copper	ULTRA 3669	3669	SI	6	2014	55		Port Supplied Reference
SWYC	4562	94	DINGY	10	6	low copper	PETTIT FOR INFLATABLE BOATS	1841		1	2020	40	60061-87-ZM	Port Supplied Reference
SWYC	4563	98	POWER	39	14	low copper	ULTRA	Y3669F	KK	5	2014	55	2693-212-AA	Port Supplied Reference
SWYC	4565	100	SAIL	40	13	non-biocide	NO PAINT - UNPAINTED			6	2017	0		
SWYC	4566	100	SAIL	31	11	low copper	ULTRA	Y3779F	SI	9	2017	55	2693-212-AA	Port Supplied Reference
SWYC	4567	94	SAIL	37	12	copper	TRINIDAD	1275	SI	2	2020	70		Port Supplied Reference
SWYC	4568	94	POWER	62	17	copper	ULTRA 3779	3779	Dr MB	7	2020	55		Port Supplied Reference
SWYC	4569	100	POWER	43	14	low copper	BOTTOMKOTE	10397	SI	2	2017	43		Port Supplied Reference
SWYC	4570	100	POWER	29	8	copper	PETTIT UNEPOXY TIN-FREE	1628	SI	6	2020	53		Port Supplied Reference
SWYC	4571	100	POWER	41	13	copper	ULTRA-KOTE	Y3779U		10	2018	57		Port Supplied Reference
SWYC	4573	100	SAIL	22	8	non	MISSION BAY 4000 SERIES	4010		4	2020	0		
SWYC	4575	94	SAIL	42	13	non	SHELTER ISLAND	8201	SI	6	2020	0		
SWYC	4576	100	SAIL	39	12	low copper	Z*SPAR THE PROTECTOR VOC HARD TYPE	B-94	Dr SI	3	2014	65		Port Supplied Reference
SWYC	4578	92	SAIL	44	13	non-biocide	CERAM-KOTE 99	99M	SI	3	2017	0		
SWYC	4579	98	POWER	41	12	low copper	ULTRA	Y3779F	SI	2	2019	55	2693-212-AA	Port Supplied Reference
SWYC	4581	96	SAIL	34	11	low copper	ULTRA 3669	3669	SI	6	2016	55		Port Supplied Reference
SWYC	4581	100	SAIL	26	7	copper	1640	1640		7	2019	40	60061-87-ZL	
SWYC	4583	85	POWER	37	12	copper	ULTRA 3779	3779	SI	3	2018	55		Port Supplied Reference
SWYC	4584	100	SAIL	50	13	low copper	ULTRA	Y3779F	SI	11	2016	55	2693-212-AA	Port Supplied Reference
SWYC	4585	60	SAIL	24	10	low copper	NOT LISTED ABOVE			1	2016	70		
SWYC	4586	94	POWER	43	13	copper	ULTRA 3779	3779	SI	3	2018	55		Port Supplied Reference
SWYC	4587	98	SAIL	30	9	low copper	WEST MARINE BOTTOMPRO GOLD! PROFESSIONAL	411127906		6	2014	40	60061-117-ZE	Port Supplied Reference
SWYC	4588	98	POWER	41	12	copper	PROGUARD ABLATIVE	NAU993	Dr SI	8	2020	42		Port Supplied Reference
SWYC	4589	94	SAIL	34	11	low copper	PROGUARD ABLATIVE	NAU992	SI	7	2015	42		Port Supplied Reference
SWYC	4590	100	POWER	34	10	copper	NOT LISTED ABOVE			5	2020	70		
SWYC	4591	100	SAIL	37	11	copper	ULTRA 3779	3779	SI	1	2020	55		Port Supplied Reference
SWYC	4592	96	POWER	42	13	low copper	ULTRA	Y3449F	Dr SI	3	2013	55	2693-212-AA	Port Supplied Reference
SWYC	4594	92	SAIL	40	13	low copper	ULTRA	Y3669F	SI	6	2018	55	2693-212-AA	Port Supplied Reference
SWYC	4597	100	POWER	43	12	copper						65		
SWYC	4598	100	SAIL	33	8	copper	ULTRA 3779	3779	SI	8	2018	55		Port Supplied Reference
SWYC	4599	98	POWER	34	11	copper	ULTRA-KOTE	Y3779U	SI	6	2020	57		Port Supplied Reference



[illegible]

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SIM	7005	100.00%	S	41	12	Low Copper	Woolsey	4802	self applied	2	2017	67	60061-101-ZA	Port Supplied Reference
SIM	7009	100.00%	S	35	12.5	non	Micron CF	YB0103	Koehler Kraft	2	2016	0		
SIM	7010	100.00%	S	49	12	Low Copper	Proline vinyl Copper	1088C-01	Self applied	12	2017	67		Port Supplied Reference
SIM	7013	100.00%	S	23	9	Low Copper	Unknown		SIBY	4	2006	67		
SIM	7023	100.00%	S	30	11	Low Copper	Pettit Trinidad	1271	SIBY	8	2020	55	60061-94-ZD	DPR Active
SIM	7024	100.00%	P	32	6	Low Copper	Interlux Ultra	Y3779F	MGBW	12	2017	55	2693-212-AA	Port Supplied Reference
SIM	7031	100.00%	P	37	14	Low Copper	Interlux Ultra	Y3669F	Hale Marine AZ	4	16	55	2693-212-AA	Port Supplied Reference
SIM	7034	100.00%	S	40	13	Non	Copper Coat	book says unable to locate	Baja Naval	5	2020	0		
SIM	7039	100.00%	S	30	10.6	Low Copper	Interlux Ultra	Y3669F	SIBY	5	2016	55	2693-212-AA	Port Supplied Reference
SIM	7040	92.66%	P	33.5	11.5	Low Copper	Pettit Trinidad	A10882	SIBY	8	2019	55	60061-94-ZB	Port Supplied Reference
SIM	7042	85.01%	P	30	12	Low Copper	Interlux Ultra	Y3779F	SIBY	7	2016	55	2693-212-AA	Port Supplied Reference
SIM	7043	100.00%	S	24	8	Low Copper	Interlux Ultra	Y3669F	SIBY	9	2017	55	2693-212-AA	Port Supplied Reference
SIM	7046	93.82%	P	103	24.5	Low Copper	Seahawk	TF1205	SIBY	11	2018	33	44891-10-ZA	DPR Active
SIM	7047	83.16%	P	79	23	Low Copper	Seaguard Ablative	P30 BQ 12	MGBW	11	2019	55	10250-54-ZA	DPR Active
SIM	7052	98.66%	P	42	13	Low Copper	Unknown		Florida	12	2017	67		
SIM	7054	100.00%	P	38	11	Low Copper	Naut Super Pro Guar	NAU773	Neilson Beaumont	1	2016	55	23566-20-ZT	Port Supplied Reference
SIM	7055	100.00%	S	29	7	Low Copper	Interlux Ultra	Y3779F	SIBY	4	2012	55	2693-212-AA	Port Supplied Reference
SIM	7061	81.81%	P	16	6.5	Non	no bottom paint					0	60061-87-ZM	
SIM	7062	100.00%	S	31.3	10.11	Low Copper	Interlux Ultra	Y3669F	SIBY	2	2019	55	2693-212-AA	Port Supplied Reference
SIM	7064	100.00%	S	27	8	Copper	Unknown		Jul-15	unknown	unknown	67		
SIM	7068	97.85%	S	42	14	Low Copper	Interlux Ultra	3559	SIBY	2	2015	55		
SIM	7078	84.74%	P	89	21	Low Copper	Zspar Progold	BP-91	Driscolls SI	2	2019	55	60061-64-ZE	DPR Active
SIM	7087	100.00%	S	44	12	Low Copper	Interlux Ultra	Y3669F	SIBY	5	2017	55	2693-212-AA	Port Supplied Reference
SIM	7088	97.50%	S	58	16	Low Copper	Pettit Trinidad	A10882	SIBY	3	2016	55	60061-94-ZB	Port Supplied Reference
SIM	7089	79.87%	P	128	26	Non	Seavoyage	N51B301	MGBW	6	2018	0		
SIM	7095	100.00%	S	27	9	Low Copper	Interlux Ultra	Y3779F	SIBY	10	2016	55	2693-212-AA	Port Supplied Reference
SIM	7098	91.07%	P	49	15.5	Low Copper	Interlux Ultra	Y3779F	SIBY	10	2018	55	2693-212-AA	Port Supplied Reference
SIM	7102	100.00%	S	30	10.25	Low Copper	Proline	1088C-02	Santa Barbara	10	2010	33		Port Supplied Reference
SIM	7105	100.00%	P	22	7.5	Low Copper	Pettit Trinidad	1871	SIBY	7	20	55	60061-94-ZD	DPR Active
SIM	7106	90.10%	P	41	14	Copper	Unknown		Nov-17	unknown	unknown	67		
SIM	7111	100.00%	S	39	13	Low Copper	Woolsey Defense	4802	Nielson Beaumont	8	2017	67	60061-101-ZA	Port Supplied Reference
SIM	7122	99.19%	S	33	11.6	Low Copper	Interlux Ultra	Y3779F	SIBY	5	2016	55	2693-212-AA	Port Supplied Reference
SIM	7129	100.00%	P	32	13	Low Copper	Micron CSC	YBC580	SIBY	11	2014	33	2693-225-AA	Port Supplied Reference
SIM	7132	99.73%	S	47	13.9	Low Copper	Interlux Ultra	Y3779F	SIBY	6	2020	55	2693-212-AA	Port Supplied Reference
SIM	7136	83.33%	P	13.9	6.3	Low Copper	Pettit	1841	Dinghy Doctor	9	2019	55	60061-87-ZM	Port Supplied Reference
SIM	7141	100.00%	S	31	10.9	Copper	Unknown -New boat		Oct-18	unknown	2018	55		
SIM	7147	100.00%	S	42	13	Low Copper	Pettit Trinidad	1271	SIBY	3	2020	55	60061-64-ZD	DPR Active
SIM	7152	98.06%	P	69	17.2	Low Copper	Pettit Zspar	B-94	Driscolls	6	2015	67		Port Supplied Reference
SIM	7153	100.00%	S	43	13.3	Low Copper	Interlux Ultra	Y3779F	SIBY	8	2018	55	2693-212-AA	Port Supplied Reference
SIM	7156	100.00%	S	30	11.3	Low Copper	Interlux Ultra	Y3669F	SIBY	10	2007	55	60061-87-ZM	Port Supplied Reference
SIM	7159	100.00%	S	39	13.5	Low Copper	Interlux Ultra	Y3669F	SIBY	2	2019	55	2693-212-AA	Port Supplied Reference
SIM	7161	100.00%	P	22	8.3	Low Copper	Zspar	BP-001	Driscolls	8	2019	67	60061-94-ZD	DPR Active
SIM	7167	98.91%	S	40	11.8	Low Copper	Interlux Ultra	Y3779F	SIBY	11	2018	55	2693-212-AA	Port Supplied Reference
SIM	7168	91.16%	P	22	8	Non	Pettit Eco HRT	1300	Dinghy Docktor	10	20	0		
SIM	7169	100.00%	S	45.5	12	Low Copper	Interlux Ultra	Y3669F	Driscolls	9	2020	55	2693-212-AA	Port Supplied Reference
SIM	7173	100.00%	P	36	13.6	Low Copper	Unknown		Driscolls	11	2015	67	60061-87-ZM	
SIM	7176	100.00%	P	23	7.6	Low Copper	Zspar	B-94	Sunset Aquatic Mar Cn	1	2014	55		Port Supplied Reference
SIM	7186	94.89%	P	15	7	Low Copper	Fiberglss Bottom Kote	YBB369	Self-Applied	12	2017	33	2693-228-AA	Port Supplied Reference
SIM	7189	100.00%	P	28.3	9.8	Low Copper	Interlux Ultra	Y3779F	SIBY	5	2013	55	2693-212-AA	Port Supplied Reference
SIM	7191	91.52%	P	106	24	Low Copper	Sea Hawk Bio Cop	1205-1	SIBY	5	2020	38	44891 - 15	Port Supplied Reference
SIM	7192	96.94%	P	74.9	20	Low Copper	Trilux 33	YBA063	SIBY	8	2020	17	2693-203-ZB	Port Supplied Reference
SIM	7197	100.00%	S	23	7.8	Low Copper	Interlux Ultra	Y3779F	Koehler	4	2019	55	2693-212-AA	Port Supplied Reference
SIM	7200	100.00%	S	30	10	Low Copper	Pettit Trinidad	1271	SIBY	10	2020	55	60061-94-ZD	DPR Active
SIM	7201	93.61%	S	38	12.3	Low Copper	Interlux Ultra	Y3779F	Driscolls MB	9	2009	55	2693-212-AA	Port Supplied Reference
SIM	7205	100.00%	P	23	8.6	Low Copper	Interlux Ultra	Y3449F	SIBY	12	2017	55	2693-212-AA	Port Supplied Reference
SIM	7208	93.55%	P	41	14	Non	Seavoyage	N51	Driscolls MB	9	2019	0		
SIM	7209	100.00%				Copper						65		

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SIM	7211	98.92%				Copper						65		
SIM	7212	98.89%	S	35	11.6	Low Copper	Unknown		Mexico	6	2016	67		
SIM	7216	91.94%	S	52	14	Low Copper	ZsparProGold	BP-91	KKMI	11	2017	55	60061-64-ZE	DPR Active
SIM	7220	100.00%	P	41	14	Low Copper	Interlux Ultra	Y3779F	SIBY	2	2018	55	2693-212-AA	Port Supplied Reference
SIM	7223	100.00%	S	30	10.9	Copper	Unknown		Jun-18	unknown	2018	67		
SIM	7224	100.00%	S	31	11.6	Low Copper	Interlux Ultra	Y3669F	Self Applied	5	2020	55	2693-212-AA	Port Supplied Reference
SIM	7226	93.89%	P	25	8	Low Copper	Pettit Trinidad	1861	SIBY	7	2020	55	60061-116-AA	Port Supplied Reference
SIM	7240	88.23%	S	58	16	Copper	unknown					65		
SIM	7241	100.00%	P	53	15	Low Copper	Interlux Ultra	Y3779F	MGBW	7	2019	55	2693-212-AA	Port Supplied Reference
SIM	7244	99.72%	P	36	12.4	Low Copper	Pettit	1271	SIBY	9	2020	55	60061-94-ZB	DPR Active
SIM	7252	88.42%	P	45	13.7	Copper	Zspar	B-91		11	2019	55		Port Supplied Reference
SIM	7256	100.00%	S	42	13	Low Copper	ZsparPro	BP-001	Driscolls	11	2019	67	60061-64-ZE	DPR Active
SIM	7257	100.00%	S	29	9.6	Low Copper	Zspar Pro Gold Bp91	A411187706	SIBY	4	2013	55		Port Supplied Reference
SIM	7260	86.94%	P	35	12	Low Copper	Pettit Trinidad	1871	SIBY	11	2019	55	60061-94-ZB	DPR Active
SIM	7261	99.19%	S	33	8	Low Copper	Petit Protector	B-94	Driscoll's SI	1	2017	67		Port Supplied Reference
SIM	7267	100.00%	S	47	14	Low Copper	Interlux Ultra	Y3779F	Driscoll	7	2020	55	2693-212-AA	Port Supplied Reference
SIM	7268	84.72%	P	42	13	Low Copper	Interlux Ultra	Y3779F	SIBY	7	2016	55	2693-212-AA	Port Supplied Reference
SIM	7269	99.11%	S	43		Low Copper	Seahawk Biocop	1205-1	MGBW	2	2020	38		Port Supplied Reference
SIM	7270	99.44%	S	29	10.4	Copper	Zspar	B-91	Marina	4	2019	67		
SIM	7278	77.50%	P	64	17.5	Low Copper	Pettit Trinidad SR	98	SIBY	9	2018	40	60061-117-ZB	Port Supplied Reference
SIM	7279	100.00%	P	21	8	Low Copper	Interlux Ultra	Y3779U	SIBY	5	2017	57		Port Supplied Reference
SIM	7283	100.00%	S	36	11.75	non	Ceram Kote	99	Self	5	2015	0		
SIM	7284	100.00%	P	32	11.3	Low Copper	Interlux Ultra	Y3779F	Driscolls SI	2	2014	55	2693-212-AA	Port Supplied Reference
SIM	7288	81.80%				Copper						65		
SIM	7291	100.00%	P	50	16	Low Copper	Zspar Pro Gold Blak	BP91	SIBY	11	2015	67	60061-64-ZE	DPR Active
SIM	7297	100.00%	P	32	12	Non	Valspar	5799W9002	sits on hydrohoist	10	2008	0		
SIM	7299	72.53%	p	45	18	Copper	Unknown		Self Applied	11	2018	67		
SIM	7300	99.70%	S	48	17	Low Copper	Pettit Ultima	1032	Baja Navall	12	2016	55		Port Supplied Reference
SIM	7304	96.77%	P	40	13	Low Copper	Interlux Ultra	Y3779F	Driscolls MB	7	2019	55	60061-87-ZM	Port Supplied Reference
SIM	7307	100.00%	S	25	8	Low Copper	Micron CSC	YBC580	SIBY	11	2013	33	2693-225-AA	Port Supplied Reference
SIM	7313	99.13%	P	50	15.8	Low Copper	Interlux Ultra	Y3669F	SIBY	9	2018	55	2693-212-AA	Port Supplied Reference
SIM	7317	100.00%	P	64	17	Low Copper	Interlux Ultra	Y3779F	SIBY	8	2017	55	2693-212-AA	Port Supplied Reference
SIM	7323	100.00%	E	18	7.9	Low Copper	Interlux Ultra	Y3779F	SIBY	4	2018	55	2693-212-AA	Port Supplied Reference
SIM	7326	100.00%	P	28	11	Low Copper	Interlux Ultra	Y3779F	Driscolls	8	2018	55	2693-212-AA	Port Supplied Reference
SIM	7327	79.34%	P	120	20	Low Copper	Sea Guard	P30	MGBW	7	2019	55	10250-54-ZA	DPR Active
SIM	7328	99.46%	P	111	25	Copper	Interlux Ultra Kote	Y3449U	MGBW	11	2019	67		Port Supplied Reference
SIM	7329	100.00%	P	40	13.6	Low Copper	Unknown-new boat		Apr-17	unknown	2017	67		
SIM	7330	100.00%	S	18	8	Non	Seahawk Smart Solut	4705	Koehler Kraft	3	2015	0		
SIM	7332	96.98%	S	43	13.9	Low Copper	Zspar	BP 94	Driscolls	1	2020	55	60061-94-ZE	DPR Active
SIM	7338	85.17%	P	90	22	Copper	Proline	1088C-01	MGBW	11	2018	67		Port Supplied Reference
SIM	7341	99.46%	S	36.6	13.1	Low Copper	Pettit Trinidad	A10882	SIBY	11	2018	55	60061-94-ZB	Port Supplied Reference
SIM	7342	100.00%	P	50	14.6	Copper	Unknown		Aug-17	unknown	unknown	67		
SIM	7347	100.00%	S	30	11	Low Copper	Petit Trinidad	A10882	Dolphin Divers	9	2011	55	60061-94-ZB	Port Supplied Reference
SIM	7353	99.19%				Copper						65		
SIM	7355	100.00%	S	38	12.4	Low Copper	Pettit Protector	B-94	The Boatyard Oxnard	12	2017	60		Port Supplied Reference
SIM	7356	100.00%	S	35	11.4	NON	Ceram Kote	99	SIBY	2	2015	0		
SIM	7358	100.00%	P	88	20.5	Low Copper	Interlux Ultra	Y3779F	MGBW	11	2020	55	60061-87-ZM	Port Supplied Reference
SIM	7363	100.00%	S	27	8	Low Copper	Interlux Ultra	Y3779F	Koehler Kraft	3	2015	55	2693-212-AA	Port Supplied Reference
SIM	7365	97.30%	S	112	25	Non	Interspeed	5640	MGBW	12	2019	0		
SIM	7367	91.05%	P	31	11	Low Copper	Micron CSC	YBC580	Charleston SC	3	2017	33	2693-225-AA	Port Supplied Reference
SIM	7368	93.12%	P	99.6	25.2	Low Copper	Micron 66	YBA473	SIBY	11	2017	35	2693-187-ZG	Port Supplied Reference
SIM	7369	89.52%	S	42	12.6	Low Copper	Interlux Ultra Kote	Y3449U	MGBW	11	2018	57		Port Supplied Reference
SIM	7371	100.00%	P	38	13	Low Copper	Proline	1088C-02	SIBY	10	2013	33		Port Supplied Reference
SIM	7373	98.06%	P	35	13	Low Copper	Pettit Protector	B-94	Driscolls MB	9	2013	67		Port Supplied Reference
SIM	7378	83.87%	S	31	10.1	Low Copper	Total Boat by Spartan	4020	Self Applied	1	2019	38		Port Supplied Reference
SIM	7381	100.00%	P	28	10	Low Copper	Interlux Ultra	Y3779F	SIBY	5	2018	55	2693-212-AA	Port Supplied Reference
SIM	7382	97.25%	S	39.7	12.6	Low Copper	Micron CSC	YBC580	SIBY	1	2014	33	2693-225-AA	Port Supplied Reference
SIM	7383	83.33%	P	44	13.9	Low Copper	Micron CSC	YBC583	SIBY	9	2011	33	2693-225-AA	Port Supplied Reference
SIM	7384	93.02%	P	28	9.5	Low Copper	Interlux Ultra	Y3669F	SIBY	6	2019	55	2693-212-AA	Port Supplied Reference

Facility	Slip/Moor Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SIM	7391	100.00%	P	45	13	Low Copper	Zspar Pro	411187706	Driscolls	12	2019	55	60061-94-ZE	Port Supplied Reference
SIM	7392	100.00%	S	33	10.5	Low Copper	Interlux Ultra	Y3669F	SIBY	11	2017	55	2693-212-AA	Port Supplied Reference
SIM	7393	100.00%	P	26	8.6	Low Copper	Interlux Ultra	Y3779F	Oceanside Marine	4	2020	55	2693-212-AA	Port Supplied Reference
SIM	7394	100.00%	S	21	6.3	Low Copper	Interlux Ultra	Y3669F	SIBY	4	2018	55	2693-212-AA	Port Supplied Reference
SIM	7395	91.80%	P	105	24	Non	Proline	1051	SIBY	12	2019	0		
SIM	7396	100.00%	S	47	14	Low Copper	Zspar	BP91	Newp Harbor Ship	11	2016	67	60061-64-ZE	DPR Active
SIM	7397	100.00%	P	30	10	Low Copper	Interlux Ultra	Y3669U	SIBY	7	2016	55		Port Supplied Reference
SIM	7406	83.33%	S	21	6.3	Low Copper	Interlux Ultra	Y3669F	Self Applied	9	2017	55	2693-212-AA	Port Supplied Reference
SIM	7409	100.00%	S	34	11.9	Low Copper	Micron CSC	YBC583	SIBY	4	2018	33	2693-225-AA	Port Supplied Reference
SIM	7410	100.00%	S	36	11.9	Low Copper	Pettit	1875	So Tex Yacht Serv	11	2016	67		Port Supplied Reference
SIM	7412	100.00%	P	30	11.5	Low Copper	Interlux Ultra	Y3779F	SIBY	12	2015	55	2693-212-AA	Port Supplied Reference
SIM	7413	100.00%	P	36	12.6	Low Copper	Interlux Ultra	Y3669F	SIBY	11	2014	55	2693-212-AA	Port Supplied Reference
SIM	7416	100.00%	P	36.2	12.5	Low Copper	Interlux Ultra	Y3669F	Driscolls	7	2012	55	2693-212-AA	Port Supplied Reference
SIM	7418	100.00%	S	36.4	12.5	Low Copper	Interlux Ultra	Y3449F	SIBY	1	2014	55	2693-212-AA	Port Supplied Reference
SIM	7420	82.28%				Copper						65		
SIM	7421	99.73%	S	47	14.8	Low Copper	Zspar	16471690	Driscoll SI	7	2017	65	#N/A	
SIM	7423	93.28%	P	30	10.4	Low Copper	Interlux Ultra	Y3779F	Driscolls MB	4	2014	55	2693-212-AA	Port Supplied Reference
SIM	7426	99.19%	S	33	11	Low Copper	Pettit Trinidad	1871	SIBY	8	2020	55	60061-64-ZD	DPR Active
SIM	7429	100.00%	S	45	13	Low Copper	Interlx Ultra	Y3779F	SIBY	4	2014	55	2693-212-AA	Port Supplied Reference
SIM	7430	100.00%	P	48	15.5	Low Copper	Interlux Ultra	Y3669F	Koehler Kraft	10	2018	55	2693-212-AA	Port Supplied Reference
SIM	7432	100.00%	S	25	8	Low Copper	Interlux Ultra	Y3669F	SIBY	8	2017	55	2693-212-AA	Port Supplied Reference
SIM	7435	98.61%	P	40	14.2	Low Copper	Interlux Ultra	Y3779F	SIBY	4	2018	55	2693-212-AA	Port Supplied Reference
SIM	7436	100.00%	S	42	13.9	Copper	Interlux Ultra	Y3669U	Koehler Kraft	12	2018	57		Port Supplied Reference
SIM	7442	88.58%	P	151	28	Low Copper	SeaHawk Biocop	1205-1	Marine Group	4	2019	38	44891 - 15	Port Supplied Reference
SIM	7443	99.46%	S	43	11	Low Copper	Interlux Ultra	Y3779F	SIBY	6	2018	55	2693-212-AA	Port Supplied Reference
SIM	7448	100.00%	P	25	8.6	Low Copper	Interlux Ultra	Y3779F	HH Marine Services	9	2017	55	2693-212-AA	Port Supplied Reference
SIM	7454	99.19%	P	33	11	Non	no bottom paint	no paint	not painted	not painted	not painted	0		
SIM	7459	100.00%	P	42	14	Low Copper	Interlux Ultra	2669N	SIBY	11	2015	55		
SIM	7464	100.00%	S	42	13.9	Low Copper	Micron CSC	YBC580	SIBY	9	2016	33	2693-225-AA	Port Supplied Reference
SIM	7465	100.00%	P	32	11.5	Non	no bottom paint	non	non	non	non	0		
SIM	7469	100.00%	S	21	6	Low Copper	Interlux Ultra	Y3669F	Self Applied	7	2018	55	2693-212-AA	Port Supplied Reference
SIM	7471	98.63%	S	35.6	12	Low Copper	Woolsey Defense	4801	Neilson Beaumont	7	2017	67	60061-101-ZA	Port Supplied Reference
SIM	7473	96.39%	S	65	17.5	Low Copper	Zspar Protector	BP-91	Driscolls	6	2017	55	60061-94-ZB	DPR Active
SIM	7474	100.00%	S	22	6	Copper	Unknown	unknown	Aug-18	unknown	unknown	67		
SIM	7476	76.33%	P	34	11.2	Low Copper	Micron 66	YBA473	Long Beach	11	2018	33	2693-187-ZG	Port Supplied Reference
SIM	7477	100.00%	P	16	5	Low Copper	Trilux 33	YBA063	Self Applied	10	2013	17	2693-203-ZB	Port Supplied Reference
SIM	7480	99.73%	P	36	12.2	Low Copper	Interlux Ultra	Y3779F	SIBY	2	2015	55	2693-212-AA	Port Supplied Reference
SIM	7485	100.00%	S	37	12	Non	Pettit Eco	HRT	Self Applied	6	2016	0		
SIM	7499	100.00%	S	42	12	Low Copper	Zspar Progold	41127706	Driscolls	4	2017	60	60061-94-ZE	Port Supplied Reference
SIM	7500	100.00%	S	42	14	Copper	Unknown		Jun-20		2018	65		
SIM	7504	100.00%	P	44	14.6	Low Copper	Interlux Ultra	Y3779F	SIBY	5	2018	55	2693-212-AA	Port Supplied Reference
SIM	7510	100.00%	P	113	23.6	Low Copper	Seaguard	P30BQ12	MGBW	3	2016	48		
SIM	7512	98.66%	S	30	10	Low Copper	Zspar	BP94	Driscolls MB	8	2020	55	60061-94-ZB	DPR Active
SIM	7513	100.00%	P	36	13	Copper	Petit Zspar	B-94	Boatyard, Marina Del Rey	7	2019	67		Port Supplied Reference
SIM	7514	93.46%	P	53	15	Low Copper	Zspar Progold	BP91	Driscolls SI	11	2018	67	60061-64-ZE	DPR Active
SIM	7515	96.48%	S	39	11.2	Copper	Unknown		Mexico Botayard	1	2018	67		
SIM	7516	100.00%	P	38	13.4	Low Copper	Interlux Ultra	Y3669F	SIBY	6	2014	55	2693-212-AA	Port Supplied Reference
SIM	7517	100.00%	P	35	13	Low Copper	Pettit Trinidad	1871	SIBY	5	2019	55	60061-64-ZD	DPR Active
SIM	7522	100.00%	P	30	11	Low Copper	Interlux Ultra	Y3779F	SIBY	3	2017	55	2693-212-AA	Port Supplied Reference
SIM	7523	100.00%	S	41	12	Copper	Proline	1088C-02	SIBY	7	2018	56		Port Supplied Reference
SIM	7524	96.24%	P	47.8	15	Copper			SIBY	May-19		67		
SIM	7528	100.00%	S	30	11	Low Copper	Interlux Ultra	Y3669F	SIBY	9	2015	55	2693-212-AA	Port Supplied Reference
SIM	7529	100.00%	P	16	7	Copper	Unknown -New boat		May-19	unknown	unknown	55		
SIM	7530	100.00%	P	30	10.5	Low Copper	Micron CSC	YBC583	SIBY	4	2015	33	2693-225-AA	Port Supplied Reference
SIM	7538	55.99%				Copper						65		
SIM	7539	100.00%	S	29.6	10	Low Copper	Pettit Kop Coat	1881	KKMI	3	2015	33	60061-71-ZA	Port Supplied Reference
SIM	7541	100.00%	P	30	8.5	Low Copper	Interlux Ultra	Y3779F	Koehler Kraft	11	20	55	2693-212-AA	Port Supplied Reference
SIM	7549	100.00%	P	17	6	Low Copper	Interlux Ultra	Y3779F	Koehler Craft	6	20	55	2693-212-AA	Port Supplied Reference
SIM	7556	100.00%	S	32.11	11.2	Low Copper	Proline	1088C-02	Driscolls	7	2016	33		Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
SIM	7558	100.00%	S	30	10.8	Low Copper	Pettit Zspar	BP91	Driscolls	2	2016	55	60061-94-ZD	DPR Active
SIM	7560	100.00%	P	45	14	Low Copper	Sea Hawk Tropicote	2145	BAJA NAVAL	3	2017	55	44891-10-ZA	DPR Active
SIM	7561	97.22%	S	28.7	10.4	Low Copper	Pettit Trinidad	1871	SIBY	6	2020	55	60061-94-ZD	DPR Active
SIM	7564	100.00%	P	38	14	Low Copper	Interlux Ultra	Y3779F	SIBY	2	2015	55	2693-212-AA	Port Supplied Reference
SIM	7570	100.00%	S	21	6.3	Low Copper	Interlux Ultra	Y3669F	SIBY	6	2019	55	2693-212-AA	Port Supplied Reference
SIM	7575	92.20%	P	36.6	10	Low Copper	Interlux Ultra	Y3669F	SIBY	1	2019	55	2693-212-AA	Port Supplied Reference
SIM	7576	97.92%	P	43.6	14.4	Low Copper	Interlux Ultra Black	Y3779F	Driscoll	5	2020	55	2693-212-AA	Port Supplied Reference
SIM	7577	80.25%	P	151	30	Low Copper	Seahawk	TF1205	MGBW	1	2019	33	44891 - 15	DPR Active
SIM	7578	98.61%	S	36	11.9	Low Copper	Zspar	B-91	Driscolls	5	2017	67		Port Supplied Reference
SIM	7579	94.09%	S	21	6.3	Low Copper	Interlux Ultra	Y3669F	SIBY	5	2015	55	2693-212-AA	Port Supplied Reference
SIM	7584	99.44%	P	46	15.5	Low Copper	Pettit Trinidad SR	1877	SIBY	8	2020	67	60061-94-ZD	DPR Active
SIM	7598	100.00%	S	35.8	11.9	Low Copper	Interlux Ultra Kote	Y3669U	SIBY	7	2017	67		Port Supplied Reference
SIM	7603	100.00%	P	38	13.3	Low Copper	Interlux Ultra	Y3669F	Koehler Kraft	3	2017	55	2693-212-AA	Port Supplied Reference

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
HMM	9009	100	S	35	12	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9016	100	P	29	11	Non	Armored Hull (liner)		None	NA	NA	0		
HMM	9032	100	S	33	10	Low Copper	Zspar Bottom Pro Gold	BP91	Driscolls	6	2018	55	60061-64-ZE	DPR Active
HMM	9041	100	S	34	12	Low Copper	Interlux Ultra	Y3669F	Northern California	9	2020	55	2693-212-AA	Port Supplied Reference
HMM	9042	100	S	23	8	Low Copper	Interlux Ultra	Y3779U	Shelter Island Boatyard	8	2016	55		Port Supplied Reference
HMM	9045	100	P	21	8	Low Copper	Interlux Ultra	Y3779F	Koehler Kraft	5	2020	55	2693-212-AA	Port Supplied Reference
HMM	9073	100	S	32	11	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9079	100	P	35	12	Copper	Unkown		Unknown	Unknown	Unknown	67		
HMM	9098	80	S	36	13	Low Copper	Interlux Ultra	Y3559F	Shelter Island Boatyard	3	2018	55	2693-212-AA	Port Supplied Reference
HMM	9098	80	S	30	11	Non	Interlux Intersleek 900	FXA972/A	Shelter Island Boatyard	5	2013	0		
HMM	9127	100	P	23	8	Low Copper	Interlux Micron 66	YBA470	Self Applied	9	2019	67	2693-187-ZD	Port Supplied Reference
HMM	9135	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9139	100	S	33	12	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9140	100	P	23	8	Low Copper	Zspar Bottom Pro Gold	BP91	Driscoll SI	3	2019	55	60061-137	DPR Active
HMM	9141	100	S	25	9	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	3	2019	55	2693-212-AA	Port Supplied Reference
HMM	9144	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9147	100	P	30	10	Copper	Woolsey Defense	593-4301	Nielsen-Beaumont	11	2018	55		
HMM	9149	100	S	35	11	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	11	2013	55	2693-212-AA	Port Supplied Reference
HMM	9153	100	S	38	11	Low Copper	Interlux Ultra	Y3669F	Koehler Kraft	5	2019	55	2693-212-AA	Port Supplied Reference
HMM	9164	100	S	34	10	Low Copper	Interlux Ultra	Y3669F	Driscoll SI	10	2018	55	2693-212-AA	Port Supplied Reference
HMM	9165	100	S	33	13	Low Copper	Interlux Ultra	Y3559U	Shelter Island Boatyard	5	2016	55		Port Supplied Reference
HMM	9167	100	S	32	11	Low Copper	Petit Trinidad	1271	Shelter Island Boatyard	9	2020	55	60061-94-ZB	DPR Active
HMM	9172	100	P	52	15	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9178	100	S	27	9	Low Copper	Unknown		Unknown	2	2011	67		
HMM	9180	100	S	47	14	Low Copper	Interlux Ultra	Y3449F	Shelter Island Boatyard	7	2020	55	2693-212-AA	Port Supplied Reference
HMM	9189	100	S	40	13	Low Copper	Pettit Ultima SR-40	1092	Driscoll SI	10	2019	67	60061-117-ZB	Port Supplied Reference
HMM	9197	100	S	24	8	Copper	Unknown		Unknown	1	2020	67		
HMM	9198	100	S	37	12	Low Copper	Interlux ultra	Y3669F	Shelter Island Boatyard	3	2019	55	2693-212-AA	Port Supplied Reference
HMM	9206	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9211	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9217	100	S	28	9	Low Copper	Unknown		Unknown	4	2012	67		
HMM	9225	100	P	37	13	Low Copper	Interlux Ultra	Y3779U	Shelter Island Boatyard	1	2013	55		Port Supplied Reference
HMM	9227	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9230	100	S	26	9	Low Copper	Interlux Ultra	Y3779U	Shelter Island Boatyard	9	2017	55		Port Supplied Reference
HMM	9235	100	S	33	10	Copper	Unknown		Unknown	4	2018	67		
HMM	9237	100	P	47	15	Low Copper	Pettit Trinidad	1887	Shelter Island Boatyard	7	2020	67	60061-94-ZB	DPR Active
HMM	9280	100	S	53	13	Low Copper	Interlux Ultra	Y3669F	Koehler Kraft	9	2019	55	2693-212-AA	Port Supplied Reference
HMM	9287	100	S	36	14	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	12	2016	55	2693-212-AA	Port Supplied Reference
HMM	9287	100	S	34	12	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9295	100	S	41	12	Low Copper	Interlux Ultra	Y3669U	Shelter Island Boatyard	10	2016	55		Port Supplied Reference
HMM	9295	100	P	36	12	Low Copper	Petit Trinidad	1887	Shelter Island Boatyard	8	2020	67	60061-94-ZB	DPR Active
HMM	9299	100	P	36	12	Low Copper	Zspar Bottom Pro Gold	BP94	Driscolls SI	4	2019	55	60061-64-ZE	DPR Active
HMM	9304	100	P	38	15	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	4	2019	55	2693-212-AA	Port Supplied Reference
HMM	9315	100	S	38	12	Low Copper	Unknown		Unknown	8	2013	67		
HMM	9317	100	P	47	14	Low Copper	Pettit Trinidad HD	1872	Shelter Island Boatyard	4	1987	42	60061-94-ZB	DPR Active
HMM	9331		NA	NA	NA	Low Copper	Interlux Ultra	Y3559U	Shelter Island Boatyard	5	2016	55		Port Supplied Reference
HMM	9339	100	S	32	12	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9344	100	S	36	10	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9347	100	S	26	9	Low Copper	West Marine CPP Ablative	12845723	Self Applied	5	2019	33	60061-132-AA	DPR Active
HMM	9359	100	E	21	8	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9365	100	P	42	15	Low Copper	Interlux Ultra	Y3449F	Shelter Island Boatyard	5	2019	55	2693-212-AA	Port Supplied Reference
HMM	9378	100	S	36	12	Low Copper	Zspar Bottom Pro Gold	BP91	Driscolls	11	2018	55	60061-64-ZE	DPR Active
HMM	9383	100	P	32	10	Low Copper	Interlux Ultra	Y3779U	Shelter Island Boatyard	6	2017	55		Port Supplied Reference
HMM	9391	100	P	28	11	Low Copper	Interlux Ultra	Y3779U	Shelter Island Boatyard	2	2014	55		Port Supplied Reference
HMM	9402	100	S	27	9	Low Copper	Unknown		Unknown	3	2015	67		
HMM	9403	100	P	33	10	Copper	Unkown		Driscolls	11	2018	67		
HMM	9405	100	P	41	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	11	2018	55	2693-212-AA	Port Supplied Reference
HMM	9407	100	S	26	10	Low Copper	Interlux Ultra	Y3669F	Driscoll MB	5	2014	55	2693-212-AA	Port Supplied Reference
HMM	9407	100	P	29	10	Non	Finsulate Thorn D		Shelter Island Boatyard	6	2013	0		



Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
HMM	9417	100	S	35	12	Low Copper	Interlux Ultra	Y3669U	Shelter Island Boatyard	12	2016	55		Port Supplied Reference
HMM	9419	100	S	22	9	Low Copper	Unknown		Unknown	12	2011	67		
HMM	9420	100	S	34	13	Low Copper	Interlux Ultra	Y3669F	Koehler Kraft	9	2020	55	2693-212-AA	Port Supplied Reference
HMM	9421	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9428	100	S	36	12	Low Copper	Unknown		Shelter Island Boatyard	3	2015	67		
HMM	9434	100	S	36	12	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	6	2018	55	2693-212-AA	Port Supplied Reference
HMM	9443	100	P	24	9	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9450	100	P	17	7	Low Copper	Petit Vivid	11161	Shelter Island Boatyard	10	2019	33	60061-116-AA	Port Supplied Reference
HMM	9459	100	S	36	12	Low Copper	Interlux Ultra	2779N	Shelter Island Boatyard	5	2011	55		Port Supplied Reference
HMM	9461	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9467	100	S	20	6	Low Copper	Petit Trinidad	1271	Shelter Island Boatyard	11	2019	67	60061-94-ZB	DPR Active
HMM	9470	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9478	100	P	18	5	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9498	100	S	34	11	Low Copper	Unknown		Unknown	4	2011	67		
HMM	9500	100	P	15	7	NON	No Paint		No Paint	NA	NA	0		
HMM	9514	100	S	25	8	Copper	Unknown		Shelter Island Boatyard	10	2018	67		
HMM	9522	100	S	30	10	Low Copper	Interlux Ultra	Y3669U	Shelter Island Boatyard	4	2015	55		Port Supplied Reference
HMM	9523	100	S	42	12	Copper	Unknown		Mexico	Unknown	Unknown	67		
HMM	9530	100	P	10	5	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9531	100	S	30	12	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9536	100	S	36	12	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	7	2020	55	2693-212-AA	Port Supplied Reference
HMM	9544	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9548	100	S	34	12	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9552	100	P	29	12	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9554	100	S	42	14	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	11	2018	55	2693-212-AA	Port Supplied Reference
HMM	9558	100	S	24	8	Low Copper	Interlux Ultra	Y3779F	Self Applied	10	2020	55	2693-212-AA	Port Supplied Reference
HMM	9561	100	S	30	11	Low Copper	Seahawk	6142	Driscoll SI	1	2006	33	44891-11-AA	Port Supplied Reference
HMM	9567	100	S	32	9	Low Copper	Unknown		Shelter Island Boatyard	12	2012	67		
HMM	9568	100	P	36	13	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9577	100	S	36	11	Low Copper	Pettit Trinidad HD	1271	Shelter Island Boatyard	9	2020	55	60061-94-ZB	DPR Active
HMM	9582	100	P	22	8	Low Copper	Unknown		Sunset Marine	3	2003	67		
HMM	9582	100	S	42	13	Low Copper	Unknown		Shelter Island Boatyard	6	2006	67		
HMM	9584	100	P	18	8	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9587	100	S	32	10	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	1	2015	55	2693-212-AA	Port Supplied Reference
HMM	9594	100	S	22	7	Low Copper	Unknown		Shelter Island Boatyard	3	2010	67		
HMM	9601	100	S	47	14	Low Copper	Pettit Trinidad	1275	Self Applied	3	2011	33	60061-117-ZB	Port Supplied Reference
HMM	9608	100	S	30	10	Low Copper	Unknown		Shelter Island Boatyard	9	2016	67		
HMM	9612	100	S	28	8	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9612	100	S	44	13	Low Copper	Interlux Ultra	Y3779F	Koehler Kraft	1	2020	55	2693-212-AA	Port Supplied Reference
HMM	9617	95	S	31	11	Low Copper	Petit Trinidad	1271	Shelter Island Boatyard	10	2020	55	60061-94-ZB	DPR Active
HMM	9628	vacant	NA	NA	NA	NA	NA		NA	NA	NA	0		
HMM	9648	100	P	53	15	Low Copper	Unknown		Sunset Marine	11	1971	41.769	0	
HMM	9655	100	S	35	11	Copper	Unknown		Driscoll	12	2018	67		
HMM	9656	100	P	24	9	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9657	100	E	16	6	NON	No Paint			NA	NA	0		
HMM	9660	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9661	100	S	36	11	Low Copper	Petit Trinidad	1127806	Marina Shipyard Long Beach	5	2020	55	60061-94-ZB	DPR Active
HMM	9663	100	S	50	12	Low Copper	Interlux Ultra	Y3779F	Koehler Kraft	1	2019	55	2693-212-AA	Port Supplied Reference
HMM	9663	100	S	46	14	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9671	100	S	33	12	Low Copper	Unknown		Dana Point Shipyard	1	2017	67		
HMM	9678	100	S	47	13	Low Copper	Unknown		Shelter Island Boatyard	12	2006	67		
HMM	9684	100	S	30	11	Low Copper	Petit Trinidad	1271	Shelter Island Boatyard	8	2020	55	60061-94-ZB	DPR Active
HMM	9688	100	S	27	8	Low Copper	Interlux Super Slime Fighter KL	K90B	Driscoll MB	11	2008	68		Port Supplied Reference
HMM	9693	100	P	27	10	Low Copper	Pettit	1808Q	Driscoll	10	2019	22		Port Supplied Reference
HMM	9693	100	P	17	6	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9694	100	S	36	10	Low Copper	Unknown		Shelter Island Boatyard	3	2008	67		
HMM	9700	100	P	23	9	Low Copper	Pettit Trinidad HD	1871	Shelter Island Boatyard	10	2019	70	60061-94-ZB	DPR Active
HMM	9700	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9700	100	S	32	8	Low Copper	Unknown		Unknown	12	2017	67		

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
HMM	9710	100	S	37	12	Low Copper	Interlux Ultra	Y3669F	Koehler Kraft	9	2020	55	2693-212-AA	Port Supplied Reference
HMM	9710	100	P	35	11	Low Copper	Zspar Bottom Pro Gold	BP94	Driscoll SI	8	2014	67	60061-64-ZE	DPR Active
HMM	9712	100	P	34	11	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	3	2019	55	2693-212-AA	Port Supplied Reference
HMM	9712	100	P	17	6	Low Copper	Unknown		Shelter Island Boatyard	6	2017	67		
HMM	9721	100	S	30	11	Low Copper	Interlux Ultra	Y3449F	Driscolls	4	2018	55	2693-212-AA	Port Supplied Reference
HMM	9722	100	P	36	12	Low Copper	Zspar Bottom Pro Gold	BP91	Driscolls SI	6	2019	55	60061-64-ZE	DPR Active
HMM	9723	100	P	21	8	Low Copper	Unknown		Shelter Island Boatyard	6	2013	67		
HMM	9726	100	P	24	8	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	11	2019	55	2693-212-AA	Port Supplied Reference
HMM	9734	100	S	35	12	Non	No Paint			NA	NA	0		
HMM	9735	100	S	33	11	Low Copper	Proline	Y1088C-02	Shelter Island Boatyard	4	2012	33		Port Supplied Reference
HMM	9744	100	S	38	12	Low Copper	Proline	1080-H	Self Applied	11	2017	55		
HMM	9745	100	P	36	13	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	10	2014	55	2693-212-AA	Port Supplied Reference
HMM	9747	100	P	26	8	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9748	100	P	41	13	Low Copper	Pettit Vivid	11161	Nielsen-Beaumont	2	2019	25	60061-116-AA	Port Supplied Reference
HMM	9751	100	S	37	11	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9751	100	P	22	8	Low Copper	Interlux Ultra	Y3779F	Driscoll MB	1	2013	55	2693-212-AA	Port Supplied Reference
HMM	9754	100	P	16	6	NON	Pettit Hydracoat	1104	Self Applied	3	2019	0		
HMM	9755	100	S	34	12	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	8	2019	55	2693-212-AA	Port Supplied Reference
HMM	9766	100	S	30	9	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9774	100	P	43	14	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9775	100	S	30	12	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9787	100	S	47	14	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	5	2012	55	2693-212-AA	Port Supplied Reference
HMM	9793	100	P	30	10	Low Copper	Interlux Ultra	Y3779F	Koehler Kraft	7	2019	55	2693-212-AA	Port Supplied Reference
HMM	9799	100	S	30	9	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	5	2010	55	2693-212-AA	Port Supplied Reference
HMM	9800	100	S	33	13	NON	No Paint		None	NA	NA	0		
HMM	9803	100	S	27	9	Low Copper	Interlux Ultra	Y3449F	Shelter Island Boatyard	6	2012	55	2693-212-AA	Port Supplied Reference
HMM	9804	100	P	27	8	Low Copper	Interlux Ultra	Y3779U	Shelter Island Boatyard	4	2017	55		Port Supplied Reference
HMM	9807	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9816	100	P	30	11	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	6	2016	55	2693-212-AA	Port Supplied Reference
HMM	9824	100	P	20	8	Low Copper	West Marine CPP Ablative	5436936	Self Applied	5	2017	24	60061-132-AA	DPR Active
HMM	9830	100	S	36	12	Low Copper	Interlux CSC	5583G	Shelter Island Boatyard	6	2017	55		Port Supplied Reference
HMM	9837	100	P	23	9	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9841	100	R	19	6	Low Copper	Interlux Ultra	Y3449F	Shelter Island Boatyard	1	2019	55	2693-212-AA	Port Supplied Reference
HMM	9862	100	S	31	10	Low Copper	Pettit Trinidad SR	A1277Q	Driscoll SI	12	2014	33	60061-94-ZD	Port Supplied Reference
HMM	9870	100	S	34	11	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	10	2018	55	2693-212-AA	Port Supplied Reference
HMM	9873	100	S	26	7	Low Copper	Unknown		Shelter Island Boatyard	4	2014	67		
HMM	9876	100	S	34	12	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	4	2017	55	2693-212-AA	Port Supplied Reference
HMM	9879	100	S	45	12	Low Copper	Pettit Trinidad	A10886	Koehler Kraft	12	2015	33	60061-94-ZB	Port Supplied Reference
HMM	9882	100	P	46	14	Low Copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	8	2013	55	2693-212-AA	Port Supplied Reference
HMM	9884	100	P	18	9	Copper	Unknown		Unknown	Unknown	Unknown	65		
HMM	9886	100	P	50	15	Low Copper	Interlux Ultra	Y3779U	Shelter Island Boatyard	2	2016	55		Port Supplied Reference
HMM	9891	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9900	100	S	43	13	Low Copper	Interlux Ultra Biolux	Y3779F	Basin Marine - Newport Bch	6	2015	55	2693-212-AA	Port Supplied Reference
HMM	9900	100	P	42	14	Low Copper	Awlgrip	545	Shelter Island Boatyard	1	2020	33		
HMM	9905	100	S	25	8	Low Copper	Interlux Ultra	Y3559F	Shelter Island Boatyard	5	2015	55	2693-212-AA	Port Supplied Reference
HMM	9922	100	P	34	12	Low Copper	Pettit Trinidad	1887	Shelter Island Boatyard	1	2020	55	60061-94-ZB	DPR Active
HMM	9923	100	S	30	11	Low Copper	Interlux Ultra	Y3669F	Koehler Kraft	8	2020	55	2693-212-AA	Port Supplied Reference
HMM	9924	100	P	32	10	Low Copper	Interlux Ultra	Y3669F	Driscolls	9	2020	55	2693-212-AA	Port Supplied Reference
HMM	9927	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9948	100	P	27	10	Low Copper	Unknown		Shelter Island Boatyard	1	2017	67		
HMM	9961	vacant	NA	NA	NA	NA	NA			NA	NA	0		
HMM	9963	100	S	37	12	Low Copper	Unknown		Florida	4	2008	67		
HMM	9966	100	S	39	12	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	6	2018	55	2693-212-AA	Port Supplied Reference
HMM	9966	100	S	30	11	Low Copper	Interlux Ultra	Y3669F	Shelter Island Boatyard	4	2015	55	2693-212-AA	Port Supplied Reference
HMM	9968	100	S	26	8	Low Copper	Interlux Micron VOC Extra	5790	Knight and Carver	2	2011	33	2693-190-ZI	Port Supplied Reference
HMM	9970	100	S	47	13	Copper	Unknown		Unknown	Unknown	Unknown	67		
HMM	9976	100	S	28	9	Low Copper	Unknown		Driscolls MB	1	2016	67		
HMM	9982	100	P	27	8	Non	No Paint			NA	NA	0		
HMM	9991	100	P	30	12	Copper	Seaguard	P30BQ12	Self Applied	12	2019	48		Port Supplied Reference



Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
HMM	9993	100	S	35	12	Low Copper	Unknown		Unknown	Unknown	2015	67		
HMM	9996	100	S	27	8	Low Copper	Unknown		Driscoll SI	12	2010	67		

[illegible]

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
GCA	1	80	Sail	41'	22'6"	Low-copper	PCA Gold	A411189806	Marine Group	10	2020	47	60061-117-ZD	Port Supplied Rerefence
GCA	2	100	Power	38'	14'	Low-copper	Woolsey Defense	4801	Nielsen Beaumont Marine Inc	9	2018	65	60061-101-ZA	Port Supplied Rerefence
GCA	3		Vacant				Part of Slip 1					0		
GCA	4	100	Power	42'	15'		Unknown					65		
GCA	5	100	Sail	37'	12'8"	Low-copper	Z-Spar Pro Gold	411187706	Driscoll's	12	2018	65	60061-94-ZE	Port Supplied Rerefence
GCA	6	90	Power	38'	13'	Low-copper	Proline	Y1088C-01	Koehler Kraft	8	2017	67		Port Supplied Rerefence
GCA	7	100	Power	42'	14'		Unknown		Apr-19			65		
GCA	8	95	Power	30'	10'	Low-copper	Woolsey Defense	4801	Nielsen Beaumont Marine Inc	5	2017	65	60061-49	Port Supplied Rerefence
GCA	9	95	Power	45'	14'7"	Low-copper	Woolsey Defense	4801	Nielsen Beaumont Marine Inc	5	2017	65	60061-49	Port Supplied Rerefence
GCA	10	75	Power	42'	14'6"	Non-copper	VC Interlux performance	V127/A	Harbor Marineworks	5	2016	0		
GCA	11	95	Power	42'	13'	Low-copper	Pettit Trinidad	1871	Shelter Island Boatyard	1	2020	50	60061-49-ZD	DPR Active
GCA	12	100	Power	40'	13'4"		Unknown		Jan-18			65		
GCA	13	95	Power	50'	17'	Low-copper	Pettit Trinidad	1871	Shelter Island Boatyard	5	2020	50	60061-49-ZD	DPR Active
GCA	14	100	Power	42'	12'	Low-copper	Interlux Ultra	Y3779F	Driscoll's	8	2020	55	2693-212-AA	Port Supplied Rerefence
GCA	15	100	Power	52'	15'6"		Unknown					65		
GCA	16	100	Power	42'	14'3"	Low-copper	Interlux Ultra	Y3779F	Nielsen Beaumont Marine Inc	12	2019	55	60061-49	Port Supplied Rerefence
GCA	17	90	Sail	45'	14'9"		Unknown		Jul-18			65		
GCA	18	100	Power	40'	11'5"	Low-copper	Z-Spar Protector	B-94	Nielsen Beaumont Marine Inc	11	2013	60		Port Supplied Rerefence
GCA	19	100	Sail	48'	15'5"	Low-copper	Interlux Ultra	Y3779F	Shelter Island Boat Yard	12	2018	55	2693-212-AA	Port Supplied Rerefence
GCA	20	90	Sail	53'	16'		Unknown					65		
GCA	21	95	Power	42'	10'	Low-copper	Petit Vivid	11161	Nielsen Beaumont Marine Inc	10	2017	25	60061-116-AA	Port Supplied Rerefence
GCA	22	80	Sail	45'	14'9"	Low-copper	Interlux Ultra	Y3779U	Shelter Island Boat Yard	10	2016	55		Port Supplied Rerefence
GCA	23	100	Power	40'	13'6"	Unknown						65		
GCA	24	100	Power	58'	16'	Unknown						65		
GCA	25	90	Power	75'	21'	Copper	Nautical Proguard	NAU990	Driscoll's	9	2018	42		Port Supplied Rerefence
GCA	26	90	Power	56'	15'	Low-copper	Interlux Ultra	Y3779F	Driscoll's Mission Bay	8	2020	55	2693-212-AA	Port Supplied Rerefence
GCA	27.1	90	Power	54'	16'8"	Low-copper	Interlux Ultra	Y3669F	Newport Harbor Shipyard	6	2020	55	2693-212-AA	Port Supplied Rerefence
GCA	27.2	50	Power	54'	15'6"	Copper	Pettit Ultima	1032	Nielsen Beaumont Marine Inc	6	2019	60	60061-49	Port Supplied Rerefence
GCA	28	100	Sail	64.5'	15'		Unknown		Jul-20			65		
GCA	29	75	Sail	57'	17'	Low-copper	Interlux Ultra	Y3779F	Shelter Island Boat Yard	10	2015	55	2693-212-AA	Port Supplied Rerefence
GCA	30	100	Power	58'	18'	Copper	Seaguard Ablataive	P30BQ12	Driscoll's Mission Bay	2	2019	49		Port Supplied Rerefence
GCA	31	95	Power	54'	15'5"	Low-copper	Interlux Ultra	Y3779F	Shelter Island Boat Yard	1	2014	55	2693-212-AA	Port Supplied Rerefence
GCA	32	80	Power	48'	14'4"	Low-copper	Interlux Ultra	Y3779F	Shelter Island Boat Yard	8	2018	55	2693-212-AA	Port Supplied Rerefence
GCA	33	100	Power	61'	17'4"	Low-copper	Interlux Ultra	Y3779F	Driscoll's Mission Bay	8	2020	55	2693-212-AA	Port Supplied Rerefence
GCA	34		Vacant											
GCA	35	40	Power	77'8"	20'	Low-copper	Sea Hawk Biocop TF	1201-1	Marine Group	5	2019	38		Port Supplied Rerefence

Facility	Slip/Mooring Reference Number	Percent of Time Occupied	Vessel Type (Power or Sail)	Vessel Length	Vessel Beam	Paint Type Copper, Low or Non	Paint Product Name	Product Number	Boatyard Name or Purchase Date	Painting Date Month (mm)	Painting Date Year (yyyy)	% Copper	Category 1 reg #	Reference
Tonga	none	50%	Power	54		Low-copper	Sea Hawk Cukote	3445	Factory		2019	47.5	44891-7-ZA	DPR Active
Tonga	none	50%	Power	54		Low-copper	Sea Hawk Cukote	3445	Factory		2019	47.5	44891-7-ZA	DPR Active
Tonga	none	50%	Power	45		Low-copper	Sea Hawk Cukote	3445	Factory		2019	47.5	44891-7-ZA	DPR Active
Tonga	none	50%	Power	44		Low-copper	InterluxMicron CSC HS	YBC580	Factory		2019	38	2693-225-AA	Port Supplied Reference
Tonga	none	50%	Power	34		Low-copper	InterluxMicron CSC HS	YBC580	Factory		2019	38	2693-225-AA	Port Supplied Reference
Tonga	none	50%	Sail	54		Low-copper	Interlux Ultra	Y3779F	La Paz, Mexico	June	2019	55	2693-212-AA	Port Supplied Reference
Tonga	none	75%	Sail	33		Low-copper	Proline	Y1088C-02		November	2017	59		
Tonga	none	75%	Power	55		Low-copper	Interlux Micron CSC	5583G	Factory			38		Port Supplied Reference
Tonga	none	75%	Power	81		Low-copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	February	2019	55	2693-212-AA	Port Supplied Reference
Tonga	none	25%	Power	70		Low-copper	Sea Hawk Cukote	3445	Pacific Coast Yachting Serv	May	2018	47.5	44891-7-ZA	DPR Active
Tonga	none	75%	Power	50		Low-copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	February	2018	55	2693-212-AA	Port Supplied Reference
Tonga	none	75%	Power	42		Low-copper	Interlux Ultra w/Biolux	Y3779F	Newport Harbor Shipyard	August	2018	55	2693-212-AA	Port Supplied Reference
Tonga	none	75%	Power	43		Copper	Nautical Proguard	NAU990	Nielsen Beaumont	August	2018	42		
Tonga	none	50%	Power	36		Unknown	Customer unsure	Customer unsure	Customer unsure	unknown	unknown	65		
Tonga	none	75%	Power	38		Low-copper	Interlux Ultra	Y3779F	Shelter Island Boatyard	unknown	2018	55	2693-212-AA	Port Supplied Reference

## **SIMLG SURVEY ADDENDUM**

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SHELTER ISLAND MASTER  
LEASEHOLDERS GROUP

Memorandum: Observations on Port Comment to Survey Submitted

January 21, 2021

Date: February 12, 2002

The SIMLG appreciates an opportunity to review Port comments on the submitted survey received on February 8.

It is reasonable to assert, based on comments received, that the survey was performed with surprising accuracy.

Comments were carefully reviewed: a response column was appended to indicate whether comments were accepted, noted or rejected. In all, eighty entries or 5% of the survey were challenged in the Port review: five of the comments were accepted and 10 entries were found to have a simple typo in the DPR registration number of more than 1500 entries.

Surprisingly, in view of the assertion made above, the survey was more challenging to assemble this year than in the past. Factors causing this challenge included:

- The lack of a reference list of paints and the additional descriptors the Port requires as entries was unavailable to the group.
- A Department of Pesticide Regulation that we were instructed to use did not provide a full complement of information.
- The last Port supplied list, used last year, was referenced for older paints and the DPR list for the newer coatings. A reference column was added to the submittal to identify source of information.
- Conflicts existed between the two reference lists, and a column that listed the reference for the supplied number was provided on the original survey
- Finally, coatings applied after June 2020 were identified as a Category 1 Paint, Port staff had communicated that high copper paints were “fully eliminated” by state regulation following that date.

The attached spreadsheet serves as an addendum to the submitted survey, it is assumed that this addendum and this memo will be appended for submission with the original survey. Responses to entries flagged by the Port are included therein.

Looking forward, with the full elimination of high copper paints, the survey should be reconsidered for content and purpose.

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Facility	Slip Reference	Percent Occupied	VesselType	Vessel Length	Vessel Beam	PaintType	PaintProductName	ProductNum	BoatyardName or PurchaseDate	PaintingDate Month	PaintingDate Year_Year	Perc Copper	Category_1_Reg	Follow-Up Comments or Questions	Assumption (based on Monitoring Plan Table 3-4)	Annual Report Paint Category	Annual Report Load (prior to % occupancy normalization)	Does data agree?	Noted Consider or Reject	Reasoning
SDYC	2003	82	Sail	31	10.5	Non Copper	Has not painted since before 2007		Purchased 2015		2007	0		Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as aged-copper based on painting date.	9	Aged-Copper	0.45	No	Reject	accept as presented
SDYC	2008		Power	36	13	Low Copper	Interlux Ultra	Y3779F	Other	May	2020	55	60061-64	Please provide occupancy rate information. If not provided, occupancy rate will be assumed to be 100%. Paint name/product number and registration number are for different paints. This will be assumed to be high-copper until corrected.	3, 4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Reject	Y3779F is a valid entry
SDYC	2014											65		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	
SDYC	2035	97	Power	35	10.5	Non Copper	Sea Hawk Biocop TF 1200-1 Antifoulant		Rybovich Shipyard West Palm Beach, FL	Jun	2019	0		Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Noted	
SDYC	2042	98	Power	61	16	Low Copper	Pettit Z-Spar Protector	B-94	Shelter Island Boatyard	Oct	2018	65		Information provided is not for "Low-Copper" paint (Column H). Please check "PaintType." This will be classified as high-copper based on information provided.	2	Copper (confirmed)	0.9	No	Noted	
SDYC	2073	100	Power	50	15	Low Copper	SeaHawk AF33	#3445	Other	Jun	2020	33	44891-12-ZC	Product number (Cukote) and paint name/registration number (AF33) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Date of Coating, percent copper and DPR Active listing
SDYC	2093	100	Sail	35	11.6	Low Copper	Interlux White Epoxy Paint	V127/A	Driscoll	Apr	2017	0		Information provided is not for "Low-Copper" paint (Column H). Please check "PaintType." This will be classified as non-copper based on information provided.	5	Non-Copper (confirmed)	0	No	Accepted	Typo entry error
SDYC	2113	98	Power	28	12	Low Copper	Pettit Ultima	1092	Other	Mar	2018	40	60061-71-ZB	Product number (Ultima SR40) and paint name/registration number (Ultima SSA) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Both paints are listed in DPR Active , no product number are presented
SDYC	2160	92	Power	40	13.5	Non Copper	N/A		N/A		N/A	0		Paint information listed as "N/A." Does this vessel have no bottom paint? This will be assumed to be high-copper until no bottom paint is confirmed.	3	Non-Copper (unconfirmed) - Assumed Copper	0.9	No	Reject	clearly no paint is being used
SDYC	2167	100	Sail	32	7	Non Copper	Coppercoat	85396-1-AA	Driscoll	Apr	2016	0		Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Reject	Coppercoat nonbiocidal by definition
SDYC	2172	92	Sail	59	10.6	Low Copper	Pettit Green	Y3559F	Koehler	Jun	2016	55	2693-212-AA	Paint name and product number/registration number are for different paints. This will be assumed to be aged-copper.	9	Aged-Copper	0.45	No	Noted	
SDYC	2189	0	Sail	37	12	Non Copper	Purchased June 2019					65		Why is % occupancy 0? Vacant? Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as high-copper based on information provided.	3	Copper (unconfirmed) - Assumed Copper	0.9	No	Reject	Information provided is adequate, copper percentagein error
SDYC	2196	96	Power	22	8	Low Copper	Cukote	44891-7-AA	Koehler	Jan	2020	67	44891-7-AA	Registration # is not for low-copper paint. Please confirm information provided. This will be assumed to be high-copper until information is corrected.	3	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	Typo: should read 44891-7-2A
SDYC	2214	100	Sail	44.2	13	Low Copper	Interlux Ultra	A1088G	Shelter Island Boatyard	Nov	2018	60	60061-94-ZB	Paint name and product number/registration number (Pettitt Trinidad Pro) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Noted	Typo: Cat 1 number should read 2693-212-AA
SDYC	2218	100	Sail	20	7	Low Copper	Pettit Ultima	1092	Shelter Island Boatyard	Jul	2019	40	60061-71-ZB	Product number (Ultima SR40) and paint name/registration number (Ultima SSA) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Rejected	No conflict exists, both paints are Cat1
SDYC	2228	0	Power	32	11	Non Copper	Interlux Ultra Blue	Y3669F	Shelter Island Boatyard	Jun	2018	55	2693-212-AA	Why is % occupancy 0? Vacant? Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Accepted	Y3669F is a Cat 1 Paint per Port Supplied list
SDYC	2239	99	Sail	41.7	13	Non Copper	Pettit Hydrocoat Eco	1240	Nielsen Beaumont	Jun	2017	40.5	60061-87-ZH	Paint name (Hydrocoat Eco - Non-copper) and product/registration number (Hydrocoat - Cat I) are for different paints. This will be assumed to be aged-copper.	9	Aged-Copper	0.45	No	Rejected	Typo product number should read 1204
SDYC	2240	0	Sail	34.5	11	Non Copper	Proline 1088-6 Epoxy		Driscoll	Aug	2015	0		Why is % occupancy 0? Vacant? Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Reject	Accept as stated
SDYC	2249											65		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	
SDYC	2252											65		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	
SDYC	2261													Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	
SDYC	2264											65		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	
SDYC	2288	97	Sail	28	9.3	Non Copper	Coppercoat	85396-1-AA	Driscoll	Apr	2013	0		Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Reject	Coppercoat nonbiocidal by definition
SDYC	2293											67		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	
SDYC	2294	92	Sail	37	13.5	Low Copper	Pettit Trinidad Red	A1688G	Driscoll	Feb	2020	33	60061-94-ZB	Product number (Trinidad SR) and registration number (Trinidad Pro) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Both paints referenced listed in DPR Active, no conflict exists
SDYC	2307	99	Power	34	12.3	Low Copper	Nautical Super Proguard NAU 770	NAU770	Nielsen Beaumonth	Jun	2016	55	60061-64	Paint name/product number and registration number are for different paints. This will be assumed to be aged-copper.	9	Aged-Copper	0.45	No	Noted	Load is unchanged
SDYC	2311	0	Power	33	11.5	Non Copper	Interlux Ultra-Kote Antifouling	Y3449F	Marine Group Boat Works	Aug	2018	55	2693-212-AA	Why is % occupancy 0? Vacant? Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No		
SDYC	2321	0	sail	22	9	Non Copper	Interlux		Shelter Island Boatyard	Feb	2016	65		Why is % occupancy 0? Vacant? Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as aged-copper based on painting date.	9	Aged-Copper	0.45	No	Reject	Accept as presented
SDYC	2337											67		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No		
SDYC	2343	100	Sail	28	9.3	Non Copper	Coppercoat	85396-1-AA	Driscoll	Apr	2013	0		Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Reject	Coppercoat nonbiocidal by definition, product number misentered

Facility	Slip Reference	Percent Occupied	VesselType	Vessel Length	Vessel Beam	PaintType	PaintProductName	ProductNum	BoatyardName or PurchaseDate	PaintingDate Month	PaintingDate Year_Year	Perc Copper	Category_1_Reg	Follow-Up Comments or Questions	Assumption (based on Monitoring Plan Table 3-4)	Annual Report Paint Category	Annual Report Load (prior to % occupancy normalization)	Does data agree?	Noted Consider or Reject	Reasoning
SDYC	2354											65		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No		
SDYC	2414		Power	43.9	14.6	Low Copper	Interlux Micron Ultra / blue	YBA472	Driscoll Shelter Island	May	2019	35	2693-187-ZE	Please provide occupancy rate information. If not provided, occupancy rate will be assumed to be 100%.	4, 10	Category I (confirmed)	0.45	No	Noted	Load is unchanged
SDYC	2422	0	Sail	44	13	Non Copper	Interlux Ultra	Y3779F	Driscoll	Apr	2017	55	2693-212-AA	Why is % occupancy 0? Vacant? Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Noted	Copper percentage entry ois valid
SDYC	2439	97	Sail	43.8	13.6	Low Copper	Black Widow by Pettit Paint	1862	Shelter Island Boatyard	Aug	2016	25		Product number (Pettit Vivid) and product name (Black Widow) are for different paints. This will be assumed to be aged-copper.	9	Aged-Copper	0.45	No	Noted	Load is unchanged
SDYC	2449	100	Sail	37	12	Low Copper	Pettit Trinidad HO	1271	Shelter Island Boatyard	Nov	2019	55	60061-64-ZB	Product name/number and registration number (Zspar Protector) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Listed properly on DPR Active
SDYC	2474	Vacant	Vacant			Low Copper						65		Please confirm that slip is vacant. "PaintType" and "PercCopper" filled in--likely carryover from previous year. This will be assumed to be high-copper until vacancy is confirmed.	3	Copper (unconfirmed) - Assumed Copper	0.9	No	Reject	Vacancy status accepted
SDYC	2481	99	Sail	34.5	11	Low Copper	VP Performance Epoxy	V127/A	Driscoll Mission Bay	Apr	2011	0		Information provided is not for "Low-Copper" paint (Column H). Please check "PaintType." This will be classified as non-copper based on information provided.	5	Non-Copper (confirmed)	0	No	Accepted	
SDYC	2497	98	Sail	42	12	Low Copper	Pettit Ultima	1092	Shelter Island Boatyard	Oct	2020	40	60061-71-ZB	Product number (Ultima SR40) and paint name/registration number (Ultima SSA) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Both paints referenced listed in DPR Active, no conflict exists, Date of Coating
SDYC	2518		Sail	40	12	Copper	Pettit Unepoxy Tropic Formula	1628	Shelter Island Boatyard	Dec	2018	53		Please provide occupancy rate information. If not provided, occupancy rate will be assumed to be 100%.	4, 10	Copper (confirmed)	0.9	No	Noted	Listed in Port supplied reference,
SDYC	2528											65		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No		
SDYC	2533	9	Sail	35	11.7	Low Copper	Z-Spar Gold	A1088G	Driscoll	Aug	2020	60	60061-94-ZB	Paint name and product number/registration number (Petitt Trinidad Pro) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Date of Coating
SDYC	2554					Copper						65		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	
SDYC	2566											65		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	
SDYC	2579	90	Sail	47	14	Non Copper	SeaHawk AF33	3345	Shelter Island Boatyard	Aug	2015	33	44891-12-AA	Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Accepted	Copper percentage entry correct
SDYC	2584	100	Sail	68	15	Low Copper	SeaHawk AF33	3445	Outside SD County	Jun	2020	47	44891-12-AA	Product number (Cukote) and paint name/registration number (AF33) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Date of Coating, DPR Active List 44891-12-ZA
SDYC	2595											65		Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	
SDYC	2596		Sail	53	13	Low Copper	Interlux Ultra Black	Y3779F	Koehler	Nov	2019	67	2693-212-AA	Please provide occupancy rate information. If not provided, occupancy rate will be assumed to be 100%.	4, 10	Category I (confirmed)	0.45	No	Noted	No load Change
SGYC	3179	98	Power	43	14	LOW COPPER	PRO LINE	Y3779F	SHELTER ISLAND BOAT YARD	09	2017	55	2693-212-AA	Paint name and product number/registration number are for different paints. This will be assumed to be aged-copper.	9	Aged-Copper	0.45	No	Noted	No load Change
SGYC	3343	90	Power	50	16	LOW COPPER	TROPIKOTE - MADE BY SEAHAWK	2141GL	BAJA NAVAL ENSENADA MX	08	2020	76	44891-10-AA	Registration # is not for low-copper paint. Please confirm information provided. This will be assumed to be high-copper until information is corrected.	3	Copper (unconfirmed) - Assumed Copper	0.9	No	Rejected	Date of Coating, amended number44891-10-ZA
SGYC	3353	99	Sail	30	11	NON	COPPER COAT	85396	DRICOLLS	03	2016	0		Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Rejected	Coppercoat nonbiocidal per manfacturer
SWYC	4045		DINGHY											Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Rejected	A nine foot dinghy is not a 36 foot vessel
SWYC	4054	94	POWER	21	9	non	ULTIMA ECO	121509-BP		10	2020	0		Paint name (Ultima Eco) and product number (Sea-Speed V5) are for different paints. This will be assumed to be high-copper until corrected.	3	Non-Copper (unconfirmed) - Assumed Copper	0.9	No	Rejected	Ultima ECO is copper free by manufacturersdata
SWYC	4085	100	POWER	31	9	non-biocide	PCM MARINE-RC		NB	11	2016	0		Please provide product number or registration number for verification. This will be assumed to be aged-copper if more information is not provided.	9	Aged-Copper	0.45	No	Noted	No Load Change
SWYC	4154		DINGY	9	1									Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed as high-copper and 100% occupied until paint information/vacancy is confirmed. Please confirm beam width.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Rejected	A nine foot dinghy is not a 36 foot vessel
SWYC	4193		SAIL	35	10	copper								Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed to be high-copper and 100% occupied until paint information/vacancy is confirmed.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Noted	
SWYC	4407	92	POWER	57	17	copper	TROPIKOTE	2145GL		10	2019	76		Paint name and product number match two paints types (Cat I and high-copper). Please provide registration number for verification. This will be assumed to be high-copper until confirmed.	3	Copper (unconfirmed) - Assumed Copper	0.9	No	Rejected	DPR Active List, Date of Coating, 44891-10-ZA
SWYC	4444	85	POWER	44	14	low copper	BOTTOMKOTE ACT WITH IRGAROL	6690B	Dr SI	8	2011	30	2693-227-AA	Paint name/product number and registration number are for different paints. This will be assumed to be aged-copper.	9	Aged-Copper	0.45	No	Noted	
SWYC	4484		POWER	13	0									Vacant or no data? Please provide occupancy rate information if not vacant. This will be assumed as high-copper and 100% occupied until paint information/vacancy is confirmed. Please confirm beam width.	4, 10	Copper (unconfirmed) - Assumed Copper	0.9	No	Rejected	A 13 foot vessel is a dinghy no a standard slipped vessel
SWYC	4581	100	SAIL	26	7	copper	1640	1640		7	2019	40	60061-87-ZL	Information provided is not for "Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Noted	No load change
SIM	7034	100	Sail	40	13	Non	Copper Coat	book says unable to locate	Baja Naval	5	2020	0		Information provided is not for "Non-Copper" paint (Column H). Please check "PaintType." This will be classified as Category I based on information provided.	6, 8	Category I (confirmed)	0.45	No	Rejected	Coppercoat nonbiocidal per manfacturer
SIM	7046	93.82	Power	103	24.5	Low Copper	Seahawk	TF1205	SIBY	11	2018	33	44891-10-ZA	Paint name/product number (Biocop) and registration number (Tropikote) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Rejected	AMENDED DPR number44891-15-AA

Facility	Slip Reference	Percent Occupied	VesselType	Vessel Length	Vessel Beam	PaintType	PaintProductName	ProductNum	BoatyardName or PurchaseDate	PaintingDate Month	PaintingDate Year_Year	Perc Copper	Category_1_Reg	Follow-Up Comments or Questions	Assumption (based on Monitoring Plan Table 3-4)	Annual Report Paint Category	Annual Report Load (prior to % occupancy normalization)	Does data agree?	Noted Consider or Reject	Reasoning
SIM	7061	81.81	Power	16	6.5	Non	no bottom paint					0	60061-87-ZM	No bottom paint? Registration number is provided. This will be assumed to be high-copper until corrected.	3	Non-Copper (unconfirmed) - Assumed Copper	0.9	No	Rejected	typo, no entry for CAT 1 intended
SIM	7064	100	Sail	27	8	Copper	Unknown		Jul-15	unknown	unknown	67		This will be assumed to be aged-copper based on purchase date.	9	Aged-Copper	0.45	No	Noted	no load change
SIM	7106	90.1	Power	41	14	Copper	Unknown		Nov-17	unknown	unknown	67		This will be assumed to be aged-copper based on purchase date.	9	Aged-Copper	0.45	No	Noted	no load change
SIM	7156	100	Sail	30	11.3	Low Copper	Interlux Ultra	Y3669F	SIBY	10	2007	55	60061-87-ZM	Paint name/product number and registration number are for different paints. This will be assumed to be aged-copper.	9	Aged-Copper	0.45	No	Noted	no load change
SIM	7161	100	Power	22	8.3	Low Copper	Zspar	BP-001	Driscolls	8	2019	67	60061-94-ZD	Product name/number and registration number (Trinidad SR) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Noted	Agreement with DPR Active List, typo 60061-64-ZE
SIM	7304	96.77	Power	40	13	Low Copper	Interlux Ultra	Y3779F	Driscolls MB	7	2019	55	60061-87-ZM	Paint name/product number and registration number (Pettit for Inflatables) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Port supplied reference Y3779F is Cat I, 2693-212-AA
SIM	7342	100	Power	50	14.6	Copper	Unknown		Aug-17	unknown	unknown	67		This will be assumed to be aged-copper based on purchase date.	9	Aged-Copper	0.45	No	Noted	No load change
SIM	7358	100	Power	88	20.5	Low Copper	Interlux Ultra	Y3779F	MGBW	11	2020	55	60061-87-ZM	Paint name/product number and registration number (Pettit for Inflatables) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Date of Coating, Y3779F is Cat I
SIM	7369	89.52	Sail	42	12.6	Low Copper	Interlux Ultra Kote	Y3449U	MGBW	11	2018	57		Information provided is not for "Low-Copper" paint (Column H). Please check "PaintType." This will be classified as high-copper based on information provided.	2	Copper (confirmed)	0.9	No	Accept	Inputted copper percentage is correct
SIM	7473	96.39	Sail	65	17.5	Low Copper	Zspar Protector	BP-91	Driscolls	6	2017	55	60061-94-ZB	Product name/number and registration number are for different paints. This will be assumed to be aged-copper.	9	Aged-Copper	0.45	No	Noted	No load change
SIM	7512	98.66	Sail	30	10	Low Copper	Zspar	BP94	Driscolls MB	8	2020	55	60061-94-ZB	Product name/number and registration number (Trinidad Pro) are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Date of Coating
SIM	7558	100	Sail	30	10.8	Low Copper	Pettit Zspar	BP91	Driscolls	2	2016	55	60061-94-ZD	Paint name/product number and registration number are for different paints. This will be assumed to be aged-copper.	9	Aged-Copper	0.45	No	Noted	no load change
HMM	9140	100	Power	23	8	Low Copper	Zspar Bottom Pro Gold	BP91	Driscoll SI	3	2019	55	60061-137	Paint name/product number and registration number are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Noted	Typo: 60061-64-ZB, DPR Active
HMM	9331		NA	NA	NA	Low Copper	Interlux Ultra	Y3559U	Shelter Island Boatyard	5	2016	55		Please provide occupancy rate, vessel length, and beam width information. If occupancy rate is not provided, it will be assumed to be 100%	4, 10	Aged-Copper	0.45	No	Noted	no load change
HMM	9601	100	Sail	47	14	Low Copper	Pettit Trinidad	1275	Self Applied	3	2011	33	60061-117-ZB	Product name/number and registration number (Ultima SR) are for different paints. This will be assumed to be aged-copper.	9	Aged-Copper	0.45	No	Noted	no load change
HMM	9693	100	Power	27	10	Low Copper	Pettit	1808Q	Driscoll	10	2019	22		Information provided is not for "Low-Copper" paint (Column H). Please check "PaintType." This will be classified as non-copper based on information provided.	5	Non-Copper (confirmed)	0	No	Accepted	
GCA	11	95	Power	42	13	Low-copper	Pettit Trinidad	1871	Shelter Island Boatyard	1	2020	50	60061-49-ZD	Product name/number and registration number are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Accepted	Typo: 60061-94-ZD, date of coating
GCA	13	95	Power	50	17	Low-copper	Pettit Trinidad	1871	Shelter Island Boatyard	5	2020	50	60061-49-ZD	Product name/number and registration number are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Accepted	Typo: 60061-94-ZD, date of coating
GCA	16	100	Power	42	14.25	Low-copper	Interlux Ultra	Y3779F	Nielsen Beaumont Marine Inc	12	2019	55	60061-49	Paint name/product number and registration number are for different paints. This will be assumed to be high-copper until corrected.	3	Category I (unconfirmed) - Assumed Copper	0.9	No	Reject	Ultra Y3779F is a Cat 1 paint

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## **APPENDIX D**

### **WATER QUALITY RESULTS**

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## **FIELD DATA SHEETS**

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PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

FIELD WATER QUALITY DATA SHEET

Station  
Identification: SIYB-ER

Date:  
(mm/dd/yyyy) 08/20/2020

Time on Station:  
(hh:mm) 0610

Time Started:  
(hh:mm) 0640

Ended:  
(hh:mm) 0700

GPS:  
(WGS84) Lat. NA

Long. NA

Tide (ft): NA

Time of Slack  
High Tide: NA

Water Depth  
(ft): NA

Weather  
conditions: NA overcast, light breeze

Wind (mph): NA 3-5 mph NE

Time of  
CTD Cast: NA

Surface Water  
Conditions: NA

Water Visibility  
(ft): NA

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station	NA	NA	NA	NA	NA
During sample collection	↓	↓	↓	↓	↓
End of sample collection	↓	↓	↓	↓	↓
Average value	↓	↓	↓	↓	↓

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes:

oil sheen on surface next to transient dock

PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

FIELD WATER QUALITY DATA SHEET

Station  
Identification: S1XB-REF-2

Date:  
(mm/dd/yyyy) 08/20/2020

Time on Station:  
(hh:mm) 07:33

Time Started:  
(hh:mm) 07:33

Ended:  
(hh:mm) 07:35

GPS:  
(WGS84) Lat. 32.70947

Long. -117.22516

Tide (ft): +1.54

Time of Slack  
High Tide: 11:08

Water Depth  
(ft): 47 ft

Weather  
conditions: hazy/overcast, calm

Wind (mph): 0 mph

Time of  
CTD Cast: N/A

Surface Water  
Conditions: calm

Water Visibility  
(ft): approx. 9'2"

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station	N/A	N/A	N/A	N/A	N/A
During sample collection	21.8	52237	34.4	7.91	7.42
End of sample collection	N/A	N/A	N/A	N/A	N/A
Average value	21.8	52237	34.4	7.91	7.42

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes:

Sample collection time: 07:35

Strong current, water visibility w/ secchi disk estimated

PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

FIELD WATER QUALITY DATA SHEET

Station  
Identification:

SI4B-REF-1

Date:  
(mm/dd/yyyy)

08/20/2020

Time on Station:  
(hh:mm)

0747 0810

Time Started:  
(hh:mm)

0815

Ended:  
(hh:mm)

0850

GPS:  
(WGS84)

Lat. 32.70407

Long. 117.23234

Tide (ft):

+ 2.81

Time of Slack  
High Tide:

11:08

Water Depth  
(ft):

67 ft

Weather  
conditions:

sunny/hazy, calm

Wind (mph):

0 mph

Time of  
CTD Cast:

0845

Surface Water  
Conditions:

calm, clean

Water Visibility  
(ft):

12' approx

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station	22.2	52102	34.34	8.04	7.85
During sample collection	22.3	52103	34.33	8.04	7.85
End of sample collection	22.0	52065	34.31	8.06	7.92
Average value	22.2	52090	34.3	8.05	7.9

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes:

Sample time 0815  
strong current, water visibility with secchi disk estimated

PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

FIELD WATER QUALITY DATA SHEET

Station  
Identification: S14B-6

Date:  
(mm/dd/yyyy) 08/20/2020

Time on Station:  
(hh:mm) 09:05

Time Started:  
(hh:mm) 09:15

Ended:  
(hh:mm) 09:45

GPS:  
(WGS84) Lat. 32.70883

Long. 117.23511

Tide (ft): + 3.21

Time of Slack  
High Tide: 11:08

Water Depth  
(ft): 16 ft

Weather  
conditions: Sunny, hazy, light breeze

Wind (mph): 1.4 mph W

Time of  
CTD Cast: 0940

Surface Water  
Conditions: Calm

Water Visibility  
(ft): 10' 8"

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station	21.9	52157	34.38	8.01	7.56
During sample collection	21.9	52161	34.38	8.00	7.56
End of sample collection	21.9	52161	34.38	8.01	7.53
Average value	21.9	52160	34.4	8.01	7.6

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes: Sample time: 0915

PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

FIELD WATER QUALITY DATA SHEET

Station  
Identification: SIB-5

Date:  
(mm/dd/yyyy) 08/20/2020

Time on Station:  
(hh:mm) 10:19

Time Started:  
(hh:mm) 10:25

Ended:  
(hh:mm) 10:50

GPS:  
(WGS84) Lat. 32.71218

Long. 117.23298

Tide (ft): +4.71

Time of Slack  
High Tide: 1108

Water Depth  
(ft): 23.1

Weather  
conditions: sunny/hazy, light breeze

Wind (mph): 5.9 mph W

Time of  
CTD Cast: 1046

Surface Water  
Conditions: slight texture

Water Visibility  
(ft): 9' 3"

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station	22.5	52132	34.4	8.02	8.01
During sample collection	22.5	52120	34.4	8.00	8.07
End of sample collection	22.5	52129	34.4	8.03	8.08
Average value	22.5	52127	34.4	8.02	8.1

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes: sample time: 1025



PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

FIELD WATER QUALITY DATA SHEET

Station  
Identification: S14B-4

Date:  
(mm/dd/yyyy) 08/20/2020

Time on Station:  
(hh:mm) 10:59

Time Started:  
(hh:mm) 11:15

Ended:  
(hh:mm) 11:49

GPS:  
(WGS84) Lat. 32.71682

Long. 117.23201

Tide (ft): +5.05

Time of Slack  
High Tide: 11:08

Water Depth  
(ft): 25 16 ft

Weather  
conditions: sunny / hazy, light breeze

Wind (mph): 3.5 mph SSW

Time of  
CTD Cast: 11:45

Surface Water  
Conditions: slight texture

Water Visibility  
(ft): 1015"

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station	23.0	52100	34.4	8.02	8.57
During sample collection	23.4	52158	34.4	8.02	8.51
End of sample collection	23.6	52147	34.4	8.03	8.59
Average value	23.3	52135	34.4	8.02	8.6

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes: sample time: 11:15

PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

FIELD WATER QUALITY DATA SHEET

Station  
Identification: SI4B-3

Date:  
(mm/dd/yyyy) 08/20/2020

Time on Station:  
(hh:mm) 11:58

Time Started:  
(hh:mm) 12:15

Ended:  
(hh:mm) 12:45

GPS:  
(WGS84) Lat. 32.71549

Long. -117.22990

Tide (ft): +4.47

Time of Slack  
High Tide: 11:08

Water Depth  
(ft): 21 ft

Weather  
conditions: sunny/hazy, light breeze

Wind (mph): 4.1 mph SSW

Time of  
CTD Cast: 12:40

Surface Water  
Conditions: mostly calm, slight texture

Water Visibility  
(ft): 10'8"

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station	23.3	52180	34.4	8.00	8.20
During sample collection	23.3	52182	34.4	8.00	8.28
End of sample collection	23.6	52183	34.4	8.01	8.29
Average value	23.4	52182	34.4	8.00	8.3

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes: Topside cleaning ~ 110 m from station  
Sample collection time: 12:15

PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

FIELD WATER QUALITY DATA SHEET

Station Identification: SIYB-2

Date: (mm/dd/yyyy) 08/20/2020

Time on Station: (hh:mm) 1305

Time Started: (hh:mm) 13:15

Ended: (hh:mm) 13:41

GPS: (WGS84) Lat. 32.71414

Long. -117.22922

Tide (ft): +3.65

Time of Slack High Tide: 11:08

Water Depth (ft): 15 ft

Weather conditions: sunny, hazy, mostly calm (slight breeze)

Wind (mph): 2.7 mph SSW

Time of CTD Cast: 1337

Surface Water Conditions: mostly calm

Water Visibility (ft): 9-10"

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station	23.7	52180	34.4	8.00	8.10
During sample collection	23.7	52161	34.4	7.99	8.09
End of sample collection	24.0	52183	34.4	8.00	8.26
Average value	23.8	52175	34.4	8.00	8.2

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes: sample time: 1315

Topside maintenance within 20m of sample collection (no water discharge). Minor cleaning (brushing). ← west



PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

**FIELD WATER QUALITY DATA SHEET**

Station Identification: SIYB-1

Date: (mm/dd/yyyy) 08/20/2020

Time on Station: (hh:mm) 13:50

Time Started: (hh:mm) 14:15

Ended: (hh:mm) 14:43

GPS: (WGS84) Lat. 32.71823

Long. -117.22604

Tide (ft): +2.96

Time of Slack High Tide: 11:00

Water Depth (ft): 17 ft

Weather conditions: sunny/hazy, light breeze

Wind (mph): 4.2 mph SSW

Time of CTD Cast: 1448

Surface Water Conditions: mostly calm, light texture

Water Visibility (ft): 9'8"

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station	23.6	52172	34.4	8.02	8.61
During sample collection	23.9	52127	34.4	7.99	8.63
End of sample collection	24.1	52231	34.4	8.03	8.63
Average value	23.9	52177	34.4	8.01	8.6

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes:

Above water maintenance on approx 4 vessels within 20-50m South of sample collection. Includes spraying/waxing  
 \*In water hull cleaner observed topside (~50m East) samples collected prior to active cleaning  
 Sample time: 14:15

PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

**FIELD WATER QUALITY DATA SHEET**

Station Identification: SI4B-1 (REP)

Date: (mm/dd/yyyy) 08/20/2020 Time on Station: (hh:mm) 1455

Time Started: (hh:mm) 1500 Ended: (hh:mm) 1521

GPS: (WGS84) Lat. 32.71821 Long. -117.22603

Tide (ft): +2.43 Time of Slack High Tide: 11:08

Water Depth (ft): 17 ft

Weather conditions: Sunny/hazy, light breeze

Wind (mph): 7.1 mph SSW Time of CTD Cast: 1515

Surface Water Conditions: slight texture

Water Visibility (ft): 9'8"

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station	24.2	52185	34.4	8.01	8.53
During sample collection	24.4	52203	34.4	8.00	8.36
End of sample collection	24.2	52178	34.4	8.04	8.64
Average value	24.3	52189	34.4	8.02	8.5

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes: Sample time 1500  
Topside cleaning ~25-30m East of sample collection  
In-water hull cleaner observed 50-60m east of sample collection

PORT OF SAN DIEGO  
SHELTER ISLAND YACHT BASIN TMDL MONITORING  
2020

FIELD WATER QUALITY DATA SHEET

Station  
Identification: SIYB-FB

Date:  
(mm/dd/yyyy) 08/20/2020

Time on Station:  
(hh:mm) 1520

Time Started:  
(hh:mm) 1525

Ended:  
(hh:mm) 1540

GPS:  
(WGS84) Lat. N/A

Long. N/A

Tide (ft): N/A

Time of Slack  
High Tide: N/A

Water Depth  
(ft): N/A

Weather  
conditions: overcast, breezy

Wind (mph): 14.5 mph SSW

Time of  
CTD Cast: N/A

Surface Water  
Conditions: N/A

Water Visibility  
(ft): N/A

Time of Measurement	Temperature (°C)	Sp. Cond. (µS/cm)	Salinity (ppt)	pH	DO (mg/L)
Upon arrival on station					
During sample collection			N/A		
End of sample collection					
Average value					

\*Water quality measured at the same depth as sample collection (i.e. within 1 meter from the surface).

Notes: Sample time: 1525

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## **FIELD QA/QC CHECKLISTS**

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FIELD SAMPLING QA CHECKLIST

Station Location: Eg Rinse Blank Date/Time: 8/20/20  
0630

Mark each box with Y, N, or NA

Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	Y
Vessel has been anchored (or tied off)	N/A
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded <u>@ transient dock</u>	Y
Tide recorded	N/A
Weather conditions recorded	<del>X</del> Y BJS
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	N/A
Time of sampling recorded	X
Water depth at sample site recorded	N/A
General site observations recorded	Y
Check for boat cleaning operations in the area – if active, move to a new station	N/A

2. Sampling procedures:

A. Water Samples

Field staff wearing fresh, powder-free nitrile gloves	Y
Vessel engine has been shut off for 3-5 minutes prior to sampling	Y
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	Y
Sampling instrument given site water rinse prior to deployment	Y
Sample bottles correctly labeled and match the station identification	Y
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	Y
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	X
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	Y
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	X
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	N/A
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled	N/A
Sampling depth recorded	N/A

### FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity <del>X</del> <i>no toxicity needed</i>	<i>Y</i>
Staff avoided contaminating samples at all times	<i>Y</i>
COC seals have been placed over individual sample bottles	<i>Y</i>
Equipment rinsate blank and field blank have been collected (if applicable)	<i>Y</i>
Site replicate (i.e., duplicate) collected (if applicable)	<i>N/A</i>

#### 3. Data Recording:

Water samples properly logged on COC form	<i>Y</i>
Proper persons have signed the COC	<i>Y</i>
Field notes have been recorded for this site before moving to the next	<i>Y</i>

#### 4. Sample Storage:

Water samples properly stored on ice in a cooler	<i>Y</i>
Cooler and samples hand delivered to labs *	<i>Y</i>
Completed COC included with courier to hand deliver to labs	<i>Y</i>

*\* by Weck courier on 8/21/20*

#### 5. PPE properly removed and disposed of upon station completion

*Y*

#### Additional Notes:

*Samples stored overnight at  
Wood lab in coldroom on ice.*

Signature of QA/QC Personnel: *B. Snyder*

Print Name/Company: *Wood EIS*

Date/Time

*8/21/20  
09:15*



FIELD SAMPLING QA CHECKLIST

Station Location:

Ref - 2

Date/Time:

8/20/20

0735

Mark each box with Y, N, or NA

Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	Y
Vessel has been anchored (or tied off) live boat this station*	N
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded 10 m	N
Tide recorded	Y
Weather conditions recorded	Y
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	Y
Time of sampling recorded	Y
Water depth at sample site recorded	Y
General site observations recorded	Y
Check for boat cleaning operations in the area – if active, move to a new station	NA

2. Sampling procedures:

A. Water Samples

Field staff wearing fresh, powder-free nitrile gloves	Y
Vessel engine has been shut off for 3-5 minutes prior to sampling	Y
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	Y
Sampling instrument given site water rinse prior to deployment	Y
Sample bottles correctly labeled and match the station identification	Y
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	Y
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	Y
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	Y
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	Y
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	Y
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled *	N
Sampling depth recorded	Y

\* only one WQ collection of parameters at this station

### FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity*	Y
Staff avoided contaminating samples at all times	Y
COC seals have been placed over individual sample bottles	Y
Equipment rinsate blank and field blank have been collected (if applicable)	N/A
Site replicate (i.e., duplicate) collected (if applicable)	N/A

\* no toxicity conducted at this station

#### 3. Data Recording:

Water samples properly logged on COC form	Y
Proper persons have signed the COC	Y
Field notes have been recorded for this site before moving to the next	Y

#### 4. Sample Storage:

Water samples properly stored on ice in a cooler	Y
Cooler and samples hand delivered to labs	Y
Completed COC included with courier to hand deliver to labs	Y

\* by Weck Courier on 8/21/20

#### 5. PPE properly removed and disposed of upon station completion

Y

#### Additional Notes:

Samples stored overnight at  
Wood lab on ice

Signature of QA/QC Personnel: B. Snyder

Print Name/Company: Wood EIS

Date/Time 8/21/20

09:15



### FIELD SAMPLING QA CHECKLIST

Station Location: Ref - 1 Date/Time: 8/20/20

Mark each box with Y, N, or NA

0815

#### Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	Y
Vessel has been anchored (or tied off)	X
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded	Y
Tide recorded	Y
Weather conditions recorded	Y
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	Y
Time of sampling recorded	Y
Water depth at sample site recorded	Y
General site observations recorded	Y
Check for boat cleaning operations in the area – if active, move to a new station	N/A

2. Sampling procedures:

#### A. Water Samples

Field staff wearing fresh, powder-free nitrile gloves	Y
Vessel engine has been shut off for 3-5 minutes prior to sampling	Y
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	Y
Sampling instrument given site water rinse prior to deployment	Y
Sample bottles correctly labeled and match the station identification	Y
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	Y
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	X
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	Y
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	Y
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	Y
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled	Y
Sampling depth recorded	Y

FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity	Y
Staff avoided contaminating samples at all times	Y
COC seals have been placed over individual sample bottles	Y
Equipment rinsate blank and field blank have been collected (if applicable)	NA
Site replicate (i.e., duplicate) collected (if applicable)	NA

3. Data Recording:

Water samples properly logged on COC form	Y
Proper persons have signed the COC	Y
Field notes have been recorded for this site before moving to the next	Y

4. Sample Storage:

Water samples properly stored on ice in a cooler	Y
Cooler and samples hand delivered to labs *	Y
Completed COC included with courier to hand deliver to labs	Y

\* by Weck Courier on 8/21/20

5. PPE properly removed and disposed of upon station completion

Y

Additional Notes:

Samples stored overnight at  
Wood lab on ice

Signature of QA/QC Personnel: B. Snyder

Print Name/Company: Wood EIS

Date/Time 8/21/20  
09:15

# FIELD SAMPLING QA CHECKLIST

Station Location:

S14B-6

Date/Time:

8/20/20

Mark each box with Y, N, or NA

0905

## Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	Y
Vessel has been anchored (or tied off)	Y
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded 27 m from site - at traditional collection location	N
Tide recorded	Y
Weather conditions recorded	Y
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	Y
Time of sampling recorded	Y
Water depth at sample site recorded	Y
General site observations recorded	Y
Check for boat cleaning operations in the area – if active, move to a new station	Y

\* None observed

2. Sampling procedures:

### A. Water Samples

Field staff wearing fresh, powder-free nitrile gloves	Y
Vessel engine has been shut off for 3-5 minutes prior to sampling	Y
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	Y
Sampling instrument given site water rinse prior to deployment	Y
Sample bottles correctly labeled and match the station identification	Y
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	Y
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	Y
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	Y
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	Y
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	Y
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled	Y
Sampling depth recorded	Y



### FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity	Y
Staff avoided contaminating samples at all times	X
COC seals have been placed over individual sample bottles	X
Equipment rinsate blank and field blank have been collected (if applicable)	N/A
Site replicate (i.e., duplicate) collected (if applicable)	N/A

#### 3. Data Recording:

Water samples properly logged on COC form	X
Proper persons have signed the COC	X
Field notes have been recorded for this site before moving to the next	N/A

Y  
(BJS)

#### 4. Sample Storage:

Water samples properly stored on ice in a cooler	Y
Cooler and samples hand delivered to labs *	X
Completed COC included with courier to hand deliver to labs	Y

#### 5. PPE properly removed and disposed of upon station completion

Y

#### Additional Notes:

sample stored overnight in Wood  
lab on ice

Signature of QA/QC Personnel: B. Smayda

Print Name/Company: Wood EIS

Date/Time 8/21/20  
09:15

FIELD SAMPLING QA CHECKLIST

Station Location: S1YB-5 Date/Time: 8/20/20

Mark each box with Y, N, or NA

10:19

Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	<u>Y</u>
Vessel has been <u>anchored</u> (or tied off)	<u>Y</u>
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded	<u>Y</u>
Tide recorded	<u>Y</u>
Weather conditions recorded	<u>Y</u>
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	<u>Y</u>
Time of sampling recorded	<u>Y</u>
Water depth at sample site recorded	<u>Y</u>
General site observations recorded	<u>Y</u>
Check for boat cleaning operations in the area – if active, move to a new station	<u>Y*</u>

\* None observed

2. Sampling procedures:

A. Water Samples

Field staff wearing fresh, powder-free nitrile gloves	<u>Y</u>
Vessel engine has been shut off for 3-5 minutes prior to sampling	<u>Y</u>
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	<u>Y</u>
Sampling instrument given site water rinse prior to deployment	<u>Y</u>
Sample bottles correctly labeled and match the station identification	<u>Y</u>
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	<u>Y</u>
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	<u>Y</u>
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	<u>Y</u>
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	<u>Y</u>
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	<u>Y</u>
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled	<u>Y</u>
Sampling depth recorded	<u>Y</u>

FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity	Y
Staff avoided contaminating samples at all times	Y
COC seals have been placed over individual sample bottles	Y
Equipment rinsate blank and field blank have been collected (if applicable)	N/A
Site replicate (i.e., duplicate) collected (if applicable)	N/A

3. Data Recording:

Water samples properly logged on COC form	Y
Proper persons have signed the COC	X
Field notes have been recorded for this site before moving to the next	Y

4. Sample Storage:

Water samples properly stored on ice in a cooler	Y
Cooler and samples hand delivered to labs *	Y
Completed COC included with courier to hand deliver to labs	Y

by Week Courier on 8/21/20

5. PPE properly removed and disposed of upon station completion

Y

Additional Notes:

samples stored overnight at Wood  
lab on ice

Signature of QA/QC Personnel: B. Snyder

Print Name/Company: Wood EIS

Date/Time 8/21/20  
09:15



FIELD SAMPLING QA CHECKLIST

Station Location:

SIB - 4

Date/Time:

8/20/20

Mark each box with Y, N, or NA

10:59

Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	Y
Vessel has been <u>anchored</u> (or tied off)	Y
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded	Y
Tide recorded	Y
Weather conditions recorded	Y
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	Y
Time of sampling recorded	Y
Water depth at sample site recorded	Y
General site observations recorded	Y
Check for boat cleaning operations in the area – if active, move to a new station *	Y

\*None observed

2. Sampling procedures:

A. Water Samples

Field staff wearing fresh, powder-free nitrile gloves	Y
Vessel engine has been shut off for 3-5 minutes prior to sampling	Y
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	Y
Sampling instrument given site water rinse prior to deployment	Y
Sample bottles correctly labeled and match the station identification	Y
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	Y
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	Y
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	Y
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	Y
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	Y
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled	Y
Sampling depth recorded	Y

### FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity	Y
Staff avoided contaminating samples at all times	Y
COC seals have been placed over individual sample bottles	Y
Equipment rinsate blank and field blank have been collected (if applicable)	N/A
Site replicate (i.e., duplicate) collected (if applicable)	N/A

#### 3. Data Recording:

Water samples properly logged on COC form	Y
Proper persons have signed the COC	Y
Field notes have been recorded for this site before moving to the next	Y

#### 4. Sample Storage:

Water samples properly stored on ice in a cooler	Y
Cooler and samples hand delivered to labs *	Y
Completed COC included with courier to hand deliver to labs	Y

by Week Courier on 8/21/20

#### 5. PPE properly removed and disposed of upon station completion

Y

#### Additional Notes:

Samples stored overnight at Wood  
lab on ice

Signature of QA/QC Personnel:

B. Snyder

Date/Time

8/21/20

Print Name/Company:

Wood FIS

09:15

FIELD SAMPLING QA CHECKLIST

Station Location: SIB - 3 Date/Time: 8/20/20  
11:58

Mark each box with Y, N, or NA

Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	Y
Vessel has been <u>anchored</u> (or tied off)	Y
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded	Y
Tide recorded	Y
Weather conditions recorded	Y
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	Y
Time of sampling recorded	Y
Water depth at sample site recorded	Y
General site observations recorded	Y
Check for boat cleaning operations in the area – if active, move to a new station *	Y

2. Sampling procedures: \* None observed in water side  
\* Above water vessel cleaning approx 120 m East of location

A. Water Samples

Field staff wearing fresh, powder-free nitrile gloves	Y
Vessel engine has been shut off for 3-5 minutes prior to sampling	Y
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	Y
Sampling instrument given site water rinse prior to deployment	Y
Sample bottles correctly labeled and match the station identification	Y
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	Y
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	Y
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	Y
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	Y
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	Y
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled	Y
Sampling depth recorded	Y



### FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity	Y
Staff avoided contaminating samples at all times	Y
COC seals have been placed over individual sample bottles	Y
Equipment rinsate blank and field blank have been collected (if applicable)	N/A
Site replicate (i.e., duplicate) collected (if applicable)	N/A

#### 3. Data Recording:

Water samples properly logged on COC form	Y
Proper persons have signed the COC	Y
Field notes have been recorded for this site before moving to the next	Y

#### 4. Sample Storage:

Water samples properly stored on ice in a cooler	Y
Cooler and samples hand delivered to labs*	Y
Completed COC included with courier to hand deliver to labs	Y

\* by Weck Courier on 8/21/20

#### 5. PPE properly removed and disposed of upon station completion

Y

#### Additional Notes:

samples stored overnight in wood  
lab on ice

Signature of QA/QC Personnel:

B. Snyder

Date/Time

8/21/20

Print Name/Company:

Wood EIS

09:15

FIELD SAMPLING QA CHECKLIST

Station Location:

S1YB-2

Date/Time:

8/20/20

Mark each box with Y, N, or NA

1305

Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	Y
Vessel has been anchored (or tied off)	Y
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded	Y
Tide recorded	Y
Weather conditions recorded	Y
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	Y
Time of sampling recorded	Y
Water depth at sample site recorded	Y
General site observations recorded	Y
Check for boat cleaning operations in the area – if active, move to a new station *	Y

2. Sampling procedures:

\* no in-water cleaning observed  
top side boat maintenance +20m 20m to west

A. Water Samples

Field staff wearing fresh, powder-free nitrile gloves	Y
Vessel engine has been shut off for 3-5 minutes prior to sampling	Y
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	Y
Sampling instrument given site water rinse prior to deployment	Y
Sample bottles correctly labeled and match the station identification	Y
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	X
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	X
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	Y
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	Y
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	Y
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled	Y
Sampling depth recorded	Y

### FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity	Y
Staff avoided contaminating samples at all times	X
COC seals have been placed over individual sample bottles	Y
Equipment rinsate blank and field blank have been collected (if applicable)	N/A
Site replicate (i.e., duplicate) collected (if applicable)	N/A

#### 3. Data Recording:

Water samples properly logged on COC form	Y
Proper persons have signed the COC	Y
Field notes have been recorded for this site before moving to the next	Y

#### 4. Sample Storage:

Water samples properly stored on ice in a cooler	Y
Cooler and samples hand delivered to labs*	Y
Completed COC included with courier to hand deliver to labs	Y

\* by Weck Courier on 8/21/20

#### 5. PPE properly removed and disposed of upon station completion

Y

#### Additional Notes:

Samples stored overnight at Wood  
lab on ice

Signature of QA/QC Personnel: B. Smyda

Date/Time 8/21/20

Print Name/Company: Wood EIS

09:15



FIELD SAMPLING QA CHECKLIST

Station Location: S14B-1

Date/Time: 8/20/20

Mark each box with Y, N, or NA

1350

Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	<u>Y</u>
Vessel has been <u>anchored</u> (or tied off)	<u>Y</u>
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded	<u>Y</u>
Tide recorded	<u>Y</u>
Weather conditions recorded	<u>Y</u>
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	<u>Y</u>
Time of sampling recorded	<u>Y</u>
Water depth at sample site recorded	<u>Y</u>
General site observations recorded	<u>Y</u>
Check for boat cleaning operations in the area – if active, move to a new station **	<u>Y</u>

2. Sampling procedures:

A. Water Samples

*\* No in-water cleaning observed. (initially - see below) note  
considerable above water cleaning observed  
to East of site. Approx 20-50 m.*

Field staff wearing fresh, powder-free nitrile gloves	<u>Y</u>
Vessel engine has been shut off for 3-5 minutes prior to sampling	<u>Y</u>
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	<u>Y</u>
Sampling instrument given site water rinse prior to deployment	<u>Y</u>
Sample bottles correctly labeled and match the station identification	<u>Y</u>
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	<u>Y</u>
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	<u>Y</u>
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	<u>Y</u>
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	<u>Y</u>
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	<u>Y</u>
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled	<u>Y</u>
Sampling depth recorded	<u>Y</u>

*\*\* Hull cleaner enter water right before sample was collected. Located 50-60 m to west-  
Chem sample collected prior to start of active cleaning*

# FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity	<input checked="" type="checkbox"/>
Staff avoided contaminating samples at all times	<input checked="" type="checkbox"/>
COC seals have been placed over individual sample bottles	<input checked="" type="checkbox"/>
Equipment rinsate blank and <u>field blank</u> have been collected (if applicable)	<input checked="" type="checkbox"/>
Site replicate (i.e., duplicate) collected (if applicable)	<input checked="" type="checkbox"/>

## 3. Data Recording:

Water samples properly logged on COC form	<input checked="" type="checkbox"/>
Proper persons have signed the COC	<input checked="" type="checkbox"/>
Field notes have been recorded for this site before moving to the next	<input checked="" type="checkbox"/>

## 4. Sample Storage:

Water samples properly stored on ice in a cooler	<input checked="" type="checkbox"/>
Cooler and samples hand delivered to labs*	<input checked="" type="checkbox"/>
Completed COC included with courier to hand deliver to labs	<input checked="" type="checkbox"/>

\* by Weck Courier on 8/21/20

## 5. PPE properly removed and disposed of upon station completion

☒

## Additional Notes:

samples stored overnight at Wood  
lab on ice.

Signature of QA/QC Personnel: B. Grynol

Date/Time 8/21/20

Print Name/Company: Wood EIS

09:15

see separate Forms



# FIELD SAMPLING QA CHECKLIST

Station Location: SIYB 1 - Rep Date/Time: 8/20/20  
1500

Mark each box with Y, N, or NA

## Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	Y
Vessel has been <u>anchored</u> (or tied off)	Y
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded	Y
Tide recorded	Y
Weather conditions recorded	Y
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	Y
Time of sampling recorded	Y
Water depth at sample site recorded	Y
General site observations recorded	Y
Check for boat cleaning operations in the area – if active, move to a new station	Y

2. Sampling procedures: \* Top side cleaning 25-30 m east -  
\* In water cleaning on going 50-60 m east

### A. Water Samples

Field staff wearing fresh, powder-free nitrile gloves	Y
Vessel engine has been shut off for 3-5 minutes prior to sampling	Y
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	Y
Sampling instrument given site water rinse prior to deployment	Y
Sample bottles correctly labeled and match the station identification	Y
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	Y
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	Y
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	Y
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	Y
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	Y
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled	Y
Sampling depth recorded	Y

# FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity	Y
Staff avoided contaminating samples at all times	Y
COC seals have been placed over individual sample bottles	Y
Equipment rinsate blank and field blank have been collected (if applicable)	Y
Site replicate (i.e., duplicate) collected (if applicable)	Y

\* no tox. for the rep

## 3. Data Recording:

Field

Water samples properly logged on COC form	Y
Proper persons have signed the COC	Y
Field notes have been recorded for this site before moving to the next	Y

## 4. Sample Storage:

Water samples properly stored on ice in a cooler	Y
Cooler and samples hand delivered to labs	Y
Completed COC included with courier to hand deliver to labs	Y

\* by Weck Courier on 8/21/20

## 5. PPE properly removed and disposed of upon station completion

Y

## Additional Notes:

samples stored overnight at Wood  
lab on ice

Signature of QA/QC Personnel:

B. Snyder

Date/Time

8/21/20

Print Name/Company:

Wood & EIS

09:15



FIELD SAMPLING QA CHECKLIST

Station Location: *Field Blank*

Date/Time: *8/20/20*

Mark each box with Y, N, or NA

*15:20*

Field Procedures

1. Upon arriving at the sampling location, the following site observations are being recorded:

Port QA personnel has received a blank field sheet	<i>Y</i>
Vessel has been anchored (or tied off)	<i>Y</i>
Station GPS coordinates (approx. $\pm 3$ m) and station identification verified and recorded	<i>N/A</i>
Tide recorded	<i>N/A</i>
Weather conditions recorded	<i>Y</i>
Surface water conditions (incl. currents) recorded (including H <sub>2</sub> O clarity by Secchi disk)	<i>N/A</i>
Time of sampling recorded	<i>N/A</i>
Water depth at sample site recorded	<i>N/A</i>
General site observations recorded	<i>N/A</i>
Check for boat cleaning operations in the area – if active, move to a new station	<i>N/A</i>

2. Sampling procedures:

A. Water Samples

Field staff wearing fresh, powder-free nitrile gloves	<i>Y</i>
Vessel engine has been shut off for 3-5 minutes prior to sampling	<i>Y</i>
SWAMP protocols utilized to avoid sample contamination (i.e., clean hands/dirty hands technique)	<i>Y</i>
Sampling instrument given site water rinse prior to deployment	<i>N/A</i>
Sample bottles correctly labeled and match the station identification	<i>Y</i>
Sample bottles correctly labeled with date and time in accordance with Table 10 in the QAPP	<i>Y</i>
Sample bottles are lab-certified, contaminant-free in accordance with Table 10 in the QAPP	<i>Y</i>
Sample bottles contain correct preservative in accordance with Table 10 in the QAPP	<i>Y</i>
Samples bottles and containers are the correct type in accordance with Table 10 in the QAPP	<i>Y</i>
Sampling depth delineated on sampling instrument with a clear marking (sampling must occur within 1 m of surface)	<i>N/A</i>
pH and salinity readings taken 3 times: when arriving on station, while water samples are collected and again while sample bottles are being filled	<i>N/A</i>
Sampling depth recorded	<i>N/A</i>

FIELD SAMPLING QA CHECKLIST

Sample bottles filled in the following order: metals, organics, toxicity *	Y
Staff avoided contaminating samples at all times	Y
COC seals have been placed over individual sample bottles	Y
Equipment rinsate blank and field blank have been collected (if applicable)	X
Site replicate (i.e., duplicate) collected (if applicable)	Y

\* No tox. at Blank

3. Data Recording:

Water samples properly logged on COC form	Y
Proper persons have signed the COC	X
Field notes have been recorded for this site before moving to the next	N/A

4. Sample Storage:

Water samples properly stored on ice in a cooler	Y
Cooler and samples hand delivered to labs *	Y
Completed COC included with courier to hand deliver to labs	Y

by Weck Courier on 8/21/20

5. PPE properly removed and disposed of upon station completion

N/A  
last station

Additional Notes:

Blank sample collected while anchored at

SIYB-1

samples store on ice at Wood lab  
over night

Signature of QA/QC Personnel:

B. Smyler

Date/Time

8/21/20

Print Name/Company:

Wood EIS

09:15

## **ANALYTICAL TESTING REPORTS**

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## **WECK LABORATORIES CHEMISTRY REPORT**

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Work Orders: 0H21054

Project: SIYB Copper TMDL Monitoring

Attn: Barry Snyder

Client: Wood - San Diego 2  
9210 Sky Park Court, Suite 200  
San Diego, CA 92123

Report Date: 9/04/2020

Received Date: 8/21/2020

Turnaround Time: Normal

Phones: (858) 300-4320

Fax: (858) 300-4301

P.O. #:

Billing Code:

DoD-ISO ANAB # • ELAP-CA #1132 • EPA-UCMR #CA00211 • HW-DOH # • ISO17025 ANAB #L2457.01 • LACSD #10143 •  
NELAP-OR #4047 • NJ-DEP #CA015 • SCAQMD #93LA1006

*This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.*

Dear Barry Snyder,

Enclosed are the results of analyses for samples received 8/21/20 with the Chain-of-Custody document. The samples were received in good condition, at 2.6 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Reviewed by:



Chris Samatmanakit  
Project Manager



Wood - San Diego 2  
9210 Sky Park Court, Suite 200  
San Diego, CA 92123

**Project Number:** SIYB Copper TMDL Monitoring

**Reported:**

09/04/2020 13:08

**Project Manager:** Barry Snyder

## Sample Summary

Sample Name	Sampled By	Lab ID	Matrix	Sampled	Qualifiers
SIYB-1	Marisa Swiderski / Kate Buckley	0H21054-01	Water	08/20/20 14:15	
SIYB-1(REP)	Marisa Swiderski / Kate Buckley	0H21054-02	Water	08/20/20 15:00	
SIYB-2	Marisa Swiderski / Kate Buckley	0H21054-03	Water	08/20/20 13:15	
SIYB-3	Marisa Swiderski / Kate Buckley	0H21054-04	Water	08/20/20 12:15	
SIYB-4	Marisa Swiderski / Kate Buckley	0H21054-05	Water	08/20/20 11:15	
SIYB-5	Marisa Swiderski / Kate Buckley	0H21054-06	Water	08/20/20 10:25	
SIYB-6	Marisa Swiderski / Kate Buckley	0H21054-07	Water	08/20/20 09:15	
SIYB-REF-1	Marisa Swiderski / Kate Buckley	0H21054-08	Water	08/20/20 08:15	
SIYB-REF-2	Marisa Swiderski / Kate Buckley	0H21054-09	Water	08/20/20 07:35	
SIYB-ER	Marisa Swiderski / Kate Buckley	0H21054-10	Water	08/20/20 06:40	
SIYB-FB	Marisa Swiderski / Kate Buckley	0H21054-11	Water	08/20/20 15:25	

Wood - San Diego 2  
9210 Sky Park Court, Suite 200  
San Diego, CA 92123

**Project Number:** SIYB Copper TMDL Monitoring

**Project Manager:** Barry Snyder

**Reported:**  
09/04/2020 13:08

## Sample Results

Sample: SIYB-1  
0H21054-01 (Water)

Sampled: 08/20/20 14:15 by Marisa Swiderski / Kate Buckley

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365		<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh	
Total Suspended Solids	11		5	mg/l	1	08/25/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp	
Total Organic Carbon (TOC)	2.7	0.096	0.30	mg/l	1	08/27/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp	
Dissolved Organic Carbon	2.8	0.016	0.30	mg/l	1	08/28/20	
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN	
Copper, Total	15	0.076	0.20	ug/l	20	09/01/20	
Zinc, Total	43	0.72	4.0	ug/l	20	09/01/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN	
Copper, Dissolved	15	0.019	0.050	ug/l	5	09/01/20	
Zinc, Dissolved	42	0.18	1.0	ug/l	5	09/01/20	

Wood - San Diego 2  
9210 Sky Park Court, Suite 200  
San Diego, CA 92123

**Project Number:** SIYB Copper TMDL Monitoring

**Reported:**  
09/04/2020 13:08

**Project Manager:** Barry Snyder

## Sample Results

(Continued)

Sample: SIYB-1(REP) Sampled: 08/20/20 15:00 by Marisa Swiderski / Kate Buckley  
0H21054-02 (Water)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365		<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh	
<b>Total Suspended Solids</b>	6		5	mg/l	1	08/25/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp	
<b>Total Organic Carbon (TOC)</b>	2.5	0.096	0.30	mg/l	1	08/27/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp	
<b>Dissolved Organic Carbon</b>	2.7	0.016	0.30	mg/l	1	08/28/20	
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN	
<b>Copper, Total</b>	14	0.076	0.20	ug/l	20	09/01/20	
<b>Zinc, Total</b>	46	0.72	4.0	ug/l	20	09/01/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN	
<b>Copper, Dissolved</b>	14	0.019	0.050	ug/l	5	09/01/20	
<b>Zinc, Dissolved</b>	40	0.18	1.0	ug/l	5	09/01/20	

Wood - San Diego 2  
9210 Sky Park Court, Suite 200  
San Diego, CA 92123

**Project Number:** SIYB Copper TMDL Monitoring

**Reported:**

09/04/2020 13:08

**Project Manager:** Barry Snyder

## Sample Results

(Continued)

Sample: SIYB-2 Sampled: 08/20/20 13:15 by Marisa Swiderski / Kate Buckley

0H21054-03 (Water)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365	<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh		
<b>Total Suspended Solids</b>	8		5	mg/l	1	08/25/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549	<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp		
<b>Total Organic Carbon (TOC)</b>	2.7	0.096	0.30	mg/l	1	08/27/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580	<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp		
<b>Dissolved Organic Carbon</b>	2.6	0.016	0.30	mg/l	1	08/28/20	
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291	<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN		
<b>Copper, Total</b>	9.5	0.076	0.20	ug/l	20	09/01/20	
<b>Zinc, Total</b>	110	0.72	4.0	ug/l	20	09/01/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326	<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN		
<b>Copper, Dissolved</b>	10	0.019	0.050	ug/l	5	09/01/20	
<b>Zinc, Dissolved</b>	29	0.18	1.0	ug/l	5	09/01/20	

Wood - San Diego 2  
9210 Sky Park Court, Suite 200  
San Diego, CA 92123

**Project Number:** SIYB Copper TMDL Monitoring

**Project Manager:** Barry Snyder

**Reported:**  
09/04/2020 13:08

## Sample Results

(Continued)

Sample: SIYB-3  
0H21054-04 (Water)

Sampled: 08/20/20 12:15 by Marisa Swiderski / Kate Buckley

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365		<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh	
<b>Total Suspended Solids</b>	7		5	mg/l	1	08/25/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp	
<b>Total Organic Carbon (TOC)</b>	2.5	0.096	0.30	mg/l	1	08/27/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp	
<b>Dissolved Organic Carbon</b>	2.6	0.016	0.30	mg/l	1	08/28/20	
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN	
<b>Copper, Total</b>	9.6	0.076	0.20	ug/l	20	09/02/20	
<b>Zinc, Total</b>	27	0.72	4.0	ug/l	20	09/02/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN	
<b>Copper, Dissolved</b>	9.9	0.019	0.050	ug/l	5	09/01/20	
<b>Zinc, Dissolved</b>	27	0.18	1.0	ug/l	5	09/01/20	

Wood - San Diego 2  
9210 Sky Park Court, Suite 200  
San Diego, CA 92123

**Project Number:** SIYB Copper TMDL Monitoring

**Reported:**

09/04/2020 13:08

**Project Manager:** Barry Snyder

## Sample Results

(Continued)

Sample: SIYB-4  
0H21054-05 (Water)

Sampled: 08/20/20 11:15 by Marisa Swiderski / Kate Buckley

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365		<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh	
<b>Total Suspended Solids</b>	8		5	mg/l	1	08/25/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp	
<b>Total Organic Carbon (TOC)</b>	2.6	0.096	0.30	mg/l	1	08/27/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp	
<b>Dissolved Organic Carbon</b>	2.8	0.016	0.30	mg/l	1	08/28/20	
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN	
<b>Copper, Total</b>	8.4	0.076	0.20	ug/l	20	09/02/20	
<b>Zinc, Total</b>	25	0.72	4.0	ug/l	20	09/02/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN	
<b>Copper, Dissolved</b>	9.0	0.019	0.050	ug/l	5	09/01/20	
<b>Zinc, Dissolved</b>	24	0.18	1.0	ug/l	5	09/01/20	

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## Sample Results

(Continued)

Sample: SIYB-5  
0H21054-06 (Water)

Sampled: 08/20/20 10:25 by Marisa Swiderski / Kate Buckley

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365		<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh	
<b>Total Suspended Solids</b>	5		5	mg/l	1	08/25/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp	
<b>Total Organic Carbon (TOC)</b>	2.5	0.096	0.30	mg/l	1	08/27/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp	
<b>Dissolved Organic Carbon</b>	2.9	0.016	0.30	mg/l	1	08/28/20	
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN	
<b>Copper, Total</b>	5.2	0.076	0.20	ug/l	20	09/02/20	
<b>Zinc, Total</b>	17	0.72	4.0	ug/l	20	09/02/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN	
<b>Copper, Dissolved</b>	5.4	0.019	0.050	ug/l	5	09/01/20	
<b>Zinc, Dissolved</b>	16	0.18	1.0	ug/l	5	09/01/20	



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## Sample Results

(Continued)

Sample: SIYB-6  
0H21054-07 (Water)

Sampled: 08/20/20 9:15 by Marisa Swiderski / Kate Buckley

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365		<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh	
<b>Total Suspended Solids</b>	7		5	mg/l	1	08/25/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp	
<b>Total Organic Carbon (TOC)</b>	2.6	0.096	0.30	mg/l	1	08/27/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp	
<b>Dissolved Organic Carbon</b>	1.6	0.016	0.30	mg/l	1	08/28/20	
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN	
<b>Copper, Total</b>	1.3	0.0076	0.020	ug/l	2	09/02/20	
<b>Zinc, Total</b>	3.0	0.072	0.40	ug/l	2	09/02/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN	
<b>Copper, Dissolved</b>	0.77	0.0038	0.010	ug/l	1	09/01/20	
<b>Zinc, Dissolved</b>	2.2	0.036	0.20	ug/l	1	09/01/20	

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## Sample Results

(Continued)

Sample: SIYB-REF-1  
0H21054-08 (Water)

Sampled: 08/20/20 8:15 by Marisa Swiderski / Kate Buckley

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365		<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh	
<b>Total Suspended Solids</b>	9		5	mg/l	1	08/25/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp	
<b>Total Organic Carbon (TOC)</b>	1.4	0.096	0.30	mg/l	1	08/27/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp	
<b>Dissolved Organic Carbon</b>	1.5	0.016	0.30	mg/l	1	08/28/20	
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN	
<b>Copper, Total</b>	0.43	0.0038	0.010	ug/l	1	09/02/20	
<b>Zinc, Total</b>	1.2	0.036	0.20	ug/l	1	09/02/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN	
<b>Copper, Dissolved</b>	0.29	0.0038	0.010	ug/l	1	09/01/20	
<b>Zinc, Dissolved</b>	0.83	0.036	0.20	ug/l	1	09/01/20	

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## Sample Results

(Continued)

Sample: SIYB-REF-2  
0H21054-09 (Water)

Sampled: 08/20/20 7:35 by Marisa Swiderski / Kate Buckley

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365		<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh	
<b>Total Suspended Solids</b>	11		5	mg/l	1	08/25/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp	
<b>Total Organic Carbon (TOC)</b>	2.3	0.096	0.30	mg/l	1	08/27/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp	
<b>Dissolved Organic Carbon</b>	1.8	0.016	0.30	mg/l	1	08/28/20	
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN	
<b>Copper, Total</b>	1.2	0.019	0.050	ug/l	5	09/02/20	
<b>Zinc, Total</b>	4.9	0.18	1.0	ug/l	5	09/02/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN	
<b>Copper, Dissolved</b>	1.0	0.0038	0.010	ug/l	1	09/01/20	
<b>Zinc, Dissolved</b>	4.1	0.036	0.20	ug/l	1	09/01/20	

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## Sample Results

(Continued)

Sample: SIYB-ER  
0H21054-10 (Water)

Sampled: 08/20/20 6:40 by Marisa Swiderski / Kate Buckley

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365		<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh	
Total Suspended Solids	1		5	mg/l	1	08/25/20	J
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp	
Total Organic Carbon (TOC)	0.30	0.096	0.30	mg/l	1	08/27/20	
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580		<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp	
Dissolved Organic Carbon	0.72	0.016	0.30	mg/l	1	08/28/20	
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN	
Copper, Total	ND	0.0038	0.010	ug/l	1	09/01/20	
Zinc, Total	1.2	0.036	0.20	ug/l	1	09/01/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326		<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN	
Copper, Dissolved	ND	0.0038	0.010	ug/l	1	09/01/20	
Zinc, Dissolved	0.82	0.036	0.20	ug/l	1	09/01/20	

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## Sample Results

(Continued)

Sample: SIYB-FB  
0H21054-11 (Water)

Sampled: 08/20/20 15:25 by Marisa Swiderski / Kate Buckley

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
<b>Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods</b>							
<b>Method:</b> SM 2540D				<b>Instr:</b> OVEN11			
<b>Batch ID:</b> W0H1365	<b>Preparation:</b> _NONE (WETCHEM)		<b>Prepared:</b> 08/25/20 10:12		<b>Analyst:</b> mfh		
Total Suspended Solids	2		5	mg/l	1	08/25/20	J
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1549	<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/27/20 13:23		<b>Analyst:</b> jlp		
Total Organic Carbon (TOC)	0.22	0.096	0.30	mg/l	1	08/27/20	J
<b>Method:</b> SM 5310B				<b>Instr:</b> TOC02			
<b>Batch ID:</b> W0H1580	<b>Preparation:</b> SM 5310B_comb		<b>Prepared:</b> 08/28/20 09:38		<b>Analyst:</b> jlp		
Dissolved Organic Carbon	0.24	0.016	0.30	mg/l	1	08/28/20	J
<b>Metals - Low Level by 1600 Series Methods</b>							
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1291	<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 11:40		<b>Analyst:</b> ALN		
Copper, Total	ND	0.0038	0.010	ug/l	1	09/01/20	
Zinc, Total	ND	0.036	0.20	ug/l	1	09/01/20	
<b>Method:</b> EPA 1640				<b>Instr:</b> ICPMS03			
<b>Batch ID:</b> W0H1326	<b>Preparation:</b> Preconcentration with IC Colum		<b>Prepared:</b> 08/24/20 16:19		<b>Analyst:</b> ALN		
Copper, Dissolved	ND	0.0038	0.010	ug/l	1	09/01/20	
Zinc, Dissolved	ND	0.036	0.20	ug/l	1	09/01/20	

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## Quality Control Results

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
<b>Batch: W0H1365 - SM 2540D</b>											
<b>Blank (W0H1365-BLK1)</b>						<b>Prepared &amp; Analyzed: 08/25/20</b>					
Total Suspended Solids	ND		5	mg/l							
<b>LCS (W0H1365-BS1)</b>						<b>Prepared &amp; Analyzed: 08/25/20</b>					
Total Suspended Solids	61.7		5	mg/l	56.4		109	90-110			
<b>Duplicate (W0H1365-DUP1)</b>						<b>Prepared &amp; Analyzed: 08/25/20</b>					
Total Suspended Solids	980		5	mg/l		980			0	20	
<b>Duplicate (W0H1365-DUP2)</b>						<b>Prepared &amp; Analyzed: 08/25/20</b>					
Total Suspended Solids	15.6		5	mg/l		15.0			4	20	
<b>Batch: W0H1549 - SM 5310B</b>											
<b>Blank (W0H1549-BLK1)</b>						<b>Prepared &amp; Analyzed: 08/27/20</b>					
Total Organic Carbon (TOC)	ND	0.096	0.30	mg/l							
<b>LCS (W0H1549-BS1)</b>						<b>Prepared &amp; Analyzed: 08/27/20</b>					
Total Organic Carbon (TOC)	1.00	0.096	0.30	mg/l	1.00		100	85-115			
<b>Matrix Spike (W0H1549-MS1)</b>						<b>Prepared &amp; Analyzed: 08/27/20</b>					
Total Organic Carbon (TOC)	4.50	0.096	0.30	mg/l	2.00	2.70	90	76-115			
<b>Matrix Spike Dup (W0H1549-MSD1)</b>						<b>Prepared &amp; Analyzed: 08/27/20</b>					
Total Organic Carbon (TOC)	4.51	0.096	0.30	mg/l	2.00	2.70	91	76-115	0.2	20	
<b>Batch: W0H1580 - SM 5310B</b>											
<b>Blank (W0H1580-BLK1)</b>						<b>Prepared &amp; Analyzed: 08/28/20</b>					
Dissolved Organic Carbon	0.0398	0.016	0.30	mg/l							J
<b>LCS (W0H1580-BS1)</b>						<b>Prepared &amp; Analyzed: 08/28/20</b>					
Dissolved Organic Carbon	1.08	0.016	0.30	mg/l	1.00		108	85-115			
<b>Matrix Spike (W0H1580-MS1)</b>						<b>Prepared &amp; Analyzed: 08/28/20</b>					
Dissolved Organic Carbon	4.70	0.016	0.30	mg/l	2.00	2.81	95	74-120			
<b>Matrix Spike Dup (W0H1580-MSD1)</b>						<b>Prepared &amp; Analyzed: 08/28/20</b>					
Dissolved Organic Carbon	4.55	0.016	0.30	mg/l	2.00	2.81	87	74-120	3	20	

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## Quality Control Results

(Continued)

Metals - Low Level by 1600 Series Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
<b>Batch: W0H1291 - EPA 1640</b>											
<b>Blank (W0H1291-BLK1)</b>					<b>Prepared: 08/24/20 Analyzed: 09/01/20</b>						
Copper, Total	ND	0.0038	0.010	ug/l							
Zinc, Total	ND	0.036	0.20	ug/l							
<b>LCS (W0H1291-BS1)</b>					<b>Prepared: 08/24/20 Analyzed: 09/01/20</b>						
Copper, Total	10.1	0.019	0.050	ug/l	10.0		101	73-122			
Zinc, Total	29.7	0.18	1.0	ug/l	30.0		99	75-127			
<b>Matrix Spike (W0H1291-MS1)</b>					<b>Source: 0H21054-01 Prepared: 08/24/20 Analyzed: 09/02/20</b>						
Copper, Total	24.9	0.076	0.20	ug/l	10.0	14.9	100	60-138			
Zinc, Total	73.6	0.72	4.0	ug/l	30.0	43.3	101	68-132			
<b>Matrix Spike (W0H1291-MS2)</b>					<b>Source: 0H21054-02 Prepared: 08/24/20 Analyzed: 09/02/20</b>						
Copper, Total	25.7	0.076	0.20	ug/l	10.0	13.7	120	60-138			
Zinc, Total	74.0	0.72	4.0	ug/l	30.0	46.1	93	68-132			
<b>Matrix Spike Dup (W0H1291-MSD1)</b>					<b>Source: 0H21054-01 Prepared: 08/24/20 Analyzed: 09/02/20</b>						
Copper, Total	24.5	0.076	0.20	ug/l	10.0	14.9	96	60-138	2	30	
Zinc, Total	72.4	0.72	4.0	ug/l	30.0	43.3	97	68-132	2	30	
<b>Matrix Spike Dup (W0H1291-MSD2)</b>					<b>Source: 0H21054-02 Prepared: 08/24/20 Analyzed: 09/02/20</b>						
Copper, Total	25.0	0.076	0.20	ug/l	10.0	13.7	112	60-138	3	30	
Zinc, Total	80.4	0.72	4.0	ug/l	30.0	46.1	114	68-132	8	30	
<b>Batch: W0H1326 - EPA 1640</b>											
<b>Blank (W0H1326-BLK1)</b>					<b>Prepared: 08/24/20 Analyzed: 09/01/20</b>						
Copper, Dissolved	ND	0.0038	0.010	ug/l							
Zinc, Dissolved	ND	0.036	0.20	ug/l							
<b>LCS (W0H1326-BS1)</b>					<b>Prepared: 08/24/20 Analyzed: 09/01/20</b>						
Copper, Dissolved	10.1	0.019	0.050	ug/l	10.0		101	70-130			
Zinc, Dissolved	31.9	0.18	1.0	ug/l	30.0		106	75-127			
<b>Matrix Spike (W0H1326-MS1)</b>					<b>Source: 0H21054-01 Prepared: 08/24/20 Analyzed: 09/01/20</b>						
Copper, Dissolved	25.6	0.019	0.050	ug/l	10.0	14.5	111	70-130			
Zinc, Dissolved	73.7	0.18	1.0	ug/l	30.0	42.4	105	68-132			
<b>Matrix Spike (W0H1326-MS2)</b>					<b>Source: 0H21054-02 Prepared: 08/24/20 Analyzed: 09/01/20</b>						
Copper, Dissolved	25.3	0.019	0.050	ug/l	10.0	14.4	109	70-130			
Zinc, Dissolved	72.8	0.18	1.0	ug/l	30.0	40.3	108	68-132			
<b>Matrix Spike Dup (W0H1326-MSD1)</b>					<b>Source: 0H21054-01 Prepared: 08/24/20 Analyzed: 09/01/20</b>						
Copper, Dissolved	24.9	0.019	0.050	ug/l	10.0	14.5	104	70-130	3	30	
Zinc, Dissolved	73.6	0.18	1.0	ug/l	30.0	42.4	104	68-132	0.2	30	
<b>Matrix Spike Dup (W0H1326-MSD2)</b>					<b>Source: 0H21054-02 Prepared: 08/24/20 Analyzed: 09/01/20</b>						
Copper, Dissolved	24.5	0.019	0.050	ug/l	10.0	14.4	101	70-130	3	30	
Zinc, Dissolved	71.9	0.18	1.0	ug/l	30.0	40.3	105	68-132	1	30	



## Notes and Definitions

Item	Definition
J	Estimated conc. detected <MRL and >MDL.
%REC	Percent Recovery
Dil	Dilution
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ)
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.



## **WOOD AQUATIC TOXICOLOGY LABORATORY TOXICITY REPORT**

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**Results of Toxicity Testing for  
Shelter Island Yacht Basin  
Total Maximum Daily Load Monitoring**

**Sample Collection: August 20, 2020  
Wood Project Number: 2015100105**

**Submitted to:**

**Wood Environment & Infrastructure Solutions, Inc.  
9210 Sky Park Court, Ste. 200  
San Diego, CA 92123**

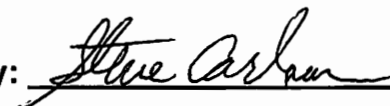
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**Testing Performed by:**

**wood.**

**Wood Environment & Infrastructure Solutions, Inc.  
Aquatic Toxicology Laboratory  
4905 Morena Blvd., Suite 1304  
San Diego, California 92117**

The Wood aquatic toxicology laboratory is certified by the State of California Department of Health Services – Environmental Lab Accreditation Program (ELAP) under Certificate Number 3010. All test results were obtained following EPA Protocol guidelines and internal QA Program requirements. The data and test results have been reviewed and verified by the following laboratory representative:

Verified by:  Date: 10/6/2020.

## INTRODUCTION

Located in the Port of San Diego, Shelter Island Yacht Basin (SIYB) was issued an Investigative Order (R9-2011-0036, amended from Resolution No. R9-2005-0019) from the San Diego Regional Water Quality Control Board that requires annual monitoring for the SIYB Dissolved Copper Total Maximum Daily Load (TMDL) program. As part of this monitoring program, SIYB is required to perform water column toxicity monitoring at 6 locations within the basin area and 1 reference location. The 7 sample sites are tested for chronic toxicity with the mussel species *Mytilus galloprovincialis*, and for acute toxicity with the Pacific topsmelt species *Atherinops affinis*.

Staff from Wood Environment & Infrastructure Solutions, Inc. (Wood) collected and delivered all 7 samples to Wood's Aquatic Toxicology Laboratory located in San Diego, California. For this round of testing, samples were collected on August 20, 2020 and toxicity tests were performed the following day on August 21, 2020.

## MATERIALS & METHODS

### Sample Information

Client:	Port of San Diego
Project Name:	Shelter Island Yacht Basin Annual TMDL Monitoring
Monitoring Period:	August 2020
Sample IDs (7 sites):	SIYB-1, SIYB-2, SIYB-3, SIYB-4, SIYB-5, SIYB-6, and SIYB-REF-1
Sample Collection Date, Times:	8/20/2020, 08:15 – 14:15
Sample Receipt Date, Time:	8/20/2020, 17:35

**Table 1. Water Quality Measured Upon Sample Receipt**

Sample ID	Temp. (°C)	pH (units)	DO (mg/L)	Salinity (ppt)	Alkalinity (mg/L)	TRC (mg/L)
SIYB-1	4.0	7.84	9.5	34.2	100	<0.02
SIYB-2	3.0	7.80	9.8	34.0	98	<0.02
SIYB-3	4.0	7.86	10.5	33.1	93	<0.02
SIYB-4	2.0	7.96	12.5	32.9	101	<0.02
SIYB-5	4.0	7.97	11.1	33.8	105	<0.02
SIYB-6	2.0	7.96	10.8	32.9	107	<0.02
SIYB-REF-1	1.0	7.92	11.0	34.6	105	<0.02

DO = dissolved oxygen, TRC = total residual chlorine

### Chronic Mussel Development Test Specifications

Test Period:	8/21/2020, 17:45 – 8/23/2020, 16:45
Test Organism:	<i>Mytilus galloprovincialis</i> (bivalve - mussel)
Test Organism Source:	Field-collected – Mission Bay (San Diego, CA)
Test Organism Age at start:	Fertilized embryos (<4 hours old)
Test Procedure:	48-hour embryo-larval development
Test Endpoint:	Combined survival & proportion normal (ASTM)
Test Concentrations:	Lab Control, 6.25, 12.5, 25, 50, and 100% sample
Treatment Concentrations:	Filter Control and 100% Filtered (1.2µm filter)
Lab Control/Dilution Water:	Natural seawater from the inlet at Scripps Institution of Oceanography (20-µm filtered)
Protocols Used:	EPA 1995 West Coast Manual (EPA/600/R-95/136); and ASTM 1998 (E 724-98).
EPA Test Acceptability Criteria:	Control: ≥50% survival; ≥90% proportion normal; and minimum significant difference (MSD) <25%
ASTM Test Acceptability Criteria:	Control: ≥70% combined survival/proportion normal
Reference Toxicant Test:	Lab Control, 2.5, 5.0, 10, 20, and 40 µg/L copper
Statistical Analysis Software:	CETIS™ v.1.9.3.0

Calculating the mussel test endpoint: To calculate the test endpoint for the mussel test, all developing embryos turn into larvae by the end of testing. Each test vial is scored under a microscope by counting all the larvae observed in the vial. The total number of larvae is compared to an initial (time-zero) density count derived from 5 surrogate exposure chambers (vials) interspersed within the test and preserved immediately after adding embryos. This comparison produces a percent Survival result. Then, each larva is scored as normal or abnormal. Normal development is exhibited by a clearly defined “D-shaped” shell with a clear straight line as a hinge. The percent of larva that have normal development produces the Proportion Normal result. The Combined endpoint takes the Proportion Normal of the initial (time-zero) counts to account for Survival. Abnormal development is exhibited by any clear abnormalities or differences to the normal “D-shaped” shell. This includes larva that have not fully developed a clear straight hinge (this is exhibited by a slightly curved hinge). Abnormal development was further enumerated to determine the magnitude of effect. The abnormal larvae were counted as having 1) a curved hinge, which indicates a moderate effect, or 2) more significant defects or abnormalities, which indicates a more severe effect. Examples of each of the larva (normal, abnormal with curved hinge, and abnormal with severe effects) are presented in Figure 1.

**Figure 1. Images of Different Larva Development**



1) Normal with D-shaped hinge    2) Abnormal with curved hinge    3) Abnormal with severe effects

**Pacific Topsmelt Acute Survival Test Specifications**

Initial Test Period:	8/21/2020, 14:30 to 8/25/2020, 14:40
Follow-up Confirmation Test:	8/27/2020, 15:15 to 8/31/2020, 14:15
Test Organism:	<i>Atherinops affinis</i> (Pacific topsmelt)
Organism Source; Age at start:	Aquatic BioSystems (Fort Collins, CO); 14-days old
Test Procedure and Endpoint:	96-hour static-renewal acute survival test
Test Concentrations <sup>1</sup> :	Lab Control, 25, 50, and 100% each sample
Replicates/Number of Organisms:	6 replicates/5 fish per replicate (30 fish/conc.)
Lab Control/Dilution Water:	Natural seawater collected from the inlet at Scripps Institution of Oceanography (34 ppt salinity)
USEPA Protocol:	EPA/821/R-02/012, 2002 Acute Manual
Test Acceptability Criteria:	≥90% mean survival in the control
Reference Toxicant Test:	Lab Control, 25, 50, 100, 200, and 400 µg/L copper
Statistical Software:	CETIS™ v1.9.3.0

<sup>1</sup> Follow-up confirmation tests were conducted with the Lab Control and 100% concentration only

## RESULTS

Test results were evaluated using two USEPA methods of analysis. The results were first analyzed using the standard approach with multiple comparisons on a dilution series of concentrations to develop a No Observed Effect Concentration (NOEC). Then, the results were analyzed using the EPA Test of Significant Toxicity (TST) approach, as referenced in USEPA 2010. The TST approach applies a modified t-test that accounts for the statistical power of the test and the magnitude of the biological effect in determining the presence of toxicity. The instream waste concentration (IWC) is the 100% sample. The IWC is compared to the Control for statistical analysis. The TST results in a "Pass" if there are no biologically significant effects with the sample (non-toxic), or it will result in a "Fail" if there are significant effects (toxic).

### Chronic Mussel Test:

For the chronic mussel development test, sample sites SIYB-2, SIYB-3, SIYB-4, SIYB-5, SIYB-6, and SIYB-REF-1 all resulted in a percent effect (from control) less than 8 percent. This resulted in a NOEC = 100% and a TST result of Pass for the six sample sites. Only sample site SIYB-1 resulted in a significant effect in the 100% concentration. There was a 45.4 percent effect observed. This resulted in a NOEC = 50% and a TST result of Fail. Summary results for the regular unfiltered samples are presented in Table 2.

The 100% concentration for each sample was also filtered with a 1.2µm mesh screen to remove any potential algae or other native organisms. The 100% filtered sample was compared to a Filter Control (lab control water that received the same filtering treatment). The filtered samples produced similar results to the unfiltered tests. Sample sites SIYB-2, SIYB-3, SIYB-4, SIYB-5, SIYB-6, and SIYB-REF-1 all showed no significant effects and Passed the TST analysis. As observed in the unfiltered results, site SIYB-1 also resulted in a significant effect and Failed the TST. However, the filtering process did result in reduced toxicity. The 100% unfiltered sample had a 45.4 percent effect, while the filtered sample had a 35.4 percent effect. Summary results for the filtered samples are presented in Table 3.

As described in the Methods section, the abnormal larva was further enumerated as either having a curved hinge (moderate effect) or having clear abnormalities or defects (severe effect). During this round of testing, the frequency of curved hinges observed remained low. The greatest effect was observed in the 100% concentration of SIYB-1 with 3.4% having a curved hinge. The other six sites had 1.2% or fewer embryos with curved hinges. A summary of the percent with curved hinges can be found in Table 4. The full statistical analyses and raw data for the mussel tests can be found in Appendix A.

### Acute Pacific Topsmelt Test:

For the acute topsmelt survival test, the 7 sample sites were tested along with 4 sets of Lab Controls. However, only 2 of 4 Lab Controls were valid with 90% survival. The 2 valid controls were used for data analyses and comparisons to the 7 sample sites. Each of the 7 samples resulted in similar results of 76.7% to 80.0% mean survival in the 100% concentration. There

was an 11.1 percent effect in SIYB-2 and a 14.8 percent effect in the other 6 sites. The statistical analysis for the acute test endpoints produced mixed results, meaning the TST method and the standard EPA method of analyses did not agree for several samples. The NOEC for SIYB-1 was the 50% concentration. The other 6 sites resulted in a NOEC of 100% sample indicating no toxic response. Using the TST analysis approach, sample sites SIYB-1, SIYB-2, SIYB-5, and SIYB-REF-1 all Passed using this method. Sample sites SIYB-3, SIYB-4, and SIYB-6 all Failed the TST. A summary of the initial acute test results is presented in Table 5.

The inconsistent statistical outcomes for the topsmelt tests was due to greater variability among replicates in some samples than desired. This resulted in some of the samples failing the TST approach despite having less than a 20% effect in undiluted 100% samples relative to the passing controls. A 20% effect for acute tests is equivalent to the TST Provisions regulatory management decision for a sample to be considered biologically significant provided low replicate variability (USEPA 2010). Excessive variability reduces the percent effect required to result in a fail using the TST approach. An additional method to assess the validity of a toxic response is to evaluate the dose response (e.g. does survival follow an expected decrease with increasing sample concentrations?). With the exception of SIYB-4, none of the 6 remaining samples showed a consistent dose response; many had the same mean survival or even greater in the highest concentration relative to that in lower test concentrations. This observation suggests widespread variability not attributed to a true toxic response.

Given how similar the mean survival results in the samples were to the controls, variability observed in some samples, and lack of consistent dose responses, our confidence to draw conclusions based on the inconsistent statistical outcomes for this initial round of testing is limited.

To provide a stronger conclusion regarding the fish test results, follow-up confirmation tests were conducted on all 7 samples. Only the 100% concentration was retested along with 4 sets of Lab Controls. The confirmation tests resulted in greater and more consistent survival among all samples and replicates. Mean survival exceeded 80% in all 7 samples and was within 10% of that observed in the 4 sets of controls, all passing the TAT of 90% survival. All 7 sites resulted in a NOEC = 100% and a Pass with the TST. A summary of the confirmation tests is presented in Table 6. The full statistical analyses and raw data for the initial acute topsmelt tests can be found in Appendix B, and the follow-up confirmation tests can be found in Appendix C.



**Table 2. Summary of Chronic Mussel Test Results: Unfiltered Samples**

Sample Concentration (%)	Sample ID / Combined Survival & Proportion Normal (%)						
	SIYB-1	SIYB-2	SIYB-3	SIYB-4	SIYB-5	SIYB-6	SIYB-REF-1
Lab Control	91.0	93.0	87.0	88.9	80.7	94.8	90.1
6.25	93.4	94.4	90.9	83.5	81.0	93.8	87.3
12.5	92.2	92.8	90.9	86.0	87.0	95.6	94.4
25	95.1	92.1	92.3	87.9	84.6	96.2	93.3
50	87.2	93.8	90.0	84.6	87.3	93.6	90.2
100	<b>49.7 *</b>	87.6	80.1	87.0	82.3	93.2	94.0
NOEC	50	100	100	100	100	100	100
% Effect	<b>45.4</b>	5.9	7.9	2.2	-2.0	1.7	-4.4
TST Result	<b>Fail</b>	Pass	Pass	Pass	Pass	Pass	Pass

\* A bold value indicates a significant effect was observed

NOEC = the highest concentration tested that results in No Observed Effect

% Effect = the percent effect of IWC compared to the control; a negative value indicates it out-performed the control

TST = Test of Significant Toxicity; a "Pass" indicates no toxicity was observed with the sample

**Table 3. Summary of Chronic Mussel Test Results: 1.2 µm Filtered Samples**

Sample Concentration (%)	Sample ID / Combined Survival & Proportion Normal (%)						
	SIYB-1	SIYB-2	SIYB-3	SIYB-4	SIYB-5	SIYB-6	SIYB-REF-1
Filter Control	97.0	90.0	89.3	86.1	81.0	94.9	95.7
100 filtered	<b>62.6 *</b>	91.8	86.9	91.3	82.2	95.5	90.1
NOEC	<100	100	100	100	100	100	100
% Effect	<b>35.4</b>	-2.0	2.6	-6.1	-1.4	-0.6	5.8
TST Result	<b>Fail</b>	Pass	Pass	Pass	Pass	Pass	Pass

**Table 4. Summary of Chronic Mussel Test: Percentage of Curved Hinges**

Sample Concentration (%)	Sample ID / Mean Number of Curved Hinges (%)						
	SIYB-1	SIYB-2	SIYB-3	SIYB-4	SIYB-5	SIYB-6	SIYB-REF-1
Lab Control	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.3	0.0	0.0	0.2	0.0	0.0	0.0
50	1.3	0.0	0.0	0.0	0.0	0.1	0.0
100	3.4	1.2	1.1	0.2	0.1	0.0	0.0
100 Filtered	2.8	1.0	1.1	0.0	0.1	0.1	0.0

**Table 5. Summary of Initial Acute Topsmelt Test Results**

Sample Concentration (%)	Sample ID / Mean Survival (%)						
	SIYB-1	SIYB-2	SIYB-3	SIYB-4	SIYB-5	SIYB-6	SIYB-REF-1
Lab Control <sup>1</sup>	90.0	90.0	90.0	90.0	90.0	90.0	90.0
25	76.7	76.7	76.7	83.3	73.3	73.3	73.3
50	80.0	76.7	76.7	76.7	73.3	76.7	73.3
100	76.7	80.0	76.7	76.7	76.7	76.7	76.7
NOEC	50	100	100	100	100	100	100
% Effect	14.8	11.1	14.8	14.8	14.8	14.8	14.8
TST Result	Pass	Pass	Fail	Fail	Pass	Fail	Pass

<sup>1</sup> Note: all samples shared the same control results of 90% survival (see QA section for more details)

NOEC = the highest concentration tested that results in No Observed Effect

% Effect = the percent effect of IWC compared to the control; a negative value indicates it out-performed the control

TST = Test of Significant Toxicity; a "Pass" indicates no toxicity was observed with the sample

**Table 6. Summary of Follow-up Acute Topsmelt – Confirmation Tests <sup>1</sup>**

Sample Concentration (%)	Sample ID / Mean Survival (%)						
	SIYB-1	SIYB-2	SIYB-3	SIYB-4	SIYB-5	SIYB-6	SIYB-REF-1
Lab Control	93.3	93.3	93.3	93.3	93.3	90.0	90.0
100	100	96.7	90.0	90.0	93.3	83.3	90.0
NOEC	100	100	100	100	100	100	100
% Effect	-7.1	-3.6	3.6	3.6	0.0	7.4	0.0
TST Result	Pass	Pass	Pass	Pass	Pass	Pass	Pass

<sup>1</sup> Note: initial tests were conducted resulting in similar % Effects, but mixed TST results. Therefore, follow-up confirmation tests were conducted to verify whether toxicity was observed with the samples.

NOEC = the highest concentration tested that results in No Observed Effect

% Effect = the percent effect of IWC compared to the control; a negative value indicates it out-performed the control

TST = Test of Significant Toxicity; a "Pass" indicates no toxicity was observed with the sample

## QUALITY ASSURANCE

Samples were received in good condition the same day as collected. Both the chronic and acute test procedures were initiated the following day within the 36-hour holding time limit. For the chronic mussel test, each sample was tested with its own Lab Control. All 7 Lab Controls met the EPA test acceptability criteria (TAC) of 50% or greater survival and 90% or greater for proportion normal. The tests also met the ASTM TAC of 70% or greater for the combined survival and proportion normal endpoint.

For the initial acute topsmelt test, there were four sets of Lab Controls conducted. However, only two of the Lab Controls met the TAC of 90% or greater survival. These two valid controls, which achieved 90% survival, were used for all data analyses and comparisons. The other two controls only achieved 80% survival. Also, every sample concentration resulted in a range of 73.3% to 83.3% survival (less than 10% difference relative to the two failing controls, and a maximum of only 13% difference in survival relative to the passing controls). A lack of a consistent dose response among the samples was also observed as described in the results. The variable survival results are believed to be due to an unhealthy batch of fish used for the testing. Follow-up confirmation tests were conducted on all 7 samples due to two of the four controls not passing the TAT, greater variability among replicates than desired among both control waters and the samples, lack of a consistent dose response, and the inconsistent statistical test results. A new batch of fish was obtained, and acute tests were performed on the same samples. These tests were performed 7 days post sample collection which exceeds the EPA holding time requirement of <36 hours (72-hours maximum), however the first batch of fish was tested within the 36-hour

holding time. The holding time deviation is noted while also recognizing that ambient bay receiving waters during dry weather should be in a relatively stable state compared to a more complex and dynamic wastewater or stormwater effluent as examples. EPA recognizes this allowing natural dilution waters to be held for up to two weeks when used for testing other samples.

Each of the Lab Controls for the confirmation tests achieved the 90% or greater TAC. Most of the samples also achieved 90% or greater survival; lowest mean survival was 83% for sample SIYB-6. The topsmelt used for confirmation tests appeared much healthier based on visual observations including their active movement, vibrant appearance, rapid response to feeding, and few mortalities during holding and acclimation. Further review of our organism receipt and acclimation logs found that the receipt temperature for the batch of test used for the initial round of tests (23 - 24°C) was elevated compared to a typical receipt temperature goal of 20°C or less. The timing of this shipment from the culture facility in Colorado to San Diego coincided with a record heat wave in the southwest which we believe likely had an impact on the quality of fish on arrival. Mortality on arrival (30 fish out of 1300 ordered or 2%) was fairly typical and considered acceptable to proceed with testing, however mortalities also continued at a similar rate daily during holding, also considered acceptable but less than ideal. The receipt temperature for the fish used for the second round of testing was lower (21°C) and although approximately 2% mortality was observed on arrival, subsequent mortality in holding was minimal for this batch of fish.

Based on results from both sets of acute topsmelt tests, our professional assessment is that there is no convincing evidence to indicate a true statistical effect for any of the samples tested, thus all are considered non-significant, consistent with results obtained during the second round of tests which used a healthier batch of fish and exhibited less inter-replicate variability.

All test procedures followed EPA protocol guidelines, and no deviations were noted for both test species beyond those described above for the first round of topsmelt controls, and the holding time exceedance for the second round of confirmation topsmelt tests. The final results for the bivalve test and the second round of acute topsmelt tests are considered acceptable for reporting purposes. Survival results for the first round of topsmelt tests are flagged due to the variability observed and concern regarding fish health but are included herein for reference and comparison purposes. For the raw bench datasheets, a list of data qualifier codes can be found in Appendix D. Sample receipt information and chain of custody forms can be found in Appendix E.

Concurrent reference toxicant tests were conducted with both the chronic mussel test and the acute topsmelt test (Round 1). Both tests used copper as the toxicant material, and both tests met the TAC and were deemed valid. For both tests, the median effect concentration ( $EC_{50}$ ) was within two standard deviations of the historical control chart mean for the laboratory. This indicates both the mussels and the topsmelt resulted in typical sensitivity to copper. A summary of the reference toxicant results for both species is presented in Table 7. Raw data, statistical analysis, and control charts for the reference toxicant tests can be found in Appendix F.

**Table 7. Summary of Copper Reference Toxicant Test Results**

Test Species & Endpoint	NOEC (µg/L)	EC <sub>50</sub> (µg/L)	Historical EC <sub>50</sub> ± 2SD range (µg/L)
Chronic Mussel Combined Normal Development	2.5	5.37	4.79 – 15.1
Acute Pacific Topsmelt 96-hour Survival	25	102	70.7 – 276

NOEC = the highest concentration tested that results in No Observed Effect

EC<sub>50</sub> = the concentration expected to cause an adverse effect to 50% of the test organisms

Historical EC<sub>50</sub> = the mean EC<sub>50</sub> for previous tests by the lab, presented as a range of ± two standard deviations

## REFERENCES

- ASTM. 1998. Standard Guide for Conducting Static Acute Toxicity Tests Starting with Embryos of Four Species of Saltwater Bivalve Molluscs. ASTM E 724-98.
- Tidepool Scientific Software, 2001-2015. CETIS: Comprehensive Environmental Toxicity Information System software, version 1.9.3.0.
- USEPA (U.S. Environmental Protection Agency) 1995. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136). The USEPA, Office of Research and Development, Washington, DC.
- USEPA 2002. U.S. Environmental Protection Agency. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. 5<sup>th</sup> Edition. EPA/821/R-02/012. USEPA, Office of Water, Washington, DC.
- USEPA 2010. Test of Significant Toxicity Implementation Document (EPA/833/R-10/003). The USEPA, Office of Wastewater Management, Washington, DC.

**APPENDIX A**  
**Chronic Mussel Development Test**  
**Raw Data & Statistical Analyses**

**Site: SIYB-1**

# CETIS Summary Report

Report Date: 23 Sep-20 16:48 (p 1 of 4)  
 Test Code: 20-08-040 | 20-2871-1250

Bivalve Larval Survival and Development Test				Wood E&IS			
Batch ID:	11-3327-2330	Test Type:	Development-Survival	Analyst:			
Start Date:	21 Aug-20 17:45	Protocol:	EPA/600/R-95/136 (1995)	Diluent:	Natural Seawater		
Ending Date:	23 Aug-20 16:45	Species:	Mytilis galloprovincialis	Brine:	Not Applicable		
Duration:	47h	Source:	Field Collected	Age:			
Sample ID:	20-6834-0631	Code:	20-W123	Client:	Wood Environment and Infrastructure		
Sample Date:	20 Aug-20 14:15	Material:	Seawater	Project:	SIYB TMDL Monitoring		
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin				
Sample Age:	28h (4 °C)	Station:	SIYB 1				
<b>Comments:</b> 101 = 100 percent sample filtered to 1.2um							
<b>Single Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result			
17-3437-6738	Combined Proportion Normal	TST-Welch's t Test	0.9948	100% failed combined proportion normal			
<b>Multiple Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD ✓
16-6370-7703	Combined Proportion Normal	Dunnett Multiple Comparison Test	50	100	70.71	2	7.29%
01-9866-8383	Proportion Normal	Dunnett Multiple Comparison Test	25	50	35.36	4	1.17% ✓
17-7329-7004	Survival Rate	Dunnett Multiple Comparison Test	100	> 100	n/a	1	9.38%
<b>Test Acceptability</b>							
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
01-9866-8383	Proportion Normal	Control Resp	0.9735	0.9	>>	Yes	Passes Criteria
17-7329-7004	Survival Rate	Control Resp	0.9349	0.5	>>	Yes	Passes Criteria
16-6370-7703	Combined Proportion Normal	PMSD	0.07291	<<	0.25	No	Passes Criteria



# CETIS Summary Report

Report Date: 23 Sep-20 16:48 (p 2 of 4)  
Test Code: 20-08-040 | 20-2871-1250

Bivalve Larval Survival and Development Test											Wood E&IS
Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9102	0.8255	0.9949	0.7992	0.9686	0.0305	0.0682	7.50%	0.00%
0	FC	5	0.9697	0.9605	0.9790	0.9598	0.9760	0.0033	0.0074	0.77%	-6.54%
6.25		5	0.9344	0.8882	0.9807	0.9036	0.9802	0.0167	0.0372	3.98%	-2.66%
12.5		5	0.9222	0.8747	0.9697	0.8795	0.9685	0.0171	0.0383	4.15%	-1.32%
25		5	0.9512	0.9083	0.9942	0.8916	0.9760	0.0155	0.0346	3.63%	-4.51%
50		5	0.8723	0.8119	0.9327	0.8233	0.9317	0.0218	0.0486	5.58%	4.16%
100		5	0.4973	0.4791	0.5156	0.4779	0.5141	0.0066	0.0147	2.96%	45.36%
101		5	0.6262	0.5454	0.7069	0.5502	0.7011	0.0291	0.0650	10.38%	31.20%
Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9735	0.9671	0.9798	0.9686	0.9796	0.0023	0.0051	0.53%	0.00%
0	FC	5	0.9752	0.9680	0.9825	0.9676	0.9838	0.0026	0.0059	0.60%	-0.18%
6.25		5	0.9710	0.9634	0.9786	0.9657	0.9802	0.0027	0.0061	0.63%	0.25%
12.5		5	0.9740	0.9666	0.9814	0.9665	0.9793	0.0027	0.0060	0.61%	-0.05%
25		5	0.9668	0.9553	0.9783	0.9522	0.9760	0.0041	0.0092	0.96%	0.69%
50		5	0.9353	0.9212	0.9495	0.9163	0.9447	0.0051	0.0114	1.22%	3.92%
100		5	0.5166	0.4808	0.5525	0.4867	0.5541	0.0129	0.0289	5.59%	46.93%
101		5	0.6527	0.6041	0.7013	0.6035	0.7011	0.0175	0.0392	6.00%	32.95%
Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9349	0.8491	1.0000	0.8233	1.0000	0.0309	0.0691	7.39%	0.00%
0	FC	5	0.9944	0.9877	1.0000	0.9880	1.0000	0.0024	0.0054	0.54%	-6.36%
6.25		5	0.9622	0.9185	1.0000	0.9277	1.0000	0.0157	0.0352	3.66%	-2.92%
12.5		5	0.9470	0.8943	0.9997	0.8996	1.0000	0.0190	0.0425	4.48%	-1.29%
25		5	0.9839	0.9393	1.0000	0.9197	1.0000	0.0161	0.0359	3.65%	-5.24%
50		5	0.9325	0.8723	0.9927	0.8715	0.9880	0.0217	0.0485	5.20%	0.26%
100		5	0.9639	0.9265	1.0000	0.9277	1.0000	0.0134	0.0301	3.12%	-3.09%
101		5	0.9574	0.8997	1.0000	0.9036	1.0000	0.0208	0.0465	4.85%	-2.41%

# CETIS Summary Report

Report Date: 23 Sep-20 16:48 (p 3 of 4)  
 Test Code: 20-08-040 | 20-2871-1250

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9686	0.9639	0.9076	0.7992	0.9116
0	FC	0.9598	0.9759	0.9639	0.9760	0.9731
6.25		0.9036	0.9802	0.9157	0.9036	0.9691
12.5		0.8876	0.9685	0.8795	0.9478	0.9277
25		0.9522	0.9722	0.8916	0.9760	0.9641
50		0.9317	0.9157	0.8554	0.8353	0.8233
100		0.4867	0.5141	0.5060	0.5020	0.4779
101		0.6627	0.7011	0.5502	0.6506	0.5663
Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9686	0.9796	0.9700	0.9707	0.9784
0	FC	0.9676	0.9838	0.9756	0.9760	0.9731
6.25		0.9657	0.9802	0.9661	0.9740	0.9691
12.5		0.9779	0.9685	0.9777	0.9793	0.9665
25		0.9522	0.9722	0.9694	0.9760	0.9641
50		0.9431	0.9383	0.9342	0.9163	0.9447
100		0.4867	0.5541	0.5385	0.5102	0.4938
101		0.6790	0.7011	0.6035	0.6532	0.6267
Survival Rate Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	1.0000	0.9839	0.9357	0.8233	0.9317
0	FC	0.9920	0.9920	0.9880	1.0000	1.0000
6.25		0.9357	1.0000	0.9478	0.9277	1.0000
12.5		0.9076	1.0000	0.8996	0.9679	0.9598
25		1.0000	1.0000	0.9197	1.0000	1.0000
50		0.9880	0.9759	0.9157	0.9116	0.8715
100		1.0000	0.9277	0.9398	0.9839	0.9679
101		0.9759	1.0000	0.9116	0.9960	0.9036

# CETIS Summary Report

Report Date: 23 Sep-20 16:48 (p 4 of 4)  
 Test Code: 20-08-040 | 20-2871-1250

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	247/255	240/249	226/249	199/249	227/249
0	FC	239/249	243/249	240/249	244/250	253/260
6.25		225/249	247/252	228/249	225/249	251/259
12.5		221/249	246/254	219/249	236/249	231/249
25		239/251	245/252	222/249	244/250	242/251
50		232/249	228/249	213/249	208/249	205/249
100		128/263	128/249	126/249	125/249	119/249
101		165/249	183/261	137/249	162/249	141/249
Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	247/255	240/245	226/233	199/205	227/232
0	FC	239/247	243/247	240/246	244/250	253/260
6.25		225/233	247/252	228/236	225/231	251/259
12.5		221/226	246/254	219/224	236/241	231/239
25		239/251	245/252	222/229	244/250	242/251
50		232/246	228/243	213/228	208/227	205/217
100		128/263	128/231	126/234	125/245	119/241
101		165/243	183/261	137/227	162/248	141/225
Survival Rate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	249/249	245/249	233/249	205/249	232/249
0	FC	247/249	247/249	246/249	249/249	249/249
6.25		233/249	249/249	236/249	231/249	249/249
12.5		226/249	249/249	224/249	241/249	239/249
25		249/249	249/249	229/249	249/249	249/249
50		246/249	243/249	228/249	227/249	217/249
100		249/249	231/249	234/249	245/249	241/249
101		243/249	249/249	227/249	248/249	225/249

# CETIS Analytical Report

Report Date: 23 Sep-20 16:16 (p 1 of 7)  
Test Code: 20-08-040 | 20-2871-1250

Bivalve Larval Survival and Development Test										Wood E&IS			
Analysis ID: 16-6370-7703		Endpoint: Combined Proportion Normal				CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 16:15		Analysis: Parametric-Control vs Treatments				Official Results: Yes							
Comments:													
Data Transform		Alt Hyp				NOEL		LOEL		TOEL		TU	PMSD
Angular (Corrected)		C > T				50		100		70.71		2	7.29%
Dunnett Multiple Comparison Test													
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)				
Lab Control		6.25	-0.8075	2.362	0.117	8	CDF	0.9719	Non-Significant Effect				
		12.5	-0.2697	2.362	0.117	8	CDF	0.9007	Non-Significant Effect				
		25	-1.51	2.362	0.117	8	CDF	0.9964	Non-Significant Effect				
		50	1.434	2.362	0.117	8	CDF	0.2462	Non-Significant Effect				
		100*	10.05	2.362	0.117	8	CDF	7.6E-07	Significant Effect				
ANOVA Table													
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)				
Between	1.14548		0.229097		5		37.12	<1.0E-37	Significant Effect				
Error	0.148119		0.0061716		24								
Total	1.2936				29								
Distributional Tests													
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Bartlett Equality of Variance Test				10.21	15.09	0.0696	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test				0.9673	0.9031	0.4676	Normal Distribution					
Combined Proportion Normal Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	5	0.9102	0.8255	0.9949	0.9116	0.7992	0.9686	0.0305	7.50%	0.00%		
6.25		5	0.9344	0.8882	0.9807	0.9157	0.9036	0.9802	0.0167	3.98%	-2.66%		
12.5		5	0.9222	0.8747	0.9697	0.9277	0.8795	0.9685	0.0171	4.15%	-1.32%		
25		5	0.9512	0.9083	0.9942	0.9641	0.8916	0.9760	0.0155	3.63%	-4.51%		
50		5	0.8723	0.8119	0.9327	0.8554	0.8233	0.9317	0.0218	5.58%	4.16%		
100		5	0.4973	0.4791	0.5156	0.5020	0.4779	0.5141	0.0066	2.96%	45.36%		
Angular (Corrected) Transformed Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	5	1.282	1.139	1.425	1.269	1.106	1.393	0.05161	9.00%	0.00%		
6.25		5	1.322	1.218	1.426	1.276	1.255	1.429	0.03728	6.31%	-3.13%		
12.5		5	1.295	1.203	1.388	1.299	1.216	1.392	0.03325	5.74%	-1.05%		
25		5	1.357	1.267	1.447	1.38	1.235	1.415	0.03237	5.33%	-5.85%		
50		5	1.211	1.116	1.305	1.181	1.137	1.306	0.034	6.28%	5.56%		
100		5	0.7827	0.7644	0.801	0.7874	0.7633	0.7995	0.006587	1.88%	38.94%		

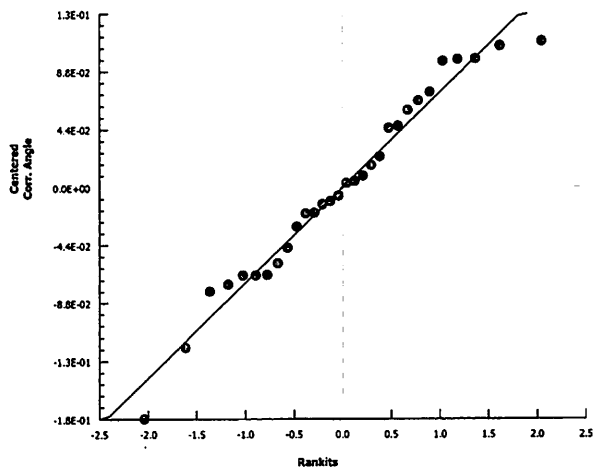
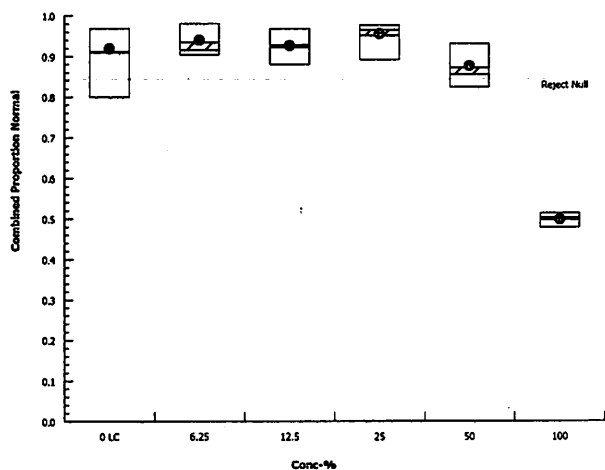
Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 16-6370-7703      Endpoint: Combined Proportion Normal  
 Analyzed: 23 Sep-20 16:15      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
 Official Results: Yes

Graphics



# CETIS Analytical Report

Report Date: 23 Sep-20 16:16 (p 4 of 7)  
Test Code: 20-08-040 | 20-2871-1250

Bivalve Larval Survival and Development Test										Wood E&IS													
Analysis ID: 01-9866-8383		Endpoint: Proportion Normal		CETIS Version: CETISv1.9.3																			
Analyzed: 23 Sep-20 16:15		Analysis: Parametric-Control vs Treatments		Official Results: Yes																			
Comments:																							
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD											
Angular (Corrected)		C > T		25		50		35.36		4		1.17%											
Dunnett Multiple Comparison Test																							
Control		vs		Conc-%		Test Stat		Critical		MSD		DF		P-Type		P-Value		Decision(α:5%)					
Lab Control		6.25		0.5227		2.362		0.033		8		CDF		0.6370		Non-Significant Effect							
		12.5		-0.1241		2.362		0.033		8		CDF		0.8674		Non-Significant Effect							
		25		1.356		2.362		0.033		8		CDF		0.2737		Non-Significant Effect							
		50*		6.687		2.362		0.033		8		CDF		2.3E-06		Significant Effect							
		100*		43.33		2.362		0.033		8		CDF		7.6E-07		Significant Effect							
ANOVA Table																							
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)											
Between		1.44389		0.288777		5		591.2		<1.0E-37		Significant Effect											
Error		0.0117235		0.0004885		24																	
Total		1.45561				29																	
Distributional Tests																							
Attribute		Test		Test Stat		Critical		P-Value		Decision(α:1%)													
Variances		Bartlett Equality of Variance Test		1.69		15.09		0.8901		Equal Variances													
Distribution		Shapiro-Wilk W Normality Test		0.9696		0.9031		0.5285		Normal Distribution													
Proportion Normal Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		0.9735		0.9671		0.9799		0.9707		0.9686		0.9796		0.0023		0.53%		0.00%	
6.25				5		0.9710		0.9634		0.9786		0.9691		0.9657		0.9802		0.0027		0.63%		0.25%	
12.5				5		0.9740		0.9666		0.9814		0.9777		0.9665		0.9793		0.0027		0.61%		-0.05%	
25				5		0.9668		0.9553		0.9783		0.9694		0.9522		0.9760		0.0041		0.96%		0.69%	
50				5		0.9353		0.9212		0.9495		0.9383		0.9163		0.9447		0.0051		1.22%		3.92%	
100				5		0.5166		0.4808		0.5525		0.5102		0.4867		0.5541		0.0129		5.59%		46.93%	
Angular (Corrected) Transformed Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		1.408		1.388		1.428		1.399		1.393		1.427		0.007293		1.16%		0.00%	
6.25				5		1.401		1.377		1.424		1.394		1.384		1.429		0.008457		1.35%		0.52%	
12.5				5		1.41		1.387		1.432		1.421		1.387		1.426		0.008251		1.31%		-0.12%	
25				5		1.389		1.358		1.42		1.395		1.35		1.415		0.01118		1.80%		1.35%	
50				5		1.314		1.286		1.342		1.32		1.277		1.333		0.01004		1.71%		6.64%	
100				5		0.8021		0.7661		0.838		0.7956		0.7721		0.8396		0.01294		3.61%		43.03%	

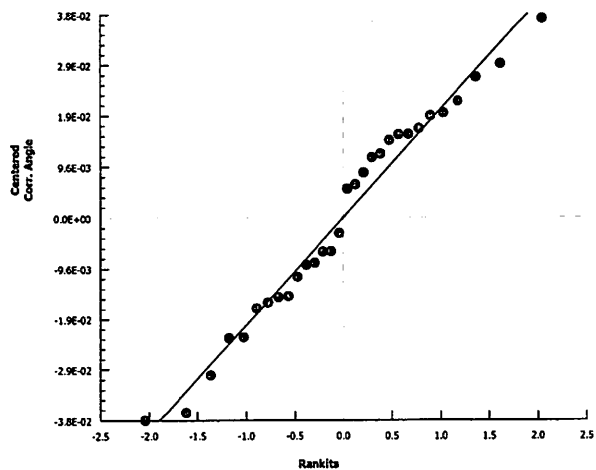
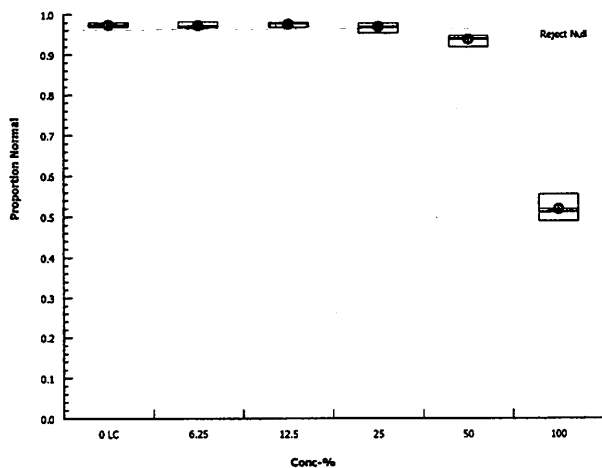
Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 01-9866-8383      Endpoint: Proportion Normal  
 Analyzed: 23 Sep-20 16:15      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
 Official Results: Yes

Graphics

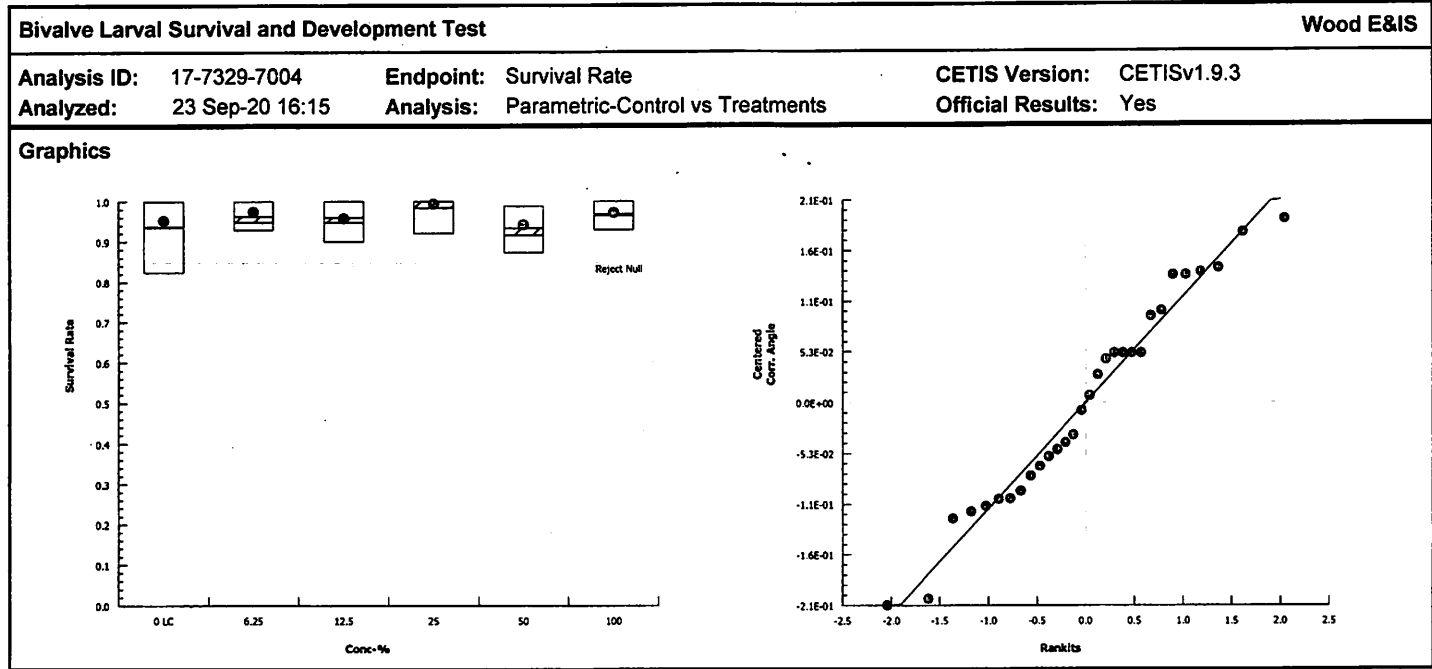


# CETIS Analytical Report

Report Date: 23 Sep-20 16:16 (p 6 of 7)  
Test Code: 20-08-040 | 20-2871-1250

Bivalve Larval Survival and Development Test										Wood E&IS													
Analysis ID: 17-7329-7004		Endpoint: Survival Rate			CETIS Version: CETISv1.9.3																		
Analyzed: 23 Sep-20 16:15		Analysis: Parametric-Control vs Treatments			Official Results: Yes																		
Comments:																							
Data Transform		Alt Hyp			NOEL		LOEL		TOEL		TU		PMSD										
Angular (Corrected)		C > T			100		> 100		n/a		1		9.38%										
Dunnett Multiple Comparison Test																							
Control		vs		Conc-%		Test Stat		Critical		MSD		DF		P-Type		P-Value		Decision(α:5%)					
Lab Control		6.25		-0.7678		2.362		0.179		8		CDF		0.9689		Non-Significant Effect							
		12.5		-0.1805		2.362		0.179		8		CDF		0.8811		Non-Significant Effect							
		25		-1.846		2.362		0.179		8		CDF		0.9988		Non-Significant Effect							
		50		0.3054		2.362		0.179		8		CDF		0.7278		Non-Significant Effect							
		100		-0.6707		2.362		0.179		8		CDF		0.9602		Non-Significant Effect							
ANOVA Table																							
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)											
Between		0.0834637		0.0166927		5		1.163		0.3558		Non-Significant Effect											
Error		0.344418		0.0143507		24																	
Total		0.427881				29																	
Distributional Tests																							
Attribute		Test				Test Stat		Critical		P-Value		Decision(α:1%)											
Variances		Bartlett Equality of Variance Test				0.8828		15.09		0.9715		Equal Variances											
Distribution		Shapiro-Wilk W Normality Test				0.9662		0.9031		0.4400		Normal Distribution											
Survival Rate Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		0.9349		0.8491		1.0000		0.9357		0.8233		1.0000		0.0309		7.39%		0.00%	
6.25				5		0.9622		0.9185		1.0000		0.9478		0.9277		1.0000		0.0157		3.66%		-2.92%	
12.5				5		0.9470		0.8943		0.9997		0.9598		0.8996		1.0000		0.0190		4.48%		-1.29%	
25				5		0.9839		0.9393		1.0000		1.0000		0.9197		1.0000		0.0161		3.65%		-5.24%	
50				5		0.9325		0.8723		0.9927		0.9157		0.8715		0.9880		0.0217		5.20%		0.26%	
100				5		0.9639		0.9265		1.0000		0.9679		0.9277		1.0000		0.0134		3.12%		-3.09%	
Angular (Corrected) Transformed Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		1.348		1.159		1.538		1.315		1.137		1.539		0.06822		11.31%		0.00%	
6.25				5		1.406		1.255		1.558		1.34		1.299		1.539		0.05462		8.68%		-4.31%	
12.5				5		1.362		1.216		1.508		1.369		1.248		1.539		0.05251		8.62%		-1.01%	
25				5		1.488		1.346		1.63		1.539		1.283		1.539		0.05113		7.68%		-10.37%	
50				5		1.325		1.191		1.459		1.276		1.204		1.461		0.0483		8.15%		1.72%	
100				5		1.399		1.279		1.519		1.391		1.299		1.539		0.04335		6.93%		-3.77%	





# CETIS Analytical Report

TST

Report Date: 23 Sep-20 16:16 (p 3 of 7)  
Test Code: 20-08-040 | 20-2871-1250

Bivalve Larval Survival and Development Test (100% Filtered) Unfiltered Wood E&IS

Analysis ID: 17-3437-6738 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
Analyzed: 23 Sep-20 16:15 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

## Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% failed combined proportion normal

## TST-Welch's t Test

Control	vs	Conc-%	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Lab Control		100	-4.551	2.132	4	CDF	0.9948	Significant Effect

## ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.622851	0.622851	1	92.05	1.2E-05	Significant Effect
Error	0.0541334	0.0067667	8			
Total	0.676985		9			

## Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	61.38	23.15	0.0015	Unequal Variances
Distribution	Shapiro-Wilk W Normality Test	0.8467	0.7411	0.0531	Normal Distribution

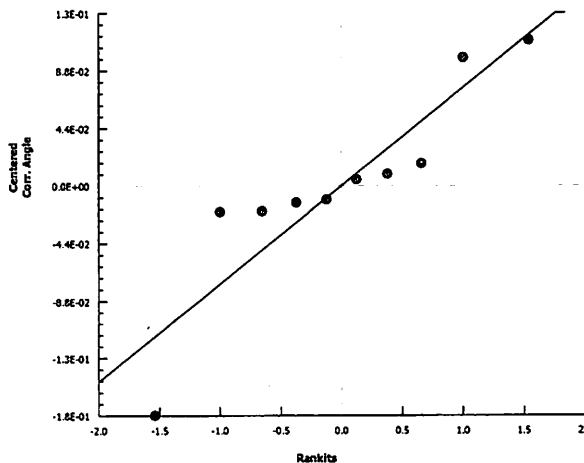
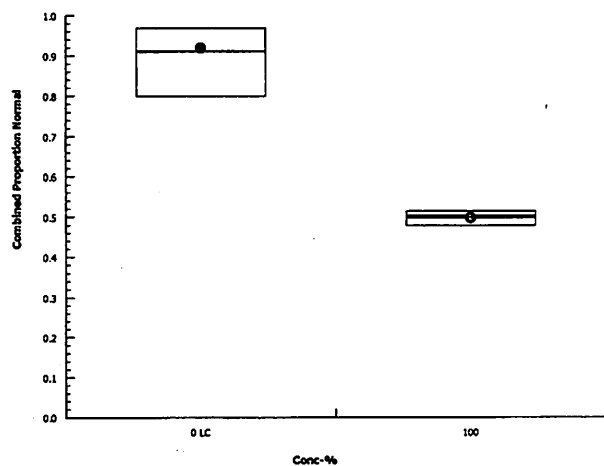
## Combined Proportion Normal Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.9102	0.8255	0.9949	0.9116	0.7992	0.9686	0.0305	7.50%	0.00%
100		5	0.4973	0.4791	0.5156	0.5020	0.4779	0.5141	0.0066	2.96%	45.36%

## Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.282	1.139	1.425	1.269	1.106	1.393	0.05161	9.00%	0.00%
100		5	0.7827	0.7644	0.801	0.7874	0.7633	0.7995	0.006587	1.88%	38.94%

## Graphics



## Bivalve Larval Survival and Development Test (100% Filtered)

Wood E&amp;IS

Analysis ID: 03-2166-5167 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
 Analyzed: 23 Sep-20 16:16 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

## Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	101% failed combined proportion normal

## TST-Welch's t Test

Control	vs	Conc-%	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Filter Control		101	-4.326	2.132	4	CDF	0.9938	Significant Effect

## ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.58337	0.58337	1	234.1	3.3E-07	Significant Effect
Error	0.0199344	0.0024918	8			
Total	0.603304		9			

## Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	9.933	23.15	0.0471	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9627	0.7411	0.8165	Normal Distribution

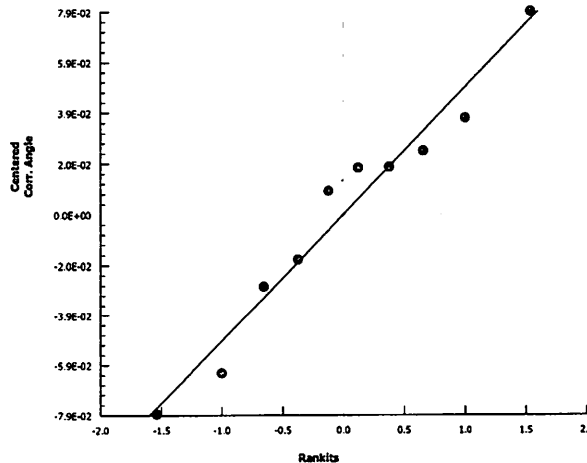
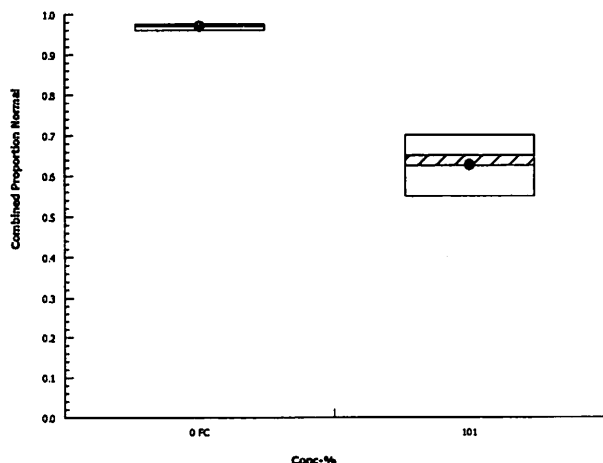
## Combined Proportion Normal Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	0.9697	0.9605	0.9790	0.9731	0.9598	0.9760	0.0033	0.77%	0.00%
101		5	0.6262	0.5454	0.7069	0.6506	0.5502	0.7011	0.0291	10.38%	35.43%

## Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	1.397	1.37	1.423	1.406	1.369	1.415	0.009548	1.53%	0.00%
101		5	0.9139	0.8303	0.9974	0.9384	0.8357	0.9924	0.03009	7.36%	34.58%

## Graphics



# CETIS Analytical Report

Report Date: 25 Sep-20 14:51 (p 1 of 2)  
Test Code: 20-08-040 | 20-2871-1250

Bivalve Larval Survival and Development Test											Wood E&IS
Analysis ID: 03-5230-7862		Endpoint: Proportion Normal w/ Curved Hinge		CETIS Version: CETISv1.9.3							
Analyzed: 25 Sep-20 14:48		Analysis: Nonparametric-Control vs Treatments		Official Results: Yes							
Comments: 101 = 100% Filtered											
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU	
Angular (Corrected)		C > T		101		> 101		n/a		0.9901	
Steel Many-One Rank Sum Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		6.25	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		12.5	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		25	32.5	16	1	8	Asymp	0.9904	Non-Significant Effect		
		50	40	16	0	8	Asymp	1.0000	Non-Significant Effect		
		100	40	16	0	8	Asymp	1.0000	Non-Significant Effect		
		101	40	16	0	8	Asymp	1.0000	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.134146		0.0223577		6	79.94	<1.0E-37	Significant Effect			
Error	0.0078308		0.0002797		28						
Total	0.141977				34						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Bartlett Equality of Variance Test		55.45	16.81	<1.0E-37	Unequal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.8965	0.9146	0.0032	Non-Normal Distribution					
Proportion Normal Summary w/ curved hinges											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
6.25		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
12.5		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
25		5	0.0025	0.0000	0.0069	0.0000	0.0000	0.0080	0.0016	146.33%	
50		5	0.0129	0.0077	0.0182	0.0132	0.0081	0.0176	0.0019	32.70%	
100		5	0.0337	0.0218	0.0457	0.0303	0.0245	0.0498	0.0043	28.50%	
101		5	0.0282	0.0219	0.0345	0.0282	0.0222	0.0352	0.0023	18.05%	
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0328	0.0311	0.0345	0.0328	0.0313	0.0349	0.0006	4.17%	0.00%
6.25		5	0.0322	0.0311	0.0332	0.0326	0.0311	0.0329	0.0004	2.55%	1.83%
12.5		5	0.0325	0.0315	0.0336	0.0324	0.0314	0.0334	0.0004	2.56%	0.71%
25		5	0.0500	0.0170	0.0831	0.0316	0.0315	0.0894	0.0119	53.16%	-52.76%
50		5	0.1126	0.0890	0.1363	0.1150	0.0903	0.1331	0.0085	16.92%	-243.85%
100		5	0.1834	0.1518	0.2150	0.1750	0.1571	0.2250	0.0114	13.88%	-459.89%
101		5	0.1682	0.1492	0.1873	0.1688	0.1496	0.1888	0.0069	9.12%	-413.50%
Proportion Normal Detail Curved											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	LC	0.0000	0.0000	0.0000	0.0000	0.0000					
6.25		0.0000	0.0000	0.0000	0.0000	0.0000					
12.5		0.0000	0.0000	0.0000	0.0000	0.0000					
25		0.0000	0.0000	0.0044	0.0000	0.0080					
50		0.0081	0.0165	0.0132	0.0176	0.0092					
100		0.0342	0.0303	0.0299	0.0245	0.0498					
101		0.0247	0.0307	0.0352	0.0282	0.0222					

# CETIS Analytical Report

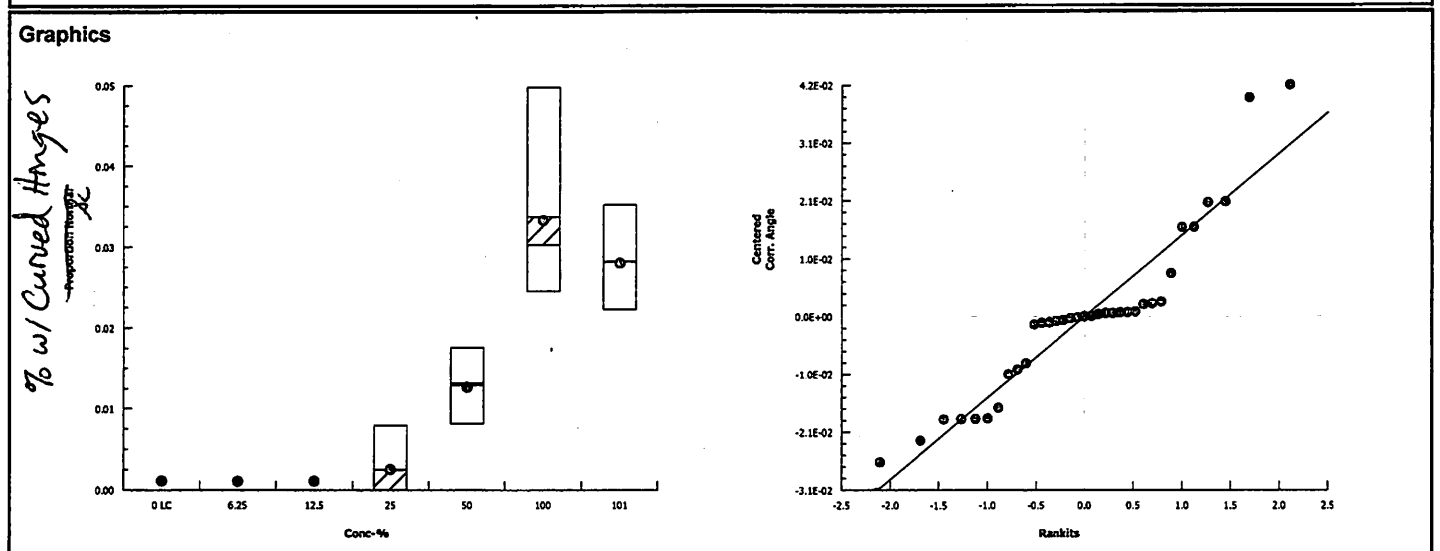
Report Date: 25 Sep-20 14:51 (p 2 of 2)  
Test Code: 20-08-040 | 20-2871-1250

Bivalve Larval Survival and Development Test Wood E&IS

Analysis ID: 03-5230-7862 Endpoint: Proportion Normal *w/ Curved Hinge* CETIS Version: CETISv1.9.3  
Analyzed: 25 Sep-20 14:48 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Angular (Corrected) Transformed Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.0313	0.0320	0.0328	0.0349	0.0328
6.25		0.0328	0.0315	0.0326	0.0329	0.0311
12.5		0.0333	0.0314	0.0334	0.0322	0.0324
25		0.0316	0.0315	0.0661	0.0316	0.0894
50		0.0903	0.1287	0.1150	0.1331	0.0962
100		0.1861	0.1750	0.1738	0.1571	0.2250
101		0.1578	0.1760	0.1888	0.1688	0.1496

Proportion Normal <i>sw</i> Binomials <i>Curved</i>						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0/255	0/245	0/233	0/205	0/232
6.25		0/233	0/252	0/236	0/231	0/259
12.5		0/226	0/254	0/224	0/241	0/239
25		0/251	0/252	1/229	0/250	2/251
50		2/246	4/243	3/228	4/227	2/217
100		9/263	7/231	7/234	6/245	12/241
101		6/243	8/261	8/227	7/248	5/225



# Embryo-Larval Development Test Scoring Worksheet

Client: Wood/ SIYB  
Project ID: SIYB 1  
Test No.: 20-08-040

Test Species: M. galloprovincialis  
Start Date: 8/21/2020 1745  
End Date: 8/23/2020 1645  
AC

Random #	# Counted	# Normal	Abnormal		Tech Initials / Notes
			Number Curved Shell	All Other Abnormal	
31	263	128	9	126	AC
32	227	137	8	82	
33	243	165	6	72	
34	255	247	0	8	
35	251	242	2	7	
36	251	239	0	12	
37	233	226	0	7	
38	245	240	0	5	
39	259	251	0	8	
40	260	253	0	7	
41	227	208	16+54	415	copepods observed
42	252	245	0	7	
43	231	225	0	6	
44	239	231	0	8	
45	241	119	16+12	110	
46	224	219	0	5	
47	254	246	0	9	
48	233	225	0	8	
49	241	236	0	5	
50	250	244	0	6	
51	228	213	3	12	
52	229	222	1	6	
53	205	199	0	6	
54	247	239	0	8	
55	261	183	8	70	
56	231	128	7	96	
57	247	243	0	4	
58	252	247	0	5	
59	245	125	6	114	
60	236	228	0	8	
61	243	228	4	11	
62	232	227	0	5	
63	226	221	0	4	
64	248	162	7	79	
65	246	240	0	6	
66	217	205	2	10	
67	246	232	2	12	
68	250	244	0	6	
69	234 244 80	126	7	101	copepods observed
70	225	141	5	79	

QC Check: AC 9/22/20

Final Review: AC 9/23/20

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:01 (p 1 of 2)  
Test Code/ID: 20-2871-1250/20-08-040

Bivalve Larval Survival and Development Test								Wood E&IS
Start Date: 21 Aug-20		Species: <i>Mytilus galloprovincialis</i>		Sample Code: 7B485F97				
End Date: 23 Aug-20		Protocol: EPA/600/R-95/136 (1995)		Sample Source: Shelter Island Yacht Basin				
Sample Date: 20 Aug-20		Material: Seawater		Sample Station: SIYB 1				
Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
0	FC	1	54					Random # 31-70
0	FC	2	57					
0	FC	3	65					
0	FC	4	50					
0	FC	5	40					
0	LC	1	34			254	248	
0	LC	2	38					
0	LC	3	37					
0	LC	4	53					
0	LC	5	62					
6.25		1	48					
6.25		2	58					
6.25		3	60					
6.25		4	43					
6.25		5	39					
12.5		1	63					
12.5		2	47					
12.5		3	46					
12.5		4	49					
12.5		5	44					
25		1	36					
25		2	42					
25		3	52					
25		4	68					
25		5	35					
50		1	67					
50		2	61					
50		3	51					
50		4	41					
50		5	66					
100		1	31			263	132	10 curved abnormal shells
100		2	56					
100		3	69					
100		4	59					
100		5	45					
101		1	33					
101		2	55					

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:01 (p 2 of 2)  
 Test Code/ID: 20-2871-1250/20-08-040

Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
101		3	32					
101		4	64					
101		5	70					

QC AB



# Water Quality for Bivalve Development

Client: Wood - Port of San Diego  
 Project ID: SIYB 1  
 Test No. 20-08-040

Test Species: M. galloprovincialis  
 Start Date/Time: 8/21/2020 1745  
 End Date/Time: 8/23/2020 1645

Test Conc. ( % )	Water Quality Measurements			
	Parameter	0hr	24hr	48hr
Lab Control	Temp. (°C)	15.5	<del>15.5</del> 16.0	15.9
	Salinity (ppt)	33.7	34.6	34.9
	pH (units)	7.82	7.73	7.70
	DO (mg/L)	7.4	7.8	7.9
Filtered Control (1.2µm)	Temp. (°C)	15.8	16.0	15.8
	Salinity (ppt)	34.0	34.9	<del>35.0</del> 35.1
	pH (units)	7.87	7.73	7.69
	DO (mg/L)	7.0	7.9	7.9
6.25	Temp. (°C)	15.7	15.9	15.8
	Salinity (ppt)	34.1	35.1	<del>35.4</del> 35.2
	pH (units)	7.92	7.75	7.75
	DO (mg/L)	7.4	8.0	8.0
12.5	Temp. (°C)	15.7	15.9	15.7
	Salinity (ppt)	34.1	35.1	<del>35.4</del> 35.2
	pH (units)	7.92	7.75	7.75
	DO (mg/L)	7.7	8.0	8.0
25	Temp. (°C)	15.8	16.0	15.8
	Salinity (ppt)	34.2	35.2	<del>35.0</del> 35.3
	pH (units)	7.91	7.75	7.76
	DO (mg/L)	7.8	8.0	8.2
50	Temp. (°C)	<del>15.9</del> 15.9	16.0	15.8
	Salinity (ppt)	34.5	35.3	<del>35.0</del> 35.4
	pH (units)	7.93	7.76	7.81
	DO (mg/L)	7.8	8.0	8.2
100	Temp. (°C)	15.9	16.0	15.9
	Salinity (ppt)	34.5	35.4	<del>35.0</del> 35.6
	pH (units)	7.94	7.77	7.81
	DO (mg/L)	7.9	8.0	8.2
100 Filtered (1.2µm)	Temp. (°C)	15.9	15.9	16.0
	Salinity (ppt)	34.2	35.3	<del>35.8</del> 35.6
	pH (units)	7.95	7.77	7.81
	DO (mg/L)	7.8	8.1	8.1
Tech Initials:		<u>ju</u>	<u>SC</u>	<u>AB</u>

Source of Animals: SIO / Wood From Mission Bay

Date Received: 8/3/20 & 5/22/20

Comments: \_\_\_\_\_

QC Check: AB 9/24/20

Final Review: ju 9/23/20

# Embryo-Larval Development Test

## Stock Preparation Worksheet

Test Species: M. galloprovincialis  
 Batch ID: \_\_\_\_\_  
 Test Type: Mussel Development

Test Date: 8/21/20  
 Analyst: AG/JW

Task	
Spawning Induction	0935/0950
Spawning Begins	1045/1345
# Males/# Females	4/4
Spawn Condition	Average
Fertilization Initiated	1525
Fertilization End/Eggs Rinsed	1545
Embryo Counts	1700
Test Initiation	1745

### Embryo Density Counts

# per 100  $\mu$ L

Stock #	Stock Volume (mL)	Rep 1	Rep 2	Rep 3	Rep 4	Mean #/100 $\mu$ L	Mean #/mL (x10)
Stock 1	250	70	72	67	74	70.8	708
Stock 2	250	42	55	51	53	50.3	503
Stock 3 <sup>4</sup>	300	54	55	51	50	52.5	525

### Cell Division:

	% Divided
Stock 1	100
Stock 2	98
Stock 3 <sup>4</sup>	96

Selected Stock:	2 + 4
-----------------	-------

Stock Density

Dil Factor

Adjust selected embryo stock to 500 embryos/mL.  
 Dilution Factor = Stock Density/mL/500

514  
500

1.03

In 10 mL sample volume add 500  $\mu$ L of 500 embryos/mL stock to obtain 25 embryos/mL in test vials.

Notes:

QC<sub>1</sub> = 249/255

Time Zero mean = 249

$\overline{x} = \frac{282 + 256 + 242 + 265 + 243}{5} = 258$   
 $\overline{x} = 249$

QA Review:

AG 9/22/20

Final Review:

AG 9/23/20

**Site: SIYB-2**

# CETIS Summary Report

Report Date: 22 Sep-20 16:48 (p 1 of 4)  
Test Code: 20-08-041 | 19-3308-7685

Bivalve Larval Survival and Development Test				Wood E&IS			
Batch ID:	16-5447-2001	Test Type:	Development-Survival	Analyst:			
Start Date:	21 Aug-20 17:45	Protocol:	EPA/600/R-95/136 (1995)	Diluent:	Natural Seawater		
Ending Date:	23 Aug-20 16:45	Species:	Mytilis galloprovincialis	Brine:	Not Applicable		
Duration:	47h	Source:	Field Collected	Age:			
Sample ID:	19-3390-9178	Code:	20-W124	Client:	Wood Environment and Infrastructure		
Sample Date:	20 Aug-20 13:15	Material:	Seawater	Project:	SIYB TMDL Monitoring		
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin				
Sample Age:	28h (3 °C)	Station:	SIYB 2				
<b>Comments:</b> 101 = 100 percent sample filtered to 1.2um							
<b>Single Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result			
06-5829-5335	Combined Proportion Normal	TST-Welch's t Test	1.0E-04	100% passed combined proportion normal			
<b>Multiple Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD ✓
19-7373-8776	Combined Proportion Normal	Dunnett Multiple Comparison Test	100	> 100	n/a	1	7.14%
18-5476-0410	Proportion Normal	Dunnett Multiple Comparison Test	50	100	70.71	2	1.06%
02-2649-0572	Survival Rate	Dunnett Multiple Comparison Test	100	> 100	n/a	1	9.58%
<b>Test Acceptability</b>							
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
18-5476-0410	Proportion Normal	Control Resp	0.9764	Lower	Upper	Yes	Passes Criteria
02-2649-0572	Survival Rate	Control Resp	0.9526	0.9	>>	Yes	Passes Criteria

# CETIS Summary Report

Report Date: 22 Sep-20 16:48 (p 2 of 4)  
Test Code: 20-08-041 | 19-3308-7685

Bivalve Larval Survival and Development Test											Wood E&IS
Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9301	0.8920	0.9683	0.8996	0.9760	0.0137	0.0307	3.30%	0.00%
0	FC	5	0.8996	0.8452	0.9540	0.8635	0.9721	0.0196	0.0438	4.87%	3.28%
6.25		5	0.9440	0.9022	0.9859	0.8996	0.9801	0.0151	0.0337	3.57%	-1.49%
12.5		5	0.9281	0.8683	0.9879	0.8554	0.9686	0.0215	0.0482	5.19%	0.22%
25		5	0.9206	0.8563	0.9849	0.8675	0.9764	0.0232	0.0518	5.62%	1.03%
50		5	0.9378	0.8991	0.9765	0.8916	0.9724	0.0139	0.0312	3.32%	-0.82%
100		5	0.8757	0.8348	0.9167	0.8434	0.9289	0.0147	0.0330	3.76%	5.85%
101		5	0.9176	0.8835	0.9518	0.8916	0.9575	0.0123	0.0275	3.00%	1.35%
Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9764	0.9740	0.9789	0.9741	0.9787	0.0009	0.0020	0.20%	0.00%
0	FC	5	0.9663	0.9555	0.9772	0.9556	0.9775	0.0039	0.0087	0.90%	1.03%
6.25		5	0.9696	0.9595	0.9797	0.9573	0.9801	0.0036	0.0082	0.84%	0.70%
12.5		5	0.9669	0.9638	0.9700	0.9638	0.9698	0.0011	0.0025	0.26%	0.97%
25		5	0.9669	0.9537	0.9801	0.9515	0.9764	0.0048	0.0106	1.10%	0.98%
50		5	0.9659	0.9558	0.9760	0.9535	0.9737	0.0036	0.0081	0.84%	1.08%
100		5	0.9322	0.9163	0.9480	0.9129	0.9471	0.0057	0.0128	1.37%	4.53%
101		5	0.9349	0.9170	0.9528	0.9237	0.9575	0.0065	0.0144	1.54%	4.25%
Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9526	0.9130	0.9923	0.9197	1.0000	0.0143	0.0319	3.35%	0.00%
0	FC	5	0.9309	0.8780	0.9839	0.8916	1.0000	0.0191	0.0426	4.58%	2.28%
6.25		5	0.9735	0.9381	1.0000	0.9398	1.0000	0.0127	0.0285	2.93%	-2.19%
12.5		5	0.9598	0.8989	1.0000	0.8876	1.0000	0.0220	0.0491	5.12%	-0.76%
25		5	0.9518	0.8968	1.0000	0.9116	1.0000	0.0198	0.0443	4.65%	0.08%
50		5	0.9711	0.9266	1.0000	0.9157	1.0000	0.0160	0.0359	3.69%	-1.94%
100		5	0.9398	0.8875	0.9921	0.9036	1.0000	0.0188	0.0421	4.48%	1.35%
101		5	0.9815	0.9497	1.0000	0.9478	1.0000	0.0115	0.0257	2.61%	-3.04%

# CETIS Summary Report

Report Date: 22 Sep-20 16:48 (p 3 of 4)  
Test Code: 20-08-041 | 19-3308-7685

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9438	0.9237	0.9760	0.8996	0.9076
0	FC	0.9076	0.8715	0.8635	0.8835	0.9721
6.25		0.9518	0.9197	0.9690	0.9801	0.8996
12.5		0.9686	0.9651	0.9478	0.9036	0.8554
25		0.9760	0.8876	0.8956	0.9764	0.8675
50		0.8916	0.9535	0.9478	0.9237	0.9724
100		0.8635	0.9289	0.8434	0.8835	0.8594
101		0.9237	0.8916	0.8916	0.9575	0.9237
Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9751	0.9787	0.9760	0.9782	0.9741
0	FC	0.9658	0.9775	0.9556	0.9607	0.9721
6.25		0.9713	0.9703	0.9690	0.9801	0.9573
12.5		0.9686	0.9651	0.9672	0.9698	0.9638
25		0.9760	0.9609	0.9696	0.9764	0.9515
50		0.9737	0.9535	0.9633	0.9664	0.9724
100		0.9471	0.9289	0.9333	0.9129	0.9386
101		0.9237	0.9289	0.9407	0.9575	0.9237
Survival Rate Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9679	0.9438	1.0000	0.9197	0.9317
0	FC	0.9398	0.8916	0.9036	0.9197	1.0000
6.25		0.9799	0.9478	1.0000	1.0000	0.9398
12.5		1.0000	1.0000	0.9799	0.9317	0.8876
25		1.0000	0.9237	0.9237	1.0000	0.9116
50		0.9157	1.0000	0.9839	0.9558	1.0000
100		0.9116	1.0000	0.9036	0.9679	0.9157
101		1.0000	0.9598	0.9478	1.0000	1.0000

# CETIS Summary Report

Report Date: 22 Sep-20 16:48 (p 4 of 4)  
 Test Code: 20-08-041 | 19-3308-7685

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	235/249	230/249	244/250	224/249	226/249
0	FC	226/249	217/249	215/249	220/249	244/251
6.25		237/249	229/249	250/258	246/251	224/249
12.5		247/255	249/258	236/249	225/249	213/249
25		244/250	221/249	223/249	248/254	216/249
50		222/249	246/258	236/249	230/249	247/254
100		215/249	235/253	210/249	220/249	214/249
101		230/249	222/249	222/249	248/259	230/249
Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	235/241	230/235	244/250	224/229	226/232
0	FC	226/234	217/222	215/225	220/229	244/251
6.25		237/244	229/236	250/258	246/251	224/234
12.5		247/255	249/258	236/244	225/232	213/221
25		244/250	221/230	223/230	248/254	216/227
50		222/228	246/258	236/245	230/238	247/254
100		215/227	235/253	210/225	220/241	214/228
101		230/249	222/239	222/236	248/259	230/249
Survival Rate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	241/249	235/249	249/249	229/249	232/249
0	FC	234/249	222/249	225/249	229/249	249/249
6.25		244/249	236/249	249/249	249/249	234/249
12.5		249/249	249/249	244/249	232/249	221/249
25		249/249	230/249	230/249	249/249	227/249
50		228/249	249/249	245/249	238/249	249/249
100		227/249	249/249	225/249	241/249	228/249
101		249/249	239/249	236/249	249/249	249/249

# CETIS Analytical Report

Report Date: 22 Sep-20 16:48 (p 1 of 7)  
Test Code: 20-08-041 | 19-3308-7685

Bivalve Larval Survival and Development Test										Wood E&IS	
Analysis ID: 19-7373-8776		Endpoint: Combined Proportion Normal				CETIS Version: CETISv1.9.3					
Analyzed: 22 Sep-20 16:45		Analysis: Parametric-Control vs Treatments				Official Results: Yes					
Comments:											
Data Transform		Alt Hyp				NOEL		LOEL		TOEL	
Angular (Corrected)		C > T				100		> 100		n/a	
Dunnett Multiple Comparison Test											
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		6.25	-0.632	2.362	0.117	8	CDF	0.9562	Non-Significant Effect		
		12.5	-0.01557	2.362	0.117	8	CDF	0.8379	Non-Significant Effect		
		25	0.1917	2.362	0.117	8	CDF	0.7705	Non-Significant Effect		
		50	-0.307	2.362	0.117	8	CDF	0.9082	Non-Significant Effect		
		100	1.948	2.362	0.117	8	CDF	0.1089	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)		
Between	0.0500765		0.0100153		5		1.637	0.1885	Non-Significant Effect		
Error	0.146841		0.0061184		24						
Total	0.196917				29						
Distributional Tests											
Attribute	Test				Test Stat		Critical	P-Value	Decision(α:1%)		
Variances	Bartlett Equality of Variance Test				2.321		15.09	0.8031	Equal Variances		
Distribution	Shapiro-Wilk W Normality Test				0.9533		0.9031	0.2066	Normal Distribution		
Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.9301	0.8920	0.9683	0.9237	0.8996	0.9760	0.0137	3.30%	0.00%
6.25		5	0.9440	0.9022	0.9859	0.9518	0.8996	0.9801	0.0151	3.57%	-1.49%
12.5		5	0.9281	0.8683	0.9879	0.9478	0.8554	0.9686	0.0215	5.19%	0.22%
25		5	0.9206	0.8563	0.9849	0.8956	0.8675	0.9764	0.0232	5.62%	1.03%
50		5	0.9378	0.8991	0.9765	0.9478	0.8916	0.9724	0.0139	3.32%	-0.82%
100		5	0.8757	0.8348	0.9167	0.8635	0.8434	0.9289	0.0147	3.76%	5.85%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.31	1.226	1.393	1.291	1.248	1.415	0.03	5.12%	0.00%
6.25		5	1.341	1.248	1.434	1.349	1.248	1.429	0.03356	5.60%	-2.39%
12.5		5	1.31	1.198	1.423	1.34	1.181	1.393	0.04049	6.91%	-0.06%
25		5	1.3	1.167	1.433	1.242	1.198	1.416	0.04779	8.22%	0.72%
50		5	1.325	1.245	1.405	1.34	1.235	1.404	0.02872	4.85%	-1.16%
100		5	1.213	1.147	1.279	1.192	1.164	1.301	0.02381	4.39%	7.36%



# CETIS Analytical Report

Report Date: 22 Sep-20 16:48 (p 2 of 7)  
Test Code: 20-08-041 | 19-3308-7685

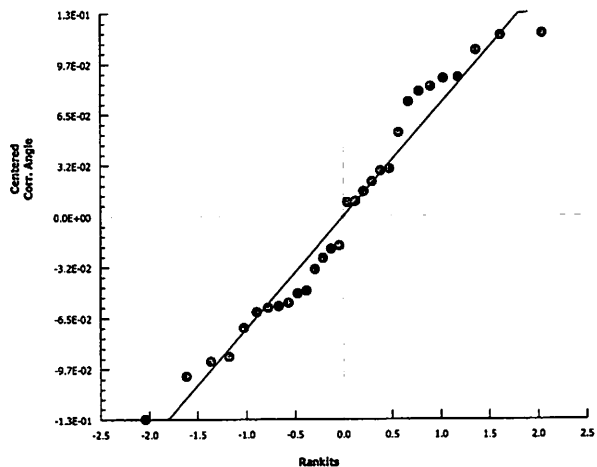
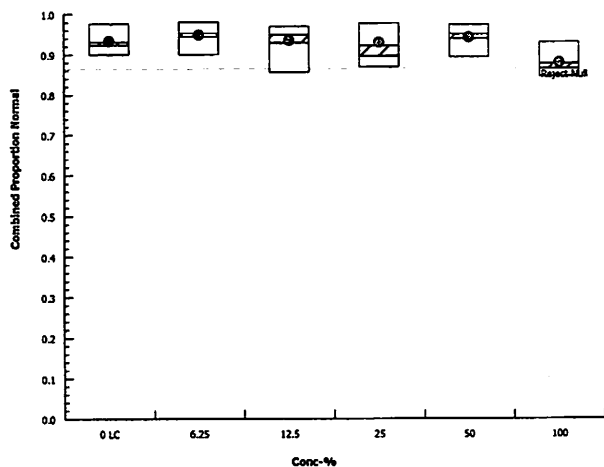
## Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 19-7373-8776 Endpoint: Combined Proportion Normal  
Analyzed: 22 Sep-20 16:45 Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
Official Results: Yes

### Graphics



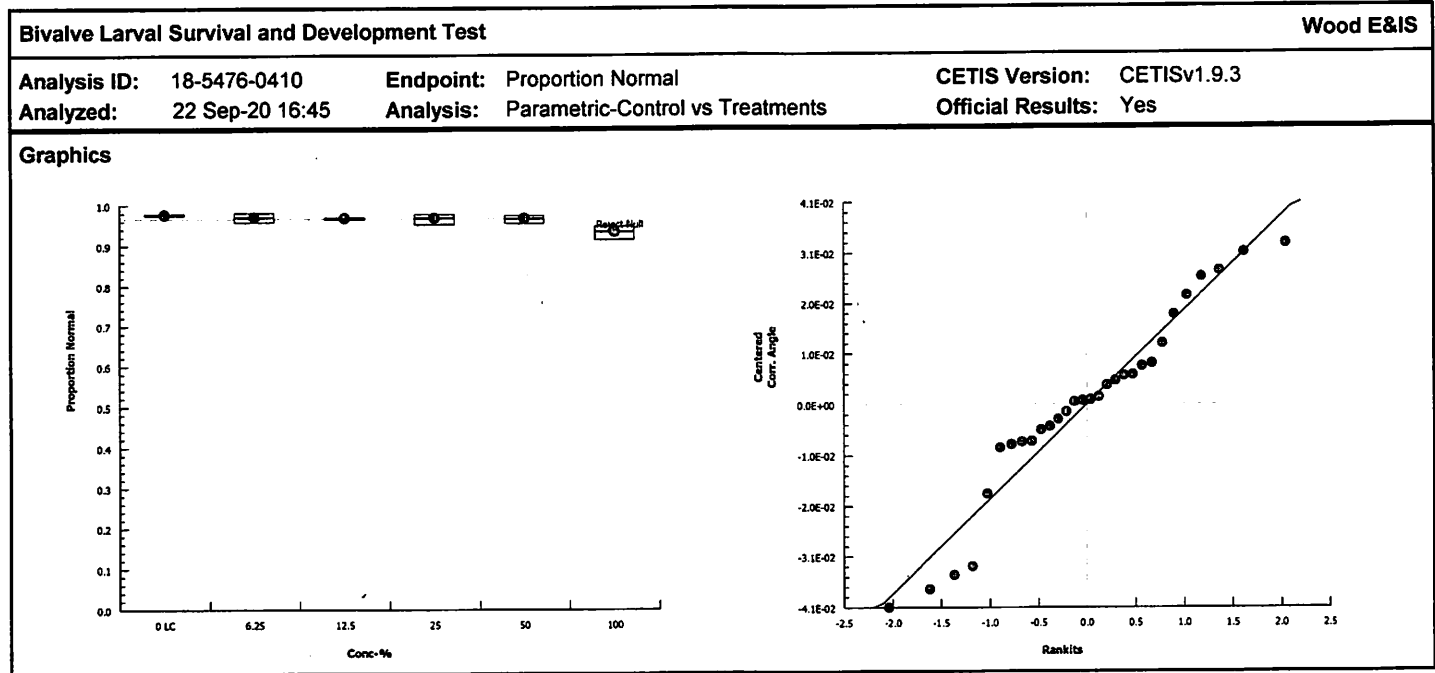
# CETIS Analytical Report

Report Date: 22 Sep-20 16:48 (p 4 of 7)  
Test Code: 20-08-041 | 19-3308-7685

Bivalve Larval Survival and Development Test										Wood E&IS		
Analysis ID: 18-5476-0410		Endpoint: Proportion Normal		CETIS Version: CETISv1.9.3								
Analyzed: 22 Sep-20 16:45		Analysis: Parametric-Control vs Treatments		Official Results: Yes								
Comments:												
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD
Angular (Corrected)		C > T		50		100		70.71		2		1.06%
Dunnett Multiple Comparison Test												
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)			
Lab Control		6.25	1.515	2.362	0.031	8	CDF	0.2192	Non-Significant Effect			
		12.5	2.18	2.362	0.031	8	CDF	0.0712	Non-Significant Effect			
		25	2.063	2.362	0.031	8	CDF	0.0887	Non-Significant Effect			
		50	2.336	2.362	0.031	8	CDF	0.0526	Non-Significant Effect			
		100*	8.231	2.362	0.031	8	CDF	8.1E-07	Significant Effect			
ANOVA Table												
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)			
Between	0.0348985		0.0069797		5		16.04	5.7E-07	Significant Effect			
Error	0.0104456		0.0004352		24							
Total	0.0453441				29							
Distributional Tests												
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)				
Variances	Bartlett Equality of Variance Test				11.49	15.09	0.0425	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test				0.9441	0.9031	0.1171	Normal Distribution				
Proportion Normal Summary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect	
0	LC	5	0.9764	0.9740	0.9789	0.9760	0.9741	0.9787	0.0009	0.20%	0.00%	
6.25		5	0.9696	0.9595	0.9797	0.9703	0.9573	0.9801	0.0036	0.84%	0.70%	
12.5		5	0.9669	0.9638	0.9700	0.9672	0.9638	0.9698	0.0011	0.26%	0.97%	
25		5	0.9669	0.9537	0.9801	0.9696	0.9515	0.9764	0.0048	1.10%	0.98%	
50		5	0.9659	0.9558	0.9760	0.9664	0.9535	0.9737	0.0036	0.84%	1.08%	
100		5	0.9322	0.9163	0.9480	0.9333	0.9129	0.9471	0.0057	1.37%	4.53%	
Angular (Corrected) Transformed Summary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect	
0	LC	5	1.417	1.409	1.425	1.415	1.409	1.424	0.002907	0.46%	0.00%	
6.25		5	1.397	1.367	1.426	1.398	1.363	1.429	0.01059	1.70%	1.41%	
12.5		5	1.388	1.379	1.397	1.389	1.379	1.396	0.003087	0.50%	2.03%	
25		5	1.39	1.353	1.426	1.395	1.349	1.416	0.01303	2.10%	1.92%	
50		5	1.386	1.359	1.413	1.386	1.353	1.408	0.00982	1.58%	2.18%	
100		5	1.308	1.277	1.339	1.31	1.271	1.339	0.01121	1.92%	7.67%	

# CETIS Analytical Report

Report Date: 22 Sep-20 16:48 (p 5 of 7)  
Test Code: 20-08-041 | 19-3308-7685



# CETIS Analytical Report

Report Date: 22 Sep-20 16:48 (p 6 of 7)  
Test Code: 20-08-041 | 19-3308-7685

Bivalve Larval Survival and Development Test										Wood E&IS													
Analysis ID: 02-2649-0572		Endpoint: Survival Rate		CETIS Version: CETISv1.9.3																			
Analyzed: 22 Sep-20 16:45		Analysis: Parametric-Control vs Treatments		Official Results: Yes																			
Comments:																							
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD											
Angular (Corrected)		C > T		100		> 100		n/a		1		9.58%											
Dunnett Multiple Comparison Test																							
Control		vs		Conc-%		Test Stat		Critical		MSD		DF		P-Type		P-Value		Decision(α:5%)					
Lab Control		6.25		-0.8326		2.362		0.181		8		CDF		0.9737		Non-Significant Effect							
		12.5		-0.4989		2.362		0.181		8		CDF		0.9399		Non-Significant Effect							
		25		-0.2038		2.362		0.181		8		CDF		0.8865		Non-Significant Effect							
		50		-0.7991		2.362		0.181		8		CDF		0.9713		Non-Significant Effect							
		100		0.3159		2.362		0.181		8		CDF		0.7237		Non-Significant Effect							
ANOVA Table																							
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)											
Between		0.0306125		0.0061225		5		0.4172		0.8321		Non-Significant Effect											
Error		0.352219		0.0146758		24																	
Total		0.382832				29																	
Distributional Tests																							
Attribute		Test		Test Stat		Critical		P-Value		Decision(α:1%)													
Variances		Bartlett Equality of Variance Test		0.6793		15.09		0.9841		Equal Variances													
Distribution		Shapiro-Wilk W Normality Test		0.9175		0.9031		0.0231		Normal Distribution													
Survival Rate Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		0.9526		0.9130		0.9923		0.9438		0.9197		1.0000		0.0143		3.35%		0.00%	
6.25				5		0.9735		0.9381		1.0000		0.9799		0.9398		1.0000		0.0127		2.93%		-2.19%	
12.5				5		0.9598		0.8989		1.0000		0.9799		0.8876		1.0000		0.0220		5.12%		-0.76%	
25				5		0.9518		0.8968		1.0000		0.9237		0.9116		1.0000		0.0198		4.65%		0.08%	
50				5		0.9711		0.9266		1.0000		0.9839		0.9157		1.0000		0.0160		3.69%		-1.94%	
100				5		0.9398		0.8875		0.9921		0.9157		0.9036		1.0000		0.0188		4.48%		1.35%	
Angular (Corrected) Transformed Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		1.37		1.243		1.497		1.331		1.283		1.539		0.04585		7.48%		0.00%	
6.25				5		1.434		1.305		1.563		1.429		1.323		1.539		0.04651		7.25%		-4.66%	
12.5				5		1.408		1.236		1.581		1.429		1.229		1.539		0.06214		9.86%		-2.79%	
25				5		1.386		1.212		1.56		1.291		1.269		1.539		0.06271		10.12%		-1.14%	
50				5		1.431		1.289		1.574		1.444		1.276		1.539		0.05133		8.02%		-4.47%	
100				5		1.346		1.196		1.496		1.276		1.255		1.539		0.05401		8.97%		1.77%	

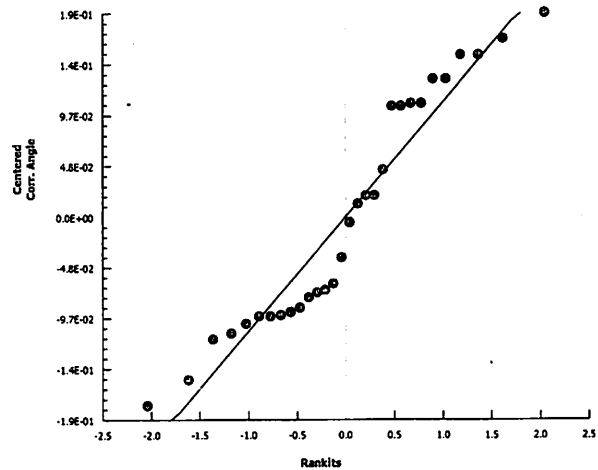
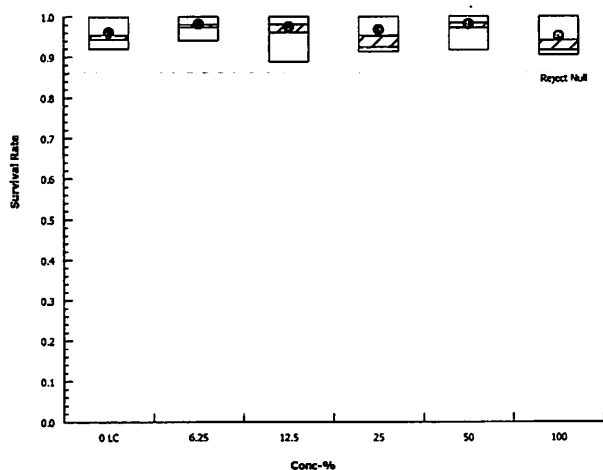
Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 02-2649-0572      Endpoint: Survival Rate  
 Analyzed: 22 Sep-20 16:45      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
 Official Results: Yes

Graphics



## CETIS Analytical Report

TST

 Report Date: 22 Sep-20 16:48 (p 3 of 7)  
 Test Code: 20-08-041 | 19-3308-7685

Bivalve Larval Survival and Development Test (100% unfiltered) Wood E&amp;IS

 Analysis ID: 06-5829-5335 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
 Analyzed: 22 Sep-20 16:46 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

## Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed combined proportion normal

## TST-Welch's t Test

Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Lab Control		100*	7.051	1.895	7	CDF	1.0E-04	Non-Significant Effect

## ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0232248	0.0232248	1	6.332	0.0360	Significant Effect
Error	0.0293417	0.0036677	8			
Total	0.0525666		9			

## Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	1.587	23.15	0.6653	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.8743	0.7411	0.1121	Normal Distribution

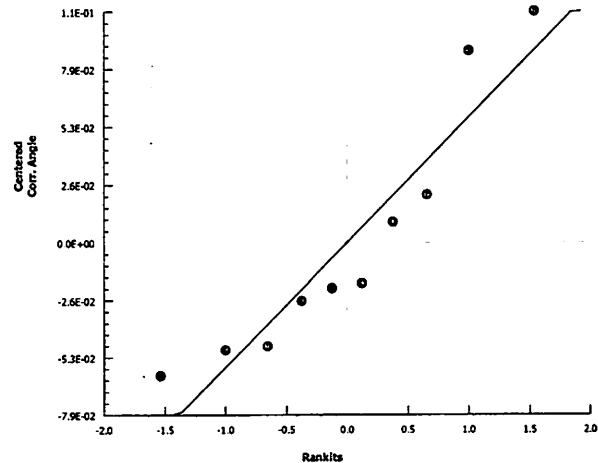
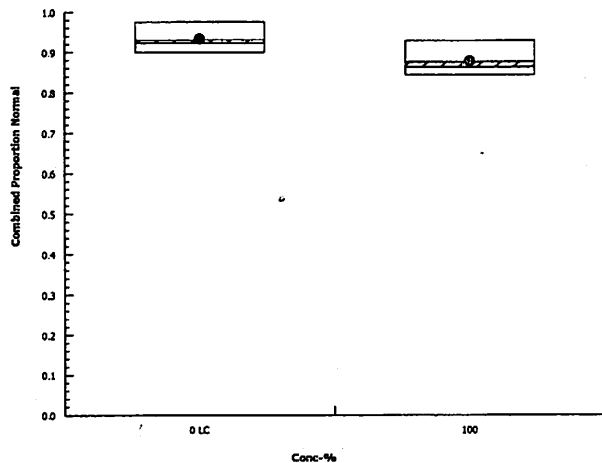
## Combined Proportion Normal Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.9301	0.8920	0.9683	0.9237	0.8996	0.9760	0.0137	3.30%	0.00%
100		5	0.8757	0.8348	0.9167	0.8635	0.8434	0.9289	0.0147	3.76%	5.85%

## Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.31	1.226	1.393	1.291	1.248	1.415	0.03	5.12%	0.00%
100		5	1.213	1.147	1.279	1.192	1.164	1.301	0.02381	4.39%	7.36%

## Graphics



# CETIS Analytical Report

TST

Report Date: 22 Sep-20 16:48 (p 1 of 1)  
Test Code: 20-08-041 | 19-3308-7685

Bivalve Larval Survival and Development Test (100% Filtered) Wood E&IS

Analysis ID: 11-3604-0050 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
Analyzed: 22 Sep-20 16:46 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	101% passed combined proportion normal

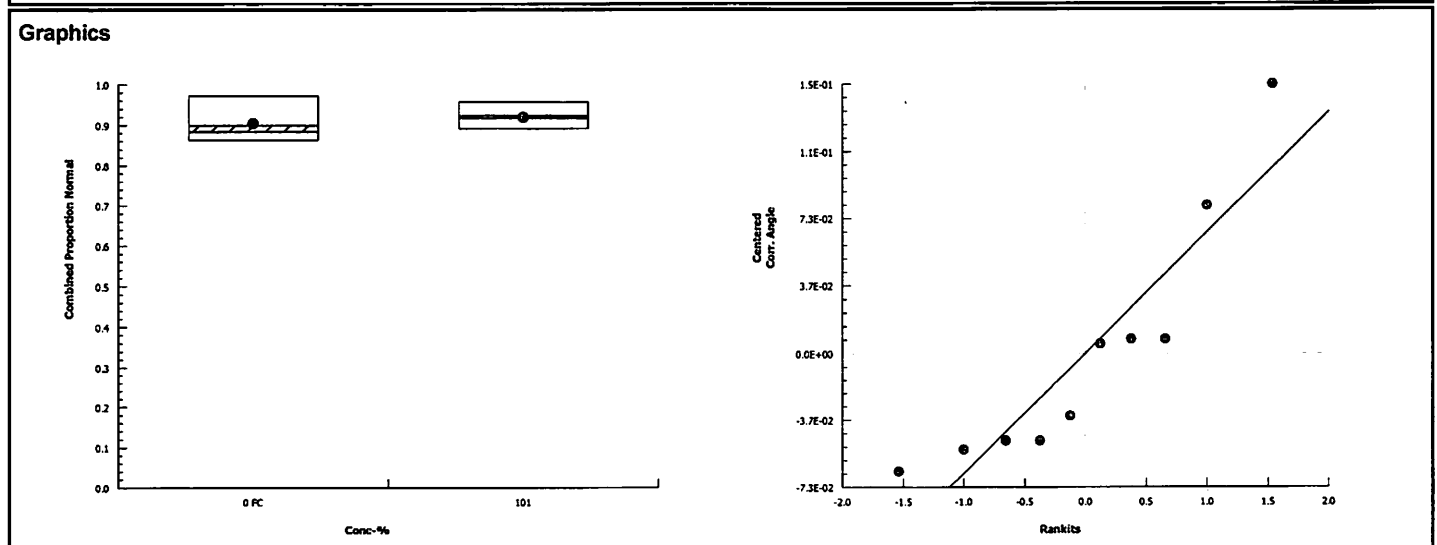
TST-Welch's t Test								
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Filter Control		101*	9.146	1.895	7	CDF	1.9E-05	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0017312	0.0017312	1	0.3408	0.5754	Non-Significant Effect
Error	0.0406347	0.0050793	8			
Total	0.0423659		9			

Distributional Tests					
Attribute	Test	Test Stat	Critical	P-Value	Decision( $\alpha$ :1%)
Variances	Variance Ratio F Test	2.653	23.15	0.3675	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.8415	0.7411	0.0460	Normal Distribution

Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	0.8996	0.8452	0.9540	0.8835	0.8635	0.9721	0.0196	4.87%	0.00%
101		5	0.9176	0.8835	0.9518	0.9237	0.8916	0.9575	0.0123	3.00%	-2.00%

Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	1.257	1.15	1.363	1.223	1.192	1.403	0.03841	6.83%	0.00%
101		5	1.283	1.218	1.349	1.291	1.235	1.363	0.02358	4.11%	-2.09%



## CETIS Analytical Report

Report Date: 25 Sep-20 15:23 (p 1 of 2)  
 Test Code: 20-08-041 | 19-3308-7685

Bivalve Larval Survival and Development Test										Wood E&IS	
Analysis ID: 14-9492-5060		Endpoint: Proportion Normal <i>w/curved Hinge</i>		CETIS Version: CETISv1.9.3							
Analyzed: 25 Sep-20 15:23		Analysis: Nonparametric-Control vs Treatments		Official Results: Yes							
Comments: 101 = 100% Filtered											
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU	
Angular (Corrected)		C > T		101		> 101		n/a		0.9901	
Steel Many-One Rank Sum Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		6.25	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		12.5	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		25	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		50	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		100	40	16	0	8	Asymp	1.0000	Non-Significant Effect		
		101	40	16	0	8	Asymp	1.0000	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0328798		0.00548		6	20.06	<1.0E-37	Significant Effect			
Error	0.0076485		0.0002732		28						
Total	0.0405282				34						
Distributional Tests											
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)			
Variances	Bartlett Equality of Variance Test				103	16.81	<1.0E-37	Unequal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.7443	0.9146	2.0E-06	Non-Normal Distribution			
Proportion Normal Summary <i>w/curved Hinge</i>											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
6.25		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
12.5		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
25		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
50		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
100		5	0.0117	0.0039	0.0195	0.0088	0.0044	0.0198	0.0028	53.92%	
101		5	0.0097	0.0022	0.0172	0.0084	0.0039	0.0161	0.0027	62.31%	
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0325	0.0318	0.0332	0.0326	0.0316	0.0331	0.0003	1.73%	0.00%
6.25		5	0.0320	0.0312	0.0328	0.0320	0.0311	0.0327	0.0003	2.05%	1.47%
12.5		5	0.0322	0.0309	0.0335	0.0320	0.0311	0.0336	0.0005	3.27%	0.87%
25		5	0.0324	0.0314	0.0335	0.0330	0.0314	0.0332	0.0004	2.64%	0.12%
50		5	0.0320	0.0310	0.0330	0.0320	0.0311	0.0331	0.0004	2.50%	1.45%
100		5	0.1050	0.0677	0.1422	0.0940	0.0667	0.1410	0.0134	28.57%	-223.24%
101		5	0.0946	0.0552	0.1341	0.0916	0.0622	0.1271	0.0142	33.58%	-191.42%
Proportion Normal Detail <i>Curved</i>											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	LC	0.0000	0.0000	0.0000	0.0000	0.0000					
6.25		0.0000	0.0000	0.0000	0.0000	0.0000					
12.5		0.0000	0.0000	0.0000	0.0000	0.0000					
25		0.0000	0.0000	0.0000	0.0000	0.0000					
50		0.0000	0.0000	0.0000	0.0000	0.0000					
100		0.0088	0.0198	0.0044	0.0166	0.0088					
101		0.0161	0.0084	0.0042	0.0039	0.0161					



# CETIS Analytical Report

Report Date: 25 Sep-20 15:23 (p 2 of 2)  
Test Code: 20-08-041 | 19-3308-7685

## Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 14-9492-5060 Endpoint: Proportion Normal *w/curved Hinge* CETIS Version: CETISv1.9.3  
Analyzed: 25 Sep-20 15:23 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

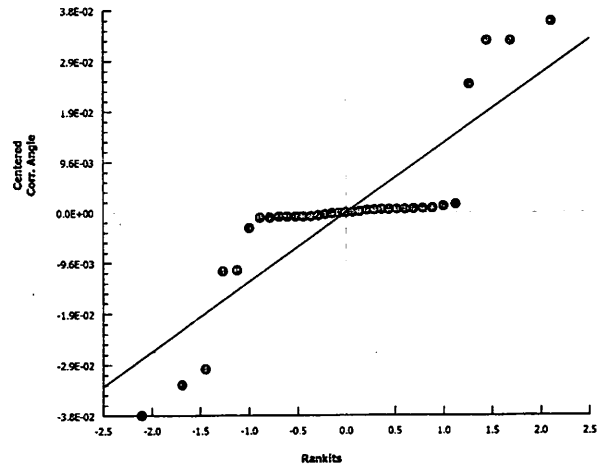
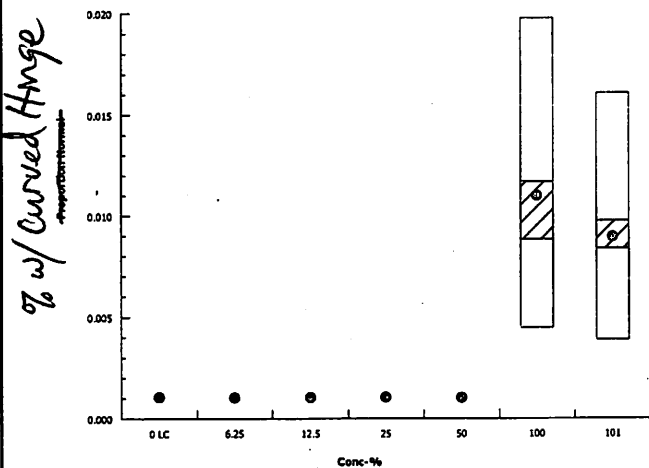
### Angular (Corrected) Transformed Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.0322	0.0326	0.0316	0.0331	0.0328
6.25		0.0320	0.0326	0.0311	0.0316	0.0327
12.5		0.0313	0.0311	0.0320	0.0328	0.0336
25		0.0316	0.0330	0.0330	0.0314	0.0332
50		0.0331	0.0311	0.0320	0.0324	0.0314
100		0.0940	0.1410	0.0667	0.1292	0.0938
101		0.1271	0.0916	0.0651	0.0622	0.1271

### Proportion Normal Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0/241	0/235	0/250	0/229	0/232
6.25		0/244	0/236	0/258	0/251	0/234
12.5		0/255	0/258	0/244	0/232	0/221
25		0/250	0/230	0/230	0/254	0/227
50		0/228	0/258	0/245	0/238	0/254
100		2/227	5/253	1/225	4/241	2/228
101		4/249	2/239	1/236	1/259	4/249

### Graphics



## Embryo-Larval Development Test Scoring Worksheet

Client: Wood/ SIYB  
Project ID: SIYB 2  
Test No.: 20-08-041

Test Species: *M. galloprovincialis*  
Start Date: 8/21/2020 1745  
End Date: 8/23/2020 1645  
82

Random #	# Counted	# Normal	Abnormal		Tech Initials / Notes
			Number Curved Shell	All Other Abnormal	
71	222	217	0	5	Ab
72	244	237	0	7	
73	250	244	0	6	
74	251	246	0	5	
75	258	250	0	8	
76	253	235	5	13	
77	259	248	1	10	
78	228	214	2	12	
79	234	226	0	8	
80	227	216	0	11	
81	244	236	0	8	
82	227	215	2	10	
83	232	226	0	6	
84	221	213	0	8	
85	249	230	4	15	
86	245	236	0	9	
87	250	244	0	6	
88	258	249	0	9	
89	241	220	4	17	copepods observed
90	251	244	0	7	
91	249	230	4	15	
92	230	221	0	9	
93	255	247	0	8	
94	254	247	0	7	copepods observed
95	225	215	0	10	
96	230	223	0	7	
97	238	230	0	8	
98	236	222	1	13	
99	229	224	0	5	
100	228	226	0	6	
101	236	229	0	7	
102	234	224	0	10	
103	258	246	0	12	copepods observed
104	235	230	0	5	
105	254	248	0	6	
106	239	222	2	15	
107	225	210	1	14	
108	232	225	0	7	
109	229	220	0	9	
110	241	235	0	6	

QC Check: Ab 9/22/20

Final Review: JC 9/23/20

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:03 (p 1 of 2)  
Test Code/ID: 19-3308-7685/20-08-041

## Bivalve Larval Survival and Development Test

Wood E&IS

Start Date: 21 Aug-20 Species: *Mytilus galloprovincialis* Sample Code: 73451CBA  
End Date: 23 Aug-20 Protocol: EPA/600/R-95/136 (1995) Sample Source: Shelter Island Yacht Basin  
Sample Date: 20 Aug-20 Material: Seawater Sample Station: SIYB 2

Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
0	FC	1	79					Random # 71-110
0	FC	2	71					
0	FC	3	95					
0	FC	4	109					
0	FC	5	90					
0	LC	1	110			252	244	
0	LC	2	104					
0	LC	3	87					
0	LC	4	99					
0	LC	5	83					
6.25		1	72					
6.25		2	101					
6.25		3	75					
6.25		4	74					
6.25		5	102					
12.5		1	93					
12.5		2	88					
12.5		3	81					
12.5		4	108					
12.5		5	84					
25		1	73					
25		2	92					
25		3	96					
25		4	105					
25		5	80					
50		1	100					
50		2	103					
50		3	86					
50		4	97					
50		5	94					
100		1	82			222	210	2 curved abnormal
100		2	76					
100		3	107					
100		4	89					
100		5	78					
101		1	91					
101		2	106					

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:03 (p 2 of 2)  
 Test Code/ID: 19-3308-7685/20-08-041

Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
101		3	98					
101		4	77					
101		5	85					

QC: AG

# Water Quality for Bivalve Development

Client: Wood - Port of San Diego  
 Project ID: SIYB 2  
 Test No. 20-08-041

Test Species: M. galloprovincialis  
 Start Date/Time: 8/21/2020 1745  
 End Date/Time: 8/23/2020 1645

Test Conc. ( % )	Water Quality Measurements			
	Parameter	0hr	24hr	48hr
Lab Control	Temp. (°C)	15.7	16.0	15.8
	Salinity (ppt)	33.7	34.8	<del>35.9</del> 35.2
	pH (units)	7.82	7.72	<del>7.80</del>
	DO (mg/L)	7.4	7.6	8.0
Filtered Control (1.2µm)	Temp. (°C)	15.7	15.9	15.8
	Salinity (ppt)	33.8	34.8	<del>35.4</del> 35.0
	pH (units)	7.87	7.73	7.80
	DO (mg/L)	7.0	7.5	7.8
6.25	Temp. (°C)	15.7	15.9	15.8
	Salinity (ppt)	34.0	34.9	<del>35.8</del> 35.0
	pH (units)	7.90	7.75	7.79
	DO (mg/L)	7.3	7.5	7.8
12.5	Temp. (°C)	15.7	15.9	15.8
	Salinity (ppt)	34.2	34.9	<del>35.8</del> 35.1
	pH (units)	7.93	7.75	7.80
	DO (mg/L)	7.6	7.6	7.8
25	Temp. (°C)	15.8	15.8	15.9
	Salinity (ppt)	34.3	35.0	<del>35.9</del> 35.2
	pH (units)	7.92	7.75	7.81
	DO (mg/L)	7.9	7.7	7.9
50	Temp. (°C)	15.7	15.9	15.9
	Salinity (ppt)	34.4	35.0	<del>35.9</del> 35.2
	pH (units)	7.92	7.76	7.81
	DO (mg/L)	7.9	7.7	7.9
100	Temp. (°C)	15.8	15.9	15.9
	Salinity (ppt)	34.4	35.1	<del>36.0</del> 35.2
	pH (units)	7.96	7.76	7.83
	DO (mg/L)	7.9	7.8	7.9
100 Filtered (1.2µm)	Temp. (°C)	15.8	15.9	15.9
	Salinity (ppt)	33.8	35.1	<del>35.5</del> 35.2
	pH (units)	7.97	7.77	<del>7.83</del>
	DO (mg/L)	7.9	7.8	7.9
Tech Initials:		<u>SW</u>	<u>SL</u>	<u>AB</u>

Source of Animals: SIO / Wood From Mission Bay

Date Received: 8/13/20 & 5/22/20

Comments: \_\_\_\_\_

QC Check: AB 9/22/20

Final Review: 8/23/20

# Embryo-Larval Development Test

## Stock Preparation Worksheet

Test Species: M. galloprovincialis  
 Batch ID: \_\_\_\_\_  
 Test Type: Mussel Development

Test Date: 8/21/20  
 Analyst: AG/JW

Task	
Spawning Induction	0935/0950
Spawning Begins	1045/1345
# Males/# Females	4/4
Spawn Condition	Average
Fertilization Initiated	1525
Fertilization End/Eggs Rinsed	1545
Embryo Counts	1700
Test Initiation	1745

### Embryo Density Counts

# per 100  $\mu$ L

Stock #	Stock Volume (mL)	Rep 1	Rep 2	Rep 3	Rep 4	Mean #/100 $\mu$ L	Mean #/mL (x10)
Stock 1	250	70	72	67	74	70.8	708
Stock 2	250	42	55	51	53	50.3	503
Stock 3 <sup>4</sup>	300	54	55	51	50	52.5	525

### Cell Division:

	% Divided
Stock 1	100
Stock 2	96.98
Stock 3 <sup>4</sup>	96

Selected Stock:	2 + 4
-----------------	-------

Stock Density

Dil Factor

Adjust selected embryo stock to 500 embryos/mL.  
 Dilution Factor = Stock Density/mL/500

514  
500

1.03

In 10 mL sample volume add 500  $\mu$ L of 500 embryos/mL stock to obtain 25 embryos/mL in test vials.

Notes:

QC<sub>1</sub> = 249/255

Time Zero mean = 249

$\bar{x}_1 = 282$   $\bar{x}_2 = 256$   $\bar{x}_3 = 243$   $\bar{x}_4 = 265$   $\bar{x}_5 = 243$   $\bar{x} = 258$  249  
260 253 235 262 234

QA Review:

AG 9/22/20

Final Review:

AG 9/23/20

**Site: SIYB-3**

# CETIS Summary Report

Report Date: 23 Sep-20 16:47 (p 1 of 4)  
Test Code: 20-08-042 | 01-6699-5740

Bivalve Larval Survival and Development Test				Wood E&IS			
Batch ID:	02-9772-9807	Test Type:	Development-Survival	Analyst:			
Start Date:	21 Aug-20 17:45	Protocol:	EPA/600/R-95/136 (1995)	Diluent:	Natural Seawater		
Ending Date:	23 Aug-20 16:45	Species:	Mytilis galloprovincialis	Brine:	Not Applicable		
Duration:	47h	Source:	Field Collected	Age:			
Sample ID:	21-3895-4380	Code:	20-W125	Client:	Wood Environment and Infrastructure		
Sample Date:	20 Aug-20 12:15	Material:	Seawater	Project:	SIYB TMDL Monitoring		
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin				
Sample Age:	30h (4 °C)	Station:	SIYB 3				
<b>Comments:</b> 101 = 100 percent sample filtered to 1.2um							
<b>Single Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result			
04-2496-2807	Combined Proportion Normal	TST-Welch's t Test	0.0012	100% passed combined proportion normal			
<b>Multiple Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD ✓
17-9132-3911	Combined Proportion Normal	Dunnett Multiple Comparison Test	100	> 100	n/a	1	9.06%
03-3518-4821	Proportion Normal	Dunnett Multiple Comparison Test	25	50	35.36	4	1.34%
15-6908-3366	Survival Rate	Dunnett Multiple Comparison Test	100	> 100	n/a	1	11.6%
<b>Test Acceptability</b>							
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
03-3518-4821	Proportion Normal	Control Resp	0.973	0.9	>>	Yes	Passes Criteria
15-6908-3366	Survival Rate	Control Resp	0.894	0.5	>>	Yes	Passes Criteria



# CETIS Summary Report

Report Date: 23 Sep-20 16:47 (p 2 of 4)  
Test Code: 20-08-042 | 01-6699-5740

Bivalve Larval Survival and Development Test											Wood E&IS
Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.8699	0.8321	0.9076	0.8273	0.9116	0.0136	0.0304	3.49%	0.00%
0	FC	5	0.8925	0.8133	0.9717	0.8032	0.9805	0.0285	0.0638	7.15%	-2.60%
6.25		5	0.9086	0.8444	0.9729	0.8353	0.9729	0.0232	0.0518	5.70%	-4.45%
12.5		5	0.9092	0.8676	0.9509	0.8514	0.9357	0.0150	0.0336	3.69%	-4.52%
25		5	0.9230	0.8783	0.9678	0.8835	0.9767	0.0161	0.0360	3.90%	-6.11%
50		5	0.9002	0.8454	0.9549	0.8514	0.9466	0.0197	0.0441	4.90%	-3.48%
100		5	0.8008	0.7276	0.8740	0.7309	0.8795	0.0264	0.0589	7.36%	7.94%
101		5	0.8691	0.7764	0.9618	0.7791	0.9496	0.0334	0.0747	8.59%	0.09%
Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9730	0.9659	0.9800	0.9643	0.9784	0.0025	0.0057	0.58%	0.00%
0	FC	5	0.9665	0.9509	0.9822	0.9479	0.9805	0.0056	0.0126	1.30%	0.66%
6.25		5	0.9709	0.9643	0.9775	0.9649	0.9788	0.0024	0.0054	0.55%	0.22%
12.5		5	0.9749	0.9657	0.9841	0.9680	0.9873	0.0033	0.0074	0.76%	-0.20%
25		5	0.9640	0.9518	0.9761	0.9496	0.9767	0.0044	0.0098	1.01%	0.93%
50		5	0.9492	0.9386	0.9598	0.9375	0.9596	0.0038	0.0085	0.90%	2.44%
100		5	0.8816	0.8523	0.9109	0.8505	0.9163	0.0106	0.0236	2.68%	9.39%
101		5	0.9152	0.8769	0.9535	0.8739	0.9496	0.0138	0.0309	3.37%	5.94%
Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.8940	0.8581	0.9299	0.8514	0.9317	0.0129	0.0289	3.23%	0.00%
0	FC	5	0.9229	0.8540	0.9918	0.8474	1.0000	0.0248	0.0555	6.01%	-3.23%
6.25		5	0.9357	0.8732	0.9983	0.8635	1.0000	0.0225	0.0504	5.39%	-4.67%
12.5		5	0.9325	0.8947	0.9704	0.8795	0.9558	0.0136	0.0305	3.27%	-4.31%
25		5	0.9574	0.9184	0.9965	0.9157	1.0000	0.0141	0.0314	3.28%	-7.10%
50		5	0.9486	0.8840	1.0000	0.8916	1.0000	0.0233	0.0520	5.48%	-6.11%
100		5	0.9076	0.8498	0.9655	0.8594	0.9598	0.0208	0.0466	5.13%	-1.53%
101		5	0.9486	0.8792	1.0000	0.8876	1.0000	0.0250	0.0559	5.89%	-6.11%

# CETIS Summary Report

Report Date: 23 Sep-20 16:47 (p 3 of 4)  
 Test Code: 20-08-042 | 01-6699-5740

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.8795	0.8273	0.8635	0.9116	0.8675
0	FC	0.8876	0.8032	0.8795	0.9805	0.9116
6.25		0.8835	0.8353	0.9237	0.9729	0.9277
12.5		0.9357	0.9116	0.9197	0.9277	0.8514
25		0.9076	0.9767	0.8835	0.9398	0.9076
50		0.8594	0.9398	0.9036	0.8514	0.9466
100		0.7671	0.8394	0.7309	0.7871	0.8795
101		0.9382	0.7791	0.8153	0.9496	0.8635
Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9777	0.9717	0.9729	0.9784	0.9643
0	FC	0.9609	0.9479	0.9733	0.9805	0.9701
6.25		0.9649	0.9674	0.9705	0.9729	0.9788
12.5		0.9873	0.9742	0.9745	0.9706	0.9680
25		0.9496	0.9767	0.9649	0.9669	0.9617
50		0.9596	0.9474	0.9375	0.9550	0.9466
100		0.8843	0.8819	0.8505	0.8750	0.9163
101		0.9382	0.8739	0.9186	0.9496	0.8958
Survival Rate Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.8996	0.8514	0.8876	0.9317	0.8996
0	FC	0.9237	0.8474	0.9036	1.0000	0.9398
6.25		0.9157	0.8635	0.9518	1.0000	0.9478
12.5		0.9478	0.9357	0.9438	0.9558	0.8795
25		0.9558	1.0000	0.9157	0.9719	0.9438
50		0.8956	0.9920	0.9639	0.8916	1.0000
100		0.8675	0.9518	0.8594	0.8996	0.9598
101		1.0000	0.8916	0.8876	1.0000	0.9639

# CETIS Summary Report

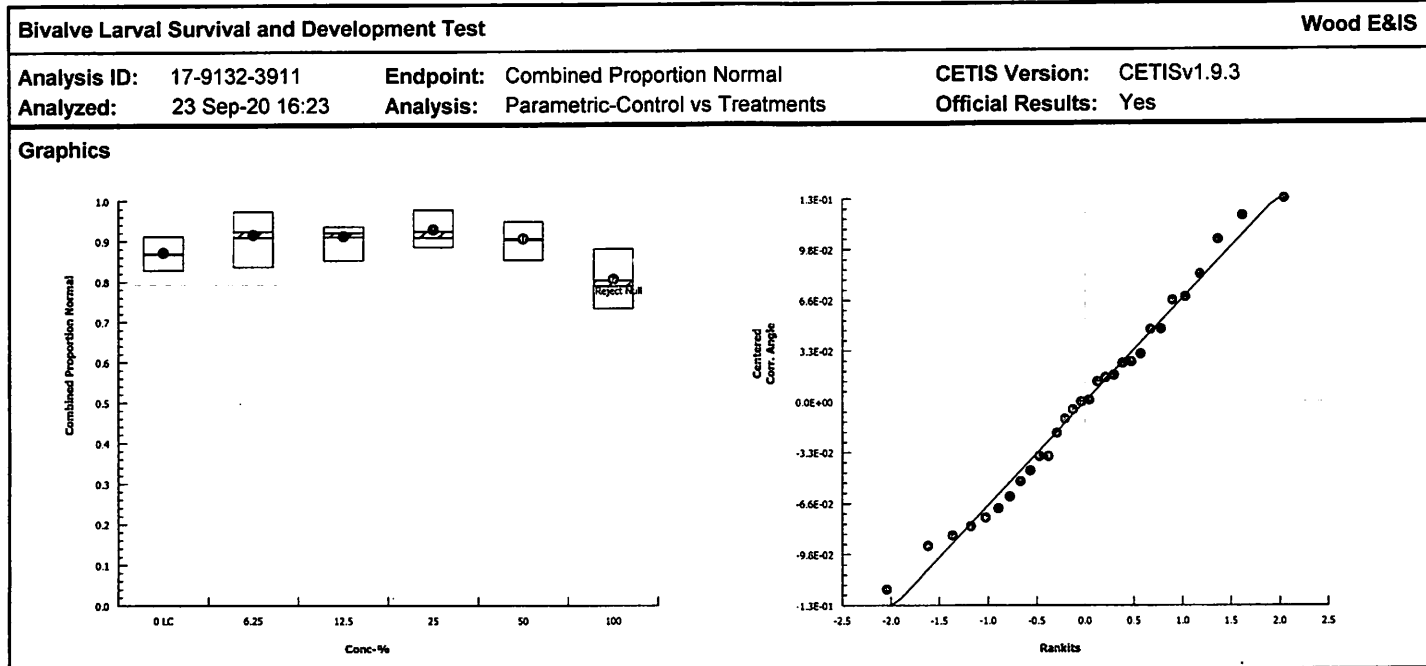
Report Date: 23 Sep-20 16:47 (p 4 of 4)  
 Test Code: 20-08-042 | 01-6699-5740

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	219/249	206/249	215/249	227/249	216/249
0	FC	221/249	200/249	219/249	252/257	227/249
6.25		220/249	208/249	230/249	251/258	231/249
12.5		233/249	227/249	229/249	231/249	212/249
25		226/249	251/257	220/249	234/249	226/249
50		214/249	234/249	225/249	212/249	248/262
100		191/249	209/249	182/249	196/249	219/249
101		243/259	194/249	203/249	245/258	215/249
Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	219/224	206/212	215/221	227/232	216/224
0	FC	221/230	200/211	219/225	252/257	227/234
6.25		220/228	208/215	230/237	251/258	231/236
12.5		233/236	227/233	229/235	231/238	212/219
25		226/238	251/257	220/228	234/242	226/235
50		214/223	234/247	225/240	212/222	248/262
100		191/216	209/237	182/214	196/224	219/239
101		243/259	194/222	203/221	245/258	215/240
Survival Rate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	224/249	212/249	221/249	232/249	224/249
0	FC	230/249	211/249	225/249	249/249	234/249
6.25		228/249	215/249	237/249	249/249	236/249
12.5		236/249	233/249	235/249	238/249	219/249
25		238/249	249/249	228/249	242/249	235/249
50		223/249	247/249	240/249	222/249	249/249
100		216/249	237/249	214/249	224/249	239/249
101		249/249	222/249	221/249	249/249	240/249

# CETIS Analytical Report

Report Date: 23 Sep-20 16:26 (p 1 of 7)  
Test Code: 20-08-042 | 01-6699-5740

Bivalve Larval Survival and Development Test											Wood E&IS	
Analysis ID: 17-9132-3911		Endpoint: Combined Proportion Normal		CETIS Version: CETISv1.9.3								
Analyzed: 23 Sep-20 16:23		Analysis: Parametric-Control vs Treatments		Official Results: Yes								
Comments:												
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU	PMSD	
Angular (Corrected)		C > T		100		> 100		n/a		1	9.06%	
Dunnett Multiple Comparison Test												
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)			
Lab Control		6.25	-1.547	2.362	0.108	8	CDF	0.9968	Non-Significant Effect			
		12.5	-1.417	2.362	0.108	8	CDF	0.9951	Non-Significant Effect			
		25	-2.059	2.362	0.108	8	CDF	0.9994	Non-Significant Effect			
		50	-1.138	2.362	0.108	8	CDF	0.9887	Non-Significant Effect			
		100	2.018	2.362	0.108	8	CDF	0.0961	Non-Significant Effect			
ANOVA Table												
Source		Sum Squares		Mean Square		DF		F Stat		P-Value	Decision(α:5%)	
Between		0.115557		0.0231114		5		4.459		0.0052	Significant Effect	
Error		0.124393		0.0051830		24						
Total		0.239949				29						
Distributional Tests												
Attribute		Test		Test Stat		Critical		P-Value		Decision(α:1%)		
Variances		Bartlett Equality of Variance Test		2.283		15.09		0.8087		Equal Variances		
Distribution		Shapiro-Wilk W Normality Test		0.9811		0.9031		0.8534		Normal Distribution		
Combined Proportion Normal Summary												
Conc-%		Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0		LC	5	0.8699	0.8321	0.9076	0.8675	0.8273	0.9116	0.0136	3.49%	0.00%
6.25			5	0.9086	0.8444	0.9729	0.9237	0.8353	0.9729	0.0232	5.70%	-4.45%
12.5			5	0.9092	0.8676	0.9509	0.9197	0.8514	0.9357	0.0150	3.69%	-4.52%
25			5	0.9230	0.8783	0.9678	0.9076	0.8835	0.9767	0.0161	3.90%	-6.11%
50			5	0.9002	0.8454	0.9549	0.9036	0.8514	0.9466	0.0197	4.90%	-3.48%
100			5	0.8008	0.7276	0.8740	0.7871	0.7309	0.8795	0.0264	7.36%	7.94%
Angular (Corrected) Transformed Summary												
Conc-%		Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0		LC	5	1.204	1.147	1.26	1.198	1.142	1.269	0.02045	3.80%	0.00%
6.25			5	1.274	1.157	1.391	1.291	1.153	1.405	0.04209	7.39%	-5.85%
12.5			5	1.268	1.2	1.336	1.283	1.175	1.315	0.02447	4.31%	-5.36%
25			5	1.297	1.203	1.392	1.262	1.223	1.417	0.03403	5.87%	-7.79%
50			5	1.255	1.162	1.349	1.255	1.175	1.338	0.03354	5.97%	-4.30%
100			5	1.112	1.018	1.206	1.091	1.025	1.216	0.03389	6.82%	7.63%

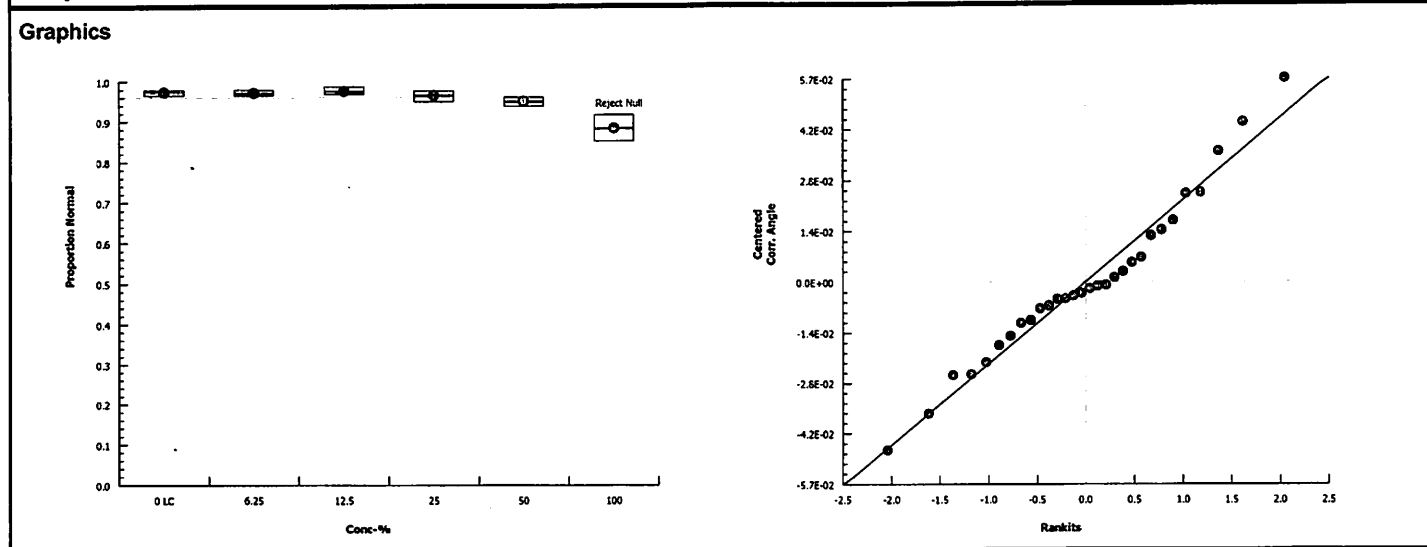


# CETIS Analytical Report

Report Date: 23 Sep-20 16:26 (p 4 of 7)  
Test Code: 20-08-042 | 01-6699-5740

Bivalve Larval Survival and Development Test										Wood E&IS	
Analysis ID: 03-3518-4821		Endpoint: Proportion Normal		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 16:23		Analysis: Parametric-Control vs Treatments		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU	
Angular (Corrected)		C > T		25		50		35.36		4	
Dunnnett Multiple Comparison Test											
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		6.25	0.4094	2.362	0.037	8	CDF	0.6857	Non-Significant Effect		
		12.5	-0.4491	2.362	0.037	8	CDF	0.9327	Non-Significant Effect		
		25	1.606	2.362	0.037	8	CDF	0.1911	Non-Significant Effect		
		50*	3.969	2.362	0.037	8	CDF	0.0013	Significant Effect		
		100*	11.82	2.362	0.037	8	CDF	7.6E-07	Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)		
Between	0.133376		0.0266753		5		43.28	<1.0E-37	Significant Effect		
Error	0.0147916		0.0006163		24						
Total	0.148168				29						
Distributional Tests											
Attribute	Test		Test Stat		Critical		P-Value	Decision(α:1%)			
Variances	Bartlett Equality of Variance Test		3.79		15.09		0.5801	Equal Variances			
Distribution	Shapiro-Wilk W Normality Test		0.9718		0.9031		0.5900	Normal Distribution			
Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.9730	0.9659	0.9800	0.9729	0.9643	0.9784	0.0025	0.58%	0.00%
6.25		5	0.9709	0.9643	0.9775	0.9705	0.9649	0.9788	0.0024	0.55%	0.22%
12.5		5	0.9749	0.9657	0.9841	0.9742	0.9680	0.9873	0.0033	0.76%	-0.20%
25		5	0.9640	0.9518	0.9761	0.9649	0.9496	0.9767	0.0044	1.01%	0.93%
50		5	0.9492	0.9386	0.9598	0.9474	0.9375	0.9596	0.0038	0.90%	2.44%
100		5	0.8816	0.8523	0.9109	0.8819	0.8505	0.9163	0.0106	2.68%	9.39%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.406	1.385	1.428	1.405	1.381	1.423	0.007695	1.22%	0.00%
6.25		5	1.4	1.38	1.42	1.398	1.382	1.425	0.007304	1.17%	0.46%
12.5		5	1.413	1.381	1.446	1.41	1.391	1.458	0.01166	1.84%	-0.50%
25		5	1.381	1.348	1.414	1.382	1.344	1.417	0.01177	1.91%	1.79%
50		5	1.344	1.32	1.368	1.339	1.318	1.369	0.008667	1.44%	4.43%
100		5	1.221	1.175	1.267	1.22	1.174	1.277	0.01665	3.05%	13.20%

Bivalve Larval Survival and Development Test			Wood E&IS
Analysis ID: 03-3518-4821	Endpoint: Proportion Normal	CETIS Version: CETISv1.9.3	
Analyzed: 23 Sep-20 16:23	Analysis: Parametric-Control vs Treatments	Official Results: Yes	

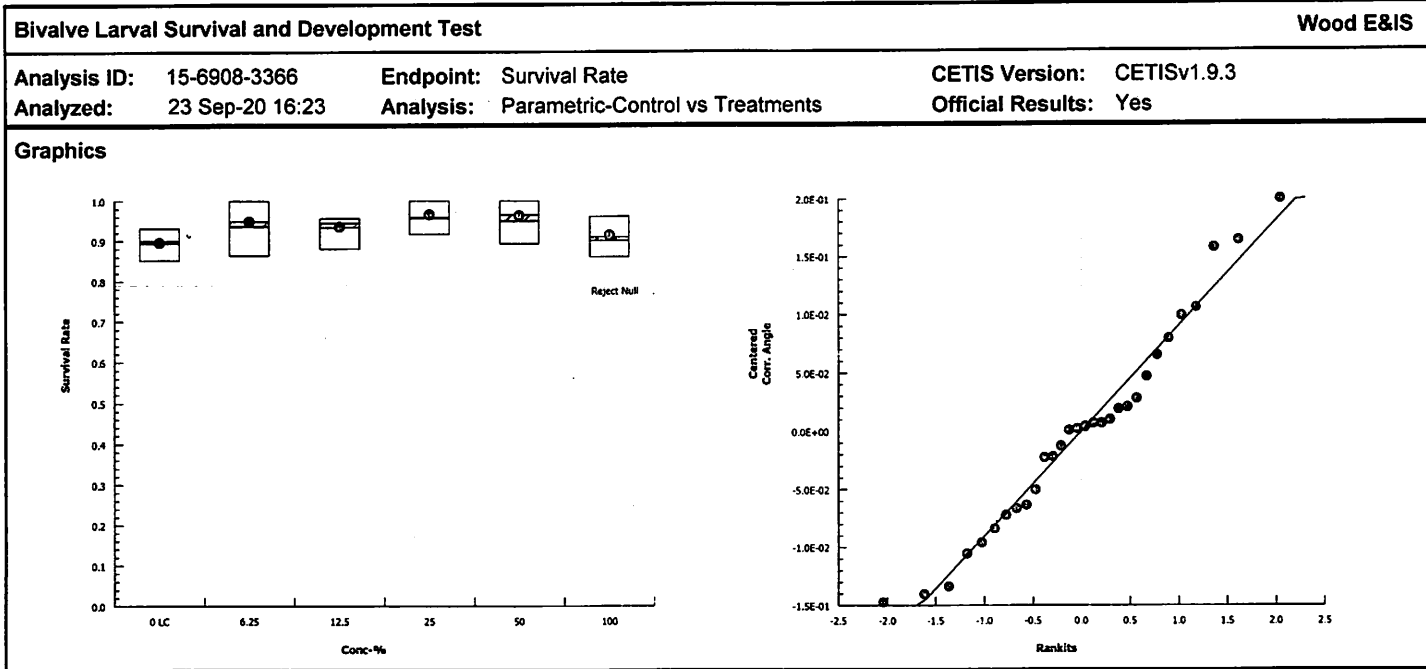


# CETIS Analytical Report

Report Date: 23 Sep-20 16:26 (p 6 of 7)  
Test Code: 20-08-042 | 01-6699-5740

Bivalve Larval Survival and Development Test										Wood E&IS		
Analysis ID: 15-6908-3366		Endpoint: Survival Rate		CETIS Version: CETISv1.9.3								
Analyzed: 23 Sep-20 16:23		Analysis: Parametric-Control vs Treatments		Official Results: Yes								
Comments:												
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD
Angular (Corrected)		C > T		100		> 100		n/a		1		11.61%
Dunnett Multiple Comparison Test												
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)			
Lab Control		6.25	-1.581	2.362	0.146	8	CDF	0.9971	Non-Significant Effect			
		12.5	-1.143	2.362	0.146	8	CDF	0.9889	Non-Significant Effect			
		25	-2.261	2.362	0.146	8	CDF	0.9997	Non-Significant Effect			
		50	-2.16	2.362	0.146	8	CDF	0.9996	Non-Significant Effect			
		100	-0.466	2.362	0.146	8	CDF	0.9352	Non-Significant Effect			
ANOVA Table												
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)			
Between	0.0796927		0.0159385		5		1.658	0.1831	Non-Significant Effect			
Error	0.23065		0.0096104		24							
Total	0.310343				29							
Distributional Tests												
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)				
Variances	Bartlett Equality of Variance Test				5.986	15.09	0.3076	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test				0.9687	0.9031	0.5050	Normal Distribution				
Survival Rate Summary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect	
0	LC	5	0.8940	0.8581	0.9299	0.8996	0.8514	0.9317	0.0129	3.23%	0.00%	
6.25		5	0.9357	0.8732	0.9983	0.9478	0.8635	1.0000	0.0225	5.39%	-4.67%	
12.5		5	0.9325	0.8947	0.9704	0.9438	0.8795	0.9558	0.0136	3.27%	-4.31%	
25		5	0.9574	0.9184	0.9965	0.9558	0.9157	1.0000	0.0141	3.28%	-7.10%	
50		5	0.9486	0.8840	1.0000	0.9639	0.8916	1.0000	0.0233	5.48%	-6.11%	
100		5	0.9076	0.8498	0.9655	0.8996	0.8594	0.9598	0.0208	5.13%	-1.53%	
Angular (Corrected) Transformed Summary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect	
0	LC	5	1.241	1.183	1.3	1.248	1.175	1.306	0.02108	3.80%	0.00%	
6.25		5	1.339	1.18	1.498	1.34	1.192	1.539	0.05728	9.56%	-7.90%	
12.5		5	1.312	1.243	1.382	1.331	1.216	1.359	0.02505	4.27%	-5.71%	
25		5	1.382	1.258	1.505	1.359	1.276	1.539	0.04438	7.18%	-11.29%	
50		5	1.375	1.205	1.546	1.38	1.235	1.539	0.06143	9.99%	-10.79%	
100		5	1.27	1.165	1.376	1.248	1.186	1.369	0.03789	6.67%	-2.33%	





# CETIS Analytical Report

Report Date: 23 Sep-20 16:26 (p 3 of 7)  
Test Code: 20-08-042 | 01-6699-5740

TST

Bivalve Larval Survival and Development Test (100% Unfiltered) Wood E&IS

Analysis ID: 04-2496-2807 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
Analyzed: 23 Sep-20 16:25 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed combined proportion normal

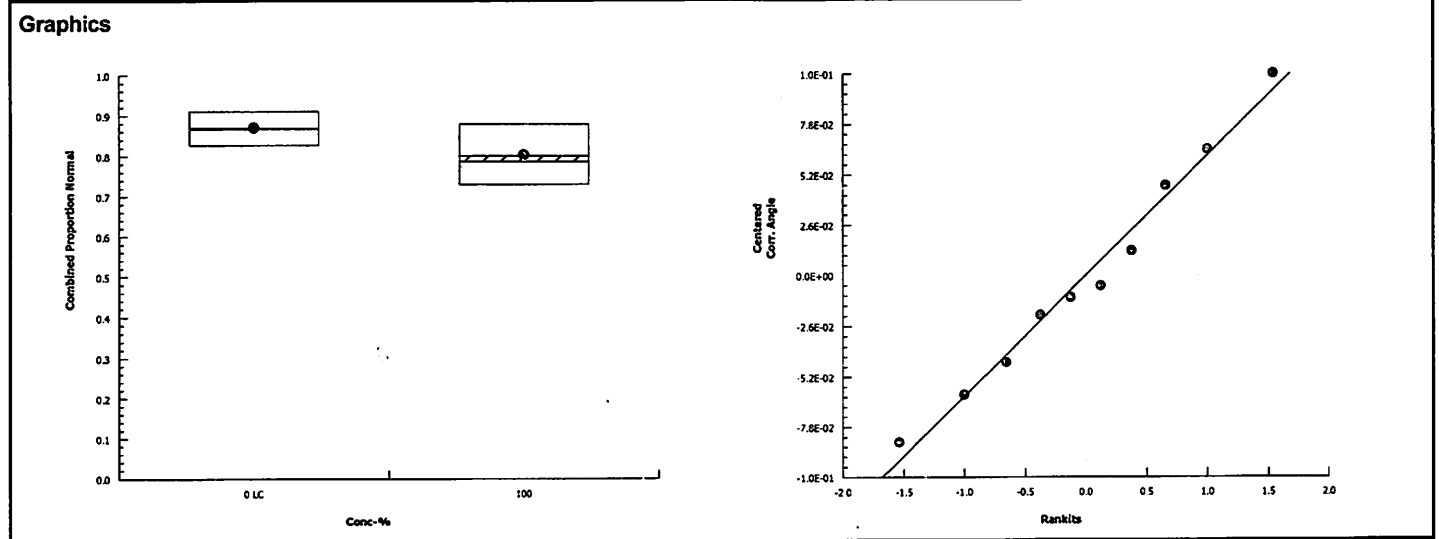
TST-Welch's t Test								
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Lab Control		100*	5.619	2.015	5	CDF	0.0012	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0211109	0.0211109	1	5.391	0.0488	Significant Effect
Error	0.0313297	0.0039162	8			
Total	0.0524406		9			

Distributional Tests					
Attribute	Test	Test Stat	Critical	P-Value	Decision( $\alpha$ :1%)
Variances	Variance Ratio F Test	2.747	23.15	0.3512	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9784	0.7411	0.9558	Normal Distribution

Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.8699	0.8321	0.9076	0.8675	0.8273	0.9116	0.0136	3.49%	0.00%
100		5	0.8008	0.7276	0.8740	0.7871	0.7309	0.8795	0.0264	7.36%	7.94%

Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.204	1.147	1.26	1.198	1.142	1.269	0.02045	3.80%	0.00%
100		5	1.112	1.018	1.206	1.091	1.025	1.216	0.03389	6.82%	7.63%



# CETIS Analytical Report

Report Date: 23 Sep-20 16:29 (p 1 of 1)  
Test Code: 20-08-042 | 01-6699-5740

TST

Bivalve Larval Survival and Development Test (100% Filtered) Wood E&IS

Analysis ID: 05-9821-3366 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
Analyzed: 23 Sep-20 16:26 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	101% passed combined proportion normal

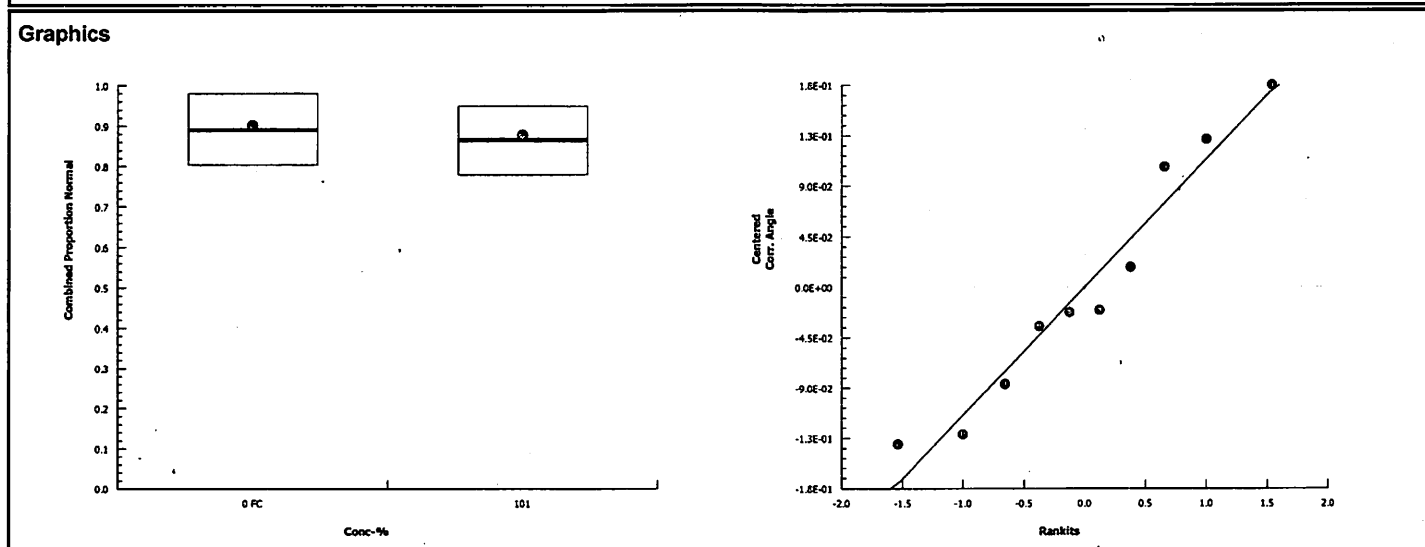
TST-Welch's t Test								
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Filter Control		101*	4.231	1.895	7	CDF	0.0019	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0036798	0.0036798	1	0.2732	0.6153	Non-Significant Effect
Error	0.107743	0.0134679	8			
Total	0.111423		9			

Distributional Tests					
Attribute	Test	Test Stat	Critical	P-Value	Decision( $\alpha$ :1%)
Variances	Variance Ratio F Test	1.002	23.15	0.9987	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9375	0.7411	0.5253	Normal Distribution

Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	0.8925	0.8133	0.9717	0.8876	0.8032	0.9805	0.0285	7.15%	0.00%
101		5	0.8691	0.7764	0.9618	0.8635	0.7791	0.9496	0.0334	8.59%	2.62%

Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	1.251	1.107	1.395	1.229	1.111	1.431	0.05192	9.28%	0.00%
101		5	1.213	1.069	1.357	1.192	1.082	1.344	0.05188	9.56%	3.07%



# CETIS Analytical Report

Report Date: 25 Sep-20 15:34 (p 1 of 2)  
Test Code: 20-08-042 | 01-6699-5740

Bivalve Larval Survival and Development Test										Wood E&IS	
Analysis ID: 14-6732-0713		Endpoint: Proportion Normal w/curved Hinge		CETIS Version: CETISv1.9.3							
Analyzed: 25 Sep-20 15:33		Analysis: Nonparametric-Control vs Treatments		Official Results: Yes							
Comments: 101 = 100% filtered											
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU	
Angular (Corrected)		C > T		101		> 101		n/a		0.9901	
Steel Many-One Rank Sum Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		6.25	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		12.5	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		25	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		50	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		100	40	16	0	8	Asymp	1.0000	Non-Significant Effect		
		101	37.5	16	1	8	Asymp	0.9999	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.032839		0.0054732		6	14.37	2.0E-07	Significant Effect			
Error	0.0106679		0.000381		28						
Total	0.0435069				34						
Distributional Tests											
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)			
Variances	Bartlett Equality of Variance Test				114.9	16.81	<1.0E-37	Unequal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.6701	0.9146	1.3E-07	Non-Normal Distribution			
Proportion Normal Summary w/curved Hinge											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
6.25		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
12.5		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
25		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
50		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
100		5	0.0106	0.0076	0.0137	0.0093	0.0084	0.0140	0.0011	23.38%	
101		5	0.0114	0.0000	0.0231	0.0125	0.0000	0.0225	0.0042	82.80%	
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0335	0.0329	0.0342	0.0334	0.0328	0.0344	0.0002	1.63%	0.00%
6.25		5	0.0327	0.0313	0.0340	0.0326	0.0311	0.0341	0.0005	3.31%	2.54%
12.5		5	0.0328	0.0321	0.0335	0.0326	0.0324	0.0338	0.0002	1.69%	2.09%
25		5	0.0323	0.0314	0.0332	0.0324	0.0312	0.0331	0.0003	2.21%	3.67%
50		5	0.0324	0.0310	0.0338	0.0323	0.0309	0.0336	0.0005	3.50%	3.34%
100		5	0.1028	0.0880	0.1176	0.0964	0.0920	0.1187	0.0053	11.58%	-206.57%
101		5	0.0982	0.0359	0.1606	0.1120	0.0311	0.1506	0.0225	51.14%	-192.88%
Proportion Normal Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	LC	0.0000	0.0000	0.0000	0.0000	0.0000					
6.25		0.0000	0.0000	0.0000	0.0000	0.0000					
12.5		0.0000	0.0000	0.0000	0.0000	0.0000					
25		0.0000	0.0000	0.0000	0.0000	0.0000					
50		0.0000	0.0000	0.0000	0.0000	0.0000					
100		0.0093	0.0084	0.0140	0.0089	0.0126					
101		0.0000	0.0225	0.0181	0.0039	0.0125					

# CETIS Analytical Report

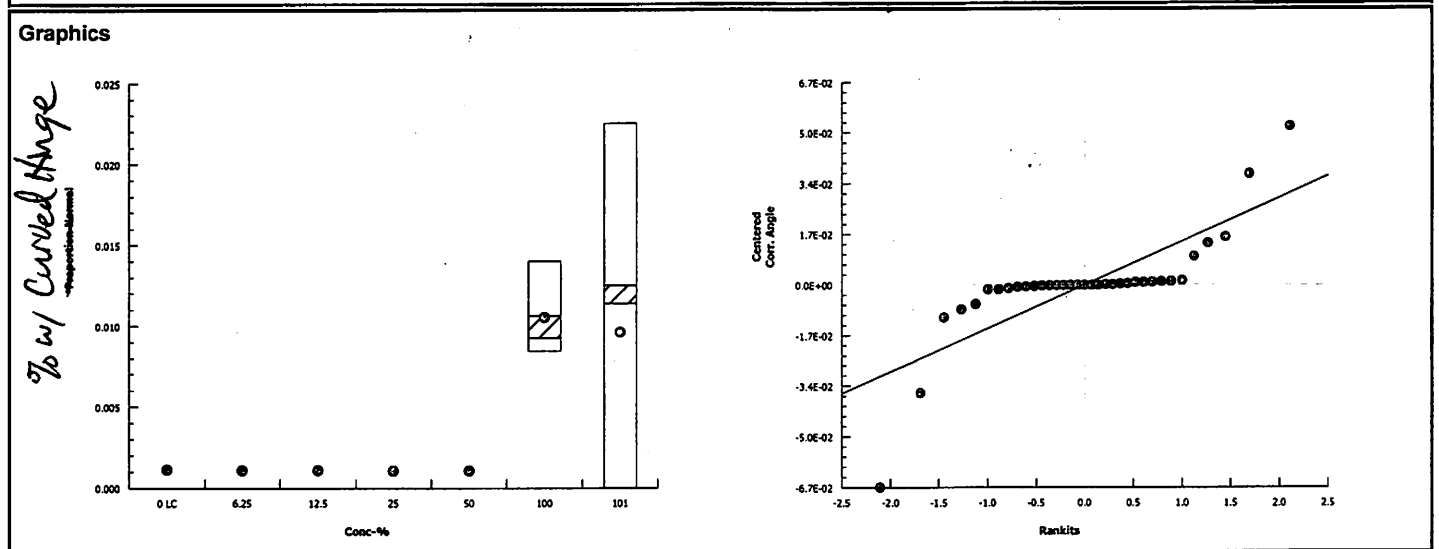
Report Date: 25 Sep-20 15:34 (p 2 of 2)  
Test Code: 20-08-042 | 01-6699-5740

Bivalve Larval Survival and Development Test Wood E&IS

Analysis ID: 14-6732-0713      Endpoint: Proportion Normal *w/curved hinge*      CETIS Version: CETISv1.9.3  
Analyzed: 25 Sep-20 15:33      Analysis: Nonparametric-Control vs Treatments      Official Results: Yes

Angular (Corrected) Transformed Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.0334	0.0344	0.0336	0.0328	0.0334
6.25		0.0331	0.0341	0.0325	0.0311	0.0326
12.5		0.0326	0.0328	0.0326	0.0324	0.0338
25		0.0324	0.0312	0.0331	0.0322	0.0326
50		0.0335	0.0318	0.0323	0.0336	0.0309
100		0.0964	0.0920	0.1187	0.0946	0.1123
101		0.0311	0.1506	0.1349	0.0623	0.1120

Proportion Normal Binomials <i>Curved</i>						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0/224	0/212	0/221	0/232	0/224
6.25		0/228	0/215	0/237	0/258	0/236
12.5		0/236	0/233	0/235	0/238	0/219
25		0/238	0/257	0/228	0/242	0/235
50		0/223	0/247	0/240	0/222	0/262
100		2/216	2/237	3/214	2/224	3/239
101		0/259	5/222	4/221	1/258	3/240



# Embryo-Larval Development Test Scoring Worksheet

Client: Wood/ SIYB  
Project ID: SIYB 3  
Test No.: 20-08-042

Test Species: M. galloprovincialis  
Start Date: 8/21/2020 1745  
End Date: 8/23/2020 1645  
FC

Random #	# Counted	# Normal	Abnormal		Tech Initials / Notes
			Number Curved Shell	All Other Abnormal	
111	224	219		5	SC
112	239	219	3	17	
113	211	200		11 SC	
114	224	196	2	26	
115	236	233		3	
116	216	191	2	23	
117	212	206		6	
118	234	227		7	
119	257	252		5	
120	232	227		5	
121	222	212		10	
122	228	220		8	
123	233	227		6	
124	225	219		6	
125	219	212		7	
126	259	243		16	
127	224	216		8	
128	257	251		6	
129	214	182	3	29	
130	221	215		6	
131	247	234		13	
132	240	215	3	22	
133	235	229		6	
134	242	238		8	
135	221	203	4	14	
136	238	226		12	
137	223	214		9	
138	240	225		15	
139	237	230		7	
140	236	231		5	
141	258	251		7	
142	230	221		9	
143	215	208		7	
144	235	226		9	
145	238	231		7	
146	228	220		8	
147	237	209	2	26	
148	222	199	5	23	
149	267	248		14	
150	258	245	1	SC 13/12	

QC Check: AP 9/22/20

Final Review: FC 9/23/20

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:04 (p 1 of 2)  
 Test Code/ID: 01-6699-5740/20-08-042

Bivalve Larval Survival and Development Test								Wood E&IS
Start Date: 21 Aug-20		Species: Mytilis galloprovincialis		Sample Code: 7F7DDA8C				
End Date: 23 Aug-20		Protocol: EPA/600/R-95/136 (1995)		Sample Source: Shelter Island Yacht Basin				
Sample Date: 20 Aug-20		Material: Seawater		Sample Station: SIYB 3				
Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
0	FC	1	142					Random # 111 - 150
0	FC	2	113					
0	FC	3	124					
0	FC	4	119					
0	FC	5	118					
0	LC	1	111			251	240	
0	LC	2	117					
0	LC	3	130					
0	LC	4	120					
0	LC	5	127					
6.25		1	146					
6.25		2	143					
6.25		3	139					
6.25		4	141					
6.25		5	140					
12.5		1	115					
12.5		2	123					
12.5		3	133					
12.5		4	145					
12.5		5	125					
25		1	136					
25		2	128					
25		3	122					
25		4	134					
25		5	144					
50		1	137					
50		2	131					
50		3	138					
50		4	121					
50		5	149					
100		1	116			253	234	2 curved abnormal
100		2	147					
100		3	129					
100		4	114					
100		5	112					
101		1	126					
101		2	148					

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:04 (p 2 of 2)  
 Test Code/ID: 01-6699-5740/20-08-042

Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
101		3	135					
101		4	150			258	245	
101		5	132			240	215	

QC: AG



# Water Quality for Bivalve Development

Client: Wood - Port of San Diego  
Project ID: SIYB 3  
Test No. 20-08-042

Test Species: *M. galloprovincialis*  
Start Date/Time: 8/21/2020 1745  
End Date/Time: 8/23/2020 1645

Test Conc. ( % )	Water Quality Measurements			
	Parameter	0hr	24hr	48hr
Lab Control	Temp. (°C)	15.6	15.9	15.8
	Salinity (ppt)	34.0	34.9	35.6
	pH (units)	7.94	7.80	7.82
	DO (mg/L)	7.6	7.8	7.9
Filtered Control (1.2µm)	Temp. (°C)	15.5	15.8	15.8
	Salinity (ppt)	34.0	34.9	35.5
	pH (units)	7.94	7.79	7.82
	DO (mg/L)	7.1	7.6	7.9
6.25	Temp. (°C)	15.5	15.8	15.8
	Salinity (ppt)	34.3	35.0	35.7
	pH (units)	7.97	7.80	7.82
	DO (mg/L)	7.6	7.7	7.8
12.5	Temp. (°C)	15.5	15.8	15.9
	Salinity (ppt)	34.3	35.0	35.6
	pH (units)	8.00	7.81	7.82
	DO (mg/L)	7.7	7.9	7.9
25	Temp. (°C)	15.5	15.9	15.9
	Salinity (ppt)	34.3	35.0	35.4
	pH (units)	8.00	7.81	7.80
	DO (mg/L)	7.8	7.9	7.9
50	Temp. (°C)	15.4	15.8	15.9
	Salinity (ppt)	34.2	35.1	35.3
	pH (units)	7.99	7.82	7.81
	DO (mg/L)	7.8	7.9	8.0
100	Temp. (°C)	15.6	15.8	15.9
	Salinity (ppt)	34.5	35.1	35.4
	pH (units)	7.99	7.81	7.81
	DO (mg/L)	8.1	8.0	8.0
100 Filtered (1.2µm)	Temp. (°C)	15.5	15.7	15.9
	Salinity (ppt)	34.7 NR	35.1	35.2
	pH (units)	7.97	7.82	7.80
	DO (mg/L)	7.8	8.0	8.0
Tech Initials:		SW	SL	AB

Source of Animals: SIO/Wood From Mission Bay

Date Received: 8/13/20 & 5/22/20

Comments:

QC Check: AB 9/22/20

Final Review: SL 9/23/20

# Embryo-Larval Development Test

## Stock Preparation Worksheet

Test Species: M. galloprovincialis  
 Batch ID: \_\_\_\_\_  
 Test Type: Mussel Development

Test Date: 8/21/20  
 Analyst: AG/JW

Task	
Spawning Induction	0935/0950
Spawning Begins	1045/1345
# Males/# Females	4/4
Spawn Condition	Average
Fertilization Initiated	1525
Fertilization End/Eggs Rinsed	1545
Embryo Counts	1700
Test Initiation	1745

### Embryo Density Counts

# per 100 µL

Stock #	Stock Volume (mL)	Rep 1	Rep 2	Rep 3	Rep 4	Mean #/100 µL	Mean #/mL (x10)
Stock 1	250	70	72	67	74	70.8	708
Stock 2	250	42	55	51	53	50.3	503
Stock 3 <sup>4</sup>	300	54	55	51	50	52.5	525

### Cell Division:

	% Divided
Stock 1	100
Stock 2	100
Stock 3 <sup>4</sup>	96

Selected Stock:	2+4
-----------------	-----

Stock Density

Dil Factor

Adjust selected embryo stock to 500 embryos/mL.

Dilution Factor = Stock Density/mL/500

$$\frac{514}{500}$$

$$\frac{1.03}{1.03}$$

In 10 mL sample volume add 500 µl of 500 embryo/ml stock to obtain 25 embryos/mL in test vials.

Notes:

$$QL_1 = 249/255$$

$$\text{Time zero mean} = 249$$

$$\overline{x} = \frac{207 + 256 + 243 + 265 + 243}{5} = 249$$

QA Review:

AG 9/22/20

Final Review:

AG 9/23/20

**Site: SIYB-4**

# CETIS Summary Report

Report Date: 22 Sep-20 17:26 (p 1 of 4)  
Test Code: 20-08-043 | 11-2985-2952

Bivalve Larval Survival and Development Test				Wood E&IS			
Batch ID:	12-8868-9893	Test Type:	Development-Survival	Analyst:			
Start Date:	21 Aug-20 17:45	Protocol:	EPA/600/R-95/136 (1995)	Diluent:	Natural Seawater		
Ending Date:	23 Aug-20 16:45	Species:	Mytilis galloprovincialis	Brine:	Not Applicable		
Duration:	47h	Source:	Field Collected	Age:			
Sample ID:	16-7172-4511	Code:	20-W126	Client:	Wood Environment and Infrastructure		
Sample Date:	20 Aug-20 11:15	Material:	Seawater	Project:	SIYB TMDL Monitoring		
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin				
Sample Age:	31h (2 °C)	Station:	SIYB 4				
<b>Comments:</b> 101 = 100 percent sample filtered to 1.2um							
<b>Single Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result			
01-0390-7785	Combined Proportion Normal	TST-Welch's t Test	0.0026	100% passed combined proportion normal			
<b>Multiple Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD ✓
16-8669-9528	Combined Proportion Normal	Dunnett Multiple Comparison Test	100	> 100	n/a	1	12.3%
19-6580-5310	Proportion Normal	Dunnett Multiple Comparison Test	100	> 100	n/a	1	1.81%
01-7587-6601	Survival Rate	Dunnett Multiple Comparison Test	100	> 100	n/a	1	13.1%
<b>Test Acceptability</b>							
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
19-6580-5310	Proportion Normal	Control Resp	0.9676	0.9	>>	Yes	Passes Criteria
01-7587-6601	Survival Rate	Control Resp	0.9189	0.5	>>	Yes	Passes Criteria

# CETIS Summary Report

Report Date: 22 Sep-20 17:26 (p 2 of 4)  
Test Code: 20-08-043 | 11-2985-2952

Bivalve Larval Survival and Development Test											Wood E&IS
Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.8892	0.8020	0.9764	0.7711	0.9598	0.0314	0.0702	7.90%	0.00%
0	FC	5	0.8610	0.7650	0.9571	0.7550	0.9719	0.0346	0.0774	8.99%	3.16%
6.25		5	0.8353	0.7683	0.9024	0.7590	0.8996	0.0242	0.0540	6.47%	6.05%
12.5		5	0.8602	0.8271	0.8934	0.8273	0.8956	0.0119	0.0267	3.10%	3.25%
25		5	0.8787	0.8188	0.9386	0.8394	0.9518	0.0216	0.0482	5.49%	1.17%
50		5	0.8459	0.7122	0.9795	0.7470	0.9723	0.0481	0.1077	12.73%	4.87%
100		5	0.8699	0.7701	0.9698	0.7831	0.9602	0.0360	0.0804	9.25%	2.16%
101		5	0.9133	0.8493	0.9772	0.8394	0.9680	0.0230	0.0515	5.64%	-2.71%
Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9676	0.9549	0.9803	0.9598	0.9826	0.0046	0.0102	1.06%	0.00%
0	FC	5	0.9637	0.9537	0.9737	0.9559	0.9758	0.0036	0.0080	0.83%	0.40%
6.25		5	0.9688	0.9516	0.9861	0.9450	0.9814	0.0062	0.0139	1.43%	-0.13%
12.5		5	0.9700	0.9603	0.9798	0.9633	0.9820	0.0035	0.0079	0.81%	-0.25%
25		5	0.9605	0.9478	0.9733	0.9500	0.9771	0.0046	0.0103	1.07%	0.73%
50		5	0.9645	0.9484	0.9806	0.9444	0.9758	0.0058	0.0129	1.34%	0.32%
100		5	0.9568	0.9414	0.9721	0.9412	0.9703	0.0055	0.0124	1.29%	1.12%
101		5	0.9641	0.9498	0.9783	0.9457	0.9748	0.0051	0.0115	1.19%	0.37%
Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9189	0.8297	1.0000	0.8032	1.0000	0.0321	0.0718	7.81%	0.00%
0	FC	5	0.8932	0.7997	0.9866	0.7871	0.9960	0.0337	0.0753	8.43%	2.80%
6.25		5	0.8618	0.8034	0.9203	0.8032	0.9237	0.0211	0.0471	5.46%	6.21%
12.5		5	0.8867	0.8574	0.9161	0.8554	0.9197	0.0106	0.0237	2.67%	3.50%
25		5	0.9149	0.8525	0.9772	0.8755	0.9920	0.0225	0.0502	5.49%	0.44%
50		5	0.8763	0.7472	1.0000	0.7791	1.0000	0.0465	0.1040	11.87%	4.63%
100		5	0.9092	0.8062	1.0000	0.8112	1.0000	0.0371	0.0830	9.13%	1.05%
101		5	0.9470	0.8922	1.0000	0.8876	1.0000	0.0197	0.0441	4.66%	-3.06%

# CETIS Summary Report

Report Date: 22 Sep-20 17:26 (p 3 of 4)  
Test Code: 20-08-043 | 11-2985-2952

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.7711	0.9076	0.9598	0.9076	0.8996
0	FC	0.7550	0.9719	0.8635	0.8434	0.8715
6.25		0.8474	0.8635	0.8072	0.8996	0.7590
12.5		0.8273	0.8434	0.8755	0.8594	0.8956
25		0.9518	0.8554	0.8434	0.9036	0.8394
50		0.9478	0.7470	0.9723	0.8112	0.7510
100		0.7871	0.7831	0.9197	0.8996	0.9602
101		0.9438	0.9680	0.9317	0.8394	0.8835
Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9600	0.9826	0.9598	0.9617	0.9739
0	FC	0.9592	0.9758	0.9598	0.9677	0.9559
6.25		0.9814	0.9729	0.9710	0.9739	0.9450
12.5		0.9671	0.9633	0.9820	0.9640	0.9738
25		0.9595	0.9771	0.9545	0.9615	0.9500
50		0.9712	0.9588	0.9723	0.9758	0.9444
100		0.9469	0.9653	0.9703	0.9412	0.9602
101		0.9711	0.9680	0.9748	0.9457	0.9607
Survival Rate Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.8032	0.9237	1.0000	0.9438	0.9237
0	FC	0.7871	0.9960	0.8996	0.8715	0.9116
6.25		0.8635	0.8876	0.8313	0.9237	0.8032
12.5		0.8554	0.8755	0.8916	0.8916	0.9197
25		0.9920	0.8755	0.8835	0.9398	0.8835
50		0.9759	0.7791	1.0000	0.8313	0.7952
100		0.8313	0.8112	0.9478	0.9558	1.0000
101		0.9719	1.0000	0.9558	0.8876	0.9197

# CETIS Summary Report

Report Date: 22 Sep-20 17:26 (p 4 of 4)  
 Test Code: 20-08-043 | 11-2985-2952

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	192/249	226/249	239/249	226/249	224/249
0	FC	188/249	242/249	215/249	210/249	217/249
6.25		211/249	215/249	201/249	224/249	189/249
12.5		206/249	210/249	218/249	214/249	223/249
25		237/249	213/249	210/249	225/249	209/249
50		236/249	186/249	246/253	202/249	187/249
100		196/249	195/249	229/249	224/249	241/251
101		235/249	242/250	232/249	209/249	220/249
Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	192/200	226/230	239/249	226/235	224/230
0	FC	188/196	242/248	215/224	210/217	217/227
6.25		211/215	215/221	201/207	224/230	189/200
12.5		206/213	210/218	218/222	214/222	223/229
25		237/247	213/218	210/220	225/234	209/220
50		236/243	186/194	246/253	202/207	187/198
100		196/207	195/202	229/236	224/238	241/251
101		235/242	242/250	232/238	209/221	220/229
Survival Rate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	200/249	230/249	249/249	235/249	230/249
0	FC	196/249	248/249	224/249	217/249	227/249
6.25		215/249	221/249	207/249	230/249	200/249
12.5		213/249	218/249	222/249	222/249	229/249
25		247/249	218/249	220/249	234/249	220/249
50		243/249	194/249	249/249	207/249	198/249
100		207/249	202/249	236/249	238/249	249/249
101		242/249	249/249	238/249	221/249	229/249

# CETIS Analytical Report

Report Date: 22 Sep-20 17:26 (p 1 of 7)  
Test Code: 20-08-043 | 11-2985-2952

Bivalve Larval Survival and Development Test										Wood E&IS			
Analysis ID: 16-8669-9528		Endpoint: Combined Proportion Normal				CETIS Version: CETISv1.9.3							
Analyzed: 22 Sep-20 17:23		Analysis: Parametric-Control vs Treatments				Official Results: Yes							
Comments:													
Data Transform		Alt Hyp				NOEL		LOEL		TOEL		TU	PMSD
Angular (Corrected)		C > T				100		> 100		n/a		1	12.28%
Dunnnett Multiple Comparison Test													
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)				
Lab Control		6.25	1.266	2.362	0.160	8	CDF	0.3078	Non-Significant Effect				
		12.5	0.7928	2.362	0.160	8	CDF	0.5143	Non-Significant Effect				
		25	0.3117	2.362	0.160	8	CDF	0.7253	Non-Significant Effect				
		50	0.755	2.362	0.160	8	CDF	0.5317	Non-Significant Effect				
		100	0.3952	2.362	0.160	8	CDF	0.6916	Non-Significant Effect				
ANOVA Table													
Source	Sum Squares			Mean Square		DF	F Stat	P-Value	Decision(α:5%)				
Between	0.0227278			0.0045456		5	0.3957	0.8469	Non-Significant Effect				
Error	0.275723			0.0114884		24							
Total	0.29845					29							
Distributional Tests													
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Bartlett Equality of Variance Test				7.817	15.09	0.1666	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test				0.9774	0.9031	0.7535	Normal Distribution					
Combined Proportion Normal Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	5	0.8892	0.8020	0.9764	0.9076	0.7711	0.9598	0.0314	7.90%	0.00%		
6.25		5	0.8353	0.7683	0.9024	0.8474	0.7590	0.8996	0.0242	6.47%	6.05%		
12.5		5	0.8602	0.8271	0.8934	0.8594	0.8273	0.8956	0.0119	3.10%	3.25%		
25		5	0.8787	0.8188	0.9386	0.8554	0.8394	0.9518	0.0216	5.49%	1.17%		
50		5	0.8459	0.7122	0.9795	0.8112	0.7470	0.9723	0.0481	12.73%	4.87%		
100		5	0.8699	0.7701	0.9698	0.8996	0.7831	0.9602	0.0360	9.25%	2.16%		
Angular (Corrected) Transformed Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	5	1.243	1.11	1.376	1.262	1.072	1.369	0.04791	8.62%	0.00%		
6.25		5	1.157	1.066	1.247	1.169	1.058	1.248	0.03261	6.30%	6.91%		
12.5		5	1.189	1.141	1.237	1.186	1.142	1.242	0.0174	3.27%	4.32%		
25		5	1.222	1.121	1.323	1.181	1.158	1.349	0.03638	6.66%	1.70%		
50		5	1.191	0.9815	1.401	1.121	1.044	1.404	0.07563	14.19%	4.12%		
100		5	1.216	1.062	1.37	1.248	1.086	1.37	0.05551	10.21%	2.16%		



# CETIS Analytical Report

Report Date: 22 Sep-20 17:26 (p 2 of 7)  
 Test Code: 20-08-043 | 11-2985-2952

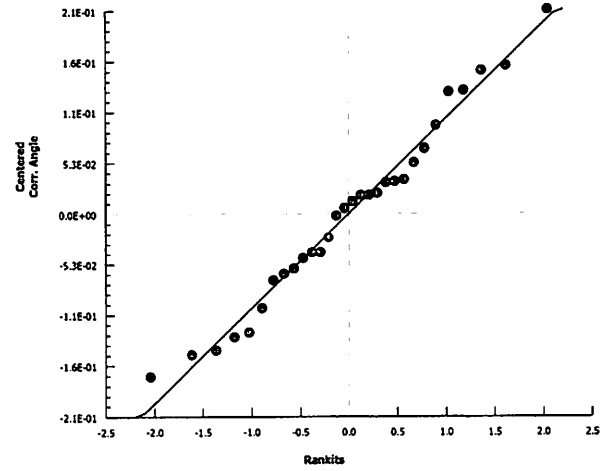
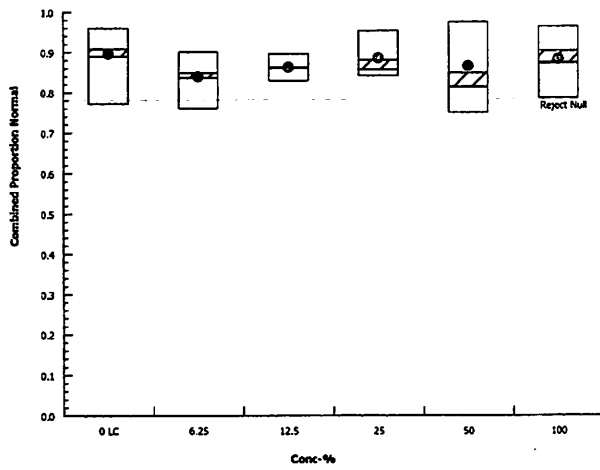
## Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 16-8669-9528      Endpoint: Combined Proportion Normal  
 Analyzed: 22 Sep-20 17:23      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
 Official Results: Yes

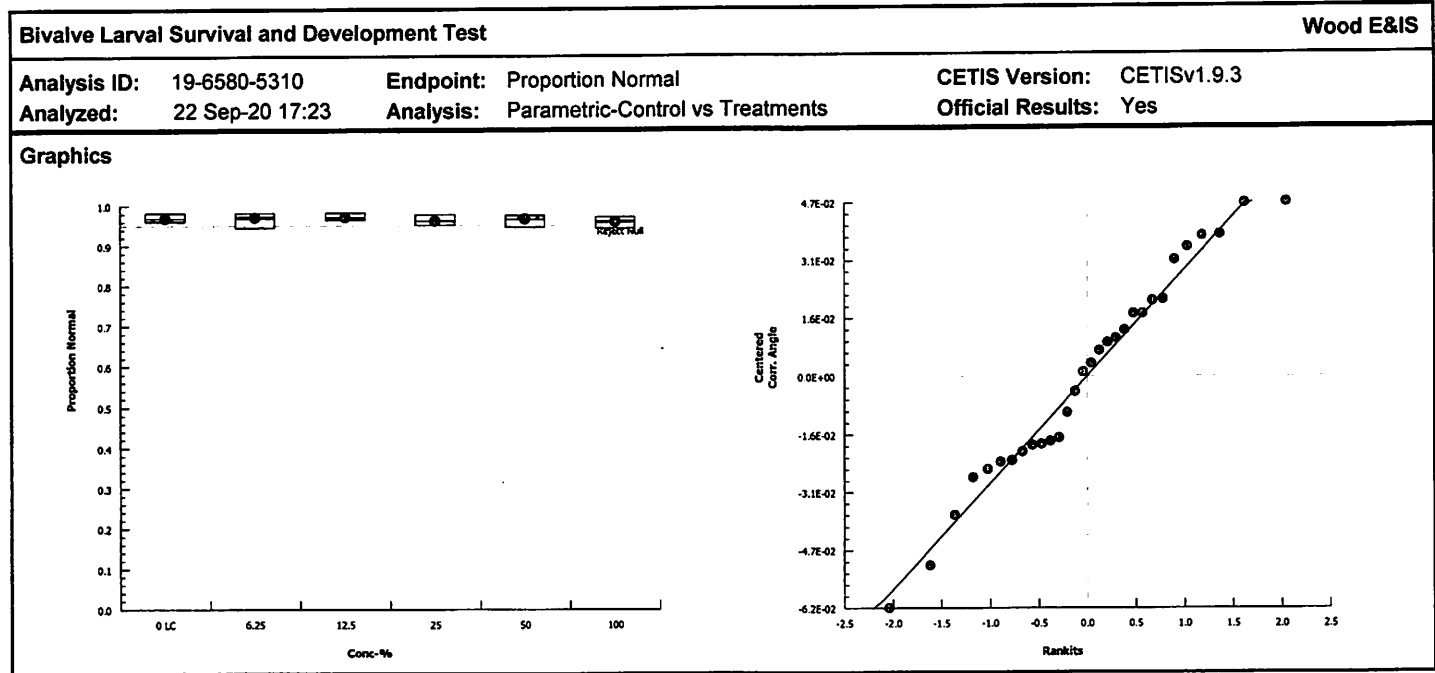
### Graphics



# CETIS Analytical Report

Report Date: 22 Sep-20 17:26 (p 4 of 7)  
Test Code: 20-08-043 | 11-2985-2952

Bivalve Larval Survival and Development Test										Wood E&IS		
Analysis ID: 19-6580-5310		Endpoint: Proportion Normal		CETIS Version: CETISv1.9.3								
Analyzed: 22 Sep-20 17:23		Analysis: Parametric-Control vs Treatments		Official Results: Yes								
Comments:												
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD
Angular (Corrected)		C > T		100		> 100		n/a		1		1.81%
Dunnett Multiple Comparison Test												
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)			
Lab Control		6.25	-0.2263	2.362	0.046	8	CDF	0.8915	Non-Significant Effect			
		12.5	-0.3193	2.362	0.046	8	CDF	0.9105	Non-Significant Effect			
		25	0.997	2.362	0.046	8	CDF	0.4212	Non-Significant Effect			
		50	0.4237	2.362	0.046	8	CDF	0.6796	Non-Significant Effect			
		100	1.471	2.362	0.046	8	CDF	0.2335	Non-Significant Effect			
ANOVA Table												
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)			
Between	0.004952		0.0009904		5		1.029	0.4229	Non-Significant Effect			
Error	0.0230926		0.0009622		24							
Total	0.0280446				29							
Distributional Tests												
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)				
Variances	Bartlett Equality of Variance Test				0.7515	15.09	0.9800	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test				0.9714	0.9031	0.5774	Normal Distribution				
Proportion Normal Summary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect	
0	LC	5	0.9676	0.9549	0.9803	0.9617	0.9598	0.9826	0.0046	1.06%	0.00%	
6.25		5	0.9688	0.9516	0.9861	0.9729	0.9450	0.9814	0.0062	1.43%	-0.13%	
12.5		5	0.9700	0.9603	0.9798	0.9671	0.9633	0.9820	0.0035	0.81%	-0.25%	
25		5	0.9605	0.9478	0.9733	0.9595	0.9500	0.9771	0.0046	1.07%	0.73%	
50		5	0.9645	0.9484	0.9806	0.9712	0.9444	0.9758	0.0058	1.34%	0.32%	
100		5	0.9568	0.9414	0.9721	0.9602	0.9412	0.9703	0.0055	1.29%	1.12%	
Angular (Corrected) Transformed Summary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect	
0	LC	5	1.392	1.354	1.43	1.374	1.369	1.439	0.0138	2.22%	0.00%	
6.25		5	1.396	1.35	1.443	1.405	1.334	1.434	0.01663	2.66%	-0.32%	
12.5		5	1.398	1.368	1.428	1.389	1.378	1.436	0.01091	1.74%	-0.45%	
25		5	1.372	1.337	1.407	1.368	1.345	1.419	0.0126	2.05%	1.41%	
50		5	1.384	1.342	1.425	1.4	1.333	1.415	0.01504	2.43%	0.60%	
100		5	1.363	1.325	1.401	1.37	1.326	1.398	0.01355	2.22%	2.07%	



# CETIS Analytical Report

Report Date: 22 Sep-20 17:26 (p 6 of 7)  
Test Code: 20-08-043 | 11-2985-2952

Bivalve Larval Survival and Development Test										Wood E&IS													
Analysis ID: 01-7587-6601		Endpoint: Survival Rate		CETIS Version: CETISv1.9.3																			
Analyzed: 22 Sep-20 17:23		Analysis: Parametric-Control vs Treatments		Official Results: Yes																			
Comments:																							
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD											
Angular (Corrected)		C > T		100		> 100		n/a		1		13.06%											
Dunnett Multiple Comparison Test																							
Control		vs		Conc-%		Test Stat		Critical		MSD		DF P-Type		P-Value		Decision(α:5%)							
Lab Control		6.25		1.353		2.362		0.207		8		CDF		0.2749		Non-Significant Effect							
		12.5		0.9557		2.362		0.207		8		CDF		0.4398		Non-Significant Effect							
		25		0.2383		2.362		0.207		8		CDF		0.7535		Non-Significant Effect							
		50		0.6374		2.362		0.207		8		CDF		0.5856		Non-Significant Effect							
		100		0.1283		2.362		0.207		8		CDF		0.7926		Non-Significant Effect							
ANOVA Table																							
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)											
Between		0.0535236		0.0107047		5		0.5578		0.7310		Non-Significant Effect											
Error		0.46055		0.0191896		24																	
Total		0.514074				29																	
Distributional Tests																							
Attribute		Test		Test Stat		Critical		P-Value		Decision(α:1%)													
Variances		Bartlett Equality of Variance Test		10.59		15.09		0.0600		Equal Variances													
Distribution		Shapiro-Wilk W Normality Test		0.955		0.9031		0.2292		Normal Distribution													
Survival Rate Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		0.9189		0.8297		1.0000		0.9237		0.8032		1.0000		0.0321		7.81%		0.00%	
6.25				5		0.8618		0.8034		0.9203		0.8635		0.8032		0.9237		0.0211		5.46%		6.21%	
12.5				5		0.8867		0.8574		0.9161		0.8916		0.8554		0.9197		0.0106		2.67%		3.50%	
25				5		0.9149		0.8525		0.9772		0.8835		0.8755		0.9920		0.0225		5.49%		0.44%	
50				5		0.8763		0.7472		1.0000		0.8313		0.7791		1.0000		0.0465		11.87%		4.63%	
100				5		0.9092		0.8062		1.0000		0.9478		0.8112		1.0000		0.0371		9.13%		1.05%	
Angular (Corrected) Transformed Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		1.313		1.123		1.502		1.291		1.111		1.539		0.06825		11.63%		0.00%	
6.25				5		1.194		1.107		1.281		1.192		1.111		1.291		0.03133		5.87%		9.03%	
12.5				5		1.229		1.182		1.276		1.235		1.181		1.283		0.01692		3.08%		6.38%	
25				5		1.292		1.149		1.435		1.223		1.21		1.481		0.0515		8.91%		1.59%	
50				5		1.257		0.9997		1.514		1.148		1.082		1.539		0.09262		16.48%		4.25%	
100				5		1.301		1.089		1.514		1.34		1.121		1.539		0.07662		13.16%		0.86%	

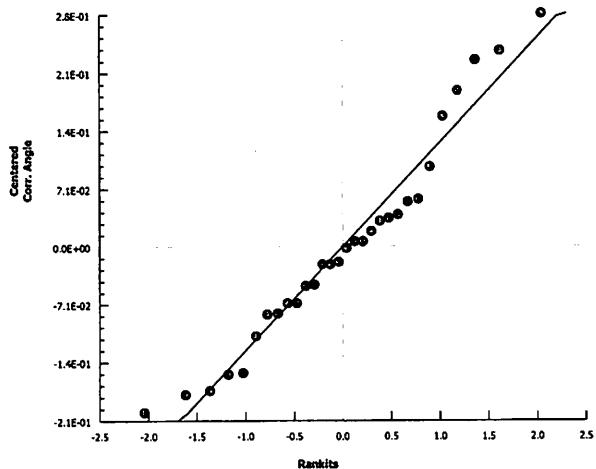
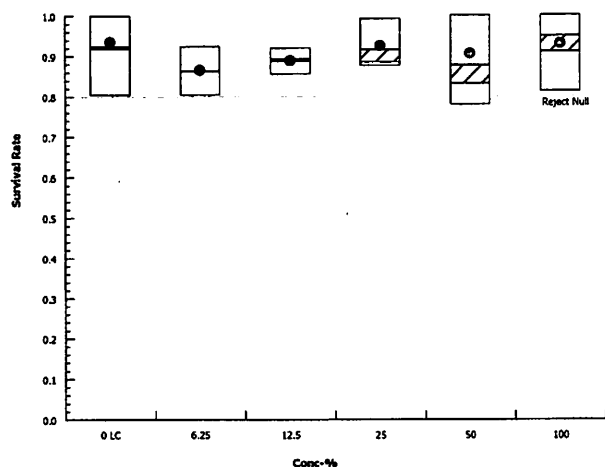
Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 01-7587-6601      Endpoint: Survival Rate  
 Analyzed: 22 Sep-20 17:23      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
 Official Results: Yes

Graphics



TST

## Bivalve Larval Survival and Development Test

(100% Unfiltered)

Wood E&amp;IS

Analysis ID: 01-0390-7785

Endpoint: Combined Proportion Normal

CETIS Version: CETISv1.9.3

Analyzed: 22 Sep-20 17:24

Analysis: Parametric Bioequivalence-Two Sample

Official Results: Yes

## Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed combined proportion normal

## TST-Welch's t Test

Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Lab Control		100*	4.293	1.943	6	CDF	0.0026	Non-Significant Effect

## ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0017947	0.0017947	1	0.1335	0.7243	Non-Significant Effect
Error	0.10753	0.0134412	8			
Total	0.109325		9			

## Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	1.342	23.15	0.7823	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9225	0.7411	0.3783	Normal Distribution

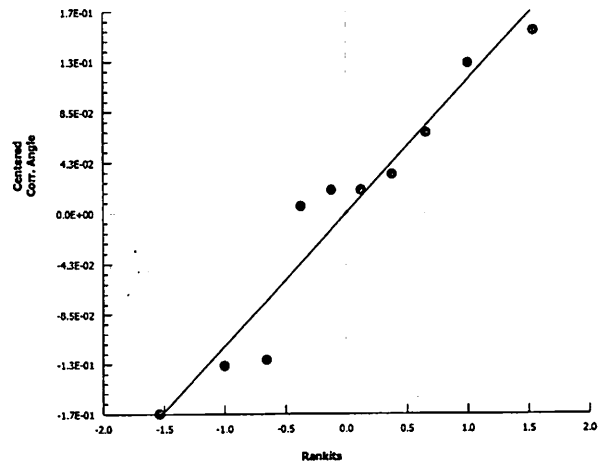
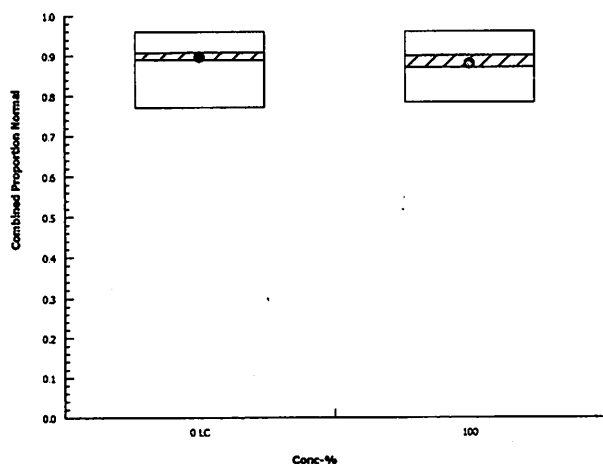
## Combined Proportion Normal Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.8892	0.8020	0.9764	0.9076	0.7711	0.9598	0.0314	7.90%	0.00%
100		5	0.8699	0.7701	0.9698	0.8996	0.7831	0.9602	0.0360	9.25%	2.16%

## Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.243	1.11	1.376	1.262	1.072	1.369	0.04791	8.62%	0.00%
100		5	1.216	1.062	1.37	1.248	1.086	1.37	0.05551	10.21%	2.16%

## Graphics



AS

JC

# CETIS Analytical Report

TST

Report Date: 22 Sep-20 17:26 (p 1 of 1)  
Test Code: 20-08-043 | 11-2985-2952

Bivalve Larval Survival and Development Test (100% Filtered) Wood E&IS

Analysis ID: 07-6143-5384 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
Analyzed: 22 Sep-20 17:24 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	101% passed combined proportion normal

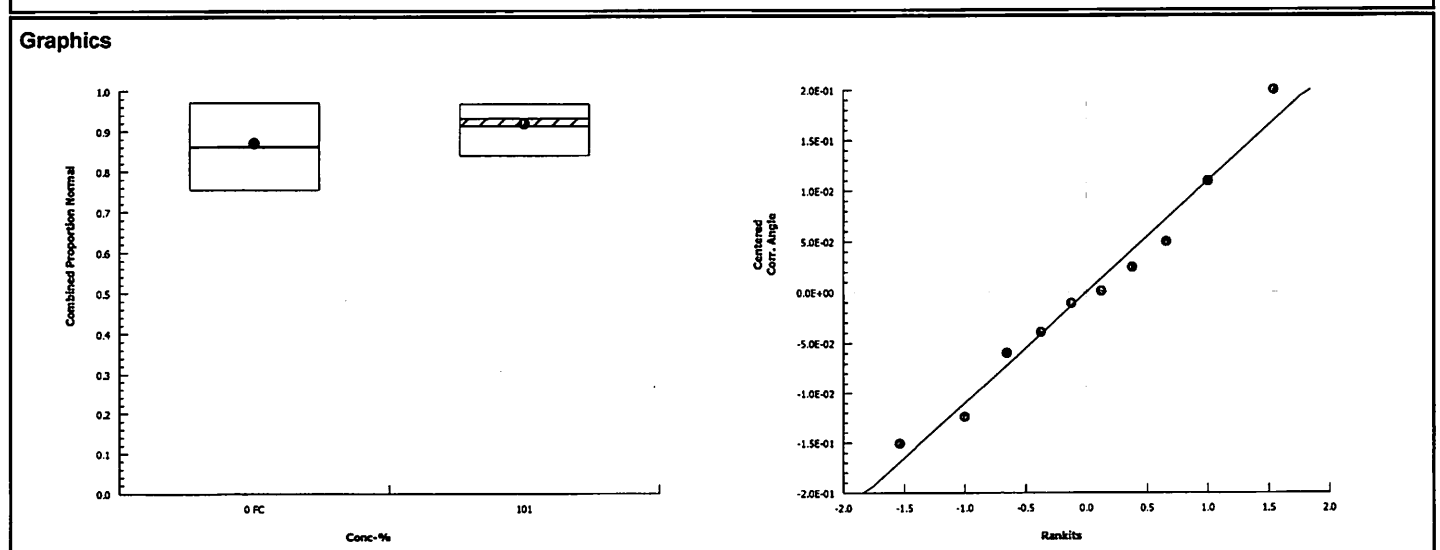
TST-Welch's t Test								
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Filter Control		101*	6.432	1.895	7	CDF	1.8E-04	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0155245	0.0155245	1	1.273	0.2920	Non-Significant Effect
Error	0.0975927	0.0124991	8			
Total	0.113117		9			

Distributional Tests					
Attribute	Test	Test Stat	Critical	P-Value	Decision( $\alpha$ :1%)
Variances	Variance Ratio F Test	1.894	23.15	0.5513	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9755	0.7411	0.9365	Normal Distribution

Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	0.8610	0.7650	0.9571	0.8635	0.7550	0.9719	0.0346	8.99%	0.00%
101		5	0.9133	0.8493	0.9772	0.9317	0.8394	0.9680	0.0230	5.64%	-6.07%

Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	1.203	1.046	1.36	1.192	1.053	1.402	0.05651	10.50%	0.00%
101		5	1.282	1.168	1.396	1.306	1.158	1.391	0.04106	7.16%	-6.55%



# CETIS Analytical Report

Report Date: 25 Sep-20 15:39 (p 1 of 2)  
Test Code: 20-08-043 | 11-2985-2952

Bivalve Larval Survival and Development Test										Wood E&IS	
Analysis ID: 16-6061-1843		Endpoint: Proportion Normal w/curved Hinge		CETIS Version: CETISv1.9.3							
Analyzed: 25 Sep-20 15:39		Analysis: Nonparametric-Control vs Treatments		Official Results: Yes							
Comments: 101 = 100% filtered											
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU	
Angular (Corrected)		C > T		101		> 101		n/a		0.9901	
Steel Many-One Rank Sum Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		6.25	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		12.5	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		25	32.5	16	1	8	Asymp	0.9904	Non-Significant Effect		
		50	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		100	32.5	16	1	8	Asymp	0.9904	Non-Significant Effect		
		101	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0011851		0.0001975		6	2.213	0.0715	Non-Significant Effect			
Error	0.0024994		8.926E-05		28						
Total	0.0036844				34						
Distributional Tests											
Attribute	Test			Test Stat	Critical	P-Value	Decision(α:1%)				
Variances	Bartlett Equality of Variance Test			73.64	16.81	<1.0E-37	Unequal Variances				
Distribution	Shapiro-Wilk W Normality Test			0.8062	0.9146	2.7E-05	Non-Normal Distribution				
Proportion Normal Summary w/curved Hinge											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
6.25		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
12.5		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
25		5	0.0017	0.0000	0.0045	0.0000	0.0000	0.0043	0.0010	137.01%	
50		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
100		5	0.0018	0.0000	0.0048	0.0000	0.0000	0.0048	0.0011	137.98%	
101		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0331	0.0314	0.0348	0.0330	0.0317	0.0354	0.0006	4.09%	0.00%
6.25		5	0.0342	0.0330	0.0353	0.0341	0.0330	0.0354	0.0004	2.73%	-3.15%
12.5		5	0.0337	0.0331	0.0342	0.0336	0.0331	0.0343	0.0002	1.33%	-1.62%
25		5	0.0461	0.0251	0.0670	0.0339	0.0337	0.0654	0.0075	36.61%	-39.10%
50		5	0.0340	0.0314	0.0365	0.0348	0.0314	0.0359	0.0009	6.04%	-2.48%
100		5	0.0466	0.0239	0.0692	0.0352	0.0324	0.0696	0.0082	39.15%	-40.60%
101		5	0.0326	0.0316	0.0336	0.0324	0.0316	0.0336	0.0004	2.41%	1.66%
Proportion Normal Detail w/curved Hinge											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	LC	0.0000	0.0000	0.0000	0.0000	0.0000					
6.25		0.0000	0.0000	0.0000	0.0000	0.0000					
12.5		0.0000	0.0000	0.0000	0.0000	0.0000					
25		0.0040	0.0000	0.0000	0.0043	0.0000					
50		0.0000	0.0000	0.0000	0.0000	0.0000					
100		0.0048	0.0000	0.0000	0.0000	0.0040					
101		0.0000	0.0000	0.0000	0.0000	0.0000					



# CETIS Analytical Report

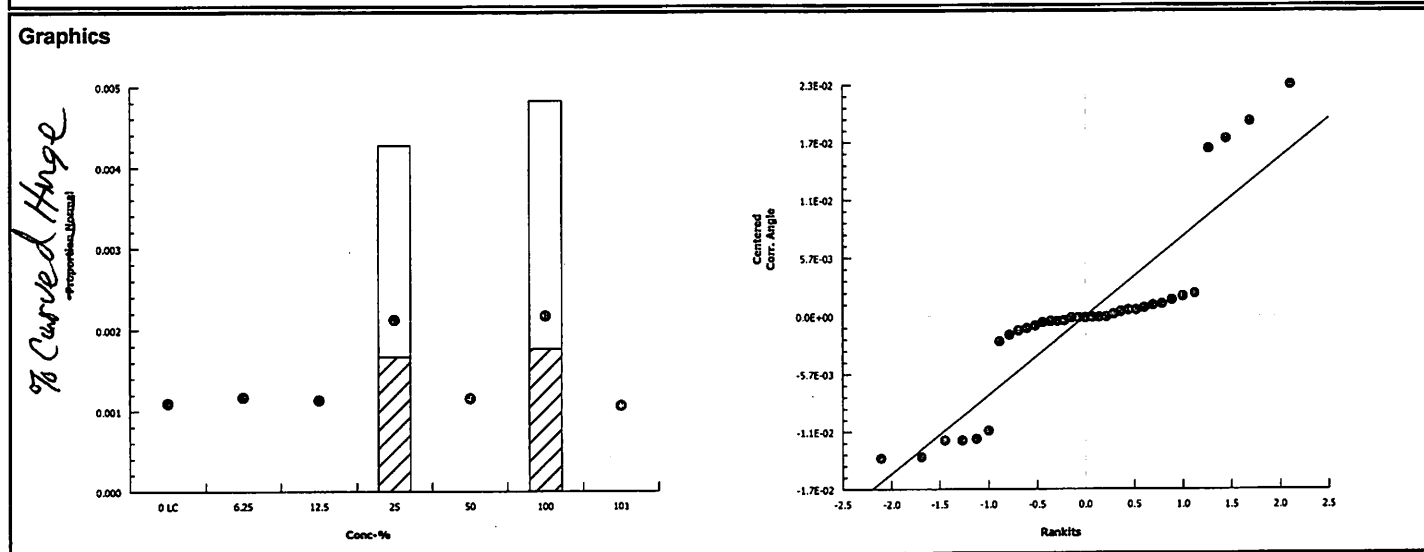
Report Date: 25 Sep-20 15:39 (p 2 of 2)  
Test Code: 20-08-043 | 11-2985-2952

## Bivalve Larval Survival and Development Test Wood E&IS

Analysis ID: 16-6061-1843      Endpoint: Proportion Normal *w/ Curved Hinge*      CETIS Version: CETISv1.9.3  
Analyzed: 25 Sep-20 15:39      Analysis: Nonparametric-Control vs Treatments      Official Results: Yes

Angular (Corrected) Transformed Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.0354	0.0330	0.0317	0.0326	0.0330
6.25		0.0341	0.0336	0.0348	0.0330	0.0354
12.5		0.0343	0.0339	0.0336	0.0336	0.0331
25		0.0637	0.0339	0.0337	0.0654	0.0337
50		0.0321	0.0359	0.0314	0.0348	0.0355
100		0.0696	0.0352	0.0326	0.0324	0.0632
101		0.0322	0.0316	0.0324	0.0336	0.0331

Proportion <del>Normal</del> Binomials <i>Curved</i>						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0/200	0/230	0/249	0/235	0/230
6.25		0/215	0/221	0/207	0/230	0/200
12.5		0/213	0/218	0/222	0/222	0/229
25		1/247	0/218	0/220	1/234	0/220
50		0/243	0/194	0/253	0/207	0/198
100		1/207	0/202	0/236	0/238	1/251
101		0/242	0/250	0/238	0/221	0/229



# Embryo-Larval Development Test Scoring Worksheet

Client: Wood/ SIYB  
Project ID: SIYB 4  
Test No.: 20-08-043

Test Species: M. galloprovincialis  
Start Date: 8/21/2020 1745  
End Date: 8/23/2020 1645  
sc

Random #	# Counted	# Normal	Abnormal		Tech Initials / Notes
			Number Curved Shell	All Other Abnormal	
151	230	226		4	sc
152	235	226		9	
153	213	206		7	
154	221	215		6	
155	218	210		8	
156	200	189		11	
157	220	209		11	
158	221	209		12	
159	207	201		6	
160	222	218		4	
161	196	188		8	
162	207	196	1	10	
163	247	237	1	9	
164	249	239		10	
165	218	213		5	
166	243	236		7	
167	250	242		8	
168	238	232		6	
169	202	195		7	
170	234	225	1	8	
171	198	187		11	
172	227	217		10	
173	215	211		4	
174	194	186		8	
175	222	214		8	
176	236	229		7	
177	220	210		10	
178	242	235		7	
179	207	202		5	
180	229	223		6	
181	224	215		9	
182	230	224		6	
183	248	242		6	
184	238	224		14	
185	217	210		7	
186	229	220		9	
187	230	224		6	
188	200	192		8	
189	251	241	1	9	
190	253	246		7	

QC Check: AB 9/22/20

Final Review: sc 9/23/20

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:05 (p 1 of 2)  
 Test Code/ID: 11-2985-2952/20-08-043

Bivalve Larval Survival and Development Test								Wood E&IS
Start Date: 21 Aug-20		Species: <i>Mytilus galloprovincialis</i>		Sample Code: 63A47DDF				
End Date: 23 Aug-20		Protocol: EPA/600/R-95/136 (1995)		Sample Source: Shelter Island Yacht Basin				
Sample Date: 20 Aug-20		Material: Seawater		Sample Station: SIYB 4				
Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
0	FC	1	161					Random # 151 - 190
0	FC	2	183					
0	FC	3	181					
0	FC	4	185					
0	FC	5	172					
0	LC	1	188			234	224	
0	LC	2	151					
0	LC	3	164					
0	LC	4	152					
0	LC	5	187					
6.25		1	173					
6.25		2	154					
6.25		3	159					
6.25		4	182					
6.25		5	156					
12.5		1	153					
12.5		2	155					
12.5		3	160					
12.5		4	175					
12.5		5	180					
25		1	163					
25		2	165					
25		3	177					
25		4	170					
25		5	157					
50		1	166					
50		2	174					
50		3	190					
50		4	179					
50		5	171					
100		1	162			234	225	1 curved abnormal
100		2	169					
100		3	176					
100		4	184					
100		5	189					
101		1	178					
101		2	167					

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:05 (p 2 of 2)  
Test Code/ID: 11-2985-2952/20-08-043

Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
101		3	168					
101		4	158					
101		5	186					

QC: AB

# Water Quality for Bivalve Development

Client: Wood - Port of San Diego  
 Project ID: SIYB 4  
 Test No. 20-08-043

Test Species: M. galloprovincialis  
 Start Date/Time: 8/21/2020 1745  
 End Date/Time: 8/23/2020 1645

Test Conc. ( % )	Water Quality Measurements			
	Parameter	0hr	24hr	48hr
Lab Control	Temp. (°C)	15.6	15.8	15.7
	Salinity (ppt)	33.5	34.7	35.2
	pH (units)	7.85	7.76	7.80
	DO (mg/L)	7.6	7.8	7.9
Filtered Control (1.2µm)	Temp. (°C)	15.8	15.7	15.8
	Salinity (ppt)	33.9	34.8	35.0
	pH (units)	7.93	7.75	7.80
	DO (mg/L)	7.1	7.6	8.0
6.25	Temp. (°C)	15.6	15.7	15.7
	Salinity (ppt)	34.0	34.9	35.1
	pH (units)	7.93	7.78	7.81
	DO (mg/L)	7.7	7.7	7.9
12.5	Temp. (°C)	15.6	15.6	15.8
	Salinity (ppt)	34.1	34.9	35.1
	pH (units)	7.96	7.79	7.82
	DO (mg/L)	7.7	7.8	8.0
25	Temp. (°C)	15.5	15.7	15.8
	Salinity (ppt)	34.2	35.0	35.2
	pH (units)	7.96	7.79	7.78
	DO (mg/L)	7.9	7.8	7.8
50	Temp. (°C)	15.5	15.7	15.8
	Salinity (ppt)	34.3	35.0	35.1
	pH (units)	7.96	7.80	7.78
	DO (mg/L)	7.9	7.9	7.9
100	Temp. (°C)	15.5	15.7	15.7
	Salinity (ppt)	34.3	34.9	35.1
	pH (units)	7.97	7.80	7.79
	DO (mg/L)	7.9	7.9	7.9
100 Filtered (1.2µm)	Temp. (°C)	15.5	15.6	15.7
	Salinity (ppt)	33.8	34.8	34.9
	pH (units)	7.98	7.80	7.78
	DO (mg/L)	7.8	7.8	7.9
Tech Initials:		SC	SC	AG

Source of Animals: 510/Wood From Mission Bay

Date Received: 8/13/20 & 5/22/20

Comments: \_\_\_\_\_

QC Check: AG 9/22/20

Final Review: SC 9/23/20

# Embryo-Larval Development Test

## Stock Preparation Worksheet

Test Species: M. galloprovincialis  
 Batch ID: \_\_\_\_\_  
 Test Type: Mussel Development

Test Date: 8/21/20  
 Analyst: AG/JW

Task	
Spawning Induction	0935/0950
Spawning Begins	1045/1345
# Males/# Females	4/4
Spawn Condition	Average
Fertilization Initiated	1525
Fertilization End/Eggs Rinsed	1545
Embryo Counts	1700
Test Initiation	1745

### Embryo Density Counts

# per 100  $\mu$ L

Stock #	Stock Volume (mL)	Rep 1	Rep 2	Rep 3	Rep 4	Mean #/100 $\mu$ L	Mean #/mL (x10)
Stock 1	250	70	72	67	74	70.8	708
Stock 2	250	42	55	51	53	50.3	503
Stock 3 <sup>4</sup>	300	54	55	51	50	52.5	525

### Cell Division:

	% Divided
Stock 1	100
Stock 2	96.98
Stock 3 <sup>4</sup>	96

Selected Stock:	2 + 4
-----------------	-------

Stock Density

Dil Factor

Adjust selected embryo stock to 500 embryos/mL.  
 Dilution Factor = Stock Density/mL/500

514  
500

1.03

In 10 mL sample volume add 500  $\mu$ L of 500 embryos/mL stock to obtain 25 embryos/mL in test vials.

Notes:

QL = 249/255

Time Zero mean = 249

$T_0 = 262$   $T_0 = 255$   $T_0 = 243$   $T_0 = 265$   $T_0 = 243$   $x = 258$  249  
260 253 235 262 234

QA Review:

AG 9/22/20

Final Review:

AG 9/23/20

**Site: SIYB-5**

# CETIS Summary Report

Report Date: 29 Sep-20 13:54 (p 1 of 4)  
Test Code: 20-08-044 | 21-1923-6422

Bivalve Larval Survival and Development Test				Wood E&IS			
Batch ID: 08-9524-5816	Test Type: Development-Survival	Analyst:					
Start Date: 21 Aug-20 17:45	Protocol: EPA/600/R-95/136 (1995)	Diluent: Natural Seawater					
Ending Date: 23 Aug-20 16:45	Species: Mytilis galloprovincialis	Brine: Not Applicable					
Duration: 47h	Source: Field Collected	Age:					
Sample ID: 05-1316-6565	Code: 20-W127	Client: Wood Environment and Infrastructure					
Sample Date: 20 Aug-20 10:25	Material: Seawater	Project: SIYB TMDL Monitoring					
Receipt Date: 20 Aug-20 17:35	Source: Shelter Island Yacht Basin						
Sample Age: 31h (4 °C)	Station: SIYB 5						
<b>Comments:</b> 101 = 100 percent sample filtered to 1.2um							
<b>Single Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result			
16-5529-9703	Combined Proportion Normal	TST-Welch's t Test	8.5E-05	100% passed combined proportion normal			
<b>Multiple Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD ✓
17-3452-6147	Combined Proportion Normal	Dunnett Multiple Comparison Test	100	> 100	n/a	1	8.07%
21-2447-4131	Proportion Normal	Dunnett Multiple Comparison Test	100	> 100	n/a	1	2.9%
11-0448-8038	Survival Rate	Dunnett Multiple Comparison Test	100	> 100	n/a	1	9.72%
<b>Test Acceptability</b>							
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
21-2447-4131	Proportion Normal	Control Resp	0.9581	Lower: 0.9	Upper: >>	Yes	Passes Criteria
11-0448-8038	Survival Rate	Control Resp	0.8426	Lower: 0.5	Upper: >>	Yes	Passes Criteria



# CETIS Summary Report

Report Date: 29 Sep-20 13:54 (p 2 of 4)  
Test Code: 20-08-044 | 21-1923-6422

Bivalve Larval Survival and Development Test											Wood E&IS
Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.8072	0.7889	0.8256	0.7831	0.8193	0.0066	0.0148	1.83%	0.00%
0	FC	5	0.8104	0.7554	0.8655	0.7349	0.8514	0.0198	0.0443	5.47%	-0.40%
6.25		5	0.8104	0.7581	0.8628	0.7631	0.8755	0.0189	0.0422	5.20%	-0.40%
12.5		5	0.8699	0.8246	0.9151	0.8313	0.9197	0.0163	0.0364	4.19%	-7.76%
25		5	0.8458	0.7927	0.8989	0.7831	0.9036	0.0191	0.0428	5.05%	-4.78%
50		5	0.8731	0.8186	0.9276	0.8032	0.9116	0.0196	0.0439	5.02%	-8.16%
100		5	0.8233	0.7776	0.8690	0.7671	0.8594	0.0165	0.0368	4.47%	-1.99%
101		5	0.8217	0.7790	0.8644	0.7871	0.8715	0.0154	0.0344	4.18%	-1.79%
Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9581	0.9384	0.9779	0.9466	0.9854	0.0071	0.0159	1.66%	0.00%
0	FC	5	0.9646	0.9584	0.9709	0.9579	0.9717	0.0023	0.0050	0.52%	-0.68%
6.25		5	0.9536	0.9331	0.9740	0.9277	0.9710	0.0074	0.0165	1.73%	0.48%
12.5		5	0.9607	0.9417	0.9796	0.9464	0.9828	0.0068	0.0152	1.59%	-0.26%
25		5	0.9658	0.9500	0.9816	0.9494	0.9848	0.0057	0.0127	1.32%	-0.80%
50		5	0.9653	0.9498	0.9808	0.9524	0.9826	0.0056	0.0125	1.29%	-0.74%
100		5	0.9403	0.9064	0.9742	0.8996	0.9712	0.0122	0.0273	2.90%	1.86%
101		5	0.9496	0.9232	0.9759	0.9269	0.9721	0.0095	0.0212	2.23%	0.90%
Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.8426	0.8248	0.8603	0.8273	0.8554	0.0064	0.0143	1.70%	0.00%
0	FC	5	0.8402	0.7835	0.8968	0.7631	0.8835	0.0204	0.0457	5.43%	0.29%
6.25		5	0.8506	0.7791	0.9221	0.7952	0.9438	0.0258	0.0576	6.77%	-0.95%
12.5		5	0.9052	0.8750	0.9355	0.8755	0.9357	0.0109	0.0244	2.69%	-7.44%
25		5	0.8763	0.8074	0.9453	0.7952	0.9518	0.0248	0.0555	6.34%	-4.00%
50		5	0.9044	0.8528	0.9560	0.8434	0.9558	0.0186	0.0416	4.60%	-7.34%
100		5	0.8763	0.8146	0.9380	0.8112	0.9197	0.0222	0.0497	5.67%	-4.00%
101		5	0.8659	0.8088	0.9229	0.8193	0.9357	0.0205	0.0459	5.30%	-2.76%

# CETIS Summary Report

Report Date: 29 Sep-20 13:54 (p 3 of 4)  
 Test Code: 20-08-044 | 21-1923-6422

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.8153	0.8153	0.8032	0.7831	0.8193
0	FC	0.7349	0.8153	0.8233	0.8273	0.8514
6.25		0.8072	0.8193	0.7871	0.7631	0.8755
12.5		0.8514	0.8313	0.8956	0.9197	0.8514
25		0.9036	0.8474	0.8434	0.7831	0.8514
50		0.9076	0.8635	0.8032	0.9116	0.8795
100		0.7671	0.8273	0.8514	0.8112	0.8594
101		0.7871	0.8394	0.7952	0.8715	0.8153
Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9531	0.9854	0.9479	0.9466	0.9577
0	FC	0.9632	0.9667	0.9579	0.9717	0.9636
6.25		0.9710	0.9488	0.9608	0.9596	0.9277
12.5		0.9464	0.9495	0.9696	0.9828	0.9550
25		0.9494	0.9679	0.9633	0.9848	0.9636
50		0.9826	0.9685	0.9524	0.9538	0.9690
100		0.9455	0.8996	0.9298	0.9712	0.9554
101		0.9469	0.9721	0.9706	0.9313	0.9269
Survival Rate Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.8554	0.8273	0.8474	0.8273	0.8554
0	FC	0.7631	0.8434	0.8594	0.8514	0.8835
6.25		0.8313	0.8635	0.8193	0.7952	0.9438
12.5		0.8996	0.8755	0.9237	0.9357	0.8916
25		0.9518	0.8755	0.8755	0.7952	0.8835
50		0.9237	0.8916	0.8434	0.9558	0.9076
100		0.8112	0.9197	0.9157	0.8353	0.8996
101		0.8313	0.8635	0.8193	0.9357	0.8795

# CETIS Summary Report

Report Date: 29 Sep-20 13:54 (p 4 of 4)  
 Test Code: 20-08-044 | 21-1923-6422

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	203/249	203/249	200/249	195/249	204/249
0	FC	183/249	203/249	205/249	206/249	212/249
6.25		201/249	204/249	196/249	190/249	218/249
12.5		212/249	207/249	223/249	229/249	212/249
25		225/249	211/249	210/249	195/249	212/249
50		226/249	215/249	200/249	227/249	219/249
100		191/249	206/249	212/249	202/249	214/249
101		196/249	209/249	198/249	217/249	203/249
Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	203/213	203/206	200/211	195/206	204/213
0	FC	183/190	203/210	205/214	206/212	212/220
6.25		201/207	204/215	196/204	190/198	218/235
12.5		212/224	207/218	223/230	229/233	212/222
25		225/237	211/218	210/218	195/198	212/220
50		226/230	215/222	200/210	227/238	219/226
100		191/202	206/229	212/228	202/208	214/224
101		196/207	209/215	198/204	217/233	203/219
Survival Rate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	213/249	206/249	211/249	206/249	213/249
0	FC	190/249	210/249	214/249	212/249	220/249
6.25		207/249	215/249	204/249	198/249	235/249
12.5		224/249	218/249	230/249	233/249	222/249
25		237/249	218/249	218/249	198/249	220/249
50		230/249	222/249	210/249	238/249	226/249
100		202/249	229/249	228/249	208/249	224/249
101		207/249	215/249	204/249	233/249	219/249

# CETIS Analytical Report

Report Date: 29 Sep-20 13:57 (p 1 of 2)  
Test Code: 20-08-044 | 21-1923-6422

Bivalve Larval Survival and Development Test										Wood E&IS													
Analysis ID: 17-3452-6147		Endpoint: Combined Proportion Normal		CETIS Version: CETISv1.9.3																			
Analyzed: 29 Sep-20 13:48		Analysis: Parametric-Control vs Treatments		Official Results: Yes																			
Comments:																							
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD											
Angular (Corrected)		C > T		100		> 100		n/a		1		8.07%											
Dunnett Multiple Comparison Test																							
Control		vs		Conc-%		Test Stat		Critical		MSD		DF		P-Type		P-Value		Decision(α:5%)					
Lab Control		6.25		-0.1781		2.362		0.078		8		CDF		0.8806		Non-Significant Effect							
		12.5		-2.657		2.362		0.078		8		CDF		0.9999		Non-Significant Effect							
		25		-1.614		2.362		0.078		8		CDF		0.9974		Non-Significant Effect							
		50		-2.825		2.362		0.078		8		CDF		1.0000		Non-Significant Effect							
		100		-0.6634		2.362		0.078		8		CDF		0.9595		Non-Significant Effect							
ANOVA Table																							
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)											
Between		0.0418929		0.0083786		5		3.047		0.0287		Significant Effect											
Error		0.0660029		0.0027501		24																	
Total		0.107896				29																	
Distributional Tests																							
Attribute		Test		Test Stat		Critical		P-Value		Decision(α:1%)													
Variances		Bartlett Equality of Variance Test		4.997		15.09		0.4162		Equal Variances													
Distribution		Shapiro-Wilk W Normality Test		0.9753		0.9031		0.6923		Normal Distribution													
Combined Proportion Normal Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		0.8072		0.7889		0.8256		0.8153		0.7831		0.8193		0.0066		1.83%		0.00%	
6.25				5		0.8104		0.7581		0.8628		0.8072		0.7631		0.8755		0.0189		5.20%		-0.40%	
12.5				5		0.8699		0.8246		0.9151		0.8514		0.8313		0.9197		0.0163		4.19%		-7.76%	
25				5		0.8458		0.7927		0.8989		0.8474		0.7831		0.9036		0.0191		5.05%		-4.78%	
50				5		0.8731		0.8186		0.9276		0.8795		0.8032		0.9116		0.0196		5.02%		-8.16%	
100				5		0.8233		0.7776		0.8690		0.8273		0.7671		0.8594		0.0165		4.47%		-1.99%	
Angular (Corrected) Transformed Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		1.116		1.094		1.139		1.127		1.086		1.132		0.008268		1.66%		0.00%	
6.25				5		1.122		1.053		1.191		1.116		1.062		1.21		0.0249		4.96%		-0.53%	
12.5				5		1.205		1.135		1.274		1.175		1.148		1.283		0.02509		4.66%		-7.89%	
25				5		1.17		1.096		1.244		1.169		1.086		1.255		0.02674		5.11%		-4.79%	
50				5		1.21		1.131		1.289		1.216		1.111		1.269		0.02855		5.28%		-8.39%	
100				5		1.138		1.079		1.197		1.142		1.067		1.186		0.02126		4.18%		-1.97%	

# CETIS Analytical Report

Report Date: 29 Sep-20 13:57 (p 2 of 2)  
Test Code: 20-08-044 | 21-1923-6422

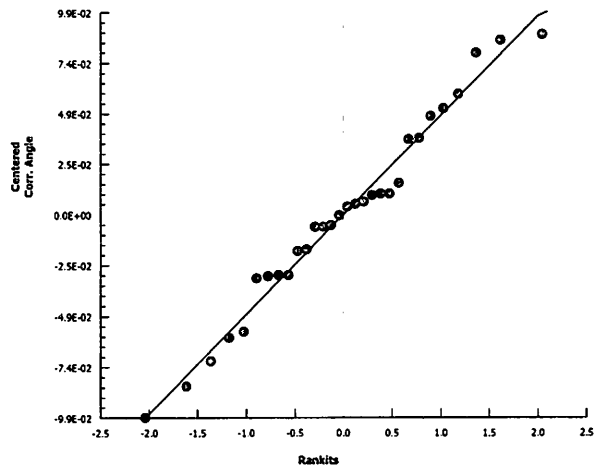
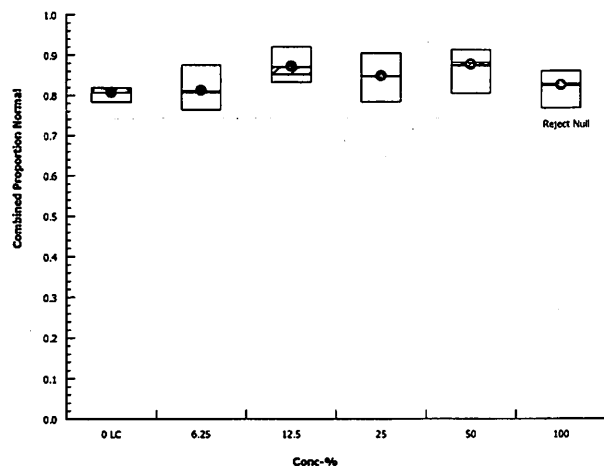
## Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 17-3452-6147      Endpoint: Combined Proportion Normal  
Analyzed: 29 Sep-20 13:48      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
Official Results: Yes

### Graphics



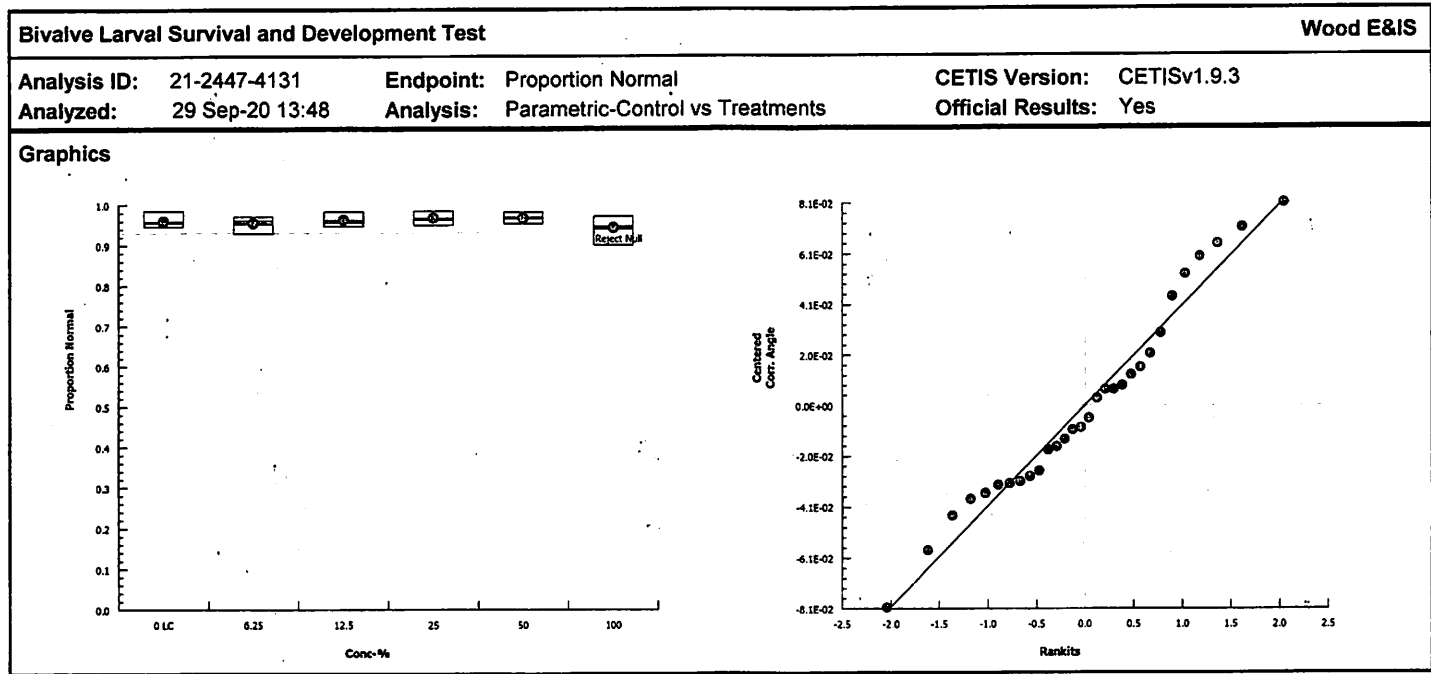
# CETIS Analytical Report

Report Date: 29 Sep-20 13:54 (p 4 of 7)  
Test Code: 20-08-044 | 21-1923-6422

Bivalve Larval Survival and Development Test										Wood E&IS		
Analysis ID: 21-2447-4131		Endpoint: Proportion Normal		CETIS Version: CETISv1.9.3								
Analyzed: 29 Sep-20 13:48		Analysis: Parametric-Control vs Treatments		Official Results: Yes								
Comments:												
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD
Angular (Corrected)		C > T		100		> 100		n/a		1		2.90%
Dunnnett Multiple Comparison Test												
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)			
Lab Control		6.25	0.4595	2.362	0.065	8	CDF	0.6645	Non-Significant Effect			
		12.5	-0.2118	2.362	0.065	8	CDF	0.8883	Non-Significant Effect			
		25	-0.6877	2.362	0.065	8	CDF	0.9619	Non-Significant Effect			
		50	-0.621	2.362	0.065	8	CDF	0.9550	Non-Significant Effect			
		100	1.449	2.362	0.065	8	CDF	0.2410	Non-Significant Effect			
ANOVA Table												
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)			
Between	0.0121181		0.0024236		5		1.275	0.3069	Non-Significant Effect			
Error	0.0456091		0.0019004		24							
Total	0.0577272				29							
Distributional Tests												
Attribute	Test				Test Stat		Critical	P-Value	Decision(α:1%)			
Variances	Bartlett Equality of Variance Test				1.213		15.09	0.9436	Equal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.9683		0.9031	0.4926	Normal Distribution			
Proportion Normal Summary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect	
0	LC	5	0.9581	0.9384	0.9779	0.9531	0.9466	0.9854	0.0071	1.66%	0.00%	
6.25		5	0.9536	0.9331	0.9740	0.9596	0.9277	0.9710	0.0074	1.73%	0.48%	
12.5		5	0.9607	0.9417	0.9796	0.9550	0.9464	0.9828	0.0068	1.59%	-0.26%	
25		5	0.9658	0.9500	0.9816	0.9636	0.9494	0.9848	0.0057	1.32%	-0.80%	
50		5	0.9653	0.9498	0.9808	0.9685	0.9524	0.9826	0.0056	1.29%	-0.74%	
100		5	0.9403	0.9064	0.9742	0.9455	0.8996	0.9712	0.0122	2.90%	1.86%	
Angular (Corrected) Transformed Summary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect	
0	LC	5	1.369	1.311	1.427	1.352	1.338	1.45	0.02078	3.39%	0.00%	
6.25		5	1.356	1.309	1.403	1.368	1.298	1.4	0.01702	2.81%	0.93%	
12.5		5	1.375	1.322	1.428	1.357	1.337	1.439	0.01906	3.10%	-0.43%	
25		5	1.388	1.341	1.434	1.379	1.344	1.447	0.01683	2.71%	-1.39%	
50		5	1.386	1.342	1.43	1.392	1.351	1.439	0.01599	2.58%	-1.25%	
100		5	1.329	1.258	1.4	1.335	1.248	1.4	0.02563	4.31%	2.92%	

# CETIS Analytical Report

Report Date: 29 Sep-20 13:54 (p 5 of 7)  
 Test Code: 20-08-044 | 21-1923-6422



# CETIS Analytical Report

Report Date: 29 Sep-20 13:54 (p 6 of 7)  
Test Code: 20-08-044 | 21-1923-6422

Bivalve Larval Survival and Development Test										Wood E&IS	
Analysis ID: 11-0448-8038		Endpoint: Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 29 Sep-20 13:48		Analysis: Parametric-Control vs Treatments		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU	
Angular (Corrected)		C > T		100		> 100		n/a		1	
Dunnnett Multiple Comparison Test											
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		6.25	-0.405	2.362	0.104	8	CDF	0.9257	Non-Significant Effect		
		12.5	-2.209	2.362	0.104	8	CDF	0.9996	Non-Significant Effect		
		25	-1.269	2.362	0.104	8	CDF	0.9924	Non-Significant Effect		
		50	-2.263	2.362	0.104	8	CDF	0.9997	Non-Significant Effect		
		100	-1.218	2.362	0.104	8	CDF	0.9911	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)		
Between	0.0404954		0.0080991		5		1.688	0.1759	Non-Significant Effect		
Error	0.115173		0.0047989		24						
Total	0.155668				29						
Distributional Tests											
Attribute	Test				Test Stat		Critical	P-Value	Decision(α:1%)		
Variances	Bartlett Equality of Variance Test				8.337		15.09	0.1386	Equal Variances		
Distribution	Shapiro-Wilk W Normality Test				0.9756		0.9031	0.7003	Normal Distribution		
Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.8426	0.8248	0.8603	0.8474	0.8273	0.8554	0.0064	1.70%	0.00%
6.25		5	0.8506	0.7791	0.9221	0.8313	0.7952	0.9438	0.0258	6.77%	-0.95%
12.5		5	0.9052	0.8750	0.9355	0.8996	0.8755	0.9357	0.0109	2.69%	-7.44%
25		5	0.8763	0.8074	0.9453	0.8755	0.7952	0.9518	0.0248	6.34%	-4.00%
50		5	0.9044	0.8528	0.9560	0.9076	0.8434	0.9558	0.0186	4.60%	-7.34%
100		5	0.8763	0.8146	0.9380	0.8996	0.8112	0.9197	0.0222	5.67%	-4.00%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.163	1.139	1.187	1.169	1.142	1.181	0.008757	1.68%	0.00%
6.25		5	1.181	1.069	1.293	1.148	1.101	1.331	0.04042	7.65%	-1.53%
12.5		5	1.26	1.207	1.312	1.248	1.21	1.315	0.01892	3.36%	-8.32%
25		5	1.219	1.109	1.328	1.21	1.101	1.349	0.03942	7.23%	-4.78%
50		5	1.262	1.173	1.351	1.262	1.164	1.359	0.03209	5.68%	-8.52%
100		5	1.216	1.124	1.309	1.248	1.121	1.283	0.03327	6.12%	-4.59%



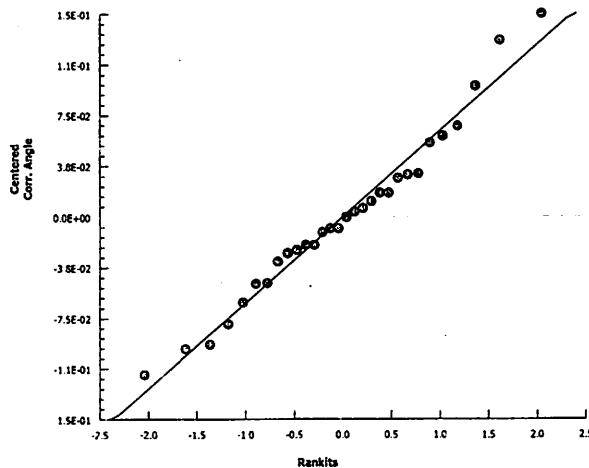
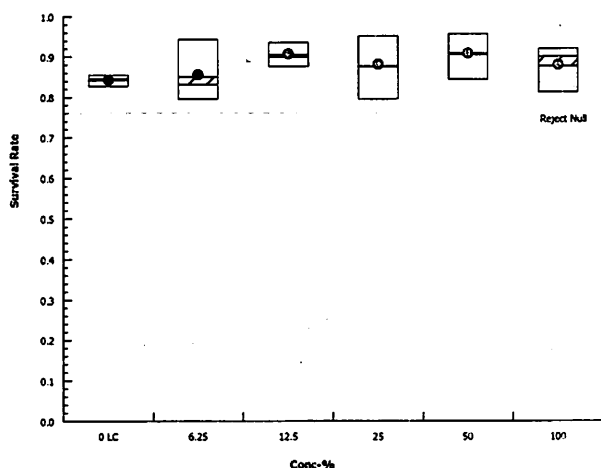
Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 11-0448-8038      Endpoint: Survival Rate  
 Analyzed: 29 Sep-20 13:48      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
 Official Results: Yes

Graphics



# CETIS Analytical Report

Report Date: 29 Sep-20 13:54 (p 3 of 7)  
Test Code: 20-08-044 | 21-1923-6422

Bivalve Larval Survival and Development Test *TST (100% Unfiltered)* Wood E&IS

Analysis ID: 16-5529-9703 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
Analyzed: 29 Sep-20 13:49 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed combined proportion normal

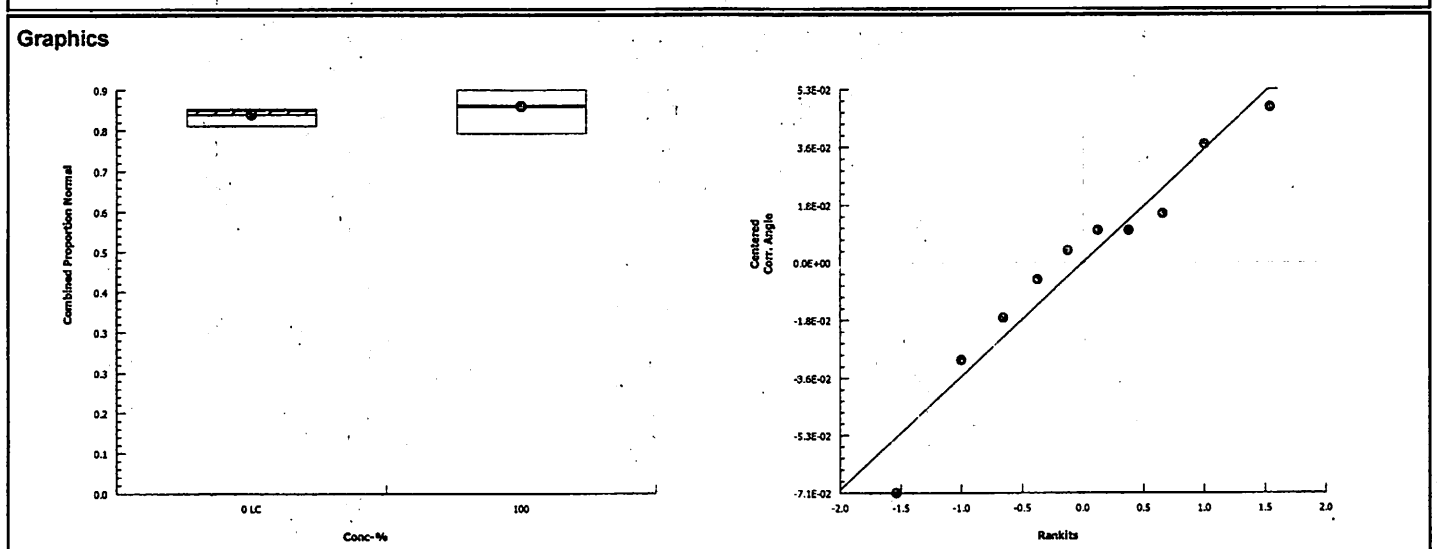
TST-Welch's t Test								
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision( $\alpha$ :5%)
Lab Control		100*	13.6	2.132	4	CDF	8.5E-05	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0012102	0.0012102	1	0.9302	0.3630	Non-Significant Effect
Error	0.0104073	0.0013009	8			
Total	0.0116175		9			

Distributional Tests					
Attribute	Test	Test Stat	Critical	P-Value	Decision( $\alpha$ :1%)
Variances	Variance Ratio F Test	6.613	23.15	0.0945	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9509	0.7411	0.6787	Normal Distribution

Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.8072	0.7889	0.8256	0.8153	0.7831	0.8193	0.0066	1.83%	0.00%
100		5	0.8233	0.7776	0.8690	0.8273	0.7671	0.8594	0.0165	4.47%	-1.99%

Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.116	1.094	1.139	1.127	1.086	1.132	0.008268	1.66%	0.00%
100		5	1.138	1.079	1.197	1.142	1.067	1.186	0.02126	4.18%	-1.97%



# CETIS Analytical Report

TST

Report Date: 23 Sep-20 16:41 (p 1 of 1)  
Test Code: 20-08-044 | 21-1923-6422

Bivalve Larval Survival and Development Test (100% Filtered) Wood E&IS

Analysis ID: 09-4868-9365 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
Analyzed: 23 Sep-20 16:39 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	101% passed combined proportion normal

TST-Welch's t Test

Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Filter Control		101*	10.7	1.895	7	CDF	6.8E-06	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0005005	0.0005005	1	0.1964	0.6694	Non-Significant Effect
Error	0.0203889	0.0025486	8			
Total	0.0208894		9			

Distributional Tests

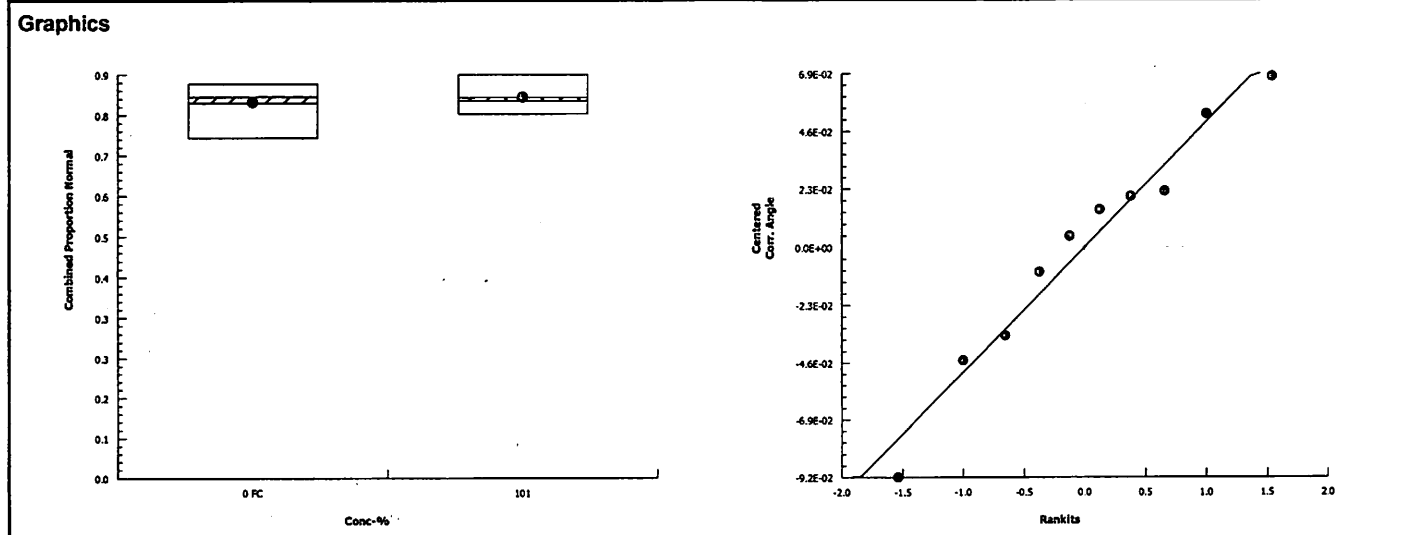
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	1.413	23.15	0.7459	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9666	0.7411	0.8582	Normal Distribution

Combined Proportion Normal Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	0.8104	0.7554	0.8655	0.8233	0.7349	0.8514	0.0198	5.47%	0.00%
101		5	0.8217	0.7790	0.8644	0.8153	0.7871	0.8715	0.0154	4.18%	-1.39%

Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	1.122	1.054	1.19	1.137	1.03	1.175	0.02443	4.87%	0.00%
101		5	1.136	1.079	1.193	1.127	1.091	1.204	0.02056	4.05%	-1.26%



# CETIS Analytical Report

Report Date: 03 Oct-20 14:50 (p 1 of 1)  
Test Code: 20-08-044 | 21-1923-6422

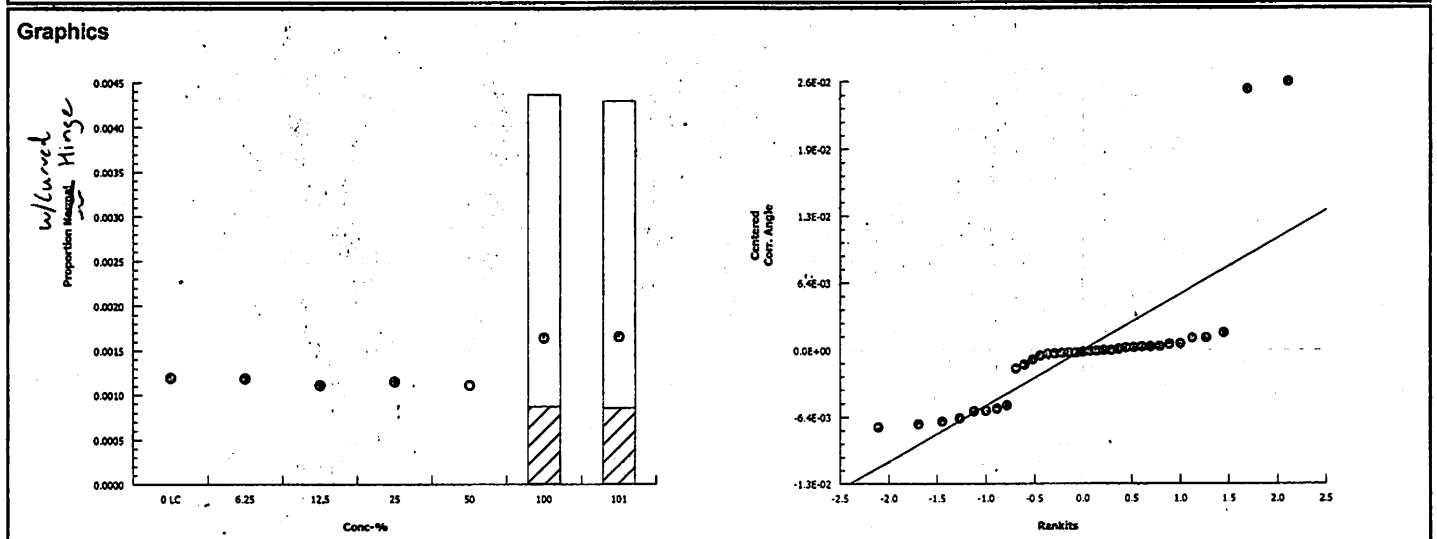
Bivalve Larval Survival and Development Test						Wood E&IS
Analysis ID:	13-5378-6160	Endpoint:	Proportion Normal w/ Curved Hinge	CETIS Version:	CETISv1.9.3	
Analyzed:	03 Oct-20 14:49	Analysis:	Parametric Two Sample	Official Results:	Yes	
Comments:						

Distributional Tests						
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)	
Distribution	Shapiro-Wilk W Normality Test	0.7904	0.1883	0.0675	Normal Distribution	

Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
6.25		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
12.5		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
25		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
50		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
100		5	0.0009	0.0000	0.0033	0.0000	0.0000	0.0044	0.0009	223.61%	
101		5	0.0009	0.0000	0.0032	0.0000	0.0000	0.0043	0.0009	223.61%	

Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0345	0.0342	0.0349	0.0344	0.0343	0.0348	0.0001	0.85%	0.00%
6.25		5	0.0344	0.0330	0.0358	0.0348	0.0326	0.0355	0.0005	3.27%	0.35%
12.5		5	0.0333	0.0328	0.0339	0.0334	0.0328	0.0339	0.0002	1.34%	3.51%
25		5	0.0339	0.0326	0.0353	0.0339	0.0325	0.0355	0.0005	3.21%	1.83%
50		5	0.0334	0.0324	0.0343	0.0333	0.0324	0.0345	0.0003	2.33%	3.43%
100		5	0.0405	0.0227	0.0583	0.0347	0.0331	0.0661	0.0064	35.43%	-17.31%
101		5	0.0407	0.0233	0.0580	0.0348	0.0338	0.0656	0.0062	34.28%	-17.71%

Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0/213	0/206	0/211	0/206	0/213
6.25		0/207	0/215	0/204	0/198	0/235
12.5		0/224	0/218	0/230	0/233	0/222
25		0/237	0/218	0/218	0/198	0/220
50		0/230	0/222	0/210	0/238	0/226
100		0/202	1/229	0/228	0/208	0/224
101		0/207	0/215	0/204	1/233	0/219



# Embryo-Larval Development Test Scoring Worksheet

Client: Wood/ SIYB  
Project ID: SIYB 5  
Test No.: 20-08-044

Test Species: *M. galloprovincialis*  
Start Date: 8/21/2020 1745  
End Date: 8/23/2020 1645  
JC

Random #	# Counted	# Normal	Abnormal		Tech Initials / Notes
			Number Curved Shell	All Other Abnormal	
191	230	223		7	sc
192	219	203		16	
193	235	218		17	
194	229	sc 199 206	1	22 24x	
195	207	196		11	
196	210	200		10	
197	233	217	1	15	
198	230	226		4	
199	206	195		11	
200	224	212		12	
201	213	204		9	
202	218	207		11	
203	202	191		11	
204	224	214		10	
205	228	212		16	
206	218	211		7	
207	222	212		10	
208	210	203		7	
209	215	204		11	
210	214	205		9	
211	198	195		3	
212	204	198		6	
213	218	210		8	
214	206	203		3	
215	212	206		6	
216	233	229		4	
217	220	212		8	
218	213 185x	203 180x		10 8x sc	
219	215	209		6	
220	198	190		8	
221	226	219		7	
222	207	201		6	
223	204	196		8	
224	238	227		11	
225	222	215		7	
226	237	225		12	
227	220	212		8	
228	211	200		11	
229	208	202		6	
230	190	183		7	

QC Check: AL 9/22/20

Final Review: JC 9/23/20

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:06 (p 1 of 2)  
 Test Code/ID: 21-1923-6422/20-08-044

Bivalve Larval Survival and Development Test								Wood E&IS
Start Date: 21 Aug-20		Species: Mytilus galloprovincialis		Sample Code: 1E964CE5				
End Date: 23 Aug-20		Protocol: EPA/600/R-95/136 (1995)		Sample Source: Shelter Island Yacht Basin				
Sample Date: 20 Aug-20		Material: Seawater		Sample Station: SIYB 5				
Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
0	FC	1	230					Random #191-230
0	FC	2	208					
0	FC	3	210					
0	FC	4	215					
0	FC	5	217					
0	LC	1	218			214	208	
0	LC	2	214			235	228	
0	LC	3	228					
0	LC	4	199					
0	LC	5	201					
6.25		1	222					
6.25		2	209					
6.25		3	223					
6.25		4	220					
6.25		5	193					
12.5		1	200					
12.5		2	202					
12.5		3	191					
12.5		4	216					
12.5		5	207					
25		1	226					
25		2	206					
25		3	213					
25		4	211					
25		5	227					
50		1	198					
50		2	225					
50		3	196					
50		4	224					
50		5	221					
100		1	203			212	202	
100		2	194			246	237	
100		3	205					
100		4	229					
100		5	204					
101		1	195					
101		2	219					

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:06 (p 2 of 2)  
 Test Code/ID: 21-1923-6422/20-08-044

Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
101		3	212					
101		4	197					
101		5	192					

QC: AG

# Water Quality for Bivalve Development

Client: Wood - Port of San Diego  
 Project ID: SIYB 5  
 Test No. 20-08-044

Test Species: M. galloprovincialis  
 Start Date/Time: 8/21/2020 1745  
 End Date/Time: 8/23/2020 1645

Test Conc. ( % )	Water Quality Measurements			
	Parameter	0hr	24hr	48hr
Lab Control	Temp. (°C)	15.6	15.7	15.8
	Salinity (ppt)	33.9	34.5	34.9
	pH (units)	7.92	7.78	7.80
	DO (mg/L)	7.7	7.8	7.9
Filtered Control (1.2µm)	Temp. (°C)	15.7	15.6	15.8
	Salinity (ppt)	33.9	34.6	34.9
	pH (units)	7.94	7.78	7.80
	DO (mg/L)	7.2	7.6	7.8
6.25	Temp. (°C)	15.8	15.6	15.7
	Salinity (ppt)	34.1	34.7	35.0
	pH (units)	7.95	7.79	7.80
	DO (mg/L)	7.5	7.6	7.9
12.5	Temp. (°C)	15.8	15.6	15.7
	Salinity (ppt)	34.1	34.7	35.0
	pH (units)	7.95	7.82	7.81
	DO (mg/L)	7.7	7.8	8.0
25	Temp. (°C)	15.8	15.7	15.8
	Salinity (ppt)	34.1	34.8	35.0
	pH (units)	7.96	7.82	7.81
	DO (mg/L)	7.8	7.8	8.0
50	Temp. (°C)	15.9	15.7	15.8
	Salinity (ppt)	34.2	34.9	35.1
	pH (units)	7.96	7.83	7.82
	DO (mg/L)	7.9	7.8	8.0
100	Temp. (°C)	15.9	15.6	15.7
	Salinity (ppt)	34.2	34.9	35.1
	pH (units)	7.96	7.84	7.83
	DO (mg/L)	8.0	7.9	8.0
100 Filtered (1.2µm)	Temp. (°C)	15.8	15.6	15.7
	Salinity (ppt)	33.9	34.8	35.0
	pH (units)	7.97	7.84	7.83
	DO (mg/L)	7.7	7.8	8.0
Tech Initials:		JW	JC	AG

Source of Animals: SIO/Wood from Mission Bay

Date Received: 8/31/20 & 5/22/20

Comments: \_\_\_\_\_

QC Check: AG 9/22/20

Final Review: JC 9/23/20



# Embryo-Larval Development Test

## Stock Preparation Worksheet

Test Species: M. galloprovincialis  
 Batch ID: \_\_\_\_\_  
 Test Type: Mussel Development

Test Date: 8/21/20  
 Analyst: AG/JW

Task	
Spawning Induction	0935/0950
Spawning Begins	1045/1345
# Males/# Females	4/4
Spawn Condition	Average
Fertilization Initiated	1525
Fertilization End/Eggs Rinsed	1545
Embryo Counts	1700
Test Initiation	1745

### Embryo Density Counts

# per 100  $\mu$ L

Stock #	Stock Volume (mL)	Rep 1	Rep 2	Rep 3	Rep 4	Mean #/100 $\mu$ L	Mean #/mL (x10)
Stock 1	250	70	72	67	74	70.8	708
Stock 2	250	42	55	51	53	50.3	503
Stock 3 <sup>4</sup>	300	54	55	51	50	52.5	525

### Cell Division:

	% Divided
Stock 1	100
Stock 2	98
Stock 3 <sup>4</sup>	96

Selected Stock:	2+4
-----------------	-----

Adjust selected embryo stock to 500 embryos/mL.  
 Dilution Factor = Stock Density/mL/500

Stock Density  
 $\frac{514}{500}$

Dil Factor  
 $\frac{1.03}{}$

In 10 mL sample volume add 500  $\mu$ L of 500 embryos/mL stock to obtain 25 embryos/mL in test vials.

Notes:

$$QL_1 = 249/255$$

$$\text{Time zero mean} = 249$$

$$\frac{202}{260} \quad \frac{256}{253} \quad \frac{243}{235} \quad \frac{265}{262} \quad \frac{243}{234} \quad x = 258 \quad 249$$

QA Review:

AG 9/22/20

Final Review:

AG 9/23/20

**Site: SIYB-6**

# CETIS Summary Report

Report Date: 23 Sep-20 10:29 (p 1 of 4)  
 Test Code: 20-08-045 | 18-1147-5594

Bivalve Larval Survival and Development Test				Wood E&IS			
Batch ID:	16-7034-4006	Test Type:	Development-Survival	Analyst:			
Start Date:	21 Aug-20 17:45	Protocol:	EPA/600/R-95/136 (1995)	Diluent:	Natural Seawater		
Ending Date:	23 Aug-20 16:45	Species:	Mytilis galloprovincialis	Brine:	Not Applicable		
Duration:	47h	Source:	Field Collected	Age:			
Sample ID:	12-1612-1183	Code:	20-W128	Client:	Wood Environment and Infrastructure		
Sample Date:	20 Aug-20 09:15	Material:	Seawater	Project:	SIYB TMDL Monitoring		
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin				
Sample Age:	33h (2 °C)	Station:	SIYB 6				
<b>Comments:</b> 101 = 100 percent sample filtered to 1.2um							
<b>Single Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result			
08-7684-2188	Combined Proportion Normal	TST-Welch's t Test	3.8E-04	100% passed combined proportion normal			
<b>Multiple Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD ✓
12-5523-6737	Combined Proportion Normal	Dunnett Multiple Comparison Test	100	> 100	n/a	1	4.05%
14-6200-5469	Proportion Normal	Dunnett Multiple Comparison Test	100	> 100	n/a	1	1.25%
18-1867-2562	Survival Rate	Dunnett Multiple Comparison Test	100	> 100	n/a	1	3.63%
<b>Test Acceptability</b>							
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
				Lower	Upper		
14-6200-5469	Proportion Normal	Control Resp	0.9618	0.9	>>	Yes	Passes Criteria
18-1867-2562	Survival Rate	Control Resp	0.9855	0.5	>>	Yes	Passes Criteria

# CETIS Summary Report

Report Date: 23 Sep-20 10:29 (p 2 of 4)  
Test Code: 20-08-045 | 18-1147-5594

Bivalve Larval Survival and Development Test											Wood E&IS
Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9481	0.9153	0.9809	0.9076	0.9721	0.0118	0.0264	2.79%	0.00%
0	FC	5	0.9489	0.9209	0.9768	0.9116	0.9688	0.0101	0.0225	2.37%	-0.08%
6.25		5	0.9379	0.9155	0.9603	0.9116	0.9545	0.0081	0.0180	1.92%	1.07%
12.5		5	0.9562	0.9335	0.9789	0.9237	0.9668	0.0082	0.0183	1.91%	-0.86%
25		5	0.9621	0.9537	0.9704	0.9559	0.9728	0.0030	0.0067	0.70%	-1.48%
50		5	0.9361	0.9003	0.9719	0.8996	0.9725	0.0129	0.0288	3.08%	1.26%
100		5	0.9322	0.8727	0.9916	0.8474	0.9647	0.0214	0.0479	5.14%	1.67%
101		5	0.9545	0.9449	0.9641	0.9438	0.9639	0.0035	0.0077	0.81%	-0.68%
Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9618	0.9515	0.9722	0.9496	0.9721	0.0037	0.0083	0.87%	0.00%
0	FC	5	0.9643	0.9541	0.9746	0.9538	0.9752	0.0037	0.0083	0.86%	-0.26%
6.25		5	0.9564	0.9514	0.9614	0.9519	0.9625	0.0018	0.0040	0.42%	0.57%
12.5		5	0.9640	0.9614	0.9665	0.9615	0.9668	0.0009	0.0021	0.22%	-0.22%
25		5	0.9628	0.9539	0.9718	0.9559	0.9728	0.0032	0.0072	0.75%	-0.10%
50		5	0.9583	0.9464	0.9702	0.9492	0.9725	0.0043	0.0096	1.00%	0.37%
100		5	0.9525	0.9369	0.9681	0.9336	0.9647	0.0056	0.0126	1.32%	0.97%
101		5	0.9630	0.9550	0.9710	0.9531	0.9677	0.0029	0.0064	0.67%	-0.12%
Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9855	0.9615	1.0000	0.9558	1.0000	0.0087	0.0194	1.97%	0.00%
0	FC	5	0.9839	0.9598	1.0000	0.9558	1.0000	0.0087	0.0195	1.98%	0.16%
6.25		5	0.9807	0.9535	1.0000	0.9518	1.0000	0.0098	0.0219	2.23%	0.49%
12.5		5	0.9920	0.9697	1.0000	0.9598	1.0000	0.0080	0.0180	1.81%	-0.65%
25		5	0.9992	0.9970	1.0000	0.9960	1.0000	0.0008	0.0018	0.18%	-1.39%
50		5	0.9767	0.9482	1.0000	0.9478	1.0000	0.0103	0.0230	2.35%	0.90%
100		5	0.9783	0.9285	1.0000	0.9076	1.0000	0.0179	0.0401	4.10%	0.73%
101		5	0.9912	0.9778	1.0000	0.9759	1.0000	0.0048	0.0108	1.09%	-0.57%

# CETIS Summary Report

Report Date: 23 Sep-20 10:29 (p 3 of 4)  
Test Code: 20-08-045 | 18-1147-5594

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9650	0.9721	0.9076	0.9357	0.9598
0	FC	0.9478	0.9518	0.9643	0.9116	0.9688
6.25		0.9116	0.9545	0.9438	0.9519	0.9277
12.5		0.9647	0.9237	0.9615	0.9668	0.9644
25		0.9639	0.9728	0.9572	0.9606	0.9559
50		0.9277	0.9570	0.9237	0.8996	0.9725
100		0.9518	0.8474	0.9492	0.9647	0.9478
101		0.9598	0.9518	0.9438	0.9639	0.9531
Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9650	0.9721	0.9496	0.9588	0.9637
0	FC	0.9752	0.9595	0.9643	0.9538	0.9688
6.25		0.9578	0.9545	0.9553	0.9519	0.9625
12.5		0.9647	0.9623	0.9615	0.9668	0.9644
25		0.9677	0.9728	0.9572	0.9606	0.9559
50		0.9625	0.9570	0.9504	0.9492	0.9725
100		0.9518	0.9336	0.9492	0.9647	0.9633
101		0.9598	0.9673	0.9671	0.9677	0.9531
Survival Rate Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	1.0000	1.0000	0.9558	0.9759	0.9960
0	FC	0.9719	0.9920	1.0000	0.9558	1.0000
6.25		0.9518	1.0000	0.9880	1.0000	0.9639
12.5		1.0000	0.9598	1.0000	1.0000	1.0000
25		0.9960	1.0000	1.0000	1.0000	1.0000
50		0.9639	1.0000	0.9719	0.9478	1.0000
100		1.0000	0.9076	1.0000	1.0000	0.9839
101		1.0000	0.9839	0.9759	0.9960	1.0000

# CETIS Summary Report

Report Date: 23 Sep-20 10:29 (p 4 of 4)  
 Test Code: 20-08-045 | 18-1147-5594

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	248/257	244/251	226/249	233/249	239/249
0	FC	236/249	237/249	243/252	227/249	248/256
6.25		227/249	252/264	235/249	257/270	231/249
12.5		246/255	230/249	250/260	262/271	244/253
25		240/249	250/257	246/257	244/254	260/272
50		231/249	245/256	230/249	224/249	248/255
100		237/249	211/249	243/256	246/255	236/249
101		239/249	237/249	235/249	240/249	244/256
Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	248/257	244/251	226/238	233/243	239/248
0	FC	236/242	237/247	243/252	227/238	248/256
6.25		227/237	252/264	235/246	257/270	231/240
12.5		246/255	230/239	250/260	262/271	244/253
25		240/248	250/257	246/257	244/254	260/272
50		231/240	245/256	230/242	224/236	248/255
100		237/249	211/226	243/256	246/255	236/245
101		239/249	237/245	235/243	240/248	244/256
Survival Rate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	249/249	249/249	238/249	243/249	248/249
0	FC	242/249	247/249	249/249	238/249	249/249
6.25		237/249	249/249	246/249	249/249	240/249
12.5		249/249	239/249	249/249	249/249	249/249
25		248/249	249/249	249/249	249/249	249/249
50		240/249	249/249	242/249	236/249	249/249
100		249/249	226/249	249/249	249/249	245/249
101		249/249	245/249	243/249	248/249	249/249

# CETIS Analytical Report

Report Date: 23 Sep-20 10:29 (p 4 of 7)  
Test Code: 20-08-045 | 18-1147-5594

Bivalve Larval Survival and Development Test										Wood E&IS													
Analysis ID: 14-6200-5469		Endpoint: Proportion Normal		CETIS Version: CETISv1.9.3																			
Analyzed: 23 Sep-20 10:27		Analysis: Parametric-Control vs Treatments		Official Results: Yes																			
Comments:																							
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD											
Angular (Corrected)		C > T		100		> 100		n/a		1		1.25%											
Dunnnett Multiple Comparison Test																							
Control		vs		Conc-%		Test Stat		Critical		MSD		DF		P-Type		P-Value		Decision(α:5%)					
Lab Control		6.25		1.135		2.362		0.030		8		CDF		0.3615		Non-Significant Effect							
		12.5		-0.3722		2.362		0.030		8		CDF		0.9202		Non-Significant Effect							
		25		-0.1929		2.362		0.030		8		CDF		0.8840		Non-Significant Effect							
		50		0.6842		2.362		0.030		8		CDF		0.5642		Non-Significant Effect							
		100		1.763		2.362		0.030		8		CDF		0.1492		Non-Significant Effect							
ANOVA Table																							
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)											
Between		0.0028733		0.0005747		5		1.409		0.2566		Non-Significant Effect											
Error		0.0097876		0.0004078		24																	
Total		0.0126609				29																	
Distributional Tests																							
Attribute		Test		Test Stat		Critical		P-Value		Decision(α:1%)													
Variances		Bartlett Equality of Variance Test		10.07		15.09		0.0732		Equal Variances													
Distribution		Shapiro-Wilk W Normality Test		0.98		0.9031		0.8258		Normal Distribution													
Proportion Normal Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		0.9618		0.9515		0.9722		0.9637		0.9496		0.9721		0.0037		0.87%		0.00%	
6.25				5		0.9564		0.9514		0.9614		0.9553		0.9519		0.9625		0.0018		0.42%		0.57%	
12.5				5		0.9640		0.9614		0.9665		0.9644		0.9615		0.9668		0.0009		0.22%		-0.22%	
25				5		0.9628		0.9539		0.9718		0.9606		0.9559		0.9728		0.0032		0.75%		-0.10%	
50				5		0.9583		0.9464		0.9702		0.9570		0.9492		0.9725		0.0043		1.00%		0.37%	
100				5		0.9525		0.9369		0.9681		0.9518		0.9336		0.9647		0.0056		1.32%		0.97%	
Angular (Corrected) Transformed Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		1.375		1.348		1.402		1.379		1.344		1.403		0.009674		1.57%		0.00%	
6.25				5		1.361		1.348		1.373		1.358		1.35		1.376		0.004456		0.73%		1.05%	
12.5				5		1.38		1.373		1.387		1.381		1.373		1.388		0.002497		0.40%		-0.35%	
25				5		1.378		1.353		1.402		1.371		1.359		1.405		0.008726		1.42%		-0.18%	
50				5		1.366		1.335		1.397		1.362		1.343		1.404		0.01115		1.83%		0.64%	
100				5		1.353		1.316		1.389		1.349		1.31		1.382		0.01301		2.15%		1.64%	

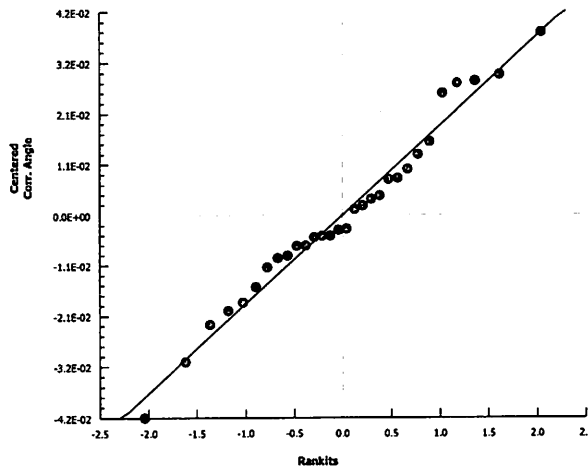
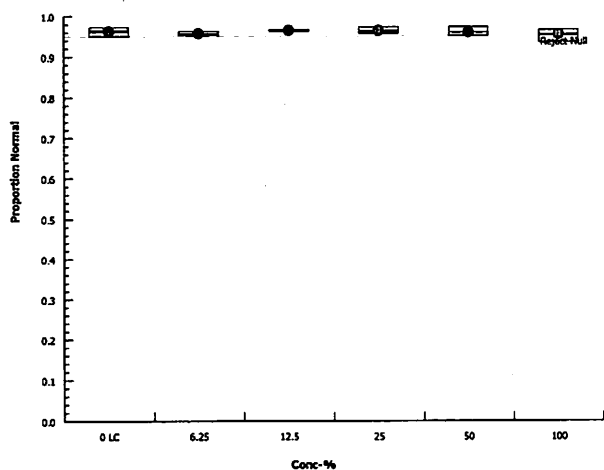
Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 14-6200-5469      Endpoint: Proportion Normal  
 Analyzed: 23 Sep-20 10:27      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
 Official Results: Yes

Graphics





# CETIS Analytical Report

Report Date: 23 Sep-20 10:29 (p 6 of 7)  
Test Code: 20-08-045 | 18-1147-5594

Bivalve Larval Survival and Development Test										Wood E&IS	
Analysis ID: 18-1867-2562		Endpoint: Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 10:27		Analysis: Parametric-Control vs Treatments		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU	
Angular (Corrected)		C > T		100		> 100		n/a		1	
Dunnnett Multiple Comparison Test											
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		6.25	0.34	2.362	0.127	8	CDF	0.7141	Non-Significant Effect		
		12.5	-0.616	2.362	0.127	8	CDF	0.9545	Non-Significant Effect		
		25	-1.13	2.362	0.127	8	CDF	0.9885	Non-Significant Effect		
		50	0.5913	2.362	0.127	8	CDF	0.6064	Non-Significant Effect		
		100	0.1357	2.362	0.127	8	CDF	0.7901	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)		
Between	0.0299175		0.0059835		5		0.8251	0.5442	Non-Significant Effect		
Error	0.174036		0.0072515		24						
Total	0.203954				29						
Distributional Tests											
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)			
Variances	Bartlett Equality of Variance Test				10.82	15.09	0.0550	Equal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.9297	0.9031	0.0481	Normal Distribution			
Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.9855	0.9615	1.0000	0.9960	0.9558	1.0000	0.0087	1.97%	0.00%
6.25		5	0.9807	0.9535	1.0000	0.9880	0.9518	1.0000	0.0098	2.23%	0.49%
12.5		5	0.9920	0.9697	1.0000	1.0000	0.9598	1.0000	0.0080	1.81%	-0.65%
25		5	0.9992	0.9970	1.0000	1.0000	0.9960	1.0000	0.0008	0.18%	-1.39%
50		5	0.9767	0.9482	1.0000	0.9719	0.9478	1.0000	0.0103	2.35%	0.90%
100		5	0.9783	0.9285	1.0000	1.0000	0.9076	1.0000	0.0179	4.10%	0.73%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.472	1.371	1.573	1.507	1.359	1.539	0.03625	5.51%	0.00%
6.25		5	1.454	1.344	1.563	1.461	1.349	1.539	0.03937	6.06%	1.24%
12.5		5	1.505	1.411	1.6	1.539	1.369	1.539	0.03401	5.05%	-2.25%
25		5	1.533	1.515	1.55	1.539	1.507	1.539	0.006344	0.93%	-4.13%
50		5	1.44	1.324	1.556	1.402	1.34	1.539	0.04163	6.46%	2.16%
100		5	1.465	1.315	1.614	1.539	1.262	1.539	0.05392	8.23%	0.50%

# CETIS Analytical Report

Report Date: 23 Sep-20 10:29 (p 7 of 7)  
Test Code: 20-08-045 | 18-1147-5594

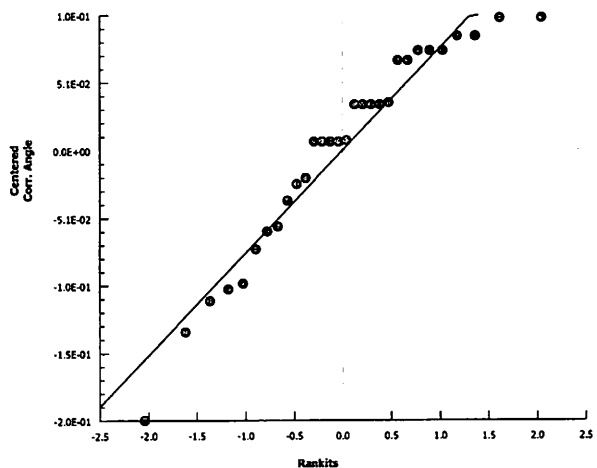
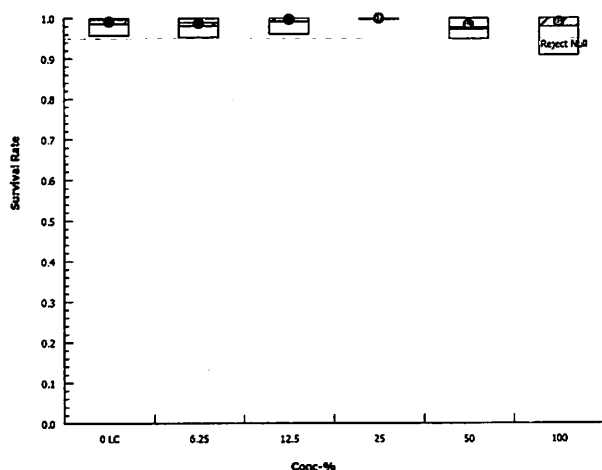
## Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 18-1867-2562      Endpoint: Survival Rate  
Analyzed: 23 Sep-20 10:27      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
Official Results: Yes

### Graphics



# CETIS Analytical Report

Report Date: 23 Sep-20 10:29 (p 1 of 7)  
Test Code: 20-08-045 | 18-1147-5594

Bivalve Larval Survival and Development Test										Wood E&IS			
Analysis ID: 12-5523-6737		Endpoint: Combined Proportion Normal				CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 10:27		Analysis: Parametric-Control vs Treatments				Official Results: Yes							
Comments:													
Data Transform		Alt Hyp				NOEL		LOEL		TOEL		TU	PMSD
Angular (Corrected)		C > T				100		> 100		n/a		1	4.05%
Dunnnett Multiple Comparison Test													
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)				
Lab Control		6.25	0.7412	2.362	0.081	8	CDF	0.5381	Non-Significant Effect				
		12.5	-0.4896	2.362	0.081	8	CDF	0.9386	Non-Significant Effect				
		25	-0.8551	2.362	0.081	8	CDF	0.9753	Non-Significant Effect				
		50	0.7428	2.362	0.081	8	CDF	0.5373	Non-Significant Effect				
		100	0.8583	2.362	0.081	8	CDF	0.4841	Non-Significant Effect				
ANOVA Table													
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)				
Between	0.015421		0.0030842		5		1.057	0.4082	Non-Significant Effect				
Error	0.0700228		0.0029176		24								
Total	0.0854438				29								
Distributional Tests													
Attribute	Test				Test Stat		Critical	P-Value	Decision(α:1%)				
Variances	Bartlett Equality of Variance Test				8.154		15.09	0.1480	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test				0.9286		0.9031	0.0451	Normal Distribution				
Combined Proportion Normal Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	5	0.9481	0.9153	0.9809	0.9598	0.9076	0.9721	0.0118	2.79%	0.00%		
6.25		5	0.9379	0.9155	0.9603	0.9438	0.9116	0.9545	0.0081	1.92%	1.07%		
12.5		5	0.9562	0.9335	0.9789	0.9644	0.9237	0.9668	0.0082	1.91%	-0.86%		
25		5	0.9621	0.9537	0.9704	0.9606	0.9559	0.9728	0.0030	0.70%	-1.48%		
50		5	0.9361	0.9003	0.9719	0.9277	0.8996	0.9725	0.0129	3.08%	1.26%		
100		5	0.9322	0.8727	0.9916	0.9492	0.8474	0.9647	0.0214	5.14%	1.67%		
Angular (Corrected) Transformed Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	5	1.346	1.275	1.417	1.369	1.262	1.403	0.02566	4.26%	0.00%		
6.25		5	1.321	1.275	1.366	1.331	1.269	1.356	0.01636	2.77%	1.88%		
12.5		5	1.363	1.313	1.413	1.381	1.291	1.388	0.01814	2.98%	-1.24%		
25		5	1.375	1.353	1.398	1.371	1.359	1.405	0.008198	1.33%	-2.17%		
50		5	1.321	1.244	1.398	1.299	1.248	1.404	0.02767	4.68%	1.88%		
100		5	1.317	1.213	1.421	1.343	1.169	1.382	0.03759	6.38%	2.18%		

## CETIS Analytical Report

**Report Date:** 23 Sep-20 10:29 (p 2 of 7)  
**Test Code:** 20-08-045 | 18-1147-5594

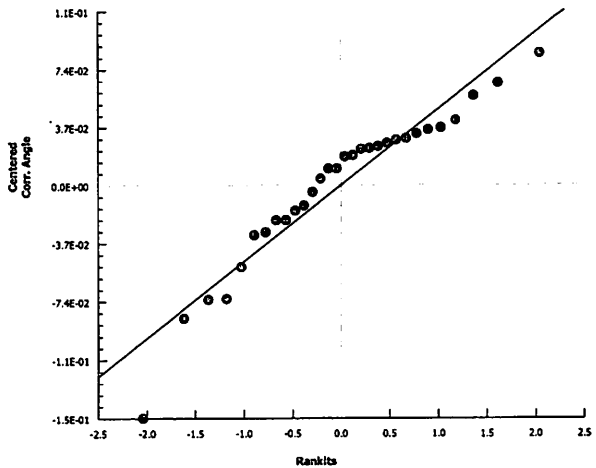
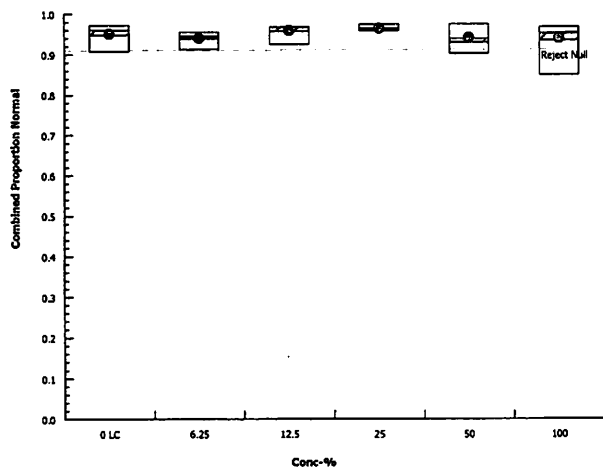
### Bivalve Larval Survival and Development Test

**Wood E&IS**

<b>Analysis ID:</b>	12-5523-6737	<b>Endpoint:</b>	Combined Proportion Normal
<b>Analyzed:</b>	23 Sep-20 10:27	<b>Analysis:</b>	Parametric-Control vs Treatments

**CETIS Version:** CETISv1.9.3  
**Official Results:** Yes

## Graphics



# CETIS Analytical Report

Report Date: 23 Sep-20 10:29 (p 3 of 7)  
Test Code: 20-08-045 | 18-1147-5594

TST  
(100% unfiltered)

Bivalve Larval Survival and Development Test Wood E&IS

Analysis ID: 08-7684-2188      Endpoint: Combined Proportion Normal      CETIS Version: CETISv1.9.3  
Analyzed: 23 Sep-20 10:28      Analysis: Parametric Bioequivalence-Two Sample      Official Results: Yes

Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed combined proportion normal

**TST-Welch's t Test**

Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Lab Control		100*	7.275	2.015	5	CDF	3.8E-04	Non-Significant Effect

**ANOVA Table**

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0021492	0.0021492	1	0.415	0.5375	Non-Significant Effect
Error	0.041433	0.0051791	8			
Total	0.0435821		9			

**Distributional Tests**

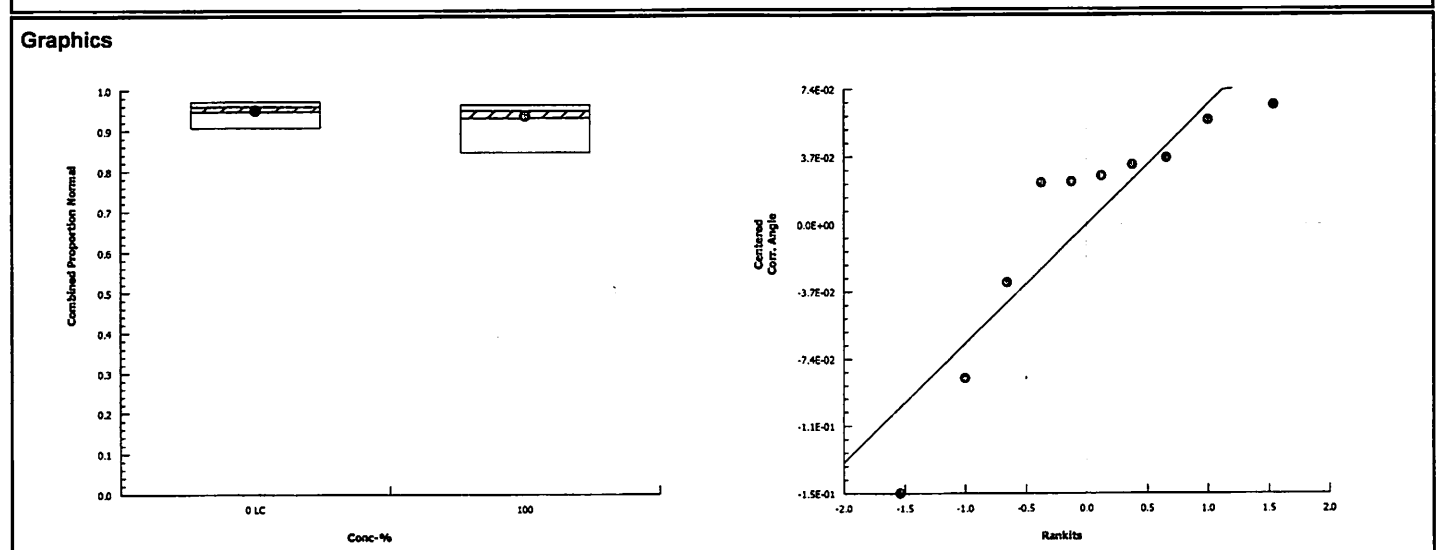
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	2.147	23.15	0.4775	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.8183	0.7411	0.0242	Normal Distribution

**Combined Proportion Normal Summary**

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.9481	0.9153	0.9809	0.9598	0.9076	0.9721	0.0118	2.79%	0.00%
100		5	0.9322	0.8727	0.9916	0.9492	0.8474	0.9647	0.0214	5.14%	1.67%

**Angular (Corrected) Transformed Summary**

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.346	1.275	1.417	1.369	1.262	1.403	0.02566	4.26%	0.00%
100		5	1.317	1.213	1.421	1.343	1.169	1.382	0.03759	6.38%	2.18%



# CETIS Analytical Report

TST

Report Date: 23 Sep-20 10:29 (p 1 of 1)  
Test Code: 20-08-045 | 18-1147-5594

Bivalve Larval Survival and Development Test (100% Filtered) Wood E&IS

Analysis ID: 06-2505-0916 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
Analyzed: 23 Sep-20 10:29 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	101% passed combined proportion normal

**TST-Welch's t Test**

Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Filter Control		101*	18.98	2.015	5	CDF	3.7E-06	Non-Significant Effect

**ANOVA Table**

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0002449	0.0002449	1	0.1818	0.6810	Non-Significant Effect
Error	0.0107746	0.0013468	8			
Total	0.0110195		9			

**Distributional Tests**

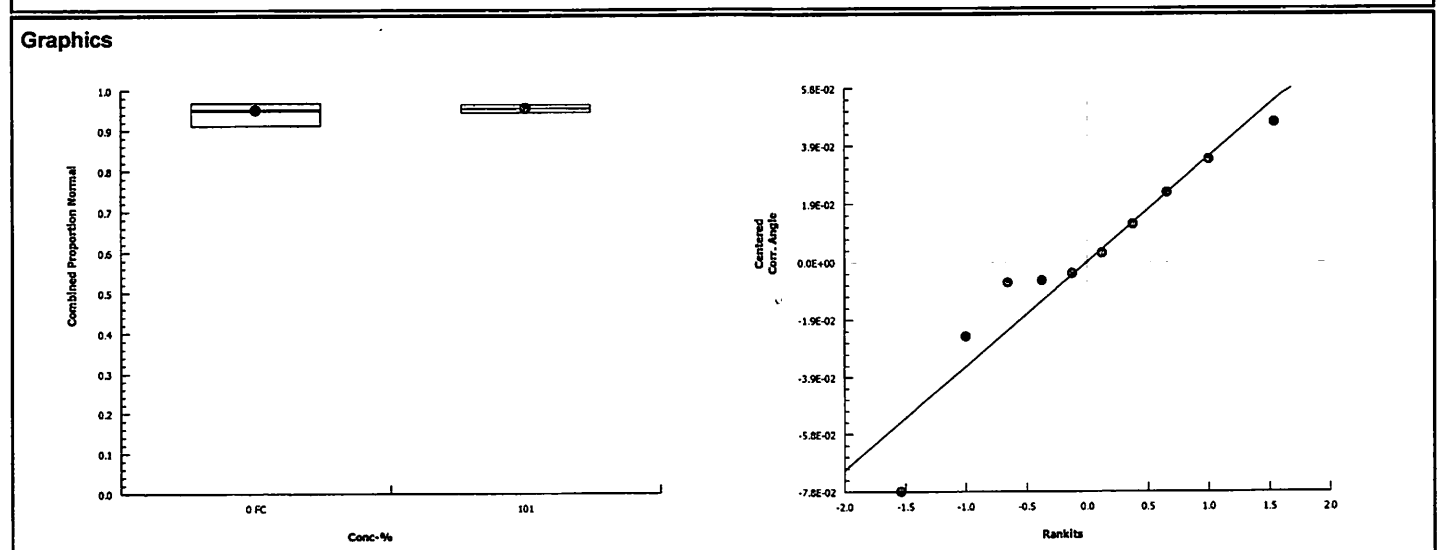
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	6.798	23.15	0.0902	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9223	0.7411	0.3770	Normal Distribution

**Combined Proportion Normal Summary**

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	0.9489	0.9209	0.9768	0.9518	0.9116	0.9688	0.0101	2.37%	0.00%
101		5	0.9545	0.9449	0.9641	0.9531	0.9438	0.9639	0.0035	0.81%	-0.59%

**Angular (Corrected) Transformed Summary**

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	1.346	1.286	1.407	1.349	1.269	1.393	0.02167	3.60%	0.00%
101		5	1.356	1.333	1.379	1.353	1.331	1.38	0.008312	1.37%	-0.74%



# CETIS Analytical Report

Report Date: 25 Sep-20 15:59 (p 1 of 2)  
Test Code: 20-08-045 | 18-1147-5594

Bivalve Larval Survival and Development Test											Wood E&IS
Analysis ID:	07-8673-7093		Endpoint:	Proportion Normal w/curved Hinge				CETIS Version:	CETISv1.9.3		
Analyzed:	25 Sep-20 15:59		Analysis:	Nonparametric-Control vs Treatments				Official Results:	Yes		
Comments:	101 = 100% Filtered										
Data Transform	Alt Hyp				NOEL	LOEL	TOEL	TU			
Angular (Corrected)	C > T				101	> 101	n/a	0.9901			
Steel Many-One Rank Sum Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		6.25	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		12.5	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		25	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		50	30	16	1	8	Asymp	0.9557	Non-Significant Effect		
		100	27.5	16	1	8	Asymp	0.8571	Non-Significant Effect		
		101	30	16	1	8	Asymp	0.9557	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0003240		5.400E-05		6	0.8869	0.5175	Non-Significant Effect			
Error	0.0017049		6.089E-05		28						
Total	0.0020289				34						
Distributional Tests											
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)			
Variances	Bartlett Equality of Variance Test				80.71	16.81	<1.0E-37	Unequal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.5801	0.9146	8.0E-09	Non-Normal Distribution			
Proportion Normal Summary w/curved Hinge											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
6.25		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
12.5		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
25		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
50		5	0.0008	0.0000	0.0032	0.0000	0.0000	0.0042	0.0008	223.61%	
100		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
101		5	0.0008	0.0000	0.0030	0.0000	0.0000	0.0040	0.0008	223.61%	
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.0318	0.0312	0.0324	0.0318	0.0312	0.0324	0.0002	1.48%	0.00%
6.25		5	0.0316	0.0304	0.0327	0.0319	0.0304	0.0325	0.0004	2.90%	0.72%
12.5		5	0.0313	0.0304	0.0322	0.0313	0.0304	0.0324	0.0003	2.29%	1.58%
25		5	0.0312	0.0305	0.0318	0.0312	0.0303	0.0318	0.0002	1.69%	1.99%
50		5	0.0384	0.0199	0.0570	0.0322	0.0313	0.0651	0.0067	38.88%	-20.83%
100		5	0.0319	0.0309	0.0329	0.0317	0.0313	0.0333	0.0004	2.56%	-0.29%
101		5	0.0381	0.0205	0.0557	0.0320	0.0313	0.0634	0.0063	37.17%	-19.77%
Proportion Normal Detail Curved											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	LC	0.0000	0.0000	0.0000	0.0000	0.0000					
6.25		0.0000	0.0000	0.0000	0.0000	0.0000					
12.5		0.0000	0.0000	0.0000	0.0000	0.0000					
25		0.0000	0.0000	0.0000	0.0000	0.0000					
50		0.0000	0.0000	0.0000	0.0042	0.0000					
100		0.0000	0.0000	0.0000	0.0000	0.0000					
101		0.0040	0.0000	0.0000	0.0000	0.0000					

# CETIS Analytical Report

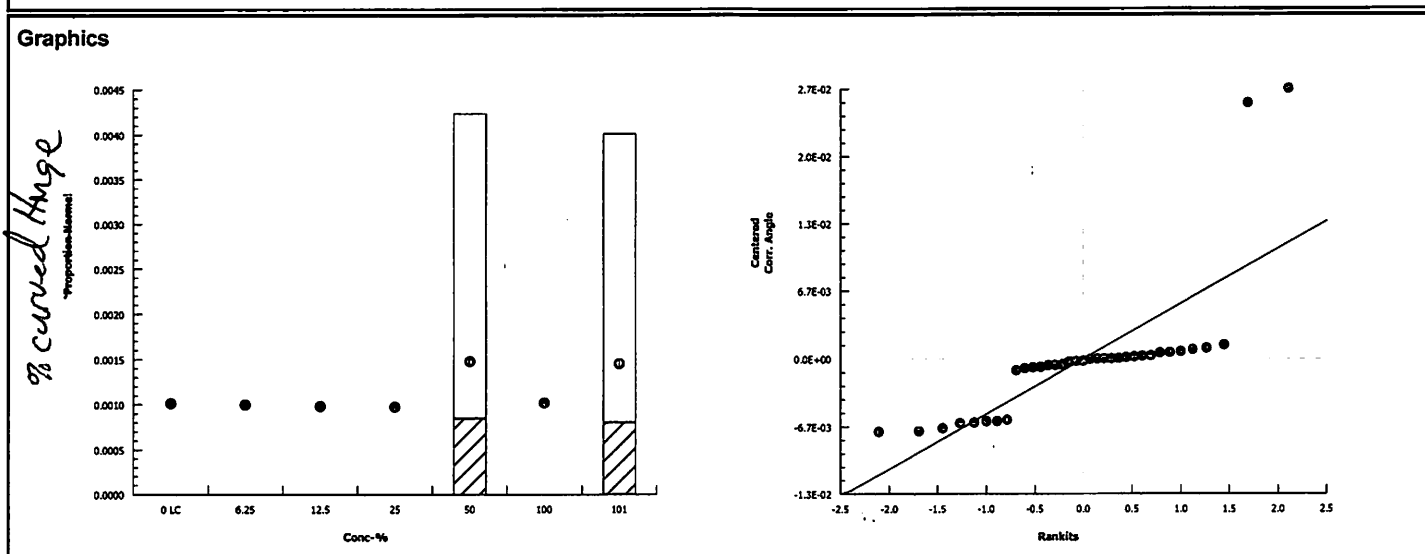
Report Date: 25 Sep-20 15:59 (p 2 of 2)  
Test Code: 20-08-045 | 18-1147-5594

Bivalve Larval Survival and Development Test Wood E&IS

Analysis ID: 07-8673-7093 Endpoint: Proportion ~~Normal~~ *w/ Curved Hinge* CETIS Version: CETISv1.9.3  
Analyzed: 25 Sep-20 15:59 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Angular (Corrected) Transformed Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.0312	0.0316	0.0324	0.0321	0.0318
6.25		0.0325	0.0308	0.0319	0.0304	0.0323
12.5		0.0313	0.0324	0.0310	0.0304	0.0314
25		0.0318	0.0312	0.0312	0.0314	0.0303
50		0.0323	0.0313	0.0322	0.0651	0.0313
100		0.0317	0.0333	0.0313	0.0313	0.0320
101		0.0634	0.0320	0.0321	0.0318	0.0313

Proportion <del>Normal</del> <i>Curved</i> Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0/257	0/251	0/238	0/243	0/248
6.25		0/237	0/264	0/246	0/270	0/240
12.5		0/255	0/239	0/260	0/271	0/253
25		0/248	0/257	0/257	0/254	0/272
50		0/240	0/256	0/242	1/236	0/255
100		0/249	0/226	0/256	0/255	0/245
101		1/249	0/245	0/243	0/248	0/256





# Embryo-Larval Development Test Scoring Worksheet

Client: Wood/ SIYB  
Project ID: SIYB 6  
Test No.: 20-08-045

Test Species: *M. galloprovincialis*  
Start Date: 8/21/2020 1745  
End Date: 8/23/2020 1645  
JL

Random #	# Counted	# Normal	Abnormal		Tech Initials / Notes
			Number Curved Shell	All Other Abnormal	
231	226	211	0	15	AG
232	253	244	0	9	AG / copepod observed
233	246	235	0	11	AG
234	260	250	0	10	AG
235	264	252	0	12	AG
236	240	231	0	9	AG
237	238	226	0	12	AG
238	<del>242</del> 256	244	0	12	AG
239	270	257	0	13	AG
240	257	248	0	9	AG
241	243	233	0	10	AG
242	272	260	0	12	AG
243	271	262	0	9	AG
244	242	236	0	6	AG
245	251	244	0	7	AG
246	257	250	0	7	AG
247	255	246	0	9	AG
248	239	230	0	9	AG
249	237	227	0	10	AG
250	248	239	0	9	AG
251	257	246	0	11	AG
252	236	224	1	11	AG
253	245	237	0	8	AG
254	248	240	0	8	AG
255	255	248	0	7	AG / copepod observed
256	252	243	0	9	AG
257	249	237	0	12	AG / copepod observed
258	256	248	0	8	AG
259	245	236	0	9	AG / copepods observed
260	256	245	0	11	AG
261	242	230	0	12	AG
262	254	244	0	10	AG
263	247	237	0	10	AG
264	243	235	0	8	AG
265	240	231	0	9	AG
266	238	227	0	11	AG
267	249	239	1	9	AG
268	256	243	0	13	AG / copepods observed
269	255	246	0	9	AG
270	248	240	0	8	AG

QC Check: AG 9/24/20

Final Review: JC 9/23/20

## CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:08 (p 1 of 2)  
 Test Code/ID: 18-1147-5594/20-08-045

## Bivalve Larval Survival and Development Test

Wood E&amp;IS

Start Date: 21 Aug-20

Species: Mytilis galloprovincialis

Sample Code: 487C895F

End Date: 23 Aug-20

Protocol: EPA/600/R-95/136 (1995)

Sample Source: Shelter Island Yacht Basin

Sample Date: 20 Aug-20

Material: Seawater

Sample Station: SIYB 6

Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
0	FC	1	244					Random # 231-270
0	FC	2	263					
0	FC	3	256					
0	FC	4	266					
0	FC	5	258					
0	LC	1	240			248	240	
0	LC	2	245					
0	LC	3	237					
0	LC	4	241					
0	LC	5	250					
6.25		1	249					
6.25		2	235					
6.25		3	233					
6.25		4	239					
6.25		5	236					
12.5		1	269					
12.5		2	248					
12.5		3	234					
12.5		4	243					
12.5		5	232					
25		1	254					
25		2	246					
25		3	251					
25		4	262					
25		5	242					
50		1	265					
50		2	260					
50		3	261					
50		4	252					
50		5	255					
100		1	257			251	238	
100		2	231					
100		3	268					
100		4	247					
100		5	259					
101		1	267					
101		2	253					

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:08 (p 2 of 2)  
 Test Code/ID: 18-1147-5594/20-08-045

Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
101		3	264					
101		4	270					
101		5	238					

QC: AB

# Water Quality for Bivalve Development

Client: Wood - Port of San Diego  
Project ID: SIYB 6  
Test No. 20-08-045

Test Species: *M. galloprovincialis*  
Start Date/Time: 8/21/2020 1745  
End Date/Time: 8/23/2020 1645

Test Conc. ( % )	Water Quality Measurements			
	Parameter	0hr	24hr	48hr
Lab Control	Temp. (°C)	15.8	15.6	15.7
	Salinity (ppt)	33.8	34.7	34.9
	pH (units)	7.83	7.75	7.77
	DO (mg/L)	7.7	7.8	7.9
Filtered Control (1.2µm)	Temp. (°C)	15.8	15.6	15.7
	Salinity (ppt)	33.9	34.6	34.9
	pH (units)	7.99	7.75	7.77
	DO (mg/L)	7.2	7.9	8.0
6.25	Temp. (°C)	15.6	15.5	15.6
	Salinity (ppt)	34.0	34.7	34.9
	pH (units)	7.96	7.78	7.79
	DO (mg/L)	7.5	7.8	8.0
12.5	Temp. (°C)	15.7	15.5	15.6
	Salinity (ppt)	34.0	34.7	34.9
	pH (units)	7.97	7.79	7.80
	DO (mg/L)	7.8	7.9	8.0
25	Temp. (°C)	15.5	15.4	15.5
	Salinity (ppt)	34.2	34.8	35.0
	pH (units)	7.97	7.80	7.80
	DO (mg/L)	7.8	7.9	8.0
50	Temp. (°C)	15.4	15.4	15.5
	Salinity (ppt)	34.3	34.8	35.0
	pH (units)	7.97	7.80	7.80
	DO (mg/L)	8.0	7.9	8.0
100	Temp. (°C)	15.4	15.4	15.6
	Salinity (ppt)	34.4	34.7	35.0
	pH (units)	7.97	7.81	7.81
	DO (mg/L)	8.0	8.0	8.1
100 Filtered (1.2µm)	Temp. (°C)	15.4	15.5	15.6
	Salinity (ppt)	33.8	34.8	35.0
	pH (units)	7.78	7.80	7.81
	DO (mg/L)	7.8	7.9	8.0
Tech Initials:		JL	SC	AB

Source of Animals: SIO/Wood From Mission Bay

Date Received: 8/3/20 & 5/22/20

Comments:

QC Check: AB 9/22/20

Final Review: JC 9/23/20

# Embryo-Larval Development Test

## Stock Preparation Worksheet

Test Species: M. galloprovincialis  
 Batch ID: \_\_\_\_\_  
 Test Type: Mussel Development

Test Date: 8/21/20  
 Analyst: AG/JW

Task	
Spawning Induction	0935/0950
Spawning Begins	1045 1345
# Males/# Females	4/4
Spawn Condition	Average
Fertilization Initiated	1525
Fertilization End/Eggs Rinsed	1545
Embryo Counts	1700
Test Initiation	1745

### Embryo Density Counts

# per 100  $\mu$ L

Stock #	Stock Volume (mL)	Rep 1	Rep 2	Rep 3	Rep 4	Mean #/100 $\mu$ L	Mean #/mL (x10)
Stock 1	250	70	72	67	74	70.8	708
Stock 2	250	42	55	51	53	50.3	503
Stock 3 <sup>4</sup>	300	54	55	51	50	52.5	525

### Cell Division:

	% Divided
Stock 1	100
Stock 2	96.98
Stock 3 <sup>4</sup>	96

Selected Stock:	2 + 4
-----------------	-------

Stock Density

Dil Factor

Adjust selected embryo stock to 500 embryos/mL.  
 Dilution Factor = Stock Density/mL/500

514  
500

1.03

In 10 mL sample volume add 500  $\mu$ L of 500 embryos/mL stock to obtain 25 embryos/mL in test vials.

Notes:

QC<sub>1</sub> = 249/255

Time Zero mean = 249

$\bar{x}_1 = 282$   $\bar{x}_2 = 256$   $\bar{x}_3 = 243$   $\bar{x}_4 = 265$   $\bar{x}_5 = 243$   $\bar{x} = 258$  249  
260 253 235 262 234

QA Review:

AG 9/22/20

Final Review:

AG 9/23/20

**Site: SIYB-REF**

# CETIS Summary Report

Report Date: 23 Sep-20 10:53 (p 1 of 4)  
Test Code: 20-08-046 | 05-2120-2659

Bivalve Larval Survival and Development Test				Wood E&IS			
Batch ID: 07-8909-5443	Test Type: Development-Survival	Analyst:					
Start Date: 21 Aug-20 17:45	Protocol: EPA/600/R-95/136 (1995)	Diluent: Natural Seawater					
Ending Date: 23 Aug-20 16:45	Species: Mytilis galloprovincialis	Brine: Not Applicable					
Duration: 47h	Source: Field Collected	Age:					
Sample ID: 11-4438-3574	Code: 20-W129	Client: Wood Environment and Infrastructure					
Sample Date: 20 Aug-20 08:15	Material: Seawater	Project: SIYB TMDL Monitoring					
Receipt Date: 20 Aug-20 17:35	Source: Shelter Island Yacht Basin						
Sample Age: 34h (1 °C)	Station: SIYB REF1						
<b>Comments:</b> 101 = 100 percent sample filtered to 1.2um							
<b>Single Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result			
12-2917-3650	Combined Proportion Normal	TST-Welch's t Test	6.9E-05	100% passed combined proportion normal			
<b>Multiple Comparison Summary</b>							
Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	TU	PMSD ✓
00-2242-1657	Combined Proportion Normal	Dunnett Multiple Comparison Test	100	> 100	n/a	1	11.9%
09-4268-6882	Proportion Normal	Dunnett Multiple Comparison Test	100	> 100	n/a	1	1.33%
14-1340-4419	Survival Rate	Dunnett Multiple Comparison Test	100	> 100	n/a	1	13.3%
<b>Test Acceptability</b>							
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision
09-4268-6882	Proportion Normal	Control Resp	0.9728	Lower	Upper	Yes	Passes Criteria
14-1340-4419	Survival Rate	Control Resp	0.9253	0.9	>>	Yes	Passes Criteria

# CETIS Summary Report

Report Date: 23 Sep-20 10:53 (p 2 of 4)  
Test Code: 20-08-046 | 05-2120-2659

Bivalve Larval Survival and Development Test											Wood E&IS
Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9005	0.8233	0.9777	0.8072	0.9805	0.0278	0.0622	6.91%	0.00%
0	FC	5	0.9567	0.9069	1.0000	0.8996	0.9962	0.0179	0.0401	4.19%	-6.24%
6.25		5	0.8731	0.8020	0.9442	0.8153	0.9478	0.0256	0.0573	6.56%	3.05%
12.5		5	0.9439	0.8794	1.0000	0.8876	0.9920	0.0232	0.0519	5.50%	-4.81%
25		5	0.9327	0.8558	1.0000	0.8554	0.9841	0.0277	0.0620	6.64%	-3.58%
50		5	0.9019	0.8167	0.9870	0.8273	0.9807	0.0307	0.0686	7.61%	-0.15%
100		5	0.9398	0.8977	0.9819	0.8956	0.9841	0.0152	0.0339	3.61%	-4.36%
101		5	0.9012	0.8516	0.9508	0.8434	0.9478	0.0179	0.0399	4.43%	-0.08%
Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9728	0.9614	0.9843	0.9571	0.9805	0.0041	0.0092	0.95%	0.00%
0	FC	5	0.9867	0.9796	0.9938	0.9825	0.9962	0.0025	0.0057	0.58%	-1.43%
6.25		5	0.9854	0.9776	0.9932	0.9760	0.9911	0.0028	0.0063	0.64%	-1.30%
12.5		5	0.9832	0.9766	0.9899	0.9779	0.9920	0.0024	0.0054	0.54%	-1.07%
25		5	0.9817	0.9738	0.9895	0.9728	0.9878	0.0028	0.0063	0.64%	-0.91%
50		5	0.9740	0.9643	0.9836	0.9649	0.9810	0.0035	0.0078	0.80%	-0.12%
100		5	0.9808	0.9720	0.9895	0.9746	0.9915	0.0032	0.0071	0.72%	-0.82%
101		5	0.9799	0.9737	0.9861	0.9741	0.9865	0.0022	0.0050	0.51%	-0.73%
Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9253	0.8558	0.9948	0.8434	1.0000	0.0250	0.0560	6.05%	0.00%
0	FC	5	0.9695	0.9237	1.0000	0.9157	1.0000	0.0165	0.0369	3.80%	-4.77%
6.25		5	0.8859	0.8159	0.9560	0.8233	0.9598	0.0252	0.0564	6.37%	4.25%
12.5		5	0.9598	0.8981	1.0000	0.9036	1.0000	0.0223	0.0498	5.18%	-3.73%
25		5	0.9502	0.8712	1.0000	0.8675	1.0000	0.0285	0.0637	6.70%	-2.69%
50		5	0.9261	0.8364	1.0000	0.8434	1.0000	0.0323	0.0722	7.80%	-0.09%
100		5	0.9582	0.9164	1.0000	0.9157	1.0000	0.0151	0.0337	3.51%	-3.56%
101		5	0.9197	0.8699	0.9694	0.8635	0.9639	0.0179	0.0401	4.36%	0.61%



# CETIS Summary Report

Report Date: 23 Sep-20 10:53 (p 3 of 4)  
 Test Code: 20-08-046 | 05-2120-2659

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.8916	0.8072	0.9076	0.9805	0.9157
0	FC	0.9719	0.9317	0.8996	0.9840	0.9962
6.25		0.8153	0.8916	0.9478	0.8956	0.8153
12.5		0.9920	0.9719	0.8876	0.8876	0.9803
25		0.8554	0.9841	0.9759	0.8755	0.9728
50		0.9664	0.9807	0.8835	0.8273	0.8514
100		0.9598	0.9841	0.9237	0.9357	0.8956
101		0.9076	0.9237	0.9478	0.8835	0.8434
Proportion Normal Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9737	0.9571	0.9741	0.9805	0.9785
0	FC	0.9878	0.9831	0.9825	0.9840	0.9962
6.25		0.9760	0.9823	0.9874	0.9911	0.9902
12.5		0.9920	0.9837	0.9822	0.9779	0.9803
25		0.9861	0.9841	0.9878	0.9776	0.9728
50		0.9664	0.9807	0.9649	0.9810	0.9770
100		0.9755	0.9841	0.9746	0.9915	0.9781
101		0.9741	0.9787	0.9833	0.9865	0.9767
Survival Rate Detail						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9157	0.8434	0.9317	1.0000	0.9357
0	FC	0.9839	0.9478	0.9157	1.0000	1.0000
6.25		0.8353	0.9076	0.9598	0.9036	0.8233
12.5		1.0000	0.9880	0.9036	0.9076	1.0000
25		0.8675	1.0000	0.9880	0.8956	1.0000
50		1.0000	1.0000	0.9157	0.8434	0.8715
100		0.9839	1.0000	0.9478	0.9438	0.9157
101		0.9317	0.9438	0.9639	0.8956	0.8635

# CETIS Summary Report

Report Date: 23 Sep-20 10:53 (p 4 of 4)  
Test Code: 20-08-046 | 05-2120-2659

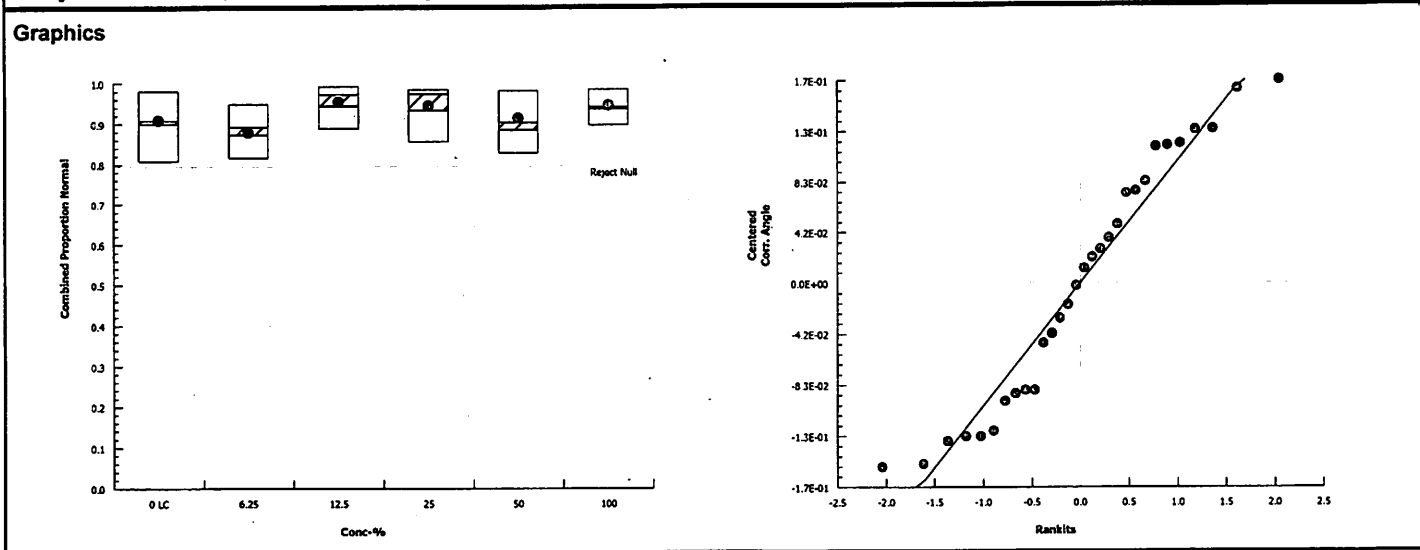
Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	222/249	201/249	226/249	252/257	228/249
0	FC	242/249	232/249	224/249	246/250	261/262
6.25		203/249	222/249	236/249	223/249	203/249
12.5		247/249	242/249	221/249	221/249	249/254
25		213/249	248/252	243/249	218/249	250/257
50		259/268	254/259	220/249	206/249	212/249
100		239/249	248/252	230/249	233/249	223/249
101		226/249	230/249	236/249	220/249	210/249
Proportion Normal Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	222/228	201/210	226/232	252/257	228/233
0	FC	242/245	232/236	224/228	246/250	261/262
6.25		203/208	222/226	236/239	223/225	203/205
12.5		247/249	242/246	221/225	221/226	249/254
25		213/216	248/252	243/246	218/223	250/257
50		259/268	254/259	220/228	206/210	212/217
100		239/245	248/252	230/236	233/235	223/228
101		226/232	230/235	236/240	220/223	210/215
Survival Rate Binomials						
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	228/249	210/249	232/249	249/249	233/249
0	FC	245/249	236/249	228/249	249/249	249/249
6.25		208/249	226/249	239/249	225/249	205/249
12.5		249/249	246/249	225/249	226/249	249/249
25		216/249	249/249	246/249	223/249	249/249
50		249/249	249/249	228/249	210/249	217/249
100		245/249	249/249	236/249	235/249	228/249
101		232/249	235/249	240/249	223/249	215/249

# CETIS Analytical Report

Report Date: 23 Sep-20 10:53 (p 1 of 7)  
Test Code: 20-08-046 | 05-2120-2659

Bivalve Larval Survival and Development Test										Wood E&IS			
Analysis ID: 00-2242-1657		Endpoint: Combined Proportion Normal				CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 10:53		Analysis: Parametric-Control vs.Treatments				Official Results: Yes							
Comments:													
Data Transform		Alt Hyp				NOEL		LOEL		TOEL		TU	PMSD
Angular (Corrected)		C > T				100		> 100		n/a		1	11.88%
Dunnett Multiple Comparison Test													
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)				
Lab Control		6.25	0.7165	2.362	0.165	8	CDF	0.5494	Non-Significant Effect				
		12.5	-1.29	2.362	0.165	8	CDF	0.9928	Non-Significant Effect				
		25	-0.959	2.362	0.165	8	CDF	0.9813	Non-Significant Effect				
		50	-0.1067	2.362	0.165	8	CDF	0.8629	Non-Significant Effect				
		100	-0.9743	2.362	0.165	8	CDF	0.9821	Non-Significant Effect				
ANOVA Table													
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)				
Between	0.0712117		0.0142423		5		1.168	0.3535	Non-Significant Effect				
Error	0.292643		0.0121935		24								
Total	0.363855				29								
Distributional Tests													
Attribute	Test				Test Stat		Critical	P-Value	Decision(α:1%)				
Variances	Bartlett Equality of Variance Test				1.353		15.09	0.9294	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test				0.9369		0.9031	0.0752	Normal Distribution				
Combined Proportion Normal Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	5	0.9005	0.8233	0.9777	0.9076	0.8072	0.9805	0.0278	6.91%	0.00%		
6.25		5	0.8731	0.8020	0.9442	0.8916	0.8153	0.9478	0.0256	6.56%	3.05%		
12.5		5	0.9439	0.8794	1.0000	0.9719	0.8876	0.9920	0.0232	5.50%	-4.81%		
25		5	0.9327	0.8558	1.0000	0.9728	0.8554	0.9841	0.0277	6.64%	-3.58%		
50		5	0.9019	0.8167	0.9870	0.8835	0.8273	0.9807	0.0307	7.61%	-0.15%		
100		5	0.9398	0.8977	0.9819	0.9357	0.8956	0.9841	0.0152	3.61%	-4.36%		
Angular (Corrected) Transformed Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	5	1.264	1.124	1.404	1.262	1.116	1.431	0.05032	8.90%	0.00%		
6.25		5	1.214	1.102	1.326	1.235	1.127	1.34	0.04029	7.42%	3.96%		
12.5		5	1.354	1.208	1.501	1.402	1.229	1.481	0.05272	8.71%	-7.13%		
25		5	1.331	1.176	1.486	1.405	1.181	1.444	0.05593	9.40%	-5.30%		
50		5	1.272	1.111	1.432	1.223	1.142	1.431	0.05797	10.19%	-0.59%		
100		5	1.332	1.236	1.429	1.315	1.242	1.444	0.03476	5.83%	-5.38%		

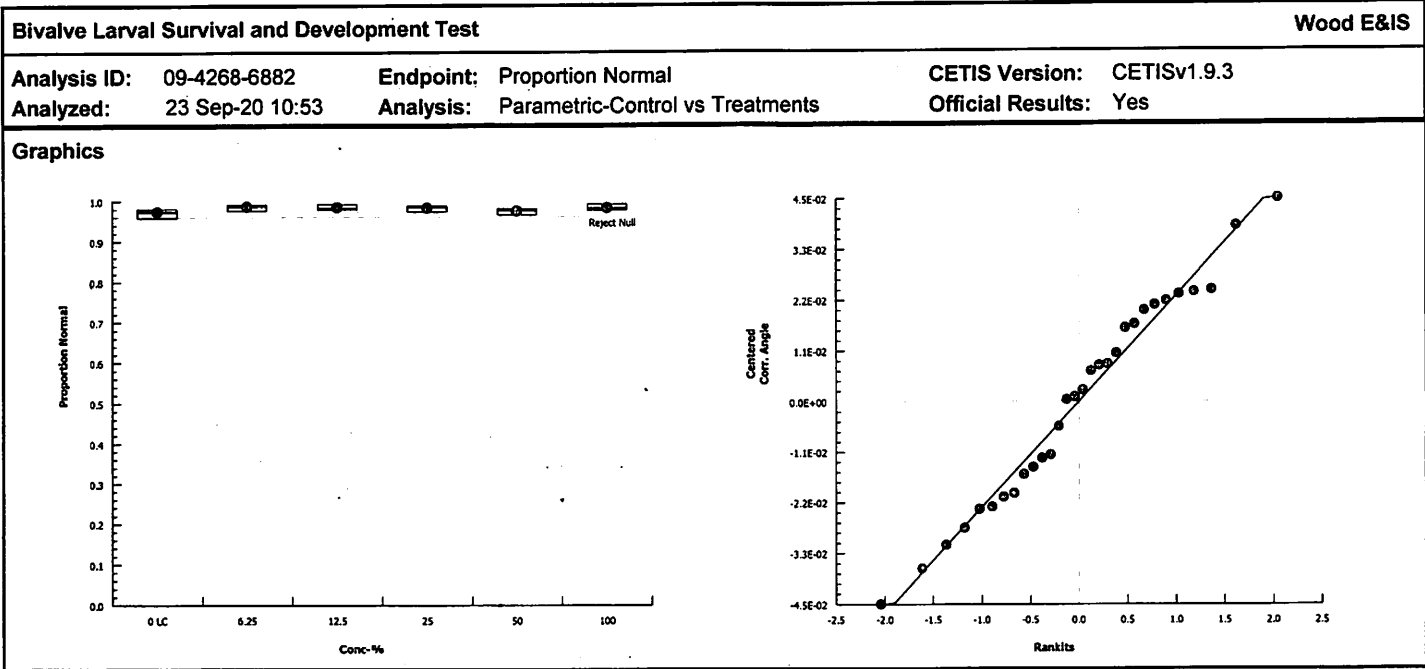
Bivalve Larval Survival and Development Test			Wood E&IS
Analysis ID: 00-2242-1657	Endpoint: Combined Proportion Normal	CETIS Version: CETISv1.9.3	
Analyzed: 23 Sep-20 10:53	Analysis: Parametric-Control vs Treatments	Official Results: Yes	



## CETIS Analytical Report

Report Date: 23 Sep-20 10:53 (p 4 of 7)  
 Test Code: 20-08-046 | 05-2120-2659

Bivalve Larval Survival and Development Test										Wood E&IS	
Analysis ID: 09-4268-6882		Endpoint: Proportion Normal		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 10:53		Analysis: Parametric-Control vs Treatments		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU	
Angular (Corrected)		C > T		100		> 100		n/a		1	
Dunnnett Multiple Comparison Test											
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		6.25	-2.827	2.362	0.038	8	CDF	1.0000	Non-Significant Effect		
		12.5	-2.241	2.362	0.038	8	CDF	0.9997	Non-Significant Effect		
		25	-1.867	2.362	0.038	8	CDF	0.9989	Non-Significant Effect		
		50	-0.2132	2.362	0.038	8	CDF	0.8886	Non-Significant Effect		
		100	-1.699	2.362	0.038	8	CDF	0.9980	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)		
Between	0.0081062		0.0016212		5		2.555	0.0546	Non-Significant Effect		
Error	0.0152314		0.0006346		24						
Total	0.0233376				29						
Distributional Tests											
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)			
Variances	Bartlett Equality of Variance Test				0.2494	15.09	0.9985	Equal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.9746	0.9031	0.6707	Normal Distribution			
Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.9728	0.9614	0.9843	0.9741	0.9571	0.9805	0.0041	0.95%	0.00%
6.25		5	0.9854	0.9776	0.9932	0.9874	0.9760	0.9911	0.0028	0.64%	-1.30%
12.5		5	0.9832	0.9766	0.9899	0.9822	0.9779	0.9920	0.0024	0.54%	-1.07%
25		5	0.9817	0.9738	0.9895	0.9841	0.9728	0.9878	0.0028	0.64%	-0.91%
50		5	0.9740	0.9643	0.9836	0.9770	0.9649	0.9810	0.0035	0.80%	-0.12%
100		5	0.9808	0.9720	0.9895	0.9781	0.9746	0.9915	0.0032	0.72%	-0.82%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.407	1.374	1.44	1.409	1.362	1.431	0.01195	1.90%	0.00%
6.25		5	1.452	1.42	1.484	1.459	1.415	1.476	0.01141	1.76%	-3.20%
12.5		5	1.443	1.414	1.471	1.437	1.422	1.481	0.01028	1.59%	-2.54%
25		5	1.437	1.408	1.465	1.444	1.405	1.46	0.01033	1.61%	-2.11%
50		5	1.41	1.38	1.44	1.418	1.382	1.432	0.01083	1.72%	-0.24%
100		5	1.434	1.399	1.469	1.422	1.411	1.478	0.01261	1.97%	-1.92%



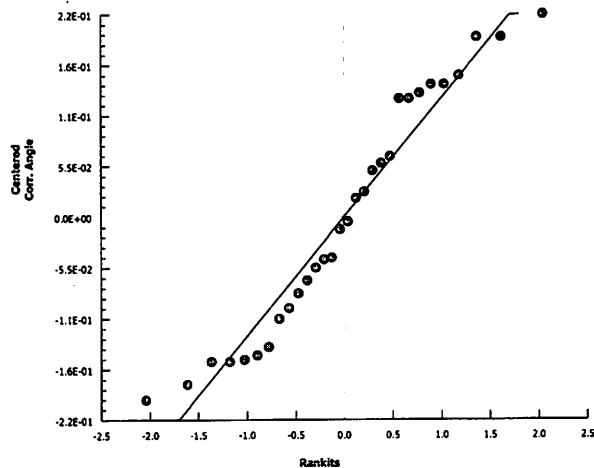
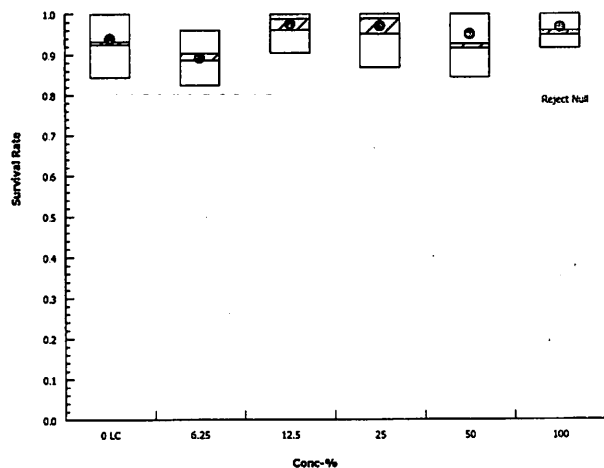
# CETIS Analytical Report

Report Date: 23 Sep-20 10:53 (p 6 of 7)  
Test Code: 20-08-046 | 05-2120-2659

Bivalve Larval Survival and Development Test										Wood E&IS		
Analysis ID: 14-1340-4419		Endpoint: Survival Rate		CETIS Version: CETISv1.9.3								
Analyzed: 23 Sep-20 10:53		Analysis: Parametric-Control vs Treatments		Official Results: Yes								
Comments:												
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD
Angular (Corrected)		C > T		100		> 100		n/a		1		13.33%
Dunnett Multiple Comparison Test												
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)			
Lab Control		6.25	0.9517	2.362	0.211	8	CDF	0.4416	Non-Significant Effect			
		12.5	-1.023	2.362	0.211	8	CDF	0.9844	Non-Significant Effect			
		25	-0.8503	2.362	0.211	8	CDF	0.9749	Non-Significant Effect			
		50	-0.2745	2.362	0.211	8	CDF	0.9017	Non-Significant Effect			
		100	-0.7418	2.362	0.211	8	CDF	0.9667	Non-Significant Effect			
ANOVA Table												
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)
Between		0.106241		0.0212481		5		1.07		0.4013		Non-Significant Effect
Error		0.476481		0.0198534		24						
Total		0.582722				29						
Distributional Tests												
Attribute		Test		Test Stat		Critical		P-Value		Decision(α:1%)		
Variances		Bartlett Equality of Variance Test		2.229		15.09		0.8166		Equal Variances		
Distribution		Shapiro-Wilk W Normality Test		0.9392		0.9031		0.0863		Normal Distribution		
Survival Rate Summary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect	
0	LC	5	0.9253	0.8558	0.9948	0.9317	0.8434	1.0000	0.0250	6.05%	0.00%	
6.25		5	0.8859	0.8159	0.9560	0.9036	0.8233	0.9598	0.0252	6.37%	4.25%	
12.5		5	0.9598	0.8981	1.0000	0.9880	0.9036	1.0000	0.0223	5.18%	-3.73%	
25		5	0.9502	0.8712	1.0000	0.9880	0.8675	1.0000	0.0285	6.70%	-2.69%	
50		5	0.9261	0.8364	1.0000	0.9157	0.8434	1.0000	0.0323	7.80%	-0.09%	
100		5	0.9582	0.9164	1.0000	0.9478	0.9157	1.0000	0.0151	3.51%	-3.56%	
Angular (Corrected) Transformed Summary												
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect	
0	LC	5	1.32	1.151	1.489	1.306	1.164	1.539	0.06104	10.34%	0.00%	
6.25		5	1.235	1.118	1.352	1.255	1.137	1.369	0.0421	7.62%	6.42%	
12.5		5	1.411	1.234	1.589	1.461	1.255	1.539	0.06396	10.13%	-6.91%	
25		5	1.396	1.192	1.6	1.461	1.198	1.539	0.07351	11.78%	-5.74%	
50		5	1.344	1.118	1.571	1.276	1.164	1.539	0.08146	13.55%	-1.85%	
100		5	1.386	1.256	1.516	1.34	1.276	1.539	0.04686	7.56%	-5.01%	

Bivalve Larval Survival and Development Test			Wood E&IS
Analysis ID: 14-1340-4419	Endpoint: Survival Rate	CETIS Version: CETISv1.9.3	
Analyzed: 23 Sep-20 10:53	Analysis: Parametric-Control vs Treatments	Official Results: Yes	

Graphics





# CETIS Analytical Report

Report Date: 23 Sep-20 10:53 (p 3 of 7)  
Test Code: 20-08-046 | 05-2120-2659

Bivalve Larval Survival and Development Test *TST (100% unfiltered)* Wood E&IS

Analysis ID: 12-2917-3650 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
Analyzed: 23 Sep-20 10:53 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed combined proportion normal

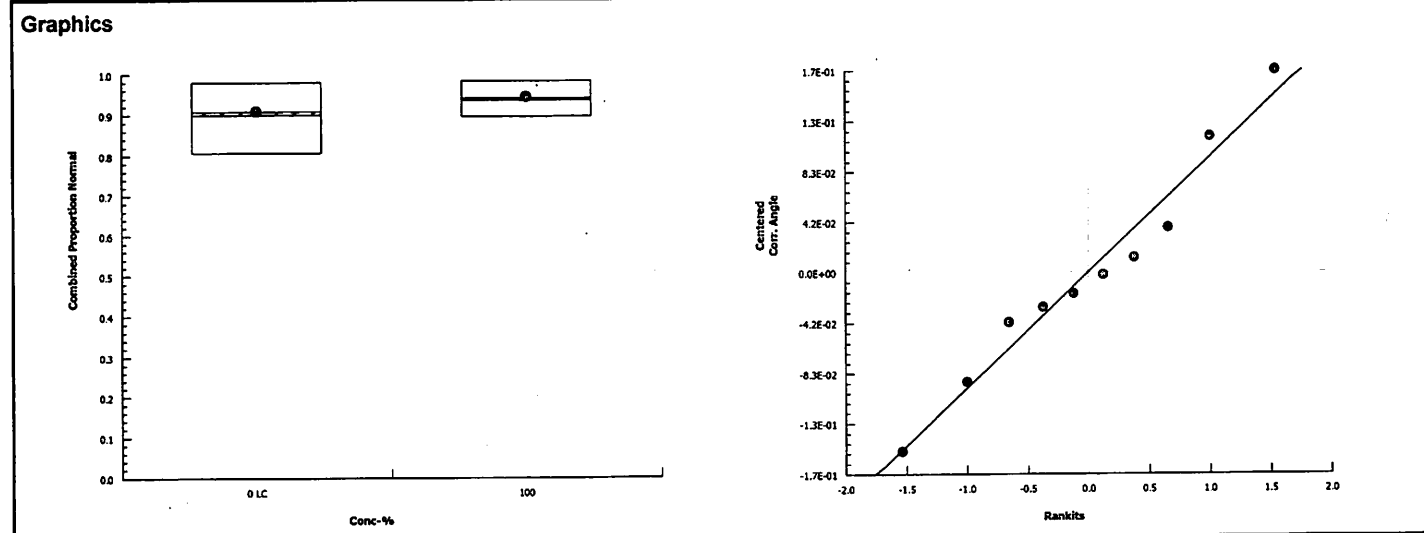
TST-Welch's t Test								
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Lab Control		100*	7.486	1.895	7	CDF	6.9E-05	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0115743	0.0115743	1	1.238	0.2982	Non-Significant Effect
Error	0.0748096	0.0093512	8			
Total	0.0863839		9			

Distributional Tests					
Attribute	Test	Test Stat	Critical	P-Value	Decision( $\alpha$ :1%)
Variances	Variance Ratio F Test	2.097	23.15	0.4910	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9714	0.7411	0.9034	Normal Distribution

Combined Proportion Normal Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	0.9005	0.8233	0.9777	0.9076	0.8072	0.9805	0.0278	6.91%	0.00%
100		5	0.9398	0.8977	0.9819	0.9357	0.8956	0.9841	0.0152	3.61%	-4.36%

Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	5	1.264	1.124	1.404	1.262	1.116	1.431	0.05032	8.90%	0.00%
100		5	1.332	1.236	1.429	1.315	1.242	1.444	0.03476	5.83%	-5.38%



# CETIS Analytical Report

Report Date: 23 Sep-20 10:54 (p 1 of 1)  
Test Code: 20-08-046 | 05-2120-2659

Bivalve Larval Survival and Development Test *TST (100% Filtered)* Wood E&IS

Analysis ID: 04-3498-5108 Endpoint: Combined Proportion Normal CETIS Version: CETISv1.9.3  
Analyzed: 23 Sep-20 10:53 Analysis: Parametric Bioequivalence-Two Sample Official Results: Yes

Comments:

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	101% passed combined proportion normal

**TST-Welch's t Test**

Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:5%)
Filter Control		101*	4.75	1.895	7	CDF	0.0010	Non-Significant Effect

**ANOVA Table**

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0397508	0.0397508	1	5.137	0.0532	Non-Significant Effect
Error	0.0619003	0.0077375	8			
Total	0.101651		9			

**Distributional Tests**

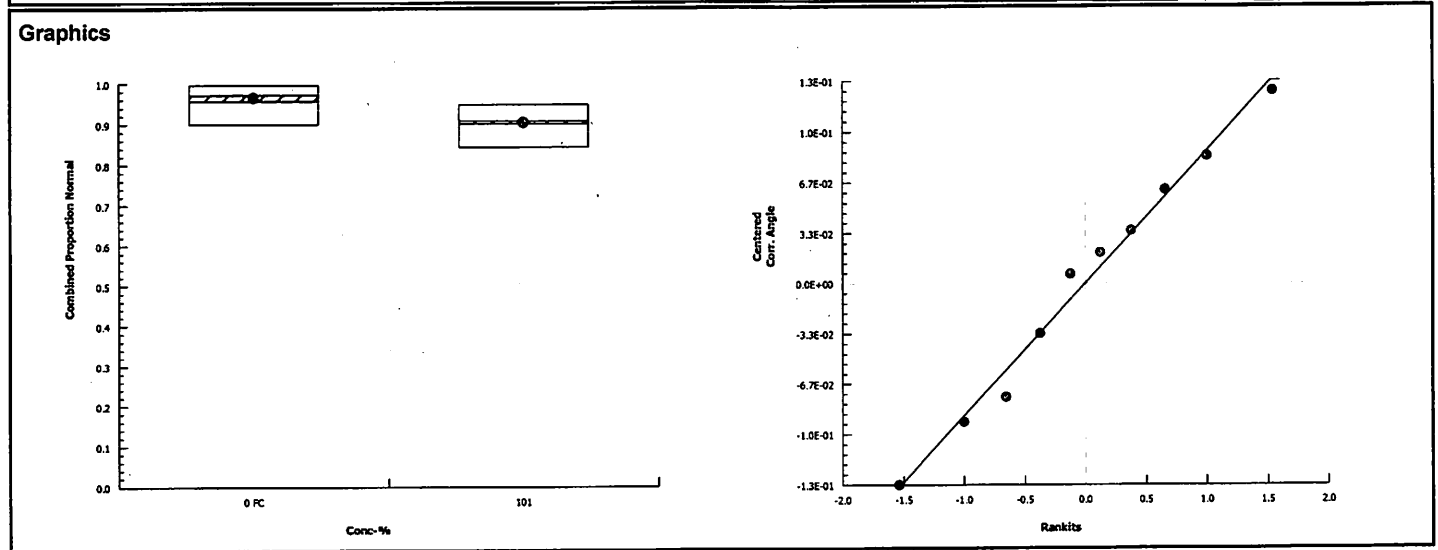
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F Test	2.447	23.15	0.4074	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9775	0.7411	0.9501	Normal Distribution

**Combined Proportion Normal Summary**

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	0.9567	0.9069	1.0000	0.9719	0.8996	0.9962	0.0179	4.19%	0.00%
101		5	0.9012	0.8516	0.9508	0.9076	0.8434	0.9478	0.0179	4.43%	5.80%

**Angular (Corrected) Transformed Summary**

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	FC	5	1.382	1.252	1.512	1.402	1.248	1.509	0.04687	7.58%	0.00%
101		5	1.256	1.173	1.339	1.262	1.164	1.34	0.02997	5.34%	9.12%



# Embryo-Larval Development Test Scoring Worksheet

Client: Wood/ SIYB  
Project ID: SIYB REF1  
Test No.: 20-08-046

Test Species: *M. galloprovincialis*  
Start Date: 8/21/2020 1745  
End Date: 8/23/2020 1645  
SC

\*vials out  
of order

Random #	# Counted	# Normal	Abnormal		Tech Initials / Notes
			Number Curved Shell	All Other Abnormal	
271	228	222		6	SC
272	268	259		9	
273	226	222		4	
275 274	250	246		4	
274 275 SC	223 225 SC	220		3	
276	252	248		4	
277	236	232		4	
278	235	233		2	
279	249	247		2	
280	208	203		5	
281	216	213		3	
282	217	212		5	
283	232	226		6	
284	225	223		2	
285	257	250		7	
286	233	228		5	
287	257	252		5	
288	239	236		3	
289	228	223		5	
290	215	210		5	
291	246	242		4	
292	240	236		4	
293	262	261		1	
294	228	220		8	
295	228	224		4	
296	235	230		5	
297	232	226		6	
298	254	249		5	
299	236	230		6	
300	225	221		4	
301	210	201		9	
302	223	218		5	
303	252	248		4	
304	259	254		5	
305	245	239		6	
306	246	243		3	
307	205	203		2	
308	245	242		3	
309	210	206		4	
310	226	221		5	

QC Check: AB 9/22/20

Final Review: SC 9/23/20

## CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:09 (p 1 of 2)  
 Test Code/ID: 05-2120-2659/20-08-046

## Bivalve Larval Survival and Development Test

Wood E&amp;IS

Start Date: 21 Aug-20

Species: Mytilus galloprovincialis

Sample Code: 4435E856

End Date: 23 Aug-20

Protocol: EPA/600/R-95/136 (1995)

Sample Source: Shelter Island Yacht Basin

Sample Date: 20 Aug-20

Material: Seawater

Sample Station: SIYB REF1

Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
0	FC	1	308					Random # 271-310
0	FC	2	277					
0	FC	3	295					
0	FC	4	275					
0	FC	5	293					
0	LC	1	271			249	244	
0	LC	2	301					
0	LC	3	297					
0	LC	4	287					
0	LC	5	286					
6.25		1	280					
6.25		2	273					
6.25		3	288					
6.25		4	284					
6.25		5	307					
12.5		1	279					
12.5		2	291					
12.5		3	300					
12.5		4	310					
12.5		5	298					
25		1	281					
25		2	303					
25		3	306					
25		4	302					
25		5	285					
50		1	272					
50		2	304					
50		3	294					
50		4	309					
50		5	282					
100		1	305			281	275	
100		2	276					
100		3	299					
100		4	278					
100		5	289					
101		1	283					
101		2	296					

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:09 (p 2 of 2)  
 Test Code/ID: 05-2120-2659/20-08-046

Conc-%	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
101		3	292					
101		4	274					
101		5	290					

QCAG

# Water Quality for Bivalve Development

Client: Wood - Port of San Diego  
 Project ID: SIYB REF1  
 Test No. 20-08-046

Test Species: M. galloprovincialis  
 Start Date/Time: 8/21/2020 1745  
 End Date/Time: 8/23/2020 1645

Test Conc. ( % )	Water Quality Measurements			
	Parameter	0hr	24hr	48hr
Lab Control	Temp. (°C)	15.7	15.4	15.6
	Salinity (ppt)	33.6	34.6	34.9
	pH (units)	7.87	7.78	7.80
	DO (mg/L)	7.8	7.8	7.9
Filtered Control (1.2µm)	Temp. (°C)	15.9	15.4	15.6
	Salinity (ppt)	33.9	34.8	35.349
	pH (units)	7.97	7.79	7.80
	DO (mg/L)	7.2	7.7	7.8
6.25	Temp. (°C)	15.5	15.5	15.6
	Salinity (ppt)	33.9	34.7	34.8
	pH (units)	7.99	7.81	7.80
	DO (mg/L)	7.6	7.7	7.8
12.5	Temp. (°C)	15.6	15.5	15.6
	Salinity (ppt)	34.0	34.7	34.8
	pH (units)	7.96	7.80	7.81
	DO (mg/L)	7.8	7.8	7.9
25	Temp. (°C)	15.6	15.4	15.6
	Salinity (ppt)	34.0	34.9	34.9
	pH (units)	7.98	7.82	7.81
	DO (mg/L)	7.9	7.8	7.9
50	Temp. (°C)	15.7	15.4	15.5
	Salinity (ppt)	34.0	34.8	34.9
	pH (units)	7.99	7.81	7.81
	DO (mg/L)	7.9	7.9	7.9
100	Temp. (°C)	15.5	15.5	15.5
	Salinity (ppt)	34.2	34.8	34.9
	pH (units)	7.96	7.81	7.81
	DO (mg/L)	8.0	7.9	7.9
100 Filtered (1.2µm)	Temp. (°C)	15.8	15.4	15.6
	Salinity (ppt)	33.9	34.8	34.9
	pH (units)	7.99	7.81	7.82
	DO (mg/L)	7.7	7.8	7.9
Tech Initials:		JC	SC	AB

Source of Animals: SIO/ Wood From Mission Bay

Date Received: 8/13/20 & 5/22/20

Comments: \_\_\_\_\_

QC Check: AB 9/22/20

Final Review: JC 9/23/20

# Embryo-Larval Development Test

## Stock Preparation Worksheet

Test Species: M. galloprovincialis  
 Batch ID: \_\_\_\_\_  
 Test Type: Mussel Development

Test Date: 8/21/20  
 Analyst: AG/JW

Task	
Spawning Induction	0935/0950
Spawning Begins	1045 1345
# Males/# Females	4/4
Spawn Condition	Average
Fertilization Initiated	1525
Fertilization End/Eggs Rinsed	1545
Embryo Counts	1700
Test Initiation	1745

### Embryo Density Counts

# per 100  $\mu$ L

Stock #	Stock Volume (mL)	Rep 1	Rep 2	Rep 3	Rep 4	Mean #/100 $\mu$ L	Mean #/mL (x10)
Stock 1	250	70	72	67	74	70.8	708
Stock 2	250	42	55	51	53	50.3	503
Stock 3 <sup>4</sup>	300	54	55	51	50	52.5	525

### Cell Division:

	% Divided
Stock 1	100
Stock 2	96.98
Stock 3 <sup>4</sup>	96

Selected Stock:	2 + 4
-----------------	-------

Adjust selected embryo stock to 500 embryos/mL.  
 Dilution Factor = Stock Density/mL/500

Stock Density  
 $\frac{514}{500}$

Dil Factor  
 $\frac{1.03}{}$

In 10 mL sample volume add 500  $\mu$ L of 500 embryos/mL stock to obtain 25 embryos/mL in test vials.

Notes:

$QC_1 = 249/255$

Time Zero mean = 249

$T0_1 = 282$   $T0_2 = 256$   $T0_3 = 248$   $T0_4 = 265$   $T0_5 = 243$   $x = 258$  249  
 $\frac{260}{10}$   $\frac{253}{10}$   $\frac{235}{10}$   $\frac{262}{10}$   $\frac{234}{10}$

QA Review:

AG 9/22/20

Final Review:

AG 9/23/20

**APPENDIX B**  
**Initial (Round 1) Acute**  
**Topsmelt Test Raw Data &**  
**Statistical Analyses**



**Site: SIYB-1**

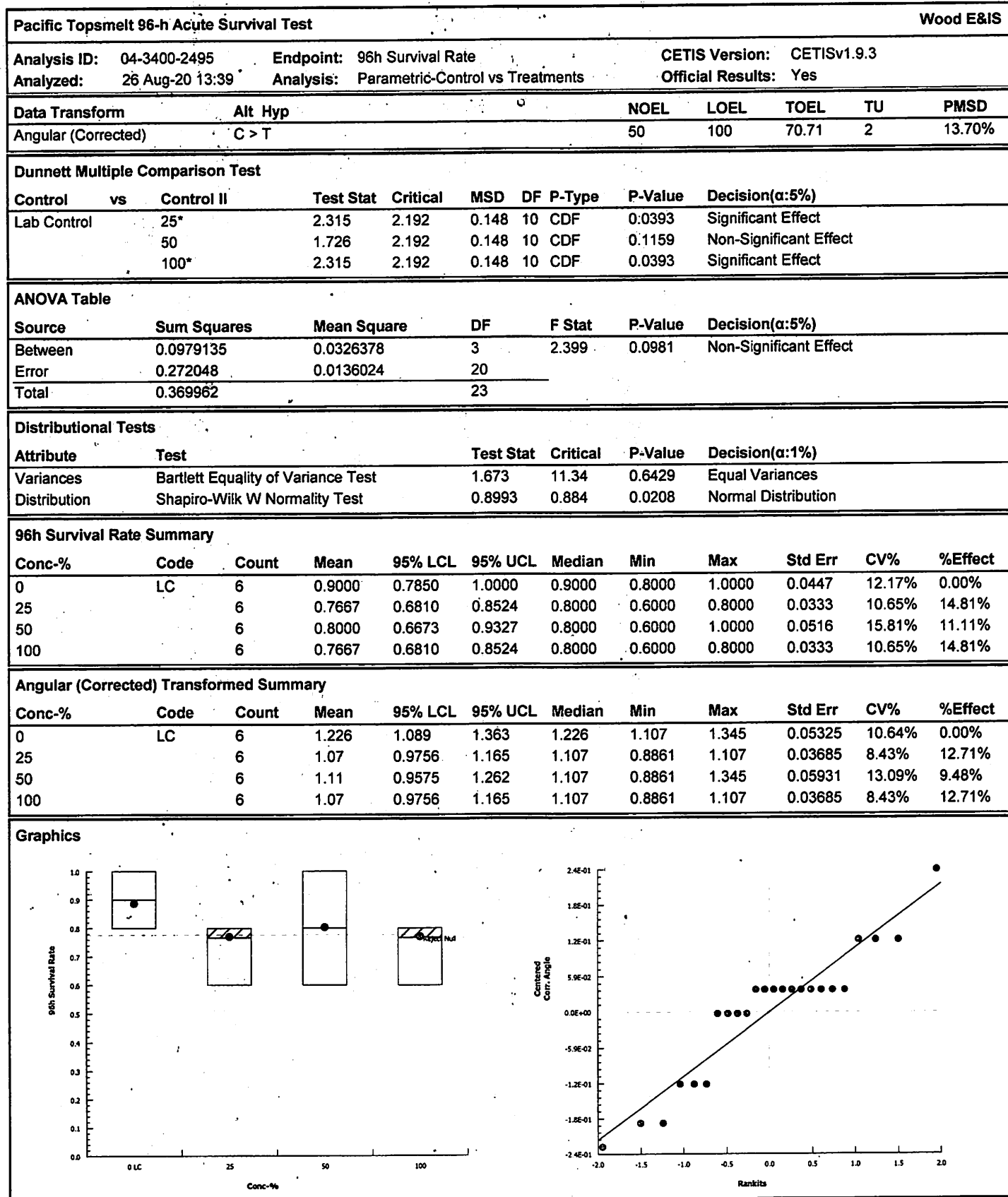
# CETIS Summary Report

Report Date: 18 Sep-20 15:51 (p 1 of 1)  
Test Code: 20-08-033 | 18-3922-6722

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID: 01-8798-9680	Test Type: Survival (96h)		Analyst: <i>SW</i>								
Start Date: 21 Aug-20 14:30	Protocol: EPA/821/R-02-012 (2002)		Diluent: <del>Diluted</del> Natural Seawater								
Ending Date: 25 Aug-20 13:00	Species: Atherinops affinis		Brine: Not Applicable								
Duration: 94h	Source: Aquatic Biosystems, CO		Age: 14d								
Sample ID: 04-6220-0505	Code: 20-W123		Client: Wood Environment and Infrastructure								
Sample Date: 20 Aug-20 14:15	Material: Ambient Sample		Project: SIYB TMDL Monitoring								
Receipt Date: 20 Aug-20 17:35	Source: Shelter Island Yacht Basin										
Sample Age: 24h (4 °C)	Station: SIYB 1										
Single Comparison Summary											
Analysis ID	Endpoint	Comparison Method		P-Value	Comparison Result						
11-8051-1836	96h Survival Rate	TST-Welch's t Test		0.0736	100% passed 96h survival rate						
Multiple Comparison Summary											
Analysis ID	Endpoint	Comparison Method		NOEL	LOEL	TOEL	TU	PMSD ✓			
04-3400-2495	96h Survival Rate	Dunnett Multiple Comparison Test		50	100	70.71	2	13.7%			
Point Estimate Summary											
Analysis ID	Endpoint	Point Estimate Method		Level	%	95% LCL	95% UCL	TU	✓		
15-8593-3837	96h Survival Rate	Linear Interpolation (ICPIN)		LC50	>100	n/a	n/a	<1			
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.8000	1.0000	0.0447	0.1095	12.17%	0.00%
25		6	0.7667	0.6810	0.8524	0.6000	0.8000	0.0333	0.0817	10.65%	14.81%
50		6	0.8000	0.6673	0.9327	0.6000	1.0000	0.0516	0.1265	15.81%	11.11%
100		6	0.7667	0.6810	0.8524	0.6000	0.8000	0.0333	0.0817	10.65%	14.81%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	LC	1.0000	1.0000	0.8000	1.0000	0.8000	0.8000				
25		0.8000	0.8000	0.8000	0.8000	0.6000	0.8000				
50		0.6000	0.8000	0.8000	0.8000	1.0000	0.8000				
100		0.8000	0.8000	0.8000	0.8000	0.8000	0.6000				

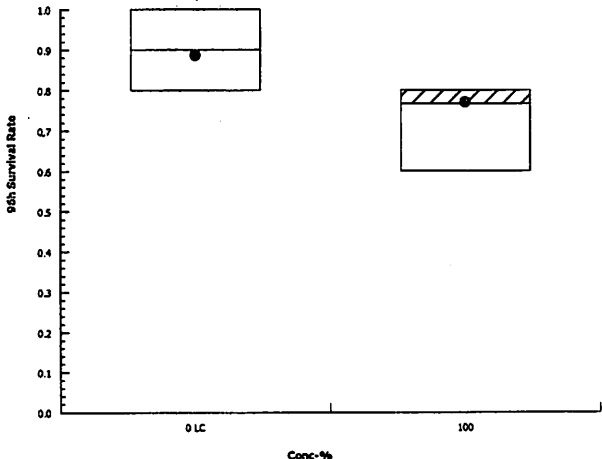
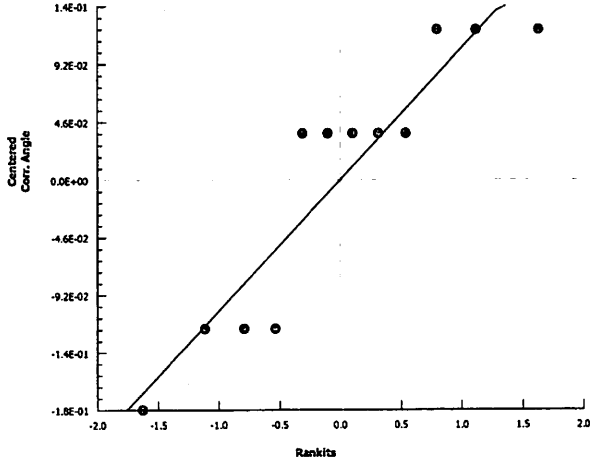
# CETIS Analytical Report

Report Date: 18 Sep-20 15:51 (p 1 of 2)  
Test Code: 20-08-033 | 18-3922-6722



# CETIS Analytical Report

Report Date: 18 Sep-20 15:51 (p 2 of 2)  
Test Code: 20-08-033 | 18-3922-6722

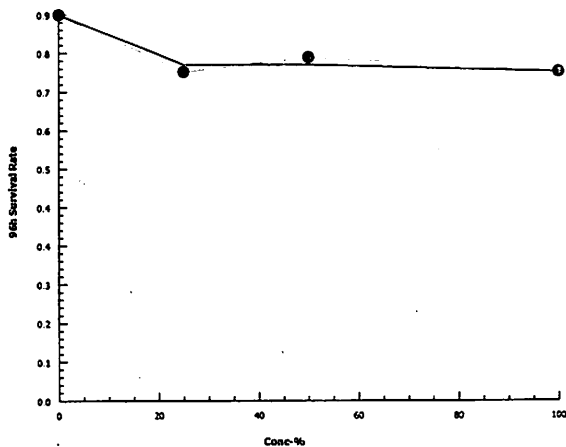
Pacific Topsmelt 96-h Acute Survival Test											Wood E&IS
Analysis ID: 11-8051-1836			Endpoint: 96h Survival Rate			CETIS Version: CETISv1.9.3					
Analyzed: 18 Sep-20 15:50			Analysis: Parametric Bioequivalence-Two Sample			Official Results: Yes					
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% passed 96h survival rate					
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100*	1.586	1.383	9	CDF	0.0736	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.072926		0.072926		1	5.797	0.0368	Significant Effect			
Error	0.125789		0.0125789		10						
Total	0.198715				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Variance Ratio F Test		2.089	14.94	0.4381	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.8441	0.8025	0.0311	Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
100		6	0.7667	0.6810	0.8524	0.8000	0.6000	0.8000	0.0333	10.65%	14.81%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.00%
100		6	1.07	0.9756	1.165	1.107	0.8861	1.107	0.03685	8.43%	12.71%
Graphics											
<div><div></div><div></div></div>											

# CETIS Analytical Report

Report Date: 18 Sep-20 15:51 (p 1 of 1)  
Test Code: 20-08-033 | 18-3922-6722

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 15-8593-3837		Endpoint: 96h Survival Rate				CETIS Version: CETISv1.9.3					
Analyzed: 26 Aug-20 16:08		Analysis: Linear Interpolation (ICPIN)				Official Results: Yes					
Linear Interpolation Options											
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method						
Linear	Linear	1444165	1000	Yes	Two-Point Interpolation						
Point Estimates											
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL					
LC50	>100	n/a	n/a	<1	n/a	n/a					
96h Survival Rate Summary					Calculated Variate(A/B)					Isotonic Variate	
Conc-%	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	A/B	Mean	%Effect
0	LC	6	0.9000	0.8000	1.0000	0.1095	12.17%	0.0%	27/30	0.9	0.0%
25		6	0.7667	0.6000	0.8000	0.0817	10.65%	14.81%	23/30	0.7833	12.96%
50		6	0.8000	0.6000	1.0000	0.1265	15.81%	11.11%	24/30	0.7833	12.96%
100		6	0.7667	0.6000	0.8000	0.0817	10.65%	14.81%	23/30	0.7667	14.81%

## Graphics



# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-1

Test No. 20-08-033

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/21/20 1430

End Date/Time: 8/25/20 1300

Sample ID (%)	Rep	Counts					Water Quality							
		0	24	48	72	96	Parameter	0	24	48f	48i	72	96	
LC #1	A	5	5	5	5	5	Temp. (°C)	21.8	20.8	20.8	20.4	21.7	21.1	
	B	5	5	5	5	5	Salinity (ppt)	33.6	34.2	34.0	34.3	34.3	34.1	
	C	5	5	5	4	4	pH (units)	7.78	7.62	7.60	7.97	7.64	7.54	
	D	5	5	5	5	5	DO (mg/L)	6.5	5.9	6.3	6.8	6.1	6.3	
	E	5	5	5	5	4								
	F	5	5	5	4	4								
25	A	5	5	4	4	4	Temp. (°C)	21.4	20.7	20.4	20.4	21.5	20.8	
	B	5	5	4	4	4	Salinity (ppt)	33.8	34.3	34.3	34.4	34.5	34.3	
	C	5	5	5	5	4	pH (units)	7.83	7.65	7.60	7.98	7.70	7.68	
	D	5	5	4	4	4	DO (mg/L)	6.8	6.1	6.4	7.1	6.4	6.5	
	E	5	4	3	3	3								
	F	5	5	4	4	4								
50	A	5	5	5	4	3	Temp. (°C)	21.1	20.6	20.2	20.5	21.5	20.8	
	B	5	5	4	4	4	Salinity (ppt)	34.0	34.4	34.4	34.3	34.6	34.4	
	C	5	4	4	4	4	pH (units)	7.85	7.67	7.63	7.98	7.72	7.69	
	D	5	5	5	4	4	DO (mg/L)	7.1	6.0	6.3	7.4	6.2	6.4	
	E	5	5	5	5	5								
	F	5	5	5	4	4								
100	A	5	5	5	5	4	Temp. (°C)	21.0	20.7	20.2	20.7	21.5	20.8	
	B	5	5	4	4	4	Salinity (ppt)	34.1	34.5	34.5	34.4	34.6	34.3	
	C	5	5	5	4	4	pH (units)	7.88	7.69	7.69	7.99	7.74	7.65	
	D	5	4	4	4	4	DO (mg/L)	7.7	6.2	6.4	8.1	6.4	6.3	
	E	5	5	5	4	4								
	F	5	5	3	3	3								
	A						Temp. (°C)							
	B						Salinity (ppt)							
	C						pH (units)							
	D						DO (mg/L)							
	E													
	F													
Tech Initials:		sc/gm sc Ab sc sc					Tech Initials:		gm sc Ab Ab sc gm					

Tech Initials: SC GM SC AB SC SC

Tech Initials: gm SC AB AB SC gm

Date Animals Received: 8/18/20 ABS

Age of Animals at Test Start: 14d

Feedings

Initials (AM):

Initials (PM):

	0	24	48	72	96
Initials (AM):	SC	SC	AB	AB	SC
Initials (PM):				SC	

Comments: Initial Dilution AC: SC  
48hr Dilution AC: AB

QC Check:

SC 9/18/20

Final Review:

SC 10/3/20

**Site: SIYB-2**

# CETIS Summary Report

Report Date: 18 Sep-20 15:54 (p 1 of 1)  
Test Code: 20-08-034 | 18-3834-9684

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID: 09-3647-8321	Test Type: Survival (96h)		Analyst: <i>SW</i>								
Start Date: 21 Aug-20 14:45	Protocol: EPA/821/R-02-012 (2002)		Diluent: <del>Diluted</del> Natural Seawater								
Ending Date: 25 Aug-20 13:30	Species: Atherinops affinis		Brine: Not Applicable								
Duration: 95h	Source: Aquatic Biosystems, CO		Age: 14d								
Sample ID: 09-3081-8108	Code: 20-W124		Client: Wood Environment and Infrastructure								
Sample Date: 20 Aug-20 13:15	Material: Ambient Sample		Project: SIYB TMDL Monitoring								
Receipt Date: 20 Aug-20 17:35	Source: Shelter Island Yacht Basin										
Sample Age: 26h (3 °C)	Station: SIYB 2										
Single Comparison Summary											
Analysis ID	Endpoint	Comparison Method		P-Value	Comparison Result						
19-5526-6343	96h Survival Rate	TST-Welch's t Test		0.0555	100% passed 96h survival rate						
Multiple Comparison Summary											
Analysis ID	Endpoint	Comparison Method		NOEL	LOEL	TOEL	TU	PMSD ✓			
20-5965-9626	96h Survival Rate	Dunnett Multiple Comparison Test		100	> 100	n/a	1	18.4%			
Point Estimate Summary											
Analysis ID	Endpoint	Point Estimate Method		Level	%	95% LCL	95% UCL	TU	✓		
09-2698-5399	96h Survival Rate	Linear Interpolation (ICPIN)		LC50	>100	n/a	n/a	<1			
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	① LC	6	0.9000	0.7850	1.0000	0.8000	1.0000	0.0447	0.1095	12.17%	0.00%
25		6	0.7667	0.6087	0.9247	0.6000	1.0000	0.0615	0.1506	19.64%	14.81%
50		6	0.7667	0.6087	0.9247	0.6000	1.0000	0.0615	0.1506	19.64%	14.81%
100		6	0.8000	0.6673	0.9327	0.6000	1.0000	0.0516	0.1265	15.81%	11.11%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	① LC	1.0000	1.0000	0.8000	1.0000	0.8000	0.8000				
25		0.8000	0.6000	1.0000	0.6000	0.8000	0.8000				
50		0.6000	0.8000	1.0000	0.8000	0.6000	0.8000				
100		0.8000	0.6000	0.8000	1.0000	0.8000	0.8000				

① shared LC with SIYB-1



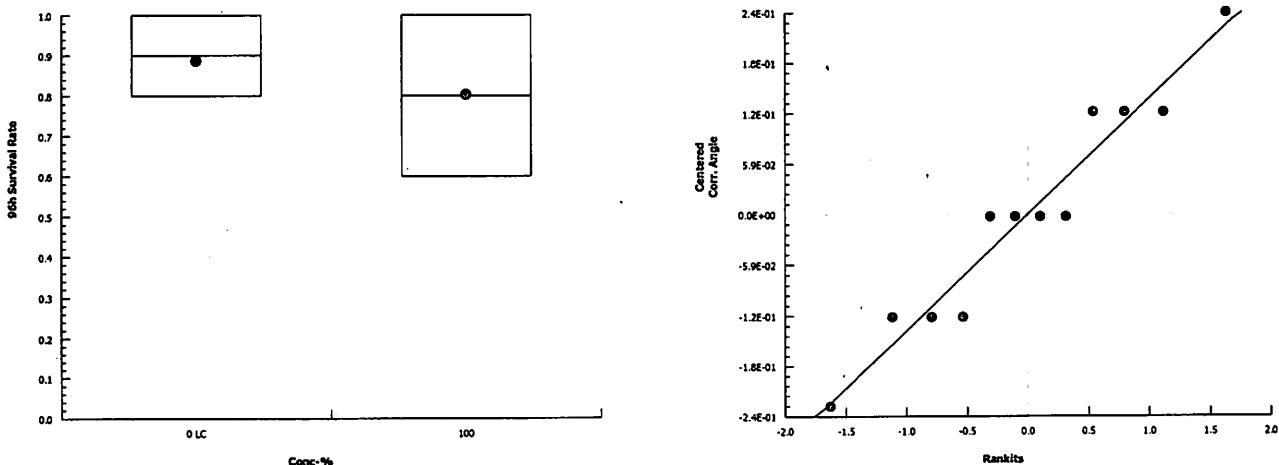
# CETIS Analytical Report

Report Date: 18 Sep-20 15:54 (p 1 of 2)  
Test Code: 20-08-034 | 18-3834-9684

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS																	
Analysis ID: 20-5965-9626		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3																							
Analyzed: 26 Aug-20 14:40		Analysis: Parametric-Control vs Treatments		Official Results: Yes																							
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD															
Angular (Corrected)		C > T		100		> 100		n/a		1		18.44%															
Dunnnett Multiple Comparison Test																											
Control		vs		Conc-%		Test Stat		Critical		MSD		DF P-Type		P-Value		Decision(α:5%)											
Lab Control				25		1.701		2.192		0.197		10 CDF		0.1207		Non-Significant Effect											
				50		1.701		2.192		0.197		10 CDF		0.1207		Non-Significant Effect											
				100		1.292		2.192		0.197		10 CDF		0.2262		Non-Significant Effect											
ANOVA Table																											
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)															
Between		0.0946245		0.0315415		3		1.299		0.3023		Non-Significant Effect															
Error		0.485627		0.0242814		20																					
Total		0.580252				23																					
Distributional Tests																											
Attribute		Test		Test Stat		Critical		P-Value		Decision(α:1%)																	
Variances		Bartlett Equality of Variance Test		0.4907		11.34		0.9209		Equal Variances																	
Distribution		Shapiro-Wilk W Normality Test		0.9272		0.884		0.0844		Normal Distribution																	
96h Survival Rate Summary																											
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect					
0		LC		6		0.9000		0.7850		1.0000		0.9000		0.8000		1.0000		0.0447		12.17%		0.00%					
25				6		0.7667		0.6087		0.9247		0.8000		0.6000		1.0000		0.0615		19.64%		14.81%					
50				6		0.7667		0.6087		0.9247		0.8000		0.6000		1.0000		0.0615		19.64%		14.81%					
100				6		0.8000		0.6673		0.9327		0.8000		0.6000		1.0000		0.0516		15.81%		11.11%					
Angular (Corrected) Transformed Summary																											
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect					
0		LC		6		1.226		1.089		1.363		1.226		1.107		1.345		0.05325		10.64%		0.00%					
25				6		1.073		0.8929		1.253		1.107		0.8861		1.345		0.07012		16.01%		12.48%					
50				6		1.073		0.8929		1.253		1.107		0.8861		1.345		0.07012		16.01%		12.48%					
100				6		1.11		0.9575		1.262		1.107		0.8861		1.345		0.05931		13.09%		9.48%					
Graphics																											

# CETIS Analytical Report

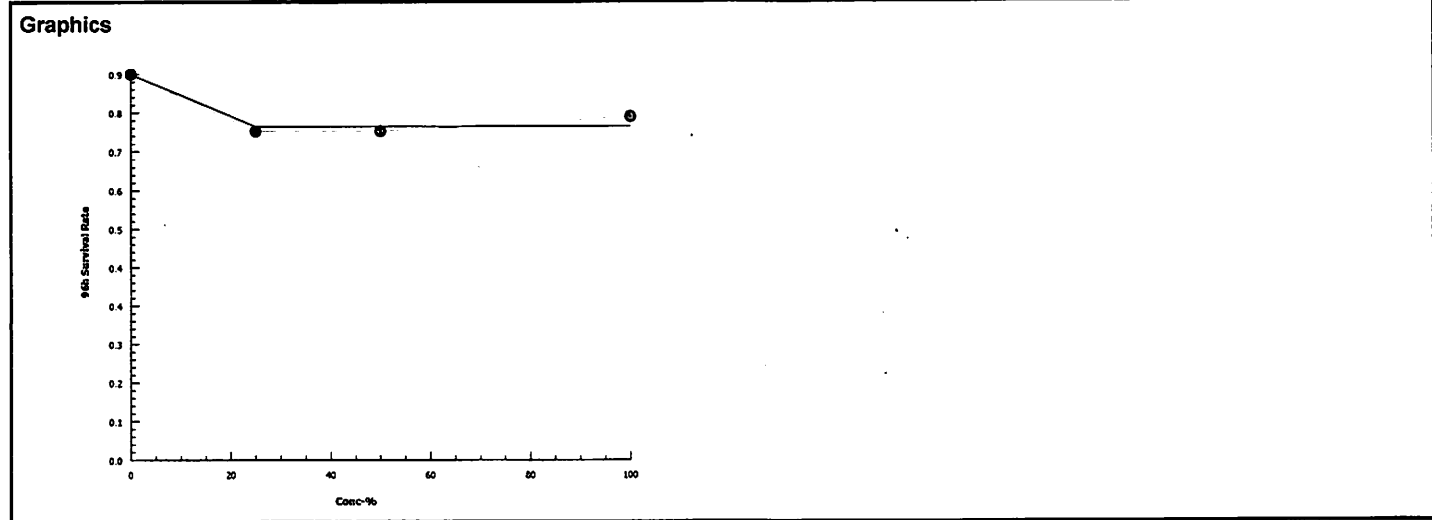
Report Date: 18 Sep-20 15:54 (p 2 of 2)  
Test Code: 20-08-034 | 18-3834-9684

Pacific Topsmelt 96-h Acute Survival Test											Wood E&IS
Analysis ID: 19-5526-6343			Endpoint: 96h Survival Rate			CETIS Version: CETISv1.9.3					
Analyzed: 18 Sep-20 15:54			Analysis: Parametric Bioequivalence-Two Sample			Official Results: Yes					
Data Transform		Alt Hyp	TST_b		Comparison Result						
Angular (Corrected)		C*b < T	0.8		100% passed 96h survival rate						
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100*	1.767	1.383	9	CDF	0.0555	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square	DF	F Stat	P-Value	Decision(α:5%)				
Between	0.0405236		0.0405236	1	2.126	0.1755	Non-Significant Effect				
Error	0.190594		0.0190594	10							
Total	0.231117			11							
Distributional Tests											
Attribute	Test			Test Stat	Critical	P-Value	Decision(α:1%)				
Variances	Variance Ratio F Test			1.241	14.94	0.8187	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test			0.9444	0.8025	0.5573	Normal Distribution				
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
100		6	0.8000	0.6673	0.9327	0.8000	0.6000	1.0000	0.0516	15.81%	11.11%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.00%
100		6	1.11	0.9575	1.262	1.107	0.8861	1.345	0.05931	13.09%	9.48%
Graphics											
											

# CETIS Analytical Report

Report Date: 18 Sep-20 15:54 (p 1 of 1)  
 Test Code: 20-08-034 | 18-3834-9684

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 09-2698-5399		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 26 Aug-20 16:11		Analysis: Linear Interpolation (ICPIN)		Official Results: Yes							
Linear Interpolation Options											
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method						
Linear	Linear	1053248	1000	Yes	Two-Point Interpolation						
Point Estimates											
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL					
LC50	>100	n/a	n/a	<1	n/a	n/a					
96h Survival Rate Summary				Calculated Variate(A/B)						Isotonic Variate	
Conc-%	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	A/B	Mean	%Effect
0	LC	6	0.9000	0.8000	1.0000	0.1095	12.17%	0.0%	27/30	0.9	0.0%
25		6	0.7667	0.6000	1.0000	0.1506	19.64%	14.81%	23/30	0.7778	13.58%
50		6	0.7667	0.6000	1.0000	0.1506	19.64%	14.81%	23/30	0.7778	13.58%
100		6	0.8000	0.6000	1.0000	0.1265	15.81%	11.11%	24/30	0.7778	13.58%



# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-2

Test No. 20-08-034

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/21/20 1445

End Date/Time: 8/25/20 1330

Sample ID (%)	Rep	Counts					Water Quality							
		0	24	48	72	96	Parameter	0	24	48f	48i	72	96	
LC #2	A	5	5	5	5	4	Temp. (°C)	21.1	21.0	20.4	20.4	21.9	20.9	
	B	5	5	4	4	3	Salinity (ppt)	34.0	34.2	34.3	34.3	34.9	34.1	
	C	5	4	4	4	4	pH (units)	7.87	7.67	7.71	7.97	7.67	7.62	
	D	5	5	5	5	4	DO (mg/L)	6.7	6.0	6.3	6.8	6.3	6.3	
	E	5	5	5	5	5								
	F	5	5	4	4	4								
25	A	5	5	4	4	4	Temp. (°C)	21.1	21.2	20.5	20.5	21.8	20.9	
	B	5	5	5	4	3	Salinity (ppt)	34.2	34.5	34.4	34.3	34.6	34.3	
	C	5	5	5	5	5	pH (units)	7.87	7.67	7.73	7.99	7.70	7.64	
	D	5	5	3	3	3	DO (mg/L)	6.9	6.1	6.4	6.7	6.5	6.4	
	E	5	4	4	4	4								
	F	5	5	5	4	4								
50	A	5	5	3	3	3	Temp. (°C)	20.8	21.2	20.4	20.7	21.7	21.0	
	B	5	5	4	4	4	Salinity (ppt)	34.2	34.5	34.5	34.3	34.6	34.3	
	C	5	5	5	5	5	pH (units)	7.89	7.68	7.75	7.98	7.74	7.67	
	D	5	5	5	4	4	DO (mg/L)	7.2	6.0	6.7	7.4	6.6	6.5	
	E	5	5	5	4	3								
	F	5	5	5	4	4								
100	A	5	5	4	4	4	Temp. (°C)	20.5	21.3	20.4	20.7	21.6	21.0	
	B	5	5	4	3	3	Salinity (ppt)	34.2	34.5	34.4	34.4	34.6	34.3	
	C	5	5	5	4	4	pH (units)	7.91	7.68	7.75	7.96	7.75	7.68	
	D	5	5	5	5	5	DO (mg/L)	7.7	6.2	6.3	8.4	6.4	6.5	
	E	5	5	4	4	4								
	F	5	4	4	4	4								
	A						Temp. (°C)							
	B						Salinity (ppt)							
	C						pH (units)							
	D						DO (mg/L)							
	E													
	F													
Tech Initials:		sc/gm	sc	AB	sc	sc	Tech Initials:		gm	sc	AB	AB	sc	gm

Tech Initials: SC/GM SC AB SC SC

Tech Initials: gm SC AB AB SC gm

Date Animals Received: 8/18/20 ABS

Age of Animals at Test Start: 14d

## Feedings

Initials (AM):

Initials (PM):

	0	24	48	72	96
Initials (AM):	AG	SC	AC	AB	AG
Initials (PM):				SC	

Comments:

QC Check:

SC 9/18/20

Final Review: SC 10/3/20

**Site: SIYB-3**

# CETIS Summary Report

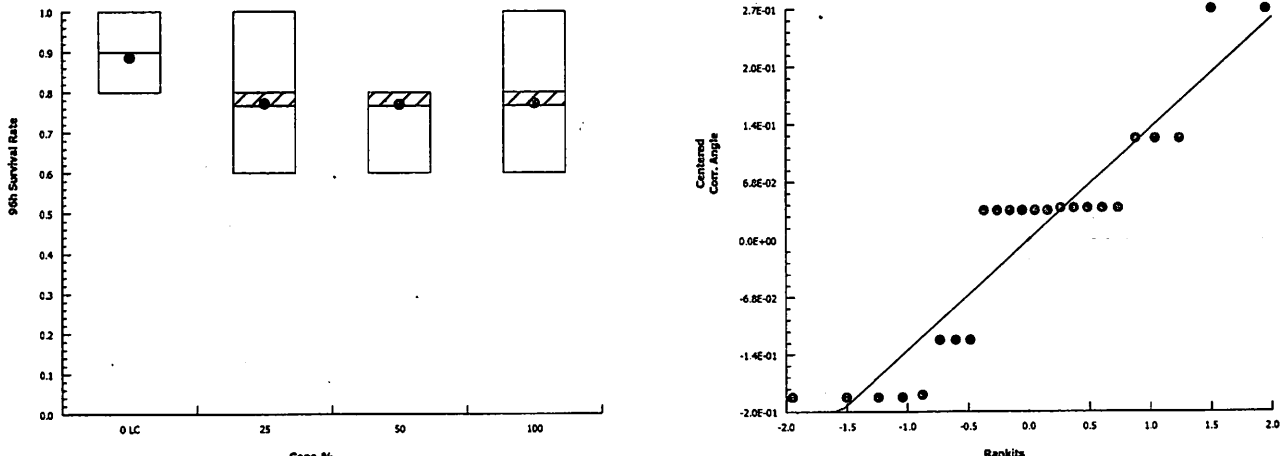
Report Date: 18 Sep-20 15:58 (p 1 of 1)  
Test Code: 20-08-035 | 19-1255-5430

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID: 02-1159-1567	Test Type: Survival (96h)		Analyst: <i>[Signature]</i>								
Start Date: 21 Aug-20 15:00	Protocol: EPA/821/R-02-012 (2002)		Diluent: <del>Diluted</del> Natural Seawater								
Ending Date: 25 Aug-20 13:40	Species: Atherinops affinis		Brine: Not Applicable								
Duration: 95h	Source: Aquatic Biosystems, CO		Age: 14d								
Sample ID: 03-5131-0171	Code: 20-W125		Client: Wood Environment and Infrastructure								
Sample Date: 20 Aug-20 12:15	Material: Ambient Sample		Project: SIYB TMDL Monitoring								
Receipt Date: 20 Aug-20 17:35	Source: Shelter Island Yacht Basin										
Sample Age: 27h (4 °C)	Station: SIYB 3										
Single Comparison Summary											
Analysis ID	Endpoint	Comparison Method		P-Value	Comparison Result						
20-5067-0182	96h Survival Rate	TST-Welch's t Test		0.1469	100% failed 96h survival rate						
Multiple Comparison Summary											
Analysis ID	Endpoint	Comparison Method		NOEL	LOEL	TOEL	TU	PMSD ✓			
05-2589-6126	96h Survival Rate	Steel Many-One Rank Sum Test		100	> 100	n/a	1	17.1%			
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	① LC	6	0.9000	0.7850	1.0000	0.8000	1.0000	0.0447	0.1095	12.17%	0.00%
25		6	0.7667	0.6087	0.9247	0.6000	1.0000	0.0615	0.1506	19.64%	14.81%
50		6	0.7667	0.6810	0.8524	0.6000	0.8000	0.0333	0.0817	10.65%	14.81%
100		6	0.7667	0.6087	0.9247	0.6000	1.0000	0.0615	0.1506	19.64%	14.81%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	① LC	1.0000	1.0000	0.8000	1.0000	0.8000	0.8000				
25		0.6000	0.8000	0.8000	0.8000	0.6000	1.0000				
50		0.8000	0.8000	0.6000	0.8000	0.8000	0.8000				
100		0.8000	1.0000	0.6000	0.8000	0.8000	0.6000				

① shared LC with SIYB-1

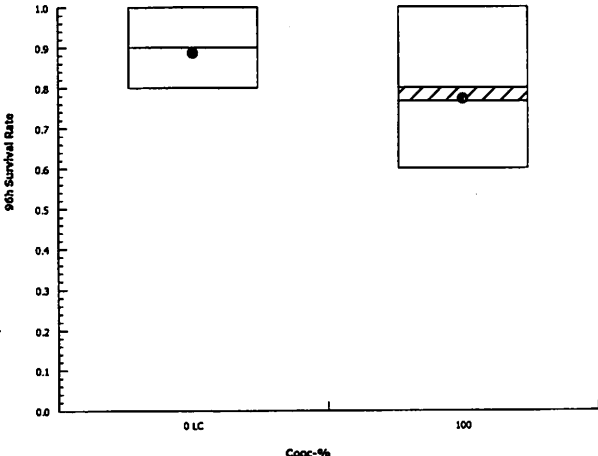
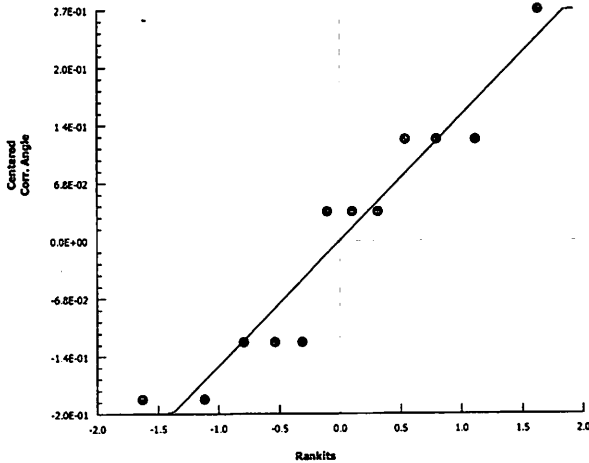
# CETIS Analytical Report

Report Date: 18 Sep-20 15:58 (p 1 of 2)  
Test Code: 20-08-035 | 19-1255-5430

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS			
Analysis ID: 05-2589-6126		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3									
Analyzed: 26 Aug-20 14:43		Analysis: Nonparametric-Control vs Treatments		Official Results: Yes									
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD	
Angular (Corrected)		C > T		100		> 100		n/a		1		17.11%	
Steel Many-One Rank Sum Test													
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)				
Lab Control		25	30	26	2	10	Asymp	0.1695	Non-Significant Effect				
		50	28.5	26	1	10	Asymp	0.1105	Non-Significant Effect				
		100	30	26	2	10	Asymp	0.1695	Non-Significant Effect				
ANOVA Table													
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)					
Between	0.106777		0.0355924		3	1.692	0.2009	Non-Significant Effect					
Error	0.420822		0.0210411		20								
Total	0.527599				23								
Distributional Tests													
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Bartlett Equality of Variance Test				2.241	11.34	0.5240	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test				0.8744	0.884	0.0064	Non-Normal Distribution					
96h Survival Rate Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%		
25		6	0.7667	0.6087	0.9247	0.8000	0.6000	1.0000	0.0615	19.64%	14.81%		
50		6	0.7667	0.6810	0.8524	0.8000	0.6000	0.8000	0.0333	10.65%	14.81%		
100		6	0.7667	0.6087	0.9247	0.8000	0.6000	1.0000	0.0615	19.64%	14.81%		
Angular (Corrected) Transformed Summary													
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.00%		
25		6	1.073	0.8929	1.253	1.107	0.8861	1.345	0.07012	16.01%	12.48%		
50		6	1.07	0.9756	1.165	1.107	0.8861	1.107	0.03685	8.43%	12.71%		
100		6	1.073	0.8929	1.253	1.107	0.8861	1.345	0.07012	16.01%	12.48%		
Graphics													
													

# CETIS Analytical Report

Report Date: 18 Sep-20 15:58 (p 2 of 2)  
Test Code: 20-08-035 | 19-1255-5430

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 20-5067-0182		Endpoint: 96h Survival Rate				CETIS Version: CETISv1.9.3					
Analyzed: 18 Sep-20 15:57		Analysis: Parametric Bioequivalence-Two Sample				Official Results: Yes					
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% failed 96h survival rate					
TST-Welch's t Test											
Control	vs	Conc-%	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100	1.123	1.397	8	CDF	0.1469	Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.07029		0.07029		1	3.022	0.1128	Non-Significant Effect			
Error	0.232578		0.0232578		10						
Total	0.302868				11						
Distributional Tests											
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)			
Variances	Variance Ratio F Test				1.734	14.94	0.5604	Equal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.9139	0.8025	0.2391	Normal Distribution			
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
100		6	0.7667	0.6087	0.9247	0.8000	0.6000	1.0000	0.0615	19.64%	14.81%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.00%
100		6	1.073	0.8929	1.253	1.107	0.8861	1.345	0.07012	16.01%	12.48%
Graphics											
											



# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-3

Test No. 20-08-035

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/21/20 1500

End Date/Time: 8/25/20 1346

Sample ID (%)	Rep	Counts					Water Quality						
		0	24	48	72	96	Parameter	0	24	48f	48i	72	96
LC #2	A	5	5	5	5	4	Temp. (°C)	21.1	21.0	20.4	20.4	21.9	22.0
	B	5	5	4	4	3	Salinity (ppt)	34.0	34.2	34.3	34.3	34.4	34.9
	C	5	4	4	4	4	pH (units)	7.87	7.67	7.71	7.47	7.67	7.62
	D	5	5	5	5	4	DO (mg/L)	6.7	6.0	6.3	6.8	6.3	6.3
	E	5	5	5	5	5							
	F	5	5	4	4	4							
25	A	5	5	5	4	3	Temp. (°C)	20.9	21.1	21.1	20.7	22.0	21.4
	B	5	5	4	4	4	Salinity (ppt)	34.1	34.4	34.4	34.4	34.9	34.5
	C	5	5	4	4	4	pH (units)	7.89	7.69	7.75	7.98	7.64	7.65
	D	5	5	5	5	4	DO (mg/L)	7.0	6.2	6.5	7.2	6.3	6.7
	E	5	5	4	3	3							
	F	5	5	5	5	5							
50	A	5	5	4	4	4	Temp. (°C)	20.7	21.2	21.0	20.8	21.7	21.3
	B	5	5	5	4	4	Salinity (ppt)	34.2	34.5	34.4	34.4	34.9	34.7
	C	5	5	3	3	3	pH (units)	7.90	7.70	7.76	7.98	7.69	7.67
	D	5	5	4	4	4	DO (mg/L)	7.2	6.1	6.2	7.3	6.4	6.4
	E	5	5	5	5	4							
	F	5	5	5	4	4							
100	A	5	5	4	4	4	Temp. (°C)	20.4	21.1	21.0	20.9	21.7	21.3
	B	5	5	5	5	5	Salinity (ppt)	34.2	34.5	34.4	34.4	34.8	34.4
	C	5	5	4	4	3	pH (units)	7.92	7.71	7.77	7.97	7.72	7.68
	D	5	5	5	4	4	DO (mg/L)	7.9	6.2	6.2	7.7	6.4	6.4
	E	5	5	5	4	4							
	F	5	5	3	3	3							
	A						Temp. (°C)						
	B						Salinity (ppt)						
	C						pH (units)						
	D						DO (mg/L)						
	E												
	F												
Tech Initials:		SC	GM	SC	AG	SC	SC						
Tech Initials:		gm	SC	AG	AG	SC	gm						

Date Animals Received: 8/18/20 ABS

Age of Animals at Test Start: 14d

## Feedings

Initials (AM):

Initials (PM):

0	24	48	72	96
AG	SC	AG	AG	AG
			SC	

Comments:

QC Check:

Final Review: 8/23/20

**Site: SIYB-4**

# CETIS Summary Report

Report Date: 18 Sep-20 16:02 (p 1 of 1)  
 Test Code: 20-08-036 | 08-7000-9801

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID:	15-9572-5068	Test Type:	Survival (96h)				Analyst:	SW			
Start Date:	21 Aug-20 15:20	Protocol:	EPA/821/R-02-012 (2002)				Diluent:	<del>Diluted</del> Natural Seawater			
Ending Date:	25 Aug-20 13:45	Species:	Atherinops affinis				Brine:	Not Applicable			
Duration:	94h	Source:	Aquatic Biosystems, CO				Age:	14d			
Sample ID:	09-5551-3986	Code:	20-W126				Client:	Wood Environment and Infrastructure			
Sample Date:	20 Aug-20 11:15	Material:	Ambient Sample				Project:	SIYB TMDL Monitoring			
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin								
Sample Age:	28h (2 °C)	Station:	SIYB 4								
Single Comparison Summary											
Analysis ID	Endpoint	Comparison Method				P-Value	Comparison Result				
11-2426-4075	96h Survival Rate	TST-Welch's t Test				0.1469	100% failed 96h survival rate				
Multiple Comparison Summary											
Analysis ID	Endpoint	Comparison Method				NOEL	LOEL	TOEL	TU	PMSD ✓	
14-2400-3368	96h Survival Rate	Dunnett Multiple Comparison Test				100	> 100	n/a	1	19.3%	
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.8000	1.0000	0.0447	0.1095	12.17%	0.00%
25		6	0.8333	0.6753	0.9913	0.6000	1.0000	0.0615	0.1506	18.07%	7.41%
50		6	0.7667	0.6087	0.9247	0.6000	1.0000	0.0615	0.1506	19.64%	14.81%
100		6	0.7667	0.6087	0.9247	0.6000	1.0000	0.0615	0.1506	19.64%	14.81%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	LC	1.0000	1.0000	0.8000	1.0000	0.8000	0.8000				
25		0.8000	1.0000	0.8000	0.6000	0.8000	1.0000				
50		0.6000	0.8000	1.0000	0.8000	0.6000	0.8000				
100		0.6000	1.0000	0.8000	0.8000	0.6000	0.8000				

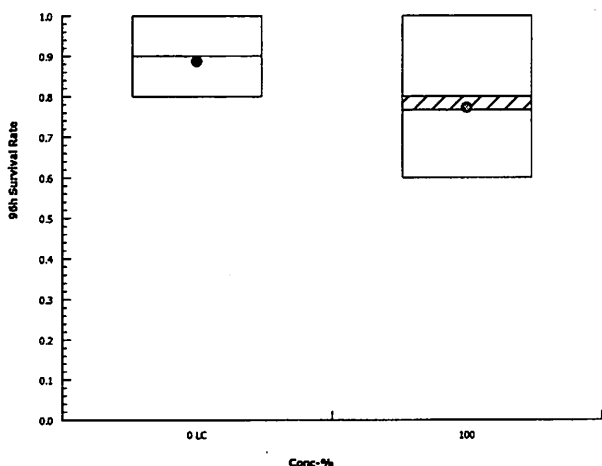
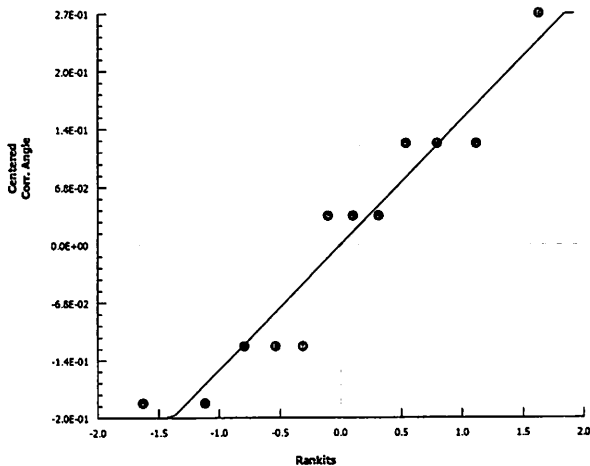
# CETIS Analytical Report

Report Date: 18 Sep-20 16:02 (p 1 of 2)  
Test Code: 20-08-036 | 08-7000-9801

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 14-2400-3368		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 26 Aug-20 13:51		Analysis: Parametric-Control vs Treatments		Official Results: Yes							
Data Transform		Alt Hyp		NOEL	LOEL	TOEL	TU	PMSD			
Angular (Corrected)		C > T		100	> 100	n/a	1	19.34%			
Dunnnett Multiple Comparison Test											
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		25	0.8131	2.192	0.206	10	CDF	0.4065	Non-Significant Effect		
		50	1.626	2.192	0.206	10	CDF	0.1366	Non-Significant Effect		
		100	1.626	2.192	0.206	10	CDF	0.1366	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0966487		0.0322162		3	1.212	0.3310	Non-Significant Effect			
Error	0.531529		0.0265765		20						
Total	0.628178				23						
Distributional Tests											
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)			
Variances	Bartlett Equality of Variance Test				0.4913	11.34	0.9208	Equal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.953	0.884	0.3138	Normal Distribution			
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
25		6	0.8333	0.6753	0.9913	0.8000	0.6000	1.0000	0.0615	18.07%	7.41%
50		6	0.7667	0.6087	0.9247	0.8000	0.6000	1.0000	0.0615	19.64%	14.81%
100		6	0.7667	0.6087	0.9247	0.8000	0.6000	1.0000	0.0615	19.64%	14.81%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.00%
25		6	1.15	0.967	1.332	1.107	0.8861	1.345	0.07105	15.14%	6.24%
50		6	1.073	0.8929	1.253	1.107	0.8861	1.345	0.07012	16.01%	12.48%
100		6	1.073	0.8929	1.253	1.107	0.8861	1.345	0.07012	16.01%	12.48%
Graphics											

# CETIS Analytical Report

Report Date: 18 Sep-20 16:02 (p 2 of 2)  
Test Code: 20-08-036 | 08-7000-9801

Pacific Topsmelt 96-h Acute Survival Test											Wood E&IS
Analysis ID: 11-2426-4075			Endpoint: 96h Survival Rate			CETIS Version: CETISv1.9.3					
Analyzed: 18 Sep-20 16:02			Analysis: Parametric Bioequivalence-Two Sample			Official Results: Yes					
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% failed 96h survival rate					
TST-Welch's t Test											
Control	vs	Conc-%	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100	1.123	1.397	8	CDF	0.1469	Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square	DF	F Stat	P-Value	Decision(α:5%)				
Between	0.07029		0.07029	1	3.022	0.1128	Non-Significant Effect				
Error	0.232578		0.0232578	10							
Total	0.302868			11							
Distributional Tests											
Attribute	Test			Test Stat	Critical	P-Value	Decision(α:1%)				
Variances	Variance Ratio F Test			1.734	14.94	0.5604	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test			0.9139	0.8025	0.2391	Normal Distribution				
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
100		6	0.7667	0.6087	0.9247	0.8000	0.6000	1.0000	0.0615	19.64%	14.81%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.00%
100		6	1.073	0.8929	1.253	1.107	0.8861	1.345	0.07012	16.01%	12.48%
Graphics											
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# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-4

Test No. 20-08-036

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/21/20 1520

End Date/Time: 8/25/20 1345

Sample ID (%)	Rep	Counts				
		0	24	48	72	96
LC #3	A	5	5	5	5	5
	B	5	5	5	5	5
	C	5	5	5	4	4
	D	5	5	5	5	5
	E	5	5	5	4	4
	F	5	5	5	4	4
25	A	5	5	5	4	4
	B	5	5	5	5	5
	C	5	4	4	4	4
	D	5	5	4	3	3
	E	5	5	5	4	4
	F	5	5	5	5	5
50	A	5	5	5	3	3
	B	5	4	4	4	4
	C	5	5	5	5	5
	D	5	5	4	4	4
	E	5	5	5	4	3
	F	5	4	4	4	4
100	A	5	5	5	4	3
	B	5	5	5	5	5
	C	5	5	4	4	4
	D	5	4	4	4	4
	E	5	5	4	4	3
	F	5	5	5	4	4
	A					
	B					
	C					
	D					
	E					
	F					

Tech Initials: gm SC AB SC SC

Water Quality						
Parameter	0	24	48f	48i	72	96
Temp. (°C)	21.1	20.9	20.1	21.1	20.9	20.5
Salinity (ppt)	34.1	34.3	34.3	34.4	34.8	34.3
pH (units)	7.90	7.67	7.74	8.00	7.65	7.71
DO (mg/L)	6.6	5.9	6.2	6.8	6.4	6.6
Temp. (°C)	21.0	20.8	19.8	20.6	20.9	20.5
Salinity (ppt)	34.2	34.4	34.3	34.3	34.8	34.5
pH (units)	7.91	7.68	7.77	8.00	7.68	7.70
DO (mg/L)	7.0	6.0	6.5	7.0	6.4	6.5
Temp. (°C)	20.9	20.8	19.7	20.1	20.9	20.4
Salinity (ppt)	34.2	34.5	34.4	34.4	34.8	34.5
pH (units)	7.92	7.69	7.77	7.99	7.71	7.70
DO (mg/L)	7.2	6.0	6.5	7.4	6.4	6.2
Temp. (°C)	20.8	20.9	19.7	21.0	20.9	20.4
Salinity (ppt)	34.2	34.5	34.4	34.3	34.8	34.5
pH (units)	7.94	7.70	7.77	7.98	7.73	7.70
DO (mg/L)	7.8	6.1	6.5	8.1	6.5	6.4
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						

Tech Initials: gm SC AB AB SC gm

Date Animals Received: 8/18/20 ABS

Age of Animals at Test Start: 14d

Feedings

Initials (AM):

Initials (PM):

0	24	48	72	96
AG	SC	AB	AB	AG
			SC	

Comments:

QC Check:

SC 9/18/20

Final Review: SC 10/3/20

**Site: SIYB-5**



# CETIS Summary Report

Report Date: 18 Sep-20 16:04 (p 1 of 1)  
Test Code: 20-08-037 | 19-7871-1699

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID:	13-8431-1423	Test Type:	Survival (96h)				Analyst:	<i>SW</i>			
Start Date:	21 Aug-20 15:45	Protocol:	EPA/821/R-02-012 (2002)				Diluent:	<del>Diluted</del> Natural Seawater			
Ending Date:	25 Aug-20 14:00	Species:	Atherinops affinis				Brine:	Not Applicable			
Duration:	94h	Source:	Aquatic Biosystems, CO				Age:	14d			
Sample ID:	15-0006-6055 <i>10:25</i>	Code:	20-W127				Client:	Wood Environment and Infrastructure			
Sample Date:	20 Aug-20 09:15	Material:	Ambient Sample				Project:	SIYB TMDL Monitoring			
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin								
Sample Age:	31h (4 °C)	Station:	SIYB 5								
Single Comparison Summary											
Analysis ID	Endpoint	Comparison Method				P-Value	Comparison Result				
14-8886-6768	96h Survival Rate	TST-Welch's t Test				0.0736	100% passed 96h survival rate				
Multiple Comparison Summary											
Analysis ID	Endpoint	Comparison Method				NOEL	LOEL	TOEL	TU	PMSD ✓	
13-1973-0755	96h Survival Rate	Steel Many-One Rank Sum Test				100	> 100	n/a	1	13.3%	
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	<i>①</i> LC	6	0.9000	0.7850	1.0000	0.8000	1.0000	0.0447	0.1095	12.17%	0.00%
25		6	0.7333	0.6249	0.8417	0.6000	0.8000	0.0422	0.1033	14.08%	18.52%
50		6	0.7333	0.6249	0.8417	0.6000	0.8000	0.0422	0.1033	14.08%	18.52%
100		6	0.7667	0.6810	0.8524	0.6000	0.8000	0.0333	0.0817	10.65%	14.81%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	<i>①</i> LC	1.0000	1.0000	0.8000	1.0000	0.8000	0.8000				
25		0.8000	0.8000	0.6000	0.6000	0.8000	0.8000				
50		0.8000	0.8000	0.6000	0.8000	0.8000	0.6000				
100		0.8000	0.8000	0.8000	0.8000	0.6000	0.8000				

*① shared LC with SIYB-4*



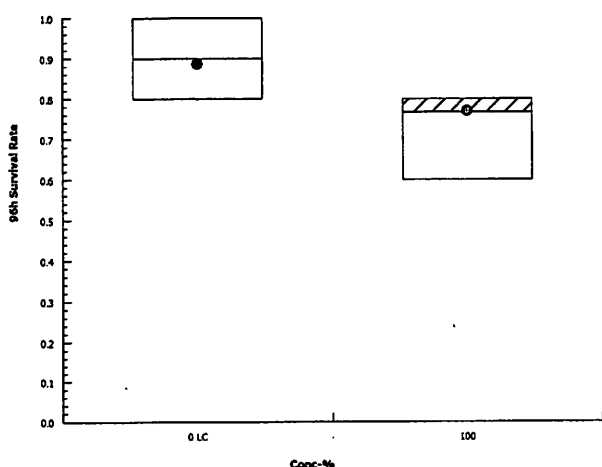
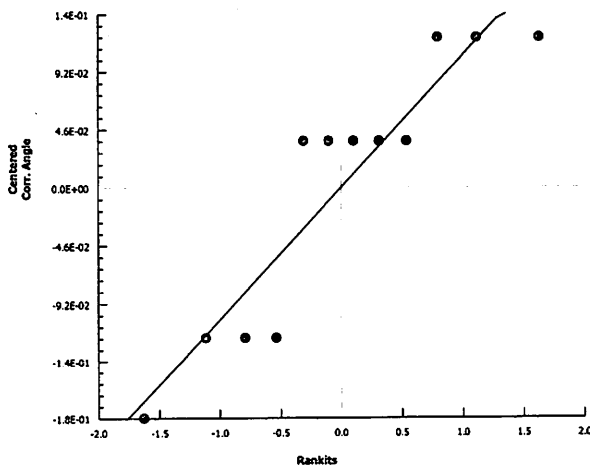
# CETIS Analytical Report

Report Date: 18 Sep-20 16:04 (p 1 of 2)  
Test Code: 20-08-037 | 19-7871-1699

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS													
Analysis ID: 13-1973-0755		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3																			
Analyzed: 26 Aug-20 13:54		Analysis: Nonparametric-Control vs Treatments		Official Results: Yes																			
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD											
Angular (Corrected)		C > T		100		> 100		n/a		1		13.30%											
Steel Many-One Rank Sum Test																							
Control		vs		Conc-%		Test Stat		Critical		Ties		DF P-Type		P-Value		Decision(α:5%)							
Lab Control				25		27		26		1		10		Asymp		0.0681		Non-Significant Effect					
				50		27		26		1		10		Asymp		0.0681		Non-Significant Effect					
				100		28.5		26		1		10		Asymp		0.1105		Non-Significant Effect					
ANOVA Table																							
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)											
Between		0.152002		0.0506674		3		3.957		0.0229		Significant Effect											
Error		0.256116		0.0128058		20																	
Total		0.408118				23																	
Distributional Tests																							
Attribute		Test		Test Stat		Critical		P-Value		Decision(α:1%)													
Variances		Bartlett Equality of Variance Test		0.6151		11.34		0.8930		Equal Variances													
Distribution		Shapiro-Wilk W Normality Test		0.8002		0.884		3.0E-04		Non-Normal Distribution													
96h Survival Rate Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		6		0.9000		0.7850		1.0000		0.9000		0.8000		1.0000		0.0447		12.17%		0.00%	
25				6		0.7333		0.6249		0.8417		0.8000		0.6000		0.8000		0.0422		14.08%		18.52%	
50				6		0.7333		0.6249		0.8417		0.8000		0.6000		0.8000		0.0422		14.08%		18.52%	
100				6		0.7667		0.6810		0.8524		0.8000		0.6000		0.8000		0.0333		10.65%		14.81%	
Angular (Corrected) Transformed Summary																							
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		6		1.226		1.089		1.363		1.226		1.107		1.345		0.05325		10.64%		0.00%	
25				6		1.033		0.9137		1.153		1.107		0.8861		1.107		0.04661		11.05%		15.72%	
50				6		1.033		0.9137		1.153		1.107		0.8861		1.107		0.04661		11.05%		15.72%	
100				6		1.07		0.9756		1.165		1.107		0.8861		1.107		0.03685		8.43%		12.71%	
Graphics																							

# CETIS Analytical Report

Report Date: 18 Sep-20 16:04 (p 2 of 2)  
Test Code: 20-08-037 | 19-7871-1699

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 14-8886-6768		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 18 Sep-20 16:04		Analysis: Parametric Bioequivalence-Two Sample		Official Results: Yes							
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% passed 96h survival rate					
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100*	1.586	1.383	9	CDF	0.0736	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.072926		0.072926		1	5.797	0.0368	Significant Effect			
Error	0.125789		0.0125789		10						
Total	0.198715				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Variance Ratio F Test		2.089	14.94	0.4381	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.8441	0.8025	0.0311	Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
100		6	0.7667	0.6810	0.8524	0.8000	0.6000	0.8000	0.0333	10.65%	14.81%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.00%
100		6	1.07	0.9756	1.165	1.107	0.8861	1.107	0.03685	8.43%	12.71%
Graphics											
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# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-5

Test No. 20-08-037

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/21/20 1545

End Date/Time: 8/25/20 1400

Sample ID (%)	Rep	Counts					Water Quality						
		0	24	48	72	96	Parameter	0	24	48f	48i	72	96
LC #3	A	5	5	5	5	5	Temp. (°C)	21.1	20.9	20.1	21.1	20.9	20.5
	B	5	5	5	5	5	Salinity (ppt)	34.1	34.3	34.3	34.4	34.8	34.3
	C	5	5	5	4	4	pH (units)	7.90	7.67	7.74	8.00	7.65	7.71
	D	5	5	5	5	5	DO (mg/L)	6.6	5.9	6.2	6.8	6.4	6.6
	E	5	5	5	4	4							
	F	5	5	5	4	4							
25	A	5	5	5	5	4	Temp. (°C)	21.2	21.0	20.2	21.1	20.9	20.4
	B	5	5	4	4	4	Salinity (ppt)	34.1	34.4	34.3	34.3	34.9	34.2
	C	5	5	5	4	3	pH (units)	7.92	7.69	7.78	8.00	7.65	7.70
	D	5	4	4	3	3	DO (mg/L)	7.1	6.1	6.5	7.2	6.5	6.4
	E	5	5	4	4	4							
	F	5	5	5	4	4							
50	A	5	5	5	4	4	Temp. (°C)	21.1	21.0	20.5	21.1	20.9	20.4
	B	5	5	5	5	4	Salinity (ppt)	34.2	34.5	34.4	34.3	34.8	34.4
	C	5	5	5	3	3	pH (units)	7.93	7.70	7.78	8.00	7.69	7.70
	D	5	5	5	4	3/4	DO (mg/L)	7.3	6.0	6.6	7.3	6.6	6.4
	E	5	5	4	4	4							
	F	5	4	4	4	3							
100	A	5	5	5	5	4	Temp. (°C)	20.9	21.1	20.5	21.0	20.9	20.4
	B	5	5	5	4	4	Salinity (ppt)	34.2	34.6	34.4	34.3	34.7	34.2
	C	5	5	5	4	4	pH (units)	7.94	7.70	7.79	7.98	7.73	7.72
	D	5	5	5	4	4	DO (mg/L)	8.0	6.1	6.7	8.0	6.7	6.5
	E	5	4	4	3	3							
	F	5	5	5	4	4							
	A						Temp. (°C)						
	B						Salinity (ppt)						
	C						pH (units)						
	D						DO (mg/L)						
	E												
	F												
Tech Initials:		SC	GM	SC	AG	SC	SC						
Tech Initials:		gm	SC	AG	AG	SC	gm						

Date Animals Received: 8/18/20 ABS

Age of Animals at Test Start: 14d

Feedings

Initials (AM):

Initials (PM):

0	24	48	72	96
AG	SC	AG	AG <sup>3m</sup>	AG
			2m	

Comments:

QC Check:

SC 9/18/20

Final Review: JW 10/3/20

**Site: SIYB-6**

# CETIS Summary Report

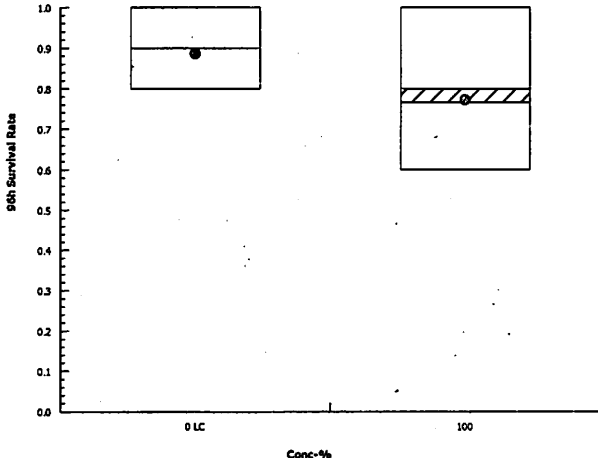
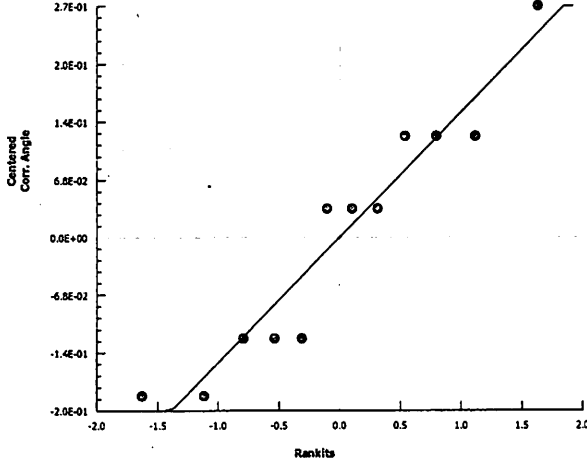
Report Date: 24 Sep-20 11:21 (p 1 of 1)  
Test Code: 20-08-038 | 12-6276-7692

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID:	01-2531-8845		Test Type:	Survival (96h)		Analyst:	JW				
Start Date:	21 Aug-20 16:15		Protocol:	EPA/821/R-02-012 (2002)		Diluent:	<del>Diluted</del> Natural Seawater				
Ending Date:	25 Aug-20 14:30		Species:	Atherinops affinis		Brine:	Not Applicable				
Duration:	94h		Source:	Aquatic Biosystems, CO		Age:	14d				
Sample ID:	20-4552-8122		Code:	20-W128		Client:	Wood Environment and Infrastructure				
Sample Date:	20 Aug-20 10:25		Material:	Ambient Sample		Project:	SIYB TMDL Monitoring				
Receipt Date:	20 Aug-20 17:35		Source:	Shelter Island Yacht Basin							
Sample Age:	30h (2 °C)		Station:	SIYB 6							
Single Comparison Summary											
Analysis ID	Endpoint		Comparison Method		P-Value	Comparison Result					
08-7512-3481	96h Survival Rate		TST-Welch's t Test		0.1469	100% failed 96h survival rate					
Multiple Comparison Summary											
Analysis ID	Endpoint		Comparison Method		NOEL	LOEL	TOEL	TU	PMSD ✓		
05-3050-3645	96h Survival Rate		Dunnett Multiple Comparison Test		100	> 100	n/a	1	17.6%		
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	① LC	6	0.9000	0.7850	1.0000	0.8000	1.0000	0.0447	0.1095	12.17%	0.00%
25		6	0.7333	0.6249	0.8417	0.6000	0.8000	0.0422	0.1033	14.08%	18.52%
50		6	0.7667	0.6087	0.9247	0.6000	1.0000	0.0615	0.1506	19.64%	14.81%
100		6	0.7667	0.6087	0.9247	0.6000	1.0000	0.0615	0.1506	19.64%	14.81%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	① LC	1.0000	1.0000	0.8000	1.0000	0.8000	0.8000				
25		0.8000	0.6000	0.8000	0.6000	0.8000	0.8000				
50		0.8000	1.0000	0.8000	0.8000	0.6000	0.6000				
100		0.6000	1.0000	0.8000	0.8000	0.8000	0.6000				

① shared LC with SIYB-4

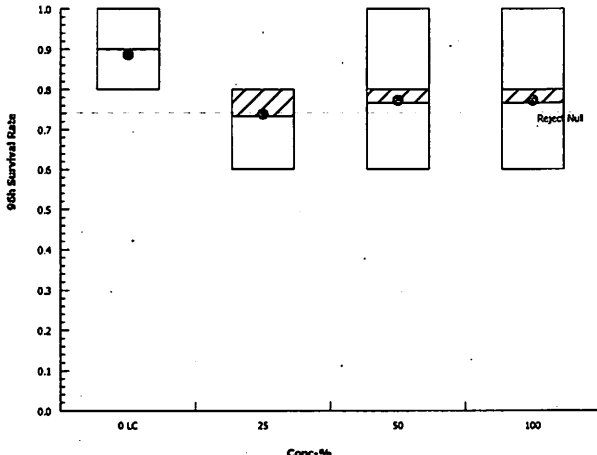
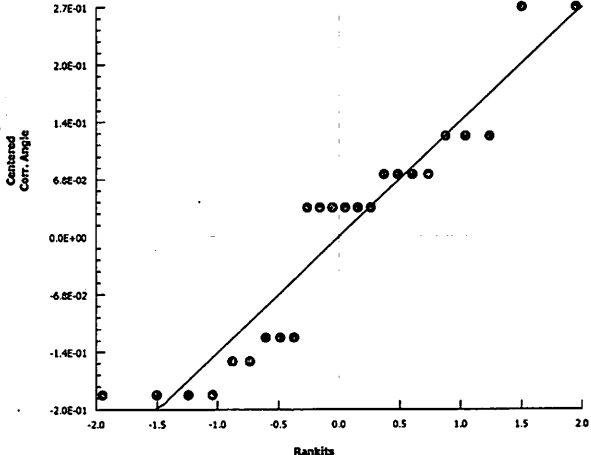
# CETIS Analytical Report

Report Date: 24 Sep-20 11:21 (p 1 of 2)  
Test Code: 20-08-038 | 12-6276-7692

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 08-7512-3481		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 18 Sep-20 16:06		Analysis: Parametric Bioequivalence-Two Sample		Official Results: Yes							
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% failed 96h survival rate					
TST-Welch's t Test											
Control	vs	Conc-%	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100	1.123	1.397	8	CDF	0.1469	Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square	DF	F Stat	P-Value	Decision(α:5%)				
Between	0.07029		0.07029	1	3.022	0.1128	Non-Significant Effect				
Error	0.232578		0.0232578	10							
Total	0.302868			11							
Distributional Tests											
Attribute	Test			Test Stat	Critical	P-Value	Decision(α:1%)				
Variances	Variance Ratio F Test			1.734	14.94	0.5604	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test			0.9139	0.8025	0.2391	Normal Distribution				
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
100		6	0.7667	0.6087	0.9247	0.8000	0.6000	1.0000	0.0615	19.64%	14.81%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.00%
100		6	1.073	0.8929	1.253	1.107	0.8861	1.345	0.07012	16.01%	12.48%
Graphics											
<div><div></div><div></div></div>											

# CETIS Analytical Report

Report Date: 24 Sep-20 11:21 (p 2 of 2)  
Test Code: 20-08-038 | 12-6276-7692

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 05-3050-3645		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 24 Sep-20 11:20		Analysis: Parametric-Control vs Treatments		Official Results: Yes							
Data Transform		Alt Hyp		NOEL	LOEL	TOEL	TU	PMSD			
Angular (Corrected)		C > T		100	> 100	n/a	1	17.62%			
Dunnett Multiple Comparison Test											
Control	vs	Control II	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		25*	2.238	2.192	0.189	10	CDF	0.0458	Significant Effect		
		50	1.777	2.192	0.189	10	CDF	0.1063	Non-Significant Effect		
		100	1.777	2.192	0.189	10	CDF	0.1063	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.130749		0.043583		3	1.958	0.1529	Non-Significant Effect			
Error	0.445259		0.0222629		20						
Total	0.576007				23						
Distributional Tests											
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)			
Variances	Bartlett Equality of Variance Test				1.114	11.34	0.7738	Equal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.8982	0.884	0.0197	Normal Distribution			
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
25		6	0.7333	0.6249	0.8417	0.8000	0.6000	0.8000	0.0422	14.08%	18.52%
50		6	0.7667	0.6087	0.9247	0.8000	0.6000	1.0000	0.0615	19.64%	14.81%
100		6	0.7667	0.6087	0.9247	0.8000	0.6000	1.0000	0.0615	19.64%	14.81%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.00%
25		6	1.033	0.9137	1.153	1.107	0.8861	1.107	0.04661	11.05%	15.72%
50		6	1.073	0.8929	1.253	1.107	0.8861	1.345	0.07012	16.01%	12.48%
100		6	1.073	0.8929	1.253	1.107	0.8861	1.345	0.07012	16.01%	12.48%
Graphics											
											



# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-6

Test No. 20-08-038

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/21/20 1615

End Date/Time: 8/25/20 1730

Sample ID (%)	Rep	Counts					Water Quality Qc1						
		0	24	48	72	96	Parameter	0	24	48f	48i	72	96
LC #4	A	5	5	5	4	4	Temp. (°C)	21.2	21.0	20.1	20.8	20.8	20.7
	B	5	5	5	5	5	Salinity (ppt)	34.2	34.3	34.1	34.3	34.7	34.5
	C	5	5	5	4	4	pH (units)	7.92	7.69	7.76	8.00	7.63	7.68
	D	5	5	5	5	4	DO (mg/L)	6.9	6.0	6.4	6.9	6.4	6.6
	E	5	5	4	4	4							
	F	5	5	5	4	3							
25	A	5	5	5	5	5	Temp. (°C)	21.1	21.0	20.0	21.0	20.8	20.4
	B	5	4	3	3	3	Salinity (ppt)	34.2	34.5	34.2	34.3	34.7	34.4
	C	5	5	5	4	4	pH (units)	7.93	7.70	7.71	8.01	7.69	7.70
	D	5	5	5	4	3	DO (mg/L)	7.1	6.0	6.2	7.0	6.3	6.4
	E	5	5	5	4	4							
	F	5	5	5	4	4							
50	A	5	5	5	4	4	Temp. (°C)	21.1	21.1	19.8	20.9	20.8	20.6
	B	5	5	5	5	5	Salinity (ppt)	34.1	34.5	34.4	34.3	34.7	34.6
	C	5	4	4	4	4	pH (units)	7.93	7.72	7.77	8.01	7.72	7.71
	D	5	5	5	4	4	DO (mg/L)	7.2	6.1	6.5	7.3	6.4	6.4
	E	5	5	5	3	3							
	F	5	5	4	4	3							
100	A	5	4	4	3	3	Temp. (°C)	21.0	21.2	19.8	20.9	20.8	20.5
	B	5	5	5	5	5	Salinity (ppt)	34.0	34.5	34.4	34.3	34.7	34.5
	C	5	5	5	4	4	pH (units)	7.94	7.71	7.77	8.00	7.74	7.73
	D	5	5	5	4	4	DO (mg/L)	7.8	6.1	6.4	8.0	6.6	6.6
	E	5	5	5	5	4							
	F	5	5	5	4	3							
	A						Temp. (°C)						
	B						Salinity (ppt)						
	C						pH (units)						
	D						DO (mg/L)						
	E												
	F												
Tech Initials:		SC GM SC AG SC SC					Tech Initials:		GM SC AG AG SC GM				

Tech Initials: gm SC AB SC R

Tech Initials: gm SC AB AB SC gm

Date Animals Received: 8/18/20 AAS

Age of Animals at Test Start: 14d

Feedings

Initials (AM):

Initials (PM):

0	24	48	72	96
AG	SC	AB	AB	AG
			SC	

Comments:

QC Check:

Final Review: 10/3/20



**Site: SIYB-REF**

# CETIS Summary Report

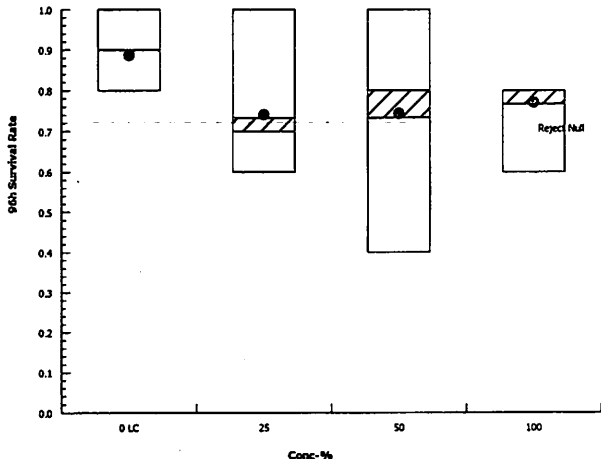
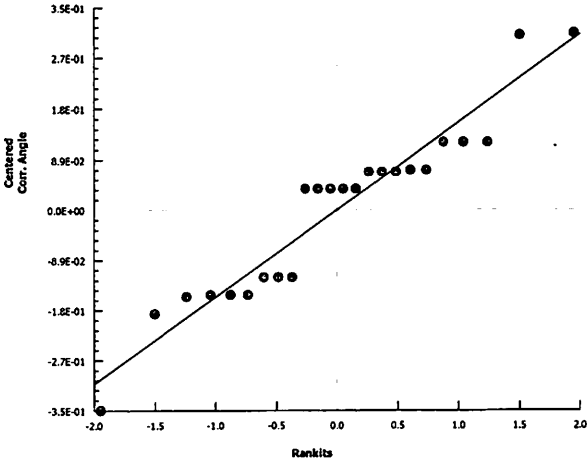
Report Date: 18 Sep-20 16:10 (p 1 of 1)  
Test Code: 20-08-039 | 19-9121-0541

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID: 02-6163-6389	Test Type: Survival (96h)		Analyst:								
Start Date: 21 Aug-20 16:30	Protocol: EPA/821/R-02-012 (2002)		Diluent: <del>Diluted</del> Natural Seawater								
Ending Date: 25 Aug-20 14:40	Species: Atherinops affinis		Brine: Not Applicable								
Duration: 94h	Source: Aquatic Biosystems, CO		Age: 14d								
Sample ID: 12-7938-3207	Code: 20-W129		Client: Wood Environment and Infrastructure								
Sample Date: 20 Aug-20 08:15	Material: Ambient Sample		Project: SIYB TMDL Monitoring								
Receipt Date: 20 Aug-20 17:35	Source: Shelter Island Yacht Basin										
Sample Age: 32h (1 °C)	Station: SIYB REF1										
Single Comparison Summary											
Analysis ID	Endpoint	Comparison Method		P-Value	Comparison Result						
11-7776-8703	96h Survival Rate	TST-Welch's t Test		0.0736	100% passed 96h survival rate						
Multiple Comparison Summary											
Analysis ID	Endpoint	Comparison Method		NOEL	LOEL	TOEL	TU	PMSD ✓			
14-3452-6855	96h Survival Rate	Dunnett Multiple Comparison Test		100	> 100	n/a	1	19.8%			
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	① LC	6	0.9000	0.7850	1.0000	0.8000	1.0000	0.0447	0.1095	12.17%	0.00%
25		6	0.7333	0.5620	0.9047	0.6000	1.0000	0.0667	0.1633	22.27%	18.52%
50		6	0.7333	0.5166	0.9501	0.4000	1.0000	0.0843	0.2066	28.17%	18.52%
100		6	0.7667	0.6810	0.8524	0.6000	0.8000	0.0333	0.0817	10.65%	14.81%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	① LC	1.0000	1.0000	0.8000	1.0000	0.8000	0.8000				
25		0.8000	0.6000	0.8000	0.6000	0.6000	1.0000				
50		1.0000	0.4000	0.8000	0.6000	0.8000	0.8000				
100		0.8000	0.8000	0.8000	0.8000	0.6000	0.8000				

① shared LC with SIYB-4

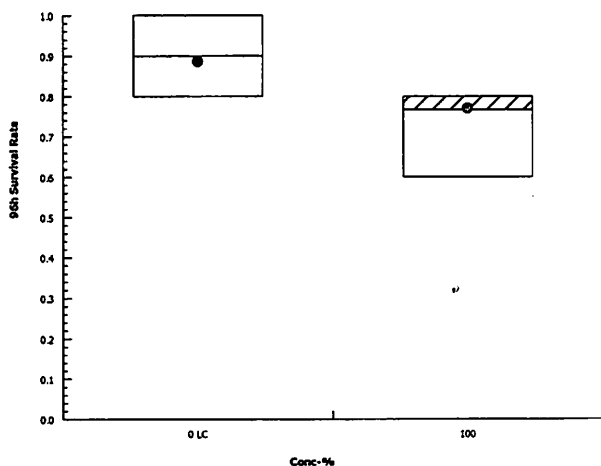
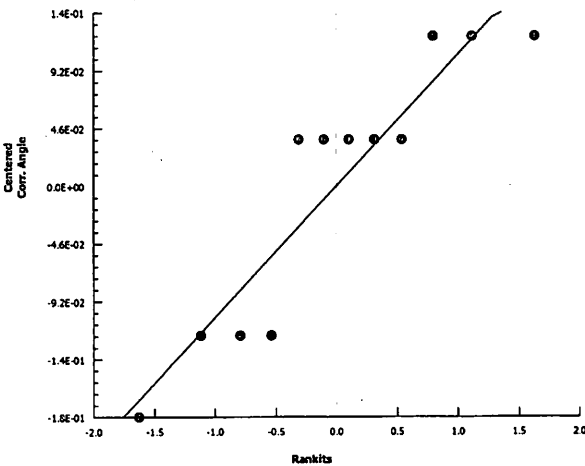
# CETIS Analytical Report

Report Date: 18 Sep-20 16:10 (p 1 of 2)  
Test Code: 20-08-039 | 19-9121-0541

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS																	
Analysis ID: 14-3452-6855		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3																							
Analyzed: 26 Aug-20 14:47		Analysis: Parametric-Control vs Treatments		Official Results: Yes																							
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD															
Angular (Corrected)		C > T		100		> 100		n/a		1		19.80%															
Dunnett Multiple Comparison Test																											
Control		vs		Conc-%		Test Stat		Critical		MSD		DF P-Type		P-Value		Decision(α:5%)											
Lab Control		25		1.973		2.192		0.211		10		CDF		0.0752		Non-Significant Effect											
		50		1.939		2.192		0.211		10		CDF		0.0800		Non-Significant Effect											
		100		1.62		2.192		0.211		10		CDF		0.1379		Non-Significant Effect											
ANOVA Table																											
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)															
Between		0.145975		0.0486582		3		1.751		0.1889		Non-Significant Effect															
Error		0.55564		0.027782		20																					
Total		0.701614				23																					
Distributional Tests																											
Attribute		Test		Test Stat		Critical		P-Value		Decision(α:1%)																	
Variances		Bartlett Equality of Variance Test		4.075		11.34		0.2535		Equal Variances																	
Distribution		Shapiro-Wilk W Normality Test		0.9275		0.884		0.0856		Normal Distribution																	
96h Survival Rate Summary																											
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect					
0		LC		6		0.9000		0.7850		1.0000		0.9000		0.8000		1.0000		0.0447		12.17%		0.00%					
25				6		0.7333		0.5620		0.9047		0.7000		0.6000		1.0000		0.0667		22.27%		18.52%					
50				6		0.7333		0.5166		0.9501		0.8000		0.4000		1.0000		0.0843		28.17%		18.52%					
100				6		0.7667		0.6810		0.8524		0.8000		0.6000		0.8000		0.0333		10.65%		14.81%					
Angular (Corrected) Transformed Summary																											
Conc-%		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect					
0		LC		6		1.226		1.089		1.363		1.226		1.107		1.345		0.05325		10.64%		0.00%					
25				6		1.036		0.841		1.232		0.9966		0.8861		1.345		0.07598		17.96%		15.49%					
50				6		1.04		0.8018		1.277		1.107		0.6847		1.345		0.09249		21.79%		15.22%					
100				6		1.07		0.9756		1.165		1.107		0.8861		1.107		0.03685		8.43%		12.71%					
Graphics																											
																											

# CETIS Analytical Report

Report Date: 18 Sep-20 16:10 (p 2 of 2)  
Test Code: 20-08-039 | 19-9121-0541

Pacific Topsmelt 96-h Acute Survival Test											Wood E&IS
Analysis ID: 11-7776-8703			Endpoint: 96h Survival Rate				CETIS Version: CETISv1.9.3				
Analyzed: 18 Sep-20 16:10			Analysis: Parametric Bioequivalence-Two Sample				Official Results: Yes				
Data Transform		Alt Hyp	TST_b		Comparison Result						
Angular (Corrected)		C*b < T	0.8		100% passed 96h survival rate						
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100*	1.586	1.383	9	CDF	0.0736	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square	DF	F Stat	P-Value	Decision(α:5%)				
Between	0.072926		0.072926	1	5.797	0.0368	Significant Effect				
Error	0.125789		0.0125789	10							
Total	0.198715			11							
Distributional Tests											
Attribute	Test			Test Stat	Critical	P-Value	Decision(α:1%)				
Variances	Variance Ratio F Test			2.089	14.94	0.4381	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test			0.8441	0.8025	0.0311	Normal Distribution				
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
100		6	0.7667	0.6810	0.8524	0.8000	0.6000	0.8000	0.0333	10.65%	14.81%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.00%
100		6	1.07	0.9756	1.165	1.107	0.8861	1.107	0.03685	8.43%	12.71%
Graphics											
<div><div></div><div></div></div>											

# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-REF

Test No. 20-08-039

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/21/20 1630

End Date/Time: 8/25/20 1640

Sample ID (%)	Rep	Counts					Water Quality						
		0	24	48	72	96	Parameter	0	24	48f	48i	72	96
LC #4	A	5	5	5	4	4	Temp. (°C)	21.2	21.0	20.1	20.8	20.8	20.7
	B	5	5	5	5	5	Salinity (ppt)	34.2	34.3	34.1	34.3	34.7	34.8
	C	5	5	5	4	4	pH (units)	7.92	7.69	7.76	8.00	7.63	7.70
	D	5	5	5	5	4	DO (mg/L)	6.9	6.0	6.4	6.9	6.4	6.6
	E	5	5	4	4	4							
	F	5	5	5	4	3							
25	A	5	5	5	4	4	Temp. (°C)	21.0	21.1	19.7	20.8	20.5	20.4
	B	5	5	4	3	3	Salinity (ppt)	33.9	34.3	34.2	34.3	34.8	34.1
	C	5	5	5	5	4	pH (units)	7.92	7.71	7.75	8.03	7.62	7.70
	D	5	5	4	4	3	DO (mg/L)	7.0	6.0	6.3	4.3	6.4	6.4
	E	5	4	4	3	3							
	F	5	5	5	5	5							
50	A	5	5	5	5	5	Temp. (°C)	20.9	21.2	19.6	21.0	20.5	20.2
	B	5	5	4	3	2	Salinity (ppt)	34.0	34.4	34.3	34.3	34.5	34.3
	C	5	5	5	4	4	pH (units)	7.93	7.71	7.77	8.03	7.69	7.71
	D	5	5	3	3	3	DO (mg/L)	7.2	6.1	6.4	7.5	6.5	6.4
	E	5	5	4	4	4							
	F	5	4	4	4	4							
100	A	5	5	5	4	4	Temp. (°C)	20.7	21.2	19.5	21.0	20.6	20.1
	B	5	5	5	4	4	Salinity (ppt)	34.0	34.4	34.4	34.3	34.6	34.4
	C	5	5	5	5	4	pH (units)	7.96	7.72	7.79	8.04	7.73	7.72
	D	5	5	5	4	4	DO (mg/L)	7.9	6.1	6.4	8.2	6.6	6.4
	E	5	4	4	4	3							
	F	5	5	5	4	4							
	A						Temp. (°C)						
	B						Salinity (ppt)						
	C						pH (units)						
	D						DO (mg/L)						
	E												
	F												
Tech Initials:		SC	SC	PO	SC	SC	Tech Initials: gm SC AG AG SC gm						

Date Animals Received: 8/18/20 ABS

Age of Animals at Test Start: 14 day

Feedings

Initials (AM):

Initials (PM):

0	24	48	72	96
AG	SC	AG	AG	AG

Comments:

QC Check:

SC 9/18/20

Final Review: SC 10/3/20

**APPENDIX C**  
**Follow-up (Round 2) Confirmation Acute**  
**Topsmelt Test Raw Data & Statistical**  
**Analyses**

**Site: SIYB-1**

# CETIS Summary Report

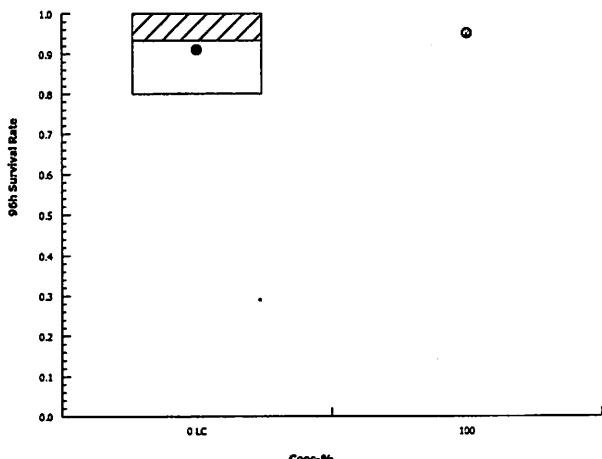
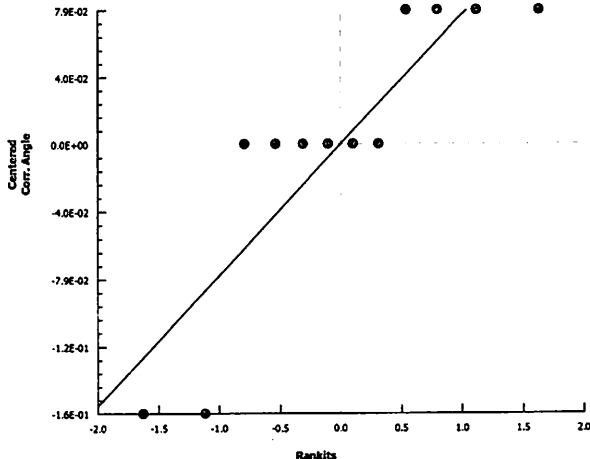
Report Date: 23 Sep-20 11:33 (p 1 of 1)  
Test Code: 20-08-033x | 11-8078-5060

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID:	10-2311-7735	Test Type:	Survival (96h)				Analyst:				
Start Date:	27 Aug-20 15:15	Protocol:	EPA/821/R-02-012 (2002)				Diluent:	Not Applicable			
Ending Date:	31 Aug-20 13:45	Species:	Atherinops affinis				Brine:	Not Applicable			
Duration:	94h	Source:	Aquatic Biosystems, CO				Age:	13d			
Sample ID:	11-7568-4462	Code:	20-W123				Client:	Wood Environment and Infrastructure			
Sample Date:	20 Aug-20 14:15	Material:	Ambient Sample				Project:	SIYB TMDL Monitoring			
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin								
Sample Age:	7d 1h	Station:	SIYB 1								
Comments:											
Follow-up Confirmation Test											
Single Comparison Summary											
Analysis ID	Endpoint	Comparison Method				P-Value	Comparison Result				
01-7269-1303	96h Survival Rate	TST-Welch's t Test				2.1E-04	100% passed 96h survival rate				
01-7031-9314	96h Survival Rate	Wilcoxon Rank Sum Two-Sample Test				1.0000	100% passed 96h survival rate				
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	0.8000	1.0000	0.0422	0.1033	11.07%	0.00%
100		6	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	-7.14%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	LC	1.0000	1.0000	0.8000	1.0000	0.8000	1.0000				
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				



# CETIS Analytical Report

Report Date: 23 Sep-20 11:33 (p 1 of 2)  
Test Code: 20-08-033x | 11-8078-5060

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 01-7031-9314		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 11:32		Analysis: Nonparametric-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		Comparison Result						PMSD	
Angular (Corrected)		C > T		100% passed 96h survival rate						8.79%	
Wilcoxon Rank Sum Two-Sample Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		100	45	n/a	1	10	Exact	1.0000	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0189026		0.0189026		1	2.5	0.1449	Non-Significant Effect			
Error	0.0756105		0.0075611		10						
Total	0.0945132				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Levene Equality of Variance Test		40	10.04	8.6E-05	Unequal Variances					
Variances	Mod Levene Equality of Variance Test		2.5	10.04	0.1449	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.7668	0.8025	0.0040	Non-Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
100		6	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	-7.14%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
100		6	1.345	1.345	1.345	1.345	1.345	1.345	0	0.00%	-6.27%
Graphics											
<div><div></div><div></div></div>											

# CETIS Analytical Report

Report Date: 23 Sep-20 11:33 (p 2 of 2)  
Test Code: 20-08-033x | 11-8078-5060

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 01-7269-1303		Endpoint: 96h Survival Rate				CETIS Version: CETISv1.9.3					
Analyzed: 23 Sep-20 11:33		Analysis: Parametric Bioequivalence-Two Sample				Official Results: Yes					
Comments:											
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% passed 96h survival rate					
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100*	8.28	1.476	5	CDF	2.1E-04	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0189026		0.0189026		1	2.5	0.1449	Non-Significant Effect			
Error	0.0756105		0.0075611		10						
Total	0.0945132				11						
Distributional Tests											
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)			
Variances	Levene Equality of Variance Test				40	10.04	8.6E-05	Unequal Variances			
Variances	Mod Levene Equality of Variance Test				2.5	10.04	0.1449	Equal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.7668	0.8025	0.0040	Non-Normal Distribution			
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
100		6	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	-7.14%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
100		6	1.345	1.345	1.345	1.345	1.345	1.345	0	0.00%	-6.27%
Graphics											
<div><div><p>96h Survival Rate</p><p>Conc-%</p></div><div><p>Centered Contr. Angle</p><p>Rankits</p></div></div>											

# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-1 - QA Confirmation

Test No. 20-08-033X

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/27/2020 1515

End Date/Time: 8/31/2020 1345

Sample ID (%)	Rep	Counts				
		0	24	48	72	96
Lab Control #1	A	5	5	5	5	5
	B	5	5	5	5	5
	C	5	5	5	5	4
	D	5	5	5	5	5
	E	5	5	5	5	4
	F	5	5	5	5	5
100	A	5	5	5	5	5
	B	5	5	5	5	5
	C	5	5	5	5	5
	D	5	5	5	5	5
	E	5	5	5	5	5
	F	5	5	5	5	5
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					

Tech Initials: SC gm gm sw SC

Date Animals Received: 8/25/20 ABS

Age of Animals at Test Start: 13 days

Comments:

QC Check:

SC 9/23/20

Water Quality						
Parameter	0	24	48f	48i	72	96
Temp. (°C)	21.2	21.3	21.4	21.0	20.9	21.1
Salinity (ppt)	34.0	33.2	34.7	33.7	33.6	34.2
pH (units)	7.86	7.76	7.82	7.82	7.75	7.70
DO (mg/L)	6.8	6.6	6.7	7.1	6.5	6.3
Temp. (°C)	21.8	20.8	20.3	21.3	20.7	21.2
Salinity (ppt)	34.1	33.5	34.0	34.2	34.5	34.2
pH (units)	7.92	7.83	7.79	7.86	7.84	7.72
DO (mg/L)	8.4	6.6	6.5	8.6	6.7	6.2
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						

Tech Initials: SC gm gm gm sw SC

Feedings

Initials (AM):

Initials (PM):

	0	24	48	72	96
Initials (AM):	—	AB	gm	sw	sw
Initials (PM):					

Final Review: sw 10/3/20

**Site: SIYB-2**

# CETIS Summary Report

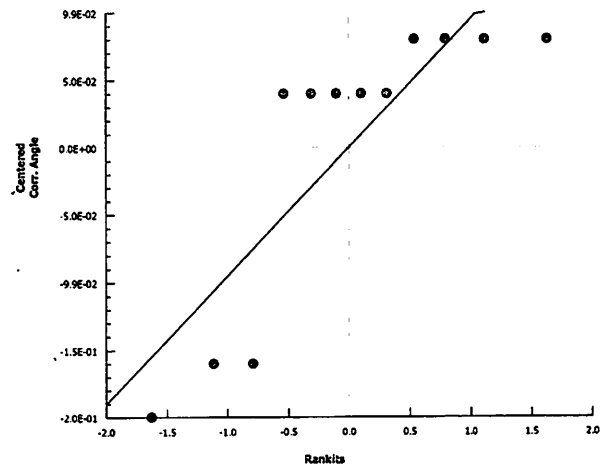
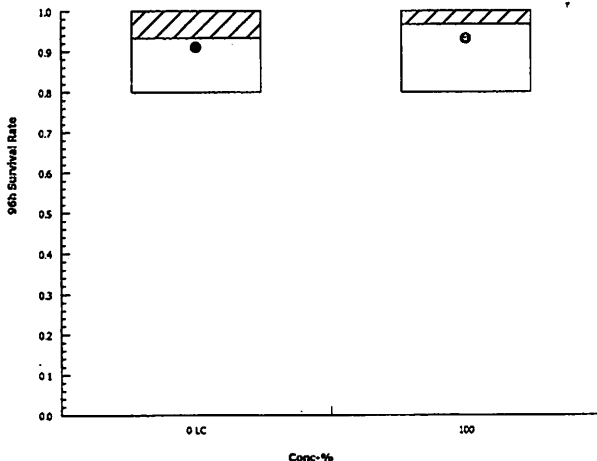
Report Date: 23 Sep-20 11:38 (p 1 of 1)  
Test Code: 20-08-034x | 04-8603-2583

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID:	01-8894-6776		Test Type:	Survival (96h)		Analyst:					
Start Date:	27 Aug-20 15:20		Protocol:	EPA/821/R-02-012 (2002)		Diluent:	Not Applicable				
Ending Date:	31 Aug-20 13:50		Species:	Atherinops affinis		Brine:	Not Applicable				
Duration:	94h		Source:	Aquatic Biosystems, CO		Age:	13d				
Sample ID:	19-8768-6858		Code:	20-W124		Client:	Wood Environment and Infrastructure				
Sample Date:	20 Aug-20 13:15		Material:	Ambient Sample		Project:	SIYB TMDL Monitoring				
Receipt Date:	20 Aug-20 17:35		Source:	Shelter Island Yacht Basin							
Sample Age:	7d 2h		Station:	SIYB 2							
Comments:											
Follow-up Confirmation Test											
Single Comparison Summary											
Analysis ID	Endpoint		Comparison Method		P-Value	Comparison Result					
17-7598-1116	96h Survival Rate		TST-Welch's t Test		2.9E-04	100% passed 96h survival rate					
02-7741-1588	96h Survival Rate		Wilcoxon Rank Sum Two-Sample Test		0.9091	100% passed 96h survival rate					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	0.8000	1.0000	0.0422	0.1033	11.07%	0.00%
100		6	0.9667	0.8810	1.0000	0.8000	1.0000	0.0333	0.0817	8.45%	-3.57%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	LC	1.0000	0.8000	0.8000	1.0000	1.0000	1.0000				
100		0.8000	1.0000	1.0000	1.0000	1.0000	1.0000				

# CETIS Analytical Report

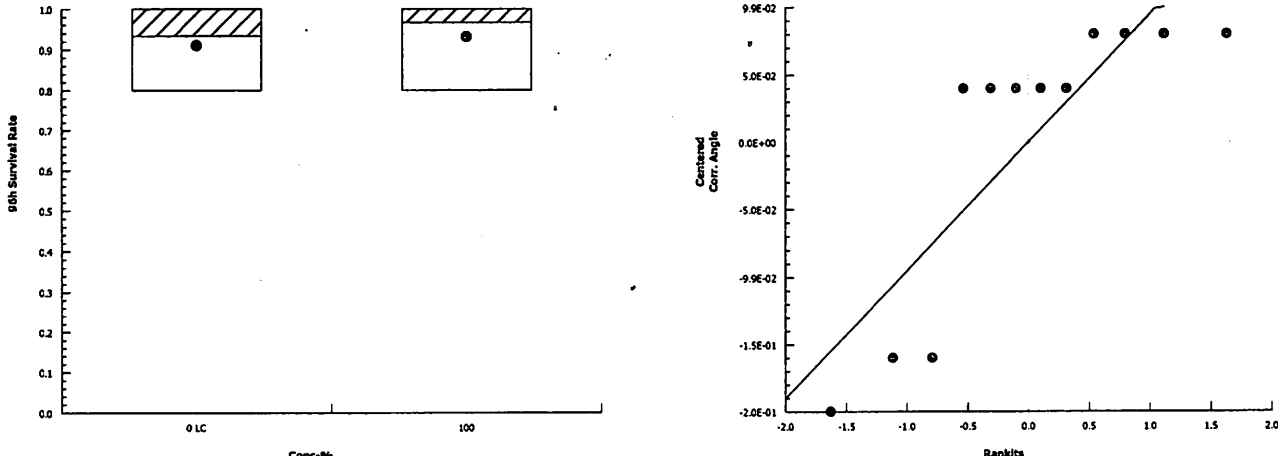
Report Date: 23 Sep-20 11:38 (p 1 of 2)  
Test Code: 20-08-034x | 04-8603-2583

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 02-7741-1588		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 11:38		Analysis: Nonparametric-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		Comparison Result						PMSD	
Angular (Corrected)		C > T		100% passed 96h survival rate						10.74%	
Wilcoxon Rank Sum Two-Sample Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		100	42	n/a	2	10	Exact	0.9091	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0047257		0.0047257		1	0.3846	0.5490	Non-Significant Effect			
Error	0.122867		0.0122867		10						
Total	0.127593				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Variance Ratio F Test		1.6	14.94	0.6186	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.7008	0.8025	8.6E-04	Non-Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
100		6	0.9667	0.8810	1.0000	1.0000	0.8000	1.0000	0.0333	8.45%	-3.57%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
100		6	1.306	1.204	1.408	1.345	1.107	1.345	0.03969	7.45%	-3.14%
Graphics											
<div><div></div><div></div></div>											



# CETIS Analytical Report

Report Date: 23 Sep-20 11:38 (p 2 of 2)  
Test Code: 20-08-034x | 04-8603-2583

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 17-7598-1116		Endpoint: 96h Survival Rate			CETIS Version: CETISv1.9.3						
Analyzed: 23 Sep-20 11:38		Analysis: Parametric Bioequivalence-Two Sample			Official Results: Yes						
Comments:											
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% passed 96h survival rate					
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100*	5.187	1.383	9	CDF	2.9E-04	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0047257		0.0047257		1	0.3846	0.5490	Non-Significant Effect			
Error	0.122867		0.0122867		10						
Total	0.127593				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Variance Ratio F Test		1.6	14.94	0.6186	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.7008	0.8025	8.6E-04	Non-Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
100		6	0.9667	0.8810	1.0000	1.0000	0.8000	1.0000	0.0333	8.45%	-3.57%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
100		6	1.306	1.204	1.408	1.345	1.107	1.345	0.03969	7.45%	-3.14%
Graphics											
<div><div></div></div>											

# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-2 - QA Confirmation

Test No. 20-08-034X

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/27/20 1520

End Date/Time: 8/31/20 1350

Sample ID (%)	Rep	Counts				
		0	24	48	72	96
Lab Control #2	A	5	5	5	5	5
	B	5	5	5	5	4
	C	5	5	5	5	4
	D	5	5	5	5	5
	E	5	5	5	5	5
	F	5	5	5	5	5
100	A	5	5	5	4	4
	B	5	5	5	5	5
	C	5	5	5	5	5
	D	5	5	5	5	5
	E	5	5	5	5	5
	F	5	5	5	5	5
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					

Tech Initials: SC gm gm ~ SC

Date Animals Received: 8/25/20

Age of Animals at Test Start: 13d

Comments:

QC Check:

SC 9/23/20

Water Quality						
Parameter	0	24	48f	48i	72	96
Temp. (°C)	21.1	20.3	20.7	20.4	21.0	21.2
Salinity (ppt)	33.9	33.5	34.6	33.6	33.9	34.3
pH (units)	7.95	7.82	7.84	7.88	7.79	7.72
DO (mg/L)	6.9	6.8	6.8	7.1	6.6	6.1
Temp. (°C)	20.3	20.1	20.5	21.5	21.0	21.3
Salinity (ppt)	33.8	33.7	37.0	33.7	34.1	34.3
pH (units)	7.97	7.82	7.88	7.86	7.73	7.74
DO (mg/L)	8.3	6.7	6.7	8.4	6.5	6.2
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						

Tech Initials: SC gm gm gm ~ SC

Feedings

Initials (AM):

Initials (PM):

	0	24	48	72	96
Initials (AM):	—	AB	gm	~	SC
Initials (PM):					

Final Review: SC 10/3/20



**Site: SIYB-3**

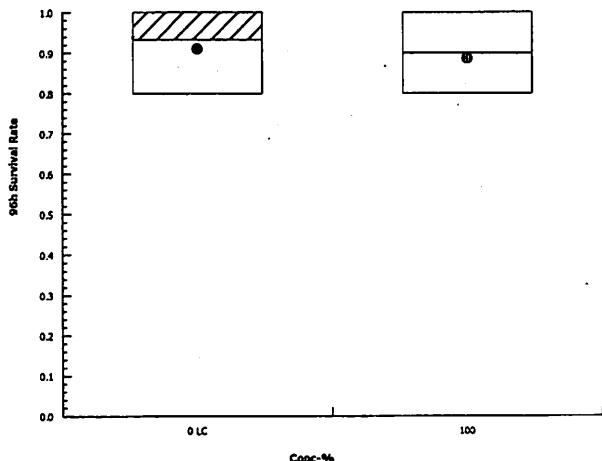
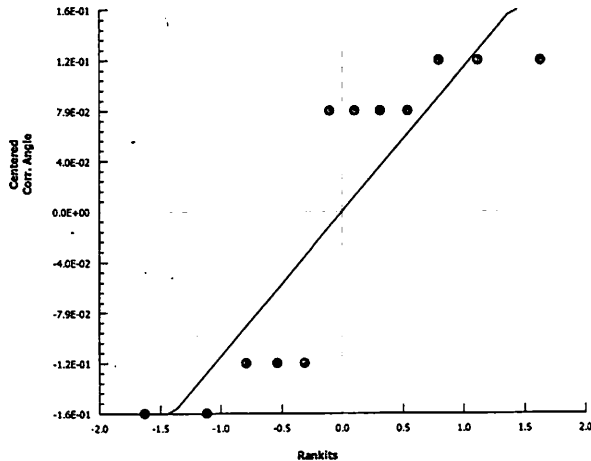
# CETIS Summary Report

Report Date: 23 Sep-20 11:44 (p 1 of 1)  
Test Code: 20-08-035x | 08-8830-7748

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID:	06-8808-5963		Test Type:	Survival (96h)		Analyst:					
Start Date:	27 Aug-20 15:20		Protocol:	EPA/821/R-02-012 (2002)		Diluent:	Not Applicable				
Ending Date:	31 Aug-20 13:50		Species:	Atherinops affinis		Brine:	Not Applicable				
Duration:	94h		Source:	Aquatic Biosystems, CO		Age:	13d				
Sample ID:	19-4156-0392		Code:	20-W125		Client:	Wood Environment and Infrastructure				
Sample Date:	20 Aug-20 12:15		Material:	Ambient Sample		Project:	SIYB TMDL Monitoring				
Receipt Date:	20 Aug-20 17:35		Source:	Shelter Island Yacht Basin							
Sample Age:	7d 3h		Station:	SIYB 3							
Comments:											
Follow-up Confirmation Test											
Single Comparison Summary											
Analysis ID	Endpoint		Comparison Method		P-Value	Comparison Result					
07-0276-3060	96h Survival Rate		TST-Welch's t Test		0.0054	100% passed 96h survival rate					
00-1606-1300	96h Survival Rate		Wilcoxon Rank Sum Two-Sample Test		0.5000	100% passed 96h survival rate					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	0.8000	1.0000	0.0422	0.1033	11.07%	0.00%
100		6	0.9000	0.7850	1.0000	0.8000	1.0000	0.0447	0.1095	12.17%	3.57%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	LC	1.0000	0.8000	0.8000	1.0000	1.0000	1.0000				
100		1.0000	1.0000	0.8000	0.8000	1.0000	0.8000				

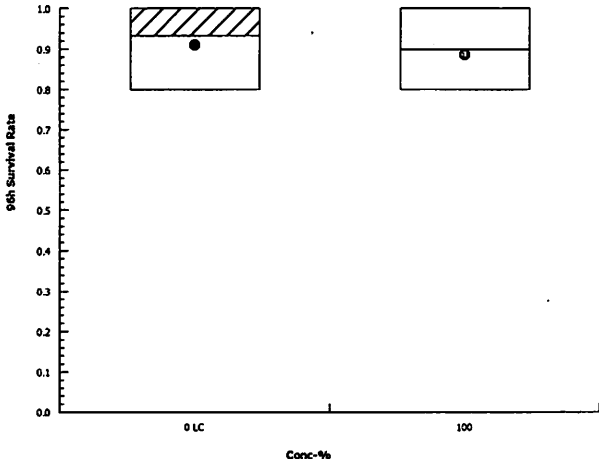
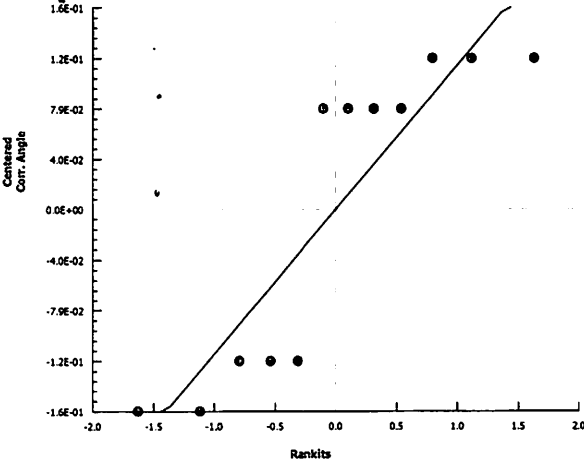
# CETIS Analytical Report

Report Date: 23 Sep-20 11:44 (p 1 of 2)  
Test Code: 20-08-035x | 08-8830-7748

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 00-1606-1300		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 11:44		Analysis: Nonparametric-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		Comparison Result						PMSD	
Angular (Corrected)		C > T		100% passed 96h survival rate						12.09%	
Wilcoxon Rank Sum Two-Sample Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision( $\alpha$ :5%)		
Lab Control		100	36	n/a	2	10	Exact	0.5000	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision( $\alpha$ :5%)			
Between	0.0047257		0.0047257		1	0.2941	0.5995	Non-Significant Effect			
Error	0.160672		0.0160672		10						
Total	0.165398				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision( $\alpha$ :1%)					
Variances	Variance Ratio F Test		1.125	14.94	0.9003	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.7633	0.8025	0.0037	Non-Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
100		6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	3.57%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
100		6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	3.14%
Graphics											
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# CETIS Analytical Report

Report Date: 23 Sep-20 11:44 (p 2 of 2)  
Test Code: 20-08-035x | 08-8830-7748

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 07-0276-3060		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 11:44		Analysis: Parametric Bioequivalence-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% passed 96h survival rate					
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100*	3.201	1.383	9	CDF	0.0054	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0047257		0.0047257		1	0.2941	0.5995	Non-Significant Effect			
Error	0.160672		0.0160672		10						
Total	0.165398				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Variance Ratio F Test		1.125	14.94	0.9003	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.7633	0.8025	0.0037	Non-Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
100		6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	3.57%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
100		6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	3.14%
Graphics											
<div><div></div><div></div></div>											

# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-3 - QA Confirmation

Test No. 20-08-035X

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/27/20 1520

End Date/Time: 8/31/20 1350

Sample ID (%)	Rep	Counts				
		0	24	48	72	96
Lab Control #2	A	5	5	5	5	5
	B	5	5	5	5	4
	C	5	5	5	5	4
	D	5	5	5	5	5
	E	5	5	5	5	5
	F	5	5	5	5	5
100	A	5	5	5	5	5
	B	5	5	5	5	5
	C	5	5	5	5	4
	D	5	5	5	5	4
	E	5	5	5	5	5
	F	5	5	5	5	4
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					

Tech Initials: SC gm gm gm SC

Date Animals Received: 8/25/20

Age of Animals at Test Start: 13d

Comments:

QC Check:

SC 9/23/20

Water Quality						
Parameter	0	24	48f	48i	72	96
Temp. (°C)	21.1	20.3	20.7	20.4	21.0	21.2
Salinity (ppt)	33.9	33.5	34.0	33.6	34.2	34.3
pH (units)	7.95	7.82	7.84	7.88	7.77	7.72
DO (mg/L)	6.9	6.8	6.8	7.2	6.7	6.1
6.6						
Temp. (°C)	21.6	20.2	21.0	21.2	21.0	21.7
Salinity (ppt)	34.1	33.7	34.4	33.5	34.2	34.2
pH (units)	7.96	7.86	7.89	7.88	7.77	7.73
DO (mg/L)	8.2	6.9	6.8	8.5	6.7	6.4
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						

Tech Initials: SC gm gm gm SC

Feedings

Initials (AM):

Initials (PM):

	0	24	48	72	96
Initials (AM):	/	AG	gm	JW	JW
Initials (PM):					

Final Review: JW 10/3/20

**Site: SIYB-4**

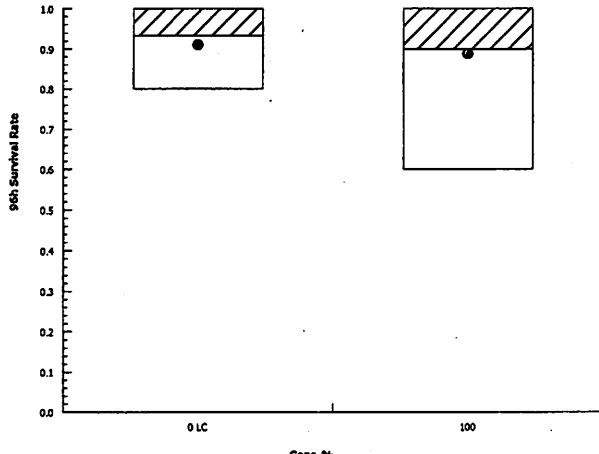
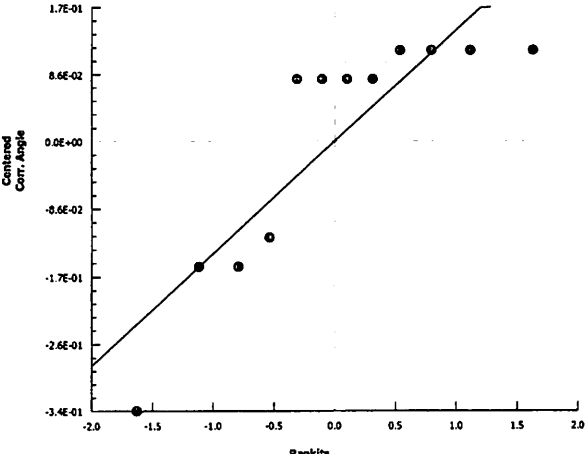
# CETIS Summary Report

Report Date: 23 Sep-20 11:49 (p 1 of 1)  
Test Code: 20-08-036x | 12-2088-2505

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID:	21-4573-3156	Test Type:	Survival (96h)					Analyst:			
Start Date:	27 Aug-20 15:30	Protocol:	EPA/821/R-02-012 (2002)					Diluent:	Not Applicable		
Ending Date:	31 Aug-20 14:00	Species:	Atherinops affinis					Brine:	Not Applicable		
Duration:	94h	Source:	Aquatic Biosystems, CO					Age:	13d		
Sample ID:	16-6694-1530	Code:	20-W126					Client:	Wood Environment and Infrastructure		
Sample Date:	20 Aug-20 11:15	Material:	Ambient Sample					Project:	SIYB TMDL Monitoring		
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin								
Sample Age:	7d 4h	Station:	SIYB 4								
Comments:											
Follow-up Confirmation Test											
Single Comparison Summary											
Analysis ID	Endpoint	Comparison Method				P-Value	Comparison Result				
07-9959-3448	96h Survival Rate	TST-Welch's t Test				0.0222	100% passed 96h survival rate				
04-8711-9514	96h Survival Rate	Wilcoxon Rank Sum Two-Sample Test				0.5000	100% passed 96h survival rate				
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	0.8000	1.0000	0.0422	0.1033	11.07%	0.00%
100		6	0.9000	0.7244	1.0000	0.6000	1.0000	0.0683	0.1673	18.59%	3.57%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	LC	0.8000	1.0000	1.0000	1.0000	0.8000	1.0000				
100		1.0000	1.0000	0.6000	1.0000	1.0000	0.8000				

# CETIS Analytical Report

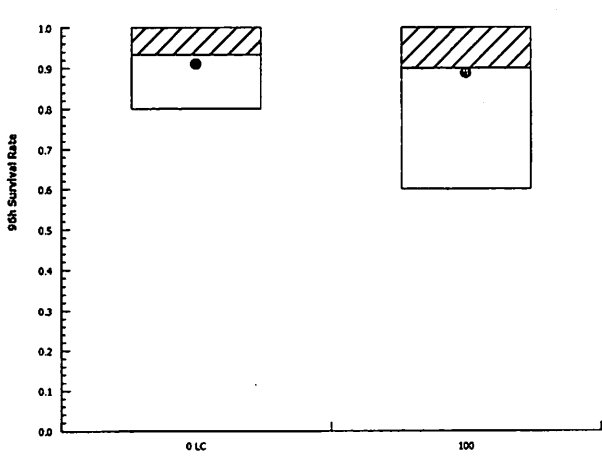
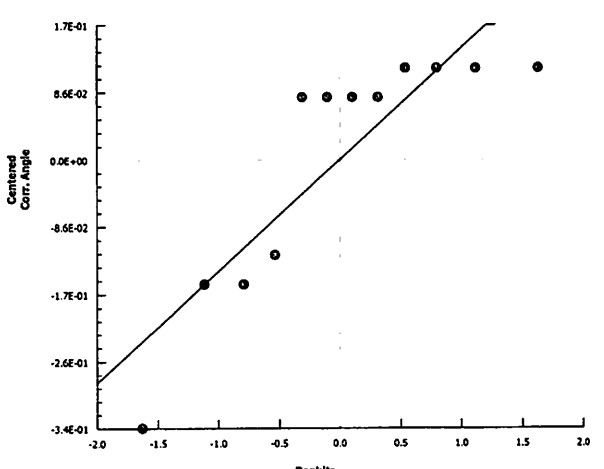
Report Date: 23 Sep-20 11:49 (p 1 of 2)  
 Test Code: 20-08-036x | 12-2088-2505

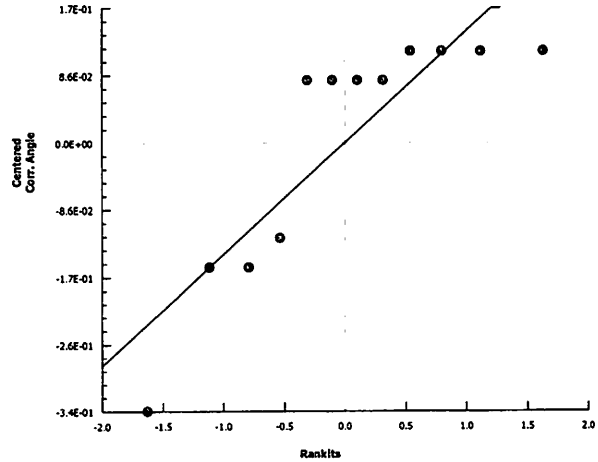
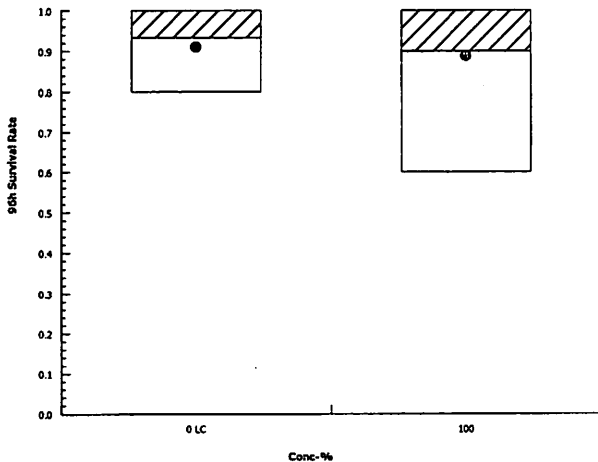
Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 04-8711-9514		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 11:49		Analysis: Nonparametric-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		Comparison Result						PMSD	
Angular (Corrected)		C > T		100% passed 96h survival rate						15.21%	
Wilcoxon Rank Sum Two-Sample Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		100	38	n/a	2	10	Exact	0.5000	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0040727		0.0040727		1	0.1554	0.7017	Non-Significant Effect			
Error	0.262141		0.0262141		10						
Total	0.266214				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Variance Ratio F Test		2.467	14.94	0.3442	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.756	0.8025	0.0031	Non-Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
100		6	0.9000	0.7244	1.0000	1.0000	0.6000	1.0000	0.0683	18.59%	3.57%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
100		6	1.229	1.026	1.432	1.345	0.8861	1.345	0.07885	15.72%	2.91%
Graphics											
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# CETIS Analytical Report

Report Date: 23 Sep-20 11:49 (p 2 of 2)  
Test Code: 20-08-036x | 12-2088-2505

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 07-9959-3448		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 11:49		Analysis: Parametric Bioequivalence-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% passed 96h survival rate					
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100*	2.445	1.415	7	CDF	0.0222	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0040727		0.0040727		1	0.1554	0.7017	Non-Significant Effect			
Error	0.262141		0.0262141		10						
Total	0.266214				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Variance Ratio F Test		2.467	14.94	0.3442	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.756	0.8025	0.0031	Non-Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
100		6	0.9000	0.7244	1.0000	1.0000	0.6000	1.0000	0.0683	18.59%	3.57%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
100		6	1.229	1.026	1.432	1.345	0.8861	1.345	0.07885	15.72%	2.91%
Graphics											
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# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-4 - QA Confirmation

Test No. 20-08-036X

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/27/20 1530

End Date/Time: 8/31/20 1400

Sample ID (%)	Rep	Counts				
		0	24	48	72	96
Lab Control #3	A	5	5	5	5	4
	B	5	5	5	5	5
	C	5	5	5	5	5
	D	5	5	5	5	5
	E	5	5	5	5	4
	F	5	5	5	5	5
100	A	5	5	5	5	5
	B	5	5	5	5	5
	C	5	5	5	5	3
	D	5	5	5	5	5
	E	5	5	5	5	5
	F	5	5	5	5	4
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					

Tech Initials: SC gm gm gm gm R

Date Animals Received: 8/25/20

Age of Animals at Test Start: 13d

Comments:

QC Check: SC 9/23/20

Wood Environmental Toxicology Lab, 4905 Morena Blvd, Ste. 1304, San Diego, CA 92117

Water Quality						
Parameter	0	24	48f	48i	72	96
Temp. (°C)	21.2	21.1	20.9	20.7	21.3	21.6
Salinity (ppt)	34.0	33.5	34.9	33.4	34.2	34.0
pH (units)	7.95	7.80	7.75	7.91	7.79	7.68
DO (mg/L)	6.9	6.8	6.5	7.2	6.5	6.2
Temp. (°C)	21.1	21.1	20.9	21.4	21.2	21.6
Salinity (ppt)	33.8	33.6	35.0	33.8	34.4	34.5
pH (units)	7.97	7.79	7.71	7.96	7.77	7.73
DO (mg/L)	8.3	6.5	6.5	8.6	6.6	6.4
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						

Tech Initials: SC gm gm gm gm SC

Feedings

Initials (AM):

Initials (PM):

0	24	48	72	96
/	AG	gm	~	~

Final Review: ~ 10/3/20

**Site: SIYB-5**

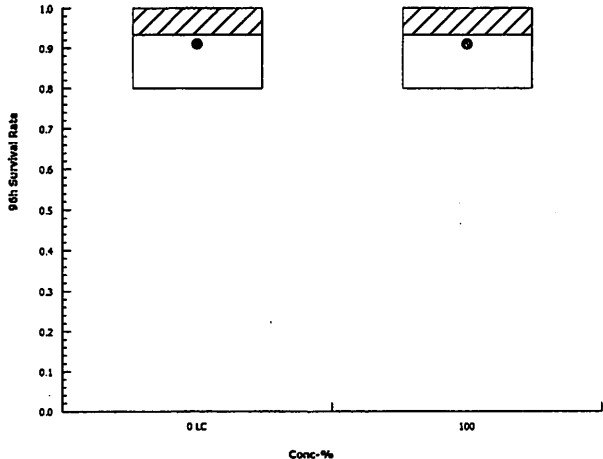
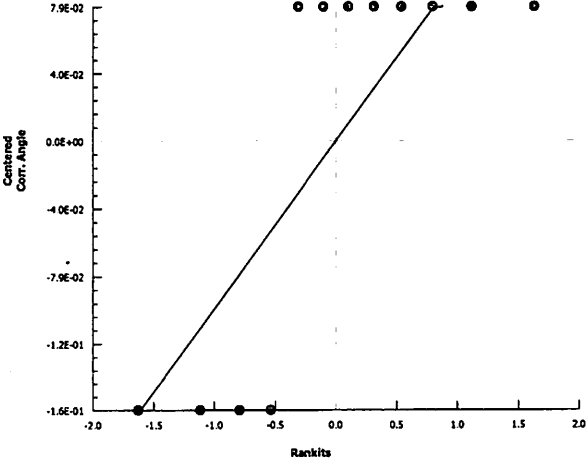
# CETIS Summary Report

Report Date: 23 Sep-20 11:54 (p 1 of 1)  
Test Code: 20-08-037x | 17-8894-7641

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID:	06-8141-1261		Test Type:	Survival (96h)		Analyst:					
Start Date:	27 Aug-20 15:30		Protocol:	EPA/821/R-02-012 (2002)		Diluent:	Not Applicable				
Ending Date:	31 Aug-20 14:00		Species:	Atherinops affinis		Brine:	Not Applicable				
Duration:	94h		Source:	Aquatic Biosystems, CO		Age:	13d				
Sample ID:	16-8906-8990		Code:	20-W127		Client:	Wood Environment and Infrastructure				
Sample Date:	20 Aug-20 10:25		Material:	Ambient Sample		Project:	SIYB TMDL Monitoring				
Receipt Date:	20 Aug-20 17:35		Source:	Shelter Island Yacht Basin							
Sample Age:	7d 5h		Station:	SIYB 5							
<b>Comments:</b> Follow-up Confirmation Test											
<b>Single Comparison Summary</b>											
Analysis ID	Endpoint		Comparison Method		P-Value	Comparison Result					
00-9079-1307	96h Survival Rate		TST-Welch's t Test		0.0017	100% passed 96h survival rate					
07-5914-3490	96h Survival Rate		Wilcoxon Rank Sum Two-Sample Test		0.7273	100% passed 96h survival rate					
<b>96h Survival Rate Summary</b>											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	0.8000	1.0000	0.0422	0.1033	11.07%	0.00%
100		6	0.9333	0.8249	1.0000	0.8000	1.0000	0.0422	0.1033	11.07%	0.00%
<b>96h Survival Rate Detail</b>											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	LC	0.8000	1.0000	1.0000	1.0000	0.8000	1.0000				
100		1.0000	1.0000	0.8000	0.8000	1.0000	1.0000				

# CETIS Analytical Report

Report Date: 23 Sep-20 11:54 (p 1 of 2)  
Test Code: 20-08-037x | 17-8894-7641

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 07-5914-3490		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 11:54		Analysis: Nonparametric-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		Comparison Result						PMSD	
Angular (Corrected)		C > T		100% passed 96h survival rate						11.77%	
Wilcoxon Rank Sum Two-Sample Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		100	39	n/a	2	10	Exact	0.7273	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0		0		1	0	1.0000	Non-Significant Effect			
Error	0.151221		0.0151221		10						
Total	0.151221				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Variance Ratio F Test		1	14.94	1.0000	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.6081	0.8025	1.3E-04	Non-Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
100		6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
100		6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
Graphics											
<div><div></div><div></div></div>											

# CETIS Analytical Report

Report Date: 23 Sep-20 11:54 (p 2 of 2)  
Test Code: 20-08-037x | 17-8894-7641

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 00-9079-1307		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 11:54		Analysis: Parametric Bioequivalence-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% passed 96h survival rate					
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100*	3.938	1.383	9	CDF	0.0017	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0		0		1	0	1.0000	Non-Significant Effect			
Error	0.151221		0.0151221		10						
Total	0.151221				11						
Distributional Tests											
Attribute	Test		Test Stat		Critical	P-Value	Decision(α:1%)				
Variances	Variance Ratio F Test		1		14.94	1.0000	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test		0.6081		0.8025	1.3E-04	Non-Normal Distribution				
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
100		6	0.9333	0.8249	1.0000	1.0000	0.8000	1.0000	0.0422	11.07%	0.00%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
100		6	1.266	1.137	1.395	1.345	1.107	1.345	0.0502	9.71%	0.00%
Graphics											
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## 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-5 - QA Confirmation

Test No. 20-08-037X

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/27/20 1530

End Date/Time: 8/31/20 1400

Sample ID (%)	Rep	Counts				
		0	24	48	72	96
Lab Control #3	A	5	5	5	5	4
	B	5	5	5	5	5
	C	5	5	5	5	5
	D	5	5	5	5	5
	E	5	5	5	5	4
	F	5	5	5	5	5
100	A	5	5	5	5	5
	B	5	5	5	5	5
	C	5	5	5	5	4
	D	5	5	4	4	4
	E	5	5	5	5	5
	F	5	5	5	5	5
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					

Tech Initials: SC gm gm gm gm SC

Date Animals Received: 8/27/20

Age of Animals at Test Start: 13d

Comments:

QC Check:

8/23/20

Water Quality						
Parameter	0	24	48f	48i	72	96
Temp. (°C)	21.2	21.1	20.9	20.2	21.3	21.6
Salinity (ppt)	34.0	33.5	34.9	33.4	34.2	34.0
pH (units)	7.95	7.80	7.75	7.91	7.89	7.68
DO (mg/L)	6.9	6.8	6.5	7.2	6.5	6.2
Temp. (°C)	21.5	21.0	20.9	21.2	21.2	21.6
Salinity (ppt)	34.0	33.8	34.5	33.7	33.3	34.2
pH (units)	7.93	7.80	7.79	7.90	7.82	7.71
DO (mg/L)	8.2	6.5	6.5	8.4	6.7	6.3
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						

Tech Initials: SC gm gm gm gm SC

Feedings

Initials (AM):

Initials (PM):

	0	24	48	72	96
Initials (AM):	✓	AO	gm	~	JW
Initials (PM):					

Final Review: JW 10/3/20

**Site: SIYB-6**



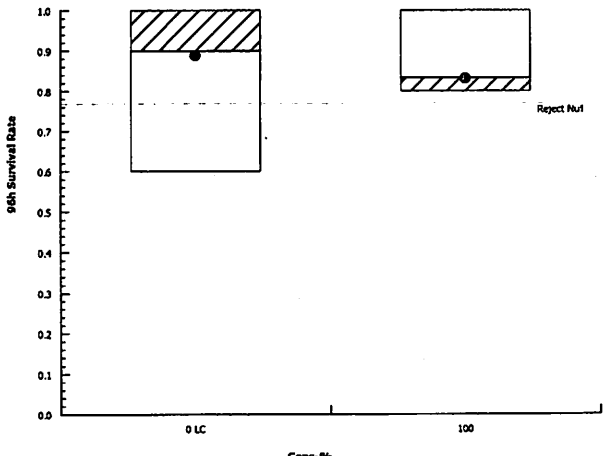
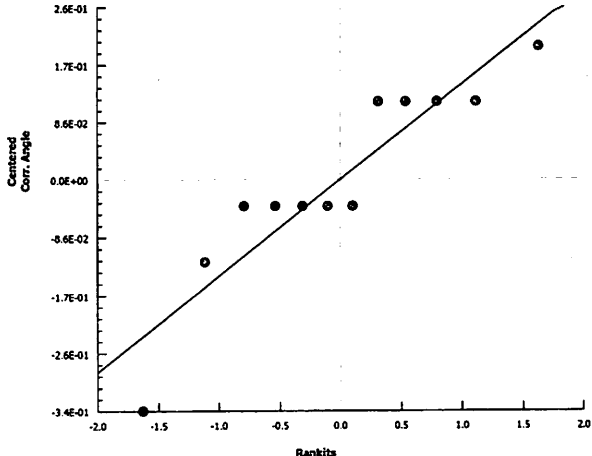
# CETIS Summary Report

Report Date: 23 Sep-20 11:59 (p 1 of 1)  
Test Code: 20-08-038x | 21-2016-1555

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID:	05-2511-3684	Test Type:	Survival (96h)				Analyst:				
Start Date:	27 Aug-20 15:45	Protocol:	EPA/821/R-02-012 (2002)				Diluent:	Not Applicable			
Ending Date:	31 Aug-20 14:15	Species:	Atherinops affinis				Brine:	Not Applicable			
Duration:	94h	Source:	Aquatic Biosystems, CO				Age:	13d			
Sample ID:	17-6607-9622	Code:	20-W128				Client:	Wood Environment and Infrastructure			
Sample Date:	20 Aug-20 09:15	Material:	Ambient Sample				Project:	SIYB TMDL Monitoring			
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin								
Sample Age:	7d 7h	Station:	SIYB 6								
Comments:											
Follow-up Confirmation Test											
Single Comparison Summary											
Analysis ID	Endpoint	Comparison Method				P-Value	Comparison Result				
07-4994-2735	96h Survival Rate	Equal Variance t Two-Sample Test				0.1868	100% passed 96h survival rate				
16-9700-6744	96h Survival Rate	TST-Welch's t Test				0.0297	100% passed 96h survival rate				
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	6	0.9000	0.7244	1.0000	0.6000	1.0000	0.0683	0.1673	18.59%	0.00%
100		6	0.8333	0.7476	0.9190	0.8000	1.0000	0.0333	0.0817	9.80%	7.41%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	LC	0.8000	1.0000	1.0000	1.0000	1.0000	0.6000				
100		0.8000	0.8000	0.8000	0.8000	0.8000	1.0000				

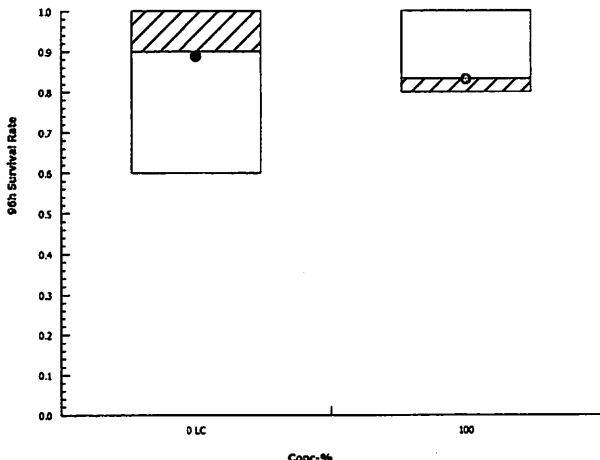
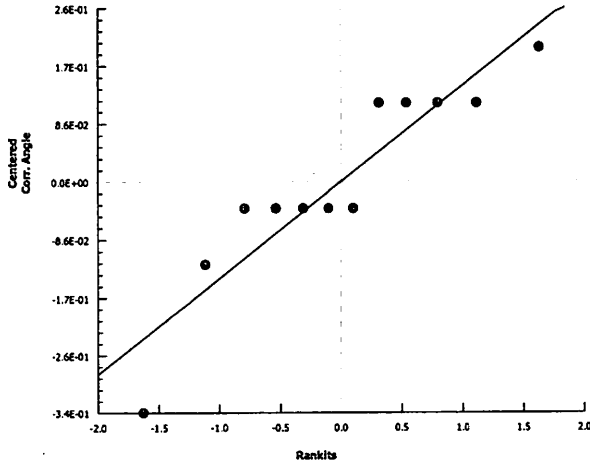
# CETIS Analytical Report

Report Date: 23 Sep-20 11:59 (p 1 of 2)  
Test Code: 20-08-038x | 21-2016-1555

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 07-4994-2735		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 11:59		Analysis: Parametric-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		Comparison Result						PMSD	
Angular (Corrected)		C > T		100% passed 96h survival rate						14.59%	
Equal Variance t Two-Sample Test											
Control	vs	Conc-%	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		100	0.9314	1.812	0.16	10	CDF	0.1868	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0202813		0.0202813		1	0.8675	0.3736	Non-Significant Effect			
Error	0.233787		0.0233787		10						
Total	0.254069				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Variance Ratio F Test		3.947	14.94	0.1581	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.8713	0.8025	0.0679	Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7244	1.0000	1.0000	0.6000	1.0000	0.0683	18.59%	0.00%
100		6	0.8333	0.7476	0.9190	0.8000	0.8000	1.0000	0.0333	9.80%	7.41%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.229	1.026	1.432	1.345	0.8861	1.345	0.07885	15.72%	0.00%
100		6	1.147	1.045	1.249	1.107	1.107	1.345	0.03969	8.48%	6.69%
Graphics											
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# CETIS Analytical Report

Report Date: 23 Sep-20 11:59 (p 2 of 2)  
Test Code: 20-08-038x | 21-2016-1555

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 16-9700-6744		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 11:59		Analysis: Parametric Bioequivalence-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% passed 96h survival rate					
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision( $\alpha$ :10%)			
Lab Control		100*	2.195	1.397	8	CDF	0.0297	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision( $\alpha$ :5%)			
Between	0.0202813		0.0202813		1	0.8675	0.3736	Non-Significant Effect			
Error	0.233787		0.0233787		10						
Total	0.254069				11						
Distributional Tests											
Attribute	Test		Test Stat		Critical	P-Value	Decision( $\alpha$ :1%)				
Variances	Variance Ratio F Test		3.947		14.94	0.1581	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test		0.8713		0.8025	0.0679	Normal Distribution				
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7244	1.0000	1.0000	0.6000	1.0000	0.0683	18.59%	0.00%
100		6	0.8333	0.7476	0.9190	0.8000	0.8000	1.0000	0.0333	9.80%	7.41%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.229	1.026	1.432	1.345	0.8861	1.345	0.07885	15.72%	0.00%
100		6	1.147	1.045	1.249	1.107	1.107	1.345	0.03969	8.48%	6.69%
Graphics											
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# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-6 - QA Confirmation

Test No. 20-98-038X

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/27/20 1545

End Date/Time: 8/31/20 1415

Sample ID (%)	Rep	Counts				
		0	24	48	72	96
Lab Control #4	A	5	5	4	4	4
	B	5	5	5	5	5
	C	5	5	5	5	5
	D	5	5	5	5	5
	E	5	5	5	5	5
	F	5	5	4	4	3
100	A	5	5	5	5	4
	B	5	5	5	5	4
	C	5	5	5	4	4
	D	5	5	5	5	4
	E	5	5	5	4	4
	F	5	5	5	5	5
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					

Water Quality						
Parameter	0	24	48f	48i	72	96
Temp. (°C)	21.2	20.6	20.4	20.7	20.4	20.5
Salinity (ppt)	34.0	33.7	35.2	33.4	34.8	34.2
pH (units)	7.95	7.80	7.75	7.92	7.84	7.68
DO (mg/L)	6.9	6.8	6.8	7.2	6.9	6.9
Temp. (°C)	21.2	20.5	20.0	20.7	20.1	20.5
Salinity (ppt)	34.0	33.8	35.3	33.8	34.6	34.4
pH (units)	7.98	7.81	7.75	7.92	7.84	7.72
DO (mg/L)	8.2	6.8	6.7	8.6	6.8	6.5
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						

Tech Initials:	SL	gm	gm	gm	gm	SL
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Tech Initials:	SL	gm	gm	gm	gm	SL
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Date Animals Received: 8/25/20

Age of Animals at Test Start: 13d

Feedings

Initials (AM):

Initials (PM):

	0	24	48	72	96
Initials (AM):	/	AB	gm	gm	gm
Initials (PM):					

Comments:

QC Check:

SL 9/23/20

Final Review: gm 10/3/20

**Site: SIYB-REF-1**

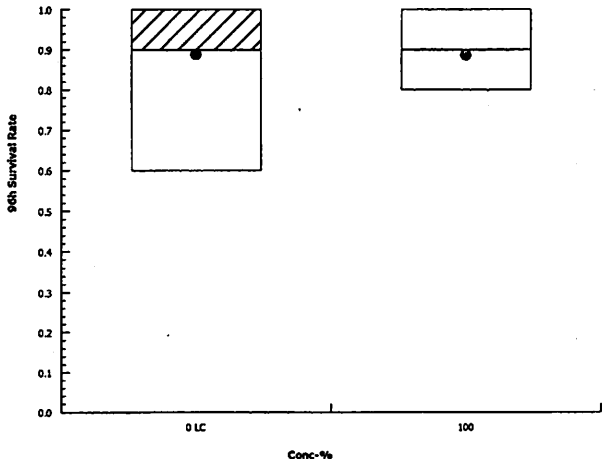
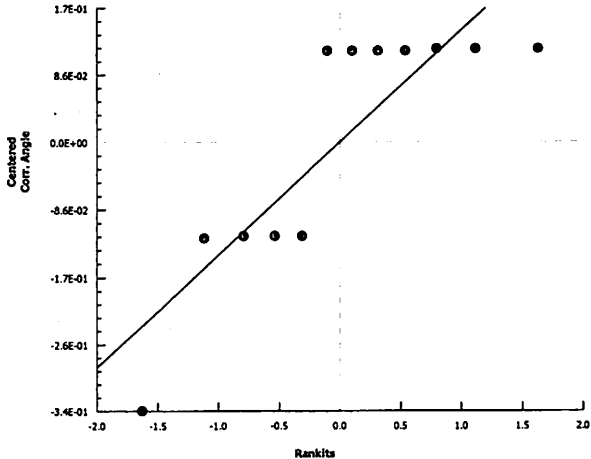
# CETIS Summary Report

Report Date: 23 Sep-20 12:03 (p 1 of 1)  
Test Code: 20-08-039x | 01-9691-8394

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Batch ID:	08-2319-4057	Test Type:	Survival (96h)					Analyst:			
Start Date:	27 Aug-20 15:45	Protocol:	EPA/821/R-02-012 (2002)					Diluent:	Not Applicable		
Ending Date:	31 Aug-20 14:15	Species:	Atherinops affinis					Brine:	Not Applicable		
Duration:	94h	Source:	Aquatic Biosystems, CO					Age:	13d		
Sample ID:	02-2118-4223	Code:	20-W129					Client:	Wood Environment and Infrastructure		
Sample Date:	20 Aug-20 08:15	Material:	Ambient Sample					Project:	SIYB TMDL Monitoring		
Receipt Date:	20 Aug-20 17:35	Source:	Shelter Island Yacht Basin								
Sample Age:	7d 8h	Station:	SIYB REF1								
Comments:											
Follow-up Confirmation Test											
Single Comparison Summary											
Analysis ID	Endpoint	Comparison Method				P-Value	Comparison Result				
11-3323-8382	96h Survival Rate	TST-Welch's t Test				0.0082	100% passed 96h survival rate				
01-4111-5538	96h Survival Rate	Wilcoxon Rank Sum Two-Sample Test				0.5000	100% passed 96h survival rate				
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	6	0.9000	0.7244	1.0000	0.6000	1.0000	0.0683	0.1673	18.59%	0.00%
100		6	0.9000	0.7850	1.0000	0.8000	1.0000	0.0447	0.1095	12.17%	0.00%
96h Survival Rate Detail											
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6				
0	LC	0.8000	1.0000	1.0000	1.0000	1.0000	0.6000				
100		0.8000	0.8000	0.8000	1.0000	1.0000	1.0000				

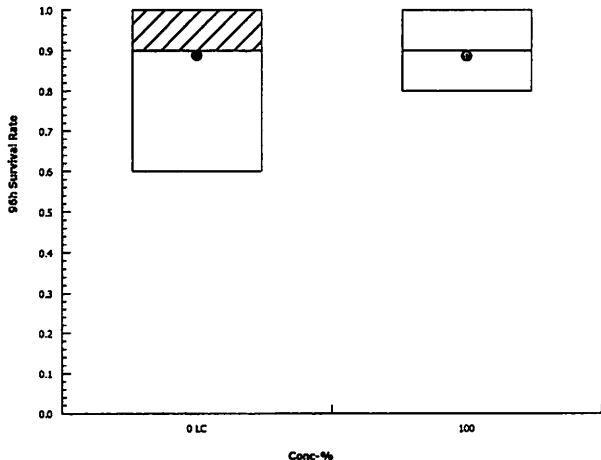
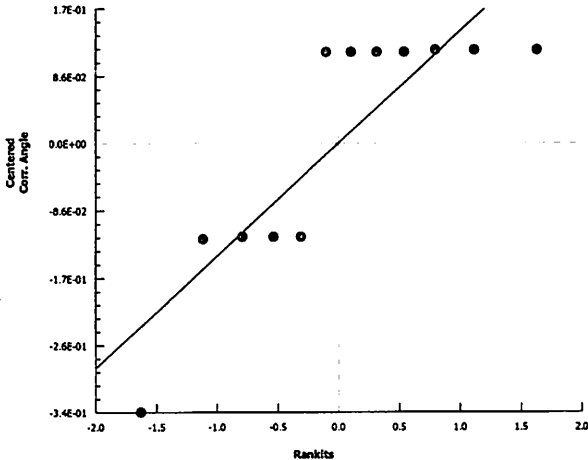
# CETIS Analytical Report

Report Date: 23 Sep-20 12:03 (p 1 of 2)  
Test Code: 20-08-039x | 01-9691-8394

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 01-4111-5538		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 12:03		Analysis: Nonparametric-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		Comparison Result						PMSD	
Angular (Corrected)		C > T		100% passed 96h survival rate						15.77%	
Wilcoxon Rank Sum Two-Sample Test											
Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision( $\alpha$ :5%)		
Lab Control		100	37.5	n/a	2	10	Exact	0.5000	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision( $\alpha$ :5%)			
Between	2.426E-05		2.426E-05		1	0.0008933	0.9767	Non-Significant Effect			
Error	0.271593		0.0271593		10						
Total	0.271617				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision( $\alpha$ :1%)					
Variances	Variance Ratio F Test		2.193	14.94	0.4091	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.7392	0.8025	0.0021	Non-Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7244	1.0000	1.0000	0.6000	1.0000	0.0683	18.59%	0.00%
100		6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.229	1.026	1.432	1.345	0.8861	1.345	0.07885	15.72%	0.00%
100		6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.23%
Graphics											
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# CETIS Analytical Report

Report Date: 23 Sep-20 12:03 (p 2 of 2)  
Test Code: 20-08-039x | 01-9691-8394

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 11-3323-8382		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 23 Sep-20 12:03		Analysis: Parametric Bioequivalence-Two Sample		Official Results: Yes							
Comments:											
Data Transform		Alt Hyp		TST_b		Comparison Result					
Angular (Corrected)		C*b < T		0.8		100% passed 96h survival rate					
TST-Welch's t Test											
Control	vs	Control II	Test Stat	Critical	DF	P-Type	P-Value	Decision(α:10%)			
Lab Control		100*	2.943	1.383	9	CDF	0.0082	Non-Significant Effect			
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	2.426E-05		2.426E-05		1	0.0008933	0.9767	Non-Significant Effect			
Error	0.271593		0.0271593		10						
Total	0.271617				11						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Variance Ratio F Test		2.193	14.94	0.4091	Equal Variances					
Distribution	Shapiro-Wilk W Normality Test		0.7392	0.8025	0.0021	Non-Normal Distribution					
96h Survival Rate Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	0.9000	0.7244	1.0000	1.0000	0.6000	1.0000	0.0683	18.59%	0.00%
100		6	0.9000	0.7850	1.0000	0.9000	0.8000	1.0000	0.0447	12.17%	0.00%
Angular (Corrected) Transformed Summary											
Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	6	1.229	1.026	1.432	1.345	0.8861	1.345	0.07885	15.72%	0.00%
100		6	1.226	1.089	1.363	1.226	1.107	1.345	0.05325	10.64%	0.23%
Graphics											
<div><div></div><div></div></div>											



# 96hr Marine Acute Test with 48hr Renewal

Client: Wood: POSD - Shelter Island Yacht Basin

Sample ID: SIYB-REF - QA Confirmation

Test No. 20-08-039X

Test Species: *Atherinops affinis* (topsmelt)

Start Date/Time: 8/27/20 1545

End Date/Time: 8/31/20 1915

Sample ID (%)	Rep	Counts				
		0	24	48	72	96
Lab Control #4	A	5	5	4	4	4
	B	5	5	5	5	5
	C	5	5	5	5	5
	D	5	5	5	5	5
	E	5	5	5	5	5
	F	5	5	4	4	3
100	A	5	5	5	4	4
	B	5	5	4	4	4
	C	5	5	5	5	4
	D	5	5	5	5	5
	E	5	5	5	5	5
	F	5	5	5	5	5
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					
	A					
	B					
	C					
	D					
	E					
	F					

Tech Initials: SC gm gm ju SC

Date Animals Received: 8/25/20

Age of Animals at Test Start: 13d

Comments:

QC Check:

8/23/20

Water Quality						
Parameter	0	24	48f	48i	72	96
Temp. (°C)	21.2	20.6	20.4	20.7	20.4	20.5
Salinity (ppt)	34.0	33.7	33.2	33.4	34.3	34.2
pH (units)	7.95	7.80	7.75	7.92	7.85	7.68
DO (mg/L)	6.9	6.8	6.8	7.2	6.6	6.4
6.9						
Temp. (°C)	21.1	20.6	20.4	20.9	20.4	20.6
Salinity (ppt)	33.9	33.7	33.8	33.5	34.3	34.3
pH (units)	8.02	7.83	7.76	7.94	7.85	7.76
DO (mg/L)	8.4	6.8	6.7	8.4	6.6	6.5
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						
Temp. (°C)						
Salinity (ppt)						
pH (units)						
DO (mg/L)						

Tech Initials: SC gm gm gm ju SC

Feedings

Initials (AM):

Initials (PM):

0	24	48	72	96
✓	AG	gm	ju	ju

Final Review: ju 10/3/20

**APPENDIX D**  
**List of Data Qualifier Codes**

## **Data Qualifier Codes**

- QC1: Temperatures out of recommended range; corrective action taken
- QC2: Temperatures out of recommended range; no action taken, test terminated
- QC3: Test initiated on aeration due to anticipated drop in dissolved oxygen
- QC4: Dissolved oxygen percent saturation <110
- QC5: Survival counts not recorded due to poor visibility
- QC6: Inadequate sample volume remaining; 50% renewal performed
- QC7: Inadequate sample volume remaining; no renewal performed

**APPENDIX E**  
**Sample Receipt Information**  
**& Chain of Custody Form**

# Sample Check-In: Effluent/Water

Wood Aquatic Toxicology Laboratory  
4905 Morena Blvd, Ste. 1304  
San Diego, CA 92117

Client: Wood-POSD

Project Name: Shelter Island Yacht Basin TMDL

Test ID Numbers: 20-08-033 to 046

	1	2	3	4	5	6	7
Sample ID:	SIYB-1	SIYB-2	SIYB-3	SIYB-4	SIYB-5	SIYB-6	SIYB-REF
Sample Number:	20-W123	20-W124	20-W125	20-W126	20-W127	20-W128	20-W129
Collection Date/Time:	8/20/20 1415	8/20/20 1315	8/20/20 1215	8/20/20 1115	8/20/20 1015	8/20/20 0915	8/20/20 0815
Receipt Date/Time:	8/20/20 1735	8/20/20 1735	8/20/20 1735	8/20/20 1735	8/20/20 1735	8/20/20 1735	8/20/20 1735
Total Sample Volume (L):	15	15	15	15	15	15	15
Receipt Temp (°C):	4.0	3.0	4.0	2.0	4.0	2.0	1.0
Appropriate Temp (Y/N) <sup>1</sup> :	Y	Y	Y	Y	Y	Y	Y
pH (units):	7.84	7.80	7.86	7.96	7.97	7.96	7.92
DO (mg/L):	9.5	9.8	10.5	12.5	11.1	10.8	11.0
Conductivity (µS/cm) <sup>2</sup> :	-	-	-	-	-	-	-
Salinity (ppt):	34.2	34.0	33.1	32.9	33.8	32.9	34.6
Alkalinity (mg/L):	SC 23100	98	93	101	105	107	105
Hardness (mg/L) <sup>2</sup> :	-	-	-	-	-	-	-
Total Chlorine (mg/L) <sup>3</sup> :	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Free Chlorine (mg/L) <sup>3</sup> :	-	-	-	-	-	-	-
Technician Initials:	gm/SC	gm/SC	gm/SC	gm/SC	gm/SC	gm/SC	gm/SC

check-in QC: SC 8/20/20

## Notes:

<sup>1</sup> Temperature should be 0 - 6°C if received > 24 hours past collection

<sup>2</sup> Only measured on samples with less than 3 ppt salinity

<sup>3</sup> If total chlorine is above 0.10 mg/L, the free chlorine will be measured

<sup>4</sup> Debris, odor, and color is described only if observed in the sample

## Sample Descriptions<sup>4</sup>:

1) clear, colorless, no odor	5) clear, colorless, no odor
2) " " "	6) " " "
3) " " "	7) " " "
4) " " "	

Test Organism:

Mussel & Tapsmelt

Dilution Water:

Nat-SW

Art-SW, RW, DMW, Other

Salinity

34 ppt

Additional Control:

Salinity

Initial QC:

SC 9/18/20

Final Review:

JW 10/3/20



Wood Aquatic Toxicology Lab  
4905 Morena Blvd, Ste. 1304  
San Diego, CA 92117  
Phone: (858) 299-5368

# Chain of Custody Form

Page 1 of 1

Client/Send Report To:			Project Information (if needed):			Analysis Requested (write out or use codes below)							Receipt Temp (°C)						
Company	Address		Contact/PM	Phone Number	Email Address	Project Name	Project No.	PO Number	Personal Cooler Shipped:	Return Requested: YES	NO	Aa-a		Mg-dv					
SIYB-1	8/20/2020	1415	15L	Grab	20-W123	X	X												4.0
SIYB-2	8/20/2020	1315	15L	Grab	20-W124	X	X												3.0
SIYB-3	8/20/2020	1215	15L	Grab	20-W125	X	X												4.0
SIYB-4	8/20/2020	1115	15L	Grab	20-W126	X	X												2.0
SIYB-5	8/20/2020	1025	15L	Grab	20-W127	X	X												4.0
SIYB-6	8/20/2020	0915	15L	Grab	20-W128	X	X												2.0
SIYB-REF-1	8/20/2020	0815	15L	Grab	20-W129	X	X												1.0
Samples Collected By:			Additional Comments: Concurrent ref. tox. test for both species (copper concentrations of 0, 25, 50, 100, 200, 400 ug/L for topsmelt and 0, 2.5, 5.0, 10, 20 and 40 ug/L for bivalve). Topsmelt tests at 3 concentrations (25, 50, 100%) and a control; 6 reps/sample. Bivalve tests at 5 concentrations (6.25, 12.5, 25, 50, and 100%), and a control; and a 100% filtered undiluted sample (Look for Noctiluca sp.); 5 reps/sample.								Samples Shipped via: <u>hand-delivered</u>								
MS/KB											Condition Upon Receipt: <u>good/intact</u>								
Relinquished/Shipped By:			Received By:				Relinquished By:				Received By:								
Signature: <u>Marisa Swiderski</u>			Signature: <u>Gabby Merino</u>				Signature: _____				Signature: _____								
Print Name: <u>Marisa Swiderski</u>			Print Name: <u>Gabby Merino</u>				Print Name: _____				Print Name: _____								
Date/Time: <u>08/20/2020 1735</u>			Date/Time: <u>08/20/2020 1735</u>				Date/Time: _____				Date/Time: _____								

## Test Codes (marine):

**Mp-c:** Chronic Kelp  
**Hr-dv:** Chronic Abalone  
**Aa-a:** Acute Topsmelt  
**Aa-c:** Chronic Topsmelt  
**Mb-a:** Acute Menidia/Silverside  
**Mb-c:** Chronic Menidia/Silverside  
**Ab-a:** Acute Mysid Shrimp  
**Ab-c:** Chronic Mysid Shrimp  
**Sp-c:** Chronic Urchin Fertilization  
**Sp-dv:** Chronic Urchin Development  
**Mg-dv:** Chronic Mussel Development  
**Other:** Write out the test organism

## Test Codes (freshwater):

**Cd-a:** Acute Ceriodaphnia  
**Cd-c:** Chronic Ceriodaphnia  
**Pp-a:** Acute Fathead Minnow  
**Pp-c:** Chronic Fathead Minnow  
**Sc-c:** Chronic Green Algae  
**Ha-a:** Acute Hyalella amphipod  
**Ha-c:** Chronic Hyalella amphipod  
**T-22:** CA Title 22 Hazardous Waste

**APPENDIX F**  
**Reference Toxicant Test**  
**Statistical Analysis, Control Chart, and Raw Data**

## **Chronic Mussel Reference Toxicant Test**



# CETIS Summary Report

Report Date: 23 Sep-20 17:28 (p 1 of 2)  
Test Code: 200821mgrd | 09-7758-0702

Bivalve Larval Survival and Development Test										Wood E&IS	
Batch ID:	07-2065-9581		Test Type: Development-Survival				Analyst:		Diluted		
Start Date:	21 Aug-20 17:45		Protocol: EPA/600/R-95/136 (1995)				Diluent:		Natural Seawater		
Ending Date:	23 Aug-20 16:45		Species: Mytilis galloprovincialis				Brine:		Not Applicable		
Duration:	47h		Source: Field Collected				Age:				
Sample ID:	20-6326-6848		Code: 200821mgrd				Client:		Internal		
Sample Date:	21 Aug-20		Material: Total Copper				Project:				
Receipt Date:	21 Aug-20		Source: Reference Toxicant								
Sample Age:	18h		Station:								
Multiple Comparison Summary											
Analysis ID	Endpoint	Comparison Method				NOEL	LOEL	TOEL	TU	PMSD	✓
01-5142-0770	Combined Proportion Normal	Dunnett Multiple Comparison Test				2.5	5	3.536		7.09%	✓
20-1295-7864	Proportion Normal	Dunnett Multiple Comparison Test				2.5	5	3.536		3.85%	✓
18-3660-8130	Survival Rate	Dunnett Multiple Comparison Test				5	10	7.071		4.64%	
Point Estimate Summary											
Analysis ID	Endpoint	Point Estimate Method				Level	µg/L	95% LCL	95% UCL	TU	✓
07-5383-0657	Combined Proportion Normal	Trimmed Spearman-Kärber				EC50	5.371	5.249	5.496		
Test Acceptability											
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits		Overlap	Decision				
20-1295-7864	Proportion Normal	Control Resp	0.9375	0.9	>>	Yes	Passes Criteria				
18-3660-8130	Survival Rate	Control Resp	0.9855	0.5	>>	Yes	Passes Criteria				
01-5142-0770	Combined Proportion Normal	PMSD	0.07086	<<	0.25	No	Passes Criteria				
Combined Proportion Normal Summary											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9240	0.8900	0.9580	0.8795	0.9438	0.0122	0.0274	2.96%	0.00%
2.5		5	0.8556	0.7536	0.9576	0.7430	0.9366	0.0367	0.0822	9.60%	7.40%
5		5	0.5735	0.5011	0.6459	0.5020	0.6586	0.0261	0.0583	10.16%	37.93%
10		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%
20		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%
40		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%
Proportion Normal Summary											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9375	0.9189	0.9560	0.9231	0.9592	0.0067	0.0149	1.59%	0.00%
2.5		5	0.9117	0.8756	0.9478	0.8685	0.9366	0.0130	0.0291	3.19%	2.75%
5		5	0.6022	0.5232	0.6813	0.5297	0.6979	0.0285	0.0637	10.57%	35.76%
10		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%
20		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%
40		5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%
Survival Rate Summary											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	5	0.9855	0.9607	1.0000	0.9518	1.0000	0.0089	0.0200	2.03%	0.00%
2.5		5	0.9373	0.8524	1.0000	0.8554	1.0000	0.0306	0.0684	7.30%	4.89%
5		5	0.9526	0.9388	0.9664	0.9438	0.9719	0.0050	0.0111	1.17%	3.34%
10		5	0.9205	0.8448	0.9961	0.8434	0.9839	0.0273	0.0609	6.62%	6.60%
20		5	0.8040	0.7315	0.8766	0.7510	0.8876	0.0261	0.0584	7.27%	18.42%
40		5	0.0169	0.0022	0.0316	0.0080	0.0361	0.0053	0.0119	70.23%	98.29%

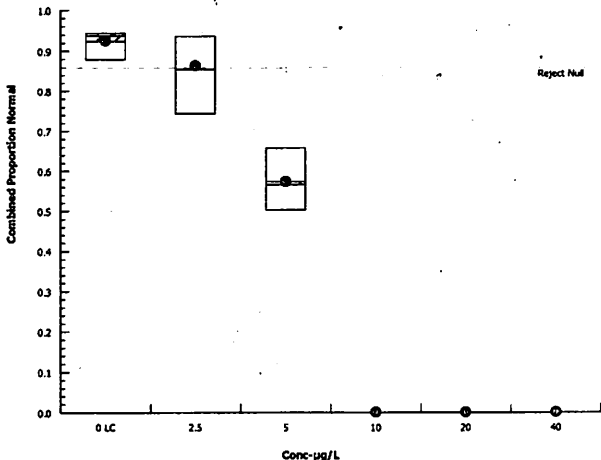
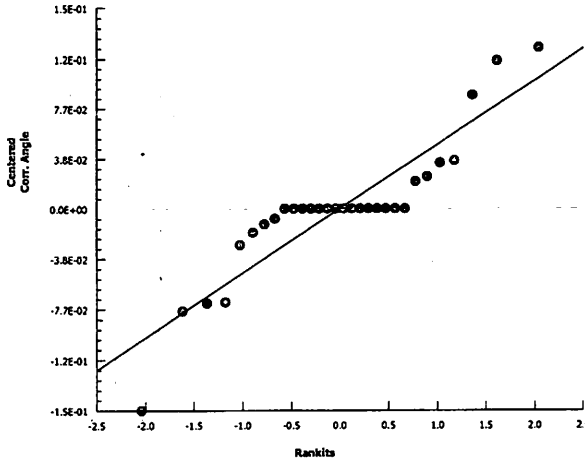
# CETIS Summary Report

Report Date: 23 Sep-20 17:28 (p 2 of 2)  
Test Code: 200821mgrd | 09-7758-0702

Bivalve Larval Survival and Development Test						Wood E&IS
Combined Proportion Normal Detail						
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9157	0.9380	0.9430	0.8795	0.9438
2.5		0.8554	0.9317	0.7430	0.8112	0.9366
5		0.5663	0.5944	0.6586	0.5462	0.5020
10		0.0000	0.0000	0.0000	0.0000	0.0000
20		0.0000	0.0000	0.0000	0.0000	0.0000
40		0.0000	0.0000	0.0000	0.0000	0.0000
Proportion Normal Detail						
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9231	0.9380	0.9430	0.9241	0.9592
2.5		0.8950	0.9317	0.8685	0.9266	0.9366
5		0.5826	0.6271	0.6979	0.5738	0.5297
10		0.0000	0.0000	0.0000	0.0000	0.0000
20		0.0000	0.0000	0.0000	0.0000	0.0000
40		0.0000	0.0000	0.0000	0.0000	0.0000
Survival Rate Detail						
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	0.9920	1.0000	1.0000	0.9518	0.9839
2.5		0.9558	1.0000	0.8554	0.8755	1.0000
5		0.9719	0.9478	0.9438	0.9518	0.9478
10		0.8434	0.9839	0.8715	0.9679	0.9357
20		0.7952	0.8876	0.7510	0.7510	0.8353
40		0.0080	0.0121	0.0201	0.0361	0.0080
Combined Proportion Normal Binomials						
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	228/249	242/258	248/263	219/249	235/249
2.5		213/249	232/249	185/249	202/249	251/268
5		141/249	148/249	164/249	136/249	125/249
10		0/249	0/249	0/249	0/249	0/249
20		0/249	0/249	0/249	0/249	0/249
40		0/249	0/249	0/249	0/249	0/249
Proportion Normal Binomials						
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	228/247	242/258	248/263	219/237	235/245
2.5		213/238	232/249	185/213	202/218	251/268
5		141/242	148/236	164/235	136/237	125/236
10		0/210	0/245	0/217	0/241	0/233
20		0/198	0/221	0/187	0/187	0/208
40		0/2	0/3	0/5	0/9	0/2
Survival Rate Binomials						
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	LC	247/249	249/249	249/249	237/249	245/249
2.5		238/249	249/249	213/249	218/249	249/249
5		242/249	236/249	235/249	237/249	236/249
10		210/249	245/249	217/249	241/249	233/249
20		198/249	221/249	187/249	187/249	208/249
40		2/249	3/249	5/249	9/249	2/249

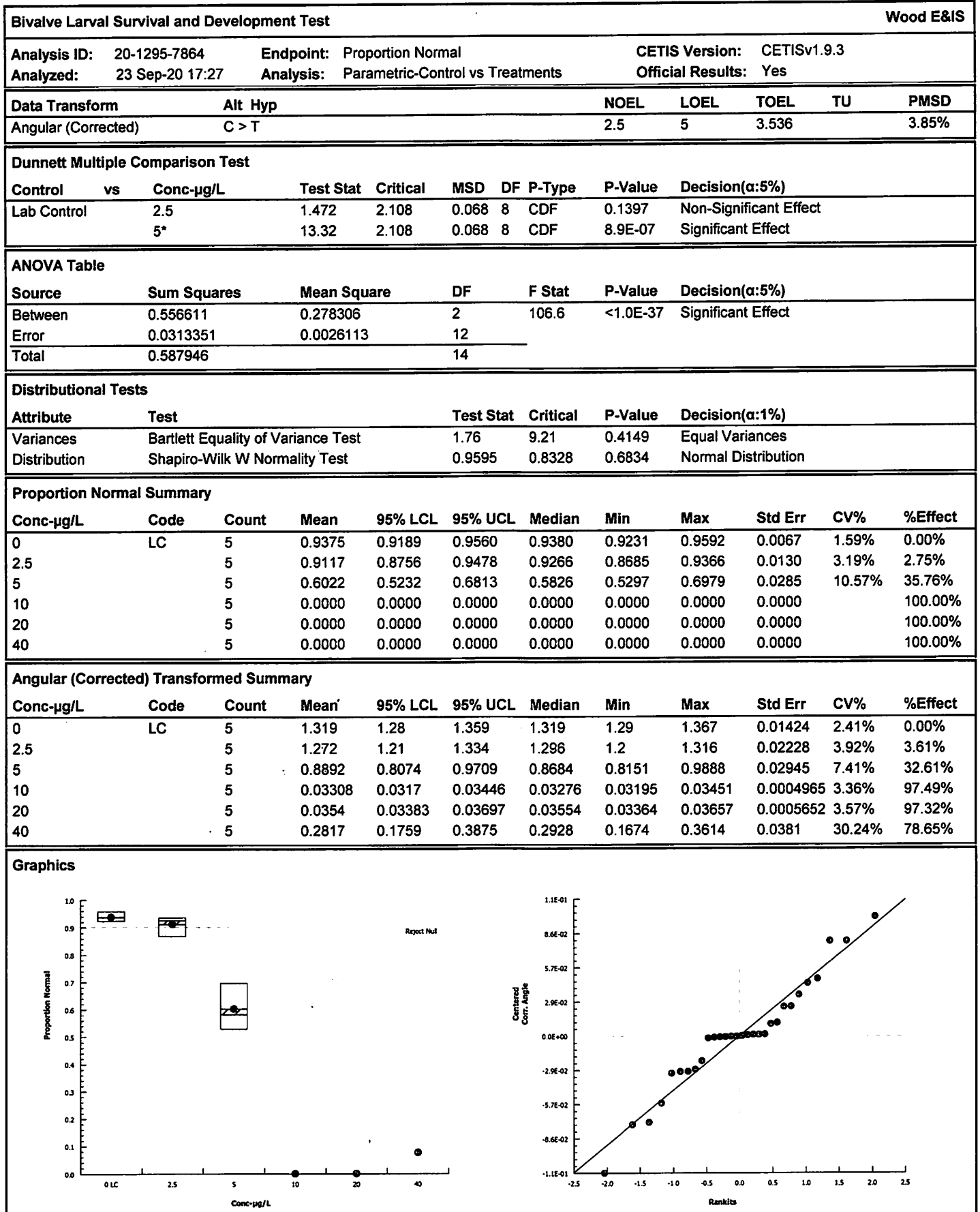
# CETIS Analytical Report

Report Date: 23 Sep-20 17:28 (p 1 of 4)  
Test Code: 200821mgrd | 09-7758-0702

Bivalve Larval Survival and Development Test										Wood E&IS													
Analysis ID: 01-5142-0770		Endpoint: Combined Proportion Normal				CETIS Version: CETISv1.9.3																	
Analyzed: 23 Sep-20 17:27		Analysis: Parametric-Control vs Treatments				Official Results: Yes																	
Data Transform		Alt Hyp				NOEL		LOEL		TOEL		TU		PMSD									
Angular (Corrected)		C > T				2.5		5		3.536				7.09%									
Dunnett Multiple Comparison Test																							
Control		vs		Conc-µg/L		Test Stat		Critical		MSD		DF		P-Type		P-Value		Decision(α:5%)					
Lab Control				2.5		1.961		2.108		0.109		8		CDF		0.0641		Non-Significant Effect					
				5*		8.383		2.108		0.109		8		CDF		3.1E-06		Significant Effect					
ANOVA Table																							
Source		Sum Squares		Mean Square		DF		F Stat		P-Value		Decision(α:5%)											
Between		0.517485		0.258742		2		38.45		6.0E-06		Significant Effect											
Error		0.080751		0.0067293		12																	
Total		0.598236				14																	
Distributional Tests																							
Attribute		Test				Test Stat		Critical		P-Value		Decision(α:1%)											
Variances		Bartlett Equality of Variance Test				3.32		9.21		0.1901		Equal Variances											
Distribution		Shapiro-Wilk W Normality Test				0.9707		0.8328		0.8684		Normal Distribution											
Combined Proportion Normal Summary																							
Conc-µg/L		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		0.9240		0.8900		0.9580		0.9380		0.8795		0.9438		0.0122		2.96%		0.00%	
2.5				5		0.8556		0.7536		0.9576		0.8554		0.7430		0.9366		0.0367		9.60%		7.40%	
5				5		0.5735		0.5011		0.6459		0.5663		0.5020		0.6586		0.0261		10.16%		37.93%	
10				5		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000				100.00%	
20				5		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000				100.00%	
40				5		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000				100.00%	
Angular (Corrected) Transformed Summary																							
Conc-µg/L		Code		Count		Mean		95% LCL		95% UCL		Median		Min		Max		Std Err		CV%		%Effect	
0		LC		5		1.295		1.234		1.356		1.319		1.216		1.331		0.02197		3.79%		0.00%	
2.5				5		1.193		1.045		1.341		1.181		1.039		1.316		0.05339		10.01%		7.86%	
5				5		0.8596		0.7859		0.9333		0.8519		0.7874		0.9468		0.02654		6.90%		33.60%	
10				5		0.03169		0.03168		0.0317		0.03169		0.03169		0.03169		0		0.00%		97.55%	
20				5		0.03169		0.03168		0.0317		0.03169		0.03169		0.03169		0		0.00%		97.55%	
40				5		0.03169		0.03168		0.0317		0.03169		0.03169		0.03169		0		0.00%		97.55%	
Graphics																							
<div><div></div><div></div></div>																							

# CETIS Analytical Report

Report Date: 23 Sep-20 17:28 (p 2 of 4)  
Test Code: 200821mgrd | 09-7758-0702



## CETIS Analytical Report

Report Date: 23 Sep-20 17:28 (p 3 of 4)  
 Test Code: 200821mgrd | 09-7758-0702

Bivalve Larval Survival and Development Test										Wood E&IS			
Analysis ID: 18-3660-8130		Endpoint: Survival Rate		CETIS Version: CETISv1.9.3									
Analyzed: 23 Sep-20 17:26		Analysis: Parametric-Control vs Treatments		Official Results: Yes									
Data Transform		Alt Hyp		NOEL		LOEL		TOEL		TU		PMSD	
Angular (Corrected)		C > T		5		10		7.071				4.64%	
Dunnett Multiple Comparison Test													
Control	vs	Conc-µg/L	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)				
Lab Control		2.5	1.678	2.362	0.148	8	CDF	0.1711	Non-Significant Effect				
		5	1.884	2.362	0.148	8	CDF	0.1217	Non-Significant Effect				
		10*	2.674	2.362	0.148	8	CDF	0.0262	Significant Effect				
		20*	5.674	2.362	0.148	8	CDF	1.9E-05	Significant Effect				
		40*	21.54	2.362	0.148	8	CDF	7.6E-07	Significant Effect				
ANOVA Table													
Source	Sum Squares		Mean Square		DF		F Stat	P-Value	Decision(α:5%)				
Between	6.30905		1.26181		5		129.3	<1.0E-37	Significant Effect				
Error	0.234293		0.0097622		24								
Total	6.54334				29								
Distributional Tests													
Attribute	Test				Test Stat		Critical	P-Value	Decision(α:1%)				
Variances	Bartlett Equality of Variance Test				13.23		15.09	0.0213	Equal Variances				
Distribution	Shapiro-Wilk W Normality Test				0.9755		0.9031	0.6975	Normal Distribution				
Survival Rate Summary													
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	5	0.9855	0.9607	1.0000	0.9920	0.9518	1.0000	0.0089	2.03%	0.00%		
2.5		5	0.9373	0.8524	1.0000	0.9558	0.8554	1.0000	0.0306	7.30%	4.89%		
5		5	0.9526	0.9388	0.9664	0.9478	0.9438	0.9719	0.0050	1.17%	3.34%		
10		5	0.9205	0.8448	0.9961	0.9357	0.8434	0.9839	0.0273	6.62%	6.60%		
20		5	0.8040	0.7315	0.8766	0.7952	0.7510	0.8876	0.0261	7.27%	18.42%		
40		5	0.0169	0.0022	0.0316	0.0121	0.0080	0.0361	0.0053	70.23%	98.29%		
Angular (Corrected) Transformed Summary													
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect		
0	LC	5	1.47	1.373	1.568	1.481	1.349	1.539	0.03528	5.36%	0.00%		
2.5		5	1.366	1.152	1.579	1.359	1.181	1.539	0.077	12.61%	7.13%		
5		5	1.353	1.317	1.388	1.34	1.331	1.402	0.01272	2.10%	8.01%		
10		5	1.303	1.156	1.451	1.315	1.164	1.444	0.05325	9.14%	11.36%		
20		5	1.116	1.021	1.211	1.101	1.048	1.229	0.03426	6.86%	24.11%		
40		5	0.1246	0.07118	0.178	0.11	0.08974	0.1913	0.01923	34.52%	91.53%		

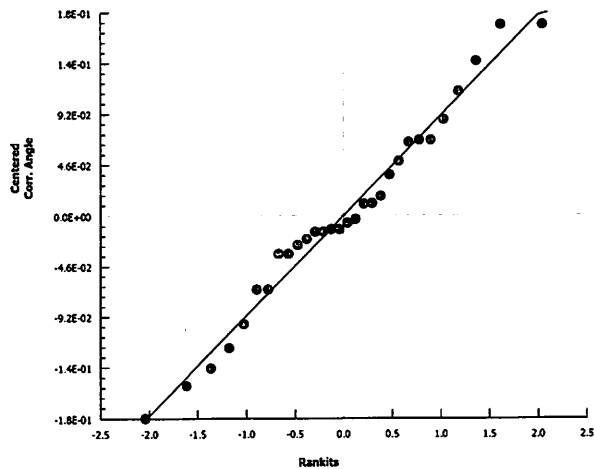
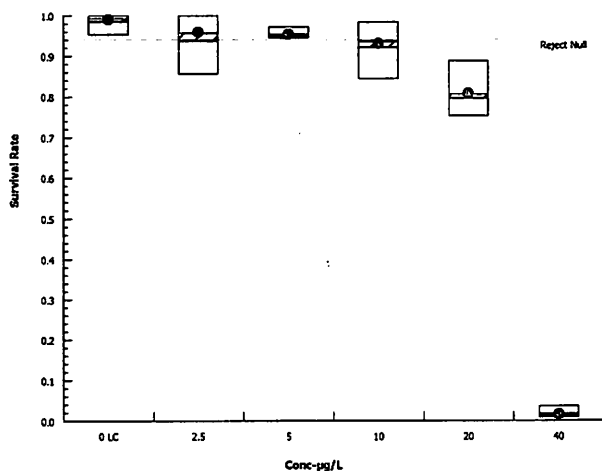
Bivalve Larval Survival and Development Test

Wood E&IS

Analysis ID: 18-3660-8130      Endpoint: Survival Rate  
 Analyzed: 23 Sep-20 17:26      Analysis: Parametric-Control vs Treatments

CETIS Version: CETISv1.9.3  
 Official Results: Yes

Graphics



# CETIS Analytical Report

Report Date: 23 Sep-20 17:28 (p 1 of 1)  
 Test Code: 200821mgrd | 09-7758-0702

Bivalve Larval Survival and Development Test										Wood E&IS	
Analysis ID: 07-5383-0657		Endpoint: Combined Proportion Normal				CETIS Version: CETISv1.9.3					
Analyzed: 23 Sep-20 17:27		Analysis: Trimmed Spearman-Kärber				Official Results: Yes					
Trimmed Spearman-Kärber Estimates											
Threshold Option	Threshold	Trim	Mu	Sigma	EC50	95% LCL	95% UCL				
Control Threshold	0.07571	7.30%	0.7301	0.004984	5.371	5.249	5.496				
Combined Proportion Normal Summary				Calculated Variate(A/B)					Isotonic Variate		
Conc-µg/L	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	A/B	Mean	%Effect
0	LC	5	0.9240	0.8795	0.9438	0.0274	2.96%	0.0%	1172/1268	0.924	0.0%
2.5		5	0.8556	0.7430	0.9366	0.0822	9.60%	7.4%	1083/1264	0.8556	7.4%
5		5	0.5735	0.5020	0.6586	0.0583	10.16%	37.93%	714/1245	0.5735	37.93%
10		5	0.0000	0.0000	0.0000	0.0000		100.0%	0/1245	0	100.0%
20		5	0.0000	0.0000	0.0000	0.0000		100.0%	0/1245	0	100.0%
40		5	0.0000	0.0000	0.0000	0.0000		100.0%	0/1245	0	100.0%

### Graphics

Conc-µg/L	Combined Proportion Normal
0	0.9240
2.5	0.8556
5	0.5735
10	0.0000
20	0.0000
40	0.0000

## Bivalve Larval Survival and Development Test

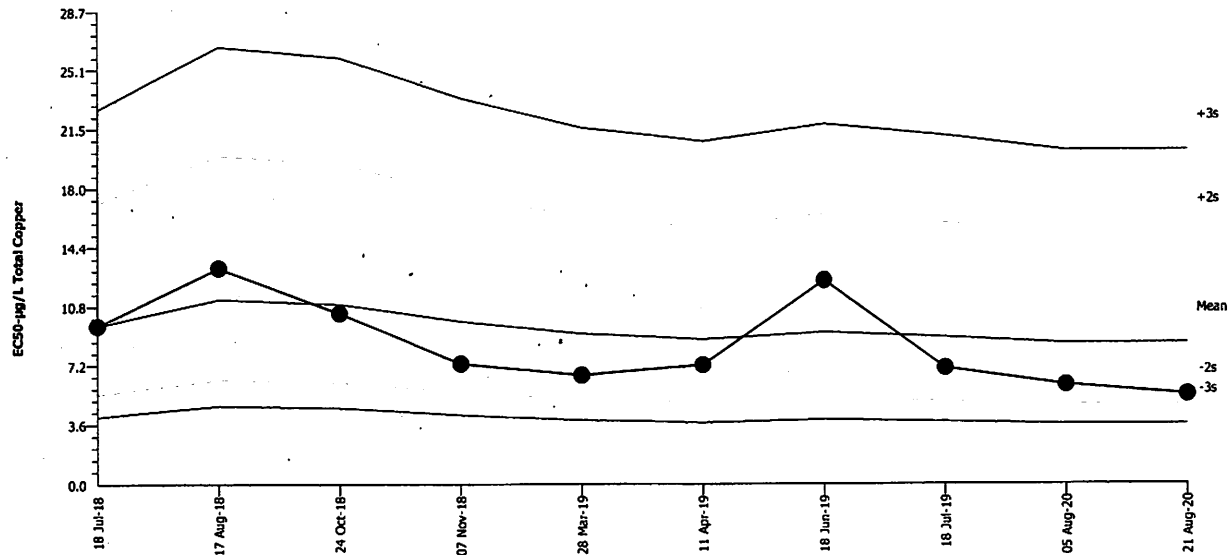
Wood E&amp;IS

Test Type: Development-Survival  
Protocol: EPA/600/R-95/136 (1995)

Organism: *Mytilus galloprovincialis* (Bay Mussel)  
Endpoint: Combined Proportion Normal

Material: Total Copper  
Source: Reference Toxicant-REF

## Bivalve Larval Survival and Development Test



Mean: 8.499

Count: 9

-2s Warning Limit: 4.785

-3s Action Limit: 3.59

Sigma: n/a

CV: 29.30%

+2s Warning Limit: 15.1

+3s Action Limit: 20.13

## Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Jul	18	12:30	9.593	1.094	0.4214			17-4700-2672	19-1834-7581
2		Aug	17	18:15	13.11	4.608	1.508			06-6531-4070	03-3159-5721
3		Oct	24	14:25	10.37	1.874	0.6934			10-5049-1350	21-2167-7967
4		Nov	7	14:40	7.288	-1.211	-0.535			21-2560-8966	08-1725-7308
5	2019	Mar	28	15:00	6.57	-1.929	-0.8961			01-1205-3490	09-9916-0601
6		Apr	11	15:05	7.2	-1.299	-0.5773			09-5126-5022	11-0264-5925
7		Jun	18	15:35	12.33	3.83	1.295			20-1050-4622	12-9168-6963
8		Jul	18	14:55	7	-1.499	-0.6756			14-0843-5203	16-2395-2147
9	2020	Aug	5	16:15	5.97	-2.529	-1.229			01-5363-1852	03-9719-1127
10			21	17:45	5.371	-3.128	-1.597			09-7758-0702	07-5383-0657



# CETIS Test Data Worksheet

Report Date: 23 Sep-20 11:08 (p 1 of 1)  
 Test Code/ID: 09-7758-0702/200821mgrd

Bivalve Larval Survival and Development Test								Wood E&IS
Start Date: 21 Aug-20 17:45		Species: Mytilis galloprovincialis		Sample Code: 200821mgrd				
End Date: 23 Aug-20 16:45		Protocol: EPA/600/R-95/136 (1995)		Sample Source: Reference Toxicant				
Sample Date: 21 Aug-20		Material: Total Copper		Sample Station:				
Conc-µg/L	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
			1			208	0	SC
			2			245	0	
			3			9	0	
			4			187	0	
			5			5	0	
			6			258	242	
			7			221	0	
			8			236	148	
			9			263	248	
			10			198	0	
			11			2	0	
			12			2	0	
			13			268	251	
			14			249	232	
			15			237	219	
			16			242	141	
			17			247	228	
			18			218	202	
			19			241	0	
			20			233	0	
			21			187	0	
			22			210	0	
			23			217	0	
			24			287	136	
			25			236	125	
			26			238	213	
			27			245	235	
			28			213	185	
			29			235	164	
			30			3	0	

# CETIS Test Data Worksheet

Report Date: 18 Aug-20 16:12 (p 1 of 1)  
 Test Code/ID: 09-7758-0702/200821mgrd

Bivalve Larval Survival and Development Test								Wood E&IS
Start Date: 21 Aug-20		Species: Mytilis galloprovincialis		Sample Code: 200821mgrd				
End Date: 23 Aug-20		Protocol: EPA/600/R-95/136 (1995)		Sample Source: Reference Toxicant				
Sample Date: 21 Aug-20		Material: Total Copper		Sample Station:				
Conc-µg/L	Code	Rep	Pos	Initial Density	Final Density	# Counted	# Normal	Notes
0	LC	1	17					Random # 1-30
0	LC	2	6					
0	LC	3	9					
0	LC	4	15					
0	LC	5	27					
2.5		1	26					
2.5		2	14					
2.5		3	28					
2.5		4	18					
2.5		5	13					
5		1	16					
5		2	8					
5		3	29					
5		4	24					
5		5	25					
10		1	22					
10		2	2					
10		3	23					
10		4	19					
10		5	20					
20		1	10					
20		2	7					
20		3	4					
20		4	21					
20		5	1					
40		1	12					
40		2	30					
40		3	5					
40		4	3					
40		5	11					

QC: AG

# Water Quality for Bivalve Development

Client: Internal  
Project ID: Cu Ref TOX  
Test No. 200821mgrd

Test Species: M. galloprovincialis  
Start Date/Time: 8/21/2020 1745  
End Date/Time: 8/23/2020 1645

Copper Test Conc. ( µg/L )	Water Quality Measurements			
	Parameter	0hr	24hr	48hr
Lab Control	Temp. (°C)	15.8	15.4	15.6
	Salinity (ppt)	31.4	31.8	32.0
	pH (units)	7.86	7.75	7.77
	DO (mg/L)	7.6	7.8	7.9
2.5	Temp. (°C)	15.8	15.4	15.6
	Salinity (ppt)	31.5	31.9	32.1
	pH (units)	7.93	7.77	7.80
	DO (mg/L)	7.8	7.7	7.8
5	Temp. (°C)	15.8	15.5	15.7
	Salinity (ppt)	31.8	32.0	32.1
	pH (units)	8.00	7.77	7.80
	DO (mg/L)	7.8	7.7	7.8
10	Temp. (°C)	15.9	15.5	15.6
	Salinity (ppt)	31.8	32.0	32.1
	pH (units)	7.96	7.76	7.79
	DO (mg/L)	7.9	7.8 <sup>xc</sup>	7.9
20	Temp. (°C)	15.8	15.9	15.6
	Salinity (ppt)	31.8	31.9	32.1
	pH (units)	7.96	7.76	7.78
	DO (mg/L)	7.9	7.8	7.9
40	Temp. (°C)	15.8	15.4	15.6
	Salinity (ppt)	31.7	31.9	32.1
	pH (units)	7.95	7.75	7.77
	DO (mg/L)	7.9	7.8	7.9
Tech Initials:		jm	SC	AB

Source of Animals: SIO / Wood From Mission Bay

Date Received: 5/22 8/3/20 & 5/22/20  
AG

Comments:

QC Check: AB 9/22/20

Final Review: SC 9/23/20

# Embryo-Larval Development Test

## Stock Preparation Worksheet

Test Species: M. galloprovincialis  
 Batch ID: \_\_\_\_\_  
 Test Type: Mussel Development

Test Date: 8/21/20  
 Analyst: AG/JW

Task	
Spawning Induction	0935/0950
Spawning Begins	1045/1345
# Males/# Females	4/4
Spawn Condition	Average
Fertilization Initiated	1525
Fertilization End/Eggs Rinsed	1545
Embryo Counts	1700
Test Initiation	1745

### Embryo Density Counts

# per 100  $\mu$ L

Stock #	Stock Volume (mL)	Rep 1	Rep 2	Rep 3	Rep 4	Mean #/100 $\mu$ L	Mean #/mL (x10)
Stock 1	250	70	72	67	74	70.8	708
Stock 2	250	42	55	51	53	50.3	503
Stock 3/4	300	54	55	51	50	52.5	525

### Cell Division:

	% Divided
Stock 1	100
Stock 2	96.98
Stock 3/4	96

Selected Stock:	2 + 4
-----------------	-------

Stock Density

Dil Factor

Adjust selected embryo stock to 500 embryos/mL.

514  
500

1.03

Dilution Factor = Stock Density/mL/500

In 10 mL sample volume add 500  $\mu$ L of 500 embryo/mL stock to obtain 25 embryos/mL in test vials.

Notes:

QC<sub>1</sub> = 249/255

Time Zero Mean = 249

T<sub>0</sub> = 282 T<sub>0</sub> = 285 T<sub>0</sub> = 248 T<sub>0</sub> = 265 T<sub>0</sub> = 243 x = 258 249  
260 253 235 262 234

QA Review:

AG 9/22/20

Final Review:

AG 9/23/20

## **Acute Topsmelt Reference Toxicant Test**

# CETIS Summary Report

Report Date: 26 Aug-20 14:34 (p 1 of 1)  
Test Code: 200821aara | 04-1235-4342

Pacific Topsmelt 96-h Acute Survival Test							Wood E&IS				
Batch ID:	11-1596-0686		Test Type:	Survival (96h)			Analyst:				
Start Date:	21 Aug-20 16:40		Protocol:	EPA/821/R-02-012 (2002)			Diluent:	Diluted Natural Seawater			
Ending Date:	25 Aug-20 14:50		Species:	Atherinops affinis			Brine:	Not Applicable			
Duration:	94h		Source:	Aquatic Biosystems, CO			Age:	14d			
Sample ID:	09-5077-8922		Code:	200821aara			Client:	Internal			
Sample Date:	21 Aug-20		Material:	Total Copper			Project:				
Receipt Date:	21 Aug-20		Source:	Reference Toxicant							
Sample Age:	17h		Station:								
Multiple Comparison Summary											
Analysis ID	Endpoint	Comparison Method					NOEL	LOEL	TOEL	TU	PMSD ✓
19-4661-8503	96h Survival Rate	Dunnett Multiple Comparison Test					25	50	35.36		24.8%
Point Estimate Summary											
Analysis ID	Endpoint	Point Estimate Method					Level	µg/L	95% LCL	95% UCL	TU ✓
09-8231-6847	96h Survival Rate	Trimmed Spearman-Kärber					LC50	101.7	73.3	141	
96h Survival Rate Summary											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	LC	4	0.9000	0.7163	1.0000	0.8000	1.0000	0.0577	0.1155	12.83%	0.00%
25		4	0.8000	0.5402	1.0000	0.6000	1.0000	0.0817	0.1633	20.41%	11.11%
50		4	0.6500	0.3453	0.9547	0.4000	0.8000	0.0957	0.1915	29.46%	27.78%
100		4	0.4500	0.2909	0.6091	0.4000	0.6000	0.0500	0.1000	22.22%	50.00%
200		4	0.3000	0.1163	0.4837	0.2000	0.4000	0.0577	0.1155	38.49%	66.67%
400		4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%
96h Survival Rate Detail											
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4						
0	LC	1.0000	1.0000	0.8000	0.8000						
25		0.8000	0.8000	0.6000	1.0000						
50		0.6000	0.8000	0.4000	0.8000						
100		0.4000	0.4000	0.6000	0.4000						
200		0.4000	0.2000	0.2000	0.4000						
400		0.0000	0.0000	0.0000	0.0000						

# CETIS Analytical Report

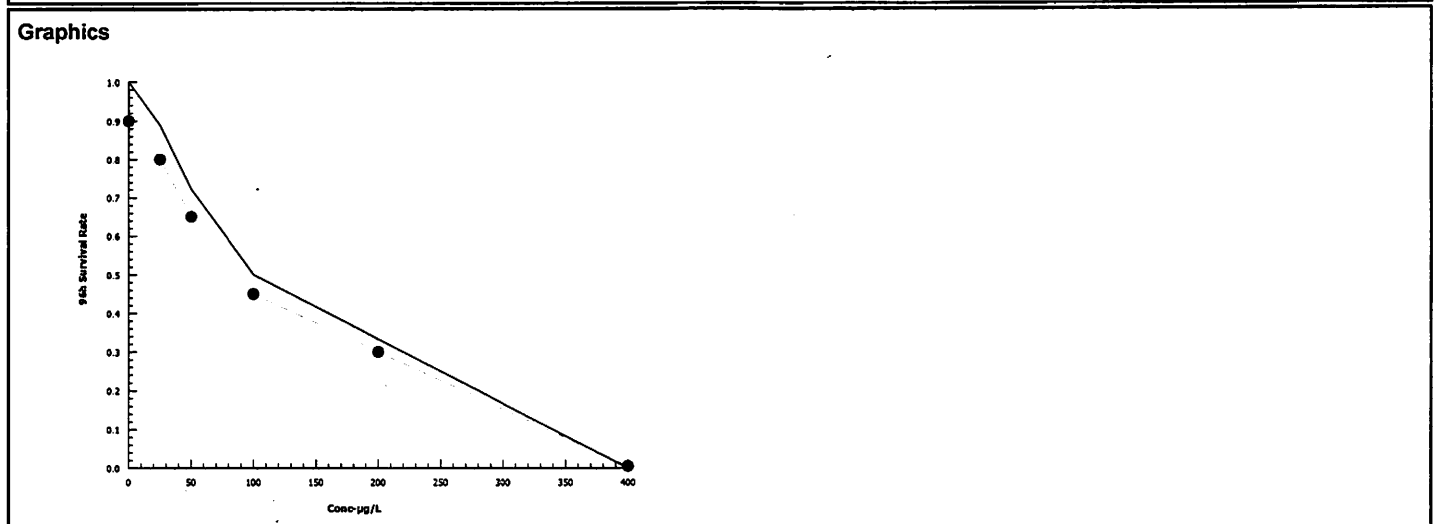
Report Date: 26 Aug-20 14:30 (p 1 of 1)  
Test Code: 200821aara | 04-1235-4342

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 19-4661-8503		Endpoint: 96h Survival Rate		CETIS Version: CETISv1.9.3							
Analyzed: 26 Aug-20 14:29		Analysis: Parametric-Control vs Treatments		Official Results: Yes							
Data Transform		Alt Hyp		NOEL	LOEL	TOEL	TU	PMSD			
Angular (Corrected)		C > T		25	50	35.36		24.79%			
Dunnnett Multiple Comparison Test											
Control	vs	Conc-µg/L	Test Stat	Critical	MSD	DF	P-Type	P-Value	Decision(α:5%)		
Lab Control		25	1.04	2.356	0.26	6	CDF	0.3665	Non-Significant Effect		
		50*	2.537	2.356	0.26	6	CDF	0.0358	Significant Effect		
		100*	4.451	2.356	0.26	6	CDF	8.3E-04	Significant Effect		
		200*	5.909	2.356	0.26	6	CDF	5.3E-05	Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	1.13952		0.284881		4	11.7	1.6E-04	Significant Effect			
Error	0.365293		0.0243529		15						
Total	1.50482				19						
Distributional Tests											
Attribute	Test				Test Stat	Critical	P-Value	Decision(α:1%)			
Variances	Bartlett Equality of Variance Test				1.686	13.28	0.7932	Equal Variances			
Distribution	Shapiro-Wilk W Normality Test				0.9445	0.866	0.2915	Normal Distribution			
96h Survival Rate Summary											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	4	0.9000	0.7163	1.0000	0.9000	0.8000	1.0000	0.0577	12.83%	0.00%
25		4	0.8000	0.5402	1.0000	0.8000	0.6000	1.0000	0.0817	20.41%	11.11%
50		4	0.6500	0.3453	0.9547	0.7000	0.4000	0.8000	0.0957	29.46%	27.78%
100		4	0.4500	0.2909	0.6091	0.4000	0.4000	0.6000	0.0500	22.22%	50.00%
200		4	0.3000	0.1163	0.4837	0.3000	0.2000	0.4000	0.0577	38.49%	66.67%
400		4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		100.00%
Angular (Corrected) Transformed Summary											
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	LC	4	1.226	1.007	1.445	1.226	1.107	1.345	0.06874	11.21%	0.00%
25		4	1.111	0.813	1.41	1.107	0.8861	1.345	0.09377	16.87%	9.36%
50		4	0.9463	0.623	1.27	0.9966	0.6847	1.107	0.1016	21.47%	22.83%
100		4	0.7351	0.5749	0.8953	0.6847	0.6847	0.8861	0.05034	13.70%	40.05%
200		4	0.5742	0.3711	0.7773	0.5742	0.4636	0.6847	0.06382	22.23%	53.17%
400		4	0.2255	0.2255	0.2256	0.2255	0.2255	0.2255	0	0.00%	81.61%
Graphics											

# CETIS Analytical Report

Report Date: 26 Aug-20 14:30 (p 1 of 1)  
Test Code: 200821aara | 04-1235-4342

Pacific Topsmelt 96-h Acute Survival Test										Wood E&IS	
Analysis ID: 09-8231-6847		Endpoint: 96h Survival Rate				CETIS Version: CETISv1.9.3					
Analyzed: 26 Aug-20 14:30		Analysis: Trimmed Spearman-Kärber				Official Results: Yes					
Trimmed Spearman-Kärber Estimates											
Threshold Option		Threshold	Trim	Mu	Sigma	LC50	95% LCL	95% UCL			
Control Threshold		0.1	11.11%	2.007	0.07103	101.7	73.3	141			
96h Survival Rate Summary				Calculated Variate(A/B)						Isotonic Variate	
Conc-µg/L	Code	Count	Mean	Min	Max	Std Dev	CV%	%Effect	A/B	Mean	%Effect
0	LC	4	0.9000	0.8000	1.0000	0.1155	12.83%	0.0%	18/20	0.9	0.0%
25		4	0.8000	0.6000	1.0000	0.1633	20.41%	11.11%	16/20	0.8	11.11%
50		4	0.6500	0.4000	0.8000	0.1915	29.46%	27.78%	13/20	0.65	27.78%
100		4	0.4500	0.4000	0.6000	0.1000	22.22%	50.0%	9/20	0.45	50.0%
200		4	0.3000	0.2000	0.4000	0.1155	38.49%	66.67%	6/20	0.3	66.67%
400		4	0.0000	0.0000	0.0000	0.0000		100.0%	0/20	0	100.0%





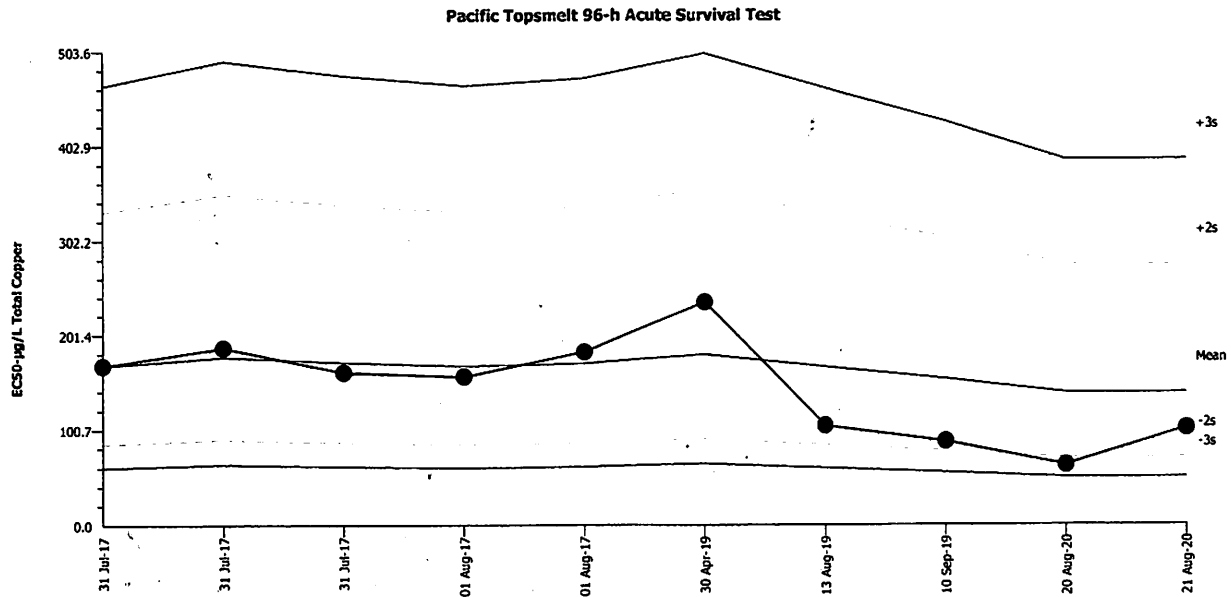
## Pacific Topsmelt 96-h Acute Survival Test

Wood E&amp;IS

Test Type: Survival (96h)  
Protocol: EPA/821/R-02-012 (2002)

Organism: Atherinops affinis (Topsmelt)  
Endpoint: 96h Survival Rate

Material: Total Copper  
Source: Reference Toxicant-REF



Mean: 139.6

Count: 9

-2s Warning Limit: 70.73

-3s Action Limit: 50.34

Sigma: n/a

CV: 35.00%

+2s Warning Limit: 275.6

+3s Action Limit: 387.2

## Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2017	Jul	31	16:00	168.3	28.68	0.5494			19-5584-5627	06-5699-4422
2			31	16:10	187.7	48.08	0.8703			08-6518-1949	12-2976-8720
3			31	16:20	161.5	21.88	0.4282			16-0803-3194	14-0325-5692
4		Aug	1	14:20	156.9	17.29	0.3433			21-0766-0876	04-5806-5680
5			1	14:30	183.1	43.5	0.7977			08-2262-5738	12-8323-6897
6	2019	Apr	30	15:00	236.6	96.93	1.551			01-1235-0968	05-2157-6049
7		Aug	13	17:20	104.8	-34.84	-0.8441			15-7782-6769	06-7735-0148
8		Sep	10	16:30	88.01	-51.62	-1.357			00-1845-1071	18-3128-5862
9	2020	Aug	20	11:30	63	-76.63	-2.341	(-)		10-0704-2056	18-4092-2436
10			21	16:40	101.7	-37.97	-0.9333			04-1235-4342	09-8231-6847

# 96hr Marine Acute Test with 48hr Renewal

Client: Internal

Project ID: Cu Ref Tox

Test No. 20082/aaaa

Test Species: *Atherinops affinis*

Start Date/Time: 8/21/20 1640

End Date/Time: 8/25/20 1450

Sample ID (µg/L Cu )	Rep	Counts					Water Quality						
		0	24	48	72	96	Parameter	0	24	48f	48i	72	96
Lab Control	A	5	5	5	5	5	Temp. (°C)	21.8	21.1	19.3	20.9	20.4	20.7
	B	5	5	5	5	5	Salinity (ppt)	29.1	29.4	30.1	29.8	30.6	29.7
	C	5	5	5	4	4	pH (units)	7.72	7.60	7.76	7.43	7.63	7.72
	D	5	5	5	4	4	DO (mg/L)	6.7	6.0	6.7	7.0	6.4	6.6
25	A	5	5	4	4	4	Temp. (°C)	21.8	21.2	19.3	20.8	20.6	20.6
	B	5	4	4	4	4	Salinity (ppt)	29.0	29.5	30.0	29.9	30.5	20.7
	C	5	5	4	4	3	pH (units)	7.74	7.62	7.74	7.94	7.68	7.71
	D	5	5	5	5	5	DO (mg/L)	6.7	6.1	6.7	7.1	6.6	6.6
50	A	5	5	4	3	3	Temp. (°C)	21.9	21.2	19.2	20.9	20.7	20.3
	B	5	5	5	4	4	Salinity (ppt)	29.1	29.5	30.0	30.0	30.5	30.1
	C	5	4	4	3	2	pH (units)	7.75	7.62	7.74	7.95	7.69	7.72
	D	5	5	5	4	4	DO (mg/L)	6.9	6.1	6.8	7.2	6.5	6.8
100	A	5	4	4	4	2	Temp. (°C)	21.9	21.2	19.2	20.8	20.7	20.3
	B	5	5	4	2	2	Salinity (ppt)	29.0	29.5	30.0	29.9	30.4	30.1
	C	5	5	5	4	3	pH (units)	7.75	7.61	7.74	7.95	7.71	7.72
	D	5	5	4	4	2	DO (mg/L)	6.9	6.1	6.8	7.1	6.7	6.9
200	A	5	5	4	5	2	Temp. (°C)	21.9	21.3	19.2	20.8	20.7	20.1
	B	5	5	4	2	1	Salinity (ppt)	29.0	29.4	30.0	29.9	30.4	30.3
	C	5	4	2	2	1	pH (units)	7.75	7.60	7.74	7.92	7.72	7.72
	D	5	4	4	4	2	DO (mg/L)	6.8	6.2	6.8	7.0	6.6	6.7
400	A	5	0	-	-	-	Temp. (°C)	21.8	21.3	19.2	21.0	20.7	20.0
	B	5	1	1	1	0	Salinity (ppt)	29.0	29.3	29.9	29.8	30.3	30.1
	C	5	1	0	-	-	pH (units)	7.72	7.60	7.76	7.84	7.74	7.72
	D	5	0	-	-	-	DO (mg/L)	6.9	6.4	6.8	7.1	6.9	7.0
	A						Temp. (°C)						
	B						Salinity (ppt)						
	C						pH (units)						
	D						DO (mg/L)						
Tech Initials:		SC/GM SC AG SC SC					Tech Initials:		gm SC AG AG SC gm				

Tech Initials: SC GM SC AG SC SC

Tech Initials: gm SC AG AG SC gm

Date Animals Received: 8/18/20 ABS

Age of Animals at Test Start: 14 day

Feedings

Initials (AM):

Initials (PM):

0	24	48	72	96
AG	SC	AG	AG	AG
			SC	

Comments:

QC Check:

SC 9/18/20

Final Review: SC 10/3/20

## **APPENDIX E**

### **CORRESPONDENCE AND AGENCY MEMORANDA**

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**LETTER FROM THE REGIONAL BOARD REGARDING COMMENTS ON  
2012 SIYB TMDL MONITORING AND PROGRESS REPORT**

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## Attachment A



### California Regional Water Quality Control Board, San Diego Region

July 26, 2013

Mr. Wayne Darbeau  
President/CEO  
San Diego Unified Port District  
3165 Pacific Highway  
San Diego, CA 92101

In reply refer to:  
Place ID:650648:WChlu

**Subject: Comments on 2012 Shelter Island Yacht Basin Total Maximum Daily Load Monitoring and Progress Report**

Mr. Darbeau:

In accordance with Provision A.3 of Investigative Order No. R9-2011-0036, as amended, the San Diego Unified Port District (Port District) submitted the *2012 Shelter Island Yacht Basin Total Maximum Daily Load Monitoring and Progress Report* (Report) to the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) on March 29, 2013. The San Diego Water Board has reviewed the Report and offers the following comments.

#### **Compliance with Dissolved Copper Total Maximum Daily Load (TMDL)**

The Shelter Island Yacht Basin (SIYB) TMDL includes the following compliance schedule:

Stage	Required Dissolved Copper Load Reduction	Compliance Date
1	0%	December 1, 2007
2	10%	December 1, 2012
3	40%	December 1, 2017
4	76%	December 1, 2022

The Port District's *Shelter Island Yacht Basin TMDL Implementation Compliance Monitoring Plan* (Monitoring Plan) proposed utilizing data associated with the conversion of boat hulls from copper based anti-fouling paints (AFPs) to alternative AFPs for the purpose of determining compliance with the first load reduction required by the December 1, 2012 compliance date. Based on the data submitted and information provided in the Report, the 10 percent reduction in dissolved copper loading required to demonstrate compliance with the SIYB TMDL by the December 1, 2012 compliance date was achieved.

Because of the progress that the Port District has been able to achieve by implementing the *Shelter Island Yacht Basin Dissolved Copper Total Maximum Daily Load Implementation Plan*

TOMAS MORALES, CHAIR | DAVID GIBSON, EXECUTIVE OFFICER

9174 Sky Park Court, Suite 100, San Diego, CA 92123-4353 | (858) 467-2952 | [www.waterboards.ca.gov/sandiego](http://www.waterboards.ca.gov/sandiego)



## Attachment A

Mr. Darbeau  
San Diego Unified Port District

- 2 -

July 26, 2013

(Implementation Plan), the San Diego Water Board continues to support the dissolved copper load reduction approach described in the Implementation Plan. Converting boat hulls to alternative AFPs with little or no copper is still expected to have the greatest effect on reducing dissolved copper loads discharged to SIYB.

As long as the Port District continues implementing the Implementation Plan and demonstrates progress toward attainment of the dissolved copper load reduction required by the December 1, 2017 compliance date, the San Diego Water Board will continue to forego using its regulatory authority to implement the SIYB TMDL by regulating the discharge of dissolved copper to SIYB under waste discharge requirements (WDRs), conditional waivers of WDRs, waste discharge prohibitions, or through the issuance of enforcement actions. The San Diego Water Board will re-evaluate its regulatory options for implementing the SIYB TMDL after reviewing and considering each subsequent Annual Monitoring and Progress Report.

### Monitoring Program Modification Recommendations

In the Report, the Port District recommended several modifications to the monitoring and data collection for the monitoring program, including the following:

- a. Remove the free copper ion activity measurement from future monitoring because of the lack of USEPA guidance and time constraints caused by the instrument calibration process;
- b. Include the Test of Significant Toxicity (TST) calculation as an additional statistical analysis for reporting toxicity data;
- c. Remove the collection of hull registration data (i.e., vessel registration numbers) because of concerns expressed that this information may become part of a public document; and
- d. To more accurately calculate the amount of copper loading to SIYB, allow the assumption that vessels with aged copper AFPs have a copper release (i.e. leaching or loading) rate similar to low copper AFPs (0.45 kg/yr) because the research (provided in Appendix E in the Report) indicates copper leach rates degrade over time, particularly after the first 2-3 years after application.

The information and documentation provided to support the Port District's recommendations to modify the monitoring and data collection for the monitoring program are acceptable to the San Diego Water Board. Please revise the Monitoring Plan in accordance with the recommended modifications described and submit it to the San Diego Water Board by September 30, 2013.

In closing, the San Diego Water Board appreciates the Port District's continued leadership and efforts towards achieving the required dissolved copper load reductions in SIYB.



Attachment A  
- 3 -

Mr. Darbeau  
San Diego Unified Port District

July 26, 2013

In the subject line of any response, please include the reference number Place ID:650648:wchiu. For questions or comments, please contact Wayne Chiu by phone at 858-637-5558, or by email at [wchiu@waterboards.ca.gov](mailto:wchiu@waterboards.ca.gov).

Respectfully,



David W. Gibson  
Executive Officer

DWG:dib:esb:wc

cc: Bay Club Marina  
2131 Shelter Island Drive  
San Diego, California 92106

Shelter Island Marina  
2051 Shelter Island Drive  
San Diego, California 92106

Half Moon Anchorage  
2131 Shelter Island Drive  
San Diego, California 92106

Silver Gate Yacht Club  
2091 Shelter Island Drive  
San Diego, California 92106

San Diego Yacht Club  
1011 Anchorage Lane  
San Diego, California 92106

Southwestern Yacht Club  
2702 Qualtrough Street  
San Diego, California 92106

Tech Staff Info & Use	
Order No.	R9-2001-0036
Party (GT/CIWQS) ID	NA
File No.	NA
WDID	NA
NPDES No.	NA
Reg. Measure ID	NA
Place ID	650648
Person ID	NA
Inspection ID	NA

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## **LETTER TO THE REGIONAL BOARD REQUESTING VERIFICATION OF 2017 INTERIM COMPLIANCE**

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June 28, 2018

California Regional Water Quality Control Board  
San Diego Region  
2375 Northside Drive, Suite 100  
San Diego, CA 92108-2700  
Attn: Mr. Wayne Chiu,

Subject: Request for verification of interim and final compliance targets for the Shelter Island Yacht Basin Dissolved Copper Total Maximum Daily Load Monitoring (TMDL)

Dear Mr. Chiu,

We thank you for meeting with the San Diego Unified Port District (Port) and Shelter Island Master Leaseholders Group (SIMLG) on May 24, 2018 to discuss the progress on the Shelter Island Yacht Basin TMDL and receive the findings from the 2017 TMDL Monitoring and Progress Report (2017 Report). We appreciate your time and commitment to this project.

As presented in the 2017 Report and discussed at the meeting, the District and the SIMLG continue to make diligent efforts to implement best management practices and reduce copper loads. We believe we continue to be in compliance with the TMDL. Moreover, as presented in the 2017 Report, a 45.4% load reduction was documented which surpasses the 2017 interim load reduction compliance target of 40%. It is our understanding from that meeting, that the 2017 interim target has been achieved. In addition, we also clarified that compliance with the final TMDL phase is the requirement to reduce copper loading to 567kg/yr., a 76% load reduction.

Having a clear understanding of compliance is critical as we approach the final phase of this TMDL and set our sights on successfully meeting the 76% loading reduction requirement. As such, the District is providing this letter to (1) memorialize our discussion at the May 24<sup>th</sup> meeting, and (2) respectfully request written confirmation from the Regional Board for the following items:

1. Confirmation that the 45.4% load reduction identified in 2017 Report and its supporting data satisfies the 2017 interim compliance target.
2. Confirmation of the final compliance target (567 kg/yr. copper loading) and compliance expectations (compliance based on copper loading).

Mr. Wayne Chiu  
June 28, 2018  
Page 2

We look forward to receiving your response. On behalf of the District we appreciate your continued support and participation and look forward to working with you as we embark on the final phase of this TMDL.

Please feel free to contact me at (619) 725-6073 or Kelly Tait at (619) 686-6372 if you have any questions on the TMDL Report or any other copper reduction efforts the District is undertaking.

Respectfully,



Karen Holman  
Director, Environmental Protection  
San Diego Unified Port District

KH/aa  
CC via email:  
Randa Coniglio, Jason H. Giffen, Kelly Tait, John Carter, Port  
Shelter Island Master Leaseholders Group  
Sharon Cloward, SDPTA

D2#1525641

**LETTER FROM THE REGIONAL BOARD REGARDING REVIEW OF  
2017 SIYB TMDL**

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**San Diego Regional Water Quality Control Board**

September 11, 2018

Karen Holman  
Director, Environmental Protection  
San Diego Unified Port District  
3165 Pacific Highway  
San Diego, CA 92101

**In reply refer to / attn:**  
CW-650648:jhaas

*Via email only: [kholman@portofsandiego.org](mailto:kholman@portofsandiego.org)*

**Subject: REVIEW OF 2017 MONITORING REPORT, SHELTER ISLAND YACHT BASIN  
COPPER TMDL**

Dear Ms. Holman,

Staff of the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) have reviewed the 2017 TMDL Monitoring and Progress Report (2017 Report) submitted in March 2018 regarding progress on the Shelter Island Yacht Basin Dissolved Copper Total Maximum Daily Load (Shelter Island TMDL). The Shelter Island Yacht Basin is a popular recreational marina located in the north end of San Diego Bay. The San Diego Water Board appreciates the San Diego Unified Port District (Port District) efforts to protect and restore water quality so that the Basin's water can support beneficial uses for people and wildlife.

The most sensitive beneficial uses of the Yacht Basin's waters are those designated for protection of marine aquatic life and aquatic dependent wildlife. Those beneficial uses are threatened or impaired due to elevated levels of dissolved copper. Copper used in antifouling paints to prevent buildup of marine organisms on a vessel's hull can leach into the environment where, even at low concentrations, it is toxic to a variety of aquatic organisms and is persistent in the environment. The combination of the large number of recreational vessels and reduced tidal flushing at Shelter Island Yacht Basin has resulted in concentrations of dissolved copper that exceed numeric water quality objectives for dissolved copper and narrative water quality objectives for toxicity and pesticides.

Twenty-two years ago (in 1996), the San Diego Water Board placed the Shelter Island Yacht Basin on the Clean Water Act Section 303(d) List of Water Quality Limited Segments due to elevated levels of dissolved copper in the water column. The San Diego Water Board adopted the Shelter Island TMDL in 2005, and the USEPA granted final approval of the TMDL in February 2006.

The TMDL calculated and established a loading capacity for dissolved copper discharges into the Shelter Island Yacht Basin of 1.6 kilograms/day or 567 kilograms/year. That meant that a 76 percent overall reduction of residual copper loading to the Yacht Basin would be required to restore the marine aquatic life and aquatic dependent wildlife beneficial uses. The TMDL established a phased compliance schedule for achieving that reduction as follows:

Interim Loading Targets for Attainment of the TMDL			
Stage	Time Period	Percent Reduction from Current Estimated Loading	Estimated Interim Target Loading (kg/year of dissolved Cu)
Stage 1	Years 1-2	0%	n/a
Stage 2	Years 2-7	10%	1,900
Stage 3	Years 7-12	40%	1,300
Stage 4	Years 12-17	76%	567

The TMDL schedule was based on a timeline intended to minimize adverse economic impact to the boating community from the transition to alternative boat hull paints that were less toxic than the paints used when the TMDL was adopted in 2005. The TMDL schedule recognized that within 15 years, new boats docked in the Yacht Basin could reasonably be painted with nontoxic or less toxic coatings, and that the copper coating on existing boats could reasonably be replaced with nontoxic or less toxic coatings during routine hull stripping.

Notably, in 2013 Governor Brown signed Assembly Bill 425 (Atkins) and directed the Department of Pesticide Regulation (DPR) to establish a leach rate for copper-based antifouling paints to protect aquatic environments from the effects of exposure to copper-based antifouling paints. In January 2018 DPR issued its final decision to establish a maximum allowable copper leach rate of 9.5 µg/cm<sup>2</sup>/day for all copper-based antifouling paint and coating products labeled for use on recreational vessels. DPR's new restrictions on copper-based antifouling paints and coatings became effective as of July 1, 2018.<sup>1</sup>

The Port District's 2017 Report marks the end of Stage 3 of the interim loading targets, and suggests that overall the Yacht Basin is meeting the 40 percent reduction target as a result of improved use of best management practices and vessel conversions to less toxic hull coatings.

Thus, in large part to the leadership of the Port District, loadings of dissolved copper have been significantly reduced even prior to the new DPR rule. With DPR's copper paint regulations newly in effect, both the Port District and the San Diego Water Board expect to see reductions in dissolved copper over the next few years.

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<sup>1</sup> Information on DPR's program is at [https://www.cdpr.ca.gov/docs/registration/reevaluation/chemicals/antifoulant\\_paints.htm](https://www.cdpr.ca.gov/docs/registration/reevaluation/chemicals/antifoulant_paints.htm)

The 2017 Report also provides some water quality measurements to assess the status of the beneficial uses. Consistent with results of previous years, the 2017 data show dissolved copper continues to exceed the Water Quality Objectives at most sampling locations,<sup>2</sup> although only the two stations farthest inside the basin had statistically significant effects on developing mussel larvae (stations SIYB-1 and SIYB-2, see Attachment 1). While the dissolved copper loading rates are an indicator of progress toward TMDL attainment, ultimately water quality data as reported to the USEPA pursuant to Clean Water Act sections 305b and 303d will determine whether the beneficial uses are attained.

Both the Port District and the San Diego Water Board have recognized that the new DPR paint regulations cannot solely be relied upon to achieve the TMDL's final target and restore the impaired beneficial uses.<sup>3</sup> Ongoing and additional efforts by the Port District to ensure best management practices for paints and associated marina activities, combined with the new DPR regulations, provide a pathway for success. The San Diego Water Board has confidence in the Port District's leadership toward achieving the TMDL targets and restoring the beneficial uses.

For further questions regarding the Shelter Island TMDL, please contact Jeremy Haas at 619-521-3009 or [Jeremy.Haas@waterboards.ca.gov](mailto:Jeremy.Haas@waterboards.ca.gov).

Respectfully,



JAMES G. SMITH  
Assistant Executive Officer

JGS:jch

Attachment: Shelter Island Yacht Basin Sampling Locations, from 2017 Report

cc via email:

Kelly Tait, San Diego Unified Port District

Sharon Cloward, San Diego Unified Port District Tenants Association

Ruth Kolb, City of San Diego

Sue Keydel, USEPA Region IX

Jeremy Haas, Cynthia Gorham, Laurie Walsh, Wayne Chiu, San Diego Water Board

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<sup>2</sup> Five of the six sampling stations exceeded the California Toxics Rule (CTR) criterion continuous concentration (CCC) water quality objective (WQO) of 3.1 µg/L, and four of the six stations exceeded the CTR acute criterion maximum concentration (CMC) WQO (4.8 µg/L).

<sup>3</sup> See Feb. 24, 2015 letter to DPR from the Port District and San Diego Water Board.

Attachment: Shelter Island Yacht Basin sampling locations. Figure 2-1 from the 2017 Report



## **REGIONAL BOARD EXECUTIVE OFFICER'S REPORT (OCTOBER 2018)**

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and viable ecological habitat. These activities, in combination with military land use activities and natural environmental conditions, have the potential to cause contaminated soil to become airborne and accumulate in areas where impacts to human and ecological receptors could occur, such as the military housing, school, and playground just east of the Agricultural Fields.

Discharges from the West Agricultural Fields and Maintenance Facility Compound to the Creek, Estuary, and Pacific Ocean pose a threat to water quality, designated beneficial uses, and ecological and human receptors. San Diego Water Board staff will continue efforts to stop these discharges and will update the Board as new information becomes available.

#### **4. Shelter Island Yacht Basin Dissolved Copper TMDL Meets Stage 3 Milestone on Time**

*Staff Contact: Jeremy Haas*

The Shelter Island Yacht Basin is a popular recreational marina located in the north end of San Diego Bay. Twenty-two years ago (in 1996), the San Diego Water Board placed the Shelter Island Yacht Basin on the Clean Water Act Section 303(d) List of Water Quality Limited Segments due to elevated levels of dissolved copper in the water column. The San Diego Water Board adopted the Shelter Island TMDL in 2005, and the USEPA granted final approval of the TMDL in February 2006. Since then the San Diego Unified Port District (Port District) has been working with marinas and the boating community in the Yacht Basin to reduce copper loading. Earlier this year, the Port District submitted the 2017 annual report on the progress of the Shelter Island TMDL.

The Shelter Island Yacht Basin



The Port District's 2017 Report demonstrates that overall the Yacht Basin is meeting the 40 percent reduction target set by the San Diego Water Board as an interim loading target to be met by 2018. The Port attributes the success to improved use of best management practices and vessel conversions to less toxic hull coatings.

The most sensitive beneficial uses of the Yacht Basin's waters are those designated for protection of marine aquatic life and aquatic dependent wildlife. Those beneficial uses are threatened or impaired due to elevated levels of dissolved copper. Copper used in antifouling paints to prevent buildup of marine organisms on a vessel's hull can leach into the environment where, even at low concentrations, it is toxic to a variety of aquatic organisms and is persistent in the environment.

The TMDL required that a 76 percent overall reduction of residual copper loading to the Yacht Basin to restore the marine aquatic life and aquatic dependent wildlife beneficial uses. The TMDL established a phased compliance schedule for achieving that reduction as follows:

Interim Loading Targets for Attainment of the Shelter Island Yacht Basin Dissolved Copper TMDL			
Stage	Time Period	Percent Reduction from Current Estimated Loading	Estimated Interim Target Loading (kg/year of dissolved Cu)
Stage 1	Years 1-2	0%	n/a
Stage 2	Years 2-7	10%	1,900
Stage 3	Years 7-12	40%	1,300
Stage 4	Years 12-17	76%	567

Notably, in 2013 Governor Brown signed Assembly Bill 425 (Atkins) and directed the Department of Pesticide Regulation (DPR) to establish a leach rate for copper-based antifouling paints to protect aquatic environments from the effects of exposure to copper-based antifouling paints. In January 2018 DPR issued its final decision to establish a maximum allowable copper leach rate of 9.5  $\mu\text{g}/\text{cm}^2/\text{day}$  for all copper-based antifouling paint and coating products labeled for use on recreational vessels. DPR's new restrictions on copper-based antifouling paints and coatings became effective as of July 1, 2018.<sup>4</sup>

The 2017 Annual Report also provides some water quality measurements to assess the status of the beneficial uses. Consistent with results of previous years, the 2017 data show dissolved copper continues to exceed the Water Quality Objectives at most sampling locations,<sup>5</sup> although only the two stations farthest inside the basin had statistically significant effects on developing mussel larvae (stations SIYB-1 and SIYB-2, see Attachment 1). While the dissolved copper loading rates are an indicator of progress toward TMDL attainment, ultimately water quality data as reported to the USEPA pursuant to Clean Water Act sections 305b and 303d will determine whether the beneficial uses are attained.

Both the Port District and the San Diego Water Board have recognized that the new DPR paint regulations cannot solely be relied upon to achieve the TMDL's final target and restore the impaired beneficial uses. Ongoing and additional efforts by the Port District to ensure best management practices for paints and associated marina activities, combined with the new DPR regulations, provide a pathway for success.

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<sup>4</sup> Information on DPR's program is at [https://www.cdpr.ca.gov/docs/registration/reevaluation/chemicals/antifoulant\\_paints.htm](https://www.cdpr.ca.gov/docs/registration/reevaluation/chemicals/antifoulant_paints.htm)

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<sup>5</sup> Five of the six sampling stations exceeded the California Toxics Rule (CTR) criterion continuous concentration (CCC) water quality objective (WQO) of 3.1  $\mu\text{g}/\text{L}$ , and four of the six stations exceeded the CTR acute criterion maximum concentration (CMC) WQO (4.8  $\mu\text{g}/\text{L}$ ).



In conclusion, in large part to the leadership of the Port District, loadings of dissolved copper have been significantly reduced even prior to the new DPR rule. With DPR's copper paint regulations newly in effect, reductions in dissolved copper should be observed over the next few years.

## **5. Partnering for a Cleaner River Bed, San Diego River**

*Staff Contact: Sheila Christine McQuaid Moran*

It all started with a question – Can the Water Board help? Even though we were not sure how, our answer was “yes” because this project spoke directly to the Water Board's mission “to protect, enhance, and restore the quality of California's water resources” and aligned with the goals of our region's Practical Vision. In the end, not only was it possible, it made a significant impact and strengthened meaningful relationships with public and private partners.

What were we asked to do? The San Diego River Park Foundation (Foundation) needed us to combine services with the California Department of Fish and Wildlife (CDFW) to provide temporary dumpsters for the cleanup efforts of the Foundation to remove thousands of pounds of trash left behind after law enforcement cleared out a large transient encampment along the river in April 2017. Media coverage at the time provided perspective of what the Foundation was facing with this cleanup. One of the articles stated the encampment spanned almost an acre along the San Diego River near the 5900 block of Fairmont Avenue and was filled with tents, trash, waste, and what appeared to be a chop shop for stolen bicycles.<sup>6</sup> Another article estimated that encampment held about 50 tons of trash.<sup>7</sup> Both shared concerns for human health hazards and destruction of the habitat in that area as debris went right up to the edge of the river.

While we could not offer staff to assist in the cleanup, we could find funds to help with proper disposal of the waste. This would be a new type of partnership for us and required review and input from the State Water Board Division of Administrative Services (DAS). Initially, we considered the dumpsters and waste hauling to be a service, which could be done with a fairly simple service order. However, upon review of our request, DAS suggested the activities better aligned with the purposes of the State Board's Cleanup and Abatement Account (CAA) managed by the Division of Financial Assistance (DFA). Switching course and working with DAS, DFA, the Foundation, and potential contractors, we rapidly secured \$4,836.00 to cover up to six dumpsters for the cleanup and disposal of waste from the large abandoned encampment during the period of May 17, 2017 – June 30, 2017 (see [June 2017 EO Report](#)).

Our continued task beyond the initial setup of funding was to manage the CAA contract and be a liaison between the Foundation and our contractor, EDCO Disposal Corporation (EDCO), to coordinate the delivery and removal of the dumpsters during the last month and a half of Fiscal Year 16. However, the contractor unexpectedly decided not to charge for tonnage fees. As a result, money left from the original cleanups in Fiscal Year 16 could support cleanups further down the river to the end of Fiscal Year 17 (June 2018). We coordinated dumpsters for a few more events until we estimated funds would be fully expended. Again, EDCO, the contractor, surprised us by listing all the dumpsters provided in Fiscal Year 17 as donations instead of

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<sup>6</sup> <https://www.10news.com/news/volunteers-clean-up-massive-homeless-encampment-along-san-diego-river-in-mission-valley>

<sup>7</sup> <https://www.kpbs.org/news/2017/apr/26/volunteers-clean-large-san-diego-homeless-camp/>

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## **MARINA AND YACHT CLUB SELF-CERTIFICATION FORMS**

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Marina Self-Certification Form  
3/11/2021

I certify that the 2020 The Bay Club Hotel and Marina vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.

Shelley  
Griffin

Director of Marina  
Operations

Bay Club Hotel and  
Marina

Marina Self-Certification Form  
[March 3, 2021]

I certify that the 2020 [Patricia Gibbons] vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.

Patricia  
Gibbons  
Office Manager  
Crows Nest Yachts

## Marina Self-Certification Form

03/12/2021

I certify that the 2020 Gold Coast Marina vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.



Tom Nielsen

Owner

Gold Coast

Marina Self-Certification Form

March 3, 2021

I certify that the 2020 HALF MOON MARINA vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.

A handwritten signature in black ink, appearing to read 'B. Oliver', is written over a faint, circular, dotted-line stamp.

Brad Oliver  
Director of Facilities  
Humphreys Half Moon  
Inn and Half Moon  
Marina



## Marina Self-Certification Form

3/2/21

I certify that the 2020 [Kona Kai Marina] vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.

Adam Veves  
Dock Master  
Kona Kai Marina

## Marina Self-Certification Form

[Add Date] — March 19, 2021

I certify that the 2020 [INSERT MARINA NAME] vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.

Historic La Playa Pier, and specifically the Vessel  
"Voila" owned  
by Michael  
Bixler  
43' Stephens  
Raised Deck  
Sedan Cruiser,

NAME  
POSITION/TITLE  
COMPANY NAME

Michael B. Bixler, owner  
"Voila" at La Playa Historic Pier  
La Playa Yacht Club.

E. F. Tschirner  
Hummer

## Marina Self-Certification Form

March 3, 2021

I certify that the 2020 San Diego Yacht Club vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.

Ty Olsen  
Dockmaster  
San Diego Yacht Club

## Marina Self-Certification Form

March 13, 2021

I certify that the 2020 SILVER GATE YACHT CLUB vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.

Lisa Clements  
Commodore  
SGYC

Marina Self-Certification Form  
March 2, 2021

I certify that the 2020 Shelter Island Marina vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.



Joe Ravitch  
Dockmaster  
Bartell Hotels

## Marina Self-Certification Form

3/3/21

I certify that the 2020 Southwestern Yacht Club vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.

Debbie Kahler  
2020 Port Captain  
Southwestern Yacht Club

## Marina Self-Certification Form

03/11/2021

I certify that the 2020 Tonga Landing vessel hull paint data submitted to the Port of San Diego for the Shelter Island Yacht Basin Dissolved Copper TMDL Annual Report has been 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 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 further acknowledge that I will retain all records gathered in preparation for this report for a period of five (5) years following my submittal of the data to the Port.



Tom Nielsen

President

ABC Barge &  
Equipment

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**PORT COMMENT LETTER ON  
2020-2025 NONPOINT SOURCE PROGRAM IMPLEMENTATION**

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**VIA ELECTRONIC SUBMITTAL**

July 30, 2020

Mr. Michael Hanks  
State Water Resources Control Board  
P.O. Box 100  
Sacramento, CA 95812-2000

Re: Comment Letter re: 2020-2025 Nonpoint Source Program Implementation Plan

Dear Mr. Hanks,

The San Diego Unified Port District (Port) appreciates the opportunity to comment on the proposed 2020-2025 Nonpoint Source Program Implementation Plan (Implementation Plan). The Port has a long tradition of environmental stewardship and strong partnership with the San Diego Regional Water Quality Control Board (San Diego Regional Board).

As state-designated trustee of San Diego Bay and its tidelands, the Port is continuously pursuing multiple paths to achieve its mission which includes championing the environment and promoting commerce, navigation, fisheries, and recreation for the people of the state of California. As such, the Port is dedicated to protecting the beneficial uses of San Diego Bay, as well as improving water quality in the Bay and the surrounding tidelands.

The Implementation Plan provides a useful roadmap for environmental protection throughout the state of California. The Port appreciates the opportunity to comment on the draft Implementation Plan and respectfully requests consideration of the recommendations provided in this letter. The Port also supports comments separately provided by the County of Los Angeles (County) relating to copper impairments and approaches for the Marina del Rey Harbor. Both the Port and the County are facing similar challenges in addressing impairments resulting from legally available copper-based antifouling paints (Copper AFPs). The Port strongly encourages the state to coordinate its efforts and approaches to mitigate the environmental impacts from these paints statewide.

**Section G: Coastal – Copper-related Impairments** Within *Section G: Coastal* of the Implementation Plan, marinas and recreational boating, more specifically metals (i.e. copper) from antifouling paints, are addressed as a primary cause of nonpoint source pollution along the California coast. Regions 4, 8 and 9 have all identified reducing the loading of dissolved copper from antifouling paints as priority issues for 2020-2025, highlighting that this is a pervasive statewide issue. The Implementation Plan indicates the State Board and Regional Boards collaborate with the California Department of Pesticide Regulation (DPR) to regulate the pesticide that may affect water quality and the discharges that cause water quality impairments from these products, further highlighting the complexity of this statewide issue.

For the past decade, the Port has actively championed the regulation of Copper AFPs at both a state and federal level. These efforts resulted in the adoption of Assembly Bill 425 (AB425), setting a statewide maximum leach rate of 9.5 µg/cm<sup>2</sup>/day for copper AFPs, which became effective on July 1, 2018 (DPR Rule)<sup>1</sup>.

At the regional level, the Port has assumed a leadership role by developing a Copper Reduction Program that supports hull paint research, administering voluntary and policy-based copper reduction initiatives, and hosting outreach events for the recreational boating community to educate the community on copper water quality issues and solutions. The goal of these efforts is to reduce copper loading and improve the water quality in San Diego Bay.

Further, nine years of annual monitoring in the Shelter Island Yacht Basin (SIYB) has also resulted in a basin-wide data set of vessel paint use and water quality data that is spatially and temporally robust. These programs have allowed the Port to make significant progress in developing a core understanding of the issues, including many of those discussed in the Implementation Plan.

With this backdrop, the Port respectfully request that you consider the following comments:

**1. Coastal water quality impairments from the Copper AFPs occur statewide and require statewide action.**

The Implementation Plan identifies water quality impairments resulting from the leaching of Copper AFPs in marinas as a statewide issue, yet the strategies to address this issue are being enacted regionally, and differently, by separate Regional Boards. The Implementation Plan discusses three of the Regional

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<sup>1</sup> <https://www.cdpr.ca.gov/docs/legbills/calcode/020114.htm>

Boards (Regions 4, 8 and 9) with 2020-2025 goals for reducing dissolved copper concentrations from antifouling paints through various mechanisms.

California's boating community is highly interconnected. Boaters travel up and down the coast, spending time in various marinas throughout the state. In addition, racing and the social aspects of boating lends itself to communication between boaters throughout the state.

Mandating inconsistent rules for copper reduction via paint use or in-water hull cleaning policies in different marinas and counties/regions throughout the state may confuse and discourage boaters from undertaking voluntary efforts to reduce copper loading and complying with discrepant regulatory requirements. Without a uniform approach through state-wide action, sufficient copper loading reductions and improved water quality might not occur

As a statewide issue, the Port offers the following potential statewide solutions for consideration:

- a. **The State Board and the DPR should utilize the Management Agency Agreement to address Copper AFP strategies/policies at the state level.**
- b. **The Marina Inter-Agency Coordinating Committee (MIACC) should continue as a statewide venue to discuss marine pollution and Copper AFP initiatives.** This working group provides an excellent forum for agencies and stakeholders across the state and country to be involved in discussions pertaining to dissolved copper water quality impairments. It offers a much-needed venue to collaboratively (1) discuss science, policy and commercial product information; (2) share various efforts occurring throughout the state; and (3) bring consistency to implementation and policy approaches.
- c. **Include the Department of Pesticide Regulation, the state's regulator of Copper AFPs, as an essential partner for achieving statewide copper-related goals.** The DPR has primary jurisdiction over the registration of pesticides and their use in California. A pesticide product must be registered (licensed) with the state (i.e. DPR) before it can be used, possessed or offered for sale in California. DPR is also responsible for the scientific evaluation and registration of pesticide products including Copper AFPs and is responsible for conducting assessments of human and environmental impacts related to product use. Local agency regulation of pesticides is generally prohibited. As such, given that Copper AFPs are DPR-register products and legal to use throughout California, the tools available to local agencies to successfully address impacts from Copper AFPs are extremely limited.

The 2018 DPR Rule requiring a of 9.5 µg/cm<sup>2</sup>/day maximum leach rate for Copper AFPs was an effort to regulate leaching at the state level. However, data collected in 2019 in Shelter Island Yacht Basin suggests that the paints may not be working as intended. While 2019 vessel paint data indicated the use of Category 1 low leach Copper AFPs had increased by 20% from 2018, the dissolved copper levels in the water quality had also notably increased from previous years. In addition, anecdotal evidence provided by hull cleaners and boaters during recent 2019 stakeholder engagement events suggested that the new Category 1 Copper AFPs require more frequent in-water hull cleaning. As such, it is unclear whether the changes to the leach rates have served to improve water quality in impaired areas.

- d. **In-Water Hull Cleaning of Copper AFPs occurs in all California marinas and has been shown to release dissolved copper into the water statewide.** Currently there is no State- or Regional Board NPDES program, permit, or Waste Discharge Requirements regulating the in-water hull cleaning industry. Studies performed by the DPR and by the Port have shown that the act of in-water hull cleaning releases high levels of dissolved copper into the water immediately during a cleaning event and for an extended period following a cleaning event. Given that the activity occurs within the water, the use of Best Management Practices to capture or control the copper discharge is limited in its effectiveness. These studies serve to suggest that any time cleaning is occurring in the water (regardless of whether the water is impaired), the activity is creating a direct pollution discharge into the water. As such, it is critical that the State use its authority to address the in-water hull cleaning industry and its pollution discharges.
  - e. **The State Board should pursue regulatory mechanisms directed to the specific industry, activity, or discharger(s) causing or contributing a discharge of pollution.** Parties identified in TMDLs that contribute to the loading of dissolved copper into the water should be regulated in a uniform manner under statewide standards. The in-water hull cleaning industry should be considered in such regulations, as hull cleaning has been determined to be a greater source of loading than originally estimated.
2. **Timelines for TMDL Compliance should be re-evaluated in light of the DPR Rule and recent findings related to the water quality impacts from in-water hull cleaning.**

The impacts of a wholesale conversion of boats to the DPR Category 1 Copper AFPs and the effects of in-water hull cleaning and discharges from these paints

has not yet been fully determined. Moreover, it is unclear what impact the aforementioned actions will have on water quality across the state. TMDL Compliance goals are likely affected by both factors.

- a. The San Diego Regional Board's assessment of compliance towards the SIYB TMDL should be adjusted and aligned with statewide actions to address leaching from legally available Copper AFPs and implementation of state regulations on in-water hull cleaning.**
- b. The ability of the Regional Boards 4, 8 and 9 to meet their stated 2020-2025 dissolved copper loading reduction goals is unlikely while there are still legally available products being used that leach dissolved copper into the water.**

The robust water quality and vessel paint tracking data from the Port's SIYB TMDL monitoring has allowed the Port to evaluate how the aforementioned efforts to date have translated to direct loading reductions and water quality. As previously mentioned, despite an increase in the use of the DPR Rule low leach (i.e. legally available) paints by boaters, dissolved copper concentrations increased in SIYB in 2019.

While several factors may be contributing to this, anecdotal evidence voiced to the Port during Fall 2019 stakeholder outreach events indicated that the DPR Rule low leach paints require more frequent hull cleaning, which is an activity known to contribute to the loading of dissolved copper into the water. As such, a better understanding of the effects of the new paints and the role of in-water hull cleaning on the new low leach Copper AFPs is needed.

Additionally, outreach efforts aimed at encouraging the use of non-copper alternatives (including green boater expos, hull paint transition grants, public engagement sessions and a paint use brochure) have been met with only a small fraction of boaters voluntarily changing their paint use behavior, likely because Copper AFPs are still legal to use and are the boat yards' preferred paint of choice.

Therefore, as data from SIYB TMDL Monitoring suggests, so long as Copper AFPs remain legally available statewide, most boaters will continue to use these products. Without modifying paint availability at the state level or regulating the pollution from the in-water hull cleaning industry, achieving desired loading reductions and water quality standards may not be attainable, especially within the TMDL timelines that exist today.

**Section G: Coastal – Sediment-related Impairments**

The Port respectfully submits the following comments regarding legacy contamination and the resulting impairment to the critical beneficial uses of San Diego Bay and its surrounding tidelands.

**1. The Port requests urgent action to restore beneficial uses impaired by legacy contamination in San Diego Bay.**

Polychlorinated biphenyls (PCBs) manufactured by Monsanto and mercury remain prevalent in San Diego Bay sediment and fish tissues at levels that pose a threat to human health, especially in sensitive populations. This contamination remains prevalent even though PCBs have been banned for decades and the use of mercury in industrial operations has become highly regulated. This contamination also persists despite the significant cleanup efforts undertaken by the Port, Regional Board, and other parties. Though progress has been made, contaminants remain at unacceptably high levels. Additional regulatory actions such as investigative orders and clean-up orders are necessary. To be effective, regulatory actions must account for the migration and recirculation of legacy contaminants with the overarching goal of restoring fish and shellfish consumption beneficial uses.

**2. Efforts to reduce legacy contaminants in San Diego Bay should utilize an understanding of fish feeding, habitat, and migration patterns.**

The Port strongly supports the use of sound science and advancements in scientific technologies and modeling. To address the impacts of legacy contamination on the key beneficial use of fish and shellfish consumption, a solid understanding of habitat, home ranges and migration patterns may be informative. To truly protect and restore the fish and shellfish consumption uses in the Bay, areas having elevated levels of pollutants known to accumulate in fish tissue such as PCBs should be prioritized and remediated in a manner that will result in meaningful, holistic improvement.

**3. The Port supports the San Diego Regional Board's unified monitoring approach.**

The San Diego Regional Board has been organizing quarterly meetings with San Diego Bay stakeholders to understand bay monitoring efforts and data. A unified approach will improve monitoring programs and data generated from various parties. Additionally, such an approach will improve the bay-wide understanding of conditions and stressors that ultimately shape investigations and cleanup orders to best protect and restore bay ecosystems. The Port has participated in several unified monitoring meetings and intends to continue its collaboration and participation in this process. Developing a unified monitoring approach should



Mr. Michael Hanks

Comment Letter re: 2020-2025 Nonpoint Source Program Implementation Plan

July 30, 2020

Page 7 of 7

provide the best data to track long-term progress. The unified approach should also help parties implement individual programs and align permit monitoring with bay improvements. The Port looks forward to working with the San Diego Regional Board staff on developing this framework and engaging the public.

### **Section O: Transboundary Impacts**

- 1. Efforts to reduce or eliminate transboundary sewage flows from Mexico should be coordinated amongst local state and federal agencies for maximum responsiveness.**

The Port supports San Diego Regional Board's efforts to reduce or eliminate transboundary sewage flows from Mexico; reduce discharges of sewage, industrial waste and trash discharges to the Tijuana River, Estuary and Shoreline. Further comments from the Port are included in a joint letter submitted with the City of Imperial Beach that are specific to this section of the Plan.

In summary, the Port shares your vision for clean water that supports safe recreational uses and healthy ecosystems. It is part of our mission and we will keep working toward that goal. The Port supports the State Board, Regional Boards and Co-Lead agencies in their strategic planning efforts aimed at protecting water quality throughout the state of California. The Port will continue implementing and encouraging practices that reduce nonpoint source pollution in and around San Diego Bay in effort to improve water and sediment quality. The Port will also continue to work with regulators to improve the waters, sediments, and resources within the bay and throughout the state.

Thank you for taking these comments into consideration. Please contact Kelly Tait, Program Manager at [ktait@portofsandiego.org](mailto:ktait@portofsandiego.org) or (619) 348-1690 with any questions.

Sincerely,



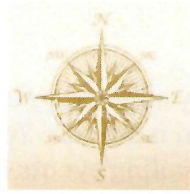
Karen Holman  
Director  
Environmental Protection  
Port of San Diego

KH;aa

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**LETTER FROM SIMLG REGARDING  
2020 ACUTE TOXICITY TEST RESULTS**

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SHELTER ISLAND MASTER  
LEASEHOLDERS GROUP

November 25, 2020

Ms. Karen Holman  
Port of San Diego  
3165 Pacific Highway  
San Diego, California 92101

Dear Ms. Holman:

We request that the Port take measures to assure the public that the waters of Shelter Island are safe for recreational contact.

We have become aware the waters of San Diego Bay have shown toxic responses to native fish and feel that our tenants or members are entitled to know if waters are safe. The results were emailed by Port Staff to parties this month. This letter is meant to convey the deep concern universally held by representative marinas and yacht clubs.

Whole Effluent Testing (WET), part of a Port Report on TMDL Water Quality Monitoring, was conducted on samples collected from Shelter Island waters on August 20, 2020: acute toxicity was found in nearly all collected samples.

WET testing examines the general condition of the water; the indicated condition is not attributable to elevated copper levels in the parts per billion but may instead indicate a broader and potentially more severe problem. WET testing is the only method for assessing the toxic interaction of all pollutants in receiving waters.

Specifically, we ask the Port to act on one of the two options listed:

1. We ask for clear communication of the finding that the waters are safe for contact, should the Port feel that testing results were anomalous, and a resampling and retesting event be urgently scheduled for confirmation.
2. Alternatively we ask that the Port identify the source of toxicity through outlined methods designed for that purpose such as a Toxicity Identification Evaluation.

In response to the WET test finding, an invalid retest of samples was undertaken. This action is an inadequate response because it fails to meet method requirements for sample holding time. Holding times exist to insure integrity in the quality of the sample.

We feel that public health is potentially affected by a nascent condition that cannot be discovered by commonly performed methods. You are probably aware that scores of children participate in daily sailing events in the basin make contact with the water; it is assumed that this water is safe for that purpose unless contrary information is supplied.

Having knowledge of the results, we feel obligated given potential safety issue to communicate this condition with our members and lessees. We hope that similar communication is made to users of the bay who may be unaware of the condition.

We are available for discussion on this issue and hope that the Port sees urgency in the purpose of the effort. We are also available should the Port need any assistance in resampling.

Regards,

A handwritten signature in black ink, appearing to be 'Joe Ravitch', with a long horizontal flourish extending to the right.

Joe Ravitch  
2020 SIMLG Chairman

cc: Kelly Tait  
John Carter  
Karen Holman  
Jack Leer  
Gary Jorgenson  
Tom Neilsen  
Ty Olson  
Debbie Kahler  
Brad Oliver  
Lisa Clements  
Alli Bell  
John Adriany  
John Laun  
Sharon Cloward  
Dan Malcolm

## **PORT RESPONSE LETTER TO SIMLG REGARDING 2020 ACUTE TOXICITY TEST RESULTS**

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December 4, 2020

Mr. Joe Ravitch, 2020 SIMLG Chairman  
c/o Shelter Island Marina  
2071 Shelter Island Dr  
San Diego, CA 92106

Dear Mr. Ravitch,

The Port of San Diego (Port) is in receipt of your November 25, 2020 letter on behalf of the Shelter Island Master Leaseholder Group (SIMLG) representative marinas and yacht clubs which expresses concern regarding the toxicity results from the 2020 SIYB Dissolved Copper TMDL Annual Water Quality Monitoring Event (2020 Monitoring Event). Your letter summarized the SIMLG's interpretation of the 2020 Monitoring Event's toxicity results, outlined the group's concerns stemming from the results, and requested actions be taken by the Port to address those concerns.

As an environmental champion, the Port remains committed to protecting water quality and beneficial uses in SIYB and San Diego Bay. In response to the SIMLG letter, the Port of San Diego is taking the following actions:

1. The Port has requested that the consultant responsible for the 2020 Monitoring Event, Wood Environmental, provide a written response to the issues the SIMLG raised in its November 25 letter. The Port requested that this response discuss how the results were interpreted by toxicity laboratory professionals. The Port would be happy to provide you with a copy of this letter.
2. The Port will contact the Regional Water Quality Control Board and the County Department of Environmental Health to address the concerns raised in your letter, especially regarding recreational water contact. The Port will provide your November 25, 2020 letter to those agencies and request that they respond as they deem appropriate. The Port will forward information provided by the Regional Water Quality Control Board and the County Department of Environmental Health to the SIMLG.
3. The Port will add a discussion of the 2020 toxicity results to the Port Marina Working Group December 9, 2020 Meeting Agenda and ensure time is allocated at that meeting for further discussion of this important issue.

The Port appreciates the continued engagement with the SIMLG on the SIYB Dissolved Copper TMDL and protecting the water quality in SIYB. Please understand that while the Port is committed to continuing to work collaboratively with the SIMLG on these issues, as the long-term leaseholders, day-to-day users, and operators of SIYB, the Port also expects the SIMLG to ensure that all lease areas are maintained and operated in a good, safe, healthy, and sanitary condition, in a manner that does not cause or contribute to

Mr. Joe Ravitch

RE November 2020 Response to SIMLG Toxicity

December 4, 2020

Page 2 of 2

pollution or toxicity, and in accordance with lease agreements and all applicable laws and regulations.

The Port looks forward to further discussions at the December 9, 2020 Port Marina Working Group.

Sincerely,

*Karen Holman*

Karen Holman

Director, Environmental Protection

Attachment: SIMLG Letter regarding Toxicity 11-25-20

KH;aa

CC: Jason Giffen  
John Carter  
Kelly Tait  
Dan Malcolm  
Jack Leer  
John Laun  
John Adrian  
Sharon Cloward  
Shelley Griffin  
Hugh Hedin  
Adam Veves  
Steve Pinard

## **WOOD RESPONSE LETTER TO PORT REGARDING 2020 ACUTE TOXICITY TEST RESULTS**

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Wood Environment & Infrastructure Solutions, Inc.  
9210 Sky Park Court, Suite 200  
San Diego, CA 92123  
T: 858-300-4300  
[www.woodplc.com](http://www.woodplc.com)

December 8, 2020

Ms. Karen Holman  
Port of San Diego  
3165 Pacific Highway  
San Diego, CA 92101

**Subject: 2020 SIYB Dissolved Copper TMDL Topsmelt Test Results**

Dear Ms. Holman:

Wood Environment & Infrastructure Solutions, Inc. (Wood) is submitting this letter to provide supplemental information to address issues regarding the 2020 Shelter Island Yacht Basin (SIYB) Dissolved Copper Total Maximum Daily Load (TMDL) topsmelt toxicity testing contained in a letter provided to the Port of San Diego (Port) by the Shelter Island Master Leaseholders Group (SIMLG) dated November 25, 2020. The information presented below supplements what was previously provided to SIMLG in the toxicity report that Wood forwarded to the Port on November 16, 2020 (Wood, 2020a).

The letter provided to the Port by SIMLG stated that, "We have become aware the waters of San Diego Bay have shown toxic responses to native fish and feel that our tenants or members are entitled to know if waters are safe." However, the principal finding presented in Wood's toxicity report with regard to the topsmelt testing was that the preponderance of laboratory test data indicated that there was no toxicity observed in any of the samples tested. While it is true that we observed an effect in the test organisms, thorough review of the test results indicate that this effect was due to organism health<sup>1</sup> as opposed to ambient toxicity in SIYB surface waters or the reference site in San Diego Bay.

In general, aquatic toxicologists have numerous evaluation criteria that they use when determining whether an "effect" observed in laboratory tests is truly due to a toxic agent in the water column (e.g., a chemical or biological toxin), or if the effect may be due to some confounding non-toxicity-related factor, and whether these criteria suggest that recollection and retesting is warranted.

For the annual 2020 SIYB Dissolved Copper TMDL Monitoring Program, the acute topsmelt test was performed twice: 1) the first test was initiated the day following sample collection, and 2) a

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<sup>1</sup> Please see page 8 of 10 of the 2020 SIYB Dissolved Copper TMDL toxicity report prepared by Wood Aquatic Toxicology Laboratory, which states, "The variable survival results are believed to be due to an unhealthy batch of fish used for the testing" (Wood, 2020a). The Quality Assurance section of the report provides additional information regarding organism health and test result interpretation.



follow-up test was initiated one week later. The first test was initiated within the standard test method holding time of 36 hours. The follow-up test was conducted outside this recommended holding time.

Based upon the combined findings of both testing events, Wood Aquatic Toxicologists concluded that there was no ambient acute toxicity in the surface water samples tested from SIYB or the reference site located in San Diego Bay. We recognize that the topsmelt test conducted in 2020 yielded less than definitive results; however, based upon our overall assessment of the data, including initial and follow-up testing, Wood is confident in the conclusion we made. The following observations provide additional details on how Wood Aquatic Toxicologists arrived at this conclusion:

1. In reviewing the study results, it was clear that there was no consistent dose-response relationship observed in the samples during the initial topsmelt test. In other words, survival of topsmelt did not decrease with increasing sample concentration. Rather, mean survival was relatively consistent across sample concentrations from all sites, ranging from 73.3 to 83.3%. This type of flat dose response curve would not be expected if a toxicant was responsible for the observed effect.<sup>2</sup>
2. During the initial topsmelt test, two of the four laboratory controls had a mean survival of 80% (which did not meet test acceptability criteria of 90%), while two had a mean survival of 90% (which did meet test acceptability criteria of 90%).<sup>3</sup> This finding indicates that the issue with organism health was observed in two sets of controls, in addition to the SIYB and reference water samples.

The laboratory control water used by Wood for this study is natural seawater collected from Scripps Institution of Oceanography (SIO). The laboratory control water is sand-filtered at SIO and recirculated continuously through a 20-micron filter at the Wood Aquatic Toxicology Laboratory providing a consistent high-quality water for testing. The lowest survival in the undiluted SIYB samples from SIYB was 76.7%, only 3.3% less than that in the two laboratory controls with 80% survival, and not significantly different. To be conservative, the higher 90% survival control results meeting test acceptability criteria were used for statistical and Test of Significant Toxicity (TST) pass/fail comparisons for all SIYB samples in the toxicity report. While the individual control results were described in

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<sup>2</sup> Please see the acute testing manual *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (USEPA, 2002) page 112 for additional discussion on the dose-response relationship in whole effluent toxicity (WET) tests. As stated in the guidance manual, "Use of this [dose-response relationship] concept can be helpful in determining whether an effluent possesses toxicity and in identifying anomalous test results." The dose-response relationship observed in this study clearly indicates the topsmelt results to be anomalous, rather than due to toxicity.

<sup>3</sup> Please see page 8 of 10 the 2020 SIYB Dissolved Copper TMDL toxicity report prepared by Wood Aquatic Toxicology Laboratory, which states, "For the initial acute topsmelt test, there were four sets of Lab Controls conducted. However, only two of the Lab Controls met the TAC of 90% or greater survival. These two valid controls, which achieved 90% survival, were used for all data analyses and comparisons. The other two controls only achieved 80% survival" (Wood, 2020a).



the toxicity report, the results summary table (Table 5 of Wood's toxicity report [Wood, 2020a]) only presented the 90% passing controls used for statistical comparisons. A revised table with control survival associated with each site during the initial topsmelt test has been provided for added reference in Table 1, below.

**Table 1. 2020 SIYB Dissolved Copper TMDL Initial Acute Topsmelt Results Summary**

Test Concentration (% Sample)	Sample ID / Mean Survival (%)						
	SIYB-1	SIYB-2	SIYB-3	SIYB-4	SIYB-5	SIYB-6	SIYB-REF-1
Lab Control	90.0	80.0	80.0	90.0	90.0	80.0	80.0
25	76.7	76.7	76.7	83.3	73.3	73.3	73.3
50	80.0	76.7	76.7	76.7	73.3	76.7	73.3
100	76.7	80.0	76.7	76.7	76.7	76.7	76.7
NOEC	50	100	100	100	100	100	100
% Effect	14.8	0.0	4.2	14.8	14.8	4.2	4.2
TST Result	Pass	Pass	Pass	Fail	Pass	Pass	Pass

Notes:

% Effect = the percent effect in the 100% sample compared to the Lab Control. A negative value indicates a positive effect.

NOEC = no observed effect concentration

TST = Test of Significant Toxicity (Pass/Fail)

- The reduction in survival across sample concentrations from all sites in SIYB and the reference site in San Diego Bay, as well as in two of the four controls, indicates that the batch of fish used to initiate the initial topsmelt test was suboptimal. Therefore, based upon Wood's review of the study findings, the reduced and variable survival observed was not a toxic response, but rather attributable to overall organism health.<sup>4</sup>
- Topsmelt larvae used by Wood's testing laboratory are obtained from Aquatic BioSystems, Inc. and shipped from their culturing facility in Colorado to San Diego. Aquatic BioSystems is the only supplier of topsmelt for toxicity testing in the United States. For the 2020 monitoring event, mortality of fish on arrival and during acclimation at the Wood Aquatic Toxicology Laboratory was slightly greater than desired, but not enough (in the opinion of the laboratory manager) to delay the 2020 SIYB Dissolved Copper TMDL testing. Consequently, the topsmelt test proceeded as planned.
- After observing the obvious reduction in topsmelt survival in all test samples and the controls, Wood conducted an evaluation to determine what could have led to this issue. Upon further review, it was noted that the receipt temperature for the batch of topsmelt

<sup>4</sup> In addition, while the reference toxicant test LC<sub>50</sub> was within the acceptable range, it was at the low end of the acceptable range. Please see pages 9 and 10 of the 2020 SIYB Dissolved Copper TMDL toxicity report prepared by Wood Aquatic Toxicology Laboratory (Wood, 2020a).



used for the initial testing (23–24°C) was elevated compared to a typical receipt temperature goal of 20°C or less. The timing of this shipment from the culture facility in Colorado to San Diego coincided with a record heat wave in the southwest, which likely had an impact on the quality of fish.

6. To supplement our initial study data, Wood performed a follow-up test on the undiluted (100% concentration) samples using a different batch of topsmelt that were originally for another project that was cancelled. (Due to the limited number of fish available, follow-up tests were only conducted for the control and 100% sample concentration.) The topsmelt used for the follow-up test appeared much healthier based on visual observations including their active movement, vibrant appearance, rapid response to feeding, and fewer mortalities during holding and acclimation. The follow-up test passed all control test acceptability criteria and showed no statistically significant toxic responses. A similar topsmelt batch-related issue was encountered during the 2019 SIYB Dissolved Copper TMDL Monitoring Program.<sup>5</sup> For the 2020 Monitoring Program, Wood followed the same general approach that was employed in 2019 and described in the 2019 SIYB Dissolved Copper TMDL Monitoring and Progress Report (Wood, 2020b).

The follow-up test was performed 7 days post-sample collection, which exceeds the United States Environmental Protection Agency (USEPA) holding time requirement of <36 hours (72-hours maximum). Consequently, the results of the follow-up testing are considered qualified but also supportive of our conclusion that toxicity was also not present in the initial test. While it is understood that the recommended holding time of 36 hours was exceeded for the follow-up test, samples were held at 4°C in enclosed containers with no headspace during that time, as required by USEPA (2002). Because no apparent toxicity was observed in the initial test, conducting the follow-up test after 7 days was determined not to be an issue.

In summary, the results of both the initial and follow-up topsmelt tests provide no clear evidence of a toxic response in the SIYB, reference, or control waters. Rather, the observed across-the-board reduction in fish survival of approximately 20-25% (regardless of test site) in the initial test indicates that there was an issue with this specific batch of topsmelt. The follow-up test using a different batch of fish showed no toxic response.

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<sup>5</sup> Please note that the topsmelt batch-related issues observed in 2020 were also observed in the 2019 SIYB Dissolved Copper TMDL investigation. The 2019 toxicity report, prepared by Nautilus Environmental, stated, “none of the lab controls met TAC [test acceptability criteria] for the first topsmelt acute survival test that was initiated on 8/19/19...Additionally, within concentration variability was observed throughout the test... This suggests that the batch of topsmelt used for testing was not of optimal quality. The fish were received at the lab by overnight shipment on 8/17/19 and acclimated to lab conditions for two days prior to testing. Water quality parameters measured upon receipt were within appropriate ranges and mortality during holding and acclimation was 11.6 percent, which is typical (if not low) for this species. There was no indication at the time of testing that the fish were unhealthy. However, occasional issues with poor topsmelt batch performance can occur, as there is only one culturing facility in the U.S. that supplies larval topsmelt for bioassays. The samples were re-tested on 8/22/19 with a different batch of fish that were received on 8/20/19, intended for a different test that was cancelled” (Nautilus Environmental, 2019).

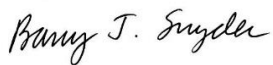




Wood's lead toxicologists all have over 25 years of experience running compliance toxicity tests with topsmelt and have confidence our conclusions are well-supported based upon the study-specific results. When presented with confounding results as observed in this study, Wood relies on multiple lines of scientific review and professional judgment to evaluate test results and draw conclusions regarding potential ecological effects. Based upon the project-specific observations listed above, Wood Aquatic Toxicologists concluded that the study findings indicated no ambient acute toxicity to topsmelt in the surface water samples tested<sup>6</sup>, and that the effect observed in the initial test was anomalous and can be attributed to the health of the batch of fish.

I hope this information is sufficient to address all concerns regarding the topsmelt tests conducted as part of the 2020 SIYB Dissolved Copper TMDL Monitoring Program. Please let me know if you need any additional information or clarification.

Sincerely,



Barry J. Snyder  
2020 SIYB Dissolved Copper TMDL Project Manager  
Wood Environment & Infrastructure Solutions, Inc.  
Tel: 858-300-4320  
[barry.snyder@woodplc.com](mailto:barry.snyder@woodplc.com)

cc: Chris Stransky  
2020 SIYB Dissolved Copper TMDL Toxicology Quality Assurance Officer  
Wood Environment & Infrastructure Solutions, Inc.

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<sup>6</sup> If ambient acute toxicity had been observed in 2020, the next step would have been to alert the Port of the finding and, depending upon the magnitude of the toxicity observed, initiate the planning for a Toxicity Identification Evaluation (TIE). This occurred during the 2019 Monitoring Program when a significant effect was observed in the SIYB-4 sample. Based upon this 2019 finding, Wood developed a TIE plan and recollected a sample at SIYB-4. The topsmelt test conducted on the recollected sample showed that the toxicity observed in the initial sample was no longer present, so no additional testing or evaluation was necessary.



## References

Nautilus Environmental. 2019. Toxicity Testing Results for the Shelter Island Yacht Basin Total Maximum Daily Load Monitoring Plan – Monitoring Period: August/September 2019. October.

United States Environmental Protection Agency (USEPA). 2002. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition. EPA-821-R-02-012. October.

Wood Environment & Infrastructure Solutions, Inc. (Wood) Aquatic Toxicology Laboratory. 2020a. Results of Toxicity Testing for Shelter Island Yacht Basin Total Maximum Daily Load Monitoring – Sample Collection: August 20, 2020. October.

Wood. 2020b. 2019 Shelter Island Yacht Basin Dissolved Copper Total Maximum Daily Load Monitoring and Progress Report. March.



## **STATE WATER BOARD RESOLUTION NO. 2005-0071**

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**STATE WATER BOARD  
RESOLUTION NO. 2005-0071**

**APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE  
SAN DIEGO REGION TO ESTABLISH A TOTAL MAXIMUM DAILY LOAD (TMDL) FOR  
DISSOLVED COPPER IN SHELTER ISLAND YACHT BASIN**

**WHEREAS:**

1. The San Diego Regional Water Quality Control Board (San Diego Water Board) adopted a revised Water Quality Control Plan for the San Diego Region (Basin Plan) on September 8, 1994. The adopted Basin Plan was approved by the State Water Resources Control Board (State Water Board) on December 13, 1994 and by the Office of Administrative Law (OAL) on April 26, 1995.
2. On February 9, 2005, the San Diego Water Board adopted Resolution No. R9-2005-0019 (Attachment) amending the Basin Plan to establish a TMDL for dissolved copper in Shelter Island Yacht Basin.
3. San Diego Water Board staff prepared documents and followed procedures satisfying environmental documentation requirements in accordance with the California Environmental Quality Act and other State laws and regulations.
4. San Diego Water Board found that the additions of this amendment would result in no adverse effect on wildlife, and the amendment would be consistent with the State Antidegradation Policy (State Water Board Resolution No. 68-16) and federal antidegradation requirements.
5. The State Water Board finds that the Basin Plan amendment is in conformance with Water Code section 13240, which specifies that Regional Water Boards may revise Basin Plans, and section 13242, which requires a program of implementation of water quality objectives. The State Water Board also finds that the TMDL as reflected in the Basin Plan amendment is consistent with the requirements of federal Clean Water Act section 303(d).
6. State Water Board staff determined that provisions of the amendment as adopted warranted minor, non-substantive clarification of the language of various provisions.
7. If and when additional water bodies are listed on the 303(d) list due to copper from the use of antifouling paint on boat hulls, the State Water Board expects similar requirements will be imposed upon all such water bodies to the extent similar conditions exist.
8. The State Water Board finds, in view of increasing impairment of coastal marinas from copper-based antifouling paints, that there is a need for statewide consistency in regulation.

9. A Basin Plan amendment does not become effective until approved by the State Water Board and until the regulatory provisions are approved by OAL. The TMDL must also be approved by the U.S. Environmental Protection Agency (USEPA).

**THEREFORE BE IT RESOLVED THAT:**

The State Water Board:

1. Approves the amendment to the Basin Plan to establish a TMDL for dissolved copper in Shelter Island Yacht Basin as adopted in San Diego Water Board Resolution No. R9-2005-0019 and as corrected by the San Diego Water Board Executive Officer.
2. Authorizes the Executive Director to transmit the amendment and administrative record for this action to OAL and the TMDL to USEPA for approval.
3. The State Water Board recognizes that the Department of Pesticide Regulation (DPR) has committed resources to address this issue, including initiating regulatory measures to address copper-based antifouling paints. The State Water Board encourages DPR to expeditiously pursue the appropriate scientific and regulatory avenues to address water quality concerns associated with copper-based antifouling paints. If after two years DPR or USEPA have not taken action to adequately address the impacts of copper-based antifouling paints on water quality, the San Diego Water Board, in conjunction with the State Water Board, shall work with all coastal Regional Water Boards to develop a state policy for water quality control to address water quality impairments in coastal marinas from copper-based antifouling paints.

**CERTIFICATION**

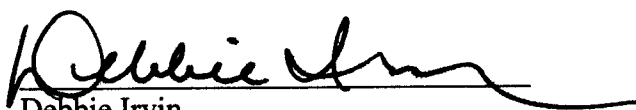
The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on September 22, 2005.

AYE: Tam M. Doduc  
Peter S. Silva  
Arthur G. Baggett, Jr.  
Richard Katz  
Gerald D. Secundy

NO: None.

ABSENT: None.

ABSTAIN: None.

  
Debbie Irvin  
Clerk to the Board