# CONTRACT NO. STW 01/2021

# ENVIRONMENTAL TEAM FOR RELOCATION OF SHA TIN SEWAGE TREATMENT WORKS TO CAVERNS

# UNDER ENVIRONMENTAL PERMIT NO. EP-533/2017

# MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

# JANUARY 2022

**CLIENTS:**

**Drainage Services Department**

**PREPARED BY:**

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**CERTIFIED BY:**

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**DATE:**

10 February 2022

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Date: 14 February 2022
Your Ref.:
Our Ref.: PL-202202012

AECOM Asia Limited
c/o Site Office
21 Hang Tai Road,
Ma On Shan, N.T.

**Attn: Mr. Simon Leung, CRE**

Dear Mr. Leung,

**Contract No. DC/2018/05 & DC/2020/05**
**Relocation of Sha Tin Sewage Treatment Works to Cavern – Site Preparation and Access Tunnel Construction**
**Verification of Monthly EM&A Report (January 2022)**

Reference is made to the Monthly EM&A Report (January 2022) provided by the Environmental Team on 11 February 2022.

Please be informed that we have no adverse comments on the captioned submission. We hereby verify the report in accordance with Condition 1.9 of the Environmental Permit No. EP-533/2017.

Thank you for your attention.

Yours sincerely,
For and on behalf of
Acuity Sustainability Consulting Limited

Dr. C.F. Ng
Independent Environmental Checker

| | | | |
|---|---|---|---|
| cc. | Drainage Services Department | Attn.: Mr. Stanley Hung | By e-mail |
| | Lam Environmental Services Limited | Attn.: Mr. Derek Lo | By e-mail |
| | China State Joint Venture | Attn.: Mr. F. M. Chung | By e-mail |

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***EXECUTIVE SUMMARY***

i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report – January 2022 of Relocation of Sha Tin Sewage Treatment Works to Caverns – Site Preparation and Access Tunnel Construction under Environmental Permit no. EP-533/2017 (Hereafter as "the Project"). This is the 35th EM&A report presenting the environmental monitoring findings and information recorded during the period of 1 January 2022 to 31 January 2022. The cut-off date of reporting is at the end of each reporting month.

ii. In the reporting month, the principal work activities of individual contracts are included as follow:

Contract no. DC/2018/05 - Relocation of Sha Tin Sewage Treatment Works to Caverns – Site Preparation and Access Tunnel Construction

- Retaining wall construction
- Road construction
- Drainage works
- Watermain installation
- Tunnelling works
- Slope stabilization works
- Landscape works
- Tree felling works

Contract no. DC/2020/05 - Relocation of Sha Tin Sewage Treatment Works to Caverns – Main Caverns Construction

- The contact was commenced on 5 July 2021
- Hoarding erection
- Tree transplant and felling works
- Site clearance
- Blast door erection
- Site formation works at ventilation shaft
- Construction of temporary drainage system
- Haul road construction
- Slope stabilization works
- Construction of temporary explosive magazine
- Tunneling works

Air Quality Monitoring

iii. 1-hour Total Suspended Particulates (TSP) monitoring would be conducted at six monitoring stations. The sampling frequency is 3 times in every 6 days.

iv. Air quality monitoring for the stations AM1 and AM2 were commenced on 12 April 2019 while station AM5 was commenced on 18 April 2019. Air quality monitoring for the station AM4 was commenced on 3 May 2019. The proposal for proposed fine adjustment for air and noise monitoring station at Kowloon City Baptist Church Hay Nien Primary School was agreed by EPD on 17 December 2020, therefore, air quality monitoring for the station AM3(B) was commenced on 18 December 2020. Air quality monitoring for the station AM6 was commenced on 2 November 2021 since the demolition of DSD staff quarter and ended on 31 December 2021.

No action or limit level exceedance was determined in the reporting period for the stations of AM1, AM2, AM3(B), AM4 and AM5.

Noise Monitoring

v. Noise monitoring would be conducted at eight noise monitoring stations once per week.

vi. Noise monitoring for stations CM4 and CM5 were commenced on 13 April 2019 and 18 April 2019 respectively. Noise monitoring for stations CM1 and CM3 were commenced on 2 May 2019. The proposal for proposed fine adjustment for air and noise monitoring station at Kowloon City Baptist Church Hay Nien Primary School was agreed by EPD on 17 December 2020, therefore, noise monitoring for station CM2(B) was commenced on 18 December 2020. Noise monitoring for stations DM1, DM2 and DM3 were commenced on 2 November 2021 and ended on 31 December 2021.

vii. Additional weekly noise monitoring from 19:00 to 23:00 was carried out at CM4 on 4, 14, 19, and 26 January 2022 with respect to the restricted hour works under GW-RN0824-21and GW-RN0044-22. All the results are within the baseline level range after baseline correction.

viii. Additional weekly night time noise monitoring from 23:00 to 07:00 on next day was carried out at CM4 on 5, 15, 20 and 27 January 2022 with respect to the restricted hour works under CNP GW-RN0824-21and GW-RN0044-22. All the results are within the baseline level range after baseline correction.

ix. No action or limit level exceedance was determined in the reporting period for the stations of CM1, CM2(B), CM3, CM4 and CM5.

Water Quality Monitoring

x. Inspection of THEES tunnel was conducted from 30 November 2021 to 1 December 2021, during the inspection of the THEES tunnel, temporary suspension of the normal THEES operation with effluent bypass into the Tolo Harbour to provide a safe and dry zone within the THEES tunnel for the necessary inspection / maintenance works. Marine water quality

monitoring programme is recommended for the THEES tunnel suspension of this Project to confirm the water quality impact of the THEES maintenance discharge. The marine water quality impact monitoring was conducted from 30 November 2021 to 31 December 2021 at a frequency of 3 times per week.

xi. Total 16 monitoring stations, i.e. 15 impact stations and 1 control station, are listed in Table 4.7 below. They are at at the WSD flushing water intakes at Sha Tin (W1) and Tai Po (W2), cooling water intake at Chinese University of Hong Kong (CUHK) Marine Science Laboratory (C1), Yim Tin Tsai Fish Culture Zone (FCZ) (F1), Yim Tin Tsai East) FCZ (F2), Yung Shue Au FCZ and Important Nursery Area for Commercial Fisheries Resources at Three Fathoms Cove (F3), Lo Fu Wat FCZ (F4), Potential Subzone of Yim Tin Tsai FCZ/ Gradient Station (G1), corals at Tai Po Industrial Estate (CR1), Science Park (CR15), Sha Tin Hoi North (CR16) and Sha Tin Hoi South (CR17), Gradient Station (G1*), Pak Sha Tau Corals (C1*) and Tai Po Lung Mei Beach (TPLMB) ), and finally CR9 as control station, are shown ***Figure 4.3*** to represent the marine water sensitive receivers, which are likely affected by the Project during the THEES maintenance or emergency discharge.

xii. Based on the water quality monitoring results, the baseline water quality has been restored and the overall water quality in the Tolo Harbour was considered acceptable during the monitoring period. The results did not reveal any evidence showing that the overflow event from STSTW and TPSTW has caused any adverse marine water quality impact to the surrounding water body.

Site Inspections and Audit

xiii. The Environmental Team (ET) conducted weekly site inspections for the Contract on 05, 12, 19, and 27 January 2022. IEC attended the joint site inspection on 27 January 2022. No non-compliance was found during the site inspection. Bi-weekly landscape site audits were conducted on 4 and 18 January 2022. Monthly ecology site audits were conducted on 18 January 2022.

Complaints, Notifications of Summons and Successful Prosecutions

xiv. No environmental complaint was received in the reporting period.

xv. No notification of summons and successful prosecutions was received in the reporting month.

Reporting Changes

xvi. The Ecological Monitoring Report is attached in the ***Appendix 1.1***.

Future Key Issues

xvii. In coming reporting months, the scheduled construction activities and the recommended mitigation measures are listed as follows:

| Contract No. | Key Construction Works | Recommended Mitigation Measures |
|---|---|---|
| DC/2018/05 | • Retaining wall construction<br>• Road construction<br>• Drainage works<br>• Watermain installation<br>• Tunnelling works<br>• Slope stabilization works<br>• Landscape works<br>• Tree felling works | • Dust control during dust generating works;<br>• Implementation of proper noise pollution control;<br>• Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system.<br>• Direct impact to plant species of conservation importance recorded in the vicinity of the construction sites shall be avoided<br>• Excavation materials shall be well covered<br>• Mitigation measures to dust and noise control should be provided to construction of noise barrier, bored piling, Installation of noise barrier |
| DC/2020/05 | • Hoarding erection<br>• Tree transplant and felling works<br>• Site clearance<br>• Blast door erection<br>• Site formation works at ventilation shaft<br>• Construction of temporary drainage system<br>• Haul road construction<br>• Slope stabilization works<br>• Construction of temporary explosive magazine<br>• Tunneling works | • Dust control during dust generating works;<br>• Implementation of proper noise pollution control;<br>• Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system.<br>• Direct impact to plant species of conservation importance recorded in the vicinity of the construction sites shall be avoided<br>• Excavation materials shall be well covered<br>• Mitigation measures to dust and noise control should be provided to construction of noise barrier, bored piling, Installation of noise barrier |

# 1 Introduction

## 1.1 Scope of the Report

1.1.1. Lam Environmental Services Limited (LES) has been appointed to work as the Environmental Team (ET) under Environmental Permit (EP) no. EP-533/2017 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Relocation of Sha Tin Sewage Treatment Works to Caverns – Site Preparation and Access Tunnel Construction (Register No.: AEIAR-202/2016).

1.1.2. In accordance with Clause 3.5 stated in EP-533/2017, 4 hard copies and 3 electronic copies of the Monthly EM&A Report shall be submitted to the Director within 2 weeks after the end of each reporting month throughout the entire construction period.

1.1.3. In accordance with Section 13.4.1.1 of the Project EM&A Manual, the Monthly EM&A Report should be prepared and submitted to the Contractor, the IEC, the ER and EPD within 10 working days at the end of each reporting month, with the first report due the month after construction commences.

## 1.2 Structure of the Report

**Section 1** ***Introduction*** – details the scope and structure of the report.

**Section 2** ***Project Background*** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.

**Section 3** ***Status of Regulatory Compliance*** – summarizes the status of valid Environmental Permits / Licenses during the reporting period.

**Section 4** ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.

**Section 5** ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.

**Section 6** **Land Decontamination** – summarizes the status of land decontamination works at the VDC site.

**Section 7** **C*ompliance Audit*** – summarizes the auditing of monitoring results, all exceedances environmental parameters.

**Section 8** **Environmental Site Audit** – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.

**Section 9** ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution

**Section 10** ***Conclusion***

# 2 Project Background

## 2.1 Background

2.1.1. The Relocation of Sha Tin Sewage Treatment Works (STSTW) to Caverns (the Project) is implemented so as to release the existing site, of a size about 28 hectares, for other uses.

2.1.2. In May 2012, Drainage Services Department (DSD), the Project Proponent commenced a detailed feasibility study on "Relocation of Sha Tin Sewage Treatment Works to Caverns" (the Feasibility Study). The findings of Feasibility Study affirmed that relocating the STSTW to caverns to be constructed at Nui Po Shan of A Kung Kok is technically feasible and financially viable.

2.1.3. The Project is a Designated Project (DP) under the Environmental Impact Assessment Ordinance (EIAO). An application for an Environmental Impact Assessment (EIA) Study Brief under section 5(1)(a) of the EIAO was submitted on 12 May 2014 with a Project Profile (No. PP-508/2014) for the Project. An EIA Study Brief (No. ESB-273/2014) was issued in June 2014. An EIA for the Project was then undertaken, as part of the Assignment, in accordance with this EIA Study Brief and the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM). The location of the Project is shown ***Figure 2.1***.

## 2.2 Scope of the Project and Site Description

2.2.1. The Project covers the following DP elements as specified in Schedule 2 of the EIAO (Cap.499), ***Table 2.1*** summarises the DPs under this Project.

***Table 2.1 Schedule 2 Designated Projects under this Project***

| Item | Designated Project | EIAO Reference |
|---|---|---|
| DP1 | Sewage treatment works with an installed capacity of more than 15,000 m3 per day under Item F.1 | Schedule 2, Part I, |
| DP2 | Sewage treatment works under Item F.2<br>• With an installed capacity of more than 5,000 m3 per day; and<br>• A boundary of which is less than 200m from the nearest boundary of an existing or planned residential area, educational institution and health care institution. | Schedule 2 Part I |
| DP3 | An activity for the reuse of treated sewage effluent from a treatment plant under Item F.4 | Schedule 2 Part I |

| | | |
|---|---|---|
| DP4 | Underground rock caverns under Item Q.2 | Schedule 2 Part I |
| DP5 | An explosives depot in a stand-alone, purpose built building under Item K.10 | Schedule 2 Part I; |
| DP6 | Decommissioning of an explosives depot under Item 11 | Schedule 2 Part II |

## 2.3 Project Organization and Contact Personnel

2.3.1 Drainage Services Department is the overall project controllers for the Project. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.3.2 The proposed project organization and lines of communication with respect to environmental protection works are shown in ***Figure 2.2***. Key personnel and contact particulars is summarized in ***Table 2.2***:

***Table 2.2 Contact Details of Key Personnel***

| Party | Role | Post | Name | Contact No. | Contact Fax |
|---|---|---|---|---|---|
| AECOM | Engineer's Representative | Chief Resident Engineer | Mr. Leung Chi Man, Simon | 6393 8645 | 3914 5888 |
| China State Joint Venture (DC/2018/05) | Contractor | Site Agent | Mr. Kenny Poon | 9589 8156 | 2672 2501 |
| | | Environmental Officer | Ms. Yeung Ka Ching, Tiffany | 6761 8726 | |
| | | Environmental Supervisor | TSANG Chiu Fat | 9137 8733 | |
| | | | CHAN Chin Ming | 9128 9993 | |
| | | | IP Tat Hing | 9600 8900 | |
| China State – Alchmex Joint Venture (DC/2020/05) | Contractor | Site Agent | Mr. KONG Ming, Elvis | 9186 2081 | 2672 2501 |
| | | Environmental Officer | Mr. LAM Moon Lin | 9489 4641 | |
| | | Environmental Supervisor | TSANG Chiu Fat | 9137 8733 | |

| Party | Role | Post | Name | Contact No. | Contact Fax |
|---|---|---|---|---|---|
| Acuity Sustainability Consulting Limited | Independent Environmental Checker (IEC) | Independent Environmental Checker (IEC) | Dr. Ng Chung Fai | 2698 6833 | 2698 9383 |
| Lam Environmental Services Limited | Environmental Team (ET) | Environmental Team Leader (ETL) | Mr. Derek Lo | 2882 3939 | 2882 3331 |

## 2.4 Construction Activities

2.4.1 In the reporting month, the principal work activities of individual contracts are included as follow:

Contract no. DC/2018/05 - Relocation of Sha Tin Sewage Treatment Works to Caverns – Site Preparation and Access Tunnel Construction

- Retaining wall construction
- Road construction
- Drainage works
- Watermain installation
- Tunnelling works
- Slope stabilization works
- Landscape works

Contract no. DC/2020/05 - Relocation of Sha Tin Sewage Treatment Works to Caverns – Main Caverns Construction

- The contact was commenced on 5 July 2021
  - Hoarding erection
  - Tree transplant and felling works
  - Demolition of DSD staff quarter
  - Site clearance
  - Blast door erection
  - Site formation works at ventilation shaft
  - Construction of temporary drainage system
  - Haul road construction

2.4.2 In coming reporting months, the scheduled construction activities of individual contracts are listed as follows:

Contract no. DC/2018/05 - Relocation of Sha Tin Sewage Treatment Works to Caverns – Site Preparation and Access Tunnel Construction

- Retaining wall construction
- Road construction
- Drainage works
- Watermain installation
- Tunnelling works
- Slope stabilization works
- Landscape works
- Tree felling works

Contract no. DC/2020/05 - Relocation of Sha Tin Sewage Treatment Works to Caverns – Main Caverns Construction

- Hoarding erection
- Tree transplant and felling works
- Site clearance
- Blast door erection
- Site formation works at ventilation shaft
- Construction of temporary drainage system
- Haul road construction
- Slope stabilization works
- Construction of temporary explosive magazine
- Tunneling works

# 3 Status of Regulatory Compliance

## 3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project of Contract no. DC/2018/05 is shown in ***Table 3.1***.

***Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project of Contract No. DC/2018/05***

| **Permits and/or Licences** | **Reference No.** | **Issued Date** | **Valid Period & Expiry Date** (dd-MM-yyyy to dd-MM-yyyy) | **Status** |
|---|---|---|---|---|
| Notification of Works Under APCO | 442872 | 7/3/2019 | N.A. | Valid |
| Discharge Licence | WT00034319-2019 | 3/9/2019 | 30/9/2024 | Valid |
| Billing account under Waste Disposal Ordinance | 7033825 | 17/4/2019 | N/A | Valid |
| Registration as a Chemical Waste Producer | 5117-756-C4363-01 | 9/5/2019 | N/A | Valid |
| Asbestos Abatement Licence | N/A | N/A | N/A | Nil |
| Construction Noise Permit | GW-RN0824-21 | 19/11/2021 | (21-11-2021 to 14-05-2022) | Valid |

3.1.2. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project of Contract no. DC/2020/05 is shown in ***Table 3.2***.

***Table 3.2 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project of Contract No. DC/2020/05***

| **Permits and/or Licences** | **Reference No.** | **Issued Date** | **Valid Period & Expiry Date** (dd-MM-yyyy to dd-MM-yyyy) | **Status** |
|---|---|---|---|---|
| Notification of Works Under APCO | 469268 | 8/7/2021 | N/A | |
| Discharge Licence | N/A | N/A | N/A | |
| Billing account under Waste Disposal Ordinance | 7041077 | 22/7/2021 | N/A | |

| Permits and/or Licences | Reference No. | Issued Date | Valid Period & Expiry Date (dd-MM-yyyy to dd-MM-yyyy) | Status |
|---|---|---|---|---|
| Registration as a Chemical Waste Producer | 5117-756-C4617-01 | 2/8/2021 | N/A | |
| Asbestos Abatement Licence | 5117-756-C4617-01 | 2/8/2021 | N/A | |
| Construction Noise Permit | GW-RN0802-21 | 5/11/2021 | (29-01-2022 to 28-04-2022) | Valid |

## 3.2 Status of Submission under the EP- 533/2017

3.2.1. A summary of the current status on submission for Contract no. DC/2018/05 under EP-533/2017 is shown in ***Table 3.3***.

***Table 3.3 Summary of submission status for Contract no. DC2018/05 under EP-533/2017***

| EP Condition | Submission | Date of Submission |
|---|---|---|
| Condition 1.12 | Notification of Commencement Date of Works | 18 February 2019 |
| Condition 2.1 | Notification of EPD of Community Liaison Group | 18 April 2019 |
| Condition 2.12 | Management Organization of Main Construction Companies | 18 April 2019 |
| Condition 2.14 | Submission of Detailed Vegetation Survey Report and Protection and Transplantation Proposal | 18 April 2019 |
| Condition 2.15 | Woodland Compensation Plan | 26 August 2021 |
| Condition 2.18 | Submission of Landscape & Visual Mitigation and Tree Preservation Plan(s) | 18 April 2019 |
| Condition 2.2 | Notification of EPD of telephone hotline | 18 April 2019 |
| Condition 2.21 | Submission of Supplementary Contamination Assessment Plan (CAP) | 10 September 2020 |
| Condition 2.22 | Submission of Measures to Mitigate Traffic Noise from Ma On Shan Road | 18 April 2019 |
| Condition 3.1 | Proposal for Commencement of Construction Phase Air Quality Monitoring in Phases | 17 April 2019 |
| Condition 3.1 | Proposal for Alternative Sampling Method for Construction Phase Air Quality Monitoring (1-hr TSP) | 16 April 2019 |
| Condition 3.1 | Proposal for Proposed Fine Adjustment for Air and Noise Monitoring Stations at Kowloon City Baptist Church Hay Nien Primary School & Updated EM&A Manual | 6 March 2020 |

| EP Condition | Submission | Date of Submission |
|---|---|---|
| Condition 3.1 | Temporary suspension of EM&A Programme during 29 Jan 2020 to 2 Feb 2020 | 28 February 2020 |
| Condition 4.2 | Dedicated internet website | 22 May 2019 |
| Condition 3.4 | Baseline Noise Monitoring Report | 11 August 2021 |

# 4 Monitoring Requirements

## 4.1 Air Monitoring

AIR QUALITY MONITORING STATIONS

4.1.1. Air monitoring stations AM1 and AM2 were setup and commencement of monitoring on 12 April 2019 while AM5 was setup and commencement of monitoring on 18 April 2019. Air quality monitoring for the station AM4 was commenced on 3 May 2019. The proposal for proposed fine adjustment for air and noise monitoring station at Kowloon City Baptist Church Hay Nien Primary School was agreed by EPD on 17 December 2020, therefore, air quality monitoring for the station AM3(B) was commenced on 18 December 2020.

4.1.2. Based on the Project baseline report, the air quality monitoring station AM3, Ma On Shan Tsung Tsin Secondary School was relocated to AM3(A), Kowloon City Baptist Church Hay Nien Primary School.

4.1.3. A change of the monitoring location in subsequent impact monitoring for AM3(A) - Kowloon City Baptist Church Hay Nien Primary School was identified necessary as access was not granted for setting up the onsite monitoring station. The new monitoring location AM3(B) – ground level of outside A Kung Kok Street Garden for impact air quality monitoring station was proposed based on the criteria as stated in section 2.2.4.2 and 2.2.4.3 of EM&A Manual by ET and approved by ER and verified by IEC and submitted to EPD for agreement on 5 September 2019. The proposal was agreed by EPD on 17 December 2020.

4.1.4. Air quality monitoring for the station AM6 was commenced on 2 November 2021 since the demolition of DSD staff quarter and ended on 31 December 2021. The proposal was verified by IEC and approved by EPD on 9 May 2019.

4.1.5. The air monitoring stations for the Project are listed and shown in ***Table 4.1*** and ***Figure 4.1***.

***Table 4.1 Air Monitoring Station***

| Monitoring Station ID | Monitoring Location | Level (in terms of no. of floor) |
|---|---|---|
| AM1 | Ah Kung Kok Fishermen Village | G/F |
| AM2 | Block H, Kam Tai Court | Roof |
| AM3(B) | Outside A Kung Kok Street Garden | G/F |
| AM4 | Wellborn Kindergarten | G/F |
| AM5 | The Neighbourhood Advice-Action Council Harmony Manor | Roof |
| AM6 | Seaview Villa | Roof |

AIR MONITORING PARAMETERS, FREQUENCY AND DURATION

4.1.6. One-hour TSP levels should be measured to indicate the impacts of construction dust on air quality.

4.1.7. The sampling frequency of at least three times in every six-days should be undertaken when the highest dust impact occurs.

4.1.8. Portable direct reading dust meter was proposed to use for 1-hour TSP level instead of HVS to undertaking the air quality monitoring for the project at the stations of AM1, AM2, AM3(A), AM4, AM5 and AM6. The proposal was verified by IEC and submitted to EPD, the proposal has approved by EPD on 28 May 2019.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.1.9. Monitoring Procedures

(a) Check the calibration period of portable direct reading dust meter prior to monitoring (The direct reading dust meter was calibrated at 2-years interval and checked with High Volume Sampler (HVS) yearly.)
(b) Record the site condition near / around the monitoring stations.
(c) Install the portable direct reading dust meter to the monitoring location.
(d) Slide the power switch to turn the power on.
(e) Check of portable direct reading dust meter to ensure the equipment operation in normal condition.
(f) Select the period of measurement to 60mins.
(g) Check and set the correct time.
(h) Select the appropriate unit display for the equipment.
(i) Slide the power switch to turn the power off when the monitoring period ended (3 times 1 hour TSP monitoring per day).
(j) Uninstall the portable direct reading dust meter
(k) Collected the sampled data for analysis.
(l) Remark: Procedures (c) to (h) may be different subject to the brands and models of portable direct reading dust meter

4.1.10. Maintenance and Calibration

(a) The direct reading dust meter was calibrated at 2-years interval and checked with High Volume Sampler (HVS) yearly to determine the accuracy and validity of the results measured.
(b) Checking of direct reading dust meter will be carried out in order to determine the conversion factor between the direct reading dust meter and the standard equipment, HVS. The comparison check is to be considered valid based on correlation coefficient checked by HOKLAS laboratory.

4.1.11. The 1-hour TSP air quality monitoring was performed by using portable direct reading dust meters at each designated monitoring station. The brand and model of the equipment are given in ***Table 4.2***.

***Table 4.2 Air Quality Monitoring Equipment***

| Equipment | Brand and model |
|---|---|
| Portable direct reading dust meter | Met One BT- 645 |
| | Met One Aerocet 831 |

4.1.12. The calibration certificates of the air quality monitoring equipment are attached in ***Appendix 4.2.*** The calibration dates in the calibration certificates for portable direct reading dust meter models Met One BT-645 and Met One Aerocet 831 are presented in "month/day/year" format.

WIND DATA

4.1.13. The representative wind data from Sha Tin HKO Automatic Weather Station was obtained covering the 1-hr TSP monitoring periods. The wind data were extracted and shown in ***Appendix 4.3***.

EVENT AND ACTION PLAN

4.1.14. The Action and Limit levels for construction air quality are defined in ***Table 4.3*** and ***Appendix 4.1***. Should non-compliance of the air quality criteria occur, action in accordance with the Event and Action Plan in ***Appendix 7.1*** shall be carried out.

***Table 4.3 Action and Limit Level for Air Quality Monitoring***

| Monitoring Locations | 1-hour TSP Level in µg/m3 | |
|---|---|---|
| | Action Level | Limit Level |
| AM1 | 294 | 500 |
| AM2 | 325 | 500 |
| AM3(B) | 360 | 500 |
| AM4 | 297 | 500 |
| AM5 | 349 | 500 |
| AM6 | 317 | 500 |

## 4.2 Noise Monitoring

NOISE MONITORING STATIONS

4.2.1. Noise monitoring stations CM4 and CM5 were setup and commencement of monitoring on 13 April 2019 and 18 April 2019 respectively. Noise monitoring for stations CM1 and CM3 were commenced on 2 May 2019. The proposal for proposed fine adjustment for air and noise monitoring station at Kowloon City Baptist Church Hay Nien Primary School was agreed by EPD on 17 December 2020, therefore, noise monitoring for station CM2(B) was commenced on 18 December 2020. Noise monitoring for stations DM1, DM2 and DM3 were commenced on 2 November 2021 and ended on 31 December 2021.

4.2.2. Based on the Project baseline report, the noise monitoring station CM2, Ma On Shan Tsung Tsin Secondary School was relocated to CM2(A), Kowloon City Baptist Church Hay Nien Primary School.

4.2.3. A change of the monitoring location in subsequent impact monitoring for CM2(A) - Kowloon City Baptist Church Hay Nien Primary School was identified necessary as access was not granted for setting up the onsite monitoring station. The new monitoring location CM2(B) – ground level of outside A Kung Kok Street Garden for impact air quality monitoring station was proposed based on the criteria as stated in section 2.2.4.2 and 2.2.4.3 of EM&A Manual by ET and approved by ER and verified by IEC and submitted to EPD for agreement on 5 September 2019. The proposal was agreed by EPD on 17 December 2020.

4.2.4. The noise monitoring stations for the Project are listed and shown in ***Table 4.4*** and ***Figure 4.2.***

***Table 4.4 Noise Monitoring Station***

| Monitoring Station ID | Monitoring Location | Measurement Type | Level (in terms of no. of floor) |
|---|---|---|---|
| CM1 | Wellborn Kindergarten | Free field | G/F |
| CM2(B) | Outside A Kung Kok Street Garden | Free field | G/F |
| CM3 | S.K.H. Ma On Shan Holy Spirit Primary School | Façade | Roof |
| CM4 | Ah Kung Kok Fishermen Village | Free field | G/F |
| CM5 | The Neighbourhood Advice-Action Council Harmony Manor | Façade | Roof |
| DM1 | Seaview Villa | Free field | G/F |
| DM2 | Racecourse Gardens | Free field | G/F |
| DM3 | S.K.H. Ma On Shan Holy Spirit Primary School | Façade | Roof |

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

4.2.5. Noise monitoring shall be carried out at all the designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. The following is an initial guide on the regular monitoring frequency for each station on a weekly basis when noise generating activities are underway:

- One set of measurements between 0700-1900 hours on normal weekdays;
- One set of measurements between 1900-2300 hours;
- One set of measurements between 2300-0700 hours of next day; and
- One set of measurements between 0700-2300 hours on holidays (six consecutive Leq/5min readings).

4.2.6. If construction works are extended to include works during the hours of 1900-0700, additional weekly impact monitoring shall be carried out during evening and night-time works for the latter 3 sets of measurements specified in Section 4.2.4 above, one set of measurements shall at least include 6 consecutive Leq (5min) results.

4.2.7. Additional weekly noise monitoring from 19:00 to 23:00 was carried out at CM4 on 4, 14, 19, and 26 January 2022 with respect to the restricted hour works under GW-RN0824-21and GW-RN0044-22. All the results are within the baseline level range after baseline correction.

4.2.8. Additional weekly night time noise monitoring from 23:00 to 07:00 on next day was carried out at CM4 on 5, 15, 20 and 27 January 2022 with respect to the restricted hour works under CNP GW-RN0824-21and GW-RN0044-22. All the results are within the baseline level range after baseline correction.

4.2.9. Supplementary information for data auditing, statistical results such as L10 and L90 shall also be obtained for reference.

4.2.10. If a school exists near the construction activity, noise monitoring shall be carried out at the monitoring stations for the schools during the examination periods. The ET leader shall liaise with the school's personnel and the examination authority to ascertain the exact dates and times of all examination periods during the course of the contract.

MONITORING EQUIPMENT

4.2.11. Noise monitoring was performed using sound level meter at the designated monitoring locations. The sound level meters shall comply with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator shall be deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in ***Table 4.5***.

***Table 4.5 Noise Monitoring Equipment***

| Equipment | Brand and Model |
|---|---|
| Integrated Sound Level Meter | NTi XL2 |
| Acoustic Calibrator | Larson Davis CAL200 |

4.2.12. The calibration certificates of the noise monitoring equipment are attached in ***Appendix 4.2***.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.2.13. Monitoring Procedure

(a) The monitoring station shall normally be at a point 1m from the exterior of the sensitive receiver's building façade and be at a position 1.2m above the ground.

(b) Façade measurements were made at the monitoring locations. For free-field measurement, a correction factor of +3 dB (A) would be applied.

(c) The battery condition was checked to ensure the correct functioning of the meter.

(d) Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

(e) Frequency weighting: A, Time weighting: Fast, Measurement time set: continuous 5 mins

(f) Prior and after to the noise measurement, the meter was checked using the acoustic calibrator for 94dB (A) at 1000 Hz. If the difference in the calibration level before and after measurement was more than ±1 dB (A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.

(g) Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

4.2.14. Maintenance and Calibration

(a) The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.

(b) The sound level meter and calibrator were calibrated at yearly intervals.

EVENT AND ACTION PLAN

4.2.15. Noise Standards for Daytime Construction Activities are specified under EIAO-TM. The Action and Limit levels for construction noise are defined in ***Table 4.6*** and ***Appendix 4.1***. Should non-compliance of the criteria occurs, action in accordance with the Event and Action Plan in ***Appendix 7.1*** shall be carried out.

***Table 4.6 Action and Limit Level for Noise Monitoring***

| Monitoring Station | Action Level | Limit Level (dB(A)) | | |
|---|---|---|---|---|
| | | 0700-1900 hrs on normal weekdays | 0700-2300 hrs on holidays (including Sundays); and 1900-2300 hrs on all days [2] | 2300-0700 hrs of all days [2] |
| CM1 | When one documented complaint is received | 65 / 70 [1] | 60 / 65 / 70 [3] | 45 / 50 / 55 [3] |
| CM2(B) | | 65 / 70 [1] | | |
| CM3 | | 65 / 70 [1] | | |
| CM4 | | 75 | | |
| CM5 | | 75 | | |
| DM1 | | 75 | | |
| DM2 | | 75 | | |
| DM3 | | 65 / 70 [1] | | |

Remark 1: Limit level of CM1, CM2(B), CM3 and DM3 reduce to 65 dB (A) during examination periods if any.

Remark 2: Construction noise during restricted hours is under the control of Noise Control Ordinance Limit Level to be selected based on Area Sensitivity Rating.

Remark 3: Limit Level for restricted hour monitoring shall act as reference level only. Investigation would be conducted on CNP compliance if exceedance recorded during restricted hour noise monitoring period.

## 4.3 Marine Water Quality Monitoring

MARINE WATER MONITORING STATIONS

4.3.1. Under THEES maintenance or emergency discharge events, effluent would be discharged into the Tolo Harbour from the existing emergency outfalls of STSTW and TPSTW. THEES tunnel was suspended on 30 November 2021 and resumed on 1 December 2021. The discharged volume of treated effluent from STSTW and TPSTW were 230315 $m^3$ and 108138 $m^3$ respectively, with a total discharged volume of 338453 $m^3$.

4.3.2. A marine water quality monitoring programme was recommended for the THEES tunnel maintenance during both construction and operational phases of this Project to confirm the water quality impact of the THEES maintenance discharge.

4.3.3. Total 16 monitoring stations, i.e. 15 impact stations and 1 control station, are listed in Table 4.7 below. They are at at the WSD flushing water intakes at Sha Tin (W1) and Tai Po (W2), cooling water intake at Chinese University of Hong Kong (CUHK) Marine Science Laboratory (C1), Yim Tin Tsai Fish Culture Zone (FCZ) (F1), Yim Tin Tsai East) FCZ (F2), Yung Shue Au FCZ and Important Nursery Area for Commercial Fisheries Resources at Three Fathoms Cove (F3), Lo Fu Wat FCZ (F4), Potential Subzone of Yim Tin Tsai FCZ/ Gradient Station (G1),

corals at Tai Po Industrial Estate (CR1), Science Park (CR15), Sha Tin Hoi North (CR16) and Sha Tin Hoi South (CR17), Gradient Station (G1*), Pak Sha Tau Corals (C1*) and Tai Po Lung Mei Beach (TPLMB) ), and finally CR9 as control station, are shown ***Figure 4.3*** to represent the marine water sensitive receivers, which are likely affected by the Project during the THEES maintenance or emergency discharge.

4.3.4. Station G1 (Subzone of Yim Tin Tsai Fish Culture Zone) was also proposed as a gradient station to assist in the identification of the source of any impact at monitoring station F1. Station CR9 is far away from the Project discharge points and would unlikely be affected by the Project and will therefore serve as a control station.

4.3.5. The coordinates of the proposed monitoring stations are listed in ***Table 4.7*** and ***Figure 4.3***.

***Table 4.7 Proposed Marine Water Quality Monitoring Stations***

| No. | Station | Description | Easting | Northing |
|---|---|---|---|---|
| 1 | W1 | WSD Seawater Intake at Sha Tin | 840238 | 830127 |
| 2 | W2 | WSD Seawater Intake at Tai Po | 837753 | 834606 |
| 3 | C1 | Cooling Water Intake at CUHK Marine Science Laboratory | 840142 | 831908 |
| 4 | F1 | Yim Tin Tsai Fish Culture Zone | 839387 | 834907 |
| 5 | F2 | Yim Tin Tsai (East) Fish Culture Zone | 840885 | 835077 |
| 6 | F3 | Yung Shue Au Fish Culture Zone / Important Nursery Area for Commercial Fisheries Resources at Three Fathoms Cove | 846778 | 832054 |
| 7 | F4 | Lo Fu Wat Fish Culture Zone | 846364 | 836709 |
| 8 | CR1 | Corals at Tai Po Industrial Estate | 837888 | 834489 |
| 9 | CR15 | Corals at Science Park | 839193 | 832710 |
| 10 | CR16 | Corals at Sha Tin Hoi North | 840310 | 831665 |
| 11 | CR17 | Corals at Sha Tin Hoi South | 840224 | 830692 |
| 12 | G1 | Potential Subzone of Yim Tin Tsai Fish Culture Zone / Gradient Station | 840521 | 833311 |
| 13 | CR9 | Gruff Head Corals (Control Station) | 850995 | 838008 |
| 14 | G1* | Gradient Station | 838475 | 834702 |
| 15 | C1* | Pak Sha Tau Corals | 843779 | 834659 |
| 16 | TPLMB | Tai Po Lung Mei Beach | 841651 | 836817 |

MARINE WATER QUALITY MONITORING PARAMETERS, FREQUENCY AND DURATION

**Monitoring Parameters**

4.3.6. **Table 4.8** summarizes the monitoring parameters of the water quality monitoring.

***Table 4.8 Water Quality Monitoring Parameters***

| In-situ Measurement | Laboratory Measurement |
|---|---|
| Dissolved Oxygen | Suspended Solids (SS) |
| pH | 5-day Biochemical Oxygen Demand (BOD5) |
| Temperature | Total Inorganic Nitrogen (TIN) |

| | |
|---|---|
| Salinity | Ammonia Nitrogen (NH3-N) |
| Turbidity | Nitrate-nitrogen (NO3-N) |
| | Nitrite-nitrogen (NO2-N) |
| | Unionized Ammonia (UIA) |
| | Chlorophyll-a |
| | E. coli |

4.3.7. Monitoring location/position, time, water depth, sampling depth, tidal stages, weather conditions and any special phenomena or work underway nearby were also be recorded.

**Monitoring Frequency**

4.3.8. For THEES maintenance, marine water quality data shall be collected throughout the whole discharge period at a frequency of 3 times per week until the baseline water quality is restored or at least 4 weeks after the end of maintenance period. During each monitoring event, water samples shall be collected at both mid-flood and mid-ebb tides and the interval between 2 monitoring events should not be less than 36 hours.

4.3.9. In view of marine safety concern due to limited visibility for safe navigation during night-time, the monitoring time at the mid-flood and mid-ebb will be shifted to the available flood/ebb tide during daytime.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

**Sampling Procedure**

4.3.10. Measurements shall be taken at three water depths, namely, 1 m below water surface, mid-depth and 1 m above sea bed, except where the water depth is less than 6 m, in which case the mid-depth station may be omitted. Shall the water depth be less than 3 m, only the mid-depth station will be monitored. The in-situ measurements at predetermined depths was carried out in duplicate. In case the difference in the duplicate in-situ measurement results was larger than 25%, the third set of in-situ measurement would be carried out for result confirmation purpose.

4.3.11. Water sampler was lowered into the water to the required depths of sampling. Upon reaching the pre-determined depth, a messenger to activate the sampler was then released to travel down the wire. The water sample was sealed within the sampler before retrieving. At each station, water samples for required laboratory tests at three depths (1 m below water surface, mid-depth and 1 m above seabed) were collected accordingly. Water samples were stored in a cool box and kept at less than 4℃ but without frozen according to **Table 4.8** and sent to the laboratory as soon as possible.

**Monitoring Equipment**

**DISSOLVED OXYGEN (DO) AND TEMPERATURE MEASURING EQUIPMENT**

4.3.12. The instrument shall be a portable and weatherproof DO measuring instrument complete with cable and sensor, and use a direct current (DC) power source. The equipment shall be capable of measuring:

- a DO level in the range of 0 - 20 mg L-1 and 0 - 200% saturation; and
- a temperature of 0-45 degree Celsius.

4.3.13. It has a membrane electrode with automatic temperature compensation complete with a cable.

4.3.14. Sufficient stocks of spare electrodes and cables were available for replacement where necessary.

4.3.15. Salinity compensation was built-in in the DO equipment, in-situ salinity was measured to calibrate the DO equipment prior to each DO measurement.

**Turbidity**

4.3.16. Turbidity was measured in situ by the nephelometric method. The instrument was portable and weatherproof using a DC power source complete with cable, sensor and comprehensive operation manuals. The equipment was capable of measuring turbidity between 0-1000 NTU. The probe cable was not less than 25m in length. The meter was calibrated in order to establish the relationship between NTU units and the levels of suspended solids.

**Sampler**

4.3.17. A water sampler, consisting of a transparent Polyvinyl Chloride (PVC) or glass cylinder of a capacity of not less than two litres which can be effectively sealed with cups at both ends was used. The water sampler has a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth.

**Water Depth Detector**

4.3.18. A portable, battery-operated and hand held echo sounder was used for the determination of water depth at each designated monitoring station.

**pH**

4.3.19. The instrument was consisting of a potentiometer, a glass electrode, a reference electrode and a temperature-compensating device. It was readable to 0.1pH in a range of 0 to 14. Standard buffer solutions of at least pH 7 and pH 10 were used for calibration of the instrument before and after use.

**Salinity**

4.3.20. A portable salinometer capable of recording salinity within the range of 0-40 parts per thousand (ppt) was provided for measuring salinity of the water at each monitoring location.

**Monitoring Position Equipment**

4.3.21. A hand held differential Global Positioning System (dGPS) was used during water quality monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

**Sample Container and Storage**

4.3.22. Following collection, water samples for laboratory analysis were stored in high density polythene bottles with preservatives added according to **Table 4.8** packed in ice (cooled to 4 ℃ without being frozen), delivered to the laboratory and analysed as soon as possible. Sufficient volume of samples were collected to achieve the detection limit.

4.3.23. For the sample containers for E. coli, the water samples were collected in sterile bottles with leakproof lids.

4.3.24. Sufficient volume of samples were collected for proper analysis of all testing parameters. **Table 4.9** also summarizes the size of samples for respective tests.

***Table 4.9 Types of Sampling Bottles, Sample Size and Preservation Methods***

| Label Colour | Container Type (preservation noted if required) | Test Parameter(s) |
|---|---|---|
| Green | 1 x 1L and 1 x 500ml Clear Plastic Bottle - Unpreserved | Biochemical Oxygen Demand (BOD), Suspended Solids, Nitrate, Nitrite |
| Purple | 1 x 250mL Clear Plastic Bottle - H2SO4 Preserved (pH<2) | Ammonia, Total Inorganic Nitrogen, Unionized Ammonia |
| Green | 1 x 250L Brown Plastic Bottle - Unpreserved | Chlorophyll a |
| Grey | 1 x 125mL Plastic Bottle - Sterile; Sodium Thiosulphate | E. coli |

**Calibration of In Situ Instruments**

4.3.25. All in situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals throughout the baseline water quality monitoring programme. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring event.

4.3.26. Sufficient stocks of spare parts were maintained for replacements when necessary. Backup monitoring equipment was also made available so that monitoring could proceed uninterrupted even when some equipment is under maintenance, calibration, etc.

4.3.27. Calibration certifications of the water monitoring equipment are attached in **Appendix 4.2**.

**Laboratory Measurement / Analysis**

4.3.28. Analysis of SS, BOD, TIN, NH3-N, NO3-N, UIA, chlorophyll-a and E. coli levels shall be carried out by ALS Technichem (HK) Pty Ltd (HOKLAS Registration No.066). Sufficient water samples shall be collected at the monitoring stations for carrying out the necessary laboratory analysis. The analysis shall commence within 24 hours after collection of the water samples. The analyses shall follow the standard methods described in APHA Standard Methods for the Examination of Water and Wastewater, 19th edition or other approved methods. Detailed testing methods, pre-treatment procedures, instrument use, Quality Assurance (QA) /Quality Control (QC) details (such as blank, spike recovery, number of duplicate samples per batch, etc.), detection limits and accuracy shall be submitted to EPD for approval prior to the commencement of monitoring programme. EPD may also request the laboratory to carry out analysis of known standards provided by EPD for quality assurance. Additional duplicate samples may be required by EPD for inter laboratory calibration. Remaining samples after analysis shall be kept by the laboratory for 3 months in case repeat analysis is required. If in-house or non-standard methods are proposed, details of the method verification may also be required to submit to EPD. In any circumstance, the sample testing shall have comprehensive quality assurance and quality control programmes. The laboratory shall prepare to demonstrate the programmes to EPD or his representatives when requested. The testing method, reporting limit and detection limit are provided in **Table 4.10**.

***Table 4.10 Methods for Laboratory Analysis for Water Samples***

| Analyte Description | Method Reference | Limit of Reporting (LOR) |
|---|---|---|
| Suspended Solids | APHA 2540 D | 2 mg/L |
| Biochemical Oxygen Demand (BOD) | APHA 5210 B | 2 mg/L |
| Total Inorganic Nitrogen | APHA 4500NH3: G APHA 4500NO3: I | 0.02 mg/L |
| Ammonia as N | APHA 4500 NH3 G | 0.01 mg/L |
| Unionized Ammonia | By calculation | 0.001 mg/L |
| Chlorophyll a | APHA 10200 H2, H3 | 0.1 mg/m³ |
| E. coli | TM09/EC/10/98 Issue 3, HKEPD | 1 CFU/100mL |
| Nitrite as N | APHA 4500-NO3 I | 0.01 mg/L |
| Nitrate as N | APHA 4500 NO3 I | 0.01 mg/L |

SUMMARY OF MITIGATION MEASURES AND MARINE WATER QUALITY MONITORING FOR THEES MAINTENANCE AND EMERGENCY DISCHARGE

4.3.29. It is recommended that the THEES maintenance event shall be scheduled outside the period from January to May (the algae blooming season). It is also recommended that relevant government departments including EPD, WSD, AFCD and stakeholders for mariculture and fisheries shall be informed of the THEES maintenance or emergency discharge events. The DSD / Plant operators shall maintain good communications with various concerned parties. A list of address, email address, phone and fax number of key persons in various departments responsible for action shall be made available to the Plant operators. A summary of the mitigation measures and monitoring requirements for the THEES maintenance or emergency discharge is provided in **Table 4.11**.

***Table 4.11 Mitigation Measures and Monitoring Requirement for THEES Maintenance / Emergency Discharge at Tolo Harbour***

| Event | Mitigation Measures and Monitoring Requirement | Actions |
|---|---|---|
| THEES Maintenance Discharge during construction and operation of this Project | 1. Schedule the THEES maintenance event outside algae blooming season (January – May).<br><br>2. Inform EPD, WSD, AFCD and stakeholders for mariculture and fisheries of the THEES maintenance event before any discharge.<br><br>3. Conduct marine water quality impact monitoring at a frequency of 3 times per week as proposed in Section 2.5, 2.6, 2.11 and 2.12 until the baseline water quality is restored or at least 1 months after termination of the THEES maintenance discharge (whichever is longer).<br><br>4. If considered necessary, install silt curtains / silt screens at WI and W2 during the discharge until the baseline water quality levels are restored.<br><br>5. The monitoring data collected in Item 3 above shall be compared with the baseline data collected under normal THEES operation to identify the degree of impact caused by the maintenance discharge. | 1. THEES tunnel was suspended on 30 November 2021 and resumed on 1 December 2021.<br><br>2. Informed<br><br>3. Marine water quality impact monitoring was conducted from 30 November 2021 to 31 December 2021 at a frequency of 3 times per week. ( Appendix 5.1)<br><br>4. Silt curtains were installed.<br><br>5. Monitoring data has been compared with the baseline data with graphs. (Appendix 5.4) |

## 5. Monitoring Results

5.0.1 The environmental monitoring will be implemented based on the division of works areas of each designed projects. Overall layout showing work areas and monitoring stations is shown in ***Figure 2.1*** and ***Figure 4.1- 4.2*** respectively**.**

5.0.2 The environment monitoring schedules for reporting month and coming month are presented in ***Appendix 5.1*****.**

### 4.1 Air Monitoring Results

5.3.1 1-hour TSP monitoring was conducted at AM1, AM2, AM3(B), AM4 and AM5 in the reporting month.

5.3.2 No action or limit level exceedance was determined in the reporting period at stations of AM1, AM2, AM3(B), AM4 and AM5.

5.3.3 Air quality monitoring results measured in this reporting period for AM1, AM2, AM3(B), AM4 and AM5 are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in ***Appendix 5.2.***

### 5.2 Noise Monitoring Results

5.2.1 Noise monitoring was conducted at CM1, CM2(B), CM3, CM4 and CM5 in the reporting month.

5.2.2 Additional weekly noise monitoring from 19:00 to 23:00 was carried out at CM4 on 4, 14, 19, and 26 January 2022 with respect to the restricted hour works under GW-RN0824-21and GW-RN0044-22. All the results are within the baseline level range after baseline correction.

5.2.3 Additional weekly night time noise monitoring from 23:00 to 07:00 on next day was carried out at CM4 on 5, 15, 20 and 27 January 2022 with respect to the restricted hour works under CNP GW-RN0824-21and GW-RN0044-22. All the results are within the baseline level range after baseline correction.

5.2.4 No action or limit level exceedance was determined in the reporting period for the stations of CM1, CM2(B), CM3, CM4 and CM5.

5.2.5 Noise monitoring results measured in this reporting period for CM1, CM2(B), CM3, CM4 and CM5 are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in ***Appendix 5.3***.

## 5.3 Water Quality Monitoring Results

5.3.1 Due to THEES maintenance or emergency discharge events, effluent has been discharged into the Tolo Harbour from the existing emergency outfalls of STSTW and TPSTW. THEES tunnel was suspended on 30 November 2021 and resumed on 1 December 2021. The discharged volume of treated effluent from STSTW and TPSTW were 230315 m3 and 108138 m3 respectively, with a total discharged volume of 338453 m3.

5.3.2 The marine water quality impact monitoring was conducted from 30 November 2021 to 31 December 2021 at a frequency of 3 times per week. Details of the marine water quality monitoring results from 30 November 2021 to 31 December 2021 of in-situ measurement and laboratory measurement as well as the graphical presentations of the results can be referred in ***Appendix 5.3.***

5.3.3 The graphs in ***Appendix 5.3*** show that the levels of salinity and turbidity were within baseline water quality conditions. The level of dissolved oxygen for surface occasionally exceeded the baseline level but were within the WQO levels, which were likely due to natural fluctuation.

5.3.4 Based on the water quality monitoring results, the baseline water quality has been restored and the overall water quality in the Tolo Harbour was considered acceptable during the monitoring period. The results did not reveal any evidence showing that the overflow event from STSTW and TPSTW has caused any adverse marine water quality impact to the surrounding water body.

## 5.4 Waste Management

5.4.1 The quantities of waste for disposal for the Contract no. DC/2018/05 in the Reporting Period are summarized in ***Table 5.1***. The quantities of waste for disposal for the Contract no. DC2020/05 in the Reporting Period are summarized in ***Table 5.2***. The Monthly Summary Waste Flow Table for the Contract no. DC/2018/05 and DC/2020/05 are shown in ***Appendix 5.5***. Whenever possible, materials were reused on-site as far as practicable.

***Table 5.1 Details of Waste Disposal for Contract no. DC/2018/05***

| Waste Type | Quantity this month | Cumulative Quantity-to-Date | Disposal / Dumping Grounds |
|---|---|---|---|
| Inert C&D materials disposed, $m^3$ | 23 | 11,919 | Fill Bank at Tuen Mun Area 38 |
| | 9,951 | 231,392 | Tailor Recycled Aggregated Ltd. & Lam Tei Quarry (Alternative Disposal Ground) |
| Inert C&D materials recycled, $m^3$ | 76 | 1,857 | Fill Bank at Tuen Mun Area 38 (Broken concrete) |

| Waste Type | Quantity this month | Cumulative Quantity-to-Date | Disposal / Dumping Grounds |
|---|---|---|---|
| Non-inert C&D materials disposed**, tonne** | 34.29 | 1387.86 | NENT |
| Non-inert C&D materials recycled**, kg** | 0 | 2,141 | Golden Sino Management Limited (Waste paper) |
| | 0 | 14 | Golden Sino Management Limited (Plactic) |
| | 0 | 19,843 | Golden Sino Management Limited (Metals) |
| Chemical waste disposed, **L** | 0 | 1,090 | Collected by licensed chemical waste collector_ Ecospace Limited (Spent Lube Oil) |
| Asbestos waste disposed, **Kg** | 0 | 300 | WENT |

***Table 5.2 Details of Waste Disposal for Contract no. DC/2020/05***

| Waste Type | Quantity this month | Cumulative Quantity-to-Date | Disposal / Dumping Grounds |
|---|---|---|---|
| Inert C&D materials disposed**, $m^3$** | 80 | 1,959 | Fill Bank at Tuen Mun Area 38 |
| Inert C&D materials recycled**, $m^3$** | 61 | 370 | Fill Bank at Tuen Mun Area 38 (Broken concrete) |
| Non-inert C&D materials disposed**, tonne** | 302.47 | 334.60 | SENT |
| Non-inert C&D materials recycled**, kg** | 0 | 0 | Golden Sino Management Limited (Waste Paper) |
| | 0 | 0 | Golden Sino Management Limited (Plastic) |
| | 0 | 75,270 | Golden Sino Management Limited (Metals) |
| Chemical waste disposed, **L** | 0 | 0 | Collected by licensed chemical collector: Ecospace Limited (Spent Lube Oil) |
| Asbestos waste disposed, **Kg** | 0 | 560 | WENT |

## 6. Land Contamination

6.1 Remediation report (RR) for Ex-Sha Tin Vehicle Detention Centre (VDC) was accepted by EPD on 23 April 2021 and placed in the EIAO Register Office for public information.

6.2 The confirmatory sampling for DSD staff quarter at existing STSTW was completed.

6.3 Land decontamination work for the DSD staff quarter at existing STSTW started on 16 June 2021, the Remediation Report was submitted to EPD for approval on 9 September 2021.

6.4 The Remediation Report was accepted by EPD on 8 November 2021.

## 7. Compliance Audit

7.0.1. The Event Action Plan for construction noise, air quality are presented in ***Appendix 7.1***.

7.0.2. The summary of exceedance is presented in ***Appendix 7.2***.

### 7.1 Air Monitoring

7.1.1 No action or limit level exceedance was determined in the reporting period at stations of AM1, AM2, AM3(B), and AM5.

### 7.2 Noise Monitoring

7.2.1 Additional weekly noise monitoring from 19:00 to 23:00 was carried out at CM4 on 4, 14, 19, and 26 January 2022 with respect to the restricted hour works under GW-RN0824-21and GW-RN0044-22. All the results are within the baseline level range after baseline correction.

7.2.2 Additional weekly night time noise monitoring from 23:00 to 07:00 on next day was carried out at CM4 on 5, 15, 20 and 27 January 2022 with respect to the restricted hour works under CNP GW-RN0824-21and GW-RN0044-22. All the results are within the baseline level range after baseline correction.

7.2.3 No action or limit level exceedance was determined in the reporting period for the stations of CM1, CM2(B), CM3, CM4 and CM5.

### 7.3 Marine Water Quality Monitoring

7.3.1 The marine water quality impact monitoring was conducted for 13 monitoring stations within the Tolo Harbour from 30 November 2021 to 31 December.

7.3.2 Based on the water quality monitoring results, the baseline water quality has been restored and the overall water quality in the Tolo Harbour was considered acceptable during the monitoring period. The results did not reveal any evidence showing that the overflow event from STSTW and TPSTW has caused any adverse marine water quality impact to the surrounding water body.

### 7.4 Review of the Reasons for and the Implications of Non-compliance

7.4.1 No environmental non-compliance was recorded in the reporting month.

### 7.5 Summary of action taken in the event of and follow-up on non-compliance

7.5.1 There was no particular action taken since no non-compliance was recorded in the reporting period.

## 8. Environmental Site Audit

8.0.1. The Environmental Team (ET) conducted weekly site inspections for the Contract on 05, 12, 19, and 27 January 2022. IEC attended the joint site inspection on 27 January 2022.

***Table 8.1 Summary of Environmental Inspections for Contract no. STW 01/2021***

| Item | Date | Reminders/Observations | Action taken by Contractor | Outcome |
|---|---|---|---|---|
| NIL | 05-1-2022 | NIL | NIL | NIL |
| 20220112_01Env_C1 | 12-1-2022 | Protion 6- Rubbish should be placed in container.. | Rectified. | Completion as observed on 19 January 2022 during site inspection. |
| 20220119_01Env_C1 | 19-1-2022 | Portion 6- Stockplies should be covered | Rectified. | Completion as observed on 27 January 2022 during site inspection. |
| 20220119_02Env_C1 | 19-1-2022 | Portion 2- Stockplies should be covered | Rectified. | Completion as observed on 27 January 2022 during site inspection. |
| 20220127_01Env_C1 | 27-1-2022 | Portion 6- Breaker should be covered with acoustic material. | Rectified. | Completion as observed on 4 February 2022 during site inspection. |
| 20220127_01Env_C2 | 27-1-2022 | Portion12: Sandbags should be added to drainage outlets | Rectified. | Completion as observed on 4 February 2022 during site inspection. |

Remark: C1 refers to contract No. DC/2018/05

C2 refers to contract No. DC/2020/05

8.0.2. Within this reporting month, bi-weekly landscape site audits were conducted on 4 and 18 January 2022.

***Table 8.2 Summary of Landscape Inspections for Contract no. STW 01/2021***

| Item | Date | Reminders/Observations | Action taken by Contractor | Outcome |
|---|---|---|---|---|
| NIL | 04-1-2022 | NIL | NIL | NIL |
| NIL | 18-1-2022 | NIL | NIL | NIL |

8.0.3. Within this reporting month, monthly ecology site audits were conducted on 18 January 2022.

***8.0.4. Table 8.3 Summary of Ecology Inspections for Contract no. STW 01/2021***

| Item | Date | Reminders/Observations | Action taken by Contractor | Outcome |
|---|---|---|---|---|
| 20220118_01Eco | 18-1-2022 | Observation: invasive River tamarind are observed at planting site of DV551-615 at Portion 11. It shall be removed including flowers and fruits with proper disposal to prevent its spreading to the planting sites. | On going | On going |

## 9. Complaints, Notification of Summons and Prosecution

9.0.1. No environmental complaint was received in the reporting period.

9.0.2. No notification of summons and successful prosecutions was received in the reporting month.

9.0.3. The details of cumulative complaint log and updated summary of complaints are presented in ***Appendix 9.1***.

9.0.4. Cumulative statistic on complaints and successful prosecutions are summarized in ***Table 9.1*** and ***Table 9.2*** respectively.

***Table 9.1 Cumulative Statistics on Complaints***

| Reporting Period | No. of Complaints |
|---|---|
| January 2022 | 0 |
| **Total** | **4** |

***Table 9.2 Cumulative Statistics on Successful Prosecutions***

| Environmental Parameters | Cumulative No. Brought Forward | No. of Successful Prosecutions this month (Offence Date) | Cumulative No. Project-to-Date |
|---|---|---|---|
| Air | - | 0 | 0 |
| Noise | - | 0 | 0 |
| Waste | - | 0 | 0 |
| **Total** | **-** | **0** | **0** |

## 10. Conclusion

10.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

10.0.2. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in ***Table 10.1***. The construction programmes of the Project are provided in ***Appendix 10.1***.

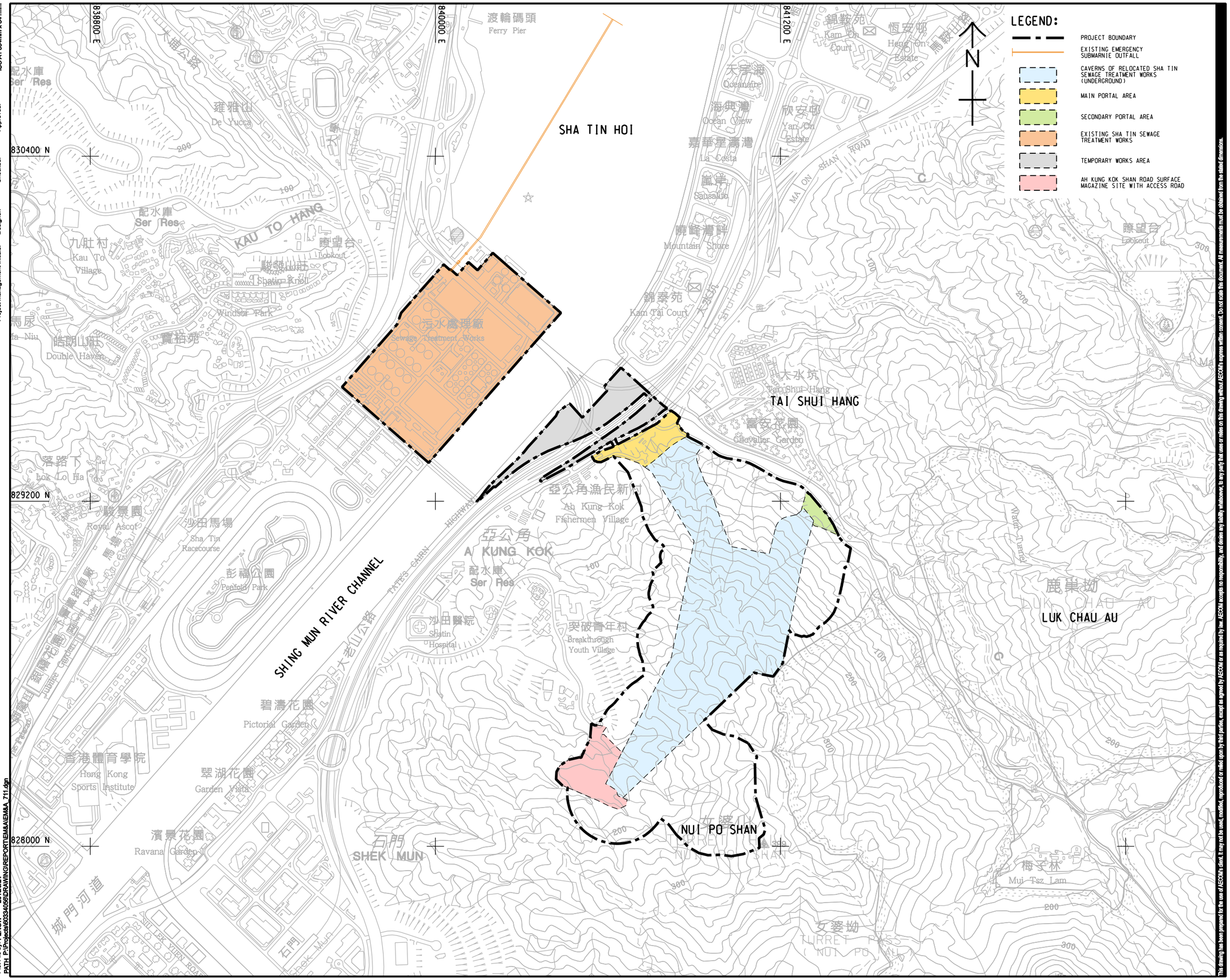
***Table 10.1 Construction Activities and Recommended Mitigation Measures in Coming Reporting Month***

| Contract No. | Key Construction Works | Recommended Mitigation Measures |
|---|---|---|
| DC/2018/05 | • Retaining wall construction<br>• Drainage works<br>• Tunnelling works<br>• Landscape works<br>• Tree felling works | • Dust control during dust generating works;<br>• Implementation of proper noise pollution control;<br>• Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system.<br>• Direct impact to plant species of conservation importance recorded in the vicinity of the construction sites shall be avoided<br>• Excavation materials shall be well covered<br>• Mitigation measures to dust and noise control should be provided to construction of noise barrier, bored piling, Installation of noise barrier |
| DC/2020/05 | • Hoarding erection<br>• Tree transplant and felling works<br>• Site clearance<br>• Blast door erection<br>• Construction of RC wall<br>• Construction of temporary drainage system<br>• Haul road construction<br>• Slope stabilization works<br>• Construction of temporary explosive magazine | • Dust control during dust generating works;<br>• Implementation of proper noise pollution control;<br>• Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system.<br>• Direct impact to plant species of conservation importance recorded in the vicinity of the construction sites shall be avoided<br>• Excavation materials shall be well covered |

| Contract No. | Key Construction Works | Recommended Mitigation Measures |
|---|---|---|
| | • Tunneling works<br>• Site office construction<br>• Rigid barrier construction<br>• Construction of temporary explosive magazine | • Mitigation measures to dust and noise control should be provided to construction of noise barrier, bored piling, Installation of noise barrier |

***Figure 2.1***

***Project Layout***

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**PROJECT**
項目

RELOCATION OF SHA TIN SEWAGE TREATMENT WORKS TO CAVERNS: CAVERNS AND SEWAGE TREATMENT WORKS - INVESTIGATION, DESIGN AND CONSTRUCTION

**CLIENT**
業主

渠務署
Drainage Services Department

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**STATUS**
階段

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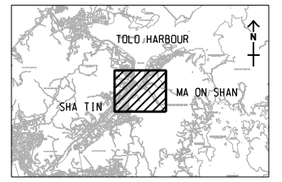
**DIMENSION UNIT** 尺寸單位: METRES

**KEY PLAN** 索引圖: A3 1 : 500000




**PROJECT NO.** 項目編號: 60334056

**CONTRACT NO.** 合約編號: CE 30/2014 (DS)

**SHEET TITLE**
圖紙名稱

LOCATION PLAN OF THE PROJECT

**SHEET NUMBER**
圖紙編號

60334056/EM&A/1.01

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Approved: RCYK

Checked: EPCY

Designer: JCWL

Project Management Initials:

25-January-2021

Plot File by: Chanws

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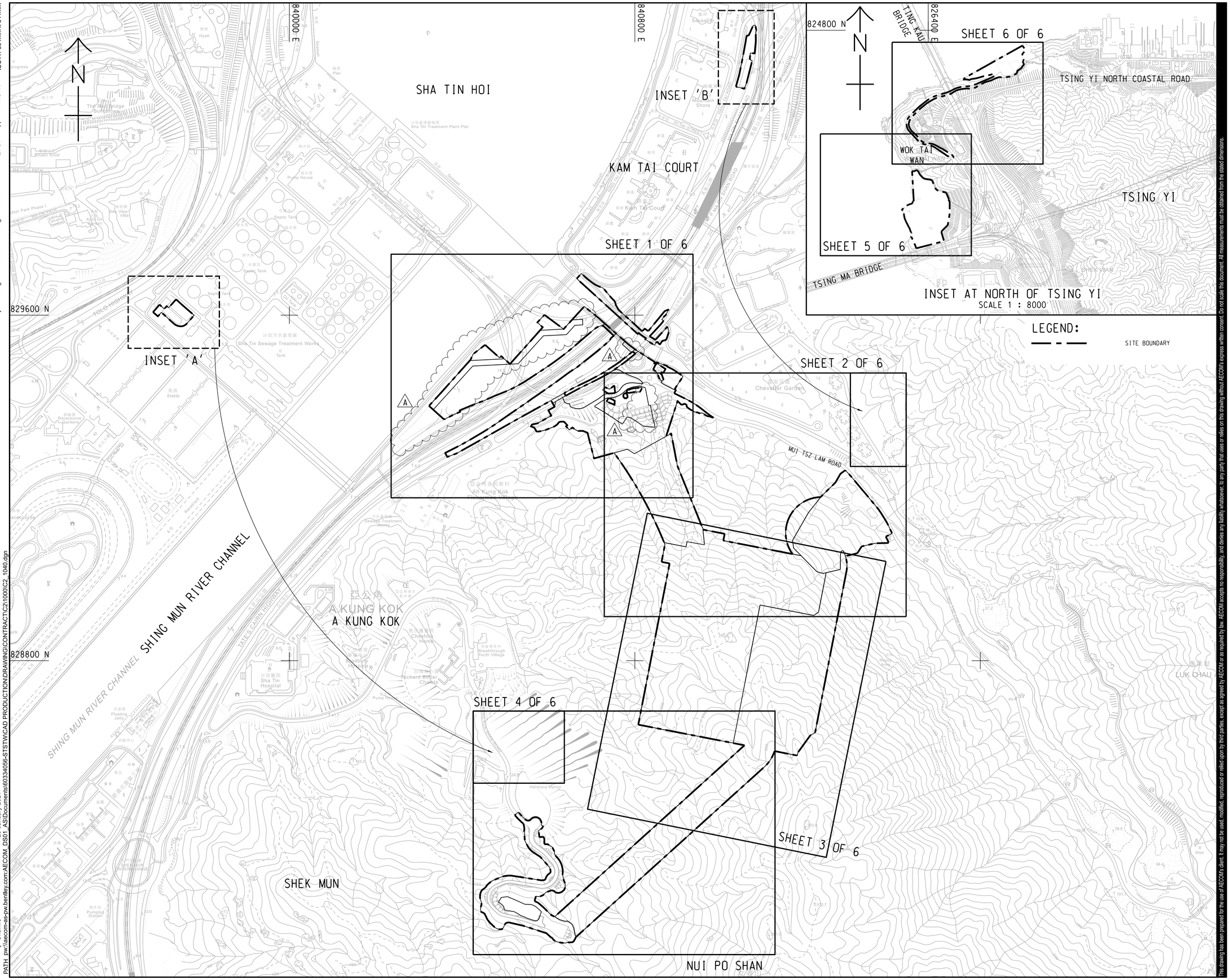


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**PROJECT**
項目

RELOCATION OF SHA TIN SEWAGE TREATMENT WORKS TO CAVERNS

CONTRACT TITLE
RELOCATION OF SHA TIN SEWAGE TREATMENT WORKS TO CAVERNS - MAIN CAVERNS CONSTRUCTION

**CLIENT**
業主

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| A | JAN. 21 | TENDER ADDENDUM NO. 3 | EPCY |
| - | NOV. 20 | TENDER DRAWING | EPCY |

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階段

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**DIMENSION UNIT** 尺寸單位
METRES

**KEY PLAN**
索引圖

**PROJECT NO.** 項目編號
60334056

**CONTRACT NO.** 合約編號
DC/2020/05

**SHEET TITLE**
圖紙名稱

PORTION OF SITE
- KEY PLAN

**SHEET NUMBER**
圖紙編號

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***Figure 2.2***

***Project Organization Chart***

# Project Organization Chart

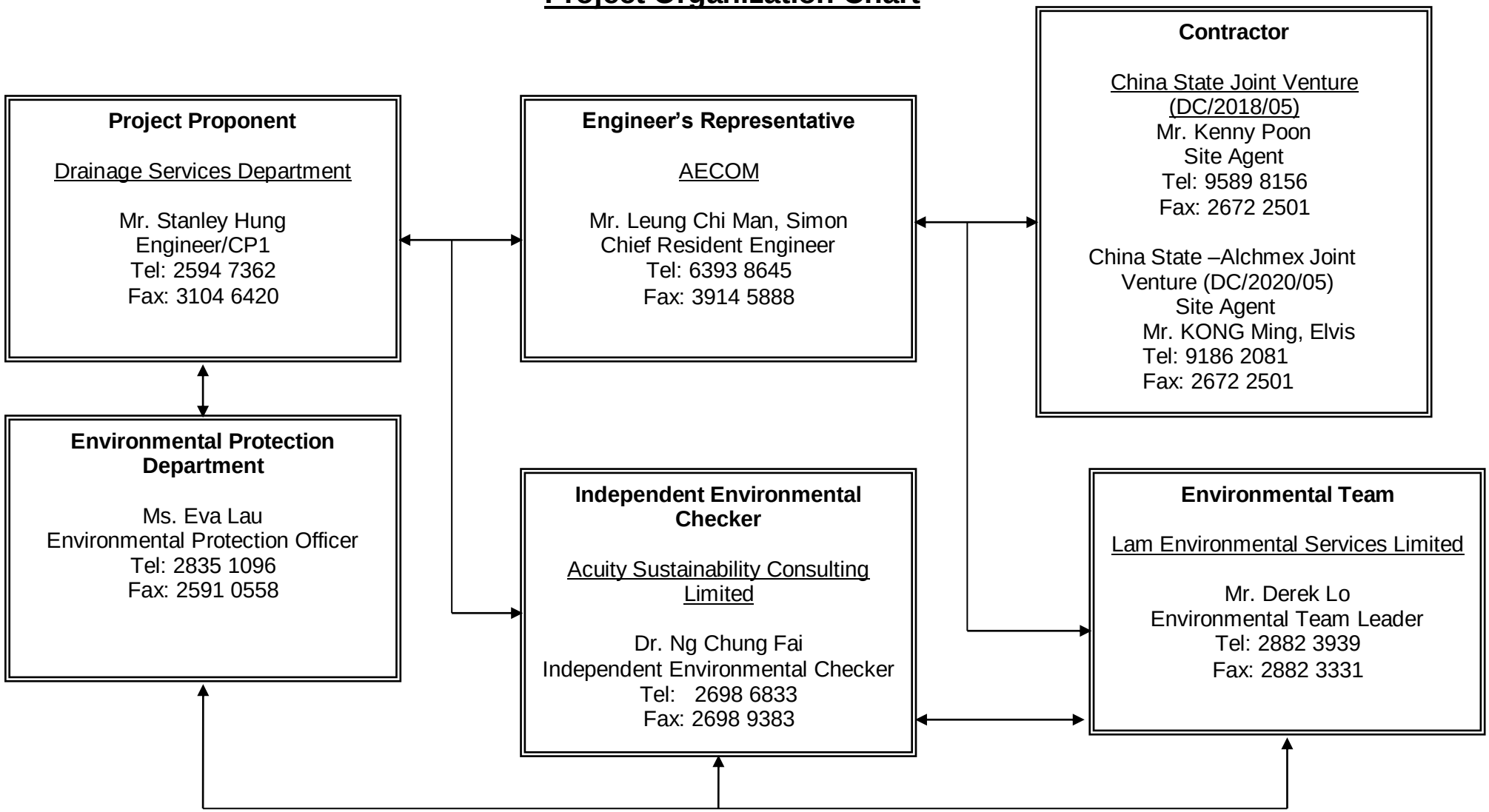


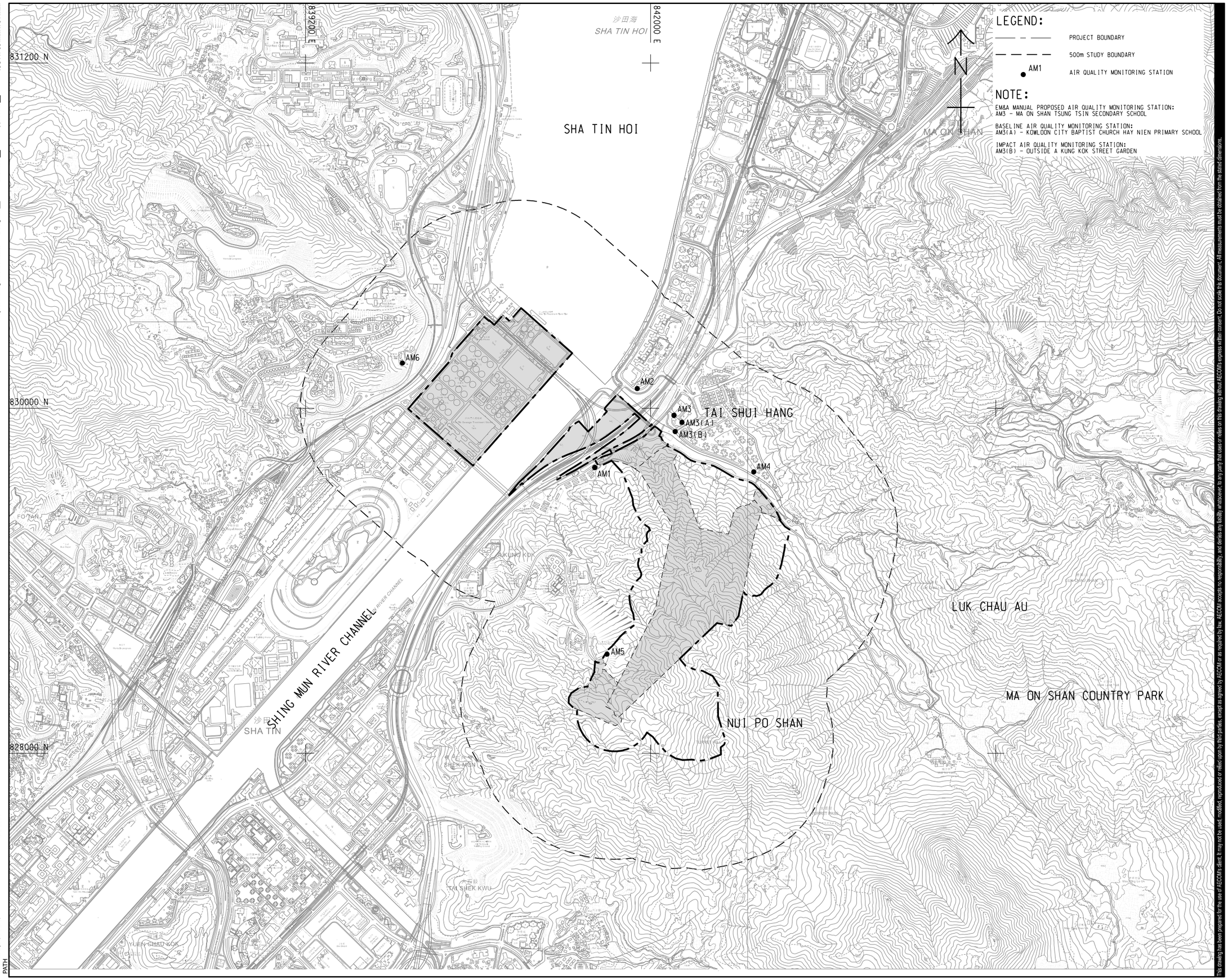

Figure 2.2

***Figure 4.1 to Figure 4.3***

***Locations of Monitoring Stations***

ISO A1 594mm x 841mm

Project Management Initials: Designer:__ Checked:__ Approved:__




9/2/2020

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RELOCATION OF SHA TIN SEWAGE TREATMENT WORKS TO CAVERNS: CAVERNS AND SEWAGE TREATMENT WORKS - INVESTIGATION, DESIGN AND CONSTRUCTION

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**STATUS**
階段

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**DIMENSION UNIT** 尺寸單位
METRES

**KEY PLAN** A3 1 : 400000
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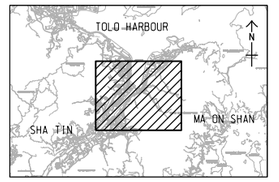


**PROJECT NO.** 項目編號
60334056

**CONTRACT NO.** 合約編號
CE 30/2014 (DS)

**SHEET TITLE**
圖紙名稱

LOCATION OF AIR QUALITY MONITORING STATION DURING CONSTRUCTION PHASE

**SHEET NUMBER**
圖紙編號

**60334056**/EM&A/2.01

ISO A1 594mm x 841mm

Approved:__

Checked:__

Designer:__

Project Management Initials:

840000 E

841000 E

842000 E

830000 N

829000 N

828000 N

SHA TIN HOI

TAI SHUI HANG

LUK CHAU AU

NUI PO SHAN

TURRET HILL

SHING MUN RIVER CHANNEL

A KUNG KOK

SHEK MUN

TURRET PASS

DM1

DM2

DM3

CM1

CM2

CM2(A)

CM2(B)

CM3

CM4

CM5

N

LEGEND:

PROJECT BOUNDARY

300m CONSTRUCTION NOISE / OPERATION FIXED PLANT NOISE STUDY BOUNDARY

CM1/DM1 NOISE MONITORING STATION

NOTE:

EM&A MANUAL PROPOSED NOISE MONITORING STATION:
CM2 - MA ON SHAN TSUNG TSIN SECONDARY SCHOOL

BASELINE NOISE MONITORING STATION:
CM2(A) - KOWLOON CITY BAPTIST CHURCH HAY NIEN PRIMARY SCHOOL

IMPACT NOISE MONITORING STATION:
CM2(B) - OUTSIDE A KUNG KOK STREET GARDEN

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RELOCATION OF SHA TIN SEWAGE TREATMENT WORKS TO CAVERNS: CAVERNS AND SEWAGE TREATMENT WORKS - INVESTIGATION, DESIGN AND CONSTRUCTION

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**STATUS**
狀況

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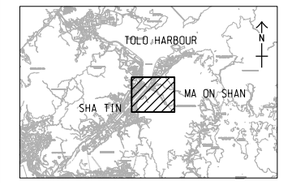
**DIMENSION UNIT** 尺寸單位
METRES

**KEY PLAN** 索引圖 A3 1 : 500000




**PROJECT NO.** 項目編號
60334056

**CONTRACT NO.** 合約編號
CE 30/2014 (DS)

**SHEET TITLE**
圖紙名稱

LOCATION OF CONSTRUCTION PHASE TRAFFIC NOISE MONITORING STATION

**SHEET NUMBER**
圖紙編號

**60334056/**EM&A/3.01

9/2/2020

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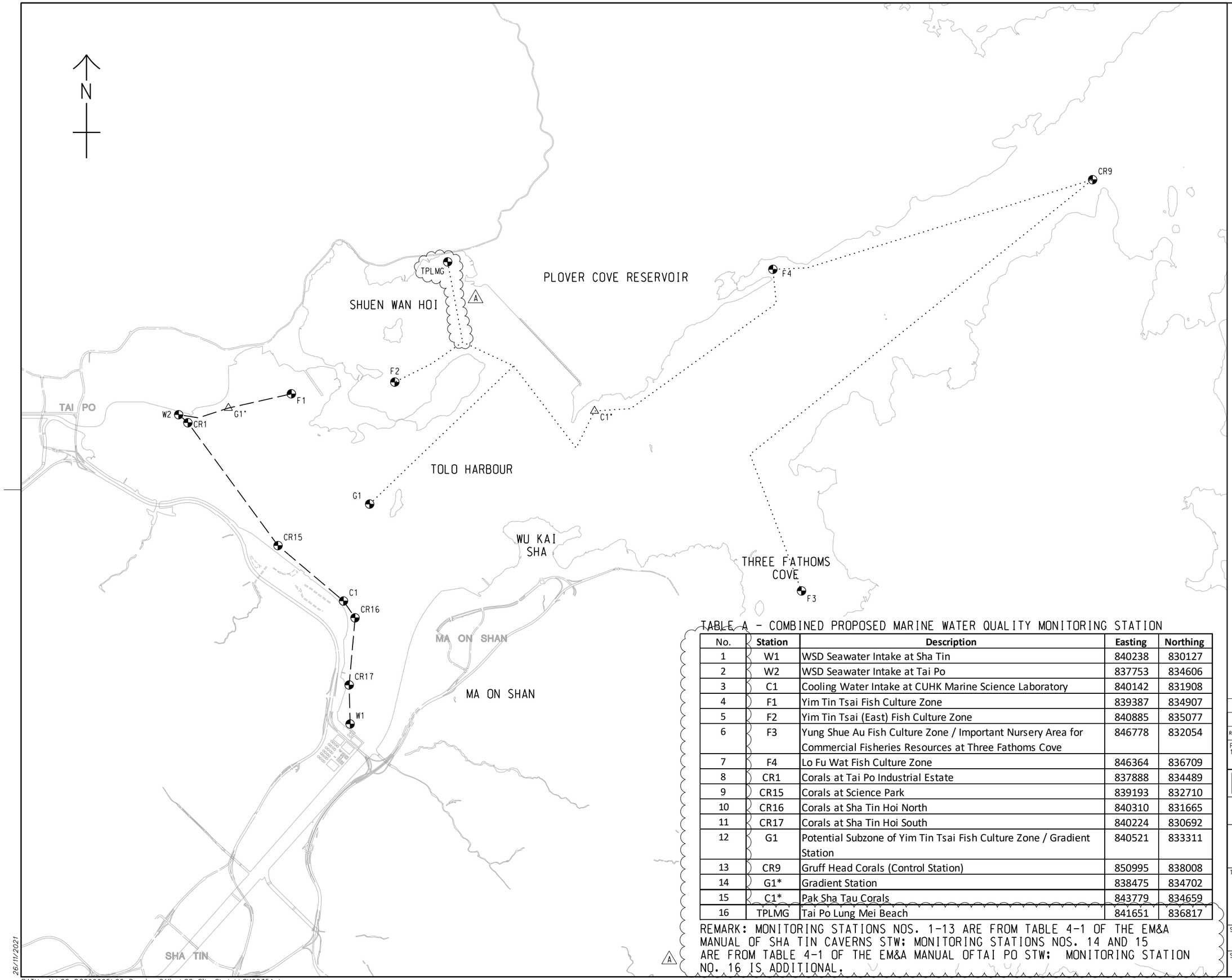


LEGEND:

- MARINE WATER SAMPLING ROUTE (1)
- MARINE WATER SAMPLING ROUTE (2)
- W1 — MARINE WATER QUALITY MONITORING STATIONS
- C1* — ADDITIONAL MARINE WATER QUALITY MONITORING STATIONS

TABLE A - COMBINED PROPOSED MARINE WATER QUALITY MONITORING STATION

| No. | Station | Description | Easting | Northing |
|---|---|---|---|---|
| 1 | W1 | WSD Seawater Intake at Sha Tin | 840238 | 830127 |
| 2 | W2 | WSD Seawater Intake at Tai Po | 837753 | 834606 |
| 3 | C1 | Cooling Water Intake at CUHK Marine Science Laboratory | 840142 | 831908 |
| 4 | F1 | Yim Tin Tsai Fish Culture Zone | 839387 | 834907 |
| 5 | F2 | Yim Tin Tsai (East) Fish Culture Zone | 840885 | 835077 |
| 6 | F3 | Yung Shue Au Fish Culture Zone / Important Nursery Area for Commercial Fisheries Resources at Three Fathoms Cove | 846778 | 832054 |
| 7 | F4 | Lo Fu Wat Fish Culture Zone | 846364 | 836709 |
| 8 | CR1 | Corals at Tai Po Industrial Estate | 837888 | 834489 |
| 9 | CR15 | Corals at Science Park | 839193 | 832710 |
| 10 | CR16 | Corals at Sha Tin Hoi North | 840310 | 831665 |
| 11 | CR17 | Corals at Sha Tin Hoi South | 840224 | 830692 |
| 12 | G1 | Potential Subzone of Yim Tin Tsai Fish Culture Zone / Gradient Station | 840521 | 833311 |
| 13 | CR9 | Gruff Head Corals (Control Station) | 850995 | 838008 |
| 14 | G1* | Gradient Station | 838475 | 834702 |
| 15 | C1* | Pak Sha Tau Corals | 843779 | 834659 |
| 16 | TPLMG | Tai Po Lung Mei Beach | 841651 | 836817 |

REMARK: MONITORING STATIONS NOS. 1-13 ARE FROM TABLE 4-1 OF THE EM&A MANUAL OF SHA TIN CAVERNS STW; MONITORING STATIONS NOS. 14 AND 15 ARE FROM TABLE 4-1 OF THE EM&A MANUAL OFTAI PO STW; MONITORING STATION NO. 16 IS ADDITIONAL.

| REV. | DATE | DESCRIPTION | DRAWN | PRE. | CHK. |
|---|---|---|---|---|---|
| A | 26/11/21 | CHANGE AS SHOWN | ML CK | WY | WY |
| - | 07/10/21 | FIRST ISSUED | ML CK | WY | WY |

REFERENCE:
1. SUPERSEDE THE LASTEST VERSION OF DRG NO. 60334056/C2/XXXX.

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DC/2020/05
RELOCATION OF SHA TIN SEWAGE TREATMENT WORKS TO CAVERNS - MAIN CAVERNS CONSTRUCTION

TITLE
MARINE WATER QUALITY MONITORING STATIONS

SKETCH NO. 60334056/C2/SK0035 | REV. A

SCALE 1:50 000 (A3)

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26/11/2021

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***Appendix 1.1***
***Ecological Monitoring Report***

# CONTRACT NO. STW 01/2021

## ENVIRONMENTAL TEAM FOR

## RELOCATION OF SHA TIN SEWAGE TREATMENT WORKS TO CAVERNS – SITE PREPARATION

## AND ACCESS TUNNEL CONSTRUCTION

## UNDER ENVIRONMENTAL PERMIT NO. EP-533/2017

## 30th ECOLOGICAL MONITORING REPORT

## JANUARY 2022

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***Recommendation on post-transplantation monitoring maintenance*** ..... 7

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# 1. Recommendation on plant species of conservation importance under approved protection and transplantation proposal

1.1.1. According to the latest approved Protection and Transplantation Proposal (ver. 9.2), four out of six recorded plant species of conservation importance are to be transplanted. The relevant information of the plant species were summarized in **Table 1, Table 2 and figure 1-4**. Base on the ongoing detailed design of the Project, the details of approved Protection and Transplantation Proposal and ecological monitoring will be updated in stages subject to further changes.

**Table 1. Recommendations (by Site) on the recorded plant species of conservation importance (Approved Protection and Transplantation Proposal Version 9.2)**

| Common Name | Species Name | Units | Recommendations | | | | |
|---|---|---|---|---|---|---|---|
| | | | Retain | Transplant | Fell | Total (in Project Boundary) | Compensatory Planting in Temporary Works Area |
| Adopted from previously approved Protection and Transplantation Proposal Version 9.2 | | | | | | | |
| Site 1 | | | | | | | |
| Small Persimmon | *Diospyros vaccinioides* | No. | 930 | 350 | 4810 | 6090 | Seedlings + Broadcast Seeding |
| Luofushan Joint-fir | *Gnetum luofuense* | $m^2$ | 270 | 0 | 1660 | 1930 | Seedlings |
| Purple Bulb Orchid | *Ania hongkongensis* | No. | 4 | 1 | 0 | 5 | N/A |
| Site 2 | | | | | | | |
| Small Persimmon | *Diospyros vaccinioides* | No. | 3240 | 250 | 4050 | 7540 | Seedlings + Broadcast Seeding |
| Luofushan Joint-fir | *Gnetum luofuense* | $m^2$ | 750 | 0 | 3230 | 3980 | Seedlings |
| Hong Kong Eagle's Claw | *Artabotrys hongkongensis* | No. | 0 | 0 | 1 | 1 | 1 Seedling |
| Butulang Canthium | *Canthium dicoccum* | No. | 6 | 3 | 5 | 14 | 5 Whip Trees |

| Common Name | Species Name | Units | Recommendations | | | | |
|---|---|---|---|---|---|---|---|
| | | | Retain | Transplant | Fell | Total (in Project Boundary) | Compensatory Planting in Temporary Works Area |
| Lamb of Tartary | *Cibotium barometz* | No. | 860 | 61 | 30 | 951 | No suitable habitat for compensatory planting |
| Buttercup Orchid | *Spathoglottis pubescens* | No. | 0 | 16 | 1 | 17 | Difficult to propagate from seed & not available in market |
| Site 3 | | | | | | | |
| Small Persimmon | *Diospyros vaccinioides* | No. | 4510 | 100 | 8250 | 12860 | Seedlings + Broadcast Seeding |
| Luofushan Joint-fir | *Gnetum luofuense* | $m^2$ | 990 | 0 | 1990 | 2980 | Seedlings |
| Butulang Canthium | *Canthium dicoccum* | No. | 0 | 0 | 4 | 4 | 4 Whip Trees |
| Lamb of Tartary | *Cibotium barometz* | No. | 101 | 7 | 50 | 158 | No suitable habitat for compensatory planting |
| Incense Tree | *Aquilaria sinensis* | No. | 0 | 1 | 0 | 1 | N/A |

**Table 2. Recommendations on the recorded plant species of conservation importance (Approved Protection and Transplantation Proposal Version 9.2)**

| Common Name | Species Name | Units | Recommendations | | | | |
|---|---|---|---|---|---|---|---|
| | | | Retain | Transplant | Fell | Total | Compensatory Planting in Temporary Works Area |
| Adopted from previously approved Protection and Transplantation Proposal Version 9.2 | | | | | | | |
| Small Persimmon | *Diospyros vaccinioides* | No. | 8680 | 700 | 17110 | 26490 | Seedlings (17,110) |
| Luofushan Joint-fir | *Gnetum luofuense* | $m^2$ | 2010 | 0 | 6680 | 8890 | Seedlings (22 locations at 50m interval) |
| Purple Bulb Orchid | *Ania hongkongensis* | No. | 4 | 1 | 0 | 5 | N/A |
| Hong Kong Eagle's Claw | *Artabotrys hongkongensis* | No. | 0 | 0 | 1 | 1 | 1 Seedling |
| Butulang Canthium | *Canthium dicoccum* | No. | 6 | 3 | 9 | 18 | 9 Whip Trees |
| Lamb of Tartary | *Cibotium barometz* | No. | 961 | 68 | 80 | 1,109 | No suitable habitat for compensatory planting |
| Incense Tree | *Aquilaria sinensis* | No. | 0 | 1 | 0 | 1 | N/A |
| Buttercup Orchid | *Spathoglottis pubescens* | No. | 0 | 16 | 1 | 17 | Difficult to propagate from seed & not available in market |

# 2. Results of Ecological monitoring

## *2.1. Transplantation monitoring*

### *Pre-construction survey*

2.1.1. As per Section 3.1 of the approved Protection and Transplantation Proposal, pre-construction survey shall be carried out by a qualified ecologist which includes: -

1) Desktop study and survey preparation based on the specific area of site clearance as notified by the construction contractor and confirmed with the Resident Site Staff;

2) Schedule and conduct physical site survey to locate the affected species, reconfirm the species condition and record the physical condition before transplantation; and
3) Report site survey results and provide recommendations to contractor on transplantation and post-transplantation maintenance.

2.1.2. No pre-construction survey was conducted in January 2022.

### ***Transplantation***

2.1.3. Based on method statement in the approved Protection and Transplantation Proposal, all of the plants affected by project should be transplanted as soon as possible. Where possible, transplantation work is preferably done on the same day of lifting. Otherwise, the plants dug out shall be transported to a nursery before transplanting into their final receptor sites.

2.1.4. No Transplantation was conducted in January 2022.

### ***One-year Establishment Period after Planting (Post-Transplantation Monitoring)***

2.1.5. Regular monitoring of health condition of transplanted plants, also called post-transplantation monitoring, should be carried out in monthly basis in the first three months, quarterly afterwards during one-year establishment period after transplanting to receptor site/ nursery as per Section 5.4 and 5.5 of the approved Protection and Transplantation Proposal.

2.1.6. The schedule of the on-going for Post-transplantation monitoring were summarized in **Table 2**.

**Table 3 schedule of the on-going for Post-transplantation monitoring**

| Common Name | Species Name | Nos. | Contract No. | Date of Transplantation (MM/Year) | Post-transplantation monitoring Period | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 2021 | | | | | | | 2022 | | | | | | | | | | |
| | | | | | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov |
| Small Persimmon | *Diospyros vaccinioides* | 530 (DV 001-DV0530) | DC/2018/05 | 05/2021 | x | x | x | | | x | | | x | | | x | | | | | | |
| Small Persimmon | *Diospyros vaccinioides* | 20 (DV 0531-DV 0550) | DC/2018/05 | 09/2021 | | | | | x | x | x | | | x | | | x | | | x | | |
| Small Persimmon | *Diospyros vaccinioides* | 150 (ADV 551 - ADV 700) | DC/2020/05 | 10/2021 | | | | | | x | x | x | | | x | | | x | | | x | |
| Butulang Canthium | *Canthium dicoccum* | 3 | DC/2020/05 | 10/2021 | | | | | | x | x | x | | | x | | | x | | | x | |

X: Monitoring schedule

### ***Post-transplantation monitoring findings***

2.1.7. The monthly monitoring for the on-going for Post-transplantation were conducted on 4 and 18 January 2022.

2.1.8. A total 150nos. of *Diospyros vaccinioides* (DV0551-DV0700) were recorded during the monitoring in the receptor site– RMZ1 downhill side in January 2022. The overall conditions of *Diospyros vaccinioides* is **fair to good**. The individual of plant conditions for *Diospyros vaccinioides* at the receptor site were listed in **Appendix 3**. Some seedlings were generally tiny (about 10cm in height) aiming at smaller root zone and better survival. However, some of them have yet developed sufficient leaves. Sign of leaf drop has been observed. Although tiny new branch or leaf buds were observed, seedlings may struggle for survival against environmental stress. Plant photos of *Diospyros vaccinioides* at the receptor site were illustrated in **Appendix 1.**

2.1.9. For the 3nos. of *Canthium dicoccum* (names as D0016B, D0017 and D0018), Sign of leaf drop has been observed. The overall conditions of *Canthium dicoccum* is **Poor**. They're probably affected by extreme weather condition (such as significantly low temperature). The individual of plant conditions for *Canthium dicoccum* at the receptor site were listed in **Appendix 4**. Photo records conditions of *Canthium dicoccum* at the receptor site illustrated in **Appendix 2.**

### ***Recommendation on post-transplantation monitoring maintenance***

2.1.10. According to environmental condition and location of the receptor sites/ nursery, watering frequency was recommended in daily practice for at least the first 3 months as the transplant time is in summer months with strong sunlight and high temperature; except the days with fog and rain. Water frequency may be reduced based on the plant condition after monitoring in the first 3 months.

2.1.11. In contrast, the Landscape Contractor was recommended to check all transplanted plants after heavy rains/ typhoon under safe condition, in order to carry out any stabilization/ maintenance work. Blocked drainage shall be cleared; excessive water shall be pumped or diverged from nursery ground; saturated soil shall be aerated.

2.1.12. Other maintenance works (e.g. weeding, spraying off construction dust, use of approved pesticide and fertilization) shall be determined throughout the monitoring period in agreement with the Supervisor of the Contract and ET.

### ***Summary of the transplantation and recommended after establishment period***

2.1.13. The status of the transplantation were shown in **Table 3.**

**Table 4 Summary of the transplantation**

| Common Name | Species Name | Units | Recommendations for Transplant * | Pre-construction survey implementation** | Transplantation Date | | Monitoring Status | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | To Nursery (MM/YY) | To Receptor Site (MM/YY) | Started at | Ended at | Status |
| Site 1 | | | | | | | | | |
| Small Persimmon | *Diospyros vaccinioides* | No. | 228 | 12/2019 | 2/2020 | 5/2021 | 6/2021 | - | On-going |
| | | | 122 | 7/2020 | 9/2020 | 5/2021 | 6/2021 | - | On-going |
| Purple Bulb Orchid | *Ania hongkongensis* | No. | 1 | NA | - | 7/2019 | 8/2019 | 7/2020 | Completed |
| Site 2 | | | | | | | | | |
| Small Persimmon | *Diospyros vaccinioides* | No. | 40 | before transplantation | 8/2019 | 5/2021 | 6/2021 | - | On-going |
| | | | 10 | 7/2020 | 9/2020 | 5/2021 | 6/2021 | - | On-going |
| | | | 50 | before transplantation | 11/2020 | 5/2021 & 9/2021 | 6/2021 & 10/2021 | - | On-going |
| | | | 150 | 9/2021 | - | 10/2021 | 11/2021 | - | On-going |
| Butulang Canthium | *Canthium dicoccum* | No. | 3 | NA | - | 10/2021 | 11/2021 | - | On-going |
| Lamb of Tartary | *Cibotium barometz* | No. | 19 | NA | | 9/2020 | 10/2020 | 9/2021 | Completed |
| | | | 42 | NA | - | - | - | - | Pending |
| Buttercup Orchid | *Spathoglottis pubescens* | No. | 16 | NA | - | - | - | - | Pending |
| Site 3 | | | | | | | | | |
| Small Persimmon | *Diospyros vaccinioides* | No. | 100 | 7/2020 | 9/2020 | 5/2021 | 6/2021 | - | On-going |
| Lamb of Tartary | *Cibotium barometz* | No. | 7 | NA | - | 7/2019 | 7/2019 | 6/2020 | Completed |
| Incense Tree | *Aquilaria sinensis* | No. | 1 | NA | - | 7/2019 | 7/2019 | 6/2020 | Completed |

*Adopted from previously approved Protection and Transplantation Proposal Version 9.2

**Pre-construction survey implementation was conducted on *Diospyros vaccinioides* only

2.1.14. Based on latest conditions of the after-establishment period, regular monitoring is not recommended after establishment period expect replacement planting if found dead (subject to agreement with AFCD).

## *2.2. Compensatory Planting monitoring*

### *Methodology*

2.2.1. The Compensatory planting methods and monitoring should be followed by approved Protection and Transplantation Proposal. The potential of compensatory planting for 17,110 nos. of *Diospyros vaccinioides*, 6,880m$^2$ *Gnetum luofuense*, 9 nos. of *Canthium dicoccum*, about 80 nos. of *Cibotium barometz* and 1 *Artabotrys hongkongensis*. Base on the ongoing detailed design of the Project, the details of approved Protection and Transplantation Proposal and ecological monitoring will be updated in stages subject to further changes.

### *Seeds Collection*

### *Diospyros vaccinioides*

2.2.2. According to the section 3.8 under approved Protection and Transplantation Proposal, Healthy seedlings will be selected within the fruiting period (October – February). Before the receptor site is available, the collected seeds should be stored in sealed container, with moisture content below 7% and at temperatures of less than 15°C.

2.2.3. No seeds collection were conducted in January 2022.

2.2.4. A total 3000 nos. seeds of *Diospyros vaccinioides* were collected by contractor of Contract no. DC/2020/05 between November and December 2021. Photo records of *Diospyros vaccinioides* illustrated in **Appendix 5**.

### *Summary of the transplantation and recommended after establishment period*

2.2.5. The status of the Compensatory Planting were shown in **Table 5.**

**Table 5 Summary of Compensatory Planting**

| Common Name | Species Name | Units | Compensatory Planting in Temporary Works Area | Contract No. | Seeds Collection | | Broadcast Seeding | Seedling Planting | Monitoring Status | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Nos. of Seed Collected | Date (MM/YY) | Date (MM/YY) | Date (MM/YY) | Started at | Ended at | Status |
| Small Persimmon | *Diospyros vaccinioides* | No. | Seedlings (17,110) | DC/2020/05 | 3000 | 11/2021-12/2021 | - | - | - | - | - |
| Luofushan Joint-fir | *Gnetum luofuense* | m$^2$ | Seedlings (22 locations at 50m interval) | Pending | - | - | - | - | - | - | - |

| Common Name | Species Name | Units | Compensatory Planting in Temporary Works Area | Contract No. | Seeds Collection | | Broadcast Seeding | Seedling Planting | Monitoring Status | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Nos. of Seed Collected | Date (MM/YY) | Date (MM/YY) | Date (MM/YY) | Started at | Ended at | Status |
| Hong Kong Eagle's Claw | *Artabotrys hongkongensis* | No. | 1 Seedling | Pending | - | - | - | - | - | - | - |
| Butulang Canthium | *Canthium dicoccum* | No. | 9 Whip Trees | Pending | - | - | - | - | - | - | - |

# FIGURES

## Figure 1 Original location of DV0229-DV0268 and DV0001-DV0228 at Site 1.

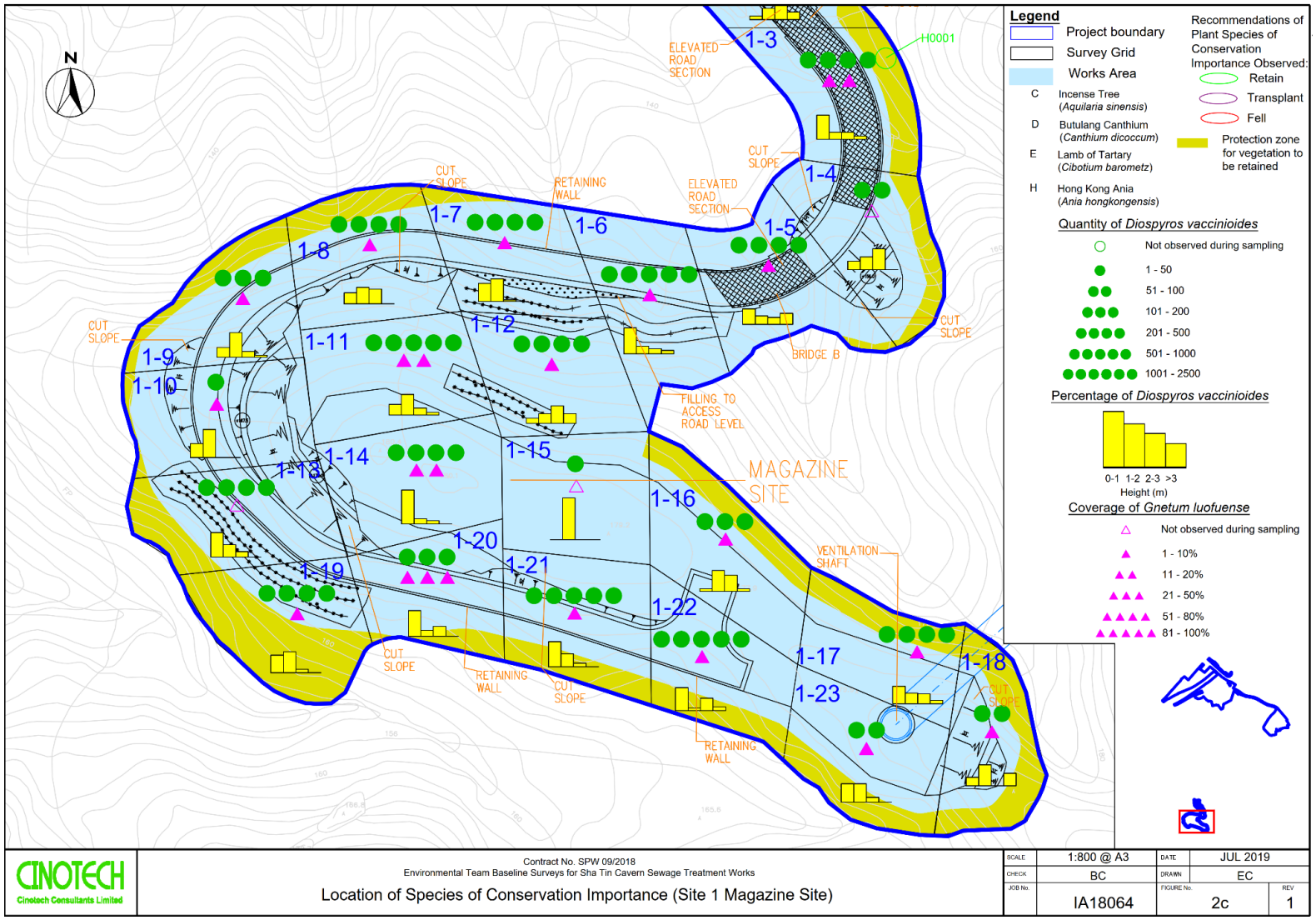


**Figure 2. Original location of DV0269-DV0500 and DV0501-DV0550 at Site 2. Nursery site highlighted in red frame for DV0229-DV0268, DV0001-DV0228, DV0269-DV0500 and DV0501-DV0550 at Site 2.**

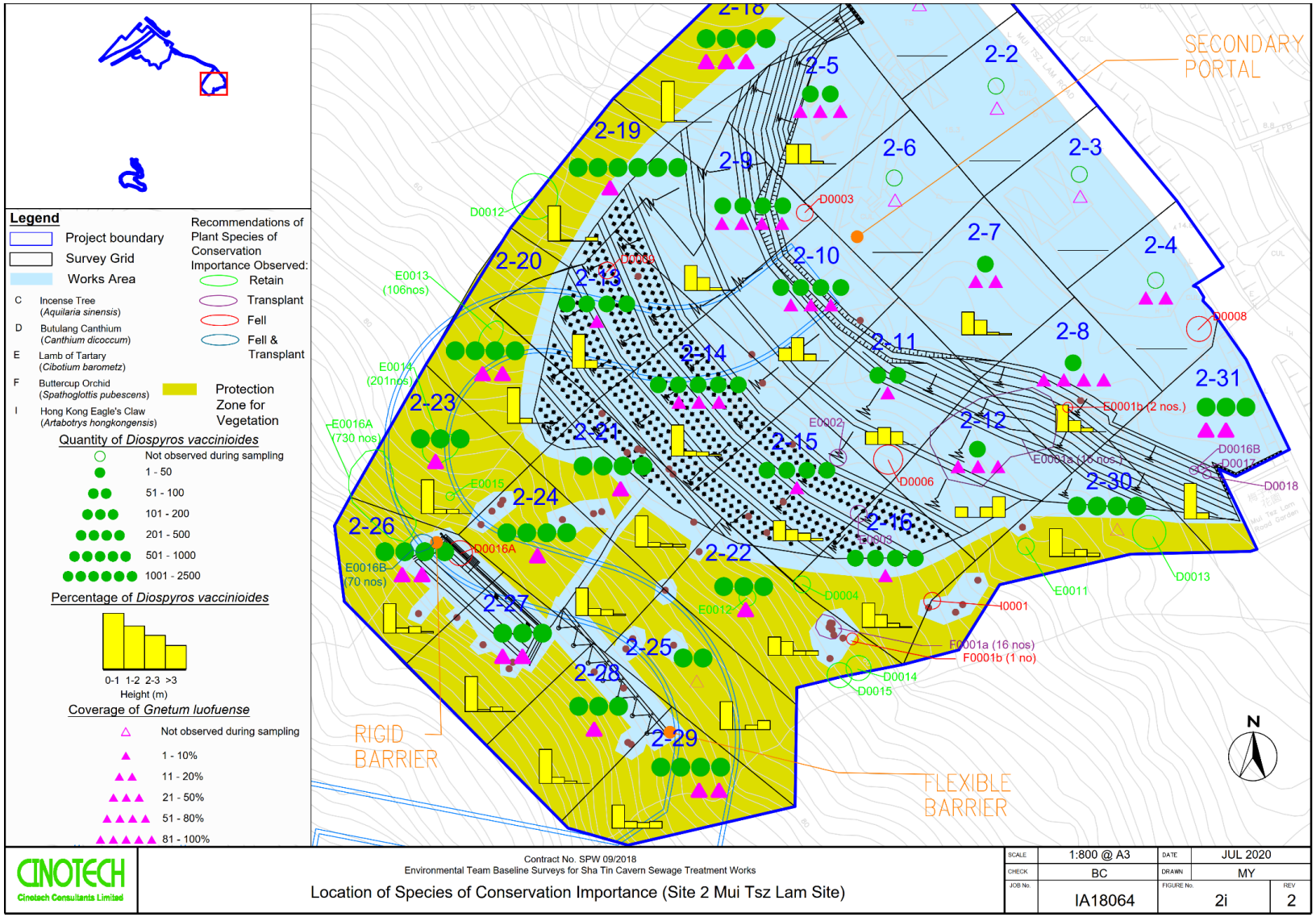


**Figure 3. Original location of species of conservation Importance frame and its receptor site.**

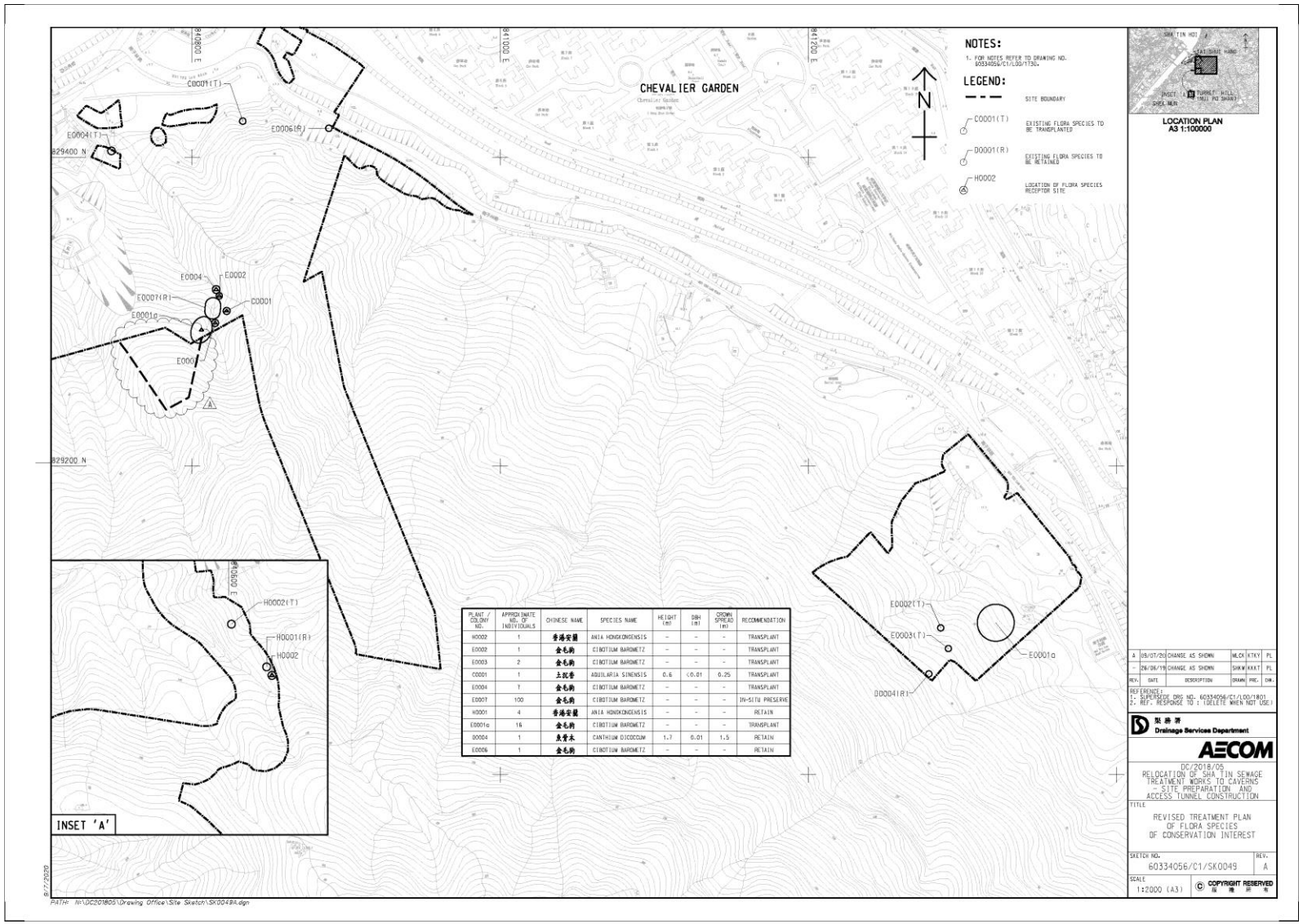


**Figure 4. Receptor site for C0001 and E0001a-E0004, the area highlighted in red frame is enlarged.**

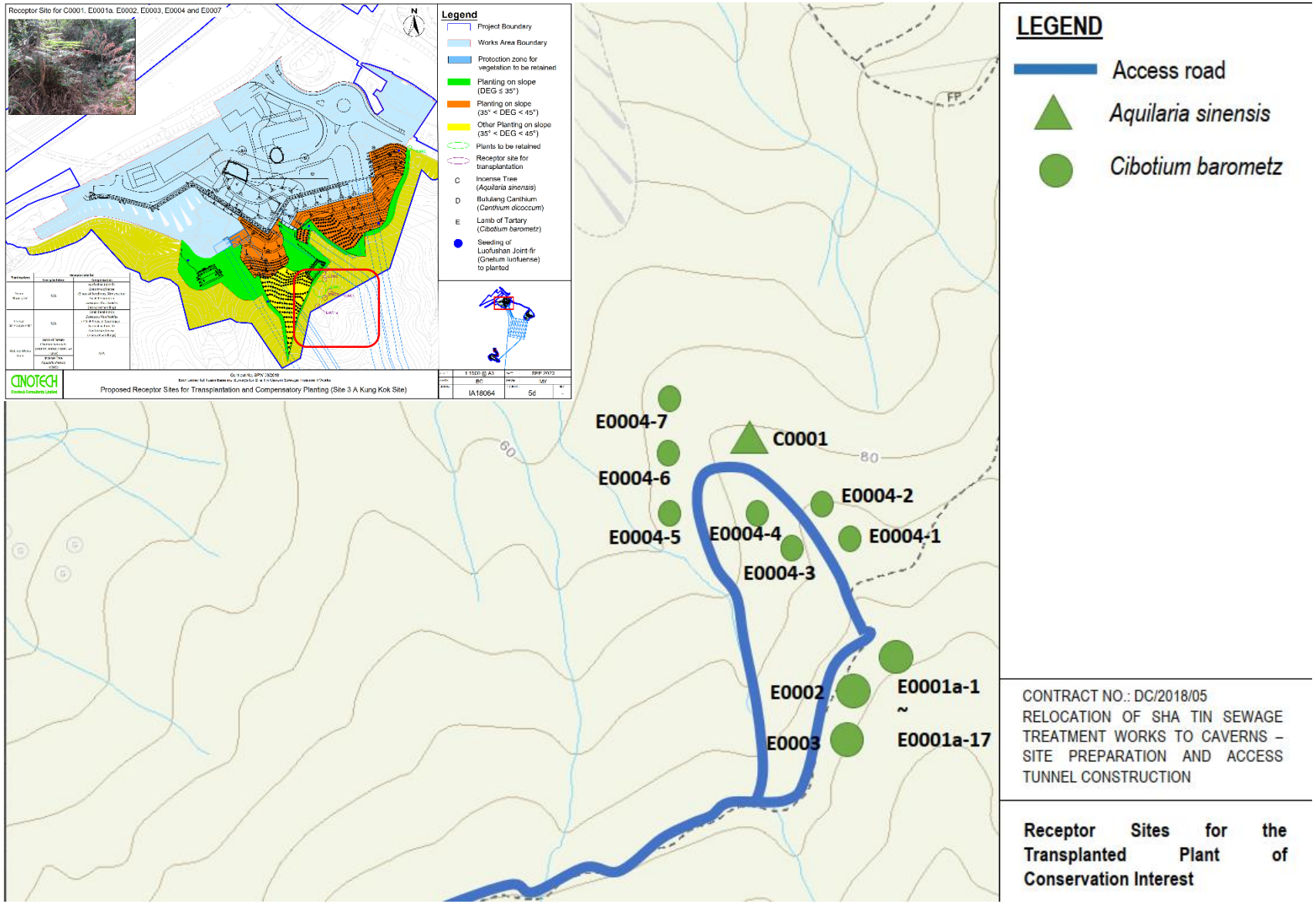
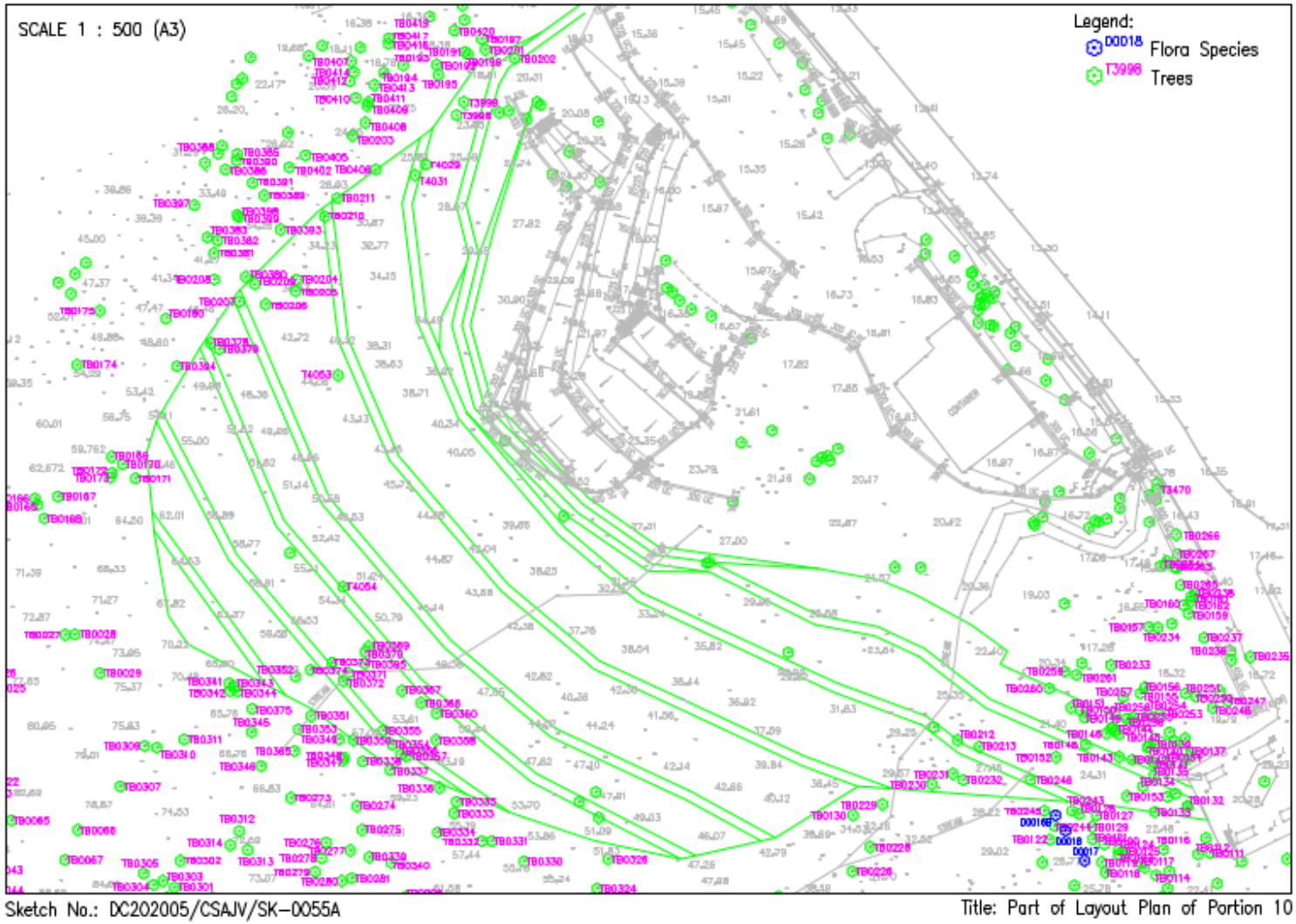


**Figure 5. Receptor site for *Canthium dicoccum***



# Appendix 1

# Photographic records of post-transplantation monitoring on plants of conservation importance transplanted at receptor site

Post-transplantation monitoring at receptor site on 4 and 18 January 2022.

| | |
|---|---|
| | |
| Receptor site of *Diospyros vaccinioides* | Receptor site of *Diospyros vaccinioides* |
| | |
| Receptor site of *Canthium dicoccum* | |

# APPENDIX 2

# Photographic records of post-transplantation monitoring on plants of conservation importance transplanted at receptor site

Photographic records of post-transplantation monitoring on plants of conservation importance transplanted at receptor site on January 2022.

| | |
|---|---|
| | |
| Photo record of *Diospyros vaccinioides* | Photo record of *Diospyros vaccinioides* |
| | |
| Photo record of *Diospyros vaccinioides* | Photo record of *Canthium dicoccum* |

# APPENDIX 3
# Conditions of the transplanted *Diospyros vaccinioides* at Receptor site in Post-transplantation monitoring

Conditions of the transplanted *Diospyros vaccinioides* at Receptor site in Post-transplantation monitoring

| Date of monitoring | No. | Form | Health condition | Structural condition | Amenity value | Remarks |
|---|---|---|---|---|---|---|
| 4-Jan-2022 & 18-Jan-2022 | ADV 0551 | Fair | Fair | Fair | Fair | |
| | ADV 0552 | Fair | Fair | Fair | Fair | |
| | ADV 0553 | Fair | Fair | Fair | Fair | |
| | ADV 0554 | Fair | Fair | Fair | Fair | |
| | ADV 0555 | Fair | Fair | Fair | Fair | |
| | ADV 0556 | Fair | Fair | Fair | Fair | |
| | ADV 0557 | Fair | Fair | Fair | Fair | |
| | ADV 0558 | Fair | Fair | Fair | Fair | |
| | ADV 0559 | Fair | Fair | Fair | Fair | |
| | ADV 0560 | Fair | Fair | Fair | Fair | |
| | ADV 0561 | Fair | Fair | Fair | Fair | |
| | ADV 0562 | Fair | Fair | Fair | Fair | |
| | ADV 0563 | Fair | Fair | Fair | Fair | |
| | ADV 0564 | Fair | Fair | Fair | Fair | |
| | ADV 0565 | Fair | Fair | Fair | Fair | |
| | ADV 0566 | Fair | Fair | Fair | Fair | |
| | ADV 0567 | Fair | Fair | Fair | Fair | |
| | ADV 0568 | Fair | Fair | Fair | Fair | |
| | ADV 0569 | Fair | Fair | Fair | Fair | |
| | ADV 0570 | Fair | Fair | Fair | Fair | |
| | ADV 0571 | Fair | Fair | Fair | Fair | |
| | ADV 0572 | Fair | Fair | Fair | Fair | |
| | ADV 0573 | Fair | Fair | Fair | Fair | |
| | ADV 0574 | Fair | Fair | Fair | Fair | |
| | ADV 0575 | Fair | Fair | Fair | Fair | |
| | ADV 0576 | Good | Good | Good | Fair | |
| | ADV 0577 | Fair | Fair | Fair | Fair | |
| | ADV 0578 | Fair | Fair | Fair | Fair | |
| | ADV 0579 | Fair | Fair | Fair | Fair | |

| Date of monitoring | No. | Form | Health condition | Structural condition | Amenity value | Remarks |
|---|---|---|---|---|---|---|
| | ADV 0580 | Fair | Fair | Fair | Fair | Leaf dropped |
| | ADV 0581 | Fair | Fair | Fair | Fair | |
| | ADV 0582 | Fair | Fair | Fair | Fair | |
| | ADV 0583 | Fair | Fair | Fair | Fair | |
| | ADV 0584 | Fair | Fair | Fair | Fair | |
| | ADV 0585 | Fair | Fair | Fair | Fair | |
| | ADV 0586 | Fair | Fair | Fair | Fair | |
| | ADV 0587 | Fair | Fair | Fair | Fair | Leaf dropped |
| | ADV 0588 | Fair | Fair | Fair | Fair | Leaf dropped |
| | ADV 0589 | Fair | Fair | Fair | Fair | |
| | ADV 0590 | Fair | Fair | Fair | Fair | |
| | ADV 0591 | Fair | Fair | Fair | Fair | Leaf dropped |
| | ADV 0592 | Fair | Fair | Fair | Fair | |
| | ADV 0593 | Fair | Fair | Fair | Fair | |
| | ADV 0594 | Fair | Fair | Fair | Fair | |
| | ADV 0595 | Fair | Fair | Fair | Fair | |
| | ADV 0596 | Fair | Fair | Fair | Fair | |
| | ADV 0597 | Fair | Fair | Fair | Fair | |
| | ADV 0598 | Fair | Fair | Fair | Fair | |
| | ADV 0599 | Fair | Fair | Fair | Fair | Leaf dropped |
| | ADV 0600 | Fair | Fair | Fair | Fair | |
| | ADV 0601 | Good | Fair | Fair | Fair | |
| | ADV 0602 | Good | Fair | Fair | Fair | |
| | ADV 0603 | Fair | Fair | Fair | Fair | |
| | ADV 0604 | Fair | Fair | Fair | Fair | |
| | ADV 0605 | Fair | Fair | Fair | Fair | |
| | ADV 0606 | Fair | Fair | Fair | Fair | |
| | ADV 0607 | Fair | Fair | Fair | Fair | |
| | ADV 0608 | Fair | Fair | Fair | Fair | |
| | ADV 0609 | Fair | Fair | Fair | Fair | |
| | ADV 0610 | Fair | Fair | Fair | Fair | |

| Date of monitoring | No. | Form | Health condition | Structural condition | Amenity value | Remarks |
|---|---|---|---|---|---|---|
| | ADV 0611 | Fair | Fair | Fair | Fair | |
| | ADV 0612 | Fair | Fair | Fair | Fair | |
| | ADV 0613 | Fair | Fair | Fair | Fair | |
| | ADV 0614 | Fair | Fair | Fair | Fair | |
| | ADV 0615 | Fair | Fair | Fair | Fair | |
| | ADV 0616 | Fair | Fair | Fair | Fair | |
| | ADV 0617 | Fair | Fair | Fair | Fair | |
| | ADV 0618 | Fair | Fair | Fair | Fair | |
| | ADV 0619 | Good | Fair | Fair | Fair | |
| | ADV 0620 | Good | Fair | Fair | Fair | |
| | ADV 0621 | Fair | Fair | Fair | Fair | |
| | ADV 0622 | Fair | Fair | Fair | Fair | |
| | ADV 0623 | Fair | Fair | Fair | Fair | |
| | ADV 0624 | Fair | Fair | Fair | Fair | |
| | ADV 0625 | Fair | Fair | Fair | Fair | |
| | ADV 0626 | Fair | Fair | Fair | Fair | |
| | ADV 0627 | Fair | Fair | Fair | Fair | |
| | ADV 0628 | Fair | Fair | Fair | Fair | |
| | ADV 0629 | Fair | Fair | Fair | Fair | |
| | ADV 0630 | Fair | Fair | Fair | Fair | |
| | ADV 0631 | Fair | Fair | Fair | Fair | |
| | ADV 0632 | Fair | Fair | Fair | Fair | |
| | ADV 0633 | Fair | Fair | Fair | Fair | |
| | ADV 0634 | Fair | Fair | Fair | Fair | |
| | ADV 0635 | Fair | Fair | Fair | Fair | |
| | ADV 0636 | Good | Fair | Fair | Fair | |
| | ADV 0637 | Fair | Fair | Fair | Fair | |
| | ADV 0638 | Fair | Fair | Fair | Fair | |
| | ADV 0639 | Fair | Fair | Fair | Fair | |
| | ADV 0640 | Good | Fair | Fair | Fair | |
| | ADV 0641 | Fair | Fair | Fair | Fair | |
| | ADV 0642 | Fair | Fair | Fair | Fair | |
| | ADV 0643 | Fair | Fair | Fair | Fair | |
| | ADV 0644 | Fair | Fair | Fair | Fair | |

| Date of monitoring | No. | Form | Health condition | Structural condition | Amenity value | Remarks |
|---|---|---|---|---|---|---|
| | ADV 0645 | Fair | Fair | Fair | Fair | |
| | ADV 0646 | Fair | Fair | Fair | Fair | |
| | ADV 0647 | Fair | Fair | Fair | Fair | |
| | ADV 0648 | Fair | Fair | Fair | Fair | Leaf dropped |
| | ADV 0649 | Fair | Fair | Fair | Fair | Leaf dropped |
| | ADV 0650 | Fair | Fair | Fair | Fair | |
| | ADV 0651 | Fair | Fair | Fair | Fair | |
| | ADV 0652 | Fair | Fair | Fair | Fair | |
| | ADV 0653 | Fair | Fair | Fair | Fair | |
| | ADV 0654 | Fair | Fair | Fair | Fair | |
| | ADV 0655 | Fair | Fair | Fair | Fair | |
| | ADV 0656 | Fair | Fair | Fair | Fair | |
| | ADV 0657 | Good | Fair | Fair | Fair | |
| | ADV 0658 | Good | Fair | Fair | Fair | |
| | ADV 0659 | Good | Fair | Fair | Fair | |
| | ADV 0660 | Good | Fair | Fair | Fair | |
| | ADV 0661 | Fair | Fair | Fair | Fair | |
| | ADV 0662 | Fair | Fair | Fair | Fair | |
| | ADV 0663 | Poor | Fair | Fair | Fair | |
| | ADV 0664 | Fair | Fair | Fair | Fair | |
| | ADV 0665 | Fair | Fair | Fair | Fair | |
| | ADV 0666 | Good | Fair | Fair | Fair | |
| | ADV 0667 | Fair | Fair | Fair | Fair | |
| | ADV 0668 | Poor | Fair | Fair | Fair | |
| | ADV 0669 | Fair | Fair | Fair | Fair | |
| | ADV 0670 | Fair | Fair | Fair | Fair | |
| | ADV 0671 | Fair | Fair | Fair | Fair | |
| | ADV 0672 | Fair | Fair | Fair | Fair | |
| | ADV 0673 | Fair | Fair | Fair | Fair | |
| | ADV 0674 | Fair | Fair | Fair | Fair | |
| | ADV 0675 | Fair | Fair | Fair | Fair | Leaf dropped |
| | ADV 0676 | Fair | Fair | Fair | Fair | |

| Date of monitoring | No. | Form | Health condition | Structural condition | Amenity value | Remarks |
|---|---|---|---|---|---|---|
| | ADV 0677 | Good | Good | Good | Fair | |
| | ADV 0678 | Fair | Fair | Fair | Fair | |
| | ADV 0679 | Fair | Fair | Fair | Fair | |
| | ADV 0680 | Fair | Fair | Fair | Fair | |
| | ADV 0681 | Good | Fair | Fair | Fair | |
| | ADV 0682 | Fair | Fair | Fair | Fair | Leaf dropped |
| | ADV 0683 | Fair | Fair | Fair | Fair | |
| | ADV 0684 | Fair | Fair | Fair | Fair | |
| | ADV 0685 | Fair | Fair | Fair | Fair | Leaf dropped |
| | ADV 0686 | Fair | Fair | Fair | Fair | |
| | ADV 0687 | Fair | Fair | Fair | Fair | |
| | ADV 0688 | Fair | Fair | Fair | Fair | |
| | ADV 0689 | Fair | Fair | Fair | Fair | |
| | ADV 0690 | Fair | Fair | Fair | Fair | |
| | ADV 0691 | Fair | Fair | Fair | Fair | |
| | ADV 0692 | Fair | Fair | Fair | Fair | |
| | ADV 0693 | Fair | Fair | Fair | Fair | |
| | ADV 0694 | Fair | Fair | Fair | Fair | |
| | ADV 0695 | Fair | Fair | Fair | Fair | |
| | ADV 0696 | Fair | Fair | Fair | Fair | |
| | ADV 0697 | Fair | Fair | Fair | Fair | |
| | ADV 0698 | Fair | Fair | Fair | Fair | |
| | ADV 0699 | Fair | Fair | Fair | Fair | |
| | ADV 0700 | Fair | Fair | Fair | Fair | |

# APPENDIX 4
# Conditions of the transplanted *Canthium dicoccum* at Receptor site in Post-transplantation monitoring

**Conditions of the transplanted *Canthium dicoccum* at Receptor site in Post-transplantation monitoring**

| Date of monitoring | No. | Form | Health condition | Structural condition | Amenity value | Remarks |
|---|---|---|---|---|---|---|
| 4-Jan-2022 & 18-Jan-2022 | D0016B | Poor | Poor | Poor | Poor | Leaf dropped |
| | D0017 | Poor | Poor | Poor | Poor | Leaf dropped |
| | D0018 | Poor | Poor | Poor | Poor | Leaf dropped |

# APPENDIX 5

# Photos Records for Compensatory Seeds Collection of *Diospyros vaccinioides*

## Photos Records for Compensatory Seeds Collection of *Diospyros vaccinioides*

| | |
|---|---|
| | |
| Seeds Collection by Contractor | Seeds of *Diospyros vaccinioides* |
| | |
| Weight of *Diospyros vaccinioides* | |

***Appendix 3.1***

***Environmental Mitigation Implementation Schedule***

# APPENDIX C IMPLEMENTATION SCHEDULE OF RECOMMENDED MITIGATION MEASURES

## C.1 Introduction

C.1.1 This section presents the implementation schedule of mitigation measures for the Project. **Table C.1** summarises the details of the recommended mitigation measures for all works areas. For each recommended mitigation measures, both the location and timing for the measure have clearly been identified as well as the parties responsible for implementing the measure and for maintenance (where applicable).

*Table C.1 Implementation Schedule of Recommended Mitigation Measures*

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| | **Air Quality Impact** | | | | | | | | |
| | Construction Phase | | | | | | | | |
| Table 3.5 | 2.4.1 | The rock crushing plant is configured as an enclosed system.<br>Dust collector with dust removal efficiency of 99% will be provided at the exhaust of the rock crusher during rock crushing.<br>Watering will be provided to maintain material in wet condition.<br>Vehicles would be required to pass through the wheel washing facilities provided at site exit. | Rock Crushing Plant / Construction Phase | Contractor | √ | √ | | √ | Air Pollution Control Ordinance (APCO) |
| 3.8.1 | 2.4.1 | Watering eight times a day on active works areas, exposed areas and unpaved haul roads to reduce dust emission by 87.5%. | All active works areas, exposed areas and unpaved haul roads | Contractor | | √ | | √ | APCO |

[1] Des = Design; C = Construction; O = Operation; Dec = Decommissioning

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| 3.8.1 | 2.4.1 | Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices:<br>• Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.<br>• Use of frequent watering for particularly dusty construction areas and areas close to ASRs.<br>• Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines.<br>• Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs.<br>• Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.<br>• Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.<br>• Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading area of barging point, and use of water sprinklers at the loading area | Construction Sites | Contractor | | √ | | √ | APCO and Air Pollution Control (Construction Dust) Regulation |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| | | where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods.<br>• Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit.<br>• Imposition of speed controls for vehicles on site haul roads.<br>• Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs.<br>• Every stock of more than 20 bags of cement or dry PFA should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.<br>• Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise. | | | | | | | |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| | Operation Phase | | | | | | | | |
| 3.5.2 | - | Sludge tanks with totally enclosed design proven by DSD should be deployed for transporting sludge.<br>With thorough cleaning practice and regular condition test of the sludge tanks, odour emission and leachate leakage during storage and transportation are not anticipated. | Cavern Sewage Treatment Works (CSTW) / Operation Phase | Project Proponent / Operator | √ | | √ | | - |
| 3.6.2, 3.7.2 | 2.4.2 | All treatment units with potential odour emission will be covered and the exhausted air will be conveyed to the deodouriser (with 80 – 97% odour removal efficiency) for treatment before discharge to the environment. | CSTW / Operation Phase | Design team / Project Proponent / Operator | √ | | √ | | - |
| 3.7.2 | 2.4.2 | The following appropriate odour control measures would be implemented.<br>(i) Adopting the advantage of caverns as natural barriers for odour control;<br>(ii) Covering up of odour sources;<br>(iii) Preventing odour leakage through the access tunnels by applying negative pressure inside caverns;<br>(iv) Installing deodourizing units to clean up the collected foul air;<br>(v) Discharging exhausted air at height to further enhance the dilution effect; and<br>(vi) Enhancing the odour management of the sludge transportation. | CSTW / Operation Phase | Design team / Project Proponent / Operator | √ | | √ | | - |

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| 3.10.2 | 2.3.1 | Odour monitoring at the inlet and outlet of the deodourizing units is proposed to be conducted for first three years of the operation of CSTW, quarterly in the first year, and once every 6 months in the second and third years if monitoring results remain below the limit levels. | CSTW / Operation Phase | Project Proponent / Operator | √ | | √ | | - |
| 3.10.2 | 2.3.2 | An Odour Complaint Registration System is also proposed in the EM&A programme to check whether the deodorizing units can fulfill the recommended odour removal performance. | CSTW / Operation Phase | Operator | | | √ | | - |
| 3.10.2 | - | Any unexpected leakage from tanks could be observed with monitoring equipment. Monitoring equipment would be installed in the CSTW to monitor the concentration of $H_2S$, CO and $CO_2$ and methane. Investigation and repair works would be carried out immediately if abrupt increase of these concentrations are reported. Emergency Plan would be established for these upset conditions. | CSTW / Operation Phase | Project Proponent / Operator | √ | | √ | | - |
| | **Noise Impact** | | | | | | | | |
| | Construction Phase | | | | | | | | |
| 4.5.1.6 | - | Re-provision of 220m length noise barrier with 10mPD on temporary access haul road to replace the existing 150m length noise barrier with 9.2mPD to 10mPD on Ma On Sha Road. The | Proposed temporary access / Construction Phase | Contractor | | √ | | | Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM), Noise Control Ordinance (NCO) |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| | | location of the relocated noise barrier is shown in **Figure No. 60334056/EIA/4.02** and **Appendix 4.07**. Once the construction work for the CSTW is completed, the temporary access roads would be demolished and the relevant section of Ma On Shan Road and associated noise barrier would be recovered as before. | | | | | | | |
| 4.8.1 | 3.8.1 | The use of quiet plant associated with the construction works is prescribed in British Standard "Code of practice for noise and vibration control on construction and open sites, BS5228" which contains the SWLs for specific quiet PME. | All Construction Work Sites | Contractor | | √ | | √ | EIAO-TM, NCO |
| 4.8.1 | 3.8.1 | To alleviate the construction noise impact on the affected NSRs, movable noise barrier for Air Compressor, Bar Bender and Cutter, Breaker, Chisel, Saw, Compactor, Mixers, Pump, Crane, Desander, Drilling Rig, Dump Truck, Excavator, Generator, Grab, Lorry, Paver, Poker and Roller are proposed. | All Construction Work Sites | Contractor | | √ | | √ | EIAO-TM, NCO |
| 4.8.1 | 3.8.1 | Provision of noise barrier/acoustic mats for Drilling Jumbo so as to have screening effecting with 10 dB(A) noise attenuation | Drilling Jumbo operate outside the portal and within 20m inside the portal | Contractor | | √ | | | EIAO-TM, NCO |
| 4.8.1 | 3.8.1 | To further alleviate the construction noise impact on the Neighbourhood Advice-Action Council Harmony | Construction Site for access road for | Contractor | | √ | | √ | EIAO-TM, NCO |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| | | Manor, it is proposed to limit the number of on-time operating PMEs within 120m of this NSR during construction of access road. | magazine at A Kung Kok Road | | | | | | |
| 4.9.1 | 3.8.1 | In addition to the above-mentioned mitigation measures, good site practices listed below shall be adopted by all the contractors to further ameliorate the noise impacts.<br>• Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.<br>• Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction program.<br>• Mobile plant, if any, should be sited as far away from NSRs as possible.<br>• Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.<br>• Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. | All Construction Work Sites | Contractor | | √ | | √ | EIAO-TM, NCO |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| | | • Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities. | | | | | | | |
| | Operation Phase | | | | | | | | |
| 4.7.4 | 3.8.2 | The maximum allowable sound power levels for the ventilation shaft, ventilation buildings at main portal and emergency portal, ventilation fan for chiller plant room and cooling tower at the administration building as presented in Table 4.16 of the EIA Report should be achieved such that the nearest affected NSRs can be in compliance with the noise criteria | Ventilation Shaft, Administration Building and Ventilation Buildings/ Operation Phase | Project Proponent | √ | | √ | | EIAO-TM, NCO |
| 4.11.2 | 3.8.2 | Prior to the operational phase of the Project, a commissioning test for the ventilation buildings, the ventilation shaft, ventilation fan for chiller plant room at administration building and cooling tower at the administration building would be conducted to ensure compliance with the relevant allowable maximum sound power levels. | Ventilation Shaft, Administration Building and Ventilation Buildings/ Operation Phase | Contractor | | | √ | | EIAO-TM, NCO |

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| | **Water Quality Impact** | | | | | | | | |
| | Construction Phase | | | | | | | | |
| 5.7.2 | 4.10 | Water used in ground boring and drilling for site investigation or rock / soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities. | Construction Sites / Construction Phase | Contractor | | √ | | | Water Pollution Control Ordinance (WPCO), EIAO-TM |
| 5.7.2 | 4.10 | All vehicles and plant should be cleaned before they leave a construction site to minimise the deposition of earth, mud, debris on roads. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be paved with backfill to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains. | Construction Sites / Construction Phase | Contractor | | √ | | | Professional Persons Environmental Consultative Committee (ProPECC) Practice Note (PN) 1/94, WPCO, Waste Disposal Ordinance (WDO) |
| 5.7.2 | 4.10 | Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis. | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM |

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| 5.7.2 | 4.10 | The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" should be followed where applicable to minimise surface run-off and the chance of erosion. | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM, ProPECC PN 1/94 |
| 5.7.2 | 4.10 | There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS). The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence which is under the ambit of RO of EPD. | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM, (TM-DSS) |
| 5.7.2 | 4.10 | Contractor must register as a chemical waste producer if chemical wastes would be produced from the | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM, WDO |

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| | | construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied with for control of chemical wastes. | | | | | | | |
| 5.7.2 | 4.10 | Any service shop and maintenance facilities should be located on hard standings within a bonded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges. | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM |
| 5.7.2 | 4.10 | Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance should be followed to avoid leakage or spillage of chemicals. | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM, WDO |
| 5.7.2 | 4.10 | Sufficient chemical toilets should be provided in the works areas. A licensed waste collector should be deployed to clean the chemical toilets on a regular basis. | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM |

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| 5.7.2 | 4.10 | Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment. | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM |
| 5.7.2 | 4.10 | The practices outlined in ETWB TC (Works) No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works" should also be adopted where applicable to minimise the water quality impacts upon any natural streams or surface water systems. | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM, ETWB TC (Works) No. 5/2005 |
| 5.7.2 | 4.10 | Appropriate measures during the construction of the cavern construction should be implemented to minimise the groundwater infiltration. | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM |
| 5.7.2 | 4.10 | No directly discharge of groundwater from contaminated areas should be adopted. Prior to any excavation works within the potentially contaminated areas at the existing STSTW site, the baseline groundwater quality in these areas should be reviewed based on the relevant SI data and any additional groundwater quality measurements to be performed with reference to *Guidance Note for Contaminated Land Assessment and Remediation* and the review results should be submitted to EPD for examination. If the review results indicated that the groundwater to be generated from the excavation | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM, Guidance Note for Contaminated Land Assessment and Remediation |

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| | | works would be contaminated, this contaminated groundwater should be either properly treated or properly recharged into the ground in compliance with the requirements of the TM-DSS. If wastewater treatment is to be deployed for treating the contaminated groundwater, the wastewater treatment unit shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as TPH) to an undetectable range. All treated effluent from the wastewater treatment plant shall meet the requirements as stated in TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal. | | | | | | | |
| 5.7.2 | 4.10 | If deployment of wastewater treatment is not feasible for handling the contaminated groundwater, groundwater recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in section 2.3 of the TM-DSS. The baseline groundwater quality should be determined prior to the selection of the recharge wells, and submit a working plan to EPD for agreement. Pollution | Construction Sites / Construction Phase | Contractor | | √ | | | WPCO, EIAO-TM, TM-DSS |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| | | levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Groundwater monitoring wells should be installed near the recharge points to monitor the effectiveness of the recharge wells and to ensure that no likelihood of increase of groundwater level and transfer of pollutants beyond the site boundary. Prior to recharge, free products should be removed as necessary by installing the petrol interceptor. The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater | | | | | | | |
| 5.7.2 | 4.10 | THEES connection works should be synchronized with the THEES maintenance, for a duration not longer than 4 weeks each outside the algae blooming season (January to May) and frequency of THEES maintenance shall be no more than once per year during the construction phase of the Project. | Tolo Harbour / Construction Phase | Project Proponent / Contractor | √ | √ | | | EIAO-TM |
| | Construction and Operation Phases | | | | | | | | |
| 5.10.2 | 4.10 | Shutdown of the THEES for maintenance should be shortened as far as possible. It is recommended that the maintenance of the THEES tunnel should be avoided during the algae blooming season (January to May). | Tolo Harbour / Construction and Operation Phase | Project Proponent | | √ | √ | | WPCO, EIAO-TM |

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| 5.10.2 | 4.10 | Relevant government departments including EPD, WSD, AFCD as well as the key stakeholders for mariculture and fisheries in Tolo Harbour should be informed of the maintenance event prior to any discharge. | Tolo Harbour / Construction and Operation Phase | Project Proponent | | √ | √ | | WPCO, EIAO-TM |
| 5.10.3 | 4.2-4.5 | An event and action plan and a water quality monitoring programme (as presented in the EM&A Manual) should be implemented for the THEES maintenance discharge | Tolo Harbour / Construction and Operation Phase | Project Proponent | | √ | √ | | WPCO, EIAO-TM |
| 5.10.1 | 4.10 | Silt screen may be installed at the flushing water intakes during the THEES maintenance discharge should it appear necessary. Close communication between DSD and WSD should be maintained to minimize any impact on the flushing water intakes due to THEES maintenance discharge. | WSD flushing water intakes / Construction and Operation Phase | WSD / Project Proponent | | √ | √ | | WPCO, EIAO-TM |
| | Design and Operation Phases | | | | | | | | |
| 5.8.3 | 4.6 | In case adverse impact on KTN is identified based on the result of the three-month monitoring programme after commissioning of the project, the operation conditions of the treatment and THEES system should be investigated, and corrective and remedial action should be implemented to improve the effluent discharge from the CSTW. Furthermore, DSD should extend the water quality monitoring | Project site / Design and Operation Phases | Project Proponent | | | √ | | WPCO, EIAO-TM |

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| | | programme for at least three months or as agreed by the Director of Environmental Protection. | | | | | | | |
| 5.11.2 | 4.10 | Dual power supply or ring main supply from CLP Power Hong Kong Ltd. CLP should be provided for the CSTW to prevent the occurrence of power failure. In addition, standby facilities for the main treatment units and standby equipment parts / accessories should also be provided in order to minimise the chance of emergency discharge. CLP should be consulted in order to ascertain the power supply for normal plant operation within the caverns. It is recommended that government departments including EPD, WSD and AFCD as well as the key stakeholders for mariculture and fisheries in Tolo Harbour should be informed as soon as possible in case of any emergency discharge so that appropriate actions can be taken. | Project site / Design and Operation Phases | Project Proponent | √ | | √ | | WPCO, EIAO-TM |
| 5.11.2 | 4.10 | In case of emergency discharge, the plant operators of CSTW should carry out necessary follow-up actions according to the procedures of the current contingency plan formulated for the existing STSTW to minimise the water quality impact. | Project site / Operation Phase | Project Proponent | | | √ | | WPCO, EIAO-TM |
| 5.11.2 | 4.10 | WSD may also consider, should it appear necessary, to shut down the Sha Tin seawater pumping station for a short period of time in case of | Sha Tin seawater pumping station / Operation Phase | WSD / Project Proponent | | | √ | | WPCO, EIAO-TM |

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| | | emergency discharge in order to minimize any adverse impacts. | | | | | | | |
| 5.13.2 | 4.10 | Best Management Practices to reduce storm water and non-point source pollution are also proposed as follows:<br><u>Design Measures</u><br>• Exposed surface shall be avoided within the road and portal sites to minimise soil erosion. The access road and the portal areas shall be either hard paved or covered by landscaping area where appropriate.<br>• Streams near the Project site will be retained to maintain the original flow path. The drainage system will be designed to avoid flooding.<br>• Green areas / planting etc. should be introduced alongside the access road and within the portal areas, as far as possible, to minimise runoff pollution.<br><u>Devices/ Facilities to Control Pollution</u><br>• Screening facilities such as standard gully grating and trash grille, with spacing which is capable of screening off large substances such as fallen leaves and rubbish should be provided at the inlet of drainage system.<br>• Road gullies with standard design and silt traps should be provided to | Project site / Design and Operation Phase | Project Proponent | √ | | √ | | WPCO, ProPECC PN 5/93 |

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| | | remove particles present in stormwater runoff, where appropriate.<br><u>Administrative Measures</u><br>• Good management measures such as regular cleaning and sweeping of road surface/ open areas are suggested. The road surface/ open area cleaning should also be carried out prior to occurrence rainstorm.<br>• Manholes, as well as stormwater gullies, ditches provided at the Project site should be regularly inspected and cleaned (e.g. monthly). Additional inspection and cleansing should be carried out before forecast heavy rainfall. | | | | | | | |
| | **Land Contamination** | | | | | | | | |
| 6.7.1 | - | Further site walkover and/or detailed land contamination assessment will be required for sites that are inaccessible or currently in operation / yet to be constructed (i.e. existing STSTW, David Camp and part of existing Sha Tin VDC, and proposed A Kung Kok Shan Road surface magazine site within the Project boundary). The site walkover, detailed land contamination assessment and if necessary, remediation works should be carried out after decommissioning of the sites | Existing STSTW, David Camp and VDC / Construction Phase | Project Proponent / Contractor | | √ | | √ (for existing STSTW) | Guidance Note for Contaminated Land Assessment and Remediation, Practice Guide for Investigation and Remediation of Contaminated Land, Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management |

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| | | but prior to re-development and should include the following:<br>• Prior to the commencement of the SI works, review the CAP to confirm whether the proposed SI works (e.g. sampling locations, testing parameters etc.) are still valid and to confirm the appropriate RBRGs land use scenario for the development;<br>• Submit supplementary CAP(s), presenting the findings of the above review for EPD endorsement. If land contamination issues were identified within David Camp or part of existing VDC / proposed A Kung Kok Shan Road surface magazine site within the Project boundary in the further site walkover, findings of the site walkover and the proposal for SI works should also be presented in the supplementary CAP(s);<br>• Carry out SI works according to the supplementary CAP endorsed by EPD;<br>• Submit CAR(s), detailing findings of the SI works and nature/extent of any soil/groundwater contamination, and, if contaminated identified, RAP(s), discussing the appropriate remedial methods and mitigation | | | | | | | |

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| | | measures, for the identified contamination, for EPD agreement; and<br>• Carry out soil/groundwater remediation works according to EPD agreed RAP and submit RR(s) afterwards for EPD agreement. The remediation works and agreement of RR should be completed prior to re-development. | | | | | | | |
| 6.7.2 | - | If contamination were identified, mitigation measures as recommended in the RAP should be followed and should include the following:<br>• Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety;<br>• Excavation shall be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils;<br>• Supply of suitable clean backfill material (or treated soil) after excavation;<br>• Stockpiling site(s) shall be lined with impermeable sheeting and bunded. Stockpiles shall be fully covered by impermeable sheeting to reduce dust emission. If this is not practicable due to frequent | Project Site / Construction Phase | Contractor | | √ | | √ (for existing STS TW) | Guidance Note for Contaminated Land Assessment and Remediation, Practice Guide for Investigation and Remediation of Contaminated Land, Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management |

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| | | usage, regular watering shall be applied. However, watering shall be avoided on stockpiles of contaminated soil to minimise contaminated runoff.<br>• Vehicles containing any excavated materials shall be suitably covered to limit potential dust emissions or contaminated wastewater run-off, and truck bodies and tailgates shall be sealed to prevent any discharge during transport or during wet conditions;<br>• Speed control for the trucks carrying contaminated materials shall be enforced;<br>• Vehicle wheel and body washing facilities at the site's exist points shall be established and used; and<br>• Pollution control measures for air emissions (e.g. from biopile blower and handling of cement), noise emissions (e.g. from blower or earthmoving equipment), and water discharges (e.g. runoff control from treatment facility) shall be implemented and complied with relevant regulations and guidelines. | | | | | | | |

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| | **Hazard to Life** | | | | | | | | |
| | Construction Phase | | | | | | | | |
| 7.14.1 | 6.2.2 | The following recommendations are justified to be implemented to meet the EIAO-TM requirements:<br>• The truck should be designed to minimise the amount of combustible in the cabin. The fuel carried in the fuel tank should also be minimised to reduce the duration of any fire;<br>• The accident involvement frequency of the explosives delivery truck should be minimised through implementation of several administrative measures, such as providing training programme to the driver, regular "tool box" briefing session, implementing a defensive driving attitude, selecting driver with good safety record, and providing regular medical checks for the driver;<br>• Avoidance of returning unused explosives to the magazine, only the required quantity of explosives for a particular blast should be transported;<br>• Maintain a minimum headway of 10 minutes between two | Explosives dlivery route / Construction Phase | Contractor | √ | √ | | | EIAO-TM |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| | | consecutive truck convoys whenever practicable; and<br>• The fire involvement frequency should be minimised by carrying better types of fire extinguishers and with bigger capacity onboard of the explosives delivery truck. Emergency plans and trainings could also be provided to make sure that the fire extinguishers are used adequately. | | | | | | | |
| 7.14.2 | 6.2.3 | The magazine should be designed, built, operated and maintained in accordance with Mines Division's guidelines and appropriate industry best practice. In addition, the following recommendations should be implemented:<br>• The security plan should address different alert security level to reduce opportunity for arson or deliberate initiation of explosives;<br>• Emergency plan should be developed to address uncontrolled fire in magazine area, and drill of the emergency plan should be regularly carried out;<br>• Suitable work control system should be set-up, such as an operational manual including Permit-to-Work system, to ensure that work activities undertaken | Magazine Site/ Construction Phase | Contractor | √ | √ | | | - |

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| | | during operation of the magazine are properly controlled;<br>• Good house-keeping within the magazine to ensure no combustible materials are accumulated;<br>• Good house-keeping outside the magazine stores to ensure no combustible materials are accumulated; and<br>• Regular checking of the magazine store to ensure no water seepage through the roof, walls or floor. | | | | | | | |
| 7.14.3 | 6.2.4 | The following recommendations should be implemented:<br>• Emergency plan should be developed to address uncontrolled fire during transport. Case of fire near an explosive delivery truck in jammed traffic should be included in the plan. Activation of fuel and battery isolation switches on vehicle when fire breaks out should also be included in the emergency plan to reduce likelihood of prolonged fire leading to explosion;<br>• Working guideline should be developed to define procedure for explosives transport during adverse weather such as thunderstorm; | To and from Magazine Site / Construction Phase | Contractor | √ | √ | | | - |

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| | | • Detonators should be transported separately from other Class 1 explosives. Separation of vehicles should also be maintained through the trip;<br>• Develop procedure to ensure the availability of parking space on site for the explosives delivery truck. Delivery should not be commenced if parking space on site is not secured;<br>• Hot work or other activities should be banned in the vicinity of the explosives offloading or charging activities;<br>• Lining should be provided within the transportation box on the vehicle;<br>• Fire screen should be used between cabin and the load on the vehicle;<br>• Ensure packaging of detonators remains intact until handed over at blasting site;<br>• Ensure that cartridged emulsion packages are not damaged before every trip; and<br>• Use experienced driver with good safety record. | | | | | | | |

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| 7.14.4 | 6.2.5 | The following recommendations should be implemented for the safe use of explosives:<br>• Blast Charge Weight should be within MIC as specified for the given blast face;<br>• Temporary mitigation measures such as blast doors or heavy duty blast curtains should be installed at the portals or shafts and at suitable locations underground to prevent flyrock and control the air overpressure;<br>• Multiple faces blasting will be carried out for the construction of cavern in this project. Good communication and control will need to be adopted in ensuring that the works are carried out safely;<br>• It is not intended to carry out complete evacuation of the construction areas and secure refuge areas should be identified to workers in the areas;<br>• A Chief Shotfirer and a Blasting Engineer shall be employed in addition to the normal blasting personnel to ensure that the works are safe and coordinated between blasting areas;<br>• Shotfirer to be provided with a lightning detector, and appropriate | CSTW / Construction Phase | Contractor | √ | √ | | | - |

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| | | control measures should be in place;<br>• Speed limit for the diesel vehicle truck and bulk emulsion truck in the access tunnel and cavern should be imposed. The truck may be escorted while underground to ensure route is clear from hazards and obstructions; and<br>• Hot work should be suspended during passage of the diesel vehicle truck and bulk emulsion truck in the access tunnel and cavern.<br>• A boulder survey should be undertaken based on the likely PPV values that would result from the blasting process. Those boulders subject to the vibration higher than the allowable limit should be strengthened, removed, or constructed with boulder fence, prior to the commencement of blasting. | | | | | | | |
| | Operation Phase | | | | | | | | |
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| | **Ecological Impact (Terrestrial and Marine)** | | | | | | | | |
| | Construction Phase | | | | | | | | |
| 8.8.2 | 7.2.1 | Construction of access roads and other temporary works should be carefully designed (e.g. elevated road for crossing streams) to avoid / minimise habitat loss and fragmentation. | Project site – areas access road / Pre-Construction Phase | Design team / Project Proponent | √ | | | | - |
| 8.8.3 | 7.2.2 | Minimise habitat loss to nearby habitats and associated wildlife by implementing the following mitigation measures: -<br>• confining the works within the site boundary;<br>• controlling access of site staff to avoid damage to the vegetation in surrounding areas; and<br>• placement of equipment or stockpile in the existing disturbed / urbanised land within the site boundary of the Project to minimise disturbance to vegetated areas; | Project site / Construction Phase | Contractor | | √ | | | - |
| 8.8.3 | 7.2.2 | Reinstatement planting should be implemented upon the completion of construction works to minimise the ecological impact arising from the temporary habitat loss | Project Site (Main Portal Area / Secondary Portal Area / Access Road / Temporary Works Area) /Construction Phase | Project Proponent | √ | √ | | √ | |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| 8.8.2, 8.8.3 & 8.10 | 7.2.2 | Detailed Vegetation Survey shall be conducted by a suitably qualified botanist / ecologist within the works area requiring vegetation clearance prior to commencement of works to identify plant species of conservation importance.<br>The potentially affected individuals shall be tagged and fenced off for preservation, and in the case of unavoidable loss, for transplantation to nearby suitable habitat(s). | Proposed works areas (Main Portal, Secondary Portal, Access Road) / Pre-Construction Phase | Project Proponent / Qualified botanist or ecologist | | √ | | | |
| 8.8.2, 8.8.3 & 8.10 | 7.3.1 | A Protection and Transplantation Proposal including the subsequent monitoring visit for the affected plant species should be prepared and conducted by a suitably qualified local ecologist. The Proposal should be submitted for approval at least one month before works commencement.<br>To review the performance of the transplantation exercise, monitoring of transplanted flora should be conducted monthly after the transplantation throughout the construction phase. The parameters to be monitored should include the health condition and survival rate of the transplanted flora and presence of weedy species. Any observations and recommendations should be reported in monthly EM&A reports | Recipient Site for transplanted species / Construction Phase | Project Proponent / Qualified botanist or ecologist | | √ | | | |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| 8.8.3 | 7.2.2 | Mitigation measures should be implemented to control runoff from the construction site, as well as the adopting guidelines and good site practices for handling and disposal of construction discharges in order to minimise the potential indirect impact on the streams (particularly S2) resulting from site runoff.<br>Precautionary measures should also be implemented to minimise indirect impacts to the streams, such as isolating the work site by placing sandbags and silt curtains, covering up construction materials, debris and spoil to avoid being washed into the stream, and properly collecting and treating construction effluent and sewage. | Access Road on Nui Po Shan / Construction Phase | Contractor | | √ | | | ETWB TCW No. 5/2005 |
| 8.8.3 | 7.2.2 | Implement good site practice to further minimise impacts from disturbance such as noise, air quality and water quality issues, such as: -<br>• the use of quiet plant and EPD's QPME and the availability of British Standards 5228 has been considered;<br>• the use of movable noise barrier;<br>• the use of temporary noise screening structures or purpose-built temporary noise barriers; | Project site / Construction Phase | Contractor | | √ | | | - |

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| | | • install site hoarding as temporary noise barrier where construction works are undertaken;<br>• only well-maintained plant should be operated on site and plant should be serviced regularly during the construction programme;<br>• Mitigation measures stipulated in the ProPECC PN 1/94 "Construction Site Drainage" should be complied to minimise water quality impact;<br>• Installation of stand-by pump, emergency power supply and telemetry system to avoid sewage overflow and surcharge to sewerage system due to power/equipment failure. | | | | | | | |
| 8.8.3 | 7.2.2 | Minimise groundwater infiltration during cavern construction with the following water control strategies:-<br>• Probing Ahead: As a normal practice, the Contractor will undertake rigorous probing of the ground ahead of excavation works to identify zones of significant water inflow. The probe drilling results will be evaluated to determine specific grouting requirements in line with the tunnel / cavern advance. In such zones of significant water inflow that could occur as a result of discrete, permeable features, the intent | Project site / Construction Phase | Contractor | | √ | | | - |

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| | | would be to reduce overall inflow by means of cut-off grouting executed ahead of the tunnel / cavern advance;<br>• Pre-grouting: Where water inflow quantities are excessive, pre-grouting will be required to reduce the water inflow into the tunnel / cavern. The pre-grouting will be achieved via a systematic and carefully specified protocol of grouting;<br>• In principle, the grout pre-treatment would be designed on the basis of probe hole drilling ahead of the tunnel / cavern face;<br>• The installation of waterproof lining would also be adopted after the formation of the tunnels and caverns. | | | | | | | |
| 8.8.3 | 7.2.2 | In the event of excessive infiltration being observed as a result of the tunnelling or excavation works even after incorporation of the water control strategies, post-grouting should be applied as far as practicable as described below:<br>• Post-grouting: Groundwater drawdown will be most likely due to inflows of water into the tunnel / cavern that have not been sufficiently controlled by the pre-grouting measures in high permeability area. Where this | Project site / Construction Phase | Contractor | | √ | | | - |

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| | | occurs post grouting will be undertaken before the lining is installed. Whilst unlikely to be required in significant measure, such a contingency should be allowed for reduction in permeability of the tunnel / cavern surround (by grouting) to limit inflow to acceptable levels.<br>The practical groundwater control measures stated above are proven technologies and have been extensively applied in other past projects. These measures or other similar methods, as approved by the Engineer to suit the works condition shall be applied to minimise the groundwater infiltration. | | | | | | | |
| 8.8.3 | 7.2.2 | In case seepage of groundwater occurs, groundwater should be pumped out from works areas and discharged to the storm system via silt trap. Uncontaminated groundwater from dewatering process should also be discharged to the storm system via silt removal facilities. | Project site / Construction Phase | Contractor | | √ | | | - |

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| 8.8.3 | 7.2.2 | Mitigation measures recommended in the water quality impact assessment for controlling water quality impact will also serve to protect marine ecological resources from indirect impacts and ensure no unacceptable impact on marine ecological resources.<br>Relevant government departments including EPD, WSD and AFCD as well as key stakeholders for mariculture and fisheries in Tolo Harbour should be informed of the THEES maintenance / emergency discharge event prior to any discharge.<br>It is recommended that the temporary effluent bypass event and the THEES maintenance period should be shortened as far as possible. | Tolo Harbour / Construction Phase | Contractor and Operator | | √ | | | - |
| | Construction and Operation Phase | | | | | | | | |
| 8.8.3 | 7.2.2 | Overall reduction of glare during both construction and operation phase should be considered. A balance between lighting for safety, and avoiding excessive lighting can be achieved through the use of directional lighting to avoid light spill into sensitive areas, and control/timing of lighting periods of some facilities, particularly at the secondary portal which lies approximately 200 m northwest of Ma On Shan Country Park. | Project site / Construction and Operation Phase | Contractor and Operator | | √ | √ | | - |

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| 8.8.3 | 7.2.2 | During the decommissioning and demolition of the existing STSTW, the direction and lighting periods should be controlled during ardeid breeding season (March to August) to minimise the potential indirect impact on Penfold Park Egretry and the ardeids flying over the existing STSTW. | Existing STSTW / Decommissioning / March to August | Contractor | | | | √ | - |
| 8.10 | 7.3 | It is anticipated that the construction of rock caverns would not have adverse impacts on groundwater in Nui Po Shan. Nonetheless, surface water level or groundwater level near the caverns will be closely monitored during the construction and operation stage. | Project site / Construction and Operation Phase | Contractor and Operator | | √ | √ | | - |
| | Compensatory Planting | | | | | | | | |
| 8.8.4& 8.10.1 | 7.2.3 | Compensatory planting would be provided at main and secondary portal areas, and along the access road. | Main portal, secondary portal, and along access road | Project Proponent | √ | √ | | | DEVB TC(W) No. 7/2015 |
| 8.8.4 & 8.10.1 | 7.2.3 | To facilitate successful planting, a detailed Woodland Compensation Plan should be prepared by local ecologists with at least 10 years relevant experience to form the basis of the proposed compensatory planting. The Woodland Compensation Plan should include implementation details, management requirement, as well as monitoring requirements (e.g. frequency and parameters) of the | Compensatory planting area (Main portal, secondary portal, and along access road) / pre-construction | Project Proponent | √ | √ | | | |

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| | | compensatory planting area. Approval of the Plan should be obtained from EPD at least three months before the prior to commencement of compensatory woodland planting. | | | | | | | |
| 8.8.4 & 8.10.1 | 7.2.3 | Upon the completion of planting, monitoring of the woodland compensation areas should be implemented, with maintenance works (e.g. irrigation, weeding, pruning, control of pests and diseases, replacement planting, repair of damage, etc.) conducted as necessary. | Compensatory planting area (Main portal, secondary portal, and along access road) / Operation | Project Proponent / CSTW Operator | | | √ | | |
| | **Fisheries Impact** | | | | | | | | |
| 9.6 | 8.2 | Potential impacts on fisheries resources and fishing operations arising from the Project have been avoided and minimised by construction of a connection pipes to the existing emergency outfall of STSTW by trenchless method underneath Shing Mun River with the least water quality impact. In addition, the temporary effluent bypass event for THEES connection work would be synchronized within regular THEES maintenance. Therefore, additional water quality impact and fisheries impact from changes of water quality have been avoided. Furthermore, the THEES maintenance discharge would avoid the blooming season of algae (i.e. January to May) to minimise the potential water quality impacts. It is | Tolo Harbour /Construction and Operation Phase | Project Proponent / Contractor | √ | √ | | | - |

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| | | recommended that any THEES maintenance period should be shortened as far as possible. | | | | | | | |
| 9.6 | 8.2 | Mitigation measures recommended in the water quality impact assessment for controlling water quality impact will also serve to protect fisheries from indirect impacts and ensure no unacceptable impact on fisheries resources and operations. For more detailed mitigation measures regarding water quality refer to Sections 5.7.2 and 5.13.2 of the EIA Report. | Construction and Operation Phase | Contractor and Operator | | √ | √ | | - |
| 9.6 | 8.2 | Relevant government departments including EPD, WSD and AFCD as well as key stakeholders for mariculture and fisheries in Tolo Harbour should be informed prior to the THEES maintenance / emergency discharge events. | Tolo Harbour / Construction and Operation Phase | Project Proponent | | √ | √ | | |
| | **Landscape and Visual Impact** | | | | | | | | |
| Table 10.10 | - | CM1 - Preservation of Existing Vegetation | Construction Sites/ Construction Phase | Project Proponent | √ | √ | | √ | DEVB TCW No. 7/2015 and latest Guidelines on Tree Preservation during Development issued by GLTM Section of DEVB |
| Table 10.10 | - | CM2 - Transplanting of Affected Trees | Construction Sites/ Construction Phase | Project Proponent | √ | √ | | √ | DEVB TCW No. 7/2015 and the latest Guidelines on Tree Transplanting issued by GLTM Section of DEVB |

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| Table 10.10 | - | CM3 - Compensatory Tree Planting | Construction Sites/ Construction Phase | Project Proponent | √ | √ | | √ | DEVB TCW No. 7/2015 |
| Table 10.10 | - | CM4 - Control of Night-time Lighting Glare | Construction Sites/ Construction Phase | Project Proponent | √ | √ | | √ | |
| Table 10.10 | - | CM5 - Erection of Decorative Screen Hoarding | Construction Sites/ Construction Phase | Project Proponent | √ | √ | | √ | |
| Table 10.10 | - | CM6 - Management of Construction Activities and Facilities | Construction Sites/ Construction Phase | Project Proponent | √ | √ | | √ | |
| Table 10.10 | - | CM7 - Reinstatement of Temporarily Disturbed Landscape Areas | Construction Sites/ Construction Phase | Project Proponent | √ | √ | | √ | |
| Table 10.11 | - | OM1 - Tree and Shrub Planting at the Temporary Project Magazine Site after Completion of Engineering Works | Temporary Project Magazine Site / Operation Phase | Project Proponent | √ | √ | √ | | |
| Table 10.11 | - | OM2 - Aesthetically pleasing design of Aboveground Structures | Tunnel Portals, Administration Building, Ventilation Buildings, Electrical Substations and Ventilation Shaft / Operation Phase | Project Proponent | √ | √ | √ | | |

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| Table 10.11 | - | OM3 - Aesthetically pleasing design of Highways Structures | Access Road to Ventilation Shaft / Operation Phase | Highways Department | √ | √ | √ | | |
| Table 10.11 | - | OM4 - Reprovision of Cycle Track | Cycle track / Operation Phase | Highways Department | √ | √ | √ | | |
| Table 10.11 | - | OM5 - Provision of Green Roof | Administration Building and Ventilation Buildings / Operation Phase | Project Proponent | √ | √ | √ | | |
| Table 10.11 | - | OM6 - Provision of Buffer Planting | Main and Secondary Portal Areas / Operation Phase | Project Proponent | √ | √ | √ | | |
| Table 10.11 | - | OM7 - Hydroseeding on the disturbed ground surface after demolition works prior to future redevelopment of the existing STSTW | Existing STSTW / Operation Phase | Lands Department (LandsD) or future development agent in existing STSTW | √ | √ | √ | | |
| Table 10.11 | - | OM8 - Woodland Mix Planting on Soil Slopes | Soil Slopes / Operation Phase | Project Proponent | √ | √ | √ | | |

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| | **Cultural Heritage Impact** | | | | | | | | |
| 11.5.1.1 | 10.1.1 | No potential direct or indirect impact to cultural heritage resource is anticipated, and therefore no mitigation measures are required. | N/A | N/A | | | | | EIAO<br>EIAO-TM<br>Antiquities and Monuments Ordinance<br>Guidelines for Cultural Heritage Impact Assessment |
| | **Wastes Management Implications** | | | | | | | | |
| 12.6.2 | 11.2.2 | Appropriate waste handling, transportation and disposal methods for all waste arising generated during the construction works for the Project should be implemented to ensure that construction wastes do not enter the nearby streams or drainage channel.<br>It is anticipated that adverse impacts would not arise on the construction site, provided that good site practices are strictly followed. Recommendations for good site practices during the construction activities include:<br>• Nomination of approved personnel, such as a site manager, to be responsible for good site practices, and making arrangements for collection of all wastes generated at the site and effective disposal to an appropriate facility. | Project Site Area / Construction Phase | Contractor | | √ | | √ | Waste Disposal Ordinance |

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| | | • Training of site personnel in proper waste management and chemical waste handling procedures.<br>• Provision of sufficient waste reception/ disposal points, of a suitable vermin-proof design that minimises windblown litter.<br>• Arrangement for regular collection of waste for transport off-site and final disposal.<br>• Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.<br>• Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.<br>• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed.<br>• A Waste Management Plan should be prepared and should be submitted to the Engineer for approval. One may make reference to ETWB TCW No. 19/2005 for details.<br>In order to monitor the disposal of C&D material at landfills and public filling areas, as appropriate, and to control fly tipping, a trip-ticket system should be included as one of the contractual | | | | | | | | |

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| | | requirements to be implemented by an Environmental Team undertaking the Environmental Monitoring and Audit work. One may make reference to DEVB TCW No.6/2010 for details. | | | | | | | |
| 12.6.3 | 11.2.3 | Good management and control of construction site activities / processes can minimise the generation of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:<br>• Segregate and store different types of construction related waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.<br>• Provide separate labelled bins to segregate recyclable waste such as aluminium cans from other general refuse generated by the work force, and to encourage collection by individual collectors.<br>• Any unused chemicals or those with remaining functional capacity shall be recycled.<br>• Maximising the use of reusable steel formwork to reduce the amount of C&D material.<br>• Prior to disposal of C&D waste, it is recommended that wood, steel | Project Site Area / Construction Phase | Contractor | | √ | | √ | Waste Disposal Ordinance |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
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| | | | | | Des | C | O | Dec | |
| | | and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill.<br>• On-site crushing and sorting facilities are being considered to reduce the rock size to fulfill the size requirements from relevant waste collection / transfer / disposal facilities;<br>• Adopt proper storage and site practices to minimise the potential for damage to, or contamination of, construction materials.<br>• Plan the delivery and stock of construction materials carefully to minimise the amount of surplus waste generated.<br>• Adopt pre-cast construction method instead of cast-in-situ method for construction of concrete structures as much as possible; and<br>• Minimise over ordering of concrete, mortars and cement grout by doing careful check before ordering.<br>In addition to the above measures, other specific mitigation measures are recommended below to minimise environmental impacts during handling, transportation and disposal of wastes. | | | | | | | |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Des | C | O | Dec | |
| 12.6.4 | 11.2.4 | Storage of materials on site may induce adverse environmental impacts if not properly managed, recommendations to minimise the impacts include:<br>• Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimising the potential of pollution;<br>• Maintain and clean storage areas routinely;<br>• Stockpiling area should be provided with covers as much as practicable and water spraying system to prevent materials from wind-blown or being washed away; and<br>• Different locations should be designated to stockpile each material to enhance reuse. | Project Site Area / Construction Phase | Contractor | | √ | | √ | - |
| 12.6.4 | 11.2.4 | Licensed waste haulers should be employed for the collection and transportation of waste generated. The following measures should be enforced to minimise the potential adverse impacts:<br>• Remove waste in timely manner;<br>• Waste collectors should only collect wastes prescribed by their permits;<br>• Impacts during transportation, such as dust and odour, should be | Project Site Area / Construction Phase | Contractor | | √ | | √ | Waste Disposal Ordinance<br><br>Waste Disposal (Charges for Disposal of Construction Waste) Regulation<br><br>Land (Miscellaneous Provisions) Ordinance |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Des | C | O | Dec | |
| | | mitigated by the use of covered trucks or in enclosed containers;<br>• Obtain relevant waste disposal permits from the appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 345) and the Land (Miscellaneous Provisions) Ordinance (Cap. 28);<br>• Waste should be disposed of at licensed waste disposal facilities; and<br>• Maintain records of quantities of waste generated, recycled and disposed. | | | | | | | |
| 12.6.4 | 11.2.4 | Land transport will be used for transportation of excavated and stockpile materials. It is expected there will be 1260 vehicles per day for transporting waste during peak construction phase. The tentative transportation routings for the disposal of various types of wastes are shown in Table 12.4. The transportation routing may be changed subject to the traffic conditions. Nevertheless, it is anticipated that there is no adverse impact from the waste during transportation with the implementation of appropriated measures (e.g. using water-tight containers and covered trucks). | Transportation Route of Waste / Construction Phase | Contractor | | √ | | | - |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Des | C | O | Dec | |
| 12.6.4 | 11.2.4 | In order to monitor the disposal of C&D materials at PFRFs and landfills and to control fly-tipping, a trip-ticket system should be established in accordance with DEVB TCW No. 6/2010. A recording system for the amount of waste generated, recycled and disposed, including the disposal sites, should also be set up. Warning signs should be put up to remind the designated disposal sites. Close-circuited television should be installed at the vehicular entrance and exit of the site as additional measures to prevent fly-tipping. | Project Site Area / Construction Phase | Contractor | | √ | | √ | DEVB TCW No. 6/2010 |
| 12.6.4 | 11.2.5 | In addition to the above general measures, other specific mitigation measures on handling the C&D materials and materials generated from site formation and demolition work are recommended below, which should form the basis of the WMP to be prepared by the contractor(s) in construction phase. | Project Site Area / Construction Phase | Contractor | | √ | | √ | Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site |
| 12.6.5 | 11.2.5 | In order to minimise the impact resulting from collection and transportation of C&D materials for off-site disposal, the excavated material arising from site formation and foundation works should be reused on-site as backfilling material and for landscaping works as far as practicable. Other mitigation requirements are listed below: | Project Site Area / Construction Phase | Contractor | | √ | | √ | Waste Disposal Ordinance<br>ETWB TCW No.19/2005<br>DEVB TCW No. 6/2010 |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Des | C | O | Dec | |
| | | • A WMP, which becomes part of the EMP, should be prepared in accordance with ETWB TCW No.19/2005;<br>• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be adopted for easy tracking; and<br>• In order to monitor the disposal of C&D materials at public filling facilities and landfills and to control fly-tipping, a trip-ticket system should be adopted (refer to DEVB TCW No. 6/2010).<br>It is recommended that specific areas should be provided by the Contractors for sorting and to provide temporary storage areas (if required) for the sorted materials. | | | | | | | |
| 12.6.5 | 11.2.5 | The Contactor should prepare and implement an EMP in accordance with ETWB TCW No.19/2005, which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different categories of waste to be generated from construction activities. Such a management plan should incorporate site specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. The EMP should | Project Site Area / Construction Phase | Contractor | | √ | | | ETWB TCW No.19/2005 |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Des | C | O | Dec | |
| | | be submitted to the Engineer for approval. The Contractor should implement waste management practices in the EMP throughout the construction stage of the Project. The EMP should be reviewed regularly and updated by the Contractor, preferably on a monthly basis. | | | | | | | |
| 12.6.5 | 11.2.5 | All surplus C&D materials arising from or in connection with construction works should become the property of the Contractor when it is removed unless otherwise stated. The Contractor would be responsible for devising a system to work for on-site sorting of C&D materials and promptly removing all sorted and process materials arising from the construction activities to minimise temporary stockpiling on-site. The system should be included in the EMP identifying the source of generation, estimated quantity, arrangement for on-site sorting, collection, temporary storage areas and frequency of collection by recycling Contractors or frequency of removal off-site. | Project Site Area / Construction Phase | Contractor | | √ | | √ | - |
| 12.6.6 | 11.2.6 | The practices of good housekeeping for CSTW listed below should be followed to ameliorate any odour impact from handling, collection, transportation and disposal of sludge: | Operation Phases | Operator | | | √ | | Waste Disposal Ordinance |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Des | C | O | Dec | |
| | | • Screens should be cleaned regularly to remove any accumulated organic debris<br>• Grit and screening transfer systems should be flushed regularly with water to remove organic debris and grit<br>• Grit and screened materials should be transferred to closed containers<br>• Scum and grease collection wells and troughs should be emptied and flushed regularly to prevent putrefaction of accumulated organics<br>• Skim and remove floating solids and grease from primary clarifiers regularly<br>• Frequent sludge withdrawal from tanks is necessary to prevent the production of gases<br>• Sludge should be transported to the STF by water-tight containers to avoid Hydrogen Sulphide ($H_2S$)/odour emission and ingress of water into the containers which would lower the sludge dryness during transportation<br>• Sludge cake should be transferred to closed containers<br>• Sludge containers should be flushed with water regularly | | | | | | | |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Des | C | O | Dec | |
| | | • Sludge trucks and containers should be washed thoroughly before leaving the CSTW to avoid any odour nuisance during transportation | | | | | | | |
| 12.6.6 | 11.2.6 | In addition, all wastewater generated from the sludge dewatering process and all contaminated water from the cleaning operations recommended for odour control will be diverted to the relocated STSTW for proper treatment. | Operation Phases | Operator | | | √ | | Waste Disposal Ordinance |
| 12.6.7 | 11.2.7 | If chemical wastes are produced at the construction site or during operation, the Contractor during construction or the operator during operation will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidising, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to the licensed Chemical Waste Treatment Centre, or other | Construction and Operation Phases | Contractor / Operator | | √ | √ | | Waste Disposal (Chemical Waste) (General) Regulation<br><br>Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes |

| EIA Ref. | EM&A Log Ref. | Environmental Protection Measures | Location / Duration of Measures / Timing of Completion of Measures | Implementation Agent | Implementation Stage [1] | | | | Relevant Legislation & Guidelines |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Des | C | O | Dec | |
| | | licensed facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. | | | | | | | |
| 12.6.8 | 11.2.8 | Recycling of waste paper, aluminium cans and plastic bottles should be encouraged, it is recommended to place clearly labelled recycling bins at designated locations which could be accessed conveniently. Other general refuse should be separated from chemical and industrial waste by providing separated bins for storage to maximise the recyclable volume. | Construction and Operation Phases | Contractor / Operator | | √ | √ | | Public Health and Municipal Services Ordinance (Cap.132) |
| 12.6.8 | 11.2.8 | A reputable licensed waste collector should be employed to remove general refuse on a daily basis to minimise odour, pest and litter impacts. | Construction and Operation Phases | Contractor / Operator | | √ | √ | | Public Health and Municipal Services Ordinance (Cap. 132) |
| | **Health Impact** | | | | | | | | |
| - | - | Not applicable. | | | | | | | |

***Appendix 4.1***

***Action and Limit Level***

## Action and Limit Level

### *Action and Limit Level for Noise Monitoring*

| Monitoring Station | Action Level | Limit Level (dB(A)) | | |
|---|---|---|---|---|
| | | 0700-1900 hrs on normal weekdays | 0700-2300 hrs on holidays (including Sundays); and 1900-2300 hrs on all days [2] | 2300-0700 hrs of all days [2] |
| CM1 | When one documented complaint is received | 65 / 70 [1] | 60 / 65 / 70 [3] | 45 / 50 / 55 [3] |
| CM2(A) | | 65 / 70 [1] | | |
| CM3 | | 65 / 70 [1] | | |
| CM4 | | 75 | | |
| CM5 | | 75 | | |
| DM1 | | 75 | | |
| DM2 | | 75 | | |
| DM3 | | 65 / 70 [1] | | |

Remark 1: Limit level of CM1, CM2(A), CM3 and DM3 reduce to 65 dB (A) during examination periods if any.

Remark 2: Construction noise during restricted hours is under the control of Noise Control Ordinance Limit Level to be selected based on Area Sensitivity Rating.

Remark 3: Limit Level for restricted hour monitoring shall act as reference level only. Investigation would be conducted on CNP compliance if exceedance recorded during restricted hour noise monitoring period.

### *Action and Limit Level for Air Quality Monitoring*

| Monitoring Locations | 1-hour TSP Level in µg/m3 | |
|---|---|---|
| | Action Level | Limit Level |
| AM1 | 294 | 500 |
| AM2 | 325 | 500 |
| AM3(A) | 360 | 500 |
| AM4 | 297 | 500 |
| AM5 | 349 | 500 |
| AM6 | 312 | 500 |

***Appendix 4.2***

***Copies of Calibration Certificates***

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# CERTIFICATE OF CALIBRATION

**Certificate No.:** 21CA0222 02-02 **Page** 1 **of** 2

## Item tested

| | | | | |
|---|---|---|---|---|
| Description: | Sound Level Meter (Type 1) | , | Microphone | Preamp |
| Manufacturer: | Nti | , | Nti Andio | Nti Andio |
| Type/Model No.: | XL2 | , | MC230A | MA220 |
| Serial/Equipment No.: | A2A-15269-EO | , | A16673 | 8034 |
| Adaptors used: | - | , | | |

## Item submitted by

| | |
|---|---|
| Customer Name: | Lam Environmental Services Limited. |
| Address of Customer: | - |
| Request No.: | - |
| Date of receipt: | 22-Feb-2021 |

## Date of test: 23-Feb-2021

## Reference equipment used in the calibration

| Description: | Model: | Serial No. | Expiry Date: | Traceable to: |
|---|---|---|---|---|
| Multi function sound calibrator | B&K 4226 | 2288444 | 23-Aug-2021 | CIGISMEC |
| Signal generator | DS 360 | 33873 | 19-May-2021 | CEPREI |

## Ambient conditions

| | |
|---|---|
| Temperature: | 22 ± 1 °C |
| Relative humidity: | 55 ± 10 % |
| Air pressure: | 1000 ± 5 hPa |

## Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

## Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

**Approved Signatory:** Feng Junqi **Date:** 24-Feb-2021 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

**Comments:** The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

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HKAS has accredited this laboratory (Reg. No. HOKLAS 028) under HOKLAS for specific calibration activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this certificate are traceable to the International System of Units (SI) or recognised measurement standards. The results relate only to the item(s) calibrated. This certificate shall not be reproduced except in full without approval of the laboratory.

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HOKLAS 028 CAL

# CERTIFICATE OF CALIBRATION

(Continuation Page)

**Certificate No.:** 21CA0222 02-02 **Page** 2 **of** 2

## 1, Electrical Tests

The electrical tests were perfomed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

| Test: | Subtest: | Status: | Expanded Uncertainty (dB) | Coverage Factor |
|---|---|---|---|---|
| Self-generated noise | A | Pass | 0.3 | |
| | C | Pass | 0.8 | 2.1 |
| | Lin | Pass | 1.6 | 2.2 |
| Linearity range for Leq | At reference range , Step 5 dB at 4 kHz | Pass | 0.3 | |
| | Reference SPL on all other ranges | Pass | 0.3 | |
| | 2 dB below upper limit of each range | Pass | 0.3 | |
| | 2 dB above lower limit of each range | Pass | 0.3 | |
| Linearity range for SPL | At reference range , Step 5 dB at 4 kHz | Pass | 0.3 | |
| Frequency weightings | A | Pass | 0.3 | |
| | C | Pass | 0.3 | |
| | Lin | Pass | 0.3 | |
| Time weightings | Single Burst Fast | Pass | 0.3 | |
| | Single Burst Slow | Pass | 0.3 | |
| Peak response | Single 100μs rectangular pulse | Pass | 0.3 | |
| R.M.S. accuracy | Crest factor of 3 | Pass | 0.3 | |
| Time weighting I | Single burst 5 ms at 2000 Hz | Pass | 0.3 | |
| | Repeated at frequency of 100 Hz | Pass | 0.3 | |
| Time averaging | 1 ms burst duty factor $1/10^3$ at 4kHz | Pass | 0.3 | |
| | 1 ms burst duty factor $1/10^4$ at 4kHz | Pass | 0.3 | |
| Pulse range | Single burst 10 ms at 4 kHz | Pass | 0.4 | |
| Sound exposure level | Single burst 10 ms at 4 kHz | Pass | 0.4 | |
| Overload indication | SPL | Pass | 0.3 | |
| | Leq | Pass | 0.4 | |

## 2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

| Test: | Subtest | Status | Expanded Uncertanity (dB) | Coverage Factor |
|---|---|---|---|---|
| Acoustic response | Weighting A at 125 Hz | Pass | 0.3 | |
| | Weighting A at 8000 Hz | Pass | 0.5 | |

## 3, Response to associated sound calibrator

**N/A**

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

\- End -

**Calibrated by:** Tung Chi Yip **Date:** 23-Feb-2021

**Checked by:** Feng Junqi **Date:** 24-Feb-2021

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

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SMECLab



Sound level meter type: XL2 Serial No. A2A-15269-EO Date 23-Feb-2021
Microphone type: MC230A Serial No. A16673
Report: 21CA0222 02-02

## SELF GENERATED NOISE TEST

The noise test is performed in the most sensitive range of the SLM with the microphone replaced by an equivalent impedance.

| | | |
|---|---|---|
| Noise level in A weighting | 10.5 | dB |
| Noise level in C weighting | 15.4 | dB |
| Noise level in Lin | 22.5 | dB |

## LINEARITY TEST

The linearity is tested relative to the reference sound pressure level using a continuous sinusoidal signal of frequency 4 kHz. The measurement is made on the reference range for indications at 5 dB intervals starting from the 94 dB reference sound pressure level. And until within 5 dB of the upper and lower limits of the reference range, the measurements shall be made at 1 dB intervals.(SLM set to LEQ/SPL)

| Reference/Expected level | Actual level | | Tolerance | Deviation | |
|---|---|---|---|---|---|
| | non-integrated | integrated | | non-integrated | integrated |
| dB | dB | dB | +/- dB | dB | dB |
| 94.0 | 94.0 | 94.0 | 0.7 | 0.0 | 0.0 |
| 99.0 | 99.0 | 99.0 | 0.7 | 0.0 | 0.0 |
| 104.0 | 104.0 | 104.0 | 0.7 | 0.0 | 0.0 |
| 109.0 | 109.0 | 109.0 | 0.7 | 0.0 | 0.0 |
| 114.0 | 114.0 | 114.0 | 0.7 | 0.0 | 0.0 |
| 115.0 | 115.0 | 115.0 | 0.7 | 0.0 | 0.0 |
| 116.0 | 116.0 | 116.0 | 0.7 | 0.0 | 0.0 |
| 117.0 | 117.0 | 117.0 | 0.7 | 0.0 | 0.0 |
| 118.0 | 118.0 | 118.0 | 0.7 | 0.0 | 0.0 |
| 119.0 | 119.0 | 119.0 | 0.7 | 0.0 | 0.0 |
| 120.0 | 120.0 | 120.0 | 0.7 | 0.0 | 0.0 |
| 89.0 | 89.0 | 89.0 | 0.7 | 0.0 | 0.0 |
| 84.0 | 84.0 | 84.0 | 0.7 | 0.0 | 0.0 |
| 79.0 | 79.0 | 79.0 | 0.7 | 0.0 | 0.0 |
| 74.0 | 74.0 | 74.0 | 0.7 | 0.0 | 0.0 |
| 69.0 | 69.0 | 69.0 | 0.7 | 0.0 | 0.0 |
| 64.0 | 64.0 | 64.0 | 0.7 | 0.0 | 0.0 |
| 59.0 | 59.0 | 59.0 | 0.7 | 0.0 | 0.0 |
| 54.0 | 54.0 | 54.0 | 0.7 | 0.0 | 0.0 |
| 49.0 | 49.0 | 49.0 | 0.7 | 0.0 | 0.0 |
| 44.0 | 44.0 | 44.0 | 0.7 | 0.0 | 0.0 |
| 39.0 | 39.0 | 39.0 | 0.7 | 0.0 | 0.0 |
| 34.0 | 34.1 | 34.1 | 0.7 | 0.1 | 0.1 |
| 33.0 | 33.1 | 33.1 | 0.7 | 0.1 | 0.1 |



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SMECLab



Sound level meter type: XL2 Serial No. A2A-15269-EO Date 23-Feb-2021
Microphone type: MC230A Serial No. A16673
Report: 21CA0222 02-02

| | | | | | |
|---|---|---|---|---|---|
| 32.0 | 32.2 | 32.2 | 0.7 | 0.2 | 0.2 |
| 31.0 | 31.2 | 31.2 | 0.7 | 0.2 | 0.2 |
| 30.0 | 30.2 | 30.2 | 0.7 | 0.2 | 0.2 |

Measurements for an indication of the reference SPL on all other ranges which include it

| Other ranges | Expected level | Actual level | Tolerance | Deviation |
|---|---|---|---|---|
| dB | dB | dB | +/- dB | dB |
| 40-140 | 94.0 | 94.0 | 0.7 | 0.0 |
| 20-120 | 94.0 | 94.0 | 0.7 | 0.0 |
| 0-100 | 94.0 | 94.0 | 0.7 | 0.0 |

Measurements on all level ranges for indications 2 dB below the upper limit and 2 dB above the lower limit

| Ranges | Reference/Expected level | Actual level | Tolerance | Deviation |
|---|---|---|---|---|
| dB | dB | dB | +/- dB | dB |
| 40-140 | 52.0 | 52.5 | 0.7 | 0.5 |
| | 138.0 | 138.0 | 0.7 | 0.0 |
| 20-120 | 30.0 | 30.2 | 0.7 | 0.2 |
| | 118.0 | 118.0 | 0.7 | 0.0 |
| 0-100 | 30.0 | 30.0 | 0.7 | 0.0 |
| | 98.0 | 98.0 | 0.7 | 0.0 |

## FREQUENCY WEIGHTING TEST

The frequency response of the weighting netwoks are tested at octave intervals over the frequency ranges 31.5 Hz to 12500 Hz. The signal level at 1000 Hz is set to give an indication of the reference SPL.

Frequency weighting A:

| Frequency | Ref. level | Expected level | Actual level | Tolerance(dB) | | Deviation |
|---|---|---|---|---|---|---|
| Hz | dB | dB | dB | + | - | dB |
| 1000.0 | 94.0 | 94.0 | 94.0 | 0.0 | 0.0 | 0.0 |
| 31.6 | 94.0 | 54.6 | 54.6 | 1.5 | 1.5 | 0.0 |
| 63.1 | 94.0 | 67.8 | 67.7 | 1.5 | 1.5 | -0.1 |
| 125.9 | 94.0 | 77.9 | 77.9 | 1.0 | 1.0 | 0.0 |
| 251.2 | 94.0 | 85.4 | 85.3 | 1.0 | 1.0 | -0.1 |
| 501.2 | 94.0 | 90.8 | 90.8 | 1.0 | 1.0 | 0.0 |
| 1995.0 | 94.0 | 95.2 | 95.2 | 1.0 | 1.0 | 0.0 |
| 3981.0 | 94.0 | 95.0 | 95.0 | 1.0 | 1.0 | 0.0 |
| 7943.0 | 94.0 | 92.9 | 92.9 | 1.5 | 3.0 | 0.0 |
| 12590.0 | 94.0 | 89.7 | 89.5 | 3.0 | 6.0 | -0.2 |

Frequency weighting C:

| Frequency | Ref. level | Expected level | Actual level | Tolerance(dB) | | Deviation |
|---|---|---|---|---|---|---|
| Hz | dB | dB | dB | + | - | dB |



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香港新界葵涌永基路22-24號好爸爸創科大廈
Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong
Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

SMECLab



Sound level meter type: XL2 Serial No. A2A-15269-EO Date 23-Feb-2021
Microphone type: MC230A Serial No. A16673
Report: 21CA0222 02-02

| | | | | | | |
|---|---|---|---|---|---|---|
| 1000.0 | 94.0 | 94.0 | 94.0 | 0.0 | 0.0 | 0.0 |
| 31.6 | 94.0 | 91.0 | 90.8 | 1.5 | 1.5 | -0.2 |
| 63.1 | 94.0 | 93.2 | 93.1 | 1.5 | 1.5 | -0.1 |
| 125.9 | 94.0 | 93.8 | 93.8 | 1.0 | 1.0 | 0.0 |
| 251.2 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 501.2 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 1995.0 | 94.0 | 93.8 | 93.8 | 1.0 | 1.0 | 0.0 |
| 3981.0 | 94.0 | 93.2 | 93.2 | 1.0 | 1.0 | 0.0 |
| 7943.0 | 94.0 | 91.0 | 91.0 | 1.5 | 3.0 | 0.0 |
| 12590.0 | 94.0 | 87.8 | 87.6 | 3.0 | 6.0 | -0.2 |

Frequency weighting Lin:

| Frequency | Ref. level | Expected level | Actual level | Tolerance(dB) | | Deviation |
|---|---|---|---|---|---|---|
| Hz | dB | dB | dB | + | - | dB |
| 1000.0 | 94.0 | 94.0 | 94.0 | 0.0 | 0.0 | 0.0 |
| 31.6 | 94.0 | 94.0 | 93.8 | 1.5 | 1.5 | -0.2 |
| 63.1 | 94.0 | 94.0 | 93.9 | 1.5 | 1.5 | -0.1 |
| 125.9 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 251.2 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 501.2 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 1995.0 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 3981.0 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 7943.0 | 94.0 | 94.0 | 94.0 | 1.5 | 3.0 | 0.0 |
| 12590.0 | 94.0 | 94.0 | 94.0 | 3.0 | 6.0 | 0.0 |

Note: No corrections for the frequency response of the microphone, instrument case and windshield are made to the sound level meter.

## TIME WEIGHTING FAST TEST

Time weighting F is tested on the reference range with a single sinusoidal burst of duration 200 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

| Ref. level | Expected level | Actual level | Tolerance(dB) | | Deviation |
|---|---|---|---|---|---|
| dB | dB | dB | + | - | dB |
| 116.0 | 115.0 | 115.0 | 1.0 | 1.0 | 0.0 |

## TIME WEIGHTING SLOW TEST

Time weighting S is tested on the reference range with a single sinusoidal burst of duration 500 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

| Ref. level | Expected level | Actual level | Tolerance(dB) | | Deviation |
|---|---|---|---|---|---|
| dB | dB | dB | + | - | dB |
| 116.0 | 111.9 | 111.9 | 1.0 | 1.0 | 0.0 |



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SMECLab



Sound level meter type: XL2 Serial No. A2A-15269-EO Date 23-Feb-2021
Microphone type: MC230A Serial No. A16673
Report: 21CA0222 02-02

## PEAK RESPONSE TEST

The onset time of the peak detector is tested on the reference range by comparing the response to a 100 us rectangular test pulse with the response to a 10 ms reference pulse of the same amplitude. The amplitude of the 10 ms reference pulse is such as to produce an indication 1 dB below the upper limit of the primary indicator range.

Positive polarities: (Weighting Z, set the generator signal to single, Lzpeak)

| Ref. level | Response to 10 ms | Response to 100 us | Tolerance | Deviation |
|---|---|---|---|---|
| dB | dB | dB | +/- dB | dB |
| 119.0 | 119.0 | 118.6 | 2.0 | -0.4 |

Negative polarities:

| Ref. level | Response to 10 ms | Response to 100 us | Tolerance | Deviation |
|---|---|---|---|---|
| dB | dB | dB | +/- dB | dB |
| 119.0 | 119.0 | 118.6 | 2.0 | -0.4 |

## RMS ACCURACY TEST

The RMS detector accuracy is tested on the reference range for a crest factor of 3.

Test frequency: 2000 Hz
Amplitude: 2 dB below the upper limit of the primary indicator range.
Burst repetition frequency: 40 Hz
Tone burst signal: 11 cycles of a sine wave of frequency 2000 Hz. (Set to INT)

| Time wighting | Ref. Level | Expected level | Tone burst signal | Tolerance | Deviation |
|---|---|---|---|---|---|
| | dB | dB | indication(dB) | +/- dB | dB |
| Slow | 118.0+6.6 | 118.0 | 117.9 | 0.5 | -0.1 |

## TIME WEIGHTING IMPULSE TEST

Time weighting I is tested on the reference range (Set the SLM to LAImax)
Test frequency: 2000 Hz
Amplitude: The upper limit of the primary indicator range.

Single sinusoidal burst of duration 5 ms:

| Ref. Level | Single burst indication | | Tolerance | Deviation |
|---|---|---|---|---|
| dB | Expected (dB) | Actual (dB) | +/- dB | dB |
| 120.0 | 111.2 | 111.1 | 2.0 | -0.1 |

Repeated at 100 Hz

| Ref. Level | Repeated burst indication | | Tolerance | Deviation |
|---|---|---|---|---|
| dB | Expected (dB) | Actual (dB) | +/- dB | dB |
| 120.0 | 117.3 | 117.2 | 1.0 | -0.1 |

## TIME AVERAGING TEST

This test compares the SLM reading for continuous sine signals with readings obtained from a sine tone burst sequence having the same RMS level. The test level is 30 dB below the upper limit of the linearity range and repeated for Type 1 SLM with 40 dB below the upper limit of the linearity.

Frequency of tone burst: 4000 Hz
Duration of tone burst: 1 ms

| Repetition Time | Level of tone burst | Expected Leq | Actual Leq | Tolerance | Deviation | Remarks |
|---|---|---|---|---|---|---|



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Sound level meter type: XL2 Serial No. A2A-15269-EO Date 23-Feb-2021
Microphone type: MC230A Serial No. A16673
Report: 21CA0222 02-02

| msec | dB | dB | dB | +/- dB | dB | |
|---|---|---|---|---|---|---|
| 1000 | 90.0 | 90.0 | 89.9 | 1.0 | -0.1 | 60s integ. |
| 10000 | 80.0 | 80.0 | 79.8 | 1.0 | -0.2 | 6min. integ. |

## PULSE RANGE AND SOUND EXPOSURE LEVEL TEST

The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency: 4000 Hz

Integration time: 10 sec

The integrating sound level meter set to Leq:

| Duration | Rms level of | Expected | Actual | Tolerance | Deviation |
|---|---|---|---|---|---|
| msec | tone burst (dB) | dB | dB | +/- dB | dB |
| 10 | 88.0 | 58.0 | 58.0 | 1.7 | 0.0 |

The integrating sound level meter set to SEL:

| Duration | Rms level of | Expected | Actual | Tolerance | Deviation |
|---|---|---|---|---|---|
| msec | tone burst (dB) | dB | dB | +/- dB | dB |
| 10.0 | 88.0 | 68.0 | 68.0 | 1.7 | 0.0 |

## OVERLOAD INDICATION TEST

For SLM capable of operating in a non-integrating mode.

Test frequency: 2000 Hz
Amplitude: 2 dB below the upper limit of the primary indicator range.
Burst repetition frequency: 40 Hz
Tone burst signal: 11 cycles of a sine wave of frequency 2000 Hz.

| Level | Level reduced by | Further reduced | Difference | Tolerance | Deviation |
|---|---|---|---|---|---|
| at overload (dB) | 1 dB | 3 dB | dB | dB | dB |
| 121.3 | 120.3 | 117.3 | 3.0 | 1.0 | 0.0 |

For integrating SLM, with the instrument indicating Leq.

For integrating SLM, with the instrument indicating Leq and set to the reference range. The test signal as following:
The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency: 4000 Hz
Integration time: 10 sec
Single burst duration: 1 msec

| Rms level | Level reduced by | Expected level | Actual level | Tolerance | Deviation |
|---|---|---|---|---|---|
| at overload (dB) | 1 dB | dB | dB | dB | dB |
| 127.4 | 126.4 | 86.4 | 86.4 | 2.2 | 0.0 |

## ACOUSTIC TEST

The acoustic test of the complete SLM is tested at the frequency 125 Hz and 8000 Hz using a B&K type 4226 Multifunction Acoustic Calibrator. The test is performed in A weighting.

| Frequency | Expected level | Actual level | Tolerance (dB) | | Deviation |
|---|---|---|---|---|---|
| Hz | dB | Measured (dB) | + | - | dB |



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SMECLab

Test Data for Sound Level Meter



Sound level meter type: XL2 Serial No. A2A-15269-EO Date 23-Feb-2021
Microphone type: MC230A Serial No. A16673
Report: 21CA0222 02-02

| | | | | | |
|---|---|---|---|---|---|
| 1000 | 94.0 | 94.0 | 0.0 | 0.0 | 0.0 |
| 125 | 77.9 | 77.9 | 1.0 | 1.0 | 0.0 |
| 8000 | 92.9 | 92.8 | 1.5 | 3.0 | -0.1 |

----------END---------

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HKLAS 028
CAL

# CERTIFICATE OF CALIBRATION

**Certificate No.:** 21CA1222 02-02 **Page:** 1 **of** 2

## Item tested

| | |
|---|---|
| Description: | Acoustical Calibrator (Class 1) |
| Manufacturer: | Larson Davis |
| Type/Model No.: | CAL200 |
| Serial/Equipment No.: | 13437 |
| Adaptors used: | - |

## Item submitted by

| | |
|---|---|
| Curstomer: | Lam Environmental Services Ltd. |
| Address of Customer: | - |
| Request No.: | - |
| Date of receipt: | 22-Dec-2021 |

**Date of test:** 29-Dec-2021

## Reference equipment used in the calibration

| Description: | Model: | Serial No. | Expiry Date: | Traceable to: |
|---|---|---|---|---|
| Lab standard microphone | B&K 4180 | 2341427 | 04-May-2022 | SCL |
| Preamplifier | B&K 2673 | 2239857 | 31-May-2022 | CEPREI |
| Measuring amplifier | B&K 2610 | 2346941 | 01-Jun-2022 | CEPREI |
| Signal generator | DS 360 | 33873 | 27-May-2022 | CEPREI |
| Digital multi-meter | 34401A | US36087050 | 27-May-2022 | CEPREI |
| Audio analyzer | 8903B | GB41300350 | 28-May-2022 | CEPREI |
| Universal counter | 53132A | MY40003662 | 02-Jun-2022 | CEPREI |

## Ambient conditions

| | |
|---|---|
| Temperature: | 22 ± 1 °C |
| Relative humidity: | 55 ± 10 % |
| Air pressure: | 1005 ± 5 hPa |

## Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

## Test results

Details of the performed measurements are presented on **page 2** of this certificate.

**Approved Signatory:** Feng Junqi **Date:** 03-Jan-2022 **Company Chop:**

SOILS & MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

**Comments:** The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

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HKAS has accredited this laboratory (Reg. No. HOKLAS 028) under HOKLAS for specific calibration activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this certificate are traceable to the International System of Units (SI) or recognised measurement standards. The results relate only to the item(s) calibrated. This certificate shall not be reproduced except in full without approval of the laboratory.

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# CERTIFICATE OF CALIBRATION

(Continuation Page)

**Certificate No.:** 21CA1222 02-02 **Page:** 2 **of** 2

## 1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

(Output level in dB re 20 μPa)

| Frequency Shown Hz | Output Sound Pressure Level Setting dB | Measured Output Sound Pressure Level dB | Estimated Expanded Uncertainty dB |
|---|---|---|---|
| 1000 | 94.00 | 93.63 | 0.10 |

## 2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

**At 1000 Hz** **STF = 0.016 dB**

Estimated expanded uncertainty 0.005 dB

## 3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

**At 1000 Hz** **Actual Frequency = 1000.0 Hz**

Estimated expanded uncertainty 0.1 Hz Coverage factor k = 2.2

## 4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

**At 1000 Hz** **TND = 0.6%**

Estimated expanded uncertainty 0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

**Calibrated by:** Fung Chi Yip **Date:** 29-Dec-2021

**Checked by:** Chan Yuk Yiu **Date:** 03-Jan-2022

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

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**Met One Instruments, Inc.**
1600 NW Washington Blvd, Grants Pass, OR
TEL (541) 471-7111 Fax (541) 471-7116

# *Certificate of Calibration*

*BT-645*

*Particulate Monitor*

***Recommended calibration interval is 24 months from first day of use.***

**Unit Info**

| | | | |
|---|---|---|---|
| **Model:** | **BT-645** | **81865 Firmware Rev:** | **1.2.0** |
| **Serial Number:** | **R22586** | **81113** | **0.2.5** |
| **Calibrated By:** | J. Chester AT | **Cal. Date:** | **04/13/2021** |
| **Quality Inspector:** | AJ6 | **Date:** | APR 15 2021 |
| **Calibration Hz/µg/m³:** | **6.06** | | |

**Final Test**

| | | | |
|---|---|---|---|
| **Flow (2.0 L/min):** | **Pass** | **Ambient Temp (C):** | **23** |
| **Serial Communication:** | **Pass** | **RH (%):** | **24** |
| **Concentration:** | 370 | **Standard:** | **372** |

**Calibration Standards**

| Standards | Manufacturer | Model | SN | Cal Due Date |
|---|---|---|---|---|
| DMM | Fluke | 189 | 92130180 | 10/26/2021 |
| Temp/Humidity | Met One Instruments | 083E-1-6 | R20313 | 09/17/21 |
| Flow Meter | TSI | 4000 | 40419545007 | 11/21/2021 |
| LD-3B | SIBATA | LD-3B | 476795 | 06/29/2021 |

*The standards used for this calibration have accuracy equal to or greater than the instrument tested. These standards are on record and traceable to NIST to the extent allowed by the institute's calibration facility. Unless otherwise stated, all instruments are calibrated to meet the manufacturer's published specifications. The Calibration system complies with MIL-STD-45662A.*

## Lam Environmental Services Limited

**Portable Dust Meter Performance Check Record**

**Portable Dust Meter**

| | | |
|---|---|---|
| **Type** | : | Particulare Monitor |
| **Manufacturer** | : | MET ONE INSTRUMENTS |
| **Model Number** | : | BT-645 |
| **Serial Number** | : | R22586 |
| **Performance Check Date** | : | 10-May-21 |

**Standard Equipment**

| | | |
|---|---|---|
| **Type** | : | High Volume Sampler |
| **Manufacturer** | : | TISCH |
| **Model Number** | : | TE-5170 |
| **Equipment Number** | : | HVS018 |
| **Last Calibration Date** | : | 06-May-21 |

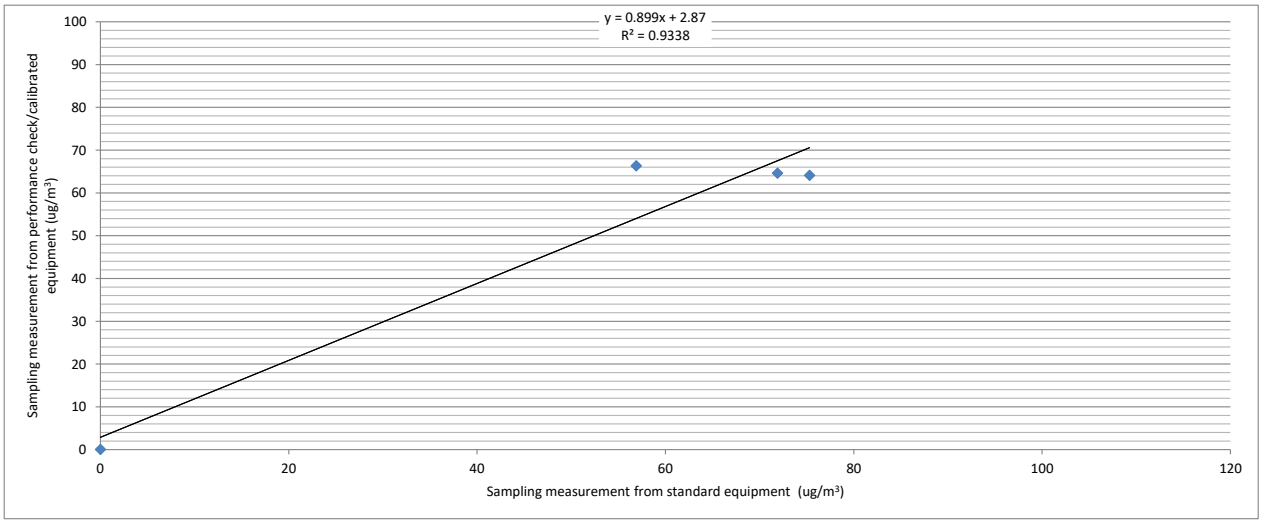
**Portable Dust Meter Performance Check Results**

| Trial no. in 1-hr period | Time | Mean Temp (°C) | Mean Pressure (hPa) | Concentration in ug/m$^3$ (Standard equipment) (Y - Axis) | Concentration in ug/m$^3$ (Performance Check / Calibrated equipment) (X - Axis) |
|---|---|---|---|---|---|
| Zero Check | 9/5/21 08:00 | 28 | 1009 | 0 | 0 |
| 1 | 10/5/21 08:05 | 28 | 1009 | 72 | 65 |
| 2 | 10/5/21 09:06 | 28 | 1009 | 75 | 64 |
| 3 | 10/5/21 10:07 | 28 | 1009 | 57 | 66 |

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

**Linear Regression of Y on X**

| | | |
|---|---|---|
| Slope (K- factor) | : | 1.1000 |
| Correlation Coefficient | : | 0.9663 |
| Validity of Performance Check / Calibration Record | : | 10/5/2022 |




| | | | |
|---|---|---|---|
| Operator: | Henry Lau | Date: | 10/05/2021 |
| Checked by: | James Chu | Date: | 11/05/2021 |

**Met One Instruments, Inc.**
1600 NW Washington Blvd, Grants Pass, OR
TEL (541) 471-7111 Fax (541) 471-7116

# *Certificate of Calibration*

*BT-645*

*Particulate Monitor*

***Recommended calibration interval is 24 months from first day of use.***

**Unit Info**

| | | | |
|---|---|---|---|
| **Model:** | *BT-645* | **81865 Firmware Rev:** | *1.3.0* |
| **Serial Number:** | *B17942* | **81113** | *0.2.4* |
| **Calibrated By:** | *B. Wentowski* AT4 | **Cal. Date:** | *10/07/2021* |
| **Quality Inspector:** | | **Date:** | 10-7-2021 |
| **Calibration Hz/µg/m³:** | *5.4* | | |

**Final Test**

Flow (2.0 L/M): Pass

Ambient T (C) *23*

RH, % *30*

Serial Communication: Pass

BT-645 Conc.: *414.22* Standard Conc: *405.82*

**Calibration Standards**

| Standards | Manufacturer | Model | SN | Cal Due |
|---|---|---|---|---|
| RMS Multimeter | Fluke | 189 Multimeter | 94060816 | 10/20/2021 |
| RH &TEMPERATURE | Met One Instruments | G3120 | G3120 | 02/02/2022 |
| Primary Flow Meter | TSI | 4040 | 40401945009 | 01/13/2022 |
| Digital Dust Indicator | SIBATA | LD-3 | 6X7759 | 03/12/2022 |
| | | | | |
| | | | | |

*The standards used for this calibration have accuracy equal to or greater than the instrument tested. These standards are on record and traceable to NIST to the extent allowed by the institute's calibration facility. Unless otherwise stated, all instruments are calibrated to meet the manufacturer's published specifications.*

Lam Environmental Services Limited

# Calibration Data for High Volume Sampler (TSP Sampler)

| | | | | | |
|---|---|---|---|---|---|
| **Location** | : | CMA2a | **Calbration Date** | : | 28-Oct-21 |
| **Equipment no.** | : | HVS002 | **Calbration Due Date** | : | 28-Dec-21 |

**CALIBRATION OF CONTINUOUS FLOW RECORDER**

| **Ambient Condition** | | | | | |
|---|---|---|---|---|---|
| **Temperature, $T_a$** | 298.7 | Kelvin | **Pressure, $P_a$** | 1018 | mmHg |

| **Orifice Transfer Standard Information** | | | | | |
|---|---|---|---|---|---|
| **Equipment No.** | **3880** | **Slope, $m_c$** | 2.08437 | **Intercept, bc** | -0.01508 |
| **Last Calibration Date** | 3-Feb-21 | $(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ | | | |
| **Next Calibration Date** | 3-Feb-22 | $= m_c \times Q_{std} + b_c$ | | | |

| **Calibration of TSP** | | | | | | |
|---|---|---|---|---|---|---|
| **Calibration Point** | **Manometer Reading H (inches of water)** | | | **$Q_{std}$** ($m^3$ / min.) | **Continuous Flow Recorder, W** | **IC** $(W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31)$ |
| | (up) | (down) | (difference) | **X-axis** | (CFM) | **Y-axis** |
| **1** | 1.3 | 1.3 | 2.6 | 0.7817 | 28 | 28.0306 |
| **2** | 1.9 | 1.9 | 3.8 | 0.9435 | 32 | 32.0349 |
| **3** | 3.0 | 3.0 | 6.0 | 1.1837 | 42 | 42.0459 |
| **4** | 3.9 | 3.9 | 7.8 | 1.3486 | 46 | 46.0502 |
| **5** | 5.0 | 5.0 | 10.0 | 1.5260 | 52 | 52.0568 |

By Linear Regression of Y on X

Slope, m = 32.9282 Intercept, b = 1.9558

Correlation Coefficient* = 0.9969

Calibration Accepted = Yes/~~No~~**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

| | | | | | |
|---|---|---|---|---|---|
| **Calibrated by** | : | Garry Yu | **Checked by** | : | James Chu |
| **Date** | : | 28-Oct-21 | **Date** | : | 28-Oct-21 |

Met One Instruments
1600 Washington Blvd
Grants Pass, OR 97526
(541) 471-7111
(541) 471-7116 (Fax)
Service@metone.com

# Calibration Certificate

**The calibration results on this report certify that this instrument complies with the product specifications at the time of calibration. Calibration was performed according to accepted industry methods using equipment, procedures, and standards that are traceable to NIST and ISO.**

**Recommended calibration interval is 12 months from the first day of use.**

**Instrument Model#** 831 **Instrument Serial#** R14332

**Date of Calibration** 2/18/2021 **Sensor #** 12228

J. Chester AT1
**Calibration Technician**

AT14 MAR 0 2 2021
**Quality Check**

**Temperature** 30 °C **Relative Humidity** 33 %

**Test Procedure:** 831-6100

| PSL Size (µm) | Test Results | Test Spec. | Lot# NIST | Expiration |
|---|---|---|---|---|
| 0.5 | Pass | ± 10% | 219480 | 11/30/2022 |
| 0.7 | Pass | ± 10% | 229561 | 08/31/2023 |
| 1.0 | Pass | ± 10% | 229294 | 8/31/2023 |
| 2.5 | Pass | ± 10% | REF | NA |
| 4.0 | Pass | ± 10% | REF | NA |
| 5.0 | Pass | ± 10% | REF | NA |
| 7.0 | Pass | ± 10% | REF | NA |
| 10.0 | Pass | ± 10% | REF | NA |
| | | | | |

| Standards | Model | SN | Cal Due |
|---|---|---|---|
| Flowmeter | DCL-M | 103751 | 3/14/2021 |
| DMM | 189 Multimeter | 92130180 | 10/26/2021 |
| RH/TEMP SENSOR | 083E-1-6 | R20313 | 9/17/2021 |
| Particle Counter | GT-526 | M1760 | 5/19/2021 |
| | | | |

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## Lam Environmental Services Limited

**Portable Dust Meter Performance Check Record**

**Portable Dust Meter**

| | | |
|---|---|---|
| **Type** | : | Particulare Monitor |
| **Manufacturer** | : | Metone AEROCET 831 |
| **Model Number** | : | 831 |
| **Serial Number** | : | R14332 |
| **Performance Check Date** | : | 22-Mar-21 |

**Standard Equipment**

| | | |
|---|---|---|
| **Type** | : | High Volume Sampler |
| **Manufacturer** | : | TISCH |
| **Model Number** | : | TE-5170 |
| **Equipment Number** | : | HVS018 |
| **Last Calibration Date** | : | 08-Mar-21 |

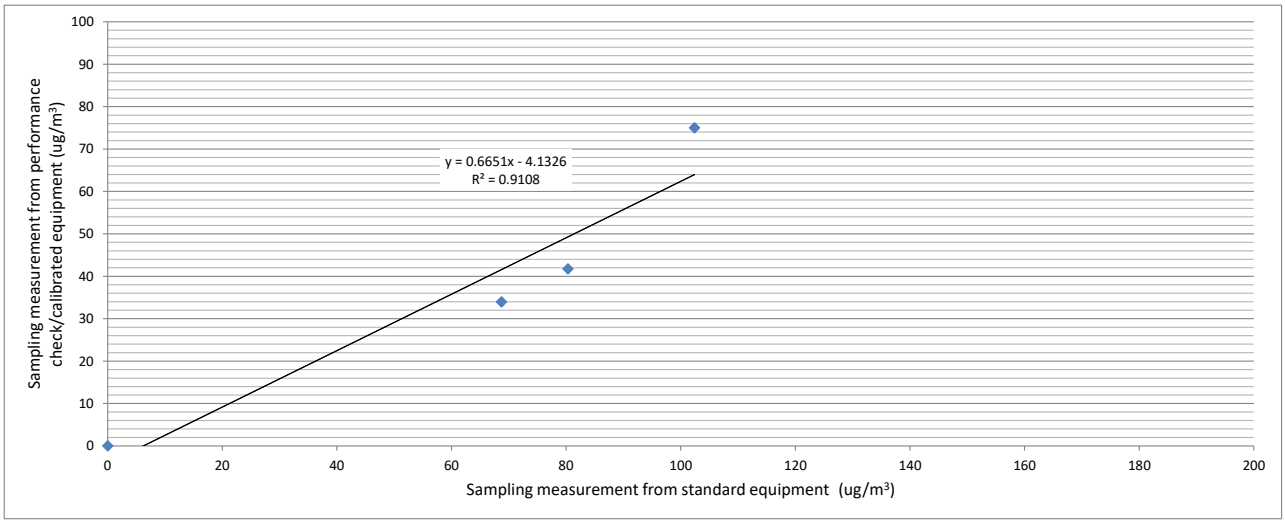
**Portable Dust Meter Performance Check Results**

| Trial no. in 1-hr period | Time | Mean Pressure (hPa) | Mean Temp (˚C) | Concentration in ug/m$^3$ (Standard equipment) (X - Axis) | Concentration in ug/m$^3$ (Performance Check / Calibrated equipment) (Y - Axis) |
|---|---|---|---|---|---|
| Zero Check | 28/12/2020 08:00 | 0 | 0 | 0 | 0 |
| 1 | 22/3/2021 08:00 | 1015 | 21 | 102 | 75 |
| 2 | 22/3/2021 09:01 | 1015 | 21 | 80 | 42 |
| 3 | 22/3/2021 10:02 | 1015 | 21 | 69 | 34 |

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

**Linear Regression of Y on X**

| | | |
|---|---|---|
| Slope (K- factor) | : | 1.4000 |
| Correlation Coefficient | : | 0.9544 |
| Validity of Performance Check / Calibration Record | : | 22/3/2022 |




| | | | |
|---|---|---|---|
| Operator: | Alan Ng | Date: | 22-Mar-21 |
| Checked by: | James Chu | Date: | 23-Mar-21 |

Met One Instruments
1600 Washington Blvd
Grants Pass, OR 97526
(541) 471-7111
(541) 471-7116 (Fax)
Service@metone.com

# Calibration Certificate

**The calibration results on this report certify that this instrument complies with the product specifications at the time of calibration. Calibration was performed according to accepted industry methods using equipment, procedures, and standards that are traceable to NIST and ISO.**

**Recommended calibration interval is 12 months from the first day of use.**

**Instrument Model#** *Aerocet 831*

**Instrument Serial#** *B19128*

**Date of Calibration** *10/13/2021*

**Sensor #** *3251*

*Brittney Wentowski* AT4
**Calibration Technician**

**Quality Check**

**Temperature** *24* °C

**Relative Humidity** *30* %

**Test Procedure:** *Aerocet 831-6100*

| PSL Size (µm) | Test Results | Test Spec. | Lot# NIST | Expiration |
|---|---|---|---|---|
| 0.3 | Pass | ± 10% | 223077 | 04/30/2023 |
| 0.5 | Pass | ± 10% | 219480 | 11/30/2022 |
| 1.0 | Pass | ± 10% | 229294 | 8/31/2023 |
| 2.5 | Pass | ± 10% | MF032 | 09/08/2022 |
| 4.0 | Pass | ± 10% | REF | NA |
| 5.0 | Pass | ± 10% | 214115 | 07/31/2022 |
| 7.0 | Pass | ± 10% | REF | NA |
| 10.0 | Pass | ± 10% | 230028 | 09/30/2023 |
| | | | | |

| Standards | Model | SN | Cal Due |
|---|---|---|---|
| Particle Counter | GT-526 | M1762 | 1/30/2022 |
| FLOWMETER | 4040 | 40401945009 | 1/13/2022 |
| DMM | 189 Multimeter | 94060816 | 10/20/2021 |
| RH/TEMP SENSOR | G3120 | G4587 | 2/2/2022 |
| | | | |

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CE

# DECLARATION OF CONFORMITY

| | |
|---|---|
| **Manufacturer:** | Met One Instruments, Inc.<br>1600 Washington Blvd.<br>Grants Pass, OR 97526 |
| **Model Name:** | Aerocet-831 |
| **Type of Equipment** | Handheld Dust Monitor |

We declare under our sole responsibility that the equipment referenced above is in conformity with the following Directives and Standards.

**Applicable Directives:**

| | |
|---|---|
| EMC | 2014/30/EU Electromagnetic Compatibility |
| RoHS | 2011/65/EU Restriction on the Use of Certain Hazardous Substances |

**Standards of Conformity:**

| | |
|---|---|
| EMC Emissions: | EN 61326-1:2013 Class B |
| EMC Immunity: | EN 61326-1:2013 Industrial |
| RoHS Requirements: | EN 50581:2012 |

**Test Methods:**

| | |
|---|---|
| Radiated Emissions | CISPR 11:2009 (Amended by A1:2010) |
| Conducted Emissions | CISPR 11:2009 (Amended by A1:2010) |
| ESD | IEC 61000-4-2:2008 |
| Radiated Immunity | IEC 61000-4-3:2010 |
| EFT | IEC 61000-4-4:2012 |
| Surge | IEC 61000-4-5:2005 |
| Conducted Immunity | IEC 61000-4-6:2008 |
| Magnetic Field Immunity | IEC 61000-4-8:2009 |
| Voltage Interrupts / Dips | IEC 61000-4-11:2004 |

**Date of Issue:** October 18, 2018

**Signed:** _____

Thomas L. Pottberg
President

**Met One Instruments, Inc.**
1600 Washington Blvd., Grants Pass, OR 97526
Tel: 541 471 7111 | Fax: 541 471 7116
www.metone.com

Lam Environmental Services Limited

# Calibration Data for High Volume Sampler (TSP Sampler)

| | | | | | |
|---|---|---|---|---|---|
| **Location** | : | CMA2a | **Calbration Date** | : | 28-Oct-21 |
| **Equipment no.** | : | HVS002 | **Calbration Due Date** | : | 28-Dec-21 |

**CALIBRATION OF CONTINUOUS FLOW RECORDER**

| **Ambient Condition** | | | | | |
|---|---|---|---|---|---|
| **Temperature, $T_a$** | 298.7 | Kelvin | **Pressure, $P_a$** | 1018 | mmHg |

| **Orifice Transfer Standard Information** | | | | | |
|---|---|---|---|---|---|
| **Equipment No.** | **3880** | **Slope, $m_c$** | 2.08437 | **Intercept, bc** | -0.01508 |
| **Last Calibration Date** | 3-Feb-21 | $(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ | | | |
| **Next Calibration Date** | 3-Feb-22 | $= m_c \times Q_{std} + b_c$ | | | |

| **Calibration of TSP** | | | | | | |
|---|---|---|---|---|---|---|
| **Calibration Point** | **Manometer Reading H (inches of water)** | | | **$Q_{std}$** ($m^3$ / min.) | **Continuous Flow Recorder, W** | **IC** $(W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31)$ |
| | (up) | (down) | (difference) | **X-axis** | (CFM) | **Y-axis** |
| **1** | 1.3 | 1.3 | 2.6 | 0.7817 | 28 | 28.0306 |
| **2** | 1.9 | 1.9 | 3.8 | 0.9435 | 32 | 32.0349 |
| **3** | 3.0 | 3.0 | 6.0 | 1.1837 | 42 | 42.0459 |
| **4** | 3.9 | 3.9 | 7.8 | 1.3486 | 46 | 46.0502 |
| **5** | 5.0 | 5.0 | 10.0 | 1.5260 | 52 | 52.0568 |

By Linear Regression of Y on X

Slope, m = 32.9282 Intercept, b = 1.9558

Correlation Coefficient* = 0.9969

Calibration Accepted = Yes/~~No~~**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

| | | | | | |
|---|---|---|---|---|---|
| **Calibrated by** | : | Garry Yu | **Checked by** | : | James Chu |
| **Date** | : | 28-Oct-21 | **Date** | : | 28-Oct-21 |

Met One Instruments
1600 Washington Blvd
Grants Pass, OR 97526
(541) 471-7111
(541) 471-7116 (Fax)
Service@metone.com

# Calibration Certificate

**The calibration results on this report certify that this instrument complies with the product specifications at the time of calibration. Calibration was performed according to accepted industry methods using equipment, procedures, and standards that are traceable to NIST and ISO.**

**Recommended calibration interval is 12 months from the first day of use.**

**Instrument Model#** *Aerocet 831* **Instrument Serial#** *B19129*

**Date of Calibration** *10/13/2021* **Sensor #** *3252*

*Brittney Wentowski* AT4
**Calibration Technician**

**Quality Check**

**Temperature** *24* °C **Relative Humidity** *30* %

**Test Procedure:** *Aerocet 831-6100*

| PSL Size (µm) | Test Results | Test Spec. | Lot# NIST | Expiration |
|---|---|---|---|---|
| 0.3 | Pass | ± 10% | 223077 | 04/30/2023 |
| 0.5 | Pass | ± 10% | 219480 | 11/30/2022 |
| 1.0 | Pass | ± 10% | 229294 | 8/31/2023 |
| 2.5 | Pass | ± 10% | MF032 | 09/08/2022 |
| 4.0 | Pass | ± 10% | REF | NA |
| 5.0 | Pass | ± 10% | 214115 | 07/31/2022 |
| 7.0 | Pass | ± 10% | REF | NA |
| 10.0 | Pass | ± 10% | 230028 | 09/30/2023 |
| | | | | |

| Standards | Model | SN | Cal Due |
|---|---|---|---|
| Particle Counter | GT-526 | M1762 | 1/30/2022 |
| FLOWMETER | 4040 | 40401945009 | 1/13/2022 |
| DMM | 189 Multimeter | 94060816 | 10/20/2021 |
| RH/TEMP SENSOR | G3120 | G4587 | 2/2/2022 |
| | | | |

*This calibration certificate shall not be reproduced except in full, without the written approval of Met One Instruments Inc.*

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# DECLARATION OF CONFORMITY

**Manufacturer:** Met One Instruments, Inc.
1600 Washington Blvd.
Grants Pass, OR 97526

**Model Name:** Aerocet-831
**Type of Equipment** Handheld Dust Monitor

We declare under our sole responsibility that the equipment referenced above is in conformity with the following Directives and Standards.

**Applicable Directives:**

| | |
|---|---|
| EMC | 2014/30/EU Electromagnetic Compatibility |
| RoHS | 2011/65/EU Restriction on the Use of Certain Hazardous Substances |

**Standards of Conformity:**

| | |
|---|---|
| EMC Emissions: | EN 61326-1:2013 Class B |
| EMC Immunity: | EN 61326-1:2013 Industrial |
| RoHS Requirements: | EN 50581:2012 |

**Test Methods:**

| | |
|---|---|
| Radiated Emissions | CISPR 11:2009 (Amended by A1:2010) |
| Conducted Emissions | CISPR 11:2009 (Amended by A1:2010) |
| ESD | IEC 61000-4-2:2008 |
| Radiated Immunity | IEC 61000-4-3:2010 |
| EFT | IEC 61000-4-4:2012 |
| Surge | IEC 61000-4-5:2005 |
| Conducted Immunity | IEC 61000-4-6:2008 |
| Magnetic Field Immunity | IEC 61000-4-8:2009 |
| Voltage Interrupts / Dips | IEC 61000-4-11:2004 |

**Date of Issue:** October 18, 2018

**Signed:** _____

Thomas L. Pottberg
President

**Met One Instruments, Inc.**
1600 Washington Blvd., Grants Pass, OR 97526
Tel: 541 471 7111 | Fax: 541 471 7116
www.metone.com

Lam Environmental Services Limited

# Calibration Data for High Volume Sampler (TSP Sampler)

| | | | | | |
|---|---|---|---|---|---|
| **Location** | : | CMA2a | **Calbration Date** | : | 28-Oct-21 |
| **Equipment no.** | : | HVS002 | **Calbration Due Date** | : | 28-Dec-21 |

**CALIBRATION OF CONTINUOUS FLOW RECORDER**

| **Ambient Condition** | | | | | |
|---|---|---|---|---|---|
| **Temperature, $T_a$** | 298.7 | Kelvin | **Pressure, $P_a$** | 1018 | mmHg |

| **Orifice Transfer Standard Information** | | | | | |
|---|---|---|---|---|---|
| **Equipment No.** | **3880** | **Slope, $m_c$** | 2.08437 | **Intercept, bc** | -0.01508 |
| **Last Calibration Date** | 3-Feb-21 | $(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ | | | |
| **Next Calibration Date** | 3-Feb-22 | $= m_c \times Q_{std} + b_c$ | | | |

| **Calibration of TSP** | | | | | | |
|---|---|---|---|---|---|---|
| **Calibration Point** | **Manometer Reading H (inches of water)** | | | **$Q_{std}$** ($m^3$ / min.) | **Continuous Flow Recorder, W** | **IC** $(W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31)$ |
| | (up) | (down) | (difference) | **X-axis** | (CFM) | **Y-axis** |
| **1** | 1.3 | 1.3 | 2.6 | 0.7817 | 28 | 28.0306 |
| **2** | 1.9 | 1.9 | 3.8 | 0.9435 | 32 | 32.0349 |
| **3** | 3.0 | 3.0 | 6.0 | 1.1837 | 42 | 42.0459 |
| **4** | 3.9 | 3.9 | 7.8 | 1.3486 | 46 | 46.0502 |
| **5** | 5.0 | 5.0 | 10.0 | 1.5260 | 52 | 52.0568 |

By Linear Regression of Y on X

Slope, m = 32.9282 Intercept, b = 1.9558

Correlation Coefficient* = 0.9969

Calibration Accepted = Yes/~~No~~**

* if Correlation Coefficient < 0.990, check and recalibration again.

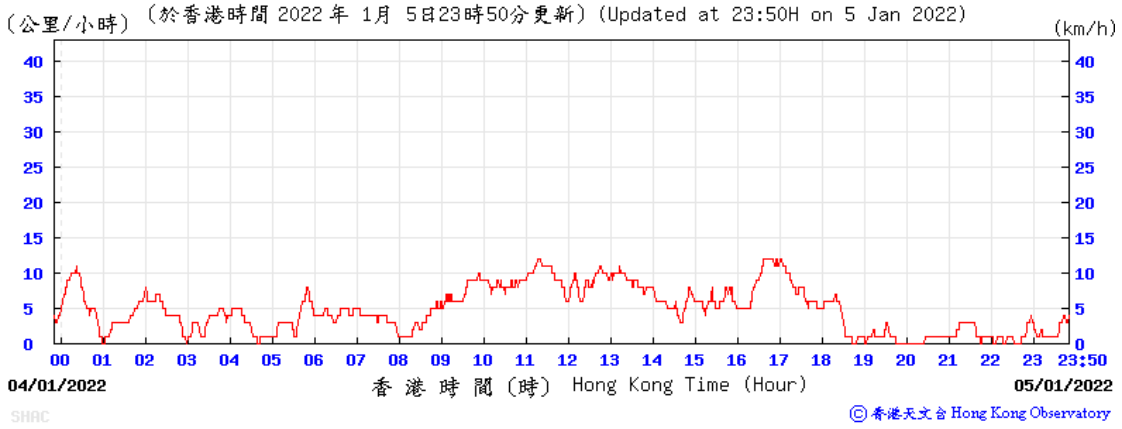
** Delete as appropriate.

Remarks : _____

| | | | | | |
|---|---|---|---|---|---|
| **Calibrated by** | : | Garry Yu | **Checked by** | : | James Chu |
| **Date** | : | 28-Oct-21 | **Date** | : | 28-Oct-21 |

***Appendix 4.3***

***Wind data extracted from Sha Tin HKO Automatic Weather Station***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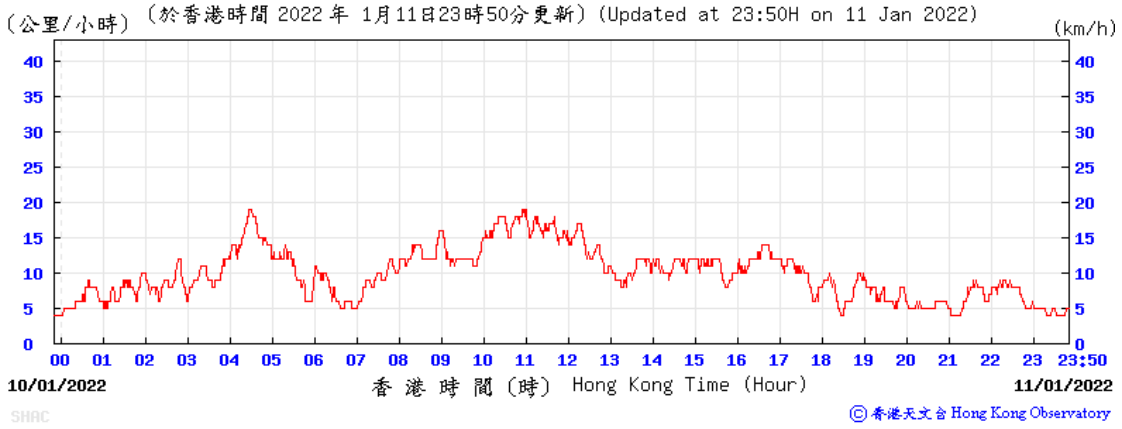
(km/h)
40
35
30
25
20
15
10
5
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
04/01/2022
香 港 時 間 (時) Hong Kong Time (Hour)
05/01/2022
SHAC
© 香港天文台 Hong Kong Observatory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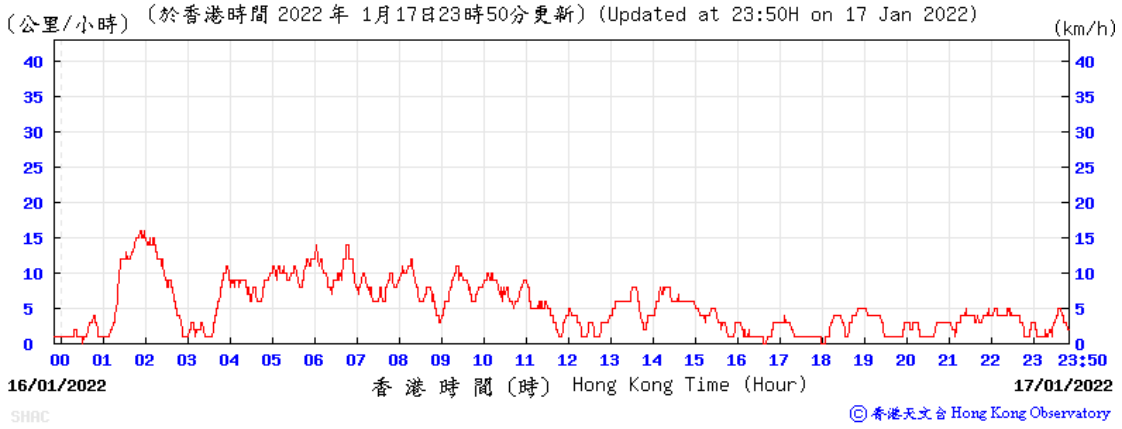
(km/h)
40
35
30
25
20
15
10
5
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
10/01/2022
香 港 時 間 (時) Hong Kong Time (Hour)
11/01/2022
SHAC
© 香港天文台 Hong Kong Observatory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(km/h)
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35
30
25
20
15
10
5
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
16/01/2022
香 港 時 間 (時) Hong Kong Time (Hour)
17/01/2022
SHAC
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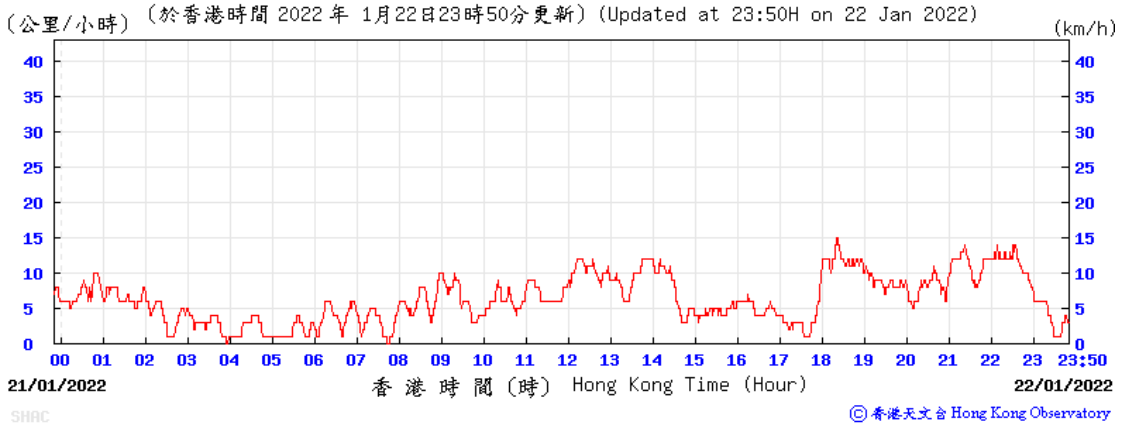
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(km/h)
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35
30
25
20
15
10
5
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
21/01/2022
香 港 時 間 (時) Hong Kong Time (Hour)
22/01/2022
SHAC
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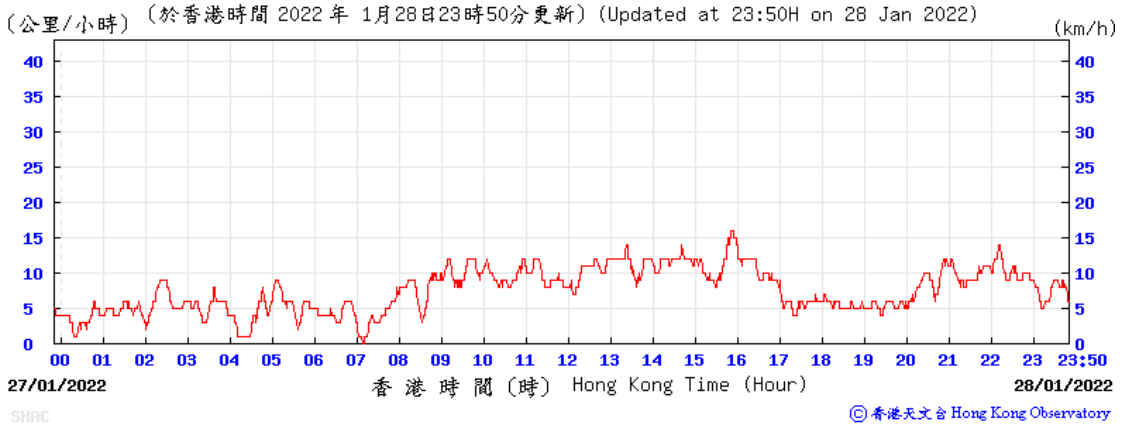
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(km/h)
40
35
30
25
20
15
10
5
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 23:50
27/01/2022
香 港 時 間 (時) Hong Kong Time (Hour)
28/01/2022
SHAC
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# 每日數據摘錄

二零二二年一月每日數據摘錄

返回 年 2022 月 1 前往

| 日 | 天文台 | | | | | | | | 京士柏 | 橫瀾島^ | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 平均氣壓(百帕斯卡) | 氣溫 | | | 平均露點溫度(攝氏度) | 平均相對濕度(%) | 平均雲量(%) | 總雨量(毫米) | 總日照(小時) | 盛行風向(度) | 平均風速(公里/小時) |
| | | 絕對最高(攝氏度) | 平均(攝氏度) | 絕對最低(攝氏度) | | | | | | | |
| 01 | 1024.4 | 19.3 | 17.6 | 16.4 | 13.4 | 76 | 68 | 0.0 | *** | *** | *** |
| 02 | 1022.5 | 22.0 | 18.4 | 16.0 | 14.2 | 77 | 10 | 0.0 | *** | *** | *** |
| 03 | 1021.1 | 20.5 | 18.3 | 17.0 | 14.5 | 79 | 27 | 0.0 | *** | *** | *** |
| 04 | 1019.6 | 21.5 | 19.1 | 17.4 | 14.4 | 75 | 49 | 0.0 | *** | *** | *** |
| 05 | 1017.3 | 23.6 | 20.4 | 18.3 | 15.8 | 75 | 50 | 微量 | *** | *** | *** |
| 06 | 1019.2 | 23.6 | 20.3 | 18.3 | 16.5 | 80 | 54 | 0.0 | *** | *** | *** |
| 07 | 1021.6 | 21.1 | 18.6 | 17.2 | 14.8 | 79 | 51 | 0.0 | *** | *** | *** |
| 08 | 1020.5 | 20.2 | 17.8 | 16.0 | 13.2 | 75 | 34 | 0.0 | *** | *** | *** |
| 09 | 1018.2 | 20.1 | 18.0 | 16.7 | 14.3 | 79 | 70 | 0.0 | *** | *** | *** |
| 10 | 1017.5 | 20.9 | 18.4 | 16.5 | 14.1 | 76 | 78 | 0.0 | *** | *** | *** |
| 11 | 1020.2 | 18.8 | 15.8 | 13.7 | 10.1 | 70 | 44 | 1.2 | *** | *** | *** |
| 12 | 1020.9 | 17.9 | 16.1 | 14.7 | 11.1 | 72 | 84 | 0.0 | *** | *** | *** |
| 13 | 1021.5 | 18.9 | 17.0 | 15.6 | 10.0 | 64 | 90 | 微量 | *** | *** | *** |
| 14 | 1020.7 | 17.3 | 16.6 | 15.4 | 11.9 | 75 | 84 | 0.0 | *** | *** | *** |
| 15 | 1020.1 | 19.8 | 17.9 | 16.5 | 14.8 | 82 | 68 | 0.0 | *** | *** | *** |
| 16 | 1020.4 | 21.1 | 18.8 | 17.4 | 15.6 | 82 | 59 | 0.0 | *** | *** | *** |
| 17 | 1020.7 | 18.4 | 17.8 | 17.1 | 15.0 | 84 | 82 | 0.0 | *** | *** | *** |
| 18 | 1020.9 | 18.3 | 17.3 | 15.8 | 14.1 | 82 | 89 | 0.2 | *** | *** | *** |
| 19 | 1019.3 | 20.3 | 17.1 | 14.9 | 11.5 | 70 | 49 | 0.0 | *** | *** | *** |
| 20 | 1018.4 | 20.8 | 17.6 | 15.4 | 12.6 | 73 | 54 | 0.0 | *** | *** | *** |
| 21 | 1017.6 | 19.7 | 17.9 | 16.5 | 14.4 | 80 | 69 | 0.0 | *** | *** | *** |
| 22 | 1014.3 | 17.8 | 17.3 | 16.8 | 15.8 | 91 | 94 | 1.5 | *** | *** | *** |
| 23 | 1013.1 | 21.8 | 19.4 | 17.5 | 16.6 | 84 | 87 | 0.1 | *** | *** | *** |
| 24 | 1014.3 | 21.8 | 19.7 | 18.8 | 17.7 | 88 | 86 | 1.0 | *** | *** | *** |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 1016.7 | 20.9 | 18.6 | 17.5 | 15.5 | 82 | 77 | 0.0 | *** | *** | *** |
| 26 | 1017.1 | 21.1 | 19.2 | 17.7 | 16.1 | 83 | 88 | 微量 | *** | *** | *** |
| 27 | 1016.8 | 22.1 | 19.8 | 18.4 | 17.0 | 84 | 61 | 微量 | *** | *** | *** |
| 28 | 1016.3 | 19.9 | 18.8 | 18.1 | 16.4 | 86 | 89 | 微量 | *** | *** | *** |
| 29 | 1014.4 | 20.2 | 18.1 | 16.3 | 14.8 | 81 | 88 | 0.1 | *** | *** | *** |
| 30 | 1017.5 | 20.0 | 16.0 | 13.2 | 9.1 | 64 | 58 | 0.0 | *** | *** | *** |
| 31 | 1019.2 | 15.5 | 14.6 | 13.6 | 9.0 | 70 | 88 | 微量 | *** | *** | *** |
| 平均/總值 | 1018.8 | 20.2 | 18.0 | 16.5 | 14.0 | 78 | 67 | 4.1 | *** | *** | *** |
| 氣候平均值§ | 1020.1 | 18.7 | 16.5 | 14.6 | 11.7 | 74 | 62 | 33.2 | 145.8 | 060 | 25.1 |

*** *沒有數據*

^ *自1989年8月開始,橫瀾島的風向和風速資料基於自動氣象站數據*

微量表示少於 0.05 毫米

§ *1991-2020 氣候平均值 (除特別列明外)*

***Appendix 5.1***

***Monitoring Schedules for Reporting Month and Next Month***

**Contract No. STW 01/2021**
**Environmental Team for Relocation of Sha Tin Sewage Treatment Works to Caverns –Site Preparation and Access Tunnel Construction**
**Tentative Impact Air Quality and Noise Monitoring Schedule**
**Jan 2022**

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 26 Dec | 27 Dec | 28 Dec<br>NM (CM1, CM2(B), CM4, CM5)<br>NM (CM4)_Evening Time (1900-2300 hrs) | 29 Dec<br>AQM<br>NM (CM4)_Night Time (2300-0700 hrs on next day)<br>WQM | 30 Dec<br>NM (DM1, DM2) | 31 Dec<br>NM (CM3, DM3)<br>WQM | 01 Jan |
| 02 Jan | 03 Jan | 04 Jan<br>NM (CM1, CM2 (B), CM4, CM5)<br>NM (CM4)_Evening Time (1900-2300 hrs) | 05 Jan<br>AQM<br>NM (CM3)<br>NM (CM4)_Night Time (2300-0700 hrs on next day) | 06 Jan | 07 Jan | 08 Jan |
| 09 Jan | 10 Jan | 11 Jan<br>AQM<br>NM (CM3, CM4) | 12 Jan | 13 Jan<br>NM (CM1, CM2 (B), CM5) | 14 Jan<br>NM (CM4)_Evening Time (1900-2300 hrs) | 15 Jan<br>NM (CM4)_Night Time (2300-0700 hrs on next day) |
| 16 Jan | 17 Jan<br>AQM<br>NM (CM1, CM2 (B), CM3, CM5) | 18 Jan | 19 Jan<br>NM (CM4)<br>NM (CM4)_Evening Time (1900-2300 hrs) | 20 Jan<br>NM (CM4)_Night Time (2300-0700 hrs on next day) | 21 Jan | 22 Jan<br>AQM |
| 23 Jan | 24 Jan | 25 Jan | 26 Jan<br>NM (CM4)<br>NM (CM4)_Evening Time (1900-2300 hrs) | 27 Jan<br>NM (CM4)_Night Time (2300-0700 hrs on next day) | 28 Jan<br>AQM<br>NM (CM1, CM2 (B), CM3, CM5) | 29 Jan |
| 30-Jan | 31 Jan<br>NM (CM1, CM2 (B), CM3, CM5) | 01 Feb | 02 Feb | 03 Feb | 04 Feb | 05 Feb |

Remark:

1. AQM: Air Quality Monitoring
   NM: Noise Monitoring, the monitoring dates are tentative and subject to change
   WQM: Water Quality Monitoring

**Contract No. STW 01/2021**
**Environmental Team for Relocation of Sha Tin Sewage Treatment Works to Caverns –Site Preparation and Access Tunnel Construction**
**Tentative Impact Air Quality and Noise Monitoring Schedule**
**Feb 2022**

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 30 Jan | 31 Jan<br>NM | 01 Feb | 02 Feb | 03 Feb | 04 Feb | 05 Feb |
| 06 Feb | 07 Feb | 08 Feb | 09 Feb<br>AQM<br>NM | 10 Feb | 11 Feb | 12 Feb |
| 13 Feb | 14 Feb | 15 Feb<br>AQM<br>NM | 16 Feb | 17 Feb | 18 Feb | 19 Feb |
| 20 Feb | 21 Feb<br>AQM<br>NM | 22 Feb | 23 Feb | 24 Feb | 25 Feb | 26 Feb<br>AQM |
| 27 Feb | 28 Feb | 01 Mar | 02 Mar | 03 Mar | 04 Mar<br>AQM<br>NM | 05 Mar |

Remark:

1. AQM: Air Quality Monitoring
   NM: Noise Monitoring, the monitoring dates are tentative and subject to change

***Appendix 5.2***

***Air Quality Monitoring Results and Graphical Presentations***

Report on 1-hour TSP monitoring at AM1 - Ah Kung Kok Fishermen Village

Action Level (μg/m3) - 294
Limit Level (μg/m3) - 500

| Date | Weather Condition | Time | Mass Concentration (μg/m3) |
|---|---|---|---|
| 5-Jan-22 | Cloudy | 8:33 | 25 |
| 5-Jan-22 | Cloudy | 9:34 | 29 |
| 5-Jan-22 | Cloudy | 10:35 | 34 |
| 11-Jan-22 | Fine | 13:00 | 40 |
| 11-Jan-22 | Fine | 14:01 | 32 |
| 11-Jan-22 | Fine | 15:02 | 38 |
| 17-Jan-22 | Cloudy | 8:43 | 42 |
| 17-Jan-22 | Cloudy | 9:44 | 36 |
| 17-Jan-22 | Cloudy | 10:45 | 39 |
| 22-Jan-22 | Cloudy | 8:23 | 33 |
| 22-Jan-22 | Cloudy | 9:24 | 37 |
| 22-Jan-22 | Cloudy | 10:25 | 43 |
| 28-Jan-22 | Fine | 8:02 | 12 |
| 28-Jan-22 | Fine | 9:03 | 16 |
| 28-Jan-22 | Fine | 10:04 | 20 |

Report on 1-hour TSP monitoring at AM2 - Block H, Kam Tai Court

Action Level (μg/m3) - 325
Limit Level (μg/m3) - 500

| Date | Weather Condition | Time | Mass Concentration (μg/m3) |
|---|---|---|---|
| 5-Jan-22 | Fine | 8:55 | 61 |
| 5-Jan-22 | Fine | 9:56 | 60 |
| 5-Jan-22 | Fine | 10:57 | 56 |
| 11-Jan-22 | Fine | 8:58 | 47 |
| 11-Jan-22 | Fine | 9:59 | 66 |
| 11-Jan-22 | Fine | 10:00 | 55 |
| 17-Jan-22 | Cloudy | 13:00 | 39 |
| 17-Jan-22 | Cloudy | 14:01 | 44 |
| 17-Jan-22 | Cloudy | 15:02 | 51 |
| 22-Jan-22 | Cloudy | 8:56 | 40 |
| 22-Jan-22 | Cloudy | 9:57 | 32 |
| 22-Jan-22 | Cloudy | 10:58 | 48 |
| 28-Jan-22 | Fine | 9:39 | 30 |
| 28-Jan-22 | Fine | 10:40 | 30 |
| 28-Jan-22 | Fine | 11:41 | 29 |

Report on 1-hour TSP monitoring at AM3(B) - Outside A Kung Kok Street Garden

Action Level (μg/m3) - 360
Limit Level (μg/m3) - 500

| Date | Weather Condition | Time | Mass Concentration (μg/m3) |
|---|---|---|---|
| 5-Jan-22 | Cloudy | 8:43 | 33 |
| 5-Jan-22 | Cloudy | 9:44 | 36 |
| 5-Jan-22 | Cloudy | 10:45 | 27 |
| 11-Jan-22 | Fine | 8:40 | 42 |
| 11-Jan-22 | Fine | 9:41 | 38 |
| 11-Jan-22 | Fine | 10:42 | 35 |
| 17-Jan-22 | Cloudy | 8:50 | 34 |
| 17-Jan-22 | Cloudy | 9:51 | 43 |
| 17-Jan-22 | Cloudy | 10:52 | 45 |
| 22-Jan-22 | Cloudy | 8:35 | 47 |
| 22-Jan-22 | Cloudy | 9:36 | 52 |
| 22-Jan-22 | Cloudy | 10:37 | 40 |
| 28-Jan-22 | hazy | 8:10 | 33 |
| 28-Jan-22 | hazy | 9:11 | 27 |
| 28-Jan-22 | hazy | 10:12 | 25 |

Report on 1-hour TSP monitoring at AM4 - Wellborn Kindergarten

Action Level (μg/m3) - 297
Limit Level (μg/m3) - 500

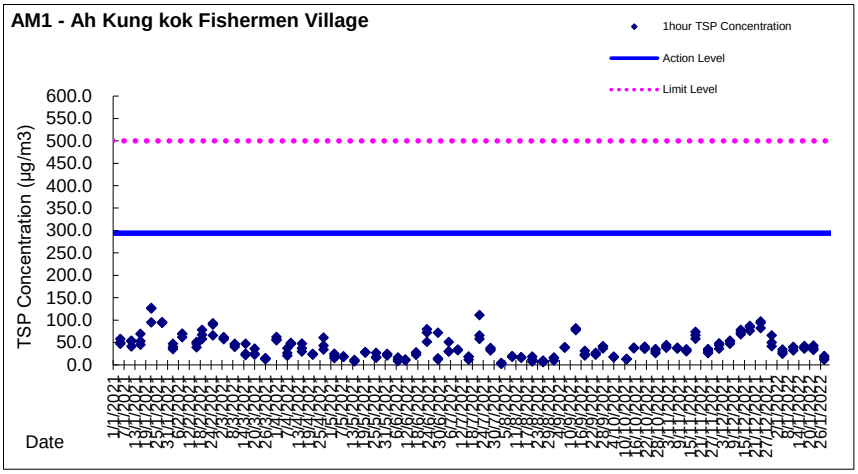
| Date | Weather Condition | Time | Mass Concentration (μg/m3) |
|---|---|---|---|
| 5-Jan-22 | Cloudy | 8:48 | 42 |
| 5-Jan-22 | Cloudy | 9:49 | 38 |
| 5-Jan-22 | Cloudy | 10:50 | 31 |
| 11-Jan-22 | Fine | 8:44 | 29 |
| 11-Jan-22 | Fine | 9:45 | 40 |
| 11-Jan-22 | Fine | 10:46 | 36 |
| 17-Jan-22 | Cloudy | 8:55 | 44 |
| 17-Jan-22 | Cloudy | 9:56 | 41 |
| 17-Jan-22 | Cloudy | 10:57 | 51 |
| 22-Jan-22 | Cloudy | 8:42 | 42 |
| 22-Jan-22 | Cloudy | 9:43 | 46 |
| 22-Jan-22 | Cloudy | 10:44 | 50 |
| 28-Jan-22 | hazy | 8:18 | 24 |
| 28-Jan-22 | hazy | 9:19 | 27 |
| 28-Jan-22 | hazy | 10:20 | 28 |

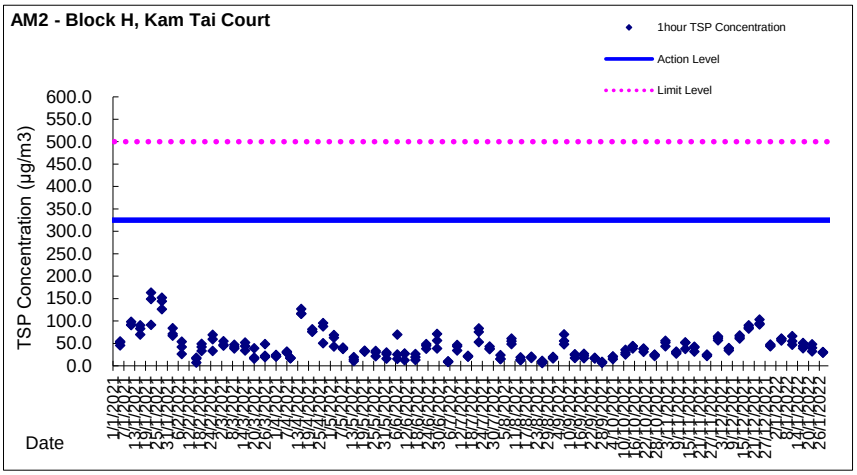
Report on 1-hour TSP monitoring at AM5 - The NAAC Harmony Manor

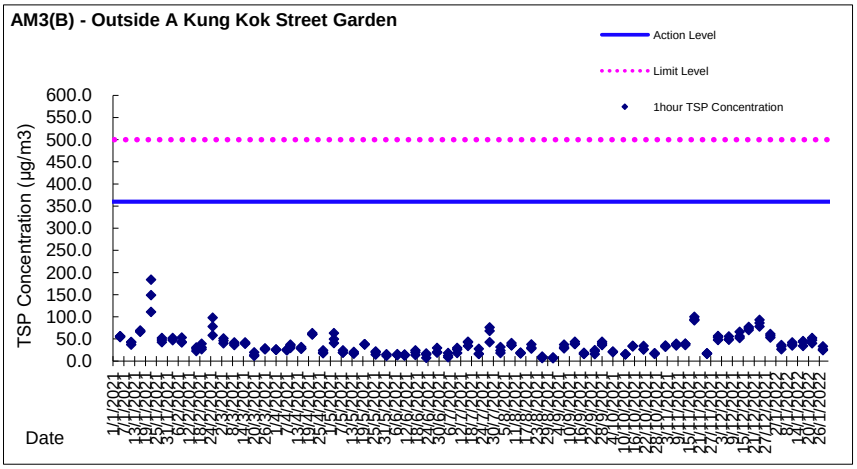
Action Level (μg/m3) - 349
Limit Level (μg/m3) - 500

| Date | Weather Condition | Time | Mass Concentration (μg/m3) |
|---|---|---|---|
| 5-Jan-22 | Cloudy | 8:20 | 31 |
| 5-Jan-22 | Cloudy | 9:21 | 38 |
| 5-Jan-22 | Cloudy | 10:22 | 35 |
| 11-Jan-22 | Fine | 8:28 | 47 |
| 11-Jan-22 | Fine | 9:29 | 55 |
| 11-Jan-22 | Fine | 10:30 | 51 |
| 17-Jan-22 | Cloudy | 8:33 | 60 |
| 17-Jan-22 | Cloudy | 9:34 | 62 |
| 17-Jan-22 | Cloudy | 10:35 | 66 |
| 22-Jan-22 | Cloudy | 8:15 | 44 |
| 22-Jan-22 | Cloudy | 9:16 | 53 |
| 22-Jan-22 | Cloudy | 10:17 | 55 |
| 28-Jan-22 | hazy | 8:57 | 39 |
| 28-Jan-22 | hazy | 9:58 | 31 |
| 28-Jan-22 | hazy | 10:59 | 42 |

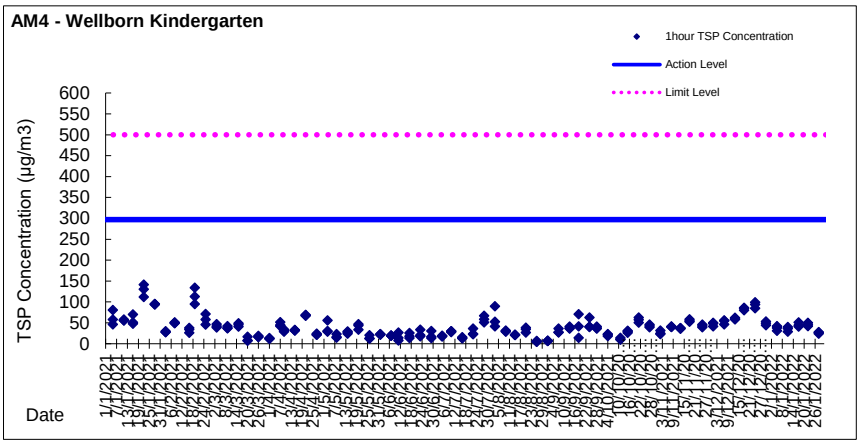
**Graphic Presentation of TSP Result**

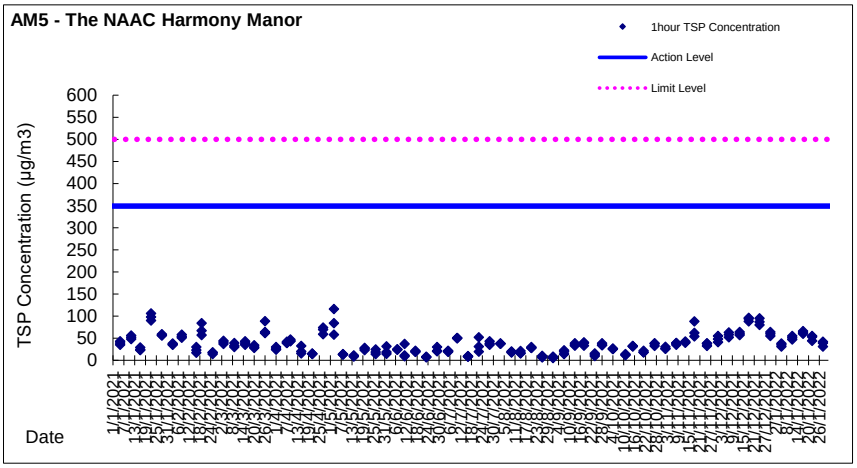


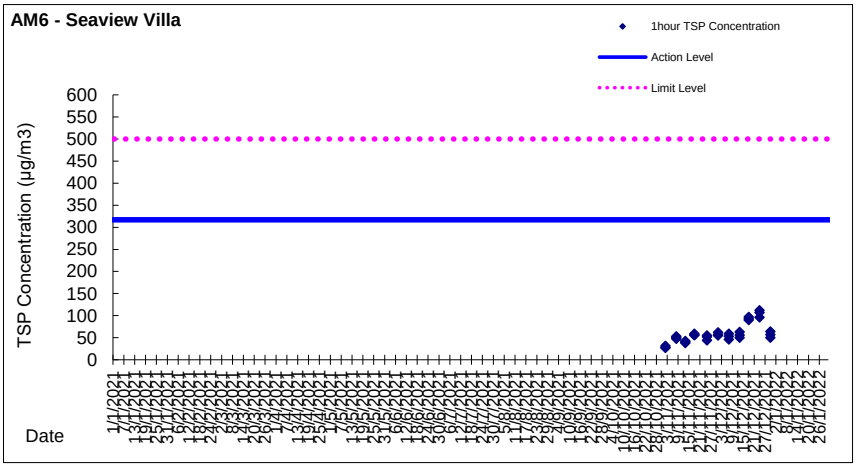



**Graphic Presentation of TSP Result**



***Appendix 5.3***

***Noise Quality Monitoring Results and Graphical Presentations***

**Noise Monitoring Result**

**Day Time (0700 - 1900hrs on weekday)**

Location: CM1 - G/F, Wellborn Kindergarten

| Date | Time | Weather | Wind Speed (m/s) | Measurement Noise Level Leq | L10 | L90 | Limit Level Leq |
|---|---|---|---|---|---|---|---|
| | | | | Unit: dB(A), (30min) | | | |
| 04/01/2022 | 8:20 | Fine | 0.0 | 55.3 | 57.7 | 48.2 | 70 |
| 13/01/2022 | 8:30 | Fine | 0.0 | 52.2 | 55.9 | 49.7 | 70 |
| 17/01/2022 | 8:38 | Fine | 0.0 | 53.5 | 56.7 | 50.2 | 70 |
| 28/01/2022 | 8:45 | Haze | 0.0 | 53.0 | 55.4 | 48.7 | 70 |
| 31/01/2022 | 10:03 | Cloudy | 0.1 | 53.8 | 54.5 | 47.2 | 70 |

* Limit level of noise monitoring station CM1 was adjusted to 65dB(A) during examination period.

Location: CM2(B) - G/F, Outside A Kung Kok Street Garden

| Date | Time | Weather | Wind Speed (m/s) | Measurement Noise Level Leq | L10 | L90 | Limit Level Leq |
|---|---|---|---|---|---|---|---|
| | | | | Unit: dB(A), (30-min) | | | |
| 04/01/2022 | 8:53 | Fine | 0.0 | 62.8 | 64.8 | 58.3 | 70 |
| 13/01/2022 | 9:07 | Fine | 0.0 | 60.6 | 64.2 | 57.5 | 70 |
| 17/01/2022 | 9:15 | Fine | 0.0 | 61.6 | 64.5 | 58.1 | 70 |
| 28/01/2022 | 9:20 | Haze | 0.0 | 62.4 | 64.8 | 56.1 | 70 |
| 31/01/2022 | 10:50 | Cloudy | 0.0 | 61.5 | 65.8 | 55.0 | 70 |

* Limit level of noise monitoring station CM2(A) was adjusted to 65dB(A) during examination period.

Location: CM3 - R/F, S.K.H. Ma On Shan Holy Spirit Primary School

| Date | Time | Weather | Wind Speed (m/s) | Measurement Noise Level Leq | L10 | L90 | Limit Level Leq |
|---|---|---|---|---|---|---|---|
| | | | | Unit: dB(A), (30min) | | | |
| 05/01/2022 | 16:20 | Fine | 0.0 | 64.1 | 65.7 | 61.2 | 70 |
| 11/01/2022 | 16:11 | Fine | 0.0 | 63.5 | 65.1 | 61.0 | 70 |
| 17/01/2022 | 14:47 | Cloudy | 0.0 | 63.9 | 65.8 | 60.9 | 70 |
| 28/01/2022 | 15:25 | Hazy | 0.0 | 64.3 | 65.9 | 61.8 | 70 |
| 31/01/2022 | 10:50 | Cloudy | 0.8 | 62.0 | 63.4 | 59.6 | 70 |

* Limit level of noise monitoring station CM3 was adjusted to 65dB(A) during examination period.

Location: CM4 - G/F, Ah Kung Kok Fishermen Village

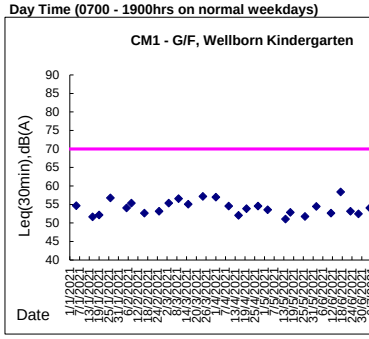
| Date | Time | Weather | Wind Speed (m/s) | Measurement Noise Level Leq | L10 | L90 | Limit Level Leq |
|---|---|---|---|---|---|---|---|
| | | | | Unit: dB(A), (30min) | | | |
| 04/01/2022 | 17:00 | Fine | 0.0 | 63.9 | 68.4 | 60.2 | 75 |
| 11/01/2022 | 17:00 | Fine | 0.0 | 65.6 | 68.8 | 61.2 | 75 |
| 19/01/2022 | 16:30 | Fine | 0.0 | 64.2 | 68.0 | 60.6 | 75 |
| 26/01/2022 | 17:00 | Cloudy | 0.0 | 66.6 | 69.8 | 61.2 | 75 |

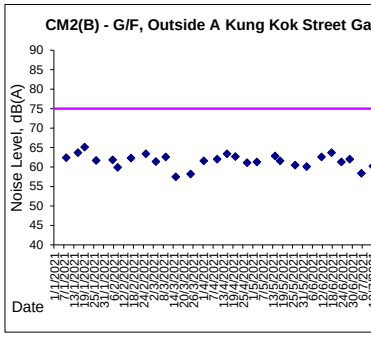
Location: CM5 - R/F, The Neighbourhood Advice-Action Council Harmony Manor

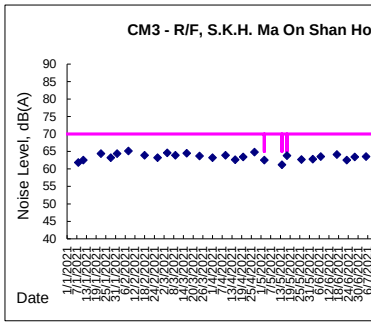
| Date | Time | Weather | Wind Speed (m/s) | Measurement Noise Level Leq | L10 | L90 | Limit Level Leq |
|---|---|---|---|---|---|---|---|
| | | | | Unit: dB(A), (30min) | | | |
| 04/01/2022 | 10:17 | Fine | 0.0 | 51.0 | 53.2 | 46.9 | 75 |
| 13/01/2022 | 10:51 | Cloudy | 0.0 | 52.6 | 50.5 | 45.1 | 75 |
| 17/01/2022 | 11:28 | Cloudy | 0.0 | 49.9 | 51.2 | 45.6 | 75 |
| 28/01/2022 | 11:25 | Hazy | 1.0 | 54.7 | 58.0 | 46.2 | 75 |
| 31/01/2022 | 9:59 | Cloudy | 1.0 | 53.6 | 56.9 | 46.0 | 75 |

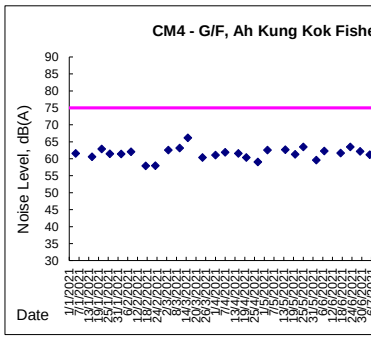
* Limit level of noise monitoring station CM3 was adjusted to 65dB(A) during examination period.

**Graphic Presentation of Noise Monitoring Result**
**Day Time (0700 - 1900hrs on normal weekdays)**



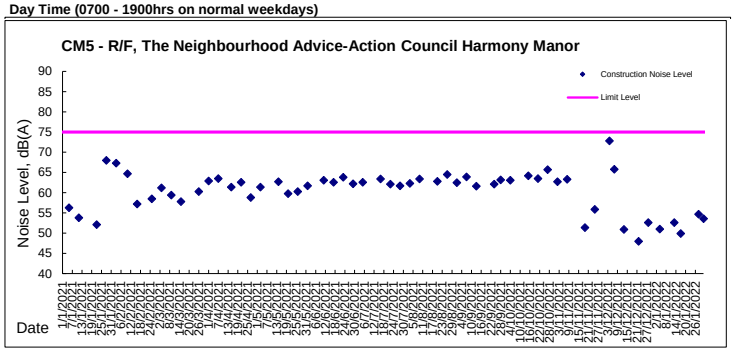



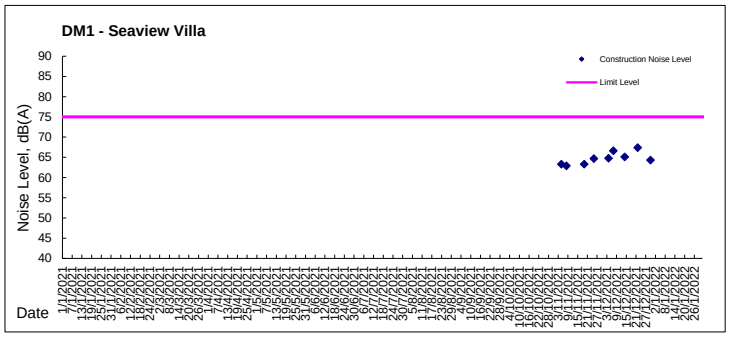



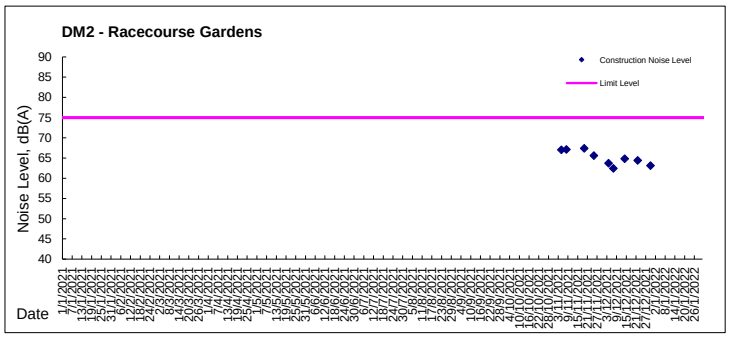



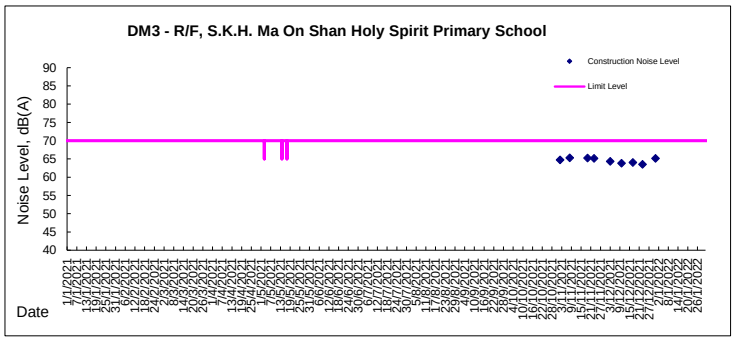
**Graphic Presentation of Noise Monitoring Result**

**Day Time (0700 - 1900hrs on normal weekdays)**



**Noise Monitoring Result**

**Evening Time (1900 - 2300hrs)**

Location: CM4 - G/F, Ah Kung Kok Fishermen Village

| Date | Weather | Time | Measurement Noise Level | | | Mean Noise Level | Baseline Level Range (mean level) | Construction Noise Level (baseline correction) | Major Construction Noise Source(s) | Other Noise Source(s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Leq | L10 | L90 | Leq (5min) | Leq | Leq | | |
| | | | dB(A), (5-min) | | | Unit: dB(A), (5-min) | | | | |
| 4/1/2022 | Fine | 19:30 | 63.3 | 67.5 | 60.7 | 65 | 53.5-70.9 (mean 56.7) | 64 | nil | Traffic |
| | | 19:35 | 62.1 | 65.6 | 60.2 | | | | | |
| | | 19:40 | 65.8 | 68.9 | 61.2 | | | | | |
| | | 19:45 | 67.4 | 70.2 | 63.7 | | | | | |
| | | 19:50 | 66.6 | 69.5 | 63.2 | | | | | |
| | | 19:55 | 62.9 | 66.4 | 60.1 | | | | | |
| 14/12/2021 | Fine | 20:30 | 64.4 | 66.6 | 61.2 | 63 | 53.5-70.9 (mean 56.7) | 62 | nil | Traffic |
| | | 20:35 | 65.7 | 67.6 | 60.9 | | | | | |
| | | 20:40 | 61.0 | 64.4 | 58.7 | | | | | |
| | | 20:45 | 62.8 | 66.5 | 60.4 | | | | | |
| | | 20:50 | 62.7 | 65.1 | 60.3 | | | | | |
| | | 20:55 | 63.5 | 66.2 | 60.6 | | | | | |
| 19/1/2022 | Fine | 20:00 | 62.7 | 67.4 | 59.5 | 64 | 53.5-70.9 (mean 56.7) | 63 | nil | Traffic |
| | | 20:05 | 67.2 | 70.6 | 63.1 | | | | | |
| | | 20:10 | 64.3 | 66.9 | 61.3 | | | | | |
| | | 20:15 | 62.5 | 66.6 | 59.2 | | | | | |
| | | 20:20 | 63.4 | 66.8 | 60.1 | | | | | |
| | | 20:25 | 65.6 | 68.6 | 59.4 | | | | | |
| 26/1/2022 | Cloudy | 20:30 | 64.1 | 66.9 | 60.4 | 63 | 53.5-70.9 (mean 56.7) | 62 | nil | Traffic |
| | | 20:35 | 63.5 | 66.7 | 61.4 | | | | | |
| | | 20:40 | 62.3 | 66.6 | 60.6 | | | | | |
| | | 20:45 | 62.7 | 65.9 | 60.1 | | | | | |
| | | 20:50 | 64.5 | 67.6 | 59.4 | | | | | |
| | | 20:55 | 63.5 | 66.9 | 60.2 | | | | | |

**Noise Monitoring Result**

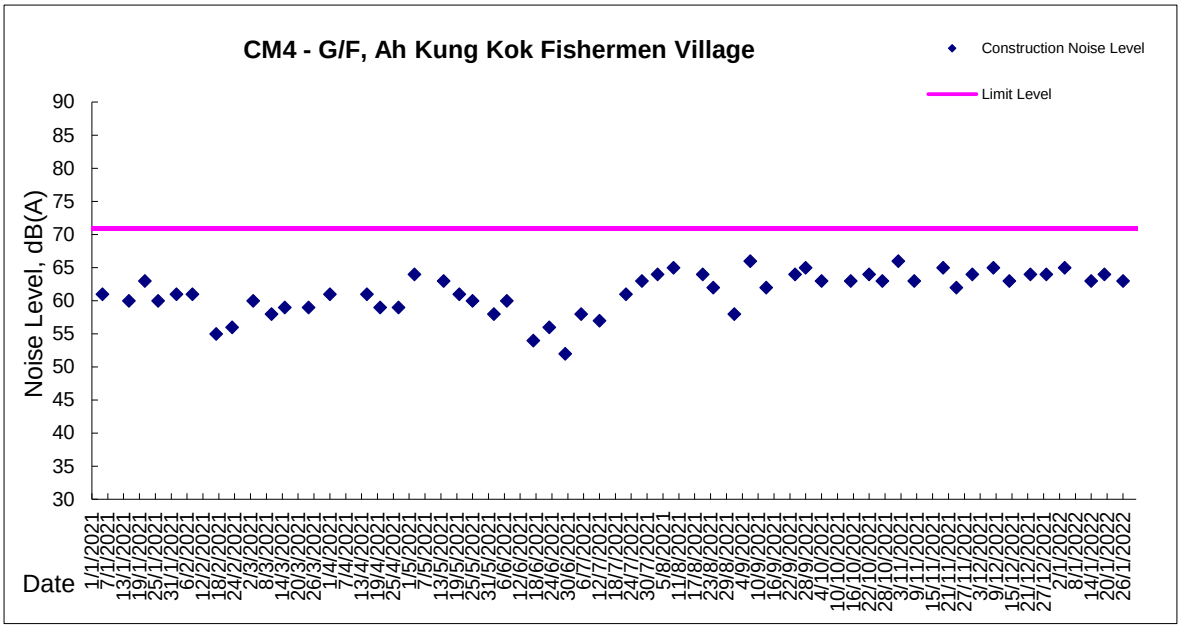
**Night Time (2300 - 0700hrs on next day)**

Location: CM4 - G/F, Ah Kung Kok Fishermen Village

| Date | Weather | Time | Measurement Noise Level | | | Mean Noise Level | Baseline Level Range (mean level) | Construction Noise Level (baseline correction) | Major Construction Noise Source(s) | Other Noise Source(s) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Leq | L10 | L90 | Leq (5min) | Leq | Leq | | |
| | | | dB(A), (5-min) | | | Unit: dB(A), (5-min) | | | | |
| 5/1/2022 | Fine | 0:30 | 56.4 | 58.2 | 54.5 | 55 | 45.6-63.2 (mean 52.8) | 52 | nil | Traffic |
| | | 0:35 | 56.1 | 58.3 | 53.8 | | | | | |
| | | 0:40 | 58.4 | 60.4 | 55.6 | | | | | |
| | | 0:45 | 54.1 | 56.9 | 53.2 | | | | | |
| | | 0:50 | 52.6 | 56.3 | 50.9 | | | | | |
| | | 0:55 | 54.7 | 57.2 | 52.6 | | | | | |
| 15/1/2022 | Fine | 0:00 | 58.4 | 61.2 | 56.6 | 57 | 45.6-63.2 (mean 52.8) | 54 | nil | Traffic |
| | | 0:05 | 55.9 | 58.2 | 54.3 | | | | | |
| | | 0:10 | 56.1 | 58.0 | 54.4 | | | | | |
| | | 0:15 | 56.6 | 58.3 | 55.1 | | | | | |
| | | 0:20 | 55.4 | 57.2 | 54.2 | | | | | |
| | | 0:25 | 57.6 | 59.8 | 53.9 | | | | | |
| 20/1/2022 | Fine | 0:10 | 54.6 | 56.4 | 51.9 | 56 | 45.6-63.2 (mean 52.8) | 54 | nil | Traffic |
| | | 0:15 | 57.1 | 58.6 | 53.5 | | | | | |
| | | 0:20 | 56.2 | 58.0 | 54.7 | | | | | |
| | | 0:25 | 55.8 | 57.6 | 53.5 | | | | | |
| | | 0:30 | 56.5 | 58.1 | 54.0 | | | | | |
| | | 0:35 | 58.2 | 61.5 | 54.4 | | | | | |
| 27/1/2022 | Cloudy | 1:00 | 56.1 | 57.8 | 55.3 | 56 | 45.6-63.2 (mean 52.8) | 53 | nil | Traffic |
| | | 1:05 | 52.9 | 56.4 | 51.5 | | | | | |
| | | 1:10 | 59.0 | 63.3 | 56.3 | | | | | |
| | | 1:15 | 56.8 | 58.2 | 53.6 | | | | | |
| | | 1:20 | 54.5 | 56.1 | 53.2 | | | | | |
| | | 1:25 | 55.3 | 57.2 | 51.6 | | | | | |

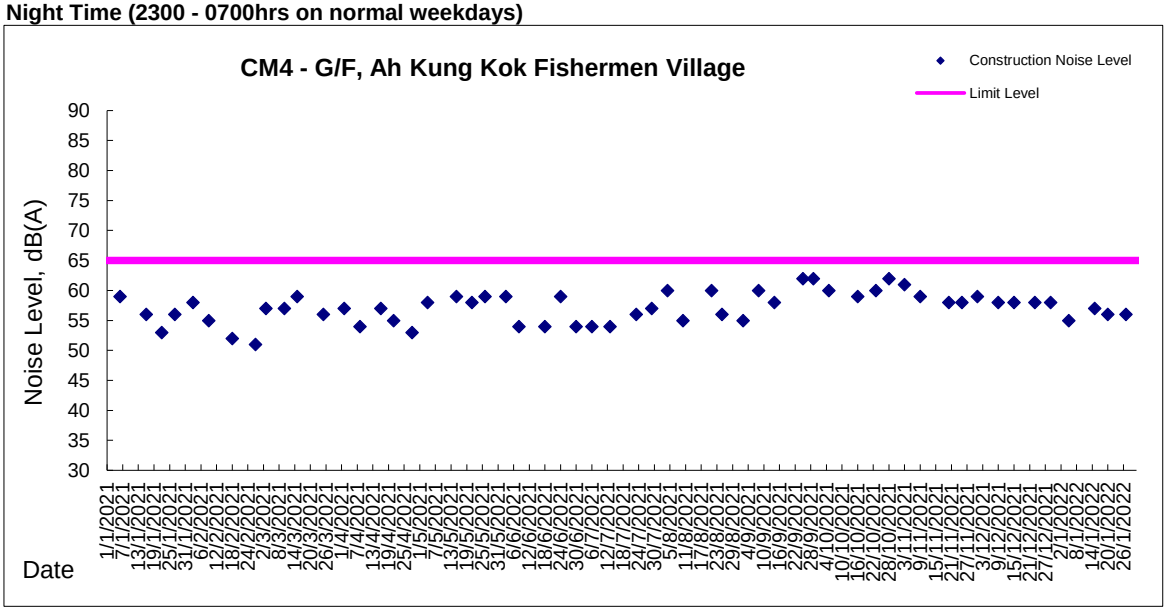
**Graphic Presentation of Noise Monitoring Result**

**Evening Time (1900 - 2300hrs on normal weekdays)**



**Graphic Presentation of Noise Monitoring Result**

**Night Time (2300 - 0700hrs on normal weekdays)**



***Appendix 5.4***

***Water Quality Monitoring Results and Graphical Presentations***

**Water Monitoring Result at W1 - WSD Seawater Intake at Sha Tin**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 14:10 | Fine | Surface | 1.0 | 23.75 | 23.75 | 23.75 | 8.56 | 8.54 | 8.55 | 28.82 | 28.75 | 28.79 | 113.0 | 101.8 | 107.4 | 8.01 | 7.30 | 7.66 | 1.36 | 1.38 | 1.37 |
| | 14:12 | | Middle | 3.5 | 23.75 | 23.74 | 23.75 | 8.45 | 8.47 | 8.46 | 29.05 | 29.03 | 29.04 | 88.1 | 86.5 | 87.3 | 6.31 | 6.26 | 6.29 | 1.05 | 1.09 | 1.07 |
| | 14:14 | | Bottom | 6.0 | 23.66 | 23.63 | 23.65 | 8.48 | 8.40 | 8.44 | 29.38 | 29.68 | 29.53 | 80.3 | 78.4 | 79.4 | 5.75 | 5.66 | 5.71 | 1.52 | 1.57 | 1.55 |
| 1/12/2021 | 14:10 | Fine | Surface | 1.0 | 22.62 | 22.62 | 22.62 | 8.79 | 8.80 | 8.80 | 27.81 | 27.86 | 27.84 | 87.9 | 87.1 | 87.5 | 6.45 | 6.41 | 6.43 | 2.07 | 2.02 | 2.05 |
| | 14:03 | | Middle | 3.5 | 22.59 | 22.58 | 22.59 | 8.79 | 8.79 | 8.79 | 28..11 | 28.10 | 28.10 | 84.1 | 83.3 | 83.7 | 6.18 | 6.12 | 6.15 | 2.05 | 1.86 | 1.96 |
| | 14:05 | | Bottom | 6.0 | 23.44 | 23.45 | 23.45 | 8.73 | 8.74 | 8.74 | 29.51 | 29.48 | 29.50 | 65.7 | 65.3 | 65.5 | 4.71 | 4.69 | 4.70 | 1.70 | 1.61 | 1.66 |
| 2/12/2021 | 14:25 | Fine | Surface | 1.0 | 22.39 | 22.40 | 22.40 | 8.91 | 8.90 | 8.91 | 28.40 | 28.43 | 28.42 | 98.4 | 97.1 | 97.8 | 7.23 | 7.14 | 7.19 | 2.40 | 2.44 | 2.42 |
| | 14:28 | | Middle | 3.0 | 22.68 | 22.60 | 22.64 | 8.70 | 8.73 | 8.72 | 29.60 | 29.63 | 29.62 | 78.6 | 79.0 | 78.8 | 5.72 | 5.75 | 5.74 | 2.53 | 2.43 | 2.48 |
| | 14:30 | | Bottom | 5.0 | 22.66 | 22.65 | 22.66 | 8.82 | 8.85 | 8.84 | 29.79 | 29.80 | 29.80 | 79.2 | 79.6 | 79.4 | 5.76 | 5.78 | 5.77 | 2.58 | 2.37 | 2.48 |
| 3/12/2021 | 14:40 | Fine | Surface | 1.0 | 21.72 | 21.72 | 21.72 | 8.86 | 8.90 | 8.88 | 29.97 | 27.94 | 28.96 | 126.8 | 127.5 | 127.2 | 9.47 | 9.55 | 9.51 | 1.77 | 1.84 | 1.81 |
| | 14:42 | | Middle | 3.0 | 21.90 | 21.86 | 21.88 | 8.82 | 8.84 | 8.83 | 28.64 | 28.69 | 28.67 | 114.3 | 115.1 | 114.7 | 8.50 | 8.54 | 8.52 | 1.01 | 1.07 | 1.04 |
| | 14:45 | | Bottom | 5.0 | 22.57 | 22.59 | 22.58 | 8.80 | 8.77 | 8.79 | 29.84 | 29.84 | 29.84 | 112.0 | 111.5 | 111.8 | 8.31 | 8.28 | 8.30 | 1.75 | 1.62 | 1.69 |
| 6/12/2021 | 7:42 | Fine | Surface | 1.0 | 21.43 | 21.45 | 21.44 | 8.66 | 8.68 | 8.67 | 30.33 | 30.55 | 30.44 | 75.9 | 75.3 | 75.6 | 5.66 | 5.59 | 5.63 | 2.05 | 2.11 | 2.08 |
| | 7:45 | | Middle | 3.0 | 21.54 | 21.56 | 21.55 | 8.89 | 8.85 | 8.87 | 30.44 | 30.42 | 30.43 | 79.4 | 78.5 | 79.0 | 5.89 | 5.82 | 5.86 | 1.51 | 1.46 | 1.49 |
| | 7:49 | | Bottom | 5.0 | 21.66 | 21.66 | 21.66 | 8.88 | 8.84 | 8.86 | 30.69 | 30.74 | 30.72 | 71.9 | 72.5 | 72.2 | 5.31 | 5.36 | 5.34 | 2.24 | 2.30 | 2.27 |
| 8/12/2021 | 9:25 | Fine | Surface | 1.0 | 20.49 | 20.49 | 20.49 | 8.17 | 8.17 | 8.17 | 31.45 | 31.29 | 31.37 | 82.1 | 82.0 | 82.1 | 6.15 | 6.12 | 6.14 | 1.10 | 1.14 | 1.12 |
| | 9:27 | | Middle | 3.0 | 20.88 | 20.90 | 20.89 | 8.31 | 8.32 | 8.32 | 32.70 | 32.76 | 32.73 | 94.9 | 93.6 | 94.3 | 7.00 | 6.87 | 6.94 | 0.95 | 0.99 | 0.97 |
| | 9:29 | | Bottom | 5.0 | 21.12 | 21.25 | 21.18 | 8.38 | 8.38 | 8.38 | 33.55 | 33.59 | 33.57 | 65.6 | 64.9 | 65.3 | 4.80 | 4.75 | 4.78 | 1.32 | 1.38 | 1.35 |
| 10/12/2021 | 11::43 | Fine | Surface | 1.0 | 21.23 | 21.32 | 21.28 | 8.42 | 8.44 | 8.43 | 32.20 | 32.16 | 32.18 | 97.4 | 98.7 | 98.1 | 7.17 | 7.15 | 7.16 | 0.94 | 1.01 | 0.98 |
| | 11:53 | | Middle | 3.0 | 21.06 | 21.07 | 21.07 | 8.55 | 8.56 | 8.56 | 32.72 | 32.74 | 32.73 | 100.5 | 100.1 | 100.3 | 7.38 | 7.35 | 7.37 | 0.66 | 0.67 | 0.67 |
| | 11:57 | | Bottom | 5.0 | 20.94 | 20.92 | 20.93 | 8.61 | 8.61 | 8.61 | 33.27 | 33.23 | 33.25 | 102.0 | 102.3 | 102.2 | 7.49 | 7.52 | 7.51 | 1.36 | 1.41 | 1.39 |
| 13/12/2021 | 16:01 | Fine | Surface | 1.0 | 22.14 | 22.16 | 22.15 | 8.35 | 8.39 | 8.37 | 33.21 | 32.25 | 32.73 | 84.7 | 84.0 | 84.4 | 6.19 | 6.15 | 6.17 | 1.05 | 1.09 | 1.07 |
| | 16:03 | | Middle | 3.0 | 21.93 | 21.95 | 21.94 | 8.29 | 8.26 | 8.28 | 32.61 | 32.57 | 32.59 | 83.6 | 82.5 | 83.1 | 6.12 | 6.06 | 6.09 | 1.36 | 1.29 | 1.33 |
| | 16:06 | | Bottom | 5.0 | 21.98 | 21.10 | 21.54 | 8.16 | 8.18 | 8.17 | 32.92 | 33.01 | 32.97 | 76.1 | 75.4 | 75.8 | 5.56 | 5.52 | 5.54 | 1.42 | 1.40 | 1.41 |
| 15/12/2021 | 14:05 | Cloudy | Surface | 1.0 | 21.95 | 21.95 | 21.95 | 8.17 | 8.15 | 8.16 | 32.39 | 32.41 | 32.40 | 97.7 | 96.4 | 97.1 | 7.21 | 7.11 | 7.16 | 1.09 | 1.14 | 1.12 |
| | 14:09 | | Middle | 3.5 | 22.03 | 22.05 | 22.04 | 8.25 | 8.26 | 8.26 | 32.87 | 32.85 | 32.86 | 91.5 | 90.1 | 90.8 | 6.70 | 6.60 | 6.65 | 0.82 | 0.78 | 0.80 |
| | 14:11 | | Bottom | 6.0 | 21.94 | 21.94 | 21.94 | 8.58 | 8.55 | 8.57 | 33.16 | 33.12 | 33.14 | 51.0 | 50.3 | 50.7 | 3.73 | 3.68 | 3.71 | 0.69 | 0.73 | 0.71 |
| 17/12/2021 | 14:35 | Cloudy | Surface | 1.0 | 22.46 | 22.46 | 22.46 | 8.26 | 8.28 | 8.27 | 32.04 | 32.10 | 32.07 | 106.1 | 107.7 | 106.9 | 7.79 | 7.90 | 7.85 | 0.95 | 1.03 | 0.99 |
| | 14:37 | | Middle | 3.0 | 22.39 | 22.40 | 22.40 | 8.51 | 8.85 | 8.68 | 32.45 | 32.74 | 32.60 | 105.7 | 104.4 | 105.1 | 7.73 | 7.64 | 7.69 | 1.13 | 1.18 | 1.16 |
| | 14:40 | | Bottom | 5.0 | 22.27 | 22.25 | 22.26 | 8.69 | 8.66 | 8.68 | 33.01 | 32.97 | 32.99 | 87.0 | 86.7 | 86.9 | 6.36 | 6.32 | 6.34 | 1.28 | 1.24 | 1.26 |
| 20/12/2021 | 17:23 | Cloudy | Surface | 1.0 | 20.45 | 20.45 | 20.45 | 8.86 | 8.88 | 8.87 | 33.02 | 33.04 | 33.03 | 81.4 | 80.4 | 80.9 | 6.15 | 6.06 | 6.11 | 1.26 | 1.31 | 1.29 |
| | 17:25 | | Middle | 3.5 | 20.61 | 20.60 | 20.61 | 8.52 | 8.53 | 8.53 | 33.37 | 33.40 | 33.39 | 79.8 | 80.3 | 80.1 | 6.00 | 6.04 | 6.02 | 0.75 | 0.88 | 0.82 |
| | 17:27 | | Bottom | 6.0 | 20.71 | 20.72 | 20.72 | 8.38 | 8.35 | 8.37 | 33.71 | 33.68 | 33.70 | 78.8 | 78.0 | 78.4 | 5.90 | 5.83 | 5.87 | 1.48 | 1.55 | 1.52 |
| 22/12/2021 | 8:40 | Cloudy | Surface | 1.0 | 20.09 | 20.11 | 20.10 | 8.27 | 8.30 | 8.29 | 32.88 | 32.91 | 32.90 | 76.7 | 77.3 | 77.0 | 5.78 | 5.84 | 5.81 | 1.29 | 1.23 | 1.26 |
| | 8:44 | | Middle | 3.0 | 20.63 | 20.62 | 20.63 | 8.44 | 8.45 | 8.45 | 33.07 | 33.05 | 33.06 | 70.5 | 68.9 | 69.7 | 5.29 | 5.17 | 5.23 | 1.55 | 1.62 | 1.59 |
| | 8:46 | | Bottom | 2.0 | 20.85 | 20.82 | 20.84 | 8.38 | 8.40 | 8.39 | 33.47 | 33.50 | 33.49 | 63.0 | 64.1 | 63.6 | 4.71 | 4.79 | 4.75 | 1.96 | 1.84 | 1.90 |
| 24/12/2021 | 9:10 | Cloudy | Surface | 1.0 | 20.87 | 20.88 | 20.88 | 8.36 | 8.36 | 8.36 | 31.85 | 32.86 | 32.36 | 83.3 | 83.9 | 83.6 | 6.22 | 6.25 | 6.24 | 1.15 | 1.21 | 1.18 |
| | 9:12 | | Middle | 3.0 | 20.96 | 20.97 | 20.97 | 8.25 | 8.23 | 8.24 | 33.09 | 33.07 | 33.08 | 83.4 | 82.6 | 83.0 | 6.22 | 6.15 | 6.19 | 0.93 | 0.88 | 0.91 |
| | 9:14 | | Bottom | 5.0 | 20.88 | 20.80 | 20.84 | 8.13 | 8.12 | 8.13 | 33.36 | 33.36 | 33.36 | 80.6 | 82.0 | 81.3 | 6.01 | 6.11 | 6.06 | 0.65 | 0.56 | 0.61 |
| 27/12/2021 | 12:10 | Cloudy | Surface | 1.0 | 19.21 | 19.22 | 19.22 | 7.90 | 7.88 | 7.89 | 32.53 | 32.53 | 32.53 | 82.9 | 82.1 | 82.5 | 6.37 | 6.31 | 6.34 | 1.54 | 1.62 | 1.58 |
| | 12:14 | | Middle | 3.0 | 19.57 | 19.57 | 19.57 | 7.78 | 7.77 | 7.78 | 32.70 | 32.72 | 32.71 | 85.7 | 85.2 | 85.5 | 6.56 | 6.52 | 6.54 | 1.19 | 1.12 | 1.16 |
| | 12:16 | | Bottom | 5.0 | 19.67 | 19.66 | 19.67 | 7.57 | 7.55 | 7.56 | 32.93 | 32.90 | 32.92 | 82.9 | 82.6 | 82.8 | 6.32 | 6.30 | 6.31 | 1.02 | 1.11 | 1.07 |
| 29/12/2021 | 13:40 | Fine | Surface | 1.0 | 20.01 | 20.01 | 20.01 | 8.49 | 8.50 | 8.50 | 33.26 | 33.27 | 33.27 | 97.2 | 96.8 | 97.0 | 7.39 | 7.37 | 7.38 | 1.04 | 1.10 | 1.07 |
| | 13:43 | | Middle | 3.5 | 19.80 | 19.80 | 19.80 | 8.42 | 8.40 | 8.41 | 33.58 | 33.60 | 33.59 | 86.3 | 85.5 | 85.9 | 6.57 | 5.52 | 6.05 | 1.53 | 1.44 | 1.49 |
| | 13:45 | | Bottom | 6.0 | 19.79 | 19.79 | 19.79 | 8.29 | 8.28 | 8.29 | 33.29 | 33.20 | 33.25 | 83.8 | 83.4 | 83.6 | 6.37 | 6.35 | 6.36 | 2.03 | 1.88 | 1.96 |

**Water Monitoring Result at W1 - WSD Seawater Intake at Sha Tin**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 8:15 | Fine | Surface | 1.0 | 23.26 | 23.26 | 23.26 | 8.23 | 8.23 | 8.23 | 28.50 | 28.63 | 28.57 | 94.2 | 93.8 | 94.0 | 6.83 | 6.80 | 6.82 | 1.74 | 1.77 | 1.76 |
| | 8:18 | | Middle | 3.0 | 23.43 | 23.43 | 23.43 | 8.23 | 8.23 | 8.23 | 29.50 | 29.43 | 29.47 | 85.8 | 85.1 | 85.5 | 6.16 | 6.12 | 6.14 | 1.09 | 0.86 | 0.98 |
| | 8:20 | | Bottom | 5.0 | 23.33 | 23.33 | 23.33 | 8.26 | 8.27 | 8.27 | 29.73 | 29.73 | 29.73 | 82.0 | 81.8 | 81.9 | 5.89 | 5.87 | 5.88 | 0.71 | 0.63 | 0.67 |
| 1/12/2021 | 8:12 | Fine | Surface | 1.0 | 22.05 | 22.05 | 22.05 | 8.82 | 8.84 | 8.83 | 28.36 | 28.39 | 28.38 | 86.1 | 85.4 | 85.8 | 6.57 | 6.31 | 6.44 | 2.37 | 2.10 | 2.24 |
| | 8:14 | | Middle | 3.5 | 22.24 | 22.25 | 22.25 | 8.82 | 8.81 | 8.82 | 28.71 | 28.72 | 28.72 | 81.5 | 79.7 | 80.6 | 6.01 | 5.87 | 5.94 | 1.40 | 1.34 | 1.37 |
| | 8:16 | | Bottom | 6.0 | 22.29 | 22.30 | 22.30 | 8.82 | 8.83 | 8.83 | 29.00 | 29.01 | 29.01 | 76.7 | 75.8 | 76.3 | 5.64 | 5.56 | 5.60 | 1.34 | 1.32 | 1.33 |
| 2/12/2021 | 8:33 | Fine | Surface | 1.0 | 20.84 | 20.90 | 20.87 | 8.89 | 8.90 | 8.90 | 29.05 | 29.05 | 29.05 | 73.5 | 74.7 | 74.1 | 5.55 | 5.62 | 5.59 | 3.80 | 3.71 | 3.76 |
| | 8:35 | | Middle | 3.5 | 21.83 | 21.90 | 21.87 | 8.93 | 8.90 | 8.92 | 29.75 | 29.80 | 29.78 | 70.2 | 68.9 | 69.6 | 5.14 | 5.08 | 5.11 | 2.28 | 2.22 | 2.25 |
| | 8:38 | | Bottom | 6.0 | 22.63 | 22.60 | 22.62 | 8.91 | 8.88 | 8.90 | 30.22 | 30.15 | 30.19 | 66.1 | 65.5 | 65.8 | 4.79 | 4.70 | 4.75 | 2.09 | 1.88 | 1.99 |
| 3/12/2021 | 8:55 | Fine | Surface | 1.0 | 20.57 | 20.52 | 20.55 | 8.89 | 8.92 | 8.91 | 28.53 | 28.22 | 28.38 | 91.0 | 91.5 | 91.3 | 6.93 | 7.00 | 6.97 | 2.24 | 1.94 | 2.09 |
| | 8:57 | | Middle | 3.5 | 21.84 | 21.79 | 21.82 | 8.75 | 8.78 | 8.77 | 29.92 | 29.94 | 29.93 | 87.1 | 87.5 | 87.3 | 6.42 | 6.43 | 6.43 | 1.30 | 1.00 | 1.15 |
| | 8:59 | | Bottom | 6.0 | 22.16 | 22.18 | 22.17 | 8.79 | 8.76 | 8.78 | 30.01 | 30.08 | 30.05 | 85.7 | 83.5 | 84.6 | 6.28 | 6.11 | 6.20 | 0.83 | 0.95 | 0.89 |
| 6/12/2021 | 15:15 | Fine | Surface | 1.0 | 22.08 | 22.08 | 22.08 | 8.52 | 8.50 | 8.51 | 30.43 | 30.47 | 30.45 | 95.7 | 95.0 | 95.4 | 7..02 | 6.97 | 6.97 | 1.40 | 1.33 | 1.37 |
| | 15:18 | | Middle | 3.5 | 22.07 | 22.05 | 22.06 | 8.44 | 8.40 | 8.42 | 30.65 | 30.66 | 30.66 | 95.6 | 95.0 | 95.3 | 7.01 | 6.98 | 7.00 | 0.85 | 0.90 | 0.88 |
| | 15:23 | | Bottom | 6.0 | 21.96 | 21.96 | 21.96 | 8.27 | 8.25 | 8.26 | 30.88 | 30.92 | 30.90 | 958.5 | 96.3 | 527.4 | 7.02 | 7.07 | 7.05 | 0.73 | 0.80 | 0.77 |
| 8/12/2021 | 16:01 | Fine | Surface | 1.0 | 21.44 | 21.42 | 21.43 | 8.74 | 8.75 | 8.75 | 33.20 | 33.01 | 33.11 | 103.2 | 104.4 | 103.8 | 7.53 | 7.62 | 7.58 | 0.70 | 0.77 | 0.74 |
| | 16:03 | | Middle | 3.0 | 21.22 | 21.22 | 21.22 | 8.77 | 8.77 | 8.77 | 33.06 | 33.07 | 33.07 | 99.6 | 99.0 | 99.3 | 7.29 | 7.26 | 7.28 | 0.54 | 0.60 | 0.57 |
| | 16:05 | | Bottom | 5.0 | 21.21 | 21.21 | 21.21 | 8.74 | 8.73 | 8.74 | 33.31 | 33.32 | 33.32 | 78.9 | 79.1 | 79.0 | 5.77 | 5.79 | 5.78 | 1.15 | 1.05 | 1.10 |
| 10/12/2021 | 18:33 | Fine | Surface | 1.0 | 21.72 | 21.70 | 21.71 | 8.79 | 8.79 | 8.79 | 32.61 | 32.60 | 32.61 | 111.7 | 112.5 | 112.1 | 8.12 | 8.18 | 8.15 | 0.86 | 0.82 | 0.84 |
| | 18:35 | | Middle | 3.0 | 21.38 | 21.38 | 21.38 | 8.81 | 8.81 | 8.81 | 32.77 | 32.77 | 32.77 | 116.4 | 115.1 | 115.8 | 8.50 | 8.41 | 8.46 | 1.26 | 1.31 | 1.29 |
| | 18:37 | | Bottom | 5.0 | 21.06 | 21.07 | 21.07 | 8.77 | 8.77 | 8.77 | 33.23 | 33.22 | 33.23 | 86.6 | 86.8 | 86.7 | 6.35 | 6.36 | 6.36 | 1.09 | 1.12 | 1.11 |
| 13/12/2021 | 7:42 | Fine | Surface | 1.0 | 21.45 | 21.48 | 21.47 | 8.46 | 8.48 | 8.47 | 32.24 | 32.27 | 32.26 | 88.0 | 88.5 | 88.3 | 6.56 | 6.58 | 6.57 | 1.18 | 1.15 | 1.17 |
| | 7:44 | | Middle | 3.0 | 21.64 | 21.64 | 21.64 | 8.42 | 8.42 | 8.42 | 32.49 | 23.49 | 27.99 | 87.3 | 87.7 | 87.5 | 6.47 | 6.50 | 6.49 | 0.88 | 0.92 | 0.90 |
| | 7:48 | | Bottom | 5.0 | 21.87 | 21.89 | 21.88 | 8.53 | 8.54 | 8.54 | 33.07 | 33.10 | 33.09 | 78.4 | 78.0 | 78.2 | 5.78 | 5.76 | 5.77 | 0.77 | 0.80 | 0.79 |
| 15/12/2021 | 9:05 | Cloudy | Surface | 1.0 | 21.60 | 21.63 | 21.62 | 8.43 | 8.40 | 8.42 | 32.32 | 32.32 | 32.32 | 84.5 | 85.7 | 85.1 | 6.31 | 6.40 | 6.36 | 1.14 | 1.11 | 1.13 |
| | 9:08 | | Middle | 3.0 | 21.89 | 21.90 | 21.90 | 8.18 | 8.21 | 8.20 | 33.01 | 32.95 | 32.98 | 76.5 | 75.6 | 76.1 | 5.61 | 5.54 | 5.58 | 0.68 | 0.74 | 0.71 |
| | 9:12 | | Bottom | 5.0 | 21.87 | 21.84 | 21.86 | 8.08 | 8.09 | 8.09 | 33.32 | 33.38 | 33.35 | 74.7 | 74.9 | 74.8 | 5.48 | 5.49 | 5.49 | 0.51 | 0.44 | 0.48 |
| 17/12/2021 | 9:30 | Cloudy | Surface | 1.0 | 22.25 | 22.25 | 22.25 | 8.49 | 8.49 | 8.49 | 32.69 | 32.69 | 32.69 | 95.2 | 94.7 | 95.0 | 6.98 | 6.93 | 6.96 | 0.55 | 0.55 | 0.55 |
| | 9:34 | | Middle | 3.0 | 22.26 | 22.26 | 22.26 | 8.28 | 8.27 | 8.28 | 31.80 | 32.80 | 32.30 | 94.1 | 94.3 | 94.2 | 6.89 | 6.90 | 6.90 | 0.45 | 0.48 | 0.47 |
| | 9:36 | | Bottom | 5.0 | 22.19 | 22.19 | 22.19 | 8.09 | 8.10 | 8.10 | 33.34 | 33.27 | 33.31 | 83.6 | 82.8 | 83.2 | 6.10 | 6.04 | 6.07 | 0.21 | 0.27 | 0.24 |
| 20/12/2021 | 11:40 | Cloudy | Surface | 1.0 | 20.09 | 20.11 | 20.10 | 8.45 | 8.41 | 8.43 | 33.11 | 33.07 | 33.09 | 99.8 | 98.0 | 98.9 | 7.58 | 7.52 | 7.55 | 1.83 | 1.77 | 1.80 |
| | 11:42 | | Middle | 3.5 | 20.31 | 20.33 | 20.32 | 8.22 | 8.18 | 8.20 | 33.26 | 33.28 | 33.27 | 82.2 | 82.7 | 82.5 | 6.21 | 6.26 | 6.24 | 1.23 | 1.28 | 1.26 |
| | 18:46 | | Bottom | 6.0 | 20.78 | 20.82 | 20.80 | 8.39 | 8.36 | 8.38 | 33.66 | 33.67 | 33.67 | 76.6 | 75.7 | 76.2 | 5.73 | 5.67 | 5.70 | 0.96 | 1.02 | 0.99 |
| 22/12/2021 | 14:57 | Cloudy | Surface | 1.0 | 20.74 | 20.74 | 20.74 | 8.58 | 8.57 | 8.58 | 33.16 | 33.19 | 33.18 | 76.2 | 75.5 | 75.9 | 5.71 | 5.66 | 5.69 | 1.16 | 1.21 | 1.19 |
| | 14:59 | | Middle | 3.0 | 20.64 | 20.65 | 20.65 | 8.41 | 8.42 | 8.42 | 33.39 | 33.40 | 33.40 | 73.0 | 72.1 | 72.6 | 5.48 | 5.41 | 5.45 | 1.39 | 1.32 | 1.36 |
| | 15:01 | | Bottom | 5.0 | 20.83 | 20.82 | 20.83 | 8.40 | 8.40 | 8.40 | 33.66 | 33.64 | 33.65 | 58.3 | 57.5 | 57.9 | 4.35 | 4.29 | 4.32 | 2.46 | 2.52 | 2.49 |
| 27/12/2021 | 19:00 | Cloudy | Surface | 1.0 | 19.07 | 19.07 | 19.07 | 8.39 | 8.39 | 8.39 | 33.28 | 33.27 | 33.28 | 76.2 | 75.3 | 75.8 | 5.89 | 5.83 | 5.86 | 1.48 | 1.55 | 1.52 |
| | 19:02 | | Middle | 3.0 | 19.61 | 19.58 | 19.60 | 8.34 | 8.33 | 8.34 | 33.54 | 33.56 | 33.55 | 74.2 | 74.6 | 74.4 | 5.66 | 5.69 | 5.68 | 1.07 | 1.12 | 1.10 |
| | 19:04 | | Bottom | 5.0 | 19.63 | 19.63 | 19.63 | 8.28 | 8.28 | 8.28 | 33.70 | 33.72 | 33.71 | 72.8 | 73.4 | 73.1 | 5.56 | 5.60 | 5.58 | 1.16 | 1.06 | 1.11 |
| 29/12/2021 | 7:45 | Fine | Surface | 1.0 | 19.37 | 19.38 | 19.38 | 7.84 | 7.84 | 7.84 | 32.82 | 32.82 | 32.82 | 75.9 | 76.4 | 76.2 | 5.83 | 5.86 | 5.85 | 1.71 | 1.66 | 1.69 |
| | 7:48 | | Middle | 3.0 | 19.44 | 19.44 | 19.44 | 7.67 | 7.64 | 7.66 | 33.17 | 33.17 | 33.17 | 77.0 | 76.2 | 76.6 | 5.88 | 5.82 | 5.85 | 1.66 | 1.68 | 1.67 |
| | 7:50 | | Bottom | 5.0 | 19.46 | 19.46 | 19.46 | 7.50 | 7.47 | 7.49 | 33.30 | 33.29 | 33.30 | 75.2 | 75.4 | 75.3 | 5.74 | 5.75 | 5.75 | 1.48 | 1.41 | 1.45 |
| 31/12/2021 | 9:10 | Cloudy | Surface | 1.0 | 19.25 | 19.25 | 19.25 | 8.31 | 8.33 | 8.32 | 31.97 | 31.98 | 31.98 | 84.5 | 84.0 | 84.3 | 6.53 | 6.48 | 6.51 | 1.35 | 1.26 | 1.31 |
| | 9:13 | | Middle | 3.0 | 19.69 | 19.70 | 19.70 | 8.11 | 8.08 | 8.10 | 32.23 | 32.25 | 32.24 | 79.5 | 79.2 | 79.4 | 6.04 | 6.02 | 6.03 | 0.87 | 0.84 | 0.86 |
| | 9:15 | | Bottom | 5.0 | 19.82 | 19.72 | 19.77 | 7.99 | 8.01 | 8.00 | 32.68 | 32.70 | 32.69 | 78.2 | 77.3 | 77.8 | 5.94 | 5.87 | 5.91 | 0.83 | 0.84 | 0.84 |

**Water Monitoring Result at W2 - WSD Seawater Intake at Tai Po**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 16:12 | Fine | Surface | 1.0 | 24.24 | 24.25 | 24.25 | 8.61 | 8.64 | 8.63 | 29.49 | 29.53 | 29.51 | 55.0 | 59.4 | 57.2 | 3.89 | 4.05 | 3.97 | 2.00 | 2.01 | 2.01 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 16:15 | | Bottom | 4.0 | 23.92 | 23.89 | 23.91 | 8.46 | 8.85 | 8.65 | 30.35 | 30.41 | 30.38 | 29.2 | 26.4 | 27.8 | 2.17 | 1.88 | 2.03 | 6.19 | 6.66 | 6.43 |
| 1/12/2021 | 15:13 | Fine | Surface | 1.0 | 23.57 | 23.61 | 23.59 | 8.80 | 8.80 | 8.80 | 29.81 | 29.84 | 29.83 | 60.3 | 60.1 | 60.2 | 4.31 | 4.28 | 4.30 | 0.82 | 0.88 | 0.85 |
| | 15:15 | | Middle | 3.0 | 23.33 | 23.30 | 23.32 | 8.84 | 8.81 | 8.83 | 30.02 | 29.99 | 30.01 | 67.0 | 65.8 | 66.4 | 4.81 | 4.72 | 4.77 | 2.79 | 2.58 | 2.69 |
| | 15:17 | | Bottom | 5.0 | 23.44 | 23.42 | 23.43 | 8.76 | 8.78 | 8.77 | 30.16 | 30.18 | 30.17 | 55.4 | 56.0 | 55.7 | 3.97 | 3.99 | 3.98 | 3.33 | 3.42 | 3.38 |
| 2/12/2021 | 15:40 | Fine | Surface | 1.0 | 22.96 | 23.00 | 22.98 | 8.80 | 8.82 | 8.81 | 29.48 | 29.45 | 29.47 | 87.5 | 88.2 | 87.9 | 6.34 | 6.37 | 6.36 | 1.73 | 2.00 | 1.87 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 15:42 | | Bottom | 4.0 | 23.14 | 22.18 | 22.66 | 8.72 | 8.75 | 8.74 | 29.84 | 29.82 | 29.83 | 68.8 | 68.3 | 68.6 | 4.96 | 4.92 | 4.94 | 2.67 | 2.43 | 2.55 |
| 3/12/2021 | 16:11 | Fine | Surface | 1.0 | 22.85 | 22.84 | 22.85 | 8.76 | 8.78 | 8.77 | 30.44 | 30.40 | 30.42 | 84.9 | 84.6 | 84.8 | 6.13 | 6.12 | 6.13 | 1.67 | 1.52 | 1.60 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 16:13 | | Bottom | 4.0 | 22.62 | 22.63 | 22.63 | 8.75 | 8.76 | 8.76 | 30.56 | 30.62 | 30.59 | 80.7 | 79.1 | 79.9 | 5.84 | 5.72 | 5.78 | 2.05 | 2.11 | 2.08 |
| 6/12/2021 | 9:38 | Fine | Surface | 1.0 | 21.65 | 21.66 | 21.66 | 8.52 | 8.50 | 8.51 | 30.12 | 30.15 | 30.14 | 83.6 | 82.5 | 83.1 | 6.20 | 6.12 | 6.16 | 2.96 | 2.94 | 2.95 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 9:41 | | Bottom | 4.0 | 22.00 | 21.99 | 22.00 | 8.61 | 8.63 | 8.62 | 30.72 | 30.75 | 30.74 | 71.9 | 72.9 | 72.4 | 5.28 | 5.45 | 5.37 | 3.99 | 3.93 | 3.96 |
| 8/12/2021 | 5:53 | Fine | Surface | 1.0 | 21.21 | 21.24 | 21.23 | 8.74 | 8.72 | 8.73 | 32.97 | 32.98 | 32.98 | 92.8 | 91.2 | 92.0 | 6.80 | 6.69 | 6.75 | 4.25 | 4.33 | 4.29 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 10:55 | | Bottom | 4.0 | 21.04 | 21.02 | 21.03 | 8.74 | 8.72 | 8.73 | 33.09 | 33.09 | 33.09 | 90.3 | 91.1 | 90.7 | 6.63 | 6.69 | 6.66 | 3.96 | 4.01 | 3.99 |
| 10/12/2021 | 13:07 | Fine | Surface | 1.0 | 21.77 | 21.77 | 21.77 | 8.72 | 8.72 | 8.72 | 32.97 | 32.95 | 32.96 | 101.6 | 102.9 | 102.3 | 7.35 | 7.44 | 7.40 | 3.01 | 2.95 | 2.98 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 13:08 | | Bottom | 4.0 | 21.11 | 21.12 | 21.12 | 8.73 | 8.74 | 8.74 | 33.29 | 33.28 | 33.29 | 77.0 | 78.1 | 77.6 | 5.64 | 5.73 | 5.69 | 2.46 | 2.39 | 2.43 |
| 13/12/2021 | 12:27 | Fine | Surface | 1.0 | 22.83 | 22.82 | 22.83 | 8.62 | 8.61 | 8.62 | 32.09 | 32.10 | 32.10 | 91.0 | 90.1 | 90.6 | 6.59 | 6.53 | 6.56 | 1.29 | 1.34 | 1.32 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 12:29 | | Bottom | 4.0 | 22.11 | 22.13 | 22.12 | 8.23 | 8.20 | 8.22 | 32.60 | 32.60 | 32.60 | 71.1 | 71.0 | 71.1 | 5.20 | 5.19 | 5.20 | 2.34 | 2.28 | 2.31 |
| 15/12/2021 | 15:13 | Cloudy | Surface | 1.0 | 22.64 | 22.64 | 22.64 | 8.37 | 8.38 | 8.38 | 33.18 | 33.16 | 33.17 | 89.3 | 90.2 | 89.8 | 6.46 | 6.55 | 6.51 | 1.04 | 1.11 | 1.08 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 15:15 | | Bottom | 4.0 | 22.45 | 22.43 | 22.44 | 8.24 | 8.25 | 8.25 | 33.38 | 33.42 | 33.40 | 87.2 | 86.0 | 86.6 | 6.34 | 6.25 | 6.30 | 1.29 | 1.22 | 1.26 |
| 17/12/2021 | 15:40 | Cloudy | Surface | 1.0 | 22.53 | 22.54 | 22.54 | 8.81 | 8.84 | 8.83 | 33.38 | 33.39 | 33.39 | 98.3 | 97.7 | 98.0 | 7.13 | 7.08 | 7.11 | 1.50 | 1.44 | 1.47 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 15:42 | | Bottom | 4.0 | 22.29 | 22.29 | 22.29 | 8.64 | 8.61 | 8.63 | 33.65 | 33.67 | 33.66 | 89.9 | 88.5 | 89.2 | 6.54 | 6.43 | 6.49 | 1.88 | 1.82 | 1.85 |
| 20/12/2021 | 15:54 | Cloudy | Surface | 1.0 | 21.20 | 21.19 | 21.20 | 8.62 | 8.63 | 8.63 | 33.13 | 33.11 | 33.12 | 78.7 | 79.0 | 78.9 | 5.86 | 5.88 | 5.87 | 2.28 | 2.22 | 2.25 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 15:56 | | Bottom | 4.0 | 21.57 | 21.58 | 21.58 | 8.40 | 8.38 | 8.39 | 33.59 | 33.62 | 33.61 | 64.8 | 63.6 | 64.2 | 4.77 | 4.69 | 4.73 | 3.71 | 3.64 | 3.68 |
| 22/12/2021 | 10:05 | Cloudy | Surface | 1.0 | 20.80 | 20.80 | 20.80 | 8.54 | 8.55 | 8.55 | 33.58 | 33.60 | 33.59 | 66.3 | 67.3 | 66.8 | 4.94 | 5.02 | 4.98 | 0.85 | 0.79 | 0.82 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 10:07 | | Bottom | 4.0 | 20.95 | 20.95 | 20.95 | 8.49 | 8.46 | 8.48 | 33.63 | 33.62 | 33.63 | 62.7 | 62.2 | 62.5 | 4.65 | 4.63 | 4.64 | 2.74 | 2.87 | 2.81 |
| 24/12/2021 | 10:14 | Cloudy | Surface | 1.0 | 20.95 | 20.95 | 20.95 | 8.80 | 8.80 | 8.80 | 32.94 | 32.92 | 32.93 | 78.0 | 79.0 | 78.5 | 5.81 | 5.89 | 5.85 | 1.82 | 1.76 | 1.79 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 10:16 | | Bottom | 4.0 | 20.99 | 21.00 | 21.00 | 8.56 | 8.54 | 8.55 | 33.38 | 33.35 | 33.37 | 55.6 | 55.9 | 55.8 | 4.13 | 4.15 | 4.14 | 3.73 | 3.58 | 3.66 |
| 27/12/2021 | 13:24 | Cloudy | Surface | 1.0 | 20.26 | 20.25 | 20.26 | 8.70 | 8.72 | 8.71 | 32.66 | 32.65 | 32.66 | 65.7 | 66.1 | 65.9 | 4.97 | 5.00 | 4.99 | 1.63 | 1.73 | 1.68 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 13:26 | | Bottom | 4.0 | 20.48 | 20.48 | 20.48 | 8.55 | 8.53 | 8.54 | 32.94 | 32.92 | 32.93 | 62.3 | 62.9 | 62.6 | 4.69 | 4.73 | 4.71 | 1.84 | 1.75 | 1.80 |
| 29/12/2021 | 14:51 | Fine | Surface | 1.0 | 2.40 | 20.40 | 11.40 | 8.44 | 8.45 | 8.45 | 33.29 | 33.30 | 33.30 | 85.7 | 85.2 | 85.5 | 6.44 | 6.40 | 6.42 | 2.57 | 2.44 | 2.51 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 14:53 | | Bottom | 4.0 | 20.16 | 20.15 | 20.16 | 8.49 | 8.50 | 8.50 | 33.65 | 33.64 | 33.65 | 84.8 | 84.0 | 84.4 | 6.39 | 6.34 | 6.37 | 1.88 | 1.75 | 1.82 |

**Water Monitoring Result at W2 - WSD Seawater Intake at Tai Po**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Water Temperature | °C | | pH | - | | Salinity | ppt | | DO Saturation | % | | DO | mg/L | | Turbidity | NTU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 10:28 | Fine | Surface | 1.0 | 23.85 | 23.87 | 23.86 | 8.13 | 8.18 | 8.16 | 30.42 | 30.61 | 30.52 | 66.1 | 68.1 | 67.1 | 4.72 | 4.82 | 4.77 | 0.86 | 0.94 | 0.90 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 10:30 | | Bottom | 4.0 | 23.93 | 23.94 | 23.94 | 7.97 | 7.96 | 7.97 | 30.57 | 30.55 | 30.56 | 65.4 | 65.6 | 65.5 | 4.69 | 4.70 | 4.70 | 1.30 | 1.22 | 1.26 |
| 1/12/2021 | 9:25 | Fine | Surface | 1.0 | 23.26 | 23.29 | 23.28 | 8.79 | 8.78 | 8.79 | 30.01 | 30.07 | 30.04 | 55.5 | 54.9 | 55.2 | 3.98 | 3.93 | 3.96 | 2.92 | 2.74 | 2.83 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 9:27 | | Bottom | 4.0 | 23.54 | 23.49 | 23.52 | 8.76 | 8.76 | 8.76 | 30.12 | 30.14 | 30.13 | 51.2 | 51.3 | 51.3 | 3.66 | 3.66 | 3.66 | 1.95 | 1.87 | 1.91 |
| 2/12/2021 | 9:48 | Fine | Surface | 1.0 | 22.77 | 22.79 | 22.78 | 8.78 | 8.77 | 8.78 | 30.11 | 30.05 | 30.08 | 51.8 | 55.3 | 53.6 | 3.75 | 3.98 | 3.87 | 0.96 | 1.02 | 0.99 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 9:50 | | Bottom | 4.0 | 23.06 | 23.09 | 23.08 | 8.84 | 8.84 | 8.84 | 30.29 | 30.28 | 30.29 | 53.3 | 53.4 | 53.4 | 3.84 | 3.84 | 3.84 | 2.46 | 2.74 | 2.60 |
| 3/12/2021 | 10:14 | Fine | Surface | 1.0 | 22.38/ | 22.37 | 22.37 | 8.70 | 8.68 | 8.69 | 29.65 | 29.70 | 29.68 | 65.9 | 65.3 | 65.6 | 4.81 | 4.77 | 4.79 | 2.40 | 2.17 | 2.29 |
| | 10:16 | | Middle | 3.0 | 22.54 | 22.56 | 22.55 | 8.62 | 8.66 | 8.64 | 29.98 | 30.02 | 30.00 | 64.6 | 63.5 | 64.1 | 4.70 | 4.60 | 4.65 | 1.95 | 2.06 | 2.01 |
| | 10:18 | | Bottom | 5.0 | 22.76 | 22.79 | 22.78 | 8.64 | 8.65 | 8.65 | 30.27 | 30.33 | 30.30 | 60.0 | 58.4 | 59.2 | 4.34 | 4.22 | 4.28 | 3.06 | 3.11 | 3.09 |
| 6/12/2021 | 13:06 | Fine | Surface | 1.0 | 22.32 | 22.31 | 22.32 | 8.45 | 8.43 | 8.44 | 30.11 | 30.16 | 30.14 | 84.9 | 83.6 | 84.3 | 6.19 | 6.10 | 6.15 | 3.08 | 3.03 | 3.06 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 13:09 | | Bottom | 4.0 | 22.06 | 22.08 | 22.07 | 8.39 | 8.39 | 8.39 | 30.50 | 30.55 | 30.53 | 71.4 | 70.7 | 71.1 | 5.22 | 5.18 | 5.20 | 3.02 | 3.06 | 3.04 |
| 8/12/2021 | 14:20 | Fine | Surface | 1.0 | 21.52 | 21.54 | 21.53 | 8.78 | 8.78 | 8.78 | 33.06 | 33.03 | 33.05 | 98.4 | 97.1 | 97.8 | 7.17 | 7.08 | 7.13 | 3.25 | 3.20 | 3.23 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 14:22 | | Bottom | 4.0 | 21.44 | 21.43 | 21.44 | 8.79 | 8.79 | 8.79 | 33.08 | 33.08 | 33.08 | 95.9 | 95.3 | 95.6 | 7.00 | 6.96 | 6.98 | 3.76 | 3.81 | 3.79 |
| 10/12/2021 | 17:46 | Fine | Surface | 1.0 | 22.16 | 22.16 | 22.16 | 8.68 | 8.68 | 8.68 | 32.89 | 32.90 | 32.90 | 101.1 | 100.9 | 101.0 | 7.27 | 7.26 | 7.27 | 2.00 | 2.06 | 2.03 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 17:48 | | Bottom | 4.0 | 22.03 | 22.00 | 22.02 | 8.71 | 8.71 | 8.71 | 33.02 | 33.02 | 33.02 | 107.8 | 108.6 | 108.2 | 7.79 | 7.84 | 7.82 | 2.74 | 2.65 | 2.70 |
| 13/12/2021 | 9:21 | Fine | Surface | 1.0 | 22.53 | 22.53 | 22.53 | 8.67 | 8.67 | 8.67 | 32.48 | 32.50 | 32.49 | 86.1 | 85.7 | 85.9 | 6.28 | 6.24 | 6.26 | 1.42 | 1.40 | 1.41 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 9:23 | | Bottom | 4.0 | 22.01 | 22.03 | 22.02 | 8.72 | 8.72 | 8.72 | 33.13 | 33.13 | 33.13 | 44.7 | 44.0 | 44.4 | 3.28 | 3.23 | 3.26 | 2.62 | 2.67 | 2.65 |
| 15/12/2021 | 10:26 | Cloudy | Surface | 1.0 | 22.38 | 22.39 | 22.39 | 8.16 | 8.14 | 8.15 | 33.45 | 33.44 | 33.45 | 101.6 | 101.3 | 101.5 | 7.39 | 7.37 | 7.38 | 0.77 | 0.82 | 0.80 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 10:28 | | Bottom | 4.0 | 22.13 | 22.13 | 22.13 | 8.32 | 8.35 | 8.34 | 33.85 | 33.84 | 33.85 | 107.1 | 106.7 | 106.9 | 7.81 | 7.79 | 7.80 | 2.82 | 2.73 | 2.78 |
| 17/12/2021 | 10:40 | Cloudy | Surface | 1.0 | 22.55 | 22.56 | 22.56 | 8.88 | 8.86 | 8.87 | 33.46 | 33.42 | 33.44 | 94.6 | 94.0 | 94.3 | 6.88 | 6.83 | 6.86 | 1.58 | 1.62 | 1.60 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 10:42 | | Bottom | 4.0 | 22.25 | 22.21 | 22.23 | 8.57 | 8.59 | 8.58 | 33.74 | 33.79 | 33.77 | 75.1 | 73.5 | 74.3 | 5.48 | 5.37 | 5.43 | 3.13 | 3.07 | 3.10 |
| 20/12/2021 | 13:06 | Cloudy | Surface | 1.0 | 21.30 | 21.30 | 21.30 | 8.62 | 8.63 | 8.63 | 33.34 | 33.36 | 33.35 | 76.4 | 76.6 | 76.5 | 5.67 | 5.68 | 5.68 | 2.89 | 2.82 | 2.86 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 13:08 | | Bottom | 3.0 | 21.40 | 21.42 | 21.41 | 8.45 | 8.42 | 8.44 | 33.53 | 33.54 | 33.54 | 74.6 | 73.0 | 73.8 | 5.52 | 5.40 | 5.46 | 3.17 | 3.11 | 3.14 |
| 22/12/2021 | 13:17 | Cloudy | Surface | 1.0 | 21.11 | 21.11 | 21.11 | 8.39 | 8.42 | 8.41 | 33.14 | 33.12 | 33.13 | 68.9 | 69.4 | 69.2 | 5.11 | 5.15 | 5.13 | 1.07 | 1.02 | 1.05 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 13:19 | | Bottom | 4.0 | 21.04 | 21.05 | 21.05 | 8.46 | 8.48 | 8.47 | 33.47 | 33.45 | 33.46 | 67.6 | 66.3 | 67.0 | 5.01 | 4.92 | 4.97 | 1.72 | 1.66 | 1.69 |
| 27/12/2021 | 17:28 | Cloudy | Surface | 1.0 | 20.31 | 20.30 | 20.31 | 8.47 | 8.49 | 8.48 | 33.12 | 33.14 | 33.13 | 73.6 | 74.1 | 73.9 | 5.55 | 5.58 | 5.57 | 2.72 | 2.59 | 2.66 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 17:29 | | Bottom | 4.0 | 20.56 | 20.56 | 20.56 | 8.34 | 8.34 | 8.34 | 33.59 | 33.57 | 33.58 | 60.3 | 61.0 | 60.7 | 4.52 | 4.57 | 4.55 | 3.03 | 3.09 | 3.06 |
| 29/12/2021 | 9:12 | Fine | Surface | 1.0 | 19.84 | 19.84 | 19.84 | 7.90 | 7.88 | 7.89 | 33.14 | 33.16 | 33.15 | 80.7 | 79.8 | 80.3 | 6.13 | 6.07 | 6.10 | 2.25 | 2.11 | 2.18 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 9:14 | | Bottom | 4.0 | 19.91 | 19.90 | 19.91 | 7.62 | 7.61 | 7.62 | 33.40 | 33.41 | 33.41 | 86.7 | 87.3 | 87.0 | 6.56 | 6.60 | 6.58 | 2.79 | 2.88 | 2.84 |
| 31/12/2021 | 10:18 | Cloudy | Surface | 1.0 | 19.99 | 19.98 | 19.99 | 8.36 | 8.38 | 8.37 | 33.24 | 33.21 | 33.23 | 79.7 | 78.1 | 78.9 | 6.05 | 5.91 | 5.98 | 1.90 | 1.84 | 1.87 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 10:20 | | Bottom | 4.0 | 20.04 | 20.04 | 20.04 | 8.33 | 8.32 | 8.33 | 33.69 | 33.73 | 33.71 | 75.3 | 75.8 | 75.6 | 5.69 | 5.73 | 5.71 | 2.13 | 2.04 | 2.09 |

**Water Monitoring Result at C1 - Cooling Water Intake at CUHK Marine Science Laboratory**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 14:59 | Fine | Surface | 1.0 | 23.88 | 23.89 | 23.89 | 8.68 | 8.68 | 8.68 | 29.30 | 29.29 | 29.30 | 76.3 | 76.0 | 76.2 | 5.44 | 5.43 | 5.44 | 1.65 | 1.78 | 1.72 |
| | 15:01 | | Middle | 3.5 | 23.78 | 23.76 | 23.77 | 8.64 | 8.66 | 8.65 | 29.52 | 29.54 | 29.53 | 79.3 | 78.0 | 78.7 | 5.66 | 5.57 | 5.62 | 0.97 | 0.76 | 0.87 |
| | 15:04 | | Bottom | 6.0 | 23.74 | 23.73 | 23.74 | 8.68 | 8.69 | 8.69 | 29.69 | 29.70 | 29.70 | 78.4 | 77.2 | 77.8 | 5.59 | 5.51 | 5.55 | 0.86 | 0.79 | 0.83 |
| 1/12/2021 | 14:44 | Fine | Surface | 1.0 | 22.96 | 22.92 | 22.94 | 8.93 | 8.94 | 8.94 | 28.25 | 28.22 | 28.24 | 79.4 | 79.6 | 79.5 | 5.79 | 5.80 | 5.80 | 1.65 | 1.67 | 1.66 |
| | 14:46 | | Middle | 4.0 | 22.91 | 22.90 | 22.91 | 8.86 | 8.88 | 8.87 | 29.06 | 29.08 | 29.07 | 72.4 | 70.0 | 71.2 | 5.26 | 5.09 | 5.18 | 1.31 | 1.40 | 1.36 |
| | 14:48 | | Bottom | 7.0 | 22.92 | 22.92 | 22.92 | 8.87 | 8.87 | 8.87 | 29.43 | 29.46 | 29.45 | 65.7 | 65.2 | 65.5 | 4.76 | 4.73 | 4.75 | 2.18 | 1.99 | 2.09 |
| 2/12/2021 | 16:25 | Fine | Surface | 1.0 | 22.60 | 22.59 | 22.60 | 8.78 | 8.80 | 8.79 | 28.60 | 28.70 | 28.65 | 95.8 | 96.0 | 95.9 | 7.01 | 7.02 | 7.02 | 1.84 | 1.60 | 1.72 |
| | 16:28 | | Middle | 4.0 | 22.58 | 22.59 | 22.59 | 8.83 | 8.83 | 8.83 | 28.98 | 29.00 | 28.99 | 94.2 | 94.0 | 94.1 | 6.88 | 6.87 | 6.88 | 1.16 | 1.21 | 1.19 |
| | 16:31 | | Bottom | 7.0 | 22.51 | 22.49 | 22.50 | 8.86 | 8.89 | 8.88 | 29.22 | 29.25 | 29.24 | 94.4 | 94.7 | 94.6 | 6.90 | 6.92 | 6.91 | 0.71 | 0.84 | 0.78 |
| 3/12/2021 | 15:25 | Fine | Surface | 1.0 | 21.94 | 21.98 | 21.96 | 8.88 | 8.86 | 8.87 | 29.30 | 29.39 | 29.35 | 113.9 | 114.3 | 114.1 | 8.41 | 8.43 | 8.42 | 1.56 | 1.62 | 1.59 |
| | 15:27 | | Middle | 3.5 | 22.00 | 22.02 | 22.01 | 8.78 | 8.81 | 8.80 | 29.62 | 29.68 | 29.65 | 116.3 | 116.8 | 116.6 | 8.56 | 8.60 | 8.58 | 0.90 | 0.97 | 0.94 |
| | 15:29 | | Bottom | 6.0 | 22.04 | 22.04 | 22.04 | 8.72 | 8.78 | 8.75 | 29.76 | 29.72 | 29.74 | 112.0 | 111.7 | 111.9 | 8.23 | 8.21 | 8.22 | 1.33 | 1.40 | 1.37 |
| 6/12/2021 | 8:38 | Fine | Surface | 1.0 | 21.21 | 21.22 | 21.22 | 8.77 | 8.75 | 8.76 | 30.82 | 30.80 | 30.81 | 84.6 | 85.9 | 85.3 | 6.31 | 6.40 | 6.36 | 0.79 | 0.75 | 0.77 |
| | 8:41 | | Middle | 3.5 | 21.45 | 21.46 | 21.46 | 8.75 | 8.72 | 8.74 | 30.87 | 30.90 | 30.89 | 87.0 | 86.5 | 86.8 | 6.45 | 6.42 | 6.44 | 0.69 | 0.66 | 0.68 |
| | 8:45 | | Bottom | 6.0 | 21.75 | 21.77 | 21.76 | 8.56 | 8.52 | 8.54 | 31.06 | 31.09 | 31.08 | 65.4 | 66.0 | 65.7 | 4.81 | 4.86 | 4.84 | 3.33 | 3.39 | 3.36 |
| 8/12/2021 | 10:08 | Fine | Surface | 1.0 | 20.78 | 20.80 | 20.79 | 8.61 | 8.61 | 8.61 | 33.13 | 33.13 | 33.13 | 80.7 | 79..5 | 80.7 | 5.93 | 5.84 | 5.89 | 1.07 | 1.05 | 1.06 |
| | 10:10 | | Middle | 3.0 | 20.82 | 20.84 | 20.83 | 8.65 | 8.66 | 8.66 | 33.15 | 33.15 | 33.15 | 90.6 | 90.8 | 90.7 | 6.68 | 6.69 | 6.69 | 0.82 | 0.78 | 0.80 |
| | 10:12 | | Bottom | 5.0 | 21.11 | 21.10 | 21.11 | 8.59 | 8.56 | 8.58 | 32.28 | 33.28 | 32.78 | 71.3 | 71.7 | 71.5 | 5.26 | 5.26 | 5.26 | 1.11 | 1.19 | 1.15 |
| 10/12/2021 | 12:33 | Fine | Surface | 1.0 | 21.40 | 21.40 | 21.40 | 8.77 | 8.77 | 8.77 | 32.50 | 32.48 | 32.49 | 115.6 | 115.1 | 115.4 | 8.45 | 8.41 | 8.43 | 1.25 | 1.19 | 1.22 |
| | 12:36 | | Middle | 3.5 | 21.13 | 21.14 | 21.14 | 8.80 | 8.80 | 8.80 | 32.86 | 32.8/5 | 32.86 | 111.7 | 112.5 | 112.1 | 8.21 | 8.25 | 8.23 | 0.68 | 0.72 | 0.70 |
| | 12:38 | | Bottom | 6.0 | 21.07 | 21.05 | 21.06 | 8.72 | 8.73 | 8.73 | 33.56 | 33.57 | 33.57 | 54.4 | 55.7 | 55.1 | 3.98 | 4.07 | 4.03 | 1.02 | 0.97 | 1.00 |
| 13/12/2021 | 13:50 | Fine | Surface | 1.0 | 22.51 | 22.51 | 22.51 | 8.52 | 8.54 | 8.53 | 32.50 | 32.55 | 32.53 | 89.5 | 89.9 | 89.7 | 6.50 | 6.53 | 6.52 | 2.02 | 2.07 | 2.05 |
| | 13:54 | | Middle | 3.5 | 22.26 | 22.23 | 22.25 | 8.31 | 8.28 | 8.30 | 32.59 | 32.57 | 32.58 | 90.0 | 90.8 | 90.4 | 6.54 | 6.61 | 6.58 | 1.14 | 1.09 | 1.12 |
| | 13:58 | | Bottom | 6.0 | 21.85 | 21.88 | 21.87 | 8.23 | 8.22 | 8.23 | 32.89 | 31.92 | 32.41 | 84.8 | 83.9 | 84.4 | 6.22 | 6.14 | 6.18 | 3.65 | 3.58 | 3.62 |
| 15/12/2021 | 14:41 | Cloudy | Surface | 1.0 | 22.12 | 21.12 | 21.62 | 8.43 | 8.46 | 8.45 | 32.74 | 32.70 | 32.72 | 91.0 | 81.5 | 86.3 | 6.68 | 6.72 | 6.70 | 1.54 | 14.47 | 8.01 |
| | 14:43 | | Middle | 3.5 | 22.23 | 22.23 | 22.23 | 8.58 | 8.57 | 8.58 | 32.96 | 32.96 | 32.96 | 89.7 | 88.4 | 89.1 | 6.57 | 6.46 | 6.52 | 0.88 | 0.94 | 0.91 |
| | 14:45 | | Bottom | 6.0 | 22.04 | 22.03 | 22.04 | 8.63 | 8.66 | 8.65 | 33.34 | 33.36 | 33.35 | 59.9 | 59.1 | 59.5 | 4.38 | 4.33 | 4.36 | 1.28 | 1.33 | 1.31 |
| 17/12/2021 | 15:04 | Cloudy | Surface | 1.0 | 22.60 | 22.60 | 22.60 | 8.72 | 8.75 | 8.74 | 32.32 | 32.35 | 32.34 | 105.0 | 105.6 | 105.3 | 7.65 | 7.70 | 7.68 | 0.67 | 0.75 | 0.71 |
| | 15:06 | | Middle | 35.0 | 22.55 | 22.53 | 22.54 | 8.76 | 8.75 | 8.76 | 32.69 | 33.72 | 33.21 | 111.1 | 110.7 | 110.9 | 8.09 | 8.06 | 8.08 | 0.75 | 0.69 | 0.72 |
| | 15:08 | | Bottom | 6.0 | 22.03 | 22.04 | 22.04 | 8.68 | 8.66 | 8.67 | 33.37 | 33.42 | 33.40 | 54.0 | 53.3 | 53.7 | 3.95 | 3.90 | 3.93 | 0.94 | 0.89 | 0.92 |
| 20/12/2021 | 16:40 | Cloudy | Surface | 1.0 | 20.66 | 20.66 | 20.66 | 8.74 | 8.75 | 8.75 | 33.14 | 33.17 | 33.16 | 94.1 | 93.8 | 94.0 | 7.08 | 7.05 | 7.07 | 0.94 | 0.85 | 0.90 |
| | 16:43 | | Middle | 3.5 | 21.15 | 21.16 | 21.16 | 8.56 | 8.54 | 8.55 | 33.55 | 33.54 | 33.55 | 96.2 | 96.0 | 96.1 | 7.14 | 7.13 | 7.14 | 0.68 | 0.61 | 0.65 |
| | 16:45 | | Bottom | 6.0 | 21.36 | 21.38 | 21.37 | 8.33 | 8.35 | 8.34 | 33.82 | 33.84 | 33.83 | 84.0 | 85.2 | 84.6 | 6.20 | 6.29 | 6.25 | 0.74 | 0.79 | 0.77 |
| 22/12/2021 | 9:25 | Cloudy | Surface | 1.0 | 20.32 | 20.33 | 20.33 | 8.58 | 8.56 | 8.57 | 33.12 | 33.14 | 33.13 | 80.7 | 80.2 | 80.5 | 6.10 | 6.06 | 6.08 | 2.47 | 2.37 | 2.42 |
| | 9:27 | | Middle | 3.5 | 20.37 | 20.37 | 20.37 | 8.44 | 8.45 | 8.45 | 33.40 | 33.37 | 33.39 | 86.6 | 86.1 | 86.4 | 6.53 | 6.50 | 6.52 | 1.92 | 1.09 | 1.50 |
| | 9:28 | | Bottom | 6.0 | 30.79 | 20.77 | 25.78 | 8.48 | 8.47 | 8.48 | 33.84 | 33.81 | 33.83 | 82.1 | 82.5 | 82.3 | 6.12 | 6.14 | 6.13 | 4.10 | 4.22 | 4.16 |
| 24/12/2021 | 9:40 | Cloudy | Surface | 1.0 | 20.98 | 20.97 | 20.98 | 8.60 | 8.59 | 8.60 | 32.84 | 32.87 | 32.86 | 79.7 | 79.3 | 79.5 | 5.94 | 5.91 | 5.93 | 0.60 | 0.66 | 0.63 |
| | 9:43 | | Middle | 3.5 | 20.99 | 21.00 | 21.00 | 8.55 | 8.55 | 8.55 | 33.37 | 33.36 | 33.37 | 73.0 | 74.3 | 73.7 | 5.42 | 5.53 | 5.48 | 0.51 | 0.44 | 0.48 |
| | 9:45 | | Bottom | 6.0 | 21.01 | 21.01 | 21.01 | 8.53 | 8.52 | 8.53 | 33.61 | 33.58 | 33.60 | 53.9 | 54.5 | 54.2 | 3.99 | 4.04 | 4.02 | 1.98 | 1.77 | 1.88 |
| 27/12/2021 | 12:47 | Cloudy | Surface | 1.0 | 19.71 | 19.73 | 19.72 | 8.68 | 8.65 | 8.67 | 32.23 | 32.20 | 32.22 | 76.6 | 77.8 | 77.2 | 5.87 | 5.96 | 5.92 | 2.02 | 1.94 | 1.98 |
| | 12:49 | | Middle | 3.5 | 19.73 | 19.72 | 19.73 | 8.74 | 8.75 | 8.75 | 32.59 | 32.61 | 32.60 | 80.6 | 80.1 | 80.4 | 6.17 | 6.14 | 6.16 | 2.18 | 2.22 | 2.20 |
| | 12:50 | | Bottom | 6.0 | 19.75 | 19.75 | 19.75 | 8.81 | 8.83 | 8.82 | 32.85 | 32.87 | 32.86 | 76.8 | 77.7 | 77.3 | 5.88 | 5.94 | 5.91 | 1.65 | 1.77 | 1.71 |
| 29/12/2021 | 14:17 | Fine | Surface | 1.0 | 19.94 | 19.93 | 19.94 | 8.77 | 8.75 | 8.76 | 32.66 | 32.68 | 32.67 | 93.8 | 94.3 | 94.1 | 7.14 | 7.18 | 7.16 | 1.11 | 1.04 | 1.08 |
| | 14:19 | | Middle | 3.0 | 19.65 | 19.66 | 19.66 | 7.55 | 7.55 | 7.55 | 32.97 | 33.00 | 32.99 | 93.6 | 93.2 | 93.4 | 7.15 | 7.12 | 7.14 | 0.59 | 0.65 | 0.62 |
| | 14:20 | | Bottom | 5.0 | 19.62 | 19.62 | 19.62 | 7.63 | 7.64 | 7.64 | 33.34 | 33.32 | 33.33 | 89.0 | 89.3 | 89.2 | 6.80 | 6.82 | 6.81 | 0.74 | 0.66 | 0.70 |

**Water Monitoring Result at C1 - Cooling Water Intake at CUHK Marine Science Laboratory**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 9:50 | Fine | Surface | 1.0 | 23.37 | 23.29 | 23.33 | 8.25 | 8.27 | 8.26 | 28.85 | 28.79 | 28.82 | 74.4 | 76.0 | 75.2 | 5.38 | 5.51 | 5.45 | 0.78 | 0.66 | 0.72 |
| | 9:52 | | Middle | 3.5 | 23.45 | 23.46 | 23.46 | 8.26 | 8.23 | 8.25 | 29.29 | 29.47 | 29.38 | 79.2 | 77.7 | 78.5 | 5.69 | 5.66 | 5.68 | 0.41 | 0.39 | 0.40 |
| | 9:55 | | Bottom | 6.0 | 23.61 | 23.69 | 23.65 | 8.06 | 8.01 | 8.04 | 29.70 | 29.96 | 29.83 | 65.5 | 65.0 | 65.3 | 4.68 | 4.66 | 4.67 | 0.99 | 0.94 | 0.97 |
| 1/12/2021 | 8:55 | Fine | Surface | 1.0 | 22.42 | 22.47 | 22.45 | 8.88 | 8.88 | 8.88 | 28.17 | 28.14 | 28.16 | 64.8 | 64.4 | 64.6 | 4.78 | 4.74 | 4.76 | 2.84 | 3.25 | 3.05 |
| | 8:57 | | Middle | 4.0 | 23.03 | 23.07 | 23.05 | 8.91 | 8.94 | 8.93 | 29.03 | 29.04 | 29.04 | 65.4 | 64.9 | 65.2 | 4.74 | 4.70 | 4.72 | 2.99 | 2.73 | 2.86 |
| | 8:59 | | Bottom | 7.0 | 23.18 | 23.15 | 23.17 | 8.82 | 8.95 | 8.89 | 29.35 | 29.41 | 29.38 | 63.2 | 62.6 | 62.9 | 4.56 | 4.52 | 4.54 | 2.53 | 2.77 | 2.65 |
| 2/12/2021 | 9:15 | Fine | Surface | 1.0 | 22.37 | 22.37 | 22.37 | 8.84 | 8.83 | 8.84 | 30.20 | 30.23 | 30.22 | 64.8 | 62.9 | 63.9 | 4.75 | 4.58 | 4.67 | 1.57 | 1.46 | 1.52 |
| | 9:17 | | Middle | 3.5 | 22.41 | 22.42 | 22.42 | 8.88 | 8.87 | 8.88 | 30.30 | 30.30 | 30.30 | 63.7 | 64.5 | 64.1 | 4.64 | 4.69 | 4.67 | 2.72 | 2.77 | 2.75 |
| | 9:19 | | Bottom | 6.0 | 22.47 | 22.50 | 22.49 | 8.90 | 8.92 | 8.91 | 30.41 | 30.44 | 30.43 | 64.9 | 64.0 | 64.5 | 4.71 | 4.66 | 4.69 | 1.57 | 1.69 | 1.63 |
| 3/12/2021 | 9:31 | Fine | Surface | 1.0 | 22.01 | 22.05 | 22.03 | 8.95 | 8.90 | 8.93 | 29.34 | 29.29 | 29.32 | 83.3 | 82.8 | 83.1 | 6.14 | 6.10 | 6.12 | 2.18 | 1.90 | 2.04 |
| | 9:34 | | Middle | 4.0 | 22.08 | 22.07 | 22.08 | 8.88 | 8.85 | 8.87 | 29.45 | 29.46 | 29.46 | 84.8 | 84.5 | 84.7 | 6.24 | 6.22 | 6.23 | 1.50 | 1.70 | 1.60 |
| | 9:36 | | Bottom | 7.0 | 22.15 | 22.16 | 22.16 | 8.79 | 8.80 | 8.80 | 29.69 | 29.73 | 29.71 | 80.5 | 80.0 | 80.3 | 5.91 | 5.89 | 5.90 | 2.18 | 2.22 | 2.20 |
| 6/12/2021 | 14:35 | Fine | Surface | 1.0 | 21.83 | 21.82 | 21.83 | 8.48 | 8.50 | 8.49 | 30.33 | 30.35 | 30.34 | 100.0 | 100.7 | 100.4 | 7.38 | 7.43 | 7.41 | 0.79 | 0.85 | 0.82 |
| | 14:37 | | Middle | 3.5 | 21.86 | 21.85 | 21.86 | 8.41 | 8.42 | 8.42 | 30.85 | 30.81 | 30.83 | 107.2 | 107.5 | 107.4 | 7.90 | 7.92 | 7.91 | 0.49 | 0.44 | 0.47 |
| | 14:39 | | Bottom | 6.0 | 21.85 | 21.86 | 21.86 | 8.20 | 8.18 | 8.19 | 31.44 | 31.40 | 31.42 | 73.6 | 72.9 | 73.3 | 5.40 | 5.35 | 5.38 | 1.38 | 1.32 | 1.35 |
| 8/12/2021 | 15:30 | Fine | Surface | 1.0 | 21.55 | 21.53 | 21.54 | 8.75 | 8.74 | 8.75 | 33.03 | 33.06 | 33.05 | 97.2 | 96.6 | 96.9 | 7.06 | 7.03 | 7.05 | 1.40 | 1.50 | 1.45 |
| | 15:32 | | Middle | 3.5 | 21.38 | 21.38 | 21.38 | 8.76 | 8.76 | 8.76 | 33.14 | 33.15 | 33.15 | 96.9 | 96.2 | 96.6 | 7.06 | 7.01 | 7.04 | 1.06 | 1.07 | 1.07 |
| | 15:34 | | Bottom | 6.0 | 20.74 | 20.72 | 20.73 | 8.77 | 8.77 | 8.77 | 33.23 | 33.22 | 33.23 | 94.7 | 95.2 | 95.0 | 6.99 | 7.01 | 7.00 | 1.18 | 1.12 | 1.15 |
| 10/12/2021 | 18:01 | Fine | Surface | 1.0 | 21.62 | 21.61 | 21.62 | 8.74 | 8.75 | 8.75 | 32.67 | 32.67 | 32.67 | 118.7 | 119.6 | 119.2 | 8.65 | 8.71 | 8.68 | 0.73 | 0.65 | 0.69 |
| | 18:12 | | Middle | 3.5 | 21.26 | 21.27 | 21.27 | 8.69 | 8.69 | 8.69 | 33.56 | 33.57 | 33.57 | 74.7 | 75.2 | 75.0 | 5.46 | 5.49 | 5.48 | 0.95 | 0.89 | 0.92 |
| | 18:14 | | Bottom | 6.0 | 21.09 | 21.08 | 21.09 | 8.62 | 8.63 | 8.63 | 33.63 | 33.64 | 33.64 | 53.2 | 52.8 | 53.0 | 3.89 | 3.86 | 3.88 | 0.66 | 0.62 | 0.64 |
| 13/12/2021 | 8:25 | Fine | Surface | 1.0 | 21.75 | 21.76 | 21.76 | 8.55 | 8.56 | 8.56 | 32.39 | 32.40 | 32.40 | 93.4 | 93.0 | 93.2 | 6.89 | 6.88 | 6.89 | 1.43 | 1.38 | 1.41 |
| | 8:28 | | Middle | 3.5 | 21.68 | 21.69 | 21.69 | 8.51 | 8.51 | 8.51 | 32.77 | 32.76 | 32.77 | 91.0 | 91.4 | 91.2 | 6.72 | 6.79 | 6.75 | 0.81 | 0.78 | 0.80 |
| | 8:35 | | Bottom | 6.0 | 21.68 | 21.68 | 21.68 | 88.46 | 8.45 | 48.46 | 32.89 | 32.91 | 32.90 | 80.3 | 89.2 | 84.8 | 6.66 | 6.58 | 6.62 | 0.63 | 0.69 | 0.66 |
| 15/12/2021 | 9:52 | Cloudy | Surface | 1.0 | 22.04 | 22.05 | 22.05 | 8.56 | 8.52 | 8.54 | 33.07 | 33.04 | 33.06 | 98.8 | 99.4 | 99.1 | 7.25 | 7.28 | 7.27 | 0.71 | 0.76 | 0.74 |
| | 0:00 | | Middle | 3.5 | 22.06 | 22.04 | 22.05 | 8.50 | 8.47 | 8.49 | 33.35 | 33.31 | 33.33 | 101.1 | 101.7 | 101.4 | 7.41 | 7.46 | 7.44 | 0.41 | 0.47 | 0.44 |
| | 9:54 | | Bottom | 6.0 | 21.97 | 21.95 | 21.96 | 8.78 | 8.76 | 8.77 | 33.59 | 33.68 | 33.64 | 85.6 | 86.0 | 85.8 | 6.27 | 6.30 | 6.29 | 1.74 | 1.65 | 1.70 |
| 17/12/2021 | 10:10 | Cloudy | Surface | 1.0 | 22.30 | 22.32 | 22.31 | 8.60 | 8.62 | 8.61 | 32.35 | 32.38 | 32.37 | 96.4 | 96.0 | 96.2 | 7.07 | 7.03 | 7.05 | 1.52 | 1.48 | 1.50 |
| | 10:12 | | Middle | 3.0 | 22.25 | 22.22 | 22.24 | 8.41 | 8.40 | 8.41 | 32.77 | 32.74 | 32.76 | 818.2 | 82.0 | 450.1 | 5.93 | 5.98 | 5.96 | 0.77 | 0.72 | 0.75 |
| | 10:14 | | Bottom | 5.0 | 21.99 | 21.97 | 21.98 | 8.25 | 8.23 | 8.24 | 33.16 | 33.19 | 33.18 | 49.1 | 48.2 | 48.7 | 3.59 | 3.53 | 3.56 | 0.81 | 0.90 | 0.86 |
| 20/12/2021 | 12:20 | Cloudy | Surface | 1.0 | 20.66 | 20.65 | 20.66 | 8.27 | 8.28 | 8.28 | 33.12 | 33.14 | 33.13 | 83.2 | 83.3 | 83.3 | 6.25 | 6.26 | 6.26 | 0.71 | 0.66 | 0.69 |
| | 12:22 | | Middle | 3.5 | 21.17 | 21.18 | 21.18 | 8.18 | 8.20 | 8.19 | 33.56 | 33.52 | 33.54 | 76.7 | 77.4 | 77.1 | 5.70 | 5.75 | 5.73 | 1.98 | 1.89 | 1.94 |
| | 12:23 | | Bottom | 6.0 | 21.28 | 21.30 | 21.29 | 8.22 | 8.23 | 8.23 | 33.89 | 33.92 | 33.91 | 68.4 | 69.0 | 68.7 | 5.06 | 5.10 | 5.08 | 0.93 | 0.88 | 0.91 |
| 22/12/2021 | 14:28 | Cloudy | Surface | 1.0 | 20.75 | 20.74 | 20.75 | 8.39 | 8.39 | 8.39 | 33.26 | 33.29 | 33.28 | 65.2 | 65.0 | 65.1 | 4.86 | 4.85 | 4.86 | 0.84 | 0.78 | 0.81 |
| | 14:30 | | Middle | 3.5 | 20.59 | 20.60 | 20.60 | 8.22 | 8.22 | 8.22 | 33.53 | 33.51 | 33.52 | 72.4 | 71.4 | 71.9 | 5.42 | 5.35 | 5.39 | 1.21 | 1.16 | 1.19 |
| | 14;32 | | Bottom | 6.0 | 20.77 | 20.77 | 20.77 | 8.20 | 8.27 | 8.24 | 33.77 | 33.76 | 33.77 | 62.1 | 61.5 | 61.8 | 4.62 | 4.58 | 4.60 | 1.14 | 1.09 | 1.12 |
| 27/12/2021 | 18:37 | Cloudy | Surface | 1.0 | 19.60 | 19.61 | 19.61 | 8.39 | 8.40 | 8.40 | 33.27 | 33.28 | 33.28 | 78.7 | 78.0 | 78.4 | 6.01 | 5.95 | 5.98 | 1.53 | 1.43 | 1.48 |
| | 18:39 | | Middle | 3.0 | 19.68 | 19.67 | 19.68 | 8.33 | 8.31 | 8.32 | 33.60 | 33.60 | 33.60 | 77.0 | 77.2 | 77.1 | 5.87 | 5.89 | 5.88 | 1.43 | 1.45 | 1.44 |
| | 18:40 | | Bottom | 5.0 | 19.71 | 19.71 | 19.71 | 8.30 | 8.29 | 8.30 | 33.74 | 33.72 | 33.73 | 77.3 | 77.6 | 77.5 | 5.89 | 5.91 | 5.90 | 1.04 | 0.95 | 1.00 |
| 29/12/2021 | 8:22 | Fine | Surface | 1.0 | 19.51 | 19.51 | 19.51 | 7.94 | 7.93 | 7.94 | 32.86 | 32.85 | 32.86 | 84.3 | 84.5 | 84.4 | 6.45 | 6.46 | 6.46 | 1.39 | 1.33 | 1.36 |
| | 8:25 | | Middle | 3.0 | 19.58 | 19.57 | 19.58 | 7.67 | 7.65 | 7.66 | 32.72 | 32.74 | 32.73 | 86.1 | 86.5 | 86.3 | 6.58 | 6.61 | 6.60 | 0.94 | 0.86 | 0.90 |
| | 8:27 | | Bottom | 5.0 | 19.73 | 19.70 | 19.72 | 7.72 | 7.72 | 7.72 | 32.84 | 32.85 | 32.85 | 88.0 | 88.8 | 88.4 | 6.70 | 6.76 | 6.73 | 1.26 | 1.33 | 1.30 |
| 31/12/2021 | 9:40 | Cloudy | Surface | 1.0 | 19.55 | 19.55 | 19.55 | 8.14 | 8.15 | 8.15 | 32.88 | 32.88 | 32.88 | 82.1 | 81.6 | 81.9 | 6.28 | 6.24 | 6.26 | 1.14 | 1.07 | 1.11 |
| | 9:42 | | Middle | 3.5 | 19.61 | 19.62 | 19.62 | 8.20 | 8.21 | 8.21 | 33.16 | 33.20 | 33.18 | 82.5 | 82.0 | 82.3 | 6.29 | 6.25 | 6.27 | 1.06 | 0.98 | 1.02 |
| | 9:44 | | Bottom | 6.0 | 19.68 | 19.68 | 19.68 | 8.18 | 8.18 | 8.18 | 33.47 | 33.44 | 33.46 | 71.6 | 70.5 | 71.1 | 5.43 | 5.35 | 5.39 | 0.66 | 0.72 | 0.69 |

**Water Monitoring Result at F1 - Yim Tin Tsai Fish Culture Zone**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 15;27 | Fine | Surface | 1.0 | 24.07 | 24.09 | 24.08 | 8.69 | 8.69 | 8.69 | 30.02 | 30.00 | 30.01 | 61.3 | 59.2 | 60.3 | 4.34 | 4.19 | 4.27 | 1.45 | 1.22 | 1.34 |
| | 15:30 | | Middle | 3.0 | 24.13 | 24.14 | 24.14 | 8.66 | 8.66 | 8.66 | 30.12 | 30.20 | 30.16 | 60.7 | 61.0 | 60.9 | 4.29 | 4.31 | 4.30 | 1.22 | 1.01 | 1.12 |
| | 15:32 | | Bottom | 5.0 | 23.73 | 23.65 | 23.69 | 8.56 | 8.53 | 8.55 | 30.50 | 30.59 | 30.55 | 50.2 | 45.0 | 47.6 | 3.56 | 3.20 | 3.38 | 0.68 | 0.59 | 0.64 |
| 1/12/2021 | 15:50 | Fine | Surface | 1.0 | 23.23 | 23.24 | 23.24 | 8.91 | 8.88 | 8.90 | 29.10 | 29.24 | 29.17 | 69.8 | 68.0 | 68.9 | 5.04 | 4.91 | 4.98 | 1.02 | 1.06 | 1.04 |
| | 15:53 | | Middle | 3.5 | 23.37 | 23.36 | 23.37 | 8.89 | 8.90 | 8.90 | 29.35 | 29.36 | 29.36 | 70.1 | 68.1 | 69.1 | 5.05 | 4.90 | 4.98 | 0.89 | 0.59 | 0.74 |
| | 15:56 | | Bottom | 6.0 | 23.42 | 23.45 | 23.44 | 8.85 | 8.82 | 8.84 | 29.55 | 29.62 | 29.59 | 62.5 | 61.8 | 62.2 | 4.49 | 4.46 | 4.48 | 0.66 | 0.54 | 0.60 |
| 2/12/2021 | 16:45 | Fine | Surface | 1.0 | 22.66 | 22.67 | 22.67 | 8.81 | 8.81 | 8.81 | 29.15 | 29.18 | 29.17 | 87.0 | 85.5 | 86.3 | 6.35 | 6.24 | 6.30 | 1.24 | 1.12 | 1.18 |
| | 16:48 | | Middle | 3.5 | 22.79 | 22.82 | 22.81 | 8.80 | 8.78 | 8.79 | 29.27 | 29.30 | 29.29 | 83.3 | 83.3 | 83.3 | 6.05 | 6.30 | 6.18 | 1.46 | 1.51 | 1.49 |
| | 16:50 | | Bottom | 6.0 | 23.08 | 23.07 | 23.08 | 8.71 | 8.71 | 8.71 | 29.86 | 29.88 | 29.87 | 61.5 | 60.7 | 61.1 | 4.44 | 4.38/ | 4.44 | 2.25 | 2.74 | 2.50 |
| 3/12/2021 | 16:40 | Fine | Surface | 1.0 | 22.39 | 22.40 | 22.40 | 8.88 | 8.87 | 8.88 | 29.86 | 29.90 | 29.88 | 92.2 | 93.0 | 92.6 | 6.73 | 6.79 | 6.76 | 1.25 | 1.27 | 1.26 |
| | 16:43 | | Middle | 3.5 | 22.41 | 22.45 | 22.43 | 8.72 | 8.70 | 8.71 | 29.86 | 29.84 | 29.85 | 98.6 | 98.3 | 98.5 | 7.27 | 7.17 | 7.22 | 0.86 | 0.85 | 0.86 |
| | 16:45 | | Bottom | 6.0 | 22.45 | 22.47 | 22.46 | 8.77 | 8.75 | 8.76 | 29.97 | 30.30 | 30.14 | 82.1 | 81.6 | 81.9 | 5.98 | 5.95 | 5.97 | 1.54 | 1.60 | 1.57 |
| 6/12/2021 | 10:10 | Fine | Surface | 1.0 | 21.42 | 21.43 | 21.43 | 8.45 | 8.48 | 8.47 | 30.74 | 30.78 | 30.76 | 73.5 | 72.7 | 73.1 | 5.46 | 5.40 | 5.43 | 0.33 | 0.34 | 0.34 |
| | 10:12 | | Middle | 3.5 | 21.82 | 21.82 | 21.82 | 8.32 | 8.31 | 8.32 | 31.01 | 31.01 | 31.01 | 65.0 | 64.1 | 64.6 | 4.79 | 4.72 | 4.76 | 0.62 | 0.66 | 0.64 |
| | 10:15 | | Bottom | 6.0 | 21.84 | 21.84 | 21.84 | 8.28 | 8.28 | 8.28 | 31.35 | 31.39 | 31.37 | 59.1 | 60.3 | 59.7 | 4.34 | 4.44 | 4.39 | 1.38 | 1.43 | 1.41 |
| 8/12/2021 | 11:15 | Fine | Surface | 1.0 | 20.85 | 20.87 | 20.86 | 8.70 | 8.71 | 8.71 | 33.12 | 33.12 | 33.12 | 98.6 | 98.0 | 98.3 | 7.24 | 7.21 | 7.23 | 0.98 | 0.92 | 0.95 |
| | 11:17 | | Middle | 3.0 | 20.77 | 20.78 | 20.78 | 8.73 | 8.73 | 8.73 | 33.17 | 33.17 | 33.17 | 90.0 | 89.5 | 89.8 | 6.63 | 6.60 | 6.62 | 0.68 | 0.59 | 0.64 |
| | 11:19 | | Bottom | 5.0 | 20.71 | 20.70 | 20.71 | 8.73 | 8.71 | 8.72 | 33.28 | 33.28 | 33.28 | 77.1 | 76.3 | 76.7 | 5.67 | 5.61 | 5.64 | 0.51 | 0.47 | 0.49 |
| 10/12/2021 | 13:30 | Fine | Surface | 1.0 | 21.30 | 21.32 | 21.31 | 8.79 | 8.79 | 8.79 | 33.21 | 33.22 | 33.22 | 101.4 | 102.0 | 101.7 | 7.40 | 7.42 | 7.41 | 0.66 | 0.67 | 0.67 |
| | 13:32 | | Middle | 3.5 | 21.04 | 21.03 | 21.04 | 8.77 | 8.77 | 8.77 | 33.41 | 33.41 | 33.41 | 82.8 | 83.6 | 83.2 | 6.08 | 6.12 | 6.10 | 0.54 | 0.60 | 0.57 |
| | 13:35 | | Bottom | 6.0 | 20.88 | 20.88 | 20.88 | 8.75 | 8.74 | 8.75 | 33.56 | 33.56 | 33.56 | 79.5 | 79.1 | 79.3 | 5.83 | 5.72 | 5.78 | 0.78 | 0.82 | 0.80 |
| 13/12/2021 | 11:55 | Fine | Surface | 1.0 | 22.43 | 22.43 | 22.43 | 8.33 | 8.33 | 8.33 | 32.22 | 32.22 | 32.22 | 95.4 | 94.2 | 94.8 | 6.94 | 6.86 | 6.90 | 0.87 | 0.92 | 0.90 |
| | 11:57 | | Middle | 3.0 | 22.20 | 22.21 | 22.21 | 8.23 | 8.23 | 8.23 | 32.44 | 32.42 | 32.43 | 85.7 | 87.2 | 86.5 | 6.26 | 6.36 | 6.31 | 0.53 | 0.52 | 0.53 |
| | 11:59 | | Bottom | 5.0 | 22.03 | 22.05 | 22.04 | 8.12 | 8.13 | 8.13 | 32.89 | 32.90 | 32.90 | 58.9 | 57.9 | 58.4 | 4.31 | 4.23 | 4.27 | 2.87 | 2.92 | 2.90 |
| 15/12/2021 | 15:35 | Cloudy | Surface | 1.0 | 22.24 | 22.26 | 22.25 | 8.70 | 8.72 | 8.71 | 33.50 | 33.55 | 33.53 | 93.4 | 93.9 | 93.7 | 6.81 | 6.84 | 6.83 | 0.51 | 0.55 | 0.53 |
| | 15:37 | | Middle | 3.5 | 22.19 | 22.18 | 22.19 | 8.53 | 8.55 | 8.54 | 33.66 | 33.61 | 33.64 | 97.1 | 97.8 | 97.5 | 7.09 | 7.14 | 7.12 | 0.66 | 0.69 | 0.68 |
| | 15:40 | | Bottom | 6.0 | 21.65 | 21.66 | 21.66 | 8.44 | 8.41 | 8.43 | 33.83 | 33.85 | 33.84 | 100.7 | 101.8 | 101.3 | 7.40 | 7.48 | 7.44 | 0.76 | 0.68 | 0.72 |
| 17/12/2021 | 16:01 | Cloudy | Surface | 1.0 | 22.34 | 22.34 | 22.34 | 8.79 | 8.81 | 8.80 | 33.67 | 33.64 | 33.66 | 92.8 | 93.0 | 92.9 | 6.74 | 6.75 | 6.75 | 0.33 | 0.37 | 0.35 |
| | 16:04 | | Middle | 3.0 | 22.24 | 22.22 | 22.23 | 8.85 | 8.84 | 8.85 | 33.79 | 33.76 | 33.78 | 91.5 | 92.1 | 91.8 | 6.66 | 6.70 | 6.68 | 0.29 | 0.25 | 0.27 |
| | 16:05 | | Bottom | 5.0 | 22.12 | 22.09 | 22.11 | 8.66 | 8.63 | 8.65 | 33.82 | 33.84 | 33.83 | 79.5 | 79.9 | 79.7 | 5.80 | 5.83 | 5.82 | 0.79 | 0.86 | 0.83 |
| 20/12/2021 | 14:40 | Cloudy | Surface | 1.0 | 20.76 | 20.75 | 20.76 | 8.70 | 8.73 | 8.72 | 33.14 | 33.16 | 33.15 | 6.8 | 75.6 | 41.2 | 5.75 | 5.65 | 5.70 | 1.66 | 1.57 | 1.62 |
| | 14:42 | | Middle | 3.0 | 20.91 | 20.92 | 20.92 | 8.44 | 8.45 | 8.45 | 33.45 | 33.44 | 33.45 | 74.6 | 74.0 | 74.3 | 5.57 | 5.54 | 5.56 | 1.15 | 1.12 | 1.14 |
| | 14:44 | | Bottom | 5.0 | 21.08 | 21.09 | 21.09 | 8.48 | 8.49 | 8.49 | 33.77 | 33.74 | 33.76 | 62.2 | 61.9 | 62.1 | 4.61 | 4.59 | 4.60 | 0.64 | 0.73 | 0.69 |
| 22/12/2021 | 10;26 | Cloudy | Surface | 1.0 | 20.68 | 20.68 | 20.68 | 8.62 | 8.64 | 8.63 | 33.29 | 33.33 | 33.31 | 54.3 | 55.3 | 54.8 | 4.07 | 4.14 | 4.11 | 0.46 | 0.51 | 0.49 |
| | 10:28 | | Middle | 3.5 | 20.96 | 20.97 | 20.97 | 8.53 | 8.53 | 8.53 | 33.47 | 33.46 | 33.47 | 55.8 | 56.3 | 56.1 | 4.14 | 4.17 | 4.16 | 1.02 | 0.97 | 1.00 |
| | 10:30 | | Bottom | 6.0 | 20.95 | 20.95 | 20.95 | 8.48 | 8.46 | 8.47 | 33.52 | 33.53 | 33.53 | 60.9 | 60.0 | 60.5 | 4.53 | 4.46 | 4.50 | 3.22 | 3.14 | 3.18 |
| 24/12/2021 | 10:35 | Cloudy | Surface | 1.0 | 21.03 | 21.03 | 21.03 | 8.75 | 8.73 | 8.74 | 32.88 | 32.84 | 32.86 | 79.3 | 78.8 | 79.1 | 5.91 | 5.89 | 5.90 | 0.16 | 0.16 | 0.16 |
| | 10:37 | | Middle | 3.0 | 20.90 | 20.91 | 20.91 | 8.70 | 8.70 | 8.70 | 33.14 | 33.14 | 33.14 | 75.4 | 74.6 | 75.0 | 5.62 | 5.56 | 5.59 | 0.83 | 0.75 | 0.79 |
| | 10:39 | | Bottom | 5.0 | 20.92 | 20.94 | 20.93 | 8.49 | 8.50 | 8.50 | 33.35 | 33.36 | 33.36 | 68.3 | 67.3 | 67.8 | 5.08 | 5.01 | 5.05 | 0.77 | 0.69 | 0.73 |
| 27/12/2021 | 13:44 | Cloudy | Surface | 1.0 | 19.94 | 19.95 | 19.95 | 8.60 | 8.58 | 8.59 | 33.14 | 33.15 | 33.15 | 67.0 | 67.3 | 67.2 | 5.09 | 5.11 | 5.10 | 1.00 | 0.92 | 0.96 |
| | 13:47 | | Middle | 3.0 | 19.97 | 19.97 | 19.97 | 8.55 | 8.55 | 8.55 | 33.12 | 33.12 | 33.12 | 64.0 | 63.6 | 63.8 | 4.85 | 4.82 | 4.84 | 0.78 | 0.74 | 0.76 |
| | 13:49 | | Bottom | 5.0 | 20.32 | 20.33 | 20.33 | 8.40 | 8.42 | 8.41 | 33.54 | 33.56 | 33.55 | 62.8 | 63.3 | 63.1 | 4.72 | 4.76 | 4.74 | 0.60 | 0.66 | 0.63 |
| 29/12/2021 | 15:10 | Fine | Surface | 1.0 | 20.16 | 20.16 | 20.16 | 8.54 | 8.55 | 8.55 | 33.29 | 33.29 | 33.29 | 83.1 | 82.7 | 82.9 | 6.27 | 6.24 | 6.26 | 1.09 | 1.04 | 1.07 |
| | 15:12 | | Middle | 3.0 | 20.03 | 20.03 | 20.03 | 8.32 | 8.30 | 8.31 | 33.67 | 33.64 | 33.66 | 88.4 | 87.2 | 87.8 | 6.70 | 6.61 | 6.66 | 1.31 | 1.25 | 1.28 |
| | 15:13 | | Bottom | 5.0 | 20.09 | 20.10 | 20.10 | 8.40 | 8.40 | 8.40 | 33.82 | 33.85 | 33.84 | 86.7 | 85.9 | 86.3 | 6.55 | 6.49 | 6.52 | 1.15 | 1.09 | 1.12 |

**Water Monitoring Result at F1 - Yim Tin Tsai Fish Culture Zone**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Water Temperature | °C | | pH | - | | Salinity | ppt | | DO Saturation | % | | DO | mg/L | | Turbidity | NTU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 11:15 | Fine | Surface | 1.0 | 24.14 | 24.17 | 24.16 | 9.46 | 9.54 | 9.50 | 30.45 | 30.41 | 30.43 | 73.2 | 73.1 | 73.2 | 5.16 | 5.16 | 5.16 | 0.91 | 0.92 | 0.92 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 11:17 | | Bottom | 4.0 | 23.64 | 23.66 | 23.65 | 8.03 | 8.00 | 8.02 | 30.60 | 30.71 | 30.66 | 48.0 | 46.7 | 47.4 | 3.40 | 3.33 | 3.37 | 2.25 | 2.41 | 2.33 |
| 1/12/2021 | 9:58 | Fine | Surface | 1.0 | 22.90 | 22.95 | 22.93 | 8.78 | 8.79 | 8.79 | 30.51 | 30.32 | 30.42 | 51.2 | 52.1 | 51.7 | 3.69 | 3.72 | 3.71 | 1.22 | 1.07 | 1.15 |
| | 10:00 | | Middle | 3.0 | 23.15 | 23.14 | 23.15 | 8.80 | 8.81 | 8.81 | 30.29 | 30.22 | 30.26 | 55.4 | 52.9 | 54.2 | 3.98 | 3.80 | 3.89 | 1.23 | 1.20 | 1.22 |
| | 10:02 | | Bottom | 5.0 | 23.21 | 23.19 | 23.20 | 8.81 | 8.80 | 8.81 | 30.26 | 30.29 | 30.28 | 53.1 | 51.5 | 52.3 | 3.81 | 3.69 | 3.75 | 1.29 | 1.28 | 1.29 |
| 2/12/2021 | 10:34 | Fine | Surface | 1.0 | 22.48 | 22.47 | 22.48 | 8.81 | 8.81 | 8.81 | 29.61 | 29.74 | 29.68 | 56.8 | 58.0 | 57.4 | 4.17 | 4.23 | 4.20 | 0.63 | 0.62 | 0.63 |
| | 10:36 | | Middle | 3.0 | 22.42 | 22.44 | 22.43 | 8.83 | 8.83 | 8.83 | 29.80 | 29.83 | 29.82 | 57.3 | 56.8 | 57.1 | 4.18 | 4.15 | 4.17 | 0.28 | 0.39 | 0.34 |
| | 0:00 | | Bottom | 5.0 | 22.46 | 22.44 | 22.45 | 8.84 | 8.85 | 8.85 | 29.88 | 29.89 | 29.89 | 56.1 | 56.8 | 56.5 | 4.12 | 4.14 | 4.13 | 0.28 | 0.35 | 0.32 |
| 3/12/2021 | 10:40 | Fine | Surface | 1.0 | 22.30 | 22.30 | 22.30 | 8.68 | 8.71 | 8.70 | 30.37 | 30.39 | 30.38 | 64.5 | 65.5 | 65.0 | 4.70 | 4.77 | 4.74 | 1.07 | 1.05 | 1.06 |
| | 10:42 | | Middle | 3.0 | 22.46 | 22.47 | 22.47 | 8.55 | 8.60 | 8.58 | 30.68 | 30.72 | 30.70 | 58.6 | 57.5 | 58.1 | 4.25 | 4.17 | 4.21 | 0.73 | 0.95 | 0.84 |
| | 10:44 | | Bottom | 5.0 | 22.44 | 22.45 | 22.45 | 8.49 | 8.45 | 8.47 | 30.72 | 30.79 | 30.76 | 55.7 | 55.2 | 55.5 | 4.04 | 4.00 | 4.02 | 0.91 | 0.88 | 0.90 |
| 6/12/2021 | 12:30 | Fine | Surface | 1.0 | 21.76 | 21.76 | 21.76 | 8.83 | 8.84 | 8.84 | 30.48 | 30.58 | 30.53 | 82.5 | 83.5 | 83.0 | 6.07 | 6.14 | 6.11 | 0.53 | 0.56 | 0.55 |
| | 12:32 | | Middle | 3.5 | 21.99 | 21.98 | 21.99 | 8.89 | 8..9 | 8.89 | 30.88 | 30.88 | 30.88 | 70.3 | 69.6 | 70.0 | 5.14 | 5.09 | 5.12 | 0.88 | 0.82 | 0.85 |
| | 12:35 | | Bottom | 6.0 | 21.90 | 21.90 | 21.90 | 8.82 | 8.82 | 8.82 | 30.98 | 30.96 | 30.97 | 68.4 | 66.7 | 67.6 | 5.00 | 4.88 | 4.94 | 2.07 | 2.11 | 2.09 |
| 8/12/2021 | 13:55 | Fine | Surface | 1.0 | 21.44 | 21.42 | 21.43 | 8.77 | 8.77 | 8.77 | 33.19 | 33.16 | 33.18 | 91.1 | 91.3 | 91.2 | 6.68 | 6.70 | 6.69 | 0.95 | 0.90 | 0.93 |
| | 13:57 | | Middle | 3.0 | 20.89 | 20.85 | 20.87 | 8.79 | 8.78 | 8.79 | 33.13 | 33.15 | 33.14 | 90.0 | 89.2 | 89.6 | 6.65 | 6.58 | 6.62 | 0.68 | 0.74 | 0.71 |
| | 13:59 | | Bottom | 5.0 | 20.77 | 20.76 | 20.77 | 8.79 | 8.79 | 8.79 | 33.21 | 33.18 | 33.20 | 88.2 | 86.8 | 87.5 | 6.50 | 6.39 | 6.45 | 0.87 | 0.82 | 0.85 |
| 10/12/2021 | 16:30 | Fine | Surface | 1.0 | 21.74 | 21.72 | 21.73 | 7.45 | 7.46 | 7.46 | 33.03 | 33.04 | 33.04 | 98.8 | 99.2 | 99.0 | 7.24 | 7.20 | 7.22 | 1.59 | 1.72 | 1.66 |
| | 16;31 | | Middle | 3.0 | 21.25 | 21.27 | 21.26 | 7.82 | 7.82 | 7.82 | 33.18 | 33.18 | 33.18 | 89.3 | 89.6 | 89.5 | 6.53 | 6.54 | 6.54 | 1.77 | 1.72 | 1.75 |
| | 16:33 | | Bottom | 5.0 | 21.04 | 21.02 | 21.03 | 7.94 | 7.94 | 7.94 | 33.40 | 33.39 | 33.40 | 84.8 | 85.1 | 85.0 | 6.55 | 6.25 | 6.40 | 1.32 | 1.32 | 1.32 |
| 13/12/2021 | 9:39 | Fine | Surface | 1.0 | 22.19 | 22.20 | 22.20 | 8.69 | 8.70 | 8.70 | 32.44 | 32.44 | 32.44 | 85.3 | 85.9 | 85.6 | 6.26 | 6.29 | 6.28 | 1.84 | 1.79 | 1.82 |
| | 9:41 | | Middle | 3.0 | 22.35 | 22.34 | 22.35 | 8.52 | 8.52 | 8.52 | 32.95 | 32.97 | 32.96 | 88.7 | 89.0 | 88.9 | 6.48 | 6.50 | 6.49 | 1.28 | 1.25 | 1.27 |
| | 9:44 | | Bottom | 5.0 | 22.15 | 22.14 | 22.15 | 8.41 | 8.41 | 8.41 | 33.38 | 33.39 | 33.39 | 53.9 | 55.8 | 54.9 | 3.94 | 4.08 | 4.01 | 1.33 | 1.38 | 1.36 |
| 15/12/2021 | 10:52 | Cloudy | Surface | 1.0 | 22.26 | 22.26 | 22.26 | 8.59 | 8.56 | 8.58 | 32.87 | 32.84 | 32.86 | 86.8 | 86.2 | 86.5 | 6.26 | 6.23 | 6.25 | 1.13 | 1.06 | 1.10 |
| | 10:54 | | Middle | 3.0 | 22.23 | 22.22 | 22.23 | 8.44 | 8.42 | 8.43 | 33.01 | 33.03 | 33.02 | 81.2 | 80.8 | 81.0 | 5.91 | 5.89 | 5.90 | 0.84 | 0.87 | 0.86 |
| | 10:56 | | Bottom | 5.0 | 22.08 | 22.07 | 22.08 | 8.12 | 8.10 | 8.11 | 33.74 | 33.71 | 33.73 | 56.3 | 57.5 | 56.9 | 4.11 | 4.19 | 4.15 | 2.68 | 2.74 | 2.71 |
| 17/12/2021 | 11:05 | Cloudy | Surface | 1.0 | 22.46 | 22.47 | 22.47 | 8.78 | 8.75 | 8.77 | 32.90 | 32.91 | 32.91 | 87.1 | 86.8 | 87.0 | 6.35 | 6.33 | 6.34 | 0.68 | 0.61 | 0.65 |
| | 11:07 | | Middle | 3.0 | 22.18 | 22.20 | 22.19 | 8.60 | 8.58 | 8.59 | 33.24 | 33.27 | 33.26 | 84.7 | 85.1 | 84.9 | 6.19 | 6.22 | 6.21 | 0.44 | 0.47 | 0.46 |
| | 11:09 | | Bottom | 5.0 | 21.96 | 21.96 | 21.96 | 8.45 | 8.47 | 8.46 | 33.57 | 33.55 | 33.56 | 63.9 | 64.2 | 64.1 | 4.69 | 4.71 | 4.70 | 1.38 | 1.32 | 1.35 |
| 20/12/2021 | 13:20 | Cloudy | Surface | 1.0 | 21.14 | 21.14 | 21.14 | 8.60 | 8.63 | 8.62 | 33.47 | 33.42 | 33.45 | 76.1 | 74.7 | 75.4 | 5.65 | 5.55 | 5.60 | 1.78 | 1.82 | 1.80 |
| | 13:22 | | Middle | 3.0 | 21.17 | 21.15 | 21.16 | 8.49 | 8.46 | 8.48 | 33.59 | 33.60 | 33.60 | 70.6 | 69.7 | 70.2 | 5.25 | 5.18 | 5.22 | 1.23 | 1.21 | 1.22 |
| | 13:23 | | Bottom | 5.0 | 21.57 | 21.55 | 21.56 | 8.24 | 8.27 | 8.26 | 33.94 | 33.90 | 33.92 | 45.4 | 45.9 | 45.7 | 3.33 | 3.38 | 3.36 | 2.66 | 2.73 | 2.70 |
| 22/12/2021 | 12:48 | Cloudy | Surface | 1.0 | 21.11 | 21.11 | 21.11 | 8.56 | 8.56 | 8.56 | 32.89 | 32.92 | 32.91 | 76.7 | 77.1 | 76.9 | 5.71 | 5.74 | 5.73 | 0.93 | 0.98 | 0.96 |
| | 12:52 | | Middle | 3.0 | 21.05 | 21.05 | 21.05 | 8.73 | 8.31 | 8.52 | 33.16 | 33.17 | 33.17 | 81.5 | 80.7 | 81.1 | 6.05 | 5.99 | 6.02 | 0.89 | 0.83 | 0.86 |
| | 12:54 | | Bottom | 5.0 | 21.06 | 21.07 | 21.07 | 8.37 | 8.37 | 8.37 | 33.51 | 33.53 | 33.52 | 70.7 | 71.7 | 71.2 | 5.24 | 5.31 | 5.28 | 2.51 | 2.44 | 2.48 |
| 27/12/2021 | 17:08 | Cloudy | Surface | 1.0 | 19.71 | 19.72 | 19.72 | 8.33 | 8.32 | 8.33 | 33.20 | 33.18 | 33.19 | 67.8 | 66.7 | 67.3 | 5.17 | 5.09 | 5.13 | 1.71 | 1.84 | 1.78 |
| | 17:10 | | Middle | 3.0 | 19.95 | 19.94 | 19.95 | 8.20 | 8.20 | 8.20 | 33.35 | 33.36 | 33.36 | 70.7 | 70.9 | 70.8 | 5.37 | 5.39 | 5.38 | 1.54 | 1.47 | 1.51 |
| | 17:11 | | Bottom | 5.0 | 20.19 | 20.19 | 20.19 | 8.14 | 8.12 | 8.13 | 33.86 | 33.62 | 33.74 | 63.5 | 63.9 | 63.7 | 4.80 | 4.83 | 4.82 | 0.86 | 0.76 | 0.81 |
| 29/12/2021 | 9:30 | Fine | Surface | 1.0 | 19.56 | 19.57 | 19.57 | 8.38 | 8.40 | 8.39 | 33.27 | 33.27 | 33.27 | 64.5 | 63.5 | 64.0 | 4.92 | 4.84 | 4.88 | 0.58 | 0.66 | 0.62 |
| | 9:32 | | Middle | 3.0 | 19.63 | 19.64 | 19.64 | 8.02 | 8.03 | 8.03 | 33.14 | 33.15 | 33.15 | 62.8 | 63.0 | 62.9 | 4.78 | 4.80 | 4.79 | 0.47 | 0.44 | 0.46 |
| | 9:34 | | Bottom | 5.0 | 19.90 | 19.90 | 19.90 | 8.11 | 8.11 | 8.11 | 33.39 | 33.40 | 33.40 | 61.5 | 62.0 | 61.8 | 4.65 | 4.69 | 4.67 | 0.42 | 0.45 | 0.44 |
| 31/12/2021 | 10:37 | Cloudy | Surface | 1.0 | 19.99 | 20.00 | 20.00 | 8.69 | 8.71 | 8.70 | 33.34 | 33.36 | 33.35 | 76.2 | 76.7 | 76.5 | 5.77 | 5.80 | 5.79 | 1.32 | 1.28 | 1.30 |
| | 10:10 | | Middle | 3.0 | 20.13 | 20.14 | 20.14 | 8.33 | 8.34 | 8.34 | 33.58 | 33.59 | 33.59 | 78.2 | 78.6 | 78.4 | 5.90 | 5.93 | 5.92 | 1.40 | 1.34 | 1.37 |
| | 10:42 | | Bottom | 5.0 | 20.16 | 20.17 | 20.17 | 8.39 | 8.40 | 8.40 | 33.67 | 33.66 | 33.67 | 62.0 | 62.7 | 62.4 | 4.67 | 4.73 | 4.70 | 1.23 | 1.31 | 1.27 |

**Water Monitoring Result at F2 -Yim Tin Tsai (East) Fish Culture Zone**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth m | | Water Temperature °C | | | pH - | | | Salinity ppt | | | DO Saturation % | | | DO mg/L | | | Turbidity NTU | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 16;35 | Fine | Surface | 1.0 | 23.77 | 23.78 | 23.78 | 8.64 | 8.65 | 8.65 | 28.71 | 28.71 | 28.71 | 65.9 | 66.6 | 66.3 | 4.07 | 4.77 | 4.42 | 0.70 | 0.81 | 0.76 |
| | 16;37 | | Middle | 3.5 | 23.72 | 23.71 | 23.72 | 8.67 | 8.67 | 8.67 | 28.86 | 28.82 | 28.84 | 72.8 | 71.8 | 72.3 | 5.22 | 5.15 | 5.19 | 1.59 | 1.75 | 1.67 |
| | 16:39 | | Bottom | 6.0 | 23.77 | 23.77 | 23.77 | 8.64 | 8.62 | 8.63 | 29.10 | 29.12 | 29.11 | 72.7 | 71.0 | 71.9 | 5.20 | 5.08 | 5.14 | 2.30 | 1.99 | 2.15 |
| 1/12/2021 | 16:10 | Fine | Surface | 1.0 | 22.58 | 22.65 | 22.62 | 8.70 | 8.64 | 8.67 | 30.70 | 30.02 | 30.36 | 54.5 | 55.2 | 54.9 | 3.96 | 4.00 | 3.98 | 0.85 | 0.88 | 0.87 |
| | 16;12 | | Middle | 3.5 | 22.83 | 22.87 | 22.85 | 8.66 | 8.70 | 8.68 | 30.06 | 29.98 | 30.02 | 65.5 | 56.6 | 61.1 | 4.08 | 4.10 | 4.09 | 0.47 | 0.53 | 0.50 |
| | 16:15 | | Bottom | 6.0 | 23.10 | 23.12 | 23.11 | 8.60 | 8.68 | 8.64 | 30.48 | 30.47 | 30.48 | 49.8 | 46.1 | 48.0 | 3.58 | 3.31 | 3.45 | 1.92 | 2.08 | 2.00 |
| 2/12/2021 | 16:10 | Fine | Surface | 1.0 | 22.27 | 22.30 | 22.29 | 8.74 | 8.70 | 8.72 | 30.36 | 30.31 | 30.34 | 76.8 | 77.3 | 77.1 | 5.60 | 5.64 | 5.62 | 1.15 | 1.09 | 1.12 |
| | 16:12 | | Middle | 3.5 | 22.17 | 22.20 | 22.19 | 8.75 | 8.73 | 8.74 | 30.51 | 30.55 | 30.53 | 74.2 | 74.8 | 74.5 | 5.42 | 5.46 | 5.44 | 0.39 | 0.88 | 0.63 |
| | 16:15 | | Bottom | 6.0 | 22.12 | 22.15 | 22.14 | 8.75 | 8.75 | 8.75 | 30.60 | 30.63 | 30.62 | 78.0 | 76.8 | 77.4 | 5.70 | 5.61 | 5.66 | 0.34 | 0.66 | 0.50 |
| 3/12/2021 | 17:00 | Fine | Surface | 1.0 | 21.59 | 21.61 | 21.60 | 8.76 | 8.72 | 8.74 | 30.32 | 30.33 | 30.33 | 85.1 | 83.2 | 84.2 | 6.28 | 6.14 | 6.21 | 1.42 | 1.47 | 1.45 |
| | 17:02 | | Middle | 3.5 | 21.56 | 21.55 | 21.56 | 8.75 | 8.74 | 8.75 | 30.34 | 30.38 | 30.36 | 86.2 | 86.6 | 86.4 | 6.37 | 6.40 | 6.39 | 1.65 | 1.70 | 1.68 |
| | 17:05 | | Bottom | 6.0 | 21.57 | 21.56 | 21.57 | 8.77 | 8.77 | 8.77 | 30.44 | 30.44 | 30.44 | 89.7 | 88.9 | 89.3 | 6.62 | 6.56 | 6.59 | 1.89 | 1.83 | 1.86 |
| 6/12/2021 | 10:30 | Fine | Surface | 1.0 | 20.93 | 20.92 | 20.93 | 8.68 | 8.65 | 8.67 | 30.66 | 30.69 | 30.68 | 69.3 | 78.9 | 74.1 | 5.20 | 5.28 | 5.24 | 1.71 | 1.77 | 1.74 |
| | 10:32 | | Middle | 3.5 | 21.10 | 21.11 | 21.11 | 8.40 | 8.37 | 8.39 | 30.82 | 30.83 | 30.83 | 68.1 | 66.6 | 67.4 | 5.09 | 4.97 | 5.03 | 1.18 | 1.14 | 1.16 |
| | 10:35 | | Bottom | 6.0 | 21.14 | 21.15 | 21.15 | 8.36 | 8.35 | 8.36 | 31.00 | 31.06 | 31.03 | 67.2 | 69.6 | 68.4 | 5.01 | 5.03 | 5.02 | 2.42 | 2.45 | 2.44 |
| 8/12/2021 | 11:37 | Fine | Surface | 1.0 | 20.55 | 20.57 | 20.56 | 8.64 | 8.64 | 8.64 | 33.26 | 33.26 | 33.26 | 80.6 | 80.3 | 80.5 | 5.96 | 5.99 | 5.98 | 0.78 | 0.75 | 0.77 |
| | 11:39 | | Middle | 3.5 | 20.49 | 20.50 | 20.50 | 8.65 | 8.66 | 8.66 | 33.26 | 33.26 | 33.26 | 85.2 | 84.8 | 85.0 | 6.32 | 6.29 | 6.31 | 0.66 | 0.61 | 0.64 |
| | 11:42 | | Bottom | 6.0 | 20.37 | 20.36 | 20.37 | 8.66 | 8.66 | 8.66 | 33.05 | 33.05 | 33.05 | 76.7 | 76.2 | 76.5 | 5.69 | 5.66 | 5.68 | 1.03 | 1.07 | 1.05 |
| 10/12/2021 | 13:48 | Fine | Surface | 1.0 | 21.21 | 21.21 | 21.21 | 8.69 | 8.69 | 8.69 | 33.20 | 31.90 | 32.55 | 87.3 | 86.8 | 87.1 | 6.38 | 6.35 | 6.37 | 0.53 | 0.59 | 0.56 |
| | 13:50 | | Middle | 3.5 | 21.04 | 21.04 | 21.04 | 8.69 | 8.69 | 8.69 | 33.30 | 33.30 | 33.30 | 90.5 | 91.4 | 91.0 | 6.65 | 6.71 | 6.68 | 0.42 | 0.40 | 0.41 |
| | 13:52 | | Bottom | 6.0 | 20.92 | 20.93 | 20.93 | 8.70 | 8.70 | 8.70 | 33.33 | 33.33 | 33.33 | 83.6 | 84.2 | 83.9 | 6.14 | 6.19 | 6.17 | 0.77 | 0.85 | 0.81 |
| 13/12/2021 | 12:45 | Fine | Surface | 1.0 | 22.13 | 22.14 | 22.14 | 8.21 | 8.21 | 8.21 | 32.60 | 32.60 | 32.60 | 69.3 | 68.9 | 69.1 | 5.07 | 5.03 | 5.05 | 0.59 | 0.64 | 0.62 |
| | 12:47 | | Middle | 3.0 | 22.05 | 22.04 | 22.05 | 8.13 | 8.13 | 8.13 | 32.27 | 32.27 | 32.27 | 75.8 | 74.8 | 75.3 | 5.56 | 5.48 | 5.52 | 0.60 | 0.66 | 0.63 |
| | 12:49 | | Bottom | 5.0 | 21.98 | 21.96 | 21.97 | 8.08 | 8.08 | 8.08 | 32.18 | 32.20 | 32.19 | 70.6 | 69.5 | 70.1 | 5.19 | 5.09 | 5.14 | 2.67 | 2.59 | 2.63 |
| 15/12/2021 | 16:02 | Cloudy | Surface | 1.0 | 22.15 | 22.16 | 22.16 | 8.35 | 8.34 | 8.35 | 33.30 | 33.30 | 33.30 | 97.1 | 97.8 | 97.5 | 7.09 | 7.15 | 7.12 | 0.40 | 0.35 | 0.38 |
| | 16:05 | | Middle | 3.5 | 22.02 | 22.01 | 22.02 | 8.18 | 8.15 | 8.17 | 33.37 | 33.35 | 33.36 | 76.3 | 75.4 | 75.9 | 5.59 | 5.53 | 5.56 | 0.33 | 0.36 | 0.35 |
| | 16:07 | | Bottom | 6.0 | 22.10 | 22.12 | 22.11 | 8.09 | 8.10 | 8.10 | 33.84 | 33.89 | 33.87 | 52.0 | 52.9 | 52.5 | 3.79 | 3.86 | 3.83 | 2.76 | 2.68 | 2.72 |
| 17/12/2021 | 16:20 | Cloudy | Surface | 1.0 | 22.53 | 22.56 | 22.55 | 8.75 | 8.80 | 8.78 | 33.72 | 33.74 | 33.73 | 78.6 | 77.4 | 78.0 | 5.67 | 5.59 | 5.63 | 0.04 | 0.09 | 0.07 |
| | 16:23 | | Middle | 3.5 | 22.64 | 22.62 | 22.63 | 8.43 | 8.46 | 8.45 | 33.79 | 33.82 | 33.81 | 79.1 | 78.2 | 78.7 | 5.72 | 5.66 | 5.69 | 0.37 | 0.43 | 0.40 |
| | 16:25 | | Bottom | 6.0 | 22.27 | 22.28 | 22.28 | 8.44 | 8.43 | 8.44 | 33.94 | 33.97 | 33.96 | 36.2 | 35.7 | 36.0 | 2.63 | 2..59 | 2.63 | 3.62 | 3.74 | 3.68 |
| 20/12/2021 | 14:55 | Cloudy | Surface | 1.0 | 20.80 | 20.77 | 20.79 | 8.42 | 8.44 | 8.43 | 33.26 | 33.23 | 33.25 | 94.0 | 95.5 | 94.8 | 7.00 | 7.11 | 7.06 | 1.14 | 1.06 | 1.10 |
| | 14:57 | | Middle | 3.0 | 20.88 | 20.90 | 20.89 | 8.29 | 8.30 | 8.30 | 33.50 | 33.52 | 33.51 | 102.3 | 103.6 | 103.0 | 7.62 | 7.72 | 7.67 | 2.54 | 2.43 | 2.49 |
| | 14:58 | | Bottom | 5.0 | 20.83 | 20.81 | 20.82 | 8.20 | 8.22 | 8.21 | 33.69 | 33.72 | 33.71 | 77.7 | 77.0 | 77.4 | 5.84 | 5.79 | 5.82 | 2.74 | 2.82 | 2.78 |
| 22/12/2021 | 10:45 | Cloudy | Surface | 1.0 | 20.24 | 20.25 | 20.25 | 8.66 | 8.68 | 8.67 | 33.64 | 33.62 | 33.63 | 63.3 | 62.6 | 63.0 | 4.78 | 4.72 | 4.75 | 1.13 | 1.19 | 1.16 |
| | 10:47 | | Middle | 3.5 | 20.33 | 20.34 | 20.34 | 8.40 | 8.40 | 8.40 | 33.56 | 33.57 | 33.56 | 58.1 | 59.3 | 58.7 | 4.38 | 4.46 | 4.42 | 0.61 | 0.66 | 0.64 |
| | 10:50 | | Bottom | 6.0 | 20.32 | 20.32 | 20.32 | 8.42 | 8.41 | 8.42 | 33.70 | 33.72 | 33.71 | 52.1 | 51.5 | 51.8 | 3.92 | 3.88 | 3.90 | 1.79 | 1.68 | 1.74 |
| 24/12/2021 | 10:53 | Cloudy | Surface | 1.0 | 20.91 | 20.92 | 20.92 | 8.64 | 8.63 | 8.64 | 33.07 | 33.05 | 33.06 | 67.7 | 66.6 | 67.2 | 5.04 | 4.96 | 5.00 | 0.44 | 0.55 | 0.50 |
| | 10:55 | | Middle | 3.0 | 20.88 | 20.88 | 20.88 | 8.55 | 8.54 | 8.55 | 33.34 | 33.31 | 33.33 | 66.2 | 65.3 | 65.8 | 4.93 | 4.86 | 4.90 | 0.06 | 0.11 | 0.09 |
| | 10:57 | | Bottom | 5.0 | 20.77 | 20.79 | 20.78 | 8.49 | 8.48 | 8.49 | 33.50 | 33.52 | 33.51 | 55.4 | 55.0 | 55.2 | 4.14 | 4.12 | 4.13 | 1.07 | 0.99 | 1.03 |
| 27/12/2021 | 14:00 | Cloudy | Surface | 1.0 | 19.64 | 19.64 | 19.64 | 8.11 | 8.12 | 8.12 | 33.08 | 33.08 | 33.08 | 80.4 | 81.1 | 80.8 | 6.13 | 6.18 | 6.16 | 1.86 | 1.75 | 1.81 |
| | 14:02 | | Middle | 3.0 | 19.75 | 19.74 | 19.75 | 8.06 | 8.06 | 8.06 | 33.02 | 33.03 | 33.03 | 83.1 | 83.7 | 83.4 | 6.33 | 6.38 | 6.36 | 1.52 | 1.56 | 1.54 |
| | 14:04 | | Bottom | 5.0 | 19.77 | 19.77 | 19.77 | 7.97 | 7.96 | 7.97 | 32.89 | 32.88 | 32.89 | 88.0 | 87.5 | 87.8 | 6.69 | 6.65 | 6.67 | 0.76 | 0.67 | 0.72 |
| 29/12/2021 | 15:30 | Fine | Surface | 1.0 | 20.04 | 20.05 | 20.05 | 8.72 | 8.74 | 8.73 | 33.67 | 33.65 | 33.66 | 74.1 | 74.8 | 74.5 | 5.62 | 5.67 | 5.65 | 1.10 | 1.06 | 1.08 |
| | 15:32 | | Middle | 3.5 | 19.41 | 19.41 | 19.41 | 8.50 | 8.48 | 8.49 | 33.55 | 33.52 | 33.54 | 75.6 | 74.4 | 75.0 | 5.79 | 5.69 | 5.74 | 1.35 | 1.29 | 1.32 |
| | 15:34 | | Bottom | 6.0 | 19.33 | 19.32 | 19.33 | 8.43 | 8.43 | 8.43 | 33.50 | 33.47 | 33.49 | 69.6 | 70.3 | 70.0 | 5.33 | 5.38 | 5.36 | 1.41 | 1.44 | 1.43 |

**Water Monitoring Result at F2 -Yim Tin Tsai (East) Fish Culture Zone**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Water Temperature | °C | | pH | - | | Salinity | ppt | | DO Saturation | % | | DO | mg/L | | Turbidity | NTU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 11:31 | Fine | Surface | 1.0 | 23.47 | 23.57 | 23.52 | 8.05 | 8.10 | 8.08 | 28.67 | 28.64 | 28.66 | 63.9 | 62.7 | 63.3 | 4.60 | 4.52 | 4.56 | 0.55 | 0.45 | 0.50 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 11:33 | | Bottom | 4.0 | 23.68 | 23.69 | 23.69 | 8.10 | 8.10 | 8.10 | 28.70 | 28.88 | 28.79 | 65.8 | 68.0 | 66.9 | 4.73 | 4.88 | 4.81 | 0.55 | 0.44 | 0.50 |
| 1/12/2021 | 10:25 | Fine | Surface | 1.0 | 23.39 | 22.42 | 22.91 | 8.72 | 7.73 | 8.23 | 30.08 | 30.07 | 30.08 | 50.3 | 49.6 | 50.0 | 3.65 | 3.60 | 3.63 | 1.29 | 1.22 | 1.26 |
| | 10:27 | | Middle | 3.0 | 23.73 | 22.73 | 23.23 | 8.76 | 8.77 | 8.77 | 30.32 | 30.27 | 30.30 | 51.5 | 52.3 | 51.9 | 3.72 | 3.79 | 3.76 | 0.84 | 0.81 | 0.83 |
| | 10:30 | | Bottom | 5.0 | 22.89 | 22.88 | 22.89 | 8.74 | 8.74 | 8.74 | 30.58 | 30.63 | 30.61 | 48.7 | 49.7 | 49.2 | 3.51 | 3.58 | 3.55 | 0.78 | 0.72 | 0.75 |
| 2/12/2021 | 10:55 | Fine | Surface | 1.0 | 22.02 | 22.03 | 22.03 | 8.73 | 8.73 | 8.73 | 29.61 | 29.64 | 29.63 | 52.9 | 52.3 | 52.6 | 3.89 | 3.85 | 3.87 | 1.05 | 0.86 | 0.96 |
| | 10:58 | | Middle | 3.0 | 22.04 | 22.03 | 22.04 | 8.74 | 8.76 | 8.75 | 29.85 | 29.85 | 29.85 | 55.6 | 54.9 | 55.3 | 4.09 | 4.03 | 4.06 | 0.76 | 0.74 | 0.75 |
| | 11:01 | | Bottom | 5.0 | 22.05 | 22.05 | 22.05 | 8.74 | 8.71 | 8.73 | 30.07 | 30.06 | 30.07 | 55.1 | 54.8 | 54.9 | 4.04 | 4.02 | 4.03 | 0.33 | 0.56 | 0.45 |
| 3/12/2021 | 11:00 | Fine | Surface | 1.0 | 21.60 | 21.61 | 21.61 | 8.68 | 8.70 | 8.69 | 29.03 | 29.61 | 29.32 | 64.8 | 65.7 | 65.3 | 4.81 | 4.87 | 4.84 | 1.00 | 1.07 | 1.04 |
| | 11:02 | | Middle | 3.0 | 21.49 | 21.49 | 21.49 | 8.65 | 8.66 | 8.66 | 29.75 | 29.79 | 29.77 | 66.8 | 66.0 | 66.4 | 4.96 | 4.90 | 4.93 | 1.94 | 1.86 | 1.90 |
| | 11:04 | | Bottom | 5.0 | 21.50 | 21.49 | 21.50 | 8.68 | 8.65 | 8.67 | 29.86 | 29.90 | 29.88 | 67.0 | 67.2 | 67.1 | 4.97 | 4.99 | 4.98 | 1.48 | 1.44 | 1.46 |
| 6/12/2021 | 13:27 | Fine | Surface | 1.0 | 21.26 | 21.25 | 21.26 | 8.60 | 8.57 | 8.59 | 30.37 | 30.32 | 30.35 | 86.3 | 85.6 | 86.0 | 6.41 | 6.36 | 6.39 | 1.57 | 1.52 | 1.55 |
| | 13:29 | | Middle | 3.0 | 21.20 | 21.20 | 21.20 | 8.68 | 8.66 | 8.67 | 30.47 | 30.50 | 30.49 | 84.1 | 85.1 | 84.6 | 6.24 | 6.33 | 6.29 | 0.79 | 0.85 | 0.82 |
| | 13:32 | | Bottom | 5.0 | 21.08 | 21.09 | 21.09 | 8.74 | 8.72 | 8.73 | 30.56 | 30.59 | 30.58 | 83.8 | 84.4 | 84.1 | 6.25 | 6.28 | 6.26 | 2.26 | 2.32 | 2.29 |
| 8/12/2021 | 14:37 | Fine | Surface | 1.0 | 20.92 | 20.94 | 20.93 | 8.73 | 8.73 | 8.73 | 33.30 | 33.31 | 33.31 | 84.7 | 84.3 | 84.5 | 6.23 | 6.19 | 6.21 | 3.76 | 3.72 | 3.74 |
| | 14:38 | | Middle | 3.0 | 20.74 | 20.73 | 20.74 | 8.72 | 8.72 | 8.72 | 33.26 | 33.27 | 33.27 | 88.2 | 88.5 | 88.4 | 6.51 | 6.54 | 6.53 | 2.68 | 2.73 | 2.71 |
| | 14:04 | | Bottom | 5.0 | 20.59 | 20.59 | 20.59 | 8.71 | 8.70 | 8.71 | 33.31 | 33.31 | 33.31 | 8.8 | 87.3 | 48.0 | 6.48 | 6.45 | 6.47 | 3.06 | 3.11 | 3.09 |
| 10/12/2021 | 16:46 | Fine | Surface | 1.0 | 21.38 | 21.40 | 21.39 | 8.12 | 8.13 | 8.13 | 33.12 | 33.12 | 33.12 | 94.6 | 93.7 | 94.2 | 6.90 | 6.83 | 6.87 | 0.72 | 0.80 | 0.76 |
| | 16:48 | | Middle | 3.0 | 21.14 | 21.14 | 21.14 | 8.22 | 8.22 | 8.22 | 33.26 | 33.28 | 33.27 | 92.4 | 92.8 | 92.6 | 6.77 | 6.80 | 6.79 | 0.49 | 0.44 | 0.47 |
| | 16:50 | | Bottom | 5.0 | 21.04 | 21.04 | 21.04 | 8.27 | 8.27 | 8.27 | 33.28 | 33.29 | 33.29 | 89.3 | 89.8 | 89.6 | 6.55 | 6.59 | 6.57 | 0.82 | 0.77 | 0.80 |
| 13/12/2021 | 10:07 | Fine | Surface | 1.0 | 21.97 | 21.98 | 21.98 | 8.57 | 8.57 | 8.57 | 32.59 | 32.59 | 32.59 | 70.4 | 69.7 | 70.1 | 5.15 | 5.10 | 5.13 | 0.61 | 0.66 | 0.64 |
| | 10:09 | | Middle | 3.5 | 21.95 | 21.95 | 21.95 | 8.36 | 8.35 | 8.36 | 32.81 | 32.82 | 32.82 | 81.7 | 82.0 | 81.9 | 5.98 | 6.01 | 6.00 | 1.02 | 1.03 | 1.03 |
| | 10:11 | | Bottom | 6.0 | 21.92 | 21.92 | 21.92 | 8.14 | 8.15 | 8.15 | 33.13 | 33.15 | 33.14 | 76.7 | 77.4 | 77.1 | 5.62 | 5.67 | 5.65 | 2.11 | 2.13 | 2.12 |
| 15/12/2021 | 11:12 | Cloudy | Surface | 1.0 | 22.02 | 22.04 | 22.03 | 8.55 | 8.58 | 8.57 | 32.94 | 32.97 | 32.96 | 76.9 | 77.4 | 77.2 | 5.65 | 5.68 | 5.67 | 1.27 | 1.18 | 1.23 |
| | 11:14 | | Middle | 3.0 | 22.04 | 22.04 | 22.04 | 8.32 | 8.35 | 8.34 | 33.23 | 33.20 | 33.22 | 80.4 | 80.8 | 80.6 | 5.90 | 5.92 | 5.91 | 0.87 | 0.82 | 0.85 |
| | 11:16 | | Bottom | 5.0 | 22.09 | 21.09 | 21.59 | 8.38 | 8.40 | 8.39 | 33.58 | 33.57 | 33.58 | 53.8 | 52.8 | 53.3 | 3.93 | 3.86 | 3.90 | 1.12 | 1.17 | 1.15 |
| 17/12/2021 | 11:20 | Cloudy | Surface | 1.0 | 22.53 | 22.54 | 22.54 | 8.46 | 8.48 | 8.47 | 33.05 | 33.09 | 33.07 | 76.1 | 74.7 | 75.4 | 5.51 | 5.43 | 5.47 | 0.22 | 0.28 | 0.25 |
| | 11:22 | | Middle | 3.5 | 22.50 | 22.50 | 22.50 | 8.34 | 8.31 | 8.33 | 33.50 | 33.51 | 33.51 | 78.2 | 78.0 | 78.1 | 5.69 | 5.67 | 5.68 | 0.16 | 0.12 | 0.14 |
| | 11:24 | | Bottom | 6.0 | 22.26 | 22.24 | 22.25 | 8.38 | 8.36 | 8.37 | 33.97 | 33.92 | 33.95 | 44.4 | 43.6 | 44.0 | 3.23 | 3.18 | 3.21 | 0.74 | 0.77 | 0.76 |
| 20/12/2021 | 13:38 | Cloudy | Surface | 1.0 | 20.80 | 20.79 | 20.80 | 8.30 | 8.30 | 8.30 | 33.03 | 33.07 | 33.05 | 66.1 | 65.3 | 65.7 | 4.93 | 4.88 | 4.91 | 0.41 | 0.38 | 0.40 |
| | 13:40 | | Middle | 3.0 | 20.84 | 20.83 | 20.84 | 8.18 | 8.20 | 8.19 | 33.22 | 33.26 | 33.24 | 68.7 | 69.2 | 69.0 | 5.15 | 5.16 | 5.16 | 0.69 | 0.74 | 0.72 |
| | 13:41 | | Bottom | 5.0 | 20.82 | 20.80 | 20.81 | 8.15 | 8.15 | 8.15 | 33.56 | 33.59 | 33.58 | 68.7 | 68.0 | 68.4 | 5.12 | 5.07 | 5.10 | 0.94 | 0.90 | 0.92 |
| 22/12/2021 | 13:35 | Cloudy | Surface | 1.0 | 20.41 | 20.39 | 20.40 | 8.54 | 8.56 | 8.55 | 33.37 | 33.35 | 33.36 | 63.3 | 63.9 | 63.6 | 4.76 | 4.81 | 4.79 | 0.90 | 0.95 | 0.93 |
| | 13:37 | | Middle | 3.5 | 20.36 | 20.36 | 20.36 | 8.47 | 8.47 | 8.47 | 33.25 | 33.26 | 33.26 | 61.3 | 61.9 | 61.6 | 4.62 | 4.66 | 4.64 | 1.44 | 1.38 | 1.41 |
| | 13;38 | | Bottom | 6.0 | 20.33 | 20.33 | 20.33 | 8.44 | 8.45 | 8.45 | 33.31 | 33.32 | 33.32 | 62.8 | 63.9 | 63.4 | 4.74 | 4.82 | 4.78 | 2.54 | 2.45 | 2.50 |
| 27/12/2021 | 17:43 | Cloudy | Surface | 1.0 | 19.85 | 19.84 | 19.85 | 7.93 | 7.93 | 7.93 | 32.62 | 32.63 | 32.63 | 65.1 | 64.0 | 64.6 | 4.95 | 4.87 | 4.91 | 1.11 | 1.05 | 1.08 |
| | 17:44 | | Middle | 3.0 | 19.84 | 19.84 | 19.84 | 7.82 | 7.83 | 7.83 | 32.55 | 32.53 | 32.54 | 83.8 | 84.8 | 84.3 | 6.37 | 6.45 | 6.41 | 0.84 | 0.80 | 0.82 |
| | 17:45 | | Bottom | 5.0 | 19.86 | 19.85 | 19.86 | 7.74 | 7.72 | 7.73 | 32.67 | 32.64 | 32.66 | 89.6 | 89.4 | 89.5 | 6.81 | 6.80 | 6.81 | 0.52 | 0.46 | 0.49 |
| 29/12/2021 | 9:50 | Fine | Surface | 1.0 | 19.32 | 19.32 | 19.32 | 8.55 | 8.56 | 8.56 | 33.16 | 33.16 | 33.16 | 59.0 | 58.3 | 58.7 | 4.52 | 4.47 | 4.50 | 0.66 | 0.61 | 0.64 |
| | 9:52 | | Middle | 3.0 | 19.33 | 19.33 | 19.33 | 8.34 | 8.34 | 8.34 | 33.27 | 33.25 | 33.26 | 60.5 | 60.3 | 60.4 | 4.63 | 4.62 | 4.63 | 0.72 | 0.78 | 0.75 |
| | 9:55 | | Bottom | 5.0 | 19.28 | 19.27 | 19.28 | 8.07 | 8.08 | 8.08 | 33.33 | 33.32 | 33.33 | 58.5 | 58.8 | 58.7 | 4.48 | 4.51 | 4.50 | 0.47 | 0.44 | 0.46 |
| 31/12/2021 | 11:00 | Cloudy | Surface | 1.0 | 19.70 | 19.70 | 19.70 | 8.83 | 8.81 | 8.82 | 33.16 | 33.19 | 33.18 | 71.2 | 72.3 | 71.8 | 5.42 | 5.51 | 5.47 | 1.25 | 1.14 | 1.20 |
| | 11:02 | | Middle | 3.0 | 19.76 | 19.75 | 19.76 | 8.56 | 8.53 | 8.55 | 33.44 | 33.47 | 33.46 | 74.1 | 73.5 | 73.8 | 5.69 | 5.59 | 5.64 | 1.12 | 1.09 | 1.11 |
| | 11:04 | | Bottom | 5.0 | 19.71 | 19.71 | 19.71 | 8.49 | 8.50 | 8.50 | 33.64 | 33.61 | 33.63 | 67.9 | 68.5 | 68.2 | 5.18 | 5.22 | 5.20 | 1.36 | 1.30 | 1.33 |

**Water Monitoring Result at F3 - Yung Shue Au Fish Culture Zone / Important Nursery Area for Commercial Fisheries Resources at Three Fathoms Cove**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth m | | Water Temperature °C | | | pH - | | | Salinity ppt | | | DO Saturation % | | | DO mg/L | | | Turbidity NTU | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 12:45 | Fine | Surface | 1.0 | 24.00 | 24.00 | 24.00 | 8.06 | 8.06 | 8.06 | 33.13 | 33.13 | 33.13 | 96.9 | 98.7 | 97.8 | 6.70 | 6.82 | 6.76 | 2.83 | 2.80 | 2.82 |
| | 12:47 | | Middle | 3.5 | 24.10 | 24.10 | 24.10 | 8.24 | 8.24 | 8.24 | 33.01 | 33.01 | 33.01 | 94.1 | 95.5 | 94.8 | 6.50 | 6.60 | 6.55 | 2.75 | 2.70 | 2.73 |
| | 12:49 | | Bottom | 6.0 | 24.20 | 24.20 | 24.20 | 8.31 | 8.31 | 8.31 | 33.02 | 33.02 | 33.02 | 82.2 | 92.4 | 87.3 | 6.36 | 6.38 | 6.37 | 2.61 | 2.65 | 2.63 |
| 1/12/2021 | 14:18 | Fine | Surface | 1.0 | 20.60 | 20.60 | 20.60 | 8.45 | 8.45 | 8.45 | 33.11 | 33.11 | 33.11 | 97.7 | 97.3 | 97.5 | 7.24 | 7.21 | 7.23 | 3.24 | 3.27 | 3.26 |
| | 14:20 | | Middle | 4.0 | 20.50 | 20.50 | 20.50 | 8.46 | 8.46 | 8.46 | 33.14 | 33.14 | 33.14 | 96.8 | 96.9 | 96.9 | 7.18 | 7.11 | 7.15 | 3.16 | 3.20 | 3.18 |
| | 14:22 | | Bottom | 7.0 | 20.40 | 20.40 | 20.40 | 8.48 | 8.48 | 8.48 | 33.13 | 33.13 | 33.13 | 97.7 | 96.3 | 97.0 | 7.25 | 7.14 | 7.20 | 2.72 | 2.91 | 2.82 |
| 2/12/2021 | 14:31 | Fine | Surface | 1.0 | 20.40 | 20.40 | 20.40 | 8.41 | 8.41 | 8.41 | 33.36 | 33.36 | 33.36 | 98.3 | 97.9 | 98.1 | 7.29 | 7.26 | 7.28 | 4.03 | 4.06 | 4.05 |
| | 14:33 | | Middle | 3.5 | 20.40 | 20.40 | 20.40 | 8.42 | 8.42 | 8.42 | 33.28 | 33.28 | 33.28 | 95.0 | 95.8 | 95.4 | 7.05 | 7.11 | 7.08 | 4.00 | 3.89 | 3.95 |
| | 14:35 | | Bottom | 6.0 | 20.40 | 20.40 | 20.40 | 8.42 | 8.42 | 8.42 | 33.28 | 33.28 | 33.28 | 94.9 | 94.5 | 94.7 | 7.04 | 7.01 | 7.03 | 3.98 | 4.10 | 4.04 |
| 3/12/2021 | 16:55 | Fine | Surface | 1.0 | 20.20 | 20.20 | 20.20 | 8.49 | 8.49 | 8.49 | 33.30 | 33.30 | 33.30 | 96.5 | 94.0 | 95.3 | 7.19 | 7.00 | 7.10 | 2.85 | 3.05 | 2.95 |
| | 16:57 | | Middle | 3.5 | 20.20 | 20.20 | 20.20 | 8.51 | 8.51 | 8.51 | 33.29 | 33.29 | 33.29 | 93.4 | 92.0 | 92.7 | 6.96 | 6.85 | 6.91 | 3.25 | 3.23 | 3.24 |
| | 16:59 | | Bottom | 6.0 | 20.20 | 20.20 | 20.20 | 8.51 | 8.51 | 8.51 | 33.28 | 33.29 | 33.29 | 93.9 | 94.1 | 94.0 | 7.00 | 7.02 | 7.01 | 3.29 | 3.30 | 3.30 |
| 6/12/2021 | 9:31 | Fine | Surface | 1.0 | 21.50 | 21.50 | 21.50 | 8.38 | 8.38 | 8.38 | 33.02 | 33.02 | 33.02 | 94.1 | 96.6 | 95.4 | 6.85 | 6.03 | 6.44 | 4.01 | 4.08 | 4.05 |
| | 9:33 | | Middle | 3.5 | 21.50 | 21.50 | 21.50 | 8.40 | 8.40 | 8.40 | 33.06 | 33.06 | 33.06 | 94.7 | 93.7 | 94.2 | 6.89 | 6.81 | 6.85 | 3.98 | 3.92 | 3.95 |
| | 9:35 | | Bottom | 6.0 | 21.50 | 21.50 | 21.50 | 8.42 | 8.42 | 8.42 | 33.06 | 33.06 | 33.06 | 92.4 | 94.0 | 93.2 | 6.72 | 6.84 | 6.78 | 4.10 | 4.07 | 4.09 |
| 8/12/2021 | 10:51 | Fine | Surface | 1.0 | 23.10 | 23.20 | 23.15 | 8.44 | 8.44 | 8.44 | 33.11 | 33.12 | 33.12 | 95.1 | 94.9 | 95.0 | 6.72 | 6.70 | 6.71 | 2.93 | 2.95 | 2.94 |
| | 10:53 | | Middle | 3.5 | 23.20 | 23.20 | 23.20 | 8.47 | 8.47 | 8.47 | 33.11 | 33.11 | 33.11 | 94.8 | 95.3 | 95.1 | 6.69 | 6.75 | 6.72 | 2.90 | 3.02 | 2.96 |
| | 10:55 | | Bottom | 6.0 | 23.20 | 23.20 | 23.20 | 8.47 | 8.47 | 8.47 | 33.11 | 33.11 | 33.11 | 94.0 | 93.8 | 93.9 | 6.67 | 6.65 | 6.66 | 2.87 | 2.89 | 2.88 |
| 10/12/2021 | 13:42 | Fine | Surface | 1.0 | 22.70 | 22.70 | 22.70 | 8.41 | 8.41 | 8.41 | 32.90 | 32.90 | 32.90 | 90.6 | 93.4 | 92.0 | 6.46 | 6.95 | 6.71 | 2.53 | 2.50 | 2.52 |
| | 13:44 | | Middle | 3.5 | 22.70 | 22.70 | 22.70 | 8.44 | 8.44 | 8.44 | 32.88 | 32.88 | 32.88 | 96.4 | 96.0 | 96.2 | 6.88 | 6.84 | 6.86 | 2.59 | 2.57 | 2.58 |
| | 13;46 | | Bottom | 6.0 | 22.80 | 22.70 | 22.75 | 8.44 | 8.44 | 8.44 | 32.88 | 32.88 | 32.88 | 92.8 | 92.8 | 92.8 | 6.82 | 6.65 | 6.74 | 2.54 | 2.51 | 2.53 |
| 13/12/2021 | 15:21 | Fine | Surface | 1.0 | 22.50 | 22.50 | 22.50 | 8.41 | 8.41 | 8.41 | 33.38 | 33.38 | 33.38 | 95.2 | 96.4 | 95.8 | 6.80 | 6.89 | 6.85 | 2.52 | 2.50 | 2.51 |
| | 15:23 | | Middle | 3.5 | 22.50 | 22.50 | 22.50 | 8.41 | 8.41 | 8.41 | 33.31 | 33.31 | 33.31 | 91.3 | 92.1 | 91.7 | 6.53 | 6.64 | 6.59 | 2.47 | 2.45 | 2.46 |
| | 15:25 | | Bottom | 6.0 | 22.50 | 22.50 | 22.50 | 8.45 | 8.45 | 8.45 | 33.31 | 33.31 | 33.31 | 89.4 | 89.9 | 89.7 | 6.41 | 6.51 | 6.46 | 2.42 | 2.49 | 2.46 |
| 15/12/2021 | 15:32 | Cloudy | Surface | 1.0 | 21.40 | 21.40 | 21.40 | 8.53 | 8.53 | 8.53 | 33.22 | 33.22 | 33.22 | 94.5 | 92.3 | 93.4 | 6.89 | 6.72 | 6.81 | 2.47 | 2.45 | 2.46 |
| | 15:34 | | Middle | 4.0 | 21.40 | 21.40 | 21.40 | 8.53 | 8.53 | 8.53 | 33.22 | 33.22 | 33.22 | 91.5 | 94.3 | 92.9 | 6.67 | 6.87 | 6.77 | 2.40 | 2.37 | 2.39 |
| | 15:36 | | Bottom | 7.0 | 21.40 | 21.40 | 21.40 | 8.53 | 8.53 | 8.53 | 33.22 | 33.22 | 33.22 | 92.1 | 94.2 | 93.2 | 6.70 | 6.86 | 6.78 | 2.46 | 2.43 | 2.45 |
| 17/12/2021 | 16:32 | Cloudy | Surface | 1.0 | 20.80 | 20.80 | 20.80 | 8.50 | 8.50 | 8.50 | 33.21 | 33.21 | 33.21 | 90.9 | 92.3 | 91.6 | 6.70 | 6.82 | 6.76 | 2.81 | 2.86 | 2.84 |
| | 16:34 | | Middle | 3.5 | 20.80 | 20.80 | 20.80 | 8.50 | 8.50 | 8.50 | 33.21 | 33.21 | 33.21 | 84.5 | 89.2 | 86.9 | 6.22 | 6.57 | 6.40 | 2.90 | 2.88 | 2.89 |
| | 16:36 | | Bottom | 6.0 | 20.80 | 20.80 | 20.80 | 8.51 | 8.51 | 8.51 | 33.21 | 33.21 | 33.21 | 96.3 | 94.1 | 95.2 | 7.09 | 6.93 | 7.01 | 2.80 | 2.76 | 2.78 |
| 20/12/2021 | 16:50 | Cloudy | Surface | 1.0 | 18.50 | 18.50 | 18.50 | 8.43 | 8.43 | 8.43 | 33.27 | 33.27 | 33.27 | 85.6 | 84.8 | 85.2 | 6.59 | 6.53 | 6.56 | 2.65 | 2.67 | 2.66 |
| | 16:52 | | Middle | 3.5 | 18.50 | 18.50 | 18.50 | 8.44 | 8.44 | 8.44 | 33.47 | 33.47 | 33.47 | 82.7 | 81.1 | 81.9 | 6.37 | 6.25 | 6.31 | 2.60 | 2.62 | 2.61 |
| | 16:54 | | Bottom | 6.0 | 18.40 | 18.40 | 18.40 | 8.44 | 8.44 | 8.44 | 33.45 | 33.45 | 33.45 | 76.4 | 77.8 | 77.1 | 5.88 | 6.01 | 5.95 | 2.63 | 2.64 | 2.64 |
| 22/12/2021 | 9:11 | Cloudy | Surface | 1.0 | 20.80 | 20.80 | 20.80 | 8.42 | 8.42 | 8.42 | 33.08 | 33.08 | 33.08 | 85.8 | 84.8 | 85.3 | 6.32 | 6.24 | 6.28 | 2.43 | 2.40 | 2.42 |
| | 9:13 | | Middle | 3.5 | 20.80 | 20.80 | 20.80 | 8.42 | 8.42 | 8.42 | 33.08 | 33.08 | 33.08 | 80.3 | 81.5 | 80.9 | 5.92 | 6.00 | 5.96 | 2.44 | 2.46 | 2.45 |
| | 9:15 | | Bottom | 6.0 | 20.80 | 20.80 | 20.80 | 8.43 | 8.43 | 8.43 | 33.09 | 33.09 | 33.09 | 74.3 | 73.3 | 73.8 | 5.48 | 5.40 | 5.44 | 2.38 | 2.36 | 2.37 |
| 24/12/2021 | 9:55 | Cloudy | Surface | 1.0 | 20.40 | 20.40 | 20.40 | 8.29 | 8.29 | 8.29 | 32.98 | 32.98 | 32.98 | 81.8 | 8.1 | 44.9 | 6.07 | 5.99 | 6.03 | 2.25 | 2.23 | 2.24 |
| | 9:57 | | Middle | 4.0 | 20.50 | 20.50 | 20.50 | 8.30 | 8.30 | 8.30 | 32.94 | 32.94 | 32.94 | 78.3 | 75.6 | 77.0 | 5.82 | 5.61 | 5.72 | 2.20 | 2.18 | 2.19 |
| | 9:59 | | Bottom | 7.0 | 20.50 | 20.50 | 20.50 | 8.30 | 8.30 | 8.30 | 32.93 | 32.93 | 32.93 | 77.0 | 74.9 | 76.0 | 5.72 | 5.56 | 5.64 | 2.27 | 2.29 | 2.28 |
| 27/12/2021 | 11:24 | Cloudy | Surface | 1.0 | 16.00 | 16.00 | 16.00 | 8.35 | 8.35 | 8.35 | 32.85 | 32.85 | 32.85 | 96.5 | 96.4 | 96.5 | 7.80 | 7.79 | 7.80 | 2.60 | 2.56 | 2.58 |
| | 11:26 | | Middle | 3.5 | 16.00 | 16.00 | 16.00 | 8.37 | 8.37 | 8.37 | 32.88 | 32.88 | 32.88 | 93.5 | 92.9 | 93.2 | 7.56 | 7.52 | 7.54 | 2.54 | 2.56 | 2.55 |
| | 11:28 | | Bottom | 6.0 | 16.00 | 15.90 | 15.95 | 8.38 | 8.38 | 8.38 | 32.88 | 32.88 | 32.88 | 91.7 | 91.1 | 91.4 | 7.43 | 7.37 | 7.40 | 2.51 | 2.48 | 2.50 |
| 29/12/2021 | 15:14 | Fine | Surface | 1.0 | 21.70 | 21.70 | 21.70 | 8.41 | 8.41 | 8.41 | 33.45 | 33.45 | 33.45 | 96.1 | 95.4 | 95.8 | 6.91 | 6.84 | 6.88 | 2.52 | 2.50 | 2.51 |
| | 15:16 | | Middle | 3.5 | 21.90 | 21.90 | 21.90 | 8.44 | 8.44 | 8.44 | 33.28 | 33.28 | 33.28 | 93.2 | 93.9 | 93.5 | 6.67 | 6.72 | 6.70 | 2.56 | 2.59 | 2.58 |
| | 15:18 | | Bottom | 6.0 | 21.80 | 21.80 | 21.80 | 8.46 | 8.46 | 8.46 | 33.30 | 33.30 | 33.30 | 78.6 | 87.0 | 82.8 | 6.87 | 6.81 | 6.84 | 2.48 | 2.46 | 2.47 |

**Water Monitoring Result at F3 - Yung Shue Au Fish Culture Zone / Important Nursery Area for Commercial Fisheries Resources at Three Fathoms Cove**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 8:45 | Fine | Surface | 1.0 | 23.00 | 23.00 | 23.00 | 8.09 | 8.09 | 8.09 | 32.58 | 32.58 | 32.58 | 93.7 | 91.9 | 92.8 | 6.67 | 6.65 | 6.66 | 4.33 | 4.31 | 4.32 |
| | 8:47 | | Middle | 3.0 | 23.00 | 23.00 | 23.00 | 8.32 | 8.00 | 8.16 | 32.92 | 32.92 | 32.92 | 93.2 | 93.0 | 93.1 | 6.63 | 6.62 | 6.63 | 4.37 | 4.42 | 4.40 |
| | 8:49 | | Bottom | 6.0 | 23.00 | 23.00 | 23.00 | 8.35 | 8.35 | 8.35 | 32.74 | 32.74 | 32.74 | 93.5 | 94.2 | 93.9 | 6.66 | 6.71 | 6.69 | 4.36 | 4.37 | 4.37 |
| 1/12/2021 | 12:21 | Fine | Surface | 1.0 | 20.10 | 20.10 | 20.10 | 8.45 | 8.45 | 8.45 | 33.17 | 33.17 | 33.17 | 94.7 | 92.5 | 93.6 | 7.07 | 6.91 | 6.99 | 3.31 | 3.30 | 3.31 |
| | 12:23 | | Middle | 3.5 | 20.10 | 20.10 | 20.10 | 8.45 | 8.45 | 8.45 | 33.17 | 33.17 | 33.17 | 94.9 | 93.3 | 94.1 | 7.09 | 6.94 | 7.02 | 3.34 | 3.36 | 3.35 |
| | 12:25 | | Bottom | 6.0 | 20.10 | 20.10 | 20.10 | 8.45 | 8.45 | 8.45 | 33.17 | 33.17 | 33.17 | 92.1 | 93.2 | 92.7 | 6.99 | 6.97 | 6.98 | 3.29 | 3.27 | 3.28 |
| 2/12/2021 | 10:10 | Fine | Surface | 1.0 | 21.10 | 21.10 | 21.10 | 8.43 | 8.43 | 8.43 | 33.21 | 33.21 | 33.21 | 96.9 | 96.4 | 96.7 | 7.15 | 7.10 | 7.13 | 3.59 | 3.56 | 3.58 |
| | 10:12 | | Middle | 3.5 | 20.80 | 21.00 | 20.90 | 8.44 | 8.44 | 8.44 | 33.27 | 33.27 | 33.27 | 95.0 | 96.6 | 95.8 | 7.02 | 7.13 | 7.08 | 3.50 | 3.42 | 3.46 |
| | 10:14 | | Bottom | 6.0 | 20.80 | 20.70 | 20.75 | 8.45 | 8.45 | 8.45 | 33.27 | 33.27 | 33.27 | 92.9 | 95.9 | 94.4 | 6.87 | 7.07 | 6.97 | 3.29 | 3.17 | 3.23 |
| 3/12/2021 | 11:48 | Fine | Surface | 1.0 | 21.00 | 21.00 | 21.00 | 8.46 | 8.46 | 8.46 | 33.32 | 33.32 | 33.32 | 96.0 | 97.2 | 96.6 | 7.05 | 7.15 | 7.10 | 5.02 | 5.06 | 5.04 |
| | 11:50 | | Middle | 3.5 | 20.80 | 20.80 | 20.80 | 8.48 | 8.48 | 8.48 | 33.33 | 33.33 | 33.33 | 95.3 | 95.8 | 95.6 | 7.01 | 7.04 | 7.03 | 5.12 | 5.10 | 5.11 |
| | 11:52 | | Bottom | 6.0 | 20.80 | 20.80 | 20.80 | 8.49 | 8.49 | 8.49 | 33.34 | 33.34 | 33.34 | 93.8 | 96.6 | 95.2 | 6.90 | 7.02 | 6.96 | 4.98 | 4.76 | 4.87 |
| 6/12/2021 | 14:34 | Fine | Surface | 1.0 | 23.70 | 23.40 | 23.55 | 8.47 | 8.47 | 8.47 | 33.22 | 33.22 | 33.22 | 92.4 | 93.7 | 93.1 | 6.49 | 6.45 | 6.47 | 2.80 | 2.78 | 2.79 |
| | 14:36 | | Middle | 3.5 | 23.30 | 23.20 | 23.25 | 8.48 | 8.48 | 8.48 | 33.19 | 33.19 | 33.19 | 96.1 | 95.5 | 95.8 | 4.75 | 6.71 | 5.73 | 2.69 | 2.74 | 2.72 |
| | 14:38 | | Bottom | 6.0 | 23.50 | 23.50 | 23.50 | 8.48 | 8.48 | 8.48 | 33.19 | 33.20 | 33.20 | 97.8 | 95.4 | 96.6 | 6.86 | 6.70 | 6.78 | 2.79 | 2.71 | 2.75 |
| 8/12/2021 | 16:12 | Fine | Surface | 1.0 | 21.30 | 21.30 | 21.30 | 8.47 | 8.47 | 8.47 | 33.11 | 33.11 | 33.11 | 94.0 | 93.2 | 93.6 | 6.84 | 6.78 | 6.81 | 2.75 | 2.71 | 2.73 |
| | 16:14 | | Middle | 3.5 | 21.30 | 21.30 | 21.30 | 8.47 | 8.47 | 8.47 | 33.29 | 33.29 | 33.29 | 92.2 | 91.7 | 92.0 | 6.73 | 6.69 | 6.71 | 2.70 | 2.67 | 2.69 |
| | 16:16 | | Bottom | 6.0 | 21.30 | 21.30 | 21.30 | 8.48 | 8.48 | 8.48 | 33.25 | 33.25 | 33.25 | 90.3 | 90.8 | 90.6 | 6.59 | 6.63 | 6.61 | 2.63 | 2.69 | 2.66 |
| 10/12/2021 | 18:00 | Fine | Surface | 1.0 | 20.80 | 20.80 | 20.80 | 8.51 | 8.51 | 8.51 | 33.08 | 33.08 | 33.08 | 93.8 | 92.3 | 93.1 | 6.92 | 6.81 | 6.87 | 2.56 | 2.58 | 2.57 |
| | 18:02 | | Middle | 3.5 | 20.80 | 20.80 | 20.80 | 8.53 | 8.53 | 8.53 | 33.08 | 33.08 | 33.08 | 86.2 | 84.2 | 85.2 | 6.36 | 6.21 | 6.29 | 2.64 | 2.61 | 2.63 |
| | 18:04 | | Bottom | 6.0 | 20.80 | 20.80 | 20.80 | 8.53 | 8.53 | 8.53 | 33.08 | 33.08 | 33.08 | 82.3 | 81.1 | 81.7 | 6.07 | 5.98 | 6.03 | 2.60 | 2.53 | 2.57 |
| 13/12/2021 | 9:04 | Fine | Surface | 1.0 | 22.40 | 22.50 | 22.45 | 8.23 | 8.23 | 8.23 | 33.19 | 33.15 | 33.17 | 93.4 | 96.7 | 95.1 | 6.67 | 6.90 | 6.79 | 2.60 | 2.64 | 2.62 |
| | 9:06 | | Middle | 3.0 | 22.70 | 22.70 | 22.70 | 8.41 | 8.41 | 8.41 | 33.03 | 33.03 | 33.03 | 93.8 | 91.4 | 92.6 | 6.69 | 6.52 | 6.61 | 2.53 | 2.50 | 2.52 |
| | 9:08 | | Bottom | 6.0 | 22.70 | 22.70 | 22.70 | 8.43 | 8.43 | 8.43 | 33.01 | 33.01 | 33.01 | 98.3 | 98.3 | 98.3 | 7.01 | 7.01 | 7.01 | 2.57 | 2.59 | 2.58 |
| 15/12/2021 | 10:06 | Cloudy | Surface | 1.0 | 21.60 | 21.60 | 21.60 | 8.24 | 8.24 | 8.24 | 32.74 | 32.74 | 32.74 | 87.4 | 83.4 | 85.4 | 6.14 | 6.07 | 6.11 | 2.88 | 2.90 | 2.89 |
| | 10:08 | | Middle | 3.5 | 21.60 | 21.60 | 21.60 | 8.33 | 8.33 | 8.33 | 32.81 | 32.81 | 32.81 | 95.9 | 96.5 | 96.2 | 6.97 | 7.02 | 7.00 | 2.85 | 2.82 | 2.84 |
| | 10:10 | | Bottom | 6.0 | 21.60 | 21.60 | 21.60 | 8.37 | 8.37 | 8.37 | 32.82 | 32.82 | 32.82 | 92.8 | 90.3 | 91.6 | 6.76 | 6.57 | 6.67 | 2.91 | 2.87 | 2.89 |
| 17/12/2021 | 10:10 | Cloudy | Surface | 1.0 | 22.30 | 22.30 | 22.30 | 8.27 | 8.27 | 8.27 | 33.03 | 33.03 | 33.03 | 87.7 | 87.1 | 87.4 | 6.30 | 6.23 | 6.27 | 2.35 | 2.40 | 2.38 |
| | 10:12 | | Middle | 3.5 | 22.20 | 22.20 | 22.20 | 8.29 | 8.29 | 8.29 | 33.06 | 33.06 | 33.06 | 88.1 | 88.4 | 88.3 | 6.33 | 6.36 | 6.35 | 2.29 | 2.25 | 2.27 |
| | 10:14 | | Bottom | 6.0 | 22.20 | 22.20 | 22.20 | 8.35 | 8.35 | 8.35 | 33.09 | 33.09 | 33.09 | 88.0 | 90.8 | 89.4 | 6.33 | 6.52 | 6.43 | 2.26 | 2.23 | 2.25 |
| 20/12/2021 | 11:45 | Cloudy | Surface | 1.0 | 16.90 | 16.90 | 16.90 | 8.40 | 8.40 | 8.40 | 33.21 | 33.21 | 33.21 | 93.1 | 93.3 | 93.2 | 7.39 | 7.41 | 7.40 | 2.67 | 2.72 | 2.70 |
| | 11:47 | | Middle | 3.5 | 16.90 | 16.90 | 16.90 | 8.41 | 8.41 | 8.41 | 33.21 | 33.21 | 33.21 | 89.8 | 85.4 | 87.6 | 7.14 | 6.78 | 6.96 | 2.75 | 2.74 | 2.75 |
| | 11:49 | | Bottom | 6.0 | 16.90 | 16.90 | 16.90 | 8.40 | 8.40 | 8.40 | 33.22 | 33.22 | 33.22 | 86.5 | 86.0 | 86.3 | 6.87 | 6.82 | 6.85 | 2.64 | 2.69 | 2.67 |
| 22/12/2021 | 15:08 | Cloudy | Surface | 1.0 | 21.40 | 21.40 | 21.40 | 8.45 | 8.45 | 8.45 | 33.16 | 33.16 | 33.16 | 83.4 | 83.2 | 83.3 | 6.18 | 6.16 | 6.17 | 2.60 | 2.62 | 2.61 |
| | 15:10 | | Middle | 3.5 | 21.60 | 21.60 | 21.60 | 8.46 | 8.46 | 8.46 | 33.06 | 33.06 | 33.06 | 84.1 | 82.4 | 83.3 | 6.20 | 6.10 | 6.15 | 2.54 | 2.51 | 2.53 |
| | 15:12 | | Bottom | 6.0 | 21.60 | 21.60 | 21.60 | 8.46 | 8.46 | 8.46 | 33.06 | 33.06 | 33.06 | 80.9 | 81.7 | 81.3 | 5.98 | 6.02 | 6.00 | 2.50 | 2.55 | 2.53 |
| 27/12/2021 | 19:35 | Cloudy | Surface | 1.0 | 16.50 | 16.50 | 16.50 | 8.47 | 8.47 | 8.47 | 33.29 | 33.29 | 33.29 | 83.4 | 83.1 | 83.3 | 6.64 | 6.62 | 6.63 | 2.58 | 2.63 | 2.61 |
| | 19:37 | | Middle | 4.0 | 16.40 | 16.40 | 16.40 | 8.47 | 8.47 | 8.47 | 33.31 | 33.31 | 33.31 | 81.3 | 82.0 | 81.7 | 6.48 | 6.54 | 6.51 | 2.60 | 2.64 | 2.62 |
| | 19:39 | | Bottom | 7.0 | 16.40 | 16.40 | 16.40 | 8.47 | 8.47 | 8.47 | 33.32 | 33.32 | 33.32 | 81.7 | 81.8 | 81.8 | 6.52 | 6.52 | 6.52 | 2.53 | 2.50 | 2.52 |
| 29/12/2021 | 9:01 | Fine | Surface | 1.0 | 22.30 | 22.30 | 22.30 | 8.37 | 8.37 | 8.37 | 32.86 | 32.86 | 32.86 | 93.5 | 95.3 | 94.4 | 6.70 | 6.83 | 6.77 | 2.28 | 2.25 | 2.27 |
| | 9:03 | | Middle | 3.5 | 22.30 | 22.30 | 22.30 | 8.39 | 8.39 | 8.39 | 32.80 | 32.80 | 32.80 | 95.6 | 95.9 | 95.8 | 6.86 | 6.89 | 6.88 | 2.21 | 2.24 | 2.23 |
| | 9:05 | | Bottom | 6.0 | 22.30 | 22.30 | 22.30 | 8.39 | 8.39 | 8.39 | 32.74 | 32.74 | 32.74 | 85.8 | 85.2 | 85.5 | 6.15 | 6.09 | 6.12 | 2.18 | 2.20 | 2.19 |
| 31/12/2021 | 9:38 | Cloudy | Surface | 1.0 | 19.21 | 19.19 | 19.20 | 8.02 | 8.02 | 8.02 | 31.86 | 31.86 | 31.86 | 84.4 | 84.5 | 84.5 | 6.45 | 6.46 | 6.46 | 1.80 | 1.82 | 1.81 |
| | 9:40 | | Middle | 3.5 | 19.33 | 19.32 | 19.33 | 8.05 | 8.05 | 8.05 | 32.20 | 32.20 | 32.20 | 89.4 | 89.0 | 89.2 | 6.81 | 6.78 | 6.80 | 1.56 | 1.59 | 1.58 |
| | 9:42 | | Bottom | 6.0 | 19.32 | 19.31 | 19.32 | 7.99 | 7.98 | 7.99 | 32.37 | 32.38 | 32.38 | 79.5 | 79.3 | 79.4 | 6.05 | 6.03 | 6.04 | 2.31 | 2.35 | 2.33 |

**Water Monitoring Result at F4 - Lo Fu Wat Fish Culture Zone**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 14:42 | Fine | Surface | 1.0 | 23.40 | 23.40 | 23.40 | 8.43 | 8.43 | 8.43 | 33.13 | 33.13 | 33.13 | 98.9 | 99.3 | 99.1 | 6.94 | 6.96 | 6.95 | 2.78 | 2.35 | 2.57 |
| | 14:44 | | Middle | 6.0 | 23.60 | 23.60 | 23.60 | 8.45 | 8.45 | 8.45 | 33.10 | 33.10 | 33.10 | 98.0 | 98.3 | 98.2 | 6.87 | 6.88 | 6.88 | 2.25 | 2.15 | 2.20 |
| | 14:46 | | Bottom | 11.0 | 23.70 | 23.70 | 23.70 | 8.45 | 8.45 | 8.45 | 33.10 | 33.10 | 33.10 | 97.1 | 97.8 | 97.5 | 6.79 | 6.84 | 6.82 | 2.13 | 2.11 | 2.12 |
| 1/12/2021 | 15:15 | Fine | Surface | 1.0 | 20.90 | 20.90 | 20.90 | 8.49 | 8.49 | 8.49 | 33.36 | 33.36 | 33.36 | 96.2 | 96.7 | 96.5 | 7.09 | 7.13 | 7.11 | 2.70 | 2.78 | 2.74 |
| | 15:17 | | Middle | 6.0 | 20.70 | 20.70 | 20.70 | 8.49 | 8.49 | 8.49 | 33.36 | 33.36 | 33.36 | 96.0 | 96.3 | 96.2 | 7.08 | 7.10 | 7.09 | 2.71 | 2.76 | 2.74 |
| | 15:19 | | Bottom | 11.0 | 20.70 | 20.60 | 20.65 | 8.49 | 8.49 | 8.49 | 33.36 | 33.36 | 33.36 | 93.9 | 94.9 | 94.4 | 6.93 | 7.01 | 6.97 | 2.84 | 2.80 | 2.82 |
| 2/12/2021 | 15:50 | Fine | Surface | 1.0 | 20.60 | 20.60 | 20.60 | 8.47 | 8.47 | 8.47 | 33.40 | 33.40 | 33.40 | 96.0 | 96.3 | 96.2 | 7.10 | 7.13 | 7.12 | 2.17 | 2.15 | 2.16 |
| | 15:52 | | Middle | 6.0 | 20.60 | 20.60 | 20.60 | 8.47 | 8.47 | 8.47 | 33.47 | 33.47 | 33.47 | 97.1 | 95.4 | 96.3 | 7.19 | 7.06 | 7.13 | 2.10 | 2.12 | 2.11 |
| | 15:54 | | Bottom | 10.0 | 20.50 | 20.50 | 20.50 | 8.47 | 8.47 | 8.47 | 33.43 | 33.43 | 33.43 | 98.7 | 98.0 | 98.4 | 7.31 | 7.26 | 7.29 | 2.14 | 2.21 | 2.18 |
| 3/12/2021 | 15:18 | Fine | Surface | 1.0 | 20.10 | 20.10 | 20.10 | 8.48 | 8.48 | 8.48 | 33.44 | 33.44 | 33.44 | 96.1 | 96.4 | 96.3 | 7.18 | 7.40 | 7.29 | 2.63 | 2.70 | 2.67 |
| | 15:20 | | Middle | 6.0 | 19.90 | 20.00 | 19.95 | 8.48 | 8.48 | 8.48 | 33.45 | 33.45 | 33.45 | 93.0 | 92.1 | 92.6 | 6.95 | 6.89 | 6.92 | 2.84 | 2.87 | 2.86 |
| | 15:22 | | Bottom | 11.0 | 19.80 | 19.80 | 19.80 | 8.48 | 8.48 | 8.48 | 33.46 | 33.46 | 33.46 | 92.5 | 93.3 | 92.9 | 6.92 | 6.99 | 6.96 | 2.91 | 3.11 | 3.01 |
| 6/12/2021 | 10:55 | Fine | Surface | 1.0 | 21.70 | 21.70 | 21.70 | 8.47 | 8.47 | 8.47 | 33.34 | 33.34 | 33.34 | 96.8 | 98.7 | 97.8 | 7.01 | 7.15 | 7.08 | 2.92 | 2.98 | 2.95 |
| | 10:57 | | Middle | 6.0 | 21.60 | 21.60 | 21.60 | 8.47 | 8.47 | 8.47 | 33.35 | 33.35 | 33.35 | 95.2 | 95.0 | 95.1 | 6.90 | 6.90 | 6.90 | 2.86 | 2.90 | 2.88 |
| | 10:59 | | Bottom | 11.0 | 21.60 | 21.60 | 21.60 | 8.48 | 8.48 | 8.48 | 33.35 | 33.35 | 33.35 | 93.7 | 94.9 | 94.3 | 6.80 | 6.89 | 6.85 | 2.94 | 2.87 | 2.91 |
| 8/12/2021 | 12:56 | Fine | Surface | 1.0 | 22.00 | 22.00 | 22.00 | 8.53 | 8.53 | 8.53 | 33.31 | 33.31 | 33.31 | 93.1 | 96.6 | 94.9 | 6.71 | 6.96 | 6.84 | 2.92 | 2.96 | 2.94 |
| | 12:58 | | Middle | 5.5 | 22.00 | 22.00 | 22.00 | 8.53 | 8.53 | 8.53 | 33.31 | 33.31 | 33.31 | 94.1 | 93.9 | 94.0 | 6.68 | 6.66 | 6.67 | 2.98 | 2.93 | 2.96 |
| | 13:00 | | Bottom | 10.0 | 22.00 | 22.00 | 22.00 | 8.53 | 8.53 | 8.53 | 33.31 | 33.31 | 33.31 | 95.0 | 94.7 | 94.9 | 6.71 | 6.68 | 6.70 | 2.90 | 2.84 | 2.87 |
| 10/12/2021 | 15:21 | Fine | Surface | 1.0 | 21.60 | 21.60 | 21.60 | 8.49 | 8.49 | 8.49 | 33.36 | 33.36 | 33.36 | 91.9 | 93.2 | 92.6 | 6.67 | 6.76 | 6.72 | 2.57 | 2.60 | 2.59 |
| | 15;23 | | Middle | 5.5 | 21.60 | 21.60 | 21.60 | 8.49 | 8.49 | 8.49 | 33.35 | 33.35 | 33.35 | 92.7 | 91.0 | 91.9 | 6.73 | 6.60 | 6.67 | 2.55 | 2.52 | 2.54 |
| | 15:25 | | Bottom | 10.0 | 21.60 | 21.60 | 21.60 | 8.49 | 8.49 | 8.49 | 33.35 | 33.35 | 33.35 | 86.7 | 86.3 | 86.5 | 6.29 | 6.26 | 6.28 | 2.50 | 2.53 | 2.52 |
| 13/12/2021 | 13:06 | Fine | Surface | 1.0 | 21.40 | 21.40 | 21.40 | 8.51 | 8.51 | 8.51 | 33.53 | 33.51 | 33.52 | 93.9 | 93.6 | 93.8 | 6.83 | 6.80 | 6.82 | 2.39 | 2.41 | 2.40 |
| | 13:08 | | Middle | 6.0 | 21.40 | 21.40 | 21.40 | 8.51 | 8.51 | 8.51 | 33.51 | 33.51 | 33.51 | 80.7 | 80.6 | 80.7 | 5.88 | 5.87 | 5.88 | 2.34 | 2.37 | 2.36 |
| | 13:10 | | Bottom | 11.0 | 21.40 | 21.40 | 21.40 | 8.51 | 8.51 | 8.51 | 33.46 | 33.46 | 33.46 | 85.7 | 84.7 | 85.2 | 6.24 | 6.16 | 6.20 | 2.40 | 2.43 | 2.42 |
| 15/12/2021 | 13:43 | Cloudy | Surface | 1.0 | 21.30 | 21.30 | 21.30 | 8.53 | 8.53 | 8.53 | 33.31 | 33.31 | 33.31 | 94.4 | 94.8 | 94.6 | 6.89 | 6.94 | 6.92 | 2.34 | 2.36 | 2.35 |
| | 13:45 | | Middle | 6.0 | 21.30 | 21.30 | 21.30 | 8.53 | 8.53 | 8.53 | 33.31 | 33.31 | 33.31 | 93.2 | 92.9 | 93.1 | 6.69 | 6.78 | 6.74 | 2.40 | 2.37 | 2.39 |
| | 13:47 | | Bottom | 11.0 | 21.30 | 21.30 | 21.30 | 8.53 | 8.53 | 8.53 | 33.31 | 33.31 | 33.31 | 88.2 | 89.1 | 88.7 | 6.44 | 6.49 | 6.47 | 2.31 | 2.33 | 2.32 |
| 17/12/2021 | 14:51 | Cloudy | Surface | 1.0 | 20.80 | 20.80 | 20.80 | 8.52 | 8.52 | 8.52 | 33.48 | 33.48 | 33.48 | 93.9 | 91.1 | 92.5 | 6.95 | 6.71 | 6.83 | 2.59 | 2.66 | 2.63 |
| | 14:53 | | Middle | 5.5 | 20.80 | 20.80 | 20.80 | 8.52 | 8.52 | 8.52 | 33.49 | 33.49 | 33.49 | 88.1 | 90.3 | 89.2 | 6.49 | 6.64 | 6.57 | 2.64 | 2.61 | 2.63 |
| | 14:55 | | Bottom | 10.0 | 20.80 | 20.80 | 20.80 | 8.52 | 8.52 | 8.52 | 33.49 | 33.49 | 33.49 | 92.4 | 91.9 | 92.2 | 6.80 | 6.79 | 6.80 | 2.55 | 2.48 | 2.52 |
| 20/12/2021 | 15:23 | Cloudy | Surface | 1.0 | 18.00 | 18.00 | 18.00 | 8.48 | 8.48 | 8.48 | 33.72 | 33.72 | 33.72 | 86.2 | 83.5 | 84.9 | 6.68 | 6.48 | 6.58 | 2.45 | 2.40 | 2.43 |
| | 15;25 | | Middle | 5.5 | 17.80 | 17.80 | 17.80 | 8.48 | 8.48 | 8.48 | 33.73 | 33.73 | 33.73 | 81.9 | 82.6 | 82.3 | 6.29 | 6.41 | 6.35 | 2.50 | 2.54 | 2.52 |
| | 15:27 | | Bottom | 10.0 | 17.80 | 17.80 | 17.80 | 8.48 | 8.48 | 8.48 | 33.73 | 33.73 | 33.73 | 884.9 | 83.0 | 484.0 | 6.58 | 6.45 | 6.52 | 2.47 | 2.42 | 2.45 |
| 22/12/2021 | 11:15 | Cloudy | Surface | 1.0 | 20.50 | 20.50 | 20.50 | 8.46 | 8.46 | 8.46 | 33.51 | 33.51 | 33.51 | 90.1 | 90.5 | 90.3 | 6.66 | 6.70 | 6.68 | 2.41 | 2.39 | 2.40 |
| | 11:17 | | Middle | 6.0 | 20.50 | 20.50 | 20.50 | 8.46 | 8.46 | 8.46 | 33.51 | 33.51 | 33.51 | 81.7 | 82.0 | 81.9 | 6.04 | 6.06 | 6.05 | 2.34 | 2.37 | 2.36 |
| | 11:19 | | Bottom | 11.0 | 20.50 | 20.50 | 20.50 | 8.46 | 8.46 | 8.46 | 33.51 | 33.51 | 33.51 | 83.0 | 82.9 | 83.0 | 6.14 | 6.13 | 6.14 | 2.28 | 2.30 | 2.29 |
| 24/12/2021 | 11:22 | Cloudy | Surface | 1.0 | 20.20 | 20.20 | 20.20 | 8.43 | 8.43 | 8.43 | 33.16 | 33.16 | 33.16 | 92.5 | 96.4 | 94.5 | 6.90 | 7.17 | 7.04 | 2.20 | 2.18 | 2.19 |
| | 1:24 | | Middle | 6.0 | 20.20 | 20.20 | 20.20 | 8.44 | 8.44 | 8.44 | 33.15 | 33.15 | 33.15 | 90.6 | 89.2 | 89.9 | 6.73 | 6.63 | 6.68 | 2.16 | 2.13 | 2.15 |
| | 11:26 | | Bottom | 11.0 | 20.20 | 20.20 | 20.20 | 8.44 | 8.44 | 8.44 | 33.15 | 33.15 | 33.15 | 84.4 | 84.8 | 84.6 | 6.29 | 6.31 | 6.30 | 2.21 | 2.24 | 2.23 |
| 27/12/2021 | 13:08 | Cloudy | Surface | 1.0 | 17.20 | 17.20 | 17.20 | 8.43 | 8.43 | 8.43 | 33.53 | 33.53 | 33.53 | 85.1 | 84.5 | 84.8 | 6.70 | 6.65 | 6.68 | 2.99 | 2.95 | 2.97 |
| | 13:10 | | Middle | 5.5 | 17.00 | 16.90 | 16.95 | 8.43 | 8.43 | 8.43 | 33.53 | 33.53 | 33.53 | 84.0 | 85.7 | 84.9 | 6.62 | 6.76 | 6.69 | 2.92 | 2.90 | 2.91 |
| | 13:12 | | Bottom | 10.0 | 16.90 | 16.90 | 16.90 | 8.43 | 8.43 | 8.43 | 33.67 | 33.67 | 33.67 | 85.3 | 85.3 | 85.3 | 6.72 | 6.73 | 6.73 | 2.96 | 2.94 | 2.95 |
| 29/12/2021 | 13:13 | Fine | Surface | 1.0 | 21.70 | 21.70 | 21.70 | 8.46 | 8.46 | 8.46 | 33.51 | 33.51 | 33.51 | 93.5 | 93.9 | 93.7 | 6.77 | 6.83 | 6.80 | 2.34 | 2.30 | 2.32 |
| | 13:15 | | Middle | 5.5 | 21.70 | 21.70 | 21.70 | 8.47 | 8.47 | 8.47 | 33.51 | 33.51 | 33.51 | 88.1 | 87.6 | 87.9 | 6.92 | 6.87 | 6.90 | 2.36 | 2.39 | 2.38 |
| | 13:17 | | Bottom | 10.0 | 21.70 | 21.70 | 21.70 | 8.47 | 8.47 | 8.47 | 33.51 | 33.51 | 33.51 | 87.4 | 87.6 | 87.5 | 6.34 | 6.36 | 6.35 | 2.35 | 2.31 | 2.33 |

**Water Monitoring Result at F4 - Lo Fu Wat Fish Culture Zone**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Water Temperature | °C | | pH | - | | Salinity | ppt | | DO Saturation | % | | DO | mg/L | | Turbidity | NTU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 10:10 | Fine | Surface | 1.0 | 22.30 | 22.30 | 22.30 | 8.44 | 8.44 | 8.44 | 33.01 | 33.01 | 33.01 | 95.6 | 95.9 | 95.8 | 6.57 | 6.89 | 6.73 | 3.64 | 3.69 | 3.67 |
| | 10:12 | | Middle | 5.5 | 22.30 | 22.30 | 22.30 | 8.46 | 8.46 | 8.46 | 32.98 | 32.98 | 32.98 | 95.1 | 96.7 | 95.9 | 6.85 | 6.96 | 6.91 | 3.71 | 3.67 | 3.69 |
| | 10:14 | | Bottom | 10.0 | 22.40 | 22.40 | 22.40 | 8.48 | 8.48 | 8.48 | 32.99 | 32.99 | 32.99 | 93.3 | 96.9 | 95.1 | 6.69 | 6.95 | 6.82 | 3.45 | 3.42 | 3.44 |
| 1/12/2021 | 11:08 | Fine | Surface | 1.0 | 21.60 | 21.60 | 21.60 | 8.46 | 8.46 | 8.46 | 33.27 | 33.27 | 33.27 | 94.2 | 97.7 | 96.0 | 6.88 | 6.92 | 6.90 | 3.06 | 3.01 | 3.04 |
| | 11:10 | | Middle | 6.0 | 21.30 | 21.30 | 21.30 | 8.46 | 8.46 | 8.46 | 33.33 | 33.33 | 33.33 | 93.3 | 93.0 | 93.2 | 6.83 | 6.81 | 6.82 | 3.04 | 3.02 | 3.03 |
| | 11:12 | | Bottom | 11.0 | 21.30 | 21.30 | 21.30 | 8.46 | 8.46 | 8.46 | 33.33 | 33.33 | 33.33 | 94.2 | 95.6 | 94.9 | 6.91 | 7.00 | 6.96 | 2.98 | 2.95 | 2.97 |
| 2/12/2021 | 11:35 | Fine | Surface | 1.0 | 21.40 | 21.40 | 21.40 | 8.45 | 8.45 | 8.45 | 33.43 | 33.43 | 33.43 | 93.0 | 93.9 | 93.5 | 6.78 | 6.86 | 6.82 | 2.89 | 2.99 | 2.94 |
| | 11:37 | | Middle | 6.0 | 21.20 | 21.20 | 21.20 | 8.45 | 8.45 | 8.45 | 33.47 | 33.47 | 33.47 | 92.7 | 94.2 | 93.5 | 6.77 | 6.89 | 6.83 | 3.07 | 3.04 | 3.06 |
| | 11:39 | | Bottom | 11.0 | 21.10 | 21.10 | 21.10 | 8.45 | 8.45 | 8.45 | 33.48 | 33.48 | 33.48 | 93.3 | 93.9 | 93.6 | 6.82 | 6.87 | 6.85 | 3.08 | 3.05 | 3.07 |
| 3/12/2021 | 13:17 | Fine | Surface | 1.0 | 20.90 | 20.90 | 20.90 | 8.46 | 8.46 | 8.46 | 33.48 | 33.48 | 33.48 | 97.0 | 97.0 | 97.0 | 7.14 | 7.15 | 7.15 | 4.58 | 4.55 | 4.57 |
| | 13:19 | | Middle | 6.0 | 20.70 | 20.70 | 20.70 | 8.46 | 8.46 | 8.46 | 33.48 | 33.48 | 33.48 | 96.1 | 96.4 | 96.3 | 7.07 | 7.10 | 7.09 | 4.62 | 4.58 | 4.60 |
| | 13:21 | | Bottom | 11.0 | 20.70 | 20.70 | 20.70 | 8.46 | 8.46 | 8.46 | 33.48 | 33.48 | 33.48 | 94.6 | 97.0 | 95.8 | 6.97 | 7.14 | 7.06 | 4.56 | 4.50 | 4.53 |
| 6/12/2021 | 13:19 | Fine | Surface | 1.0 | 22.40 | 22.40 | 22.40 | 8.47 | 8.47 | 8.47 | 33.48 | 33.48 | 33.48 | 97.4 | 99.0 | 98.2 | 6.95 | 7.07 | 7.01 | 3.47 | 3.39 | 3.43 |
| | 13:21 | | Middle | 5.5 | 22.40 | 22.40 | 22.40 | 8.47 | 8.47 | 8.47 | 33.44 | 33.47 | 33.46 | 97.0 | 96.6 | 96.8 | 6.92 | 6.98 | 6.95 | 3.25 | 3.23 | 3.24 |
| | 13:23 | | Bottom | 10.0 | 22.50 | 22.50 | 22.50 | 8.47 | 8.47 | 8.47 | 33.44 | 33.45 | 33.45 | 95.6 | 97.1 | 96.4 | 6.82 | 6.92 | 6.87 | 3.18 | 3.15 | 3.17 |
| 8/12/2021 | 15:015 | Fine | Surface | 1.0 | 20.80 | 20.80 | 20.80 | 8.53 | 8.53 | 8.53 | 33.33 | 33.33 | 33.33 | 93.8 | 93.1 | 93.5 | 6.82 | 6.77 | 6.80 | 2.52 | 2.41 | 2.47 |
| | 15:07 | | Middle | 5.5 | 20.80 | 20.80 | 20.80 | 8.53 | 8.53 | 8.53 | 33.33 | 33.33 | 33.33 | 91.0 | 91.4 | 91.2 | 6.62 | 6.65 | 6.64 | 2.45 | 2.51 | 2.48 |
| | 15:09 | | Bottom | 10.0 | 20.80 | 20.80 | 20.80 | 8.53 | 8.53 | 8.53 | 33.33 | 33.33 | 33.33 | 94.1 | 94.6 | 94.4 | 6.85 | 6.90 | 6.88 | 2.47 | 2.44 | 2.46 |
| 10/12/2021 | 17:02 | Fine | Surface | 1.0 | 20.20 | 20.20 | 20.20 | 8.55 | 8.55 | 8.55 | 33.35 | 33.35 | 33.35 | 95.3 | 94.7 | 95.0 | 7.09 | 7.04 | 7.07 | 2.34 | 2.37 | 2.36 |
| | 17:04 | | Middle | 5.5 | 20.20 | 20.20 | 20.20 | 8.55 | 8.55 | 8.55 | 33.35 | 33.35 | 33.35 | 90.8 | 93.2 | 92.0 | 6.76 | 6.94 | 6.85 | 2.34 | 2.38 | 2.36 |
| | 17:06 | | Bottom | 10.0 | 20.20 | 20.20 | 20.20 | 8.55 | 8.55 | 8.55 | 33.35 | 33.35 | 33.35 | 93.0 | 81.2 | 87.1 | 6.90 | 6.79 | 6.85 | 2.34 | 2.32 | 2.33 |
| 13/12/2021 | 10:24 | Fine | Surface | 1.0 | 22.20 | 22.20 | 22.20 | 8.46 | 8.46 | 8.46 | 33.45 | 33.45 | 33.45 | 94.2 | 95.3 | 94.8 | 6.75 | 6.86 | 6.81 | 2.46 | 2.41 | 2.44 |
| | 10:26 | | Middle | 6.0 | 22.30 | 22.30 | 22.30 | 8.46 | 8.46 | 8.46 | 33.45 | 33.45 | 33.45 | 87.8 | 89.4 | 88.6 | 6.29 | 6.40 | 6.35 | 2.40 | 2.37 | 2.39 |
| | 10:28 | | Bottom | 11.0 | 22.30 | 22.30 | 22.30 | 8.46 | 8.46 | 8.46 | 33.45 | 33.45 | 33.45 | 89.3 | 89.4 | 89.4 | 6.39 | 6.40 | 6.40 | 2.42 | 2.49 | 2.46 |
| 15/12/2021 | 11:42 | Cloudy | Surface | 1.0 | 21.30 | 21.30 | 21.30 | 8.47 | 8.47 | 8.47 | 33.34 | 33.34 | 33.34 | 96.2 | 93.7 | 95.0 | 7.02 | 6.84 | 6.93 | 2.54 | 2.51 | 2.53 |
| | 11:44 | | Middle | 5.5 | 21.30 | 21.30 | 21.30 | 8.47 | 8.47 | 8.47 | 33.79 | 33.79 | 33.79 | 93.6 | 97.7 | 95.7 | 6.83 | 7.14 | 6.99 | 2.53 | 2.48 | 2.51 |
| | 11:46 | | Bottom | 10.0 | 21.30 | 21.30 | 21.30 | 8.48 | 8.48 | 8.48 | 33.32 | 33.32 | 33.32 | 98.9 | 97.2 | 98.1 | 7.22 | 7.08 | 7.15 | 2.50 | 2.56 | 2.53 |
| 17/12/2021 | 12:23 | Cloudy | Surface | 1.0 | 21.70 | 21.70 | 21.70 | 8.44 | 8.44 | 8.44 | 33.48 | 33.48 | 33.48 | 94.9 | 94.5 | 94.7 | 6.89 | 6.85 | 6.87 | 2.47 | 2.50 | 2.49 |
| | 12:25 | | Middle | 5.5 | 21.90 | 21.90 | 21.90 | 8.46 | 8.46 | 8.46 | 33.47 | 33.47 | 33.47 | 97.3 | 95.6 | 96.5 | 7.06 | 6.93 | 7.00 | 2.41 | 2.38 | 2.40 |
| | 12:27 | | Bottom | 10.0 | 21.70 | 21.70 | 21.70 | 8.46 | 8.46 | 8.46 | 33.47 | 33.47 | 33.47 | 95.4 | 92.4 | 93.9 | 6.91 | 6.70 | 6.81 | 2.45 | 2.42 | 2.44 |
| 20/12/2021 | 13;05 | Cloudy | Surface | 1.0 | 17.70 | 17.70 | 17.70 | 8.43 | 8.43 | 8.43 | 33.62 | 33.62 | 33.62 | 88.9 | 88.5 | 88.7 | 6.95 | 6.90 | 6.93 | 2.89 | 2.91 | 2.90 |
| | 13:07 | | Middle | 5.5 | 17.60 | 17.60 | 17.60 | 8.43 | 8.43 | 8.43 | 33.64 | 33.64 | 33.64 | 83.2 | 83.8 | 83.5 | 6.49 | 6.54 | 6.52 | 2.71 | 2.68 | 2.70 |
| | 13:09 | | Bottom | 10.0 | 17.60 | 17.60 | 17.60 | 8.44 | 8.44 | 8.44 | 33.65 | 33.65 | 33.65 | 83.6 | 85.0 | 84.3 | 6.53 | 6.63 | 6.58 | 2.66 | 2.65 | 2.66 |
| 22/12/2021 | 13:33 | Cloudy | Surface | 1.0 | 21.30 | 21.30 | 21.30 | 7.47 | 7.47 | 7.47 | 33.49 | 33.49 | 33.49 | 94.2 | 93.9 | 94.1 | 6.96 | 6.94 | 6.95 | 2.53 | 2.50 | 2.52 |
| | 13:35 | | Middle | 5.5 | 21.30 | 21.30 | 21.30 | 7.47 | 7.47 | 7.47 | 33.49 | 33.49 | 33.49 | 92.5 | 95.6 | 94.1 | 7.04 | 7.07 | 7.06 | 2.47 | 2.49 | 2.48 |
| | 13:37 | | Bottom | 10.0 | 21.30 | 21.30 | 21.30 | 7.47 | 7.47 | 7.47 | 33.49 | 33.49 | 33.49 | 92.5 | 93.1 | 92.8 | 6.84 | 6.86 | 6.85 | 2.44 | 2.41 | 2.43 |
| 27/12/2021 | 17:39 | Cloudy | Surface | 1.0 | 16.30 | 16.30 | 16.30 | 8.50 | 8.50 | 8.50 | 33.70 | 33.70 | 33.70 | 96.0 | 91.9 | 94.0 | 7.75 | 7.38 | 7.57 | 2.65 | 2.64 | 2.65 |
| | 17:41 | | Middle | 6.0 | 16.30 | 16.30 | 16.30 | 8.50 | 8.50 | 8.50 | 33.69 | 33.69 | 33.69 | 91.3 | 90.5 | 90.9 | 7.33 | 7.27 | 7.30 | 2.60 | 2.58 | 2.59 |
| | 17:43 | | Bottom | 11.0 | 16.30 | 16.30 | 16.30 | 8.50 | 8.50 | 8.50 | 33.69 | 33.69 | 33.69 | 87.0 | 89.4 | 88.2 | 6.99 | 7.18 | 7.09 | 2.51 | 2.57 | 2.54 |
| 29/12/2021 | 10:08 | Fine | Surface | 1.0 | 21.30 | 21.30 | 21.30 | 8.46 | 8.46 | 8.46 | 33.53 | 33.53 | 33.53 | 96.8 | 97.1 | 97.0 | 7.05 | 7.07 | 7.06 | 2.57 | 2.47 | 2.52 |
| | 10:10 | | Middle | 5.5 | 21.20 | 21.20 | 21.20 | 8.46 | 8.46 | 8.46 | 33.53 | 33.53 | 33.53 | 87.3 | 86.7 | 87.0 | 6.84 | 6.32 | 6.58 | 2.52 | 2.49 | 2.51 |
| | 10:12 | | Bottom | 10.0 | 21.20 | 21.20 | 21.20 | 8.46 | 8.46 | 8.46 | 33.53 | 33.53 | 33.53 | 84.0 | 86.9 | 85.5 | 6.12 | 6.33 | 6.23 | 2.41 | 2.44 | 2.43 |
| 31/12/2021 | 10:52 | Cloudy | Surface | 1.0 | 19.39 | 19.40 | 19.40 | 8.16 | 8.16 | 8.16 | 32.00 | 32.01 | 32.01 | 101.1 | 101.2 | 101.2 | 7.70 | 7.71 | 7.71 | 1.46 | 1.43 | 1.45 |
| | 10:54 | | Middle | 6.0 | 19.34 | 19.35 | 19.35 | 8.10 | 8.11 | 8.11 | 32.52 | 32.52 | 32.52 | 88.0 | 87.9 | 88.0 | 6.69 | 6.68 | 6.69 | 1.89 | 1.93 | 1.91 |
| | 10:56 | | Bottom | 11.0 | 19.28 | 19.29 | 19.29 | 8.09 | 8.09 | 8.09 | 32.71 | 32.69 | 32.70 | 84.4 | 84.1 | 84.3 | 6.41 | 6.39 | 6.40 | 2.26 | 2.29 | 2.28 |

**Water Monitoring Result at CR1 - Corals at Tai Po Industrial Estate**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 15:58 | Fine | Surface | 1.0 | 24.12 | 24.12 | 24.12 | 8.68 | 8.70 | 8.69 | 30.33 | 30.29 | 30.31 | 59.1 | 57.8 | 58.5 | 4.17 | 4.13 | 4.15 | 1.62 | 1.60 | 1.61 |
| | 16:00 | | Middle | 3.0 | 23.66 | 23.66 | 23.66 | 8.54 | 8.53 | 8.54 | 30.98 | 31.01 | 31.00 | 39.7 | 38.7 | 39.2 | 2.82 | 2.74 | 2.78 | 4.08 | 3.57 | 3.83 |
| | 16:02 | | Bottom | 5.0 | 23.58 | 23.58 | 23.58 | 8.49 | 8.45 | 8.47 | 31.09 | 31.10 | 31.10 | 36.9 | 36.1 | 36.5 | 2.62 | 2.56 | 2.59 | 8.30 | 8.25 | 8.28 |
| 1/12/2021 | 15:25 | Fine | Surface | 1.0 | 23.65 | 23.62 | 23.64 | 8.87 | 8.87 | 8.87 | 29.04 | 29.09 | 29.07 | 71.8 | 71.2 | 71.5 | 5.15 | 5.11 | 5.13 | 1.34 | 1.30 | 1.32 |
| | 15:27 | | Middle | 3.5 | 23.41 | 23.39 | 23.40 | 8.86 | 8.82 | 8.84 | 29.39 | 29.42 | 29.41 | 70.2 | 70.7 | 70.5 | 5.09 | 5.08 | 5.08 | 0.67 | 0.69 | 0.68 |
| | 15:30 | | Bottom | 6.0 | 23.50 | 23.52 | 23.51 | 8.75 | 8.70 | 8.73 | 29.68 | 29.72 | 29.70 | 58.4 | 57.4 | 57.9 | 4.18 | 4.11 | 4.15 | 2.36 | 2.09 | 2.23 |
| 2/12/2021 | 15:50 | Fine | Surface | 1.0 | 22.24 | 23.27 | 22.76 | 8.87 | 8.88 | 8.88 | 29.47 | 29.40 | 29.44 | 99.6 | 100.0 | 99.8 | 7.18 | 7.21 | 7.20 | 2.39 | 2.55 | 2.47 |
| | 15:52 | | Middle | 3.0 | 22.93 | 22.90 | 22.92 | 8.82 | 8.82 | 8.82 | 29.66 | 29.70 | 29.68 | 95.6 | 94.7 | 95.2 | 6.92 | 6.85 | 6.89 | 1.88 | 1.75 | 1.82 |
| | 15:55 | | Bottom | 5.0 | 23.22 | 23.27 | 23.25 | 8.67 | 8.67 | 8.67 | 29.93 | 29.95 | 29.94 | 71.7 | 71.2 | 71.5 | 5.14 | 5.11 | 5.13 | 3.42 | 3.60 | 3.51 |
| 3/12/2021 | 15:59 | Fine | Surface | 1.0 | 22.70 | 22.72 | 22.71 | 8.89 | 8.94 | 8.92 | 29.49 | 29.52 | 29.51 | 96.7 | 96.2 | 96.5 | 7.03 | 6.99 | 7.01 | 2.71 | 2.65 | 2.68 |
| | 16:01 | | Middle | 3.0 | 22.45 | 22.47 | 22.46 | 8.80 | 8.82 | 8.81 | 29.65 | 29.68 | 29.67 | 86.5 | 85.8 | 86.2 | 6.31 | 6.27 | 6.29 | 2.62 | 2.43 | 2.53 |
| | 16:03 | | Bottom | 5.0 | 22.74 | 21.77 | 22.26 | 8.64 | 8.70 | 8.67 | 30.16 | 30.20 | 30.18 | 69.9 | 68.7 | 69.3 | 5.06 | 4.97 | 5.02 | 4.18 | 4.06 | 4.12 |
| 6/12/2021 | 9:20 | Fine | Surface | 1.0 | 21.46 | 21.48 | 21.47 | 8.87 | 8.85 | 8.86 | 30.23 | 30.27 | 30.25 | 76.0 | 76.5 | 76.3 | 5.65 | 5.67 | 5.66 | 1.96 | 1.91 | 1.94 |
| | 9:22 | | Middle | 3.0 | 21.93 | 21.90 | 21.92 | 8.64 | 8.67 | 8.66 | 30.89 | 30.92 | 30.91 | 54.6 | 52.8 | 53.7 | 4.01 | 3.87 | 3.94 | 4.42 | 4.39 | 4.41 |
| | 9:25 | | Bottom | 5.0 | 21.95 | 21.95 | 21.95 | 8.50 | 8.52 | 8.51 | 30.96 | 30.96 | 30.96 | 54.7 | 57.2 | 56.0 | 4.17 | 4.20 | 4.19 | 4.61 | 4.70 | 4.66 |
| 8/12/2021 | 10:39 | Fine | Surface | 1.0 | 21.42 | 21.40 | 21.41 | 8.69 | 8.68 | 8.69 | 32.99 | 32.98 | 32.99 | 99.1 | 99.8 | 99.5 | 7.24 | 7.29 | 7.27 | 3.19 | 3.23 | 3.21 |
| | 10:41 | | Middle | 3.0 | 21.07 | 21.09 | 21.08 | 8.71 | 8.71 | 8.71 | 33.10 | 33.06 | 33.08 | 88.4 | 87.9 | 88.2 | 6.48 | 6.45 | 6.47 | 2.90 | 2.94 | 2.92 |
| | 10:43 | | Bottom | 5.0 | 20.97 | 20.99 | 20.98 | 8.70 | 8.71 | 8.71 | 33.13 | 33.11 | 33.12 | 87.4 | 87.1 | 87.3 | 6.39 | 6.37 | 6.38 | 3.36 | 3.41 | 3.39 |
| 10/12/2021 | 13:00 | Fine | Surface | 1.0 | 22.18 | 22.15 | 22.17 | 8.78 | 8.77 | 8.78 | 32.91 | 32.92 | 32.92 | 116.4 | 116.8 | 116.6 | 8.38 | 8.40 | 8.39 | 2.03 | 2.07 | 2.05 |
| | 13:01 | | Middle | 3.0 | 21.22 | 21.22 | 21.22 | 8.80 | 8.86 | 8.83 | 33.22 | 33.21 | 33.22 | 95.1 | 94.0 | 94.6 | 6.96 | 6.98 | 6.97 | 1.74 | 1.80 | 1.77 |
| | 13:03 | | Bottom | 5.0 | 21.04 | 21.04 | 21.04 | 8.74 | 8.74 | 8.74 | 33.41 | 33.40 | 33.41 | 67.5 | 66.4 | 67.0 | 4.94 | 4.86 | 4.90 | 1.30 | 1.25 | 1.28 |
| 13/12/2021 | 12:15 | Fine | Surface | 1.0 | 22.54 | 22.55 | 22.55 | 8.69 | 8.90 | 8.80 | 37.97 | 37.97 | 37.97 | 94.8 | 94.1 | 94.5 | 6.89 | 6.84 | 6.87 | 1.84 | 1.77 | 1.81 |
| | 12:17 | | Middle | 3.0 | 22.34 | 22.34 | 22.34 | 8.20 | 8.33 | 8.27 | 33.18 | 33.18 | 33.18 | 90.1 | 91.3 | 90.7 | 6.58 | 6.66 | 6.62 | 1.09 | 1.03 | 1.06 |
| | 12:19 | | Bottom | 5.0 | 21.97 | 21.98 | 21.98 | 8.06 | 8.08 | 8.07 | 33.85 | 33.86 | 33.86 | 57.9 | 56.4 | 57.2 | 4.23 | 4.13 | 4.18 | 1.29 | 1.34 | 1.32 |
| 15/12/2021 | 15:04 | Cloudy | Surface | 1.0 | 22.44 | 22.43 | 22.44 | 8.68 | 8.65 | 8.67 | 33.35 | 33.36 | 33.36 | 94.1 | 95.0 | 94.6 | 6.84 | 6.91 | 6.88 | 1.14 | 1.19 | 1.17 |
| | 15:07 | | Middle | 3.5 | 22.41 | 22.40 | 22.41 | 8.38 | 8.41 | 8.40 | 33.43 | 33.43 | 33.43 | 87.4 | 88.1 | 87.8 | 6.36 | 6.41 | 6.39 | 1.22 | 1.25 | 1.24 |
| | 15:08 | | Bottom | 6.0 | 22.35 | 22.34 | 22.35 | 8.24 | 8.23 | 8.24 | 33.56 | 33.57 | 33.57 | 76.0 | 75.7 | 75.9 | 5.53 | 5.51 | 5.52 | 1.24 | 1.19 | 1.22 |
| 17/12/2021 | 15:30 | Cloudy | Surface | 1.0 | 22.53 | 22.52 | 22.53 | 8.84 | 8.85 | 8.85 | 33.13 | 33.11 | 33.12 | 97.0 | 96.5 | 96.8 | 7.04 | 7.00 | 7.02 | 0.89 | 0.95 | 0.92 |
| | 15:32 | | Middle | 3.0 | 22.40 | 22.41 | 22.41 | 8.62 | 8.60 | 8.61 | 33.40 | 33.44 | 33.42 | 92.6 | 93.1 | 92.9 | 6.74 | 6.77 | 6.76 | 0.73 | 0.69 | 0.71 |
| | 15:33 | | Bottom | 5.0 | 22.08 | 22.06 | 22.07 | 8.52 | 8.55 | 8.54 | 33.84 | 33.86 | 33.85 | 45.1 | 46.5 | 45.8 | 3.29 | 3.39 | 3.34 | 0.66 | 0.70 | 0.68 |
| 20/12/2021 | 15:45 | Cloudy | Surface | 1.0 | 20.92 | 20.91 | 20.92 | 8.28 | 8.30 | 8.29 | 32.84 | 32.87 | 32.86 | 80.8 | 79.7 | 80.3 | 6.06 | 5.95 | 6.01 | 2.09 | 2.02 | 2.06 |
| | 14:47 | | Middle | 3.0 | 21.23 | 21.24 | 21.24 | 8.46 | 8.44 | 8.45 | 33.25 | 33.27 | 33.26 | 78.1 | 77.4 | 77.8 | 5.79 | 5.72 | 5.76 | 2.15 | 2.09 | 2.12 |
| | 15:48 | | Bottom | 5.0 | 21.70 | 21.72 | 21.71 | 8.39 | 8.38 | 8.39 | 33.74 | 33.72 | 33.73 | 48.4 | 47.5 | 48.0 | 3.55 | 3.48 | 3.52 | 3.37 | 3.32 | 3.35 |
| 22/12/2021 | 9:48 | Cloudy | Surface | 1.0 | 20.75 | 20.75 | 20.75 | 8.73 | 8.71 | 8.72 | 33.69 | 33.67 | 33.68 | 66.1 | 65.0 | 65.6 | 4.94 | 4.86 | 4.90 | 1.54 | 1.61 | 1.58 |
| | 9:50 | | Middle | 3.0 | 20.91 | 20.90 | 20.91 | 8.62 | 8.62 | 8.62 | 33.82 | 33.83 | 33.83 | 62.9 | 63.2 | 63.1 | 4.69 | 4.71 | 4.70 | 1.00 | 1.03 | 1.02 |
| | 9:52 | | Bottom | 5.0 | 20.93 | 20.92 | 20.93 | 8.49 | 8.46 | 8.48 | 33.94 | 33.92 | 33.93 | 62.3 | 62.5 | 62.4 | 4.63 | 4.65 | 4.64 | 4.32 | 4.17 | 4.25 |
| 24/12/2021 | 10:05 | Cloudy | Surface | 1.0 | 20.95 | 20.96 | 20.96 | 8.71 | 8.72 | 8.72 | 32.77 | 32.75 | 32.76 | 71.5 | 71.0 | 71.3 | 5.34 | 5.30 | 5.32 | 1.20 | 1.23 | 1.22 |
| | 10:07 | | Middle | 3.0 | 20.99 | 21.00 | 21.00 | 8.64 | 8.64 | 8.64 | 32.95 | 32.97 | 32.96 | 65.5 | 66.5 | 66.0 | 4.88 | 4.96 | 4.92 | 1.37 | 1.29 | 1.33 |
| | 10:08 | | Bottom | 5.0 | 21.06 | 21.06 | 21.06 | 8.50 | 8.50 | 8.50 | 33.19 | 33.22 | 33.21 | 55.1 | 54.6 | 54.9 | 4.10 | 4.06 | 4.08 | 1.58 | 1.66 | 1.62 |
| 27/12/2021 | 13:15 | Cloudy | Surface | 1.0 | 20.12 | 20.13 | 20.13 | 8.89 | 8.88 | 8.89 | 32.74 | 32.75 | 32.75 | 82.4 | 82.8 | 82.6 | 6.24 | 6.27 | 6.26 | 1.59 | 1.65 | 1.62 |
| | 13:17 | | Middle | 3.0 | 20.37 | 20.38 | 20.38 | 8.85 | 8.85 | 8.85 | 32.88 | 32.88 | 32.88 | 81.8 | 82.0 | 81.9 | 6.17 | 6.18 | 6.18 | 1.57 | 1.54 | 1.56 |
| | 13:18 | | Bottom | 5.0 | 20.48 | 20.46 | 20.47 | 8.90 | 8.98 | 8.94 | 33.04 | 33.03 | 33.04 | 83.1 | 83.5 | 83.3 | 6.24 | 6.27 | 6.26 | 1.26 | 1.22 | 1.24 |
| 29/12/2021 | 14:42 | Fine | Surface | 1.0 | 20.45 | 20.46 | 20.46 | 8.89 | 8.90 | 8.90 | 33.07 | 33.09 | 33.08 | 78.5 | 77.4 | 78.0 | 5.92 | 5.84 | 5.88 | 1.86 | 1.93 | 1.90 |
| | 14:43 | | Middle | 3.0 | 20.07 | 20.06 | 20.07 | 8.44 | 8.42 | 8.43 | 33.35 | 33.37 | 33.36 | 83.4 | 82.7 | 83.1 | 6.32 | 6.27 | 6.30 | 1.30 | 1.36 | 1.33 |
| | 14:45 | | Bottom | 5.0 | 20.09 | 20.08 | 20.09 | 8.38 | 8.38 | 8.38 | 33.56 | 33.55 | 33.56 | 79.3 | 79.6 | 79.5 | 6.00 | 3.02 | 4.51 | 1.28/ | 1.22 | 1.22 |

**Water Monitoring Result at CR1 - Corals at Tai Po Industrial Estate**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Water Temperature | °C | | pH | - | | Salinity | ppt | | DO Saturation | % | | DO | mg/L | | Turbidity | NTU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 10:48 | Fine | Surface | 1.0 | 23.80 | 23.97 | 23.89 | 8.23 | 8.24 | 8.24 | 29.59 | 28.63 | 29.11 | 71.0 | 72.0 | 71.5 | 5.08 | 5.14 | 5.11 | 1.52 | 1.33 | 1.43 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 10:50 | | Bottom | 4.0 | 24.04 | 24.06 | 24.05 | 8.14 | 8.14 | 8.14 | 28.92 | 28.90 | 28.91 | 69.7 | 69.2 | 69.5 | 4.97 | 4.95 | 4.96 | 1.26 | 1.20 | 1.23 |
| 1/12/2021 | 9:34 | Fine | Surface | 1.0 | 23.25 | 23.29 | 23.27 | 8.88 | 8.88 | 8.88 | 29.69 | 29.70 | 29.70 | 64.0 | 64.1 | 64.1 | 4.60 | 4.61 | 4.61 | 1.95 | 1.88 | 1.92 |
| | 9:36 | | Middle | 3.0 | 23.24 | 23.23 | 23.24 | 8.87 | 8.88 | 8.88 | 29.81 | 29.82 | 29.82 | 63.7 | 63.6 | 63.7 | 4.58 | 4.57 | 4.58 | 0.63 | 0.62 | 0.63 |
| | 9:38 | | Bottom | 5.0 | 23.46 | 24.44 | 23.95 | 8.79 | 8.78 | 8.79 | 30.07 | 30.07 | 30.07 | 53.8 | 52.7 | 53.3 | 3.81 | 3.76 | 3.79 | 2.60 | 2.49 | 2.55 |
| 2/12/2021 | 10:05 | Fine | Surface | 1.0 | 23.01 | 23.05 | 23.03 | 8.78 | 8.76 | 8.77 | 30.13 | 30.15 | 30.14 | 55.8 | 55.2 | 55.5 | 4.02 | 3.99 | 4.01 | 4.17 | 4.34 | 4.26 |
| | 10:07 | | Middle | 3.0 | 27..28 | 23.28 | 23.28 | 7.75 | 8.75 | 8.25 | 30.27 | 30.29 | 30.28 | 46.3 | 45.6 | 46.0 | 3.32 | 3.26 | 3.29 | 6.68 | 6.23 | 6.46 |
| | 10:10 | | Bottom | 5.0 | 23.24 | 23.24 | 23.24 | 8.76 | 8.72 | 8.74 | 30.37 | 30.39 | 30.38 | 43.0 | 45.8 | 44.4 | 3.08 | 3.28 | 3.18 | 6.37 | 6.30 | 6.34 |
| 3/12/2021 | 10:03 | Fine | Surface | 1.0 | 22.25 | 22.27 | 22.26 | 8.72 | 8.76 | 8.74 | 30.18 | 30.42 | 30.30 | 62.5 | 63.3 | 62.9 | 4.56 | 4.61 | 4.59 | 2.53 | 2.39 | 2.46 |
| | 10:05 | | Middle | 3.0 | 22.33 | 22.35 | 22.34 | 8.66 | 8.68 | 8.67 | 30.53 | 30.52 | 30.53 | 61.1 | 61.3 | 61.2 | 4.45 | 4.46 | 4.46 | 1.58 | 1.70 | 1.64 |
| | 10:07 | | Bottom | 5.0 | 22.75 | 22.79 | 22.77 | 8.56 | 8.59 | 8.58 | 30.82 | 30.83 | 30.83 | 57.8 | 56.5 | 57.2 | ` | 4.07 | 4.07 | 4.79 | 5.03 | 4.91 |
| 6/12/2021 | 12:55 | Fine | Surface | 1.0 | 22.23 | 22.21 | 22.22 | 8.61 | 8.58 | 8.60 | 30.22 | 30.18 | 30.20 | 101.1 | 102.8 | 102.0 | 7.39 | 7.52 | 7.46 | 2.25 | 2.30 | 2.28 |
| | 12:57 | | Middle | 3.0 | 22.03 | 22.02 | 22.03 | 8.52 | 8.50 | 8.51 | 30.45 | 30.48 | 30.47 | 99.1 | 99.5 | 99.3 | 7.25 | 7.29 | 7.27 | 2.12 | 2.09 | 2.11 |
| | 13:00 | | Bottom | 5.0 | 21.80 | 21.97 | 21.89 | 8.46 | 8.47 | 8.47 | 30.56 | 30.55 | 30.56 | 105.2 | 105.7 | 105.5 | 7.70 | 7.74 | 7.72 | 1.92 | 1.94 | 1.93 |
| 8/12/2021 | 14:09 | Fine | Surface | 1.0 | 21.58 | 21.58 | 21.58 | 8.81 | 8.81 | 8.81 | 33.13 | 33.15 | 33.14 | 110.0 | 108.5 | 109.3 | 7.99 | 7.88 | 7.94 | 2.52 | 2.56 | 2.54 |
| | 14:11 | | Middle | 3.0 | 21.09 | 21.09 | 21.09 | 8.78 | 8.75 | 8.77 | 33.12 | 33.10 | 33.11 | 92.4 | 93.3 | 92.9 | 6.77 | 6.84 | 6.81 | 2.84 | 2.78 | 2.81 |
| | 14:13 | | Bottom | 5.0 | 21.05 | 21.06 | 21.06 | 8.75 | 8.75 | 8.75 | 33.15 | 33.11 | 33.13 | 79.4 | 80.2 | 79.8 | 5.83 | 5.88 | 5.86 | 4.05 | 4.01 | 4.03 |
| 10/12/2021 | 17:39 | Fine | Surface | 1.0 | 22.14 | 22.14 | 22.14 | 8.66 | 8.67 | 8.67 | 32.98 | 32.98 | 32.98 | 121.4 | 122.6 | 122.0 | 8.74 | 8.83 | 8.79 | 2.64 | 2.59 | 2.62 |
| | 17:40 | | Middle | 3.0 | 21.91 | 21.92 | 21.92 | 8.70 | 8.70 | 8.70 | 33.06 | 33.06 | 33.06 | 109.1 | 108.5 | 108.8 | 7.89 | 7.85 | 7.87 | 1.46 | 1.51 | 1.49 |
| | 17:42 | | Bottom | 5.0 | 21.18 | 21.20 | 21.19 | 8.65 | 8.65 | 8.65 | 33.21 | 33.27 | 33.24 | 72.8 | 71.4 | 72.1 | 5.32 | 5.22 | 5.27 | 1.39 | 1.38 | 1.39 |
| 13/12/2021 | 9:12 | Fine | Surface | 1.0 | 21.96 | 21.95 | 21.96 | 8.70 | 8.71 | 8.71 | 32.40 | 32.42 | 32.41 | 85.1 | 84.6 | 84.9 | 6.26 | 6.22 | 6.24 | 2.06 | 1.99 | 2.03 |
| | 9:14 | | Middle | 3.0 | 22.16 | 22.16 | 22.16 | 8.68 | 8.68 | 8.68 | 32.94 | 32.95 | 32.95 | 93.7 | 94.0 | 93.9 | 6.86 | 6.87 | 6.87 | 1.11 | 1.14 | 1.13 |
| | 9:16 | | Bottom | 5.0 | 21.86 | 21.86 | 21.86 | 8.74 | 8.73 | 8.74 | 33.29 | 33.29 | 33.29 | 51.8 | 541.0 | 296.4 | 3.80 | 3.74 | 3.77 | 3.19 | 3.12 | 3.16 |
| 15/12/2021 | 10:15 | Cloudy | Surface | 1.0 | 22.43 | 22.40 | 22.42 | 8.32 | 8.34 | 8.33 | 33.21 | 33.25 | 33.23 | 89.8 | 88.9 | 89.4 | 6.54 | 6.47 | 6.51 | 0.90 | 0.87 | 0.89 |
| | 10:17 | | Middle | 3.0 | 22.31 | 22.33 | 22.32 | 8.28 | 8.27 | 8.28 | 33.37 | 33.36 | 33.37 | 86.3 | 85.2 | 85.8 | 6.29 | 6.21 | 6.25 | 0.84 | 0.82 | 0.83 |
| | 10:20 | | Bottom | 5.0 | 22.04 | 22.20 | 22.12 | 8.64 | 8.64 | 8.64 | 33.72 | 33.73 | 33.73 | 47.2 | 47.6 | 47.4 | 3.45 | 3.48 | 3.47 | 1.02 | 1.16 | 1.09 |
| 17/12/2021 | 10:33 | Cloudy | Surface | 1.0 | 22.50 | 22.48 | 22.49 | 8.61 | 8.64 | 8.63 | 33.40 | 33.42 | 33.41 | 95.7 | 93.9 | 94.8 | 6.95 | 6.81 | 6.88 | 0.89 | 0.94 | 0.92 |
| | 10:35 | | Middle | 3.0 | 22.23 | 22.22 | 22.23 | 8.44 | 8.45 | 8.45 | 33.65 | 33.63 | 33.64 | 88.0 | 88.7 | 88.4 | 6.41 | 6.47 | 6.44 | 0.77 | 0.71 | 0.74 |
| | 10:37 | | Bottom | 5.0 | 21.96 | 21.95 | 21.96 | 8.38 | 8.39 | 8.39 | 33.95 | 33.90 | 33.92 | 52.4 | 51.5 | 52.0 | 3.83 | 3.76 | 3.80 | 0.64 | 0.69 | 0.67 |
| 20/12/2021 | 12:48 | Cloudy | Surface | 1.0 | 21.28 | 21.28 | 21.28 | 8.46 | 8.52 | 8.49 | 33.25 | 33.22 | 33.24 | 75.3 | 73.7 | 74.5 | 5.59 | 5.43 | 5.51 | 2.25 | 2.32 | 2.29 |
| | 12:50 | | Middle | 3.0 | 21.25 | 21.26 | 21.26 | 8.33 | 8.36 | 8.35 | 33.34 | 33.37 | 33.36 | 77.9 | 79.2 | 78.6 | 5.78 | 5.88 | 5.83 | 1.89 | 1.82 | 1.86 |
| | 12:51 | | Bottom | 5.0 | 21.35 | 21.36 | 21.36 | 8.27 | 8.30 | 8.29 | 33.50 | 33.53 | 33.52 | 67.5 | 66.6 | 67.1 | 5.00 | 4.94 | 4.97 | 2.99 | 3.06 | 3.03 |
| 22/12/2021 | 13:10 | Cloudy | Surface | 1.0 | 21.04 | 21.04 | 21.04 | 8.60 | 8.58 | 8.59 | 33.19 | 33.20 | 33.20 | 79.4 | 78.3 | 78.9 | 5.91 | 5.83 | 5.87 | 1.38 | 1.27 | 1.33 |
| | 13:11 | | Middle | 3.0 | 20.98 | 20.98 | 20.98 | 8.43 | 8.42 | 8.43 | 33.36 | 33.35 | 33.36 | 77.8 | 788.6 | 433.2 | 5.78 | 5.84 | 5.81 | 0.94 | 1.03 | 0.99 |
| | 13:13 | | Bottom | 5.0 | 21.01 | 21.02 | 21.02 | 8.48 | 8.47 | 8.48 | 33.49 | 33.51 | 33.50 | 76.8 | 75.8 | 76.3 | 5.70 | 5.32 | 5.51 | 1.84 | 1.76 | 1.80 |
| 27/12/2021 | 17:33 | Cloudy | Surface | 1.0 | 20.23 | 20.22 | 20.23 | 8.30 | 8.30 | 8.30 | 33.18 | 33.19 | 33.19 | 67.8 | 67.0 | 67.4 | 5.12 | 5.06 | 5.09 | 1.81 | 1.72 | 1.77 |
| | 17:35 | | Middle | 3.0 | 20.40 | 20.42 | 20.41 | 8.24 | 8.25 | 8.25 | 33.46 | 33.45 | 33.46 | 65.2 | 64.0 | 64.6 | 4.90 | 4.81 | 4.86 | 1.38 | 1.44 | 1.41 |
| | 17:36 | | Bottom | 5.0 | 20.49 | 20.47 | 20.48 | 8.21 | 8.19 | 8.20 | 33.69 | 33.72 | 33.71 | 60.6 | 60.9 | 60.8 | 4.54 | 4.57 | 4.56 | 1.61 | 1.67 | 1.64 |
| 29/12/2021 | 9:02 | Fine | Surface | 1.0 | 19.70 | 19.71 | 19.71 | 7.87 | 7.88 | 7.88 | 32.87 | 32.88 | 32.88 | 61.9 | 64.4 | 63.2 | 4.94 | 4.90 | 4.92 | 2.35 | 2.26 | 2.31 |
| | 9:04 | | Middle | 3.0 | 19.89 | 19.89 | 19.89 | 7.63 | 7.65 | 7.64 | 33.25 | 33.27 | 33.26 | 64.1 | 64.5 | 64.3 | 4.86 | 4.89 | 4.88 | 1.65 | 1.70 | 1.68 |
| | 9:05 | | Bottom | 5.0 | 19.97 | 19.98 | 19.98 | 7.55 | 7.54 | 7.55 | 33.62 | 33.60 | 33.61 | 63.1 | 62.6 | 62.9 | 4.78 | 4.74 | 4.76 | 1.44 | 1.38 | 1.41 |
| 31/12/2021 | 10:08 | Cloudy | Surface | 1.0 | 19.92 | 19.92 | 19.92 | 8.44 | 8.46 | 8.45 | 33.12 | 33.15 | 33.14 | 93.4 | 93.9 | 93.7 | 7.09 | 7.13 | 7.11 | 1.53 | 1.46 | 1.50 |
| | 10:10 | | Middle | 3.0 | 19.95 | 19.95 | 19.95 | 8.20 | 8.18 | 8.19 | 33.37 | 33.37 | 33.37 | 81.4 | 80.9 | 81.2 | 6.16 | 6.13 | 6.15 | 1.14 | 1.21 | 1.18 |
| | 10:11 | | Bottom | 5.0 | 20.08 | 20.09 | 20.09 | 7.99 | 7.95 | 7.97 | 33.69 | 33.71 | 33.70 | 61.6 | 63.0 | 62.3 | 4.64 | 4.75 | 4.70 | 0.78 | 0.72 | 0.75 |

**Water Monitoring Result at CR15 - Corals at Science Park**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 15:12 | Fine | Surface | 1.0 | 24.06 | 24.07 | 24.07 | 8.70 | 8.72 | 8.71 | 29.53 | 29.48 | 29.51 | 70.1 | 72.0 | 71.1 | 4.98 | 5.10 | 5.04 | 1.94 | 2.01 | 1.98 |
| | 15:15 | | Middle | 3.0 | 24.16 | 24.12 | 24.14 | 8.64 | 8.66 | 8.65 | 29.58 | 29.60 | 29.59 | 75.9 | 75.3 | 75.6 | 5.38 | 5.34 | 5.36 | 1.87 | 1.87 | 1.87 |
| | 15:17 | | Bottom | 5.0 | 24.02 | 23.99 | 24.01 | 8.65 | 8.63 | 8.64 | 29.65 | 29.60 | 29.63 | 75.5 | 72.2 | 73.9 | 5.36 | 5.14 | 5.25 | 2.56 | 2.70 | 2.63 |
| 1/12/2021 | 14:57 | Fine | Surface | 1.0 | 22.86 | 22.90 | 22.88 | 8.94 | 8.95 | 8.95 | 28.61 | 28.58 | 28.60 | 75.8 | 76.2 | 76.0 | 5.53 | 5.56 | 5.55 | 1.51 | 1.44 | 1.48 |
| | 15:00 | | Middle | 3.5 | 22.89 | 22.82 | 22.86 | 8.91 | 8.90 | 8.91 | 29.00 | 29.03 | 29.02 | 75.4 | 73.7 | 74.6 | 5.49 | 5.36 | 5.43 | 0.86 | 0.93 | 0.90 |
| | 15:02 | | Bottom | 6.0 | 22.95 | 22.98 | 22.97 | 8.86 | 8.84 | 8.85 | 29.41 | 29.42 | 29.42 | 65.9 | 65.3 | 65.6 | 4.77 | 4.73 | 4.75 | 0.99 | 0.82 | 0.91 |
| 2/12/2021 | 15:25 | Fine | Surface | 1.0 | 22.75 | 22.78 | 22.77 | 8.90 | 8.84 | 8.87 | 29.90 | 29.85 | 29.88 | 104.8 | 105.5 | 105.2 | 7.60 | 7.65 | 7.63 | 2.81 | 2.90 | 2.86 |
| | 15:27 | | Middle | 3.5 | 22.70 | 22.69 | 22.70 | 8.85 | 8.87 | 8.86 | 29.97 | 29.92 | 29.95 | 98.9 | 98.0 | 98.5 | 7.17 | 7.13 | 7.15 | 1.92 | 2.01 | 1.97 |
| | 15:29 | | Bottom | 6.0 | 22.55 | 22.53 | 22.54 | 8.84 | 8.80 | 8.82 | 30.19 | 30.22 | 30.21 | 96.1 | 95.3 | 95.7 | 6.98 | 6.93 | 6.96 | 2.07 | 2.12 | 2.10 |
| 3/12/2021 | 15:39 | Fine | Surface | 1.0 | 22.07 | 22.08 | 22.08 | 8.81 | 8.83 | 8.82 | 29.30 | 29.33 | 29.32 | 117.5 | 117.1 | 117.3 | 8.65 | 8.62 | 8.64 | 2.54 | 2.65 | 2.60 |
| | 15:41 | | Middle | 3.5 | 22.21 | 22.23 | 22.22 | 8.84 | 8.80 | 8.82 | 29.73 | 29.77 | 29.75 | 113.8 | 112.5 | 113.2 | 8.34 | 8.24 | 8.29 | 2.22 | 2.31 | 2.27 |
| | 15:44 | | Bottom | 6.0 | 22.22 | 22.22 | 22.22 | 8.87 | 8.85 | 8.86 | 29.14 | 29.94 | 29.54 | 107.3 | 106.8 | 107.1 | 7.85 | 7.82 | 7.84 | 1.41 | 1.48 | 1.45 |
| 6/12/2021 | 9:00 | Fine | Surface | 1.0 | 21.31 | 21.33 | 21.32 | 8.62 | 8.66 | 8.64 | 29.89 | 29.86 | 29.88 | 87.9 | 83.8 | 85.9 | 6.35 | 6.26 | 6.31 | 1.20 | 1.16 | 1.18 |
| | 9:02 | | Middle | 3.0 | 21.36 | 21.38 | 21.37 | 8.56 | 8.59 | 8.58 | 29.92 | 29.95 | 29.94 | 85.7 | 84.9 | 85.3 | 6.39 | 6.34 | 6.37 | 0.94 | 1.01 | 0.98 |
| | 9:04 | | Bottom | 5.0 | 21.62 | 32.64 | 27.13 | 8.48 | 8.50 | 8.49 | 30.01 | 30.05 | 30.03 | 75.8 | 75.2 | 75.5 | 5.62 | 5.57 | 5.60 | 1.89 | 1.84 | 1.87 |
| 8/12/2021 | 10:22 | Fine | Surface | 1.0 | 21.19 | 21.17 | 21.18 | 8.63 | 8.64 | 8.64 | 33.13 | 33.11 | 33.12 | 82.2 | 81.6 | 81.9 | 6.01 | 5.97 | 5.99 | 1.22 | 1.27 | 1.25 |
| | 10:24 | | Middle | 3.0 | 20.78 | 20.75 | 20.77 | 8.68 | 8.66 | 8.67 | 33.16 | 33.14 | 33.15 | 91.1 | 91.4 | 91.3 | 6.72 | 6.74 | 6.73 | 0.86 | 0.79 | 0.83 |
| | 10:26 | | Bottom | 5.0 | 20.70 | 20.69 | 20.70 | 8.70 | 8.72 | 8.71 | 33.07 | 33.05 | 33.06 | 90.4 | 89.3 | 89.9 | 6.65 | 6.59 | 6.62 | 0.95 | 0.89 | 0.92 |
| 10/12/2021 | 12:46 | Fine | Surface | 1.0 | 21.65 | 21.64 | 21.65 | 8.78 | 8.77 | 8.78 | 33.05 | 33.06 | 33.06 | 112.7 | 112.2 | 112.5 | 8.19 | 8.15 | 8.17 | 0.38 | 0.40 | 0.39 |
| | 12:48 | | Middle | 3.5 | 21.49 | 21.47 | 21.48 | 8.80 | 8.80 | 8.80 | 33.07 | 33.06 | 33.07 | 109.7 | 109.1 | 109.4 | 7.97 | 7.94 | 7.96 | 0.72 | 0.68 | 0.70 |
| | 12:50 | | Bottom | 6.0 | 21.11 | 21.14 | 21.13 | 8.74 | 8.73 | 8.74 | 33.53 | 33.53 | 33.53 | 62.5 | 61.3 | 61.9 | 4.53 | 4.49 | 4.51 | 1.26 | 1.31 | 1.29 |
| 13/12/2021 | 13:29 | Fine | Surface | 1.0 | 22.15 | 22.15 | 22.15 | 8.61 | 8.61 | 8.61 | 32.46 | 32.46 | 32.46 | 88.0 | 88.5 | 88.3 | 6.42 | 6.45 | 6.44 | 0.60 | 0.66 | 0.63 |
| | 13:31 | | Middle | 3.0 | 22.04 | 22.03 | 22.04 | 8.47 | 8.46 | 8.47 | 32.29 | 32.29 | 32.29 | 90.4 | 89.8 | 90.1 | 6.63 | 6.59 | 6.61 | 0.44 | 0.41 | 0.43 |
| | 13:34 | | Bottom | 5.0 | 21.85 | 21.82 | 21.84 | 8.24 | 8.28 | 8.26 | 33.10 | 33.07 | 33.09 | 84.9 | 84.1 | 84.5 | 6.24 | 6.18 | 6.21 | 0.43 | 0.46 | 0.45 |
| 15/12/2021 | 14:49 | Cloudy | Surface | 1.0 | 22.31 | 22.33 | 22.32 | 8.38 | 8.40 | 8.39 | 33.34 | 33.37 | 33.36 | 91.6 | 90.1 | 90.9 | 6.68 | 5.67 | 6.18 | 0.97 | 0.92 | 0.95 |
| | 14:51 | | Middle | 3.5 | 22.18 | 22.18 | 22.18 | 8.44 | 8.46 | 8.45 | 33.56 | 33.55 | 33.56 | 89.7 | 88.7 | 89.2 | 6.54 | 6.47 | 6.51 | 0.82 | 0.80 | 0.81 |
| | 14:53 | | Bottom | 6.0 | 22.06 | 22.09 | 22.08 | 8.50 | 8.53 | 8.52 | 33.79 | 33.80 | 33.80 | 58.6 | 59.2 | 58.9 | 4.28 | 4.32 | 4.30 | 0.88 | 0.85 | 0.87 |
| 17/12/2021 | 15:16 | Cloudy | Surface | 1.0 | 22.54 | 22.55 | 22.55 | 8.81 | 8.78 | 8.80 | 32.46 | 32.47 | 32.47 | 104.3 | 105.6 | 105.0 | 7.61 | 7.70 | 7.66 | 1.74 | 1.62 | 1.68 |
| | 15:17 | | Middle | 3.5 | 22.23 | 22.22 | 22.23 | 8.75 | 8.70 | 8.73 | 33.14 | 33.11 | 33.13 | 73.4 | 73.0 | 73.2 | 5.35 | 5.32 | 5.34 | 1.45 | 1.39 | 1.42 |
| | 15:19 | | Bottom | 6.0 | 21.93 | 21.92 | 21.93 | 8.48 | 8.45 | 8.47 | 33.89 | 33.85 | 33.87 | 24.6 | 25.4 | 25.0 | 1.79 | 1.85 | 1.82 | 3.96 | 3.79 | 3.88 |
| 20/12/2021 | 16:10 | Cloudy | Surface | 1.0 | 20.90 | 20.91 | 20.91 | 8.62 | 8.60 | 8.61 | 33.08 | 33.09 | 33.09 | 80.3 | 81.3 | 80.8 | 6.01 | 6.08 | 6.05 | 0.82 | 0.88 | 0.85 |
| | 16:13 | | Middle | 3.5 | 21.36 | 21.38 | 21.37 | 8.49 | 8.48 | 8.49 | 33.61 | 33.72 | 33.67 | 66.7 | 66.4 | 66.6 | 4.93 | 4.91 | 4.92 | 0.71 | 0.77 | 0.74 |
| | 16;15 | | Bottom | 6.0 | 21.50 | 21.52 | 21.51 | 8.32 | 8.34 | 8.33 | 33.98 | 33.95 | 33.97 | 60.7 | 60.0 | 60.4 | 4.48 | 4.42 | 4.45 | 0.54 | 0.59 | 0.57 |
| 22/12/2021 | 9:35 | Cloudy | Surface | 1.0 | 20.31 | 20.31 | 20.31 | 8.67 | 8.68 | 8.68 | 33.20 | 33.22 | 33.21 | 82.0 | 81.5 | 81.8 | 6.20 | 6.15 | 6.18 | 1.08 | 1.03 | 1.06 |
| | 9:37 | | Middle | 3.0 | 20.32 | 20.31 | 20.32 | 8.52 | 8.51 | 8.52 | 33.51 | 33.51 | 33.51 | 83.5 | 84.3 | 83.9 | 6.30 | 6.36 | 6.33 | 1.06 | 1.04 | 1.05 |
| | 9:39 | | Bottom | 5.0 | 20.63 | 20.63 | 20.63 | 8.53 | 8.53 | 8.53 | 33.78 | 33.81 | 33.80 | 80.3 | 81.2 | 80.8 | 6.01 | 6.08 | 6.05 | 1.41 | 1.34 | 1.38 |
| 24/12/2021 | 9:51 | Cloudy | Surface | 1.0 | 20.96 | 20.96 | 20.96 | 8.78 | 8.80 | 8.79 | 32.98 | 32.95 | 32.97 | 79.2 | 79.7 | 79.5 | 5.90 | 5.94 | 5.92 | 1.21 | 1.15 | 1.18 |
| | 9:53 | | Middle | 3.0 | 20.95 | 20.96 | 20.96 | 8.70 | 8.72 | 8.71 | 33.11 | 33.10 | 33.11 | 72.1 | 72.2 | 72.2 | 5.37 | 5.38 | 5.38 | 1.12 | 1.13 | 1.13 |
| | 9:54 | | Bottom | 5.0 | 21.15 | 21.14 | 21.15 | 8.62 | 8.61 | 8.62 | 33.49 | 33.51 | 33.50 | 48.4 | 48.7 | 48.6 | 3.58 | 3.60 | 3.59 | 2.94 | 2.85 | 2.90 |
| 27/12/2021 | 12:58 | Cloudy | Surface | 1.0 | 19.52 | 19.53 | 19.53 | 8.74 | 8.75 | 8.75 | 32.21 | 32.22 | 32.22 | 76.0 | 75.7 | 75.9 | 5.82 | 5.80 | 5.81 | 1.48 | 1.39 | 1.44 |
| | 13:00 | | Middle | 3.5 | 19.68 | 19.66 | 19.67 | 8.82 | 8.80 | 8.81 | 32.64 | 32.65 | 32.65 | 76.1 | 75.1 | 75.6 | 5.82 | 5.74 | 5.78 | 1.19 | 1.12 | 1.16 |
| | 13:01 | | Bottom | 6.0 | 20.13 | 20.12 | 20.13 | 8.80 | 8.81 | 8.81 | 35.82 | 32.82 | 34.32 | 71.6 | 72.2 | 71.9 | 5.47 | 5.46 | 5.47 | 1.01 | 0.88 | 0.95 |
| 29/12/2021 | 14:28 | Fine | Surface | 1.0 | 19.98 | 20.02 | 20.00 | 8.81 | 8.81 | 8.81 | 32.89 | 32.90 | 32.90 | 94.0 | 94.4 | 94.2 | 7.13 | 7.16 | 7.15 | 1.55 | 1.48 | 1.52 |
| | 14:30 | | Middle | 3.5 | 19.95 | 19.95 | 19.95 | 8.64 | 8.62 | 8.63 | 33.07 | 33.05 | 33.06 | 99.5 | 98.3 | 98.9 | 7.56 | 7.47 | 7.52 | 1.62 | 1.59 | 1.61 |
| | 14:32 | | Bottom | 6.0 | 19.97 | 19.98 | 19.98 | 8.28 | 8.28 | 8.28 | 33.35 | 33.32 | 33.34 | 74.1 | 74.7 | 74.4 | 5.62 | 5.66 | 5.64 | 2.06 | 1.98 | 2.02 |

**Water Monitoring Result at CR15 - Corals at Science Park**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 10:10 | Fine | Surface | 1.0 | 23.76 | 23.79 | 23.78 | 8.21 | 8.21 | 8.21 | 29.41 | 29.41 | 29.41 | 71.5 | 71.6 | 71.6 | 5.10 | 5.11 | 5.11 | 1.57 | 1.37 | 1.47 |
| | 10:12 | | Middle | 3.0 | 23.80 | 23.81 | 23.81 | 8.23 | 8.23 | 8.23 | 29.51 | 29.55 | 29.53 | 73.4 | 72.9 | 73.2 | 5.24 | 5.20 | 5.22 | 1.12 | 0.90 | 1.01 |
| | 10:14 | | Bottom | 5.0 | 23.81 | 23.81 | 23.81 | 8.22 | 8.20 | 8.21 | 29.65 | 29.68 | 29.67 | 71.9 | 71.4 | 71.7 | 5.12 | 5.10 | 5.11 | 1.27 | 1.06 | 1.17 |
| 1/12/2021 | 9:09 | Fine | Surface | 1.0 | 22.87 | 22.86 | 22.87 | 8.90 | 8.89 | 8.90 | 29.76 | 29.82 | 29.79 | 62.7 | 64.0 | 63.4 | 4.54 | 4.63 | 4.59 | 2.53 | 2.48 | 2.51 |
| | 9:11 | | Middle | 3.5 | 22.90 | 22.91 | 22.91 | 8.90 | 8.84 | 8.87 | 29.88 | 29.93 | 29.91 | 64.4 | 64.9 | 64.7 | 4.65 | 4.69 | 4.67 | 1.05 | 1.02 | 1.04 |
| | 9:14 | | Bottom | 6.0 | 23.45 | 23.37 | 23.41 | 8.70 | 8.78 | 8.74 | 30.46 | 30.15 | 30.31 | 43.9 | 44.4 | 44.2 | 3.13 | 3.15 | 3.14 | 3.14 | 2.92 | 3.03 |
| 2/12/2021 | 9:30 | Fine | Surface | 1.0 | 22.56 | 22.53 | 22.55 | 8.91 | 8.94 | 8.93 | 30.14 | 30.23 | 30.19 | 65.0 | 64.2 | 64.6 | 4.72 | 4.67 | 4.70 | 1.52 | 1.47 | 1.50 |
| | 9:32 | | Middle | 3.5 | 22.49 | 22.48 | 22.49 | 8.95 | 8.90 | 8.93 | 30.30 | 30.36 | 30.33 | 68.1 | 66.8 | 67.5 | 4.95 | 4.85 | 4.90 | 1.76 | 1.89 | 1.83 |
| | 9:35 | | Bottom | 6.0 | 22.47 | 22.48 | 22.48 | 8.98 | 8.92 | 8.95 | 30.39 | 30.41 | 30.40 | 68.3 | 67.7 | 68.0 | 4.97 | 4.92 | 4.95 | 1.14 | 0.96 | 1.05 |
| 3/12/2021 | 9:44 | Fine | Surface | 1.0 | 22.01 | 22.05 | 22.03 | 8.86 | 8.82 | 8.84 | 29.42 | 29.44 | 29.43 | 88.7 | 87.0 | 87.9 | 6.52 | 6.54 | 6.53 | 1.06 | 1.19 | 1.13 |
| | 9:46 | | Middle | 3.5 | 22.10 | 22.09 | 22.10 | 8.78 | 8.71 | 8.75 | 29.57 | 29.59 | 29.58 | 82.1 | 81.9 | 82.0 | 6.04 | 6.02 | 6.03 | 0.89 | 1.12 | 1.01 |
| | 9:49 | | Bottom | 6.0 | 22.18 | 22.20 | 22.19 | 8.82 | 8.85 | 8.84 | 29.89 | 29.92 | 29.91 | 77.9 | 77.1 | 77.5 | 5.71 | 5.65 | 5.68 | 1.55 | 1.74 | 1.65 |
| 6/12/2021 | 14:20 | Fine | Surface | 1.0 | 21.78 | 21.78 | 21.78 | 8.54 | 8.55 | 8.55 | 30.03 | 30.08 | 30.06 | 96.7 | 96.2 | 96.5 | 7.15 | 7.12 | 7.14 | 1.71 | 1.67 | 1.69 |
| | 14:22 | | Middle | 3.5 | 21.86 | 21.85 | 21.86 | 8.29 | 8.32 | 8.31 | 30.47 | 30.50 | 30.49 | 83.2 | 82.4 | 82.8 | 6.13 | 6.06 | 6.10 | 2.33 | 2.25 | 2.29 |
| | 14:25 | | Bottom | 6.0 | 21.88 | 21.88 | 21.88 | 8.25 | 8.23 | 8.24 | 30.94 | 31.00 | 30.97 | 69.5 | 69.2 | 69.4 | 5.10 | 5.08 | 5.09 | 4.08 | 4.04 | 4.06 |
| 8/12/2021 | 15:21 | Fine | Surface | 1.0 | 21.82 | 21.84 | 21.83 | 8.77 | 8.77 | 8.77 | 33.11 | 33.14 | 33.13 | 102.1 | 101.5 | 101.8 | 7.40 | 7.37 | 7.39 | 1.21 | 1.26 | 1.24 |
| | 15:23 | | Middle | 3.5 | 21.40 | 21.43 | 21.42 | 8.78 | 8.78 | 8.78 | 33.12 | 33.14 | 33.13 | 99.3 | 98.5 | 98.9 | 7.24 | 7.19 | 7.22 | 0.94 | 0.85 | 0.90 |
| | 15:25 | | Bottom | 6.0 | 21.04 | 21.04 | 21.04 | 8.75 | 8.75 | 8.75 | 33.19 | 33.23 | 33.21 | 72.6 | 72.1 | 72.4 | 5.33 | 5.30 | 5.32 | 1.66 | 1.70 | 1.68 |
| 10/12/2021 | 17:58 | Fine | Surface | 1.0 | 21.84 | 21.84 | 21.84 | 8.69 | 8.70 | 8.70 | 32.88 | 32.88 | 32.88 | 122.4 | 121.2 | 121.8 | 8.87 | 8.78 | 8.83 | 1.42 | 1.39 | 1.41 |
| | 18:00 | | Middle | 3.0 | 21.19 | 21.17 | 21.18 | 8.71 | 8.71 | 8.71 | 33.38 | 31.38 | 32.38 | 78.0 | 77.4 | 77.7 | 5.71 | 5.68 | 5.70 | 1.63 | 1.74 | 1.69 |
| | 18:01 | | Bottom | 5.0 | 21.08 | 21.09 | 21.09 | 8.63 | 8.63 | 8.63 | 33.59 | 33.58 | 33.59 | 53.4 | 53.1 | 53.3 | 3.97 | 3.88 | 3.93 | 0.86 | 0.92 | 0.89 |
| 13/12/2021 | 8:45 | Fine | Surface | 1.0 | 21.70 | 21.71 | 21.71 | 8.68 | 8.69 | 8.69 | 33.12 | 33.13 | 33.13 | 86.8 | 87.3 | 87.1 | 6.39 | 6.42 | 6.41 | 0.44 | 0.41 | 0.43 |
| | 8:47 | | Middle | 3.0 | 21.76 | 21.77 | 21.77 | 8.64 | 8.65 | 8.65 | 33.39 | 33.41 | 33.40 | 85.2 | 85.7 | 85.5 | 6.26 | 6.29 | 6.28 | 0.49 | 0.45 | 0.47 |
| | 8:50 | | Bottom | 5.0 | 21.81 | 21.80 | 21.81 | 8.43 | 8.42 | 8.43 | 33.86 | 33.85 | 33.86 | 48.6 | 47.3 | 48.0 | 3.56 | 3.46 | 3.51 | 1.53 | 1.58 | 1.56 |
| 15/12/2021 | 10:04 | Cloudy | Surface | 1.0 | 22.14 | 22.14 | 22.14 | 8.48 | 8.49 | 8.49 | 33.26 | 33.23 | 33.25 | 92.0 | 93.2 | 92.6 | 6.72 | 6.80 | 6.76 | 1.00 | 0.94 | 0.97 |
| | 10:06 | | Middle | 3.0 | 22.08 | 22.09 | 22.09 | 8.23 | 8.22 | 8.23 | 33.21 | 33.22 | 33.22 | 94.6 | 94.0 | 94.3 | 6.93 | 6.89 | 6.91 | 0.65 | 0.71 | 0.68 |
| | 10:08 | | Bottom | 5.0 | 22.00 | 22.01 | 22.01 | 8.64 | 8.70 | 8.67 | 33.43 | 33.44 | 33.44 | 60.2 | 58.9 | 59.6 | 4.41 | 4.31 | 4.36 | 0.95 | 0.99 | 0.97 |
| 17/12/2021 | 10:14 | Cloudy | Surface | 1.0 | 22.42 | 22.45 | 22.44 | 8.81 | 8.83 | 8.82 | 33.41 | 33.14 | 33.28 | 79.5 | 788.4 | 434.0 | 5.78 | 5.70 | 5.74 | 1.10 | 1.06 | 1.08 |
| | 10:16 | | Middle | 3.0 | 22.43 | 22.43 | 22.43 | 8.58 | 8.55 | 8.57 | 33.38 | 33.42 | 33.40 | 84.6 | 83.8 | 84.2 | 6.15 | 6.11 | 6.13 | 0.66 | 0.68 | 0.67 |
| | 10:18 | | Bottom | 5.0 | 22.07 | 22.05 | 22.06 | 8.37 | 8.40 | 8.39 | 33.84 | 33.81 | 33.83 | 54.7 | 53.8 | 54.3 | 3.99 | 3.93 | 3.96 | 0.81 | 0.86 | 0.84 |
| 20/12/2021 | 12:32 | Cloudy | Surface | 1.0 | 20.97 | 20.99 | 20.98 | 8.84 | 8.82 | 8.83 | 33.16 | 33.19 | 33.18 | 81.5 | 80.7 | 81.1 | 6.07 | 6.01 | 6.04 | 0.66 | 0.70 | 0.68 |
| | 12:33 | | Middle | 3.5 | 21.20 | 21.19 | 21.20 | 8.57 | 8.55 | 8.56 | 33.61 | 33.56 | 33.59 | 74.7 | 74.4 | 74.6 | 5.55 | 6.52 | 6.04 | 1.32 | 1.29 | 1.31 |
| | 12:35 | | Bottom | 6.0 | 21.59 | 21.60 | 21.60 | 8.42 | 8.43 | 8.43 | 33.98 | 33.95 | 33.97 | 39.9 | 38.7 | 39.3 | 2.93 | 2.82 | 2.88 | 4.82 | 4.65 | 4.74 |
| 22/12/2021 | 14:15 | Cloudy | Surface | 1.0 | 20.80 | 20.80 | 20.80 | 8.41 | 8.42 | 8.42 | 33.27 | 33.28 | 33.28 | 77.7 | 77.1 | 77.4 | 5.81 | 5.77 | 5.79 | 1.00 | 1.06 | 1.03 |
| | 14:17 | | Middle | 3.0 | 20.81 | 20.80 | 20.81 | 8.28 | 8.30 | 8.29 | 33.44 | 33.45 | 33.45 | 71.4 | 72.1 | 71.8 | 5.35 | 5.40 | 5.38 | 1.09 | 1.04 | 1.07 |
| | 14:19 | | Bottom | 5.0 | 21.00 | 21.01 | 21.01 | 8.36 | 8.36 | 8.36 | 33.53 | 33.55 | 33.54 | 58.6 | 59.2 | 58.9 | 4.35 | 4.39 | 4.37 | 2.53 | 2.39 | 2.46 |
| 27/12/2021 | 18:28 | Cloudy | Surface | 1.0 | 19.59 | 19.58 | 19.59 | 8.52 | 8.53 | 8.53 | 33.14 | 33.15 | 33.15 | 78.5 | 78.3 | 78.4 | 6.01 | 5.99 | 6.00 | 1.22 | 1.16 | 1.19 |
| | 18:30 | | Middle | 3.0 | 19.72 | 19.72 | 19.72 | 8.44 | 8.43 | 8.44 | 33.40 | 33.38 | 33.39 | 76.3 | 75.3 | 75.8 | 5.82 | 5.74 | 5.78 | 1.01 | 0.93 | 0.97 |
| | 18:31 | | Bottom | 5.0 | 19.94 | 19.94 | 19.94 | 8.32 | 8.31 | 8.32 | 33.68 | 33.67 | 33.68 | 69.0 | 69.7 | 69.4 | 5.24 | 5.29 | 5.27 | 0.84 | 0.89 | 0.87 |
| 29/12/2021 | 8:47 | Fine | Surface | 1.0 | 19.58 | 19.58 | 19.58 | 7.82 | 7.80 | 7.81 | 32.36 | 32.37 | 32.37 | 82.6 | 83.1 | 82.9 | 6.33 | 6.37 | 6.35 | 1.55 | 1.48 | 1.52 |
| | 8:49 | | Middle | 3.5 | 19.81 | 19.82 | 19.82 | 7.69 | 7.69 | 7.69 | 32.51 | 32.54 | 32.53 | 77.3 | 78.0 | 77.7 | 5.89 | 5.94 | 5.92 | 2.12 | 2.25 | 2.19 |
| | 8:51 | | Bottom | 6.0 | 19.87 | 19.87 | 19.87 | 7.44 | 7.45 | 7.45 | 32.63 | 32.63 | 32.63 | 73.2 | 72.9 | 73.1 | 5.57 | 5.55 | 5.56 | 1.29 | 1.22 | 1.26 |
| 31/12/2021 | 9:51 | Cloudy | Surface | 1.0 | 19.54 | 19.54 | 19.54 | 8.66 | 8.68 | 8.67 | 32.70 | 32.72 | 32.71 | 89.2 | 88.5 | 88.9 | 6.83 | 6.77 | 6.80 | 1.17 | 1.22 | 1.20 |
| | 9:53 | | Middle | 3.0 | 19.64 | 19.65 | 19.65 | 8.56 | 8.54 | 8.55 | 32.94 | 32.92 | 32.93 | 96.7 | 96.3 | 96.5 | 7.37 | 7.34 | 7.36 | 0.82 | 0.89 | 0.86 |
| | 9:55 | | Bottom | 5.0 | 19.79 | 19.80 | 19.80 | 8.52 | 8.52 | 8.52 | 33.35 | 33.37 | 33.36 | 90.5 | 89.8 | 90.2 | 6.85 | 6.80 | 6.83 | 0.61 | 0.61 | 0.61 |

**Water Monitoring Result at CR16 - Corals at Sha Tin Hoi North**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 14:43 | Fine | Surface | 1.0 | 23.71 | 23.74 | 23.73 | 8.66 | 8.65 | 8.66 | 29.87 | 29.85 | 29.86 | 77.6 | 77.9 | 77.8 | 5.53 | 5.55 | 5.54 | 1.35 | 1.28 | 1.32 |
| | 14:45 | | Middle | 3.5 | 23.72 | 23.72 | 23.72 | 8.66 | 8.65 | 8.66 | 29.75 | 29.79 | 29.77 | 79.2 | 81.3 | 80.3 | 5.65 | 5.80 | 5.73 | 0.74 | 0.88 | 0.81 |
| | 14:47 | | Bottom | 6.0 | 23.71 | 23.69 | 23.70 | 8.64 | 8.64 | 8.64 | 29.51 | 29.54 | 29.53 | 80.1 | 80.1 | 80.1 | 5.72 | 5.73 | 5.73 | 0.37 | 0.37 | 0.37 |
| 1/12/2021 | 14:34 | Fine | Surface | 1.0 | 22.68 | 22.70 | 22.69 | 8.89 | 8.88 | 8.89 | 29.11 | 29.20 | 29.16 | 74.4 | 75.0 | 74.7 | 5.40 | 5.45 | 5.43 | 1.97 | 2.02 | 2.00 |
| | 14:36 | | Middle | 3.5 | 22.87 | 22.87 | 22.87 | 8.82 | 8.84 | 8.83 | 29.98 | 29.99 | 29.99 | 65.1 | 66.4 | 65.8 | 4.71 | 4.80 | 4.76 | 1.44 | 1.35 | 1.40 |
| | 14:38 | | Bottom | 6.0 | 22.84 | 22.86 | 22.85 | 8.84 | 8.84 | 8.84 | 30.16 | 30.18 | 30.17 | 64.0 | 63.5 | 63.8 | 4.62 | 4.60 | 4.61 | 2.40 | 2.34 | 2.37 |
| 2/12/2021 | 14:55 | Fine | Surface | 1.0 | 22.44 | 22.45 | 22.45 | 8.89 | 8.91 | 8.90 | 29.76 | 29.66 | 29.71 | 96.9 | 95.2 | 96.1 | 7.07 | 6.94 | 7.01 | 1.76 | 1.80 | 1.78 |
| | 14:57 | | Middle | 3.5 | 22.44 | 22.43 | 22.44 | 8.85 | 8.82 | 8.84 | 30.20 | 30.22 | 30.21 | 90.1 | 88.1 | 89.1 | 6.56 | 6.41 | 6.49 | 0.49 | 0.70 | 0.60 |
| | 14:59 | | Bottom | 6.0 | 22.48 | 22.50 | 22.49 | 8.80 | 8.82 | 8.81 | 30.40 | 30.45 | 30.43 | 79.0 | 78.3 | 78.7 | 5.74 | 5.68 | 5.71 | 1.29 | 1.20 | 1.25 |
| 3/12/2021 | 15:10 | Fine | Surface | 1.0 | 21.90 | 21.92 | 21.91 | 8.82 | 8.84 | 8.83 | 29.24 | 29.27 | 29.26 | 113.4 | 114.8 | 114.1 | 8.38 | 8.46 | 8.42 | 2.12 | 2.19 | 2.16 |
| | 15:12 | | Middle | 4.0 | 22.05 | 22.06 | 22.06 | 8.80 | 8.78 | 8.79 | 29.77 | 29.70 | 29.74 | 107.9 | 106.7 | 107.3 | 7.92 | 7.84 | 7.88 | 1.03 | 1.07 | 1.05 |
| | 15:15 | | Bottom | 7.0 | 22.17 | 22.20 | 22.19 | 8.75 | 8.72 | 8.74 | 30.12 | 30.19 | 30.16 | 94.7 | 93.8 | 94.3 | 6.93 | 6.86 | 6.90 | 3.99 | 3.85 | 3.92 |
| 6/12/2021 | 8:20 | Fine | Surface | 1.0 | 21.33 | 21.33 | 21.33 | 8.82 | 8.80 | 8.81 | 30.56 | 30.52 | 30.54 | 91.1 | 92.2 | 91.7 | 6.79 | 6.87 | 6.83 | 1.69 | 1.72 | 1.71 |
| | 8:23 | | Middle | 3.0 | 21.44 | 21.46 | 21.45 | 8.81 | 8.78 | 8.80 | 30.62 | 30.60 | 30.61 | 101.8 | 101.4 | 101.6 | 7.57 | 7.54 | 7.56 | 0.75 | 0.80 | 0.78 |
| | 8:26 | | Bottom | 5.0 | 21.64 | 21.63 | 21.64 | 8.74 | 8.75 | 8.75 | 30.81 | 30.87 | 30.84 | 99.7 | 99.8 | 99.8 | 7.38 | 7.39 | 7.39 | 0.28 | 0.33 | 0.31 |
| 8/12/2021 | 9:50 | Fine | Surface | 1.0 | 20.92 | 20.90 | 20.91 | 8.56 | 8.55 | 8.56 | 33.07 | 33.10 | 33.09 | 85.0 | 85.6 | 85.3 | 6.26 | 6.30 | 6.28 | 0.95 | 0.90 | 0.93 |
| | 9:52 | | Middle | 3.5 | 20.73 | 20.75 | 20.74 | 8.64 | 8.64 | 8.64 | 33.25 | 33.24 | 33.25 | 82.7 | 83.0 | 82.9 | 6.09 | 6.11 | 6.10 | 1.04 | 1.01 | 1.03 |
| | 9:54 | | Bottom | 6.0 | 21.11 | 21.06 | 21.09 | 8.57 | 8.56 | 8.57 | 33.62 | 33.62 | 33.62 | 63.1 | 62.2 | 62.7 | 4.62 | 4.55 | 4.59 | 0.88 | 0.90 | 0.89 |
| 10/12/2021 | 12:21 | Fine | Surface | 1.0 | 21.18 | 21.17 | 21.18 | 8.74 | 8.75 | 8.75 | 32.74 | 32.74 | 32.74 | 114.2 | 113.6 | 113.9 | 8.39 | 8.34 | 8.37 | 1.87 | 1.91 | 1.89 |
| | 12:23 | | Middle | 3.5 | 20.84 | 20.82 | 20.83 | 8.77 | 8.77 | 8.77 | 32.99 | 32.99 | 32.99 | 105.3 | 105.8 | 105.6 | 7.77 | 7.80 | 7.79 | 1.40 | 1.33 | 1.37 |
| | 12:25 | | Bottom | 6.0 | 21.11 | 21.10 | 21.11 | 8.66 | 8.66 | 8.66 | 33.41 | 33.43 | 33.42 | 55.2 | 54.9 | 55.1 | 4.04 | 4.02 | 4.03 | 1.11 | 1.15 | 1.13 |
| 13/12/2021 | 14:20 | Fine | Surface | 1.0 | 22.35 | 22.36 | 22.36 | 8.65 | 8.61 | 8.63 | 32.26 | 32.30 | 32.28 | 90.3 | 90.9 | 90.6 | 6.58 | 6.63 | 6.61 | 0.45 | 0.51 | 0.48 |
| | 14:24 | | Middle | 4.0 | 22.22 | 22.19 | 22.21 | 8.27 | 8.27 | 8.27 | 32.84 | 32.88 | 32.86 | 88.2 | 88.9 | 88.6 | 6.45 | 6.50 | 6.48 | 0.32 | 0.38 | 0.35 |
| | 14:27 | | Bottom | 7.0 | 21.80 | 21.82 | 21.81 | 8.19 | 8.22 | 8.21 | 33.24 | 33.17 | 33.21 | 78.9 | 79.9 | 79.4 | 5.80 | 5.87 | 5.84 | 1.85 | 1.78 | 1.82 |
| 15/12/2021 | 14:33 | Cloudy | Surface | 1.0 | 22.05 | 22.03 | 22.04 | 8.48 | 8.50 | 8.49 | 33.27 | 33.24 | 33.26 | 90.8 | 91.8 | 91.3 | 6.65 | 6.72 | 6.69 | 0.98 | 0.94 | 0.96 |
| | 14:35 | | Middle | 3.5 | 22.09 | 22.08 | 22.09 | 8.54 | 8.57 | 8.56 | 33.60 | 33.61 | 33.61 | 69.9 | 68.5 | 69.2 | 5.11 | 5.01 | 5.06 | 0.93 | 0.95 | 0.94 |
| | 14:37 | | Bottom | 6.0 | 21.98 | 21.96 | 21.97 | 8.60 | 8.62 | 8.61 | 33.81 | 33.84 | 33.83 | 48.9 | 49.6 | 49.3 | 3.57 | 3.62 | 3.60 | 0.78 | 0.71 | 0.75 |
| 17/12/2021 | 14:55 | Cloudy | Surface | 1.0 | 22.48 | 22.49 | 22.49 | 8.74 | 8.69 | 8.72 | 32.70 | 32.74 | 32.72 | 102.4 | 102.1 | 102.3 | 7.46 | 7.41 | 7.44 | 0.44 | 0.41 | 0.43 |
| | 14:58 | | Middle | 3.5 | 22.46 | 22.44 | 22.45 | 8.85 | 8.83 | 8.84 | 32.88 | 32.86 | 32.87 | 108.8 | 106.5 | 107.7 | 7.92 | 7.76 | 7.84 | 0.56 | 0.62 | 0.59 |
| | 15:00 | | Bottom | 6.0 | 22.36 | 22.32 | 22.34 | 8.77 | 8.76 | 8.77 | 33.42 | 33.38 | 33.40 | 51.4 | 52.0 | 51.7 | 3.75 | 3.80 | 3.78 | 0.23 | 0.29 | 0.26 |
| 20/12/2021 | 16:56 | Cloudy | Surface | 1.0 | 20.63 | 20.62 | 20.63 | 8.68 | 8.65 | 8.67 | 33.19 | 33.19 | 33.19 | 82.3 | 82.0 | 82.2 | 6.19 | 6.17 | 6.18 | 1.48 | 1.54 | 1.51 |
| | 16:58 | | Middle | 3.0 | 20.78 | 20.79 | 20.79 | 8.40 | 8.42 | 8.41 | 33.40 | 33.43 | 33.42 | 82.8 | 83.7 | 83.3 | 6.20 | 6.22 | 6.21 | 1.16 | 1.07 | 1.12 |
| | 17:00 | | Bottom | 5.0 | 21.20 | 21.20 | 21.20 | 8.29 | 8.27 | 8.28 | 33.88 | 33.85 | 33.87 | 70.3 | 70.7 | 70.5 | 5.21 | 5.24 | 5.23 | 1.36 | 1.32 | 1.34 |
| 22/12/2021 | 9:10 | Cloudy | Surface | 1.0 | 20.03 | 20.34 | 20.19 | 8.69 | 8.66 | 8.68 | 33.42 | 33.43 | 33.43 | 76.4 | 76.7 | 76.6 | 5.76 | 5.77 | 5.77 | 1.92 | 1.84 | 1.88 |
| | 9:13 | | Middle | 3.5 | 20.37 | 20.38 | 20.38 | 8.55 | 8.55 | 8.55 | 33.64 | 33.65 | 33.65 | 72.1 | 73.0 | 72.6 | 5.44 | 5.50 | 5.47 | 1.26 | 1.31 | 1.29 |
| | 9:15 | | Bottom | 6.0 | 20.49 | 20.48 | 20.49 | 8.52 | 8.50 | 8.51 | 33.89 | 33.86 | 33.88 | 70.8 | 69.9 | 70.4 | 5.32 | 5.25 | 5.29 | 1.07 | 1.11 | 1.09 |
| 24/12/2021 | 9:30 | Cloudy | Surface | 1.0 | 21.11 | 21.11 | 21.11 | 8.60 | 8.59 | 8.60 | 32.84 | 32.81 | 32.83 | 72.4 | 71.5 | 72.0 | 5.37 | 5.32 | 5.34 | 0.78 | 0.71 | 0.75 |
| | 9:32 | | Middle | 3.5 | 21.01 | 21.00 | 21.01 | 8.47 | 8.47 | 8.47 | 33.06 | 33.08 | 33.07 | 69.1 | 69.8 | 69.5 | 5.14 | 5.19 | 5.17 | 0.58 | 0.63 | 0.61 |
| | 9:33 | | Bottom | 6.0 | 20.93 | 20.92 | 20.93 | 8.25 | 8.25 | 8.25 | 33.67 | 33.65 | 33.66 | 56.3 | 55.8 | 56.1 | 4.19 | 4.15 | 4.17 | 0.61 | 0.66 | 0.64 |
| 27/12/2021 | 12:37 | Cloudy | Surface | 1.0 | 19.66 | 19.68 | 19.67 | 8.46 | 8.44 | 8.45 | 33.09 | 33.09 | 33.09 | 72.2 | 75.7 | 74.0 | 5.82 | 5.77 | 5.80 | 1.33 | 1.24 | 1.29 |
| | 12;39 | | Middle | 3.5 | 19.68 | 19.68 | 19.68 | 8.15 | 8.15 | 8.15 | 33.12 | 33.14 | 33.13 | 80.2 | 79.7 | 80.0 | 6.12 | 6.08 | 6.10 | 0.95 | 1.03 | 0.99 |
| | 12:41 | | Bottom | 6.0 | 19.70 | 19.71 | 19.71 | 7.98 | 7.95 | 7.97 | 33.24 | 33.21 | 33.23 | 75.5 | 76.7 | 76.1 | 5.75 | 5.84 | 5.80 | 0.86 | 0.78 | 0.82 |
| 29/12/2021 | 14:06 | Fine | Surface | 1.0 | 19.73 | 19.74 | 19.74 | 8.82 | 8.82 | 8.82 | 32.71 | 32.75 | 32.73 | 95.4 | 96.3 | 95.9 | 7.29 | 7.36 | 7.33 | 1.35 | 1.26 | 1.30 |
| | 14:08 | | Middle | 4.0 | 19.55 | 19.54 | 19.55 | 8.68 | 8.65 | 8.67 | 32.98 | 33.01 | 33.00 | 84.7 | 85.5 | 85.1 | 6.48 | 6.55 | 6.52 | 0.69 | 0.77 | 0.73 |
| | 14:10 | | Bottom | 7.0 | 19.69 | 19.69 | 19.69 | 8.45 | 8.43 | 8.44 | 33.24 | 33.26 | 33.25 | 81.9 | 82.9 | 82.4 | 6.24 | 6.32 | 6.28 | 0.55 | 0.48 | 0.52 |

**Water Monitoring Result at CR16 - Corals at Sha Tin Hoi North**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 9:15 | Fine | Surface | 1.0 | 23.26 | 23.30 | 23.28 | 8.26 | 8.26 | 8.26 | 28.41 | 28.55 | 28.48 | 74.8 | 76.1 | 75.5 | 5.42 | 5.50 | 5.46 | 1.30 | 1.29 | 1.30 |
| | 9:18 | | Middle | 3.5 | 23.44 | 23.43 | 23.44 | 8.24 | 8.24 | 8.24 | 28.98 | 29.88 | 29.43 | 75.1 | 74.1 | 74.6 | 5.41 | 5.34 | 5.38 | 0.92 | 0.62 | 0.77 |
| | 9:20 | | Bottom | 6.0 | 23.46 | 23.46 | 23.46 | 8.22 | 8.21 | 8.22 | 29.14 | 29.14 | 29.14 | 71.4 | 70.1 | 70.8 | 5.14 | 5.04 | 5.09 | 0.59 | 0.50 | 0.55 |
| 1/12/2021 | 8:42 | Fine | Surface | 1.0 | 22.21 | 22.19 | 22.20 | 8.86 | 8.86 | 8.86 | 28.47 | 28.39 | 28.43 | 64.7 | 65.5 | 65.1 | 4.78 | 4.83 | 4.81 | 20.40 | 2.41 | 11.41 |
| | 8:45 | | Middle | 4.0 | 22.81 | 22.85 | 22.83 | 8.88 | 8.89 | 8.89 | 29.76 | 28.79 | 29.28 | 66.5 | 66.6 | 66.6 | 4.85 | 4.85 | 4.85 | 2.10 | 1.91 | 2.01 |
| | 8:47 | | Bottom | 7.0 | 23.08 | 23.05 | 23.07 | 8.90 | 8.92 | 8.91 | 29.18 | 29.24 | 29.21 | 65.9 | 65.2 | 65.6 | 4.77 | 4.73 | 4.75 | 1.84 | 2.01 | 1.93 |
| 2/12/2021 | 9:04 | Fine | Surface | 1.0 | 22.25 | 22.26 | 22.26 | 8.90 | 8.95 | 8.93 | 29.60 | 29.60 | 29.60 | 66.5 | 66.8 | 66.7 | 4.87 | 4.84 | 4.86 | 1.43 | 1.49 | 1.46 |
| | 9:07 | | Middle | 4.0 | 22.36 | 22.40 | 22.38 | 8.92 | 8.89 | 8.91 | 29.79 | 29.81 | 29.80 | 67.7 | 66.7 | 67.2 | 4.95 | 4.87 | 4.91 | 1.04 | 1.07 | 1.06 |
| | 9:09 | | Bottom | 7.0 | 22.50 | 22.49 | 22.50 | 8.95 | 8.98 | 8.97 | 30.03 | 30.05 | 30.04 | 67.1 | 66.9 | 67.0 | 4.89 | 4.87 | 4.88 | 1.80 | 1.87 | 1.84 |
| 3/12/2021 | 9:20 | Fine | Surface | 1.0 | 21.89 | 21.90 | 21.90 | 8.82 | 8.85 | 8.84 | 29.46 | 29.42 | 29.44 | 80.8 | 81.6 | 81.2 | 5.97 | 6.02 | 6.00 | 3.47 | 3.69 | 3.58 |
| | 9:23 | | Middle | 4.0 | 22.02 | 22.02 | 22.02 | 8.86 | 8.88 | 8.87 | 29.75 | 29.77 | 29.76 | 84.0 | 84.9 | 84.5 | 6.17 | 6.24 | 6.21 | 2.31 | 2.16 | 2.24 |
| | 9:26 | | Bottom | 7.0 | 22.12 | 22.14 | 22.13 | 8.91 | 8.89 | 8.90 | 30.03 | 30.07 | 30.05 | 81.1 | 80.1 | 80.6 | 5.98 | 5.87 | 5.93 | 1.27 | 1.45 | 1.36 |
| 6/12/2021 | 14:48 | Fine | Surface | 1.0 | 21.97 | 21.95 | 21.96 | 8.09 | 88.10 | 48.10 | 30.68 | 30.72 | 30.70 | 98.0 | 97.9 | 98.0 | 7.20 | 7.18 | 7.19 | 1.08 | 1.15 | 1.12 |
| | 14:51 | | Middle | 0.4 | 21.96 | 21.96 | 21.96 | 8.14 | 8.13 | 8.14 | 30.95 | 30.97 | 30.96 | 105.2 | 106.5 | 105.9 | 7.71 | 7.81 | 7.76 | 0.70 | 0.76 | 0.73 |
| | 14:54 | | Bottom | 6.0 | 21.92 | 21.94 | 21.93 | 7.92 | 7.95 | 7.94 | 31.32 | 31.33 | 31.33 | 79.9 | 78.2 | 79.1 | 5.84 | 5.72 | 5.78 | 2.03 | 1.96 | 2.00 |
| 8/12/2021 | 15:41 | Fine | Surface | 1.0 | 21.56 | 21.58 | 21.57 | 8.78 | 8.79 | 8.79 | 33.05 | 33.06 | 33.05 | 100.4 | 100.8 | 100.6 | 7.31 | 7.34 | 7.33 | 1.40 | 1.32 | 1.36 |
| | 15:42 | | Middle | 3.5 | 20.80 | 20.79 | 20.80 | 8.80 | 8.80 | 8.80 | 33.13 | 33.15 | 33.14 | 97.9 | 98.1 | 98.0 | 7.22 | 7.24 | 7.23 | 0.65 | 0.56 | 0.61 |
| | 15:44 | | Bottom | 6.0 | 20.76 | 20.76 | 20.76 | 8.78 | 8.78 | 8.78 | 33.28 | 33.29 | 33.29 | 86.9 | 87.2 | 87.1 | 6.38 | 6.41 | 6.40 | 1.84 | 1.92 | 1.88 |
| 10/12/2021 | 18:25 | Fine | Surface | 1.0 | 21.62 | 21.62 | 21.62 | 8.75 | 8.76 | 8.76 | 32.72 | 32.70 | 32.71 | 116.2 | 115.8 | 116.0 | 8.47 | 8.45 | 8.46 | 1.11 | 10.60 | 5.86 |
| | 18:27 | | Middle | 3.5 | 21.04 | 21.05 | 21.05 | 8.76 | 8.75 | 8.76 | 33.08 | 33.08 | 33.08 | 96.7 | 97.7 | 97.2 | 7.11 | 7.18 | 7.15 | 0.65 | 0.71 | 0.68 |
| | 18:29 | | Bottom | 6.0 | 21.14 | 21.12 | 21.13 | 8.68 | 8.67 | 8.68 | 33.53 | 33.52 | 33.53 | 66.4 | 65.2 | 65.8 | 4.86 | 4.77 | 4.82 | 0.97 | 1.02 | 1.00 |
| 13/12/2021 | 8:08 | Fine | Surface | 1.0 | 21.63 | 21.63 | 21.63 | 8.56 | 8.55 | 8.56 | 32.62 | 32.64 | 32.63 | 86.1 | 86.5 | 86.3 | 6.35 | 6.40 | 6.38 | 0.54 | 0.52 | 0.53 |
| | 8:10 | | Middle | 3.5 | 21.80 | 21.81 | 21.81 | 8.52 | 88.52 | 48.52 | 33.01 | 33.02 | 33.02 | 95.0 | 94.5 | 94.8 | 6.99 | 6.95 | 6.97 | 0.18 | 0.22 | 0.20 |
| | 8:12 | | Bottom | 6.0 | 21.69 | 21.68 | 21.69 | 8.44 | 8.43 | 8.44 | 33.33 | 33.34 | 33.34 | 81.8 | 80.1 | 81.0 | 6.02 | 5.89 | 5.96 | 1.34 | 1.40 | 1.37 |
| 15/12/2021 | 9:38 | Cloudy | Surface | 1.0 | 22.18 | 22.20 | 22.19 | 8.34 | 8.39 | 8.37 | 32.85 | 32.80 | 32.83 | 86.0 | 86.6 | 86.3 | 6.28 | 6.32 | 6.30 | 1.03 | 1.06 | 1.05 |
| | 9:40 | | Middle | 3.0 | 22.11 | 22.11 | 22.11 | 8.47 | 8.44 | 8.46 | 33.06 | 33.09 | 33.08 | 80.5 | 81.1 | 80.8 | 5.87 | 5.92 | 5.90 | 0.79 | 0.73 | 0.76 |
| | 9:43 | | Bottom | 5.0 | 22.04 | 22.03 | 22.04 | 8.78 | 8.81 | 8.80 | 33.48 | 33.52 | 33.50 | 67.2 | 66.6 | 66.9 | 4.91 | 4.87 | 4.89 | 1.11 | 1.06 | 1.09 |
| 17/12/2021 | 9:58 | Cloudy | Surface | 1.0 | 22.29 | 22.27 | 22.28 | 8.87 | 8.85 | 8.86 | 32.43 | 32.46 | 32.45 | 100.3 | 101.6 | 101.0 | 7.35 | 7.45 | 7.40 | 0.72 | 0.68 | 0.70 |
| | 10:00 | | Middle | 3.6 | 22.25 | 22.25 | 22.25 | 8.42 | 8.40 | 8.41 | 33.05 | 33.09 | 33.07 | 104.4 | 105.1 | 104.8 | 7.63 | 7.68 | 7.66 | 0.42 | 0.39 | 0.41 |
| | 10:02 | | Bottom | 6.0 | 21.93 | 21.90 | 21.92 | 8.29 | 8.32 | 8.31 | 33.44 | 33.46 | 33.45 | 73.1 | 73.4 | 73.3 | 5.36 | 5.38 | 5.37 | 0.50 | 0.46 | 0.48 |
| 20/12/2021 | 12;07 | Cloudy | Surface | 1.0 | 20.54 | 20.53 | 20.54 | 8.71 | 8.74 | 8.73 | 32.82 | 32.78 | 32.80 | 85.0 | 85.5 | 85.3 | 6.40 | 6.45 | 6.43 | 0.74 | 0.69 | 0.72 |
| | 12:09 | | Middle | 3.5 | 21.09 | 21.11 | 21.10 | 8.52 | 8.55 | 8.54 | 33.25 | 32.22 | 32.74 | 81.3 | 81.9 | 81.6 | 6.05 | 6.10 | 6.08 | 0.38 | 0.42 | 0.40 |
| | 12:11 | | Bottom | 6.0 | 21.20 | 21.19 | 21.20 | 8.50 | 8.48 | 8.49 | 33.61 | 33.64 | 33.63 | 71.0 | 70.2 | 70.6 | 5.27 | 5.21 | 5.24 | 0.76 | 0.81 | 0.79 |
| 22/12/2021 | 14:38 | Cloudy | Surface | 1.0 | 20.62 | 20.62 | 20.62 | 8.49 | 8.47 | 8.48 | 33.26 | 33.25 | 33.26 | 76.5 | 77.0 | 76.8 | 5.75 | 5.78 | 5.77 | 2.00 | 1.94 | 1.97 |
| | 14:40 | | Middle | 3.5 | 20.53 | 20.54 | 20.54 | 8.36 | 8.36 | 8.36 | 33.52 | 33.52 | 33.52 | 75.4 | 74.0 | 74.7 | 5.67 | 5.56 | 5.62 | 1.00 | 1.07 | 1.04 |
| | 14:42 | | Bottom | 6.0 | 20.59 | 20.60 | 20.60 | 8.35 | 8.34 | 8.35 | 33.84 | 33.86 | 33.85 | 68.1 | 68.9 | 68.5 | 5.10 | 5.16 | 5.13 | 0.85 | 0.79 | 0.82 |
| 27/12/2021 | 18:45 | Cloudy | Surface | 1.0 | 19.64 | 19.65 | 19.65 | 8.38 | 8.38 | 8.38 | 33.33 | 33.34 | 33.34 | 78.1 | 77.5 | 77.8 | 5.97 | 5.92 | 5.95 | 4.47 | 4.72 | 4.60 |
| | 18:47 | | Middle | 3.0 | 19.66 | 19.66 | 19.66 | 8.33 | 8.35 | 8.34 | 33.48 | 33.52 | 33.50 | 78.9 | 79.5 | 79.2 | 6.03 | 6.08 | 6.06 | 3.34 | 3.15 | 3.25 |
| | 18:49 | | Bottom | 5.0 | 19.69 | 19.67 | 19.68 | 8.32 | 8.31 | 8.32 | 33.63 | 33.63 | 33.63 | 77.3 | 77.1 | 77.2 | 5.91 | 5.89 | 5.90 | 2.48 | 2.56 | 2.52 |
| 29/12/2021 | 8:11 | Fine | Surface | 1.0 | 19.37 | 19.37 | 19.37 | 8.08 | 8.06 | 8.07 | 32.72 | 32.73 | 32.73 | 77.5 | 78.4 | 78.0 | 5.94 | 6.02 | 5.98 | 1.25 | 1.15 | 1.20 |
| | 8:13 | | Middle | 3.5 | 19.47 | 19.47 | 19.47 | 7.84 | 7.84 | 7.84 | 32.90 | 32.91 | 32.91 | 82.2 | 82.0 | 82.1 | 6.29 | 6.27 | 6.28 | 0.83 | 0.75 | 0.79 |
| | 8:15 | | Bottom | 6.0 | 19.61 | 19.62 | 19.62 | 7.65 | 7.68 | 7.67 | 31.11 | 31.07 | 31.09 | 85.9 | 87.1 | 86.5 | 6.50 | 6.64 | 6.57 | 0.93 | 0.87 | 0.90 |
| 31/12/2021 | 9:20 | Cloudy | Surface | 1.0 | 19.46 | 19.46 | 19.46 | 8.33 | 8.34 | 8.34 | 32.61 | 32.60 | 32.61 | 85.4 | 84.3 | 84.9 | 6.55 | 6.46 | 6.51 | 0.97 | 0.92 | 0.95 |
| | 9:22 | | Middle | 3.5 | 19.67 | 19.66 | 19.67 | 8.28 | 8.28 | 8.28 | 32.94 | 32.93 | 32.94 | 85.8 | 84.7 | 85.3 | 6.52 | 6.44 | 6.48 | 0.82 | 0.85 | 0.84 |
| | 9:23 | | Bottom | 6.0 | 19.78 | 19.78 | 19.78 | 8.25 | 8.23 | 8.24 | 33.12 | 33.15 | 33.14 | 82.2 | 81.3 | 81.8 | 6.23 | 6.16 | 6.20 | 0.60 | 0.66 | 0.63 |

**Water Monitoring Result at CR17 - Corals at Sha Tin Hoi South**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 14:28 | Fine | Surface | 1.0 | 23.77 | 23.77 | 23.77 | 8.53 | 8.50 | 8.52 | 28.85 | 28.87 | 28.86 | 78.5 | 78.0 | 78.3 | 5.63 | 5.59 | 5.61 | 1.22 | 1.27 | 1.25 |
| | 14:30 | | Middle | 3.0 | 23.59 | 23.18 | 23.39 | 8.54 | 8.54 | 8.54 | 29.14 | 29.13 | 29.14 | 75.3 | 73.7 | 74.5 | 5.40 | 5.29 | 5.35 | 1.25 | 1.37 | 1.31 |
| | 14:32 | | Bottom | 5.0 | 23.58 | 23.59 | 23.59 | 8.57 | 8.59 | 8.58 | 29.33 | 29.35 | 29.34 | 73.8 | 73.0 | 73.4 | 5.29 | 5.23 | 5.26 | 0.98 | 0.90 | 0.94 |
| 1/12/2021 | 14:20 | Fine | Surface | 1.0 | 22.73 | 22.77 | 22.75 | 8.84 | 8.84 | 8.84 | 28.24 | 28.23 | 28.24 | 78.0 | 78.7 | 78.4 | 5.71 | 5.76 | 5.74 | 2.99 | 2.87 | 2.93 |
| | 14:22 | | Middle | 3.0 | 23.08 | 23.05 | 23.07 | 8.76 | 8.77 | 8.77 | 29.13 | 29.06 | 29.10 | 65.1 | 65.0 | 65.1 | 4.72 | 4.71 | 4.72 | 2.74 | 2.50 | 2.62 |
| | 14:25 | | Bottom | 5.0 | 23.17 | 23.55 | 23.36 | 8.80 | 8.78 | 8.79 | 29.70 | 29.67 | 29.69 | 63.5 | 62.7 | 63.1 | 4.57 | 4.51 | 4.54 | 4.05 | 3.11 | 3.58 |
| 2/12/2021 | 14:42 | Fine | Surface | 1.0 | 22.26 | 22.27 | 22.27 | 8.82 | 8.86 | 8.84 | 28.60 | 28.63 | 28.62 | 98.4 | 99.6 | 99.0 | 7.25 | 7.33 | 7.29 | 2.68 | 2.71 | 2.70 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 14:44 | | Bottom | 4.0 | 22.58 | 22.60 | 22.59 | 8.66 | 8.70 | 8.68 | 29.77 | 29.83 | 29.80 | 95.8 | 95.7 | 95.8 | 6.97 | 6.96 | 6.97 | 2.60 | 2.66 | 2.63 |
| 3/12/2021 | 14:53 | Fine | Surface | 1.0 | 21.96 | 21.98 | 21.97 | 8.89 | 8.92 | 8.91 | 29.63 | 29.65 | 29.64 | 122.3 | 122.0 | 122.2 | 9.01 | 8.99 | 9.00 | 1.01 | 1.08 | 1.05 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 14:55 | | Bottom | 4.0 | 22.04 | 22.02 | 22.03 | 8.83 | 8.80 | 8.82 | 29.90 | 29.95 | 29.93 | 128.4 | 123.2 | 125.8 | 9.13 | 9.02 | 9.08 | 1.05 | 1.10 | 1.08 |
| 6/12/2021 | 8:05 | Fine | Surface | 1.0 | 21.38 | 21.37 | 21.38 | 8.70 | 8.65 | 8.68 | 30.35 | 30.39 | 30.37 | 80.1 | 79.2 | 79.7 | 5.97 | 5.93 | 5.95 | 0.80 | 0.84 | 0.82 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 8:08 | | Bottom | 4.0 | 21.64 | 21.66 | 21.65 | 8.62 | 8.60 | 8.61 | 30.76 | 30.72 | 30.74 | 69.6 | 68.3 | 69.0 | 5.15 | 5.05 | 5.10 | 1.96 | 1.89 | 1.93 |
| 8/12/2021 | 9:40 | Fine | Surface | 1.0 | 20.71 | 20.70 | 20.71 | 8.54 | 8.55 | 8.55 | 32.72 | 32.77 | 32.75 | 93.9 | 92.9 | 93.4 | 6.94 | 6.88 | 6.91 | 1.01 | 1.06 | 1.04 |
| | 9:42 | | Middle | 3.0 | 20.98 | 21.00 | 20.99 | 8.54 | 8.54 | 8.54 | 33.26 | 33.27 | 33.27 | 71.8 | 72.1 | 72.0 | 5.26 | 5.28 | 5.27 | 0.87 | 0.91 | 0.89 |
| | 9:44 | | Bottom | 5.0 | 21.08 | 21.05 | 21.07 | 8.52 | 8.52 | 8.52 | 33.44 | 33.44 | 33.44 | 68.7 | 69.2 | 69.0 | 5.03 | 5.06 | 5.05 | 1.33 | 1.30 | 1.32 |
| 10/12/2021 | 12:08 | Fine | Surface | 1.0 | 21.07 | 21.07 | 21.07 | 8.70 | 8.70 | 8.70 | 32.66 | 32.66 | 32.66 | 105.9 | 106.6 | 106.3 | 7.78 | 7.83 | 7.81 | 1.22 | 1.25 | 1.24 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 12:10 | | Bottom | 4.0 | 21.01 | 21.02 | 21.02 | 8.71 | 8.71 | 8.71 | 33.18 | 33.18 | 33.18 | 97.1 | 96.6 | 96.9 | 7.13 | 7.09 | 7.11 | 2.44 | 2.36 | 2.40 |
| 13/12/2021 | 15:49 | Fine | Surface | 1.0 | 22.04 | 22.07 | 22.06 | 8.57 | 8.52 | 8.55 | 32.18 | 32.21 | 32.20 | 91.0 | 90.9 | 91.0 | 6.66 | 6.65 | 6.66 | 0.80 | 0.87 | 0.84 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 15:51 | | Bottom | 4.0 | 21.96 | 21.94 | 21.95 | 8.40 | 8.36 | 8.38 | 32.44 | 33.47 | 32.96 | 96.9 | 95.7 | 96.3 | 7.10 | 7.01 | 7.06 | 3.03 | 2.95 | 2.99 |
| 15/12/2021 | 14:24 | Cloudy | Surface | 1.0 | 21.98 | 21.99 | 21.99 | 8.35 | 8.38 | 8.37 | 32.96 | 32.93 | 32.95 | 87.4 | 86.8 | 87.1 | 6.42 | 6.38 | 6.40 | 0.84 | 0.90 | 0.87 |
| | 14:26 | | Middle | 3.0 | 22.02 | 21.04 | 21.53 | 8.30 | 8.29 | 8.29 | 33.14 | 33.15 | 33.15 | 85.1 | 84.4 | 84.8 | 6.23 | 6.19 | 6.21 | 1.22 | 1.14 | 1.18 |
| | 14:28 | | Bottom | 5.0 | 22.06 | 22.06 | 22.06 | 8.35 | 8.32 | 8.34 | 33.42 | 33.47 | 33.45 | 62.5 | 61.3 | 61.9 | 4.57 | 4.48 | 4.53 | 2.24 | 2.14 | 2.19 |
| 17/12/2021 | 14:45 | Cloudy | Surface | 1.0 | 22.44 | 22.45 | 22.45 | 8.88 | 8.85 | 8.87 | 32.48 | 32.50 | 32.49 | 92.4 | 92.8 | 92.6 | 6.75 | 6.78 | 6.77 | 1.07 | 1.13 | 1.10 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 14:47 | | Bottom | 4.0 | 22.36 | 22.36 | 22.36 | 8.79 | 8.76 | 8.78 | 32.84 | 32.87 | 32.86 | 91.2 | 90.6 | 90.9 | 6.66 | 6.62 | 6.64 | 1.02 | 0.96 | 0.99 |
| 20/12/2021 | 17:10 | Cloudy | Surface | 1.0 | 20.61 | 20.61 | 20.61 | 8.86 | 8.84 | 8.85 | 33.09 | 33.12 | 33.11 | 80.8 | 81.4 | 81.1 | 6.08 | 6.12 | 6.10 | 0.82 | 0.88 | 0.85 |
| | 17:12 | | Middle | 3.0 | 20.77 | 20.79 | 20.78 | 8.50 | 8.57 | 8.54 | 33.37 | 33.35 | 33.36 | 83.4 | 82.7 | 83.1 | 6.25 | 6.19 | 6.22 | 1.11 | 1.04 | 1.08 |
| | 17:13 | | Bottom | 5.0 | 20.81 | 20.80 | 20.81 | 8.35 | 8.37 | 8.36 | 33.47 | 33.48 | 33.48 | 79.8 | 79.1 | 79.5 | 5.97 | 5.92 | 5.95 | 0.78 | 0.85 | 0.82 |
| 22/12/2021 | 8:54 | Cloudy | Surface | 1.0 | 20.50 | 20.52 | 20.51 | 8.38 | 84.00 | 46.19 | 33.54 | 33.57 | 33.56 | 70.6 | 71.1 | 70.9 | 5.35 | 5.37 | 5.36 | 1.36 | 1.43 | 1.40 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 8:56 | | Bottom | 4.0 | 20.55 | 20.56 | 20.56 | 8.51 | 8.50 | 8.51 | 33.63 | 33.62 | 33.63 | 70.3 | 69.1 | 69.7 | 5.28 | 5.18 | 5.23 | 1.88 | 1.97 | 1.93 |
| 24/12/2021 | 9:21 | Cloudy | Surface | 1.0 | 20.93 | 20.93 | 20.93 | 8.52 | 8.54 | 8.53 | 32.91 | 32.94 | 32.93 | 81.9 | 81.3 | 81.6 | 6.10 | 6.06 | 6.08 | 0.84 | 0.79 | 0.82 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 9:23 | | Bottom | 4.0 | 20.96 | 20.96 | 20.96 | 8.33 | 8.31 | 8.32 | 33.47 | 33.45 | 33.46 | 84.9 | 85.2 | 85.1 | 6.32 | 6.34 | 6.33 | 0.69 | 0.64 | 0.67 |
| 27/12/2021 | 12:24 | Cloudy | Surface | 1.0 | 19.16 | 16.16 | 17.66 | 8.22 | 8.20 | 8.21 | 32.48 | 32.45 | 32.47 | 81.5 | 81.8 | 81.7 | 6.32 | 6.34 | 6.33 | 1.90 | 1.79 | 1.85 |
| | 12:26 | | Middle | 3.0 | 19.38 | 19.39 | 19.39 | 8.03 | 8.01 | 8.02 | 32.34 | 32.33 | 32.34 | 86.6 | 87.4 | 87.0 | 6.67 | 6.73 | 6.70 | 1.81 | 1.74 | 1.78 |
| | 12:27 | | Bottom | 5.0 | 19.47 | 19.48 | 19.48 | 7.86 | 7.85 | 7.86 | 32.17 | 32.17 | 32.17 | 86.4 | 85.5 | 86.0 | 6.64 | 6.57 | 6.61 | 1.69 | 1.77 | 1.73 |
| 29/12/2021 | 13:55 | Fine | Surface | 1.0 | 19.89 | 19.87 | 19.88 | 8.72 | 8.72 | 8.72 | 32.84 | 32.85 | 32.85 | 92.5 | 91.6 | 92.1 | 7.05 | 6.98 | 7.02 | 1.10 | 1.23 | 1.17 |
| | 13:57 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 13:58 | | Bottom | 4.0 | 19.66 | 19.66 | 19.66 | 8.33 | 8.33 | 8.33 | 33.43 | 33.42 | 33.43 | 89.4 | 88.8 | 89.1 | 6.82 | 6.77 | 6.80 | 1.23 | 1.27 | 1.25 |

**Water Monitoring Result at CR17 - Corals at Sha Tin Hoi South**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 8:48 | Fine | Surface | 1.0 | 23.37 | 23.40 | 23.39 | 8.23 | 8.22 | 8.23 | 28.38 | 28.19 | 28.29 | 75.4 | 77.5 | 76.5 | 5.43 | 5.61 | 5.52 | 0.98 | 1.06 | 1.02 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 8:50 | | Bottom | 4.0 | 23.40 | 23.41 | 23.41 | 8.24 | 8.22 | 8.23 | 29.16 | 29.26 | 29.21 | 85.8 | 82.4 | 84.1 | 6.17 | 5.93 | 6.05 | 0.51 | 0.55 | 0.53 |
| 1/12/2021 | 08;30 | Fine | Surface | 1.0 | 22.41 | 22.40 | 22.41 | 8.83 | 8.80 | 8.82 | 28.98 | 28.97 | 28.98 | 68.1 | 68.4 | 68.3 | 5.00 | 5.02 | 5.01 | 1.31 | 1.34 | 1.33 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 8:32 | | Bottom | 4.5 | 22.55 | 22.54 | 22.55 | 8.84 | 8.83 | 8.84 | 29.26 | 29.25 | 29.26 | 66.5 | 66.0 | 66.3 | 4.86 | 4.83 | 4.85 | 2.18 | 2.12 | 2.15 |
| 2/12/2021 | 8:48 | Fine | Surface | 1.0 | 22.18 | 22.14 | 22.16 | 8.88 | 8.90 | 8.89 | 29.83 | 29.72 | 29.78 | 89.8 | 86.3 | 88.1 | 6.58 | 6.33 | 6.46 | 1.52 | 1.32 | 1.42 |
| | 8:50 | | Middle | 3.0 | 22.50 | 22.50 | 22.50 | 8.91 | 8.91 | 8.91 | 30.04 | 30.10 | 30.07 | 76.5 | 75.5 | 76.0 | 5.57 | 5.52 | 5.55 | 1.15 | 1.35 | 1.25 |
| | 8:53 | | Bottom | 5.0 | 22.38 | 22.39 | 22.39 | 8.94 | 8.92 | 8.93 | 29.98 | 29.92 | 29.95 | 70.0 | 71.6 | 70.8 | 5.11 | 5.22 | 5.17 | 1.25 | 1.02 | 1.14 |
| 3/12/2021 | 9:08 | Fine | Surface | 1.0 | 21.29 | 21.25 | 21.27 | 8.87 | 8.89 | 8.88 | 28.80 | 28.95 | 28.88 | 96.1 | 96.3 | 96.2 | 7.20 | 7.21 | 7.21 | 1.47 | 1.39 | 1.43 |
| | 9:10 | | Middle | 3.0 | 22.07 | 22.09 | 22.08 | 8.95 | 8.92 | 8.94 | 29.82 | 29.83 | 29.83 | 97.8 | 96.2 | 97.0 | 7.18 | 7.06 | 7.12 | 0.79 | 1.01 | 0.90 |
| | 9:13 | | Bottom | 5.0 | 22.13 | 22.15 | 22.14 | 8.71 | 8.77 | 8.74 | 30.10 | 30.12 | 30.11 | 90.3 | 87.9 | 89.1 | 6.61 | 6.43 | 6.52 | 2.22 | 2.17 | 2.20 |
| 6/12/2021 | 15:04 | Fine | Surface | 1.0 | 22.06 | 22.06 | 22.06 | 8.22 | 8.24 | 8.23 | 30.47 | 30.37 | 30.42 | 102.6 | 103.0 | 102.8 | 7.54 | 7.56 | 7.55 | 1.16 | 1.09 | 1.13 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 15:07 | | Bottom | 4.0 | 22.05 | 22.06 | 22.06 | 8.58 | 8.20 | 8.39 | 30.69 | 30.74 | 30.72 | 100.5 | 101.1 | 100.8 | 7.37 | 7.41 | 7.39 | 0.69 | 0.68 | 0.69 |
| 8/12/2021 | 15:52 | Fine | Surface | 1.0 | 21.48 | 21.46 | 21.47 | 8.76 | 8.76 | 8.76 | 32.93 | 32.95 | 32.94 | 98.5 | 98.0 | 98.3 | 7.18 | 7.13 | 7.16 | 2.30 | 2.22 | 2.26 |
| | 15:54 | | Middle | 3.0 | 21.33 | 21.32 | 21.33 | 8.78 | 8.78 | 8.78 | 33.04 | 33.05 | 33.05 | 96.9 | 96.6 | 96.8 | 7.09 | 7.08 | 7.09 | 2.31 | 2.22 | 2.27 |
| | 15:56 | | Bottom | 5.0 | 21.18 | 21.20 | 21.19 | 8.76 | 8.74 | 8.75 | 33.33 | 33.35 | 33.34 | 78.6 | 77.8 | 78.2 | 5.75 | 5.69 | 5.72 | 2.64 | 2.58 | 2.61 |
| 10/12/2021 | 18:41 | Fine | Surface | 1.0 | 21.67 | 21.67 | 21.67 | 8.77 | 8.77 | 8.77 | 32.62 | 32.60 | 32.61 | 118.1 | 117.2 | 117.7 | 8.60 | 8.53 | 8.57 | 1.24 | 1.20 | 1.22 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 18:43 | | Bottom | 4.0 | 21.15 | 21.13 | 21.14 | 8.76 | 8.77 | 8.77 | 33.21 | 33.21 | 33.21 | 83.8 | 83.2 | 83.5 | 6.14 | 6.10 | 6.12 | 1.53 | 1.48 | 1.51 |
| 13/12/2021 | 7:55 | Fine | Surface | 1.0 | 21.84 | 21.84 | 21.84 | 8.47 | 8.47 | 8.47 | 32.75 | 32.75 | 32.75 | 81.8 | 81.1 | 81.5 | 6.02 | 5.96 | 5.99 | 0.29 | 0.30 | 0.30 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 7:58 | | Bottom | 4.0 | 21.95 | 21.95 | 21.95 | 8.52 | 8.51 | 8.52 | 33.19 | 33.22 | 33.21 | 76.9 | 74.3 | 75.6 | 5.64 | 5.44 | 5.54 | 1.66 | 1.71 | 1.69 |
| 15/12/2021 | 9:23 | Cloudy | Surface | 1.0 | 21.72 | 21.70 | 21.71 | 8.72 | 8.69 | 8.71 | 33.65 | 32.60 | 33.13 | 97.9 | 98.2 | 98.1 | 7.20 | 7.21 | 7.21 | 0.86 | 0.81 | 0.84 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 9:26 | | Bottom | 4.0 | 22.04 | 22.05 | 22.05 | 8.39 | 8.42 | 8.41 | 32.86 | 32.89 | 32.88 | 76.2 | 75.5 | 75.9 | 5.57 | 5.52 | 5.55 | 0.88 | 0.94 | 0.91 |
| 17/12/2021 | 9:50 | Cloudy | Surface | 1.0 | 22.26 | 22.27 | 22.27 | 8.79 | 8.80 | 8.80 | 32.62 | 32.64 | 32.63 | 97.6 | 98.3 | 98.0 | 7.15 | 7.19 | 7.17 | 0.47 | 0.42 | 0.45 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 9:52 | | Bottom | 4.0 | 22.30 | 22.29 | 22.30 | 8.62 | 88.63 | 48.63 | 32.98 | 33.01 | 33.00 | 105.9 | 106.1 | 106.0 | 7.73 | 7.75 | 7.74 | 0.35 | 0.33 | 0.34 |
| 20/12/2021 | 12:54 | Cloudy | Surface | 1.0 | 20.43 | 20.45 | 20.44 | 8.61 | 8.63 | 8.62 | 32.61 | 32.64 | 32.63 | 81.5 | 82.3 | 81.9 | 6.17 | 6.22 | 6.20 | 1.26 | 1.30 | 1.28 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 12;56 | | Bottom | 4.0 | 20.79 | 20.82 | 20.81 | 8.46 | 8.44 | 8.45 | 33.12 | 33.16 | 33.14 | 76.6 | 75.9 | 76.3 | 5.73 | 5.67 | 5.70 | 1.54 | 1.49 | 1.52 |
| 22/12/2021 | 14:48 | Cloudy | Surface | 1.0 | 20.71 | 20.71 | 20.71 | 8.48 | 8.48 | 8.48 | 33.36 | 33.38 | 33.37 | 66.3 | 67.0 | 66.7 | 4.96 | 5.01 | 4.99 | 0.88 | 8.83 | 4.86 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 14:50 | | Bottom | 4.0 | 20.56 | 20.51 | 20.54 | 8.35 | 8.36 | 8.36 | 33.53 | 33.52 | 33.53 | 69.0 | 68.2 | 68.6 | 5.17 | 5.11 | 5.14 | 1.34 | 1.39 | 1.37 |
| 27/12/2021 | 18:54 | Cloudy | Surface | 1.0 | 19.58 | 19.58 | 19.58 | 8.64 | 8.66 | 8.65 | 33.40 | 33.42 | 33.41 | 84.0 | 83.3 | 83.7 | 6.42 | 6.36 | 6.39 | 2.07 | 2.15 | 2.11 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 18:55 | | Bottom | 4.0 | 19.66 | 19.67 | 19.67 | 8.53 | 8.50 | 8.52 | 33.67 | 33.65 | 33.66 | 94.1 | 93.7 | 93.9 | 7.17 | 7.15 | 7.16 | 2.31 | 2.25 | 2.28 |
| 29/12/2021 | 7:58 | Fine | Surface | 1.0 | 19.38 | 19.37 | 19.38 | 7.90 | 7.89 | 7.90 | 32.34 | 32.37 | 32.36 | 71.9 | 71.2 | 71.6 | 5.51 | 5.47 | 5.49 | 2.24 | 2.11 | 2.18 |
| | 0:00 | | Middle | 3.0 | 19.72 | 19.70 | 19.71 | 8.49 | 8.50 | 8.50 | 33.06 | 33.05 | 33.06 | 92.4 | 92.0 | 92.2 | 7.06 | 7.03 | 7.05 | 1.04 | 1.11 | 1.08 |
| | 8:01 | | Bottom | 5.0 | 19.50 | 19.51 | 19.51 | 7.63 | 7.63 | 7.63 | 32.74 | 32.74 | 32.74 | 72.4 | 73.1 | 72.8 | 5.54 | 5.60 | 5.57 | 1.35 | 1.29 | 1.32 |
| 31/12/2021 | 9:31 | Cloudy | Surface | 1.0 | 19.48 | 19.49 | 19.49 | 8.04 | 8.04 | 8.04 | 32.55 | 32.57 | 32.56 | 73.3 | 72.3 | 72.8 | 5.62 | 5.54 | 5.58 | 1.89 | 1.96 | 1.93 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 9:33 | | Bottom | 4.0 | 19.79 | 19.79 | 19.79 | 8.38 | 8.36 | 8.37 | 32.84 | 32.84 | 32.84 | 66.6 | 66.0 | 66.3 | 5.05 | 5.01 | 5.03 | 2.02 | 2.10 | 2.06 |

**Water Monitoring Result at G1 - Potential Subzone of Yim Tin Tsai Fish Culture Zone / Gradient Station**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 17:00 | Fine | Surface | 1.0 | 23.75 | 23.76 | 23.76 | 8.85 | 8.85 | 8.85 | 28.87 | 28.96 | 28.92 | 72.0 | 73.0 | 72.5 | 5.16 | 5.23 | 5.20 | 1.58 | 1.39 | 1.49 |
| | 17:03 | | Middle | 4.5 | 23.82 | 23.83 | 23.83 | 8.84 | 8.81 | 8.83 | 29.27 | 29.30 | 29.29 | 74.8 | 75.1 | 75.0 | 5.34 | 5.35 | 5.35 | 0.68 | 0.72 | 0.70 |
| | 17:07 | | Bottom | 8.0 | 23.80 | 23.82 | 23.81 | 8.82 | 8.82 | 8.82 | 29.51 | 29.60 | 29.56 | 72.3 | 71.8 | 72.1 | 5.15 | 5.12 | 5.14 | 0.28 | 0.34 | 0.31 |
| 1/12/2021 | 17:05 | Fine | Surface | 1.0 | 22.73 | 22.79 | 22.76 | 8.78 | 8.81 | 8.80 | 29.88 | 29.86 | 29.87 | 63.1 | 63.7 | 63.4 | 4.58 | 4.62 | 4.60 | 0.94 | 0.95 | 0.95 |
| | 17:08 | | Middle | 5.0 | 22.89 | 22.96 | 22.93 | 8.90 | 8.88 | 8.89 | 30.05 | 30.06 | 30.06 | 65.1 | 65.9 | 65.5 | 4.71 | 4.76 | 4.74 | 0.67 | 0.55 | 0.61 |
| | 17:12 | | Bottom | 9.0 | 22.85 | 22.88 | 22.87 | 8.86 | 8.82 | 8.84 | 30.34 | 30.30 | 30.32 | 61.2 | 60.0 | 60.6 | 4.42 | 4.33 | 4.38 | 1.47 | 1.29 | 1.38 |
| 2/12/2021 | 17:33 | Fine | Surface | 1.0 | 22.66 | 22.70 | 22.68 | 8.80 | 8.83 | 8.82 | 29.52 | 29.51 | 29.52 | 97.6 | 96.1 | 96.9 | 7.10 | 6.99 | 7.05 | 2.41 | 2.28 | 2.35 |
| | 17:35 | | Middle | 4.5 | 22.55 | 22.52 | 22.54 | 8.85 | 8.82 | 8.84 | 29.88 | 29.89 | 29.89 | 88.0 | 85.2 | 86.6 | 6.40 | 6.20 | 6.30 | 1.26 | 1.23 | 1.25 |
| | 17:39 | | Bottom | 8.0 | 22.57 | 22.61 | 22.59 | 8.81 | 8.78 | 8.80 | 30.32 | 30.35 | 30.34 | 78.1 | 77.1 | 77.6 | 5.66 | 5.59 | 5.63 | 1.31 | 1.55 | 1.43 |
| 3/12/2021 | 17:23 | Fine | Surface | 1.0 | 21.96 | 21.99 | 21.98 | 8.94 | 8.92 | 8.93 | 30.12 | 30.18 | 30.15 | 93.2 | 93.9 | 93.6 | 6.84 | 6.87 | 6.86 | 1.50 | 1.42 | 1.46 |
| | 17:25 | | Middle | 5.0 | 22.18 | 22.20 | 22.19 | 8.86 | 8.88 | 8.87 | 30.17 | 30.19 | 30.18 | 98.3 | 98.7 | 98.5 | 7.19 | 7.22 | 7.21 | 1.00 | 1.08 | 1.04 |
| | 17:28 | | Bottom | 9.0 | 22.26 | 22.28 | 22.27 | 8.76 | 8.76 | 8.76 | 30.53 | 30.60 | 30.57 | 87.1 | 85.6 | 86.4 | 6.34 | 6.23 | 6.29 | 1.99 | 1.84 | 1.92 |
| 6/12/2021 | 11:05 | Fine | Surface | 1.0 | 21.18 | 21.20 | 21.19 | 8.72 | 8.75 | 8.74 | 30.55 | 30.51 | 30.53 | 89.6 | 90.3 | 90.0 | 6.69 | 6.75 | 6.72 | 0.96 | 0.89 | 0.93 |
| | 11:08 | | Middle | 4.5 | 21.34 | 21.34 | 21.34 | 8.68 | 8.69 | 8.69 | 30.92 | 30.93 | 30.93 | 83.1 | 83.6 | 83.4 | 6.18 | 6.22 | 6.20 | 0.53 | 0.58 | 0.56 |
| | 11:12 | | Bottom | 8.0 | 21.66 | 21.67 | 21.67 | 8.62 | 8.62 | 8.62 | 31.11 | 31.10 | 31.11 | 68.5 | 67.9 | 68.2 | 5.05 | 5.00 | 5.03 | 1.41 | 1.44 | 1.43 |
| 8/12/2021 | 12:10 | Fine | Surface | 1.0 | 20.83 | 20.81 | 20.82 | 8.70 | 8.70 | 8.70 | 33.14 | 33.16 | 33.15 | 10.2 | 101.3 | 55.8 | 7.51 | 7.46 | 7.49 | 1.34 | 1.29 | 1.32 |
| | 12:12 | | Middle | .4.5 | 20.68 | 20.66 | 20.67 | 8.75 | 8.75 | 8.75 | 33.21 | 33.22 | 33.22 | 101.7 | 101.0 | 101.4 | 7.50 | 7.45 | 7.48 | 1.42 | 1.38 | 1.40 |
| | 12;14 | | Bottom | 8.0 | 20.56 | 20.58 | 20.57 | 8.74 | 8.74 | 8.74 | 33.29 | 33.31 | 33.30 | 93.4 | 93.7 | 93.6 | 6.90 | 6.92 | 6.91 | 2.08 | 2.13 | 2.11 |
| 10/12/2021 | 14:20 | Fine | Surface | 1.0 | 21.35 | 21.36 | 21.36 | 8.78 | 8.78 | 8.78 | 33.10 | 33.09 | 33.10 | 115.2 | 116.2 | 115.7 | 8.44 | 8.51 | 8.48 | 1.04 | 0.98 | 1.01 |
| | 14:23 | | Middle | 4.5 | 20.92 | 20.94 | 20.93 | 8.82 | 8.82 | 8.82 | 33.34 | 33.35 | 33.35 | 111.6 | 111.9 | 111.8 | 8.20 | 8.22 | 8.21 | 0.84 | 0.89 | 0.87 |
| | 14:27 | | Bottom | 8.0 | 20.84 | 20.84 | 20.84 | 8.85 | 8.85 | 8.85 | 33.70 | 33.71 | 33.71 | 83.8 | 83.0 | 83.4 | 6.16 | 6.08 | 6.12 | 1.15 | 1.09 | 1.12 |
| 13/12/2021 | 13:15 | Fine | Surface | 1.0 | 22.38 | 23.40 | 22.89 | 8.29 | 8.28 | 8.29 | 33.29 | 33.31 | 33.30 | 90.1 | 90.8 | 90.5 | 6.56 | 6.61 | 6.59 | 2.81 | 2.69 | 2.75 |
| | 13:18 | | Middle | 4.5 | 21.86 | 21.87 | 21.87 | 8.37 | 8.36 | 8.37 | 33.68 | 33.68 | 33.68 | 77.2 | 76.6 | 76.9 | 5.67 | 5.62 | 5.65 | 1.53 | 1.56 | 1.55 |
| | 13:21 | | Bottom | 8.0 | 21.57 | 21.57 | 21.57 | 8.13 | 8.13 | 8.13 | 33.84 | 33.85 | 33.85 | 58.4 | 57.7 | 58.1 | 4.29 | 4.24 | 4.27 | 0.61 | 0.72 | 0.67 |
| 15/12/2021 | 16:50 | Cloudy | Surface | 1.0 | 22.08 | 22.00 | 22.04 | 8.66 | 8.70 | 8.68 | 33.52 | 33.55 | 33.54 | 94.7 | 95.5 | 95.1 | 6.91 | 6.97 | 6.94 | 0.40 | 0.44 | 0.42 |
| | 16:54 | | Middle | 5.0 | 21.86 | 21.85 | 21.86 | 8.42 | 8.44 | 8.43 | 33.70 | 33.75 | 33.73 | 68.6 | 67.5 | 68.1 | 5.02 | 4.94 | 4.98 | 0.09 | 0.12 | 0.11 |
| | 16:57 | | Bottom | 9.0 | 21.58 | 21.56 | 21.57 | 8.04 | 8.07 | 8.06 | 33.79 | 33.80 | 33.80 | 56.7 | 55.1 | 55.9 | 4.15 | 4.06 | 4.11 | 0.18 | 0.22 | 0.20 |
| 17/12/2021 | 17:48 | Cloudy | Surface | 1.0 | 22.29 | 22.31 | 22.30 | 8.68 | 8.66 | 8.67 | 33.30 | 33.29 | 33.30 | 95.3 | 95.9 | 95.6 | 6.94 | 6.98 | 6.96 | 0.53 | 0.48 | 0.51 |
| | 17:51 | | Middle | 5.0 | 22.02 | 22.03 | 22.03 | 8.52 | 8.55 | 8.54 | 33.87 | 33.84 | 33.86 | 63.1 | 63.4 | 63.3 | 4.61 | 4.63 | 4.62 | 0.27 | 0.34 | 0.31 |
| | 17:53 | | Bottom | 9.0 | 21.56 | 21.52 | 21.54 | 8.40 | 8.42 | 8.41 | 33.57 | 33.62 | 33.60 | 51.5 | 50.9 | 51.2 | 3.78 | 3.74 | 3.76 | 0.74 | 0.68 | 0.71 |
| 20/12/2021 | 15:52 | Cloudy | Surface | 1.0 | 18.00 | 18.00 | 18.00 | 8.49 | 8.49 | 8.49 | 33.94 | 33.94 | 33.94 | 85.6 | 87.0 | 86.3 | 6.62 | 6.73 | 6.68 | 3.00 | 3.02 | 3.01 |
| | 15:54 | | Middle | 12.5 | 18.00 | 18.00 | 18.00 | 8.49 | 8.49 | 8.49 | 33.94 | 33.94 | 33.94 | 86.7 | 84.0 | 85.4 | 6.79 | 6.50 | 6.65 | 3.13 | 3.16 | 3.15 |
| | 15:56 | | Bottom | 24.0 | 17.90 | 17.90 | 17.90 | 8.49 | 8.49 | 8.49 | 33.95 | 33.95 | 33.95 | 88.7 | 88.0 | 88.4 | 6.87 | 6.80 | 6.84 | 3.06 | 3.28 | 3.17 |
| 22/12/2021 | 11:18 | Cloudy | Surface | 1.0 | 20.75 | 20.74 | 20.75 | 8.67 | 8.68 | 8.68 | 33.54 | 33.57 | 33.56 | 65.7 | 64.6 | 65.2 | 4.91 | 4.82 | 4.87 | 1.66 | 1.74 | 1.70 |
| | 11:20 | | Middle | 4.5 | 20.58 | 20.55 | 20.57 | 8.40 | 8.42 | 8.41 | 33.50 | 33.48 | 33.49 | 64.5 | 65.5 | 65.0 | 4.83 | 4.90 | 4.87 | 0.95 | 0.89 | 0.92 |
| | 11:22 | | Bottom | 8.0 | 20.69 | 20.70 | 20.70 | 8.42 | 8.43 | 8.43 | 33.77 | 33.76 | 33.77 | 67.5 | 67.8 | 67.7 | 5.02 | 5.05 | 5.04 | 2.41 | 2.34 | 2.38 |
| 24/12/2021 | 11:25 | Cloudy | Surface | 1.0 | 20.72 | 20.73 | 20.73 | 8.84 | 8.83 | 8.84 | 33.12 | 33.15 | 33.14 | 788.5 | 78.7 | 433.6 | 5.87 | 5.88 | 5.88 | 1.18 | 1.09 | 1.14 |
| | 11:28 | | Middle | 4.5 | 20.77 | 20.77 | 20.77 | 8.56 | 8.58 | 8.57 | 33.60 | 33.63 | 33.62 | 74.1 | 72.9 | 73.5 | 5.53 | 5.44 | 5.49 | 0.70 | 0.63 | 0.67 |
| | 11:30 | | Bottom | 8.0 | 20.77 | 20.78 | 20.78 | 8.36 | 8.35 | 8.36 | 33.89 | 33.87 | 33.88 | 55.5 | 56.3 | 55.9 | 4.13 | 4.19 | 4.16 | 2.02 | 1.89 | 1.96 |
| 27/12/2021 | 14:21 | Cloudy | Surface | 1.0 | 19.76 | 19.76 | 19.76 | 8.48 | 8.46 | 8.47 | 33.25 | 33.26 | 33.26 | 76.4 | 77.0 | 76.7 | 5.80 | 5.84 | 5.82 | 1.71 | 1.65 | 1.68 |
| | 14:23 | | Middle | 5.0 | 19.88 | 19.87 | 19.88 | 8.35 | 8.36 | 8.36 | 33.31 | 33.30 | 33.31 | 75.1 | 76.1 | 75.6 | 5.70 | 5.77 | 5.74 | 0.97 | 1.04 | 1.01 |
| | 14:25 | | Bottom | 9.0 | 20.38 | 20.36 | 20.37 | 8.29 | 8.30 | 8.30 | 33.70 | 33.72 | 33.71 | 44.5 | 44.8 | 44.7 | 3.33 | 3.36 | 3.35 | 0.66 | 0.53 | 0.60 |
| 29/12/2021 | 15:57 | Fine | Surface | 1.0 | 19.99 | 19.98 | 19.99 | 8.84 | 8.86 | 8.85 | 33.22 | 33.21 | 33.22 | 87.8 | 88.4 | 88.1 | 6.67 | 6.72 | 6.70 | 1.48 | 1.54 | 1.51 |
| | 16:00 | | Middle | 4.5 | 19.90 | 19.90 | 19.90 | 8.43 | 8.41 | 8.42 | 33.67 | 33.65 | 33.66 | 855.9 | 86.9 | 471.4 | 6.53 | 6.60 | 6.57 | 1.05 | 0.98 | 1.02 |
| | 16:02 | | Bottom | 8.0 | 19.85 | 19.86 | 19.86 | 8.48 | 8.48 | 8.48 | 33.84 | 33.89 | 33.87 | 77.5 | 78.1 | 77.8 | 5.87 | 5.92 | 5.90 | 0.84 | 0.89 | 0.87 |

**Water Monitoring Result at G1 - Potential Subzone of Yim Tin Tsai Fish Culture Zone / Gradient Station**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 12:02 | Fine | Surface | 1.0 | 23.84 | 23.86 | 23.85 | 8.23 | 8.25 | 8.24 | 28.57 | 29.48 | 29.03 | 77.4 | 74.9 | 76.2 | 5.52 | 5.34 | 5.43 | 1.33 | 1.11 | 1.22 |
| | 12:05 | | Middle | 4.0 | 23.81 | 23.82 | 23.82 | 8.25 | 8.23 | 8.24 | 29.95 | 30.00 | 29.98 | 68.2 | 65.3 | 66.8 | 4.85 | 4.62 | 4.74 | 0.68 | 0.53 | 0.61 |
| | 12:07 | | Bottom | 7.0 | 23.53 | 23.52 | 23.53 | 8.09 | 8.09 | 8.09 | 30.72 | 30.77 | 30.75 | 45.9 | 45.0 | 45.5 | 3.26 | 3.21 | 3.24 | 0.57 | 0.74 | 0.66 |
| 1/12/2021 | 9:34 | Fine | Surface | 1.0 | 21.40 | 21.40 | 21.40 | 8.55 | 8.56 | 8.56 | 32.80 | 32.80 | 32.80 | 97.1 | 95.4 | 96.3 | 7.13 | 7.01 | 7.07 | 3.52 | 3.46 | 3.49 |
| | 9:36 | | Middle | 4.5 | 21.30 | 21.40 | 21.35 | 8.55 | 8.55 | 8.55 | 32.82 | 32.82 | 32.82 | 94.9 | 96.2 | 95.6 | 6.97 | 7.05 | 7.01 | 3.32 | 3.40 | 3.36 |
| | 9:38 | | Bottom | 8.0 | 21.20 | 21.20 | 21.20 | 8.55 | 8.55 | 8.55 | 32.82 | 32.82 | 32.82 | 97.5 | 97.5 | 97.5 | 7.17 | 7.15 | 7.16 | 3.44 | 3.47 | 3.46 |
| 2/12/2021 | 11:30 | Fine | Surface | 1.0 | 22.51 | 22.50 | 22.51 | 8.41 | 8.48 | 8.45 | 29.61 | 29.62 | 29.62 | 53.9 | 59.6 | 56.8 | 4.32 | 4.39 | 4.36 | 2.55 | 2.33 | 2.44 |
| | 11:33 | | Middle | 4.0 | 22.57 | 22.57 | 22.57 | 8.50 | 8.52 | 8.51 | 29.66 | 29.67 | 29.67 | 59.7 | 58.7 | 59.2 | 4.35 | 4.27 | 4.31 | 1.82 | 1.64 | 1.73 |
| | 11:36 | | Bottom | 7.0 | 22.62 | 22.62 | 22.62 | 8.58 | 8.58 | 8.58 | 29.85 | 29.86 | 29.86 | 56.6 | 56.3 | 56.5 | 4.11 | 4.09 | 4.10 | 1.04 | 1.08 | 1.06 |
| 3/12/2021 | 11:30 | Fine | Surface | 1.0 | 22.01 | 22.03 | 22.02 | 8.80 | 8.85 | 8.83 | 29.74 | 29.71 | 29.73 | 77.0 | 77.7 | 77.4 | 5.66 | 5.70 | 5.68 | 1.27 | 1.32 | 1.30 |
| | 11:33 | | Middle | 4.5 | 22.16 | 22.15 | 22.16 | 8.18 | 8.75 | 8.47 | 29.97 | 29.99 | 29.98 | 81.2 | 80.3 | 80.8 | 5.95 | 5.89 | 5.92 | 0.89 | 0.82 | 0.86 |
| | 11:37 | | Bottom | 8.0 | 22.11 | 21.14 | 21.63 | 8.84 | 8.86 | 8.85 | 30.21 | 30.25 | 30.23 | 76.3 | 76.8 | 76.6 | 5.59 | 5.62 | 5.61 | 0.29 | 0.33 | 0.31 |
| 6/12/2021 | 14:00 | Fine | Surface | 1.0 | 21.65 | 21.67 | 21.66 | 8.23 | 8.20 | 8.22 | 29.90 | 29.94 | 29.92 | 93.9 | 94.1 | 94.0 | 6.94 | 6.97 | 6.96 | 1.07 | 1.11 | 1.09 |
| | 14:03 | | Middle | 4.5 | 21.63 | 21.63 | 21.63 | 8.41 | 8.44 | 8.43 | 30.61 | 30.65 | 30.63 | 85.1 | 84.4 | 84.8 | 6.26 | 6.21 | 6.24 | 0.54 | 0.61 | 0.58 |
| | 14:06 | | Bottom | 8.0 | 21.69 | 21.71 | 21.70 | 8.06 | 8.10 | 8.08 | 30.90 | 30.97 | 30.94 | 80.8 | 79.9 | 80.4 | 5.94 | 5.87 | 5.91 | 2.31 | 2.26 | 2.29 |
| 8/12/2021 | 15:03 | Fine | Surface | 1.0 | 21.28 | 21.28 | 21.28 | 8.74 | 8.77 | 8.76 | 33.07 | 33.08 | 33.08 | 102.8 | 102.8 | 102.8 | 7.61 | 7.56 | 7.59 | 2.19 | 2.58 | 2.39 |
| | 15:06 | | Middle | 4.5 | 20.58 | 20.60 | 20.59 | 8.79 | 8.79 | 8.79 | 33.15 | 33.15 | 33.15 | 106.1 | 106.1 | 106.1 | 7.82 | 7.85 | 7.84 | 0.74 | .692.29 | 0.74 |
| | 15:10 | | Bottom | 8.0 | 20.55 | 20.56 | 20.56 | 8.76 | 8.75 | 8.76 | 33.37 | 33.38 | 33.38 | 92.3 | 93.3 | 92.8 | 6.82 | 6.90 | 6.86 | 0.80 | 0.92 | 0.86 |
| 10/12/2021 | 17:12 | Fine | Surface | 1.0 | 21.06 | 21.07 | 21.07 | 8.79 | 8.79 | 8.79 | 33.14 | 33.15 | 33.15 | 97.1 | 97.4 | 97.3 | 7.13 | 7.15 | 7.14 | 1.04 | 1.10 | 1.07 |
| | 17:14 | | Middle | 4.0 | 20.75 | 20.74 | 20.75 | 8.70 | 8.75 | 8.73 | 33.47 | 33.46 | 33.47 | 92.5 | 91.8 | 92.2 | 6.77 | 6.74 | 6.76 | 0.65 | 0.69 | 0.67 |
| | 17:17 | | Bottom | 7.0 | 20.78 | 20.75 | 20.77 | 8.66 | 8.62 | 8.64 | 33.84 | 33.84 | 33.84 | 81.7 | 81.1 | 81.4 | 6.01 | 5.96 | 5.99 | 0.77 | 0.65 | 0.71 |
| 13/12/2021 | 10:33 | Fine | Surface | 1.0 | 22.12 | 22.13 | 22.13 | 8.88 | 8.82 | 8.85 | 32.81 | 32.82 | 32.82 | 87.9 | 88.7 | 88.3 | 6.44 | 6.50 | 6.47 | 0.76 | 0.72 | 0.74 |
| | 10:35 | | Middle | 4.5 | 21.87 | 21.86 | 21.87 | 8.54 | 8.54 | 8.54 | 33.28 | 33.30 | 33.29 | 85.7 | 84.6 | 85.2 | 6.29 | 6.22 | 6.26 | 0.18 | 0.22 | 0.20 |
| | 10:38 | | Bottom | 8.0 | 21.58 | 21.57 | 21.58 | 8.38 | 8.37 | 8.38 | 33.74 | 33.77 | 33.76 | 57.4 | 55.9 | 56.7 | 4.22 | 4.11 | 4.17 | 2.60 | 2.54 | 2.57 |
| 15/12/2021 | 11:40 | Cloudy | Surface | 1.0 | 21.95 | 21.95 | 21.95 | 8.87 | 8.89 | 8.88 | 33.42 | 33.38 | 33.40 | 93.0 | 93.7 | 93.4 | 6.83 | 6.86 | 6.85 | 0.51 | 0.56 | 0.54 |
| | 11:43 | | Middle | 4.5 | 21.82 | 21.83 | 21.83 | 8.76 | 8.74 | 8.75 | 33.72 | 33.73 | 33.73 | 75.0 | 74.0 | 74.5 | 5.50 | 5.43 | 5.47 | 0.24 | 0.29 | 0.27 |
| | 11:47 | | Bottom | 8.0 | 21.68 | 21.66 | 21.67 | 8.52 | 8.52 | 8.52 | 33.89 | 33.86 | 33.88 | 46.5 | 45.3 | 45.9 | 3.41 | 3.32 | 3.37 | 0.69 | 0.74 | 0.72 |
| 17/12/2021 | 11:45 | Cloudy | Surface | 1.0 | 22.55 | 22.56 | 22.56 | 8.89 | 8.91 | 8.90 | 32.47 | 32.50 | 32.49 | 97.8 | 98.8 | 98.3 | 7.13 | 7.20 | 7.17 | 1.18 | 1.11 | 1.15 |
| | 11:48 | | Middle | 4.0 | 21.94 | 21.92 | 21.93 | 8.46 | 8.42 | 8.44 | 33.32 | 33.38 | 33.35 | 75.6 | 74.0 | 74.8 | 5.54 | 5.48 | 5.51 | 0.30 | 0.38 | 0.34 |
| | 11:50 | | Bottom | 7.0 | 21.69 | 21.67 | 21.68 | 8.52 | 8.55 | 8.54 | 33.89 | 33.84 | 33.87 | 45.2 | 47.3 | 46.3 | 3.32 | 3.47 | 3.40 | 0.48 | 0.53 | 0.51 |
| 20/12/2021 | 13:56 | Cloudy | Surface | 1.0 | 21.01 | 21.01 | 21.01 | 8.53 | 8.53 | 8.53 | 33.40 | 33.37 | 33.39 | 74.3 | 74.7 | 74.5 | 5.53 | 5.55 | 5.54 | 0.47 | 0.44 | 0.46 |
| | 13:58 | | Middle | 4.5 | 21.00 | 21.00 | 21.00 | 8.31 | 8.34 | 8.33 | 33.79 | 33.75 | 33.77 | 77.2 | 77.6 | 77.4 | 5.74 | 5.76 | 5.75 | 1.28 | 1.32 | 1.30 |
| | 14:00 | | Bottom | 8.0 | 21.20 | 21.21 | 21.21 | 8.25 | 8.27 | 8.26 | 33.88 | 33.93 | 33.91 | 661.1 | 66.4 | 363.8 | 4.88 | 4.90 | 4.89 | 1.10 | 1.05 | 1.08 |
| 22/12/2021 | 14:00 | Cloudy | Surface | 1.0 | 20.88 | 20.90 | 20.89 | 8.34 | 8.33 | 8.34 | 33.07 | 33.08 | 33.08 | 65.3 | 65.8 | 65.6 | 4.87 | 4.91 | 4.89 | 1.04 | 1.06 | 1.05 |
| | 14:03 | | Middle | 4.5 | 20.69 | 20.69 | 20.69 | 8.41 | 8.46 | 8.44 | 33.52 | 33.54 | 33.53 | 66.2 | 66.8 | 66.5 | 4.96 | 5.01 | 4.99 | 1.04 | 0.98 | 1.01 |
| | 14:05 | | Bottom | 8.0 | 20.66 | 20.67 | 20.67 | 8.43 | 8.42 | 8.43 | 33.69 | 33.68 | 33.69 | 68.1 | 68.4 | 68.3 | 5.09 | 5.11 | 5.10 | 0.52 | 0.62 | 0.57 |
| 27/12/2021 | 18:00 | Cloudy | Surface | 1.0 | 19.91 | 19.90 | 19.91 | 8.22 | 8.23 | 8.23 | 33.15 | 33.12 | 33.14 | 76.6 | 76.9 | 76.8 | 5.81 | 5.83 | 5.82 | 1.23 | 1.18 | 1.21 |
| | 18:03 | | Middle | 4.5 | 19.93 | 19.91 | 19.92 | 8.08 | 8.05 | 8.07 | 33.52 | 33.55 | 33.54 | 75.6 | 77.0 | 76.3 | 5.73 | 5.84 | 5.79 | 1.74 | 1.62 | 1.68 |
| | 18:05 | | Bottom | 8.0 | 20.26 | 20.25 | 20.26 | 8.34 | 8.36 | 8.35 | 33.87 | 33.85 | 33.86 | 46.5 | 46.1 | 46.3 | 7.23 | 3.45 | 5.34 | 0.32 | 0.44 | 0.38 |
| 29/12/2021 | 10:20 | Fine | Surface | 1.0 | 19.54 | 19.54 | 19.54 | 8.10 | 8.10 | 8.10 | 32.97 | 32.95 | 32.96 | 91.8 | 91.2 | 91.5 | 7.03 | 6.98 | 7.01 | 2.34 | 2.27 | 2.31 |
| | 10:23 | | Middle | 4.0 | 19.51 | 19.52 | 19.52 | 7.88 | 7.89 | 7.89 | 33.24 | 33.27 | 33.26 | 101.9 | 100.8 | 101.4 | 7.79 | 7.70 | 7.75 | 1.79 | 1.83 | 1.81 |
| | 10:25 | | Bottom | 7.0 | 19.58 | 19.58 | 19.58 | 7.83 | 7.82 | 7.83 | 33.45 | 33.44 | 33.45 | 106.1 | 105.0 | 105.6 | 8.70 | 8.01 | 8.36 | 0.75 | 0.63 | 0.69 |
| 31/12/2021 | 11:26 | Cloudy | Surface | 1.0 | 19.84 | 19.84 | 19.84 | 8.88 | 8.86 | 8.87 | 33.29 | 33.34 | 33.32 | 81.4 | 80.5 | 81.0 | 6.17 | 6.10 | 6.14 | 1.32 | 1.23 | 1.28 |
| | 11:28 | | Middle | 4.5 | 19.99 | 19.99 | 19.99 | 8.46 | 8.44 | 8.45 | 33.53 | 33.50 | 33.52 | 84.0 | 83.3 | 83.7 | 6.35 | 6.29 | 6.32 | 1.66 | 1.57 | 1.62 |
| | 11:30 | | Bottom | 8.0 | 19.84 | 19.80 | 19.82 | 8.41 | 8.42 | 8.42 | 33.77 | 33.76 | 33.77 | 73.1 | 72.4 | 72.8 | 5.53 | 5.47 | 5.50 | 2.02 | 1.96 | 1.99 |

**Water Monitoring Result at CR9 - Gruff Head Corals (Control Station)**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 13:18 | Fine | Surface | 1.0 | 24.00 | 24.00 | 24.00 | 8.42 | 8.42 | 8.42 | 33.36 | 33.36 | 33.36 | 93.4 | 94.2 | 93.8 | 6.62 | 6.55 | 6.59 | 3.09 | 3.04 | 3.07 |
| | 13:20 | | Middle | 12.5 | 24.00 | 24.00 | 24.00 | 8.42 | 8.42 | 8.42 | 33.39 | 33.39 | 33.39 | 94.1 | 98.0 | 96.1 | 6.54 | 6.60 | 6.57 | 2.95 | 2.98 | 2.97 |
| | 13:22 | | Bottom | 24.0 | 24.00 | 24.00 | 24.00 | 8.42 | 8.42 | 8.42 | 33.39 | 33.39 | 33.39 | 96.0 | 96.5 | 96.3 | 6.68 | 6.71 | 6.70 | 3.01 | 3.00 | 3.01 |
| 1/12/2021 | 14:54 | Fine | Surface | 1.0 | 20.50 | 20.50 | 20.50 | 8.47 | 8.47 | 8.47 | 33.63 | 33.63 | 33.63 | 90.8 | 90.0 | 90.4 | 6.73 | 6.68 | 6.71 | 2.50 | 2.54 | 2.52 |
| | 14:56 | | Middle | 13.0 | 20.40 | 20.40 | 20.40 | 8.47 | 8.47 | 8.47 | 33.61 | 33.61 | 33.61 | 92.5 | 92.0 | 92.3 | 6.87 | 6.82 | 6.85 | 2.42 | 2.44 | 2.43 |
| | 14:58 | | Bottom | 25.0 | 20.40 | 20.40 | 20.40 | 8.47 | 8.47 | 8.47 | 33.61 | 33.62 | 33.62 | 91.0 | 90.5 | 90.8 | 6.76 | 6.72 | 6.74 | 2.49 | 2.53 | 2.51 |
| 2/12/2021 | 15:25 | Fine | Surface | 1.0 | 20.40 | 20.40 | 20.40 | 8.46 | 8.46 | 8.46 | 33.64 | 33.64 | 33.64 | 98.6 | 97.4 | 98.0 | 7.31 | 7.23 | 7.27 | 3.55 | 3.41 | 3.48 |
| | 15:27 | | Middle | 13.0 | 20.30 | 20.30 | 20.30 | 8.46 | 8.46 | 8.46 | 33.64 | 33.64 | 33.64 | 96.3 | 96.6 | 96.5 | 7.14 | 7.16 | 7.15 | 3.51 | 3.53 | 3.52 |
| | 15:29 | | Bottom | 25.0 | 20.30 | 20.30 | 20.30 | 8.46 | 8.46 | 8.46 | 33.64 | 33.64 | 33.64 | 96.4 | 95.0 | 95.7 | 7.14 | 7.08 | 7.11 | 3.50 | 3.43 | 3.47 |
| 3/12/2021 | 15:45 | Fine | Surface | 1.0 | 19.70 | 19.70 | 19.70 | 8.48 | 8.48 | 8.48 | 33.70 | 33.70 | 33.70 | 92.5 | 92.3 | 92.4 | 6.93 | 6.91 | 6.92 | 4.17 | 4.10 | 4.14 |
| | 15:47 | | Middle | 13.0 | 19.70 | 19.70 | 19.70 | 8.48 | 8.48 | 8.48 | 33.71 | 33.71 | 33.71 | 91.7 | 91.1 | 91.4 | 6.88 | 6.84 | 6.86 | 4.68 | 4.60 | 4.64 |
| | 15;48 | | Bottom | 25.0 | 19.70 | 19.70 | 19.70 | 8.48 | 8.48 | 8.48 | 33.71 | 33.71 | 33.71 | 92.1 | 92.4 | 92.3 | 6.90 | 6.92 | 6.91 | 4.86 | 4.93 | 4.90 |
| 6/12/2021 | 10:10 | Fine | Surface | 1.0 | 21.50 | 21.50 | 21.50 | 8.47 | 8.47 | 8.47 | 33.63 | 33.63 | 33.63 | 93.0 | 92.4 | 92.7 | 6.70 | 6.70 | 6.70 | 3.93 | 3.98 | 3.96 |
| | 10:12 | | Middle | 13.0 | 21.40 | 21.40 | 21.40 | 8.47 | 8.47 | 8.47 | 33.63 | 33.63 | 33.63 | 92.2 | 91.3 | 91.8 | 6.70 | 6.64 | 6.67 | 3.99 | 4.09 | 4.04 |
| | 10:14 | | Bottom | 25.0 | 21.40 | 21.40 | 21.40 | 8.47 | 8.47 | 8.47 | 33.63 | 33.63 | 33.63 | 94.2 | 94.8 | 94.5 | 6.85 | 6.90 | 6.88 | 4.18 | 4.16 | 4.17 |
| 8/12/2021 | 12:20 | Fine | Surface | 1.0 | 21.80 | 21.80 | 21.80 | 8.48 | 8.48 | 8.48 | 33.43 | 33.43 | 33.43 | 92.1 | 94.3 | 93.2 | 6.66 | 6.82 | 6.74 | 3.04 | 2.96 | 3.00 |
| | 12:22 | | Middle | 12.5 | 21.80 | 21.80 | 21.80 | 8.48 | 8.48 | 8.48 | 33.43 | 33.43 | 33.43 | 93.7 | 94.0 | 93.9 | 6.78 | 6.81 | 6.80 | 2.98 | 3.14 | 3.06 |
| | 12:24 | | Bottom | 24.0 | 21.80 | 21.80 | 21.80 | 8.48 | 8.48 | 8.48 | 33.43 | 33.43 | 33.43 | 94.0 | 92.5 | 93.3 | 6.80 | 6.70 | 6.75 | 2.99 | 3.07 | 3.03 |
| 10/12/2021 | 14:27 | Fine | Surface | 1.0 | 21.40 | 21.40 | 21.40 | 8.49 | 8.49 | 8.49 | 33.64 | 33.64 | 33.64 | 89.8 | 88.8 | 89.3 | 6.52 | 6.45 | 6.49 | 2.90 | 2.84 | 2.87 |
| | 14:29 | | Middle | 12.5 | 21.40 | 21.40 | 21.40 | 8.49 | 8.49 | 8.49 | 33.64 | 33.62 | 33.63 | 87.8 | 87.6 | 87.7 | 6.38 | 6.36 | 6.37 | 3.20 | 3.15 | 3.18 |
| | 14:31 | | Bottom | 24.0 | 21.40 | 21.40 | 21.40 | 8.49 | 8.49 | 8.49 | 33.62 | 33.62 | 33.62 | 88.5 | 88.2 | 88.4 | 6.13 | 6.40 | 6.27 | 2.69 | 2.72 | 2.71 |
| 13/12/2021 | 14:26 | Fine | Surface | 1.0 | 21.10 | 21.10 | 21.10 | 8.50 | 8.50 | 8.50 | 33.79 | 33.79 | 33.79 | 81.7 | 81.4 | 81.6 | 5.97 | 5.95 | 5.96 | 2.82 | 2.75 | 2.79 |
| | 14:28 | | Middle | 13.0 | 21.10 | 21.10 | 21.10 | 8.48 | 8.48 | 8.48 | 33.78 | 33.79 | 33.79 | 81.4 | 82.7 | 82.1 | 5.94 | 6.04 | 5.99 | 2.72 | 2.70 | 2.71 |
| | 14:30 | | Bottom | 25.0 | 21.10 | 21.10 | 21.10 | 8.48 | 8.48 | 8.48 | 33.78 | 33.78 | 33.78 | 81.6 | 81.2 | 81.4 | 5.96 | 5.92 | 5.94 | 2.79 | 2.85 | 2.82 |
| 15/12/2021 | 14:11 | Cloudy | Surface | 1.0 | 21.30 | 21.30 | 21.30 | 8.47 | 8.47 | 8.47 | 33.70 | 33.70 | 33.70 | 95.4 | 92.4 | 93.9 | 6.94 | 6.71 | 6.83 | 2.60 | 2.57 | 2.59 |
| | 14:13 | | Middle | 13.0 | 21.30 | 21.30 | 21.30 | 8.47 | 8.47 | 8.47 | 33.70 | 33.70 | 33.70 | 88.9 | 91.7 | 90.3 | 6.46 | 6.66 | 6.56 | 2.66 | 2.69 | 2.68 |
| | 14:15 | | Bottom | 25.0 | 21.40 | 21.40 | 21.40 | 8.47 | 8.47 | 8.47 | 33.70 | 33.70 | 33.70 | 90.2 | 89.6 | 89.9 | 6.55 | 6.51 | 6.53 | 2.73 | 2.71 | 2.72 |
| 17/12/2021 | 15:20 | Cloudy | Surface | 1.0 | 20.60 | 20.60 | 20.60 | 8.50 | 8.50 | 8.50 | 33.83 | 33.83 | 33.83 | 92.4 | 95.0 | 93.7 | 6.70 | 6.90 | 6.80 | 2.61 | 2.58 | 2.60 |
| | 15:22 | | Middle | 12.5 | 20.60 | 20.60 | 20.60 | 8.50 | 8.50 | 8.50 | 33.83 | 33.83 | 33.83 | 94.2 | 94.0 | 94.1 | 6.83 | 6.80 | 6.82 | 2.64 | 2.66 | 2.65 |
| | 15:24 | | Bottom | 24.0 | 20.60 | 20.60 | 20.60 | 8.50 | 8.50 | 8.50 | 33.83 | 33.83 | 33.83 | 93.1 | 94.8 | 94.0 | 6.76 | 6.87 | 6.82 | 2.69 | 2.71 | 2.70 |
| 20/12/2021 | 15:16 | Cloudy | Surface | 1.0 | 21.04 | 21.06 | 21.05 | 8.30 | 8.30 | 8.30 | 32.95 | 33.01 | 32.98 | 82.3 | 81.8 | 82.1 | 6.12 | 6.08 | 6.10 | 0.39 | 0.33 | 0.36 |
| | 15;19 | | Middle | 4.5 | 21.11 | 21.13 | 21.12 | 8.22 | 8.23 | 8.23 | 33.39 | 33.42 | 33.41 | 74.5 | 75.5 | 75.0 | 5.54 | 5.61 | 5.58 | 0.78 | 0.69 | 0.74 |
| | 15:21 | | Bottom | 8.0 | 21.27 | 21..25 | 21.27 | 8.25 | 8.26 | 8.26 | 33.74 | 33.70 | 33.72 | 63.4 | 64.8 | 64.1 | 4.69 | 4.77 | 4.73 | 1.52 | 1.59 | 1.56 |
| 22/12/2021 | 10:23 | Cloudy | Surface | 1.0 | 20.40 | 20.40 | 20.40 | 8.46 | 8.46 | 8.46 | 33.77 | 33.77 | 33.77 | 83.9 | 85.2 | 84.6 | 6.21 | 6.30 | 6.26 | 2.63 | 2.72 | 2.68 |
| | 10:25 | | Middle | 13.0 | 20.40 | 20.40 | 20.40 | 8.46 | 8.46 | 8.46 | 33.75 | 33.75 | 33.75 | 92.2 | 93.9 | 93.1 | 6.81 | 6.94 | 6.88 | 2.80 | 2.74 | 2.77 |
| | 10:27 | | Bottom | 25.0 | 20.40 | 20.40 | 20.40 | 8.46 | 8.46 | 8.46 | 33.76 | 33.76 | 33.76 | 95.4 | 95.0 | 95.2 | 7.05 | 7.02 | 7.04 | 2.55 | 2.53 | 2.54 |
| 24/12/2021 | 10:38 | Cloudy | Surface | 1.0 | 20.30 | 20.30 | 20.30 | 8.49 | 8.49 | 8.49 | 32.28 | 32.28 | 32.28 | 85.4 | 85.0 | 85.2 | 6.35 | 6.31 | 6.33 | 2.28 | 2.26 | 2.27 |
| | 10:40 | | Middle | 13.0 | 20.30 | 20.30 | 20.30 | 8.49 | 8.49 | 8.49 | 32.28 | 32.28 | 32.28 | 90.5 | 89.0 | 89.8 | 6.72 | 6.61 | 6.67 | 2.23 | 2.21 | 2.22 |
| | 10:42 | | Bottom | 25.0 | 20.30 | 20.30 | 20.30 | 8.49 | 8.49 | 8.49 | 32.28 | 32.28 | 32.28 | 92.3 | 94.9 | 93.6 | 6.88 | 7.06 | 6.97 | 2.17 | 2.19 | 2.18 |
| 27/12/2021 | 12:30 | Cloudy | Surface | 1.0 | 16.70 | 16.70 | 16.70 | 8.46 | 8.46 | 8.46 | 33.87 | 33.87 | 33.87 | 92.7 | 92.3 | 92.5 | 7.34 | 7.31 | 7.33 | 2.72 | 2.75 | 2.74 |
| | 12:32 | | Middle | 12.5 | 16.60 | 16.60 | 16.60 | 8.47 | 8.47 | 8.47 | 33.91 | 33.91 | 33.91 | 90.1 | 91.1 | 90.6 | 7.13 | 7.21 | 7.17 | 2.76 | 2.73 | 2.75 |
| | 12:34 | | Bottom | 24.0 | 16.60 | 16.60 | 16.60 | 8.47 | 8.47 | 8.47 | 33.92 | 33.92 | 33.92 | 93.4 | 93.7 | 93.6 | 7.40 | 7.42 | 7.41 | 2.70 | 2.76 | 2.73 |
| 29/12/2021 | 13:55 | Fine | Surface | 1.0 | 21.90 | 21.90 | 21.90 | 8.48 | 8.48 | 8.48 | 33.43 | 33.43 | 33.43 | 88.8 | 88.1 | 88.5 | 6.42 | 6.35 | 6.39 | 2.71 | 2.60 | 2.66 |
| | 13:57 | | Middle | 12.5 | 21.90 | 21.90 | 21.90 | 8.48 | 8.48 | 8.48 | 33.44 | 33.44 | 33.44 | 92.6 | 92.3 | 92.5 | 6.69 | 6.66 | 6.68 | 2.54 | 2.47 | 2.51 |
| | 13:59 | | Bottom | 24.0 | 21.90 | 21.90 | 21.90 | 8.48 | 8.48 | 8.48 | 33.47 | 33.47 | 33.47 | 84.2 | 85.0 | 84.6 | 6.14 | 6.22 | 6.18 | 2.58 | 2.62 | 2.60 |

**Water Monitoring Result at CR9 - Gruff Head Corals (Control Station)**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 9:38 | Fine | Surface | 1.0 | 22.80 | 22.80 | 22.80 | 8.45 | 8.45 | 8.45 | 33.10 | 33.10 | 33.10 | 96.3 | 94.2 | 95.3 | 6.85 | 6.70 | 6.78 | 3.26 | 3.20 | 3.23 |
| | 9:40 | | Middle | 12.0 | 22.80 | 22.80 | 22.80 | 8.45 | 8.45 | 8.45 | 33.12 | 33.12 | 33.12 | 94.0 | 94.6 | 94.3 | 6.68 | 6.72 | 6.70 | 3.18 | 3.15 | 3.17 |
| | 9:42 | | Bottom | 23.0 | 22.90 | 22.80 | 22.85 | 8.44 | 8.44 | 8.44 | 33.13 | 33.13 | 33.13 | 95.0 | 97.5 | 96.3 | 6.72 | 6.91 | 6.82 | 2.98 | 3.00 | 2.99 |
| 1/12/2021 | 11:30 | Fine | Surface | 1.0 | 21.60 | 21.60 | 21.60 | 8.46 | 8.46 | 8.46 | 33.59 | 33.59 | 33.59 | 95.6 | 96.5 | 96.1 | 6.94 | 7.02 | 6.98 | 5.42 | 5.40 | 5.41 |
| | 11:32 | | Middle | 13.0 | 21.60 | 21.60 | 21.60 | 8.46 | 8.46 | 8.46 | 33.61 | 33.61 | 33.61 | 96.3 | 96.0 | 96.2 | 7.01 | 6.98 | 7.00 | 5.27 | 5.20 | 5.24 |
| | 11:34 | | Bottom | 25.0 | 21.30 | 21.30 | 21.30 | 8.46 | 8.46 | 8.46 | 33.60 | 33.60 | 33.60 | 95.8 | 95.6 | 95.7 | 6.97 | 6.95 | 6.96 | 5.11 | 5.06 | 5.09 |
| 2/12/2021 | 11:05 | Fine | Surface | 1.0 | 21.20 | 21.20 | 21.20 | 8.46 | 8.46 | 8.46 | 33.64 | 33.64 | 33.64 | 93.5 | 95.6 | 94.6 | 6.84 | 7.00 | 6.92 | 3.87 | 3.70 | 3.79 |
| | 11:07 | | Middle | 12.5 | 20.90 | 20.90 | 20.90 | 8.46 | 8.46 | 8.46 | 33.65 | 33.65 | 33.65 | 94.3 | 94.9 | 94.6 | 6.90 | 6.95 | 6.93 | 3.74 | 3.78 | 3.76 |
| | 11:09 | | Bottom | 24.0 | 20.90 | 20.90 | 20.90 | 8.46 | 8.46 | 8.46 | 33.65 | 33.65 | 33.65 | 97.7 | 95.3 | 96.5 | 6.93 | 6.98 | 6.96 | 3.58 | 3.68 | 3.63 |
| 3/12/2021 | 12:45 | Fine | Surface | 1.0 | 20.50 | 20.50 | 20.50 | 8.47 | 8.47 | 8.47 | 33.63 | 33.63 | 33.63 | 95.3 | 94.6 | 95.0 | 7.06 | 7.00 | 7.03 | 2.71 | 2.68 | 2.70 |
| | 12:49 | | Middle | 13.0 | 20.40 | 20.40 | 20.40 | 8.47 | 8.47 | 8.47 | 33.65 | 33.65 | 33.65 | 96.3 | 97.4 | 96.9 | 7.13 | 7.21 | 7.17 | 2.85 | 2.80 | 2.83 |
| | 12:49 | | Bottom | 25.0 | 20.30 | 20.30 | 20.30 | 8.47 | 8.47 | 8.47 | 33.66 | 33.66 | 33.66 | 97.4 | 96.8 | 97.1 | 7.22 | 7.17 | 7.20 | 2.73 | 2.77 | 2.75 |
| 6/12/2021 | 13:40 | Fine | Surface | 1.0 | 22.60 | 22.60 | 22.60 | 8.47 | 8.47 | 8.47 | 33.58 | 33.58 | 33.58 | 97.6 | 96.1 | 96.9 | 6.95 | 6.85 | 6.90 | 2.76 | 2.79 | 2.78 |
| | 13:42 | | Middle | 12.5 | 22.60 | 22.60 | 22.60 | 8.47 | 8.47 | 8.47 | 33.59 | 33.59 | 33.59 | 95.5 | 94.7 | 95.1 | 6.80 | 6.75 | 6.78 | 2.82 | 2.80 | 2.81 |
| | 13:44 | | Bottom | 24.0 | 22.60 | 22.60 | 22.60 | 8.47 | 8.47 | 8.47 | 33.59 | 33.59 | 33.59 | 93.4 | 94.0 | 93.7 | 6.63 | 6.70 | 6.67 | 2.68 | 2.79 | 2.74 |
| 8/12/2021 | 15:35 | Fine | Surface | 1.0 | 21.10 | 21.10 | 21.10 | 8.53 | 8.53 | 8.53 | 33.30 | 33.30 | 33.30 | 91.0 | 93.6 | 92.3 | 6.80 | 6.86 | 6.83 | 2.87 | 2.90 | 2.89 |
| | 15:36 | | Middle | 12.5 | 21.10 | 21.10 | 21.10 | 8.53 | 8.53 | 8.53 | 33.30 | 33.30 | 33.30 | 92.9 | 91.0 | 92.0 | 6.80 | 6.66 | 6.73 | 2.70 | 2.79 | 2.75 |
| | 15:38 | | Bottom | 24.0 | 21.10 | 21.10 | 21.10 | 8.53 | 8.53 | 8.53 | 33.30 | 33.30 | 33.30 | 97.1 | 98.6 | 97.9 | 7.11 | 7.23 | 7.17 | 2.67 | 2.74 | 2.71 |
| 10/12/2021 | 17:19 | Fine | Surface | 1.0 | 20.00 | 20.00 | 20.00 | 8.54 | 8.54 | 8.54 | 33.45 | 33.45 | 33.45 | 90.5 | 93.2 | 91.9 | 6.75 | 6.95 | 6.85 | 2.33 | 2.30 | 2.32 |
| | 17:21 | | Middle | 12.5 | 20.00 | 20.00 | 20.00 | 8.54 | 8.54 | 8.54 | 33.44 | 33.44 | 33.44 | 95.5 | 95.6 | 95.6 | 7.14 | 7.14 | 7.14 | 2.27 | 2.26 | 2.27 |
| | 17:23 | | Bottom | 24.0 | 20.00 | 20.00 | 20.00 | 8.54 | 8.54 | 8.54 | 33.44 | 33.44 | 33.44 | 96.9 | 95.1 | 96.0 | 7.23 | 7.10 | 7.17 | 2.36 | 2.38 | 2.37 |
| 13/12/2021 | 9:44 | Fine | Surface | 1.0 | 21.80 | 21.80 | 21.80 | 8.48 | 8.48 | 8.48 | 33.74 | 33.75 | 33.75 | 90.3 | 90.9 | 90.6 | 6.52 | 6.58 | 6.55 | 2.88 | 2.90 | 2.89 |
| | 9:46 | | Middle | 13.0 | 21.80 | 21.80 | 21.80 | 8.48 | 8.48 | 8.48 | 33.73 | 33.73 | 33.73 | 86.5 | 85.6 | 86.1 | 6.23 | 6.26 | 6.25 | 2.85 | 2.82 | 2.84 |
| | 9:48 | | Bottom | 25.0 | 21.90 | 21.90 | 21.90 | 8.48 | 8.48 | 8.48 | 33.70 | 33.70 | 33.70 | 82.0 | 81.7 | 81.9 | 5.90 | 5.88 | 5.89 | 2.91 | 2.94 | 2.93 |
| 15/12/2021 | 11:13 | Cloudy | Surface | 1.0 | 21.20 | 21.20 | 21.20 | 8.49 | 8.49 | 8.49 | 33.53 | 33.54 | 33.54 | 92.6 | 90.3 | 91.5 | 6.79 | 6.61 | 6.70 | 2.61 | 2.64 | 2.63 |
| | 11:15 | | Middle | 12.5 | 21.20 | 21.20 | 21.20 | 8.49 | 8.49 | 8.49 | 33.53 | 33.53 | 33.53 | 89.6 | 91.4 | 90.5 | 6.55 | 6.68 | 6.62 | 2.58 | 2.57 | 2.58 |
| | 11:17 | | Bottom | 24.0 | 21.20 | 21.20 | 21.20 | 8.46 | 8.46 | 8.46 | 33.54 | 33.54 | 33.54 | 80.6 | 84.5 | 82.6 | 5.89 | 6.18 | 6.04 | 2.46 | 2.52 | 2.49 |
| 17/12/2021 | 11:04 | Cloudy | Surface | 1.0 | 21.90 | 21.90 | 21.90 | 8.47 | 8.47 | 8.47 | 33.70 | 33.70 | 33.70 | 90.2 | 87.3 | 88.8 | 6.51 | 6.30 | 6.41 | 2.60 | 2.57 | 2.59 |
| | 11:06 | | Middle | 12.5 | 21.90 | 21.90 | 21.90 | 8.47 | 8.47 | 8.47 | 33.70 | 33.70 | 33.70 | 84.2 | 86.2 | 85.2 | 6.10 | 6.20 | 6.15 | 2.64 | 2.66 | 2.65 |
| | 11:08 | | Bottom | 24.0 | 21.90 | 21.90 | 21.90 | 8.47 | 8.47 | 8.47 | 33.70 | 33.70 | 33.70 | 89.2 | 90.6 | 89.9 | 6.46 | 6.55 | 6.51 | 2.47 | 2.49 | 2.48 |
| 20/12/2021 | 12:16 | Cloudy | Surface | 1.0 | 17.50 | 17.50 | 17.50 | 8.46 | 8.46 | 8.46 | 33.92 | 33.92 | 33.92 | 86.7 | 86.1 | 86.4 | 6.78 | 6.72 | 6.75 | 3.42 | 3.48 | 3.45 |
| | 12:18 | | Middle | 12.5 | 17.50 | 17.50 | 17.50 | 8.46 | 8.46 | 8.46 | 33.92 | 33.92 | 33.92 | 76.1 | 77.5 | 76.8 | 5.94 | 6.05 | 6.00 | 3.55 | 3.57 | 3.56 |
| | 12:20 | | Bottom | 24.0 | 17.40 | 17.40 | 17.40 | 8.47 | 8.47 | 8.47 | 33.93 | 33.93 | 33.93 | 78.8 | 79.4 | 79.1 | 6.16 | 6.21 | 6.19 | 3.26 | 3.19 | 3.23 |
| 22/12/2021 | 14:14 | Cloudy | Surface | 1.0 | 21.20 | 21.20 | 21.20 | 8.48 | 8.48 | 8.48 | 33.61 | 33.61 | 33.61 | 93.5 | 92.6 | 93.1 | 6.97 | 6.85 | 6.91 | 2.46 | 2.43 | 2.45 |
| | 14:16 | | Middle | 12.5 | 21.10 | 21.10 | 21.10 | 8.48 | 8.48 | 8.48 | 33.62 | 33.62 | 33.62 | 88.4 | 88.8 | 88.6 | 6.59 | 6.61 | 6.60 | 2.35 | 2.39 | 2.37 |
| | 14:18 | | Bottom | 24.0 | 21.10 | 21.10 | 21.10 | 8.48 | 8.48 | 8.48 | 33.62 | 33.62 | 33.62 | 87.4 | 88.0 | 87.7 | 6.49 | 6.54 | 6.52 | 2.37 | 2.42 | 2.40 |
| 27/12/2021 | 18:22 | Cloudy | Surface | 1.0 | 16.30 | 16.30 | 16.30 | 8.51 | 8.51 | 8.51 | 33.87 | 33.87 | 33.87 | 91.2 | 91.0 | 91.1 | 7.38 | 7.36 | 7.37 | 3.17 | 3.19 | 3.18 |
| | 18:24 | | Middle | 13.0 | 16.30 | 16.30 | 16.30 | 8.51 | 8.51 | 8.51 | 33.87 | 33.87 | 33.87 | 90.2 | 88.5 | 89.4 | 7.23 | 7.09 | 7.16 | 3.12 | 3.10 | 3.11 |
| | 18:26 | | Bottom | 25.0 | 16.30 | 16.30 | 16.30 | 8.51 | 8.51 | 8.51 | 33.89 | 33.89 | 33.89 | 84.3 | 85.1 | 84.7 | 6.77 | 6.82 | 6.80 | 3.18 | 3.14 | 3.16 |
| 29/12/2021 | 9:42 | Fine | Surface | 1.0 | 21.20 | 21.20 | 21.20 | 8.49 | 8.49 | 8.49 | 33.46 | 33.46 | 33.46 | 92.5 | 95.5 | 94.0 | 6.74 | 6.94 | 6.84 | 2.56 | 2.53 | 2.55 |
| | 9:44 | | Middle | 12.5 | 21.30 | 21.30 | 21.30 | 8.49 | 8.49 | 8.49 | 33.46 | 33.46 | 33.46 | 94.5 | 93.0 | 93.8 | 6.89 | 6.78 | 6.84 | 2.59 | 2.52 | 2.56 |
| | 9:46 | | Bottom | 24.0 | 21.30 | 21.30 | 21.30 | 8.49 | 8.49 | 8.49 | 33.46 | 33.46 | 33.46 | 93.7 | 93.2 | 93.5 | 6.84 | 6.79 | 6.82 | 2.50 | 2.48 | 2.49 |
| 31/12/2021 | 10:19 | Cloudy | Surface | 1.0 | 19.19 | 19.18 | 19.19 | 8.16 | 8.16 | 8.16 | 32.05 | 32.04 | 32.05 | 100.3 | 100.4 | 100.4 | 7.66 | 7.67 | 7.67 | 1.47 | 1.50 | 1.49 |
| | 10:21 | | Middle | 11.0 | 19.18 | 19.18 | 19.18 | 8.08 | 8.08 | 8.08 | 32.63 | 32.63 | 32.63 | 86.1 | 86.3 | 86.2 | 6.56 | 6.58 | 6.57 | 2.35 | 2.32 | 2.34 |
| | 10:23 | | Bottom | 21.0 | 19.17 | 19.17 | 19.17 | 8.08 | 8.08 | 8.08 | 32.65 | 32.64 | 32.65 | 85.7 | 85.8 | 85.8 | 6.52 | 6.53 | 6.53 | 3.38 | 3.35 | 3.37 |

**Water Monitoring Result at G1* -Gradient Station**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth m | | Water Temperature °C | | | pH - | | | Salinity ppt | | | DO Saturation % | | | DO mg/L | | | Turbidity NTU | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 15:45 | Fine | Surface | 1.0 | 24.00 | 24.01 | 24.01 | 8.62 | 8.60 | 8.61 | 30.42 | 30.48 | 30.45 | 60.8 | 57.8 | 59.3 | 4.30 | 4.09 | 4.20 | 1.12 | 1.12 | 1.12 |
| | 15:47 | | Middle | 3.0 | 23.85 | 23.83 | 23.84 | 8.55 | 8.55 | 8.55 | 30.52 | 30.52 | 30.52 | 73.4 | 71.9 | 72.7 | 5.20 | 5.12 | 5.16 | 0.68 | 0.86 | 0.77 |
| | 15:49 | | Bottom | 5.0 | 23.56 | 23.56 | 23.56 | 8.53 | 8.53 | 8.53 | 30.71 | 30.73 | 30.72 | 52.8 | 52.4 | 52.6 | 3.76 | 3.73 | 3.75 | 0.32 | 0.34 | 0.33 |
| 1/12/2021 | 15:35 | Fine | Surface | 1.0 | 23.74 | 23.80 | 23.77 | 8.90 | 8.92 | 8.91 | 29.77 | 29.74 | 29.76 | 77.1 | 78.5 | 77.8 | 5.50 | 5.59 | 5.55 | 1.20 | 1.29 | 1.25 |
| | 15:38 | | Middle | 3.5 | 23.34 | 23.31 | 23.33 | 8.88 | 8.86 | 8.87 | 30.01 | 30.02 | 30.02 | 67.8 | 65.7 | 66.8 | 4.86 | 4.72 | 4.79 | 0.70 | 0.61 | 0.66 |
| | 15:42 | | Bottom | 6.0 | 23.25 | 23.25 | 23.25 | 8.85 | 8.80 | 8.83 | 30.20 | 30.22 | 30.21 | 62.1 | 60.9 | 61.5 | 4.46 | 4.37 | 4.42 | 1.18 | 1.39 | 1.29 |
| 2/12/2021 | 16:08 | Fine | Surface | 1.0 | 23.13 | 23.14 | 23.14 | 8.89 | 8.91 | 8.90 | 29.82 | 29.81 | 29.82 | 100.2 | 101.5 | 100.9 | 7.22 | 7.31 | 7.27 | 2.18 | 1.99 | 2.09 |
| | 16:10 | | Middle | 3.5 | 22.86 | 22.85 | 22.86 | 8.87 | 8.88 | 8.88 | 29.99 | 30.01 | 30.00 | 98.9 | 99.3 | 99.1 | 7.15 | 7.19 | 7.17 | 1.62 | 1.85 | 1.74 |
| | 16:13 | | Bottom | 6.0 | 23.13 | 23.14 | 23.14 | 8.70 | 8.66 | 8.68 | 30.36 | 30.47 | 30.42 | 65.4 | 65.3 | 65.4 | 4.69 | 4.68 | 4.69 | 2.85 | 2.97 | 2.91 |
| 3/12/2021 | 16:24 | Fine | Surface | 1.0 | 22.76 | 22.78 | 22.77 | 8.73 | 8.75 | 8.74 | 29.78 | 29.78 | 29.78 | 89.7 | 89.2 | 89.5 | 6.51 | 6.48 | 6.50 | 2.36 | 2.29 | 2.33 |
| | 16:26 | | Middle | 3.5 | 22.76 | 22.75 | 22.76 | 8.84 | 8.82 | 8.83 | 29.94 | 29.94 | 29.94 | 86.5 | 87.1 | 86.8 | 6.28 | 6.32 | 6.30 | 1.57 | 1.48 | 1.53 |
| | 16:28 | | Bottom | 6.0 | 22.59 | 22.60 | 22.60 | 8.77 | 8.75 | 8.76 | 30.28 | 30.28 | 30.28 | 75.5 | 75.0 | 75.3 | 5.48 | 5.44 | 5.46 | 2.29 | 2.32 | 2.31 |
| 6/12/2021 | 9:52 | Fine | Surface | 1.0 | 21.78 | 21.80 | 21.79 | 8.45 | 8.48 | 8.47 | 30.56 | 30.59 | 30.58 | 78.4 | 77.7 | 78.1 | 5.77 | 5.72 | 5.75 | 1.65 | 1.69 | 1.67 |
| | 9:55 | | Middle | 3.5 | 22.20 | 21.99 | 22.10 | 8.36 | 8.37 | 8.37 | 30.99 | 31.01 | 31.00 | 63.8 | 64.5 | 64.2 | 4.67 | 4.73 | 4.70 | 0.94 | 0.91 | 0.93 |
| | 9:58 | | Bottom | 6.0 | 21.80 | 21.82 | 21.81 | 8.24 | 8.25 | 8.25 | 31.36 | 31.40 | 31.38 | 65.4 | 64.9 | 65.2 | 4.80 | 4.76 | 4.78 | 1.09 | 1.05 | 1.07 |
| 8/12/2021 | 11:04 | Fine | Surface | 1.0 | 21.16 | 21.16 | 21.16 | 8.73 | 8.74 | 8.74 | 33.14 | 33.14 | 33.14 | 96.1 | 95.1 | 95.6 | 7.03 | 6.96 | 7.00 | 2.31 | 2.39 | 2.35 |
| | 11:06 | | Middle | 3.0 | 20.84 | 20.82 | 20.83 | 8.76 | 8.76 | 8.76 | 33.06 | 33.05 | 33.06 | 95.1 | 93.3 | 94.2 | 7.01 | 6.86 | 6.94 | 1.17 | 1.20 | 1.19 |
| | 11:08 | | Bottom | 5.0 | 20.74 | 20.74 | 20.74 | 8.77 | 8.78 | 8.78 | 33.13 | 33.18 | 33.16 | 98.6 | 97.9 | 98.3 | 7.29 | 7.25 | 7.27 | 1.43 | 1.33 | 1.38 |
| 10/12/2021 | 13:17 | Fine | Surface | 1.0 | 22.11 | 22.10 | 22.11 | 8.80 | 8.80 | 8.80 | 32.87 | 32.88 | 32.88 | 118.5 | 116.5 | 117.5 | 8.57 | 8.40 | 8.49 | 1.22 | 1.16 | 1.19 |
| | 13:19 | | Middle | 3.0 | 21.29 | 21.28/ | 21.29 | 8.82 | 8.82 | 8.82 | 33.13 | 33.13 | 33.13 | 106.1 | 106.9 | 106.5 | 7.75 | 7.81 | 7.78 | 2.09 | 2.12 | 2.11 |
| | 13:20 | | Bottom | 5.0 | 21.21 | 22.20 | 21.71 | 8.81 | 8.81 | 8.81 | 33.24 | 33.25 | 33.25 | 95.6 | 93.8 | 94.7 | 6.99 | 6.87 | 6.93 | 2.40 | 2.34 | 2.37 |
| 13/12/2021 | 12:04 | Fine | Surface | 1.0 | 22.57 | 22.55 | 22.56 | 8.50 | 8.50 | 8.50 | 32.37 | 32.38 | 32.38 | 94.0 | 94.4 | 94.2 | 6.82 | 6.84 | 6.83 | 0.91 | 0.88 | 0.90 |
| | 12:07 | | Middle | 3.0 | 22.36 | 22.35 | 22.36 | 8.26 | 8.27 | 8.27 | 32.54 | 32.58 | 32.56 | 86.9 | 86.5 | 86.7 | 6.32 | 6.29 | 6.31 | 0.72 | 0.67 | 0.70 |
| | 12:10 | | Bottom | 5.0 | 21.97 | 21.97 | 21.97 | 8.19 | 8.19 | 8.19 | 32.78 | 32.74 | 32.76 | 77.4 | 76.7 | 77.1 | 5.66 | 5.61 | 5.64 | 0.74 | 0.76 | 0.75 |
| 15/12/2021 | 15:25 | Cloudy | Surface | 1.0 | 22.46 | 22.47 | 22.47 | 8.70 | 8.74 | 8.72 | 32.89 | 32.85 | 32.87 | 94.6 | 93.3 | 94.0 | 6.90 | 6.80 | 6.85 | 1.27 | 1.22 | 1.25 |
| | 15:27 | | Middle | 3.5 | 22.34 | 22.32 | 22.33 | 8.38 | 8.40 | 8.39 | 33.12 | 33.13 | 33.13 | 89.6 | 88.2 | 88.9 | 6.54 | 6.44 | 6.49 | 1.33 | 1.29 | 1.31 |
| | 15:29 | | Bottom | 6.0 | 21.95 | 21.93 | 21.94 | 8.12 | 8.11 | 8.12 | 33.71 | 33.74 | 33.73 | 56.0 | 54.8 | 55.4 | 4.10 | 3.99 | 4.05 | 3.03 | 3.12 | 3.08 |
| 17/12/2021 | 15:50 | Cloudy | Surface | 1.0 | 22.49 | 22.50 | 22.50 | 8.48 | 8.51 | 8.50 | 33.33 | 33.30 | 33.32 | 94.7 | 93.8 | 94.3 | 6.88 | 6.80 | 6.84 | 0.69 | 0.74 | 0.72 |
| | 15:53 | | Middle | 3.5 | 22.11 | 22.10 | 22.11 | 8.25 | 8.23 | 8.24 | 33.64 | 33.67 | 33.66 | 75.2 | 75.9 | 75.6 | 5.49 | 5.54 | 5.52 | 1.35 | 1.28 | 1.32 |
| | 15:54 | | Bottom | 6.0 | 21.90 | 21.88 | 21.89 | 8.29 | 8.32 | 8.31 | 33.87 | 33.84 | 33.86 | 49.6 | 49.9 | 49.8 | 3.63 | 3.65 | 3.64 | 2.05 | 2.12 | 2.09 |
| 20/12/2021 | 15:34 | Cloudy | Surface | 1.0 | 21.23 | 21.23 | 21.23 | 8.46 | 8.45 | 8.46 | 33.08 | 33.11 | 33.10 | 72.9 | 72.5 | 72.7 | 5.42 | 5.38 | 5.40 | 1.97 | 2.02 | 2.00 |
| | 15:36 | | Middle | 3.0 | 21.44 | 21.46 | 21.45 | 8.59 | 8.57 | 8.58 | 33.34 | 33.38 | 33.36 | 62.6 | 61.8 | 62.2 | 4.62 | 4.56 | 4.59 | 1.61 | 1.60 | 1.61 |
| | 15:37 | | Bottom | 5.0 | 21.60 | 21.61 | 21.61 | 8.47 | 8.45 | 8.46 | 33.89 | 33.86 | 33.88 | 54.5 | 53.8 | 54.2 | 4.00 | 3.95 | 3.98 | 0.97 | 1.02 | 1.00 |
| 22/12/2021 | 10:15 | Cloudy | Surface | 1.0 | 20.72 | 20.72 | 20.72 | 8.70 | 8.71 | 8.71 | 33.33 | 33.36 | 33.35 | 67.6 | 68.5 | 68.1 | 5.05 | 5.12 | 5.09 | 0.56 | 0.61 | 0.59 |
| | 10:17 | | Middle | 3.0 | 20.93 | 20.92 | 20.93 | 8.59 | 8.53 | 8.56 | 33.57 | 33.55 | 33.56 | 64.7 | 61.1 | 62.9 | 4.80 | 4.76 | 4.78 | 0.73 | 0.68 | 0.71 |
| | 10:18 | | Bottom | 5.0 | 20.90 | 20.91 | 20.91 | 8.55 | 8.55 | 8.55 | 33.56 | 33.55 | 33.56 | 66.0 | 66.2 | 66.1 | 4.90 | 4.92 | 4.91 | 1.36 | 1.25 | 1.31 |
| 24/12/2021 | 10:24 | Cloudy | Surface | 1.0 | 20.95 | 20.96 | 20.96 | 8.66 | 8.66 | 8.66 | 33.01 | 33.03 | 33.02 | 79.1 | 80.7 | 79.9 | 5.89 | 6.01 | 5.95 | 0.41 | 0.46 | 0.44 |
| | 10:27 | | Middle | 3.0 | 21.00 | 21.00 | 21.00 | 8.60 | 8.58 | 8.59 | 33.34 | 33.35 | 33.35 | 67.9 | 67.5 | 67.7 | 5.04 | 5.01 | 5.03 | 0.54 | 0.62 | 0.58 |
| | 10:29 | | Bottom | 5.0 | 21.00 | 21.01 | 21.01 | 8.43 | 8.43 | 8.43 | 33.56 | 33.56 | 33.56 | 57.3 | 56.4 | 56.9 | 4.25 | 4.20 | 4.23 | 1.41 | 1.31 | 1.36 |
| 27/12/2021 | 13:33 | Cloudy | Surface | 1.0 | 20.28 | 20.29 | 20.29 | 8.78 | 8.75 | 8.77 | 33.04 | 33.05 | 33.05 | 68.2 | 67.6 | 67.9 | 5.15 | 5.10 | 5.13 | 2.06 | 2.11 | 2.09 |
| | 13:35 | | Middle | 3.5 | 20.29 | 20.29 | 20.29 | 8.53 | 8.53 | 8.53 | 33.14 | 33.14 | 33.14 | 72.9 | 73.1 | 73.0 | 5.50 | 5.51 | 5.51 | 1.39 | 1.27 | 1.33 |
| | 13:37 | | Bottom | 6.0 | 20.50 | 20.51 | 20.51 | 8.38 | 8.40 | 8.39 | 33.62 | 33.65 | 33.64 | 61.9 | 61.6 | 61.8 | 4.64 | 4.61 | 4.63 | 1.68 | 1.75 | 1.72 |
| 29/12/2021 | 14:58 | Fine | Surface | 1.0 | 20.49 | 20.49 | 20.49 | 8.64 | 8.64 | 8.64 | 33.07 | 33.05 | 33.06 | 89.7 | 90.5 | 90.1 | 6.73 | 6.82 | 6.78 | 1.84 | 1.90 | 1.87 |
| | 15:00 | | Middle | 3.5 | 20.07 | 20.09 | 20.08 | 8.48 | 8.47 | 8.48 | 33.30 | 33.28 | 33.29 | 93.6 | 94.0 | 93.8 | 7.08 | 7.11 | 7.10 | 1.85 | 1.74 | 1.80 |
| | 15:01 | | Bottom | 6.0 | 19.99 | 19.98 | 19.99 | 8.32 | 8.34 | 8.33 | 33.52 | 33.51 | 33.52 | 94.7 | 93.8 | 94.3 | 7.16 | 7.10 | 7.13 | 1.60 | 1.53 | 1.57 |

**Water Monitoring Result at G1* -Gradient Station**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 10:59 | Fine | Surface | 1.0 | 23.99 | 24.01 | 24.00 | 8.38 | 8.38 | 8.38 | 29.30 | 29.26 | 29.28 | 83.8 | 84.6 | 84.2 | 5.96 | 6.01 | 5.99 | 2.57 | 2.51 | 2.54 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 11:02 | | Bottom | 4.0 | 24.08 | 24.08 | 24.08 | 8.14 | 8.05 | 8.10 | 29.52 | 29.81 | 29.67 | 76.8 | 74.9 | 75.9 | 5.45 | 5.36 | 5.41 | 1.70 | 1.62 | 1.66 |
| 1/12/2021 | 9:45 | Fine | Surface | 1.0 | 23.03 | 23.07 | 23.05 | 8.85 | 8.85 | 8.85 | 29.10 | 29.16 | 29.13 | 63.8 | 62.1 | 63.0 | 4.63 | 4.49 | 4.56 | 1.22 | 1.27 | 1.25 |
| | 9:47 | | Middle | 3.5 | 23.10 | 23.70 | 23.40 | 8.88 | 8.86 | 8.87 | 29.33 | 29.35 | 29.34 | 61.8 | 61.9 | 61.9 | 4.47 | 4.47 | 4.47 | 1.09 | 1.21 | 1.15 |
| | 9:49 | | Bottom | 6.0 | 23.18 | 23.19 | 23.19 | 8.85 | 8.84 | 8.85 | 29.62 | 29.65 | 29.64 | 57.4 | 56.0 | 56.7 | 4.13 | 4.03 | 4.08 | 1.84 | 1.75 | 1.80 |
| 2/12/2021 | 10:20 | Fine | Surface | 23.0 | 22.97 | 8.85 | 15.91 | 8.82 | 29.70 | 19.26 | 29.70 | 29.77 | 29.74 | 64.1 | 64.8 | 64.5 | 4.64 | 4.66 | 4.65 | 2.89 | 2.75 | 2.82 |
| | 10:22 | | Middle | 23.0 | 22.98 | 8.88 | 15.93 | 8.88 | 29.85 | 19.37 | 29.85 | 29.87 | 29.86 | 65.7 | 65.4 | 65.6 | 4.74 | 4.72 | 4.73 | 2.26 | 2.53 | 2.40 |
| | 10:25 | | Bottom | 23.0 | 23.10 | 8.89 | 16.00 | 8.85 | 30.01 | 19.43 | 30.04 | 30.04 | 30.04 | 65.8 | 64.6 | 65.2 | 4.75 | 4.66 | 4.71 | 2.55 | 2.01 | 2.28 |
| 3/12/2021 | 10:25 | Fine | Surface | 1.0 | 22.34 | 22.34 | 22.34 | 8.65 | 8.69 | 8.67 | 29.90 | 29.92 | 29.91 | 70.1 | 69.3 | 69.7 | 5.12 | 5.06 | 5.09 | 2.26 | 2.35 | 2.31 |
| | 10:28 | | Middle | 3.5 | 22.39 | 22.38 | 22.39 | 8.70 | 8.65 | 8.68 | 30.24 | 30.25 | 30.25 | 68.8 | 68.1 | 68.5 | 5.01 | 4.96 | 4.99 | 1.45 | 1.73 | 1.59 |
| | 10:30 | | Bottom | 6.0 | 22.45 | 22.47 | 22.46 | 8.79 | 8.77 | 8.78 | 30.48 | 30.54 | 30.51 | 69.1 | 68.7 | 68.9 | 5.02 | 4.99 | 5.01 | 2.43 | 2.16 | 2.30 |
| 6/12/2021 | 12:43 | Fine | Surface | 1.0 | 22.00 | 21.99 | 22.00 | 8.77 | 8.78 | 8.78 | 30.03 | 30.06 | 30.05 | 87.5 | 87.0 | 87.3 | 6.43 | 6.38 | 6.41 | 2.13 | 2.08 | 2.11 |
| | 12:45 | | Middle | 3.5 | 21.85 | 21.85 | 21.85 | 8.70 | 8.71 | 8.71 | 30.27 | 30.30 | 30.29 | 80.1 | 79.1 | 79.6 | 5.89 | 5.81 | 5.85 | 0.78 | 0.80 | 0.79 |
| | 12:48 | | Bottom | 6.0 | 21.86 | 21.86 | 21.86 | 8.59 | 8.62 | 8.61 | 30.48 | 30.45 | 30.47 | 65.2 | 64.6 | 64.9 | 4.78 | 4.73 | 4.76 | 2.77 | 2.73 | 2.75 |
| 8/12/2021 | 14:08 | Fine | Surface | 1.0 | 21.46 | 21.47 | 21.47 | 8.81 | 8.80 | 8.81 | 33.10 | 33.09 | 33.10 | 107.0 | 107.6 | 107.3 | 7.79 | 7.85 | 7.82 | 2.89 | 2.84 | 2.87 |
| | 14:07 | | Middle | 3.5 | 21.31 | 21.28 | 21.30 | 8.80 | 8.80 | 8.80 | 33.15 | 33.15 | 33.15 | 91.7 | 92.1 | 91.9 | 6.74 | 6.77 | 6.76 | 2.75 | 2.78 | 2.77 |
| | 14:09 | | Bottom | 6.0 | 20.68 | 20.66 | 20.67 | 8.80 | 8.78 | 8.79 | 33.11 | 33.11 | 33.11 | 92.7 | 93.0 | 92.9 | 6.84 | 6.86 | 6.85 | 3.03 | 3.08 | 3.06 |
| 10/12/2021 | 17:29 | Fine | Surface | 1.0 | 22.02 | 22.01 | 22.02 | 8.47 | 8.48 | 8.48 | 33.00 | 33.00 | 33.00 | 117.4 | 117.8 | 117.6 | 8.48 | 8.51 | 8.50 | 1.55 | 1.58 | 1.57 |
| | 17:30 | | Middle | 3.0 | 21.89 | 21.89 | 21.89 | 8.60 | 8.60 | 8.60 | 32.90 | 32.92 | 32.91 | 101.6 | 102.2 | 101.9 | 7.41 | 7.45 | 7.43 | 0.99 | 1.00 | 1.00 |
| | 17:32 | | Bottom | 5.0 | 21.14 | 21.12 | 21.13 | 8.57 | 8.56 | 8.57 | 33.47 | 33.48 | 33.48 | 62.7 | 62.0 | 62.4 | 4.59 | 4.54 | 4.57 | 0.72 | 0.74 | 0.73 |
| 13/12/2021 | 9:24 | Fine | Surface | 1.0 | 22.39 | 22.39 | 22.39 | 8.70 | 8.71 | 8.71 | 21.23 | 21.24 | 21.24 | 89.8 | 89.0 | 89.4 | 6.57 | 6.51 | 6.54 | 1.06 | 1.10 | 1.08 |
| | 9:27 | | Middle | 3.0 | 22.36 | 22.37 | 22.37 | 8.66 | 8.65 | 8.66 | 32.39 | 32.41 | 32.40 | 94.7 | 95.1 | 94.9 | 6.92 | 6.95 | 6.94 | 0.62 | 0.57 | 0.60 |
| | 9:29 | | Bottom | 5.0 | 22.01 | 22.01 | 22.01 | 8.62 | 8.62 | 8.62 | 33.10 | 33.08 | 33.09 | 87.0 | 85.9 | 86.5 | 6.39 | 6.32 | 6.36 | 0.75 | 0.80 | 0.77 |
| 15/12/2021 | 10:40 | Cloudy | Surface | 1.0 | 22.31 | 22.32 | 22.32 | 8.63 | 8.58 | 8.61 | 32.73 | 32.72 | 32.73 | 101.4 | 101.7 | 101.6 | 7.41 | 7.43 | 7.42 | 0.81 | 0.77 | 0.79 |
| | 10:43 | | Middle | 3.5 | 22.24 | 22.24 | 22.24 | 8.45 | 8.42 | 8.44 | 32.94 | 32.77 | 32.86 | 91.7 | 92.2 | 92.0 | 6.72 | 6.76 | 6.74 | 0.64 | 0.68 | 0.66 |
| | 5:45 | | Bottom | 6.0 | 21.98 | 21.95 | 21.97 | 8.61 | 8.62 | 8.62 | 33.22 | 33.27 | 33.25 | 39.6 | 39.2 | 39.4 | 2.83 | 2.88 | 2.86 | 2.82 | 2.84 | 2.83 |
| 17/12/2021 | 9:47 | Cloudy | Surface | 1.0 | 22.42 | 22.44 | 22.43 | 8.79 | 8.81 | 8.80 | 32.89 | 32.93 | 32.91 | 98.4 | 97.6 | 98.0 | 7.17 | 7.11 | 7.14 | 0.78 | 0.84 | 0.81 |
| | 9:49 | | Middle | 3.0 | 22.19 | 22.20 | 22.20 | 8.52 | 8.49 | 8.51 | 33.36 | 33.35 | 33.36 | 95.4 | 96.2 | 95.8 | 7.09 | 7.02 | 7.06 | 0.56 | 0.52 | 0.54 |
| | 9:52 | | Bottom | 5.0 | 22.08 | 22.06 | 22.07 | 8.44 | 8.41 | 8.43 | 33.72 | 33.73 | 33.73 | 61.3 | 62.3 | 61.8 | 4.47 | 4.56 | 4.52 | 0.99 | 0.93 | 0.96 |
| 20/12/2021 | 13;10 | Cloudy | Surface | 1.0 | 21.38 | 21.37 | 21.38 | 8.52 | 8.53 | 8.53 | 33.29 | 33.31 | 33.30 | 71.0 | 70.0 | 70.5 | 5.26 | 5.19 | 5.23 | 2.80 | 2.74 | 2.77 |
| | 13:12 | | Middle | 3.0 | 21.35 | 21.35 | 21.35 | 8.38 | 8.36 | 8.37 | 33.58 | 33.55 | 33.57 | 70.1 | 69.3 | 69.7 | 5.19 | 5.13 | 5.16 | 2.02 | 1.95 | 1.99 |
| | 13:14 | | Bottom | 5.0 | 21.63 | 21.65 | 21.64 | 8.20 | 8.23 | 8.22 | 33.84 | 33.82 | 33.83 | 40.2 | 40.7 | 40.5 | 2.94 | 2.98 | 2.96 | 4.05 | 4.12 | 4.09 |
| 22/12/2021 | 13:01 | Cloudy | Surface | 1.0 | 21.02 | 21.02 | 21.02 | 8.57 | 8.54 | 8.56 | 32.97 | 32.95 | 32.96 | 71.0 | 70.3 | 70.7 | 5.28 | 5.23 | 5.26 | 0.71 | 0.64 | 0.68 |
| | 13:03 | | Middle | 3.5 | 21.01 | 21.01 | 21.01 | 8.42 | 8.43 | 8.43 | 33.28 | 33.30 | 33.29 | 68.7 | 68.9 | 68.8 | 5.10 | 5.11 | 5.11 | 0.79 | 0.74 | 0.77 |
| | 13:05 | | Bottom | 6.0 | 20.97 | 20.98 | 20.98 | 8.46 | 8.48 | 8.47 | 33.54 | 33.53 | 33.54 | 63.8 | 64.3 | 64.1 | 4.73 | 4.77 | 4.75 | 1.22 | 1.16 | 1.19 |
| 27/12/2021 | 17:18 | Cloudy | Surface | 1.0 | 19.91 | 19.91 | 19.91 | 8.19 | 8.20 | 8.20 | 33.14 | 33.16 | 33.15 | 69.9 | 70.5 | 70.2 | 5.31 | 5.34 | 5.33 | 1.53 | 1.46 | 1.50 |
| | 17:19 | | Middle | 3.0 | 20.04 | 20.02 | 20.03 | 8.14 | 8.14 | 8.14 | 33.47 | 33.47 | 33.47 | 68.5 | 69.3 | 68.9 | 5.20 | 5.26 | 5.23 | 1.14 | 1.08 | 1.11 |
| | 17:21 | | Bottom | 5.0 | 20.33 | 20.33 | 20.33 | 8.10 | 8.11 | 8.11 | 33.86 | 33.89 | 33.88 | 60.3 | 60.8 | 60.6 | 4.54 | 4.58 | 4.56 | 0.78 | 0.77 | 0.78 |
| 29/12/2021 | 9:22 | Fine | Surface | 1.0 | 19.72 | 19.73 | 19.73 | 7.89 | 7.87 | 7.88 | 33.09 | 33.11 | 33.10 | 72.5 | 71.9 | 72.2 | 5.51 | 5.46 | 5.49 | 1.85 | 1.79 | 1.82 |
| | 9:24 | | Middle | 3.0 | 19.83 | 19.81 | 19.82 | 7.74 | 7.74 | 7.74 | 33.33 | 33.35 | 33.34 | 69.5 | 68.8 | 69.2 | 5.27 | 6.22 | 5.75 | 1.87 | 1.81 | 1.84 |
| | 9:26 | | Bottom | 5.0 | 20.07 | 20.07 | 20.07 | 7.54 | 7.55 | 7.55 | 33.60 | 33.58 | 33.59 | 66.5 | 66.8 | 66.7 | 5.02 | 5.04 | 5.03 | 1.40 | 1.32 | 1.36 |
| 31/12/2021 | 10:25 | Cloudy | Surface | 1.0 | 19.97 | 19.97 | 19.97 | 8.16 | 8.16 | 8.16 | 33.04 | 33.07 | 33.06 | 79.7 | 79.9 | 79.8 | 6.01 | 6.05 | 6.03 | 0.83 | 0.73 | 0.78 |
| | 10:28 | | Middle | 3.5 | 20.14 | 20.15 | 20.15 | 8.06 | 8.05 | 8.06 | 33.39 | 33.36 | 33.38 | 76.2 | 75.2 | 75.7 | 5.75 | 5.68 | 5.72 | 0.64 | 0.66 | 0.65 |
| | 10:30 | | Bottom | 6.0 | 20.12 | 20.12 | 20.12 | 8.10 | 8.08 | 8.09 | 33.61 | 33.65 | 33.63 | 69.3 | 68.2 | 68.8 | 5.23 | 5.14 | 5.19 | 0.39 | 0.44 | 0.42 |

**Water Monitoring Result at C1* - Pak Sha Tau Corals**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | | Water Temperature | | | pH | | | Salinity | | | DO Saturation | | | DO | | | Turbidity | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | °C | | | - | | | ppt | | | % | | | mg/L | | | NTU | | |
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 16:06 | Fine | Surface | 1.0 | 24.1 | 24.1 | 24.10 | 8.5 | 8.5 | 8.48 | 33.0 | 33.0 | 32.95 | 94.7 | 97.5 | 96.1 | 6.6 | 6.6 | 6.6 | 23.90 | 2.30 | 13.10 |
| | 16:08 | | Middle | 3.0 | 24.0 | 24.0 | 24.00 | 8.5 | 8.5 | 8.49 | 33.0 | 33.0 | 32.95 | 96.8 | 97.1 | 97.0 | 6.7 | 6.8 | 6.7 | 2.14 | 2.11 | 2.13 |
| | 16:10 | | Bottom | 5.0 | 24.1 | 24.1 | 24.10 | 8.5 | 8.5 | 8.49 | 33.0 | 33.0 | 32.95 | 98.5 | 97.1 | 97.8 | 6.9 | 6.8 | 6.8 | 2.04 | 2.06 | 2.05 |
| 1/12/2021 | 17:01 | Fine | Surface | 1.0 | 21.0 | 21.0 | 21.00 | 8.5 | 8.5 | 8.47 | 33.4 | 33.4 | 33.36 | 91.7 | 92.5 | 92.1 | 6.7 | 6.8 | 6.8 | 3.15 | 3.03 | 3.09 |
| | 17:03 | | Middle | 3.0 | 20.9 | 20.9 | 20.90 | 8.5 | 8.5 | 8.47 | 33.4 | 33.4 | 33.36 | 91.3 | 90.5 | 90.9 | 6.7 | 6.7 | 6.7 | 3.00 | 2.95 | 2.98 |
| | 17:05 | | Bottom | 5.0 | 20.8 | 20.8 | 20.80 | 8.5 | 8.5 | 8.47 | 33.4 | 33.4 | 33.36 | 91.2 | 91.4 | 91.3 | 6.7 | 6.7 | 6.7 | 2.89 | 2.85 | 2.87 |
| 2/12/2021 | 16:37 | Fine | Surface | 1.0 | 20.6 | 20.6 | 20.60 | 8.5 | 8.5 | 8.49 | 33.3 | 33.3 | 33.33 | 97.4 | 97.6 | 97.5 | 7.2 | 7.2 | 7.2 | 2.89 | 3.96 | 3.43 |
| | 16:39 | | Middle | 3.0 | 20.6 | 20.6 | 20.60 | 8.5 | 8.5 | 8.50 | 33.3 | 33.3 | 33.33 | 96.3 | 94.6 | 95.5 | 7.1 | 7.0 | 7.1 | 3.99 | 4.05 | 4.02 |
| | 16:41 | | Bottom | 5.0 | 20.6 | 20.6 | 20.60 | 8.5 | 8.5 | 8.50 | 33.3 | 33.3 | 33.33 | 95.6 | 94.8 | 95.2 | 7.1 | 7.0 | 7.1 | 3.97 | 3.91 | 3.94 |
| 3/12/2021 | 14:48 | Fine | Surface | 1.0 | 20.6 | 20.6 | 20.60 | 8.5 | 8.5 | 8.50 | 33.3 | 33.3 | 33.26 | 94.1 | 98.5 | 96.3 | 6.9 | 7.3 | 7.1 | 5.54 | 5.74 | 5.64 |
| | 14:50 | | Middle | 3.0 | 20.6 | 20.6 | 20.60 | 8.5 | 8.5 | 8.50 | 33.3 | 33.3 | 33.29 | 95.0 | 96.1 | 95.6 | 7.0 | 7.1 | 7.1 | 6.01 | 6.10 | 6.06 |
| | 14:52 | | Bottom | 5.0 | 20.4 | 20.4 | 20.40 | 8.5 | 8.5 | 8.50 | 33.3 | 33.3 | 33.29 | 92.5 | 94.7 | 93.6 | 6.9 | 7.0 | 6.9 | 6.46 | 6.52 | 6.49 |
| 6/12/2021 | 11:36 | Fine | Surface | 1.0 | 20.8 | 20.8 | 20.80 | 8.5 | 8.5 | 8.52 | 33.2 | 33.2 | 33.15 | 96.4 | 94.1 | 95.3 | 7.1 | 6.9 | 7.0 | 3.79 | 3.75 | 3.77 |
| | 11:38 | | Middle | 3.0 | 20.8 | 20.8 | 20.80 | 8.5 | 8.5 | 8.52 | 33.2 | 33.2 | 33.15 | 98.4 | 95.3 | 96.9 | 7.3 | 7.0 | 7.1 | 3.86 | 3.84 | 3.85 |
| | 11:40 | | Bottom | 5.0 | 20.8 | 20.8 | 20.80 | 8.5 | 8.5 | 8.52 | 33.2 | 33.2 | 33.16 | 98.0 | 97.2 | 97.6 | 7.2 | 7.2 | 7.2 | 3.61 | 3.67 | 3.64 |
| 8/12/2021 | 13:27 | Fine | Surface | 1.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.52 | 33.3 | 33.3 | 33.27 | 93.5 | 93.2 | 93.4 | 6.8 | 6.7 | 6.7 | 2.96 | 3.05 | 3.01 |
| | 13:29 | | Middle | 3.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.52 | 33.3 | 33.3 | 33.27 | 92.4 | 94.0 | 93.2 | 6.7 | 6.8 | 6.8 | 2.87 | 2.81 | 2.84 |
| | 13:31 | | Bottom | 5.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.52 | 33.3 | 33.3 | 33.27 | 94.4 | 94.9 | 94.7 | 6.8 | 6.9 | 6.9 | 2.68 | 2.66 | 2.67 |
| 10/12/2021 | 15:53 | Fine | Surface | 1.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.53 | 33.2 | 33.2 | 33.16 | 93.7 | 96.7 | 95.2 | 6.9 | 7.1 | 7.0 | 2.43 | 2.52 | 2.48 |
| | 15;55 | | Middle | 3.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.53 | 33.2 | 33.2 | 33.16 | 97.6 | 97.8 | 97.7 | 7.1 | 7.2 | 7.1 | 2.50 | 2.46 | 2.48 |
| | 15:57 | | Bottom | 5.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.53 | 33.2 | 33.2 | 33.16 | 94.1 | 94.9 | 94.5 | 6.9 | 7.0 | 7.0 | 2.41 | 2.38 | 2.40 |
| 13/12/2021 | 12:43 | Fine | Surface | 1.0 | 21.4 | 21.4 | 21.40 | 8.5 | 8.5 | 8.54 | 33.3 | 33.3 | 33.26 | 92.9 | 91.9 | 92.4 | 6.8 | 6.7 | 6.7 | 2.55 | 2.52 | 2.54 |
| | 12:45 | | Middle | 3.0 | 21.5 | 21.5 | 21.50 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.22 | 91.0 | 90.6 | 90.8 | 6.6 | 6.6 | 6.6 | 2.51 | 2.53 | 2.52 |
| | 12:47 | | Bottom | 5.0 | 21.5 | 21.5 | 21.50 | 8.5 | 8.5 | 8.54 | 33.2 | 33.3 | 33.28 | 91.0 | 93.2 | 92.1 | 6.6 | 6.8 | 6.7 | 2.60 | 2.63 | 2.62 |
| 15/12/2021 | 13:10 | Cloudy | Surface | 1.0 | 21.4 | 21.4 | 21.40 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.15 | 95.8 | 94.1 | 95.0 | 7.0 | 6.9 | 6.9 | 2.55 | 2.57 | 2.56 |
| | 13:12 | | Middle | 3.0 | 21.4 | 21.4 | 21.40 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.15 | 90.6 | 91.7 | 91.2 | 6.6 | 6.7 | 6.7 | 2.52 | 2.50 | 2.51 |
| | 13:14 | | Bottom | 5.0 | 21.4 | 21.4 | 21.40 | 8.5 | 8.5 | 8.53 | 33.2 | 33.2 | 33.15 | 87.6 | 88.9 | 88.3 | 6.4 | 6.5 | 6.4 | 2.53 | 2.49 | 2.51 |
| 17/12/2021 | 14:12 | Cloudy | Surface | 1.0 | 21.4 | 21.4 | 21.40 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.23 | 96.0 | 95.5 | 95.8 | 7.0 | 6.9 | 7.0 | 2.48 | 2.43 | 2.46 |
| | 14:14 | | Middle | 3.0 | 21.4 | 21.4 | 21.40 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.23 | 92.4 | 92.0 | 92.2 | 6.7 | 6.7 | 6.7 | 2.46 | 2.50 | 2.48 |
| | 14:16 | | Bottom | 5.0 | 21.4 | 21.4 | 21.40 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.23 | 81.2 | 83.9 | 82.6 | 5.9 | 6.1 | 6.0 | 2.55 | 2.53 | 2.54 |
| 20/12/2021 | 14:46 | Cloudy | Surface | 1.0 | 18.8 | 18.8 | 18.80 | 8.5 | 8.5 | 8.46 | 33.4 | 33.4 | 33.44 | 77.6 | 79.1 | 78.4 | 6.0 | 6.1 | 6.0 | 2.77 | 2.75 | 2.76 |
| | 14:48 | | Middle | 3.0 | 18.6 | 18.6 | 18.60 | 8.5 | 8.5 | 8.46 | 33.4 | 33.4 | 33.44 | 76.9 | 75.5 | 76.2 | 5.9 | 5.8 | 5.8 | 2.72 | 2.79 | 2.76 |
| | 14:50 | | Bottom | 5.0 | 18.6 | 18.6 | 18.60 | 8.5 | 8.5 | 8.46 | 33.4 | 33.4 | 33.44 | 81.8 | 84.1 | 83.0 | 6.3 | 6.3 | 6.3 | 2.78 | 2.81 | 2.80 |
| 22/12/2021 | 12:01 | Cloudy | Surface | 1.0 | 20.4 | 20.4 | 20.40 | 8.5 | 8.5 | 8.46 | 33.1 | 33.1 | 33.10 | 88.1 | 83.0 | 85.6 | 6.6 | 6.2 | 6.4 | 2.66 | 2.62 | 2.64 |
| | 12:03 | | Middle | 3.0 | 20.4 | 20.4 | 20.40 | 8.5 | 8.5 | 8.46 | 33.1 | 33.1 | 33.10 | 87.6 | 88.5 | 88.1 | 6.5 | 6.6 | 6.5 | 2.50 | 2.55 | 2.53 |
| | 12:05 | | Bottom | 5.0 | 20.4 | 20.4 | 20.40 | 8.5 | 8.5 | 8.46 | 33.1 | 33.1 | 33.10 | 84.3 | 86.4 | 85.4 | 6.3 | 6.4 | 6.3 | 2.52 | 2.54 | 2.53 |
| 24/12/2021 | 12;01 | Cloudy | Surface | 1.0 | 20.3 | 20.3 | 20.30 | 8.5 | 8.5 | 8.49 | 33.1 | 33.1 | 33.05 | 83.5 | 81.7 | 82.6 | 6.2 | 6.1 | 6.2 | 2.29 | 2.25 | 2.27 |
| | 12:03 | | Middle | 3.0 | 20.3 | 20.3 | 20.30 | 8.5 | 8.5 | 8.49 | 33.1 | 33.1 | 33.05 | 84.8 | 84.2 | 84.5 | 6.3 | 6.2 | 6.3 | 2.32 | 2.30 | 2.31 |
| | 9:45 | | Bottom | 6.0 | 21.0 | 21.0 | 21.01 | 8.5 | 8.5 | 8.53 | 33.6 | 33.6 | 33.60 | 53.9 | 54.5 | 54.2 | 4.0 | 4.0 | 4.0 | 1.98 | 1.77 | 1.88 |
| 27/12/2021 | 13:39 | Cloudy | Surface | 1.0 | 16.7 | 16.7 | 16.70 | 8.5 | 8.5 | 8.48 | 33.5 | 33.5 | 33.52 | 90.6 | 90.4 | 90.5 | 7.2 | 7.2 | 7.2 | 2.61 | 2.63 | 2.62 |
| | 13:41 | | Middle | 3.0 | 16.6 | 16.6 | 16.60 | 8.5 | 8.5 | 8.48 | 33.5 | 33.5 | 33.52 | 88.4 | 88.2 | 88.3 | 7.1 | 7.1 | 7.1 | 2.58 | 2.56 | 2.57 |
| | 13:43 | | Bottom | 5.0 | 16.6 | 16.6 | 16.60 | 8.5 | 8.5 | 8.48 | 33.5 | 33.5 | 33.54 | 91.2 | 90.4 | 90.8 | 7.3 | 7.2 | 7.3 | 2.53 | 2.55 | 2.54 |
| 29/12/2021 | 12:12 | Fine | Surface | 1.0 | 21.4 | 21.4 | 21.40 | 8.4 | 8.4 | 8.43 | 33.8 | 33.8 | 33.78 | 93.1 | 94.1 | 93.6 | 6.8 | 6.8 | 6.8 | 3.13 | 3.19 | 3.16 |
| | 12:14 | | Middle | 3.0 | 21.4 | 21.4 | 21.40 | 8.4 | 8.4 | 8.43 | 33.8 | 33.8 | 33.76 | 93.7 | 95.5 | 94.6 | 6.8 | 6.9 | 6.9 | 2.99 | 2.92 | 2.96 |
| | 12:16 | | Bottom | 5.0 | 21.4 | 21.4 | 21.40 | 8.4 | 8.4 | 8.43 | 33.8 | 33.8 | 33.76 | 93.1 | 93.4 | 93.3 | 6.8 | 6.8 | 6.8 | 2.80 | 2.87 | 2.84 |

**Water Monitoring Result at C1* - Pak Sha Tau Corals**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth m | | Water Temperature °C | | | pH - | | | Salinity ppt | | | DO Saturation % | | | DO mg/L | | | Turbidity NTU | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 11:01 | Fine | Surface | 1.0 | 22.7 | 22.6 | 22.65 | 6.3 | 6.2 | 6.25 | 32.0 | 32.0 | 32.02 | 98.8 | 98.5 | 98.7 | 7.0 | 7.0 | 7.0 | 3.32 | 3.30 | 3.31 |
| | 11:03 | | Middle | 3.0 | 22.7 | 22.7 | 22.70 | 6.1 | 6.1 | 6.10 | 32.0 | 32.0 | 32.02 | 93.5 | 93.3 | 93.4 | 6.7 | 6.7 | 6.7 | 3.27 | 3.28 | 3.28 |
| | 11:05 | | Bottom | 5.0 | 22.6 | 22.6 | 22.60 | 6.1 | 6.1 | 6.07 | 32.0 | 32.0 | 32.02 | 94.3 | 94.7 | 94.5 | 6.7 | 6.8 | 6.7 | 3.24 | 3.21 | 3.23 |
| 1/12/2021 | 10:27 | Fine | Surface | 1.0 | 21.1 | 21.1 | 21.10 | 8.5 | 8.5 | 8.47 | 33.2 | 33.2 | 33.24 | 92.0 | 93.1 | 92.6 | 6.8 | 6.9 | 6.8 | 2.14 | 2.10 | 2.12 |
| | 10:29 | | Middle | 3.0 | 21.1 | 21.1 | 21.10 | 8.5 | 8.5 | 8.47 | 33.2 | 33.2 | 33.24 | 93.2 | 92.4 | 92.8 | 6.9 | 6.8 | 6.8 | 2.07 | 2.04 | 2.06 |
| | 10:31 | | Bottom | 5.0 | 20.9 | 20.9 | 20.90 | 8.5 | 8.5 | 8.47 | 33.3 | 33.3 | 33.25 | 92.9 | 93.4 | 93.2 | 6.8 | 6.9 | 6.9 | 2.13 | 2.11 | 2.12 |
| 2/12/2021 | 12"16 | Fine | Surface | 1.0 | 21.4 | 21.4 | 21.40 | 8.5 | 8.5 | 8.47 | 33.4 | 33.4 | 33.35 | 95.0 | 95.8 | 95.4 | 6.9 | 7.0 | 6.9 | 2.63 | 2.60 | 2.62 |
| | 12:18 | | Middle | 3.0 | 21.4 | 21.4 | 21.40 | 8.5 | 8.5 | 8.47 | 33.4 | 33.4 | 33.35 | 94.4 | 92.6 | 93.5 | 6.9 | 6.7 | 6.8 | 2.71 | 2.74 | 2.73 |
| | 12:20 | | Bottom | 5.0 | 21.4 | 21.4 | 21.40 | 8.5 | 8.5 | 8.47 | 33.4 | 33.4 | 33.36 | 93.6 | 92.3 | 93.0 | 6.8 | 6.7 | 6.8 | 2.64 | 2.59 | 2.62 |
| 3/12/2021 | 13:54 | Fine | Surface | 1.0 | 20.5 | 20.5 | 20.50 | 8.5 | 8.5 | 8.49 | 33.3 | 33.3 | 33.26 | 98.0 | 98.5 | 98.3 | 7.3 | 7.3 | 7.3 | 2.89 | 2.94 | 2.92 |
| | 13:56 | | Middle | 3.0 | 20.5 | 20.5 | 20.50 | 8.5 | 8.5 | 8.49 | 33.3 | 33.3 | 33.28 | 97.6 | 97.3 | 97.5 | 7.2 | 7.2 | 7.2 | 2.86 | 2.88 | 2.87 |
| | 13:58 | | Bottom | 5.0 | 20.4 | 20.4 | 20.40 | 8.5 | 8.5 | 8.49 | 33.3 | 33.3 | 33.29 | 96..1 | 97.4 | 97.4 | 7.1 | 7.3 | 7.2 | 2.98 | 3.00 | 2.99 |
| 6/12/2021 | 12:33 | Fine | Surface | 1.0 | 20.6 | 20.7 | 20.65 | 8.5 | 8.5 | 8.53 | 33.1 | 33.1 | 33.12 | 94.7 | 94.5 | 94.6 | 7.0 | 7.0 | 7.0 | 3.47 | 3.49 | 3.48 |
| | 12:35 | | Middle | 3.0 | 20.6 | 20.6 | 20.60 | 8.5 | 8.5 | 8.53 | 33.1 | 33.1 | 33.13 | 97.2 | 97.0 | 97.1 | 7.2 | 7..17 | 7.2 | 3.45 | 3.39 | 3.42 |
| | 12:37 | | Bottom | 5.0 | 20.6 | 20.6 | 20.60 | 8.5 | 8.5 | 8.53 | 33.1 | 33.1 | 33.13 | 94.8 | 94.2 | 94.5 | 7.0 | 7.0 | 7.0 | 3.34 | 3.43 | 3.39 |
| 8/12/2021 | 14:32 | Fine | Surface | 1.0 | 21.1 | 21.1 | 21.10 | 8.5 | 8.5 | 8.51 | 33.6 | 33.6 | 33.59 | 94.3 | 93.8 | 94.1 | 6.9 | 6.9 | 6.9 | 3.32 | 3.19 | 3.26 |
| | 14:34 | | Middle | 3.0 | 21.0 | 21.0 | 21.00 | 8.5 | 8.5 | 8.51 | 33.6 | 33.6 | 33.60 | 91.7 | 92.6 | 92.2 | 6.7 | 6.8 | 6.8 | 3.25 | 3.13 | 3.19 |
| | 14:36 | | Bottom | 5.0 | 21.0 | 21.0 | 21.00 | 8.5 | 8.5 | 8.50 | 33.6 | 33.6 | 33.61 | 92.1 | 91.5 | 91.8 | 6.8 | 6.7 | 6.7 | 3.10 | 3.16 | 3.13 |
| 10/12/2021 | 16:45 | Fine | Surface | 1.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.18 | 91.0 | 90.2 | 90.6 | 6.7 | 6.6 | 6.7 | 2.64 | 2.61 | 2.63 |
| | 16:47 | | Middle | 3.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.19 | 88.0 | 88.2 | 88.1 | 6.8 | 6.9 | 6.8 | 2.60 | 2.58 | 2.59 |
| | 16:49 | | Bottom | 5.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.19 | 92.2 | 91.0 | 91.6 | 6.7 | 6.7 | 6.7 | 2.67 | 2.71 | 2.69 |
| 13/12/2021 | 11:00 | Fine | Surface | 1.0 | 21.7 | 21.7 | 21.70 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.21 | 90.7 | 92.5 | 91.6 | 6.6 | 6.7 | 6.6 | 2.60 | 2.55 | 2.58 |
| | 11:02 | | Middle | 3.0 | 21.7 | 21.7 | 21.70 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.21 | 81.3 | 85.8 | 83.6 | 5.9 | 6.2 | 6.1 | 2.51 | 2.53 | 2.52 |
| | 11:04 | | Bottom | 5.0 | 21.7 | 21.7 | 21.70 | 8.5 | 8.5 | 8.54 | 33.2 | 33.2 | 33.21 | 88.5 | 87.7 | 88.1 | 6.4 | 6.3 | 6.4 | 2.58 | 2.54 | 2.56 |
| 15/12/2021 | 12:11 | Cloudy | Surface | 1.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.53 | 33.2 | 33.2 | 33.18 | 93.9 | 92.1 | 93.0 | 6.9 | 6.8 | 6.8 | 2.62 | 2.59 | 2.61 |
| | 12:13 | | Middle | 3.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.53 | 33.2 | 33.2 | 33.19 | 84.4 | 84.0 | 84.2 | 6.2 | 6.2 | 6.2 | 2.56 | 2.67 | 2.62 |
| | 12:15 | | Bottom | 5.0 | 21.2 | 21.2 | 21.20 | 8.5 | 8.5 | 8.53 | 33.2 | 33.2 | 33.19 | 81.6 | 82.1 | 81.9 | 6.0 | 6.0 | 6.0 | 2.60 | 2.54 | 2.57 |
| 17/12/2021 | 13:12 | Cloudy | Surface | 1.0 | 21.8 | 21.8 | 21.80 | 8.5 | 8.5 | 8.52 | 33.2 | 33.2 | 33.19 | 92.1 | 95.7 | 93.9 | 6.7 | 6.9 | 6.8 | 2.44 | 2.42 | 2.43 |
| | 13:14 | | Middle | 3.0 | 21.8 | 21.8 | 21.80 | 8.5 | 8.5 | 8.52 | 33.2 | 33.2 | 33.19 | 93.7 | 948.9 | 521.3 | 6.8 | 6.9 | 6.8 | 2.40 | 2.38 | 2.39 |
| | 13:16 | | Bottom | 5.0 | 21.8 | 21.8 | 21.80 | 8.5 | 8.5 | 8.53 | 33.2 | 33.2 | 33.20 | 92.4 | 95.1 | 93.8 | 6.7 | 7.0 | 6.8 | 2.42 | 2.48 | 2.45 |
| 20/12/2021 | 14:02 | Cloudy | Surface | 1.0 | 17.7 | 17.7 | 17.70 | 8.5 | 8.5 | 8.46 | 33.5 | 33.5 | 33.45 | 91.9 | 90.8 | 91.4 | 7.2 | 7.1 | 7.2 | 2.72 | 2.70 | 2.71 |
| | 14:04 | | Middle | 3.0 | 17.7 | 17.7 | 17.70 | 8.5 | 8.5 | 8.46 | 33.5 | 33.5 | 33.46 | 88.0 | 87.8 | 87.9 | 6.9 | 6.8 | 6.9 | 2.74 | 2.71 | 2.73 |
| | 14:06 | | Bottom | 5.0 | 17.7 | 17.7 | 17.70 | 8.5 | 8.5 | 8.46 | 33.5 | 33.5 | 33.52 | 74.2 | 74.9 | 74.6 | 5.8 | 5.9 | 5.8 | 2.68 | 2.72 | 2.70 |
| 22/12/2021 | 12:54 | Cloudy | Surface | 1.0 | 20.9 | 20.9 | 20.90 | 8.5 | 8.5 | 8.45 | 33.1 | 33.1 | 33.08 | 88.4 | 90.2 | 89.3 | 6.6 | 6.7 | 6.6 | 2.86 | 2.83 | 2.85 |
| | 12:56 | | Middle | 3.0 | 20.9 | 20.9 | 20.90 | 8.5 | 8.5 | 8.45 | 33.1 | 33.1 | 33.07 | 84.8 | 86.3 | 85.6 | 6.3 | 6.4 | 6.3 | 2.69 | 2.79 | 2.74 |
| | 12:58 | | Bottom | 5.0 | 20.9 | 20.9 | 20.90 | 8.4 | 8.4 | 8.44 | 33.1 | 33.1 | 33.06 | 83.3 | 83.0 | 83.2 | 6.1 | 6.1 | 6.1 | 2.74 | 2.68 | 2.71 |
| 27/12/2021 | 17:10 | Cloudy | Surface | 1.0 | 17.7 | 17.7 | 17.70 | 8.5 | 8.5 | 8.48 | 33.4 | 33.4 | 33.40 | 82.6 | 81.3 | 82.0 | 6.4 | 6.4 | 6.4 | 2.86 | 2.64 | 2.75 |
| | 17:12 | | Middle | 3.0 | 17.6 | 17.6 | 17.60 | 8.5 | 8.5 | 8.48 | 33.5 | 33.5 | 33.50 | 80.7 | 80.3 | 80.5 | 6.3 | 6.3 | 6.3 | 2.72 | 2.70 | 2.71 |
| | 0:00 | | Bottom | 5.0 | 17.6 | 17.6 | 17.60 | 8.5 | 8.5 | 8.48 | 33.5 | 33.5 | 33.50 | 80.5 | 79.4 | 80.0 | 6.3 | 6.2 | 6.2 | 2.66 | 2.69 | 2.68 |
| 29/12/2021 | 10:48 | Fine | Surface | 1.0 | 21.1 | 21.1 | 21.10 | 8.5 | 8.5 | 8.45 | 33.6 | 33.6 | 33.62 | 81.3 | 83.4 | 82.4 | 5.9 | 6.1 | 6.0 | 2.68 | 2.70 | 2.69 |
| | 10:50 | | Middle | 3.0 | 21.1 | 21.1 | 21.10 | 8.5 | 8.5 | 8.45 | 33.6 | 33.6 | 33.62 | 81.9 | 81.7 | 81.8 | 6.0 | 6.0 | 6.0 | 2.65 | 2.62 | 2.64 |
| | 10:52 | | Bottom | 5.0 | 21.1 | 21.1 | 21.10 | 8.4 | 8.4 | 8.44 | 33.7 | 33.7 | 33.65 | 77.2 | 78.7 | 78.0 | 5.6 | 5.8 | 5.7 | 2.60 | 2.67 | 2.64 |
| 31/12/2021 | 10:25 | Cloudy | Surface | 1.0 | 20.0 | 20.0 | 19.97 | 8.2 | 8.2 | 8.16 | 33.0 | 33.1 | 33.06 | 79.7 | 79.9 | 79.8 | 6.0 | 6.1 | 6.0 | 0.83 | 0.73 | 0.78 |
| | 10:28 | | Middle | 3.5 | 20.1 | 20.2 | 20.15 | 8.1 | 8.1 | 8.06 | 33.4 | 33.4 | 33.38 | 76.2 | 75.2 | 75.7 | 5.8 | 5.7 | 5.7 | 0.64 | 0.66 | 0.65 |
| | 10:30 | | Bottom | 6.0 | 20.1 | 20.1 | 20.12 | 8.1 | 8.1 | 8.09 | 33.6 | 33.7 | 33.63 | 69.3 | 68.2 | 68.8 | 5.2 | 5.1 | 5.2 | 0.39 | 0.44 | 0.42 |

**Water Monitoring Result at TPLMB - Tai Po Lung Mei Beach**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Water Temperature | °C | | pH | - | | Salinity | ppt | | DO Saturation | % | | DO | mg/L | | Turbidity | NTU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 16:50 | Fine | Surface | 1.0 | 24.0 | 24.0 | 24.03 | 8.7 | 8.7 | 8.69 | 29.6 | 29.6 | 29.61 | 58.3 | 57.9 | 58.1 | 4.1 | 4.1 | 4.1 | 2.16 | 2.32 | 2.24 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1/12/2021 | 16:30 | Fine | Surface | 1.0 | 22.6 | 22.7 | 22.66 | 8.4 | 8.5 | 8.41 | 29.5 | 29.6 | 29.57 | 54.9 | 55.8 | 55.4 | 4.0 | 4.1 | 4.0 | 1.43 | 1.57 | 1.50 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2/12/2021 | 17:15 | Fine | Surface | 1.0 | 22.5 | 22.5 | 22.48 | 9.1 | 9.1 | 9.06 | 29.3 | 29.4 | 29.33 | 79.0 | 81.1 | 80.1 | 5.8 | 5.9 | 5.8 | 2.52 | 2.38 | 2.45 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3/12/2021 | 17:13 | Fine | Surface | 0.5 | 22.1 | 22.1 | 22.09 | 8.9 | 8.9 | 8.93 | 29.7 | 29.7 | 29.67 | 83.9 | 84.2 | 84.1 | 6.2 | 6.2 | 6.2 | 3.38 | 3.18 | 3.28 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6/12/2021 | 10:47 | Fine | Surface | 0.5 | 21.3 | 21.4 | 21.35 | 8.3 | 8.4 | 8.34 | 30.9 | 30.9 | 30.89 | 69.5 | 69.0 | 69.3 | 5.2 | 5.1 | 5.1 | 1.86 | 1.81 | 1.84 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 8/12/2021 | 11:54 | Fine | Surface | 0.5 | 20.9 | 20.9 | 20.87 | 8.6 | 8.6 | 8.64 | 33.3 | 33.3 | 33.27 | 87.5 | 86.9 | 87.2 | 6.4 | 6.4 | 6.4 | 4.40 | 4.44 | 4.42 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10/12/2021 | 14:06 | Fine | Surface | 5.0 | 22.3 | 22.2 | 22.24 | 8.7 | 8.7 | 8.69 | 32.9 | 32.8 | 32.85 | 92.6 | 93.2 | 92.9 | 6.6 | 6.7 | 6.7 | 1.41 | 1.35 | 1.38 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 13/12/2021 | 13:00 | Fine | Surface | 5.0 | 22.2 | 22.3 | 22.25 | 8.8 | 8.8 | 8.76 | 33.1 | 33.1 | 33.09 | 76.5 | 75.6 | 76.1 | 5.6 | 5.5 | 5.6 | 0.86 | 0.81 | 0.84 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15/12/2021 | 16:20 | Cloudy | Surface | 0.5 | 22.5 | 22.4 | 22.44 | 8.9 | 8.9 | 8.88 | 33.7 | 33.7 | 33.68 | 82.0 | 81.6 | 81.8 | 6.0 | 5.9 | 5.9 | 1.03 | 1.06 | 1.05 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 17/12/2021 | 16:40 | Cloudy | Surface | 0.5 | 22.3 | 22.3 | 22.27 | 8.7 | 8.7 | 8.67 | 33.7 | 33.7 | 33.67 | 80.0 | 81.6 | 80.8 | 5.8 | 5.9 | 5.9 | 1.73 | 1.64 | 1.69 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 20/12/2021 | 15:08 | Cloudy | Surface | 0.5 | 21.0 | 21.1 | 21.05 | 8.5 | 8.5 | 8.51 | 33.4 | 33.4 | 33.43 | 91.4 | 91.7 | 91.6 | 6.8 | 6.8 | 6.8 | 2.00 | 2.08 | 2.04 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22/12/2021 | 10:59 | Cloudy | Surface | 0.5 | 20.9 | 20.9 | 20.91 | 8.5 | 8.6 | 8.56 | 33.5 | 33.5 | 33.47 | 61.0 | 60.2 | 60.6 | 4.6 | 4.5 | 4.5 | 1.23 | 1.27 | 1.25 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 24/12/2021 | 11:10 | Cloudy | Surface | 0.5 | 21.1 | 21.1 | 21.07 | 8.8 | 8.8 | 8.79 | 33.2 | 33.2 | 33.17 | 68.5 | 66.9 | 67.7 | 5.1 | 5.0 | 5.0 | 1.36 | 1.50 | 1.43 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 27/12/2021 | 14:51 | Cloudy | Surface | 0.5 | 19.7 | 19.7 | 19.72 | 8.4 | 8.4 | 8.36 | 33.2 | 33.2 | 33.24 | 65.8 | 66.3 | 66.1 | 5.0 | 5.0 | 5.0 | 1.25 | 1.24 | 1.25 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 29/12/2021 | 15:44 | Fine | Surface | 0.5 | 21.3 | 21.3 | 21.31 | 8.7 | 8.7 | 8.67 | 33.4 | 33.4 | 33.43 | 83.7 | 84.5 | 84.1 | 6.2 | 6.2 | 6.2 | 1.51 | 1.49 | 1.50 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Water Monitoring Result at TPLMB - Tai Po Lung Mei Beach**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Water Temperature | °C | | pH | - | | Salinity | ppt | | DO Saturation | % | | DO | mg/L | | Turbidity | NTU | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average | Value | | Average |
| 30/11/2021 | 11:47 | Fine | Surface | 1.0 | 23.8 | 23.8 | 23.83 | 7.8 | 7.8 | 7.78 | 29.6 | 29.7 | 29.68 | 60.3 | 58.7 | 59.5 | 4.3 | 4.2 | 4.2 | 3.55 | 3.60 | 3.58 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1/12/2021 | 10:38 | Fine | Surface | 0.5 | 22.2 | 22.2 | 22.20 | 8.7 | 8.7 | 8.74 | 29.6 | 29.6 | 29.57 | 51.5 | 51.3 | 51.4 | 3.8 | 3.8 | 3.8 | 0.78 | 0.85 | 0.82 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2/12/2021 | 11:13 | Fine | Surface | 1.0 | 22.0 | 22.0 | 22.02 | 9.7 | 9.7 | 9.69 | 30.4 | 30.4 | 30.43 | 48.3 | 49.3 | 48.8 | 3.5 | 3.6 | 3.6 | 1.33 | 1.29 | 1.31 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3/12/2021 | 11:15 | Fine | Surface | 1.0 | 21.7 | 21.8 | 21.74 | 8.9 | 8.9 | 8.88 | 30.0 | 30.1 | 30.06 | 64.2 | 65.1 | 64.7 | 4.7 | 4.8 | 4.8 | 1.69 | 1.73 | 1.71 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6/12/2021 | 13:42 | Fine | Surface | 0.5 | 21.6 | 21.6 | 21.56 | 8.2 | 8.2 | 8.22 | 30.0 | 30.1 | 30.05 | 76.4 | 76.8 | 76.6 | 5.7 | 5.7 | 5.7 | 2.92 | 2.85 | 2.89 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 8/12/2021 | 14:50 | Fine | Surface | 5.0 | 21.6 | 21.6 | 21.56 | 8.7 | 8.7 | 8.70 | 33.2 | 33.3 | 33.24 | 92.8 | 93.2 | 93.0 | 6.8 | 6.8 | 6.8 | 1.71 | 1.82 | 1.77 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10/12/2021 | 16:57 | Fine | Surface | 5.0 | 22.3 | 22.3 | 22.33 | 8.3 | 8.3 | 8.27 | 33.1 | 3.1 | 18.14 | 100.4 | 101.3 | 100.9 | 7.3 | 7.3 | 7.3 | 1.85 | 1.93 | 1.89 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 13/12/2021 | 10:20 | Fine | Surface | 0.4 | 21.8 | 21.8 | 21.84 | 8.4 | 8.4 | 8.44 | 31.9 | 31.9 | 31.93 | 74.6 | 73.7 | 74.2 | 5.5 | 5.4 | 5.5 | 1.66 | 1.61 | 1.64 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 15/12/2021 | 11:24 | Cloudy | Surface | 0.5 | 22.3 | 22.3 | 22.31 | 8.7 | 8.7 | 8.72 | 32.9 | 32.9 | 32.92 | 77.4 | 76.4 | 76.9 | 5.6 | 5.6 | 5.6 | 1.11 | 1.14 | 1.13 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 17/12/2021 | 11:30 | Cloudy | Surface | 0.5 | 22.7 | 22.7 | 22.70 | 8.4 | 8.4 | 8.39 | 32.8 | 32.9 | 32.84 | 83.8 | 83.4 | 83.6 | 6.1 | 6.1 | 6.1 | 0.62 | 0.58 | 0.60 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 20/12/2021 | 13:48 | Cloudy | Surface | 0.5 | 20.9 | 20.8 | 20.85 | 8.9 | 8.9 | 8.87 | 33.7 | 33.7 | 33.73 | 86.8 | 87.9 | 87.4 | 6.5 | 6.5 | 6.5 | 1.46 | 1.39 | 1.43 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22/12/2021 | 13:48 | Cloudy | Surface | 0.5 | 21.5 | 21.5 | 21.49 | 8.5 | 8.5 | 8.52 | 33.3 | 33.3 | 33.29 | 65.6 | 66.6 | 66.1 | 4.9 | 4.9 | 4.9 | 2.14 | 1.87 | 2.01 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 27/12/2021 | 17:52 | Cloudy | Surface | 0.5 | 20.0 | 20.0 | 20.02 | 8.4 | 8.4 | 8.44 | 33.4 | 33.4 | 33.41 | 69.2 | 69.9 | 69.6 | 5.3 | 5.3 | 5.3 | 1.06 | 0.99 | 1.03 |
| | 0:00 | | Middle | 0.0 | 0.0 | 0.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| | 0:00 | | Bottom | 0.0 | 0.0 | 0.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.0 | 0.0 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 29/12/2021 | 10:07 | Fine | Surface | 0.5 | 20.2 | 20.2 | 20.17 | 8.8 | 8.8 | 8.78 | 33.2 | 33.2 | 33.24 | 68.4 | 68.1 | 68.3 | 5.2 | 5.1 | 5.2 | 2.80 | 2.74 | 2.77 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31/12/2021 | 11:13 | Cloudy | Surface | 0.5 | 20.1 | 20.1 | 20.10 | 8.6 | 8.5 | 8.54 | 33.3 | 33.3 | 33.27 | 72.0 | 72.3 | 72.2 | 5.5 | 5.5 | 5.5 | 1.39 | 1.28 | 1.34 |
| | 0:00 | | Middle | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 0:00 | | Bottom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**Water Monitoring Result at W1 - WSD Seawater Intake at Sha Tin**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth m | | Suspended Solids mg/L | | | Ammonia Nitrogen mg/L | | | Nitrite-nitrogen mg/L | | | Total Inorganic Nitrogen mg/L | | | Unionized Ammonia mg/L | | | Nitrate-nitrogen mg/L | | | BOD mg/L | | | Chlorophyll-a mg/m³ | | E. coli CFU/100mL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 8:15 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.07 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.10 | <0.001 | 0.001 | 0.004 | 0.03 | 0.03 | 0.04 | 3 | 3 | 3 | 9 | 9 | 47 | 47 | 49 |
| | 14:12 | | Middle | 3.5 | 4 | 4 | | 0.10 | 0.10 | | <0.01 | 0.01 | | 0.14 | 0.14 | | 0.006 | 0.006 | | 0.05 | 0.05 | | 3 | 3 | | 9 | | 48 | 48 | |
| | 14:14 | | Bottom | 6.0 | 4 | 4 | | 0.09 | 0.09 | | <0.01 | 0.01 | | 0.14 | 0.14 | | 0.006 | 0.006 | | 0.05 | 0.05 | | 3 | 3 | | 10 | | 53 | 53 | |
| 1/12/2021 | 14:10 | Fine | Surface | 1.0 | 12 | 12 | 12 | 0.37 | 0.37 | 0.39 | 0.02 | 0.02 | 0.02 | 0.51 | 0.51 | 0.52 | 0.072 | 0.072 | 0.074 | 0.12 | 0.12 | 0.12 | 4 | 4 | 3 | 25 | 20 | 9 | 9 | 21 |
| | 14:03 | | Middle | 3.5 | 6 | 6 | | 0.39 | 0.39 | | 0.02 | 0.02 | | 0.52 | 0.52 | | 0.075 | 0.075 | | 0.12 | 0.12 | | 3 | 3 | | 19 | | 33 | 33 | |
| | 14:05 | | Bottom | 6.0 | 10 | 10 | | 0.41 | 0.41 | | 0.02 | 0.02 | | 0.54 | 0.54 | | 0.074 | 0.074 | | 0.12 | 0.12 | | 3 | 3 | | 17 | | 22 | 22 | |
| 2/12/2021 | 14:25 | Fine | Surface | 1.0 | 6 | 6 | 7 | 0.09 | 0.09 | 0.05 | 0.01 | 0.01 | 0.01 | 0.23 | 0.23 | 0.14 | 0.022 | 0.022 | 0.012 | 0.12 | 0.12 | 0.08 | 3 | 3 | 3 | 30 | 20 | 9 | 9 | 4 |
| | 14:28 | | Middle | 3.0 | 6 | 6 | | 0.06 | 0.06 | | <0.01 | 0.01 | | 0.16 | 0.16 | | 0.010 | 0.010 | | 0.10 | 0.10 | | 3 | 3 | | 20 | | 1 | 1 | |
| | 14:30 | | Bottom | 5.0 | 8 | 8 | | 0.01 | 0.01 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.003 | 0.003 | | 0.03 | 0.03 | | <2 | 2 | | 10 | | 2 | 2 | |
| 3/12/2021 | 14:40 | Fine | Surface | 1.0 | 6 | 6 | 5 | 0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.03 | 0.003 | 0.003 | 0.002 | 0.03 | 0.03 | 0.02 | 4 | 4 | 4 | 20 | 19 | NOT DETECTED | 1 | 1 |
| | 14:42 | | Middle | 3.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 4 | 4 | | 23 | | NOT DETECTED | 1 | |
| | 14:45 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 4 | 4 | | 14 | | 2 | 2 | |
| 6/12/2021 | 7:42 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 10 | 11 | 33 | 33 | 15 |
| | 7:45 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 12 | | 10 | 10 | |
| | 7:49 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 11 | | NOT DETECTED | 1 | |
| 8/12/2021 | 9:25 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.13 | 0.13 | 0.07 | <0.001 | 0.001 | 0.001 | 0.13 | 0.13 | 0.07 | <2 | 2 | 2 | 8 | 8 | 54 | 54 | 32 |
| | 9:27 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.06 | 0.06 | | <0.001 | 0.001 | | 0.06 | 0.06 | | 2 | 2 | | 9 | | 38 | 38 | |
| | 9:29 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 2 | 2 | | 7 | | 4 | 4 | |
| 10/12/2021 | 11::43 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.01 | 2 | 2 | 2 | 6 | 6 | 11 | 11 | 8 |
| | 11:53 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 6 | 6 | |
| | 11:57 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 8 | 8 | |
| 13/12/2021 | 16:01 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 9 | 7 | 3 | 3 | 3 |
| | 16:03 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 5 | 5 | |
| | 16:06 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 1 | 1 | |
| 15/12/2021 | 14:05 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 12 | 11 | 14 | 14 | 11 |
| | 14:09 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 14 | 14 | |
| | 14:11 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 5 | 5 | |
| 17/12/2021 | 14:35 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.03 | <0.001 | 0.001 | 0.001 | 0.04 | 0.04 | 0.02 | 3 | 3 | 3 | 6 | 7 | 18 | 18 | 16 |
| | 14:37 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 18 | 18 | |
| | 14:40 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 8 | | 12 | 12 | |
| 20/12/2021 | 17:23 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.01 | 3 | 3 | 3 | 8 | 8 | 73 | 73 | 64 |
| | 17:25 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 3 | 3 | | 9 | | 61 | 61 | |
| | 17:27 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 3 | 3 | | 7 | | 58 | 58 | |
| 22/12/2021 | 8:40 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | 0.03 | 0.03 | 0.02 | <0.01 | 0.01 | 0.01 | 0.14 | 0.14 | 0.10 | 0.002 | 0.002 | 0.001 | 0.10 | 0.10 | 0.08 | 3 | 3 | 2 | 6 | 7 | 130 | 130 | 92 |
| | 8:44 | | Middle | 3.0 | <2 | 2 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.11 | 0.11 | | 0.001 | 0.001 | | 0.10 | 0.10 | | 2 | 2 | | 7 | | 99 | 99 | |
| | 8:46 | | Bottom | 2.0 | <2 | 2 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.001 | 0.001 | | 0.03 | 0.03 | | 2 | 2 | | 8 | | 48 | 48 | |
| 24/12/2021 | 9:10 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.07 | 0.07 | 0.07 | <0.001 | 0.001 | 0.001 | 0.07 | 0.07 | 0.07 | 2 | 2 | 2 | 7 | 8 | 39 | 39 | 36 |
| | 9:12 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.09 | 0.09 | | <0.001 | 0.001 | | 0.09 | 0.09 | | <2 | 2 | | 8 | | 51 | 51 | |
| | 9:14 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.04 | 0.04 | | <0.001 | 0.001 | | 0.04 | 0.04 | | 2 | 2 | | 9 | | 17 | 17 | |
| 27/12/2021 | 12:10 | Cloudy | Surface | 1.0 | 3 | 3 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.08 | 0.08 | 0.04 | <0.001 | 0.001 | 0.001 | 0.08 | 0.08 | 0.04 | 3 | 3 | 3 | 11 | 11 | 63 | 63 | 41 |
| | 12:14 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | 3 | 3 | | 10 | | 47 | 47 | |
| | 12:16 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 3 | 3 | | 11 | | 12 | 12 | |
| 29/12/2021 | 13:40 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.14 | 0.14 | 0.11 | <0.001 | 0.001 | 0.001 | 0.14 | 0.14 | 0.11 | 3 | 3 | 2 | 9 | 8 | 41 | 41 | 27 |
| | 13:43 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.14 | 0.14 | | <0.001 | 0.001 | | 0.14 | 0.14 | | 2 | 2 | | 8 | | 12 | 12 | |
| | 13:45 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.05 | 0.05 | | <0.001 | 0.001 | | 0.05 | 0.05 | | 2 | 2 | | 7 | | 27 | 27 | |

**Water Monitoring Result at W1 - WSD Seawater Intake at Sha Tin**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth (m) | | Suspended Solids (mg/L) | | | Ammonia Nitrogen (mg/L) | | | Nitrite-nitrogen (mg/L) | | | Total Inorganic Nitrogen (mg/L) | | | Unionized Ammonia (mg/L) | | | Nitrate-nitrogen (mg/L) | | | BOD (mg/L) | | | Chlorophyll-a ($mg/m^3$) | | E. coli (CFU/100mL) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 8:15 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.02 | <0.001 | 0.001 | 0.001 | 0.03 | 0.03 | 0.02 | 3 | 3 | 3 | 9 | 8 | 47 | 47 | 32 |
| | 8:18 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 3 | 3 | | 8 | | 10 | 10 | |
| | 8:20 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 8 | | 39 | 39 | |
| 1/12/2021 | 8:12 | Fine | Surface | 1.0 | 5 | 5 | 5 | 0.49 | 0.49 | 0.48 | <0.01 | 0.01 | 0.01 | 0.62 | 0.62 | 0.60 | 0.098 | 0.098 | 0.096 | 0.12 | 0.12 | 0.12 | <2 | 2 | 2 | 7 | 6 | 94 | 94 | 91 |
| | 8:14 | | Middle | 3.5 | 5 | 5 | | 0.49 | 0.49 | | <0.01 | 0.01 | | 0.62 | 0.62 | | 0.099 | 0.099 | | 0.12 | 0.12 | | <2 | 2 | | 3 | | 96 | 96 | |
| | 8:16 | | Bottom | 6.0 | 3 | 3 | | 0.45 | 0.45 | | 0.01 | 0.01 | | 0.57 | 0.57 | | 0.090 | 0.090 | | 0.11 | 0.11 | | <2 | 2 | | 7 | | 84 | 84 | |
| 2/12/2021 | 8:33 | Fine | Surface | 1.0 | 3 | 3 | 3 | 0.20 | 0.20 | 0.19 | <0.01 | 0.01 | 0.01 | 0.31 | 0.31 | 0.30 | 0.042 | 0.042 | 0.045 | 0.11 | 0.11 | 0.10 | 2 | 2 | 2 | 16 | 17 | 12 | 12 | 13 |
| | 8:35 | | Middle | 3.5 | 3 | 3 | | 0.20 | 0.20 | | <0.01 | 0.01 | | 0.30 | 0.30 | | 0.049 | 0.049 | | 0.10 | 0.10 | | 2 | 2 | | 18 | | 11 | 11 | |
| | 8:38 | | Bottom | 6.0 | 3 | 3 | | 0.18 | 0.18 | | 0.01 | 0.01 | | 0.28 | 0.28 | | 0.043 | 0.043 | | 0.09 | 0.09 | | 2 | 2 | | 18 | | 17 | 17 | |
| 3/12/2021 | 8:55 | Fine | Surface | 1.0 | 5 | 5 | 9 | 0.02 | 0.02 | 0.02 | <0.01 | 0.01 | 0.01 | 0.10 | 0.10 | 0.06 | 0.005 | 0.005 | 0.004 | 0.07 | 0.07 | 0.04 | 3 | 3 | 3 | 15 | 17 | 13 | 13 | 5 |
| | 8:57 | | Middle | 3.5 | 11 | 11 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.003 | 0.003 | | 0.02 | 0.02 | | 3 | 3 | | 20 | | NOT DETECTED | 1 | |
| | 8:59 | | Bottom | 6.0 | 12 | 12 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.03 | 0.03 | | 0.003 | 0.003 | | 0.02 | 0.02 | | 3 | 3 | | 16 | | 2 | 2 | |
| 6/12/2021 | 15:15 | Fine | Surface | 1.0 | 4 | 4 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 5 | 6 | NOT DETECTED | 1 | 1 |
| | 15:18 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | NOT DETECTED | 1 | |
| | 15:23 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | NOT DETECTED | 1 | |
| 8/12/2021 | 16:01 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | NOT DETECTED | 1 | 1 |
| | 16:03 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | NOT DETECTED | 1 | |
| | 16:05 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | NOT DETECTED | 1 | |
| 10/12/2021 | 18:33 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 4 | 5 | 8 | 8 | 7 |
| | 18:35 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 11 | 11 | |
| | 18:37 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 3 | 3 | |
| 13/12/2021 | 7:42 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.01 | 2 | 2 | 2 | 5 | 5 | 4 | 4 | 5 |
| | 7:44 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 5 | | 9 | 9 | |
| | 7:48 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 5 | | 2 | 2 | |
| 15/12/2021 | 9:05 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.03 | <0.001 | 0.001 | 0.001 | 0.04 | 0.04 | 0.03 | <2 | 2 | 2 | 8 | 7 | 26 | 26 | 17 |
| | 9:08 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 8 | | 11 | 11 | |
| | 9:12 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 7 | | 14 | 14 | |
| 17/12/2021 | 9:30 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 7 | 43 | 43 | 43 |
| | 9:34 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 45 | 45 | |
| | 9:36 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 42 | 42 | |
| 20/12/2021 | 11:40 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.02 | 3 | 3 | 3 | 5 | 6 | 210 | 210 | 122 |
| | 11:42 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 3 | 3 | | 8 | | 87 | 87 | |
| | 18:46 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 3 | 3 | | 5 | | 68 | 68 | |
| 22/12/2021 | 14:57 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | 0.02 | 0.02 | 0.01 | <0.01 | 0.01 | 0.01 | 0.11 | 0.11 | 0.06 | 0.002 | 0.002 | 0.001 | 0.09 | 0.09 | 0.05 | 2 | 2 | 2 | 6 | 7 | 32 | 32 | 19 |
| | 14:59 | | Middle | 3.0 | <2 | 2 | | 0.01 | 0.01 | | <0.01 | 0.01 | | 0.06 | 0.06 | | 0.001 | 0.001 | | 0.04 | 0.04 | | 2 | 2 | | 7 | | 16 | 16 | |
| | 15:01 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 2 | 2 | | 9 | | 10 | 10 | |
| 27/12/2021 | 19:00 | Cloudy | Surface | 1.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.04 | <0.001 | 0.001 | 0.001 | 0.03 | 0.03 | 0.04 | 3 | 3 | 2 | 10 | 10 | 21 | 21 | 31 |
| | 19:02 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.06 | 0.06 | | <0.001 | 0.001 | | 0.06 | 0.06 | | 2 | 2 | | 10 | | 34 | 34 | |
| | 19:04 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | 2 | 2 | | 11 | | 37 | 37 | |
| 29/12/2021 | 7:45 | Fine | Surface | 1.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.08 | 0.08 | 0.05 | <0.001 | 0.001 | 0.001 | 0.08 | 0.08 | 0.05 | 3 | 3 | 3 | 9 | 8 | 1 | 1 | 1 |
| | 7:48 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.05 | 0.05 | | <0.001 | 0.001 | | 0.05 | 0.05 | | 3 | 3 | | 8 | | 1 | 1 | |
| | 7:50 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 2 | 2 | | 8 | | 1 | 1 | |
| 31/12/2021 | 9:10 | Cloudy | Surface | 1.0 | 4 | 4 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.06 | 0.06 | 0.04 | <0.001 | 0.001 | 0.001 | 0.06 | 0.06 | 0.03 | 2 | 2 | 2 | 7 | 7 | 20 | 20 | 15 |
| | 9:13 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | 2 | 2 | | 7 | | 15 | 15 | |
| | 9:15 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 6 | | 10 | 10 | |

**Water Monitoring Result at W2 - WSD Seawater Intake at Tai Po**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | | Ammonia Nitrogen | mg/L | | | Nitrite-nitrogen | mg/L | | | Total Inorganic Nitrogen | mg/L | | | Unionized Ammonia | mg/L | | | Nitrate-nitrogen | mg/L | | | BOD | mg/L | | | Chlorophyll-a | mg/m³ | | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | | Value | V* | Average | | Value | V* | Average | | Value | V* | Average | | Value | V* | Average | | Value | V* | Average | | Value | V* | Average | | Value | Average | | Value | V* | Average |
| 30/11/2021 | 8:15 | Fine | Surface | 1.0 | 3 | 3 | 3 | | <0.01 | 0.01 | 0.02 | | <0.01 | 0.01 | 0.01 | | 0.03 | 0.03 | 0.08 | | <0.001 | 0.001 | 0.002 | | 0.03 | 0.03 | 0.06 | | 3 | 3 | 3 | | 9 | 8 | | 47 | 47 | 57 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 16:15 | | Bottom | 4.0 | 4 | 4 | | | 0.03 | 0.03 | | | <0.01 | 0.01 | | | 0.12 | 0.12 | | | 0.003 | 0.003 | | | 0.09 | 0.09 | | | 3 | 3 | | | 8 | | | 67 | 67 | |
| 1/12/2021 | 15:13 | Fine | Surface | 1.0 | 4 | 4 | 4 | | 0.12 | 0.12 | 0.06 | | <0.01 | 0.01 | 0.01 | | 0.20 | 0.20 | 0.10 | | 0.024 | 0.024 | 0.012 | | 0.09 | 0.09 | 0.04 | | <2 | 2 | 2 | | 6 | 6 | | NOT DETECTED | 1 | 1 |
| | 15:15 | | Middle | 3.0 | 5 | 5 | | | 0.02 | 0.02 | | | <0.01 | 0.01 | | | 0.05 | 0.05 | | | 0.005 | 0.005 | | | 0.02 | 0.02 | | | <2 | 2 | | | 7 | | | NOT DETECTED | 1 | |
| | 15:17 | | Bottom | 5.0 | 4 | 4 | | | 0.03 | 0.03 | | | <0.01 | 0.01 | | | 0.06 | 0.06 | | | 0.006 | 0.006 | | | 0.02 | 0.02 | | | 2 | 2 | | | 6 | | | 1 | 1 | |
| 2/12/2021 | 15:40 | Fine | Surface | 1.0 | 4 | 4 | 5 | | 0.05 | 0.05 | 0.03 | | <0.01 | 0.01 | 0.01 | | 0.06 | 0.06 | 0.05 | | 0.009 | 0.009 | 0.006 | | 0.02 | 0.02 | 0.02 | | 2 | 2 | 2 | | 11 | 11 | | NOT DETECTED | 1 | 3 |
| | - | | Middle | - | 5 | 5 | | | 0.03 | 0.03 | | | <0.01 | 0.01 | | | 0.05 | 0.05 | | | 0.006 | 0.006 | | | 0.02 | 0.02 | | | <2 | 2 | | | 10 | | | 3 | 3 | |
| | 15:42 | | Bottom | 4.0 | 5 | 5 | | | 0.02 | 0.02 | | | <0.01 | 0.01 | | | 0.03 | 0.03 | | | 0.003 | 0.003 | | | 0.02 | 0.02 | | | <2 | 2 | | | 10 | | | 5 | 5 | |
| 3/12/2021 | 16:11 | Fine | Surface | 1.0 | 6 | 6 | 8 | | 0.31 | 0.31 | 0.23 | | 0.01 | 0.01 | 0.01 | | 0.36 | 0.36 | 0.27 | | 0.056 | 0.056 | 0.041 | | 0.04 | 0.04 | 0.04 | | 2 | 2 | 3 | | 6 | 7 | | 28 | 28 | 61 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 16:13 | | Bottom | 4.0 | 10 | 10 | | | 0.14 | 0.14 | | | <0.01 | 0.01 | | | 0.17 | 0.17 | | | 0.025 | 0.025 | | | 0.03 | 0.03 | | | 3 | 3 | | | 8 | | | 93 | 93 | |
| 6/12/2021 | 9:38 | Fine | Surface | 1.0 | 4 | 4 | 4 | | <0.01 | 0.01 | 0.01 | | <0.01 | 0.01 | 0.01 | | <0.02 | 0.02 | 0.02 | | <0.001 | 0.001 | 0.001 | | <0.01 | 0.01 | 0.01 | | 4 | 4 | 4 | | 24 | 22 | | 35 | 35 | 54 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 9:41 | | Bottom | 4.0 | 3 | 3 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 4 | 4 | | | 20 | | | 73 | 73 | |
| 8/12/2021 | 5:53 | Fine | Surface | 1.0 | 4 | 4 | 5 | | <0.01 | 0.01 | 0.01 | | <0.01 | 0.01 | 0.01 | | <0.02 | 0.02 | 0.02 | | <0.001 | 0.001 | 0.001 | | <0.01 | 0.01 | 0.01 | | 2 | 2 | 3 | | 10 | 10 | | 36 | 36 | 51 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 10:55 | | Bottom | 4.0 | 5 | 5 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 3 | 3 | | | 11 | | | 65 | 65 | |
| 10/12/2021 | 13:07 | Fine | Surface | 1.0 | 2 | 2 | 2 | | 0.15 | 0.15 | 0.10 | | 0.01 | 0.01 | 0.01 | | 0.17 | 0.17 | 0.11 | | 0.020 | 0.020 | 0.013 | | <0.01 | 0.01 | 0.01 | | 4 | 4 | 4 | | 14 | 10 | | 11 | 11 | 7 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 13:08 | | Bottom | 4.0 | <2 | 2 | | | 0.04 | 0.04 | | | <0.01 | 0.01 | | | 0.04 | 0.04 | | | 0.006 | 0.006 | | | <0.01 | 0.01 | | | 3 | 3 | | | 7 | | | 3 | 3 | |
| 13/12/2021 | 12:27 | Fine | Surface | 1.0 | <2 | 2 | 2 | | 0.16 | 0.16 | 0.09 | | 0.01 | 0.01 | 0.01 | | 0.19 | 0.19 | 0.11 | | 0.022 | 0.022 | 0.012 | | 0.02 | 0.02 | 0.02 | | 4 | 4 | 4 | | 13 | 13 | | 150 | 150 | 103 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 12:29 | | Bottom | 4.0 | <2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 4 | 4 | | | 12 | | | 56 | 56 | |
| 15/12/2021 | 15:13 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | | <0.01 | 0.01 | 0.01 | | <0.01 | 0.01 | 0.01 | | <0.02 | 0.02 | 0.02 | | <0.001 | 0.001 | 0.001 | | <0.01 | 0.01 | 0.01 | | 3 | 3 | 3 | | 10 | 10 | | 18 | 18 | 21 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 15:15 | | Bottom | 4.0 | 2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 2 | 2 | | | 9 | | | 24 | 24 | |
| 17/12/2021 | 15:40 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | | 0.08 | 0.08 | 0.08 | | <0.01 | 0.01 | 0.01 | | 0.10 | 0.10 | 0.09 | | 0.015 | 0.015 | 0.014 | | 0.02 | 0.02 | 0.02 | | 3 | 3 | 3 | | 7 | 7 | | 4 | 4 | 4 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 15:42 | | Bottom | 4.0 | <2 | 2 | | | 0.07 | 0.07 | | | <0.01 | 0.01 | | | 0.08 | 0.08 | | | 0.013 | 0.013 | | | 0.01 | 0.01 | | | 3 | 3 | | | 7 | | | 3 | 3 | |
| 20/12/2021 | 15:54 | Cloudy | Surface | 1.0 | 2 | 2 | 3 | | 0.10 | 0.10 | 0.08 | | <0.01 | 0.01 | 0.01 | | 0.16 | 0.16 | 0.13 | | 0.013 | 0.013 | 0.009 | | 0.05 | 0.05 | 0.04 | | 3 | 3 | 3 | | 7 | 7 | | 250 | 250 | 335 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 15:56 | | Bottom | 4.0 | 3 | 3 | | | 0.06 | 0.06 | | | <0.01 | 0.01 | | | 0.10 | 0.10 | | | 0.005 | 0.005 | | | 0.03 | 0.03 | | | 2 | 2 | | | 7 | | | 420 | 420 | |
| 22/12/2021 | 10:05 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | | 0.12 | 0.12 | 0.23 | | <0.01 | 0.01 | 0.01 | | 0.16 | 0.16 | 0.27 | | 0.013 | 0.013 | 0.022 | | 0.03 | 0.03 | 0.04 | | <2 | 2 | 2 | | 4 | 4 | | 48 | 48 | 37 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 10:07 | | Bottom | 4.0 | <2 | 2 | | | 0.33 | 0.33 | | | <0.01 | 0.01 | | | 0.38 | 0.38 | | | 0.031 | 0.031 | | | 0.05 | 0.05 | | | <2 | 2 | | | 4 | | | 26 | 26 | |
| 24/12/2021 | 10:14 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | | 0.02 | 0.02 | 0.06 | | <0.01 | 0.01 | 0.01 | | 0.04 | 0.04 | 0.09 | | 0.003 | 0.003 | 0.007 | | 0.02 | 0.02 | 0.03 | | <2 | 2 | 2 | | 8 | 8 | | 220 | 220 | 290 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 10:16 | | Bottom | 4.0 | <2 | 2 | | | 0.10 | 0.10 | | | <0.01 | 0.01 | | | 0.14 | 0.14 | | | 0.010 | 0.010 | | | 0.04 | 0.04 | | | <2 | 2 | | | 8 | | | 360 | 360 | |
| 27/12/2021 | 13:24 | Cloudy | Surface | 1.0 | 2 | 2 | 3 | | 0.05 | 0.05 | 0.05 | | <0.01 | 0.01 | 0.01 | | 0.07 | 0.07 | 0.07 | | 0.007 | 0.007 | 0.006 | | 0.02 | 0.02 | 0.02 | | 2 | 2 | 2 | | 9 | 8 | | 6 | 6 | 11 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 13:26 | | Bottom | 4.0 | 3 | 3 | | | 0.05 | 0.05 | | | <0.01 | 0.01 | | | 0.07 | 0.07 | | | 0.005 | 0.005 | | | 0.02 | 0.02 | | | 2 | 2 | | | 8 | | | 15 | 15 | |
| 29/12/2021 | 14:51 | Fine | Surface | 1.0 | 6 | 6 | 7 | | 0.13 | 0.13 | 0.10 | | <0.01 | 0.01 | 0.01 | | 0.17 | 0.17 | 0.13 | | 0.006 | 0.006 | 0.006 | | 0.04 | 0.04 | 0.04 | | <2 | 2 | 2 | | 3 | 4 | | 720 | 720 | 615 |
| | - | | Middle | - | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | - | | | - | | | - | - | |
| | 14:53 | | Bottom | 4.0 | 7 | 7 | | | 0.06 | 0.06 | | | <0.01 | 0.01 | | | 0.09 | 0.09 | | | 0.006 | 0.006 | | | 0.03 | 0.03 | | | 2 | 2 | | | 4 | | | 510 | 510 | |

**Water Monitoring Result at W2 - WSD Seawater Intake at Tai Po**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth (m) | | Suspended Solids (mg/L) | | | Ammonia Nitrogen (mg/L) | | | Nitrite-nitrogen (mg/L) | | | Total Inorganic Nitrogen (mg/L) | | | Unionized Ammonia (mg/L) | | | Nitrate-nitrogen (mg/L) | | | BOD (mg/L) | | | Chlorophyll-a (mg/m³) | | E. coli (CFU/100mL) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 10:28 | Fine | Surface | 1.0 | 8 | 8 | | 0.40 | 0.40 | | 0.02 | 0.02 | | 0.95 | 0.95 | | 0.021 | 0.021 | | 0.53 | 0.53 | | 4 | 4 | | 14 | | 180 | 180 | |
| | - | | Middle | - | - | - | 8 | - | - | 0.26 | - | - | 0.02 | - | - | 0.63 | - | - | 0.013 | - | - | 0.36 | - | - | 4 | - | 14 | - | - | 133 |
| | 10:30 | | Bottom | 4.0 | 6 | 6 | | 0.11 | 0.11 | | <0.01 | 0.01 | | 0.30 | 0.30 | | 0.004 | 0.004 | | 0.19 | 0.19 | | 3 | 3 | | 13 | | 85 | 85 | |
| 1/12/2021 | 9:25 | Fine | Surface | 1.0 | 6 | 6 | | 0.42 | 0.42 | | 0.02 | 0.02 | | 0.91 | 0.91 | | 0.084 | 0.084 | | 0.47 | 0.47 | | <2 | 2 | | 5 | | 67 | 67 | |
| | - | | Middle | - | - | - | 6 | - | - | 0.33 | - | - | 0.02 | - | - | 0.71 | - | - | 0.064 | - | - | 0.37 | - | - | 2 | - | 6 | - | - | 48 |
| | 9:27 | | Bottom | 4.0 | 6 | 6 | | 0.23 | 0.23 | | 0.01 | 0.01 | | 0.50 | 0.50 | | 0.044 | 0.044 | | 0.26 | 0.26 | | <2 | 2 | | 6 | | 28 | 28 | |
| 2/12/2021 | 9:48 | Fine | Surface | 1.0 | 3 | 3 | | 0.48 | 0.48 | | <0.01 | 0.01 | | 0.56 | 0.56 | | 0.093 | 0.093 | | 0.08 | 0.08 | | <2 | 2 | | 7 | | 150 | 150 | |
| | - | | Middle | - | 5 | 5 | 4 | 0.33 | 0.33 | 0.29 | <0.01 | 0.01 | 0.01 | 0.39 | 0.39 | 0.35 | 0.064 | 0.064 | 0.057 | 0.06 | 0.06 | 0.05 | <2 | 2 | 2 | 7 | 8 | 110 | 110 | 102 |
| | 9:50 | | Bottom | 4.0 | 5 | 5 | | 0.07 | 0.07 | | <0.01 | 0.01 | | 0.09 | 0.09 | | 0.014 | 0.014 | | 0.02 | 0.02 | | <2 | 2 | | 9 | | 46 | 46 | |
| 3/12/2021 | 10:14 | Fine | Surface | 1.0 | 7 | 7 | | 0.16 | 0.16 | | <0.01 | 0.01 | | 0.19 | 0.19 | | 0.026 | 0.026 | | 0.03 | 0.03 | | 2 | 2 | | 6 | | 230 | 230 | |
| | - | | Middle | - | 7 | 7 | 7 | 0.16 | 0.16 | 0.19 | <0.01 | 0.01 | 0.01 | 0.20 | 0.20 | 0.23 | 0.022 | 0.022 | 0.029 | 0.03 | 0.03 | 0.03 | <2 | 2 | 2 | 8 | 7 | 200 | 200 | 223 |
| | 10:18 | | Bottom | 5.0 | 6 | 6 | | 0.26 | 0.26 | | <0.01 | 0.01 | | 0.30 | 0.30 | | 0.039 | 0.039 | | 0.04 | 0.04 | | <2 | 2 | | 7 | | 240 | 240 | |
| 6/12/2021 | 13:06 | Fine | Surface | 1.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 5 | 5 | | 22 | | 4 | 4 | |
| | - | | Middle | - | - | - | 7 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 5 | - | 21 | - | - | 3 |
| | 13:09 | | Bottom | 4.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 4 | 4 | | 20 | | 1 | 1 | |
| 8/12/2021 | 14:20 | Fine | Surface | 1.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 11 | | 110 | 110 | |
| | - | | Middle | - | - | - | 5 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 3 | - | 12 | - | - | 105 |
| | 14:22 | | Bottom | 4.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 13 | | 99 | 99 | |
| 10/12/2021 | 17:46 | Fine | Surface | 1.0 | <2 | 2 | | 0.02 | 0.02 | | <0.01 | 0.01 | | <0.02 | 0.02 | | 0.002 | 0.002 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 20 | 20 | |
| | - | | Middle | - | - | - | 3 | - | - | 0.02 | - | - | 0.01 | - | - | 0.02 | - | - | 0.002 | - | - | 0.01 | - | - | 3 | - | 8 | - | - | 14 |
| | 17:48 | | Bottom | 4.0 | 3 | 3 | | 0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | 0.002 | 0.002 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 8 | 8 | |
| 13/12/2021 | 9:21 | Fine | Surface | 1.0 | <2 | 2 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.004 | 0.004 | | 0.03 | 0.03 | | 4 | 4 | | 15 | | 300 | 300 | |
| | - | | Middle | - | - | - | 2 | - | - | 0.07 | - | - | 0.01 | - | - | 0.10 | - | - | 0.012 | - | - | 0.03 | - | - | 4 | - | 14 | - | - | 290 |
| | 9:23 | | Bottom | 4.0 | <2 | 2 | | 0.12 | 0.12 | | <0.01 | 0.01 | | 0.14 | 0.14 | | 0.019 | 0.019 | | 0.02 | 0.02 | | 3 | 3 | | 13 | | 280 | 280 | |
| 15/12/2021 | 10:26 | Cloudy | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 12 | | 220 | 220 | |
| | - | | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 11 | - | - | 170 |
| | 10:28 | | Bottom | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 120 | 120 | |
| 17/12/2021 | 10:40 | Cloudy | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 8 | | 30 | 30 | |
| | - | | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 3 | - | 7 | - | - | 17 |
| | 10:42 | | Bottom | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 3 | 3 | |
| 20/12/2021 | 13:06 | Cloudy | Surface | 1.0 | <2 | 2 | | 2.99 | 2.99 | | 0.04 | 0.04 | | 3.21 | 3.21 | | 0.375 | 0.375 | | 0.18 | 0.18 | | 2 | 2 | | 10 | | 240 | 240 | |
| | - | | Middle | - | - | - | 3 | - | - | 2.28 | - | - | 0.03 | - | - | 2.45 | - | - | 0.257 | - | - | 0.14 | - | - | 2 | - | 11 | - | - | 200 |
| | 13:08 | | Bottom | 3.0 | 4 | 4 | | 1.57 | 1.57 | | 0.02 | 0.02 | | 1.68 | 1.68 | | 0.139 | 0.139 | | 0.09 | 0.09 | | 2 | 2 | | 13 | | 160 | 160 | |
| 22/12/2021 | 13:17 | Cloudy | Surface | 1.0 | <2 | 2 | | 0.09 | 0.09 | | <0.01 | 0.01 | | 0.12 | 0.12 | | 0.007 | 0.007 | | 0.03 | 0.03 | | <2 | 2 | | 5 | | 3 | 3 | |
| | - | | Middle | - | - | - | 2 | - | - | 0.07 | - | - | 0.01 | - | - | 0.10 | - | - | 0.006 | - | - | 0.03 | - | - | 2 | - | 4 | - | - | 4 |
| | 13:19 | | Bottom | 4.0 | <2 | 2 | | 0.05 | 0.05 | | <0.01 | 0.01 | | 0.07 | 0.07 | | 0.004 | 0.004 | | 0.02 | 0.02 | | <2 | 2 | | 4 | | 4 | 4 | |
| 27/12/2021 | 17:28 | Cloudy | Surface | 1.0 | 4 | 4 | | 0.07 | 0.07 | | <0.01 | 0.01 | | 0.09 | 0.09 | | 0.006 | 0.006 | | 0.02 | 0.02 | | 2 | 2 | | 8 | | 19 | 19 | |
| | - | | Middle | - | - | - | 5 | - | - | 0.70 | - | - | 0.02 | - | - | 0.77 | - | - | 0.047 | - | - | 0.06 | - | - | 2 | - | 8 | - | - | 170 |
| | 17:29 | | Bottom | 4.0 | 5 | 5 | | 1.32 | 1.32 | | 0.02 | 0.02 | | 1.44 | 1.44 | | 0.088 | 0.088 | | 0.10 | 0.10 | | 2 | 2 | | 7 | | 320 | 320 | |
| 29/12/2021 | 9:12 | Fine | Surface | 1.0 | 8 | 8 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 4 | | 8 | 8 | |
| | - | | Middle | - | - | - | 8 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 4 | - | - | 13 |
| | 9:14 | | Bottom | 4.0 | 8 | 8 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 4 | | 17 | 17 | |
| 31/12/2021 | 10:18 | Cloudy | Surface | 1.0 | 3 | 3 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.002 | 0.002 | | 0.02 | 0.02 | 0.02 | <2 | 2 | | 15 | | 100 | 100 | |
| | 0:00 | | Middle | - | - | - | 3 | - | - | 0.03 | - | - | 0.01 | - | - | 0.04 | - | - | 0.002 | - | - | | - | - | 2 | - | 11 | - | - | 110 |
| | 10:20 | | Bottom | 4.0 | 2 | 2 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.03 | 0.03 | | 0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 7 | | 120 | 120 | |

**Water Monitoring Result at C1 - Cooling Water Intake at CUHK Marine Science Laboratory**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 14:59 | Fine | Surface | 1.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 2 | 8 | 8 | 28 | 28 | 22 |
| | 15:01 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 15 | 15 | |
| | 15:04 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 22 | 22 | |
| 1/12/2021 | 14:44 | Fine | Surface | 1.0 | 13 | 13 | 13 | 0.16 | 0.16 | 0.08 | <0.01 | 0.01 | 0.01 | 0.24 | 0.24 | 0.12 | 0.042 | 0.042 | 0.020 | 0.07 | 0.07 | 0.04 | 3 | 3 | 2 | 16 | 11 | NOT DETECTED | 1 | 1 |
| | 14:46 | | Middle | 4.0 | 6 | 6 | | 0.07 | 0.07 | | <0.01 | 0.01 | | 0.10 | 0.10 | | 0.016 | 0.016 | | 0.03 | 0.03 | | 2 | 2 | | 11 | | NOT DETECTED | 1 | |
| | 14:48 | | Bottom | 7.0 | 12 | 12 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | NOT DETECTED | 1 | |
| 2/12/2021 | 16:25 | Fine | Surface | 1.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.06 | 0.06 | 0.04 | <0.001 | 0.001 | 0.001 | 0.06 | 0.06 | 0.04 | 4 | 4 | 3 | 28 | 21 | NOT DETECTED | 1 | 1 |
| | 16:28 | | Middle | 4.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.04 | 0.04 | | <0.001 | 0.001 | | 0.04 | 0.04 | | 3 | 3 | | 22 | | NOT DETECTED | 1 | |
| | 16:31 | | Bottom | 7.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 13 | | NOT DETECTED | 1 | |
| 3/12/2021 | 15:25 | Fine | Surface | 1.0 | 4 | 4 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 4 | 4 | 3 | 13 | 11 | NOT DETECTED | 1 | 1 |
| | 15:27 | | Middle | 3.5 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 11 | | NOT DETECTED | 1 | |
| | 15:29 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 10 | | 1 | 1 | |
| 6/12/2021 | 8:38 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 7 | 24 | 24 | 16 |
| | 8:41 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 18 | 18 | |
| | 8:45 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 7 | 7 | |
| 8/12/2021 | 10:08 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 7 | 7 | 10 | 10 | 10 |
| | 10:10 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 16 | 16 | |
| | 10:12 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 4 | 4 | |
| 10/12/2021 | 12:33 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 6 | 6 | NOT DETECTED | 1 | 2 |
| | 12:36 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 1 | 1 | |
| | 12:38 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 4 | 4 | |
| 13/12/2021 | 13:50 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 5 | 5 | 7 | 7 | 3 |
| | 13:54 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | 1 | 1 | |
| | 13:58 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 15/12/2021 | 14:41 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 16 | 14 | 7 | 7 | 6 |
| | 14:43 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 13 | | 6 | 6 | |
| | 14:45 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 12 | | 5 | 5 | |
| 17/12/2021 | 15:04 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 6 | 6 | 1 | 1 | 1 |
| | 15:06 | | Middle | 35.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | NOT DETECTED | 1 | |
| | 15:08 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | NOT DETECTED | 1 | |
| 20/12/2021 | 16:40 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 7 | 51 | 51 | 40 |
| | 16:43 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 41 | 41 | |
| | 16:45 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | 27 | 27 | |
| 22/12/2021 | 9:25 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 9 | 10 | 13 | 13 | 9 |
| | 9:27 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 11 | | 6 | 6 | |
| | 9:28 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 8 | 8 | |
| 24/12/2021 | 9:40 | Cloudy | Surface | 1.0 | 3 | 3 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.06 | 0.06 | 0.03 | <0.001 | 0.001 | 0.001 | 0.06 | 0.06 | 0.03 | <2 | 2 | 2 | 6 | 7 | 81 | 81 | 46 |
| | 9:43 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 7 | | 42 | 42 | |
| | 9:45 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 16 | 16 | |
| 27/12/2021 | 12:47 | Cloudy | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 9 | NOT DETECTED | 1 | 3 |
| | 12:49 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 5 | 5 | |
| | 12:50 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 3 | 3 | |
| 29/12/2021 | 14:17 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 7 | 7 | 5 | 5 | 3 |
| | 14:19 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 2 | 2 | |
| | 14:20 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | NOT DETECTED | 1 | |

**Water Monitoring Result at C1 - Cooling Water Intake at CUHK Marine Science Laboratory**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth (m) | | Suspended Solids (mg/L) | | | Ammonia Nitrogen (mg/L) | | | Nitrite-nitrogen (mg/L) | | | Total Inorganic Nitrogen (mg/L) | | | Unionized Ammonia (mg/L) | | | Nitrate-nitrogen (mg/L) | | | BOD (mg/L) | | | Chlorophyll-a (mg/m³) | | E. coli (CFU/100mL) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 9:50 | Fine | Surface | 1.0 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 6 | 45 | 45 | 31 |
| | 9:52 | | Middle | 3.5 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 32 | 32 | |
| | 9:55 | | Bottom | 6.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 15 | 15 | |
| 1/12/2021 | 8:55 | Fine | Surface | 1.0 | 4 | 4 | 4 | 0.07 | 0.07 | 0.05 | <0.01 | 0.01 | 0.01 | 0.11 | 0.11 | 0.09 | 0.016 | 0.016 | 0.013 | 0.03 | 0.03 | 0.03 | <2 | 2 | 2 | 6 | 7 | 9 | 9 | 9 |
| | 8:57 | | Middle | 4.0 | 4 | 4 | | 0.06 | 0.06 | | <0.01 | 0.01 | | 0.10 | 0.10 | | 0.016 | 0.016 | | 0.04 | 0.04 | | <2 | 2 | | 7 | | 11 | 11 | |
| | 8:59 | | Bottom | 7.0 | 5 | 5 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.007 | 0.007 | | 0.02 | 0.02 | | <2 | 2 | | 8 | | 7 | 7 | |
| 2/12/2021 | 9:15 | Fine | Surface | 1.0 | 4 | 4 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 7 | 7 | 2 | 2 | 1 |
| | 9:17 | | Middle | 3.5 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | NOT DETECTED | 1 | |
| | 9:19 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | NOT DETECTED | 1 | |
| 3/12/2021 | 9:31 | Fine | Surface | 1.0 | 7 | 7 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 11 | 10 | NOT DETECTED | 1 | 1 |
| | 9:34 | | Middle | 4.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | NOT DETECTED | 1 | |
| | 9:36 | | Bottom | 7.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | NOT DETECTED | 1 | |
| 6/12/2021 | 14:35 | Fine | Surface | 1.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 6 | 6 | NOT DETECTED | 1 | 1 |
| | 14:37 | | Middle | 3.5 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | NOT DETECTED | 1 | |
| | 14:39 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | NOT DETECTED | 1 | |
| 8/12/2021 | 15:30 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 6 | NOT DETECTED | 1 | 1 |
| | 15:32 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 1 | 1 | |
| | 15:34 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | NOT DETECTED | 1 | |
| 10/12/2021 | 18:01 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 6 | 3 | 3 | 3 |
| | 18:12 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 3 | 3 | |
| | 18:14 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | 2 | 2 | |
| 13/12/2021 | 8:25 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 1 |
| | 8:28 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 8:35 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 15/12/2021 | 9:52 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 10 | 9 | 17 | 17 | 15 |
| | 0:00 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 9 | | 16 | 16 | |
| | 9:54 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 12 | 12 | |
| 17/12/2021 | 10:10 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 2 | 6 | 6 | 31 | 31 | 24 |
| | 10:12 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 30 | 30 | |
| | 10:14 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 12 | 12 | |
| 20/12/2021 | 12:20 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 8 | 61 | 61 | 48 |
| | 12:22 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 51 | 51 | |
| | 12:23 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 32 | 32 | |
| 22/12/2021 | 14:28 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.02 | <2 | 2 | 2 | 5 | 6 | 2 | 2 | 7 |
| | 14:30 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 2 | 2 | | 7 | | 7 | 7 | |
| | 14;32 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 12 | 12 | |
| 27/12/2021 | 18:37 | Cloudy | Surface | 1.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 10 | 10 | 9 | 9 | 9 |
| | 18:39 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 6 | 6 | |
| | 18:40 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 11 | | 12 | 12 | |
| 29/12/2021 | 8:22 | Fine | Surface | 1.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | 1 | 1 | 1 |
| | 8:25 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 1 | 1 | |
| | 8:27 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | NOT DETECTED | 1 | |
| 31/12/2021 | 9:40 | Cloudy | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 5 | 3 | 3 | 7 |
| | 9:42 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 5 | | 4 | 4 | |
| | 9:44 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 15 | 15 | |

**Water Monitoring Result at F1 - Yim Tin Tsai Fish Culture Zone**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | | Ammonia Nitrogen | mg/L | | | Nitrite-nitrogen | mg/L | | | Total Inorganic Nitrogen | mg/L | | | Unionized Ammonia | mg/L | | | Nitrate-nitrogen | mg/L | | | BOD | mg/L | | | Chlorophyll-a | $mg/m^3$ | | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 11:15 | Fine | Surface | 1.0 | 6 | 6 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 10 | 8 | 1 | 1 | 1 |
| | 15:30 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 2 | 2 | | | | | |
| | 15:32 | | Bottom | 5.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 1 | 1 | | | | | |
| 1/12/2021 | 15:50 | Fine | Surface | 1.0 | 3 | 3 | 3 | 0.02 | 0.02 | 0.01 | <0.01 | 0.01 | 0.01 | 0.06 | 0.06 | 0.03 | 0.004 | 0.004 | 0.002 | 0.04 | 0.04 | 0.02 | 3 | 3 | 3 | 9 | 9 | 3 | 3 | 6 | | | | | |
| | 15:53 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 3 | 3 | | 9 | | 4 | 4 | | | | | |
| | 15:56 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | 0.02 | 0.02 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 11 | 11 | | | | | |
| 2/12/2021 | 16:45 | Fine | Surface | 1.0 | 2 | 2 | 3 | 0.02 | 0.02 | 0.02 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.04 | 0.004 | 0.004 | 0.004 | 0.02 | 0.02 | 0.02 | 2 | 2 | 2 | 5 | 6 | 5 | 5 | 13 | | | | | |
| | 16:48 | | Middle | 3.5 | 3 | 3 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.06 | 0.06 | | 0.006 | 0.006 | | 0.03 | 0.03 | | 2 | 2 | | 6 | | 10 | 10 | | | | | |
| | 16:50 | | Bottom | 6.0 | 4 | 4 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.03 | 0.03 | | 0.003 | 0.003 | | 0.01 | 0.01 | | <2 | 2 | | 8 | | 23 | 23 | | | | | |
| 3/12/2021 | 16:40 | Fine | Surface | 1.0 | 5 | 5 | 6 | 0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | 0.002 | 0.002 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 6 | 19 | 19 | 38 | | | | | |
| | 16:43 | | Middle | 3.5 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 42 | 42 | | | | | |
| | 16:45 | | Bottom | 6.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 52 | 52 | | | | | |
| 6/12/2021 | 10:10 | Fine | Surface | 1.0 | <2 | 2 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 5 | 7 | 10 | 10 | 32 | | | | | |
| | 10:12 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 63 | 63 | | | | | |
| | 10:15 | | Bottom | 6.0 | 9 | 9 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 24 | 24 | | | | | |
| 8/12/2021 | 11:15 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 4 | 5 | 1 | 1 | 2 | | | | | |
| | 11:17 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 1 | 1 | | | | | |
| | 11:19 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 5 | 5 | | | | | |
| 10/12/2021 | 13:30 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 5 | 5 | NOT DETECTED | 1 | 2 | | | | | |
| | 13:32 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | 2 | 2 | | | | | |
| | 13:35 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 3 | 3 | | | | | |
| 13/12/2021 | 11:55 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 5 | 160 | 160 | 133 | | | | | |
| | 11:57 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 130 | 130 | | | | | |
| | 11:59 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 110 | 110 | | | | | |
| 15/12/2021 | 15:35 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 6 | 7 | 5 | 5 | 8 | | | | | |
| | 15:37 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 2 | 2 | | | | | |
| | 15:40 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 16 | 16 | | | | | |
| 17/12/2021 | 16:01 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 7 | 6 | 6 | 7 | | | | | |
| | 16:04 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 4 | 4 | | | | | |
| | 16:05 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | 10 | 10 | | | | | |
| 20/12/2021 | 14:40 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 8 | 18 | 18 | 24 | | | | | |
| | 14:42 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 22 | 22 | | | | | |
| | 14:44 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 32 | 32 | | | | | |
| 22/12/2021 | 10;26 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | 0.05 | 0.05 | 0.04 | <0.01 | 0.01 | 0.01 | 0.09 | 0.09 | 0.07 | 0.006 | 0.006 | 0.004 | 0.04 | 0.04 | 0.03 | <2 | 2 | 2 | 3 | 3 | 1 | 1 | 7 | | | | | |
| | 10:28 | | Middle | 3.5 | <2 | 2 | | 0.05 | 0.05 | | <0.01 | 0.01 | | 0.08 | 0.08 | | 0.005 | 0.005 | | 0.03 | 0.03 | | <2 | 2 | | 4 | | 11 | 11 | | | | | |
| | 10:30 | | Bottom | 6.0 | <2 | 2 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.002 | 0.002 | | 0.02 | 0.02 | | <2 | 2 | | 4 | | 10 | 10 | | | | | |
| 24/12/2021 | 10:35 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | 0.08 | 0.08 | 0.05 | <0.01 | 0.01 | 0.01 | 0.13 | 0.13 | 0.08 | 0.013 | 0.013 | 0.006 | 0.05 | 0.05 | 0.03 | <2 | 2 | 2 | 5 | 6 | 250 | 250 | 197 | | | | | |
| | 10:37 | | Middle | 3.0 | <2 | 2 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.004 | 0.004 | | 0.02 | 0.02 | | <2 | 2 | | 6 | | 180 | 180 | | | | | |
| | 10:39 | | Bottom | 5.0 | <2 | 2 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.002 | 0.002 | | 0.02 | 0.02 | | <2 | 2 | | 6 | | 160 | 160 | | | | | |
| 27/12/2021 | 13:44 | Cloudy | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 5 | 10 | 10 | 24 | | | | | |
| | 13:47 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 6 | | 19 | 19 | | | | | |
| | 13:49 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 42 | 42 | | | | | |
| 29/12/2021 | 15:10 | Fine | Surface | 1.0 | <2 | 2 | 2 | 0.03 | 0.03 | 0.03 | <0.01 | 0.01 | 0.01 | 0.05 | 0.05 | 0.05 | 0.003 | 0.003 | 0.002 | 0.02 | 0.02 | 0.02 | <2 | 2 | 2 | 2 | 2 | 4 | 4 | 14 | | | | | |
| | 15:12 | | Middle | 3.0 | 2 | 2 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.002 | 0.002 | | 0.02 | 0.02 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | | | | | |
| | 15:13 | | Bottom | 5.0 | 2 | 2 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.002 | 0.002 | | 0.01 | 0.01 | | 2 | 2 | | 2 | | 38 | 38 | | | | | |

**Water Monitoring Result at F1 - Yim Tin Tsai Fish Culture Zone**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth (m) | | Suspended Solids (mg/L) | | | Ammonia Nitrogen (mg/L) | | | Nitrite-nitrogen (mg/L) | | | Total Inorganic Nitrogen (mg/L) | | | Unionized Ammonia (mg/L) | | | Nitrate-nitrogen (mg/L) | | | BOD (mg/L) | | | Chlorophyll-a ($mg/m^3$) | | E. coli (CFU/100mL) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 11:15 | Fine | Surface | 1.0 | 6 | 6 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 10 | 10 | 1 | 1 | 1 |
| | 0:00 | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 11:17 | | Bottom | 4.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | NOT DETECTED | 1 | |
| 1/12/2021 | 9:58 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | NOT DETECTED | 1 | 2 |
| | 10:00 | | Middle | 3.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 2 | 2 | |
| | 10:02 | | Bottom | 5.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 2 | 2 | |
| 2/12/2021 | 10:34 | Fine | Surface | 1.0 | 3 | 3 | 3 | 0.02 | 0.02 | 0.02 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.05 | 0.004 | 0.004 | 0.005 | 0.02 | 0.02 | 0.02 | <2 | 2 | 2 | 7 | 7 | 10 | 10 | 17 |
| | 10:36 | | Middle | 3.0 | 3 | 3 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.005 | 0.005 | | 0.02 | 0.02 | | <2 | 2 | | 6 | | 19 | 19 | |
| | 0:00 | | Bottom | 5.0 | 4 | 4 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.006 | 0.006 | | 0.02 | 0.02 | | <2 | 2 | | 7 | | 22 | 22 | |
| 3/12/2021 | 10:40 | Fine | Surface | 1.0 | 5 | 5 | 4 | 0.03 | 0.03 | 0.03 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.04 | 0.005 | 0.005 | 0.004 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 6 | 6 | 41 | 41 | 32 |
| | 10:42 | | Middle | 3.0 | 4 | 4 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.003 | 0.003 | | 0.01 | 0.01 | | <2 | 2 | | 6 | | 32 | 32 | |
| | 10:44 | | Bottom | 5.0 | 4 | 4 | | 0.04 | 0.04 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.004 | 0.004 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 23 | 23 | |
| 6/12/2021 | 12:30 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 9 | 10 | 2 | 2 | 12 |
| | 12:32 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 10 | | 16 | 16 | |
| | 12:35 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 19 | 19 | |
| 8/12/2021 | 13:55 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 2 | 7 | 7 | 1 | 1 | 2 |
| | 13:57 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 3 | 3 | |
| | 13:59 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 3 | 3 | |
| 10/12/2021 | 16:30 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 5 | 1 | 1 | 2 |
| | 16;31 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 16:33 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 4 | 4 | |
| 13/12/2021 | 9:39 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | 170 | 170 | 126 |
| | 9:41 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 180 | 180 | |
| | 9:44 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 28 | 28 | |
| 15/12/2021 | 10:52 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 11 | 11 | 9 | 9 | 7 |
| | 10:54 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 11 | | 6 | 6 | |
| | 10:56 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 5 | 5 | |
| 17/12/2021 | 11:05 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | 0.04 | 0.04 | 0.02 | <0.01 | 0.01 | 0.01 | 0.08 | 0.08 | 0.05 | 0.007 | 0.007 | 0.003 | 0.04 | 0.04 | 0.03 | 2 | 2 | 2 | 5 | 6 | 130 | 130 | 104 |
| | 11:07 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 52 | 52 | |
| | 11:09 | | Bottom | 5.0 | <2 | 2 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.002 | 0.002 | | 0.03 | 0.03 | | 2 | 2 | | 5 | | 130 | 130 | |
| 20/12/2021 | 13:20 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 2 | 12 | 10 | 2 | 2 | 9 |
| | 13:22 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 3 | 3 | |
| | 13:23 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 22 | 22 | |
| 22/12/2021 | 12:48 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | 0.07 | 0.07 | 0.05 | <0.01 | 0.01 | 0.01 | 0.12 | 0.12 | 0.09 | 0.007 | 0.007 | 0.005 | 0.05 | 0.05 | 0.03 | <2 | 2 | 2 | 2 | 4 | 2 | 2 | 4 |
| | 12:52 | | Middle | 3.0 | <2 | 2 | | 0.04 | 0.04 | | <0.01 | 0.01 | | 0.08 | 0.08 | | 0.007 | 0.007 | | 0.03 | 0.03 | | <2 | 2 | | 4 | | 3 | 3 | |
| | 12:54 | | Bottom | 5.0 | <2 | 2 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.06 | 0.06 | | 0.002 | 0.002 | | 0.02 | 0.02 | | <2 | 2 | | 4 | | 6 | 6 | |
| 27/12/2021 | 17:08 | Cloudy | Surface | 1.0 | 5 | 5 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | 9 | 9 | 31 |
| | 17:10 | | Middle | 3.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 5 | | 23 | 23 | |
| | 17:11 | | Bottom | 5.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 62 | 62 | |
| 29/12/2021 | 9:30 | Fine | Surface | 1.0 | 3 | 3 | 3 | 0.02 | 0.02 | 0.02 | <0.01 | 0.01 | 0.01 | 0.05 | 0.05 | 0.04 | 0.002 | 0.002 | 0.001 | 0.02 | 0.02 | 0.02 | <2 | 2 | 2 | 3 | 3 | 8 | 8 | 11 |
| | 9:32 | | Middle | 3.0 | 3 | 3 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.04 | 0.04 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 3 | | 4 | 4 | |
| | 9:34 | | Bottom | 5.0 | 4 | 4 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 3 | | 20 | 20 | |
| 31/12/2021 | 10:37 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 4 | 67 | 67 | 43 |
| | 10:10 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 29 | 29 | |
| | 10:42 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 32 | 32 | |

**Water Monitoring Result at F2 -Yim Tin Tsai (East) Fish Culture Zone**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 16;35 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 4 | 6 | 6 | 6 |
| | 16;37 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 6 | 6 | |
| | 16:39 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 7 | 7 | |
| 1/12/2021 | 16:10 | Fine | Surface | 1.0 | 6 | 6 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | 1 | 1 | 2 |
| | 16;12 | | Middle | 3.5 | 5 | 5 | | 0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | 0.002 | 0.002 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 16:15 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 3 | 3 | |
| 2/12/2021 | 16:10 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | 3 | 3 | 8 |
| | 16:12 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| | 16:15 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 19 | 19 | |
| 3/12/2021 | 17:00 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 17:02 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 2 | 2 | |
| | 17:05 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 4 | 4 | |
| 6/12/2021 | 10:30 | Fine | Surface | 1.0 | 3 | 3 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 2 | 3 | 3 | 4 | 4 | 23 |
| | 10:32 | | Middle | 3.5 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | 29 | 29 | |
| | 10:35 | | Bottom | 6.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | 37 | 37 | |
| 8/12/2021 | 11:37 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 3 | NOT DETECTED | 1 | 26 |
| | 11:39 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 4 | 4 | |
| | 11:42 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 72 | 72 | |
| 10/12/2021 | 13:48 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 1 | 2 | NOT DETECTED | 1 | 2 |
| | 13:50 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 1 | | 3 | 3 | |
| | 13:52 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 2 | 2 | |
| 13/12/2021 | 12:45 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 3 | 4 | 4 | 13 |
| | 12:47 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 23 | 23 | |
| | 12:49 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 12 | 12 | |
| 15/12/2021 | 16:02 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | 8 | 8 | 11 |
| | 16:05 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 16 | 16 | |
| | 16:07 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 8 | 8 | |
| 17/12/2021 | 16:20 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 3 | 15 | 15 | 11 |
| | 16:23 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | 10 | 10 | |
| | 16:25 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | 7 | 7 | |
| 20/12/2021 | 14:55 | Cloudy | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 4 | 11 | 11 | 13 |
| | 14:57 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 9 | 9 | |
| | 14:58 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 18 | 18 | |
| 22/12/2021 | 10:45 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | 3 | 3 | 4 |
| | 10:47 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 4 | 4 | |
| | 10:50 | | Bottom | 6.0 | 3 | 3 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.02 | 0.02 | | 0.002 | 0.002 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 4 | 4 | |
| 24/12/2021 | 10:53 | Cloudy | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | 9 | 9 | 7 |
| | 10:55 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 5 | 5 | |
| | 10:57 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 6 | 6 | |
| 27/12/2021 | 14:00 | Cloudy | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 3 | 9 | 9 | 8 |
| | 14:02 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 7 | 7 | |
| | 14:04 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 8 | 8 | |
| 29/12/2021 | 15:30 | Fine | Surface | 1.0 | 2 | 2 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 |
| | 15:32 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 2 | 2 | |
| | 15:34 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 4 | 4 | |

**Water Monitoring Result at F2 -Yim Tin Tsai (East) Fish Culture Zone**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 11:31 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 1 | 1 | 2 |
| | 0:00 | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 11:33 | | Bottom | 4.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 2 | 2 | |
| 1/12/2021 | 10:25 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 10:27 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 10:30 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 2/12/2021 | 10:55 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 2 |
| | 10:58 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 2 | 2 | |
| | 11:01 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 3 | 3 | |
| 3/12/2021 | 11:00 | Fine | Surface | 1.0 | 3 | 3 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 4 | 10 | 10 | 5 |
| | 11:02 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 3 | 3 | |
| | 11:04 | | Bottom | 5.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 3 | 3 | |
| 6/12/2021 | 13:27 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 3 | 11 | 11 | 6 |
| | 13:29 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 1 | 1 | |
| | 13:32 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | 6 | 6 | |
| 8/12/2021 | 14:37 | Fine | Surface | 1.0 | <2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 3 | 1 | 1 | 2 |
| | 14:38 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 14:04 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 3 | 3 | |
| 10/12/2021 | 16:46 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 2 |
| | 16:48 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 1 | 1 | |
| | 16:50 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 4 | 4 | |
| 13/12/2021 | 10:07 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | 20 | 20 | 14 |
| | 10:09 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 13 | 13 | |
| | 10:11 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 9 | 9 | |
| 15/12/2021 | 11:12 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 4 | 22 | 22 | 13 |
| | 11:14 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 11 | 11 | |
| | 11:16 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 5 | 5 | |
| 17/12/2021 | 11:20 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 3 | 5 | 5 | 3 |
| | 11:22 | | Middle | 3.5 | <2 | 2 | | 0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | 2 | 2 | |
| | 11:24 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | 1 | 1 | |
| 20/12/2021 | 13:38 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 3 | 5 | 5 | 7 |
| | 13:40 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 13:41 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 14 | 14 | |
| 22/12/2021 | 13:35 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | 2 | 2 | 9 |
| | 13:37 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 5 | 5 | |
| | 13;38 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 20 | 20 | |
| 27/12/2021 | 17:43 | Cloudy | Surface | 1.0 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 13 | 13 | 11 |
| | 17:44 | | Middle | 3.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 12 | 12 | |
| | 17:45 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 9 | 9 | |
| 29/12/2021 | 9:50 | Fine | Surface | 1.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 4 |
| | 9:52 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 3 | 3 | |
| | 9:55 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 8 | 8 | |
| 31/12/2021 | 11:00 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 13 | 13 | 12 |
| | 11:02 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 13 | 13 | |
| | 11:04 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 10 | 10 | |

**Water Monitoring Result at F3 - Yung Shue Au Fish Culture Zone / Important Nursery Area for Commercial Fisheries Resources at Three Fathoms Cove**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | $mg/m^3$ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 12:45 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | 4 | 4 | 9 |
| | 12:47 | | Middle | 3.5 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 8 | 8 | |
| | 12:49 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 16 | 16 | |
| 1/12/2021 | 14:18 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 3 | NOT DETECTED | 1 | 1 |
| | 14:20 | | Middle | 4.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 14:22 | | Bottom | 7.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 2/12/2021 | 14:31 | Fine | Surface | 1.0 | 3 | 3 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 4 | 4 | 3 |
| | 14:33 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 4 | 4 | |
| | 14:35 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 2 | 2 | |
| 3/12/2021 | 16:55 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 1 | 1 | 3 | 3 | 4 |
| | 16:57 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 4 | 4 | |
| | 16:59 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 0 | | 4 | 4 | |
| 6/12/2021 | 9:31 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 4 | 6 | 6 | 5 |
| | 9:33 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 4 | 4 | |
| | 9:35 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 5 | 5 | |
| 8/12/2021 | 10:51 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 10:53 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 1 | 1 | |
| | 10:55 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 10/12/2021 | 13:42 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 13:44 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| | 13;46 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 13/12/2021 | 15:21 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | 1 | 1 | 1 |
| | 15:23 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| | 15:25 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| 15/12/2021 | 15:32 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 12 | 12 | 11 |
| | 15:34 | | Middle | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 9 | 9 | |
| | 15:36 | | Bottom | 7.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 11 | 11 | |
| 17/12/2021 | 16:32 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 4 | 3 | 4 | 4 | 6 |
| | 16:34 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | 6 | 6 | |
| | 16:36 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | 7 | 7 | |
| 20/12/2021 | 16:50 | Cloudy | Surface | 1.0 | <2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 4 | 9 | 9 | 8 |
| | 16:52 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 9 | 9 | |
| | 16:54 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 5 | 5 | |
| 22/12/2021 | 9:11 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 5 | 5 | 4 |
| | 9:13 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 2 | 2 | |
| | 9:15 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 6 | 6 | |
| 24/12/2021 | 9:55 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 4 | 4 | 5 |
| | 9:57 | | Middle | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 4 | 4 | |
| | 9:59 | | Bottom | 7.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 7 | 7 | |
| 27/12/2021 | 11:24 | Cloudy | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | 1 | 1 | 3 |
| | 11:26 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 4 | 4 | |
| | 11:28 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 3 | 3 | |
| 29/12/2021 | 15:14 | Fine | Surface | 1.0 | 4 | 4 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 2 |
| | 15:16 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 4 | 4 | |
| | 15:18 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | 2 | 2 | |

**Water Monitoring Result at F3 - Yung Shue Au Fish Culture Zone / Important Nursery Area for Commercial Fisheries Resources at Three Fathoms Cove**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | | Suspended Solids mg/L | | | Ammonia Nitrogen mg/L | | | Nitrite-nitrogen mg/L | | | Total Inorganic Nitrogen mg/L | | | Unionized Ammonia mg/L | | | Nitrate-nitrogen mg/L | | | BOD mg/L | | | Chlorophyll-a mg/m³ | | E. coli CFU/100mL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average | |
| 30/11/2021 | 8:45 | Fine | Surface | 1.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 6 | 5 | 78 | 78 | 177 | Day 1 F3_surface_Ebb |
| | 8:47 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 360 | 360 | | Day 1 F3_middle_Ebb |
| | 8:49 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 4 | | 93 | 93 | | Day 1 F3_bottom_Ebb |
| 1/12/2021 | 12:21 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | NOT DETECTED | 1 | 1 | Day 2 F3_surface_Ebb |
| | 12:23 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 1 | 1 | | Day 2 F3_middle_Ebb |
| | 12:25 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 2 | 2 | | Day 2 F3_bottom_Ebb |
| 2/12/2021 | 10:10 | Fine | Surface | 1.0 | 7 | 7 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 1 | 1 | 1 | Day 3 F3_surface_Ebb |
| | 10:12 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | | Day 3 F3_middle_Ebb |
| | 10:14 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 1 | 1 | | Day 3 F3_bottom_Ebb |
| 3/12/2021 | 11:48 | Fine | Surface | 1.0 | 4 | 4 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 3 | 4 | 4 | 4 | Day 4 F3_surface_Ebb |
| | 11:50 | | Middle | 3.5 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 6 | 6 | | Day 4 F3_middle_Ebb |
| | 11:52 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 3 | 3 | | Day 4 F3_bottom_Ebb |
| 6/12/2021 | 14:34 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | Day 5 F3_surface_Ebb |
| | 14:36 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 4 | 4 | | Day 5 F3_middle_Ebb |
| | 14:38 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 3 | 3 | | Day 5 F3_bottom_Ebb |
| 8/12/2021 | 16:12 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 | Day 6 F3_surface_Ebb |
| | 16:14 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | | Day 6 F3_middle_Ebb |
| | 16:16 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | | Day 6 F3_bottom_Ebb |
| 10/12/2021 | 18:00 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 | Day 7 F3_surface_Ebb |
| | 18:02 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | | Day 7 F3_middle_Ebb |
| | 18:04 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 1 | 1 | | Day 7 F3_bottom_Ebb |
| 13/12/2021 | 9:04 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 | Day 8 F3_surface_Ebb |
| | 9:06 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | | Day 8 F3_middle_Ebb |
| | 9:08 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | | Day 8 F3_bottom_Ebb |
| 15/12/2021 | 10:06 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 7 | 7 | NOT DETECTED | 1 | 1 | Day 9 F3_surface_Ebb |
| | 10:08 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | NOT DETECTED | 1 | | Day 9 F3_middle_Ebb |
| | 10:10 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 1 | 1 | | Day 9 F3_bottom_Ebb |
| 17/12/2021 | 10:10 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 2 | 2 | 2 | Day 10 F3_surface_Ebb |
| | 10:12 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 3 | 3 | | Day 10 F3_middle_Ebb |
| | 10:14 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | | Day 10 F3_bottom_Ebb |
| 20/12/2021 | 11:45 | Cloudy | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 9 | 9 | 9 | Day 11 F3_surface_Ebb |
| | 11:47 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 11 | 11 | | Day 11 F3_middle_Ebb |
| | 11:49 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 7 | 7 | | Day 11 F3_bottom_Ebb |
| 22/12/2021 | 15:08 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 6 | 5 | 1 | 1 | 1 | Day 12 F3_surface_Ebb |
| | 15:10 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 2 | 2 | | Day 12 F3_middle_Ebb |
| | 15:12 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 1 | 1 | | Day 12 F3_bottom_Ebb |
| 27/12/2021 | 19:35 | Cloudy | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 6 | 6 | 4 | 4 | 3 | Day 14 F3_surface_Ebb |
| | 19:37 | | Middle | 4.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 2 | 2 | | Day 14 F3_middle_Ebb |
| | 19:39 | | Bottom | 7.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 3 | 3 | | Day 14 F3_bottom_Ebb |
| 29/12/2021 | 9:01 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 1 | 1 | 1 | Day 15 F3_surface_Ebb |
| | 9:03 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 1 | 1 | | Day 15 F3_middle_Ebb |
| | 9:05 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | | Day 15 F3_bottom_Ebb |
| 31/12/2021 | 9:38 | Cloudy | Surface | 1.0 | 3 | 3 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 11 | 11 | 6 | Day 16 F3_surface_Ebb |
| | 9:40 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | | Day 16 F3_middle_Ebb |
| | 9:42 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 6 | 6 | | Day 16 F3_bottom_Ebb |

**Water Monitoring Result at F4 - Lo Fu Wat Fish Culture Zone**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 14:42 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 14:44 | | Middle | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| | 14:46 | | Bottom | 11.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| 1/12/2021 | 15:15 | Fine | Surface | 1.0 | 6 | 6 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | NOT DETECTED | 1 | 1 |
| | 15:17 | | Middle | 6.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 15:19 | | Bottom | 11.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 1 | 1 | |
| 2/12/2021 | 15:50 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 15:52 | | Middle | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 15:54 | | Bottom | 10.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 3/12/2021 | 15:18 | Fine | Surface | 1.0 | 9 | 9 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 15:20 | | Middle | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 15:22 | | Bottom | 11.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 6/12/2021 | 10:55 | Fine | Surface | 1.0 | 9 | 9 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 4 | NOT DETECTED | 1 | 1 |
| | 10:57 | | Middle | 6.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 10:59 | | Bottom | 11.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | 1 | 1 | |
| 8/12/2021 | 12:56 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 2 | NOT DETECTED | 1 | 1 |
| | 12:58 | | Middle | 5.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 13:00 | | Bottom | 10.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 1 | 1 | |
| 10/12/2021 | 15:21 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 15;23 | | Middle | 5.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 15:25 | | Bottom | 10.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 13/12/2021 | 13:06 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 13:08 | | Middle | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 13:10 | | Bottom | 11.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 15/12/2021 | 13:43 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 13:45 | | Middle | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 13:47 | | Bottom | 11.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 17/12/2021 | 14:51 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 14:53 | | Middle | 5.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 1 | 1 | |
| | 14:55 | | Bottom | 10.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 20/12/2021 | 15:23 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 15;25 | | Middle | 5.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 15:27 | | Bottom | 10.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 22/12/2021 | 11:15 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 1 | 1 | 1 |
| | 11:17 | | Middle | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 11:19 | | Bottom | 11.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 24/12/2021 | 11:22 | Cloudy | Surface | 1.0 | 3 | 3 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 1:24 | | Middle | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 2 | 2 | |
| | 11:26 | | Bottom | 11.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 1 | 1 | |
| 27/12/2021 | 13:08 | Cloudy | Surface | 1.0 | 4 | 4 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 13:10 | | Middle | 5.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 13:12 | | Bottom | 10.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 29/12/2021 | 13:13 | Fine | Surface | 1.0 | 2 | 2 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 13:15 | | Middle | 5.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 13:17 | | Bottom | 10.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |

**Water Monitoring Result at F4 - Lo Fu Wat Fish Culture Zone**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 10:10 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | 2 | 2 | 3 |
| | 10:12 | | Middle | 5.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 3 | 3 | |
| | 10:14 | | Bottom | 10.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 3 | 3 | |
| 1/12/2021 | 11:08 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 4 | NOT DETECTED | 1 | 1 |
| | 11:10 | | Middle | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 11:12 | | Bottom | 11.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 2/12/2021 | 11:35 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 5 | NOT DETECTED | 1 | 1 |
| | 11:37 | | Middle | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 11:39 | | Bottom | 11.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| 3/12/2021 | 13:17 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | 1 | 1 | 1 |
| | 13:19 | | Middle | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 13:21 | | Bottom | 11.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 6/12/2021 | 13:19 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 13:21 | | Middle | 5.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 13;23 | | Bottom | 10.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 8/12/2021 | 15:015 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 15:07 | | Middle | 5.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 15:09 | | Bottom | 10.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 1 | 1 | |
| 10/12/2021 | 17:02 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 17:04 | | Middle | 5.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 17:06 | | Bottom | 10.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 13/12/2021 | 10:24 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 |
| | 10:26 | | Middle | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 10:28 | | Bottom | 11.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 15/12/2021 | 11:42 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 11:44 | | Middle | 5.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 11:46 | | Bottom | 10.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 17/12/2021 | 12:23 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 3 | NOT DETECTED | 1 | 1 |
| | 12:25 | | Middle | 5.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| | 12:27 | | Bottom | 10.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| 20/12/2021 | 13;05 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 13:07 | | Middle | 5.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 13:09 | | Bottom | 10.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 1 | 1 | |
| 22/12/2021 | 13:33 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 13:35 | | Middle | 5.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 1 | 1 | |
| | 13:37 | | Bottom | 10.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 27/12/2021 | 17:39 | Cloudy | Surface | 1.0 | 6 | 6 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 17:41 | | Middle | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 17:43 | | Bottom | 11.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 29/12/2021 | 10:08 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 10:10 | | Middle | 5.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 10:12 | | Bottom | 10.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 31/12/2021 | 10:52 | Cloudy | Surface | 1.0 | 4 | 4 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 10:54 | | Middle | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 10:56 | | Bottom | 11.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 4 | | 1 | 1 | |

**Water Monitoring Result at CR1 - Corals at Tai Po Industrial Estate**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | | Ammonia Nitrogen | mg/L | | | Nitrite-nitrogen | mg/L | | | Total Inorganic Nitrogen | mg/L | | | Unionized Ammonia | mg/L | | | Nitrate-nitrogen | mg/L | | | BOD | mg/L | | | Chlorophyll-a | $mg/m^3$ | | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | | Value | V* | Average | | Value | V* | Average | | Value | V* | Average | | Value | V* | Average | | Value | V* | Average | | Value | V* | Average | | Value | Average | | Value | V* | Average |
| 30/11/2021 | 15:58 | Fine | Surface | 1.0 | 4 | 4 | 4 | | 0.10 | 0.10 | 0.05 | | <0.01 | 0.01 | 0.01 | | 0.29 | 0.29 | 0.14 | | 0.017 | 0.017 | 0.008 | | 0.19 | 0.19 | 0.09 | | 3 | 3 | 2 | | 6 | 6 | | 89 | 89 | 54 |
| | 16:00 | | Middle | 3.0 | 4 | 4 | | | 0.03 | 0.03 | | | <0.01 | 0.01 | | | 0.09 | 0.09 | | | 0.004 | 0.004 | | | 0.07 | 0.07 | | | <2 | 2 | | | 6 | | | 47 | 47 | |
| | 16:02 | | Bottom | 5.0 | 7 | 7 | | | 0.01 | 0.01 | | | <0.01 | 0.01 | | | 0.04 | 0.04 | | | 0.002 | 0.002 | | | 0.02 | 0.02 | | | <2 | 2 | | | 7 | | | 27 | 27 | |
| 1/12/2021 | 15:25 | Fine | Surface | 1.0 | 5 | 5 | 5 | | 0.06 | 0.06 | 0.03 | | <0.01 | 0.01 | 0.01 | | 0.12 | 0.12 | 0.07 | | 0.014 | 0.014 | 0.007 | | 0.07 | 0.07 | 0.04 | | 2 | 2 | 2 | | 8 | 8 | | NOT DETECTED | 1 | 13 |
| | 15:27 | | Middle | 3.5 | 4 | 4 | | | 0.02 | 0.02 | | | <0.01 | 0.01 | | | 0.04 | 0.04 | | | 0.004 | 0.004 | | | 0.02 | 0.02 | | | <2 | 2 | | | 9 | | | 33 | 33 | |
| | 15:30 | | Bottom | 6.0 | 4 | 4 | | | 0.02 | 0.02 | | | <0.01 | 0.01 | | | 0.04 | 0.04 | | | 0.004 | 0.004 | | | 0.02 | 0.02 | | | 2 | 2 | | | 8 | | | 4 | 4 | |
| 2/12/2021 | 15:50 | Fine | Surface | 1.0 | 4 | 4 | 4 | | 0.02 | 0.02 | 0.02 | | <0.01 | 0.01 | 0.01 | | 0.03 | 0.03 | 0.02 | | 0.005 | 0.005 | 0.003 | | 0.01 | 0.01 | 0.01 | | 3 | 3 | 2 | | 13 | 12 | | 3 | 3 | 8 |
| | 15:52 | | Middle | 3.0 | 4 | 4 | | | 0.02 | 0.02 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | 0.003 | 0.003 | | | <0.01 | 0.01 | | | 2 | 2 | | | 11 | | | 4 | 4 | |
| | 15:55 | | Bottom | 5.0 | 5 | 5 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | <2 | 2 | | | 12 | | | 16 | 16 | |
| 3/12/2021 | 15:59 | Fine | Surface | 1.0 | 5 | 5 | 6 | | <0.01 | 0.01 | 0.01 | | <0.01 | 0.01 | 0.01 | | <0.02 | 0.02 | 0.02 | | <0.001 | 0.001 | 0.001 | | <0.01 | 0.01 | 0.01 | | 3 | 3 | 3 | | 14 | 12 | | 17 | 17 | 34 |
| | 16:01 | | Middle | 3.0 | 5 | 5 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 4 | 4 | | | 11 | | | 56 | 56 | |
| | 16:03 | | Bottom | 5.0 | 7 | 7 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 3 | 3 | | | 10 | | | 29 | 29 | |
| 6/12/2021 | 9:20 | Fine | Surface | 1.0 | 5 | 5 | 6 | | 0.02 | 0.02 | 0.01 | | <0.01 | 0.01 | 0.01 | | 0.02 | 0.02 | 0.02 | | 0.004 | 0.004 | 0.002 | | <0.01 | 0.01 | 0.01 | | 4 | 4 | 3 | | 15 | 11 | | 6 | 6 | 8 |
| | 9:22 | | Middle | 3.0 | 5 | 5 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 3 | 3 | | | 9 | | | 14 | 14 | |
| | 9:25 | | Bottom | 5.0 | 9 | 9 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 3 | 3 | | | 9 | | | 3 | 3 | |
| 8/12/2021 | 10:39 | Fine | Surface | 1.0 | 3 | 3 | 4 | | <0.01 | 0.01 | 0.01 | | <0.01 | 0.01 | 0.01 | | <0.02 | 0.02 | 0.02 | | <0.001 | 0.001 | 0.001 | | <0.01 | 0.01 | 0.01 | | 3 | 3 | 3 | | 11 | 9 | | 93 | 93 | 83 |
| | 10:41 | | Middle | 3.0 | 5 | 5 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 3 | 3 | | | 10 | | | 81 | 81 | |
| | 10:43 | | Bottom | 5.0 | 5 | 5 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 3 | 3 | | | 6 | | | 74 | 74 | |
| 10/12/2021 | 13:00 | Fine | Surface | 1.0 | 2 | 2 | 2 | | <0.01 | 0.01 | 0.01 | | <0.01 | 0.01 | 0.01 | | <0.02 | 0.02 | 0.02 | | <0.001 | 0.001 | 0.001 | | <0.01 | 0.01 | 0.01 | | 4 | 4 | 3 | | 13 | 10 | | 8 | 8 | 4 |
| | 13:01 | | Middle | 3.0 | 2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 3 | 3 | | | 7 | | | 3 | 3 | |
| | 13:03 | | Bottom | 5.0 | <2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 3 | 3 | | | 10 | | | 2 | 2 | |
| 13/12/2021 | 12:15 | Fine | Surface | 1.0 | <2 | 2 | 2 | | 0.01 | 0.01 | 0.01 | | <0.01 | 0.01 | 0.01 | | <0.02 | 0.02 | 0.02 | | 0.002 | 0.002 | 0.001 | | <0.01 | 0.01 | 0.01 | | 4 | 4 | 4 | | 8 | 9 | | 41 | 41 | 40 |
| | 12:17 | | Middle | 3.0 | <2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 4 | 4 | | | 10 | | | 48 | 48 | |
| | 12:19 | | Bottom | 5.0 | <2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 3 | 3 | | | 9 | | | 31 | 31 | |
| 15/12/2021 | 15:04 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | | 0.03 | 0.03 | 0.02 | | <0.01 | 0.01 | 0.01 | | 0.04 | 0.04 | 0.03 | | 0.004 | 0.004 | 0.002 | | 0.02 | 0.02 | 0.01 | | 3 | 3 | 2 | | 20 | 15 | | 14 | 14 | 10 |
| | 15:07 | | Middle | 3.5 | <2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 2 | 2 | | | 13 | | | 7 | 7 | |
| | 15:08 | | Bottom | 6.0 | <2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | 2 | 2 | | | 11 | | | 10 | 10 | |
| 17/12/2021 | 15:30 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | | 0.04 | 0.04 | 0.02 | | <0.01 | 0.01 | 0.01 | | 0.05 | 0.05 | 0.03 | | 0.009 | 0.009 | 0.004 | | 0.01 | 0.01 | 0.01 | | 3 | 3 | 3 | | 6 | 6 | | 1 | 1 | 1 |
| | 15:32 | | Middle | 3.0 | <2 | 2 | | | 0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | 0.002 | 0.002 | | | <0.01 | 0.01 | | | 3 | 3 | | | 7 | | | NOT DETECTED | 1 | |
| | 15:33 | | Bottom | 5.0 | <2 | 2 | | | 0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | 0.001 | 0.001 | | | <0.01 | 0.01 | | | 3 | 3 | | | 6 | | | 1 | 1 | |
| 20/12/2021 | 15:45 | Cloudy | Surface | 1.0 | 3 | 3 | 3 | | 0.04 | 0.04 | 0.03 | | <0.01 | 0.01 | 0.01 | | 0.06 | 0.06 | 0.05 | | 0.002 | 0.002 | 0.002 | | 0.02 | 0.02 | 0.02 | | 3 | 3 | 3 | | 13 | 10 | | 320 | 320 | 383 |
| | 14:47 | | Middle | 3.0 | 3 | 3 | | | 0.03 | 0.03 | | | <0.01 | 0.01 | | | 0.06 | 0.06 | | | 0.002 | 0.002 | | | 0.03 | 0.03 | | | 3 | 3 | | | 9 | | | 450 | 450 | |
| | 15:48 | | Bottom | 5.0 | 4 | 4 | | | 0.02 | 0.02 | | | <0.01 | 0.01 | | | 0.03 | 0.03 | | | 0.001 | 0.001 | | | 0.01 | 0.01 | | | 3 | 3 | | | 8 | | | 380 | 380 | |
| 22/12/2021 | 9:48 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | | 0.07 | 0.07 | 0.05 | | <0.01 | 0.01 | 0.01 | | 0.09 | 0.09 | 0.06 | | 0.010 | 0.010 | 0.005 | | 0.02 | 0.02 | 0.02 | | <2 | 2 | 2 | | 5 | 5 | | 62 | 62 | 42 |
| | 9:50 | | Middle | 3.0 | <2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | <2 | 2 | | | 6 | | | 26 | 26 | |
| | 9:52 | | Bottom | 5.0 | <2 | 2 | | | 0.06 | 0.06 | | | <0.01 | 0.01 | | | 0.07 | 0.07 | | | 0.005 | 0.005 | | | 0.02 | 0.02 | | | <2 | 2 | | | 4 | | | 37 | 37 | |
| 24/12/2021 | 10:05 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | | 0.02 | 0.02 | 0.01 | | <0.01 | 0.01 | 0.01 | | 0.05 | 0.05 | 0.03 | | 0.002 | 0.002 | 0.001 | | 0.04 | 0.04 | 0.03 | | 2 | 2 | 2 | | 9 | 9 | | 93 | 93 | 82 |
| | 10:07 | | Middle | 3.0 | <2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | 0.03 | 0.03 | | | <0.001 | 0.001 | | | 0.03 | 0.03 | | | <2 | 2 | | | 9 | | | 89 | 89 | |
| | 10:08 | | Bottom | 5.0 | 2 | 2 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | 0.01 | 0.01 | | | <2 | 2 | | | 9 | | | 64 | 64 | |
| 27/12/2021 | 13:15 | Cloudy | Surface | 1.0 | 2 | 2 | 3 | | 0.05 | 0.05 | 0.04 | | <0.01 | 0.01 | 0.01 | | 0.07 | 0.07 | 0.05 | | 0.010 | 0.010 | 0.007 | | 0.02 | 0.02 | 0.01 | | 2 | 2 | 2 | | 8 | 7 | | 4 | 4 | 3 |
| | 13:17 | | Middle | 3.0 | 4 | 4 | | | 0.04 | 0.04 | | | <0.01 | 0.01 | | | 0.06 | 0.06 | | | 0.008 | 0.008 | | | 0.01 | 0.01 | | | 2 | 2 | | | 7 | | | 3 | 3 | |
| | 13:18 | | Bottom | 5.0 | 4 | 4 | | | 0.02 | 0.02 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | 0.004 | 0.004 | | | <0.01 | 0.01 | | | 2 | 2 | | | 8 | | | 1 | 1 | |
| 29/12/2021 | 14:42 | Fine | Surface | 1.0 | 5 | 5 | 6 | | <0.01 | 0.01 | 0.01 | | <0.01 | 0.01 | 0.01 | | <0.02 | 0.02 | 0.02 | | <0.001 | 0.001 | 0.001 | | 0.01 | 0.01 | 0.01 | | <2 | 2 | 2 | | 4 | 5 | | 600 | 600 | 397 |
| | 14:43 | | Middle | 3.0 | 5 | 5 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | <2 | 2 | | | 5 | | | 380 | 380 | |
| | 14:45 | | Bottom | 5.0 | 7 | 7 | | | <0.01 | 0.01 | | | <0.01 | 0.01 | | | <0.02 | 0.02 | | | <0.001 | 0.001 | | | <0.01 | 0.01 | | | <2 | 2 | | | 6 | | | 210 | 210 | |

**Water Monitoring Result at CR1 - Corals at Tai Po Industrial Estate**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 10:48 | Fine | Surface | 1.0 | 2 | 2 | 2 | 0.34 | 0.34 | 0.25 | <0.01 | 0.01 | 0.01 | 0.46 | 0.46 | 0.33 | 0.023 | 0.023 | 0.016 | 0.12 | 0.12 | 0.09 | 3 | 3 | 3 | 12 | 12 | 51 | 51 | 37 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 10:50 | | Bottom | 4.0 | 4 | 4 | | 0.15 | 0.15 | | <0.01 | 0.01 | | 0.20 | 0.20 | | 0.009 | 0.009 | | 0.05 | 0.05 | | 3 | 3 | | 13 | | 22 | 22 | |
| 1/12/2021 | 9:34 | Fine | Surface | 1.0 | 3 | 3 | 3 | 0.11 | 0.11 | 0.08 | <0.01 | 0.01 | 0.01 | 0.21 | 0.21 | 0.16 | 0.025 | 0.025 | 0.019 | 0.10 | 0.10 | 0.07 | <2 | 2 | 2 | 7 | 7 | 22 | 22 | 24 |
| | 9:36 | | Middle | 3.0 | 5 | 5 | | 0.10 | 0.10 | | <0.01 | 0.01 | | 0.17 | 0.17 | | 0.022 | 0.022 | | 0.08 | 0.08 | | <2 | 2 | | 7 | | 26 | 26 | |
| | 9:38 | | Bottom | 5.0 | 8 | 8 | | 0.04 | 0.04 | | <0.01 | 0.01 | | 0.09 | 0.09 | | 0.009 | 0.009 | | 0.04 | 0.04 | | <2 | 2 | | 7 | | 23 | 23 | |
| 2/12/2021 | 10:05 | Fine | Surface | 1.0 | 5 | 5 | 7 | 0.04 | 0.04 | 0.03 | <0.01 | 0.01 | 0.01 | 0.06 | 0.06 | 0.04 | 0.008 | 0.008 | 0.004 | 0.02 | 0.02 | 0.01 | 2 | 2 | 2 | 12 | 11 | 320 | 320 | 207 |
| | 10:07 | | Middle | 3.0 | 6 | 6 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 11 | | 180 | 180 | |
| | 10:10 | | Bottom | 5.0 | 9 | 9 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.02 | 0.02 | | 0.004 | 0.004 | | <0.01 | 0.01 | | <2 | 2 | | 10 | | 120 | 120 | |
| 3/12/2021 | 10:03 | Fine | Surface | 1.0 | 5 | 5 | 5 | 0.02 | 0.02 | 0.03 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.04 | 0.003 | 0.003 | 0.004 | 0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 8 | 8 | 310 | 310 | 287 |
| | 10:05 | | Middle | 3.0 | 5 | 5 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.004 | 0.004 | | 0.01 | 0.01 | | 2 | 2 | | 8 | | 330 | 330 | |
| | 10:07 | | Bottom | 5.0 | 6 | 6 | | 0.04 | 0.04 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.005 | 0.005 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 220 | 220 | |
| 6/12/2021 | 12:55 | Fine | Surface | 1.0 | 5 | 5 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 4 | 4 | 3 | 13 | 13 | 3 | 3 | 3 |
| | 12:57 | | Middle | 3.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 15 | | 4 | 4 | |
| | 13:00 | | Bottom | 5.0 | 8 | 8 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 10 | | 2 | 2 | |
| 8/12/2021 | 14:09 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 18 | 15 | 4 | 4 | 21 |
| | 14:11 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 14 | | 26 | 26 | |
| | 14:13 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 13 | | 34 | 34 | |
| 10/12/2021 | 17:39 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 8 | 7 | 1 | 1 | 1 |
| | 17:40 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 2 | 2 | |
| | 17:42 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | NOT DETECTED | 1 | |
| 13/12/2021 | 9:12 | Fine | Surface | 1.0 | <2 | 2 | 2 | 0.08 | 0.08 | 0.04 | <0.01 | 0.01 | 0.01 | 0.11 | 0.11 | 0.07 | 0.013 | 0.013 | 0.006 | 0.03 | 0.03 | 0.03 | 4 | 4 | 4 | 15 | 13 | 280 | 280 | 303 |
| | 9:14 | | Middle | 3.0 | <2 | 2 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.07 | 0.07 | | 0.005 | 0.005 | | 0.04 | 0.04 | | 4 | 4 | | 14 | | 320 | 320 | |
| | 9:16 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 3 | 3 | | 10 | | 310 | 310 | |
| 15/12/2021 | 10:15 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | 0.08 | 0.08 | 0.16 | <0.01 | 0.01 | 0.01 | 0.11 | 0.11 | 0.20 | 0.006 | 0.006 | 0.015 | 0.03 | 0.03 | 0.04 | 3 | 3 | 3 | 16 | 14 | 530 | 530 | 633 |
| | 10:17 | | Middle | 3.0 | <2 | 2 | | 0.23 | 0.23 | | <0.01 | 0.01 | | 0.28 | 0.28 | | 0.015 | 0.015 | | 0.06 | 0.06 | | 3 | 3 | | 14 | | 740 | 740 | |
| | 10:20 | | Bottom | 5.0 | <2 | 2 | | 0.18 | 0.18 | | <0.01 | 0.01 | | 0.22 | 0.22 | | 0.024 | 0.024 | | 0.04 | 0.04 | | 3 | 3 | | 12 | | 630 | 630 | |
| 17/12/2021 | 10:33 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 2 | 8 | 7 | 22 | 22 | 15 |
| | 10:35 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | 15 | 15 | |
| | 10:37 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 7 | 7 | |
| 20/12/2021 | 12:48 | Cloudy | Surface | 1.0 | 4 | 4 | 3 | 0.02 | 0.02 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | 0.002 | 0.002 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 16 | 13 | 32 | 32 | 22 |
| | 12:50 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 11 | | 24 | 24 | |
| | 12:51 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 12 | | 10 | 10 | |
| 22/12/2021 | 13:10 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 6 | 6 | 1 | 1 | 2 |
| | 13:11 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | NOT DETECTED | 1 | |
| | 13:13 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 5 | 5 | |
| 27/12/2021 | 17:33 | Cloudy | Surface | 1.0 | 6 | 6 | 5 | 0.05 | 0.05 | 0.03 | <0.01 | 0.01 | 0.01 | 0.06 | 0.06 | 0.04 | 0.003 | 0.003 | 0.002 | 0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 8 | 8 | 23 | 23 | 11 |
| | 17:35 | | Middle | 3.0 | 5 | 5 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.002 | 0.002 | | 0.01 | 0.01 | | 2 | 2 | | 7 | | 6 | 6 | |
| | 17:36 | | Bottom | 5.0 | 5 | 5 | | 0.02 | 0.02 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 4 | 4 | |
| 29/12/2021 | 9:02 | Fine | Surface | 1.0 | 4 | 4 | 4 | 0.02 | 0.02 | 0.02 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.03 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 16 | 16 | 21 |
| | 9:04 | | Middle | 3.0 | 4 | 4 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 4 | | 23 | 23 | |
| | 9:05 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 23 | 23 | |
| 31/12/2021 | 10:08 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | 0.03 | 0.03 | 0.01 | <0.01 | 0.01 | 0.01 | 0.05 | 0.05 | 0.03 | 0.002 | 0.002 | 0.001 | 0.02 | 0.02 | 0.01 | <2 | 2 | 2 | 5 | 6 | 310 | 310 | 233 |
| | 10:10 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 6 | | 260 | 260 | |
| | 10:11 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 130 | 130 | |

**Water Monitoring Result at CR15 - Corals at Science Park**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | $mg/m^3$ | | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 15:12 | Fine | Surface | 1.0 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 10 | 10 | 92 | 92 | 94 |
| | 15:15 | | Middle | 3.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 10 | | 93 | 93 | |
| | 15:17 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 10 | | 98 | 98 | |
| 1/12/2021 | 14:57 | Fine | Surface | 1.0 | 6 | 6 | 6 | 0.03 | 0.03 | 0.03 | <0.01 | 0.01 | 0.01 | 0.05 | 0.05 | 0.05 | 0.007 | 0.007 | 0.006 | 0.03 | 0.03 | 0.03 | 3 | 3 | 3 | 16 | 16 | 2 | 2 | 1 |
| | 15:00 | | Middle | 3.5 | 6 | 6 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.06 | 0.06 | | 0.007 | 0.007 | | 0.03 | 0.03 | | 3 | 3 | | 17 | | NOT DETECTED | 1 | |
| | 15:02 | | Bottom | 6.0 | 4 | 4 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.004 | 0.004 | | 0.02 | 0.02 | | 2 | 2 | | 14 | | 1 | 1 | |
| 2/12/2021 | 15:25 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 7 | 7 | NOT DETECTED | 1 | 1 |
| | 15:27 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | NOT DETECTED | 1 | |
| | 15:29 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | NOT DETECTED | 1 | |
| 3/12/2021 | 15:39 | Fine | Surface | 1.0 | 4 | 4 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 4 | 4 | 4 | 11 | 10 | NOT DETECTED | 1 | 1 |
| | 15:41 | | Middle | 3.5 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 4 | 4 | | 9 | | NOT DETECTED | 1 | |
| | 15:44 | | Bottom | 6.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 5 | 5 | | 9 | | NOT DETECTED | 1 | |
| 6/12/2021 | 9:00 | Fine | Surface | 1.0 | 4 | 4 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 8 | 8 | 5 | 5 | 12 |
| | 9:02 | | Middle | 3.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 12 | | 11 | 11 | |
| | 9:04 | | Bottom | 5.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 4 | | 21 | 21 | |
| 8/12/2021 | 10:22 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 10 | 9 | 6 | 6 | 4 |
| | 10:24 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 5 | 5 | |
| | 10:26 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 2 | 2 | |
| 10/12/2021 | 12:46 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 6 | 7 | NOT DETECTED | 1 | 1 |
| | 12:48 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | NOT DETECTED | 1 | |
| | 12:50 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 8 | | NOT DETECTED | 1 | |
| 13/12/2021 | 13:29 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.09 | <0.001 | 0.001 | 0.001 | 0.04 | 0.04 | 0.09 | 2 | 2 | 2 | 3 | 3 | 99 | 99 | 107 |
| | 13:31 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | 13 | 13 | |
| | 13:34 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.21 | 0.21 | | <0.001 | 0.001 | | 0.21 | 0.21 | | <2 | 2 | | 3 | | 210 | 210 | |
| 15/12/2021 | 14:49 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 9 | 11 | 5 | 5 | 3 |
| | 14:51 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 12 | | 3 | 3 | |
| | 14:53 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 11 | | NOT DETECTED | 1 | |
| 17/12/2021 | 15:16 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 4 | 4 | 4 | 9 | 8 | 1 | 1 | 2 |
| | 15:17 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 4 | 4 | | 8 | | 2 | 2 | |
| | 15:19 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 2 | 2 | |
| 20/12/2021 | 16:10 | Cloudy | Surface | 1.0 | 3 | 3 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 8 | 8 | 29 | 29 | 22 |
| | 16:13 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 25 | 25 | |
| | 16;15 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 13 | 13 | |
| 22/12/2021 | 9:35 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 10 | 10 | 6 | 6 | 7 |
| | 9:37 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 5 | 5 | |
| | 9:39 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 10 | 10 | |
| 24/12/2021 | 9:51 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.03 | <0.001 | 0.001 | 0.001 | 0.04 | 0.04 | 0.02 | <2 | 2 | 2 | 7 | 8 | 19 | 19 | 11 |
| | 9:53 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 9 | | 6 | 6 | |
| | 9:54 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 9 | | 7 | 7 | |
| 27/12/2021 | 12:58 | Cloudy | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 10 | 37 | 37 | 38 |
| | 13:00 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 28 | 28 | |
| | 13:01 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 49 | 49 | |
| 29/12/2021 | 14:28 | Fine | Surface | 1.0 | 2 | 2 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 7 | 9 | 9 | 8 |
| | 14:30 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 10 | 10 | |
| | 14:32 | | Bottom | 6.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | 4 | 4 | |

**Water Monitoring Result at CR15 - Corals at Science Park**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | | Suspended Solids mg/L | | | Ammonia Nitrogen mg/L | | | Nitrite-nitrogen mg/L | | | Total Inorganic Nitrogen mg/L | | | Unionized Ammonia mg/L | | | Nitrate-nitrogen mg/L | | | BOD mg/L | | | Chlorophyll-a mg/m³ | | E. coli CFU/100mL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | m | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 10:10 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 10 | 9 | 640 | 640 | 560 |
| | 10:12 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 740 | 740 | |
| | 10:14 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 300 | 300 | |
| 1/12/2021 | 9:09 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.06 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.06 | 2 | 2 | 2 | 9 | 9 | 7 | 7 | 20 |
| | 9:11 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.08 | 0.08 | | <0.001 | 0.001 | | 0.08 | 0.08 | | 2 | 2 | | 9 | | 25 | 25 | |
| | 9:14 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.07 | 0.07 | | <0.001 | 0.001 | | 0.07 | 0.07 | | <2 | 2 | | 9 | | 27 | 27 | |
| 2/12/2021 | 9:30 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 8 | 8 | 1 | 1 | 1 |
| | 9:32 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 9 | | 1 | 1 | |
| | 9:35 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 1 | 1 | |
| 3/12/2021 | 9:44 | Fine | Surface | 1.0 | 5 | 5 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 10 | 10 | 3 | 3 | 2 |
| | 9:46 | | Middle | 3.5 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 11 | | 1 | 1 | |
| | 9:49 | | Bottom | 6.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 1 | 1 | |
| 6/12/2021 | 14:20 | Fine | Surface | 1.0 | <2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 7 | NOT DETECTED | 1 | 1 |
| | 14:22 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | NOT DETECTED | 1 | |
| | 14:25 | | Bottom | 6.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | NOT DETECTED | 1 | |
| 8/12/2021 | 15:21 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 6 | 8 | 2 | 2 | 8 |
| | 15:23 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 9 | | 6 | 6 | |
| | 15:25 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 9 | | 17 | 17 | |
| 10/12/2021 | 17:58 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 5 | NOT DETECTED | 1 | 1 |
| | 18:00 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 18:01 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 1 | 1 | |
| 13/12/2021 | 8:45 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.05 | 0.05 | 0.03 | <0.001 | 0.001 | 0.001 | 0.05 | 0.05 | 0.02 | <2 | 2 | 2 | 3 | 4 | 80 | 80 | 34 |
| | 8:47 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 8 | 8 | |
| | 8:50 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 15 | 15 | |
| 15/12/2021 | 10:04 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 7 | 8 | 19 | 19 | 16 |
| | 10:06 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 13 | 13 | |
| | 10:08 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 9 | | 17 | 17 | |
| 17/12/2021 | 10:14 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.02 | 2 | 2 | 2 | 7 | 7 | 17 | 17 | 15 |
| | 10:16 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 2 | 2 | | 6 | | 23 | 23 | |
| | 10:18 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 4 | 4 | |
| 20/12/2021 | 12:32 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.08 | 0.08 | 0.04 | <0.001 | 0.001 | 0.001 | 0.08 | 0.08 | 0.03 | 2 | 2 | 2 | 8 | 8 | 410 | 410 | 167 |
| | 12:33 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 6 | | 63 | 63 | |
| | 12:35 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 27 | 27 | |
| 22/12/2021 | 14:15 | Cloudy | Surface | 1.0 | 4 | 4 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.07 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.07 | <2 | 2 | 2 | 7 | 7 | 19 | 19 | 52 |
| | 14:17 | | Middle | 3.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.14 | 0.14 | | <0.001 | 0.001 | | 0.14 | 0.14 | | <2 | 2 | | 6 | | 89 | 89 | |
| | 14:19 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.04 | 0.04 | | <0.001 | 0.001 | | 0.04 | 0.04 | | <2 | 2 | | 8 | | 48 | 48 | |
| 27/12/2021 | 18:28 | Cloudy | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.09 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.08 | 2 | 2 | 2 | 9 | 8 | 82 | 82 | 1561 |
| | 18:30 | | Middle | 3.0 | 4 | 4 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.19 | 0.19 | | 0.002 | 0.002 | | 0.17 | 0.17 | | 2 | 2 | | 7 | | 2700 | 2700 | |
| | 18:31 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.07 | 0.07 | | <0.001 | 0.001 | | 0.07 | 0.07 | | 2 | 2 | | 8 | | 1900 | 1900 | |
| 29/12/2021 | 8:47 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 7 | 6 | NOT DETECTED | 1 | 1 |
| | 8:49 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 1 | 1 | |
| | 8:51 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | NOT DETECTED | 1 | |
| 31/12/2021 | 9:51 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.05 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.04 | <2 | 2 | 2 | 4 | 4 | 8 | 8 | 55 |
| | 9:53 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.04 | 0.04 | | <0.001 | 0.001 | | 0.04 | 0.04 | | <2 | 2 | | 5 | | 36 | 36 | |
| | 9:55 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.08 | 0.08 | | <0.001 | 0.001 | | 0.08 | 0.08 | | <2 | 2 | | 4 | | 120 | 120 | |

**Water Monitoring Result at CR16 - Corals at Sha Tin Hoi North**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 14:43 | Fine | Surface | 1.0 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | NOT DETECTED | 1 | 2 |
| | 14:45 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 1 | 1 | |
| | 14:47 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 5 | 5 | |
| 1/12/2021 | 14:34 | Fine | Surface | 1.0 | 13 | 13 | 13 | 0.17 | 0.17 | 0.13 | 0.02 | 0.02 | 0.01 | 0.25 | 0.25 | 0.19 | 0.039 | 0.039 | 0.028 | 0.07 | 0.07 | 0.06 | 3 | 3 | 3 | 18 | 15 | 2 | 2 | 2 |
| | 14:36 | | Middle | 3.5 | 12 | 12 | | 0.14 | 0.14 | | <0.01 | 0.01 | | 0.21 | 0.21 | | 0.030 | 0.030 | | 0.07 | 0.07 | | 3 | 3 | | 15 | | 2 | 2 | |
| | 14:38 | | Bottom | 6.0 | 12 | 12 | | 0.07 | 0.07 | | <0.01 | 0.01 | | 0.11 | 0.11 | | 0.016 | 0.016 | | 0.04 | 0.04 | | 2 | 2 | | 11 | | 2 | 2 | |
| 2/12/2021 | 14:55 | Fine | Surface | 1.0 | 5 | 5 | 4 | 0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.08 | 0.08 | 0.04 | 0.003 | 0.003 | 0.002 | 0.06 | 0.06 | 0.03 | 5 | 5 | 3 | 34 | 26 | NOT DETECTED | 1 | 1 |
| | 14:57 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | 3 | 3 | | 21 | | 1 | 1 | |
| | 14:59 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 21 | | 2 | 2 | |
| 3/12/2021 | 15:10 | Fine | Surface | 1.0 | 6 | 6 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 4 | 4 | 4 | 13 | 13 | NOT DETECTED | 1 | 1 |
| | 15:12 | | Middle | 4.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 4 | 4 | | 14 | | 2 | 2 | |
| | 15:15 | | Bottom | 7.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 11 | | NOT DETECTED | 1 | |
| 6/12/2021 | 8:20 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 7 | 1 | 1 | 1 |
| | 8:23 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 8 | | NOT DETECTED | 1 | |
| | 8:26 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | NOT DETECTED | 1 | |
| 8/12/2021 | 9:50 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 7 | 7 | 9 | 9 | 9 |
| | 9:52 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 14 | 14 | |
| | 9:54 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 5 | 5 | |
| 10/12/2021 | 12:21 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 6 | 6 | 2 | 2 | 1 |
| | 12:23 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | NOT DETECTED | 1 | |
| | 12:25 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 1 | 1 | |
| 13/12/2021 | 14:20 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 5 | 4 | NOT DETECTED | 1 | 1 |
| | 14:24 | | Middle | 4.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 4 | | NOT DETECTED | 1 | |
| | 14:27 | | Bottom | 7.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 4 | | NOT DETECTED | 1 | |
| 15/12/2021 | 14:33 | Cloudy | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 11 | 9 | 2 | 2 | 5 |
| | 14:35 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 3 | 3 | |
| | 14:37 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | 9 | 9 | |
| 17/12/2021 | 14:55 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 6 | 1 | 1 | 1 |
| | 14:58 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | 2 | 2 | |
| | 15:00 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | NOT DETECTED | 1 | |
| 20/12/2021 | 16:56 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 9 | 9 | 43 | 43 | 37 |
| | 16:58 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 31 | 31 | |
| | 17:00 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 36 | 36 | |
| 22/12/2021 | 9:10 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 7 | 9 | 12 | 12 | 12 |
| | 9:13 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 10 | 10 | |
| | 9:15 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 14 | 14 | |
| 24/12/2021 | 9:30 | Cloudy | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.04 | <0.001 | 0.001 | 0.001 | 0.04 | 0.04 | 0.04 | <2 | 2 | 2 | 7 | 6 | 63 | 63 | 35 |
| | 9:32 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.05 | 0.05 | | <0.001 | 0.001 | | 0.05 | 0.05 | | <2 | 2 | | 3 | | 24 | 24 | |
| | 9:33 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | <2 | 2 | | 8 | | 19 | 19 | |
| 27/12/2021 | 12:37 | Cloudy | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 9 | NOT DETECTED | 1 | 4 |
| | 12;39 | | Middle | 3.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 6 | 6 | |
| | 12:41 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 6 | 6 | |
| 29/12/2021 | 14:06 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | NOT DETECTED | 1 | 2 |
| | 14:08 | | Middle | 4.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 14:10 | | Bottom | 7.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 4 | 4 | |

**Water Monitoring Result at CR16 - Corals at Sha Tin Hoi North**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 9:15 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 7 | 8 | 8 | 11 |
| | 9:18 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 12 | 12 | |
| | 9:20 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 12 | 12 | |
| 1/12/2021 | 8:42 | Fine | Surface | 1.0 | 5 | 5 | 5 | 0.08 | 0.08 | 0.08 | <0.01 | 0.01 | 0.01 | 0.12 | 0.12 | 0.12 | 0.019 | 0.019 | 0.018 | 0.03 | 0.03 | 0.03 | <2 | 2 | 2 | 9 | 8 | 28 | 28 | 20 |
| | 8:45 | | Middle | 4.0 | 6 | 6 | | 0.08 | 0.08 | | <0.01 | 0.01 | | 0.12 | 0.12 | | 0.017 | 0.017 | | 0.03 | 0.03 | | <2 | 2 | | 8 | | 18 | 18 | |
| | 8:47 | | Bottom | 7.0 | 6 | 6 | | 0.09 | 0.09 | | <0.01 | 0.01 | | 0.12 | 0.12 | | 0.019 | 0.019 | | 0.03 | 0.03 | | <2 | 2 | | 9 | | 13 | 13 | |
| 2/12/2021 | 9:04 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 9 | 8 | NOT DETECTED | 1 | 1 |
| | 9:07 | | Middle | 4.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | NOT DETECTED | 1 | |
| | 9:09 | | Bottom | 7.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | NOT DETECTED | 1 | |
| 3/12/2021 | 9:20 | Fine | Surface | 1.0 | 7 | 7 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 10 | 9 | 2 | 2 | 1 |
| | 9:23 | | Middle | 4.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 1 | 1 | |
| | 9:26 | | Bottom | 7.0 | 6 | 6 | | 0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | 0.002 | 0.002 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | NOT DETECTED | 1 | |
| 6/12/2021 | 14:48 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 6 | 6 | NOT DETECTED | 1 | 1 |
| | 14:51 | | Middle | 0.4 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | NOT DETECTED | 1 | |
| | 14:54 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | NOT DETECTED | 1 | |
| 8/12/2021 | 15:41 | Fine | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | NOT DETECTED | 1 | 1 |
| | 15:42 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 15:44 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | NOT DETECTED | 1 | |
| 10/12/2021 | 18:25 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 4 | 5 | 3 | 3 | 2 |
| | 18:27 | | Middle | 3.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 18:29 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 1 | 1 | |
| 13/12/2021 | 8:08 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 8:10 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | 2 | 2 | |
| | 8:12 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 15/12/2021 | 9:38 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 9 | 8 | 19 | 19 | 14 |
| | 9:40 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 13 | 13 | |
| | 9:43 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 9 | 9 | |
| 17/12/2021 | 9:58 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 7 | 19 | 19 | 17 |
| | 10:00 | | Middle | 3.6 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 20 | 20 | |
| | 10:02 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 12 | 12 | |
| 20/12/2021 | 12;07 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 8 | 9 | 61 | 61 | 88 |
| | 12:09 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 8 | | 130 | 130 | |
| | 12:11 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 11 | | 73 | 73 | |
| 22/12/2021 | 14:38 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 8 | 8 | 3 | 3 | 4 |
| | 14:40 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 3 | 3 | |
| | 14:42 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 5 | 5 | |
| 27/12/2021 | 18:45 | Cloudy | Surface | 1.0 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 9 | 4 | 4 | 4 |
| | 18:47 | | Middle | 3.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 3 | 3 | |
| | 18:49 | | Bottom | 5.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 4 | 4 | |
| 29/12/2021 | 8:11 | Fine | Surface | 1.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.01 | 2 | 2 | 2 | 5 | 6 | NOT DETECTED | 1 | 1 |
| | 8:13 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 1 | 1 | |
| | 8:15 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | NOT DETECTED | 1 | |
| 31/12/2021 | 9:20 | Cloudy | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.01 | <2 | 2 | 2 | 6 | 6 | 8 | 8 | 9 |
| | 9:22 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 6 | | 6 | 6 | |
| | 9:23 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 12 | 12 | |

**Water Monitoring Result at CR17 - Corals at Sha Tin Hoi South**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 14:28 | Fine | Surface | 1.0 | 6 | 6 | 6 | 0.11 | 0.11 | 0.08 | <0.01 | 0.01 | 0.01 | 0.14 | 0.14 | 0.10 | 0.014 | 0.014 | 0.010 | 0.03 | 0.03 | 0.02 | 2 | 2 | 2 | 8 | 7 | 4 | 4 | 3 |
| | 14:30 | | Middle | 3.0 | 5 | 5 | | 0.11 | 0.11 | | <0.01 | 0.01 | | 0.14 | 0.14 | | 0.014 | 0.014 | | 0.03 | 0.03 | | 3 | 3 | | 7 | | 2 | 2 | |
| | 14:32 | | Bottom | 5.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 7 | | 4 | 4 | |
| 1/12/2021 | 14:20 | Fine | Surface | 1.0 | 6 | 6 | 6 | 0.30 | 0.30 | 0.29 | 0.02 | 0.02 | 0.02 | 0.45 | 0.45 | 0.43 | 0.064 | 0.064 | 0.060 | 0.13 | 0.13 | 0.12 | 4 | 4 | 3 | 19 | 17 | 9 | 9 | 11 |
| | 14:22 | | Middle | 3.0 | 7 | 7 | | 0.32 | 0.32 | | 0.02 | 0.02 | | 0.46 | 0.46 | | 0.060 | 0.060 | | 0.12 | 0.12 | | 3 | 3 | | 15 | | 17 | 17 | |
| | 14:25 | | Bottom | 5.0 | 7 | 7 | | 0.26 | 0.26 | | 0.02 | 0.02 | | 0.38 | 0.38 | | 0.055 | 0.055 | | 0.10 | 0.10 | | 3 | 3 | | 15 | | 6 | 6 | |
| 2/12/2021 | 14:42 | Fine | Surface | 1.0 | 6 | 6 | 6 | 0.07 | 0.07 | 0.07 | <0.01 | 0.01 | 0.01 | 0.16 | 0.16 | 0.16 | 0.066 | 0.066 | 0.068 | 0.10 | 0.10 | 0.09 | 6 | 6 | 6 | 45 | 41 | 1 | 1 | 1 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 14:44 | | Bottom | 4.0 | 5 | 5 | | 0.07 | 0.07 | | 0.01 | 0.01 | | 0.16 | 0.16 | | 0.070 | 0.070 | | 0.08 | 0.08 | | 5 | 5 | | 37 | | NOT DETECTED | 1 | |
| 3/12/2021 | 14:53 | Fine | Surface | 1.0 | 7 | 7 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 6 | 6 | 5 | 25 | 23 | NOT DETECTED | 1 | 1 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | <0.01 | 0.01 | | - | - | | - | | - | - | |
| | 14:55 | | Bottom | 4.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 4 | 4 | | 21 | | NOT DETECTED | 1 | |
| 6/12/2021 | 8:05 | Fine | Surface | 1.0 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.02 | 2 | 2 | 3 | 10 | 9 | NOT DETECTED | 1 | 4 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 8:08 | | Bottom | 4.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 3 | 3 | | 9 | | 6 | 6 | |
| 8/12/2021 | 9:40 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | 4 | 4 | 4 |
| | 9:42 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 5 | 5 | |
| | 9:44 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 3 | 3 | |
| 10/12/2021 | 12:08 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 5 | 6 | 4 | 4 | 4 |
| | 0:00 | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 12:10 | | Bottom | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 4 | 4 | |
| 13/12/2021 | 15:49 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 5 | 5 | 1 | 1 | 1 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 15:51 | | Bottom | 4.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | NOT DETECTED | 1 | |
| 15/12/2021 | 14:24 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 8 | 4 | 4 | 6 |
| | 14:26 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 8 | 8 | |
| | 14:28 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 6 | 6 | |
| 17/12/2021 | 14:45 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 5 | 6 | 9 | 9 | 10 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 14:47 | | Bottom | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 10 | 10 | |
| 20/12/2021 | 17:10 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 7 | 8 | 32 | 32 | 44 |
| | 17:12 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 53 | 53 | |
| | 17:13 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 47 | 47 | |
| 22/12/2021 | 8:54 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.03 | <0.001 | 0.001 | 0.001 | 0.03 | 0.03 | 0.02 | 2 | 2 | 2 | 7 | 7 | 36 | 36 | 25 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 8:56 | | Bottom | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 14 | 14 | |
| 24/12/2021 | 9:21 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.04 | <0.001 | 0.001 | 0.001 | 0.04 | 0.04 | 0.04 | <2 | 2 | 2 | 6 | 6 | 30 | 30 | 27 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 9:23 | | Bottom | 4.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | <2 | 2 | | 6 | | 24 | 24 | |
| 27/12/2021 | 12:24 | Cloudy | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.03 | <0.001 | 0.001 | 0.001 | 0.03 | 0.03 | 0.03 | 3 | 3 | 3 | 10 | 10 | 11 | 11 | 10 |
| | 12:26 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | 3 | 3 | | 10 | | 12 | 12 | |
| | 12:27 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 3 | 3 | | 9 | | 7 | 7 | |
| 29/12/2021 | 13:55 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.06 | 0.06 | 0.05 | <0.001 | 0.001 | 0.001 | 0.06 | 0.06 | 0.05 | 2 | 2 | 2 | 9 | 8 | 27 | 27 | 23 |
| | 13:57 | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 13:58 | | Bottom | 4.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.04 | 0.04 | | <0.001 | 0.001 | | 0.04 | 0.04 | | 2 | 2 | | 7 | | 19 | 19 | |

**Water Monitoring Result at CR17 - Corals at Sha Tin Hoi South**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 8:48 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 10 | 10 | 31 | 31 | 30 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 8:50 | | Bottom | 4.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 28 | 28 | |
| 1/12/2021 | 08;30 | Fine | Surface | 1.0 | 4 | 4 | 4 | 0.33 | 0.33 | 0.35 | 0.02 | 0.02 | 0.02 | 0.44 | 0.44 | 0.46 | 0.069 | 0.069 | 0.073 | 0.09 | 0.09 | 0.10 | <2 | 2 | 2 | 7 | 8 | 62 | 62 | 62 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 8:32 | | Bottom | 4.5 | 4 | 4 | | 0.36 | 0.36 | | 0.01 | 0.01 | | 0.47 | 0.47 | | 0.076 | 0.076 | | 0.10 | 0.10 | | <2 | 2 | | 8 | | 61 | 61 | |
| 2/12/2021 | 8:48 | Fine | Surface | 1.0 | 4 | 4 | 3 | 0.10 | 0.10 | 0.08 | <0.01 | 0.01 | 0.01 | 0.17 | 0.17 | 0.14 | 0.022 | 0.022 | 0.020 | 0.07 | 0.07 | 0.06 | 2 | 2 | 2 | 18 | 16 | 1 | 1 | 2 |
| | 8:50 | | Middle | 3.0 | 3 | 3 | | 0.09 | 0.09 | | <0.01 | 0.01 | | 0.15 | 0.15 | | 0.022 | 0.022 | | 0.06 | 0.06 | | 2 | 2 | | 16 | | 2 | 2 | |
| | 8:53 | | Bottom | 5.0 | 3 | 3 | | 0.06 | 0.06 | | <0.01 | 0.01 | | 0.10 | 0.10 | | 0.016 | 0.016 | | 0.04 | 0.04 | | <2 | 2 | | 15 | | 3 | 3 | |
| 3/12/2021 | 9:08 | Fine | Surface | 1.0 | 7 | 7 | 6 | 0.02 | 0.02 | 0.02 | <0.01 | 0.01 | 0.01 | 0.09 | 0.09 | 0.05 | 0.005 | 0.005 | 0.004 | 0.06 | 0.06 | 0.03 | 4 | 4 | 4 | 29 | 20 | 11 | 11 | 5 |
| | 9:10 | | Middle | 3.0 | 6 | 6 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.03 | 0.03 | | 0.004 | 0.004 | | 0.02 | 0.02 | | 4 | 4 | | 17 | | 1 | 1 | |
| | 9:13 | | Bottom | 5.0 | 6 | 6 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.03 | 0.03 | | 0.003 | 0.003 | | 0.02 | 0.02 | | 3 | 3 | | 16 | | 2 | 2 | |
| 6/12/2021 | 15:04 | Fine | Surface | 1.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 5 | 6 | NOT DETECTED | 1 | 1 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 15:07 | | Bottom | 4.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | NOT DETECTED | 1 | |
| 8/12/2021 | 15:52 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | 3 | 3 | 2 |
| | 15:54 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 2 | 2 | |
| | 15:56 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | NOT DETECTED | 1 | |
| 10/12/2021 | 18:41 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 5 | 19 | 19 | 18 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 18:43 | | Bottom | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 16 | 16 | |
| 13/12/2021 | 7:55 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 3 | NOT DETECTED | 1 | 1 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 7:58 | | Bottom | 4.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 15/12/2021 | 9:23 | Cloudy | Surface | 1.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 9 | 8 | 4 | 4 | 5 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 9:26 | | Bottom | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 5 | 5 | |
| 17/12/2021 | 9:50 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 7 | 43 | 43 | 41 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 9:52 | | Bottom | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 39 | 39 | |
| 20/12/2021 | 12:54 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.02 | 0.02 | 0.02 | 2 | 2 | 2 | 8 | 8 | 82 | 82 | 176 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 12;56 | | Bottom | 4.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 8 | | 270 | 270 | |
| 22/12/2021 | 14:48 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.05 | 0.05 | 0.04 | <0.001 | 0.001 | 0.001 | 0.05 | 0.05 | 0.04 | 2 | 2 | 2 | 7 | 7 | 9 | 9 | 5 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 14:50 | | Bottom | 4.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | 2 | 2 | | 7 | | 1 | 1 | |
| 27/12/2021 | 18:54 | Cloudy | Surface | 1.0 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 10 | 8 | 11 | 11 | 10 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 18:55 | | Bottom | 4.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 9 | 9 | |
| 29/12/2021 | 7:58 | Fine | Surface | 1.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.05 | 0.05 | 0.04 | <0.001 | 0.001 | 0.001 | 0.05 | 0.05 | 0.04 | 3 | 3 | 2 | 7 | 7 | NOT DETECTED | 1 | 1 |
| | - | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | 2 | 2 | | 6 | | NOT DETECTED | 1 | |
| | 8:01 | | Bottom | 5.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | 2 | 2 | | 7 | | 1 | 1 | |
| 31/12/2021 | 9:31 | Cloudy | Surface | 1.0 | 2 | 2 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.03 | <0.001 | 0.001 | 0.001 | 0.03 | 0.03 | 0.03 | 2 | 2 | 2 | 4 | 5 | 8 | 8 | 10 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 9:33 | | Bottom | 4.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 7 | | 11 | 11 | |

**Water Monitoring Result at G1 - Potential Subzone of Yim Tin Tsai Fish Culture Zone / Gradient Station**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 17:00 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 3 | 3 | |
| | 17:03 | Fine | Middle | 4.5 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 3 | 6 | 6 | 1 | 1 | 2 |
| | 17:07 | | Bottom | 8.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | NOT DETECTED | 1 | |
| 1/12/2021 | 17:05 | | Surface | 1.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 17:08 | Fine | Middle | 5.0 | 5 | 5 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 5 | NOT DETECTED | 1 | 1 |
| | 17:12 | | Bottom | 9.0 | 8 | 8 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | NOT DETECTED | 1 | |
| 2/12/2021 | 17:33 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 13 | 13 | |
| | 17:35 | Fine | Middle | 4.5 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 10 | 10 | 7 | 7 | 11 |
| | 17:39 | | Bottom | 8.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 12 | 12 | |
| 3/12/2021 | 17:23 | | Surface | 1.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 8 | 8 | |
| | 17:25 | Fine | Middle | 5.0 | 7 | 7 | 9 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 8 | 11 | 11 | 8 |
| | 17:28 | | Bottom | 9.0 | 14 | 14 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 4 | 4 | |
| 6/12/2021 | 11:05 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 8 | | 17 | 17 | |
| | 11:08 | Fine | Middle | 4.5 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 10 | 9 | 44 | 44 | 37 |
| | 11:12 | | Bottom | 8.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 51 | 51 | |
| 8/12/2021 | 12:10 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 12:12 | Fine | Middle | .4.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | NOT DETECTED | 1 | 1 |
| | 12;14 | | Bottom | 8.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 8 | | 1 | 1 | |
| 10/12/2021 | 14:20 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | NOT DETECTED | 1 | |
| | 14:23 | Fine | Middle | 4.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 3 | 6 | 5 | 1 | 1 | 1 |
| | 14:27 | | Bottom | 8.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | NOT DETECTED | 1 | |
| 13/12/2021 | 13:15 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 8 | 8 | |
| | 13:18 | Fine | Middle | 4.5 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 3 | 6 | 6 | 5 | 5 | 6 |
| | 13:21 | | Bottom | 8.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | 4 | 4 | |
| 15/12/2021 | 16:50 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 16:54 | Cloudy | Middle | 5.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 6 | 6 | NOT DETECTED | 1 | 1 |
| | 16:57 | | Bottom | 9.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | NOT DETECTED | 1 | |
| 17/12/2021 | 17:48 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 5 | 5 | |
| | 17:51 | Cloudy | Middle | 5.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 7 | NOT DETECTED | 1 | 2 |
| | 17:53 | | Bottom | 9.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 6 | | 1 | 1 | |
| 20/12/2021 | 15:52 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 11 | | 2 | 2 | |
| | 15:54 | Cloudy | Middle | 12.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 10 | 10 | 3 | 3 | 2 |
| | 15:56 | | Bottom | 24.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | NOT DETECTED | 1 | |
| 22/12/2021 | 11:18 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 11 | 11 | |
| | 11:20 | Cloudy | Middle | 4.5 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 18 | 18 | 16 |
| | 11:22 | | Bottom | 8.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 18 | 18 | |
| 24/12/2021 | 11:25 | | Surface | 1.0 | <2 | 2 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.07 | 0.07 | | 0.005 | 0.005 | | 0.04 | 0.04 | | <2 | 2 | | 6 | | 210 | 210 | |
| | 11:28 | Cloudy | Middle | 4.5 | 3 | 3 | 3 | 0.01 | 0.01 | 0.02 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.04 | 0.001 | 0.001 | 0.002 | 0.02 | 0.02 | 0.02 | <2 | 2 | 2 | 6 | 6 | 190 | 190 | 157 |
| | 11:30 | | Bottom | 8.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 72 | 72 | |
| 27/12/2021 | 14:21 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 37 | 37 | |
| | 14:23 | Cloudy | Middle | 5.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 10 | 10 | 46 | 46 | 46 |
| | 14:25 | | Bottom | 9.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 56 | 56 | |
| 29/12/2021 | 15:57 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 4 | | 72 | 72 | |
| | 16:00 | Fine | Middle | 4.5 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 76 | 76 | 68 |
| | 16:02 | | Bottom | 8.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 57 | 57 | |

**Water Monitoring Result at G1 - Potential Subzone of Yim Tin Tsai Fish Culture Zone / Gradient Station**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth (m) | | Suspended Solids (mg/L) | | | Ammonia Nitrogen (mg/L) | | | Nitrite-nitrogen (mg/L) | | | Total Inorganic Nitrogen (mg/L) | | | Unionized Ammonia (mg/L) | | | Nitrate-nitrogen (mg/L) | | | BOD (mg/L) | | | Chlorophyll-a (mg/m³) | | E. coli (CFU/100mL) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 12:02 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 1 | 1 | |
| | 12:05 | Fine | Middle | 4.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 8 | 7 | 6 | 6 | 3 |
| | 12:07 | | Bottom | 7.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 2 | 2 | |
| 1/12/2021 | 9:34 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | NOT DETECTED | 1 | |
| | 9:36 | Fine | Middle | 4.5 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 6 | 7 | NOT DETECTED | 1 | 1 |
| | 9:38 | | Bottom | 8.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | NOT DETECTED | 1 | |
| 2/12/2021 | 11:30 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 11 | | 23 | 23 | |
| | 11:33 | Fine | Middle | 4.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 11 | 12 | 26 | 26 | 22 |
| | 11:36 | | Bottom | 7.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 13 | | 17 | 17 | |
| 3/12/2021 | 11:30 | | Surface | 1.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 9 | | NOT DETECTED | 1 | |
| | 11:33 | Fine | Middle | 4.5 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 8 | 9 | 8 | 8 | 5 |
| | 11:37 | | Bottom | 8.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 9 | | 5 | 5 | |
| 6/12/2021 | 14:00 | | Surface | 1.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | 7 | 7 | |
| | 14:03 | Fine | Middle | 4.5 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 9 | 5 | 28 | 28 | 17 |
| | 14:06 | | Bottom | 8.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 3 | | 16 | 16 | |
| 8/12/2021 | 15:03 | | Surface | 1.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | NOT DETECTED | 1 | |
| | 15:06 | Fine | Middle | 4.5 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 6 | NOT DETECTED | 1 | 1 |
| | 15:10 | | Bottom | 8.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 1 | 1 | |
| 10/12/2021 | 17:12 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 1 | 1 | |
| | 17:14 | Fine | Middle | 4.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 5 | 1 | 1 | 1 |
| | 17:17 | | Bottom | 7.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| 13/12/2021 | 10:33 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 91 | 91 | |
| | 10:35 | Fine | Middle | 4.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 5 | 150 | 150 | 85 |
| | 10:38 | | Bottom | 8.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 14 | 14 | |
| 15/12/2021 | 11:40 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | NOT DETECTED | 1 | |
| | 11:43 | Cloudy | Middle | 4.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 7 | 7 | NOT DETECTED | 1 | 1 |
| | 11:47 | | Bottom | 8.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | NOT DETECTED | 1 | |
| 17/12/2021 | 11:45 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 51 | 51 | |
| | 11:48 | Cloudy | Middle | 4.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 7 | 7 | 50 | 50 | 44 |
| | 11:50 | | Bottom | 7.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 31 | 31 | |
| 20/12/2021 | 13:56 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | NOT DETECTED | 1 | |
| | 13:58 | Cloudy | Middle | 4.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 8 | NOT DETECTED | 1 | 1 |
| | 14:00 | | Bottom | 8.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 2 | 2 | |
| 22/12/2021 | 14:00 | | Surface | 1.0 | <2 | 2 | | 0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | 0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 5 | | 14 | 14 | |
| | 14:03 | Cloudy | Middle | 4.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 5 | 5 | 37 | 37 | 32 |
| | 14:05 | | Bottom | 8.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 6 | | 45 | 45 | |
| 27/12/2021 | 18:00 | | Surface | 1.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 77 | 77 | |
| | 18:03 | Cloudy | Middle | 4.5 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 17 | 12 | 53 | 53 | 71 |
| | 18:05 | | Bottom | 8.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 10 | | 82 | 82 | |
| 29/12/2021 | 10:20 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 6 | 6 | |
| | 10:23 | Fine | Middle | 4.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 8 | 8 | 6 | 6 | 5 |
| | 10:25 | | Bottom | 7.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 4 | 4 | |
| 31/12/2021 | 11:26 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | 0.01 | <2 | 2 | | 6 | | NOT DETECTED | 1 | |
| | 11:28 | Cloudy | Middle | 4.5 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | | <2 | 2 | 2 | 7 | 7 | 1 | 1 | 1 |
| | 11:30 | | Bottom | 8.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 1 | 1 | |

**Water Monitoring Result at CR9 - Gruff Head Corals (Control Station)**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 13:18 | | Surface | 1.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 13:20 | Fine | Middle | 12.5 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 13:22 | | Bottom | 24.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 1/12/2021 | 14:54 | | Surface | 1.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 14:56 | Fine | Middle | 13.0 | 5 | 5 | 6 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 2 | NOT DETECTED | 1 | 1 |
| | 14:58 | | Bottom | 25.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 2/12/2021 | 15:25 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 15:27 | Fine | Middle | 13.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 15:29 | | Bottom | 25.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 3/12/2021 | 15:45 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 15:47 | Fine | Middle | 13.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 15;48 | | Bottom | 25.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 6/12/2021 | 10:10 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 10:12 | Fine | Middle | 13.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 10:14 | | Bottom | 25.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 8/12/2021 | 12:20 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 12:22 | Fine | Middle | 12.5 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 12:24 | | Bottom | 24.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 10/12/2021 | 14:27 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 14:29 | Fine | Middle | 12.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 14:31 | | Bottom | 24.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 1 | 1 | |
| 13/12/2021 | 14:26 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 14:28 | Fine | Middle | 13.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 14:30 | | Bottom | 25.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 15/12/2021 | 14:11 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 14:13 | Cloudy | Middle | 13.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 14:15 | | Bottom | 25.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 17/12/2021 | 15:20 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 15:22 | Cloudy | Middle | 12.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 15:24 | | Bottom | 24.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 20/12/2021 | 15:16 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 15;19 | Cloudy | Middle | 4.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 2 | NOT DETECTED | 1 | 1 |
| | 15:21 | | Bottom | 8.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 22/12/2021 | 10:23 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 10:25 | Cloudy | Middle | 13.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 10:27 | | Bottom | 25.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 24/12/2021 | 10:38 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 1 | 1 | |
| | 10:40 | Cloudy | Middle | 13.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 3 | NOT DETECTED | 1 | 1 |
| | 10:42 | | Bottom | 25.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 1 | 1 | |
| 27/12/2021 | 12:30 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 12:32 | Cloudy | Middle | 12.5 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 12:34 | | Bottom | 24.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 29/12/2021 | 13:55 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 13:57 | Fine | Middle | 12.5 | 4 | 4 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 13:59 | | Bottom | 24.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |

**Water Monitoring Result at CR9 - Gruff Head Corals (Control Station)**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 9:38 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 20 | 20 | |
| | 9:40 | Fine | Middle | 12.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 7 |
| | 9:42 | | Bottom | 23.0 | 8 | 8 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 1/12/2021 | 11:30 | | Surface | 1.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 11:32 | Fine | Middle | 13.0 | 6 | 6 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 11:34 | | Bottom | 25.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 2/12/2021 | 11:05 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 11:07 | Fine | Middle | 12.5 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 11:09 | | Bottom | 24.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 3/12/2021 | 12:45 | | Surface | 1.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 12:49 | Fine | Middle | 13.0 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 4 | NOT DETECTED | 1 | 1 |
| | 12:49 | | Bottom | 25.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 6/12/2021 | 13:40 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 13:42 | Fine | Middle | 12.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 13:44 | | Bottom | 24.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 8/12/2021 | 15:35 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 15:36 | Fine | Middle | 12.5 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 15:38 | | Bottom | 24.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 10/12/2021 | 17:19 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 17:21 | Fine | Middle | 12.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 17:23 | | Bottom | 24.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 13/12/2021 | 9:44 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 9:46 | Fine | Middle | 13.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 9:48 | | Bottom | 25.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| 15/12/2021 | 11:13 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| | 11:15 | Cloudy | Middle | 12.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 11:17 | | Bottom | 24.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 17/12/2021 | 11:04 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 11:06 | Cloudy | Middle | 12.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 11:08 | | Bottom | 24.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 20/12/2021 | 12:16 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 12:18 | Cloudy | Middle | 12.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 12:20 | | Bottom | 24.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 22/12/2021 | 14;14 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 14:16 | Cloudy | Middle | 12.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 14:18 | | Bottom | 24.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 27/12/2021 | 18:22 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 18:24 | Cloudy | Middle | 13.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | 4 | 4 | 2 |
| | 18:26 | | Bottom | 25.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 29/12/2021 | 9:42 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 9:44 | Fine | Middle | 12.5 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 5 | NOT DETECTED | 1 | 1 |
| | 9:46 | | Bottom | 24.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| 31/12/2021 | 10:19 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | 0.02 | <2 | 2 | | 4 | | 2 | 2 | |
| | 10:21 | Cloudy | Middle | 11.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | | <2 | 2 | 2 | 4 | 3 | 2 | 2 | 2 |
| | 10:23 | | Bottom | 21.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | <2 | 2 | | 1 | | NOT DETECTED | 1 | |

**Water Monitoring Result at G1* -Gradient Station**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth m | | Suspended Solids mg/L | | | Ammonia Nitrogen mg/L | | | Nitrite-nitrogen mg/L | | | Total Inorganic Nitrogen mg/L | | | Unionized Ammonia mg/L | | | Nitrate-nitrogen mg/L | | | BOD mg/L | | | Chlorophyll-a mg/m³ | | E. coli CFU/100mL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 15:45 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | NOT DETECTED | 1 | |
| | 15:47 | Fine | Middle | 3.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 7 | 7 | 2 | 2 | 1 |
| | 15:49 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 7 | | NOT DETECTED | 1 | |
| 1/12/2021 | 15:35 | | Surface | 1.0 | 4 | 4 | | 0.01 | 0.01 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.003 | 0.003 | | 0.03 | 0.03 | | 3 | 3 | | 10 | | NOT DETECTED | 1 | |
| | 15:38 | Fine | Middle | 3.5 | 4 | 4 | 4 | 0.02 | 0.02 | 0.01 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.03 | 0.004 | 0.004 | 0.003 | 0.01 | 0.01 | 0.02 | 2 | 2 | 2 | 7 | 6 | 3 | 3 | 2 |
| | 15:42 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 2/12/2021 | 16:08 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 12 | | 5 | 5 | |
| | 16:10 | Fine | Middle | 3.5 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 10 | 11 | 2 | 2 | 3 |
| | 16:13 | | Bottom | 6.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 12 | | 2 | 2 | |
| 3/12/2021 | 16:24 | | Surface | 1.0 | 5 | 5 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.03 | 0.03 | | 0.003 | 0.003 | | 0.01 | 0.01 | | 2 | 2 | | 8 | | 25 | 25 | |
| | 16:26 | Fine | Middle | 3.5 | 6 | 6 | 6 | 0.01 | 0.01 | 0.02 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.03 | 0.003 | 0.003 | 0.003 | 0.02 | 0.02 | 0.01 | 3 | 3 | 3 | 7 | 8 | 47 | 47 | 44 |
| | 16:28 | | Bottom | 6.0 | 6 | 6 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.03 | 0.03 | | 0.004 | 0.004 | | 0.01 | 0.01 | | 3 | 3 | | 8 | | 59 | 59 | |
| 6/12/2021 | 9:52 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 10 | | 1 | 1 | |
| | 9:55 | Fine | Middle | 3.5 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 13 | 11 | 1 | 1 | 1 |
| | 9:58 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | NOT DETECTED | 1 | |
| 8/12/2021 | 11:04 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 4 | 4 | |
| | 11:06 | Fine | Middle | 3.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 9 | 8 | 20 | 20 | 12 |
| | 11:08 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 8 | | 12 | 12 | |
| 10/12/2021 | 13:17 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 4 | 4 | | 15 | | 3 | 3 | |
| | 13:19 | Fine | Middle | 3.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 4 | 4 | 4 | 11 | 12 | 10 | 10 | 6 |
| | 13:20 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 11 | | 6 | 6 | |
| 13/12/2021 | 12:04 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 11 | | 27 | 27 | |
| | 12:07 | Fine | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 8 | 9 | 26 | 26 | 24 |
| | 12:10 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 20 | 20 | |
| 15/12/2021 | 15:25 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 12 | | 2 | 2 | |
| | 15:27 | Cloudy | Middle | 3.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 10 | 9 | 4 | 4 | 3 |
| | 15:29 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 3 | 3 | |
| 17/12/2021 | 15:50 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | 8 | 8 | |
| | 15:53 | Cloudy | Middle | 3.5 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 7 | 11 | 11 | 8 |
| | 15:54 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 7 | | 4 | 4 | |
| 20/12/2021 | 15:34 | | Surface | 1.0 | 3 | 3 | | 0.16 | 0.16 | | <0.01 | 0.01 | | 0.19 | 0.19 | | 0.014 | 0.014 | | 0.03 | 0.03 | | 3 | 3 | | 10 | | 360 | 360 | |
| | 15:36 | Cloudy | Middle | 3.0 | 3 | 3 | 3 | 0.08 | 0.08 | 0.10 | <0.01 | 0.01 | 0.01 | 0.09 | 0.09 | 0.11 | 0.009 | 0.009 | 0.009 | 0.02 | 0.02 | 0.02 | 3 | 3 | 3 | 9 | 9 | 190 | 190 | 206 |
| | 15:37 | | Bottom | 5.0 | 4 | 4 | | 0.05 | 0.05 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.004 | 0.004 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 68 | 68 | |
| 22/12/2021 | 10:15 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 5 | | 3 | 3 | |
| | 10:17 | Cloudy | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 3 | 3 | 3 |
| | 10:18 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 4 | 4 | |
| 24/12/2021 | 10:24 | | Surface | 1.0 | 3 | 3 | | 0.11 | 0.11 | | <0.01 | 0.01 | | 0.14 | 0.14 | | 0.015 | 0.015 | | 0.03 | 0.03 | | <2 | 2 | | 8 | | 280 | 280 | |
| | 10:27 | Cloudy | Middle | 3.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.04 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.06 | <0.001 | 0.001 | 0.006 | <0.01 | 0.01 | 0.02 | 2 | 2 | 2 | 10 | 9 | 94 | 94 | 136 |
| | 10:29 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 33 | 33 | |
| 27/12/2021 | 13:33 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 11 | | 2 | 2 | |
| | 13:35 | Cloudy | Middle | 3.5 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 7 | 9 | 14 | 14 | 16 |
| | 13:37 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 31 | 31 | |
| 29/12/2021 | 14:58 | | Surface | 1.0 | 2 | 2 | | 0.05 | 0.05 | | <0.01 | 0.01 | | 0.06 | 0.06 | | 0.006 | 0.006 | | 0.01 | 0.01 | | 2 | 2 | | 4 | | 140 | 140 | |
| | 15:00 | Fine | Middle | 3.5 | 3 | 3 | 3 | 0.04 | 0.04 | 0.04 | <0.01 | 0.01 | 0.01 | 0.05 | 0.05 | 0.05 | 0.003 | 0.003 | 0.004 | 0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 150 | 150 | 140 |
| | 15:01 | | Bottom | 6.0 | 3 | 3 | | 0.02 | 0.02 | | <0.01 | 0.01 | | 0.04 | 0.04 | | 0.002 | 0.002 | | 0.01 | 0.01 | | 2 | 2 | | 5 | | 130 | 130 | |

**Water Monitoring Result at G1* -Gradient Station**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth m | | Suspended Solids mg/L | | | Ammonia Nitrogen mg/L | | | Nitrite-nitrogen mg/L | | | Total Inorganic Nitrogen mg/L | | | Unionized Ammonia mg/L | | | Nitrate-nitrogen mg/L | | | BOD mg/L | | | Chlorophyll-a mg/m³ | | E. coli CFU/100mL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 10:59 | Fine | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 5 | 5 | 6 | 30 | 32 | 1 | 1 | 1 |
| | - | | Middle | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| | 11:02 | | Bottom | 4.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 6 | 6 | | 35 | | NOT DETECTED | 1 | |
| 1/12/2021 | 9:45 | Fine | Surface | 1.0 | 5 | 5 | 5 | 0.04 | 0.04 | 0.03 | <0.01 | 0.01 | 0.01 | 0.08 | 0.08 | 0.06 | 0.008 | 0.008 | 0.007 | 0.04 | 0.04 | 0.03 | <2 | 2 | 2 | 7 | 7 | 5 | 5 | 5 |
| | 9:47 | | Middle | 3.5 | 5 | 5 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.006 | 0.006 | | 0.02 | 0.02 | | <2 | 2 | | 7 | | 7 | 7 | |
| | 9:49 | | Bottom | 6.0 | 5 | 5 | | 0.03 | 0.03 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.007 | 0.007 | | 0.02 | 0.02 | | <2 | 2 | | 7 | | 3 | 3 | |
| 2/12/2021 | 10:20 | Fine | Surface | 23.0 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 13 | 14 | 11 | 11 | 9 |
| | 10:22 | | Middle | 23.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 14 | | 6 | 6 | |
| | 10:25 | | Bottom | 23.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 16 | | 9 | 9 | |
| 3/12/2021 | 10:25 | Fine | Surface | 1.0 | 5 | 5 | 6 | 0.06 | 0.06 | 0.05 | <0.01 | 0.01 | 0.01 | 0.07 | 0.07 | 0.06 | 0.008 | 0.008 | 0.008 | 0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 7 | 8 | 210 | 210 | 227 |
| | 10:28 | | Middle | 3.5 | 6 | 6 | | 0.04 | 0.04 | | <0.01 | 0.01 | | 0.06 | 0.06 | | 0.007 | 0.007 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 290 | 290 | |
| | 10:30 | | Bottom | 6.0 | 6 | 6 | | 0.04 | 0.04 | | <0.01 | 0.01 | | 0.05 | 0.05 | | 0.008 | 0.008 | | 0.01 | 0.01 | | <2 | 2 | | 8 | | 180 | 180 | |
| 6/12/2021 | 12:43 | Fine | Surface | 1.0 | 6 | 6 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 19 | 13 | NOT DETECTED | 1 | 1 |
| | 12:45 | | Middle | 3.5 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 12 | | NOT DETECTED | 1 | |
| | 12:48 | | Bottom | 6.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | NOT DETECTED | 1 | |
| 8/12/2021 | 14:08 | Fine | Surface | 1.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 14 | 11 | 1 | 1 | 1 |
| | 14:07 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 1 | 1 | |
| | 14:09 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 9 | | NOT DETECTED | 1 | |
| 10/12/2021 | 17:29 | Fine | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 7 | 6 | NOT DETECTED | 1 | 3 |
| | 17:30 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 5 | | 4 | 4 | |
| | 17:32 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 3 | 3 | |
| 13/12/2021 | 9:24 | Fine | Surface | 1.0 | <2 | 2 | 2 | 0.05 | 0.05 | 0.03 | <0.01 | 0.01 | 0.01 | 0.05 | 0.05 | 0.03 | 0.009 | 0.009 | 0.004 | <0.01 | 0.01 | 0.01 | 3 | 3 | 3 | 13 | 12 | 110 | 110 | 117 |
| | 9:27 | | Middle | 3.0 | <2 | 2 | | 0.02 | 0.02 | | <0.01 | 0.01 | | <0.02 | 0.02 | | 0.002 | 0.002 | | <0.01 | 0.01 | | 3 | 3 | | 13 | | 140 | 140 | |
| | 9:29 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 10 | | 100 | 100 | |
| 15/12/2021 | 10:40 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 8 | NOT DETECTED | 1 | 2 |
| | 10:43 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 2 | 2 | |
| | 5:45 | | Bottom | 6.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 3 | 3 | |
| 17/12/2021 | 9:47 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 7 | 7 | 44 | 44 | 27 |
| | 9:49 | | Middle | 3.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 19 | 19 | |
| | 9:52 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 7 | | 18 | 18 | |
| 20/12/2021 | 13;10 | Cloudy | Surface | 1.0 | 2 | 2 | 2 | 0.03 | 0.03 | 0.02 | <0.01 | 0.01 | 0.01 | 0.03 | 0.03 | 0.02 | 0.003 | 0.003 | 0.002 | <0.01 | 0.01 | 0.01 | 4 | 4 | 3 | 20 | 15 | 7 | 7 | 4 |
| | 13:12 | | Middle | 3.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 18 | | 5 | 5 | |
| | 13:14 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 3 | 3 | | 8 | | 1 | 1 | |
| 22/12/2021 | 13:01 | Cloudy | Surface | 1.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 6 | 6 | 1 | 1 | 1 |
| | 13:03 | | Middle | 3.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 1 | 1 | |
| | 13:05 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 1 | 1 | |
| 27/12/2021 | 17:18 | Cloudy | Surface | 1.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 9 | 8 | 14 | 14 | 13 |
| | 17:19 | | Middle | 3.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 8 | | 9 | 9 | |
| | 17:21 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 9 | | 15 | 15 | |
| 29/12/2021 | 9:22 | Fine | Surface | 1.0 | 5 | 5 | 6 | 0.19 | 0.19 | 0.12 | <0.01 | 0.01 | 0.01 | 0.21 | 0.21 | 0.13 | 0.004 | 0.004 | 0.002 | 0.02 | 0.02 | 0.02 | 2 | 2 | 2 | 5 | 5 | 1 | 1 | 15 |
| | 9:24 | | Middle | 3.0 | 6 | 6 | | 0.11 | 0.11 | | <0.01 | 0.01 | | 0.13 | 0.13 | | 0.002 | 0.002 | | 0.02 | 0.02 | | 2 | 2 | | 5 | | 23 | 23 | |
| | 9:26 | | Bottom | 5.0 | 6 | 6 | | 0.05 | 0.05 | | <0.01 | 0.01 | | 0.06 | 0.06 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 5 | | 20 | 20 | |
| 31/12/2021 | 10:25 | Cloudy | Surface | 1.0 | <2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 6 | 6 | 43 | 43 | 51 |
| | 10:28 | | Middle | 3.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 61 | 61 | |
| | 10:30 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 49 | 49 | |

**Water Monitoring Result at C1* - Pak Sha Tau Corals**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth (m) | | Suspended Solids (mg/L) | | | Ammonia Nitrogen (mg/L) | | | Nitrite-nitrogen (mg/L) | | | Total Inorganic Nitrogen (mg/L) | | | Unionized Ammonia (mg/L) | | | Nitrate-nitrogen (mg/L) | | | BOD (mg/L) | | | Chlorophyll-a (mg/m³) | | E. coli (CFU/100mL) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 16:06 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | 2 | 2 | |
| | 16:08 | Fine | Middle | 3.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 4 | 4 | 2 | 2 | 2 |
| | 16:10 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 1/12/2021 | 17:01 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 17:03 | Fine | Middle | 3.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 17:05 | | Bottom | 5.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 2/12/2021 | 16:37 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 16:39 | Fine | Middle | 3.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 16:41 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 3/12/2021 | 14:48 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 14:50 | Fine | Middle | 3.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 14:52 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 6/12/2021 | 11:36 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 11:38 | Fine | Middle | 3.0 | 5 | 5 | 5 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 11:40 | | Bottom | 5.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 8/12/2021 | 13:27 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| | 13:29 | Fine | Middle | 3.0 | 3 | 3 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 13:31 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 10/12/2021 | 15:53 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 15;55 | Fine | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 15:57 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 13/12/2021 | 12:43 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 12:45 | Fine | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 12:47 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 15/12/2021 | 13:10 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 13:12 | Cloudy | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 13:14 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 17/12/2021 | 14:12 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 14:14 | Cloudy | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 14:16 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | 1 | 1 | |
| 20/12/2021 | 14:46 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 14:48 | Cloudy | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 5 | NOT DETECTED | 1 | 1 |
| | 14:50 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | NOT DETECTED | 1 | |
| 22/12/2021 | 12:01 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 5 | | 10 | 10 | |
| | 12:03 | Cloudy | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 4 | 10 | 10 | 11 |
| | 12:05 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 5 | | 14 | 14 | |
| 24/12/2021 | 12;01 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 12:03 | Cloudy | Middle | 3.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 1 | 1 | 6 |
| | 9:45 | | Bottom | 6.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 8 | | 16 | 16 | |
| 27/12/2021 | 13:39 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 13:41 | Cloudy | Middle | 3.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 4 | NOT DETECTED | 1 | 1 |
| | 13:43 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 29/12/2021 | 12:12 | | Surface | 1.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 12:14 | Fine | Middle | 3.0 | 5 | 5 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 12:16 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |

**Water Monitoring Result at C1* - Pak Sha Tau Corals**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth (m) | | Suspended Solids (mg/L) | | | Ammonia Nitrogen (mg/L) | | | Nitrite-nitrogen (mg/L) | | | Total Inorganic Nitrogen (mg/L) | | | Unionized Ammonia (mg/L) | | | Nitrate-nitrogen (mg/L) | | | BOD (mg/L) | | | Chlorophyll-a (mg/m³) | | E. coli (CFU/100mL) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 11:01 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 5 | 5 | |
| | 11:03 | Fine | Middle | 3.0 | 2 | 2 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 12 | 12 | 7 |
| | 11:05 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 3 | 3 | |
| 1/12/2021 | 10:27 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 10:29 | Fine | Middle | 3.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | NOT DETECTED | 1 | 1 |
| | 10:31 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 2/12/2021 | 12"16 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | 1 | 1 | |
| | 12:18 | Fine | Middle | 3.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 12:20 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 3/12/2021 | 13:54 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 13:56 | Fine | Middle | 3.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 13:58 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 6/12/2021 | 12:33 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 12:35 | Fine | Middle | 3.0 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 12:37 | | Bottom | 5.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 8/12/2021 | 14:32 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | NOT DETECTED | 1 | |
| | 14:34 | Fine | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | NOT DETECTED | 1 | 1 |
| | 14:36 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 10/12/2021 | 16:45 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| | 16:47 | Fine | Middle | 3.0 | 2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 3 | NOT DETECTED | 1 | 1 |
| | 16:49 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 13/12/2021 | 11:00 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 11:02 | Fine | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 11:04 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 15/12/2021 | 12:11 | | Surface | 1.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 12:13 | Cloudy | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 12:15 | | Bottom | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 17/12/2021 | 13:12 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | 13:14 | Cloudy | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | 2 | 2 | 2 | 3 | 3 | NOT DETECTED | 1 | 1 |
| | 13:16 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 20/12/2021 | 14:02 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | NOT DETECTED | 1 | |
| | 14:04 | Cloudy | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 5 | 5 | 12 | 12 | 5 |
| | 14:06 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | NOT DETECTED | 1 | |
| 22/12/2021 | 12:54 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 4 | | 4 | 4 | |
| | 12:56 | Cloudy | Middle | 3.0 | <2 | 2 | 2 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | 9 | 9 | 7 |
| | 12:58 | | Bottom | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 4 | | 9 | 9 | |
| 27/12/2021 | 17:10 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | 17:12 | Cloudy | Middle | 3.0 | 4 | 4 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 4 | 4 | NOT DETECTED | 1 | 1 |
| | 0:00 | | Bottom | 5.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| 29/12/2021 | 10:48 | | Surface | 1.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | 10:50 | Fine | Middle | 3.0 | 3 | 3 | 4 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | 0.01 | <2 | 2 | 2 | 2 | 2 | NOT DETECTED | 1 | 1 |
| | 10:52 | | Bottom | 5.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| 31/12/2021 | 10:25 | | Surface | 1.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | 0.01 | <2 | 2 | | 6 | | 43 | 43 | |
| | 10:28 | Cloudy | Middle | 3.5 | 3 | 3 | 3 | <0.01 | 0.01 | 0.01 | <0.01 | 0.01 | 0.01 | <0.02 | 0.02 | 0.02 | <0.001 | 0.001 | 0.001 | <0.01 | 0.01 | | <2 | 2 | 2 | 6 | 6 | 61 | 61 | 51 |
| | 10:30 | | Bottom | 6.0 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 6 | | 49 | 49 | |

**Water Monitoring Result at TPLMB - Tai Po Lung Mei Beach**
**Mid-Flood Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 16:50 | | Surface | 1.0 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 3 | | 3 | 3 | |
| | - | Fine | Middle | - | - | - | 4 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.02 | - | - | 2 | - | 3 | - | - | 3 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 1/12/2021 | 16:30 | | Surface | 1.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | - | Fine | Middle | - | - | - | 6 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 3 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 2/12/2021 | 17:15 | | Surface | 1.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 2 | | 2 | 2 | |
| | - | Fine | Middle | - | - | - | 7 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.02 | - | - | 2 | - | 2 | - | - | 2 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 3/12/2021 | 17:13 | | Surface | 0.5 | 10 | 10 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | <2 | 2 | | 3 | | 1 | 1 | |
| | - | Fine | Middle | - | - | - | 10 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.02 | - | - | 2 | - | 3 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 6/12/2021 | 10:47 | | Surface | 0.5 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | - | Fine | Middle | - | - | - | 6 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 2 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 8/12/2021 | 11:54 | | Surface | 0.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.08 | 0.08 | | <0.001 | 0.001 | | 0.08 | 0.08 | | <2 | 2 | | 2 | | 4 | 4 | |
| | - | Fine | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.08 | - | - | 0.001 | - | - | 0.08 | - | - | 2 | - | 2 | - | - | 4 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 10/12/2021 | 14:06 | | Surface | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | - | Fine | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 2 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 13/12/2021 | 13:00 | | Surface | 5.0 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | - | Fine | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 2 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 15/12/2021 | 16:20 | | Surface | 0.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 3 | 3 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 3 | - | - | 3 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 17/12/2021 | 16:40 | | Surface | 0.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 8 | 8 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 3 | - | - | 8 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 20/12/2021 | 15:08 | | Surface | 0.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | 2 | 2 | | 6 | | 3 | 3 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 6 | - | - | 3 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 22/12/2021 | 10:59 | | Surface | 0.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 2 | | 1 | 1 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 2 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 24/12/2021 | 11:10 | | Surface | 0.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 3 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 27/12/2021 | 14:51 | | Surface | 0.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | 2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 2 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 29/12/2021 | 15:44 | | Surface | 0.5 | 4 | 4 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | - | Fine | Middle | - | - | - | 4 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 3 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |

**Water Monitoring Result at TPLMB - Tai Po Lung Mei Beach**
**Mid-Ebb Tide**

| Date | Time | Weater Condition | Sampling Depth | m | Suspended Solids | mg/L | | Ammonia Nitrogen | mg/L | | Nitrite-nitrogen | mg/L | | Total Inorganic Nitrogen | mg/L | | Unionized Ammonia | mg/L | | Nitrate-nitrogen | mg/L | | BOD | mg/L | | Chlorophyll-a | mg/m³ | E. coli | CFU/100mL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | V* | Average | Value | Average | Value | V* | Average |
| 30/11/2021 | 11:47 | | Surface | 1.0 | 7 | 7 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 4 | | NOT DETECTED | 1 | |
| | - | Fine | Middle | - | - | - | 7 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 4 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 1/12/2021 | 10:38 | | Surface | 0.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.08 | 0.08 | | <0.001 | 0.001 | | 0.08 | 0.08 | | <2 | 2 | | 1 | | 1 | 1 | |
| | - | Fine | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.08 | - | - | 0.001 | - | - | 0.08 | - | - | 2 | - | 1 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 2/12/2021 | 11:13 | | Surface | 1.0 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | - | Fine | Middle | - | - | - | 5 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 3 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 3/12/2021 | 11:15 | | Surface | 1.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 3 | | 1 | 1 | |
| | - | Fine | Middle | - | - | - | 6 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 3 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 6/12/2021 | 13:42 | | Surface | 0.5 | 5 | 5 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.02 | 0.02 | | <0.001 | 0.001 | | 0.02 | 0.02 | | 2 | 2 | | 2 | | 3 | 3 | |
| | - | Fine | Middle | - | - | - | 5 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.02 | - | - | 2 | - | 2 | - | - | 3 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 8/12/2021 | 14:50 | | Surface | 5.0 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | - | Fine | Middle | - | - | - | 6 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 2 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 10/12/2021 | 16:57 | | Surface | 5.0 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 1 | 1 | |
| | - | Fine | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 2 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 13/12/2021 | 10:20 | | Surface | 0.4 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | NOT DETECTED | 1 | |
| | - | Fine | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 2 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 15/12/2021 | 11:24 | | Surface | 0.5 | 6 | 6 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 2 | | 2 | 2 | |
| | - | Cloudy | Middle | - | - | - | 6 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 2 | - | - | 2 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 17/12/2021 | 11:30 | | Surface | 0.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | 0.03 | 0.03 | | <0.001 | 0.001 | | 0.03 | 0.03 | | <2 | 2 | | 2 | | 2 | 2 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.03 | - | - | 0.001 | - | - | 0.03 | - | - | 2 | - | 2 | - | - | 2 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 20/12/2021 | 13:48 | | Surface | 0.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | | <2 | 2 | | 5 | | 10 | 10 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 5 | - | - | 10 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 22/12/2021 | 13:48 | | Surface | 0.5 | <2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 3 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 27/12/2021 | 17:52 | | Surface | 0.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 3 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 29/12/2021 | 10:07 | | Surface | 0.5 | 3 | 3 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | 0.01 | 0.01 | | <2 | 2 | | 3 | | NOT DETECTED | 1 | |
| | - | Fine | Middle | - | - | - | 3 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | 0.01 | - | - | 2 | - | 3 | - | - | 1 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |
| 31/12/2021 | 11:13 | | Surface | 0.5 | 2 | 2 | | <0.01 | 0.01 | | <0.01 | 0.01 | | <0.02 | 0.02 | | <0.001 | 0.001 | | <0.01 | 0.01 | 0.01 | <2 | 2 | | 3 | | 5 | 5 | |
| | - | Cloudy | Middle | - | - | - | 2 | - | - | 0.01 | - | - | 0.01 | - | - | 0.02 | - | - | 0.001 | - | - | | - | - | 2 | - | 3 | - | - | 5 |
| | - | | Bottom | - | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | - | | - | | - | - | |

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 24 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2148100 |
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| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 30-Nov-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V2 | Issue Date | : 14-Dec-2021 |
| C-O-C number | : ---- | | | No. of samples received | : 89 |
| Site | : | | | No. of samples analysed | : 89 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 30-Nov-2021 to 14-Dec-2021.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2148100**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 18:20.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

| Sub-Matrix: WATER | | | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | HK2148100-001 | HK2148100-002 | HK2148100-003 | HK2148100-004 | HK2148100-005 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 4 | 4 | 6 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.06 | 0.10 | 0.09 | 0.11 | 0.11 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.004 | 0.006 | 0.006 | 0.014 | 0.014 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.04 | 0.05 | 0.05 | 0.03 | 0.03 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.10 | 0.14 | 0.14 | 0.14 | 0.14 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 11.1 | 9.3 | 9.6 | 7.9 | 7.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 37 | 48 | 53 | 4* | 2* |

| Sub-Matrix: WATER | | | | Sample ID | CR17_bottom_Flood | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148100-006 | HK2148100-007 | HK2148100-008 | HK2148100-009 | HK2148100-010 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 5 | 5 | 4 | 3 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 7.3 | 6.2 | 6.1 | 5.8 | 8.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 2 | 2 | 2 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 4* | NOT DETECTED | 1* | 5* | 28 |

| Sub-Matrix: WATER | | | Sample ID | C1_middle_Flood | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | HK2148100-011 | HK2148100-012 | HK2148100-013 | HK2148100-014 | HK2148100-015 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 5 | 5 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.4 | 8.2 | 10.2 | 9.5 | 9.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 15 | 22 | 92 | 93 | 98 |

| Sub-Matrix: WATER | | | | Sample ID | CR1_surface_Flood | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | G1*_middle_Flood_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148100-016 | HK2148100-017 | HK2148100-018 | HK2148100-019 | HK2148100-021 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 4 | 4 | 7 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | 0.10 | 0.03 | 0.01 | 0.56 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | 0.017 | 0.004 | 0.002 | 0.085 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | 0.03 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.19 | 0.07 | 0.02 | 0.99 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | 0.29 | 0.09 | 0.04 | 1.58 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 6.0 | 6.3 | 7.0 | 6.1 | 2.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | <2 | <2 | 3 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 89 | 47 | 27 | 360 | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | W2_bottom_Flood | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | HK2148100-022 | HK2148100-023 | HK2148100-024 | HK2148100-025 | HK2148100-026 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 4 | 3 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.03 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.003 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.09 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.12 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.6 | 6.5 | 7.2 | 7.0 | 8.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | <2 | <2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 67 | NOT DETECTED | 2* | NOT DETECTED | 3* |

| Sub-Matrix: WATER | | | Sample ID | F1_middle_Flood | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | HK2148100-027 | HK2148100-028 | HK2148100-029 | HK2148100-030 | HK2148100-031 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 5 | 3 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.3 | 6.8 | 6.2 | 5.8 | 6.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2* | 1* | 3* | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F2_surface_Flood | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | C1*_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | HK2148100-032 | HK2148100-033 | HK2148100-034 | HK2148100-035 | HK2148100-038 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 4 | 4 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.4 | 3.7 | 4.6 | 2.5 | 4.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 6* | 6* | 7* | 3* | 2* |

| Sub-Matrix: WATER | | | Sample ID | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood | F4_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | HK2148100-039 | HK2148100-040 | HK2148100-041 | HK2148100-042 | HK2148100-043 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.4 | 4.1 | 2.6 | 3.1 | 2.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2* | NOT DETECTED | NOT DETECTED | 1* | 1* |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood | F3_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148100-044 | HK2148100-045 | HK2148100-046 | HK2148100-047 | HK2148100-048 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 5 | 5 | 5 | 5 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.4 | 3.2 | 3.2 | 3.6 | 5.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 4* |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb | W1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | HK2148100-049 | HK2148100-050 | HK2148100-051 | HK2148100-052 | HK2148100-053 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 5 | 3 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.03 | 0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.03 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.9 | 5.7 | 8.5 | 7.7 | 7.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 8 | 16 | 47 | 10 | 39 |

| Sub-Matrix: WATER | | | Sample ID | CR17_surface_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb | CR16_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148100-054 | HK2148100-056 | HK2148100-057 | HK2148100-058 | HK2148100-059 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 5 | 3 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.9 | 10.0 | 9.1 | 5.6 | 6.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 31 | 28 | 8 | 12 | 12 |

| Sub-Matrix: WATER | | | Sample ID | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb | CR15_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | HK2148100-060 | HK2148100-061 | HK2148100-062 | HK2148100-063 | HK2148100-064 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 5 | 6 | 2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.7 | 5.6 | 6.2 | 10.0 | 8.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 45 | 32 | 15 | 640 | 740 |

| Sub-Matrix: WATER | | | Sample ID | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_bottom_Ebb | W2_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | HK2148100-065 | HK2148100-066 | HK2148100-067 | HK2148100-069 | HK2148100-070 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 4 | 2 | 4 | 8 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.34 | 0.15 | 0.40 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | 0.023 | 0.009 | 0.021 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.12 | 0.05 | 0.53 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.46 | 0.20 | 0.95 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.4 | 8.7 | 12.1 | 12.6 | 14.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 3 | 3 | 4 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 300 | 240 | 51 | 22 | 180 |

| Sub-Matrix: WATER | | | Sample ID | W2_bottom_Ebb | G1*_surface_Ebb | G1*_bottom_Ebb | F1_surface_Ebb | F1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148100-072 | HK2148100-073 | HK2148100-075 | HK2148100-076 | HK2148100-078 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 4 | 7 | 6 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.11 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.004 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.19 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.30 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 13.0 | 29.5 | 35.0 | 10.4 | 8.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 5 | 6 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 85 | 1* | NOT DETECTED | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | G1_surface_Ebb | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb | F2_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148100-079 | HK2148100-080 | HK2148100-081 | HK2148100-082 | HK2148100-084 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.2 | 7.5 | 8.0 | 4.9 | 4.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 6* | 2* | 1* | 2* |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup | C1*_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148100-085 | HK2148100-088 | HK2148100-089 | HK2148100-090 | HK2148100-091 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 7 | 3 | 2 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.8 | 3.6 | 3.5 | 3.5 | 3.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | 5* | 12 | 3* | 5* |

| Sub-Matrix: WATER | | | Sample ID | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb | CR9_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 |
| Compound | CAS Number | LOR | Unit | HK2148100-092 | HK2148100-093 | HK2148100-094 | HK2148100-095 | HK2148100-096 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | <2 | 3 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.5 | 3.0 | 2.4 | 3.5 | 3.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2* | 3* | 3* | 20 | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | 30-Nov-2021 | ---- |
| Compound | CAS Number | LOR | Unit | HK2148100-097 | HK2148100-098 | HK2148100-099 | HK2148100-100 | ------- |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 8 | 5 | 3 | 3 | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | ---- |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.01 | ---- |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | ---- |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.3 | 6.0 | 3.8 | 4.2 | ---- |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | ---- |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 78 | 360 | 93 | ---- |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4047995)** | | | | | | | | |
| HK2148100-021 | G1*_middle_Flood _dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4047997)** | | | | | | | | |
| HK2148100-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4047999)** | | | | | | | | |
| HK2148100-064 | CR15_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048001)** | | | | | | | | |
| HK2148100-091 | C1*_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048003)** | | | | | | | | |
| HK2148100-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048031)** | | | | | | | | |
| HK2148100-021 | G1*_middle_Flood _dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048032)** | | | | | | | | |
| HK2148100-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048033)** | | | | | | | | |
| HK2148100-064 | CR15_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048034)** | | | | | | | | |
| HK2148100-091 | C1*_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048035)** | | | | | | | | |
| HK2148100-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4048180)** | | | | | | | | |
| HK2148100-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 11.1 | 10.5 | 5.6 |
| **EP: Aggregate Organics (QC Lot: 4048181)** | | | | | | | | |
| HK2148100-022 | W2_bottom_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 7.6 | 8.4 | 10.0 |
| **EP: Aggregate Organics (QC Lot: 4048182)** | | | | | | | | |
| HK2148100-044 | CR9_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 3.4 | 2.8 | 19.4 |
| **EP: Aggregate Organics (QC Lot: 4048183)** | | | | | | | | |
| HK2148100-065 | CR15_bottom_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 8.4 | 8.6 | 2.4 |
| **EP: Aggregate Organics (QC Lot: 4048184)** | | | | | | | | |
| HK2148100-092 | F4_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 2.5 | 2.8 | 11.3 |

## Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073908)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 103 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073909)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 92.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073910)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 102 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073911)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 97.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073912)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 87.5 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4047995)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 101 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4047997)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 104 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4047999)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 105 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048001)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 106 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 105 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048003)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 104 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048031)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 100 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048032)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.5 | ---- | 92.2 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048033)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.9 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048034)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.5 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048035)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 95.0 | ---- | 92.2 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4048180)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4048181)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 98.3 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4048182)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4048183)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 98.7 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4048184)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 98.3 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4048726)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 102 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4048727)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 99.4 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4048728)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 99.7 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4048729)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 97.6 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4048730)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 102 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4047995)** | | | | | | | | | | |
| HK2148100-021 | G1*_middle_Flood _dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 107 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4047997)** | | | | | | | | | | |
| HK2148100-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 106 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4047999)** | | | | | | | | | | |
| HK2148100-064 | CR15_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 108 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048001)** | | | | | | | | | | |
| HK2148100-091 | C1*_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 106 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048003)** | | | | | | | | | | |
| HK2148100-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 107 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048031)** | | | | | | | | | | |
| HK2148100-021 | G1*_middle_Flood _dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 98.8 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048032)** | | | | | | | | | | |
| HK2148100-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 95.9 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048033)** | | | | | | | | | | |
| HK2148100-064 | CR15_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.4 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048034)** | | | | | | | | | | |
| HK2148100-091 | C1*_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.5 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4048035)** | | | | | | | | | | |
| HK2148100-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 88.5 | ---- | 75.0 | 125 | ---- | ---- |

# ALS Technichem (HK) Pty Ltd

## ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

## CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 27 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2148109 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | | |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 01-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V2 | Issue Date | : 15-Dec-2021 |
| C-O-C number | : ---- | | | No. of samples received | : 96 |
| Site | : | | | No. of samples analysed | : 96 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 01-Dec-2021 to 15-Dec-2021.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2148109**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 17:50.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

Sub-Matrix: **WATER**

| Compound | CAS Number | LOR | Unit | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_middle_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| | | | | | HK2148109-001 | HK2148109-002 | HK2148109-003 | HK2148109-004 | HK2148109-005 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 12 | 6 | 10 | 6 | 7 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | 0.37 | 0.39 | 0.41 | 0.30 | 0.32 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | 0.072 | 0.075 | 0.074 | 0.064 | 0.060 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.12 | 0.12 | 0.12 | 0.13 | 0.12 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | 0.51 | 0.52 | 0.54 | 0.45 | 0.46 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 24.6 | 19.2 | 17.3 | 19.4 | 15.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 4 | 3 | 3 | 4 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 9 | 33 | 22 | 9 | 17 |

| Sub-Matrix: WATER | | | | Sample ID | CR17_bottom_Flood | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148109-006 | HK2148109-007 | HK2148109-008 | HK2148109-009 | HK2148109-010 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 7 | 13 | 12 | 12 | 13 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | 0.26 | 0.17 | 0.14 | 0.07 | 0.16 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | 0.055 | 0.039 | 0.030 | 0.016 | 0.042 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | 0.02 | 0.02 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.10 | 0.07 | 0.07 | 0.04 | 0.07 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | 0.38 | 0.25 | 0.21 | 0.11 | 0.24 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 15.4 | 18.4 | 14.9 | 11.2 | 16.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 3 | 3 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 6* | 2* | 2* | 2* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1_middle_Flood | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148109-011 | HK2148109-012 | HK2148109-013 | HK2148109-014 | HK2148109-015 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 12 | 6 | 6 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.07 | <0.01 | 0.03 | 0.03 | 0.02 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.016 | <0.001 | 0.007 | 0.007 | 0.004 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.03 | <0.01 | 0.03 | 0.03 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.10 | <0.02 | 0.05 | 0.06 | 0.04 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 10.8 | 5.7 | 16.0 | 17.1 | 14.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | 3 | 3 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | 2* | NOT DETECTED | 1* |

| Sub-Matrix: WATER | | | Sample ID | CR1_surface_Flood | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148109-016 | HK2148109-017 | HK2148109-018 | HK2148109-019 | HK2148109-020 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 4 | 4 | 4 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.06 | 0.02 | 0.02 | 0.12 | 0.02 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.014 | 0.004 | 0.004 | 0.024 | 0.005 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.07 | 0.02 | 0.02 | 0.09 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.12 | 0.04 | 0.04 | 0.20 | 0.05 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.1 | 8.8 | 8.1 | 5.9 | 7.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 33 | 4* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | W2_middle_Flood _dup | W2_bottom_Flood | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148109-021 | HK2148109-022 | HK2148109-023 | HK2148109-024 | HK2148109-025 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 4 | 4 | 4 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.06 | 0.03 | 0.01 | 0.02 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.013 | 0.006 | 0.003 | 0.004 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.04 | 0.02 | 0.03 | 0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.09 | 0.06 | 0.04 | 0.03 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.9 | 5.8 | 9.5 | 7.1 | 2.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 3 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 1* | NOT DETECTED | 3* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F1_surface_Flood | F1_middle_Flood | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148109-026 | HK2148109-027 | HK2148109-028 | HK2148109-029 | HK2148109-030 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 4 | 6 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.004 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.04 | 0.02 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.06 | 0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.1 | 9.3 | 8.6 | 5.0 | 5.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 3* | 4* | 11 | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | G1_bottom_Flood | F2_surface_Flood | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148109-031 | HK2148109-032 | HK2148109-033 | HK2148109-034 | HK2148109-035 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 8 | 6 | 5 | 5 | 6 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | 0.002 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 5.3 | 3.4 | 2.4 | 3.0 | 2.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | 1* | NOT DETECTED | 3* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_surface_Flood | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148109-038 | HK2148109-039 | HK2148109-040 | HK2148109-041 | HK2148109-042 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 5 | 5 | 6 | 6 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.8 | 3.1 | 2.8 | 4.7 | 4.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | F4_bottom_Flood | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148109-043 | HK2148109-044 | HK2148109-045 | HK2148109-046 | HK2148109-047 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 6 | 6 | 6 | 5 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 4.5 | 2.3 | 2.6 | 2.5 | 2.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 1* | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F3_surface_Flood | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148109-048 | HK2148109-049 | HK2148109-050 | HK2148109-051 | HK2148109-052 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 4 | 4 | 5 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.49 | 0.49 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | 0.098 | 0.099 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.12 | 0.12 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.62 | 0.62 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.8 | 2.8 | 3.2 | 7.1 | 3.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | 94 | 96 |

| Sub-Matrix: WATER | | | Sample ID | W1_bottom_Ebb | CR17_surface_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148109-053 | HK2148109-054 | HK2148109-056 | HK2148109-057 | HK2148109-058 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 4 | 4 | 5 | 6 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.45 | 0.33 | 0.36 | 0.08 | 0.08 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.090 | 0.069 | 0.076 | 0.019 | 0.017 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | 0.01 | 0.02 | 0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.11 | 0.09 | 0.10 | 0.03 | 0.03 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.57 | 0.44 | 0.47 | 0.12 | 0.12 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.3 | 7.4 | 7.8 | 8.9 | 7.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 84 | 62 | 61 | 28 | 18 |

| Sub-Matrix: WATER | | | Sample ID | CR16_bottom_Ebb | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148109-059 | HK2148109-060 | HK2148109-061 | HK2148109-062 | HK2148109-063 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 4 | 4 | 5 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.09 | 0.07 | 0.06 | 0.03 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.019 | 0.016 | 0.016 | 0.007 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.03 | 0.03 | 0.04 | 0.02 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.12 | 0.11 | 0.10 | 0.05 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.6 | 6.2 | 7.4 | 7.5 | 9.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 13 | 9 | 11 | 7* | 7* |

| Sub-Matrix: WATER | | | Sample ID | CR15_middle_Ebb | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148109-064 | HK2148109-065 | HK2148109-066 | HK2148109-067 | HK2148109-068 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 4 | 4 | 3 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.11 | 0.10 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | 0.025 | 0.022 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.08 | 0.07 | 0.01 | 0.10 | 0.08 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.08 | 0.07 | <0.02 | 0.21 | 0.17 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.9 | 8.6 | 8.5 | 6.6 | 6.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 25 | 27 | 9 | 22 | 26 |

| Sub-Matrix: WATER | | | Sample ID | CR1_bottom_Ebb | W2_surface_Ebb | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148109-069 | HK2148109-070 | HK2148109-072 | HK2148109-073 | HK2148109-074 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 8 | 6 | 6 | 5 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.04 | 0.42 | 0.23 | 0.04 | 0.03 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.009 | 0.084 | 0.044 | 0.008 | 0.006 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.02 | 0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.04 | 0.47 | 0.26 | 0.04 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.09 | 0.91 | 0.50 | 0.08 | 0.05 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.8 | 5.3 | 5.9 | 7.2 | 6.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 23 | 67 | 28 | 5* | 7* |

| Sub-Matrix: WATER | | | Sample ID | G1*_bottom_Ebb | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148109-075 | HK2148109-076 | HK2148109-077 | HK2148109-078 | HK2148109-079 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 3 | 5 | 6 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.03 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.007 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.05 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.6 | 4.5 | 4.9 | 4.5 | 6.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 3* | NOT DETECTED | 2* | 2* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148109-080 | HK2148109-081 | HK2148109-082 | HK2148109-083 | HK2148109-084 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 5 | 3 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.4 | 6.4 | 3.5 | 3.3 | 3.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup | C1*_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148109-085 | HK2148109-088 | HK2148109-089 | HK2148109-090 | HK2148109-091 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 3 | 3 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.08 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | 0.08 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 0.9 | 4.8 | 4.7 | 4.2 | 4.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 1* | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb | CR9_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148109-092 | HK2148109-093 | HK2148109-094 | HK2148109-095 | HK2148109-096 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 3 | 3 | 5 | 6 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.0 | 4.1 | 4.3 | 2.6 | 2.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb | TPLMB_surface_Ebb_dup |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 | 01-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148109-097 | HK2148109-098 | HK2148109-099 | HK2148109-100 | HK2148109-101 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 4 | 4 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.08 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | 0.08 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.5 | 4.7 | 5.4 | 4.7 | 1.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | 1* | 2* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | TPLMB_surface_Flood_dup | --- | --- | --- | --- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 01-Dec-2021 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | HK2148109-102 | ------- | ------- | ------- | ------- |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | --- | --- | --- | --- |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | --- | --- | --- | --- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | --- | --- | --- | --- |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | --- | --- | --- | --- |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.03 | --- | --- | --- | --- |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.03 | --- | --- | --- | --- |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.3 | --- | --- | --- | --- |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | --- | --- | --- | --- |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | --- | --- | --- | --- |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4052030)** | | | | | | | | |
| HK2148109-002 | W1_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 6 | 6 | 0.0 |
| HK2148109-011 | C1_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 6 | 6 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4052031)** | | | | | | | | |
| HK2148109-021 | W2_middle_Flood _dup | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 4 | 4 | 0.0 |
| HK2148109-031 | G1_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 8 | 8 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4052032)** | | | | | | | | |
| HK2148109-043 | F4_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 6 | 7 | 0.0 |
| HK2148109-053 | W1_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 4 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4052033)** | | | | | | | | |
| HK2148109-064 | CR15_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| HK2148109-075 | G1*_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 5 | 4 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4052034)** | | | | | | | | |
| HK2148109-085 | TPLMB_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| HK2148109-098 | F3_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 4 | 5 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050667)** | | | | | | | | |
| HK2148109-020 | W2_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | 0.02 | 0.03 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050668)** | | | | | | | | |
| HK2148109-042 | F4_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050669)** | | | | | | | | |
| HK2148109-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050670)** | | | | | | | | |
| HK2148109-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050671)** | | | | | | | | |
| HK2148109-102 | TPLMB_surface_Flood_dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050674)** | | | | | | | | |
| HK2148109-020 | W2_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050676)** | | | | | | | | |
| HK2148109-042 | F4_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050678)** | | | | | | | | |
| HK2148109-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report: LOR | Unit | Original Result | Duplicate Result | RPD (%) |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050680)** | | | | | | | | |
| HK2148109-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050682)** | | | | | | | | |
| HK2148109-102 | TPLMB_surface_Flood_dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4050938)** | | | | | | | | |
| HK2148109-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 24.6 | 22.0 | 11.2 |
| **EP: Aggregate Organics (QC Lot: 4050939)** | | | | | | | | |
| HK2148109-021 | W2_middle_Flood _dup | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 6.9 | 5.9 | 15.6 |
| **EP: Aggregate Organics (QC Lot: 4050940)** | | | | | | | | |
| HK2148109-043 | F4_bottom_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 4.5 | 5.1 | 12.5 |
| **EP: Aggregate Organics (QC Lot: 4050941)** | | | | | | | | |
| HK2148109-064 | CR15_middle_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 8.9 | 9.1 | 2.2 |
| **EP: Aggregate Organics (QC Lot: 4050942)** | | | | | | | | |
| HK2148109-085 | TPLMB_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 0.9 | 1.0 | 11.5 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report: LOR | Unit | Result | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration | Spike Recovery (%): LCS | DCS | Recovery Limits(%): Low | High | RPD (%): Value | Control Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4052030)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 97.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4052031)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 102 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4052032)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 105 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4052033)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 98.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4052034)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 110 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050667)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 95.8 | ---- | 92.2 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050667) - Continued** | | | | | | | | | | | |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050668)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.2 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050669)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 100 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050670)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 100 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050671)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 92.8 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050674)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 95.0 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 101 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050676)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 103 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050678)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 100 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 101 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050680)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 102 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050682)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 112 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4050938)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 106 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4050939)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 106 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4050940)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4050940) - Continued** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 100 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4050941)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 98.7 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4050942)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 100 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4050981)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 98.8 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4050982)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 102 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4050983)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 100 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4050984)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 101 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4050985)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 101 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050667)** | | | | | | | | | | |
| HK2148109-020 | W2_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.8 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050668)** | | | | | | | | | | |
| HK2148109-042 | F4_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 92.2 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050669)** | | | | | | | | | | |
| HK2148109-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 89.3 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050670)** | | | | | | | | | | |
| HK2148109-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 94.2 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050671)** | | | | | | | | | | |
| HK2148109-102 | TPLMB_surface_Flood_dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 91.5 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050674)** | | | | | | | | | | |
| HK2148109-020 | W2_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 98.6 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050676)** | | | | | | | | | | |
| HK2148109-042 | F4_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 99.1 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050678)** | | | | | | | | | | |
| HK2148109-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 98.4 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050680)** | | | | | | | | | | |
| HK2148109-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4050682)** | | | | | | | | | | |
| HK2148109-102 | TPLMB_surface_Flood_dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 104 | ---- | 75.0 | 125 | ---- | ---- |

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 25 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2148112 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | Amendment | : 2 |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 02-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V2 | Issue Date | : 25-Jan-2022 |
| C-O-C number | : ---- | | | No. of samples received | : 95 |
| Site | : | | | No. of samples analysed | : 95 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 02-Dec-2021 to 04-Jan-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2148112**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 18:25.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

This is an amendment of the Certificate of Analysis.

The sample ID of HK2148112-086 has been amended.

The sample ID for HK2148112-036 has been amended.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

Sub-Matrix: **WATER**

| Compound | CAS Number | LOR | Unit | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| | | | | | HK2148112-001 | HK2148112-002 | HK2148112-003 | HK2148112-004 | HK2148112-006 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 6 | 6 | 8 | 6 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | 0.09 | 0.06 | 0.01 | 0.07 | 0.07 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | 0.022 | 0.010 | 0.003 | 0.066 | 0.070 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.12 | 0.10 | 0.03 | 0.10 | 0.08 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | 0.23 | 0.16 | 0.04 | 0.16 | 0.16 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 29.8 | 19.7 | 10.3 | 44.8 | 37.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 3 | <2 | 6 | 5 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 9 | 1* | 2* | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood | C1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148112-007 | HK2148112-008 | HK2148112-009 | HK2148112-010 | HK2148112-011 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 4 | 4 | 5 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.003 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.06 | 0.03 | 0.01 | 0.06 | 0.04 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.08 | 0.03 | <0.02 | 0.06 | 0.04 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 34.3 | 20.8 | 21.4 | 28.3 | 21.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 5 | 3 | 2 | 4 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 1* | 2* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood | CR1_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148112-012 | HK2148112-013 | HK2148112-014 | HK2148112-015 | HK2148112-016 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | 2 | 3 | 3 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | 0.005 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | 0.03 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 13.4 | 6.9 | 6.7 | 7.5 | 12.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 3* |

| Sub-Matrix: WATER | | | Sample ID | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_middle_Flood | W2_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148112-017 | HK2148112-018 | HK2148112-019 | HK2148112-020 | HK2148112-022 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 5 | 4 | 5 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.02 | <0.01 | 0.05 | 0.03 | 0.02 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.003 | <0.001 | 0.009 | 0.006 | 0.003 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.02 | 0.02 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.06 | 0.05 | 0.03 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 11.3 | 11.5 | 11.3 | 10.4 | 10.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 16 | NOT DETECTED | 3* | 5* |

| Sub-Matrix: WATER | | | Sample ID | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood | F1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148112-023 | HK2148112-024 | HK2148112-025 | HK2148112-026 | HK2148112-027 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 4 | 5 | 2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.02 | 0.03 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | 0.004 | 0.006 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.02 | 0.03 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.04 | 0.06 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 11.7 | 10.3 | 12.1 | 5.0 | 6.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 5* | 2* | 2* | 5* | 10 |

| Sub-Matrix: WATER | | | Sample ID | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood | F2_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148112-028 | HK2148112-029 | HK2148112-030 | HK2148112-031 | HK2148112-032 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 3 | 3 | 5 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.003 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.03 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.6 | 9.1 | 10.0 | 9.7 | 2.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 3 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 23 | 13 | 7* | 12 | 3* |

| Sub-Matrix: WATER | | | | Sample ID | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_Dup | C1*_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148112-033 | HK2148112-034 | HK2148112-035 | HK2148112-036 | HK2148112-038 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 4 | 4 | 7 | 5 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | 0.02 | 0.03 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | 0.02 | 0.03 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.8 | 3.6 | 2.1 | 1.9 | 4.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 1* | 19 | 2* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood | F4_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148112-039 | HK2148112-040 | HK2148112-041 | HK2148112-042 | HK2148112-043 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 4 | 3 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.9 | 4.2 | 4.3 | 4.2 | 4.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood | F3_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148112-044 | HK2148112-045 | HK2148112-046 | HK2148112-047 | HK2148112-048 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 4 | 3 | 4 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.6 | 1.8 | 3.1 | 3.1 | 4.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 4* |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb | W1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148112-049 | HK2148112-050 | HK2148112-051 | HK2148112-052 | HK2148112-053 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | 3 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.20 | 0.20 | 0.18 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | 0.042 | 0.049 | 0.043 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.11 | 0.10 | 0.09 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.31 | 0.30 | 0.28 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.7 | 3.7 | 16.1 | 18.3 | 17.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 2* | 12 | 11 | 17 |

| Sub-Matrix: WATER | | | Sample ID | CR17_surface_Ebb | CR17_middle_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148112-054 | HK2148112-055 | HK2148112-056 | HK2148112-057 | HK2148112-058 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 3 | 3 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.10 | 0.09 | 0.06 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.022 | 0.022 | 0.016 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.07 | 0.06 | 0.04 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.17 | 0.15 | 0.10 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 18.2 | 16.1 | 14.7 | 8.5 | 8.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 2* | 3* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR16_bottom_Ebb | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148112-059 | HK2148112-060 | HK2148112-061 | HK2148112-062 | HK2148112-063 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 4 | 5 | 5 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.2 | 7.1 | 7.4 | 7.5 | 7.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 2* | NOT DETECTED | NOT DETECTED | 1* |

| Sub-Matrix: WATER | | | Sample ID | CR15_middle_Ebb | CR15_bottom_Ebb | CR1_surface_Ebb | CR1_middle_Ebb | CR1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148112-064 | HK2148112-065 | HK2148112-067 | HK2148112-068 | HK2148112-069 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 5 | 5 | 6 | 9 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.04 | 0.02 | 0.02 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | 0.008 | <0.001 | 0.004 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.02 | 0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.06 | 0.03 | 0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.6 | 8.1 | 11.6 | 11.1 | 10.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 1* | 320 | 180 | 120 |

| Sub-Matrix: WATER | | | Sample ID | W2_surface_Ebb | W2_middle_Ebb | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148112-070 | HK2148112-071 | HK2148112-072 | HK2148112-073 | HK2148112-074 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 5 | 5 | 5 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.48 | 0.33 | 0.07 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.093 | 0.064 | 0.014 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.08 | 0.06 | 0.02 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.56 | 0.39 | 0.09 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.6 | 7.1 | 8.8 | 12.7 | 13.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 150 | 110 | 46 | 11 | 6* |

| Sub-Matrix: WATER | | | Sample ID | G1*_bottom_Ebb | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148112-075 | HK2148112-076 | HK2148112-077 | HK2148112-078 | HK2148112-079 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 3 | 3 | 4 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.02 | 0.02 | 0.03 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | 0.004 | 0.005 | 0.006 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | 0.02 | 0.02 | 0.02 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | 0.04 | 0.05 | 0.05 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 16.1 | 6.9 | 5.7 | 7.1 | 11.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | <2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 9 | 10 | 19 | 22 | 23 |

| Sub-Matrix: WATER | | | Sample ID | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2148112-080 | HK2148112-081 | HK2148112-082 | HK2148112-083 | HK2148112-084 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 2 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 10.8 | 12.7 | 3.0 | 3.5 | 3.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 26 | 17 | NOT DETECTED | 2* | 3* |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2148112-085 | HK2148112-086 | HK2148112-088 | HK2148112-089 | HK2148112-090 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 5 | 4 | 3 | 3 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.3 | 3.5 | 4.3 | 3.8 | 3.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | 1* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_bottom_Ebb | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148112-091 | HK2148112-092 | HK2148112-093 | HK2148112-094 | HK2148112-095 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 3 | 3 | 2 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.5 | 4.4 | 5.0 | 4.6 | 2.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR9_middle_Ebb | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 | 02-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2148112-096 | HK2148112-097 | HK2148112-098 | HK2148112-099 | HK2148112-100 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 5 | 7 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.7 | 2.8 | 5.2 | 4.9 | 5.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | 1* | NOT DETECTED | 1* |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053346)** | | | | | | | | |
| HK2148112-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | 0.02 | 0.02 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053347)** | | | | | | | | |
| HK2148112-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053348)** | | | | | | | | |
| HK2148112-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053349)** | | | | | | | | |
| HK2148112-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053350)** | | | | | | | | |
| HK2148112-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053391)** | | | | | | | | |
| HK2148112-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053393)** | | | | | | | | |
| HK2148112-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053395)** | | | | | | | | |
| HK2148112-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053397)** | | | | | | | | |
| HK2148112-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053399)** | | | | | | | | |
| HK2148112-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4053275)** | | | | | | | | |
| HK2148112-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 29.8 | 28.4 | 4.8 |
| **EP: Aggregate Organics (QC Lot: 4053276)** | | | | | | | | |
| HK2148112-023 | G1*_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 11.7 | 13.6 | 15.0 |
| **EP: Aggregate Organics (QC Lot: 4053277)** | | | | | | | | |
| HK2148112-044 | CR9_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 3.6 | 3.1 | 14.9 |
| **EP: Aggregate Organics (QC Lot: 4053278)** | | | | | | | | |
| HK2148112-064 | CR15_middle_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 8.6 | 7.8 | 9.8 |
| **EP: Aggregate Organics (QC Lot: 4053279)** | | | | | | | | |
| HK2148112-085 | TPLMB_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 3.3 | 3.1 | 7.2 |

## Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4054918)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 98.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4054919)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 109 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4054920)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 110 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4054921)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 97.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4054922)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 106 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053346)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.1 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053347)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.4 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053348)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 93.2 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053349)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.6 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053350)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.4 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053391)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 95.2 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053393)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 98.8 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053395)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 98.4 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053397)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 97.0 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 100.0 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053399)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 86.4 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4053275)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 96.7 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4053276)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 104 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4053277)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 101 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4053278)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 100 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4053279)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 100 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4053307)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 101 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4053308)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 99.7 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4053309)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 107 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4053310)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 101 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4053311)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 103 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053346)** | | | | | | | | | | |
| HK2148112-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 94.8 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053347)** | | | | | | | | | | |
| HK2148112-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 90.3 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053348)** | | | | | | | | | | |
| HK2148112-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 94.1 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053349)** | | | | | | | | | | |
| HK2148112-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 88.8 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053350)** | | | | | | | | | | |
| HK2148112-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 94.3 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053391)** | | | | | | | | | | |
| HK2148112-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053393)** | | | | | | | | | | |
| HK2148112-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 96.4 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053395)** | | | | | | | | | | |
| HK2148112-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 96.6 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053397)** | | | | | | | | | | |
| HK2148112-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 87.1 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4053399)** | | | | | | | | | | |
| HK2148112-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 104 | ---- | 75.0 | 125 | ---- | ---- |

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 26 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2149088 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | | |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 03-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V2 | Issue Date | : 17-Dec-2021 |
| C-O-C number | : ---- | | | No. of samples received | : 96 |
| Site | : | | | No. of samples analysed | : 96 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 03-Dec-2021 to 17-Dec-2021.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2149088**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 18:40.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

| Sub-Matrix: WATER | | | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149088-001 | HK2149088-002 | HK2149088-003 | HK2149088-004 | HK2149088-006 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 6 | 4 | 7 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.003 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.03 | 0.02 | 0.02 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.04 | 0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 20.3 | 23.0 | 14.4 | 25.0 | 20.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 4 | 4 | 4 | 6 | 4 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | 2* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood | C1_middle_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149088-007 | HK2149088-008 | HK2149088-009 | HK2149088-010 | HK2149088-011 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 6 | 5 | 5 | 4 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 13.3 | 14.2 | 10.8 | 13.1 | 10.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 4 | 4 | 3 | 4 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | 2* | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood | CR1_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149088-012 | HK2149088-013 | HK2149088-014 | HK2149088-015 | HK2149088-016 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 5 | 4 | 6 | 6 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 10.0 | 10.8 | 9.2 | 9.2 | 13.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 4 | 4 | 5 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 1* | NOT DETECTED | NOT DETECTED | NOT DETECTED | 17 |

| Sub-Matrix: WATER | | | Sample ID | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood _Dup | W2_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149088-017 | HK2149088-018 | HK2149088-019 | HK2149088-020 | HK2149088-022 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 7 | 6 | 6 | 10 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.31 | 0.28 | 0.14 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | 0.056 | 0.052 | 0.025 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.01 | 0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.04 | 0.04 | 0.03 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.36 | 0.34 | 0.17 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 10.7 | 10.0 | 6.2 | 6.8 | 7.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 4 | 3 | 2 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 56 | 29 | 28 | 23 | 93 |

| Sub-Matrix: WATER | | | Sample ID | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood | F1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149088-023 | HK2149088-024 | HK2149088-025 | HK2149088-026 | HK2149088-027 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 6 | 6 | 5 | 6 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.02 | 0.01 | 0.02 | 0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.003 | 0.003 | 0.004 | 0.002 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | 0.02 | 0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.03 | 0.03 | 0.03 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.7 | 7.2 | 7.6 | 3.0 | 7.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 3 | 3 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 25 | 47 | 59 | 19 | 42 |

| Sub-Matrix: WATER | | | Sample ID | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood | F2_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149088-028 | HK2149088-029 | HK2149088-030 | HK2149088-031 | HK2149088-032 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 7 | 7 | 7 | 14 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.3 | 7.4 | 8.8 | 7.5 | 2.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 52 | 8 | 11 | 4* | 2* |

| Sub-Matrix: WATER | | | Sample ID | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_Dup | C1*_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149088-033 | HK2149088-034 | HK2149088-035 | HK2149088-036 | HK2149088-038 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 4 | 10 | 7 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.0 | 2.1 | 2.9 | 1.6 | 3.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2* | 4* | 1* | 2* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood | F4_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149088-039 | HK2149088-040 | HK2149088-041 | HK2149088-042 | HK2149088-043 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 2 | 9 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.9 | 2.8 | 3.0 | 2.5 | 2.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood | F3_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149088-044 | HK2149088-045 | HK2149088-046 | HK2149088-047 | HK2149088-048 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 4 | 5 | 4 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.4 | 3.4 | 2.9 | 2.8 | 1.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 3* |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb | W1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149088-049 | HK2149088-050 | HK2149088-051 | HK2149088-052 | HK2149088-053 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 5 | 5 | 11 | 12 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.02 | 0.02 | 0.02 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | 0.005 | 0.003 | 0.003 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.07 | 0.02 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.10 | 0.04 | 0.03 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.7 | 0.4 | 15.1 | 20.1 | 15.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 4* | 13 | NOT DETECTED | 2* |

| Sub-Matrix: WATER | | | Sample ID | CR17_surface_Ebb | CR17_middle_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149088-054 | HK2149088-055 | HK2149088-056 | HK2149088-057 | HK2149088-058 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 7 | 6 | 6 | 7 | 6 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.02 | 0.02 | 0.02 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.005 | 0.004 | 0.003 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.06 | 0.02 | 0.02 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.09 | 0.03 | 0.03 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 28.6 | 16.7 | 16.1 | 9.7 | 9.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 4 | 4 | 3 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 11 | 1* | 2* | 2* | 1* |

| Sub-Matrix: WATER | | | Sample ID | CR16_bottom_Ebb | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149088-059 | HK2149088-060 | HK2149088-061 | HK2149088-062 | HK2149088-063 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 7 | 7 | 5 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.0 | 10.6 | 10.1 | 9.5 | 9.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 3* |

| Sub-Matrix: WATER | | | Sample ID | CR15_middle_Ebb | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149088-064 | HK2149088-065 | HK2149088-066 | HK2149088-067 | HK2149088-068 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 6 | 5 | 5 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.02 | 0.03 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | 0.003 | 0.004 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.03 | 0.04 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 11.2 | 10.0 | 10.7 | 7.8 | 7.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 1* | 1* | 310 | 330 |

| Sub-Matrix: WATER | | | Sample ID | CR1_bottom_Ebb | W2_surface_Ebb | W2_middle_Ebb | W2_bottom_Ebb | G1*_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149088-069 | HK2149088-070 | HK2149088-071 | HK2149088-072 | HK2149088-073 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 7 | 7 | 6 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.04 | 0.16 | 0.16 | 0.26 | 0.06 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.005 | 0.026 | 0.022 | 0.039 | 0.008 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | 0.03 | 0.03 | 0.04 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.04 | 0.19 | 0.20 | 0.30 | 0.07 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.0 | 6.4 | 7.6 | 6.9 | 6.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 220 | 230 | 200 | 240 | 210 |

| Sub-Matrix: WATER | | | Sample ID | G1*_middle_Ebb | G1*_bottom_Ebb | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149088-074 | HK2149088-075 | HK2149088-076 | HK2149088-077 | HK2149088-078 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 6 | 5 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.04 | 0.04 | 0.03 | 0.02 | 0.04 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.007 | 0.008 | 0.005 | 0.003 | 0.004 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | 0.01 | <0.01 | 0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.06 | 0.05 | 0.03 | 0.04 | 0.04 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.4 | 7.9 | 6.3 | 5.5 | 5.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 290 | 180 | 41 | 32 | 23 |

| Sub-Matrix: WATER | | | Sample ID | G1_surface_Ebb | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149088-079 | HK2149088-080 | HK2149088-081 | HK2149088-082 | HK2149088-083 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 5 | 6 | 3 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.9 | 8.2 | 8.7 | 3.1 | 3.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 8 | 5* | 10 | 3 |

| Sub-Matrix: WATER | | | | Sample ID | F2_bottom_Ebb | TPLMB_surface_Ebb | TPLMB_surface_Ebb_Dup | C1*_surface_Ebb | C1*_middle_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149088-084 | HK2149088-085 | HK2149088-086 | HK2149088-088 | HK2149088-089 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 7 | 6 | 5 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 4.5 | 2.5 | 2.3 | 3.3 | 3.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 3* | 1* | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | C1*_middle_Ebb_dup | C1*_bottom_Ebb | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149088-090 | HK2149088-091 | HK2149088-092 | HK2149088-093 | HK2149088-094 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 4 | 4 | 3 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.0 | 3.4 | 3.1 | 3.1 | 3.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | 1* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Ebb | CR9_middle_Ebb | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 | 03-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149088-095 | HK2149088-096 | HK2149088-097 | HK2149088-098 | HK2149088-099 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 5 | 5 | 5 | 4 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 4.4 | 3.2 | 4.2 | 3.5 | 2.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | 4* | 6* |

| Sub-Matrix: WATER | | | Sample ID | F3_bottom_Ebb | ---- | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 03-Dec-2021 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | HK2149088-100 | ------- | ------- | ------- | ------- |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | ---- | ---- | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | ---- | ---- | ---- | ---- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | ---- | ---- | ---- | ---- |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | ---- | ---- | ---- | ---- |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | ---- | ---- | ---- | ---- |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | ---- | ---- | ---- | ---- |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.0 | ---- | ---- | ---- | ---- |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | ---- | ---- | ---- | ---- |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 3* | ---- | ---- | ---- | ---- |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055230)** | | | | | | | | |
| HK2149088-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055232)** | | | | | | | | |
| HK2149088-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055234)** | | | | | | | | |
| HK2149088-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055236)** | | | | | | | | |
| HK2149088-083 | F2_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055238)** | | | | | | | | |
| HK2149088-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055633)** | | | | | | | | |
| HK2149088-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | 0.14 | 0.14 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055634)** | | | | | | | | |
| HK2149088-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055635)** | | | | | | | | |
| HK2149088-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055636)** | | | | | | | | |
| HK2149088-083 | F2_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055637)** | | | | | | | | |
| HK2149088-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4057384)** | | | | | | | | |
| HK2149088-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 20.3 | 20.9 | 2.9 |
| **EP: Aggregate Organics (QC Lot: 4057385)** | | | | | | | | |
| HK2149088-023 | G1*_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 7.7 | 8.2 | 6.3 |
| **EP: Aggregate Organics (QC Lot: 4057386)** | | | | | | | | |
| HK2149088-044 | CR9_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 3.4 | 2.9 | 15.9 |
| **EP: Aggregate Organics (QC Lot: 4057387)** | | | | | | | | |
| HK2149088-064 | CR15_middle_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 11.2 | 11.6 | 3.5 |
| **EP: Aggregate Organics (QC Lot: 4057388)** | | | | | | | | |
| HK2149088-084 | F2_bottom_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 4.5 | 4.6 | 2.2 |

## Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060881)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 107 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060882)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 110 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060883)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 110 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060884)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 106 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060885)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 104 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055230)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 98.0 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055232)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 111 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 105 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055234)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 103 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 106 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055236)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 90.0 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055238)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 102 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055633)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.3 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055634)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.0 | ---- | 92.2 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055635)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 92.6 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055636)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.3 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055637)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 100 | ---- | 92.2 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4055650)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4055651)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 98.2 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4055652)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 102 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4055653)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 95.8 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4057384)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 97.0 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4057385)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 100 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4057386)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 96.1 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4057387)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4057388)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4059945)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 107 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4059946)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 103 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055230)** | | | | | | | | | | |
| HK2149088-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 103 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055232)** | | | | | | | | | | |
| HK2149088-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055234)** | | | | | | | | | | |
| HK2149088-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 98.9 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055236)** | | | | | | | | | | |
| HK2149088-083 | F2_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 98.1 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055238)** | | | | | | | | | | |
| HK2149088-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 99.1 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055633)** | | | | | | | | | | |
| HK2149088-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.1 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055634)** | | | | | | | | | | |
| HK2149088-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 97.4 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055635)** | | | | | | | | | | |
| HK2149088-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.0 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055636)** | | | | | | | | | | |
| HK2149088-083 | F2_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 92.2 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4055637)** | | | | | | | | | | |
| HK2149088-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 108 | ---- | 75.0 | 125 | ---- | ---- |

# ALS Technichem (HK) Pty Ltd

## ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

## CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 26 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2149452 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | | |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 06-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V2 | Issue Date | : 20-Dec-2021 |
| C-O-C number | : ---- | | | No. of samples received | : 94 |
| Site | : | | | No. of samples analysed | : 94 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 06-Dec-2021 to 20-Dec-2021.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2149452**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 17:00.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

Sub-Matrix: **WATER**

| Compound | CAS Number | LOR | Unit | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| | | | | | HK2149452-001 | HK2149452-002 | HK2149452-003 | HK2149452-004 | HK2149452-006 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | 3 | 4 | 5 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | 0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 9.8 | 11.5 | 10.8 | 9.6 | 9.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 3 | 3 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 33 | 10 | NOT DETECTED | NOT DETECTED | 6* |

| Sub-Matrix: WATER | | | | Sample ID | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood | C1_middle_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149452-007 | HK2149452-008 | HK2149452-009 | HK2149452-010 | HK2149452-011 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | 4 | 4 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 7.2 | 7.9 | 7.2 | 7.3 | 6.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 1* | NOT DETECTED | NOT DETECTED | 24 | 18 |

| Sub-Matrix: WATER | | | Sample ID | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood | CR1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149452-012 | HK2149452-013 | HK2149452-014 | HK2149452-015 | HK2149452-016 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 4 | 5 | 5 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | 0.004 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | 0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.0 | 8.1 | 11.7 | 4.3 | 14.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 4 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 7* | 5* | 11 | 21 | 6* |

| Sub-Matrix: WATER | | | Sample ID | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood _dup | W2_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149452-017 | HK2149452-018 | HK2149452-019 | HK2149452-021 | HK2149452-022 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 9 | 4 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.0 | 8.9 | 23.8 | 26.2 | 20.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 4 | 5 | 4 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 14 | 3* | 35 | 69 | 73 |

| Sub-Matrix: WATER | | | Sample ID | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood | F1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149452-023 | HK2149452-024 | HK2149452-025 | HK2149452-026 | HK2149452-027 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 3 | <2 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 10.2 | 12.5 | 9.2 | 5.0 | 9.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 1* | NOT DETECTED | 10 | 63 |

| Sub-Matrix: WATER | | | Sample ID | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood | F2_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149452-028 | HK2149452-029 | HK2149452-030 | HK2149452-031 | HK2149452-032 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 9 | 4 | 5 | 5 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.1 | 7.5 | 9.6 | 9.4 | 2.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 24 | 17 | 44 | 51 | 4* |

| Sub-Matrix: WATER | | | | Sample ID | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup | C1*_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149452-033 | HK2149452-034 | HK2149452-035 | HK2149452-036 | HK2149452-038 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 5 | 6 | 6 | 6 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.8 | 2.6 | 2.1 | 2.0 | 3.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 29 | 37 | NOT DETECTED | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood | F4_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149452-039 | HK2149452-040 | HK2149452-041 | HK2149452-042 | HK2149452-043 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 5 | 9 | 6 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.7 | 4.3 | 4.8 | 3.8 | 3.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | <2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 1* |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood | F3_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149452-044 | HK2149452-045 | HK2149452-046 | HK2149452-047 | HK2149452-048 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | 3 | 3 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 4.0 | 4.0 | 4.1 | 3.4 | 3.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 6* |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb | W1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149452-049 | HK2149452-050 | HK2149452-051 | HK2149452-052 | HK2149452-053 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 3 | 4 | 3 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.3 | 3.7 | 5.4 | 6.8 | 7.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 5* | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR17_surface_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb | CR16_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149452-054 | HK2149452-056 | HK2149452-057 | HK2149452-058 | HK2149452-059 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 3 | 3 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.3 | 6.5 | 5.7 | 6.3 | 7.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb | CR15_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149452-060 | HK2149452-061 | HK2149452-062 | HK2149452-063 | HK2149452-064 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 5 | 3 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.9 | 6.0 | 6.3 | 6.3 | 4.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb | CR1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149452-065 | HK2149452-066 | HK2149452-067 | HK2149452-068 | HK2149452-069 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 7 | 5 | 6 | 8 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.4 | 9.4 | 13.2 | 15.4 | 10.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 4 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | 3* | 4* | 2* |

| Sub-Matrix: WATER | | | Sample ID | W2_surface_Ebb | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb | G1*_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149452-070 | HK2149452-072 | HK2149452-073 | HK2149452-074 | HK2149452-075 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 7 | 6 | 5 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 21.9 | 20.3 | 19.1 | 12.1 | 9.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 5 | 4 | 3 | 3 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 1* | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb | G1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149452-076 | HK2149452-077 | HK2149452-078 | HK2149452-079 | HK2149452-080 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 3 | 3 | 5 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.2 | 10.0 | 9.4 | 4.5 | 8.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | <2 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2* | 16 | 19 | 7* | 28 |

| Sub-Matrix: WATER | | | | Sample ID | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb | TPLMB_surface_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149452-081 | HK2149452-082 | HK2149452-083 | HK2149452-084 | HK2149452-085 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | 4 | 4 | 4 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | 0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.1 | 3.2 | 3.6 | 2.8 | 1.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 2 | <2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 16 | 11 | 1* | 6* | 3* |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup | C1*_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149452-086 | HK2149452-088 | HK2149452-089 | HK2149452-090 | HK2149452-091 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 6 | 3 | 3 | 3 | 8 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.4 | 4.8 | 4.0 | 4.1 | 4.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb | CR9_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149452-092 | HK2149452-093 | HK2149452-094 | HK2149452-095 | HK2149452-096 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 4 | 5 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.3 | 3.1 | 3.1 | 2.4 | 2.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | 06-Dec-2021 | ---- |
| Compound | CAS Number | LOR | Unit | HK2149452-097 | HK2149452-098 | HK2149452-099 | HK2149452-100 | ------- |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 3 | 4 | 4 | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | ---- |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | ---- |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 1.9 | 1.9 | 2.1 | 3.0 | ---- |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | ---- |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 3* | 4* | 3* | ---- |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060871)** | | | | | | | | |
| HK2149452-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| HK2149452-012 | C1_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 5 | 5 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060872)** | | | | | | | | |
| HK2149452-023 | G1*_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 4 | 0.0 |
| HK2149452-033 | F2_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 5 | 5 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060873)** | | | | | | | | |
| HK2149452-044 | CR9_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| HK2149452-054 | CR17_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 3 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060874)** | | | | | | | | |
| HK2149452-065 | CR15_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 6 | 6 | 0.0 |
| HK2149452-076 | F1_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060875)** | | | | | | | | |
| HK2149452-086 | TPLMB_surface_Ebb_dup | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 6 | 5 | 0.0 |
| HK2149452-097 | CR9_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 3 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060499)** | | | | | | | | |
| HK2149452-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060500)** | | | | | | | | |
| HK2149452-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060501)** | | | | | | | | |
| HK2149452-064 | CR15_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060502)** | | | | | | | | |
| HK2149452-085 | TPLMB_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060503)** | | | | | | | | |
| HK2149452-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061078)** | | | | | | | | |
| HK2149452-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061080)** | | | | | | | | |
| HK2149452-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061082)** | | | | | | | | |
| HK2149452-064 | CR15_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report: LOR | Unit | Original Result | Duplicate Result | RPD (%) |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061084)** | | | | | | | | |
| HK2149452-085 | TPLMB_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061086)** | | | | | | | | |
| HK2149452-088 | C1*_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4060203)** | | | | | | | | |
| HK2149452-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 9.8 | 10.2 | 4.0 |
| **EP: Aggregate Organics (QC Lot: 4060204)** | | | | | | | | |
| HK2149452-023 | G1*_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 10.2 | 10.8 | 5.7 |
| **EP: Aggregate Organics (QC Lot: 4060205)** | | | | | | | | |
| HK2149452-044 | CR9_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 4.0 | 3.7 | 8.1 |
| **EP: Aggregate Organics (QC Lot: 4060206)** | | | | | | | | |
| HK2149452-065 | CR15_bottom_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 9.4 | 9.2 | 2.2 |
| **EP: Aggregate Organics (QC Lot: 4060207)** | | | | | | | | |
| HK2149452-086 | TPLMB_surface_Ebb_dup | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 2.4 | 2.3 | 5.2 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report: LOR | Unit | Result | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration | Spike Recovery (%): LCS | DCS | Recovery Limits(%): Low | High | RPD (%): Value | Control Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060871)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 100 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060872)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 94.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060873)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 97.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060874)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 100 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4060875)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 106 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060499)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.5 | ---- | 92.2 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060499) - Continued** | | | | | | | | | | | |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060500)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.6 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060501)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 100 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060502)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.8 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060503)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 101 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061078)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 104 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061080)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 116 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061082)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 114 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061084)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 98.0 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061086)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 101 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4060203)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 106 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4060204)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 105 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4060205)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4060205) - Continued** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 104 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4060206)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 101 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4060207)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 106 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4067330)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 105 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4067331)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4067332)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 97.1 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4069621)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 102 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4069622)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 108 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060499)** | | | | | | | | | | |
| HK2149452-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 97.3 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060500)** | | | | | | | | | | |
| HK2149452-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.0 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060501)** | | | | | | | | | | |
| HK2149452-064 | CR15_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 112 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060502)** | | | | | | | | | | |
| HK2149452-085 | TPLMB_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 95.1 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4060503)** | | | | | | | | | | |
| HK2149452-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 117 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061078)** | | | | | | | | | | |
| HK2149452-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 104 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061080)** | | | | | | | | | | |
| HK2149452-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061082)** | | | | | | | | | | |
| HK2149452-064 | CR15_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 97.3 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061084)** | | | | | | | | | | |
| HK2149452-085 | TPLMB_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4061086)** | | | | | | | | | | |
| HK2149452-086 | TPLMB_surface_Ebb_dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 104 | ---- | 75.0 | 125 | ---- | ---- |

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 27 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2149457 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | | |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 08-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V2 | Issue Date | : 22-Dec-2021 |
| C-O-C number | : ---- | | | No. of samples received | : 96 |
| Site | : | | | No. of samples analysed | : 96 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 08-Dec-2021 to 22-Dec-2021.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2149457**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 17:30.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR); * denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

Sub-Matrix: **WATER**

| Compound | CAS Number | LOR | Unit | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_middle_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| | | | | | HK2149457-001 | HK2149457-002 | HK2149457-003 | HK2149457-004 | HK2149457-005 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | 2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.13 | 0.06 | 0.02 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | 0.13 | 0.06 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 7.8 | 8.5 | 7.2 | 5.5 | 5.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | 2 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 54 | 38 | 4* | 4* | 5* |

| Sub-Matrix: WATER | | | | Sample ID | CR17_bottom_Flood | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149457-006 | HK2149457-007 | HK2149457-008 | HK2149457-009 | HK2149457-010 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | <2 | <2 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 6.0 | 7.4 | 6.2 | 7.4 | 7.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 2 | 2 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 3* | 9 | 14 | 5* | 10 |

| Sub-Matrix: WATER | | | Sample ID | C1_middle_Flood | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149457-011 | HK2149457-012 | HK2149457-013 | HK2149457-014 | HK2149457-015 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.5 | 7.1 | 9.5 | 8.1 | 8.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 16 | 4* | 6* | 5* | 2* |

| Sub-Matrix: WATER | | | Sample ID | CR1_surface_Flood | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood_dup |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149457-016 | HK2149457-017 | HK2149457-018 | HK2149457-019 | HK2149457-021 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 5 | 5 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 11.0 | 9.9 | 6.4 | 10.4 | 12.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 93 | 81 | 74 | 36 | 52 |

| Sub-Matrix: WATER | | | Sample ID | W2_bottom_Flood | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149457-022 | HK2149457-023 | HK2149457-024 | HK2149457-025 | HK2149457-026 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 4 | 3 | 3 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 10.5 | 6.9 | 8.9 | 8.1 | 3.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 65 | 4* | 20 | 12 | 1* |

| Sub-Matrix: WATER | | | Sample ID | F1_middle_Flood | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149457-027 | HK2149457-028 | HK2149457-029 | HK2149457-030 | HK2149457-031 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 3 | 2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.0 | 5.3 | 4.7 | 5.5 | 7.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 5* | NOT DETECTED | NOT DETECTED | 1* |

| Sub-Matrix: WATER | | | | Sample ID | F2_surface_Flood | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149457-032 | HK2149457-033 | HK2149457-034 | HK2149457-035 | HK2149457-036 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 3 | 4 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | 0.08 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | 0.08 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.3 | 2.7 | 3.2 | 1.5 | 2.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | 4* | 72 | 4* | 2* |

| Sub-Matrix: WATER | | | Sample ID | C1*_surface_Flood | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149457-038 | HK2149457-039 | HK2149457-040 | HK2149457-041 | HK2149457-042 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 3 | <2 | 2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.4 | 3.7 | 3.6 | 2.5 | 2.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | F4_bottom_Flood | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149457-043 | HK2149457-044 | HK2149457-045 | HK2149457-046 | HK2149457-047 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | 4 | 2 | 3 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 1.9 | 2.9 | 1.2 | 3.0 | 3.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 1* | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F3_surface_Flood | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149457-048 | HK2149457-049 | HK2149457-050 | HK2149457-051 | HK2149457-052 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 3 | 4 | 2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.0 | 4.0 | 3.4 | 5.7 | 5.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | <2 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 1* | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | W1_bottom_Ebb | CR17_surface_Ebb | CR17_middle_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149457-053 | HK2149457-054 | HK2149457-055 | HK2149457-056 | HK2149457-057 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | <2 | <2 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.8 | 6.3 | 6.4 | 5.2 | 6.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 3* | 2* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR16_middle_Ebb | CR16_bottom_Ebb | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149457-058 | HK2149457-059 | HK2149457-060 | HK2149457-061 | HK2149457-062 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | 2 | 3 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.2 | 6.2 | 4.7 | 5.9 | 6.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | 2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR15_surface_Ebb | CR15_middle_Ebb | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149457-063 | HK2149457-064 | HK2149457-065 | HK2149457-066 | HK2149457-067 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 4 | 3 | 4 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.7 | 9.4 | 8.8 | 9.0 | 18.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2* | 6* | 17 | 11 | 4* |

| Sub-Matrix: WATER | | | Sample ID | CR1_middle_Ebb | CR1_bottom_Ebb | W2_surface_Ebb | W2_bottom_Ebb | G1*_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2149457-068 | HK2149457-069 | HK2149457-070 | HK2149457-072 | HK2149457-073 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 2 | 5 | 5 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 14.4 | 13.4 | 10.6 | 13.2 | 14.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 26 | 34 | 110 | 99 | 1* |

| Sub-Matrix: WATER | | | Sample ID | G1*_middle_Ebb | G1*_bottom_Ebb | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149457-074 | HK2149457-075 | HK2149457-076 | HK2149457-077 | HK2149457-078 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 2 | 2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.6 | 8.5 | 6.9 | 6.3 | 8.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 3 | 3 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | NOT DETECTED | 1* | 3* | 3* |

| Sub-Matrix: WATER | | | Sample ID | G1_surface_Ebb | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2149457-079 | HK2149457-080 | HK2149457-081 | HK2149457-082 | HK2149457-083 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 4 | 2 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.6 | 5.1 | 7.0 | 2.4 | 2.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 3 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | 1* | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | F2_bottom_Ebb | TPLMB_surface_Ebb | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149457-084 | HK2149457-085 | HK2149457-086 | HK2149457-088 | HK2149457-089 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 4 | 6 | 5 | 3 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.9 | 2.1 | 3.3 | 5.7 | 5.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 3* | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | C1*_middle_Ebb_dup | C1*_bottom_Ebb | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149457-090 | HK2149457-091 | HK2149457-092 | HK2149457-093 | HK2149457-094 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 4 | 3 | 2 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.3 | 5.0 | 2.3 | 2.4 | 2.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | 2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 1* |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Ebb | CR9_middle_Ebb | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 | 08-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2149457-095 | HK2149457-096 | HK2149457-097 | HK2149457-098 | HK2149457-099 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 3 | 3 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.3 | 2.2 | 2.3 | 3.4 | 3.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 1* |

| Sub-Matrix: WATER | | | | Sample ID | F3_bottom_Ebb | --- | --- | --- | --- |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 08-Dec-2021 | ---- | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | | HK2149457-100 | ------- | ------- | ------- | ------- |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | --- | --- | --- | --- |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | --- | --- | --- | --- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | --- | --- | --- | --- |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | --- | --- | --- | --- |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | --- | --- | --- | --- |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | --- | --- | --- | --- |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.7 | --- | --- | --- | --- |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | --- | --- | --- | --- |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | --- | --- | --- | --- |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4067064)** | | | | | | | | |
| HK2149457-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2149457-011 | C1_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4067065)** | | | | | | | | |
| HK2149457-022 | W2_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 5 | 5 | 0.0 |
| HK2149457-032 | F2_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4067066)** | | | | | | | | |
| HK2149457-043 | F4_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 4 | 0.0 |
| HK2149457-053 | W1_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4067067)** | | | | | | | | |
| HK2149457-063 | CR15_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 3 | 0.0 |
| HK2149457-074 | G1*_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 4 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4067068)** | | | | | | | | |
| HK2149457-084 | F2_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 4 | 4 | 0.0 |
| HK2149457-095 | CR9_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 3 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066635)** | | | | | | | | |
| HK2149457-021 | W2_surface_Flood _dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066636)** | | | | | | | | |
| HK2149457-042 | F4_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066637)** | | | | | | | | |
| HK2149457-062 | C1_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066638)** | | | | | | | | |
| HK2149457-083 | F2_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066639)** | | | | | | | | |
| HK2149457-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068902)** | | | | | | | | |
| HK2149457-021 | W2_surface_Flood _dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068904)** | | | | | | | | |
| HK2149457-042 | F4_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068906)** | | | | | | | | |
| HK2149457-062 | C1_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

*Laboratory Duplicate (DUP) Report*

| *Laboratory sample ID* | *Sample ID* | *Method: Compound* | *CAS Number* | *LOR* | *Unit* | *Original Result* | *Duplicate Result* | *RPD (%)* |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068908)** | | | | | | | | |
| HK2149457-083 | F2_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068910)** | | | | | | | | |
| HK2149457-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4065983)** | | | | | | | | |
| HK2149457-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 7.8 | 7.2 | 8.0 |
| **EP: Aggregate Organics (QC Lot: 4065984)** | | | | | | | | |
| HK2149457-022 | W2_bottom_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 10.5 | 11.2 | 6.5 |
| **EP: Aggregate Organics (QC Lot: 4065985)** | | | | | | | | |
| HK2149457-043 | F4_bottom_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 1.9 | 1.9 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4065986)** | | | | | | | | |
| HK2149457-063 | CR15_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 5.7 | 6.2 | 8.4 |
| **EP: Aggregate Organics (QC Lot: 4065987)** | | | | | | | | |
| HK2149457-084 | F2_bottom_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 2.9 | 2.9 | 0.0 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| *Method: Compound* | *CAS Number* | *Method Blank (MB) Report* | | | *Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | *Spike Concentration* | *Spike Recovery (%)* | | *Recovery Limits(%)* | | *RPD (%)* | |
| | | *LOR* | *Unit* | *Result* | | *LCS* | *DCS* | *Low* | *High* | *Value* | *Control Limit* |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4067064)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 98.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4067065)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 107 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4067066)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 106 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4067067)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 104 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4067068)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 109 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066635)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 95.6 | ---- | 92.2 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066635) - Continued** | | | | | | | | | | | |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066636)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.3 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066637)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 93.6 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066638)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 105 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066639)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.6 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068902)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 93.8 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068904)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 89.2 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068906)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 99.2 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068908)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 98.8 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068910)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 100 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4065983)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4065984)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 105 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4065985)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4065985) - Continued** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 103 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4065986)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4065987)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4070649)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 100 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4070650)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 101 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4070651)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 101 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4070652)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 101 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4070653)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 89.1 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066635)** | | | | | | | | | | |
| HK2149457-021 | W2_surface_Flood _dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 121 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066636)** | | | | | | | | | | |
| HK2149457-042 | F4_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 118 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066637)** | | | | | | | | | | |
| HK2149457-062 | C1_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 108 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066638)** | | | | | | | | | | |
| HK2149457-083 | F2_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 94.3 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4066639)** | | | | | | | | | | |
| HK2149457-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 113 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068902)** | | | | | | | | | | |
| HK2149457-021 | W2_surface_Flood _dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 99.4 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068904)** | | | | | | | | | | |
| HK2149457-042 | F4_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 100 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068906)** | | | | | | | | | | |
| HK2149457-062 | C1_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068908)** | | | | | | | | | | |
| HK2149457-083 | F2_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 103 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4068910)** | | | | | | | | | | |
| HK2149457-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 26 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2150068 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | Amendment | : 1 |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 10-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V3 | Issue Date | : 24-Jan-2022 |
| C-O-C number | : ---- | | | No. of samples received | : 95 |
| Site | : | | | No. of samples analysed | : 95 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 10-Dec-2021 to 24-Jan-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2150068**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 19:25.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR); * denoted the estimated count; Result based on a count outside of standard method's countable range.

This is an amendment of the Certificate of Analysis.

The sample ID of HK2150068-068 has been amended.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

Sub-Matrix: **WATER**

| | | | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-001 | HK2150068-002 | HK2150068-003 | HK2150068-004 | HK2150068-006 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | **0.02** | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | **6.0** | **5.7** | **5.5** | **5.1** | **6.3** |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | **2** | <2 | **2** | **3** | **3** |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | **11** | **6*** | **8** | **4*** | **4*** |

| Sub-Matrix: WATER | | | | Sample ID | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood | C1_middle_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150068-007 | HK2150068-008 | HK2150068-009 | HK2150068-010 | HK2150068-011 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 6.2 | 6.4 | 6.7 | 6.0 | 5.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 2* | NOT DETECTED | 1* | NOT DETECTED | 1* |

| Sub-Matrix: WATER | | | | Sample ID | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood | CR1_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150068-012 | HK2150068-013 | HK2150068-014 | HK2150068-015 | HK2150068-016 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 6.4 | 6.1 | 6.8 | 8.0 | 13.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 3 | 3 | 3 | 4 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 4* | NOT DETECTED | NOT DETECTED | NOT DETECTED | 8 |

| Sub-Matrix: WATER | | | Sample ID | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood _dup | W2_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-017 | HK2150068-018 | HK2150068-019 | HK2150068-021 | HK2150068-022 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | <2 | 2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.15 | 0.12 | 0.04 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | ---- | ---- | 0.020 | 0.020 | ---- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | ---- | ---- | 0.006 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.01 | 0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.17 | 0.13 | 0.04 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.3 | 10.1 | 13.9 | 13.1 | 6.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 4 | 4 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 3* | 2* | 11 | 30 | 3* |

| Sub-Matrix: WATER | | | Sample ID | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood | F1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-023 | HK2150068-024 | HK2150068-025 | HK2150068-026 | HK2150068-027 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 3 | 3 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 15.4 | 10.7 | 11.1 | 4.5 | 4.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 4 | 4 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 3* | 10 | 6* | NOT DETECTED | 2* |

| Sub-Matrix: WATER | | | Sample ID | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood | F2_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-028 | HK2150068-029 | HK2150068-030 | HK2150068-031 | HK2150068-032 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.1 | 4.7 | 5.8 | 4.9 | 1.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 3 | 2 | 3 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 3* | NOT DETECTED | 1* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup | C1*_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150068-033 | HK2150068-034 | HK2150068-035 | HK2150068-036 | HK2150068-038 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | 2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 1.4 | 2.3 | 2.0 | 1.1 | 2.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 3* | 2* | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood | F4_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-039 | HK2150068-040 | HK2150068-041 | HK2150068-042 | HK2150068-043 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.8 | 2.9 | 2.2 | 2.0 | 2.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood | F3_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150068-044 | HK2150068-045 | HK2150068-046 | HK2150068-047 | HK2150068-048 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.2 | 2.0 | 2.2 | 2.4 | 2.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb | W1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-049 | HK2150068-050 | HK2150068-051 | HK2150068-052 | HK2150068-053 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | 2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.6 | 3.0 | 4.4 | 5.3 | 5.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | NOT DETECTED | 8 | 11 | 3* |

| Sub-Matrix: WATER | | | Sample ID | CR17_surface_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb | CR16_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-054 | HK2150068-056 | HK2150068-057 | HK2150068-058 | HK2150068-059 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.4 | 4.9 | 4.4 | 5.2 | 6.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 19 | 16 | 3* | NOT DETECTED | 1* |

| Sub-Matrix: WATER | | | Sample ID | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb | CR15_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-060 | HK2150068-061 | HK2150068-062 | HK2150068-063 | HK2150068-064 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | 3 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.3 | 5.2 | 7.2 | 5.6 | 4.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | <2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 3* | 3* | 2* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb | CR1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-065 | HK2150068-066 | HK2150068-067 | HK2150068-068 | HK2150068-069 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.0 | 5.9 | 7.9 | 6.8 | 6.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 2 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 1* | 1* | 2* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | W2_surface_Ebb | W2_surface_Ebb_ dup | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-070 | HK2150068-071 | HK2150068-072 | HK2150068-073 | HK2150068-074 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | 3 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.02 | 0.02 | 0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.002 | 0.003 | 0.002 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.3 | 7.5 | 8.4 | 7.3 | 5.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 2 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 20 | 25 | 8 | NOT DETECTED | 4* |

| Sub-Matrix: WATER | | | Sample ID | G1*_bottom_Ebb | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-075 | HK2150068-076 | HK2150068-077 | HK2150068-078 | HK2150068-079 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | <2 | <2 | 3 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.2 | 4.8 | 4.7 | 5.7 | 5.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 3* | 1* | NOT DETECTED | 4* | 1* |

| Sub-Matrix: WATER | | | Sample ID | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-080 | HK2150068-081 | HK2150068-082 | HK2150068-083 | HK2150068-084 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.9 | 5.0 | 1.8 | 1.9 | 2.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | NOT DETECTED | NOT DETECTED | 1* | 4* |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150068-085 | HK2150068-086 | HK2150068-088 | HK2150068-089 | HK2150068-090 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 3 | 2 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 1.9 | 2.0 | 2.9 | 2.4 | 2.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 1* | NOT DETECTED | 1* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_bottom_Ebb | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150068-091 | HK2150068-092 | HK2150068-093 | HK2150068-094 | HK2150068-095 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.0 | 2.2 | 2.4 | 1.7 | 1.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR9_middle_Ebb | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 | 10-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150068-096 | HK2150068-097 | HK2150068-098 | HK2150068-099 | HK2150068-100 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 1.7 | 2.0 | 2.2 | 2.5 | 2.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | 1* | 1* |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4072451)** | | | | | | | | |
| HK2150068-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150068-012 | C1_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4072452)** | | | | | | | | |
| HK2150068-023 | G1*_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 3 | 0.0 |
| HK2150068-033 | F2_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4072453)** | | | | | | | | |
| HK2150068-044 | CR9_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150068-054 | CR17_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4072454)** | | | | | | | | |
| HK2150068-065 | CR15_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| HK2150068-075 | G1*_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4072455)** | | | | | | | | |
| HK2150068-085 | TPLMB_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| HK2150068-096 | CR9_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070617)** | | | | | | | | |
| HK2150068-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070619)** | | | | | | | | |
| HK2150068-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070621)** | | | | | | | | |
| HK2150068-064 | CR15_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070623)** | | | | | | | | |
| HK2150068-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070625)** | | | | | | | | |
| HK2150068-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072416)** | | | | | | | | |
| HK2150068-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | 0.04 | 0.04 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072417)** | | | | | | | | |
| HK2150068-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072418)** | | | | | | | | |
| HK2150068-064 | CR15_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report: LOR | Unit | Original Result | Duplicate Result | RPD (%) |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072419)** | | | | | | | | |
| HK2150068-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072420)** | | | | | | | | |
| HK2150068-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4070178)** | | | | | | | | |
| HK2150068-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 6.0 | 6.8 | 12.5 |
| **EP: Aggregate Organics (QC Lot: 4070179)** | | | | | | | | |
| HK2150068-023 | G1*_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 15.4 | 18.6 | 18.8 |
| **EP: Aggregate Organics (QC Lot: 4070180)** | | | | | | | | |
| HK2150068-044 | CR9_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 2.2 | 2.4 | 8.7 |
| **EP: Aggregate Organics (QC Lot: 4070181)** | | | | | | | | |
| HK2150068-065 | CR15_bottom_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 6.0 | 5.8 | 3.4 |
| **EP: Aggregate Organics (QC Lot: 4070182)** | | | | | | | | |
| HK2150068-085 | TPLMB_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 1.9 | 1.8 | 5.4 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report: LOR | Unit | Result | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration | Spike Recovery (%): LCS | DCS | Recovery Limits(%): Low | High | RPD (%): Value | Control Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4072451)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 99.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4072452)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 108 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4072453)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 97.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4072454)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 101 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4072455)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 104 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070617)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 101 | ---- | 78.8 | 120 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070617) - Continued** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070619)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 109 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070621)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 107 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070623)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 103 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070625)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 111 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 105 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072416)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 100 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072417)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.6 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072418)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.4 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072419)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 93.0 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072420)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 94.1 | ---- | 92.2 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4070178)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 100 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4070179)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 97.9 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4070180)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4070180) - Continued** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 98.7 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4070181)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 103 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4070182)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 104 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4073815)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4073816)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 108 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4073817)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 110 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4073818)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4073819)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 110 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070617)** | | | | | | | | | | |
| HK2150068-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 112 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070619)** | | | | | | | | | | |
| HK2150068-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070621)** | | | | | | | | | | |
| HK2150068-064 | CR15_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 103 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070623)** | | | | | | | | | | |
| HK2150068-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 103 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4070625)** | | | | | | | | | | |
| HK2150068-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 105 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072416)** | | | | | | | | | | |
| HK2150068-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 97.2 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072417)** | | | | | | | | | | |
| HK2150068-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.3 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072418)** | | | | | | | | | | |
| HK2150068-064 | CR15_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072419)** | | | | | | | | | | |
| HK2150068-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 97.0 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4072420)** | | | | | | | | | | |
| HK2150068-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 93.9 | ---- | 75.0 | 125 | ---- | ---- |

# ALS Technichem (HK) Pty Ltd

## ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

## *CERTIFICATE OF ANALYSIS*

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 26 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2150069 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | | |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 13-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V3 | Issue Date | : 28-Dec-2021 |
| C-O-C number | : ---- | | | No. of samples received | : 94 |
| Site | : | | | No. of samples analysed | : 94 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| **Fung Lim Chee, Richard** | **Managing Director** | **Inorganics** |
| **Ng Sin Kou, May** | **Laboratory Manager** | **Microbiology_ENV** |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 13-Dec-2021 to 28-Dec-2021.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2150069**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 17:00.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

Sub-Matrix: **WATER**

| Compound | CAS Number | LOR | Unit | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| | | | | | HK2150069-001 | HK2150069-002 | HK2150069-003 | HK2150069-004 | HK2150069-006 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | 2 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | $mg/m^3$ | | 8.6 | 5.8 | 7.0 | 5.1 | 5.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 3 | 3 | 3 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 3* | 5* | 1* | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood | C1_middle_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150069-007 | HK2150069-008 | HK2150069-009 | HK2150069-010 | HK2150069-011 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 2 | <2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 4.5 | 4.2 | 4.2 | 4.6 | 4.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | 7* | 1* |

| Sub-Matrix: WATER | | | Sample ID | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood | CR1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150069-012 | HK2150069-013 | HK2150069-014 | HK2150069-015 | HK2150069-016 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | **0.01** |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | **0.002** |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | **0.04** | <0.01 | **0.21** | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | **0.04** | <0.02 | **0.21** | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | **4.3** | **3.3** | **3.4** | **2.7** | **8.1** |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | **2** | **2** | **2** | <2 | **4** |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | **99** | **13** | **210** | **41** |

| Sub-Matrix: WATER | | | | Sample ID | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_middle_Flood _dup | W2_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150069-017 | HK2150069-018 | HK2150069-019 | HK2150069-021 | HK2150069-022 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | 0.16 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | 0.022 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | 0.19 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 10.0 | 9.0 | 13.2 | 13.7 | 11.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 4 | 3 | 4 | 4 | 4 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 48 | 31 | 150 | 47 | 56 |

| Sub-Matrix: WATER | | | Sample ID | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood | F1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150069-023 | HK2150069-024 | HK2150069-025 | HK2150069-026 | HK2150069-027 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 11.0 | 8.4 | 6.8 | 5.9 | 5.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 27 | 26 | 20 | 160 | 130 |

| Sub-Matrix: WATER | | | Sample ID | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood | F2_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150069-028 | HK2150069-029 | HK2150069-030 | HK2150069-031 | HK2150069-032 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | 2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.2 | 5.8 | 6.4 | 4.6 | 3.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 3 | 2 | 3 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 110 | 8 | 5* | 4* | 4* |

| Sub-Matrix: WATER | | | Sample ID | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup | C1*_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150069-033 | HK2150069-034 | HK2150069-035 | HK2150069-036 | HK2150069-038 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.7 | 3.3 | 2.1 | 2.6 | 2.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 23 | 12 | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood | F4_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150069-039 | HK2150069-040 | HK2150069-041 | HK2150069-042 | HK2150069-043 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.0 | 2.9 | 1.8 | 1.9 | 1.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood | F3_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150069-044 | HK2150069-045 | HK2150069-046 | HK2150069-047 | HK2150069-048 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.9 | 2.4 | 3.3 | 3.3 | 2.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 1* |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb | W1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150069-049 | HK2150069-050 | HK2150069-051 | HK2150069-052 | HK2150069-053 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.02 | 0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.7 | 2.6 | 5.1 | 4.9 | 4.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 1* | 4* | 9 | 2* |

| Sub-Matrix: WATER | | | Sample ID | CR17_surface_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb | CR16_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150069-054 | HK2150069-056 | HK2150069-057 | HK2150069-058 | HK2150069-059 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.3 | 2.4 | 4.1 | 3.7 | 3.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | 2* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb | CR15_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150069-060 | HK2150069-061 | HK2150069-062 | HK2150069-063 | HK2150069-064 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.05 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.05 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.9 | 3.6 | 3.3 | 3.3 | 3.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | NOT DETECTED | NOT DETECTED | 80 | 8 |

| Sub-Matrix: WATER | | | | Sample ID | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb | CR1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150069-065 | HK2150069-066 | HK2150069-067 | HK2150069-068 | HK2150069-069 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | 0.08 | 0.03 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | 0.013 | 0.005 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | 0.03 | 0.04 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | 0.11 | 0.07 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 5.1 | 3.7 | 15.1 | 13.9 | 10.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 2 | 2 | 4 | 4 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 15 | 16 | 280 | 320 | 310 |

| Sub-Matrix: WATER | | | Sample ID | W2_surface_Ebb | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb | G1*_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150069-070 | HK2150069-072 | HK2150069-073 | HK2150069-074 | HK2150069-075 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.02 | 0.12 | 0.05 | 0.02 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.004 | 0.019 | 0.009 | 0.002 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.03 | 0.02 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.05 | 0.14 | 0.05 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 15.1 | 12.6 | 12.7 | 13.1 | 9.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 4 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 300 | 280 | 110 | 140 | 100 |

| Sub-Matrix: WATER | | | Sample ID | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb | G1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150069-076 | HK2150069-077 | HK2150069-078 | HK2150069-079 | HK2150069-080 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.8 | 6.1 | 6.4 | 5.6 | 5.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 170 | 180 | 28 | 91 | 150 |

| Sub-Matrix: WATER | | | | Sample ID | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb | TPLMB_surface_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150069-081 | HK2150069-082 | HK2150069-083 | HK2150069-084 | HK2150069-085 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 4.9 | 3.0 | 3.0 | 3.3 | 2.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 14 | 20 | 13 | 9 | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup | C1*_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150069-086 | HK2150069-088 | HK2150069-089 | HK2150069-090 | HK2150069-091 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 1.5 | 2.6 | 3.0 | 2.7 | 2.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb | CR9_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150069-092 | HK2150069-093 | HK2150069-094 | HK2150069-095 | HK2150069-096 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.2 | 2.1 | 2.1 | 3.0 | 3.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | 13-Dec-2021 | ---- |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150069-097 | HK2150069-098 | HK2150069-099 | HK2150069-100 | ------- |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | ---- |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | ---- |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 1.5 | 3.8 | 4.2 | 4.1 | ---- |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | ---- |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | ---- |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073937)** | | | | | | | | |
| HK2150069-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150069-012 | C1_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073938)** | | | | | | | | |
| HK2150069-023 | G1*_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150069-033 | F2_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073939)** | | | | | | | | |
| HK2150069-044 | CR9_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| HK2150069-054 | CR17_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073940)** | | | | | | | | |
| HK2150069-065 | CR15_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| HK2150069-076 | F1_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073941)** | | | | | | | | |
| HK2150069-086 | TPLMB_surface_Ebb_dup | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150069-097 | CR9_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075077)** | | | | | | | | |
| HK2150069-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075078)** | | | | | | | | |
| HK2150069-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075079)** | | | | | | | | |
| HK2150069-064 | CR15_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075080)** | | | | | | | | |
| HK2150069-085 | TPLMB_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075081)** | | | | | | | | |
| HK2150069-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075089)** | | | | | | | | |
| HK2150069-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075091)** | | | | | | | | |
| HK2150069-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075093)** | | | | | | | | |
| HK2150069-064 | CR15_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report: LOR | Unit | Original Result | Duplicate Result | RPD (%) |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075095)** | | | | | | | | |
| HK2150069-085 | TPLMB_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075097)** | | | | | | | | |
| HK2150069-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4079612)** | | | | | | | | |
| HK2150069-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 8.6 | 7.9 | 8.5 |
| **EP: Aggregate Organics (QC Lot: 4079613)** | | | | | | | | |
| HK2150069-023 | G1*_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 11.0 | 10.7 | 2.8 |
| **EP: Aggregate Organics (QC Lot: 4079614)** | | | | | | | | |
| HK2150069-044 | CR9_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 2.9 | 2.6 | 10.9 |
| **EP: Aggregate Organics (QC Lot: 4079615)** | | | | | | | | |
| HK2150069-065 | CR15_bottom_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 5.1 | 5.8 | 12.8 |
| **EP: Aggregate Organics (QC Lot: 4079616)** | | | | | | | | |
| HK2150069-086 | TPLMB_surface_Ebb_dup | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 1.5 | 1.8 | 18.2 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report: LOR | Unit | Result | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration | Spike Recovery (%): LCS | DCS | Recovery Limits(%): Low | High | RPD (%): Value | Control Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073937)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 104 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073938)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 100 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073939)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 106 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073940)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 102 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4073941)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 110 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075077)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.4 | ---- | 92.2 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075077) - Continued** | | | | | | | | | | | |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075078)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 94.9 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075079)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.1 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075080)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.9 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075081)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 95.3 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075089)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 116 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 99.5 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075091)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 93.2 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075093)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 93.4 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 99.3 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075095)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 113 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075097)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 106 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4078615)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 104 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4078616)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 107 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4078617)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4078617) - Continued** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4078618)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4078619)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 105 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4079612)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 103 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4079613)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 105 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4079614)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 99.2 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4079615)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 98.0 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4079616)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 104 | ---- | 93.7 | 108 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075077)** | | | | | | | | | | |
| HK2150069-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 97.7 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075078)** | | | | | | | | | | |
| HK2150069-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 94.6 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075079)** | | | | | | | | | | |
| HK2150069-064 | CR15_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 93.4 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075080)** | | | | | | | | | | |
| HK2150069-085 | TPLMB_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 93.6 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075081)** | | | | | | | | | | |
| HK2150069-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 94.2 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075089)** | | | | | | | | | | |
| HK2150069-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075091)** | | | | | | | | | | |
| HK2150069-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075093)** | | | | | | | | | | |
| HK2150069-064 | CR15_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075095)** | | | | | | | | | | |
| HK2150069-085 | TPLMB_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 104 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4075097)** | | | | | | | | | | |
| HK2150069-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 105 | ---- | 75.0 | 125 | ---- | ---- |

# ALS Technichem (HK) Pty Ltd

## ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

## CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 26 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2150474 |
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| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 15-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V3 | Issue Date | : 30-Dec-2021 |
| C-O-C number | : ---- | | | No. of samples received | : 95 |
| Site | : | | | No. of samples analysed | : 95 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| **Fung Lim Chee, Richard** | **Managing Director** | **Inorganics** |
| **Ng Sin Kou, May** | **Laboratory Manager** | **Microbiology_ENV** |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 15-Dec-2021 to 30-Dec-2021.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2150474**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 18:00.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

Sub-Matrix: **WATER**

| Compound | CAS Number | LOR | Unit | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_middle_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| | | | | | HK2150474-001 | HK2150474-002 | HK2150474-003 | HK2150474-004 | HK2150474-005 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | $mg/m^3$ | | **11.9** | **9.9** | **10.0** | **8.6** | **6.1** |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | **2** | **2** | **2** | **2** | **2** |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | **14** | **14** | **5*** | **4*** | **8** |

| Sub-Matrix: WATER | | | Sample ID | CR17_bottom_Flood | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150474-006 | HK2150474-007 | HK2150474-008 | HK2150474-009 | HK2150474-010 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | 2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.9 | 11.3 | 8.6 | 6.9 | 15.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | <2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 6* | 2* | 3* | 9 | 7* |

| Sub-Matrix: WATER | | | Sample ID | C1_middle_Flood | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150474-011 | HK2150474-012 | HK2150474-013 | HK2150474-014 | HK2150474-015 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 13.4 | 11.5 | 9.2 | 11.6 | 11.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 3 | 3 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 6* | 5* | 5* | 3* | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR1_surface_Flood | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150474-016 | HK2150474-017 | HK2150474-018 | HK2150474-019 | HK2150474-021 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | 0.03 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | 0.004 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | 0.04 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 19.9 | 12.5 | 11.2 | 10.3 | 9.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 2 | 2 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 14 | 7* | 10 | 18 | 23 |

| Sub-Matrix: WATER | | | Sample ID | W2_bottom_Flood | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150474-022 | HK2150474-023 | HK2150474-024 | HK2150474-025 | HK2150474-026 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.4 | 12.3 | 10.1 | 5.6 | 6.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 24 | 2* | 4* | 3* | 5* |

| Sub-Matrix: WATER | | | Sample ID | F1_middle_Flood | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150474-027 | HK2150474-028 | HK2150474-029 | HK2150474-030 | HK2150474-031 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.2 | 7.5 | 5.3 | 6.1 | 6.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2* | 16 | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F2_surface_Flood | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150474-032 | HK2150474-033 | HK2150474-034 | HK2150474-035 | HK2150474-036 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.1 | 3.2 | 4.0 | 2.8 | 2.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 8 | 16 | 8 | 3* | 5* |

| Sub-Matrix: WATER | | | Sample ID | C1*_surface_Flood | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150474-038 | HK2150474-039 | HK2150474-040 | HK2150474-041 | HK2150474-042 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.9 | 3.6 | 3.9 | 2.7 | 2.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | F4_bottom_Flood | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150474-043 | HK2150474-044 | HK2150474-045 | HK2150474-046 | HK2150474-047 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.8 | 2.8 | 1.9 | 3.0 | 2.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F3_surface_Flood | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150474-048 | HK2150474-049 | HK2150474-050 | HK2150474-051 | HK2150474-052 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | **0.04** | **0.02** |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | **0.04** | **0.02** |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | **3.8** | **4.5** | **3.4** | **7.5** | **7.9** |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | **12** | **9** | **11** | **26** | **11** |

| Sub-Matrix: WATER | | | Sample ID | W1_bottom_Ebb | CR17_surface_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150474-053 | HK2150474-054 | HK2150474-056 | HK2150474-057 | HK2150474-058 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.5 | 8.6 | 8.3 | 8.8 | 8.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 14 | 4* | 5* | 19 | 13 |

| Sub-Matrix: WATER | | | Sample ID | CR16_bottom_Ebb | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150474-059 | HK2150474-060 | HK2150474-061 | HK2150474-062 | HK2150474-063 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.5 | 9.9 | 9.3 | 8.2 | 7.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 9 | 17 | 16 | 12 | 19 |

| Sub-Matrix: WATER | | | Sample ID | CR15_middle_Ebb | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150474-064 | HK2150474-065 | HK2150474-066 | HK2150474-067 | HK2150474-068 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.08 | 0.23 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | 0.006 | 0.015 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.03 | 0.06 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.11 | 0.28 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.8 | 8.8 | 8.5 | 15.6 | 13.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | 2 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 13 | 17 | 10 | 530 | 740 |

| Sub-Matrix: WATER | | | Sample ID | CR1_bottom_Ebb | W2_surface_Ebb | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150474-069 | HK2150474-070 | HK2150474-072 | HK2150474-073 | HK2150474-074 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.18 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.024 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.04 | 0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.22 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 12.4 | 12.3 | 9.8 | 8.5 | 8.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 630 | 220 | 120 | NOT DETECTED | 2* |

| Sub-Matrix: WATER | | | Sample ID | G1*_bottom_Ebb | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150474-075 | HK2150474-076 | HK2150474-077 | HK2150474-078 | HK2150474-079 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.2 | 10.8 | 11.2 | 9.5 | 6.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 3* | 9 | 6* | 5* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150474-080 | HK2150474-081 | HK2150474-082 | HK2150474-083 | HK2150474-084 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.7 | 6.5 | 4.5 | 4.0 | 4.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | 22 | 11 | 5* |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150474-085 | HK2150474-086 | HK2150474-088 | HK2150474-089 | HK2150474-090 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 6 | 6 | 2 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 1.9 | 1.6 | 3.5 | 4.3 | 3.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 2* | 5* | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_bottom_Ebb | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150474-091 | HK2150474-092 | HK2150474-093 | HK2150474-094 | HK2150474-095 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.3 | 3.7 | 3.8 | 3.6 | 3.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 1* |

| Sub-Matrix: WATER | | | Sample ID | CR9_middle_Ebb | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 | 15-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150474-096 | HK2150474-097 | HK2150474-098 | HK2150474-099 | HK2150474-100 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.5 | 3.6 | 6.9 | 7.5 | 6.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 1* |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4082466)** | | | | | | | | |
| HK2150474-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150474-011 | C1_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4082467)** | | | | | | | | |
| HK2150474-022 | W2_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| HK2150474-032 | F2_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4082468)** | | | | | | | | |
| HK2150474-043 | F4_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150474-053 | W1_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4082469)** | | | | | | | | |
| HK2150474-064 | CR15_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150474-075 | G1*_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4082470)** | | | | | | | | |
| HK2150474-085 | TPLMB_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 6 | 6 | 0.0 |
| HK2150474-096 | CR9_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080886)** | | | | | | | | |
| HK2150474-021 | W2_surface_Flood _dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080887)** | | | | | | | | |
| HK2150474-042 | F4_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080888)** | | | | | | | | |
| HK2150474-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080889)** | | | | | | | | |
| HK2150474-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080890)** | | | | | | | | |
| HK2150474-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080938)** | | | | | | | | |
| HK2150474-021 | W2_surface_Flood _dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080940)** | | | | | | | | |
| HK2150474-042 | F4_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080942)** | | | | | | | | |
| HK2150474-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report: LOR | Unit | Original Result | Duplicate Result | RPD (%) |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080944)** | | | | | | | | |
| HK2150474-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080946)** | | | | | | | | |
| HK2150474-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4087809)** | | | | | | | | |
| HK2150474-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 11.9 | 12.2 | 2.5 |
| **EP: Aggregate Organics (QC Lot: 4087810)** | | | | | | | | |
| HK2150474-022 | W2_bottom_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 9.4 | 9.8 | 4.2 |
| **EP: Aggregate Organics (QC Lot: 4087811)** | | | | | | | | |
| HK2150474-043 | F4_bottom_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 2.8 | 3.3 | 16.4 |
| **EP: Aggregate Organics (QC Lot: 4087812)** | | | | | | | | |
| HK2150474-064 | CR15_middle_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 8.8 | 9.6 | 8.7 |
| **EP: Aggregate Organics (QC Lot: 4087813)** | | | | | | | | |
| HK2150474-085 | TPLMB_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 1.9 | 1.8 | 0.0 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report: LOR | Unit | Result | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration | Spike Recovery (%): LCS | DCS | Recovery Limits(%): Low | High | RPD (%): Value | Control Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4082466)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 94.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4082467)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 93.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4082468)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 96.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4082469)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 106 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4082470)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 109 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080886)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.7 | ---- | 92.2 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080886) - Continued** | | | | | | | | | | | |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080887)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 101 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080888)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 100 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080889)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.2 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080890)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.6 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080938)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 97.4 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080940)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 105 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080942)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 101 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 101 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080944)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 102 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 105 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080946)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 94.0 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4082480)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4082481)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 107 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4082482)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4082482) - Continued** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4082483)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 105 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4082484)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4087809)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 104 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4087810)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 100 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4087811)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 103 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4087812)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 101 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4087813)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 103 | ---- | 93.7 | 108 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080886)** | | | | | | | | | | |
| HK2150474-021 | W2_surface_Flood _dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 108 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080887)** | | | | | | | | | | |
| HK2150474-042 | F4_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 107 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080888)** | | | | | | | | | | |
| HK2150474-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 125 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080889)** | | | | | | | | | | |
| HK2150474-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 106 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080890)** | | | | | | | | | | |
| HK2150474-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 92.4 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080938)** | | | | | | | | | | |
| HK2150474-021 | W2_surface_Flood _dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 98.0 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080940)** | | | | | | | | | | |
| HK2150474-042 | F4_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080942)** | | | | | | | | | | |
| HK2150474-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 103 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080944)** | | | | | | | | | | |
| HK2150474-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 105 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4080946)** | | | | | | | | | | |
| HK2150474-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 26 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2150908 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | | |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 17-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V3 | Issue Date | : 03-Jan-2022 |
| C-O-C number | : ---- | | | No. of samples received | : 94 |
| Site | : | | | No. of samples analysed | : 94 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 17-Dec-2021 to 03-Jan-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2150908**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 17:55.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

Sub-Matrix: **WATER**

| Compound | CAS Number | LOR | Unit | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| | | | | | HK2150908-001 | HK2150908-002 | HK2150908-003 | HK2150908-004 | HK2150908-006 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | **0.04** | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | **0.04** | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | $mg/m^3$ | | **6.0** | **7.0** | **7.5** | **5.3** | **6.9** |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | **3** | **3** | **3** | **3** | **3** |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | **18** | **18** | **12** | **9** | **10** |

| Sub-Matrix: WATER | | | | Sample ID | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood | C1_middle_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150908-007 | HK2150908-008 | HK2150908-009 | HK2150908-010 | HK2150908-011 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 6.6 | 5.3 | 5.1 | 5.8 | 5.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 1* | 2* | NOT DETECTED | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood | CR1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150908-012 | HK2150908-013 | HK2150908-014 | HK2150908-015 | HK2150908-016 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.04 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | 0.009 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | 0.05 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.9 | 9.3 | 7.7 | 6.9 | 6.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 4 | 4 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 1* | 2* | 2* | 1* |

| Sub-Matrix: WATER | | | | Sample ID | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood _dup | W2_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150908-017 | HK2150908-018 | HK2150908-019 | HK2150908-021 | HK2150908-022 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | 0.01 | 0.01 | 0.08 | 0.06 | 0.07 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | 0.002 | 0.001 | 0.015 | 0.009 | 0.013 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | 0.02 | 0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | 0.10 | 0.08 | 0.08 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 6.8 | 6.3 | 7.3 | 6.0 | 6.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | 1* | 4* | 1* | 3* |

| Sub-Matrix: WATER | | | Sample ID | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood | F1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150908-023 | HK2150908-024 | HK2150908-025 | HK2150908-026 | HK2150908-027 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.7 | 6.9 | 6.8 | 7.2 | 7.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 8 | 11 | 4* | 6* | 4* |

| Sub-Matrix: WATER | | | Sample ID | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood | F2_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150908-028 | HK2150908-029 | HK2150908-030 | HK2150908-031 | HK2150908-032 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.3 | 7.3 | 6.8 | 5.5 | 3.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 10 | 5* | NOT DETECTED | 1* | 15 |

| Sub-Matrix: WATER | | | | Sample ID | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup | C1*_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150908-033 | HK2150908-034 | HK2150908-035 | HK2150908-036 | HK2150908-038 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | 2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.6 | 3.4 | 3.0 | 3.0 | 3.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 2 | 2 | <2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 10 | 7* | 8 | 28 | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood | F4_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150908-039 | HK2150908-040 | HK2150908-041 | HK2150908-042 | HK2150908-043 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.1 | 3.5 | 2.3 | 2.2 | 2.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 1* | NOT DETECTED | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood | F3_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150908-044 | HK2150908-045 | HK2150908-046 | HK2150908-047 | HK2150908-048 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.7 | 2.2 | 3.0 | 2.4 | 3.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 4* |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb | W1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150908-049 | HK2150908-050 | HK2150908-051 | HK2150908-052 | HK2150908-053 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.8 | 3.5 | 6.7 | 6.9 | 7.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 6* | 7* | 43 | 45 | 42 |

| Sub-Matrix: WATER | | | Sample ID | CR17_surface_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb | CR16_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2150908-054 | HK2150908-056 | HK2150908-057 | HK2150908-058 | HK2150908-059 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.3 | 6.6 | 7.2 | 6.4 | 6.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 43 | 39 | 19 | 20 | 12 |

| Sub-Matrix: WATER | | | Sample ID | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb | CR15_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150908-060 | HK2150908-061 | HK2150908-062 | HK2150908-063 | HK2150908-064 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.02 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.4 | 5.9 | 5.9 | 7.0 | 6.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 31 | 30 | 12 | 17 | 23 |

| Sub-Matrix: WATER | | | Sample ID | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb | CR1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150908-065 | HK2150908-066 | HK2150908-067 | HK2150908-068 | HK2150908-069 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.0 | 6.3 | 7.5 | 6.6 | 8.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 3 | 3 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 9 | 22 | 15 | 7* |

| Sub-Matrix: WATER | | | Sample ID | W2_surface_Ebb | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb | G1*_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150908-070 | HK2150908-072 | HK2150908-073 | HK2150908-074 | HK2150908-075 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.8 | 6.2 | 7.4 | 6.1 | 6.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 30 | 3* | 44 | 19 | 18 |

| Sub-Matrix: WATER | | | Sample ID | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb | G1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150908-076 | HK2150908-077 | HK2150908-078 | HK2150908-079 | HK2150908-080 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | **0.04** | <0.01 | **0.02** | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | **0.007** | <0.001 | **0.002** | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | **0.04** | <0.01 | **0.03** | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | **0.08** | <0.02 | **0.05** | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | **5.3** | **6.3** | **5.2** | **6.7** | **6.8** |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | **2** | **2** | **2** | **3** | **2** |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | **130** | **52** | **130** | **51** | **50** |

| Sub-Matrix: WATER | | | Sample ID | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb | TPLMB_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150908-081 | HK2150908-082 | HK2150908-083 | HK2150908-084 | HK2150908-085 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.03 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | 0.03 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.5 | 3.5 | 2.9 | 2.8 | 2.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 31 | 5* | 2* | 1* | 2* |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup | C1*_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2150908-086 | HK2150908-088 | HK2150908-089 | HK2150908-090 | HK2150908-091 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.6 | 2.7 | 3.4 | 3.3 | 2.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | 2 | 2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb | CR9_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2150908-092 | HK2150908-093 | HK2150908-094 | HK2150908-095 | HK2150908-096 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | 2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.3 | 2.7 | 3.1 | 3.0 | 3.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 1* | 1* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | 17-Dec-2021 | ---- |
| Compound | CAS Number | LOR | Unit | HK2150908-097 | HK2150908-098 | HK2150908-099 | HK2150908-100 | ------- |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | ---- |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | ---- |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.2 | 4.3 | 3.4 | 3.5 | ---- |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | ---- |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 2* | 3* | NOT DETECTED | ---- |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4088662)** | | | | | | | | |
| HK2150908-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150908-012 | C1_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4088663)** | | | | | | | | |
| HK2150908-023 | G1*_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| HK2150908-033 | F2_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4088664)** | | | | | | | | |
| HK2150908-044 | CR9_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150908-054 | CR17_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4088665)** | | | | | | | | |
| HK2150908-065 | CR15_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150908-076 | F1_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4088666)** | | | | | | | | |
| HK2150908-086 | TPLMB_surface_Ebb_dup | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2150908-097 | CR9_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085769)** | | | | | | | | |
| HK2150908-002 | W1_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085771)** | | | | | | | | |
| HK2150908-024 | G1*_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085773)** | | | | | | | | |
| HK2150908-045 | CR9_surface_Flood _dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085775)** | | | | | | | | |
| HK2150908-066 | CR15_bottom_Ebb_dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085777)** | | | | | | | | |
| HK2150908-088 | C1*_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085862)** | | | | | | | | |
| HK2150908-002 | W1_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085863)** | | | | | | | | |
| HK2150908-024 | G1*_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085864)** | | | | | | | | |
| HK2150908-045 | CR9_surface_Flood _dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report: LOR | Unit | Original Result | Duplicate Result | RPD (%) |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085865)** | | | | | | | | |
| HK2150908-066 | CR15_bottom_Ebb_dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085866)** | | | | | | | | |
| HK2150908-088 | C1*_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4085460)** | | | | | | | | |
| HK2150908-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 6.0 | 7.0 | 15.4 |
| **EP: Aggregate Organics (QC Lot: 4085461)** | | | | | | | | |
| HK2150908-023 | G1*_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 8.7 | 9.5 | 8.8 |
| **EP: Aggregate Organics (QC Lot: 4085462)** | | | | | | | | |
| HK2150908-044 | CR9_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 2.7 | 3.1 | 13.8 |
| **EP: Aggregate Organics (QC Lot: 4085463)** | | | | | | | | |
| HK2150908-065 | CR15_bottom_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 7.0 | 7.0 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4085464)** | | | | | | | | |
| HK2150908-086 | TPLMB_surface_Ebb_dup | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 2.6 | 2.8 | 7.4 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report: LOR | Unit | Result | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration | Spike Recovery (%): LCS | DCS | Recovery Limits(%): Low | High | RPD (%): Value | Control Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4088662)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 98.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4088663)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 94.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4088664)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 106 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4088665)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 94.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4088666)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 104 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085769)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 85.8 | ---- | 78.8 | 120 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085769) - Continued** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.4 mg/L | 100.0 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085771)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 107 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 101 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085773)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 99.2 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085775)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 88.6 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 100 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085777)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 97.4 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 100 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085862)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.2 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085863)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.3 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085864)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 93.0 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085865)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.9 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085866)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 93.6 | ---- | 92.2 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4085460)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 96.4 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4085461)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 101 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4085462)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4085462) - Continued** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 96.0 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4085463)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 101 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4085464)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4088299)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 102 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4088300)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 104 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4088301)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 104 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4088302)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 104 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4088303)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 101 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085769)** | | | | | | | | | | |
| HK2150908-001 | W1_surface_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 98.0 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085771)** | | | | | | | | | | |
| HK2150908-023 | G1*_surface_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085773)** | | | | | | | | | | |
| HK2150908-044 | CR9_surface_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085775)** | | | | | | | | | | |
| HK2150908-065 | CR15_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085777)** | | | | | | | | | | |
| HK2150908-086 | TPLMB_surface_Ebb_dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 98.0 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085862)** | | | | | | | | | | |
| HK2150908-001 | W1_surface_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 93.9 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085863)** | | | | | | | | | | |
| HK2150908-023 | G1*_surface_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 94.6 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085864)** | | | | | | | | | | |
| HK2150908-044 | CR9_surface_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.8 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085865)** | | | | | | | | | | |
| HK2150908-065 | CR15_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 104 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4085866)** | | | | | | | | | | |
| HK2150908-086 | TPLMB_surface_Ebb_dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.4 | ---- | 75.0 | 125 | ---- | ---- |

# ALS Technichem (HK) Pty Ltd

## ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

## *CERTIFICATE OF ANALYSIS*

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 26 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2151369 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | | |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 20-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V3 | Issue Date | : 04-Jan-2022 |
| C-O-C number | : ---- | | | No. of samples received | : 95 |
| Site | : | | | No. of samples analysed | : 95 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| **Fung Lim Chee, Richard** | **Managing Director** | **Inorganics** |
| **Ng Sin Kou, May** | **Laboratory Manager** | **Microbiology_ENV** |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 20-Dec-2021 to 04-Jan-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2151369**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 18:15.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

Sub-Matrix: **WATER**

| Compound | CAS Number | LOR | Unit | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_middle_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| | | | | | HK2151369-001 | HK2151369-002 | HK2151369-003 | HK2151369-004 | HK2151369-005 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | **0.02** | **0.01** | **0.01** | **0.01** | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | **0.02** | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | $mg/m^3$ | | **8.3** | **8.6** | **6.7** | **7.0** | **8.7** |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | **3** | **3** | **3** | **2** | **2** |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | **73** | **61** | **58** | **32** | **53** |

| Sub-Matrix: WATER | | | Sample ID | CR17_bottom_Flood | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-006 | HK2151369-007 | HK2151369-008 | HK2151369-009 | HK2151369-010 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.9 | 9.1 | 8.5 | 8.7 | 8.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 47 | 43 | 31 | 36 | 51 |

| Sub-Matrix: WATER | | | Sample ID | C1_middle_Flood | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-011 | HK2151369-012 | HK2151369-013 | HK2151369-014 | HK2151369-015 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | 3 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.6 | 4.0 | 8.0 | 9.2 | 7.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 41 | 27 | 29 | 25 | 13 |

| Sub-Matrix: WATER | | | Sample ID | CR1_surface_Flood | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood_dup |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-016 | HK2151369-017 | HK2151369-018 | HK2151369-019 | HK2151369-021 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 4 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.04 | 0.03 | 0.02 | 0.10 | 0.18 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.002 | 0.002 | 0.001 | 0.013 | 0.022 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | 0.03 | 0.01 | 0.05 | 0.10 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.06 | 0.06 | 0.03 | 0.16 | 0.28 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 12.9 | 9.4 | 8.4 | 6.8 | 5.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 320 | 450 | 380 | 250 | 320 |

| Sub-Matrix: WATER | | | Sample ID | W2_bottom_Flood | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-022 | HK2151369-023 | HK2151369-024 | HK2151369-025 | HK2151369-026 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 3 | 4 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.06 | 0.16 | 0.08 | 0.05 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.005 | 0.014 | 0.009 | 0.004 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.03 | 0.03 | 0.02 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.10 | 0.19 | 0.09 | 0.05 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.6 | 10.1 | 8.8 | 7.9 | 5.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 3 | 3 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 420 | 360 | 190 | 68 | 18 |

| Sub-Matrix: WATER | | | Sample ID | F1_middle_Flood | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-027 | HK2151369-028 | HK2151369-029 | HK2151369-030 | HK2151369-031 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.1 | 9.5 | 10.7 | 9.8 | 8.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 22 | 32 | 2* | 3* | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | F2_surface_Flood | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2151369-032 | HK2151369-033 | HK2151369-034 | HK2151369-035 | HK2151369-036 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 2 | 3 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.4 | 4.1 | 4.6 | 5.6 | 5.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 11 | 9 | 18 | 3* | 9 |

| Sub-Matrix: WATER | | | Sample ID | C1*_surface_Flood | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2151369-038 | HK2151369-039 | HK2151369-040 | HK2151369-041 | HK2151369-042 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.9 | 4.3 | 5.5 | 3.8 | 3.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | F4_bottom_Flood | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2151369-043 | HK2151369-044 | HK2151369-045 | HK2151369-046 | HK2151369-047 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.4 | 2.4 | 2.2 | 2.6 | 2.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | 1* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F3_surface_Flood | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2151369-048 | HK2151369-049 | HK2151369-050 | HK2151369-051 | HK2151369-052 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | 4 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.02 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.3 | 4.7 | 5.6 | 4.8 | 8.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 9 | 9 | 5* | 210 | 87 |

| Sub-Matrix: WATER | | | Sample ID | W1_bottom_Ebb | CR17_surface_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-053 | HK2151369-054 | HK2151369-056 | HK2151369-057 | HK2151369-058 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | 0.02 | 0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | 0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.2 | 7.5 | 7.6 | 7.6 | 7.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 2 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 68 | 82 | 270 | 61 | 130 |

| Sub-Matrix: WATER | | | Sample ID | CR16_bottom_Ebb | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-059 | HK2151369-060 | HK2151369-061 | HK2151369-062 | HK2151369-063 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.08 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | 0.08 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 10.9 | 7.4 | 9.0 | 7.3 | 7.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 3 | 3 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 73 | 61 | 51 | 32 | 410 |

| Sub-Matrix: WATER | | | Sample ID | CR15_middle_Ebb | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-064 | HK2151369-065 | HK2151369-066 | HK2151369-067 | HK2151369-068 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | 0.002 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.0 | 9.3 | 8.4 | 16.1 | 11.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 63 | 27 | 16 | 32 | 24 |

| Sub-Matrix: WATER | | | Sample ID | CR1_bottom_Ebb | W2_surface_Ebb | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2151369-069 | HK2151369-070 | HK2151369-072 | HK2151369-073 | HK2151369-074 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | <2 | 4 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 2.99 | 1.57 | 0.03 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | 0.375 | 0.139 | 0.003 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.04 | 0.02 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | 0.18 | 0.09 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | 3.21 | 1.68 | 0.03 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 11.8 | 9.8 | 12.5 | 19.5 | 17.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 4 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 10 | 240 | 160 | 7* | 5* |

| Sub-Matrix: WATER | | | Sample ID | G1*_bottom_Ebb | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-075 | HK2151369-076 | HK2151369-077 | HK2151369-078 | HK2151369-079 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.5 | 11.9 | 10.4 | 7.8 | 8.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 2* | 3* | 22 | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-080 | HK2151369-081 | HK2151369-082 | HK2151369-083 | HK2151369-084 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | 2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.0 | 7.5 | 3.8 | 2.6 | 3.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 2* | 5* | NOT DETECTED | 14 |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2151369-085 | HK2151369-086 | HK2151369-088 | HK2151369-089 | HK2151369-090 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 4.6 | 5.0 | 5.0 | 5.4 | 5.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 10 | 1* | NOT DETECTED | 12 | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | C1*_bottom_Ebb | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | | HK2151369-091 | HK2151369-092 | HK2151369-093 | HK2151369-094 | HK2151369-095 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | **2** |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **EK055K: Unionized Ammonia (as N)** | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **EK058A: Nitrate as N** | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **EK063A: Total Inorganic Nitrogen as N** | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | | **4.9** | **3.2** | **3.3** | **2.3** | **2.2** |
| **EP030: Biochemical Oxygen Demand** | ---- | 2 | mg/L | | <2 | <2 | **2** | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| **EM019: Escherichia coli** | ---- | 1 | CFU/100mL | | **NOT DETECTED** | **NOT DETECTED** | **NOT DETECTED** | **1*** | **NOT DETECTED** |

| Sub-Matrix: WATER | | | Sample ID | CR9_middle_Ebb | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 | 20-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151369-096 | HK2151369-097 | HK2151369-098 | HK2151369-099 | HK2151369-100 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | 2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.2 | 2.5 | 3.8 | 3.5 | 4.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | 9 | 11 | 7* |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4091498)** | | | | | | | | |
| HK2151369-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2151369-011 | C1_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4091499)** | | | | | | | | |
| HK2151369-022 | W2_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| HK2151369-032 | F2_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4091500)** | | | | | | | | |
| HK2151369-043 | F4_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2151369-053 | W1_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4091501)** | | | | | | | | |
| HK2151369-064 | CR15_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2151369-075 | G1*_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4091502)** | | | | | | | | |
| HK2151369-085 | TPLMB_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| HK2151369-096 | CR9_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093052)** | | | | | | | | |
| HK2151369-021 | W2_surface_Flood_dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | 0.18 | 0.18 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093053)** | | | | | | | | |
| HK2151369-042 | F4_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093054)** | | | | | | | | |
| HK2151369-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093055)** | | | | | | | | |
| HK2151369-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093056)** | | | | | | | | |
| HK2151369-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093076)** | | | | | | | | |
| HK2151369-021 | W2_surface_Flood_dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093078)** | | | | | | | | |
| HK2151369-042 | F4_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093080)** | | | | | | | | |
| HK2151369-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report: LOR | Unit | Original Result | Duplicate Result | RPD (%) |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093082)** | | | | | | | | |
| HK2151369-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093084)** | | | | | | | | |
| HK2151369-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4090349)** | | | | | | | | |
| HK2151369-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 8.3 | 7.9 | 4.9 |
| **EP: Aggregate Organics (QC Lot: 4090350)** | | | | | | | | |
| HK2151369-022 | W2_bottom_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 6.6 | 7.5 | 12.8 |
| **EP: Aggregate Organics (QC Lot: 4090351)** | | | | | | | | |
| HK2151369-043 | F4_bottom_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 3.4 | 3.8 | 11.1 |
| **EP: Aggregate Organics (QC Lot: 4090352)** | | | | | | | | |
| HK2151369-064 | CR15_middle_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 6.0 | 6.2 | 3.3 |
| **EP: Aggregate Organics (QC Lot: 4090353)** | | | | | | | | |
| HK2151369-085 | TPLMB_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 4.6 | 4.4 | 4.4 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report: LOR | Unit | Result | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration | Spike Recovery (%): LCS | DCS | Recovery Limits(%): Low | High | RPD (%): Value | Control Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4091498)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 93.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4091499)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 97.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4091500)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 96.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4091501)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 98.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4091502)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 105 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093052)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 100 | ---- | 92.2 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093052) - Continued** | | | | | | | | | | | |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093053)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 96.9 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093054)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.5 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093055)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 95.5 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093056)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.5 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093076)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 109 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093078)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 100 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093080)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 105 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093082)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 101 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093084)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 102 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 101 | ---- | 96.3 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4090349)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 98.2 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4090350)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 97.2 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4090351)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4090351) - Continued** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 104 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4090352)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4090353)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 99.6 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4093968)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 87.3 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4093969)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 87.7 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4093970)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 93.0 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4093971)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 88.0 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4093972)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 86.1 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093052)** | | | | | | | | | | |
| HK2151369-021 | W2_surface_Flood_dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 93.7 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093053)** | | | | | | | | | | |
| HK2151369-042 | F4_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.1 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093054)** | | | | | | | | | | |
| HK2151369-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 93.3 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093055)** | | | | | | | | | | |
| HK2151369-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 107 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093056)** | | | | | | | | | | |
| HK2151369-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 112 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093076)** | | | | | | | | | | |
| HK2151369-021 | W2_surface_Flood_dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 104 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093078)** | | | | | | | | | | |
| HK2151369-042 | F4_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093080)** | | | | | | | | | | |
| HK2151369-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093082)** | | | | | | | | | | |
| HK2151369-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 101 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4093084)** | | | | | | | | | | |
| HK2151369-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 90.5 | ---- | 75.0 | 125 | ---- | ---- |

# ALS Technichem (HK) Pty Ltd

## ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

## CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 26 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2151370 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | | |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 22-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V3 | Issue Date | : 06-Jan-2022 |
| C-O-C number | : ---- | | | No. of samples received | : 94 |
| Site | : | | | No. of samples analysed | : 94 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 22-Dec-2021 to 06-Jan-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2151370**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 16:20.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR); * denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

| Sub-Matrix: WATER | | | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-001 | HK2151370-002 | HK2151370-003 | HK2151370-004 | HK2151370-006 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.03 | 0.02 | 0.02 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.002 | 0.001 | 0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.10 | 0.10 | 0.03 | 0.03 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.14 | 0.11 | 0.04 | 0.03 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.6 | 7.0 | 8.0 | 6.8 | 6.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 130 | 99 | 48 | 36 | 14 |

| Sub-Matrix: WATER | | | Sample ID | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood | C1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-007 | HK2151370-008 | HK2151370-009 | HK2151370-010 | HK2151370-011 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.2 | 9.3 | 10.4 | 9.2 | 10.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 12 | 10 | 14 | 13 | 6* |

| Sub-Matrix: WATER | | | Sample ID | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood | CR1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-012 | HK2151370-013 | HK2151370-014 | HK2151370-015 | HK2151370-016 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.07 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | 0.010 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | 0.09 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.9 | 9.5 | 10.4 | 9.1 | 4.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 8 | 6* | 5* | 10 | 62 |

| Sub-Matrix: WATER | | | Sample ID | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood _dup | W2_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-017 | HK2151370-018 | HK2151370-019 | HK2151370-021 | HK2151370-022 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.06 | 0.12 | 0.06 | 0.33 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | 0.005 | 0.013 | 0.006 | 0.031 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | 0.02 | 0.03 | 0.02 | 0.05 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | 0.07 | 0.16 | 0.08 | 0.38 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.6 | 3.8 | 3.8 | 4.4 | 4.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 26 | 37 | 48 | 31 | 26 |

| Sub-Matrix: WATER | | | Sample ID | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood | F1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-023 | HK2151370-024 | HK2151370-025 | HK2151370-026 | HK2151370-027 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | **0.05** | **0.05** |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | **0.006** | **0.005** |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | **0.01** | <0.01 | <0.01 | **0.04** | **0.03** |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | **0.09** | **0.08** |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | **4.5** | **4.6** | **4.8** | **3.1** | **3.5** |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | **3*** | **3*** | **4*** | **1*** | **11** |

| Sub-Matrix: WATER | | | Sample ID | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood | F2_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-028 | HK2151370-029 | HK2151370-030 | HK2151370-031 | HK2151370-032 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | 2 | 3 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.03 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.04 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.6 | 3.3 | 4.9 | 7.2 | 2.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 10 | 11 | 18 | 18 | 3* |

| Sub-Matrix: WATER | | | | Sample ID | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup | C1*_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2151370-033 | HK2151370-034 | HK2151370-035 | HK2151370-036 | HK2151370-038 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | 3 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | 0.01 | 0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | 0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.8 | 2.0 | 2.1 | 2.3 | 5.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 4* | 4* | 1* | NOT DETECTED | 10 |

| Sub-Matrix: WATER | | | Sample ID | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood | F4_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-039 | HK2151370-040 | HK2151370-041 | HK2151370-042 | HK2151370-043 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.3 | 4.5 | 4.0 | 4.3 | 4.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 10 | 14 | 1* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood | F3_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2151370-044 | HK2151370-045 | HK2151370-046 | HK2151370-047 | HK2151370-048 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.4 | 3.2 | 3.1 | 3.1 | 4.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | 5* |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb | W1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-049 | HK2151370-050 | HK2151370-051 | HK2151370-052 | HK2151370-053 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.02 | 0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | 0.002 | 0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.09 | 0.04 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.11 | 0.06 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.8 | 5.1 | 5.8 | 7.2 | 9.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2* | 6* | 32 | 16 | 10 |

| Sub-Matrix: WATER | | | Sample ID | CR17_surface_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb | CR16_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-054 | HK2151370-056 | HK2151370-057 | HK2151370-058 | HK2151370-059 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.05 | 0.03 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.05 | 0.03 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.0 | 7.2 | 7.7 | 7.1 | 9.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 9 | 1* | 3* | 3* | 5* |

| Sub-Matrix: WATER | | | Sample ID | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb | CR15_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-060 | HK2151370-061 | HK2151370-062 | HK2151370-063 | HK2151370-064 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | 2 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | 0.02 | <0.01 | 0.02 | 0.14 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.02 | <0.02 | <0.02 | <0.02 | 0.14 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.1 | 6.6 | 7.7 | 7.0 | 6.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2* | 7* | 12 | 19 | 89 |

| Sub-Matrix: WATER | | | Sample ID | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb | CR1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-065 | HK2151370-066 | HK2151370-067 | HK2151370-068 | HK2151370-069 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | <2 | <2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.04 | 0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.04 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.9 | 8.0 | 5.6 | 5.5 | 5.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 48 | 12 | 1* | NOT DETECTED | 5* |

| Sub-Matrix: WATER | | | Sample ID | W2_surface_Ebb | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb | G1*_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-070 | HK2151370-072 | HK2151370-073 | HK2151370-074 | HK2151370-075 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | **0.09** | **0.05** | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | **0.007** | **0.004** | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | **0.03** | **0.02** | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | **0.12** | **0.07** | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | **4.6** | **4.2** | **5.9** | **5.8** | **5.1** |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | **3*** | **4*** | **1*** | **1*** | **1*** |

| Sub-Matrix: WATER | | | Sample ID | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb | G1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-076 | HK2151370-077 | HK2151370-078 | HK2151370-079 | HK2151370-080 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.07 | 0.04 | 0.03 | 0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.007 | 0.007 | 0.002 | 0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.05 | 0.03 | 0.02 | 0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.12 | 0.08 | 0.06 | 0.03 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.2 | 4.0 | 4.3 | 5.4 | 4.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2* | 3* | 6* | 14 | 37 |

| Sub-Matrix: WATER | | | | Sample ID | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb | TPLMB_surface_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2151370-081 | HK2151370-082 | HK2151370-083 | HK2151370-084 | HK2151370-085 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 6.1 | 2.6 | 3.1 | 3.0 | 3.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 45 | 2* | 5* | 20 | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup | C1*_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2151370-086 | HK2151370-088 | HK2151370-089 | HK2151370-090 | HK2151370-091 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | **0.03** | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | **0.003** | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | **0.04** | **0.01** | **0.01** | **0.01** | **0.01** |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | **0.07** | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | **2.2** | **3.8** | **4.2** | **4.0** | **4.0** |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | **1*** | **4*** | **9** | **9** | **7*** |

| Sub-Matrix: WATER | | | Sample ID | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb | CR9_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151370-092 | HK2151370-093 | HK2151370-094 | HK2151370-095 | HK2151370-096 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.6 | 3.5 | 3.9 | 3.9 | 3.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 1* | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | 22-Dec-2021 | ---- |
| Compound | CAS Number | LOR | Unit | HK2151370-097 | HK2151370-098 | HK2151370-099 | HK2151370-100 | ------- |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | ---- |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | ---- |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | ---- |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.3 | 5.5 | 5.6 | 5.2 | ---- |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | ---- |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 1* | 2* | 1* | ---- |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4096637)** | | | | | | | | |
| HK2151370-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2151370-012 | C1_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4096638)** | | | | | | | | |
| HK2151370-023 | G1*_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2151370-033 | F2_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4096639)** | | | | | | | | |
| HK2151370-044 | CR9_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2151370-054 | CR17_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4096640)** | | | | | | | | |
| HK2151370-065 | CR15_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| HK2151370-076 | F1_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4096641)** | | | | | | | | |
| HK2151370-086 | TPLMB_surface_Ebb_dup | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2151370-097 | CR9_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096187)** | | | | | | | | |
| HK2151370-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | 0.33 | 0.33 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096188)** | | | | | | | | |
| HK2151370-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.02 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096189)** | | | | | | | | |
| HK2151370-064 | CR15_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096190)** | | | | | | | | |
| HK2151370-085 | TPLMB_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096191)** | | | | | | | | |
| HK2151370-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098933)** | | | | | | | | |
| HK2151370-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098935)** | | | | | | | | |
| HK2151370-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098937)** | | | | | | | | |
| HK2151370-064 | CR15_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report: LOR | Unit | Original Result | Duplicate Result | RPD (%) |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098939)** | | | | | | | | |
| HK2151370-085 | TPLMB_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098941)** | | | | | | | | |
| HK2151370-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4096294)** | | | | | | | | |
| HK2151370-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 5.6 | 4.9 | 13.3 |
| **EP: Aggregate Organics (QC Lot: 4096295)** | | | | | | | | |
| HK2151370-023 | G1*_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 4.5 | 4.8 | 6.5 |
| **EP: Aggregate Organics (QC Lot: 4096296)** | | | | | | | | |
| HK2151370-044 | CR9_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 3.4 | 3.1 | 9.2 |
| **EP: Aggregate Organics (QC Lot: 4096297)** | | | | | | | | |
| HK2151370-065 | CR15_bottom_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 7.9 | 7.4 | 6.5 |
| **EP: Aggregate Organics (QC Lot: 4096298)** | | | | | | | | |
| HK2151370-086 | TPLMB_surface_Ebb_dup | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 2.2 | 2.1 | 4.7 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report: LOR | Unit | Result | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration | Spike Recovery (%): LCS | DCS | Recovery Limits(%): Low | High | RPD (%): Value | Control Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4096637)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 97.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4096638)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 107 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4096639)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 106 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4096640)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 106 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4096641)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 95.5 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096187)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.2 | ---- | 92.2 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096187) - Continued** | | | | | | | | | | | |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096188)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.7 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096189)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 101 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096190)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 99.3 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096191)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 95.6 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098933)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 93.0 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098935)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 81.4 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 102 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098937)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 83.4 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098939)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 100 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098941)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 83.0 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4096294)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4096295)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 97.2 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4096296)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4096296) - Continued** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 98.0 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4096297)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 105 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4096298)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 96.0 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4099102)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 108 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4099103)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 107 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4099104)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 105 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4099105)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 110 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4099106)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 104 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096187)** | | | | | | | | | | |
| HK2151370-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 115 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096188)** | | | | | | | | | | |
| HK2151370-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 120 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096189)** | | | | | | | | | | |
| HK2151370-064 | CR15_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 93.4 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096190)** | | | | | | | | | | |
| HK2151370-085 | TPLMB_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 92.8 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4096191)** | | | | | | | | | | |
| HK2151370-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 114 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098933)** | | | | | | | | | | |
| HK2151370-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 105 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098935)** | | | | | | | | | | |
| HK2151370-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 103 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098937)** | | | | | | | | | | |
| HK2151370-064 | CR15_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 106 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098939)** | | | | | | | | | | |
| HK2151370-085 | TPLMB_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 104 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4098941)** | | | | | | | | | | |
| HK2151370-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 103 | ---- | 75.0 | 125 | ---- | ---- |

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 15 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2151628 |
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| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 24-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V3 | Issue Date | : 10-Jan-2022 |
| C-O-C number | : ---- | | | No. of samples received | : 47 |
| Site | : | | | No. of samples analysed | : 47 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 24-Dec-2021 to 10-Jan-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2151628**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 12:30.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

Sub-Matrix: **WATER**

| Compound | CAS Number | LOR | Unit | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 |
| | | | | | HK2151628-001 | HK2151628-002 | HK2151628-003 | HK2151628-004 | HK2151628-006 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | 2 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.07 | 0.09 | 0.04 | 0.04 | 0.03 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | 0.07 | 0.09 | 0.04 | 0.04 | 0.03 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 6.8 | 7.6 | 8.9 | 5.6 | 6.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 2 | <2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 39 | 51 | 17 | 30 | 24 |

| Sub-Matrix: WATER | | | Sample ID | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood | C1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151628-007 | HK2151628-008 | HK2151628-009 | HK2151628-010 | HK2151628-011 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 4 | 3 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.04 | 0.05 | 0.03 | 0.06 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.04 | 0.05 | 0.03 | 0.06 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.5 | 3.1 | 8.1 | 5.6 | 7.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 63 | 24 | 19 | 81 | 42 |

| Sub-Matrix: WATER | | | Sample ID | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood | CR1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151628-012 | HK2151628-013 | HK2151628-014 | HK2151628-015 | HK2151628-016 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | 0.04 | 0.02 | 0.01 | 0.04 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | 0.04 | <0.02 | <0.02 | 0.05 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.5 | 7.2 | 8.8 | 8.5 | 8.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 16 | 19 | 6* | 7* | 93 |

| Sub-Matrix: WATER | | | | Sample ID | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood _dup | W2_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2151628-017 | HK2151628-018 | HK2151628-019 | HK2151628-021 | HK2151628-022 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | 2 | <2 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | 0.02 | 0.03 | 0.10 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | 0.003 | 0.005 | 0.010 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.03 | 0.01 | 0.02 | 0.02 | 0.04 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | 0.03 | <0.02 | 0.04 | 0.06 | 0.14 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 9.0 | 8.9 | 7.7 | 8.8 | 8.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 89 | 64 | 220 | 270 | 360 |

| Sub-Matrix: WATER | | | Sample ID | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood | F1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151628-023 | HK2151628-024 | HK2151628-025 | HK2151628-026 | HK2151628-027 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 3 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.11 | <0.01 | <0.01 | 0.08 | 0.03 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.015 | <0.001 | <0.001 | 0.013 | 0.004 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.03 | <0.01 | <0.01 | 0.05 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.14 | <0.02 | <0.02 | 0.13 | 0.05 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.4 | 9.8 | 8.0 | 5.3 | 6.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 280 | 94 | 33 | 250 | 180 |

| Sub-Matrix: WATER | | | Sample ID | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood | F2_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151628-028 | HK2151628-029 | HK2151628-030 | HK2151628-031 | HK2151628-032 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | 3 | 4 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.03 | 0.03 | 0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.002 | 0.005 | 0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | 0.04 | 0.02 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.05 | 0.07 | 0.03 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.9 | 5.7 | 6.4 | 6.4 | 2.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 160 | 210 | 190 | 72 | 9 |

| Sub-Matrix: WATER | | | | Sample ID | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup | C1*_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2151628-033 | HK2151628-034 | HK2151628-035 | HK2151628-036 | HK2151628-038 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | 2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.2 | 2.8 | 2.5 | 3.8 | 4.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 5* | 6* | NOT DETECTED | 2* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood | F4_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151628-039 | HK2151628-040 | HK2151628-041 | HK2151628-042 | HK2151628-043 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | 3 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.5 | 4.7 | 3.0 | 3.4 | 3.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 2* | NOT DETECTED | 2* | 1* |

| Sub-Matrix: WATER | | | Sample ID | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood | F3_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 | 24-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2151628-044 | HK2151628-045 | HK2151628-046 | HK2151628-047 | HK2151628-048 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.4 | 3.4 | 2.2 | 2.0 | 4.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | NOT DETECTED | NOT DETECTED | 1* | 4* |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Flood | F3_bottom_Flood | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 24-Dec-2021 | 24-Dec-2021 | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | HK2151628-049 | HK2151628-050 | ------- | ------- | ------- |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | ---- | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | ---- | ---- | ---- |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.6 | 4.4 | ---- | ---- | ---- |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | ---- | ---- | ---- |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 7* | ---- | ---- | ---- |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4099541)** | | | | | | | | |
| HK2151628-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2151628-012 | C1_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4099542)** | | | | | | | | |
| HK2151628-023 | G1*_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| HK2151628-033 | F2_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4099543)** | | | | | | | | |
| HK2151628-044 | CR9_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099550)** | | | | | | | | |
| HK2151628-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099552)** | | | | | | | | |
| HK2151628-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099554)** | | | | | | | | |
| HK2151628-050 | F3_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099556)** | | | | | | | | |
| HK2151628-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | 0.10 | 0.10 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099557)** | | | | | | | | |
| HK2151628-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099558)** | | | | | | | | |
| HK2151628-050 | F3_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4100134)** | | | | | | | | |
| HK2151628-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 6.8 | 7.4 | 8.5 |
| **EP: Aggregate Organics (QC Lot: 4100135)** | | | | | | | | |
| HK2151628-023 | G1*_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 8.4 | 8.9 | 5.8 |
| **EP: Aggregate Organics (QC Lot: 4100136)** | | | | | | | | |
| HK2151628-044 | CR9_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 4.4 | 3.9 | 12.0 |

## Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4099541)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 96.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4099542)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 102 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4099543)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 98.5 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099550)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 81.2 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099552)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 89.2 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 106 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099554)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 103 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 106 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099556)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.8 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099557)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 94.8 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099558)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.8 | ---- | 92.2 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4099969)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 105 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4099970)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 105 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4099971)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 104 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4100134)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 103 | ---- | 93.7 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4100135)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 101 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4100136)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 96.1 | ---- | 93.7 | 108 | ---- | ---- |

## *Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report*

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099550)** | | | | | | | | | | |
| HK2151628-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 88.1 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099552)** | | | | | | | | | | |
| HK2151628-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 98.2 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099554)** | | | | | | | | | | |
| HK2151628-050 | F3_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099556)** | | | | | | | | | | |
| HK2151628-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 92.6 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099557)** | | | | | | | | | | |
| HK2151628-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 120 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4099558)** | | | | | | | | | | |
| HK2151628-050 | F3_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 107 | ---- | 75.0 | 125 | ---- | ---- |

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 26 |
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| Project | : ---- | | | Date Samples Received | : 27-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V3 | Issue Date | : 10-Jan-2022 |
| C-O-C number | : ---- | | | No. of samples received | : 95 |
| Site | : | | | No. of samples analysed | : 95 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| Fung Lim Chee, Richard | Managing Director | Inorganics |
| Ng Sin Kou, May | Laboratory Manager | Microbiology_ENV |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 27-Dec-2021 to 10-Jan-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2152124**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 20:50.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

| Sub-Matrix: WATER | | | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-001 | HK2152124-002 | HK2152124-003 | HK2152124-004 | HK2152124-005 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 2 | 2 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.08 | 0.03 | 0.02 | 0.03 | 0.03 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.08 | 0.03 | <0.02 | 0.03 | 0.03 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 11.3 | 10.4 | 11.2 | 9.9 | 10.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 63 | 47 | 12 | 11 | 12 |

| Sub-Matrix: WATER | | | Sample ID | CR17_bottom_Flood | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-006 | HK2152124-007 | HK2152124-008 | HK2152124-009 | HK2152124-010 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 4 | 4 | 4 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.2 | 8.8 | 8.3 | 9.6 | 8.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 7* | NOT DETECTED | 6* | 6* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1_middle_Flood | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-011 | HK2152124-012 | HK2152124-013 | HK2152124-014 | HK2152124-015 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 4 | 3 | 4 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.8 | 9.4 | 9.2 | 10.2 | 9.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 5* | 3* | 37 | 28 | 49 |

| Sub-Matrix: WATER | | | Sample ID | CR1_surface_Flood | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood_dup |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-016 | HK2152124-017 | HK2152124-018 | HK2152124-019 | HK2152124-021 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 4 | 4 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.05 | 0.04 | 0.02 | 0.05 | 0.04 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.010 | 0.008 | 0.004 | 0.007 | 0.006 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | 0.01 | <0.01 | 0.02 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.07 | 0.06 | <0.02 | 0.07 | 0.06 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.7 | 6.8 | 7.5 | 8.5 | 7.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 3* | 1* | 6* | 5* |

| Sub-Matrix: WATER | | | Sample ID | W2_bottom_Flood | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-022 | HK2152124-023 | HK2152124-024 | HK2152124-025 | HK2152124-026 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 4 | 3 | 2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.05 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.005 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | <0.01 | <0.01 | <0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.07 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.9 | 10.9 | 6.8 | 8.8 | 5.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 15 | 2* | 14 | 31 | 10 |

| Sub-Matrix: WATER | | | Sample ID | F1_middle_Flood | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-027 | HK2152124-028 | HK2152124-029 | HK2152124-030 | HK2152124-031 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 4 | 3 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.9 | 5.4 | 9.7 | 10.4 | 9.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 19 | 42 | 37 | 46 | 56 |

| Sub-Matrix: WATER | | | | Sample ID | F2_surface_Flood | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2152124-032 | HK2152124-033 | HK2152124-034 | HK2152124-035 | HK2152124-036 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | 4 | 4 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | 0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.2 | 3.4 | 3.7 | 2.2 | 2.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 2 | <2 | <2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 9 | 7* | 8 | NOT DETECTED | 2* |

| Sub-Matrix: WATER | | | Sample ID | C1*_surface_Flood | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-038 | HK2152124-039 | HK2152124-040 | HK2152124-041 | HK2152124-042 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | 3 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.0 | 3.4 | 3.6 | 2.7 | 3.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | F4_bottom_Flood | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2152124-043 | HK2152124-044 | HK2152124-045 | HK2152124-046 | HK2152124-047 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | <2 | <2 | 2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | 0.01 | 0.02 | 0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.2 | 2.3 | 2.3 | 2.4 | 2.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F3_surface_Flood | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2152124-048 | HK2152124-049 | HK2152124-050 | HK2152124-051 | HK2152124-052 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | <2 | 5 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.03 | 0.06 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.03 | 0.06 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.5 | 6.5 | 6.9 | 10.1 | 9.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 3 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 4* | 3* | 21 | 34 |

| Sub-Matrix: WATER | | | Sample ID | W1_bottom_Ebb | CR17_surface_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-053 | HK2152124-054 | HK2152124-056 | HK2152124-057 | HK2152124-058 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 5 | 4 | 5 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.03 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.03 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 10.6 | 10.2 | 6.1 | 9.2 | 8.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 37 | 11 | 9 | 4* | 3* |

| Sub-Matrix: WATER | | | Sample ID | CR16_bottom_Ebb | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2152124-059 | HK2152124-060 | HK2152124-061 | HK2152124-062 | HK2152124-063 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 5 | 4 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.6 | 9.8 | 10.4 | 10.5 | 8.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 9 | 6* | 12 | 82 |

| Sub-Matrix: WATER | | | Sample ID | CR15_middle_Ebb | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-064 | HK2152124-065 | HK2152124-066 | HK2152124-067 | HK2152124-068 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 4 | 4 | 6 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.02 | <0.01 | <0.01 | 0.05 | 0.03 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.002 | <0.001 | <0.001 | 0.003 | 0.002 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.17 | 0.07 | 0.02 | 0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.19 | 0.07 | 0.02 | 0.06 | 0.04 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.4 | 8.2 | 8.4 | 8.2 | 7.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 2700 | 1900 | 370 | 23 | 6* |

| Sub-Matrix: WATER | | | Sample ID | CR1_bottom_Ebb | W2_surface_Ebb | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2152124-069 | HK2152124-070 | HK2152124-072 | HK2152124-073 | HK2152124-074 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 4 | 5 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.02 | 0.07 | 1.32 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | 0.006 | 0.088 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | 0.02 | 0.10 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | 0.09 | 1.44 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.6 | 8.4 | 7.1 | 8.7 | 8.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 19 | 320 | 14 | 9 |

| Sub-Matrix: WATER | | | Sample ID | G1*_bottom_Ebb | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-075 | HK2152124-076 | HK2152124-077 | HK2152124-078 | HK2152124-079 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 5 | 5 | 7 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | 0.01 | 0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 8.6 | 5.6 | 5.4 | 6.1 | 10.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 15 | 9 | 23 | 62 | 77 |

| Sub-Matrix: WATER | | | Sample ID | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2152124-080 | HK2152124-081 | HK2152124-082 | HK2152124-083 | HK2152124-084 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 3 | 5 | 5 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 17.2 | 10.0 | 3.9 | 3.7 | 3.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 53 | 82 | 13 | 12 | 9 |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2152124-085 | HK2152124-086 | HK2152124-088 | HK2152124-089 | HK2152124-090 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 3 | 4 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 2.6 | 2.7 | 3.6 | 4.0 | 4.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_bottom_Ebb | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-091 | HK2152124-092 | HK2152124-093 | HK2152124-094 | HK2152124-095 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 6 | 5 | 5 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.0 | 3.3 | 3.8 | 3.3 | 2.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR9_middle_Ebb | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 | 27-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152124-096 | HK2152124-097 | HK2152124-098 | HK2152124-099 | HK2152124-100 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 4 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | 0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.3 | 2.5 | 5.8 | 5.8 | 6.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | NOT DETECTED | 4* | 2* | 3* |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4100477)** | | | | | | | | |
| HK2152124-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| HK2152124-011 | C1_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4100478)** | | | | | | | | |
| HK2152124-022 | W2_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| HK2152124-032 | F2_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4100479)** | | | | | | | | |
| HK2152124-043 | F4_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2152124-053 | W1_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4100480)** | | | | | | | | |
| HK2152124-064 | CR15_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 4 | 4 | 0.0 |
| HK2152124-075 | G1*_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 4 | 4 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4100481)** | | | | | | | | |
| HK2152124-085 | TPLMB_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| HK2152124-096 | CR9_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100349)** | | | | | | | | |
| HK2152124-021 | W2_surface_Flood_dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | 0.04 | 0.04 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100350)** | | | | | | | | |
| HK2152124-042 | F4_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100351)** | | | | | | | | |
| HK2152124-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100352)** | | | | | | | | |
| HK2152124-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100353)** | | | | | | | | |
| HK2152124-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100445)** | | | | | | | | |
| HK2152124-021 | W2_surface_Flood_dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100447)** | | | | | | | | |
| HK2152124-042 | F4_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100449)** | | | | | | | | |
| HK2152124-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report: LOR | Unit | Original Result | Duplicate Result | RPD (%) |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100451)** | | | | | | | | |
| HK2152124-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100453)** | | | | | | | | |
| HK2152124-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4100431)** | | | | | | | | |
| HK2152124-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 11.3 | 11.7 | 3.5 |
| **EP: Aggregate Organics (QC Lot: 4100432)** | | | | | | | | |
| HK2152124-022 | W2_bottom_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 7.9 | 7.9 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4100433)** | | | | | | | | |
| HK2152124-043 | F4_bottom_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 3.2 | 3.4 | 5.1 |
| **EP: Aggregate Organics (QC Lot: 4100434)** | | | | | | | | |
| HK2152124-064 | CR15_middle_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 7.4 | 7.0 | 5.6 |
| **EP: Aggregate Organics (QC Lot: 4100435)** | | | | | | | | |
| HK2152124-085 | TPLMB_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 2.6 | 2.6 | 0.0 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report: LOR | Unit | Result | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration | Spike Recovery (%): LCS | DCS | Recovery Limits(%): Low | High | RPD (%): Value | Control Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4100477)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 95.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4100478)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 93.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4100479)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 96.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4100480)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 94.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4100481)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 93.0 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100349)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.2 | ---- | 92.2 | 108 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100349) - Continued** | | | | | | | | | | | |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100350)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 95.2 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100351)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.5 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100352)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 95.1 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100353)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 96.3 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100445)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 83.0 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 105 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100447)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 96.6 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100449)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 104 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100451)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 109 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100453)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 95.4 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4100431)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 98.7 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4100432)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 101 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4100433)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4100433) - Continued** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 103 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4100434)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 99.0 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4100435)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 100 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4102318)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 108 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4102319)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 107 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4102320)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 107 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4102321)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4102322)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 105 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100349)** | | | | | | | | | | |
| HK2152124-021 | W2_surface_Flood_dup | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 106 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100350)** | | | | | | | | | | |
| HK2152124-042 | F4_middle_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 116 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100351)** | | | | | | | | | | |
| HK2152124-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 96.2 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100352)** | | | | | | | | | | |
| HK2152124-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 95.6 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100353)** | | | | | | | | | | |
| HK2152124-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 92.6 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100445)** | | | | | | | | | | |
| HK2152124-021 | W2_surface_Flood_dup | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 106 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100447)** | | | | | | | | | | |
| HK2152124-042 | F4_middle_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 98.4 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100449)** | | | | | | | | | | |
| HK2152124-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 105 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100451)** | | | | | | | | | | |
| HK2152124-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4100453)** | | | | | | | | | | |
| HK2152124-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 107 | ---- | 75.0 | 125 | ---- | ---- |

# ALS Technichem (HK) Pty Ltd

## ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

## CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 26 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2152162 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | | |
| E-mail | : DerekLo@lamenviro.com | E-mail | : richard.fung@alsglobal.com | | |
| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 29-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V3 | Issue Date | : 12-Jan-2022 |
| C-O-C number | : ---- | | | No. of samples received | : 95 |
| Site | : | | | No. of samples analysed | : 95 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| **Fung Lim Chee, Richard** | **Managing Director** | **Inorganics** |
| **Ng Sin Kou, May** | **Laboratory Manager** | **Microbiology_ENV** |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 29-Dec-2021 to 12-Jan-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2152162**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 17:25.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

| Sub-Matrix: WATER | | | Sample ID | W1_surface_Flood | W1_middle_Flood | W1_bottom_Flood | CR17_surface_Flood | CR17_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152162-001 | HK2152162-002 | HK2152162-003 | HK2152162-004 | HK2152162-006 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | 3 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.14 | 0.14 | 0.05 | 0.06 | 0.04 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.14 | 0.14 | 0.05 | 0.06 | 0.04 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 9.4 | 7.7 | 7.3 | 8.7 | 7.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 3 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 41 | 12 | 27 | 27 | 19 |

| Sub-Matrix: WATER | | | | Sample ID | CR16_surface_Flood | CR16_middle_Flood | CR16_bottom_Flood | C1_surface_Flood | C1_middle_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2152162-007 | HK2152162-008 | HK2152162-009 | HK2152162-010 | HK2152162-011 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | 3 | 4 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 6.0 | 5.4 | 7.0 | 7.4 | 6.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | 2 | <2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | 4* | 5* | 2* |

| Sub-Matrix: WATER | | | Sample ID | C1_bottom_Flood | CR15_surface_Flood | CR15_middle_Flood | CR15_bottom_Flood | CR1_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152162-012 | HK2152162-013 | HK2152162-014 | HK2152162-015 | HK2152162-016 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 2 | 3 | 7 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.8 | 5.8 | 6.6 | 7.2 | 4.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 9 | 10 | 4* | 600 |

| Sub-Matrix: WATER | | | | Sample ID | CR1_middle_Flood | CR1_bottom_Flood | W2_surface_Flood | W2_surface_Flood _dup | W2_bottom_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | | HK2152162-017 | HK2152162-018 | HK2152162-019 | HK2152162-021 | HK2152162-022 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 5 | 7 | 6 | 7 | 7 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | 0.13 | 0.27 | 0.06 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | 0.006 | 0.011 | 0.006 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | 0.04 | 0.06 | 0.03 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | 0.17 | 0.33 | 0.09 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 5.4 | 5.6 | 3.4 | 3.7 | 4.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 380 | 210 | 720 | 670 | 510 |

| Sub-Matrix: WATER | | | Sample ID | G1*_surface_Flood | G1*_middle_Flood | G1*_bottom_Flood | F1_surface_Flood | F1_middle_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2152162-023 | HK2152162-024 | HK2152162-025 | HK2152162-026 | HK2152162-027 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 3 | 3 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.05 | 0.04 | 0.02 | 0.03 | 0.03 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.006 | 0.003 | 0.002 | 0.003 | 0.002 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.06 | 0.05 | 0.04 | 0.05 | 0.05 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.4 | 4.9 | 4.7 | 1.7 | 2.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 140 | 150 | 130 | 4* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F1_bottom_Flood | G1_surface_Flood | G1_middle_Flood | G1_bottom_Flood | F2_surface_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152162-028 | HK2152162-029 | HK2152162-030 | HK2152162-031 | HK2152162-032 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 4 | 4 | 3 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.03 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.002 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | 0.01 | 0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.04 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.4 | 3.7 | 4.6 | 5.7 | 1.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | <2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 38 | 72 | 76 | 57 | 1* |

| Sub-Matrix: WATER | | | | Sample ID | F2_middle_Flood | F2_bottom_Flood | TPLMB_surface_Flood | TPLMB_surface_Flood_dup | C1*_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2152162-033 | HK2152162-034 | HK2152162-035 | HK2152162-036 | HK2152162-038 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 4 | 5 | 4 | 3 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | 0.01 | 0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 1.5 | 1.8 | 2.5 | 2.3 | 1.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 2* | 4* | NOT DETECTED | 1* | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_middle_Flood | C1*_bottom_Flood | F4_surface_Flood | F4_middle_Flood | F4_bottom_Flood |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152162-039 | HK2152162-040 | HK2152162-041 | HK2152162-042 | HK2152162-043 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 5 | 3 | 2 | 2 | 7 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 1.7 | 2.5 | 2.9 | 2.7 | 2.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | | Sample ID | CR9_surface_Flood | CR9_surface_Flood _dup | CR9_middle_Flood | CR9_bottom_Flood | F3_surface_Flood |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2152162-044 | HK2152162-045 | HK2152162-046 | HK2152162-047 | HK2152162-048 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 3 | 4 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 4.0 | 4.3 | 4.0 | 3.7 | 3.9 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Flood | F3_bottom_Flood | W1_surface_Ebb | W1_middle_Ebb | W1_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152162-049 | HK2152162-050 | HK2152162-051 | HK2152162-052 | HK2152162-053 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 5 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | 0.08 | 0.05 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.08 | 0.05 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 3.7 | 3.9 | 8.5 | 7.8 | 8.3 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | 3 | 3 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 4* | 2* | 1* | 1* | 1* |

| Sub-Matrix: WATER | | | Sample ID | CR17_surface_Ebb | CR17_middle_Ebb | CR17_bottom_Ebb | CR16_surface_Ebb | CR16_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2152162-054 | HK2152162-055 | HK2152162-056 | HK2152162-057 | HK2152162-058 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | **3** | **4** | **6** | **5** | **3** |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **EK055K: Unionized Ammonia (as N)** | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| **EK058A: Nitrate as N** | 14797-55-8 | 0.01 | mg/L | **0.05** | **0.03** | **0.03** | **0.02** | <0.01 |
| **EK063A: Total Inorganic Nitrogen as N** | ---- | 0.02 | mg/L | **0.05** | **0.03** | **0.03** | **0.02** | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | **7.2** | **6.4** | **6.5** | **5.2** | **7.0** |
| **EP030: Biochemical Oxygen Demand** | ---- | 2 | mg/L | **3** | **2** | **2** | **2** | **2** |
| **EM: Microbiological Testing** | | | | | | | | |
| **EM019: Escherichia coli** | ---- | 1 | CFU/100mL | **NOT DETECTED** | **NOT DETECTED** | **1*** | **NOT DETECTED** | **1*** |

| Sub-Matrix: WATER | | | Sample ID | CR16_bottom_Ebb | C1_surface_Ebb | C1_middle_Ebb | C1_bottom_Ebb | CR15_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2152162-059 | HK2152162-060 | HK2152162-061 | HK2152162-062 | HK2152162-063 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 5 | 3 | 3 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.6 | 5.8 | 6.0 | 7.3 | 6.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 1* | 1* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR15_middle_Ebb | CR15_bottom_Ebb | CR15_bottom_Ebb _dup | CR1_surface_Ebb | CR1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152162-064 | HK2152162-065 | HK2152162-066 | HK2152162-067 | HK2152162-068 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 4 | 5 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.02 | 0.02 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.01 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.03 | 0.03 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 6.2 | 6.0 | 6.1 | 4.6 | 4.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | <2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | NOT DETECTED | NOT DETECTED | 16 | 23 |

| Sub-Matrix: WATER | | | Sample ID | CR1_bottom_Ebb | W2_surface_Ebb | W2_bottom_Ebb | G1*_surface_Ebb | G1*_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2152162-069 | HK2152162-070 | HK2152162-072 | HK2152162-073 | HK2152162-074 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 8 | 8 | 5 | 6 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.19 | 0.11 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | 0.004 | 0.002 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | 0.01 | 0.01 | 0.02 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.21 | 0.13 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.9 | 4.0 | 4.3 | 4.7 | 4.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | 2 | 2 | 2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 23 | 8 | 17 | 1* | 23 |

| Sub-Matrix: WATER | | | Sample ID | G1*_bottom_Ebb | F1_surface_Ebb | F1_middle_Ebb | F1_bottom_Ebb | G1_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152162-075 | HK2152162-076 | HK2152162-077 | HK2152162-078 | HK2152162-079 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 3 | 3 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.05 | 0.02 | 0.02 | 0.02 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | 0.002 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | 0.02 | 0.02 | 0.02 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.06 | 0.05 | 0.04 | 0.03 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.8 | 2.6 | 2.8 | 3.2 | 7.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | <2 | <2 | <2 | 3 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 20 | 8 | 4* | 20 | 6* |

| Sub-Matrix: WATER | | | Sample ID | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb | F2_middle_Ebb | F2_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152162-080 | HK2152162-081 | HK2152162-082 | HK2152162-083 | HK2152162-084 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 5 | 5 | 4 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.6 | 7.7 | 2.7 | 2.6 | 3.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | 2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 6* | 4* | 1* | 3* | 8 |

| Sub-Matrix: WATER | | | | Sample ID | TPLMB_surface_Ebb | TPLMB_surface_Ebb_dup | C1*_surface_Ebb | C1*_middle_Ebb | C1*_middle_Ebb_dup |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2152162-085 | HK2152162-086 | HK2152162-088 | HK2152162-089 | HK2152162-090 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 3 | 4 | 3 | 3 | 4 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | 0.01 | 0.02 | 0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.2 | 2.9 | 2.4 | 2.0 | 2.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | 2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | C1*_bottom_Ebb | F4_surface_Ebb | F4_middle_Ebb | F4_bottom_Ebb | CR9_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152162-091 | HK2152162-092 | HK2152162-093 | HK2152162-094 | HK2152162-095 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 6 | 3 | 4 | 4 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 2.5 | 3.9 | 4.1 | 3.6 | 4.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | CR9_middle_Ebb | CR9_bottom_Ebb | F3_surface_Ebb | F3_middle_Ebb | F3_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 | 29-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152162-096 | HK2152162-097 | HK2152162-098 | HK2152162-099 | HK2152162-100 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 3 | 3 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.2 | 5.4 | 4.6 | 4.5 | 5.4 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | NOT DETECTED | 1* | 1* | NOT DETECTED |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4103964)** | | | | | | | | |
| HK2152162-001 | W1_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 2 | 0.0 |
| HK2152162-012 | C1_bottom_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4103965)** | | | | | | | | |
| HK2152162-023 | G1*_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 3 | 0.0 |
| HK2152162-033 | F2_middle_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 4 | 5 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4103966)** | | | | | | | | |
| HK2152162-044 | CR9_surface_Flood | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 2 | 3 | 0.0 |
| HK2152162-054 | CR17_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 4 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4103967)** | | | | | | | | |
| HK2152162-064 | CR15_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| HK2152162-075 | G1*_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 6 | 6 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4103968)** | | | | | | | | |
| HK2152162-085 | TPLMB_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 4 | 0.0 |
| HK2152162-096 | CR9_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 3 | 3 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103079)** | | | | | | | | |
| HK2152162-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103081)** | | | | | | | | |
| HK2152162-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103083)** | | | | | | | | |
| HK2152162-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103085)** | | | | | | | | |
| HK2152162-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103087)** | | | | | | | | |
| HK2152162-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103102)** | | | | | | | | |
| HK2152162-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | 0.06 | 0.07 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103103)** | | | | | | | | |
| HK2152162-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103104)** | | | | | | | | |
| HK2152162-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report: LOR | Unit | Original Result | Duplicate Result | RPD (%) |
|---|---|---|---|---|---|---|---|---|
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103105)** | | | | | | | | |
| HK2152162-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103106)** | | | | | | | | |
| HK2152162-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4103064)** | | | | | | | | |
| HK2152162-001 | W1_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 9.4 | 9.6 | 2.1 |
| **EP: Aggregate Organics (QC Lot: 4103065)** | | | | | | | | |
| HK2152162-023 | G1*_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 4.4 | 4.7 | 6.6 |
| **EP: Aggregate Organics (QC Lot: 4103066)** | | | | | | | | |
| HK2152162-044 | CR9_surface_Flood | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 4.0 | 3.9 | 2.5 |
| **EP: Aggregate Organics (QC Lot: 4103067)** | | | | | | | | |
| HK2152162-064 | CR15_middle_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 6.2 | 6.2 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4103068)** | | | | | | | | |
| HK2152162-085 | TPLMB_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 3.2 | 3.3 | 3.1 |

## *Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report*

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report: LOR | Unit | Result | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration | Spike Recovery (%): LCS | DCS | Recovery Limits(%): Low | High | RPD (%): Value | Control Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4103964)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 95.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4103965)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 96.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4103966)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 110 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4103967)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 95.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4103968)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 95.0 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103079)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 96.6 | ---- | 78.8 | 120 | ---- | ---- |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103079) - Continued** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103081)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 97.4 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103083)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 100 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103085)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 101 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103087)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 103 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103102)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 94.3 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103103)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 94.4 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103104)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 94.4 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103105)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 98.6 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103106)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 93.4 | ---- | 92.2 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103058)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 101 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103064)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 100 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103065)** | | | | | | | | | | | |

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4103065) - Continued** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 97.0 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103066)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 96.4 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103067)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 103 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103068)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 104 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103875)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 103 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103876)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 105 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103877)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 103 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103878)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 103 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4103879)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |

## Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103079)** | | | | | | | | | | |
| HK2152162-022 | W2_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 108 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103081)** | | | | | | | | | | |
| HK2152162-043 | F4_bottom_Flood | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 107 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103083)** | | | | | | | | | | |
| HK2152162-063 | CR15_surface_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 108 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103085)** | | | | | | | | | | |
| HK2152162-084 | F2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 107 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103087)** | | | | | | | | | | |
| HK2152162-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 106 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103102)** | | | | | | | | | | |
| HK2152162-022 | W2_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 98.2 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103103)** | | | | | | | | | | |
| HK2152162-043 | F4_bottom_Flood | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 94.0 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103104)** | | | | | | | | | | |
| HK2152162-063 | CR15_surface_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 97.9 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103105)** | | | | | | | | | | |
| HK2152162-084 | F2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 107 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4103106)** | | | | | | | | | | |
| HK2152162-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 94.2 | ---- | 75.0 | 125 | ---- | ---- |

# ALS Technichem (HK) Pty Ltd

## ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

## *CERTIFICATE OF ANALYSIS*

| | | | | | |
|---|---|---|---|---|---|
| Client | : LAM ENVIRONMENTAL SERVICES LTD | Laboratory | : ALS Technichem (HK) Pty Ltd | Page | : 1 of 15 |
| Contact | : DEREK LO | Contact | : Richard Fung | Work Order | : HK2152164 |
| Address | : 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG | Address | : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong | | |
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| Telephone | : +852 2882 3939 | Telephone | : +852 2610 1044 | | |
| Facsimile | : +852 2882 3331 | Facsimile | : +852 2610 2021 | | |
| Project | : ---- | | | Date Samples Received | : 31-Dec-2021 |
| Order number | : ---- | Quote number | : HKE/1217/2021_V3 | Issue Date | : 14-Jan-2022 |
| C-O-C number | : ---- | | | No. of samples received | : 47 |
| Site | : | | | No. of samples analysed | : 47 |

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This document has been signed by those names that appear on this report and are the authorised signatories.

| *Signatories* | *Position* | *Authorised results for* |
|---|---|---|
| **Fung Lim Chee, Richard** | **Managing Director** | **Inorganics** |
| **Ng Sin Kou, May** | **Laboratory Manager** | **Microbiology_ENV** |

## General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 31-Dec-2021 to 14-Jan-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

**Specific Comments for Work Order: HK2152164**

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles. Sample(s) arrived at the laboratory at 12:50.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

* denoted the estimated count; Result based on a count outside of standard method's countable range.

EK055K - Result of Unionized Ammonia was calculated from Ammoniacal Nitrogen (NH3-N) and in-situ measurement of temperature, pH and Salinity. Ammoniacal Nitrogen results are determined by the laboratory and in-situ measurement results were provided by the client.

EK063A - Total Inorganic Nitrogen is the sum of the Total Oxidizable Nitrogen and Ammonical Nitrogen.

EP008F - For marine and freshwater samples, chlorophyll b, if present, may cause some interference to the analysis of chlorophyll a.

## Analytical Results

| Sub-Matrix: WATER | | | Sample ID | W1_surface_Ebb | W1_middle_Ebb | W1_bottom_Ebb | CR17_surface_Ebb | CR17_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152164-051 | HK2152164-052 | HK2152164-053 | HK2152164-054 | HK2152164-056 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 4 | 3 | 2 | 2 | 5 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.06 | 0.03 | 0.01 | 0.03 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.06 | 0.03 | <0.02 | 0.03 | 0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 7.2 | 7.4 | 6.4 | 4.1 | 6.6 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | 2 | 2 | <2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 20 | 15 | 10 | 8 | 11 |

| Sub-Matrix: WATER | | | Sample ID | CR16_surface_Ebb | CR16_middle_Ebb | CR16_bottom_Ebb | C1_surface_Ebb | C1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152164-057 | HK2152164-058 | HK2152164-059 | HK2152164-060 | HK2152164-061 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 3 | 3 | 2 | 2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | 0.01 | <0.01 | <0.01 | 0.02 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.8 | 6.2 | 6.2 | 4.9 | 4.7 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | 2 | <2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 8 | 6* | 12 | 3* | 4* |

| Sub-Matrix: WATER | | | Sample ID | C1_bottom_Ebb | CR15_surface_Ebb | CR15_middle_Ebb | CR15_bottom_Ebb | CR15_bottom_Ebb _dup |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152164-062 | HK2152164-063 | HK2152164-064 | HK2152164-065 | HK2152164-066 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | 2 | 2 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | 0.01 | 0.04 | 0.08 | 0.03 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | 0.04 | 0.08 | 0.03 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.7 | 3.7 | 4.5 | 3.6 | 4.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 15 | 8 | 36 | 120 | 110 |

| Sub-Matrix: WATER | | | Sample ID | CR1_surface_Ebb | CR1_middle_Ebb | CR1_bottom_Ebb | W2_surface_Ebb | W2_bottom_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 |
| *Compound* | *CAS Number* | *LOR* | *Unit* | HK2152164-067 | HK2152164-068 | HK2152164-069 | HK2152164-070 | HK2152164-072 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | <2 | 3 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | 0.03 | <0.01 | <0.01 | 0.03 | 0.02 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | 0.002 | <0.001 | <0.001 | 0.002 | 0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.02 | 0.01 | <0.01 | 0.02 | 0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | 0.05 | <0.02 | <0.02 | 0.05 | 0.03 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.0 | 5.9 | 6.2 | 14.8 | 7.1 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 310 | 260 | 130 | 100 | 120 |

| Sub-Matrix: WATER | | | Sample ID | G1*_surface_Ebb | G1*_middle_Ebb | G1*_bottom_Ebb | F1_surface_Ebb | F1_middle_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152164-073 | HK2152164-074 | HK2152164-075 | HK2152164-076 | HK2152164-077 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 3 | 3 | <2 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.9 | 5.8 | 6.1 | 2.9 | 4.8 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 43 | 61 | 49 | 67 | 29 |

| Sub-Matrix: WATER | | | Sample ID | F1_bottom_Ebb | G1_surface_Ebb | G1_middle_Ebb | G1_bottom_Ebb | F2_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152164-078 | HK2152164-079 | HK2152164-080 | HK2152164-081 | HK2152164-082 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | 2 | 2 | 2 | 3 | <2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.2 | 5.6 | 6.5 | 7.5 | 3.5 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | 2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 32 | NOT DETECTED | 1* | 1* | 13 |

| Sub-Matrix: WATER | | | | Sample ID | F2_middle_Ebb | F2_bottom_Ebb | TPLMB_surface_Ebb | TPLMB_surface_Ebb_dup | C1*_surface_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2152164-083 | HK2152164-084 | HK2152164-085 | HK2152164-086 | HK2152164-088 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | <2 | 3 | 2 | <2 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.5 | 3.9 | 2.5 | 3.0 | 4.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | 13 | 10 | 5* | 2* | 1* |

| Sub-Matrix: WATER | | | | Sample ID | C1*_middle_Ebb | C1*_middle_Ebb_dup | C1*_bottom_Ebb | F4_surface_Ebb | F4_middle_Ebb |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sampling date / time | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 |
| Compound | CAS Number | LOR | Unit | | HK2152164-089 | HK2152164-090 | HK2152164-091 | HK2152164-092 | HK2152164-093 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | | 2 | 3 | 3 | 4 | 2 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | | 3.7 | 3.8 | 1.5 | 4.1 | 3.2 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | | NOT DETECTED | NOT DETECTED | 1* | NOT DETECTED | NOT DETECTED |

| Sub-Matrix: WATER | | | Sample ID | F4_bottom_Ebb | CR9_surface_Ebb | CR9_middle_Ebb | CR9_bottom_Ebb | F3_surface_Ebb |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 | 31-Dec-2021 |
| Compound | CAS Number | LOR | Unit | HK2152164-094 | HK2152164-095 | HK2152164-096 | HK2152164-097 | HK2152164-098 |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 2 | 2 | 4 | 3 |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | 0.01 | <0.01 | <0.01 | 0.03 | <0.01 |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | <0.02 | 0.03 | <0.02 |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 4.0 | 3.7 | 3.7 | 1.4 | 4.0 |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | <2 | <2 | <2 |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | 1* | 2* | 2* | NOT DETECTED | 11 |

| Sub-Matrix: WATER | | | Sample ID | F3_middle_Ebb | F3_bottom_Ebb | ---- | ---- | ---- |
|---|---|---|---|---|---|---|---|---|
| | | | Sampling date / time | 31-Dec-2021 | 31-Dec-2021 | ---- | ---- | ---- |
| Compound | CAS Number | LOR | Unit | HK2152164-099 | HK2152164-100 | ------- | ------- | ------- |
| **EA/ED: Physical and Aggregate Properties** | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | <2 | ---- | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters** | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| EK055K: Unionized Ammonia (as N) | ---- | 0.001 | mg/L | <0.001 | <0.001 | ---- | ---- | ---- |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| EK058A: Nitrate as N | 14797-55-8 | 0.01 | mg/L | <0.01 | <0.01 | ---- | ---- | ---- |
| EK063A: Total Inorganic Nitrogen as N | ---- | 0.02 | mg/L | <0.02 | <0.02 | ---- | ---- | ---- |
| **EP: Aggregate Organics** | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | 5.4 | 3.8 | ---- | ---- | ---- |
| EP030: Biochemical Oxygen Demand | ---- | 2 | mg/L | <2 | <2 | ---- | ---- | ---- |
| **EM: Microbiological Testing** | | | | | | | | |
| EM019: Escherichia coli | ---- | 1 | CFU/100mL | NOT DETECTED | 6* | ---- | ---- | ---- |

## Laboratory Duplicate (DUP) Report

Matrix: **WATER**

| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Laboratory Duplicate (DUP) Report | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | LOR | Unit | Original Result | Duplicate Result | RPD (%) |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4105241)** | | | | | | | | |
| HK2152164-051 | W1_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | 4 | 4 | 0.0 |
| HK2152164-062 | C1_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4105242)** | | | | | | | | |
| HK2152164-073 | G1*_surface_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| HK2152164-083 | F2_middle_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4105243)** | | | | | | | | |
| HK2152164-094 | F4_bottom_Ebb | **EA025: Suspended Solids (SS)** | ---- | 2 | mg/L | <2 | <2 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105191)** | | | | | | | | |
| HK2152164-072 | W2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | 0.02 | 0.02 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105192)** | | | | | | | | |
| HK2152164-093 | F4_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105193)** | | | | | | | | |
| HK2152164-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105220)** | | | | | | | | |
| HK2152164-072 | W2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105222)** | | | | | | | | |
| HK2152164-093 | F4_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105224)** | | | | | | | | |
| HK2152164-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.01 | mg/L | <0.01 | <0.01 | 0.0 |
| **EP: Aggregate Organics (QC Lot: 4105204)** | | | | | | | | |
| HK2152164-051 | W1_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 7.2 | 6.9 | 4.3 |
| **EP: Aggregate Organics (QC Lot: 4105205)** | | | | | | | | |
| HK2152164-073 | G1*_surface_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 5.9 | 6.1 | 3.3 |
| **EP: Aggregate Organics (QC Lot: 4105206)** | | | | | | | | |
| HK2152164-094 | F4_bottom_Ebb | **EP008F: Chlorophyll a** | ---- | 0.1 | mg/m³ | 4.0 | 3.7 | 7.8 |

## Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4105241)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 96.5 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4105242)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 98.0 | ---- | 84.4 | 116 | ---- | ---- |
| **EA/ED: Physical and Aggregate Properties (QC Lot: 4105243)** | | | | | | | | | | | |
| EA025: Suspended Solids (SS) | ---- | 2 | mg/L | <2 | 20 mg/L | 102 | ---- | 84.4 | 116 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105191)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.3 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105192)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 95.0 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105193)** | | | | | | | | | | | |
| EK055K: Ammonia as N | 7664-41-7 | 0.01 | mg/L | <0.01 | 0.5 mg/L | 97.2 | ---- | 92.2 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105220)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 100 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105222)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 103 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 104 | ---- | 96.3 | 108 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105224)** | | | | | | | | | | | |
| EK057A: Nitrite as N | 14797-65-0 | 0.01 | mg/L | <0.01 | 0.05 mg/L | 103 | ---- | 78.8 | 120 | ---- | ---- |
| | | | | <0.01 | 0.4 mg/L | 103 | ---- | 96.3 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4105204)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 100 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4105205)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4105206)** | | | | | | | | | | | |
| EP008F: Chlorophyll a | ---- | 0.1 | mg/m³ | <0.1 | 10 mg/m³ | 102 | ---- | 93.7 | 108 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4105261)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 106 | ---- | 81.9 | 113 | ---- | ---- |

Matrix: **WATER**

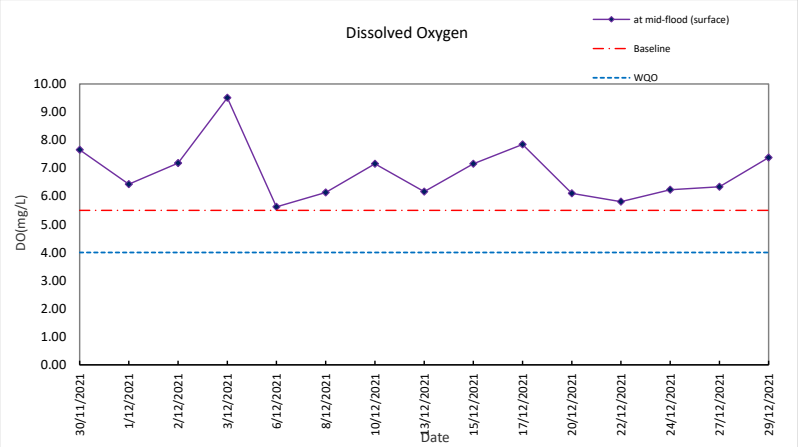
| Method: Compound | CAS Number | Method Blank (MB) Report | | | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits(%) | | RPD (%) | |
| | | LOR | Unit | Result | | LCS | DCS | Low | High | Value | Control Limit |
| **EP: Aggregate Organics (QC Lot: 4105265)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 98.9 | ---- | 81.9 | 113 | ---- | ---- |
| **EP: Aggregate Organics (QC Lot: 4105266)** | | | | | | | | | | | |
| EP030: Biochemical Oxygen Demand | ---- | ---- | mg/L | ---- | 198 mg/L | 102 | ---- | 81.9 | 113 | ---- | ---- |

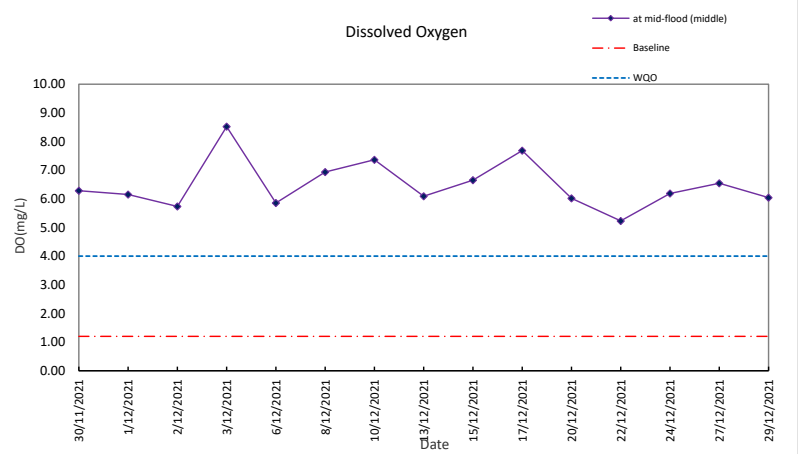
## *Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report*

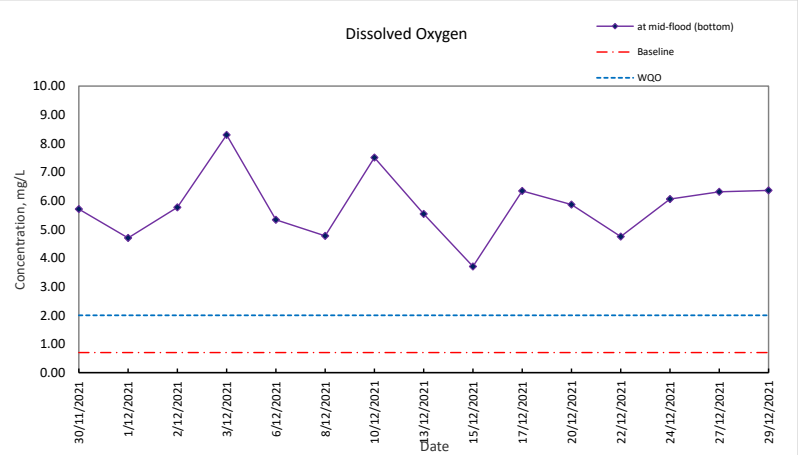
Matrix: **WATER**

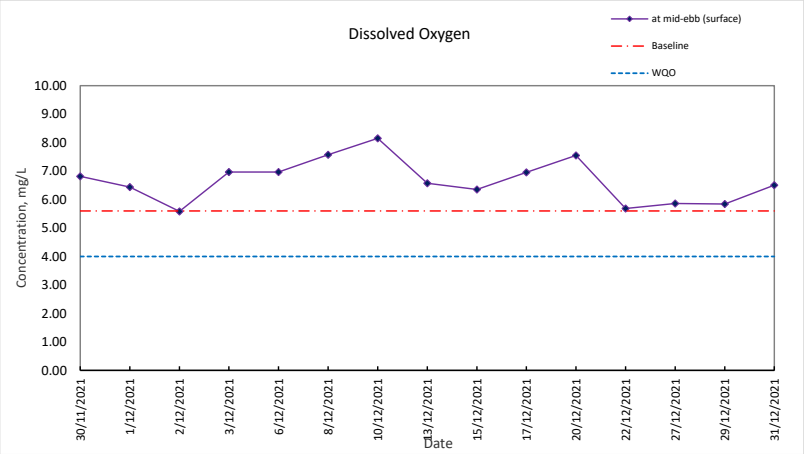
| Laboratory sample ID | Sample ID | Method: Compound | CAS Number | Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Spike Concentration | Spike Recovery (%) | | Recovery Limits (%) | | RPD (%) | |
| | | | | | MS | MSD | Low | High | Value | Control Limit |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105191)** | | | | | | | | | | |
| HK2152164-072 | W2_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 108 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105192)** | | | | | | | | | | |
| HK2152164-093 | F4_middle_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 104 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105193)** | | | | | | | | | | |
| HK2152164-100 | F3_bottom_Ebb | **EK055K: Ammonia as N** | 7664-41-7 | 0.5 mg/L | 106 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105220)** | | | | | | | | | | |
| HK2152164-072 | W2_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 98.8 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105222)** | | | | | | | | | | |
| HK2152164-093 | F4_middle_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 102 | ---- | 75.0 | 125 | ---- | ---- |
| **ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4105224)** | | | | | | | | | | |
| HK2152164-100 | F3_bottom_Ebb | **EK057A: Nitrite as N** | 14797-65-0 | 0.25 mg/L | 99.4 | ---- | 75.0 | 125 | ---- | ---- |

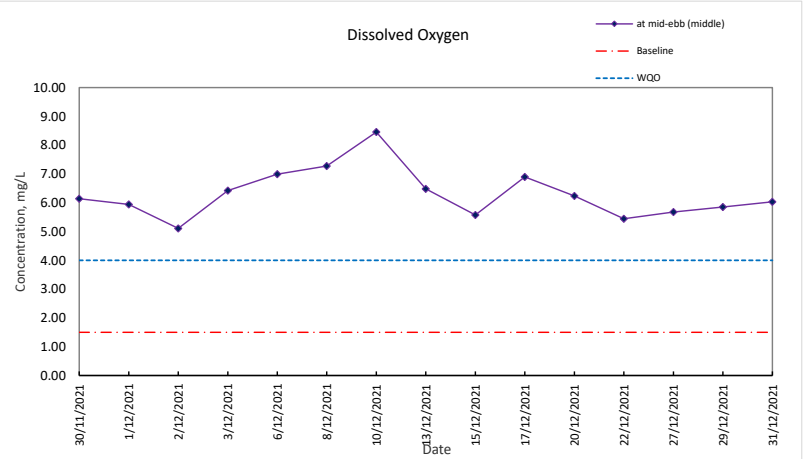
**Graphic Presentation of Water Quality Result of**
**W1 - WSD Seawater Intake at Sha Tin**

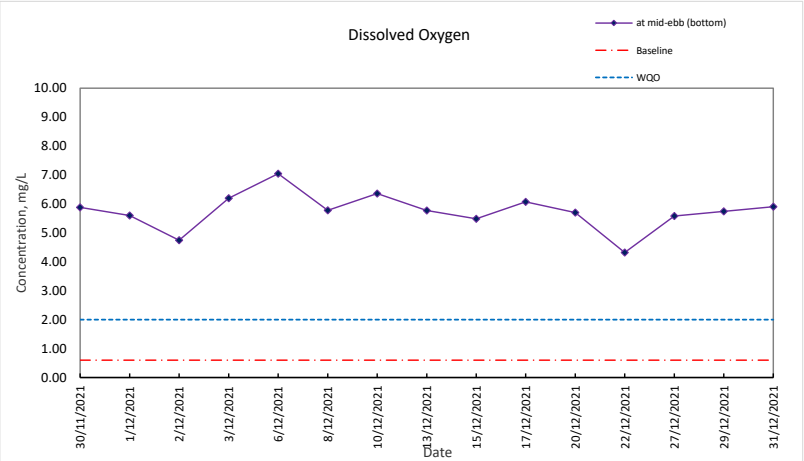


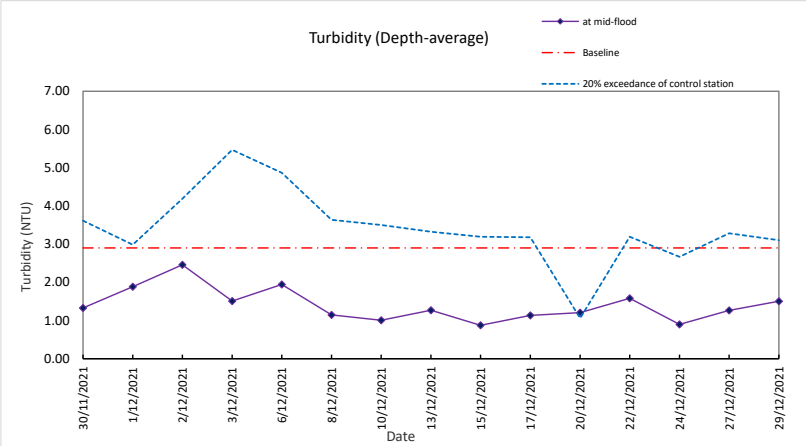



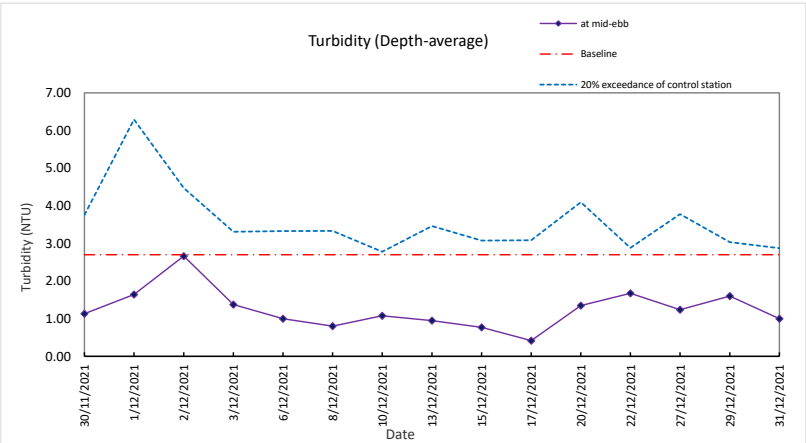



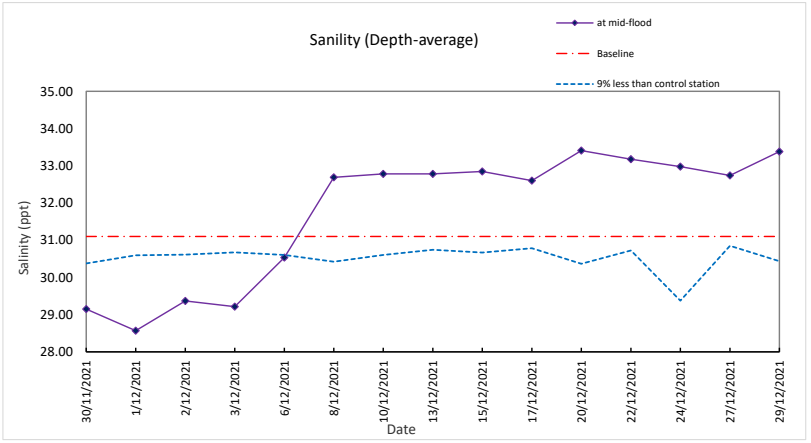

Dissolved Oxygen
at mid-ebb (surface)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

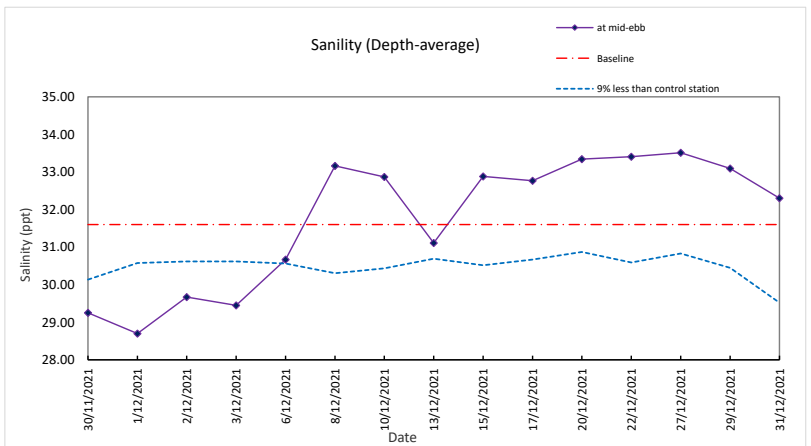

Dissolved Oxygen
at mid-ebb (middle)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

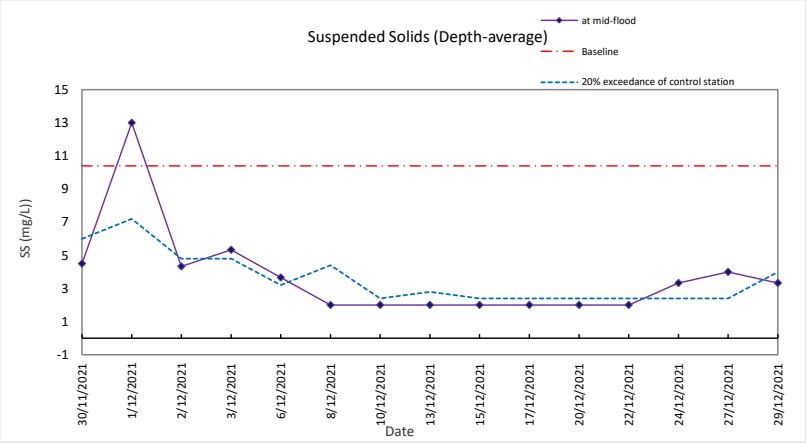

Dissolved Oxygen
at mid-ebb (bottom)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

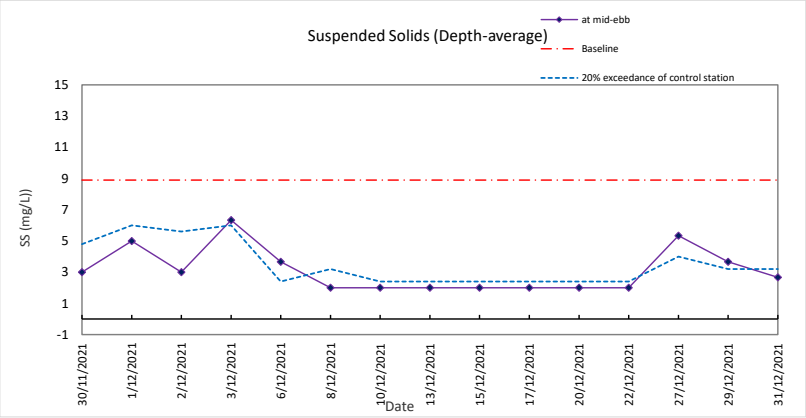

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

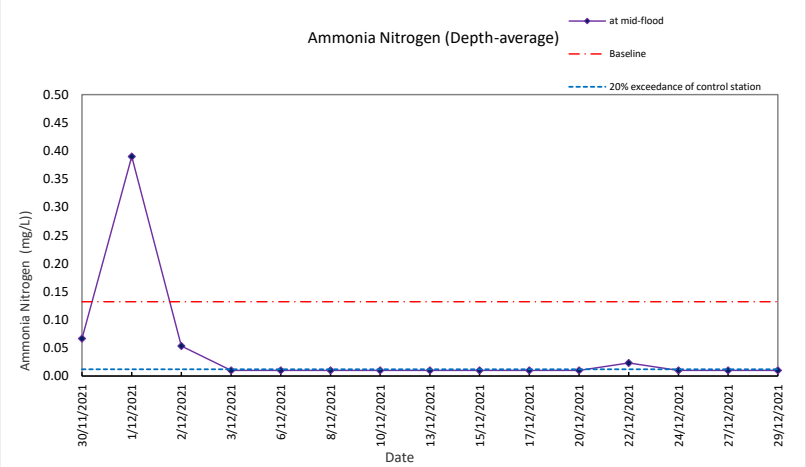

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

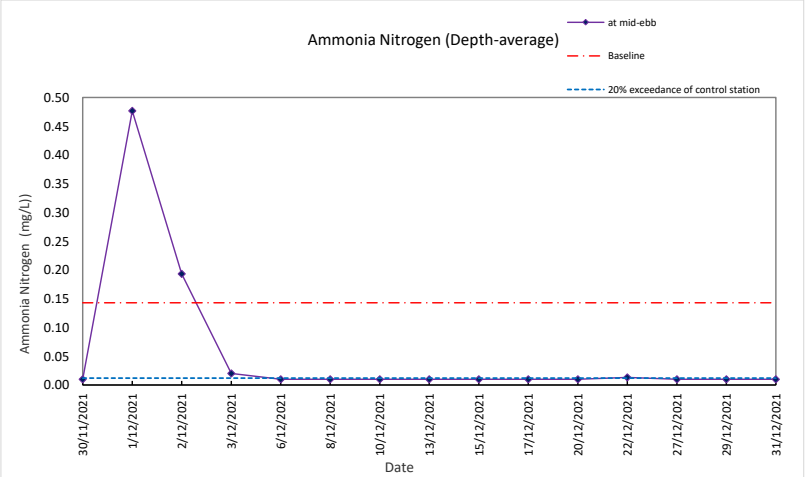

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

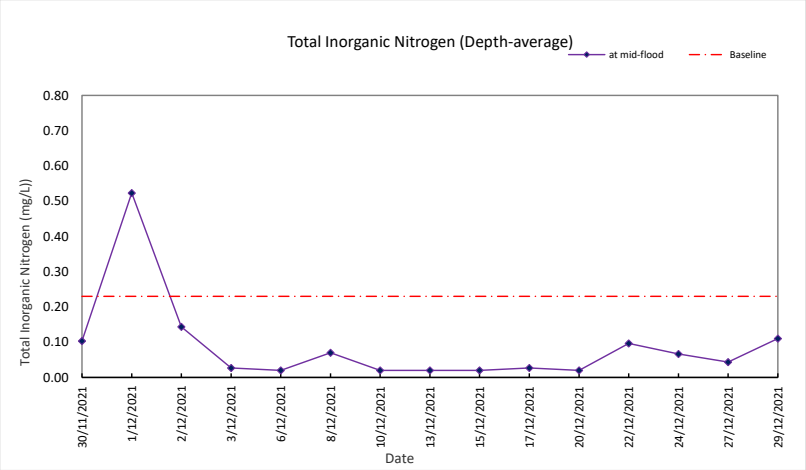

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

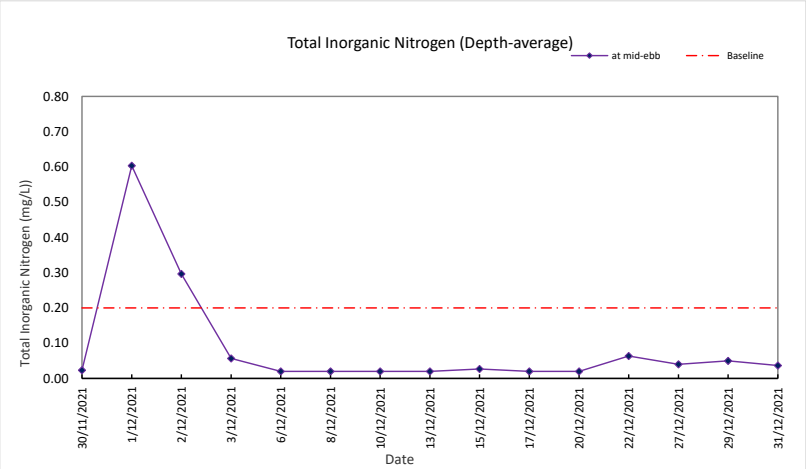

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L))
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

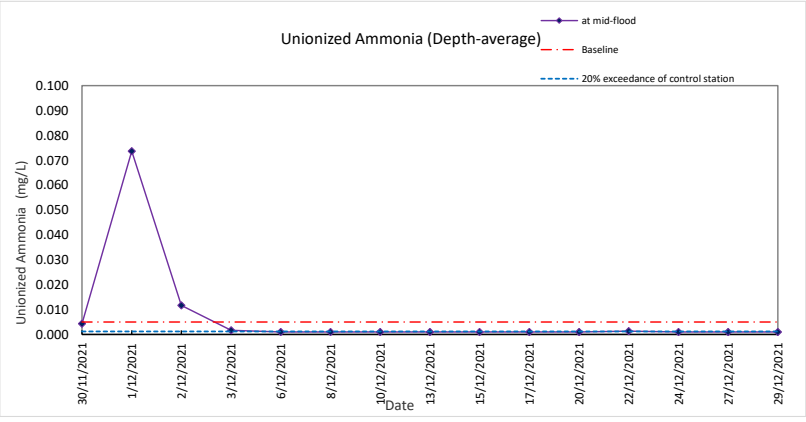

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L))
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

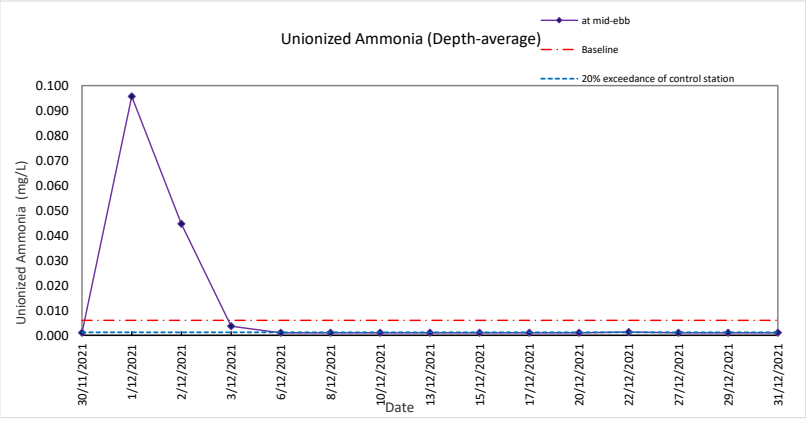

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L))
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

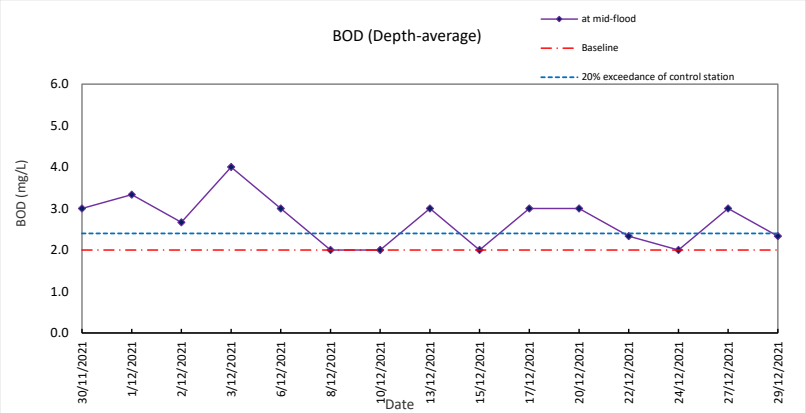

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L))
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

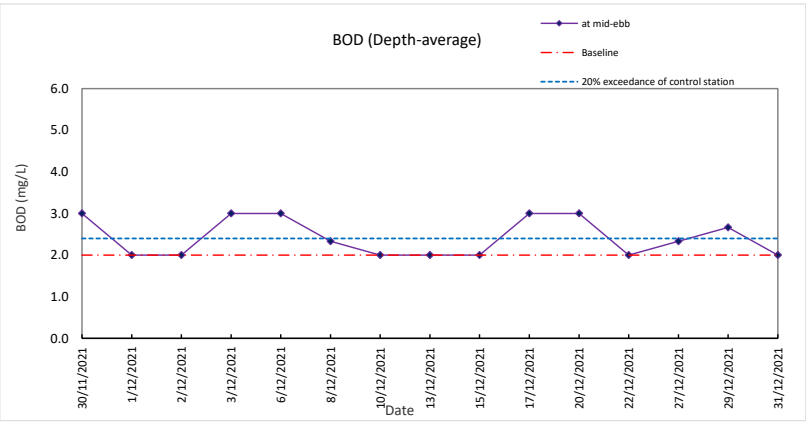

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

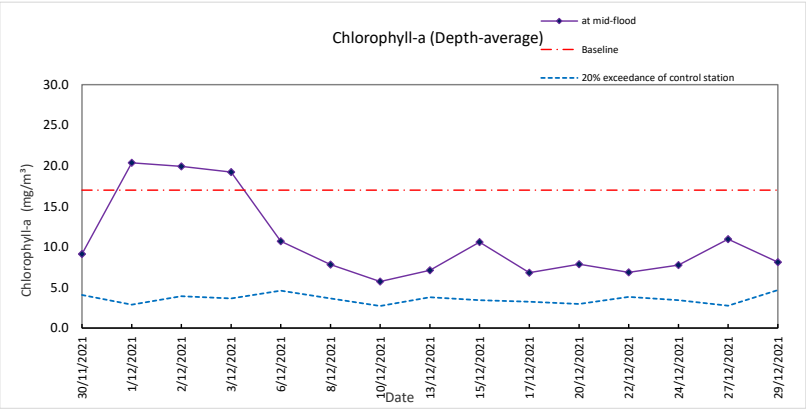

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

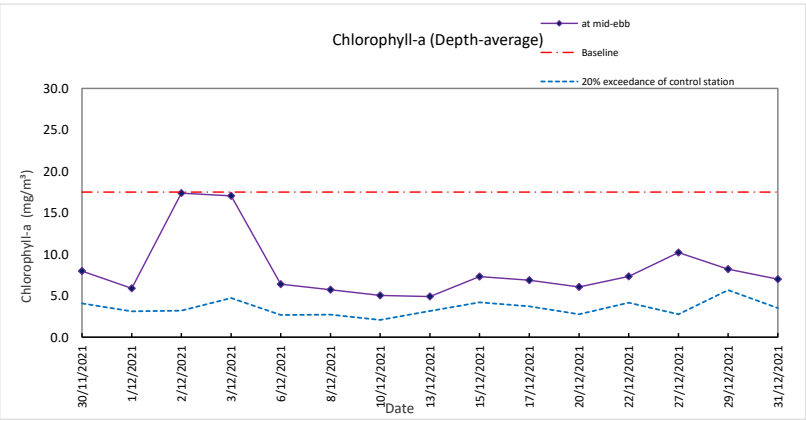

at mid-flood
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.100
0.090
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

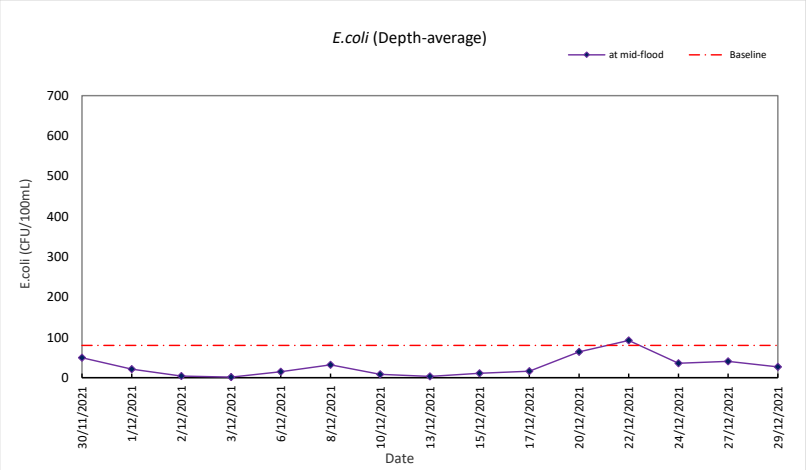

at mid-ebb
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.100
0.090
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

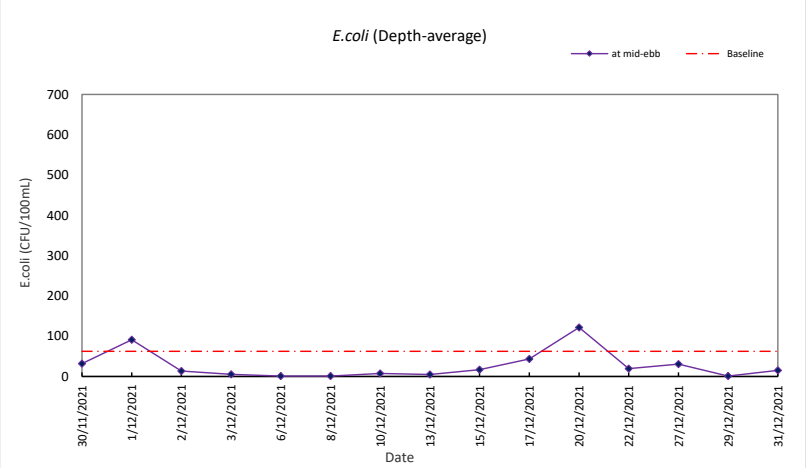

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

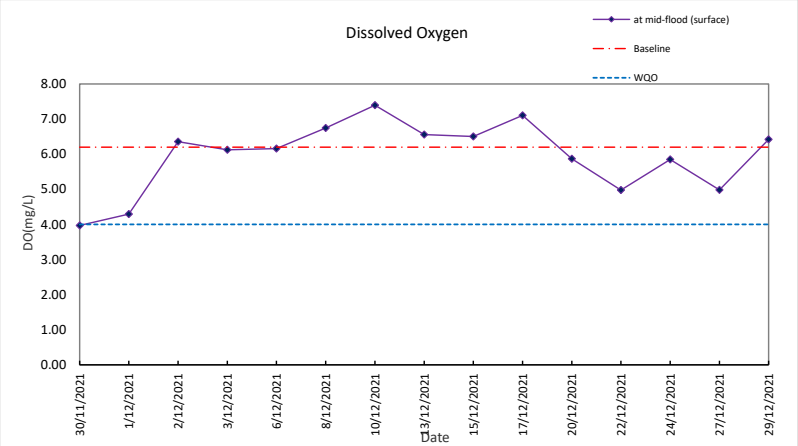

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

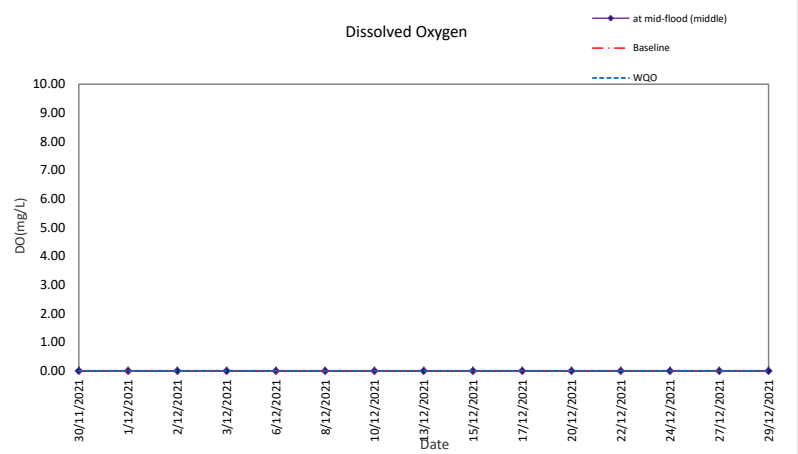

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

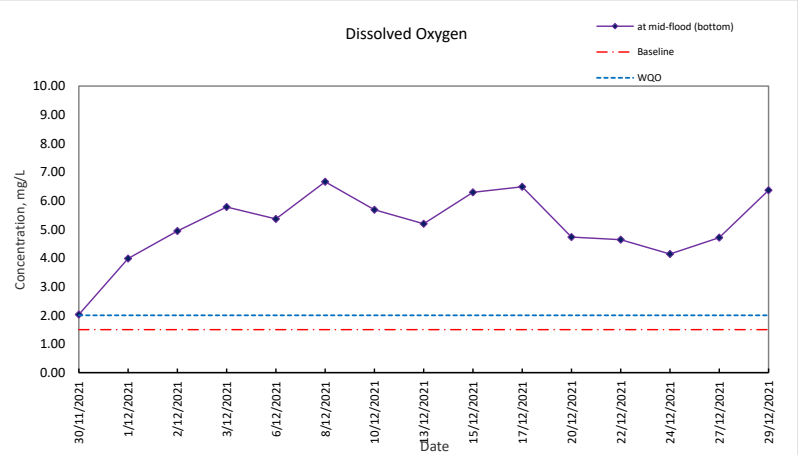

*E.coli* (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
700
600
500
400
300
200
100
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

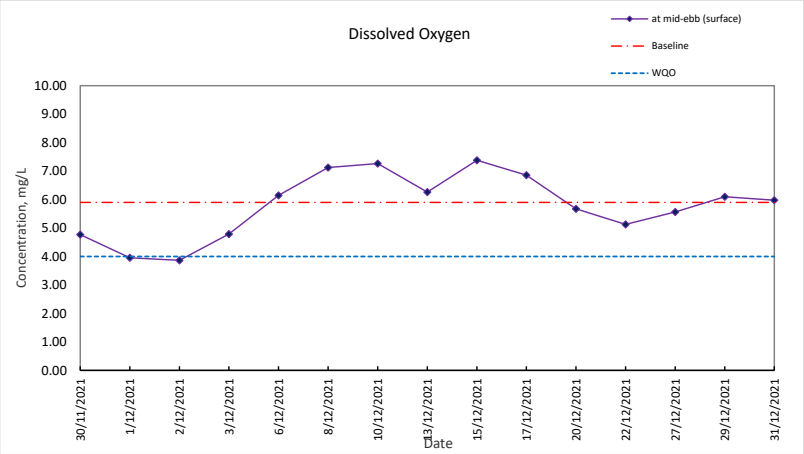

*E.coli* (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
700
600
500
400
300
200
100
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

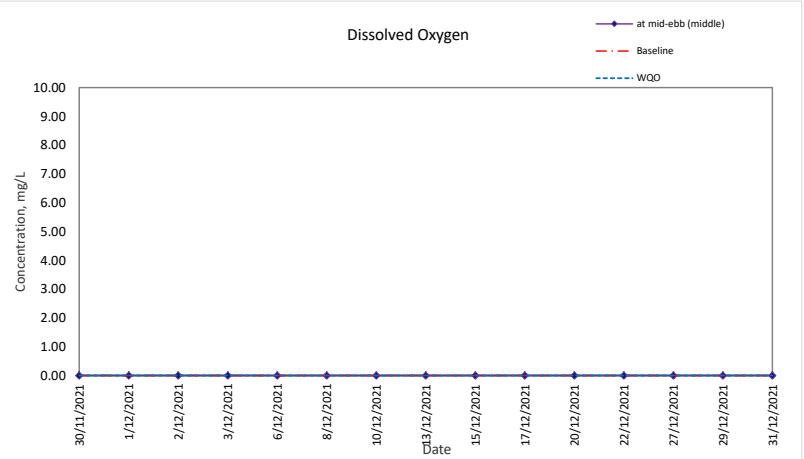
**Graphic Presentation of Water Quality Result of**
**W2 - WSD Seawater Intake at Tai Po**

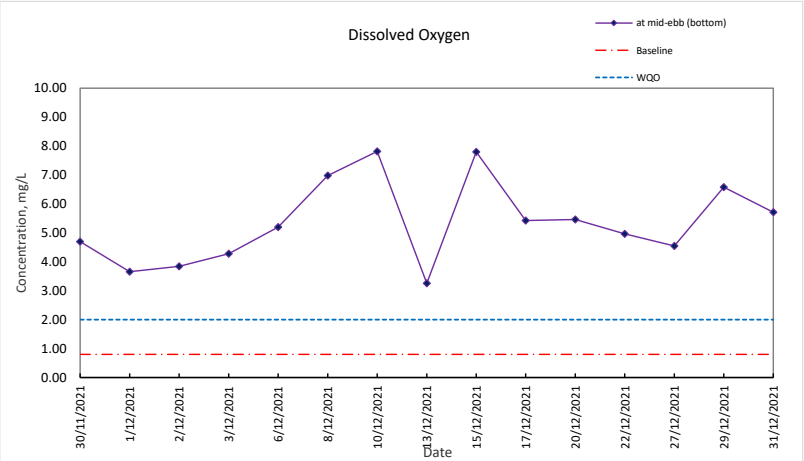


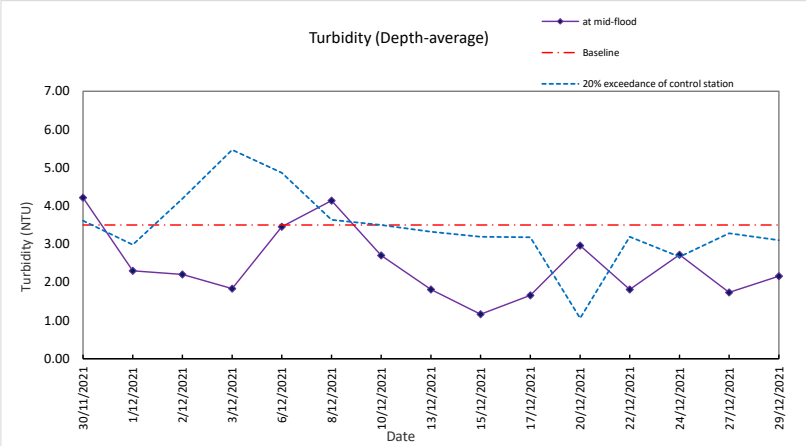



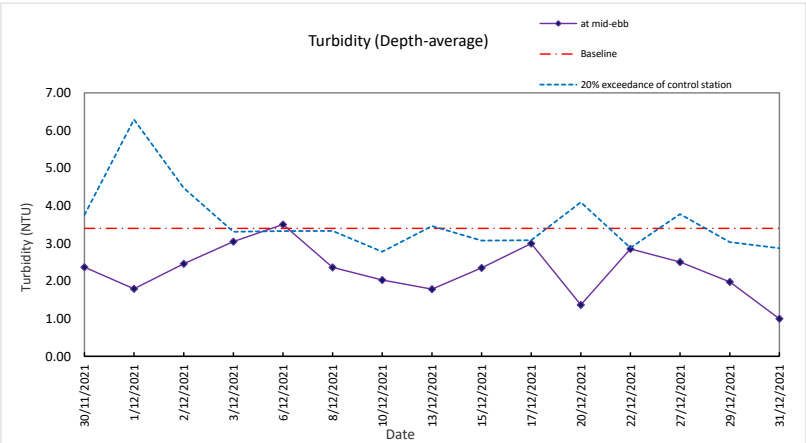



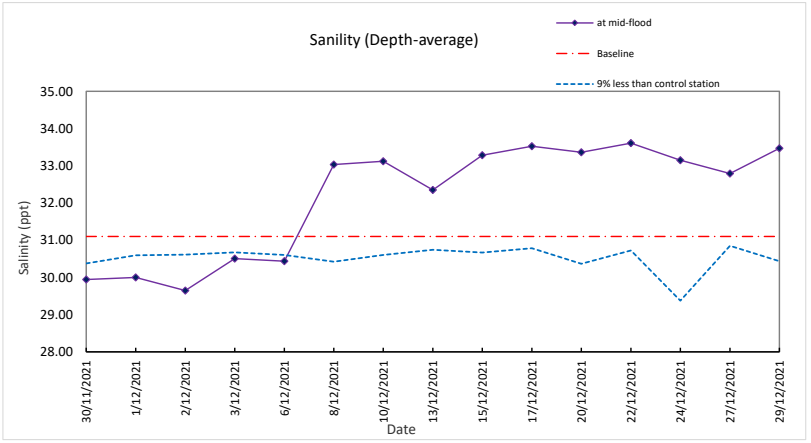

Dissolved Oxygen
at mid-ebb (surface)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

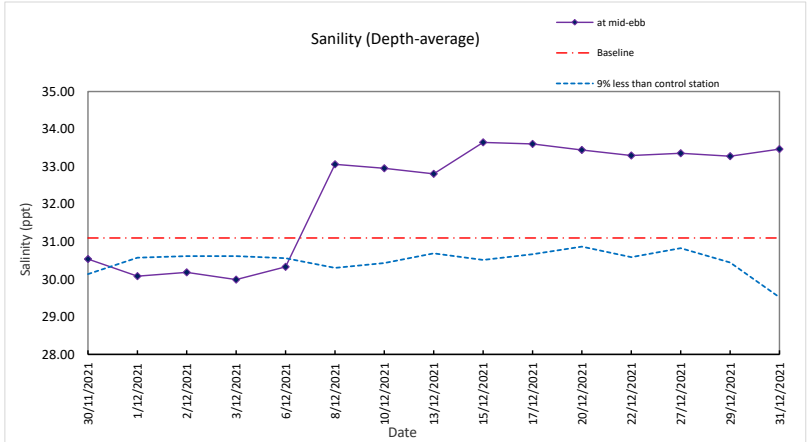

Dissolved Oxygen
at mid-ebb (middle)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

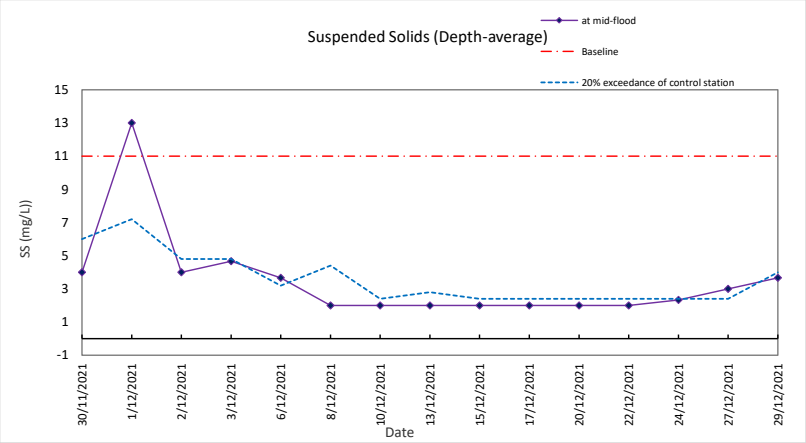

Dissolved Oxygen
at mid-ebb (bottom)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

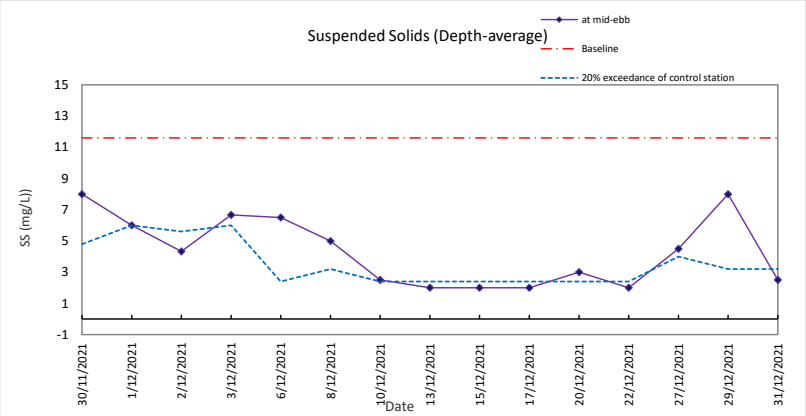

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

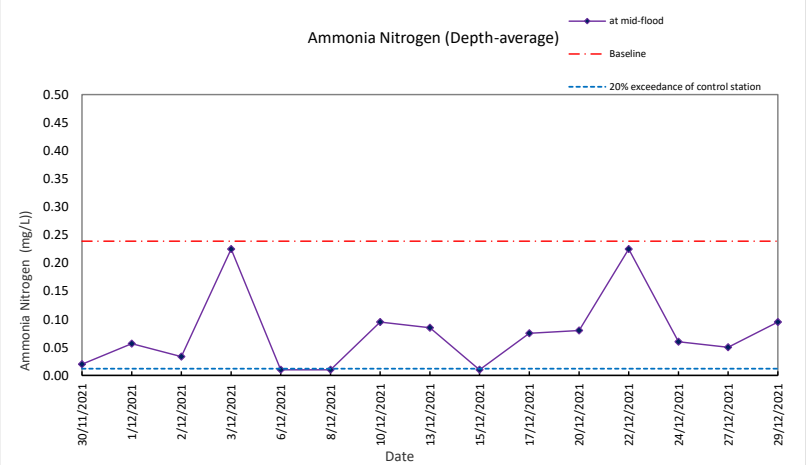

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

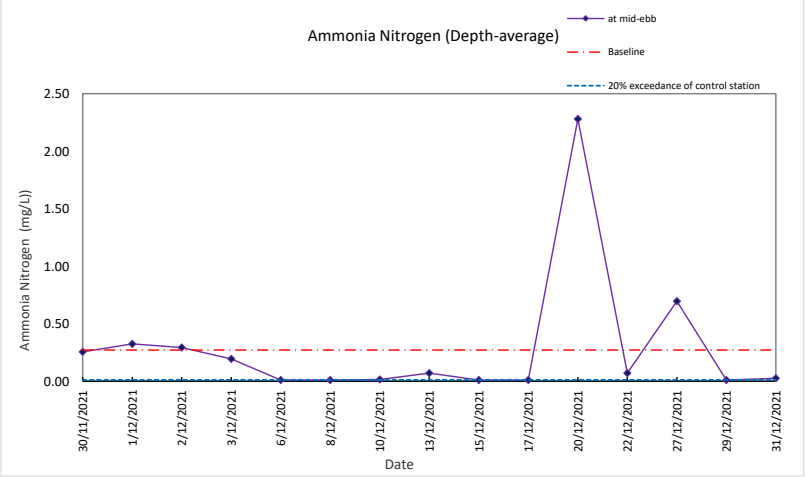

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

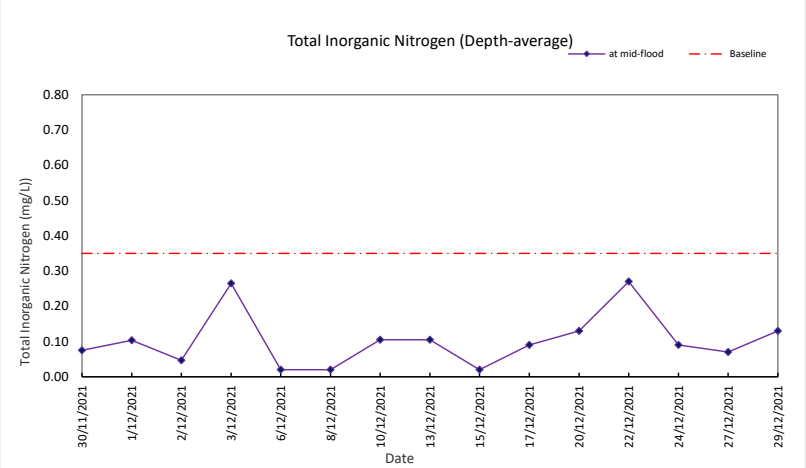

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

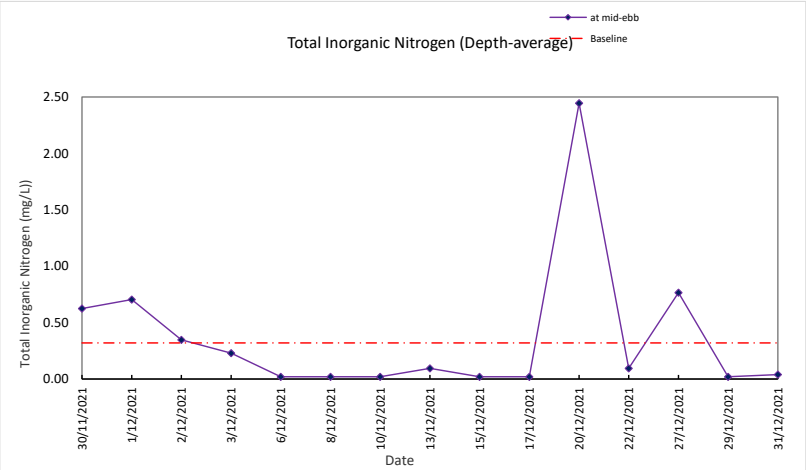

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

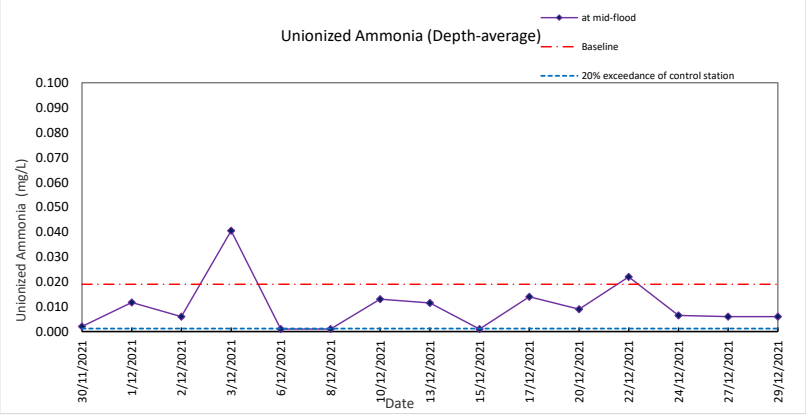

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

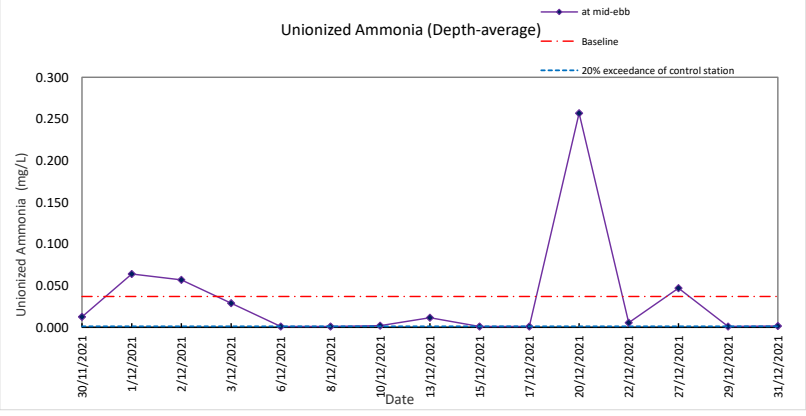

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

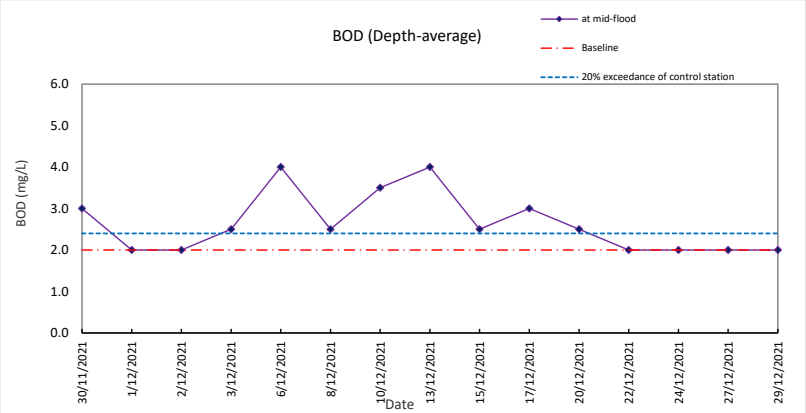

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
2.50
2.00
1.50
1.00
0.50
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

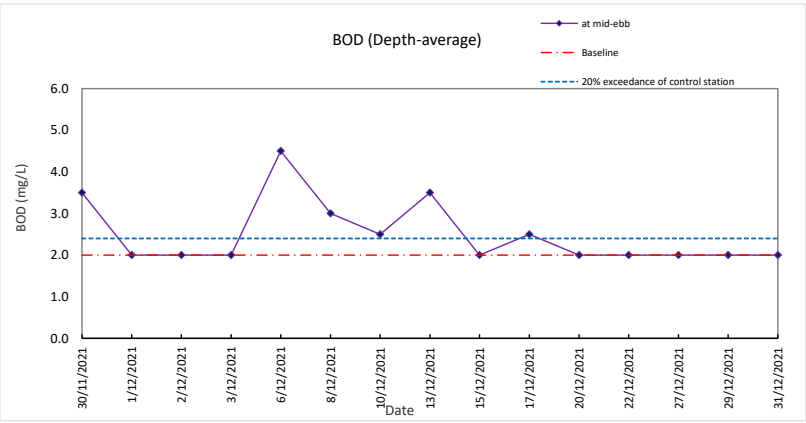

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

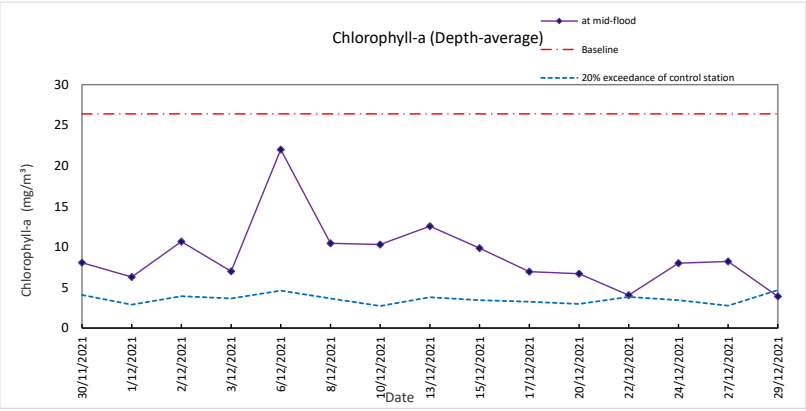

at mid-ebb
Baseline
Total Inorganic Nitrogen (Depth-average)
Total Inorganic Nitrogen (mg/L)
2.50
2.00
1.50
1.00
0.50
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

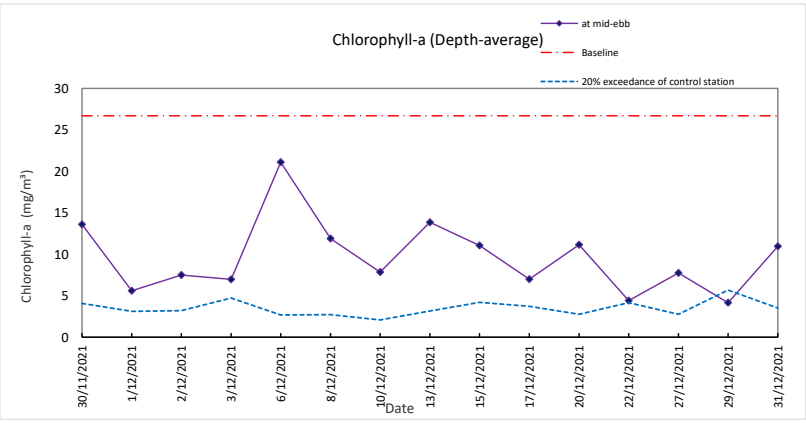

at mid-flood
Baseline
20% exceedance of control station
Unionized Ammonia (Depth-average)
Unionized Ammonia (mg/L)
0.100
0.090
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

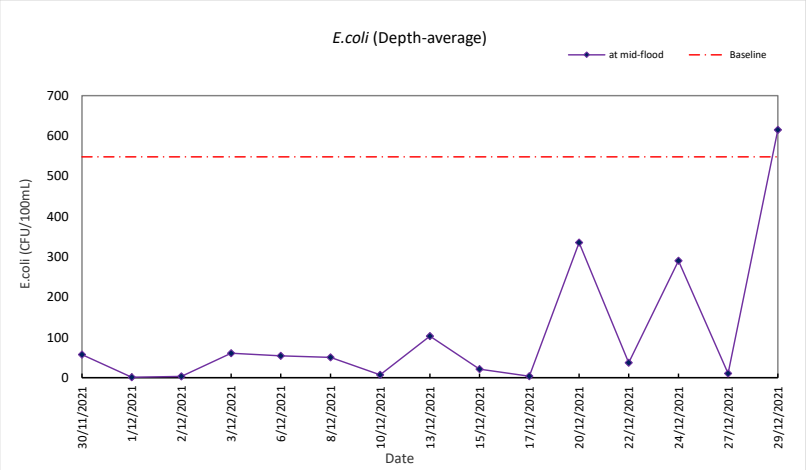

at mid-ebb
Baseline
20% exceedance of control station
Unionized Ammonia (Depth-average)
Unionized Ammonia (mg/L)
0.300
0.250
0.200
0.150
0.100
0.050
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

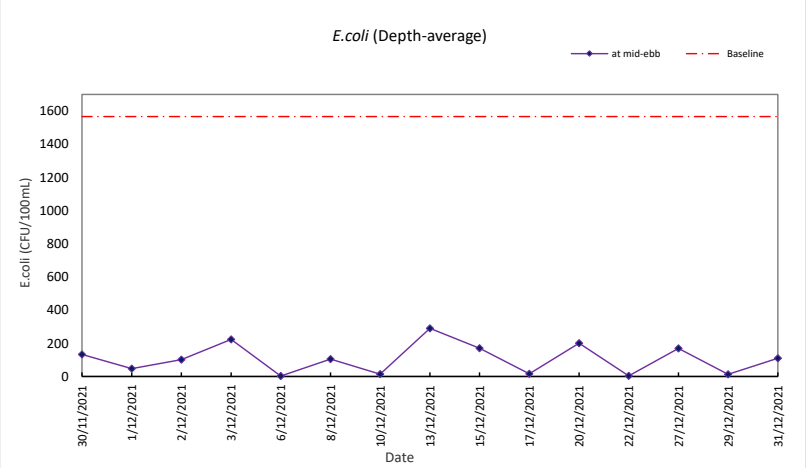

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

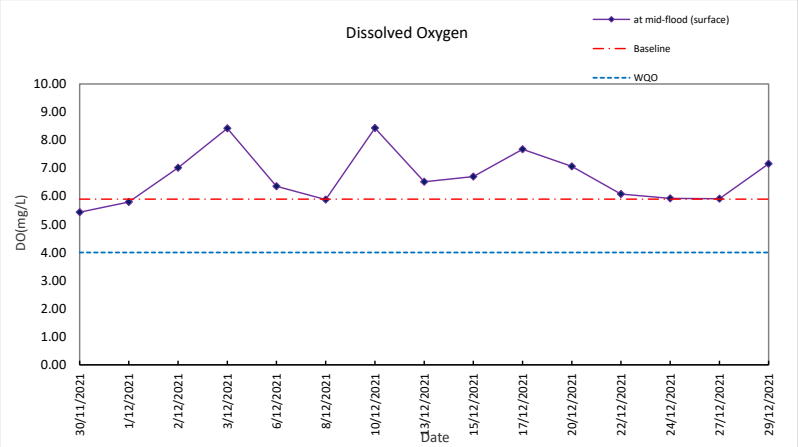

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

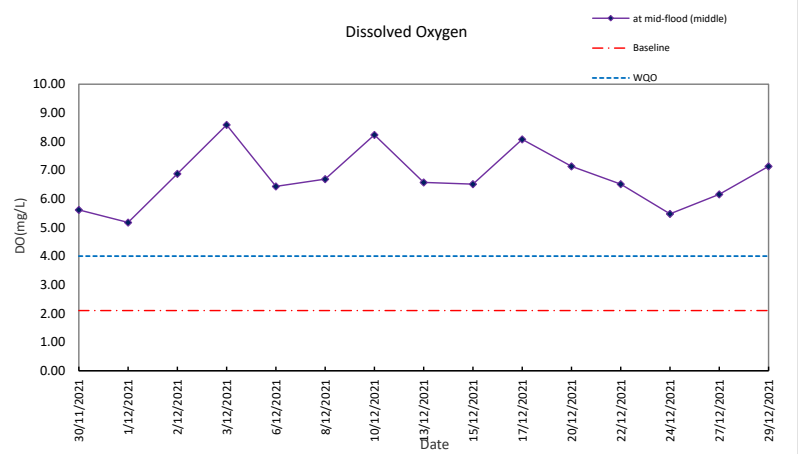

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

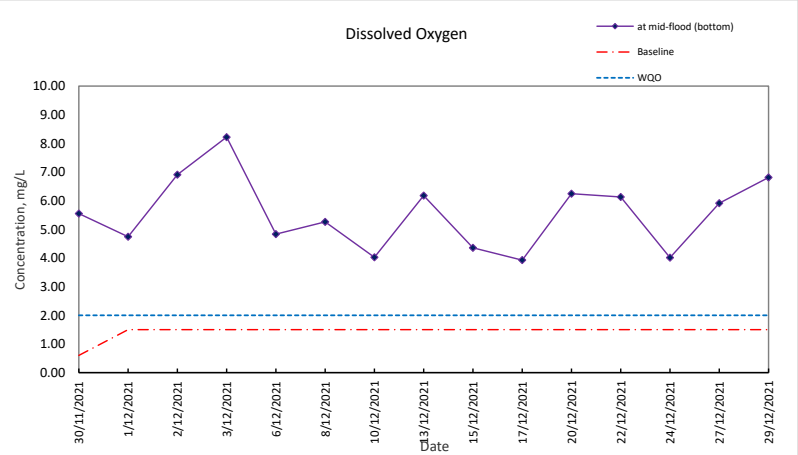

*E.coli* (Depth-average)
at mid-flood
Baseline
700
600
500
400
300
200
100
0
E.coli (CFU/100mL)
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

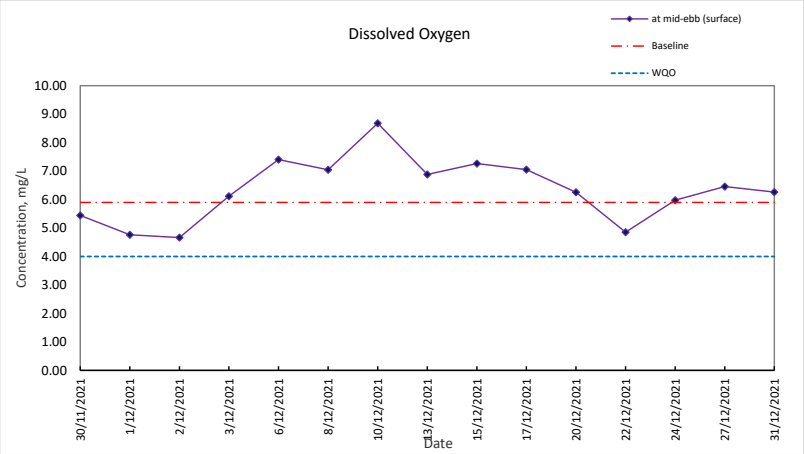

*E.coli* (Depth-average)
at mid-ebb
Baseline
1600
1400
1200
1000
800
600
400
200
0
E.coli (CFU/100mL)
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

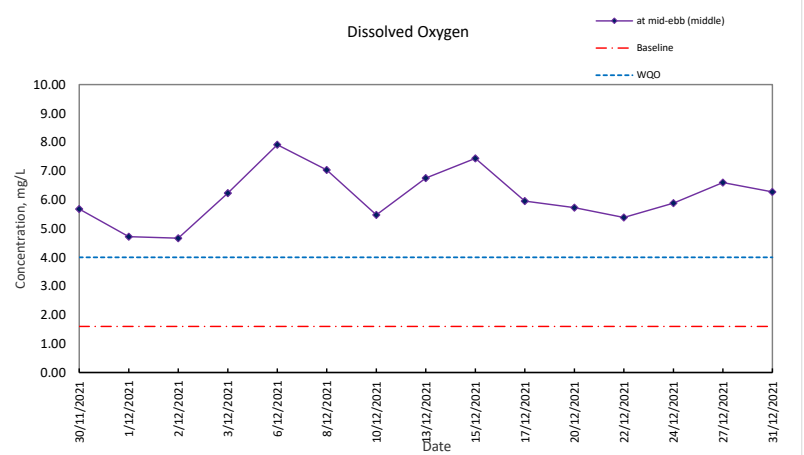
**Graphic Presentation of Water Quality Result of**
**C1 - Cooling Water Intake at CUHK Marine Science Laboratory**

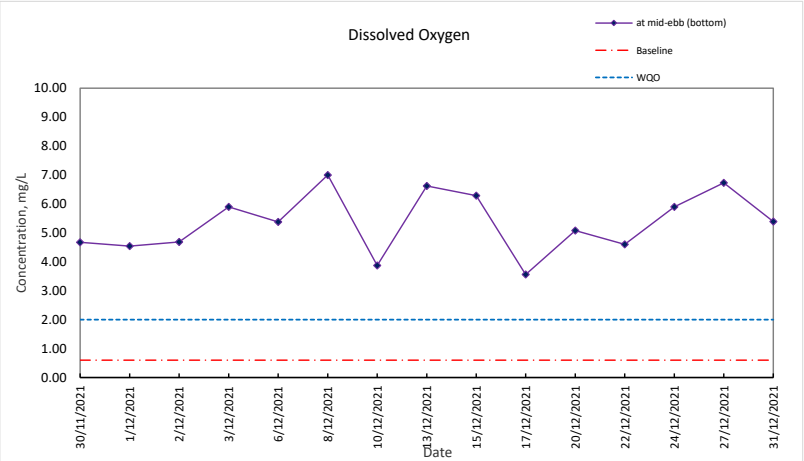


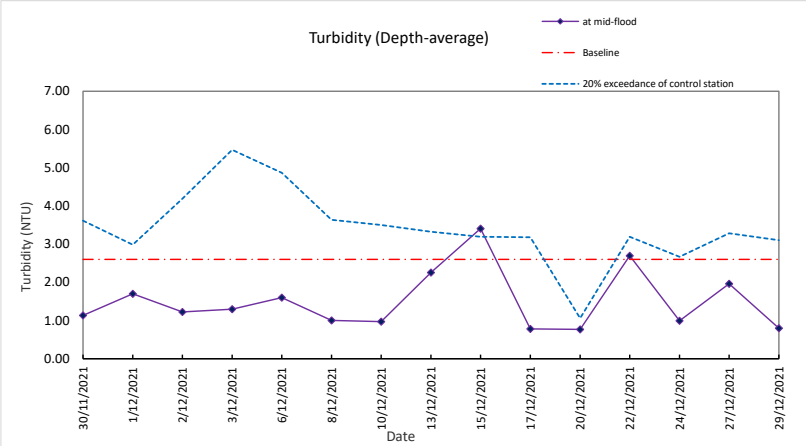



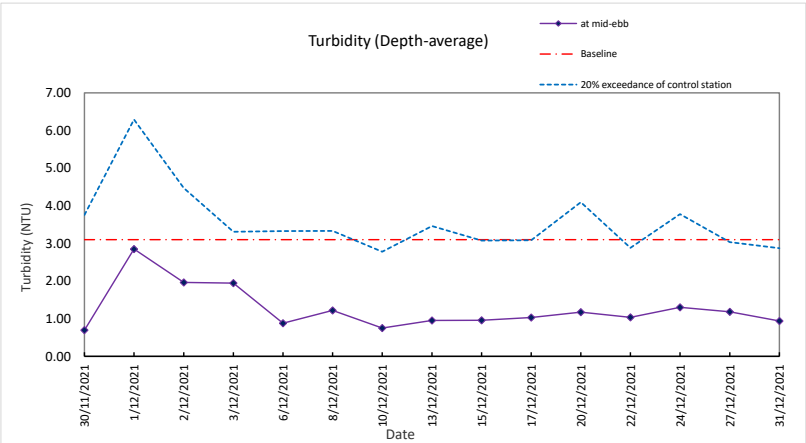



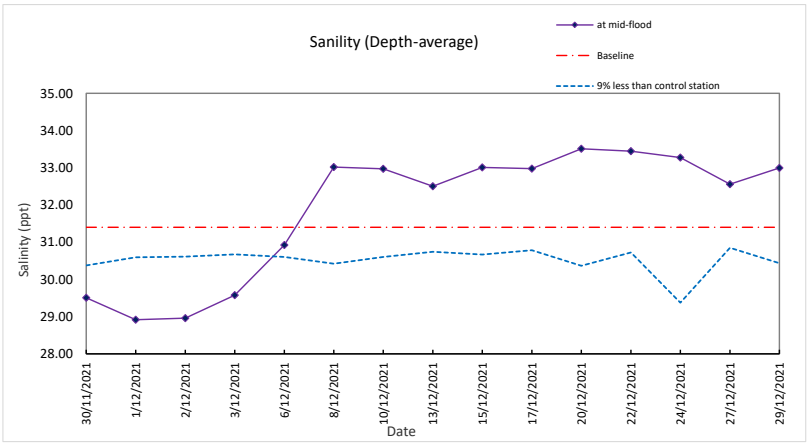

Dissolved Oxygen
at mid-ebb (surface)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

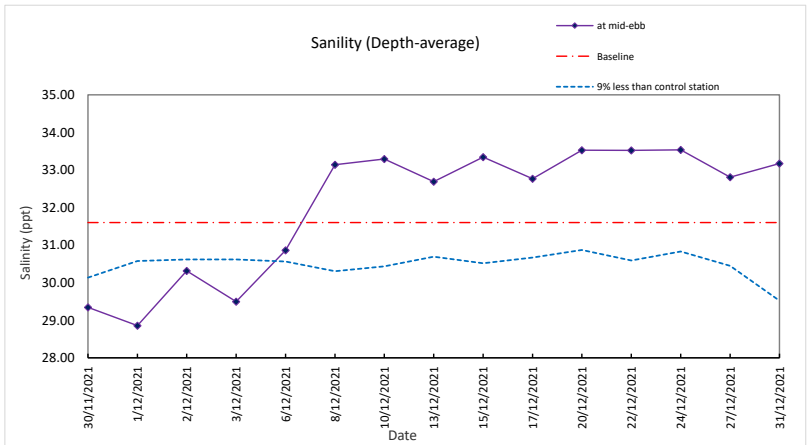

Dissolved Oxygen
at mid-ebb (middle)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

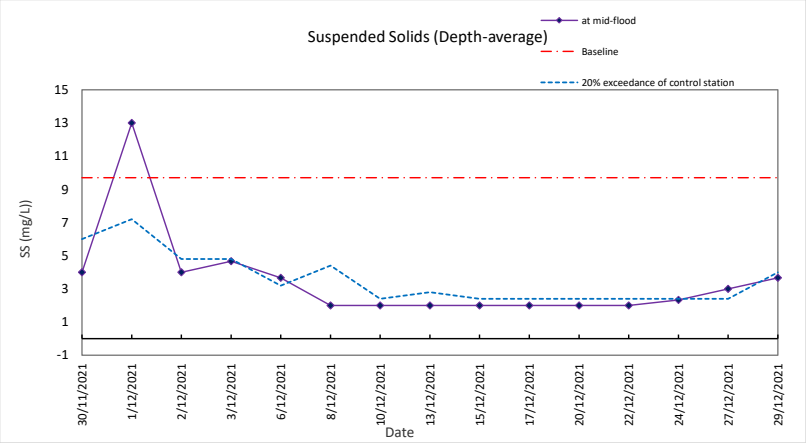

Dissolved Oxygen
at mid-ebb (bottom)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

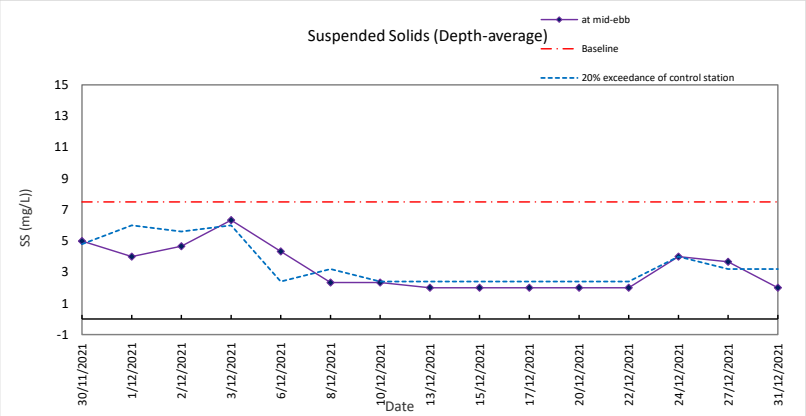

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

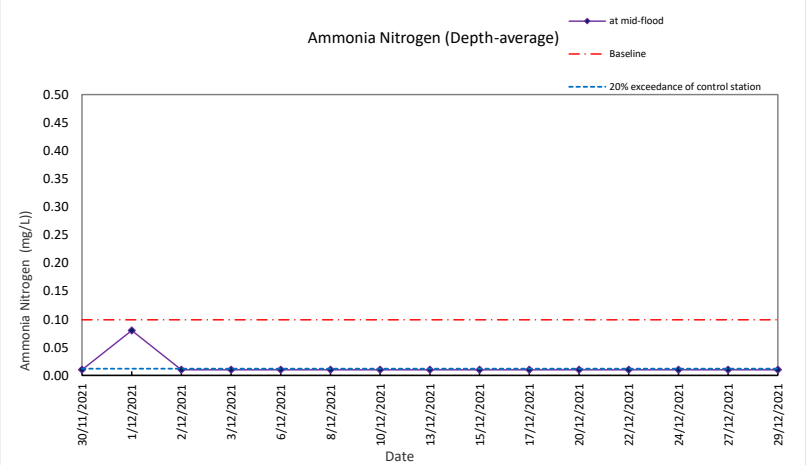

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

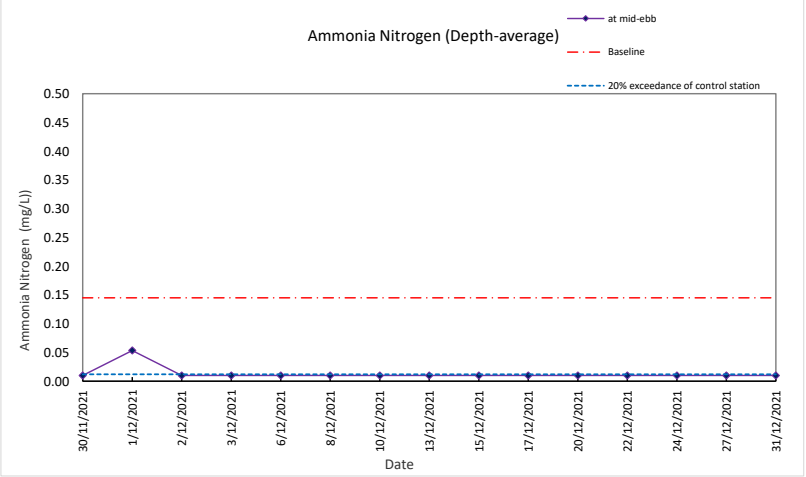

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

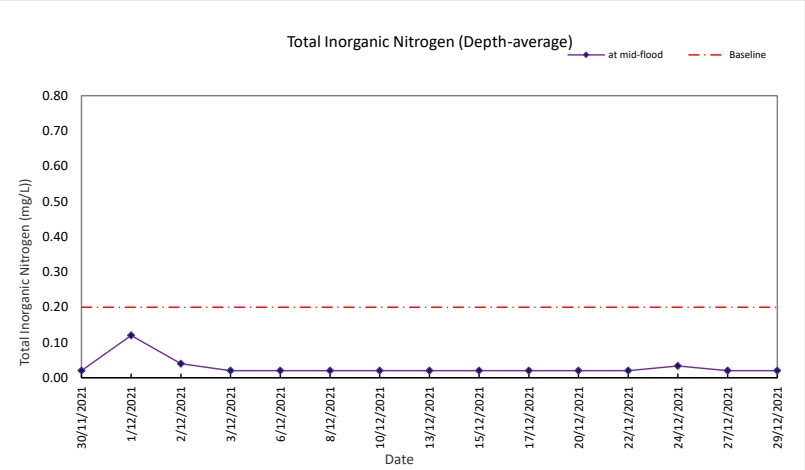

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

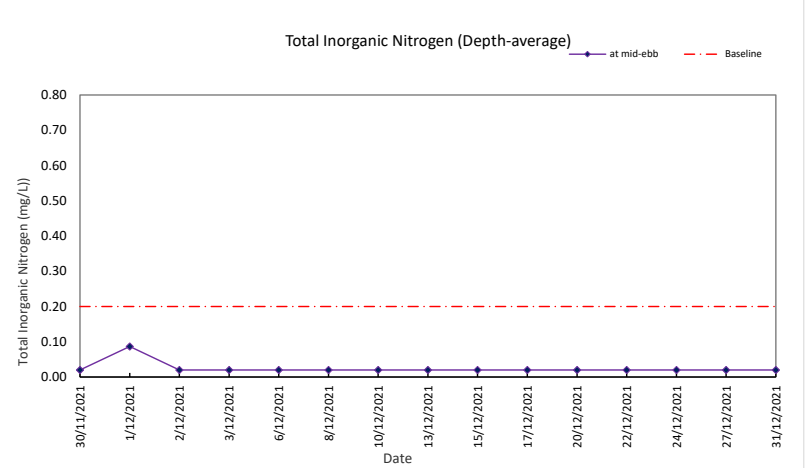

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

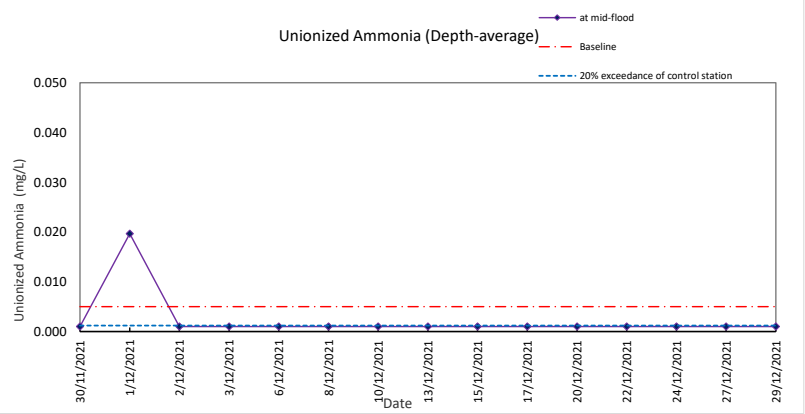

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

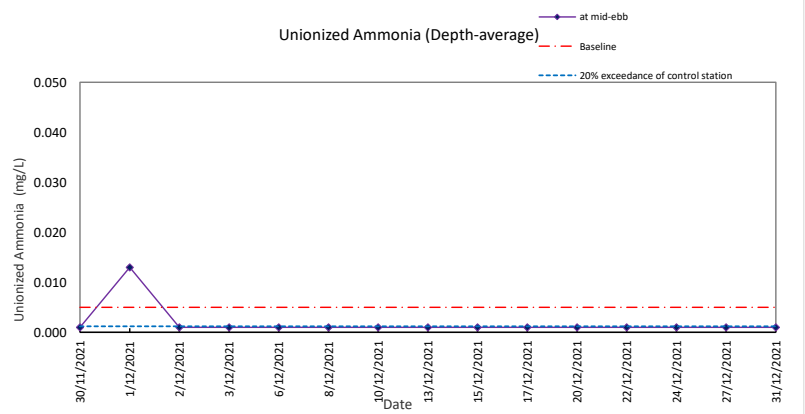

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

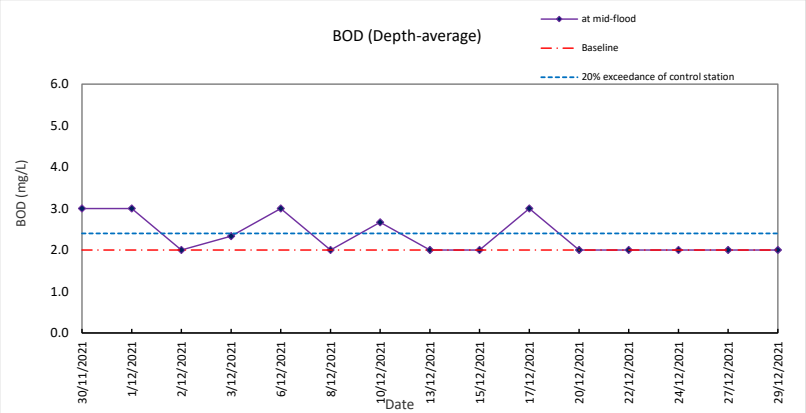

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

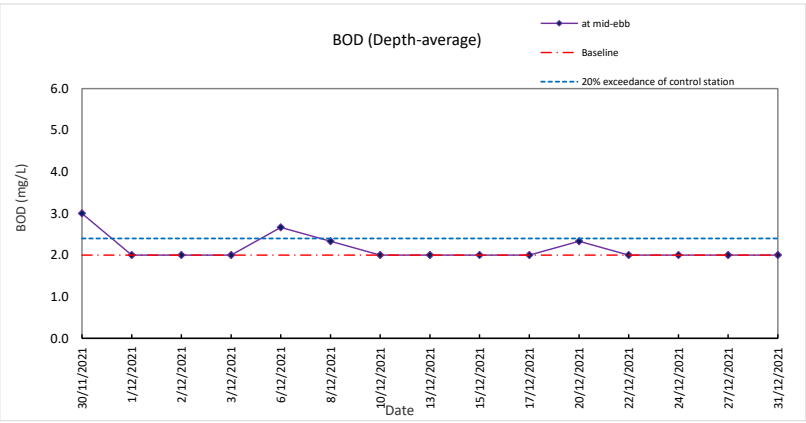

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L))
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

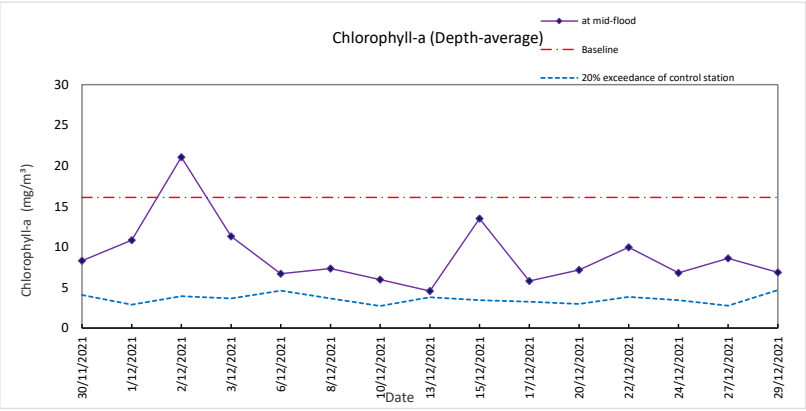

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L))
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

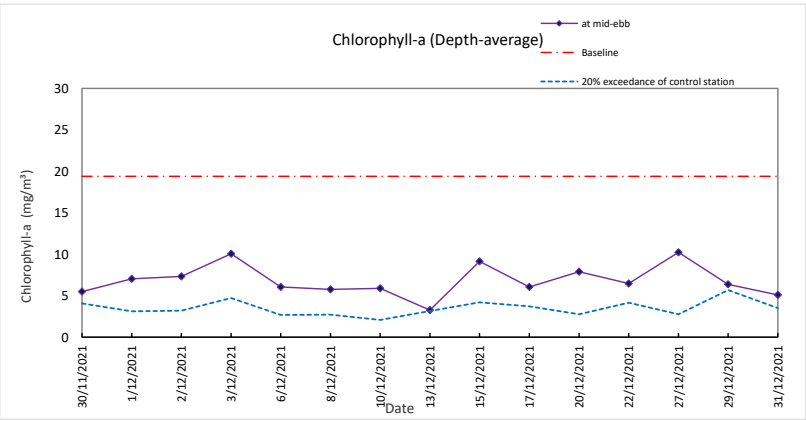

Unionized Ammonia (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

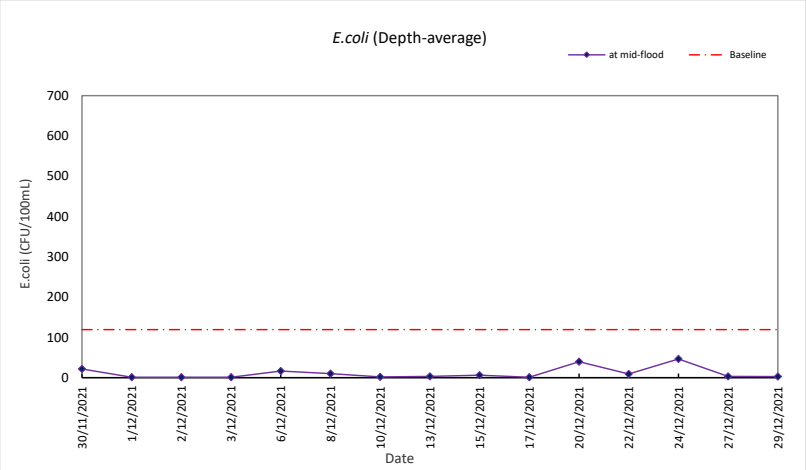

Unionized Ammonia (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

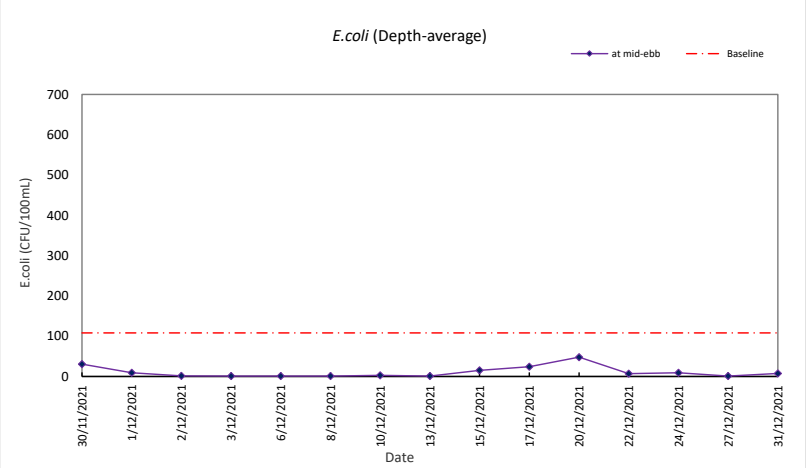

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

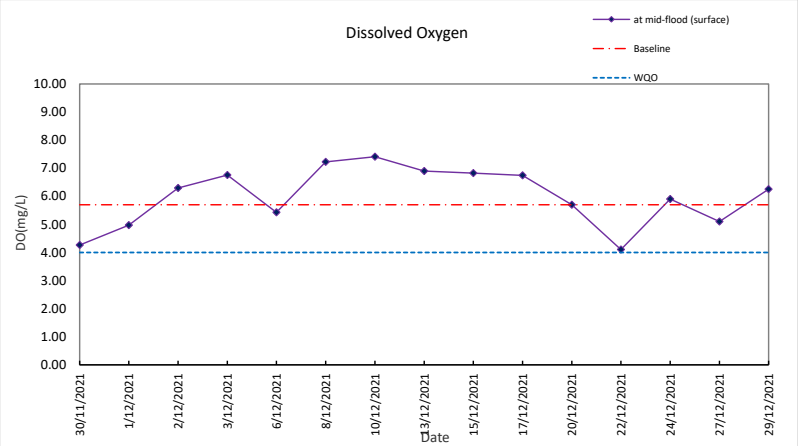

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

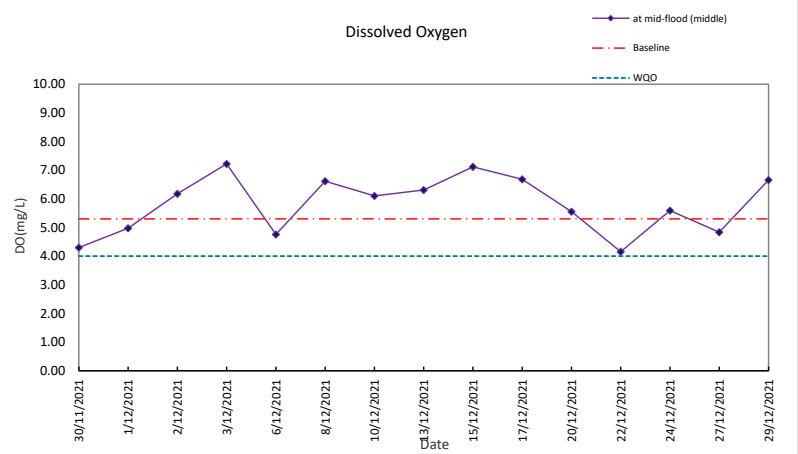

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

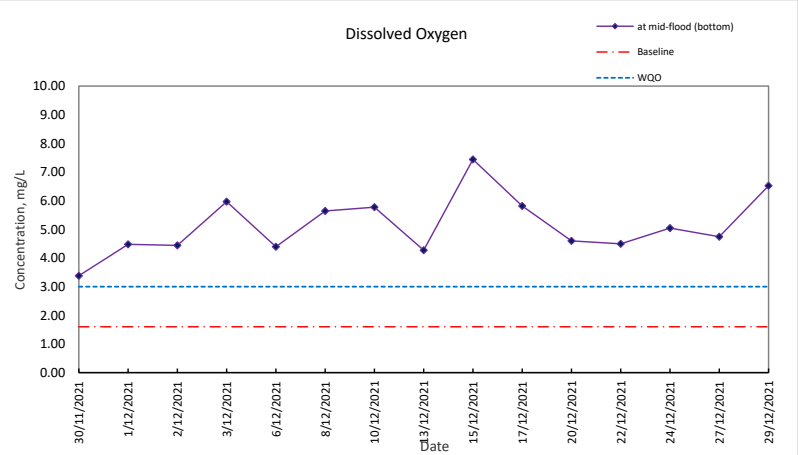

*E.coli* (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
700
600
500
400
300
200
100
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

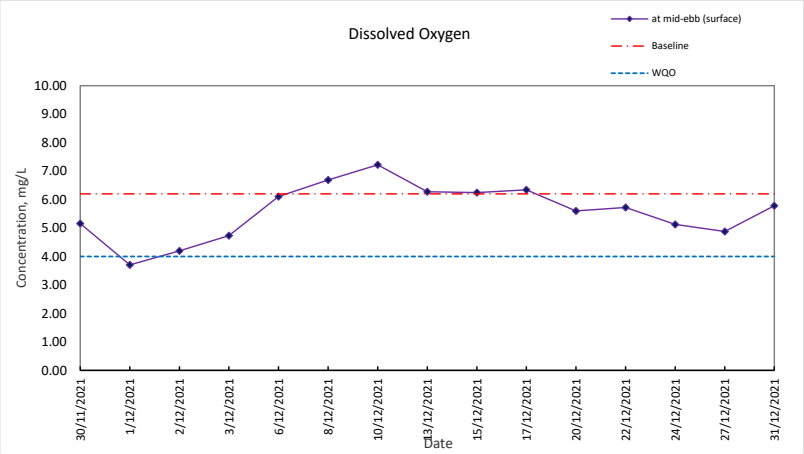

*E.coli* (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
700
600
500
400
300
200
100
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

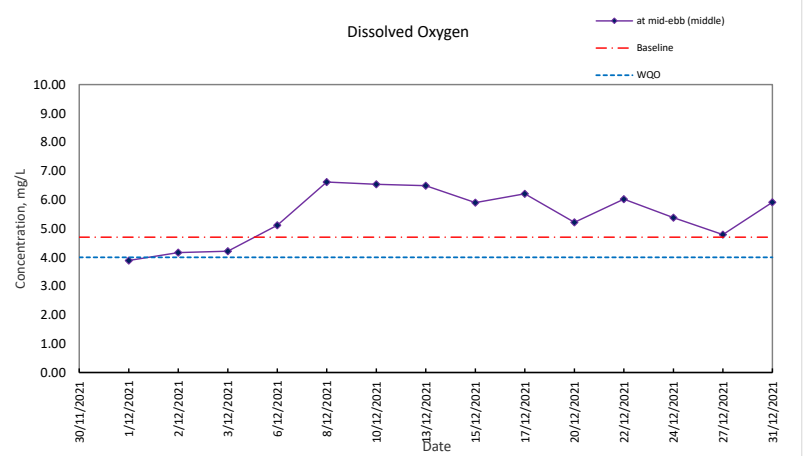
**Graphic Presentation of Water Quality Result of**
**F1 - Yim Tin Tsai Fish Culture Zone**

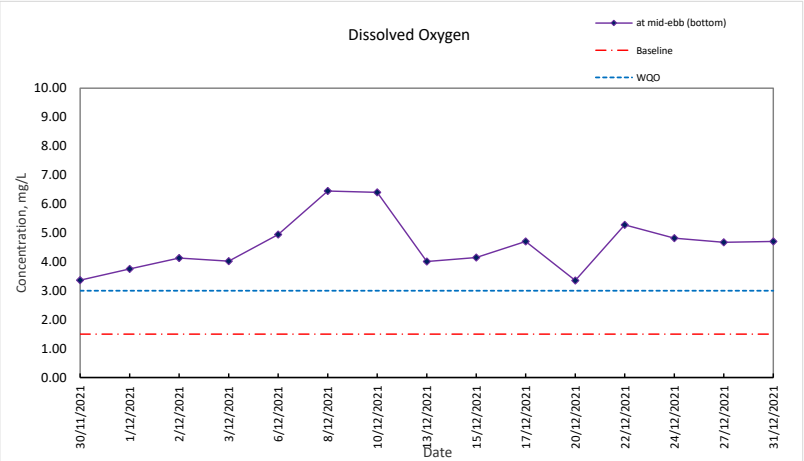


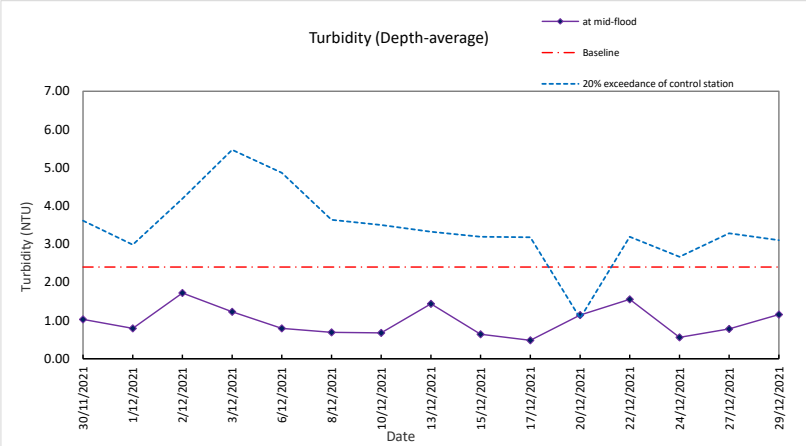



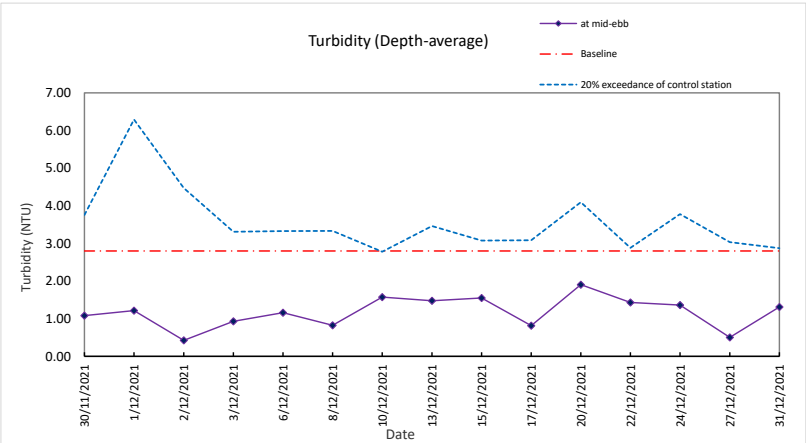



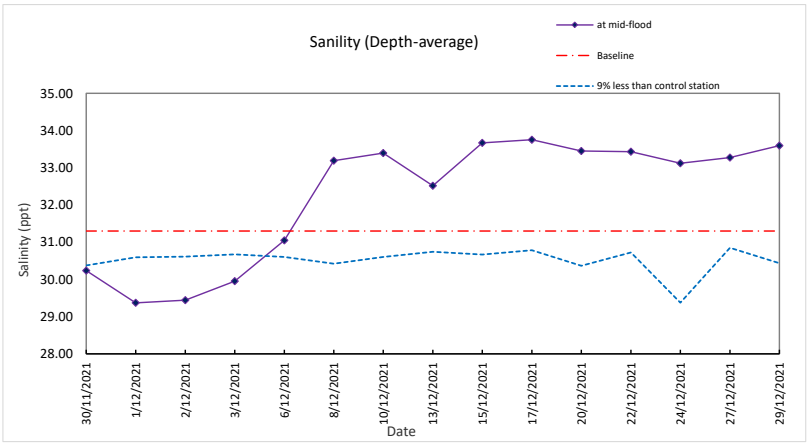

Dissolved Oxygen
at mid-ebb (surface)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

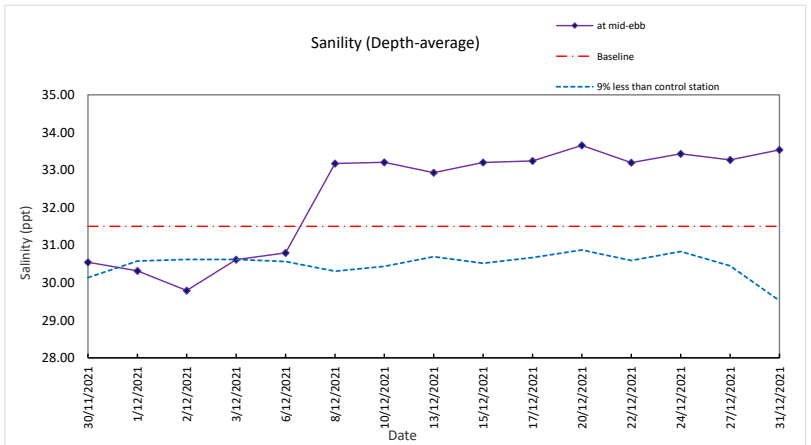

Dissolved Oxygen
at mid-ebb (middle)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

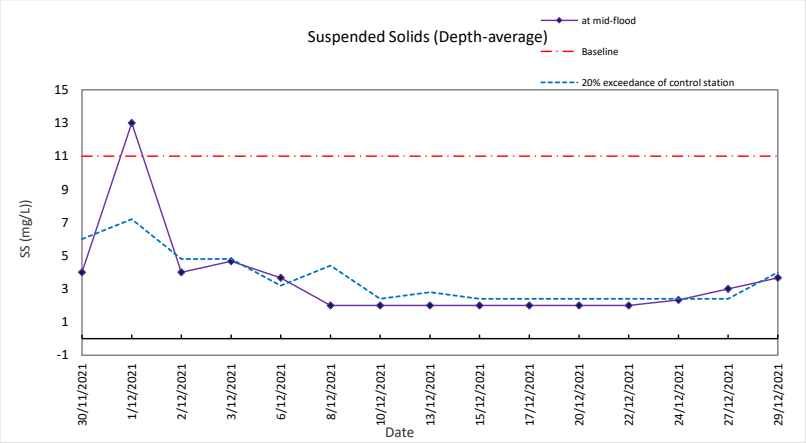

Dissolved Oxygen
at mid-ebb (bottom)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

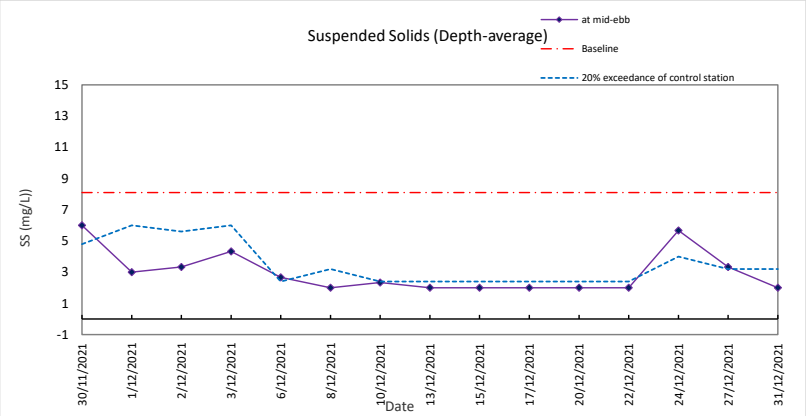

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

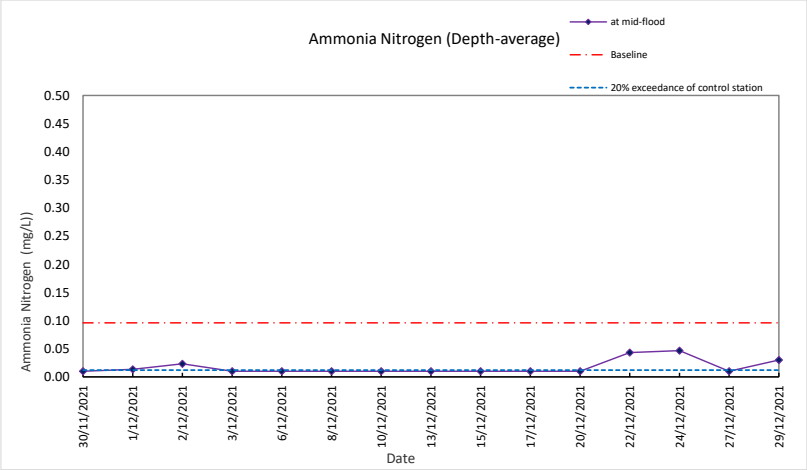

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

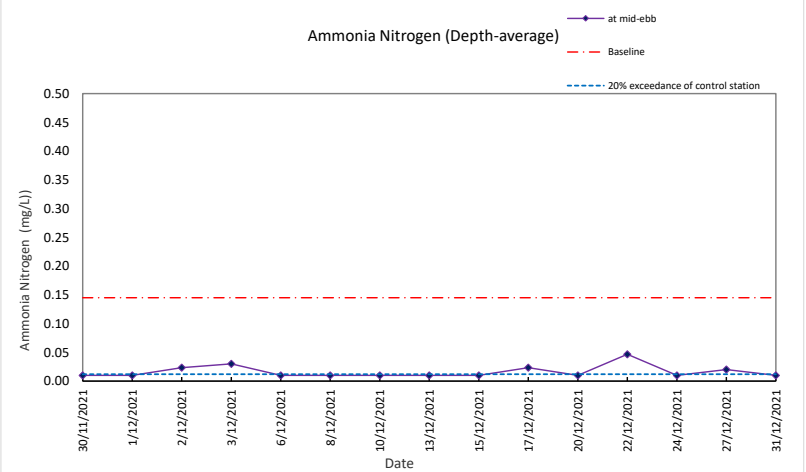

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

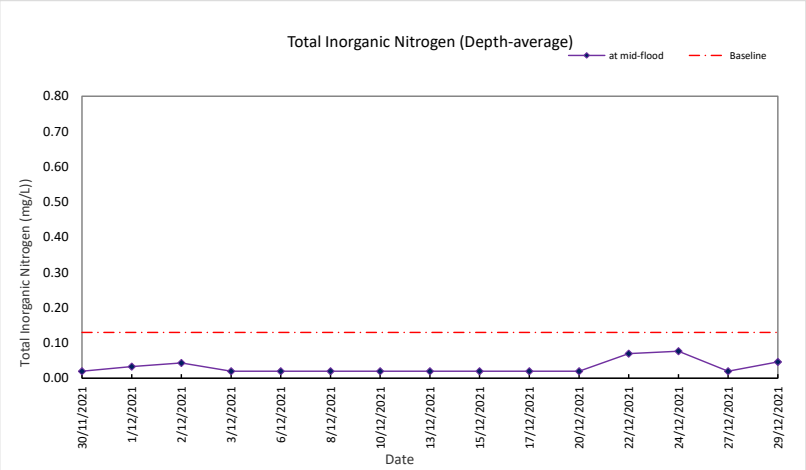

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

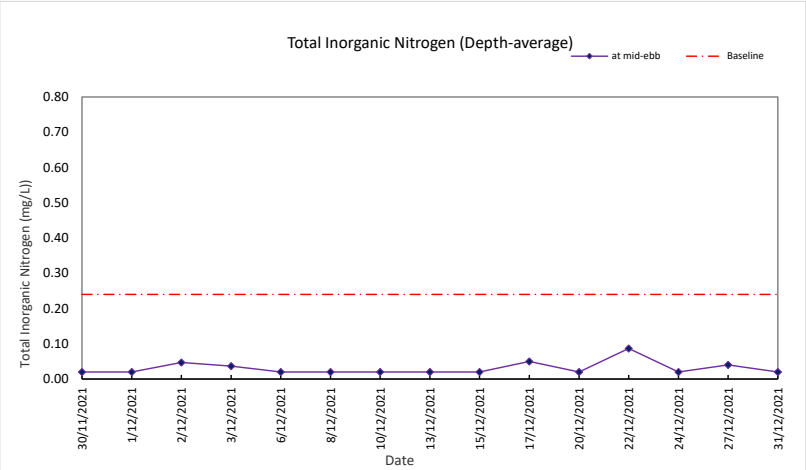

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/Li)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

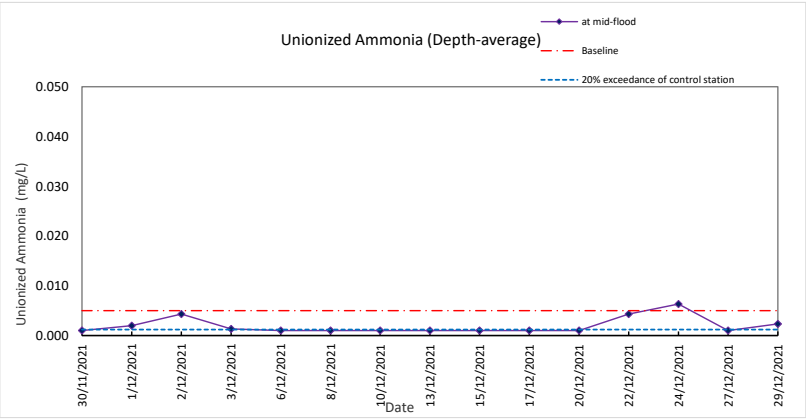

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/Li)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

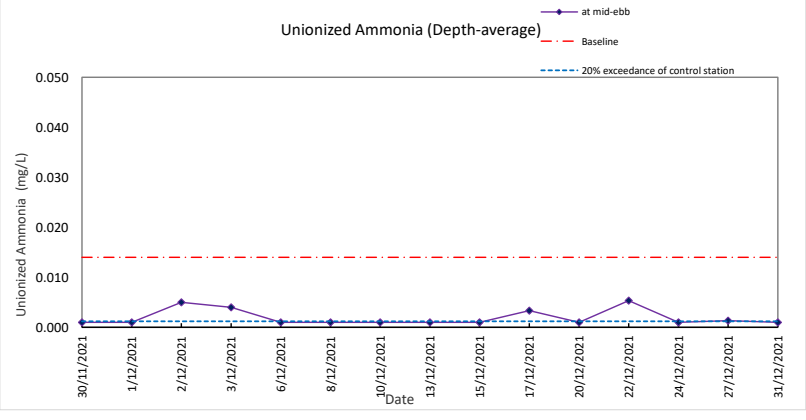

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/Li)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

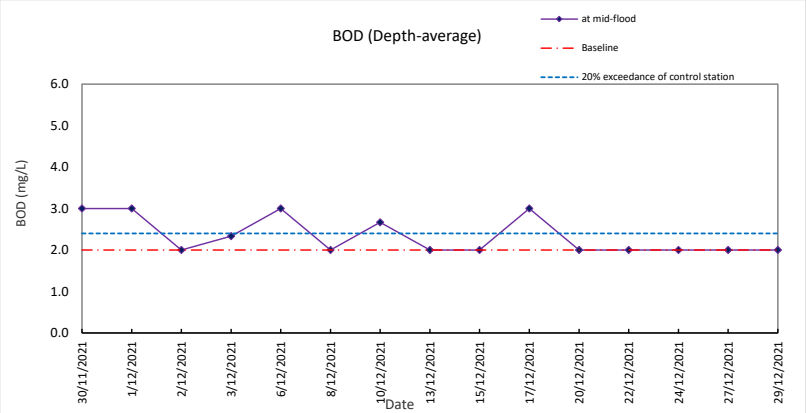

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/Li)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

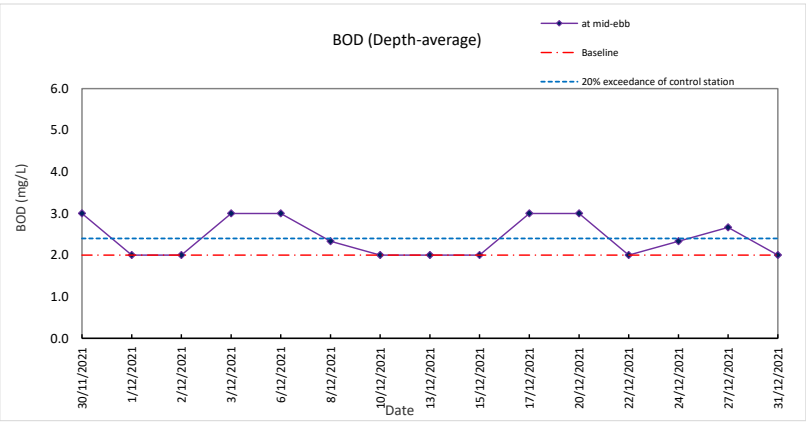

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

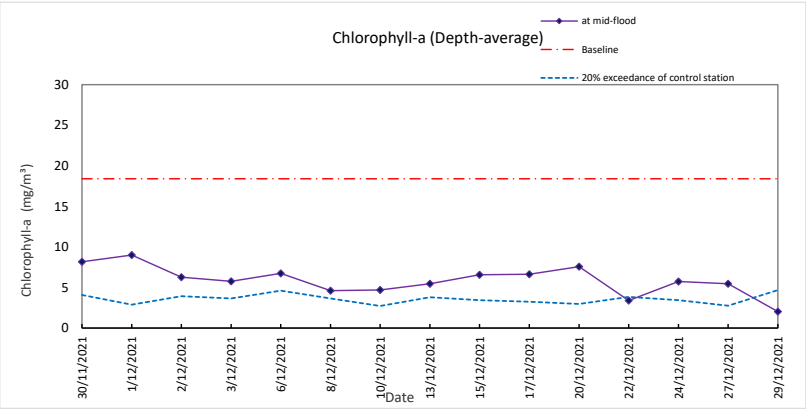

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

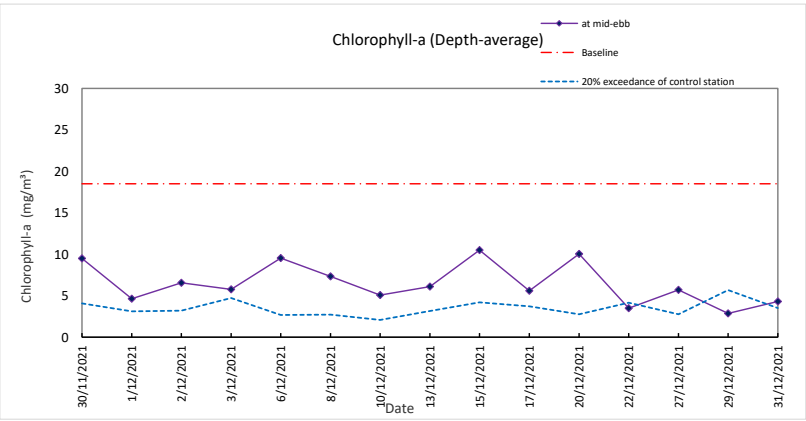

at mid-flood
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

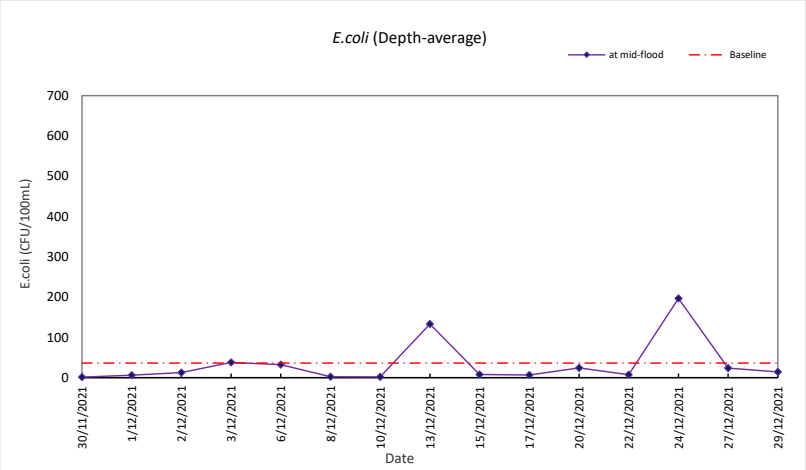

at mid-ebb
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

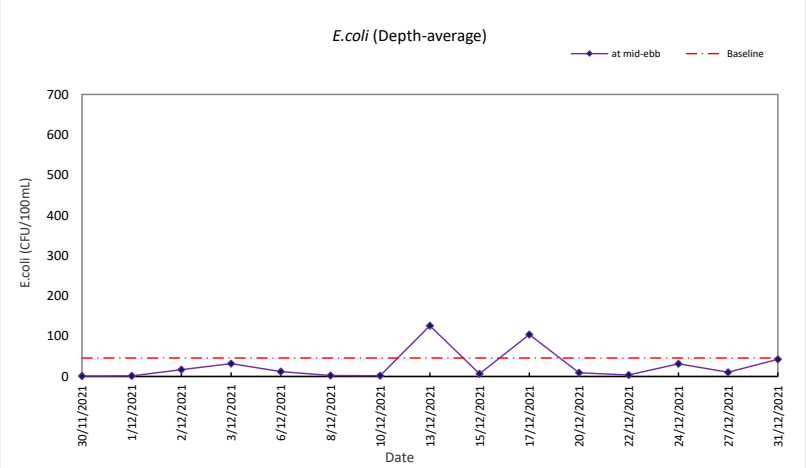

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

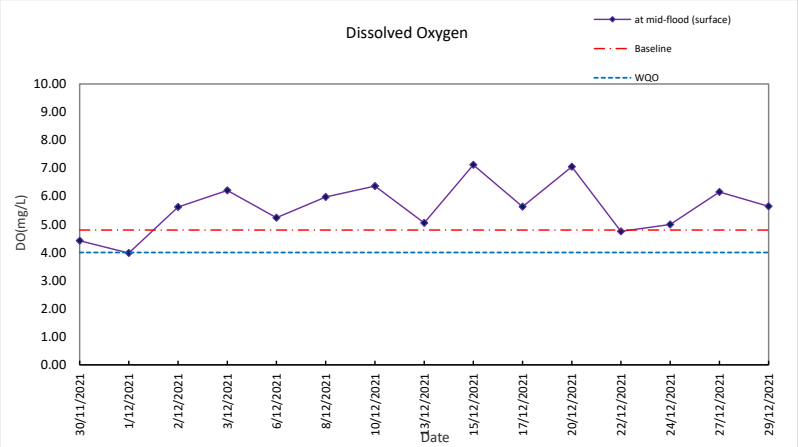

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

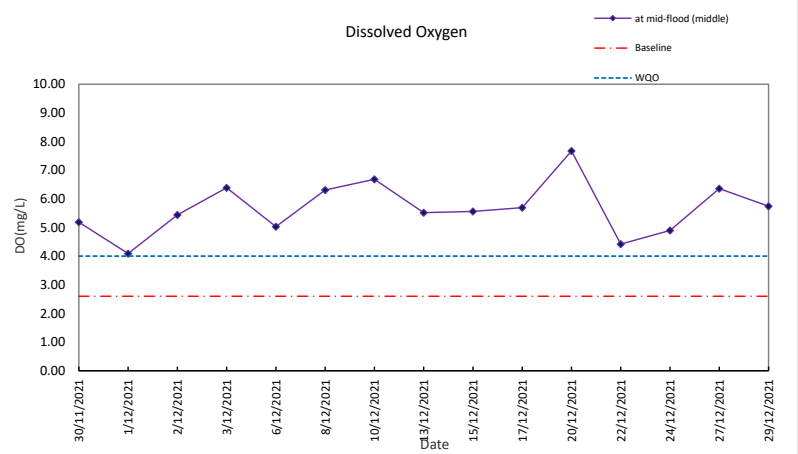

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

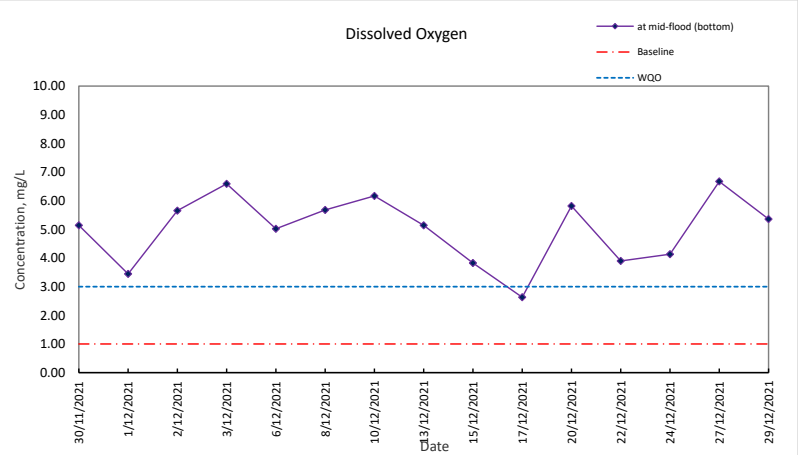

*E.coli* (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
700
600
500
400
300
200
100
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

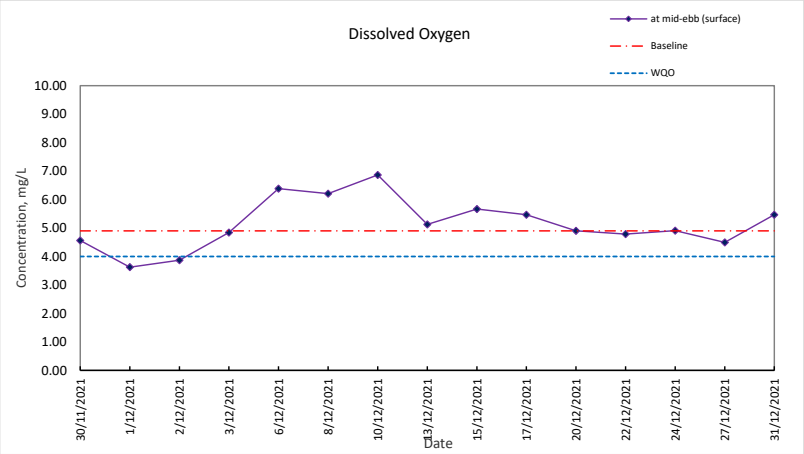

*E.coli* (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
700
600
500
400
300
200
100
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

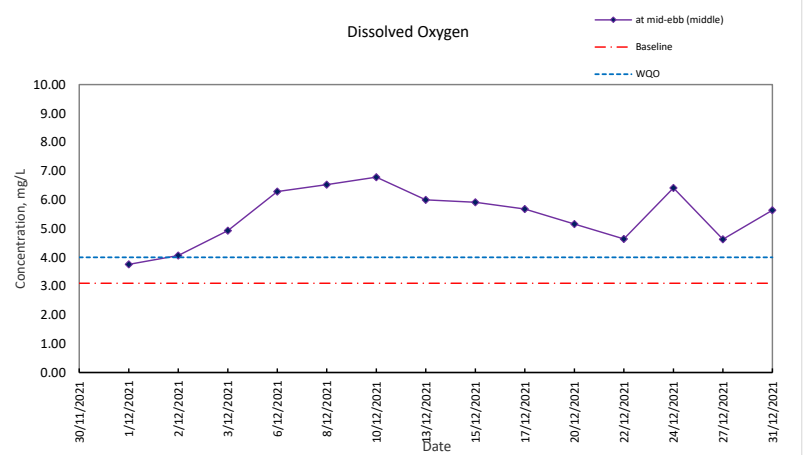
**Graphic Presentation of Water Quality Result of**
**F2 - Yim Tin Tsai (East) Fish Culture Zone**

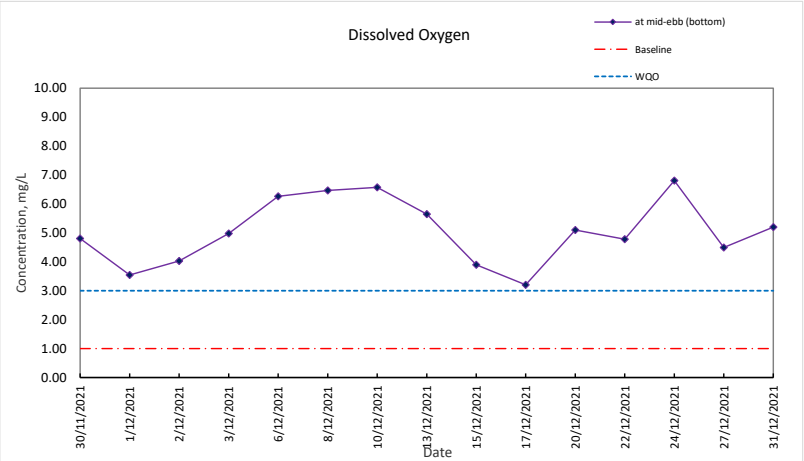


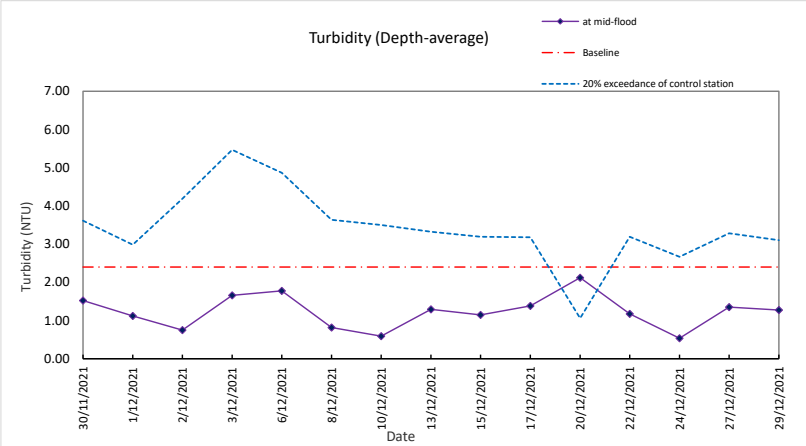



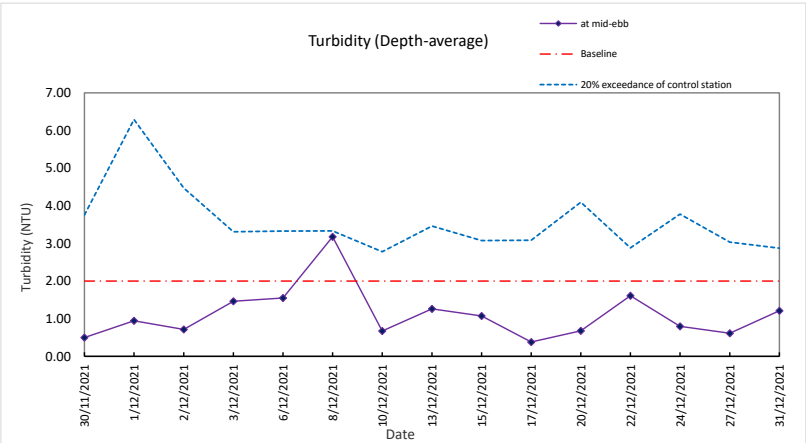



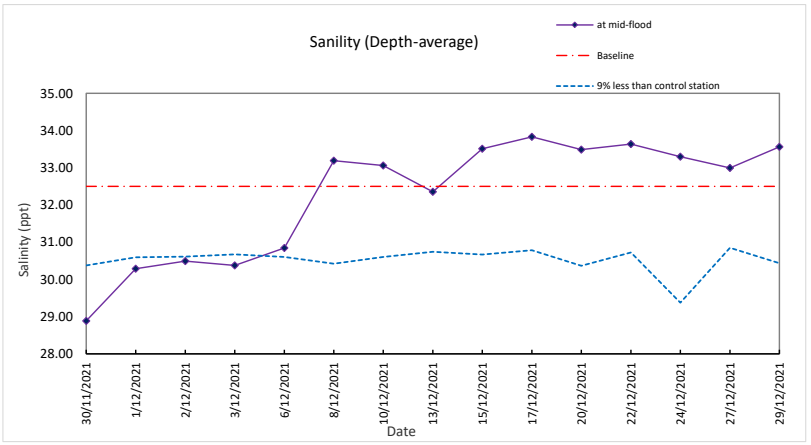

Dissolved Oxygen
at mid-ebb (surface)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

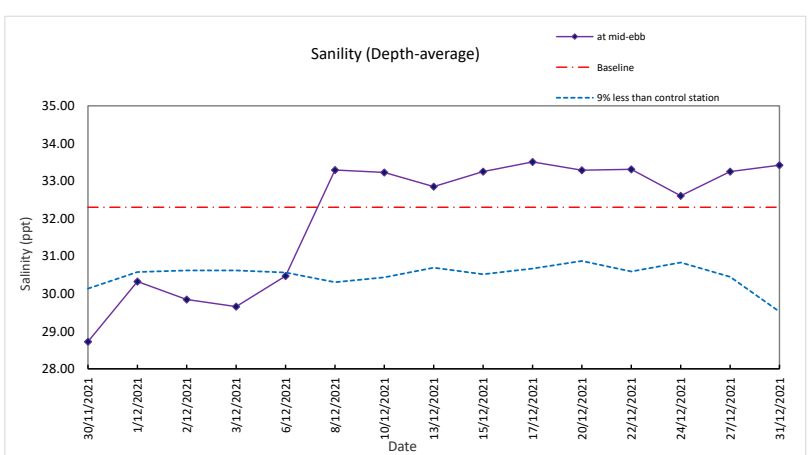

Dissolved Oxygen
at mid-ebb (middle)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

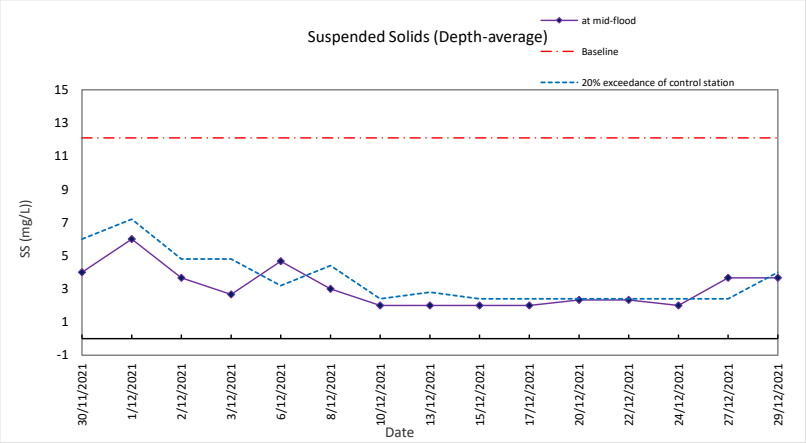

Dissolved Oxygen
at mid-ebb (bottom)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

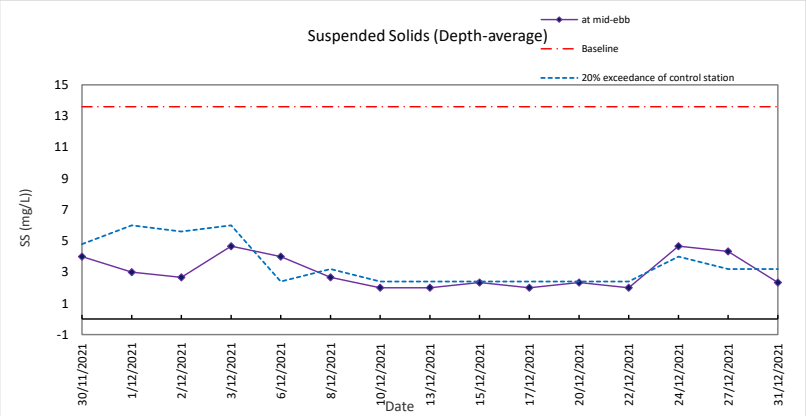

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

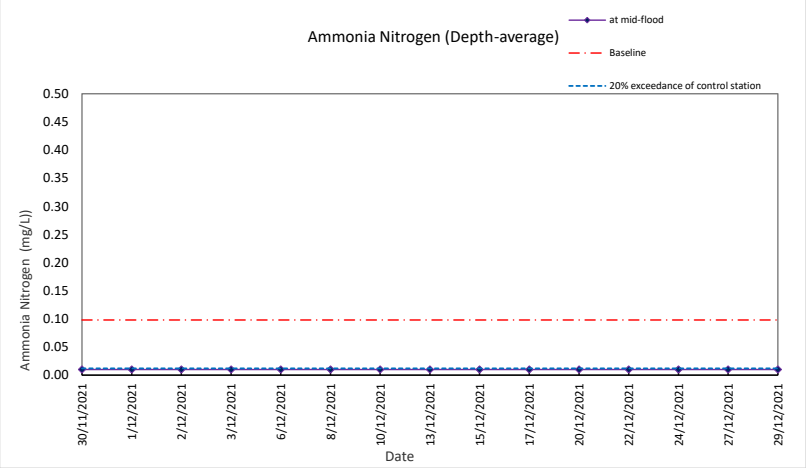

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

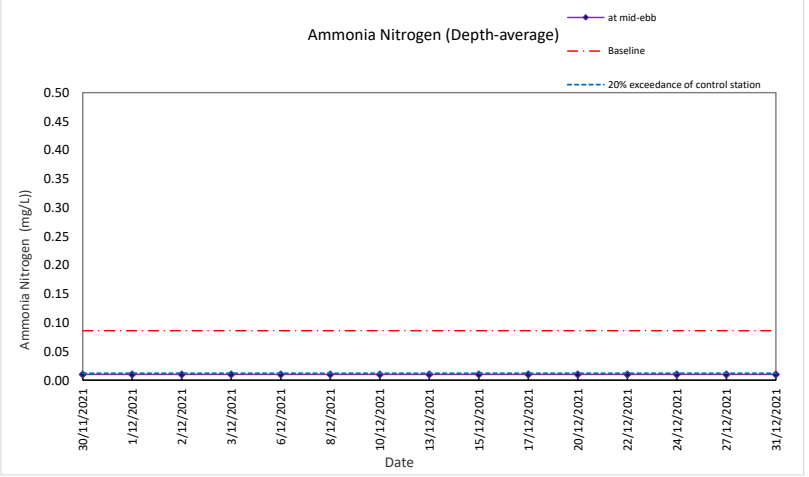

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

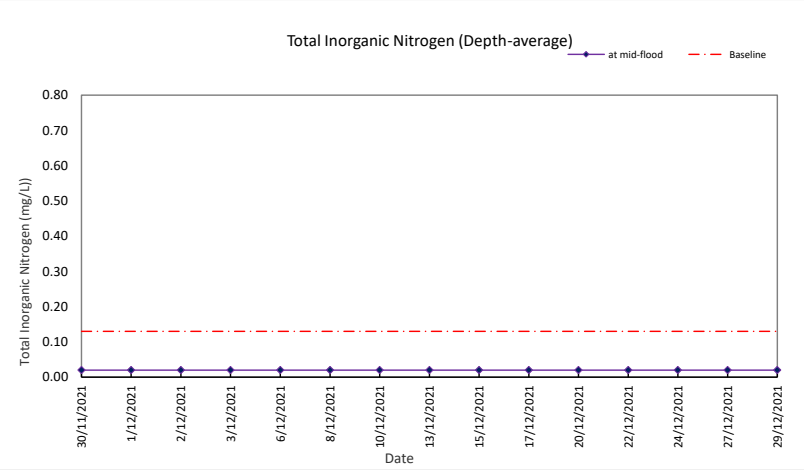

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

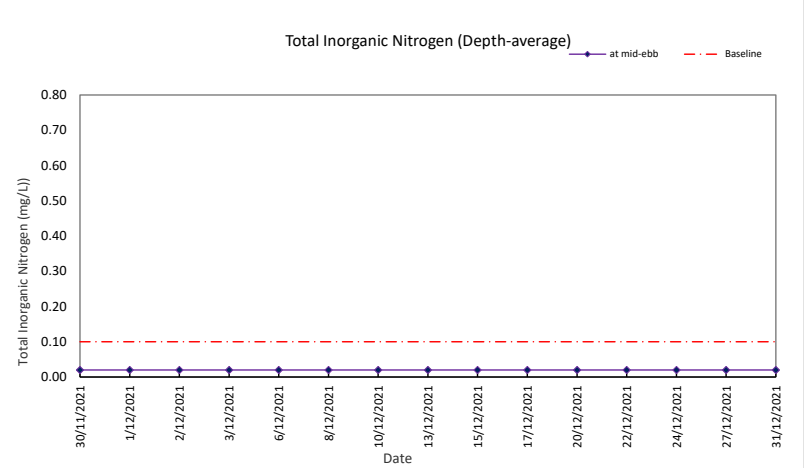

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L))
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

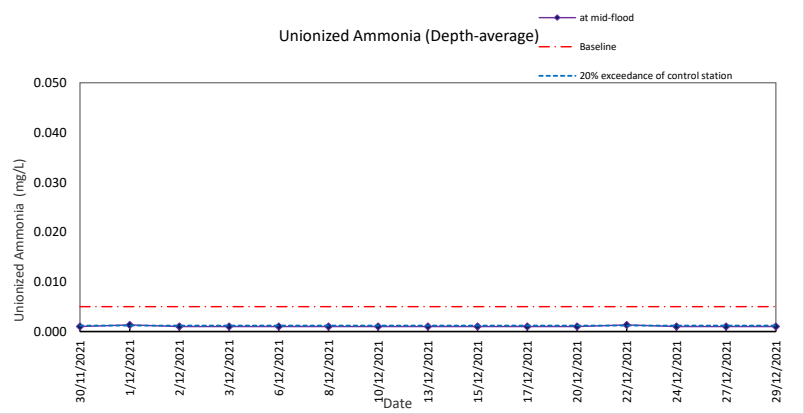

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L))
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

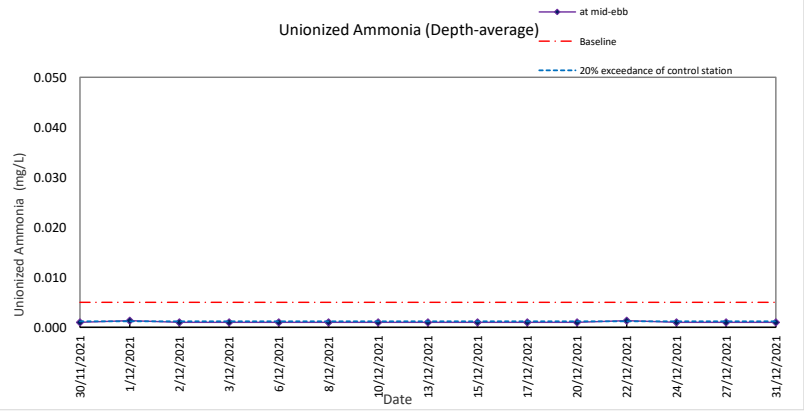

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L))
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

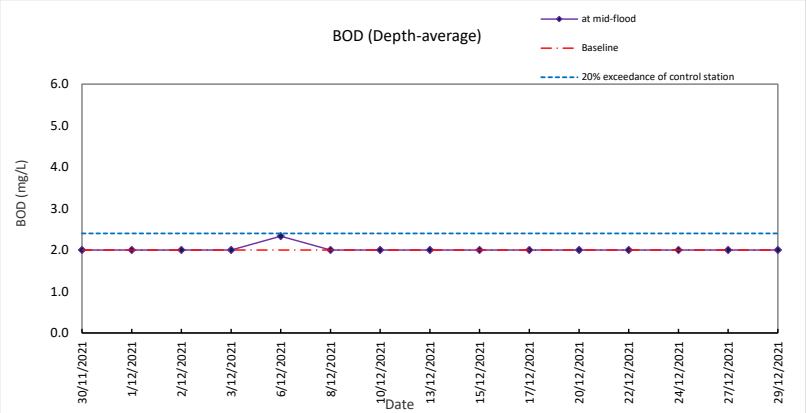

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L))
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

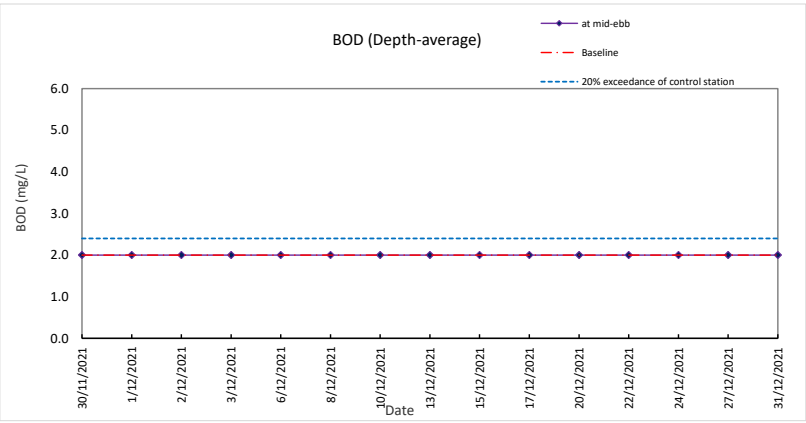

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

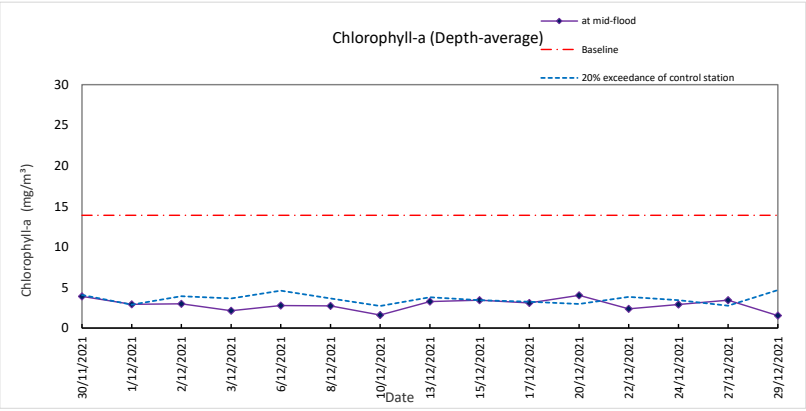

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

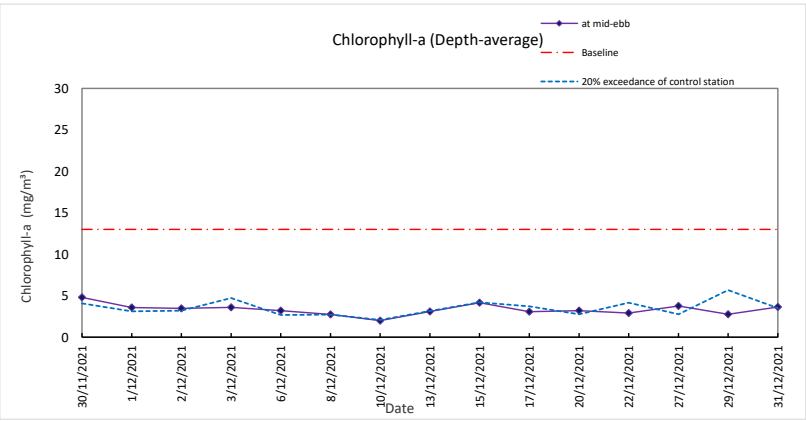

Unionized Ammonia (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

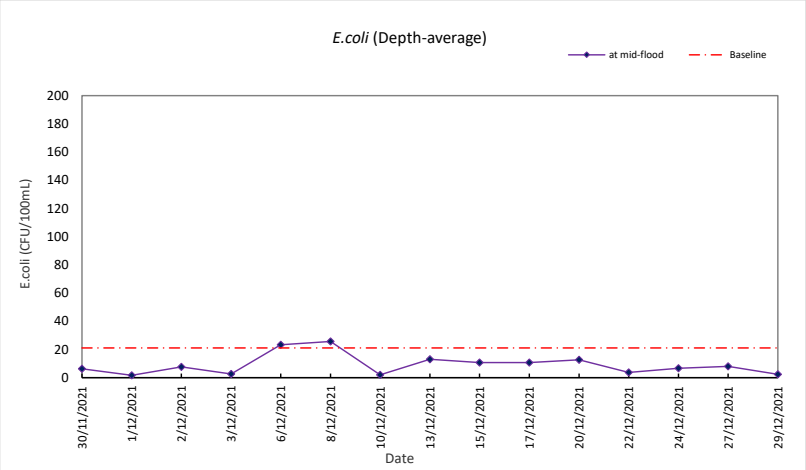

Unionized Ammonia (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

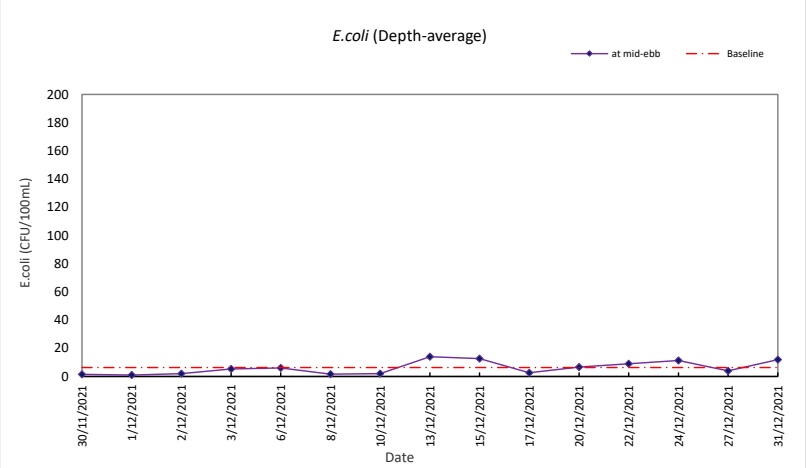

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

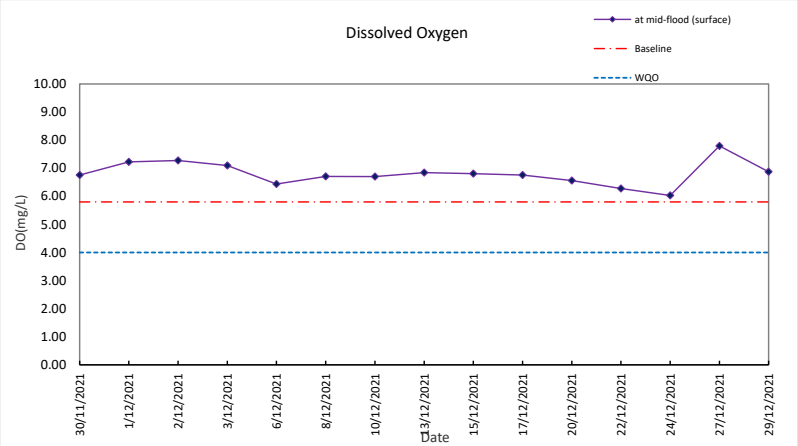

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

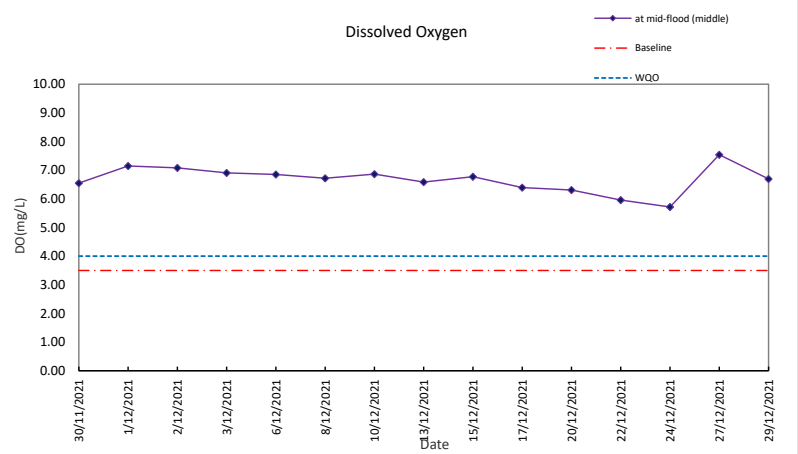

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

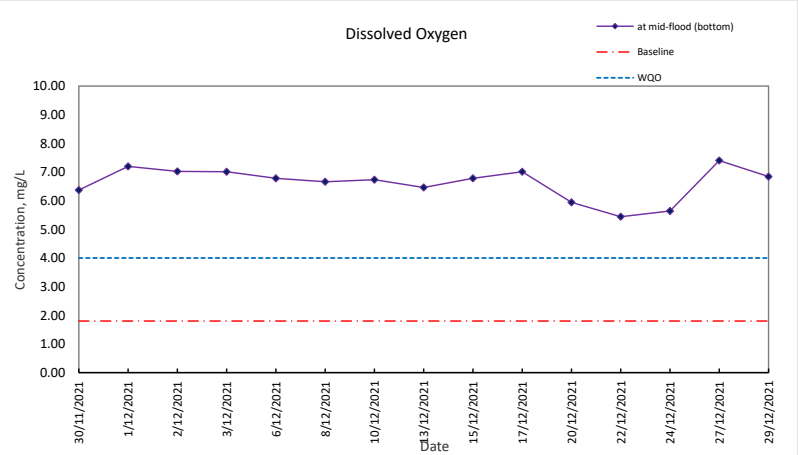

*E.coli* (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
200
180
160
140
120
100
80
60
40
20
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

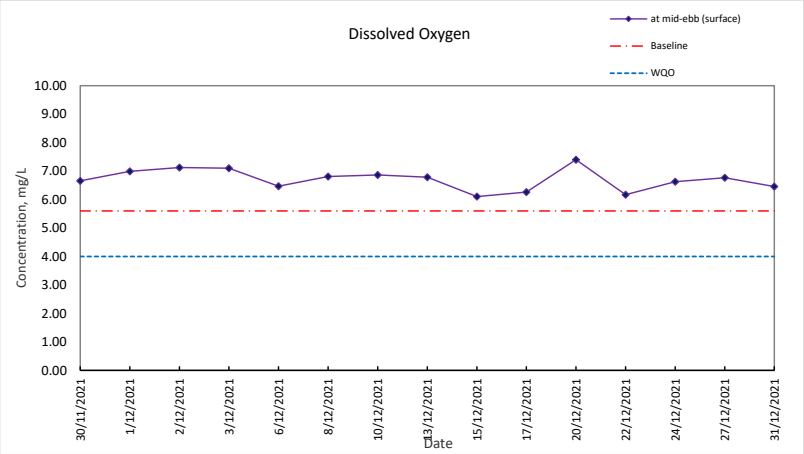

*E.coli* (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
200
180
160
140
120
100
80
60
40
20
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

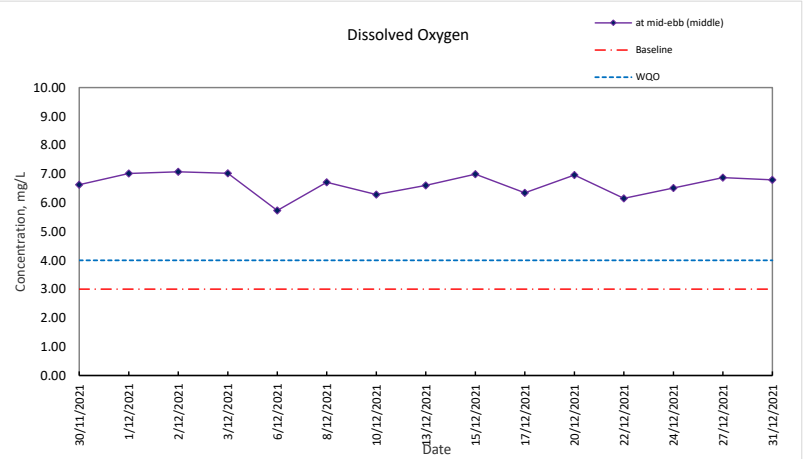
**Graphic Presentation of Water Quality Result of**
**F3 -Yung Shue Au Fish Culture Zone / Important Nursery Area for Commercial Fisheries Resources at Three Fathoms Cove**

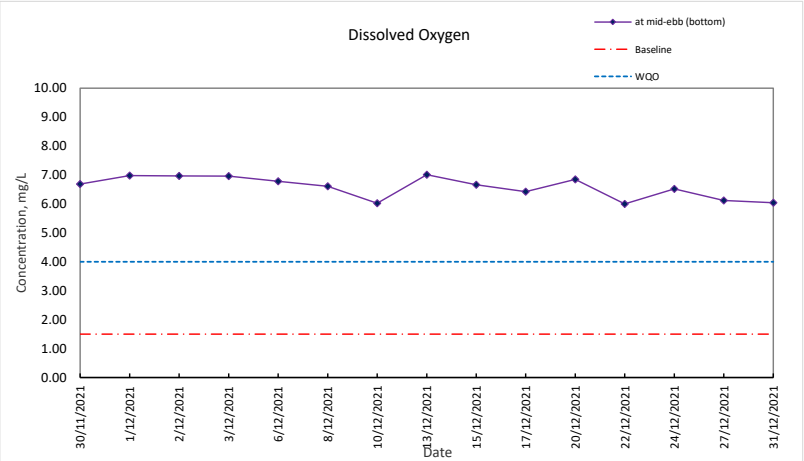


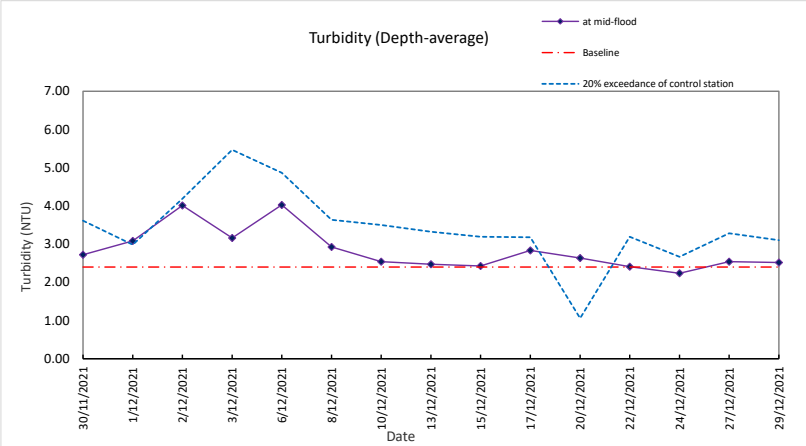



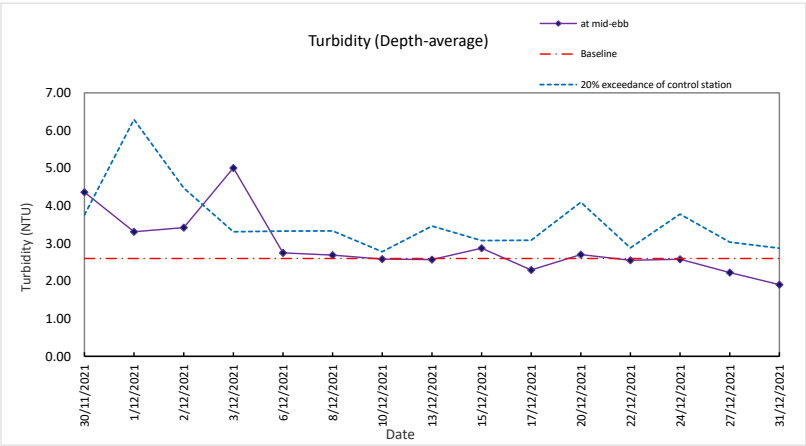



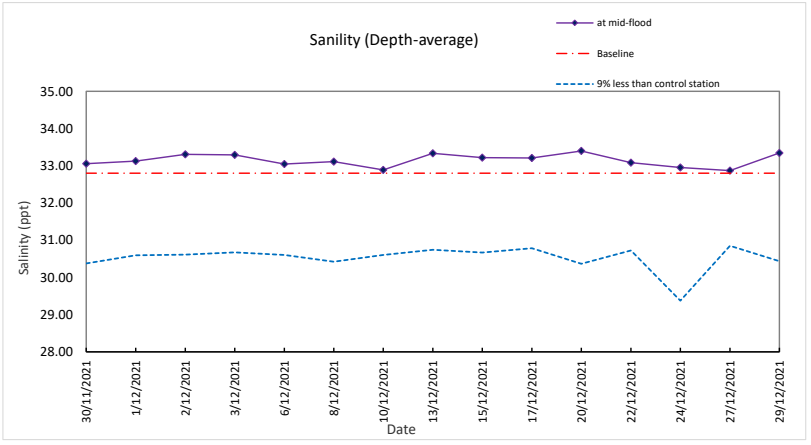

Dissolved Oxygen
at mid-ebb (surface)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

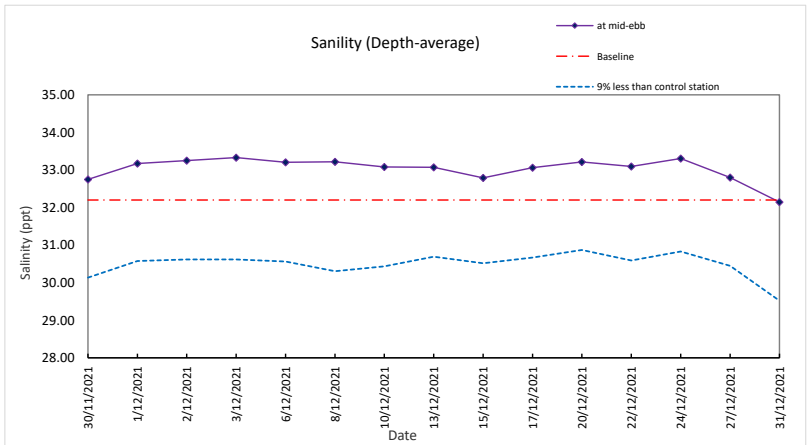

Dissolved Oxygen
at mid-ebb (middle)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

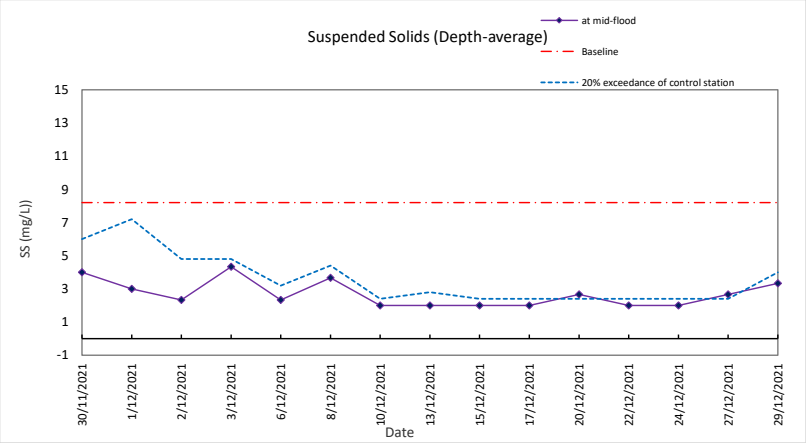

Dissolved Oxygen
at mid-ebb (bottom)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

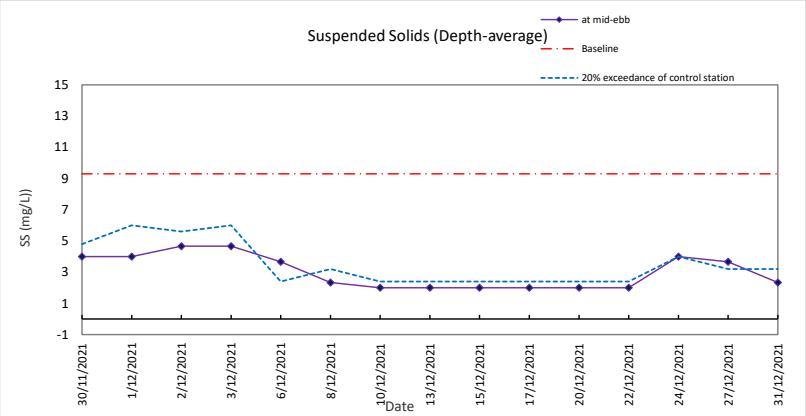

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

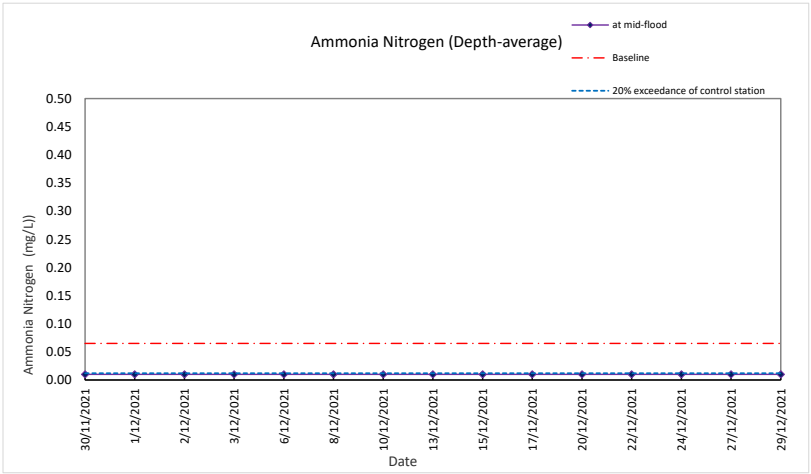

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

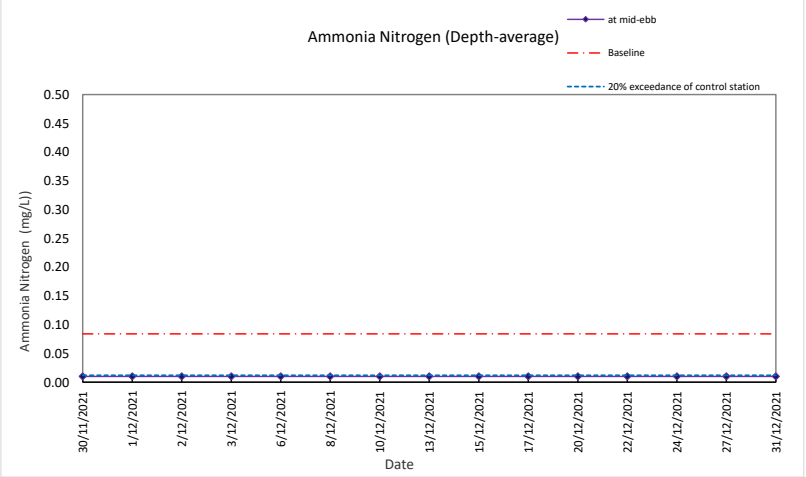

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

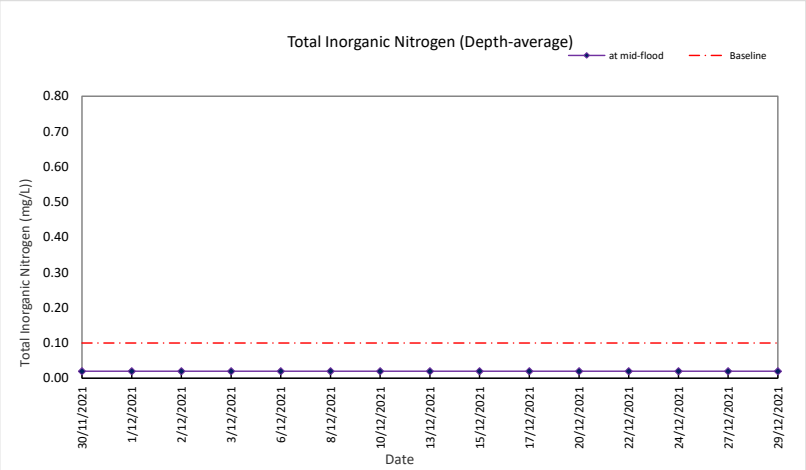

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

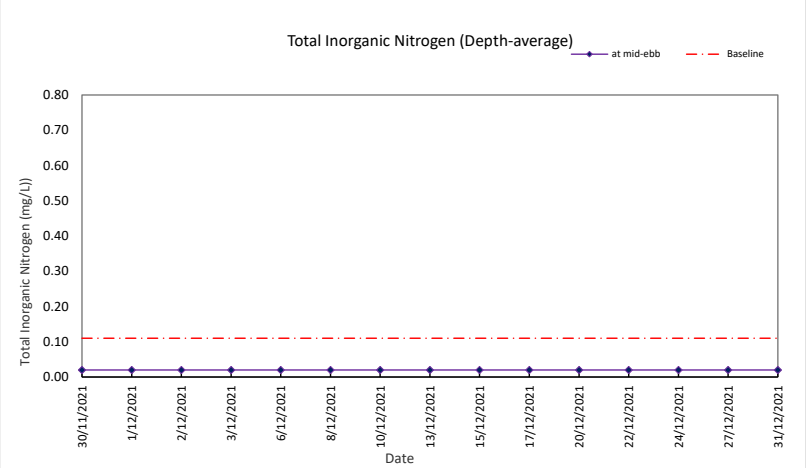

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

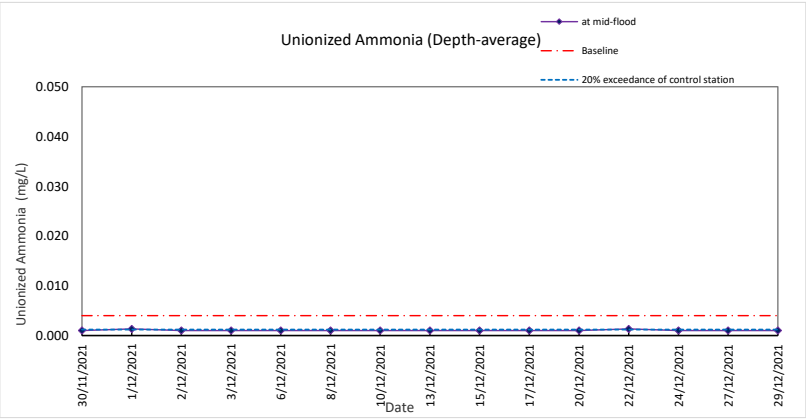

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

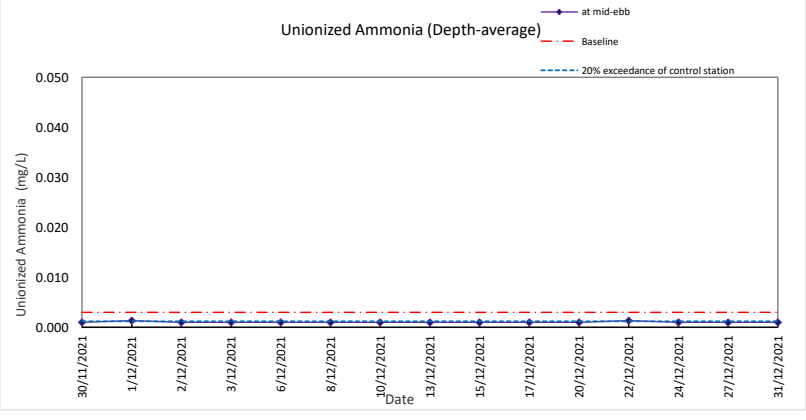

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

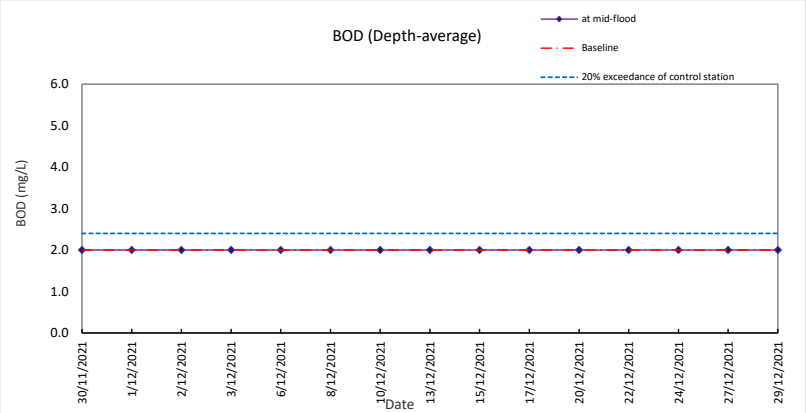

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

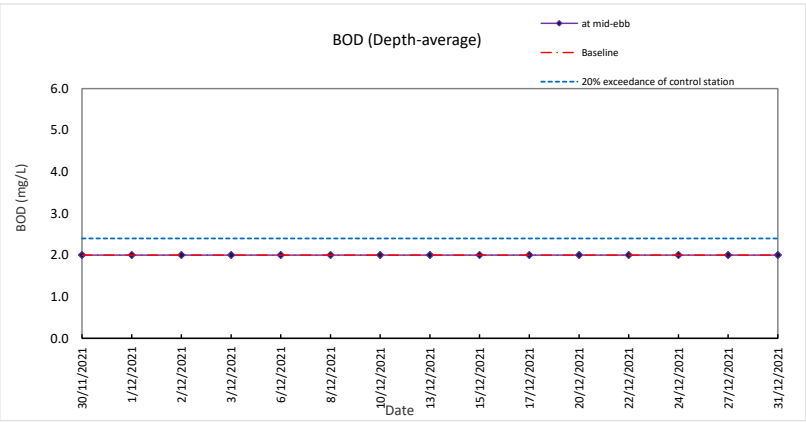

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

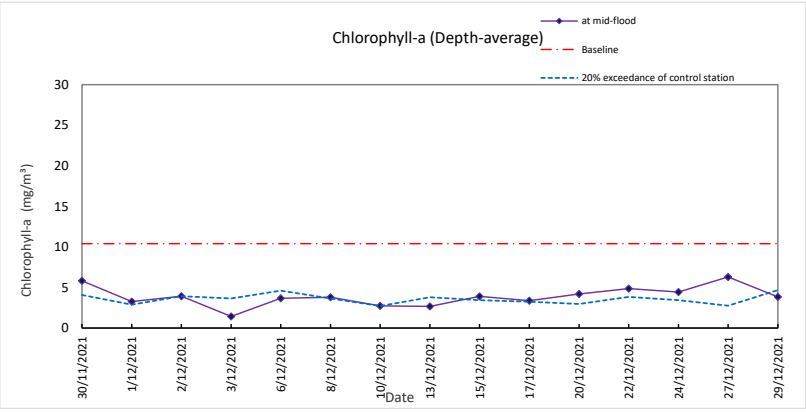

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

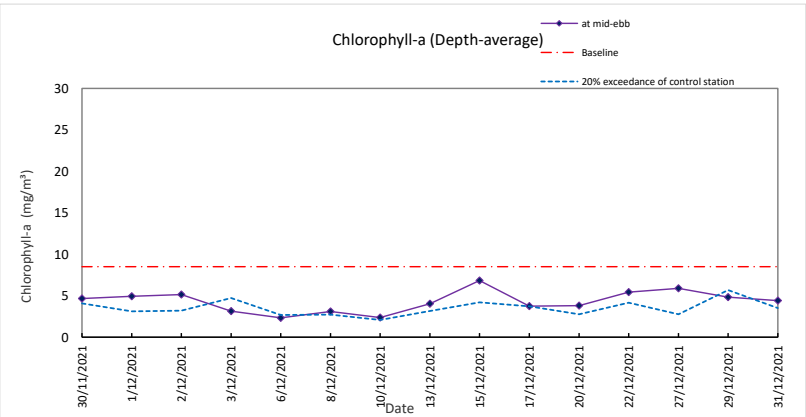

at mid-flood
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

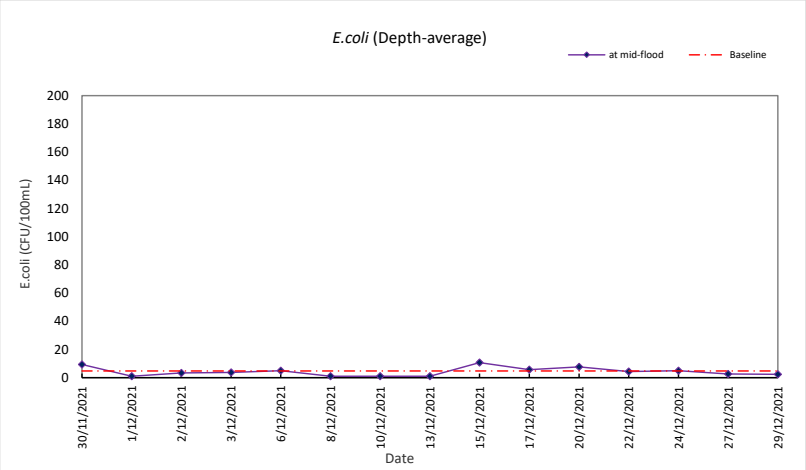

at mid-ebb
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

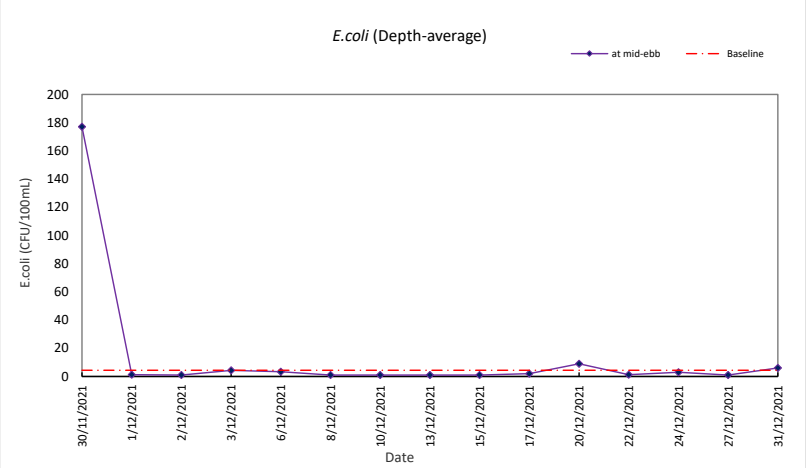

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

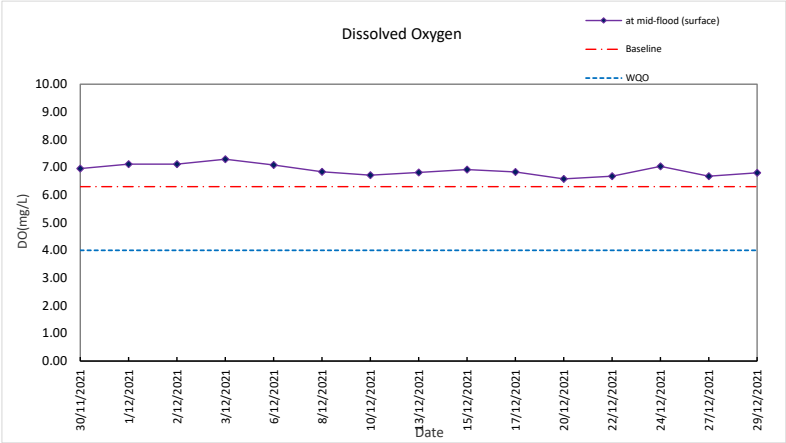

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

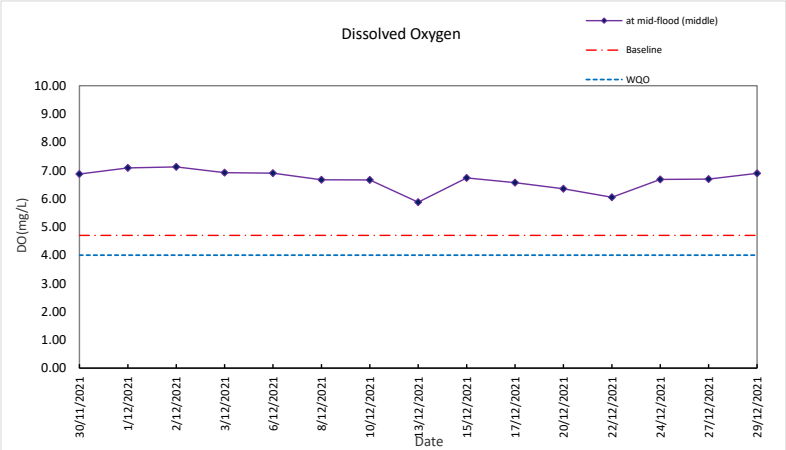

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

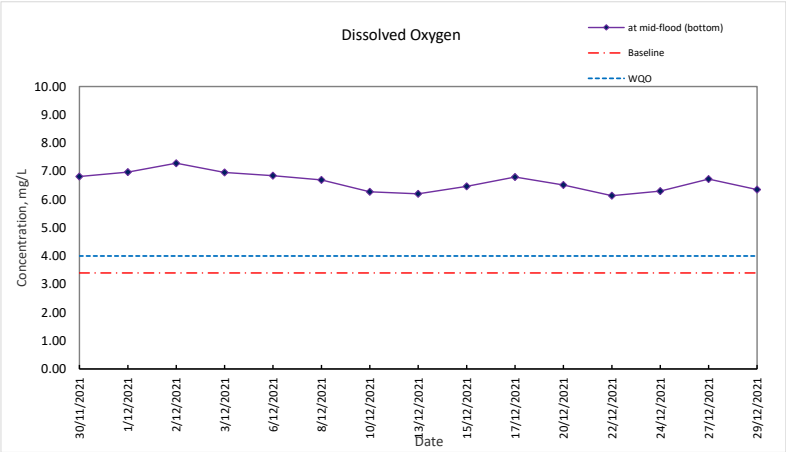

*E.coli* (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
200
180
160
140
120
100
80
60
40
20
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

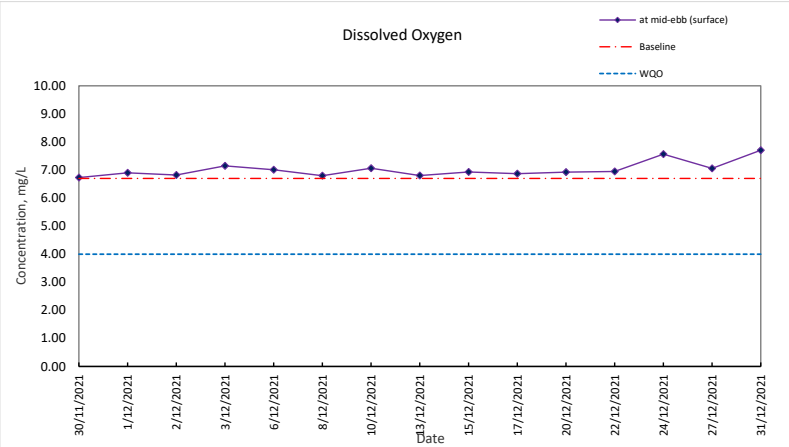

*E.coli* (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
200
180
160
140
120
100
80
60
40
20
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

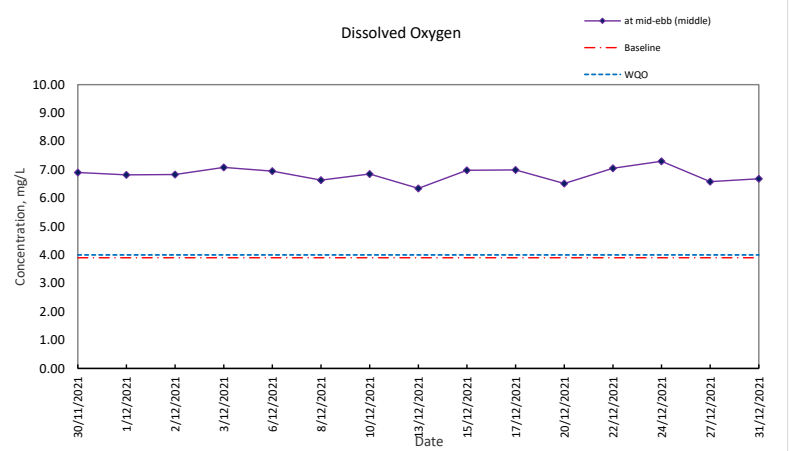
**Graphic Presentation of Water Quality Result of F4 -Lo Fu Wat Fish Culture Zone**

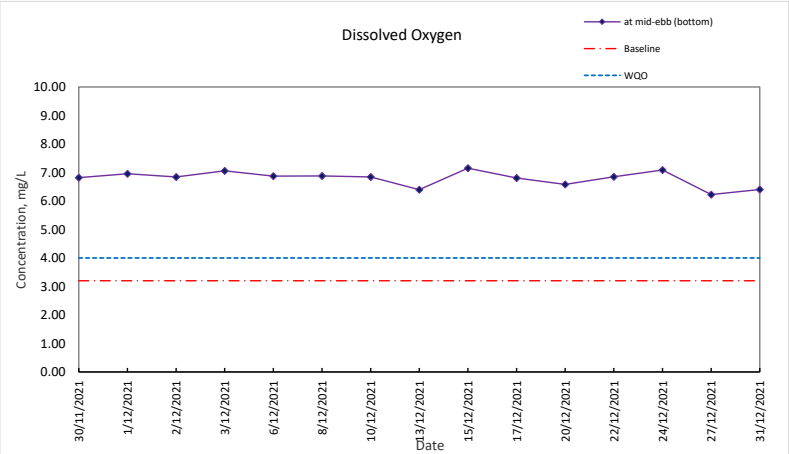


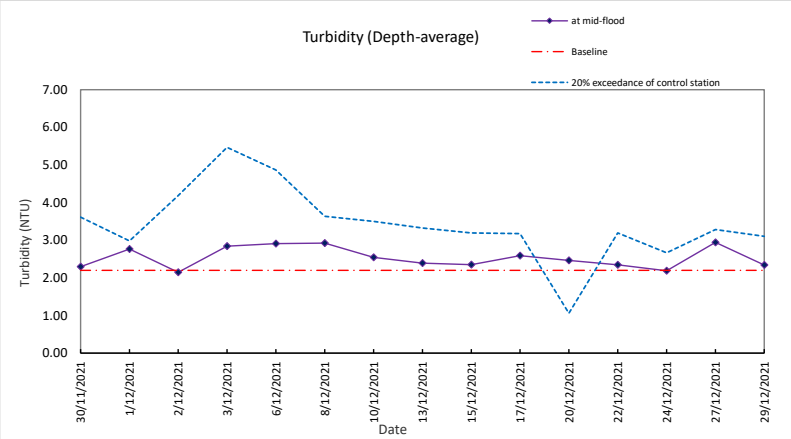



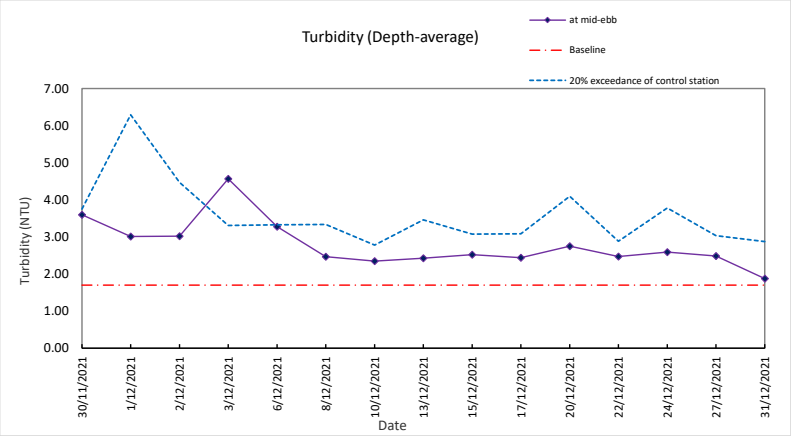



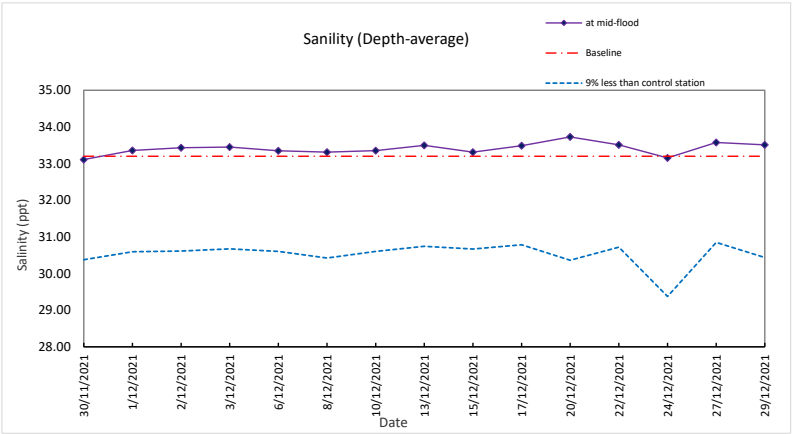

Dissolved Oxygen
at mid-ebb (surface)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

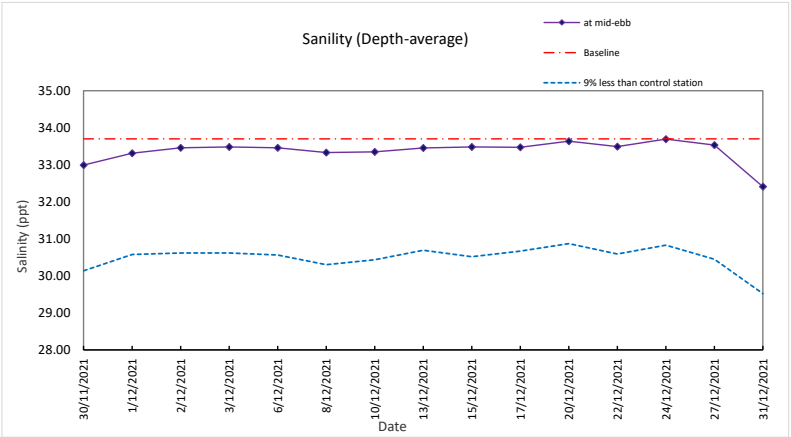

Dissolved Oxygen
at mid-ebb (middle)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

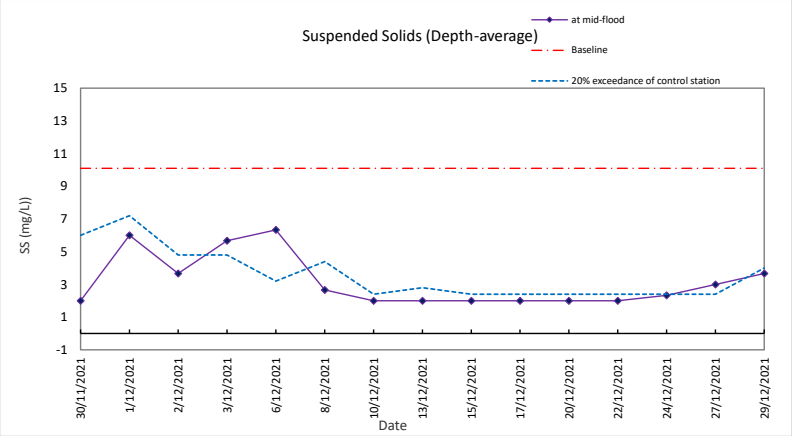

Dissolved Oxygen
at mid-ebb (bottom)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

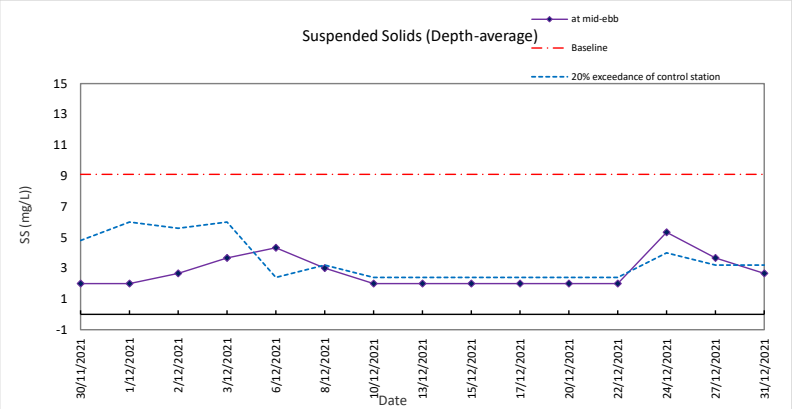

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

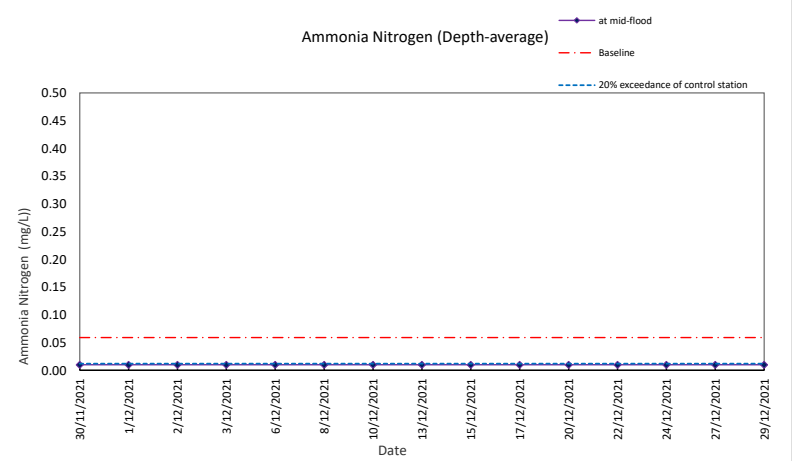

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

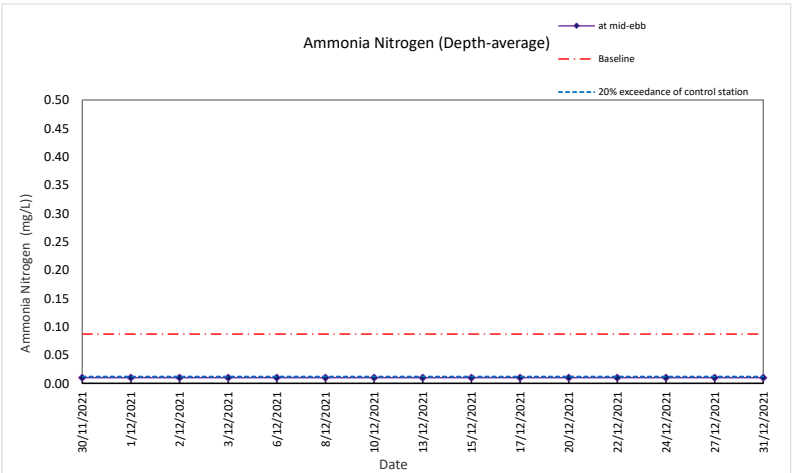

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

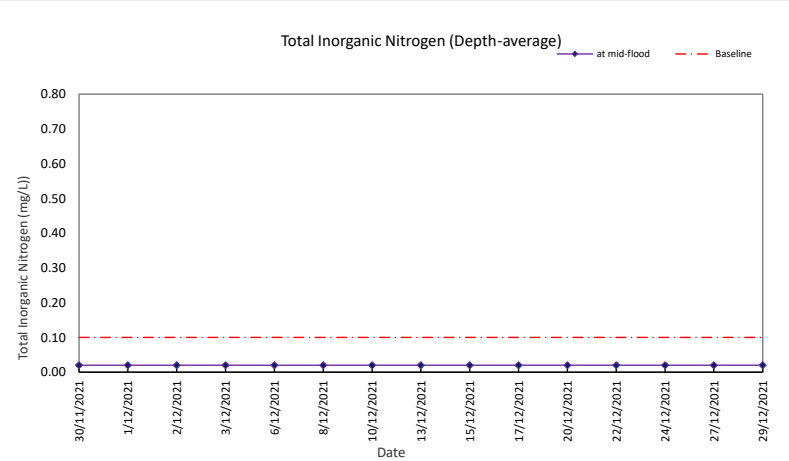

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

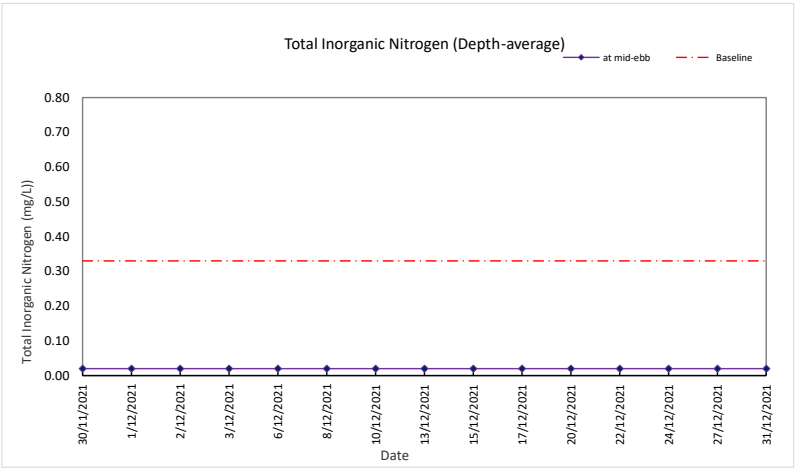

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

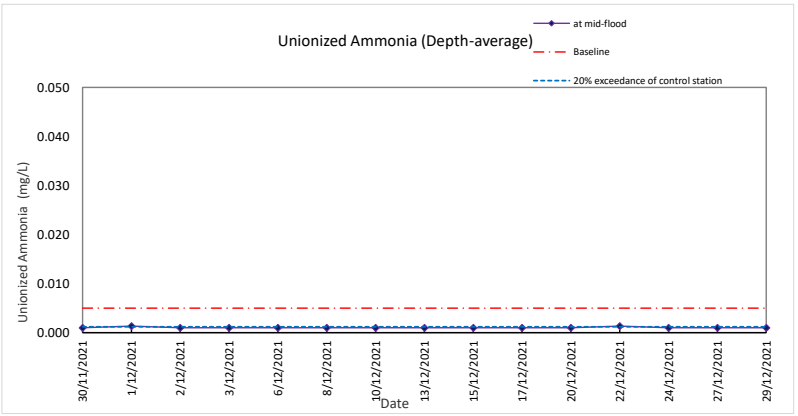

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

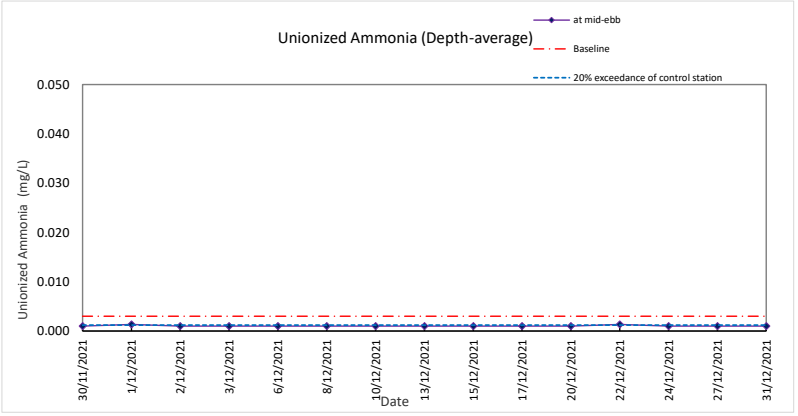

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

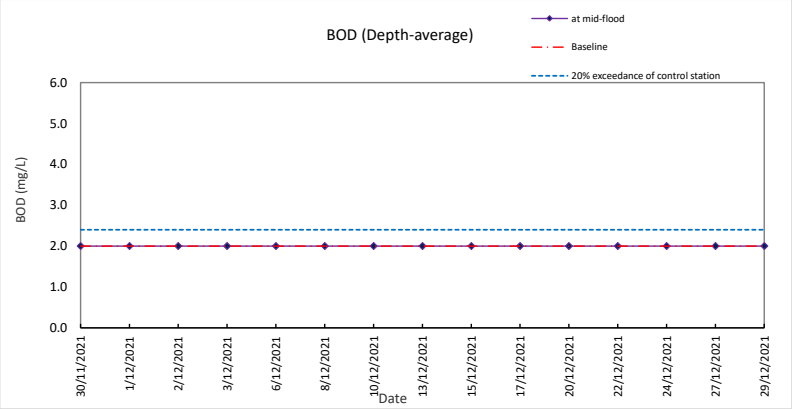

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

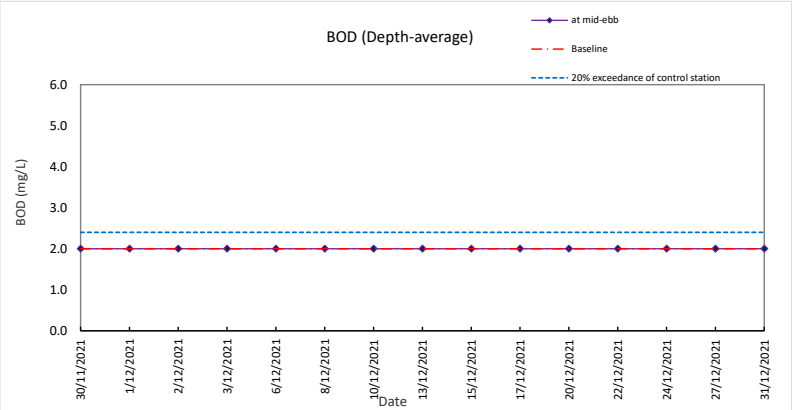

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L))
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

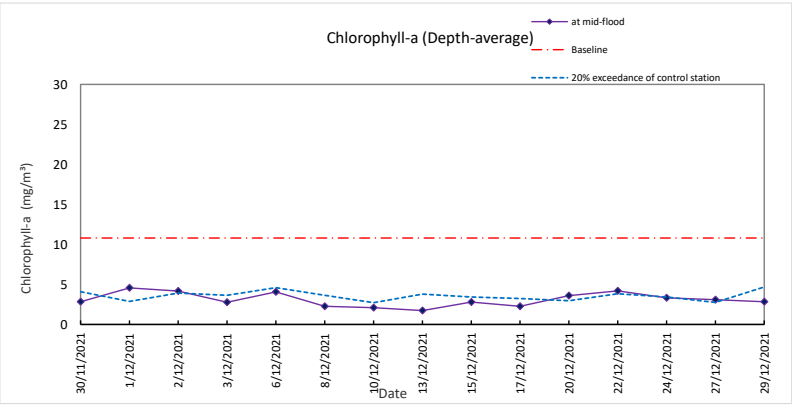

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L))
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

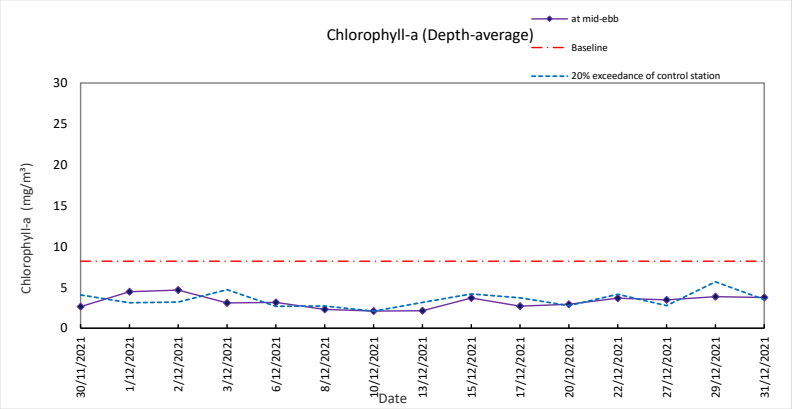

Unionized Ammonia (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

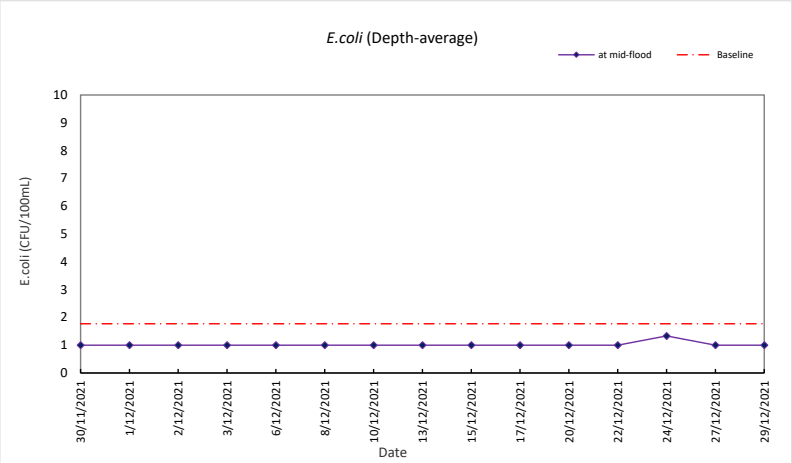

Unionized Ammonia (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

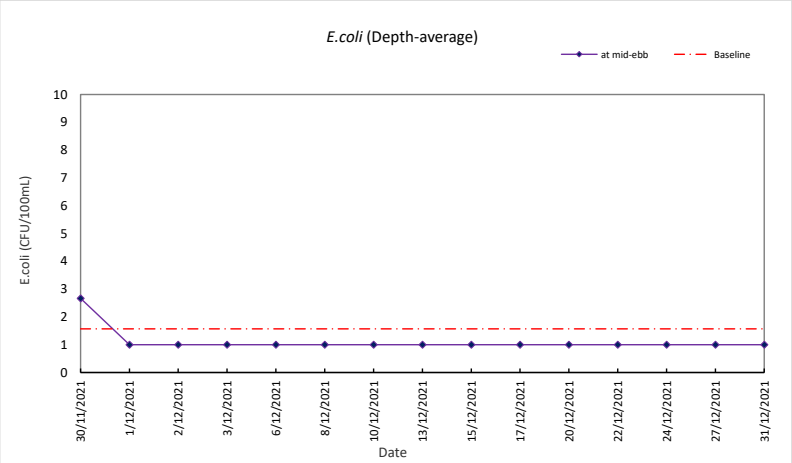

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

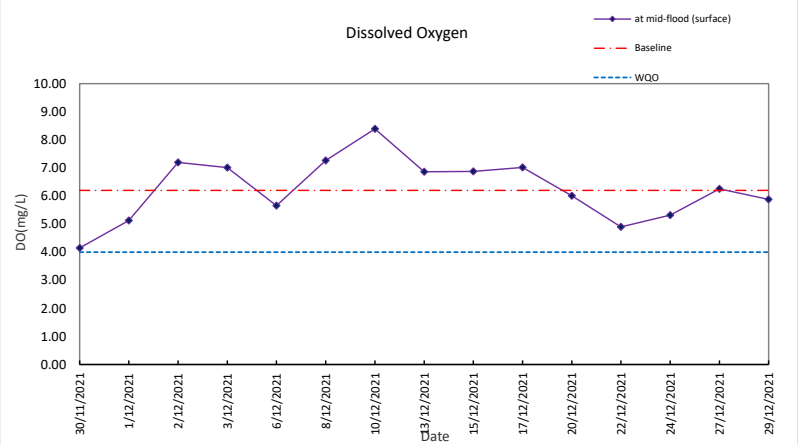

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

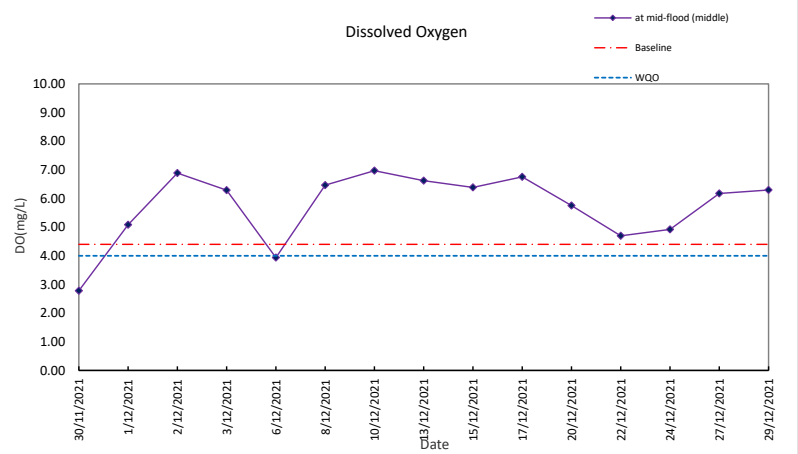

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

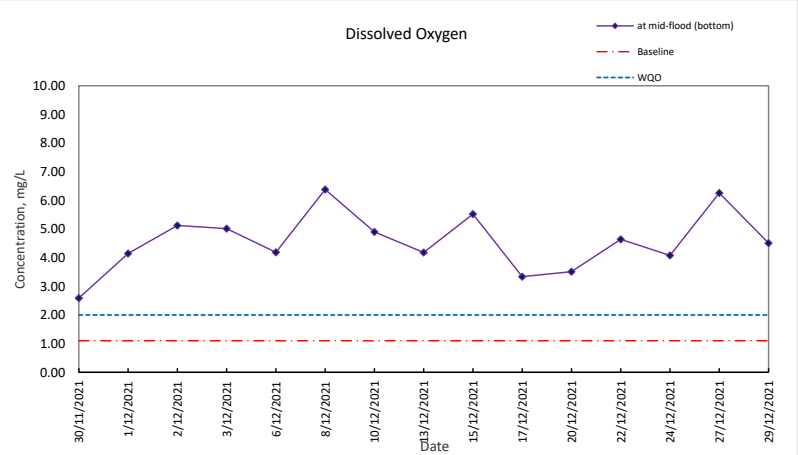

*E.coli* (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
0
1
2
3
4
5
6
7
8
9
10
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

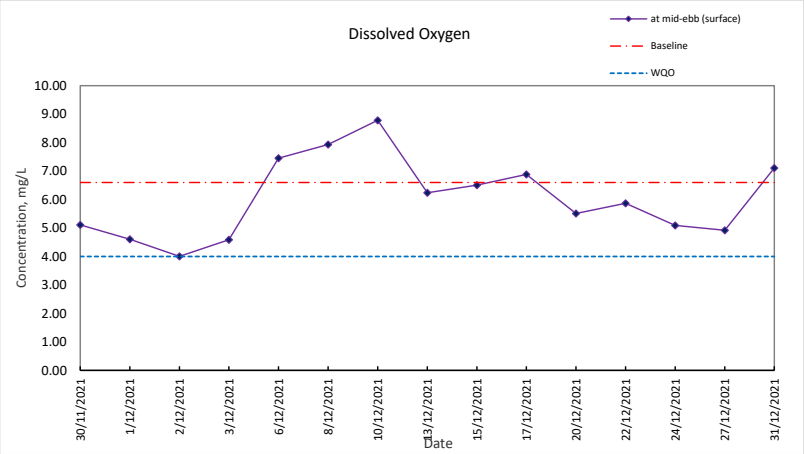

*E.coli* (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
0
1
2
3
4
5
6
7
8
9
10
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

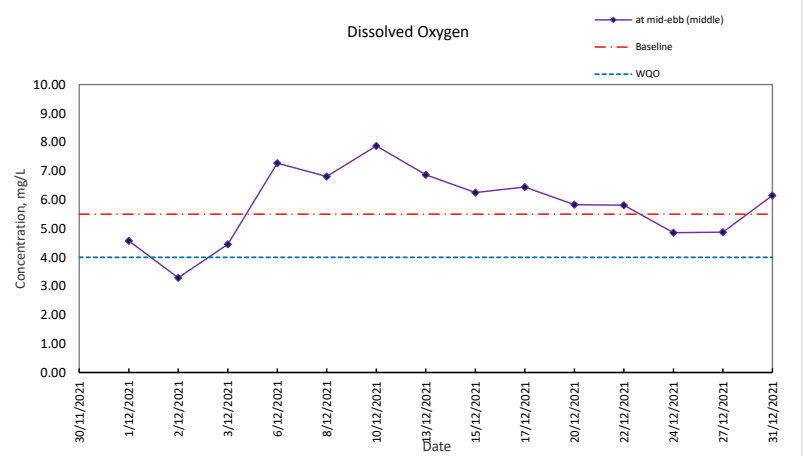
**Graphic Presentation of Water Quality Result of CR1 -Corals at Tai Po Industrial Estate**

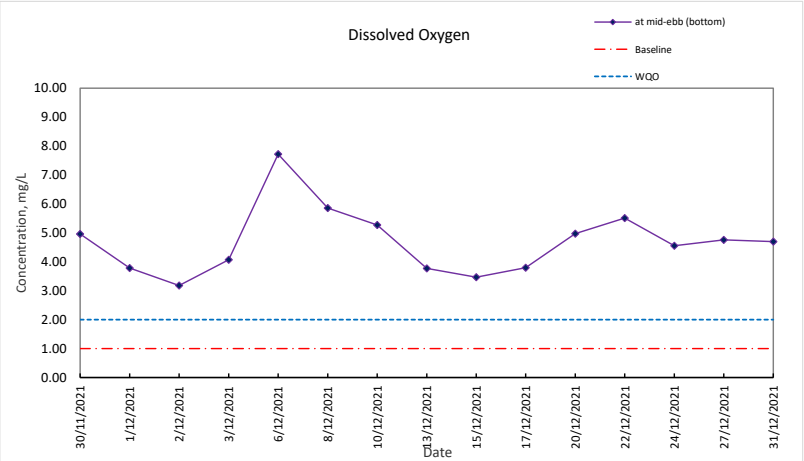


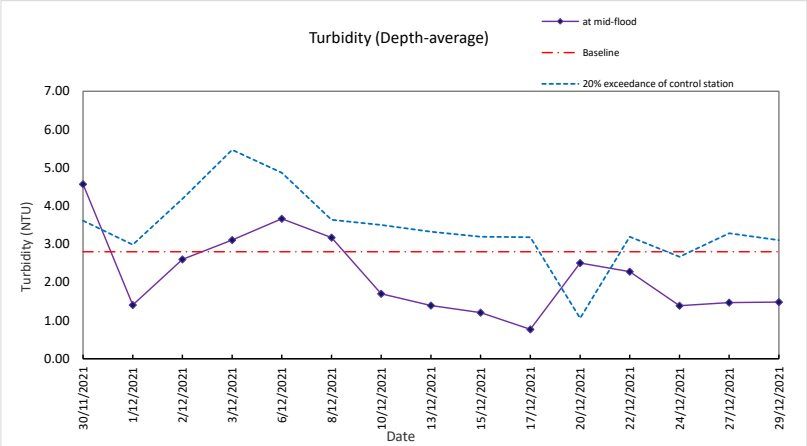



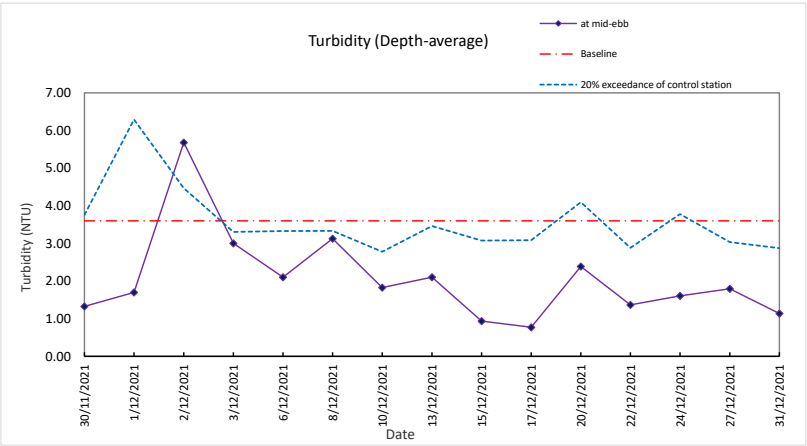



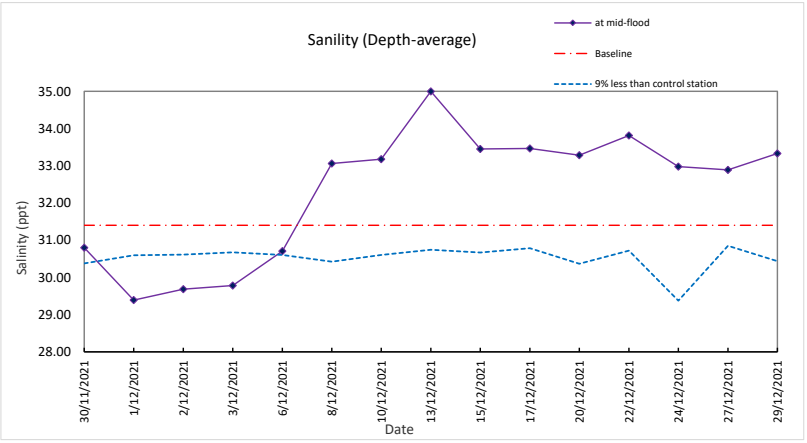

Dissolved Oxygen
at mid-ebb (surface)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

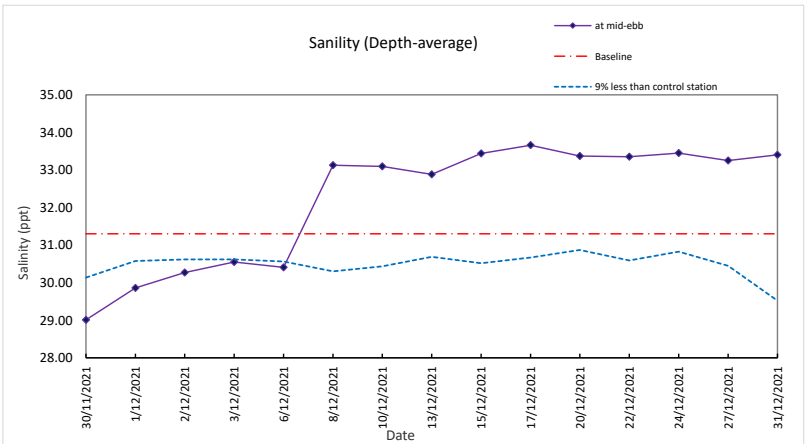

Dissolved Oxygen
at mid-ebb (middle)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

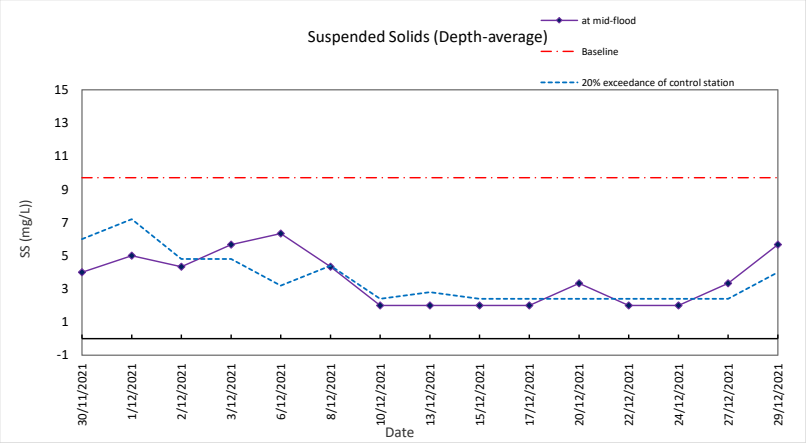

Dissolved Oxygen
at mid-ebb (bottom)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

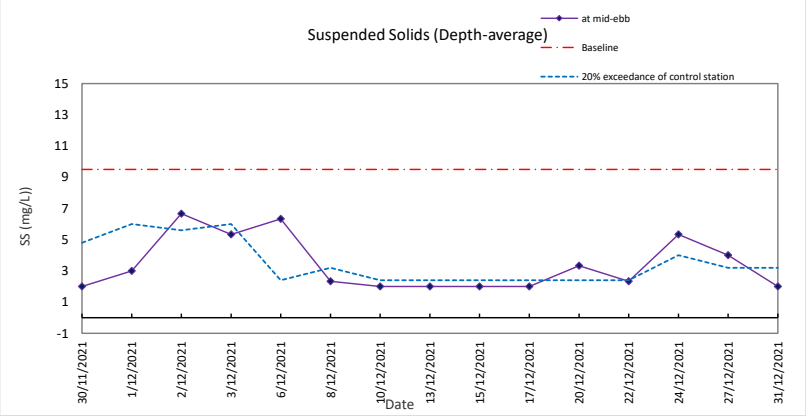

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

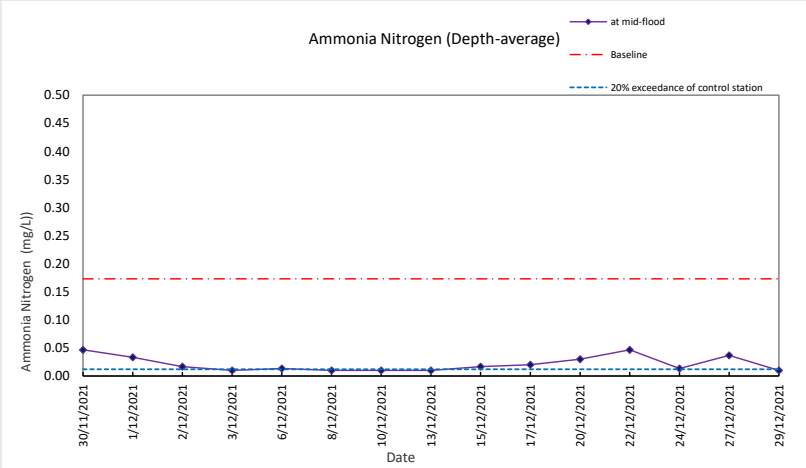

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

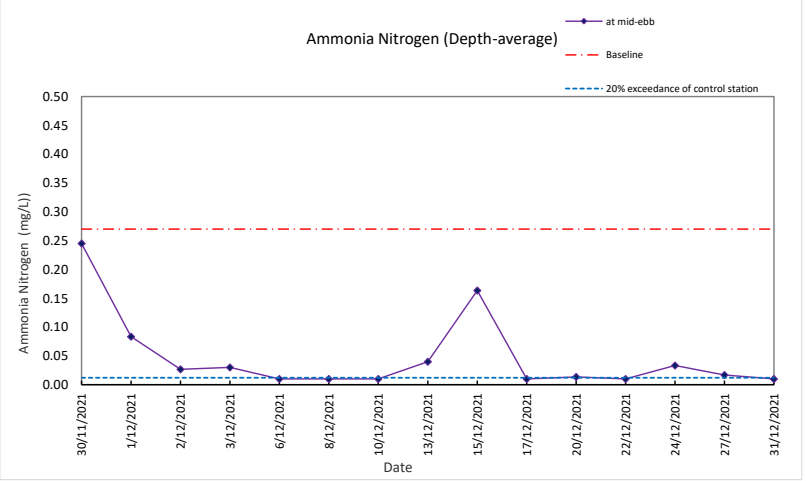

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

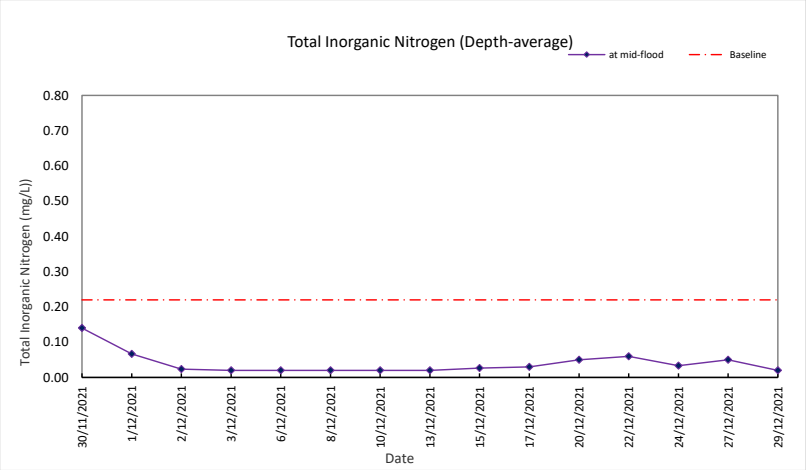

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

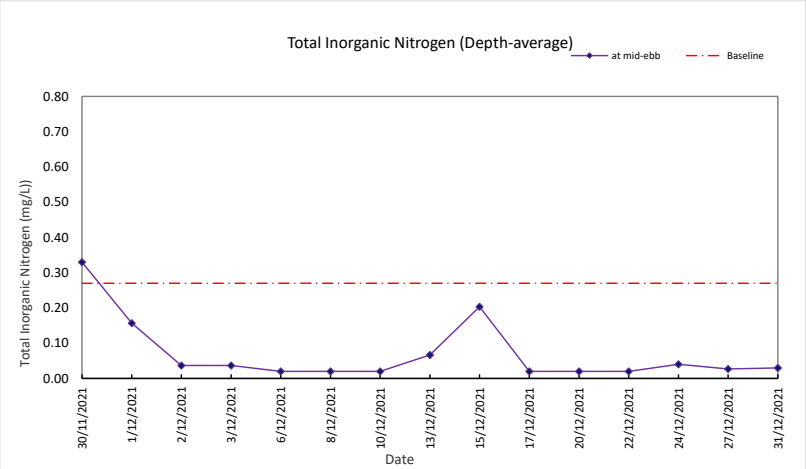

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L))
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

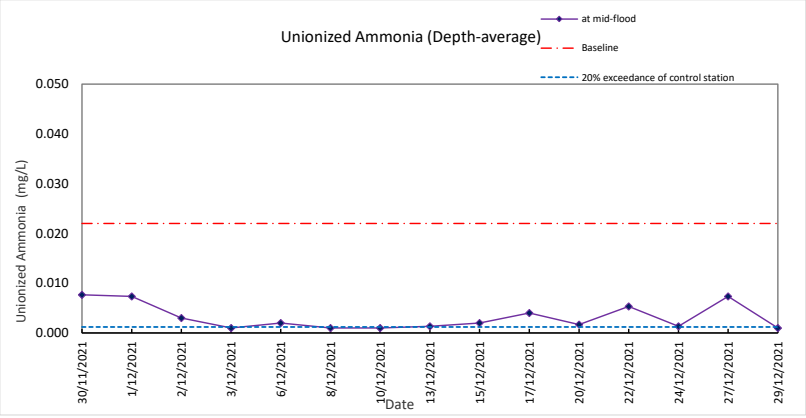

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L))
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

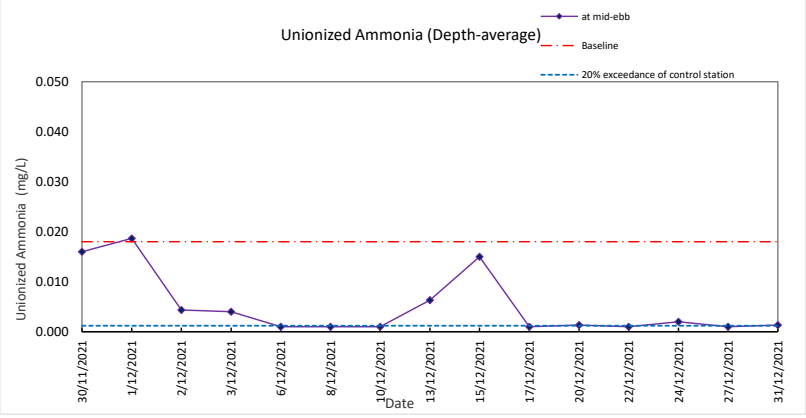

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L))
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

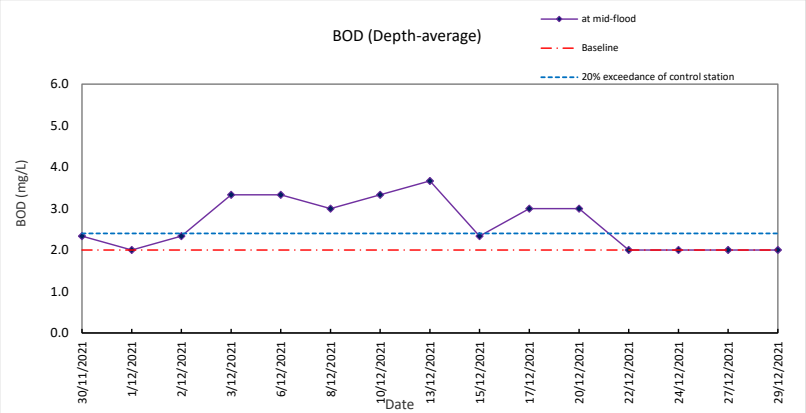

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L))
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

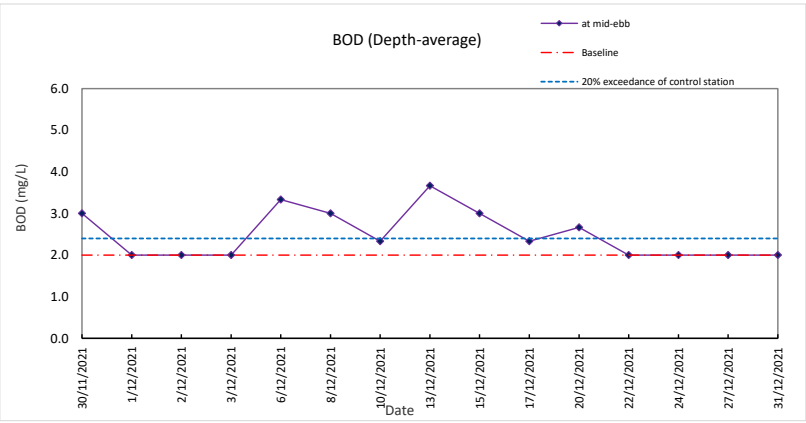

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

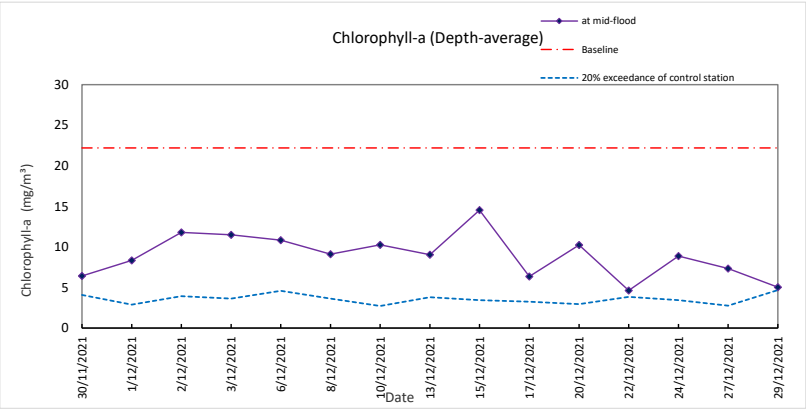

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

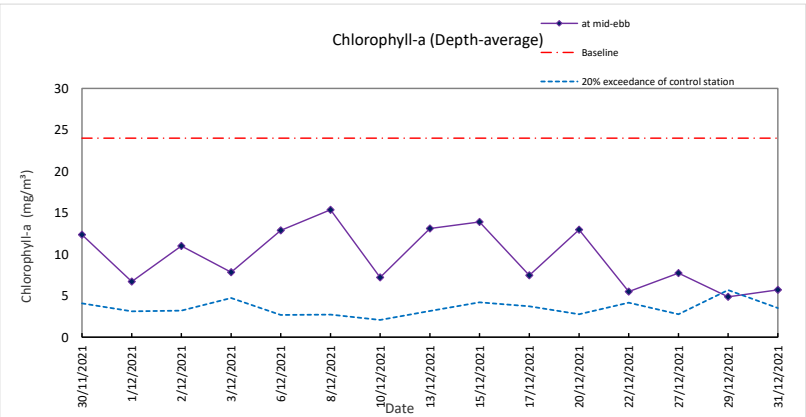

Unionized Ammonia (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

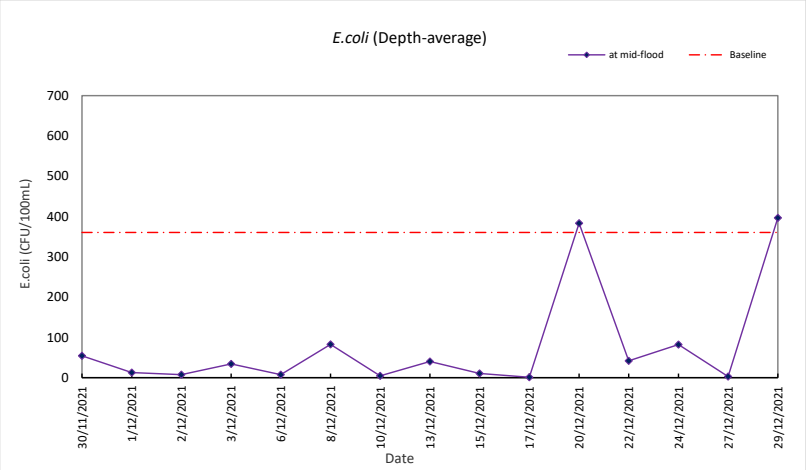

Unionized Ammonia (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

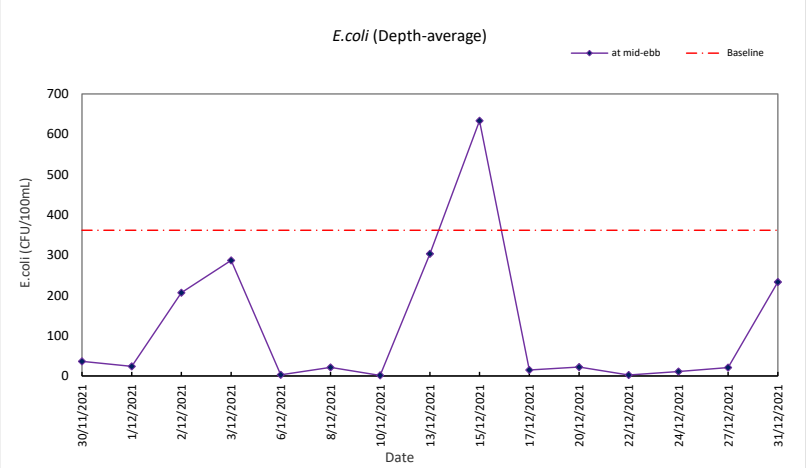

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

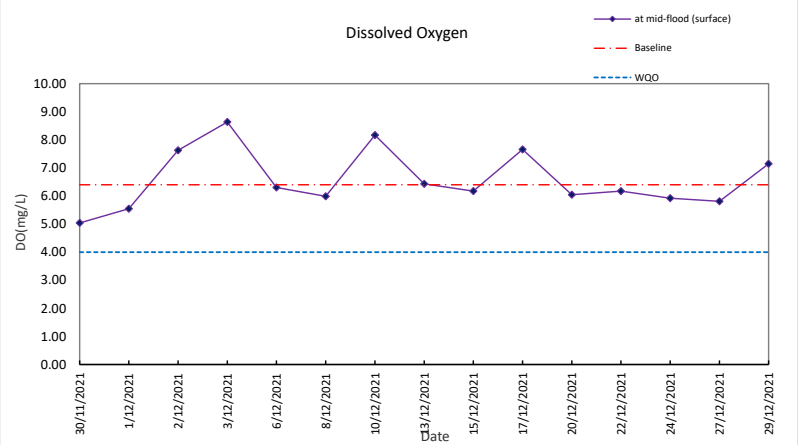

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

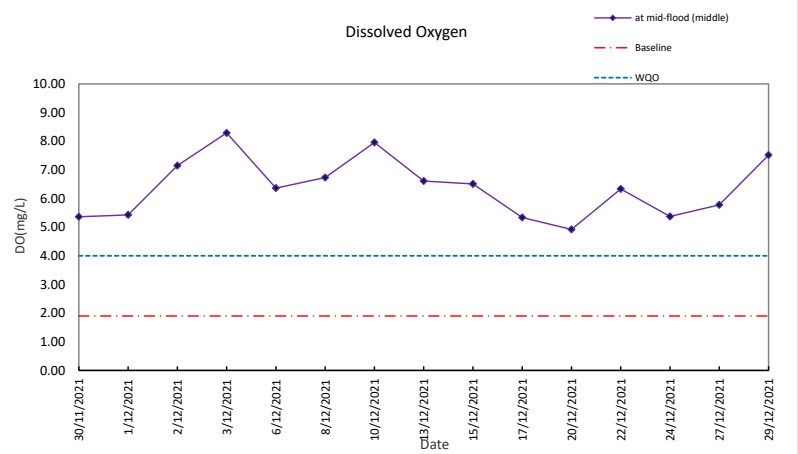

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

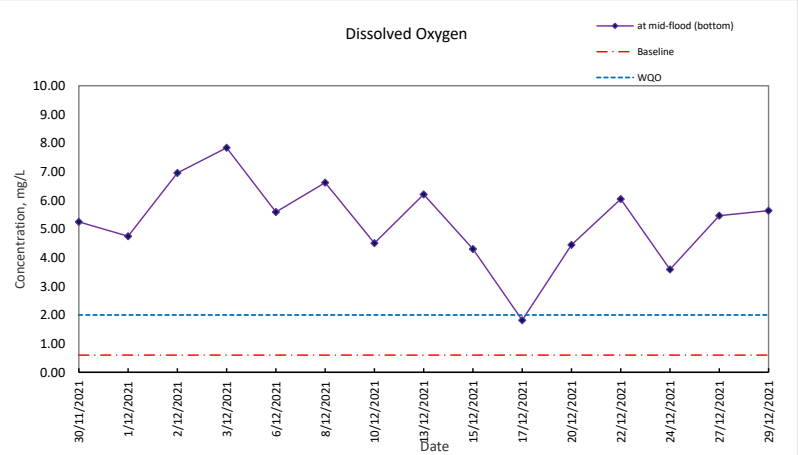

*E.coli* (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
700
600
500
400
300
200
100
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

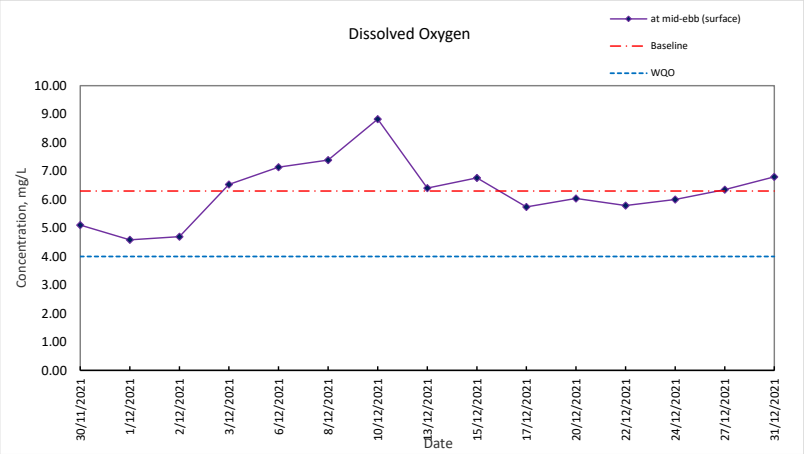

*E.coli* (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
700
600
500
400
300
200
100
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

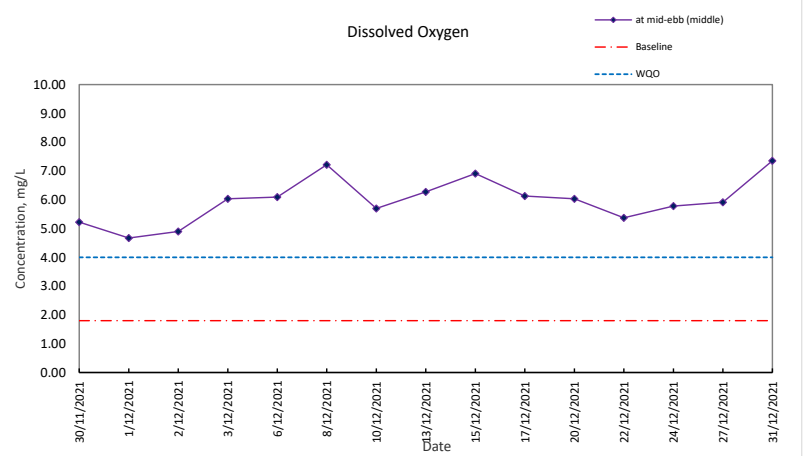
**Graphic Presentation of Water Quality Result of CR15 -Corals at Science Park**

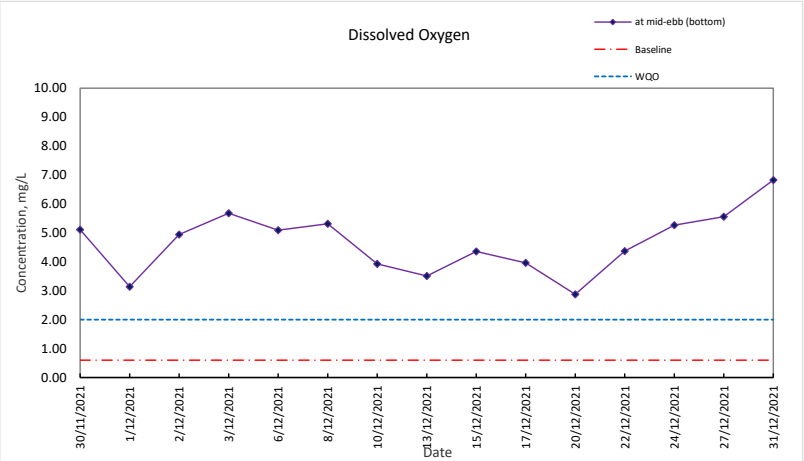


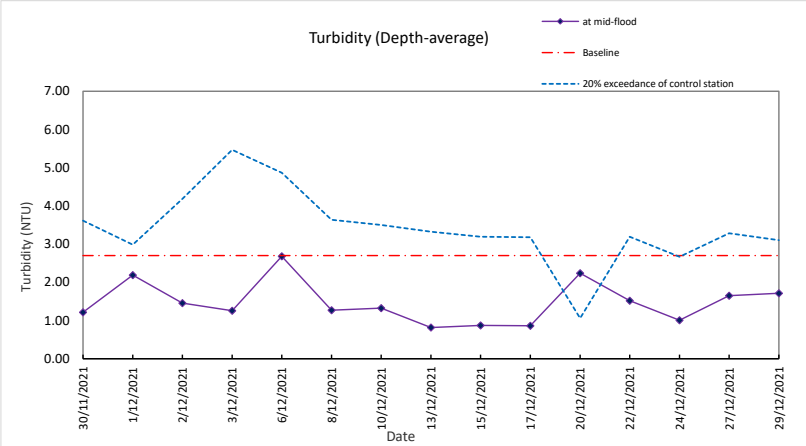



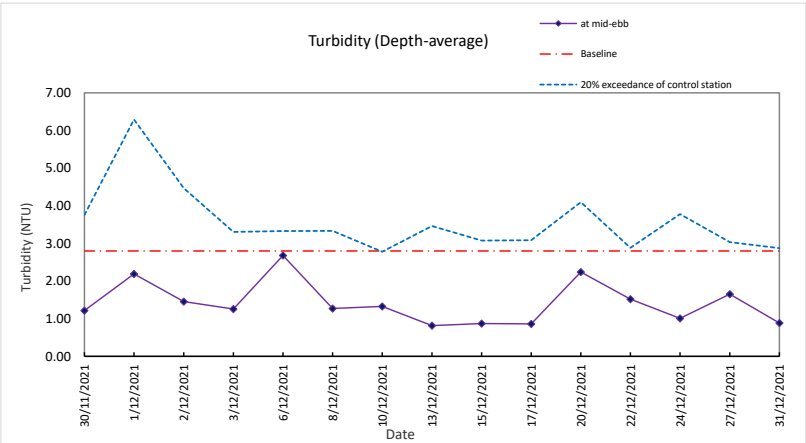



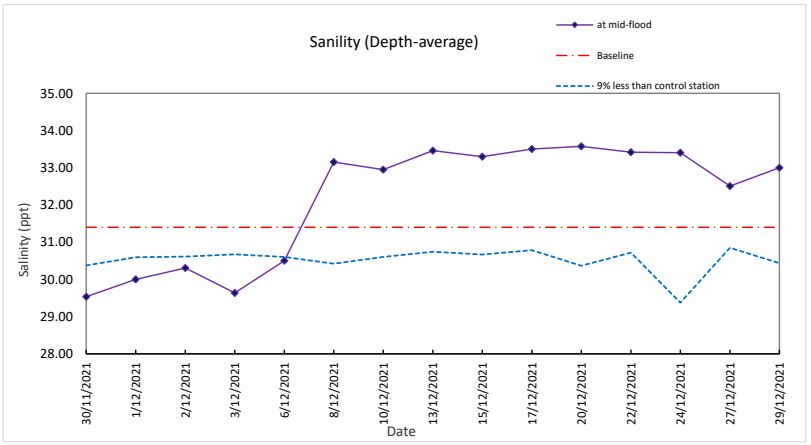

Dissolved Oxygen
at mid-ebb (surface)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

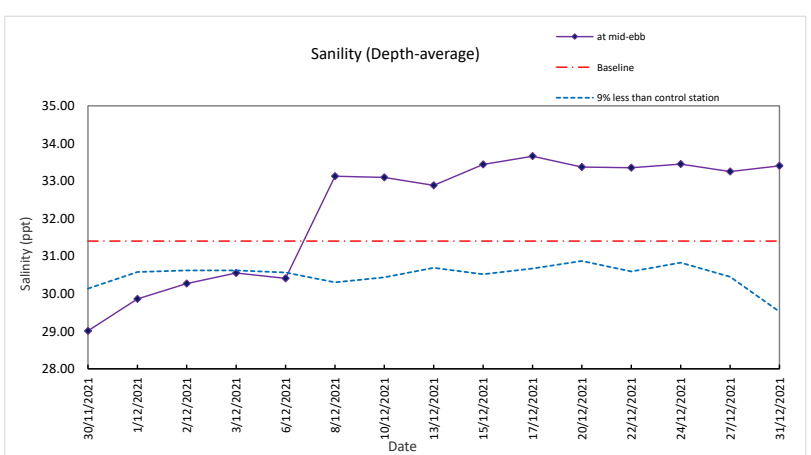

Dissolved Oxygen
at mid-ebb (middle)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

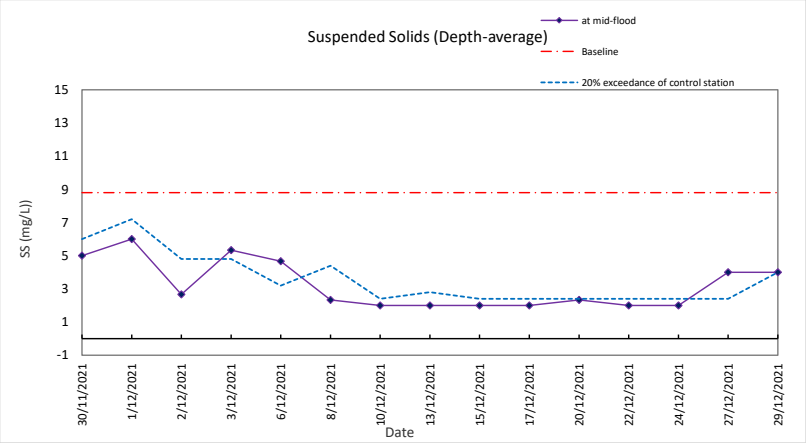

Dissolved Oxygen
at mid-ebb (bottom)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

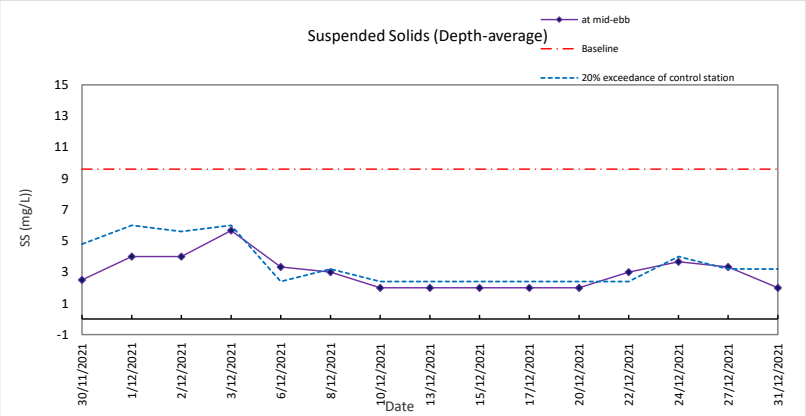

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

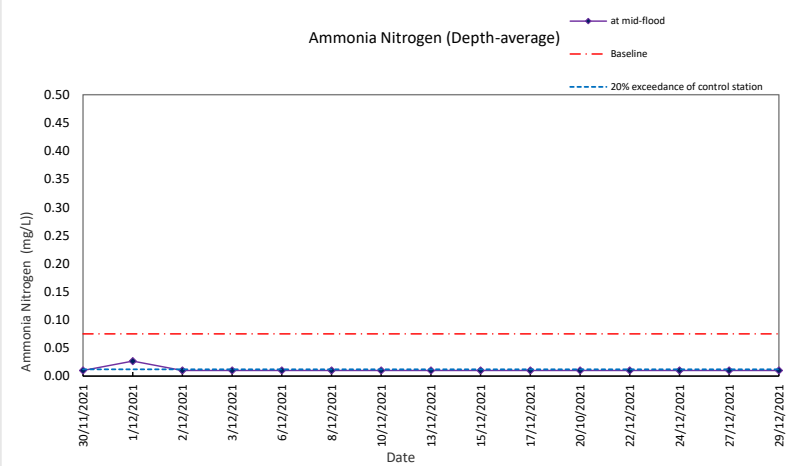

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

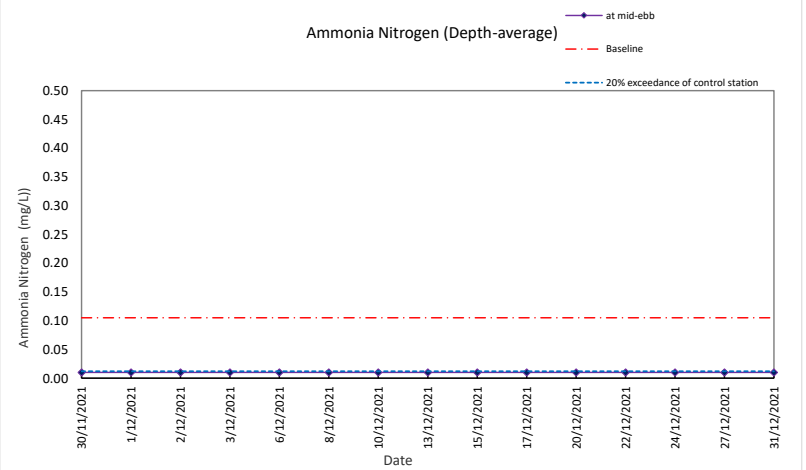

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

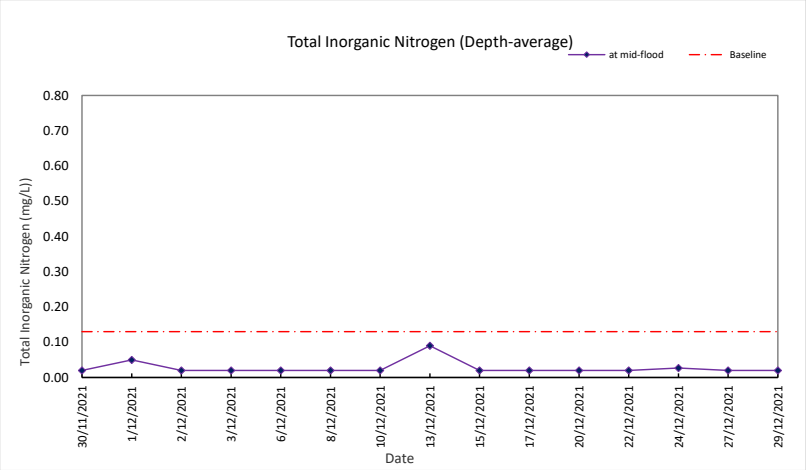

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

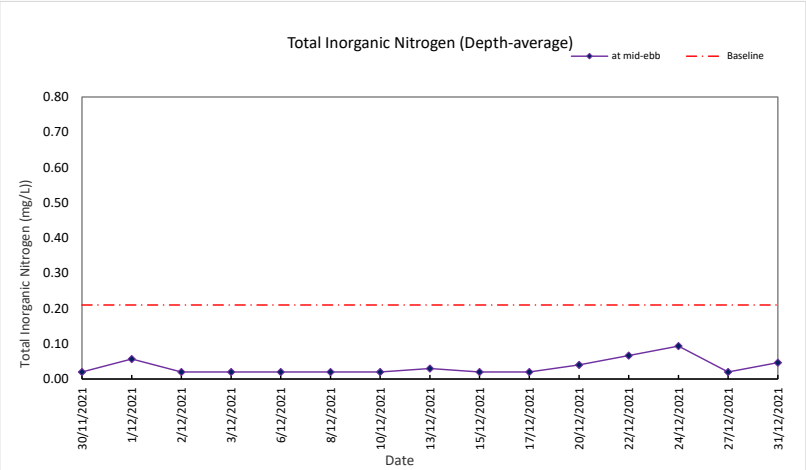

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

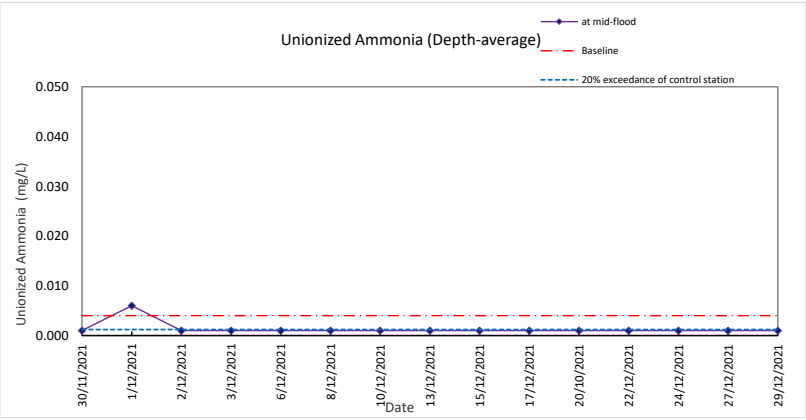

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

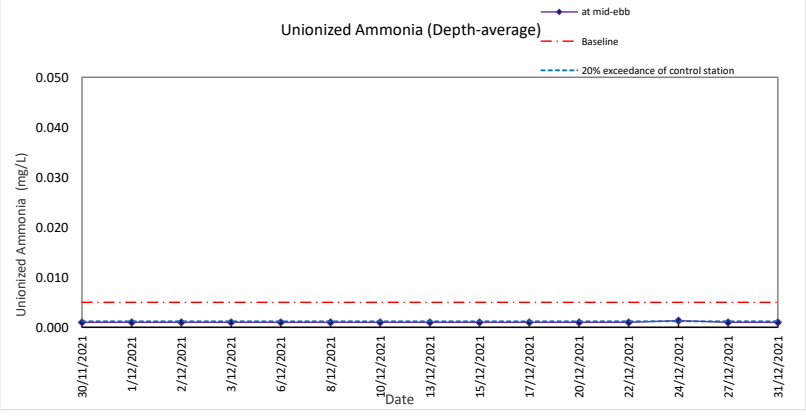

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

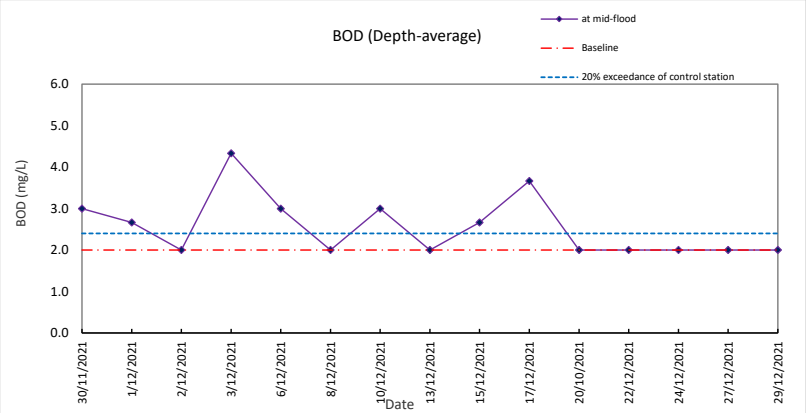

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

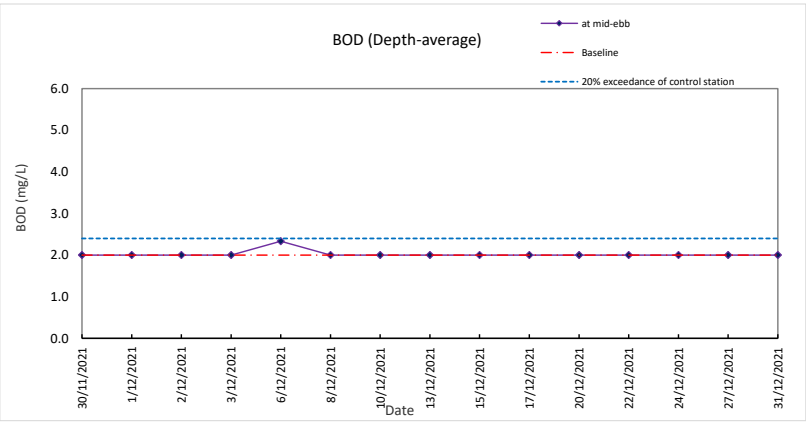

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L))
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

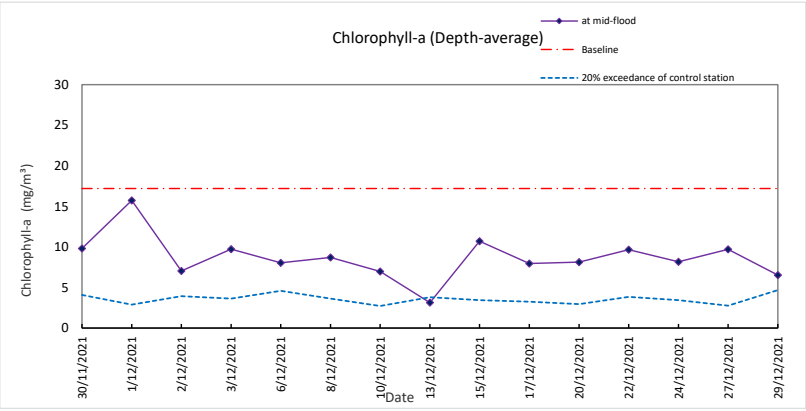

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L))
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

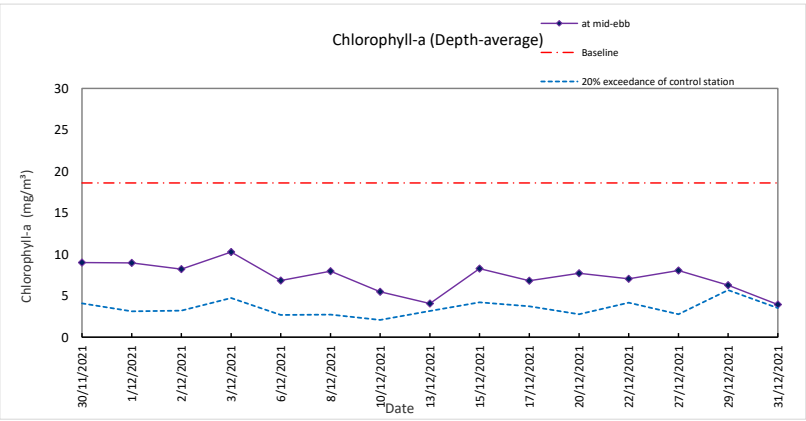

at mid-flood
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

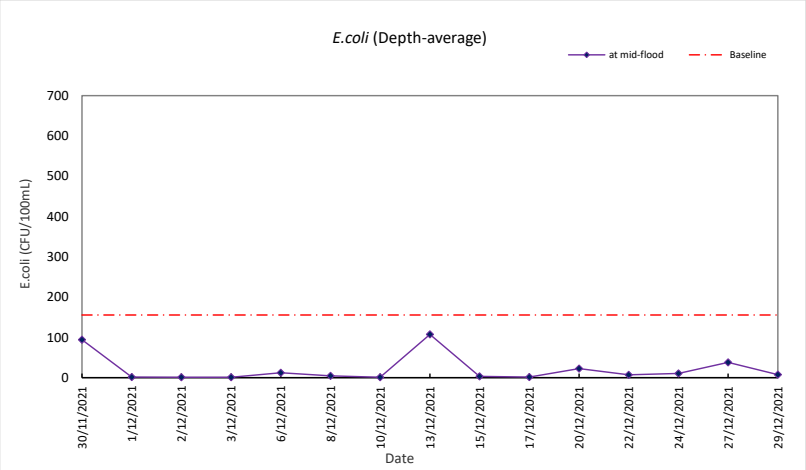

at mid-ebb
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

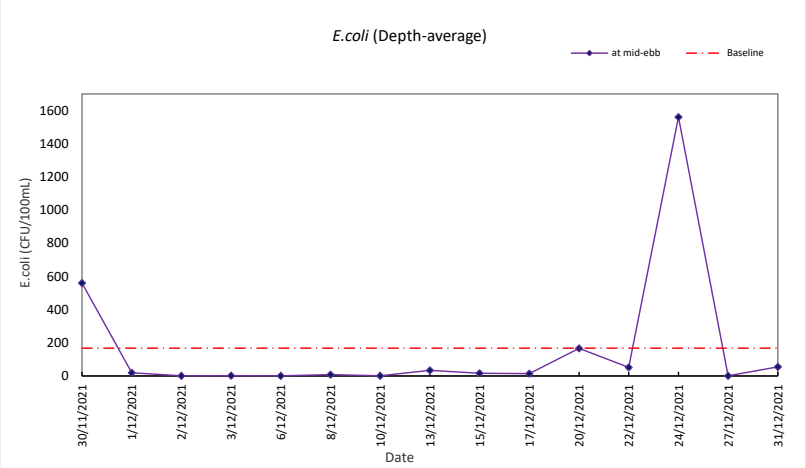

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

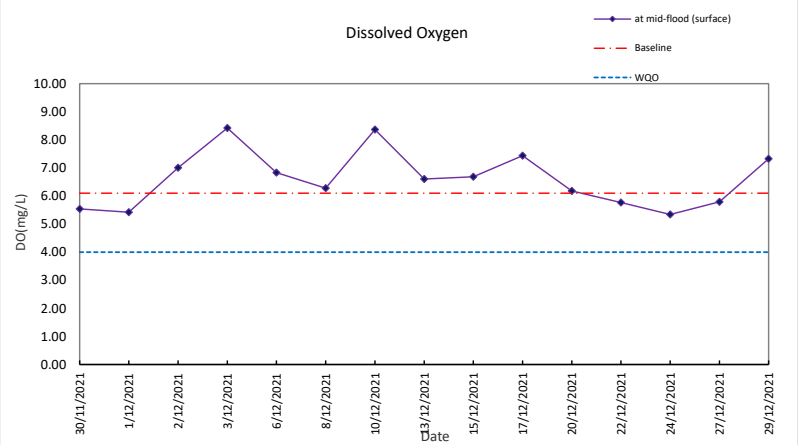

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

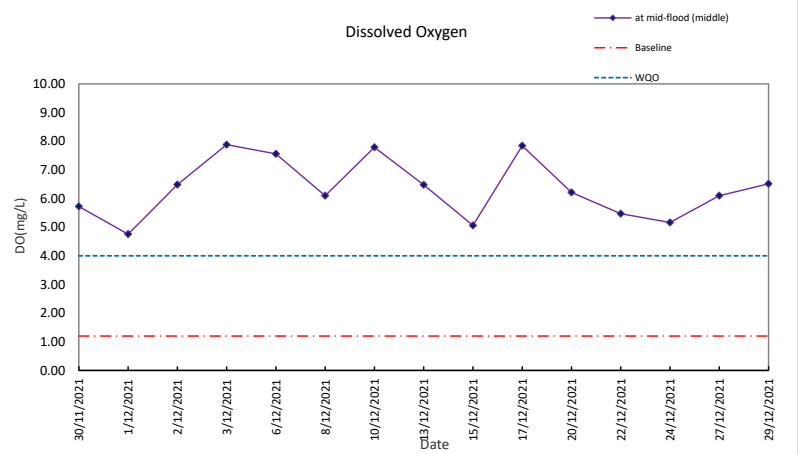

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date

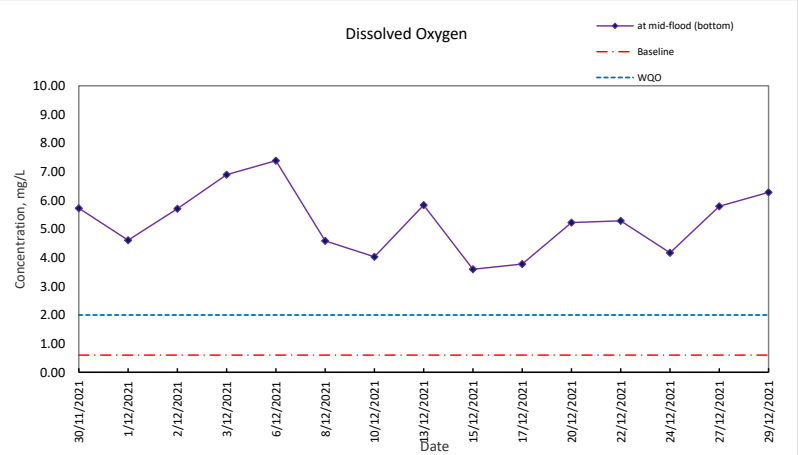

*E.coli* (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
700
600
500
400
300
200
100
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

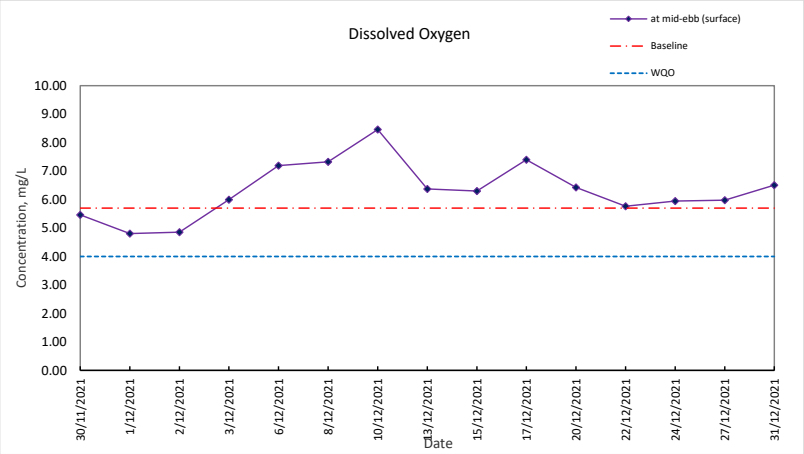

*E.coli* (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
1600
1400
1200
1000
800
600
400
200
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

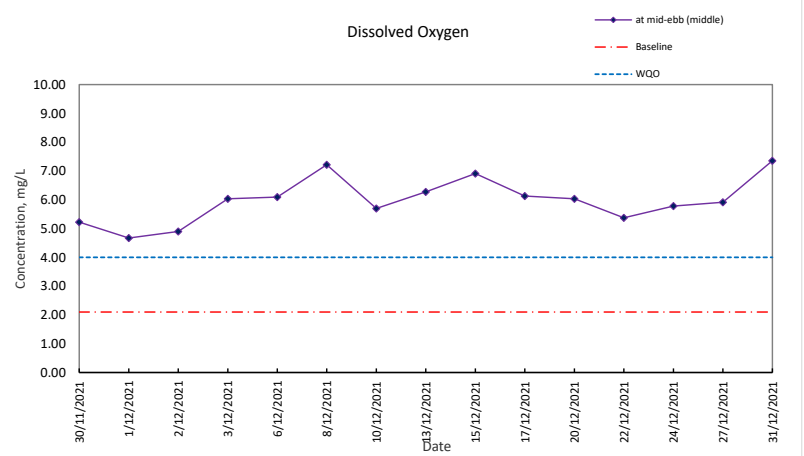
**Graphic Presentation of Water Quality Result of CR16 -Corals at Sha Tin Hoi North**

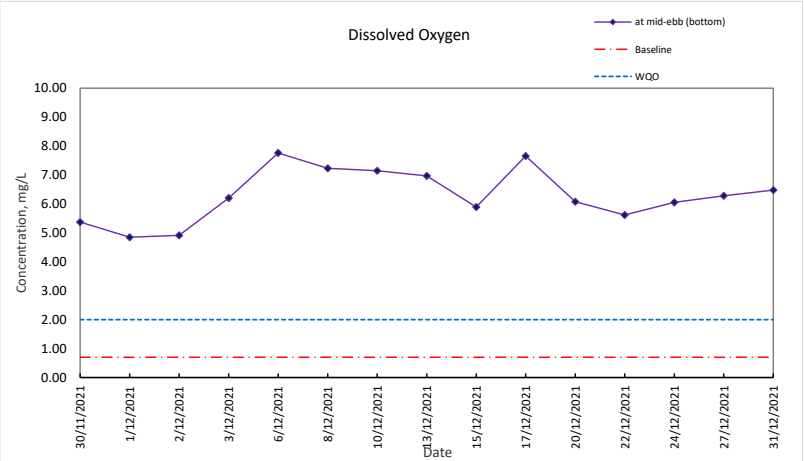


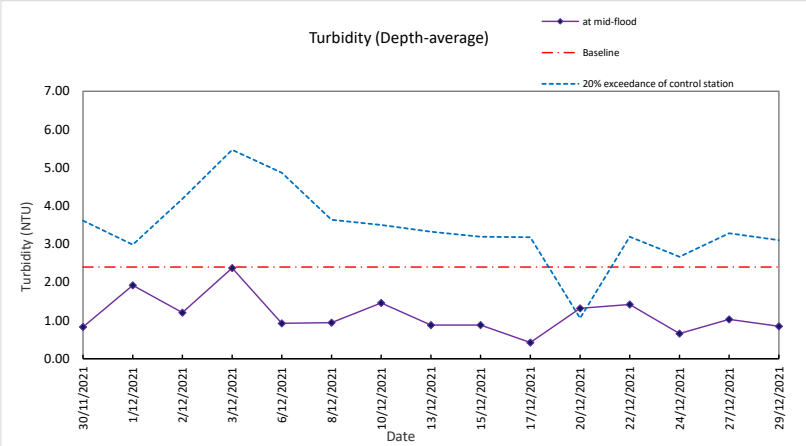



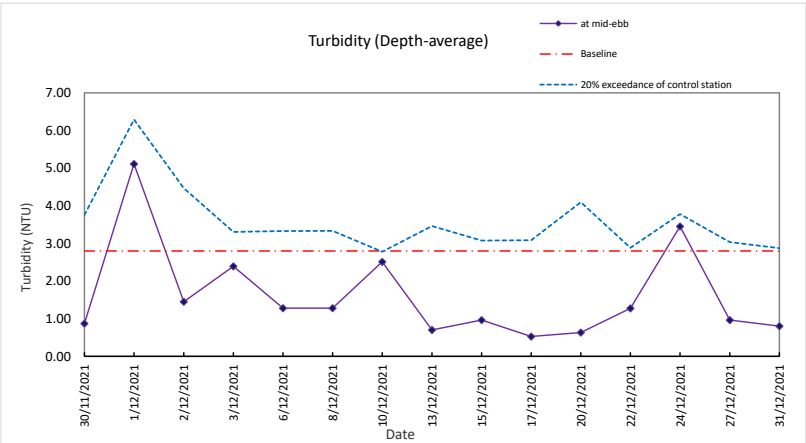



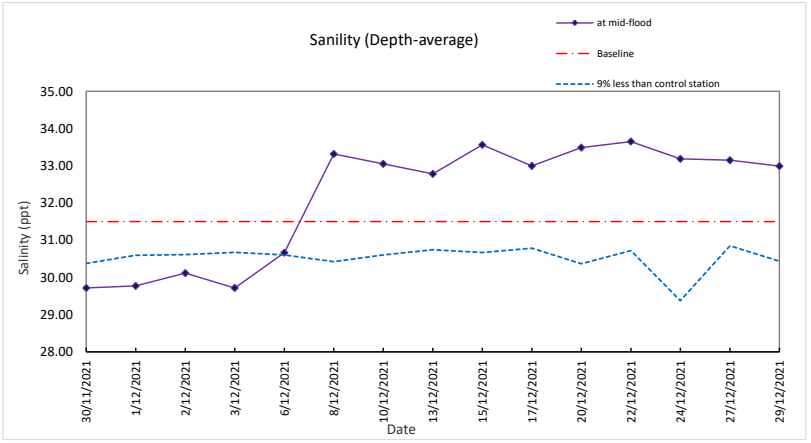

Dissolved Oxygen
at mid-ebb (surface)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

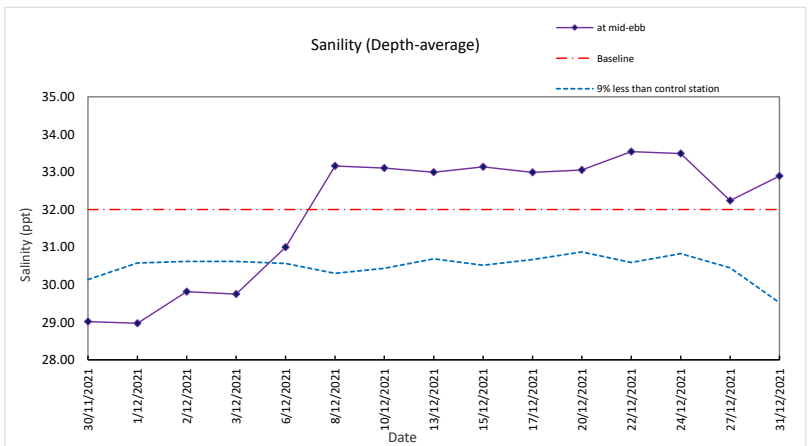

Dissolved Oxygen
at mid-ebb (middle)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

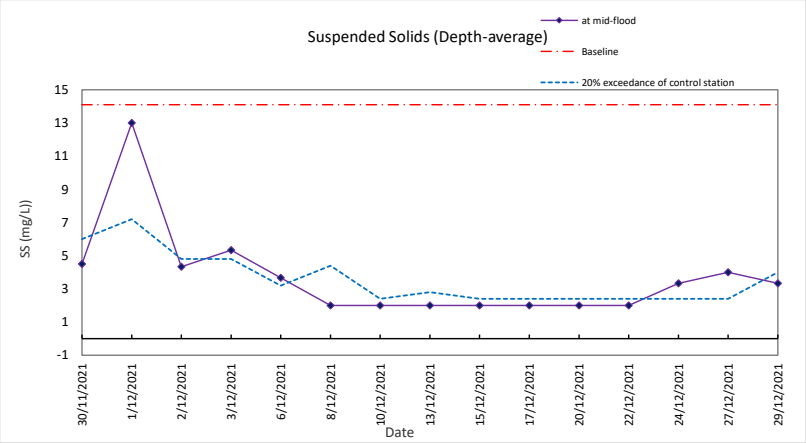

Dissolved Oxygen
at mid-ebb (bottom)
Baseline
WQO
Concentration, mg/L
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

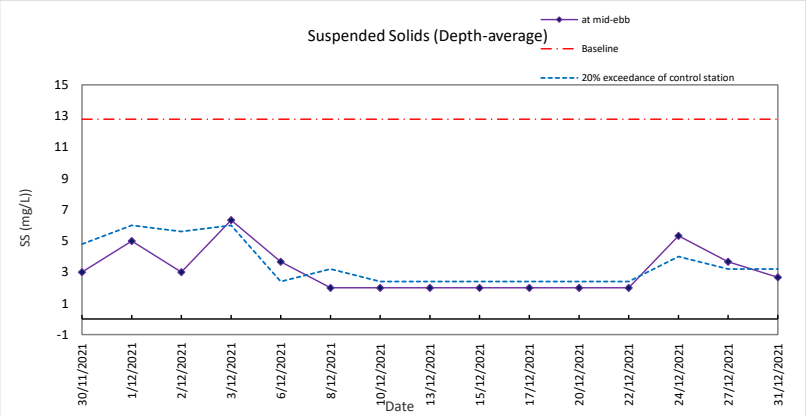

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

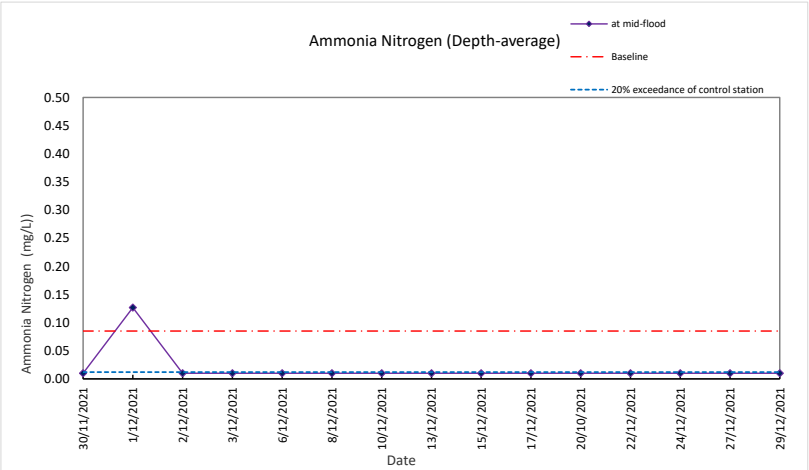

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

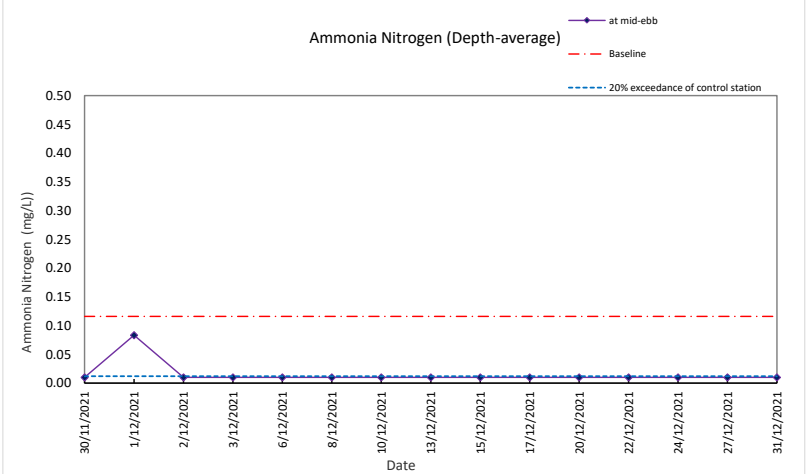

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

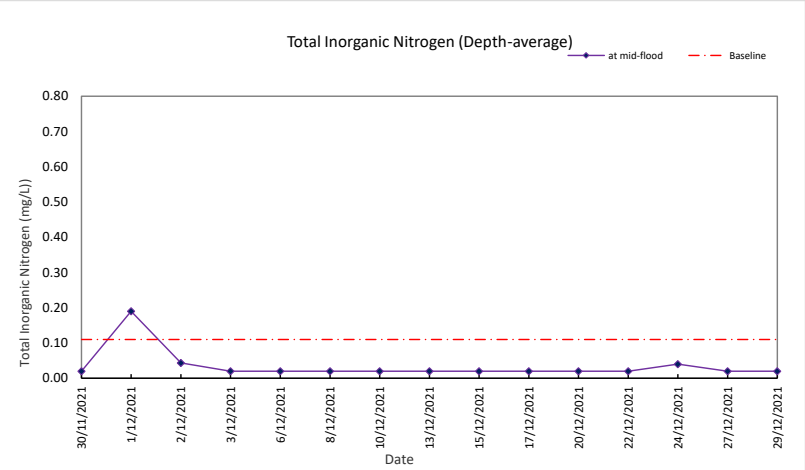

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

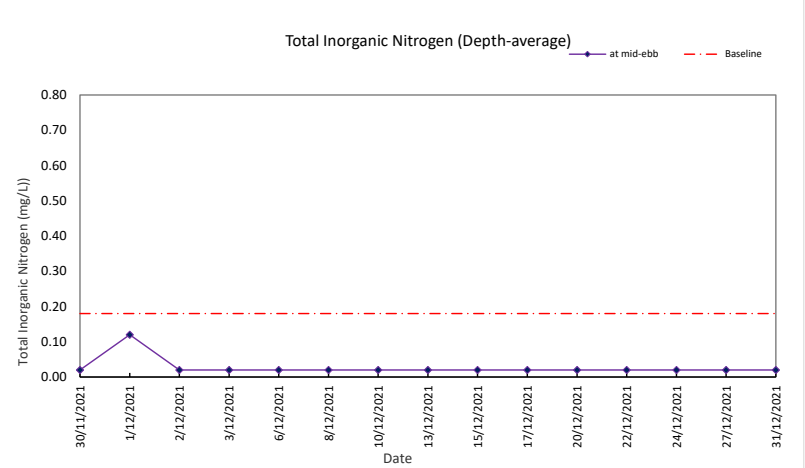

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

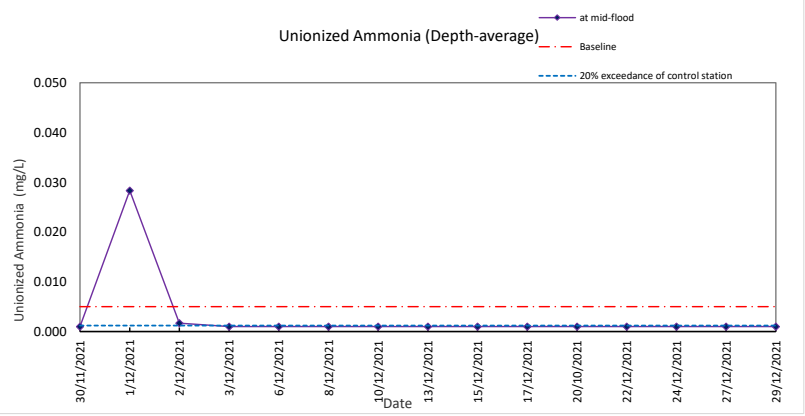

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

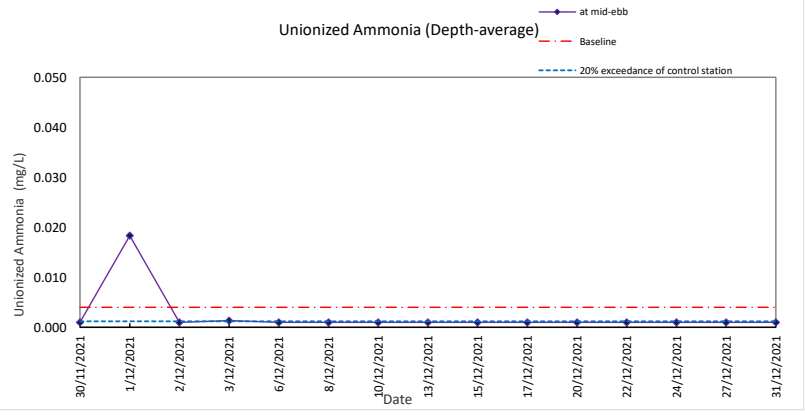

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

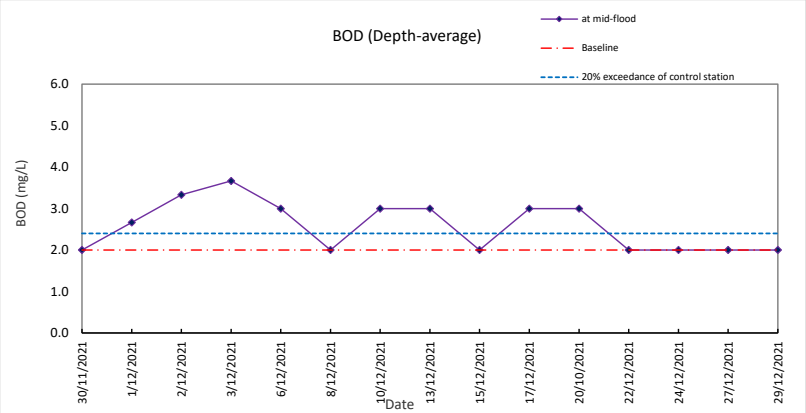

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

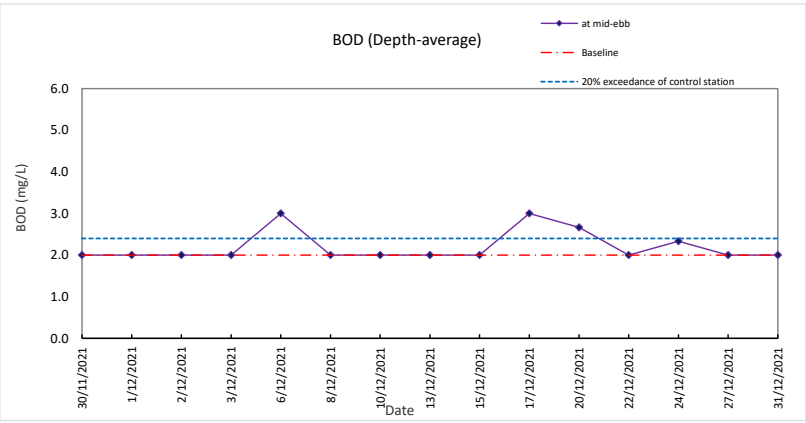

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L))
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

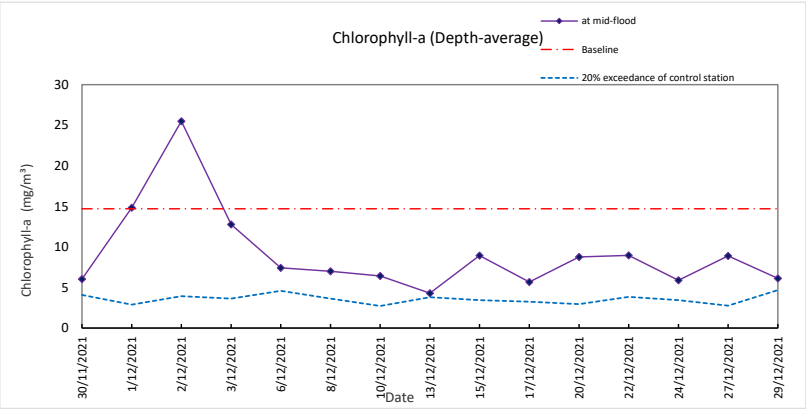

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L))
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

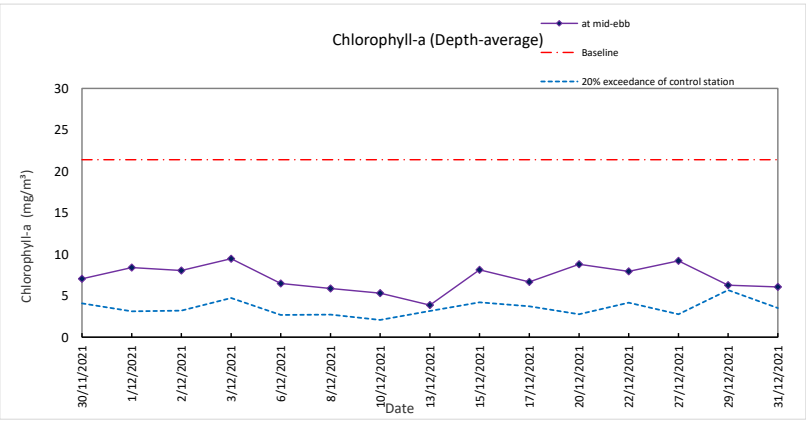

at mid-flood
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

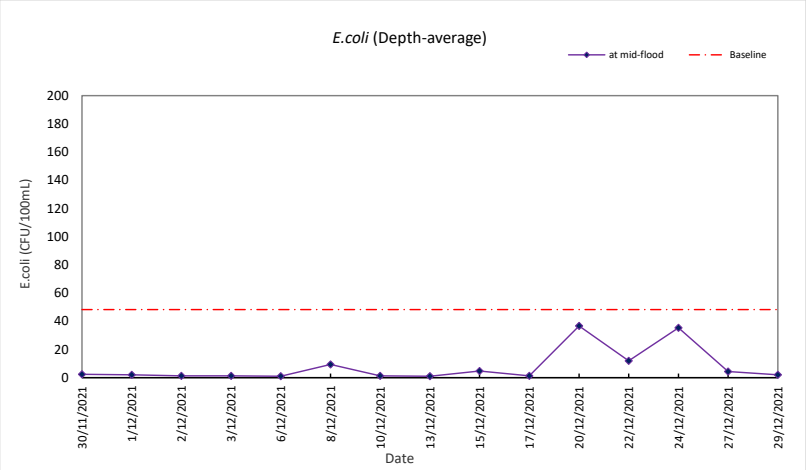

at mid-ebb
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

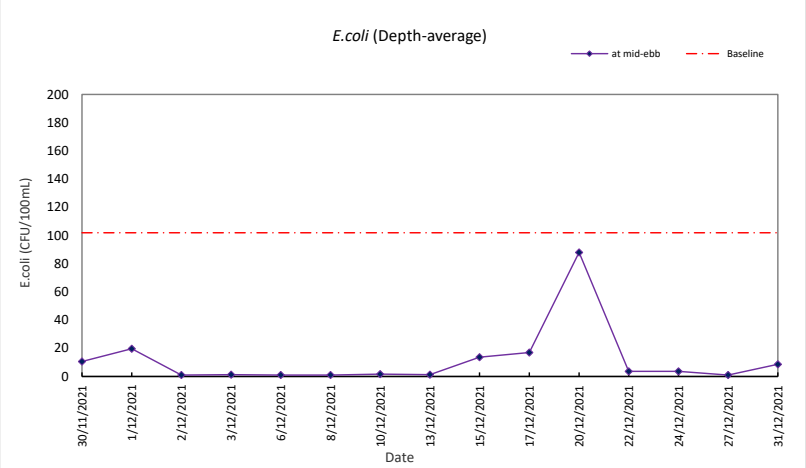

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

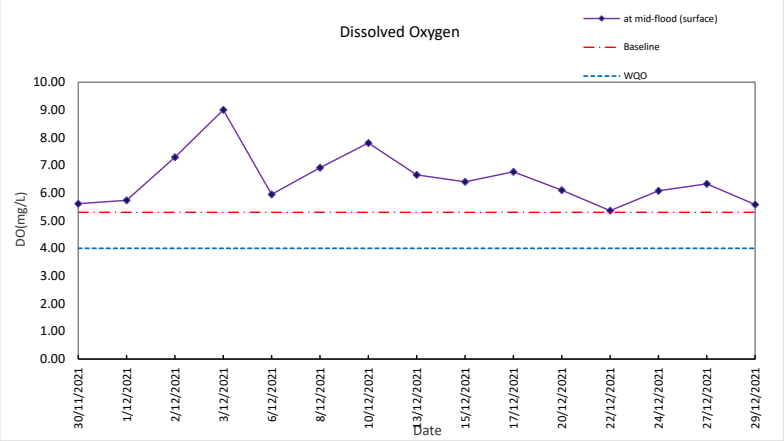

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

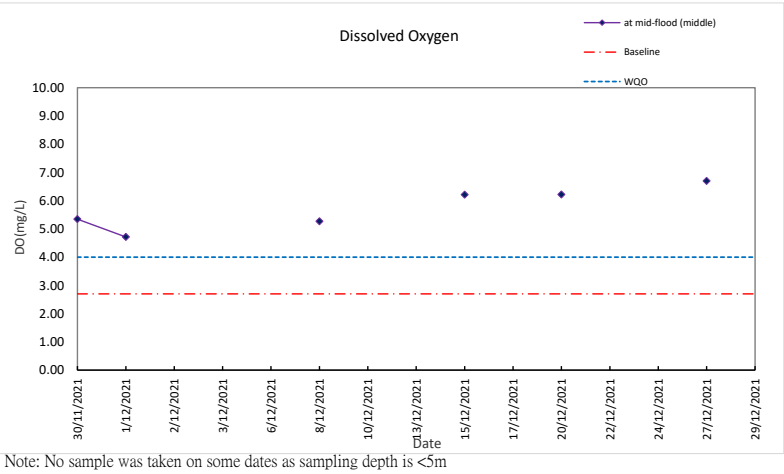

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date


*E.coli* (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
200
180
160
140
120
100
80
60
40
20
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

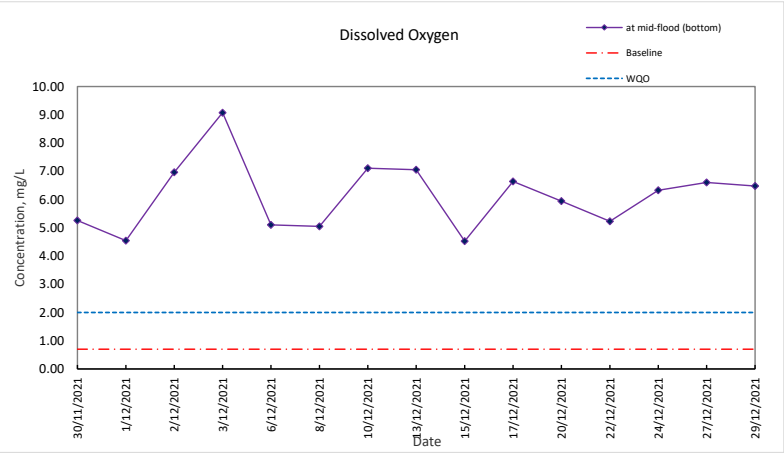

*E.coli* (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
200
180
160
140
120
100
80
60
40
20
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

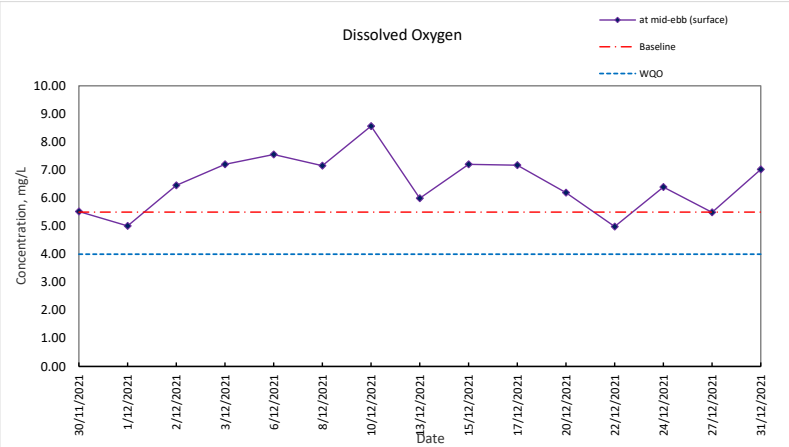
**Graphic Presentation of Water Quality Result of CR17 -Corals at Sha Tin Hoi South**

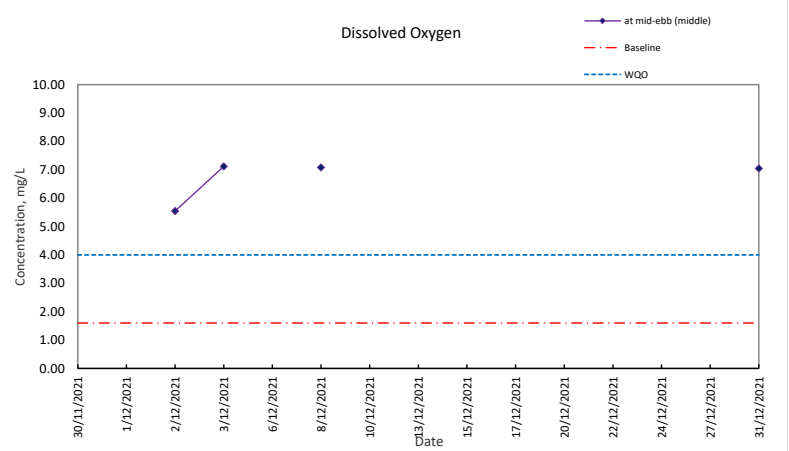


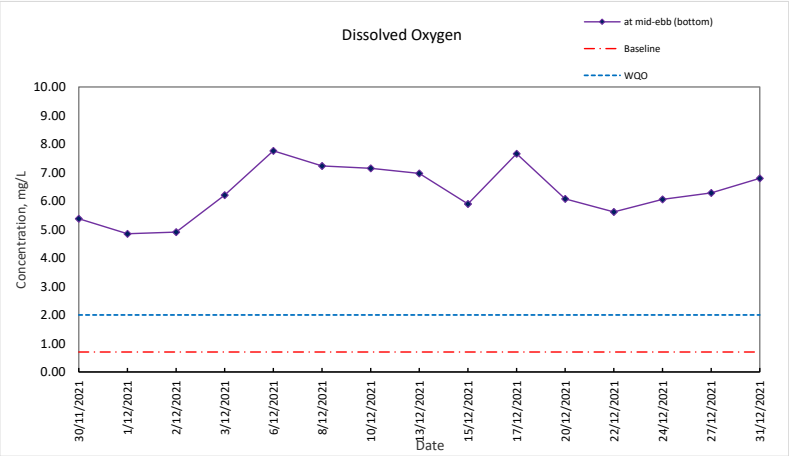

Note: No sample was taken on some dates as sampling depth is <5m

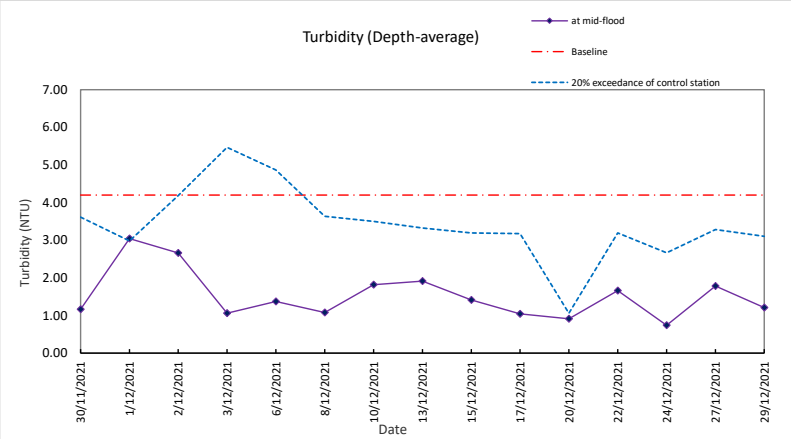


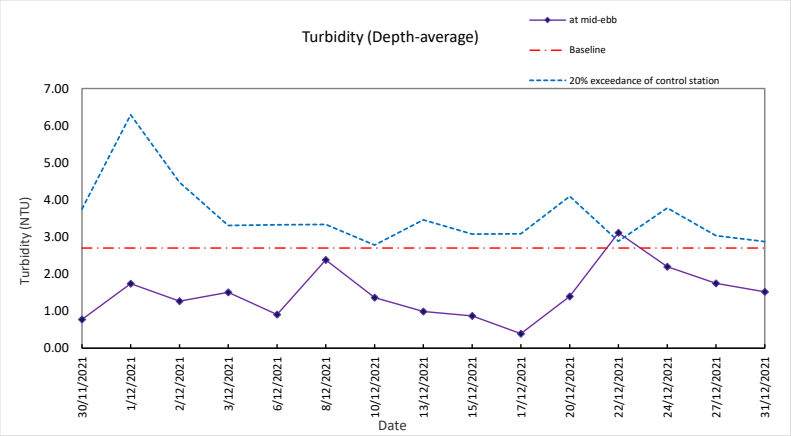


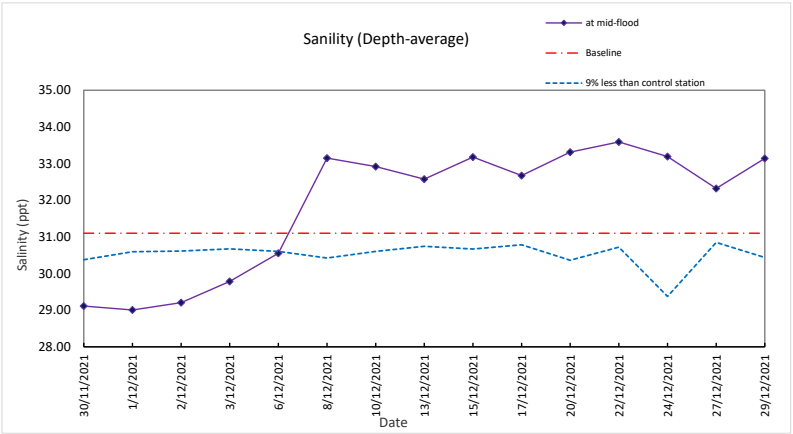



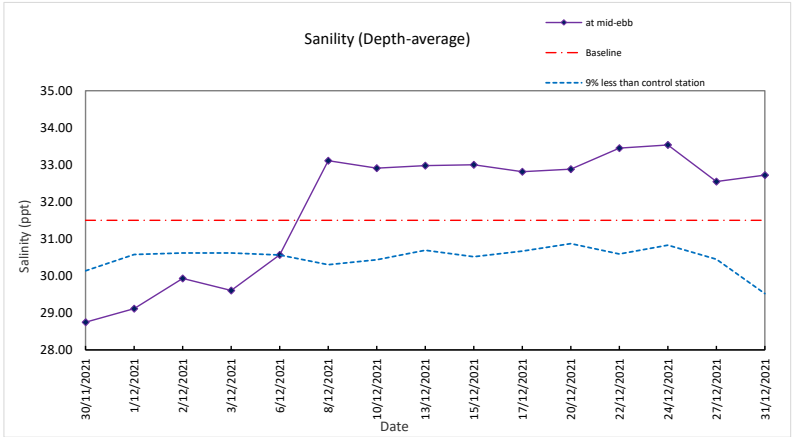

Note: No sample was taken on some dates as sampling depth is <5m

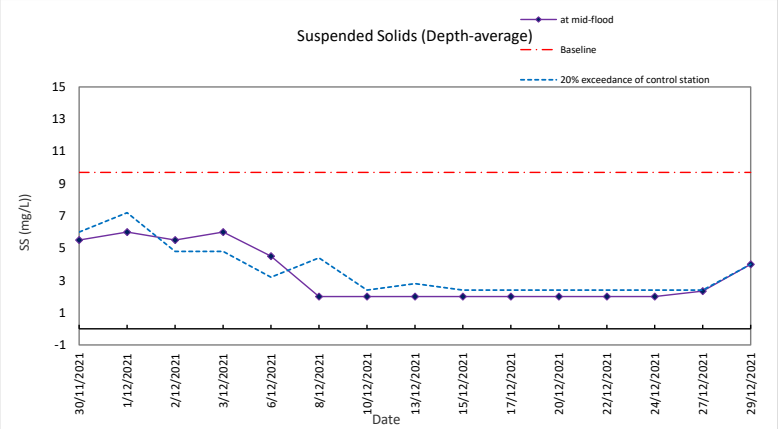


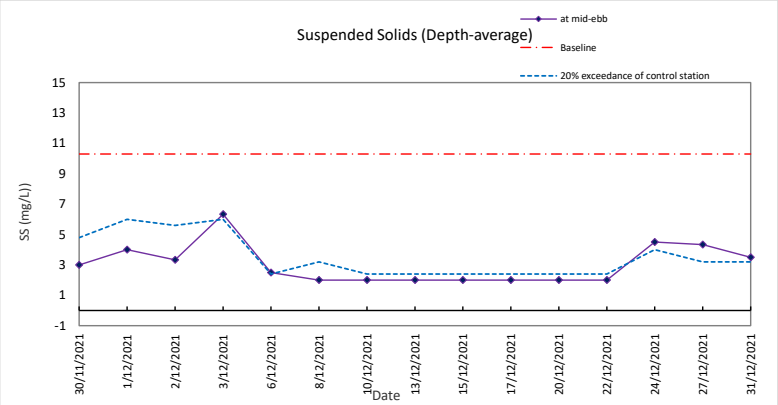

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

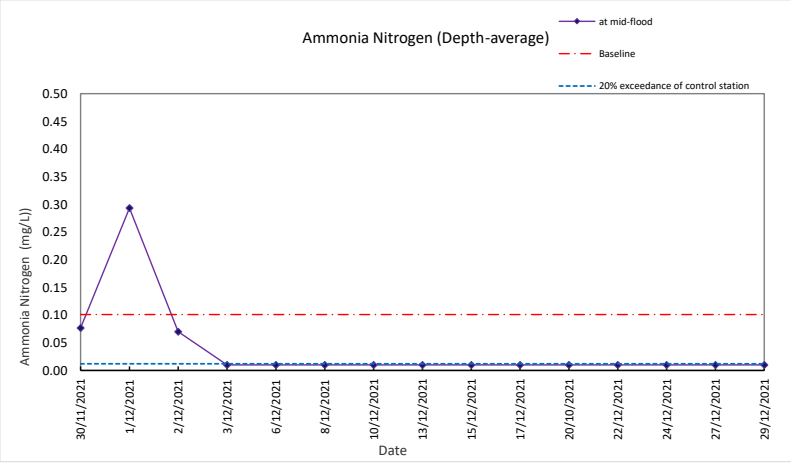

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

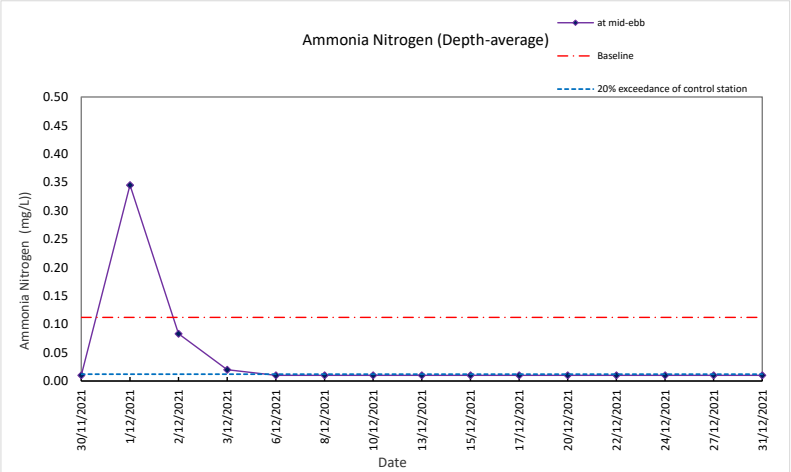

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

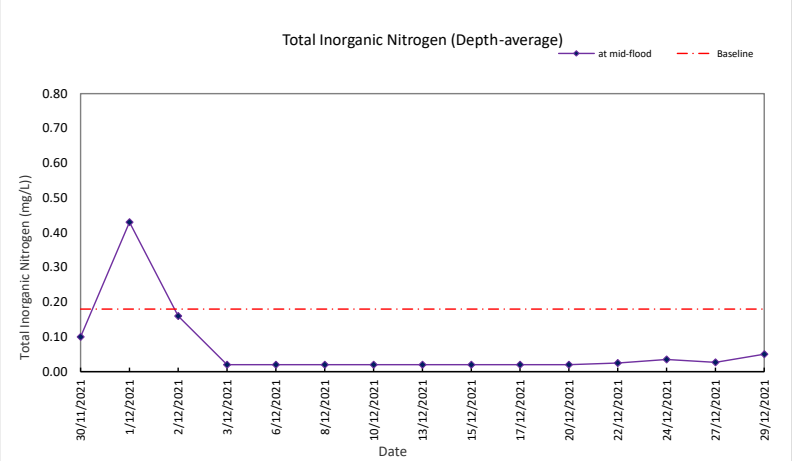

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

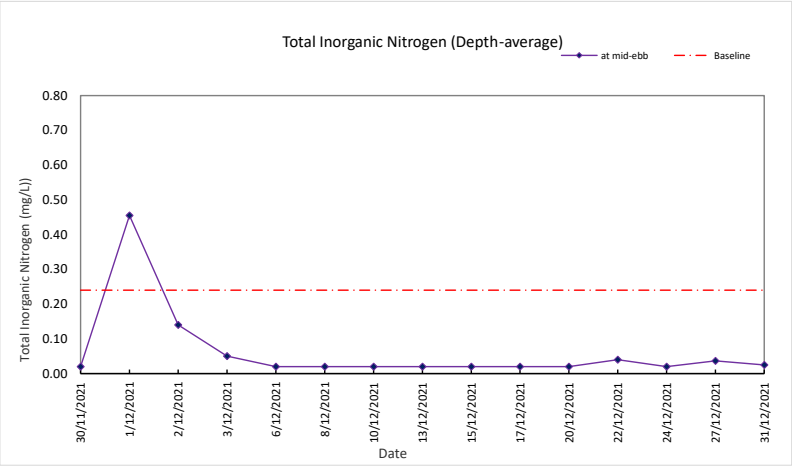

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

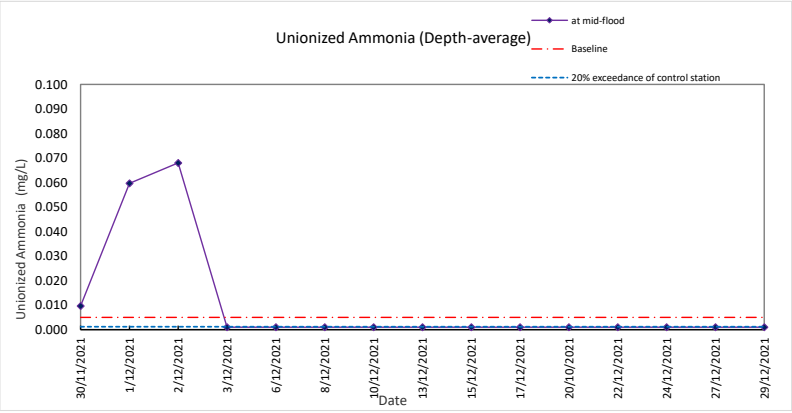

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

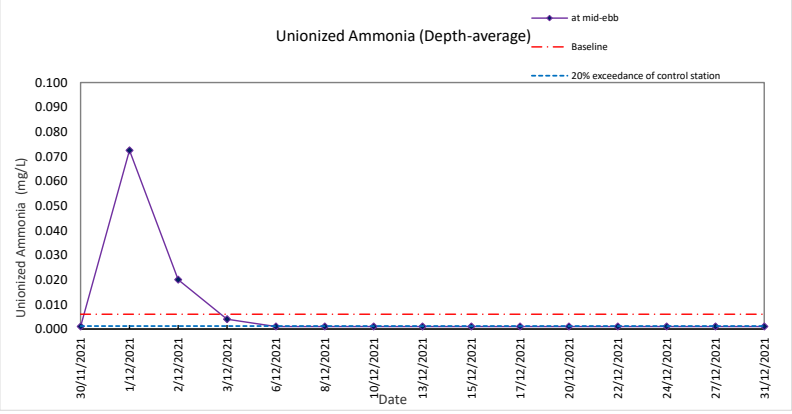

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

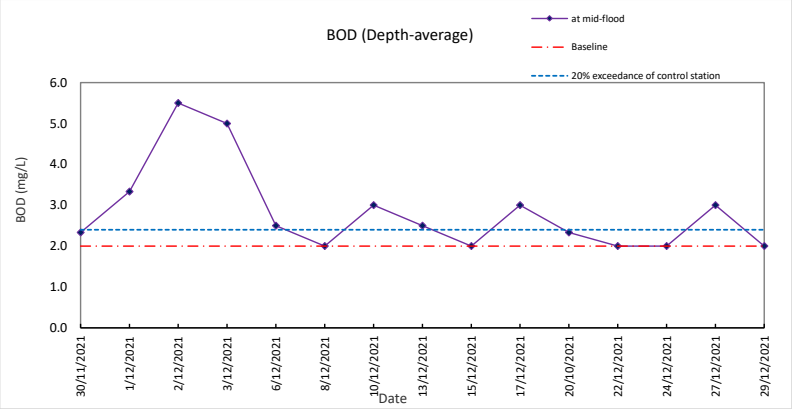

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

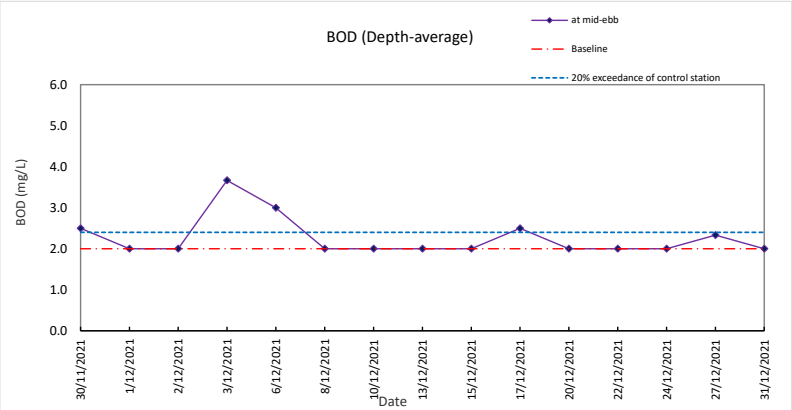

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L))
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

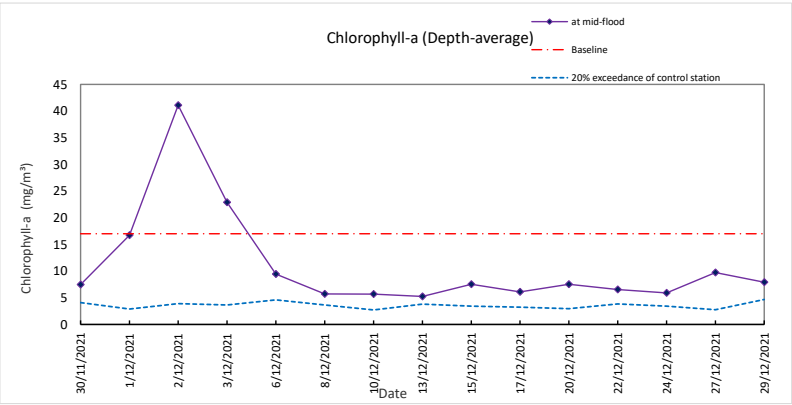

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L))
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

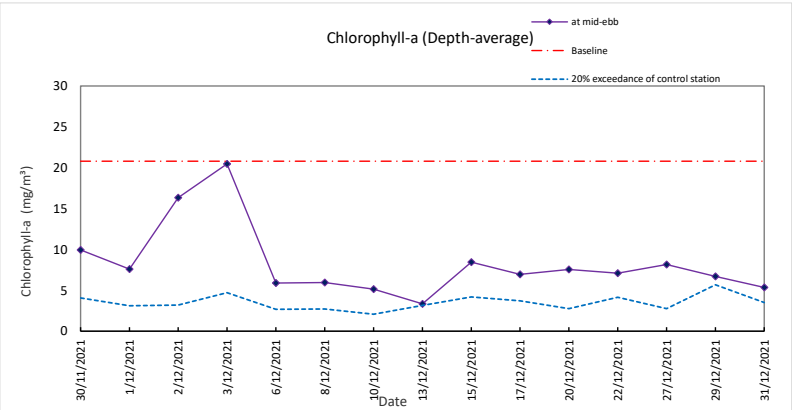

Unionized Ammonia (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.100
0.090
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

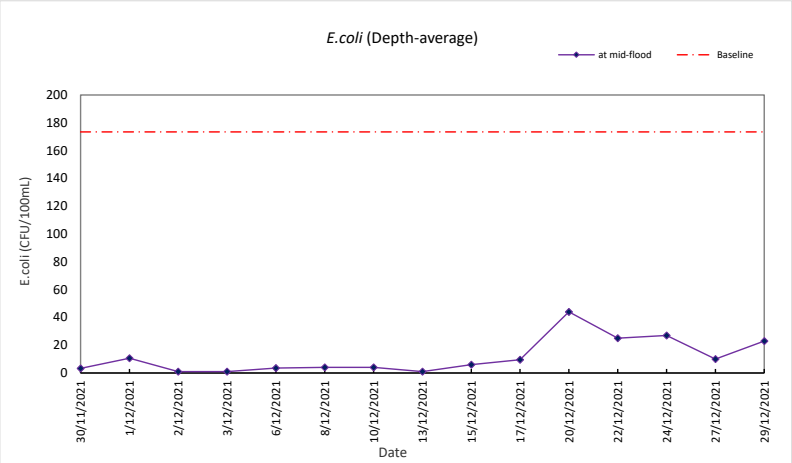

Unionized Ammonia (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.100
0.090
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

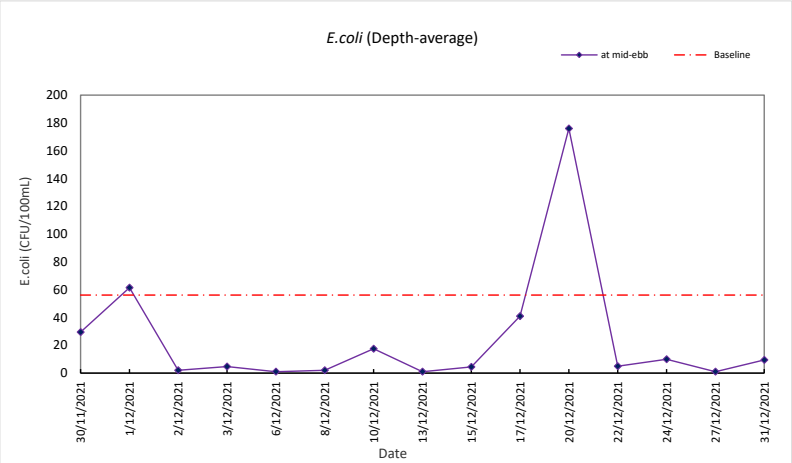

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

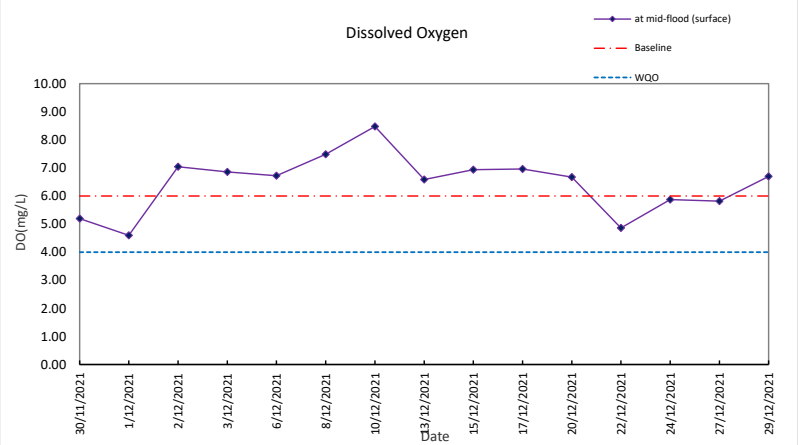

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
45
40
35
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

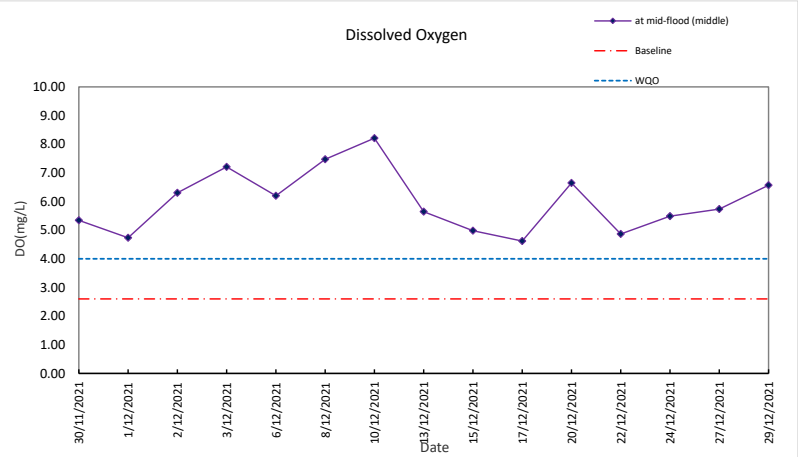

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date


E.coli (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
200
180
160
140
120
100
80
60
40
20
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

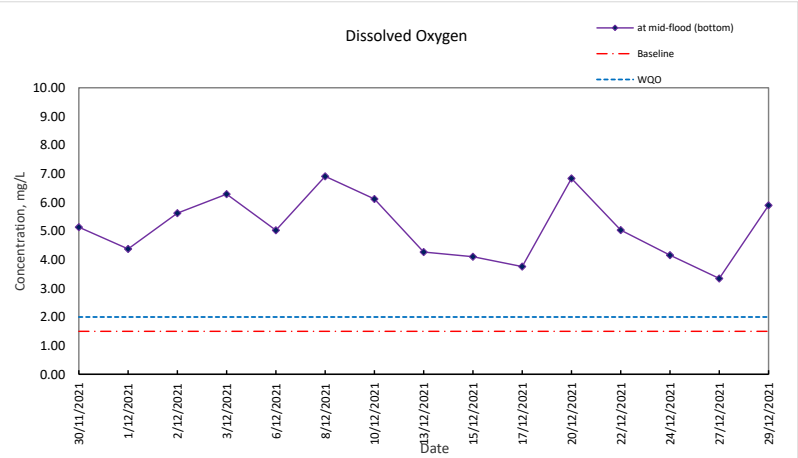

E.coli (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
200
180
160
140
120
100
80
60
40
20
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

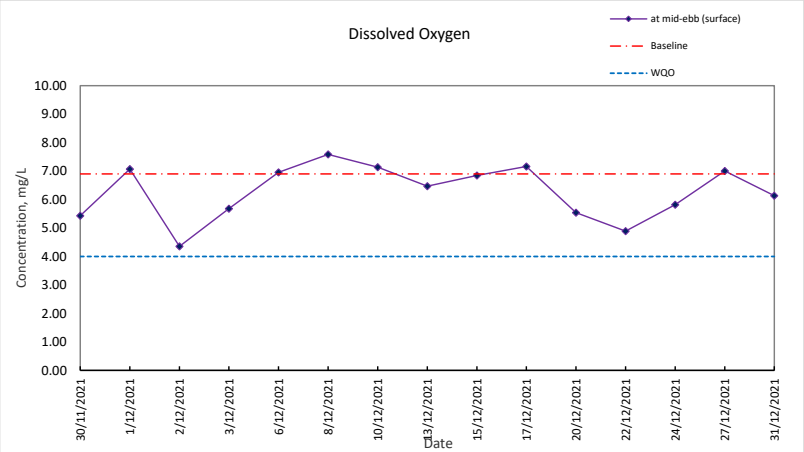
**Graphic Presentation of Water Quality Result of**
**G1 -Potential Subzone of Yim Tin Tsai Fish Culture Zone / Gradient Station**

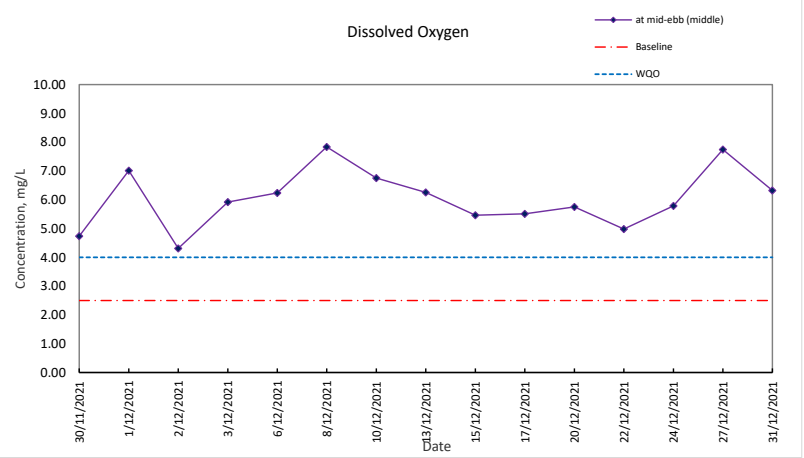


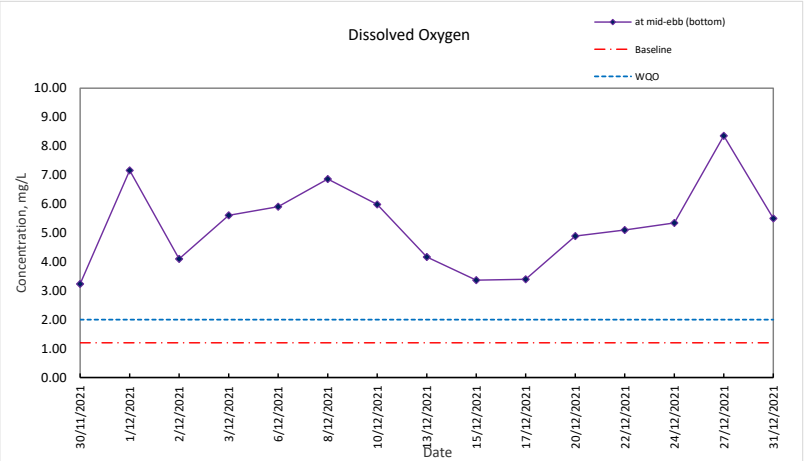

Note: No sample was taken on some dates as sampling depth is <5m

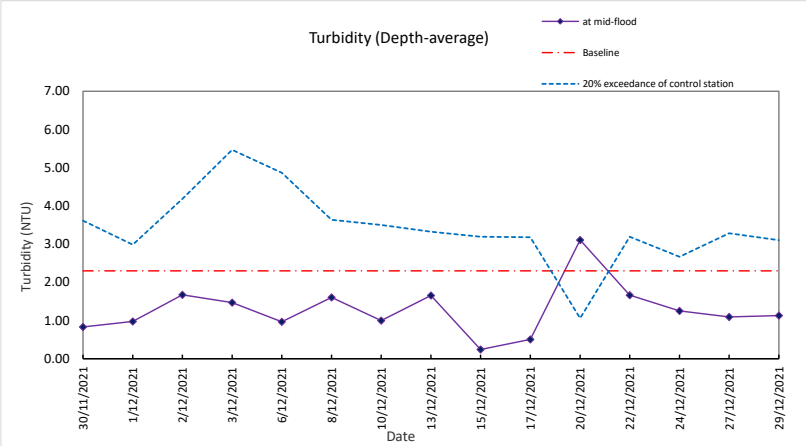


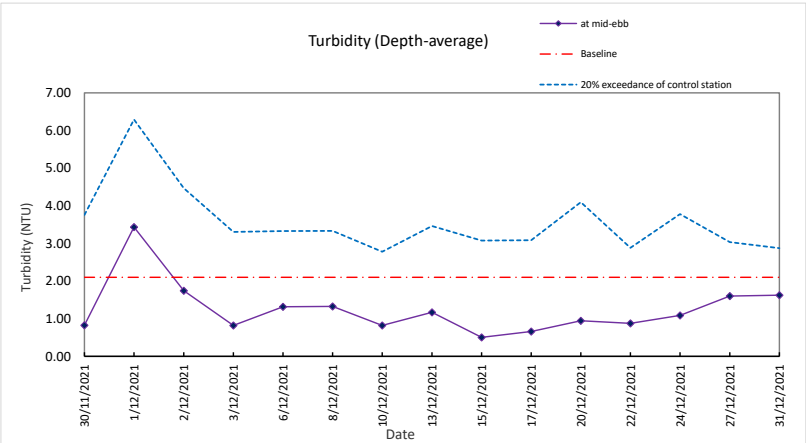


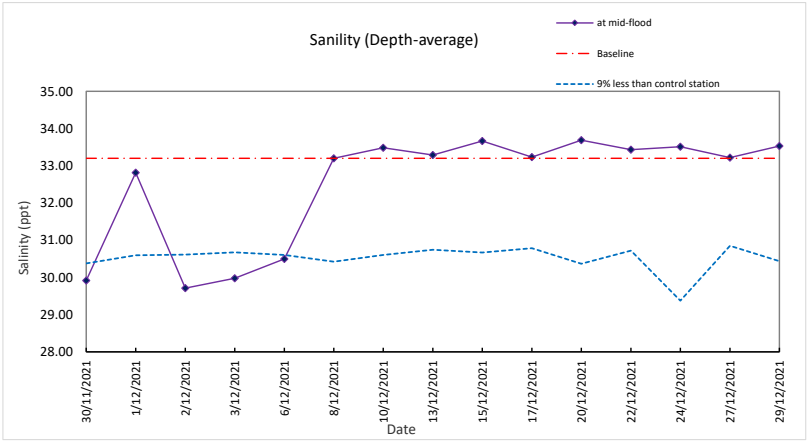



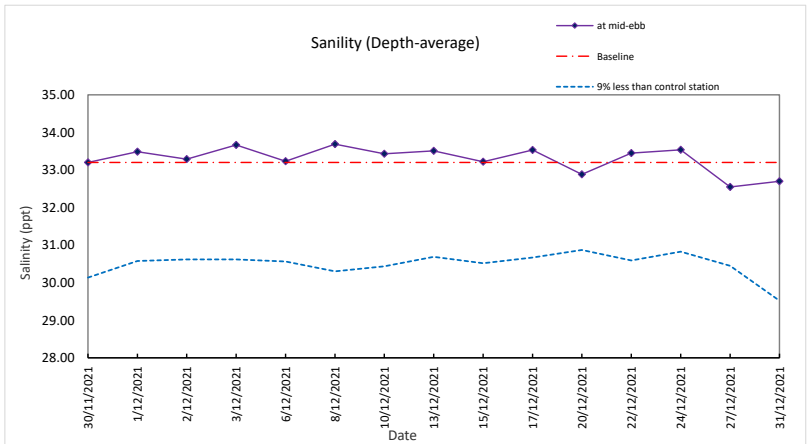

Note: No sample was taken on some dates as sampling depth is <5m

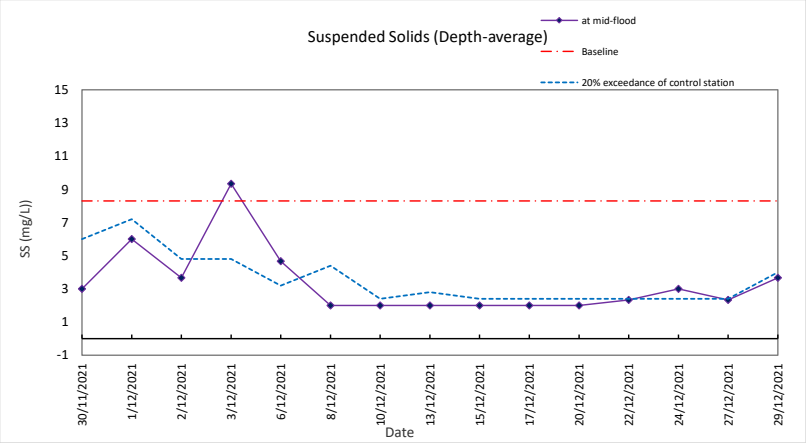


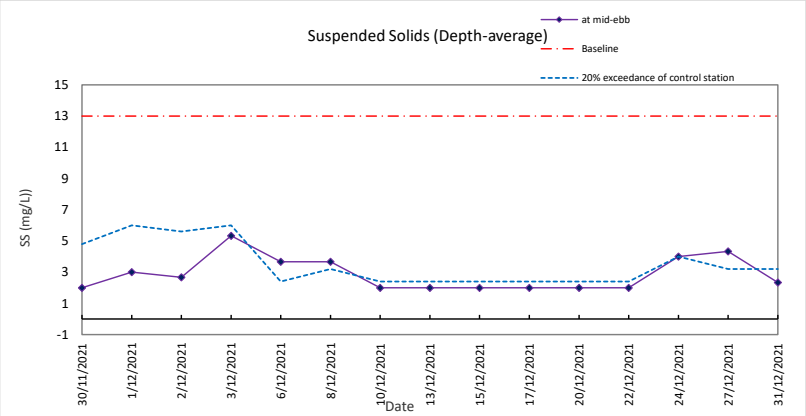

Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

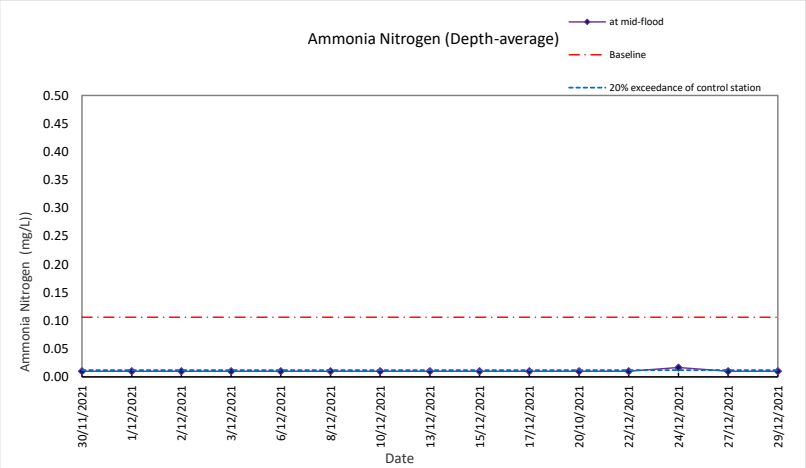

Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

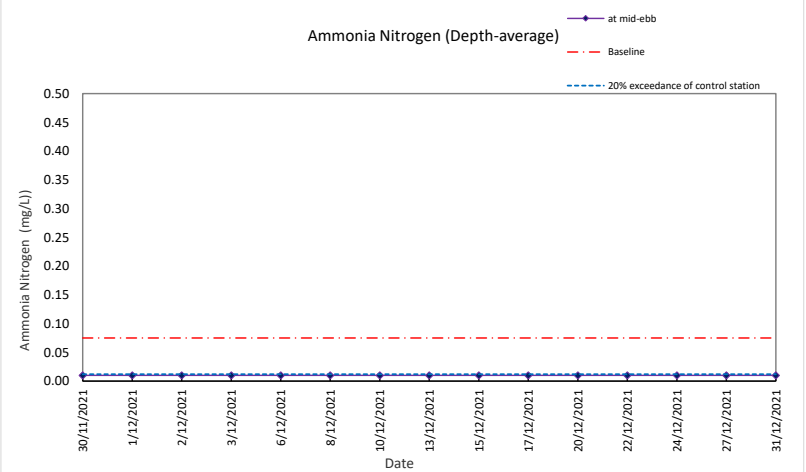

Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

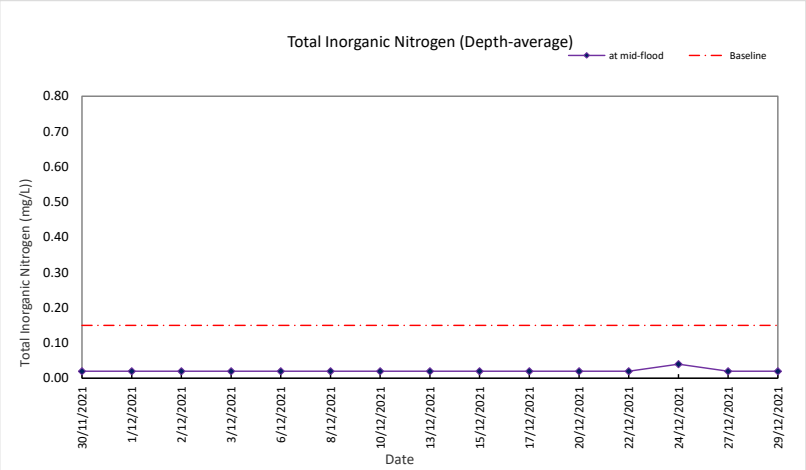

Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

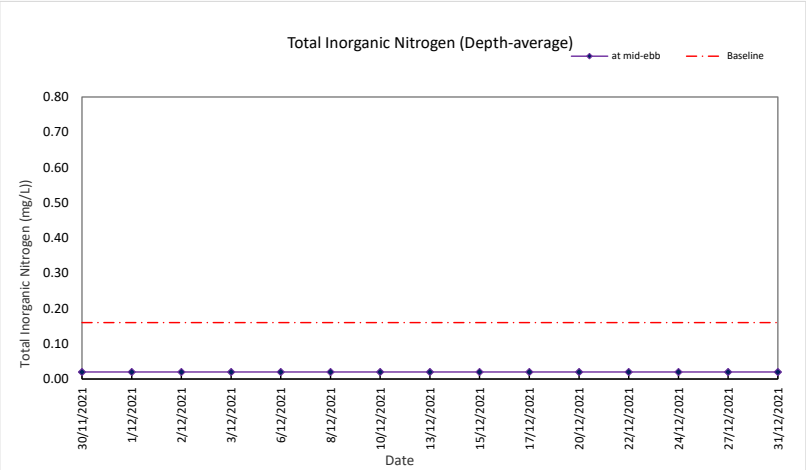

Suspended Solids (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

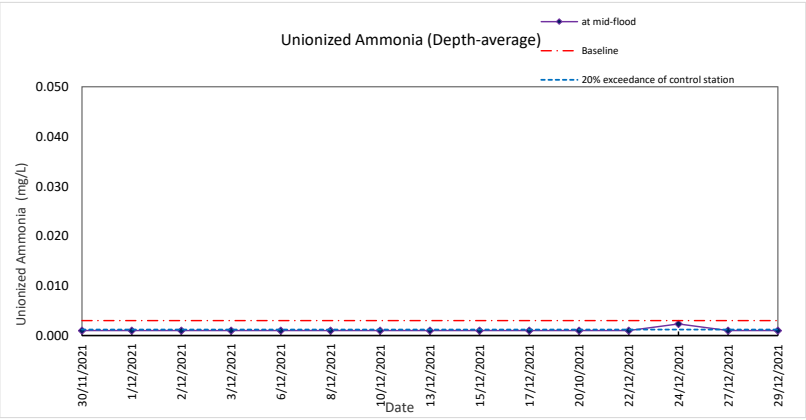

Suspended Solids (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
SS (mg/L)
15
13
11
9
7
5
3
1
-1
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

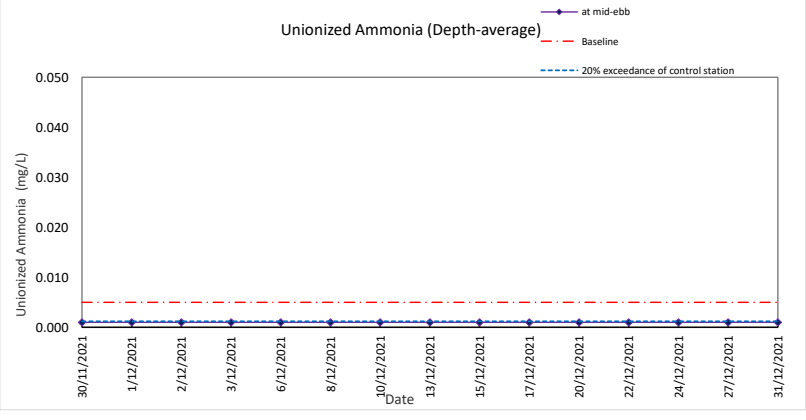

Ammonia Nitrogen (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

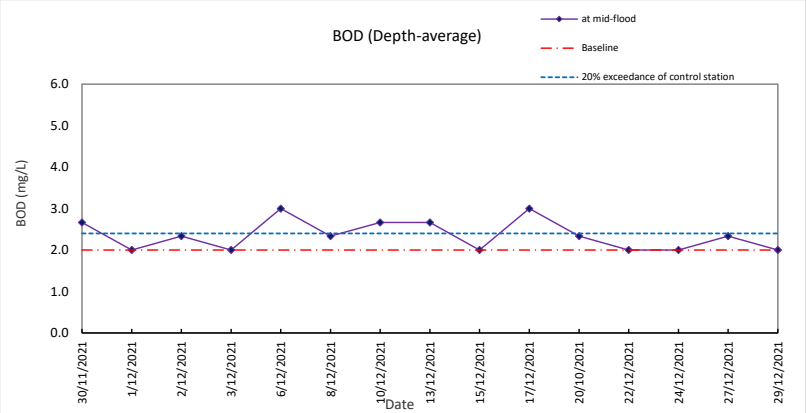

Ammonia Nitrogen (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Ammonia Nitrogen (mg/L)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

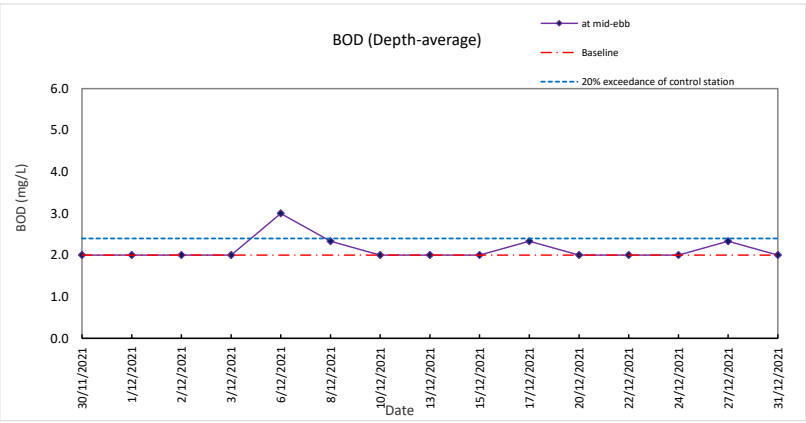

Total Inorganic Nitrogen (Depth-average)
at mid-flood
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

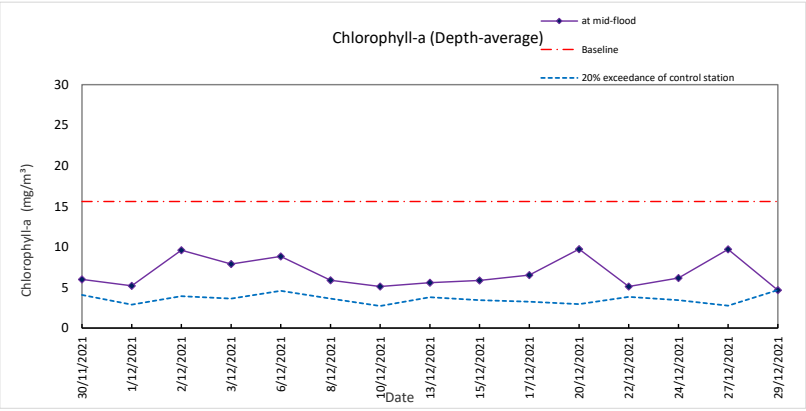

Total Inorganic Nitrogen (Depth-average)
at mid-ebb
Baseline
Total Inorganic Nitrogen (mg/L)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

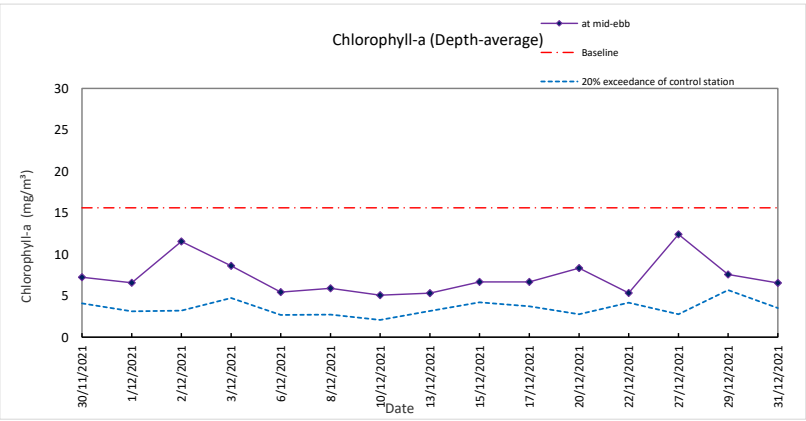

at mid-flood
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

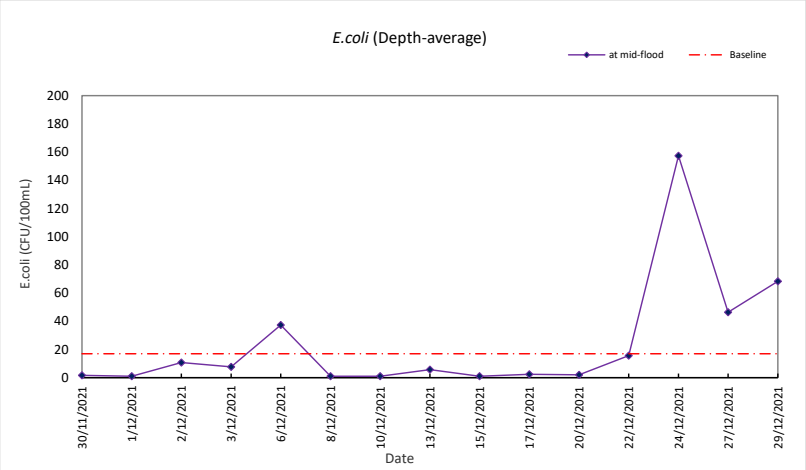

at mid-ebb
Unionized Ammonia (Depth-average)
Baseline
20% exceedance of control station
Unionized Ammonia (mg/L)
0.050
0.040
0.030
0.020
0.010
0.000
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

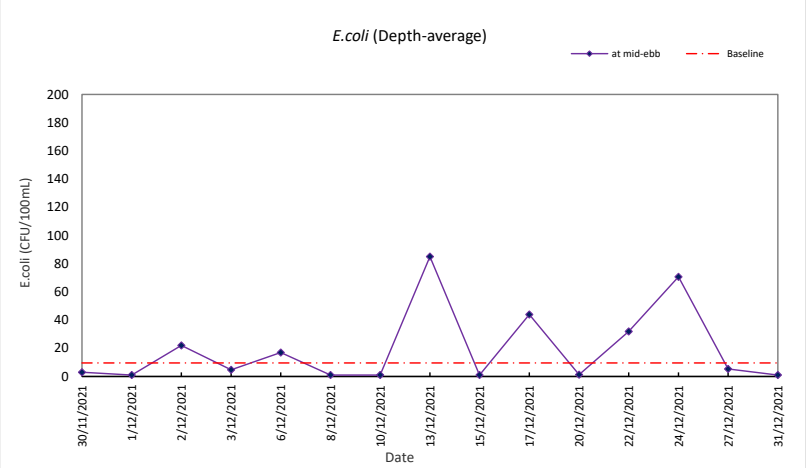

BOD (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/10/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


BOD (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
BOD (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

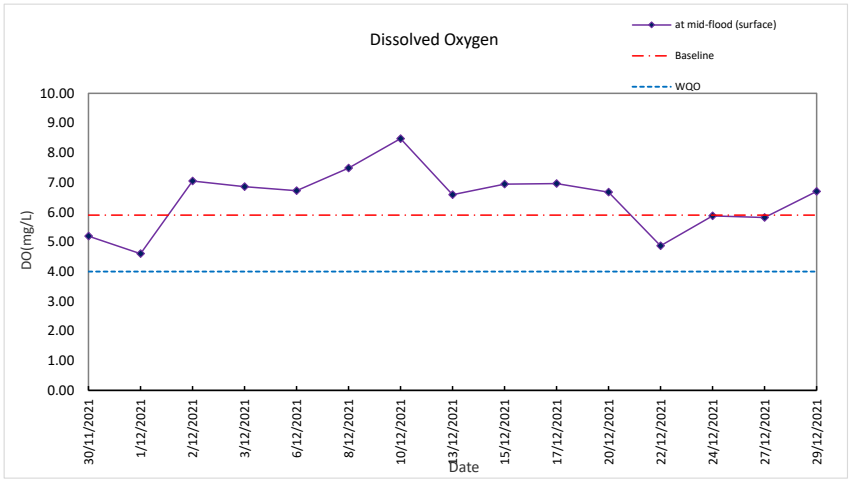

Chlorophyll-a (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

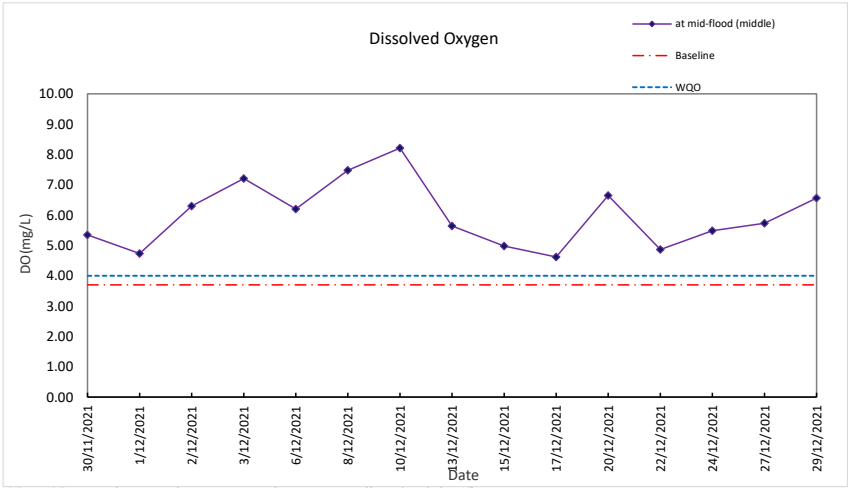

Chlorophyll-a (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Chlorophyll-a (mg/m³)
30
25
20
15
10
5
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
27/12/2021
29/12/2021
31/12/2021
Date


*E.coli* (Depth-average)
at mid-flood
Baseline
E.coli (CFU/100mL)
200
180
160
140
120
100
80
60
40
20
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date

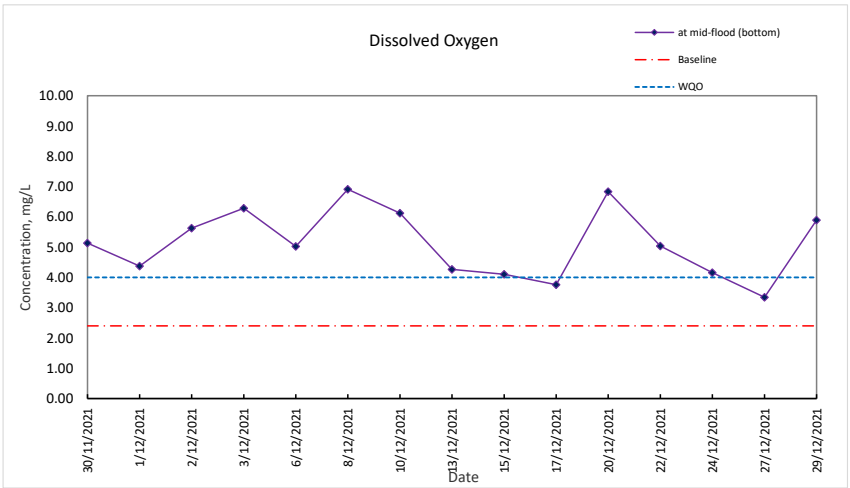

*E.coli* (Depth-average)
at mid-ebb
Baseline
E.coli (CFU/100mL)
200
180
160
140
120
100
80
60
40
20
0
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

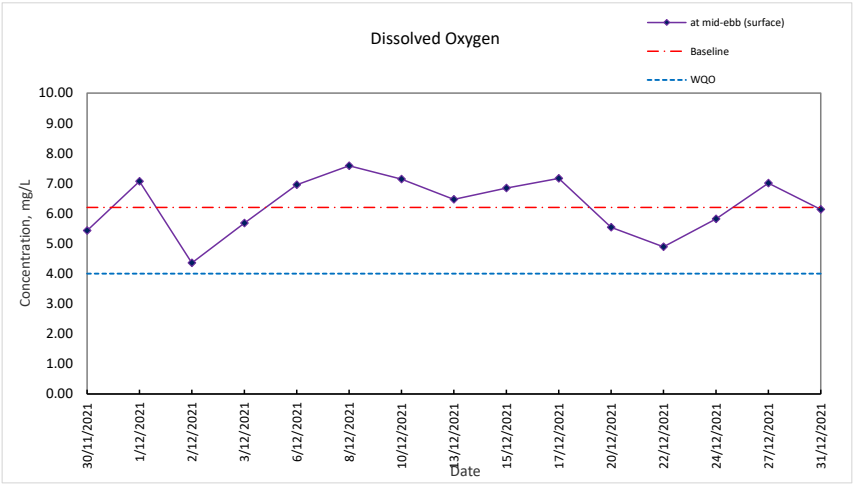
**Graphic Presentation of Water Quality Result of CR9 -Gruff Head Corals (Control Station)**

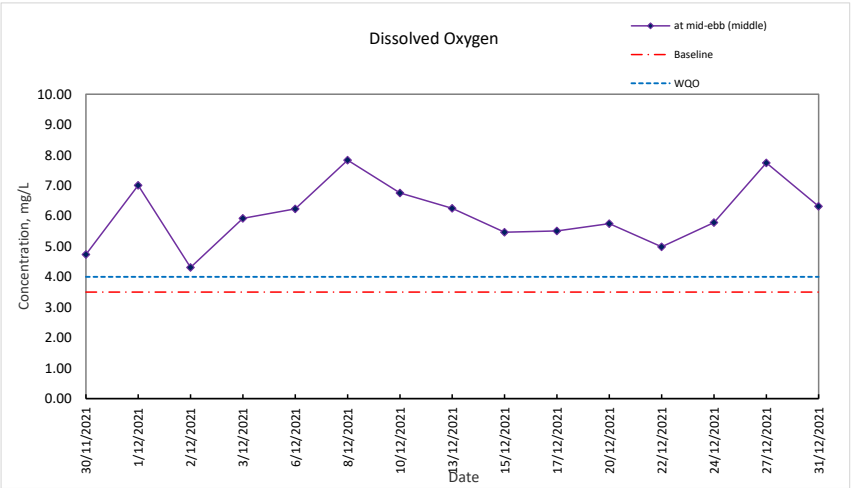


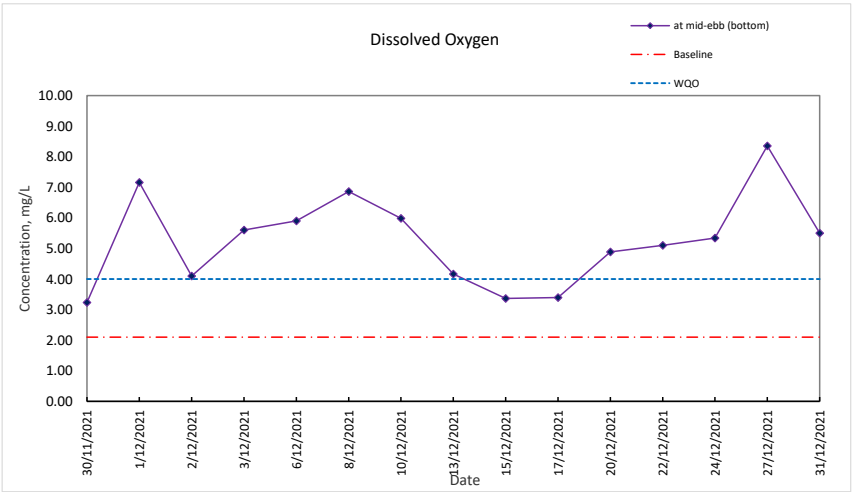

Note: No sample was taken on some dates as sampling depth is <5m

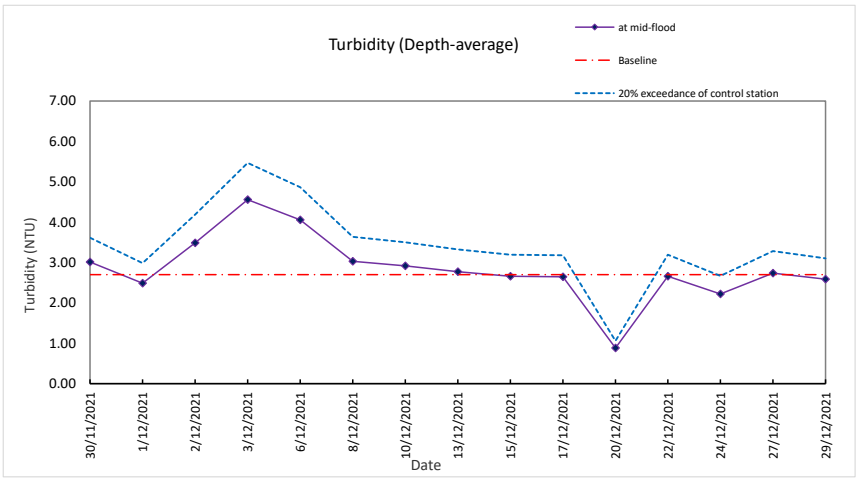


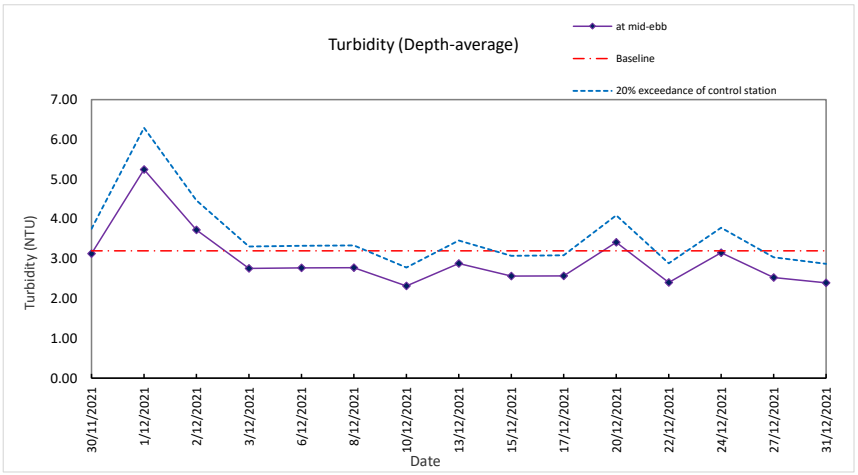


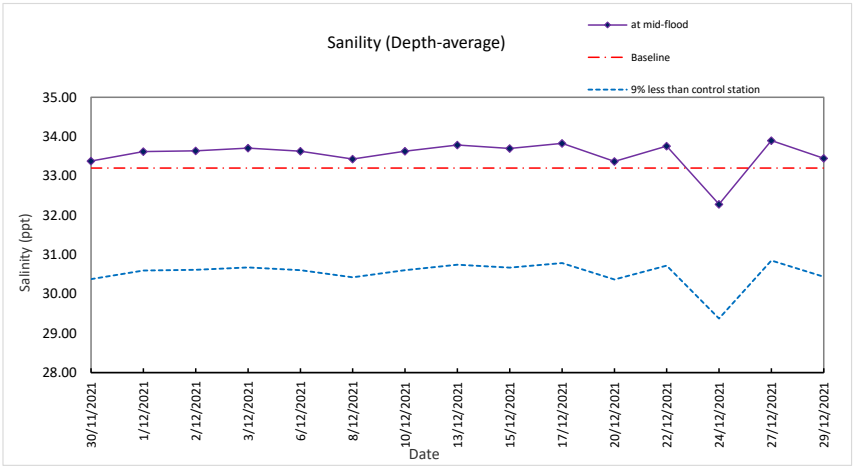



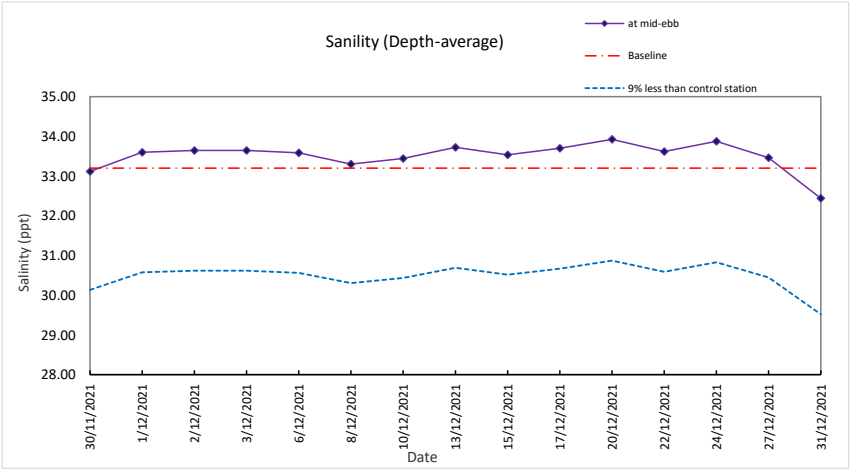

Note: No sample was taken on some dates as sampling depth is <5m




Turbidity (Depth-average)
at mid-flood
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


Turbidity (Depth-average)
at mid-ebb
Baseline
20% exceedance of control station
Turbidity (NTU)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date


Sanility (Depth-average)
at mid-flood
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
29/12/2021
Date


Sanility (Depth-average)
at mid-ebb
Baseline
9% less than control station
Salinity (ppt)
35.00
34.00
33.00
32.00
31.00
30.00
29.00
28.00
30/11/2021
1/12/2021
2/12/2021
3/12/2021
6/12/2021
8/12/2021
10/12/2021
13/12/2021
15/12/2021
17/12/2021
20/12/2021
22/12/2021
24/12/2021
27/12/2021
31/12/2021
Date

***Appendix 5.5***

***Monthly Summary Waste Flow Table***

# Monthly Summary Waste Flow Table

**Name of Department: Drainage Services Department** **Contract No.: DC/2018/05**

## Monthly Summary Waste Flow Table for January 2022 [to be submitted not later than the 15th day of each month following reporting month]

(All quantities shall be rounded off to 3 decimal places.)

| Month | Actual Quantities of Inert C&D Materials Generated Monthly | | | | | Actual Quantities of C&D Wastes Generated Monthly | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | (a)=(b)+(c)+(d)+(e) Total Quantity Generated | (b) Broken Concrete (see Note 3) | (c) Reused in the Contract | (d) Reused in other Projects | (e) Disposed as Public Fill | (f) Metals | (g) Paper/cardboard packaging | (h) Plastics (see Note 2) | (i) Chemical Waste | (j) Others, e.g. general refuse disposed at Landfill |
| | (in '000$m^3$) | (in '000$m^3$) | (in '000$m^3$) | (in '000$m^3$) | (in '000$m^3$) | (in '000kg) | (in '000kg) | (in '000kg) | (in L) | (in tonne) |
| Jan-21 | 10.122 | 0.076 | 0.073 | 9.951 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 34.29 |
| Feb-21 | | | | | | | | | | |
| Mar-21 | | | | | | | | | | |
| Apr-21 | | | | | | | | | | |
| May-21 | | | | | | | | | | |
| Jun-21 | | | | | | | | | | |
| Sub-total | 10.122 | 0.076 | 0.073 | 9.951 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 34.29 |
| Jul-21 | | | | | | | | | | |
| Aug-21 | | | | | | | | | | |
| Sep-21 | | | | | | | | | | |
| Oct-21 | | | | | | | | | | |
| Nov-21 | | | | | | | | | | |
| Dec-21 | | | | | | | | | | |
| Total | 10.122 | 0.076 | 0.073 | 9.951 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 34.29 |

Notes:

(1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(2) Plastics refer to plastics bottles/containers, plastic sheets/foam from packaging material.

(3) Broken concrete for recycling into aggregates.

(4) If necessary, use the conversion factor: 1 full load of dumping truck being equivalent to 5 $m^3$ by volume.

(5) Conversion factors for reporting purpose:

Excavated: rock = 2.0 tonnes/$m^3$, soil = 1.8 tonnes/$m^3$, broken concrete and bitumen = 2.4 tonnes/$m^3$, Slurry = 2.8 tonnes/$m^3$

# Monthly Summary Waste Flow Table

**Name of Department: Drainage Services Department** **Contract No.: DC/2020/05**

## Monthly Summary Waste Flow Table for January 2022 [to be submitted not later than the 15th day of each month following reporting month]

(All quantities shall be rounded off to 3 decimal places.)

| Month | Actual Quantities of Inert C&D Materials Generated Monthly | | | | | Actual Quantities of C&D Wastes Generated Monthly | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | (a)=(b)+(c)+(d)+(e) Total Quantity Generated | (b) Broken Concrete (see Note 3) | (c) Reused in the Contract | (d) Reused in other Projects | (e) Disposed as Public Fill | (f) Metals | (g) Paper/cardboard packaging | (h) Plastics (see Note 2) | (i) Chemical Waste | (j) Others, e.g. general refuse disposed at Landfill |
| | (in '000$m^3$) | (in '000$m^3$) | (in '000$m^3$) | (in '000$m^3$) | (in '000$m^3$) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in tonne) |
| Jan-22 | 0.141 | 0.061 | 0.000 | 0.000 | 0.080 | 0.000 | 0.000 | 0.000 | 0.000 | 302.470 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Sub-total | 0.141 | 0.061 | 0.000 | 0.000 | 0.080 | 0.000 | 0.000 | 0.000 | 0.000 | 302.470 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Total | 0.141 | 0.061 | 0.000 | 0.000 | 0.080 | 0.000 | 0.000 | 0.000 | 0.000 | 302.470 |

Notes:

(1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(2) Plastics refer to plastics bottles/containers, plastic sheets/foam from packaging material.

(3) Broken concrete for recycling into aggregates.

(4) If necessary, use the conversion factor: 1 full load of dumping truck being equivalent to 5 $m^3$ by volume.

(5) Conversion factors for reporting purpose:

Excavated: rock = 2.0 tonnes/$m^3$, soil = 1.8 tonnes/$m^3$, broken concrete and bitumen = 2.4 tonnes/$m^3$, Slurry = 2.8 tonnes/$m^3$

***Appendix 7.1***

***Event Action Plans***

**Event and Action Plan for Construction Air Quality**

| EVENT | ACTION | | | |
|---|---|---|---|---|
| | **ET** | **IEC** | **ER** | **CONTRACTOR** |
| **ACTION LEVEL** | | | | |
| 1. Action level being exceedance by one sampling | 1. Identify source, investigate the causes of exceedance and propose remedial measures;<br>2. Inform Contractor, IEC and ER;<br>3. Repeat measurement to confirm finding; and<br>4. Increase monitoring frequency to daily. | 1. Check monitoring data submitted by ET;<br>2. Check Contractor's working method; and<br>3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures. | 1. Notify Contractor. | 1. Identify source(s), investigate the causes of exceedance and propose remedial measures;<br>2. Implement remedial measures; and<br>3. Amend working methods agreed with the ER as appropriate |
| 2. Action level being exceeded by two or more consecutive sampling | 1. Identify source;<br>2. Inform Contractor, IEC and ER;<br>3. Advise the Contractor and ER on the effectiveness of the proposed remedial measures;<br>4. Repeat measurements to confirm findings;<br>5. Increase monitoring frequency to daily;<br>6. Discuss with IEC and Contractor on remedial actions required;<br>7. If exceedance continues, arrange meeting with Contractor, IEC and ER;<br>8. If exceedance stops, cease additional monitoring. | 1. Check monitoring data submitted by ET;<br>2. Check Contractor's working method;<br>3. Discuss with ET, ER and Contractor on possible remedial measures;<br>4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and<br>5. Supervise Implementation of remedial measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Notify Contractor;<br>3. Ensure remedial measures properly implemented.<br>4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. | 1. Identify source and investigate the causes of exceedance;<br>2. Submit proposals for remedial measures to the ER with a copy to ET and IEC within three working days of notification;<br>3. Implement the agreed proposals; and<br>4. Amend proposal as appropriate. |

**Event and Action Plan for Construction Air Quality (Con't)**

| EVENT | ACTION | | | |
|---|---|---|---|---|
| | **ET** | **IEC** | **ER** | **CONTRACTOR** |
| **LIMIT LEVEL** | | | | |
| 1. Limit level exceedance by one sampling | 1. Identify source, investigate the causes of exceedance and propose remedial measures;<br>2. Inform Contractor, IEC, ER, and EPD;<br>3. Repeat measurement to confirm finding;<br>4. Increase monitoring frequency to daily; and<br>5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. | 1. Check monitoring data submitted by ET;<br>2. Discuss amongst ER, ET, and Contractor on the potential remedial actions;<br>3. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and<br>4. Supervise implementation of remedial measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Notify Contractor;<br>3. Ensure remedial measures properly implemented. | 1. Identify source(s) and investigate the causes of exceedance;<br>2. Take immediate action to avoid further exceedance;<br>3. Submit proposals for remedial measures to ER with a copy to ET and IEC within three working days of notification;<br>4. Implement the agreed proposals; and<br>5. Amend proposal if appropriate. |
| 2. Limit level exceedance by two or more consecutive sampling | 1. Notify IEC, ER, Contractor and EPD;<br>2. Identify source;<br>3. Repeat measurement to confirm findings;<br>4. Increase monitoring frequency to daily;<br>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;<br>6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken;<br>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and<br>8. If exceedance stops, cease additional monitoring. | 1. Check monitoring data submitted by the ET;<br>2. Discuss amongst ER, ET, and Contractor on the potential remedial actions;<br>3. Review Contractor' s remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;<br>4. Supervise the implementation of remedial measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented;<br>3. Supervise the implementation of remedial measures; and<br>4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. | 1. Identify source(s) and investigate the causes of exceedance;<br>2. Take immediate action to avoid further exceedance;<br>3. Submit proposals for remedial measures to the ER with a copy to the IEC and ET within three working days of notification;<br>4. Implement the agreed proposals;<br>5. Revise and resubmit proposals if problem still not under control; and<br>6. Stop the relevant portion of works as determined by the ER until the exceedance is abated. |

**Event and Action Plan for Construction Noise**

| EVENT | ACTION | | | |
|---|---|---|---|---|
| | **ET** | **IEC** | **ER** | **CONTRACTOR** |
| Action Level | 1. Notify IEC and Contractor;<br>2. Carry out investigation;<br>3. Report the results of investigation to the IEC, ER and Contractor;<br>4. Discuss with the Contractor and formulate remedial measures; and<br>5. Increase monitoring frequency to check mitigation effectiveness. | 1. Review the analysed results submitted by the ET;<br>2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and<br>3. Supervise the implementation of remedial measures | 1. Confirm receipt of notification of failure in writing;<br>2. Notify Contractor;<br>3. Require Contractor to propose remedial measures for the analyzed noise problem; and<br>4. Ensure remedial measures are properly implemented. | 1. Submit noise mitigation proposals to IEC; and<br>2. Implement noise mitigation proposals. |
| Limit Level | 1. Identify source;<br>2. Inform IEC, ER, EPD and Contractor;<br>3. Repeat measurements to confirm findings;<br>4. Increase monitoring frequency;<br>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;<br>6. Inform IEC, ER and EPD the causes and actions taken for the exceedances;<br>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;<br>8. If exceedance stops, cease additional monitoring. | 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions;<br>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and<br>3. Supervise the implementation of remedial measures. | 1. Confirm receipt of notification of failure in writing;<br>2. Notify Contractor;<br>3. Require Contractor to propose remedial measures for the analysed noise problem;<br>4. Ensure remedial measures properly implemented; and<br>5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. | 1. Take immediate action to avoid further exceedance;<br>2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification;<br>3. Implement the agreed proposals;<br>4. Resubmit proposal if problem still not under control; and<br>5. Stop the relevant portion of works as determined by the ER until the exceedance is abated. |

***Appendix 7.2***

***Summary for Notification of Exceedance***

| Ref no. | Date | Location | Parameters (Unit) | Measured | Action Level | Limit Level | Follow-up action |
|---|---|---|---|---|---|---|---|
| - | - | - | - | - | - | - | - |

***Appendix 9.1***

***Complaint Log***

## *Environmental Complaints Log*

| Complaint Log No. | Date of Complaint | Received From and Received By | Location of Complainant | Nature of Complaint | Outcome | Status |
|---|---|---|---|---|---|---|
| 190808 | 29 July 2019 | DSD | Construction site area Portion 6 | Exposed slope surface without any covering was observed at Portion 6 | A public complaint regarding construction dust received by DSD on 29 July 2019 was subsequently referred to ET on 6 August 2019. The complainant reported that exposed slope surface without any covering at Portion 6. Based on the information provided by the Contractor, the concerned area was under slope cutting and filling works for temporary haul road construction.<br>Based on the observation on 6 August 2019 and weekly site inspection on 7 August 2019, the concerned slope was observed covered with the tarpaulin sheets to alleviate the potential dust impact to the surroundings.<br>Upon review on the monitoring data, no exceedances were recorded at the air quality monitoring stations AM2 - Block H, Kam Tai Court and AM4 - Wellborn Kindergarten (located nearest to the concerned slope) during the 1hr TSP monitoring on 23 July 2019 and 29 July 2019 respectively.<br>Follow up site inspection was conducted by the Environmental Team on 07 August 2019 and it was observed that the slope at Portion 6 was properly covered.<br>Nevertheless, in view of the public concern, the Contractor of DC/2018/05 was reminded to enhance the dust suppression measure by providing adequate watering to any exposed surface during cutting slope and fill works to avoid potential dust impact to the surroundings. | Interim investigation report was issue on 16 August 2019 |
| 201112 | 12 November 2020 | DSD | Outside site boundary of Portion 11 | water contamination / ecological impact | A letter from Kadoorie Farm and Botanic Garden (KFBG) regarding water contamination / ecological impact received by DSD on 12 November 2020 was subsequently referred to ET on 12 November 2020. The KFBG alleged that:<br>- Extracting water directly from the stream,<br>- Surface run-off silt smothering forest understorey | Interim investigation report was issue on 14 December 2020 |

| Complaint Log No. | Date of Complaint | Received From and Received By | Location of Complainant | Nature of Complaint | Outcome | Status |
|---|---|---|---|---|---|---|
| | | | | | **and silting the stream,**<br>- **Cement has been disposed into the forest understorey and the stream , and**<br>- **Diesel fuel leaking from pumps and generators at Portion 11.**<br>**The concerned area is natural stream near slope cutting and filling works for temporary haul road construction, outside of the DC/2018/05 construction site boundary.**<br>**The Contractor, RSS conducted walk-through survey on 17 November 2020 starting from around the tree tag T9511/ T9512 and ending at the pool of the natural stream near Portion 11 of DC/2018/05.**<br>**Additional site inspection with EPD, DSD, RSS, ET and the Contractor was conducted on 17 November 2020, additional site inspection with KFBG, DSD, RSS, ET and the Contractor was conducted on 19 November 2020.**<br>**No Pollutants were observed being discharged to the stream, the natural stream was clean with running water during above inspections. However, few spots were found with cement and silt on the bedding of the stream.**<br>**According to the Contractor, the water pumps were the emergency pumps and it had been removed away from the natural stream. No pump was observed during above inspections.**<br>**There was no sign of any diesel fuel leaking from pumps or generators. The nearest generator for the construction work has been located far away from the concerned location. By the walk-through survey along the natural stream, there was no oil-strain or diesel likes contamination being observed.**<br>**By the walk-through survey, various locations were found with silting / sand. The sources of the silt were not necessary from the construction site of DC/2018/05. It could also be contributed by the natural erosion from both sides of the stream.**<br>**Nevertheless, in view of the public concern, the** | |

| Complaint Log No. | Date of Complaint | Received From and Received By | Location of Complainant | Nature of Complaint | Outcome | Status |
|---|---|---|---|---|---|---|
| | | | | | **Contractor of DC/2018/05 was willing to clean up the stream to address the concerns from KFBG to protect the environment. The Contractor also reminded to keep review the performance of mitigation measures including well cover slope / area with exposed soil with tarpaulin sheets to prevent surface runoff, using cellular confinement system to prevent soil erosion.** | |
| **210127** | **27 January 2021** | **DSD** | **Construction Area at Portion 6 (Tunnel)** | **Air Quality** | **A public complaint regarding construction dust referred by DSD on 27 January 2021 was subsequently received by ET on 27 January 2021. The complainant reported that:**<br>- **Construction dust emission arising from blasting works in tunnel was observed near Block 6, Chevalier Garden.**<br><br>**Blasting in the tunnel was carried out under Contract DC/2018/05 at the concerned area**<br><br>**According to the relevant site information provided by the Contractor of DC/2018/05, there are total of 13nos. of blasting works was carried out in January 2021 in the tunnel.**<br><br>**The blasting works was carried out in the tunnel. Dust screen, mist curtain, sprinkler system and mist cannon were installed / operated when blasting, the blast door was tightly closed during blasting.**<br><br>**Based on review on air quality monitoring data, no exceedances were recorded at the air quality monitoring stations AM3(B) - Outside A Kung Kok Street Garden and AM4 - Wellborn Kindergarten (located nearest to the concerned area) during the scheduled 1hr TSP monitoring in January 2021.**<br><br>**Ad-hoc TSP monitoring and inspection was carried out on 29 January and 1 February 2021 during blasting, no exceedances were recorded at the air** | **Interim investigation report was issue on 7 February 2021** |

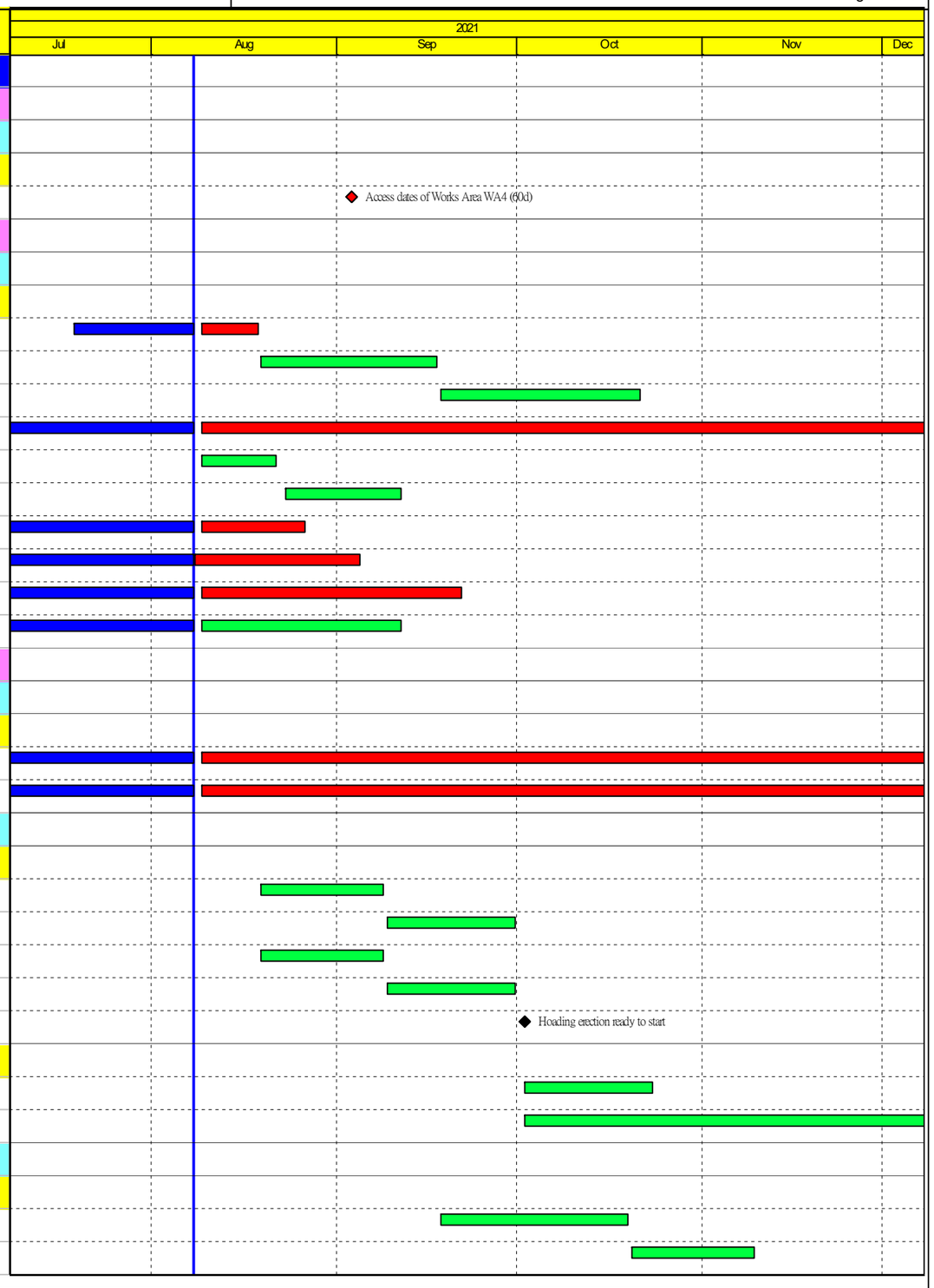
| Complaint Log No. | Date of Complaint | Received From and Received By | Location of Complainant | Nature of Complaint | Outcome | Status |
|---|---|---|---|---|---|---|
| | | | | | **quality monitoring stations AM3(B) - Outside A Kung Kok Street Garden and AM4 - Wellborn Kindergarten.**<br><br>**Based on the site inspection on 28 January 2021, 2nos. mist cannons have been installed and operated on the top of blast door during / after the blast door opened to reduce fumes / mists emission.**<br><br>**The Contractor of DC/2018/05 was reminded to enhance the dust suppression measure by providing adequate watering after the blast door opened. Contractor is requested to consider extend the time to open the blast door after blasting in order to the fumes and rock dust have been settled in the tunnel.**<br><br>**Also, the Contractor of DC/2018/05 was reminded that the ventilation system in the tunnel should be maintained in good condition.** | |
| **20211201** | **1 December 2021** | **AECOM** | **Construction Area at Portion 12 (The Neighbourhood Advice-Action Council Harmony Manor)** | **Noise** | **A public complaint regarding construction noise referred by AECOM on 3 December 2021 was subsequently received by ET on 3 December 2021.**<br><br>**The complainant reported to 1823 online dated on 1 December 2021 that the construction noise (heavy vehicle and drilling works) generated from the construction site at A Kung Lok Shan Road was causing noise nuisance to complainant's son.**<br><br>**According to the relevant site information provided by the Contractor of DC/2020/05, preparation works for sheet pile driving, which included machinery and materials mobilization, were carried out on 1 December 2021. Sheet pile work was commenced on 2 December 2021.**<br><br>**Based on review on noise monitoring data, no exceedances were recorded at the noise monitoring station CM5 - R/F, The Neighbourhood Advice-Action** | **Interim investigation report was issue on 10 December 2021** |

| Complaint Log No. | Date of Complaint | Received From and Received By | Location of Complainant | Nature of Complaint | Outcome | Status |
|---|---|---|---|---|---|---|
| | | | | | **Council Harmony Manor (located nearest to the concerned area) during the scheduled Leq30 min noise monitoring in November 2021. ET conducted regular noise monitoring on 3 December 2021, no exceedances was record at the noise monitoring stations CM5 - R/F, The Neighbourhood Advice-Action Council Harmony Manor. Weekly noise monitoring was conducted on 7 December 2021, no exceedances was recorded at the noise monitoring station CM5 - R/F, The Neighbourhood Advice-Action Council Harmony Manor. Site inspection was conducted on 8 December 2021, it is observed that breaking /drilling works by other contractor was conducted next to The Neighbourhood Advice-Action Council Harmony Manor. No heavy vehicles passing by A Kung Lok Shan Road during noise monitoring.**<br><br>**After receiving the complaint, additional noise mitigation measures, including wrapping up the breaker tip with acoustic mat and deploying of temporary noise barrier have been implemented by the Contractor of DC/2020/05.**<br><br>**The Contractor of DC/2020/05 was reminded to enhance the noise mitigation measures by providing sufficient temporary noise barrier. Contractor is advised to make good communication with The Neighbourhood Advice-Action Council Harmony Manor and consider scheduling the time of sheet pilling and machinery / materials mobilization in order to avoid further complaint.** | |

***Appendix 10.1***

***Construction Programme of Individual Contracts***

| Activity ID | Activity Name | Original Duration | Start | Finish | Total Float | Late Start | Late Finish |
|---|---|---|---|---|---|---|---|
| **Relocation of STST to Caverns - Main Caverns Construction** | | | | | | | |
| **Contract Particular** | | | | | | | |
| Access Date | | | | | | | |
| **Access Date** | | | | | | | |
| AccessWA4 | Access dates of Works Area WA4 (60d) | 0 | 03-Sep-21* | | 0 | 03-Sep-21 | |
| **Preliminary Works** | | | | | | | |
| Preliminary Works | | | | | | | |
| **Preliminary Works** | | | | | | | |
| C1030 | Sub-letting & procurement for the 1st batch sub-contract | 26 | 19-Jul-21 A | 18-Aug-21 | 2 | 11-Aug-21 | 20-Aug-21 |
| C1031 | Sub-letting & procurement for the 2nd batch sub-contract | 26 | 19-Aug-21 | 17-Sep-21 | 84 | 29-Nov-21 | 30-Dec-21 |
| C1032 | Sub-letting & procurement for the 3rd batch sub-contract | 26 | 18-Sep-21 | 21-Oct-21 | 505 | 14-Jun-23 | 15-Jul-23 |
| C1050 | Preservation and Protection of Existing Trees | 1620 | 05-Jul-21 A | 06-Jan-27 | 1 | 10-Aug-21 | 07-Jan-27 |
| C1100 | Prepare & submit Construction Health and Safety Plan | 12 | 09-Aug-21 | 21-Aug-21 | 479 | 28-Mar-23 | 14-Apr-23 |
| C1110 | Construction Health and Safety Plan approval | 18 | 23-Aug-21 | 11-Sep-21 | 479 | 15-Apr-23 | 06-May-23 |
| C1120 | Preconstruction Survey | 52 | 05-Jul-21 A | 26-Aug-21* | 8 | 18-Aug-21 | 04-Sep-21 |
| C1130 | Develope a 3D reality model for construction area | 62 | 05-Jul-21 A | 04-Sep-21* | 1 | 09-Aug-21 | 05-Sep-21 |
| C1150 | Rock handling plan | 68 | 05-Jul-21 A | 21-Sep-21* | 0 | 09-Aug-21 | 21-Sep-21 |
| C1170 | Temporary drainage management plan | 60 | 05-Jul-21 A | 11-Sep-21 | 200 | 14-Apr-22 | 24-May-22 |
| **General** | | | | | | | |
| General | | | | | | | |
| **Maintainance and Upkeeping Works** | | | | | | | |
| A10630 | Core Boxes at Portion 10 | 1621 | 05-Jul-21 A | 07-Jan-27* | 0 | 09-Aug-21 | 07-Jan-27 |
| A11890 | Site hoarding and project signboard | 1621 | 05-Jul-21 A | 07-Jan-27* | 0 | 09-Aug-21 | 07-Jan-27 |
| Hoarding | | | | | | | |
| **General** | | | | | | | |
| A10000 | Hoarding Design Preparation | 18 | 19-Aug-21 | 08-Sep-21 | 60 | 01-Nov-21 | 20-Nov-21 |
| A10010 | Hoading Design approval | 18 | 09-Sep-21 | 30-Sep-21 | 60 | 22-Nov-21 | 11-Dec-21 |
| A19990 | Hoarding Plan Preparation | 18 | 19-Aug-21 | 08-Sep-21 | 60 | 01-Nov-21 | 20-Nov-21 |
| A20000 | Hoading Plan approval | 18 | 09-Sep-21 | 30-Sep-21 | 60 | 22-Nov-21 | 11-Dec-21 |
| A20010 | Hoading erection ready to start | 0 | 02-Oct-21 | | 60 | 13-Dec-21 | |
| **Hoarding** | | | | | | | |
| A10030 | Hoarding erection - Secondary Portal Area at Mui Tsz Lam Road | 18 | 02-Oct-21 | 23-Oct-21 | 60 | 13-Dec-21 | 05-Jan-22 |
| A10050 | Hoarding erection - WA4 | 60 | 02-Oct-21 | 11-Dec-21 | 1423 | 11-Aug-26 | 22-Oct-26 |
| Works in WA3 | | | | | | | |
| **Rock Crushing Plant** | | | | | | | |
| A11900 | Crushing Plant Design Preparation | 24 | 18-Sep-21 | 19-Oct-21 | 86 | 04-Jan-22 | 31-Jan-22 |
| A11910 | Design approval by PM | 18 | 20-Oct-21 | 09-Nov-21 | 184 | 10-Jun-22 | 30-Jun-22 |



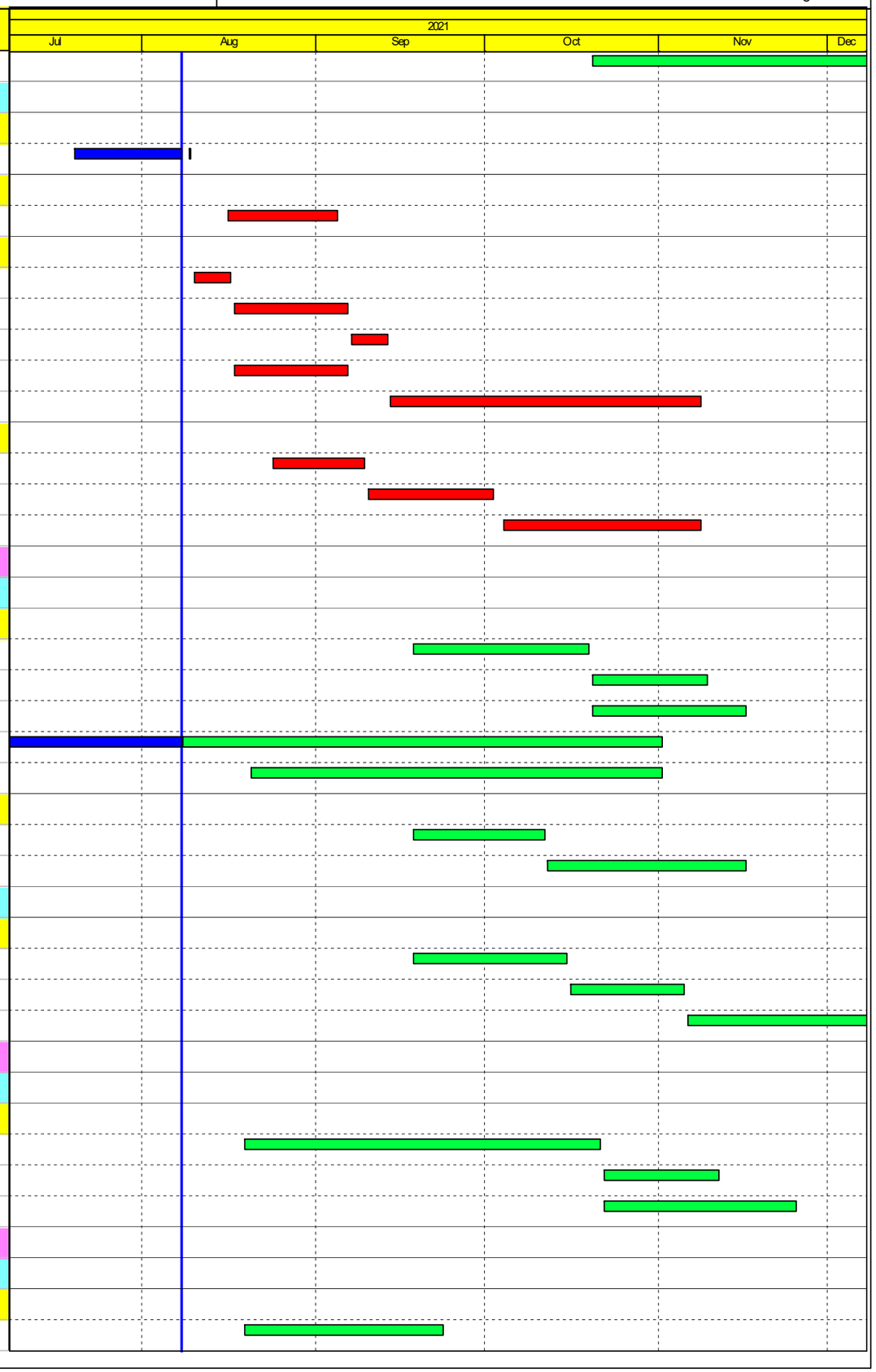

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Crit. Milestone

Project ID: C2-MP001-b(2108)
Layout: 3 Month Rolling Programme
Data Date: 08-Aug-21
Page 1 of 4
*Primavera Systems, Inc.*

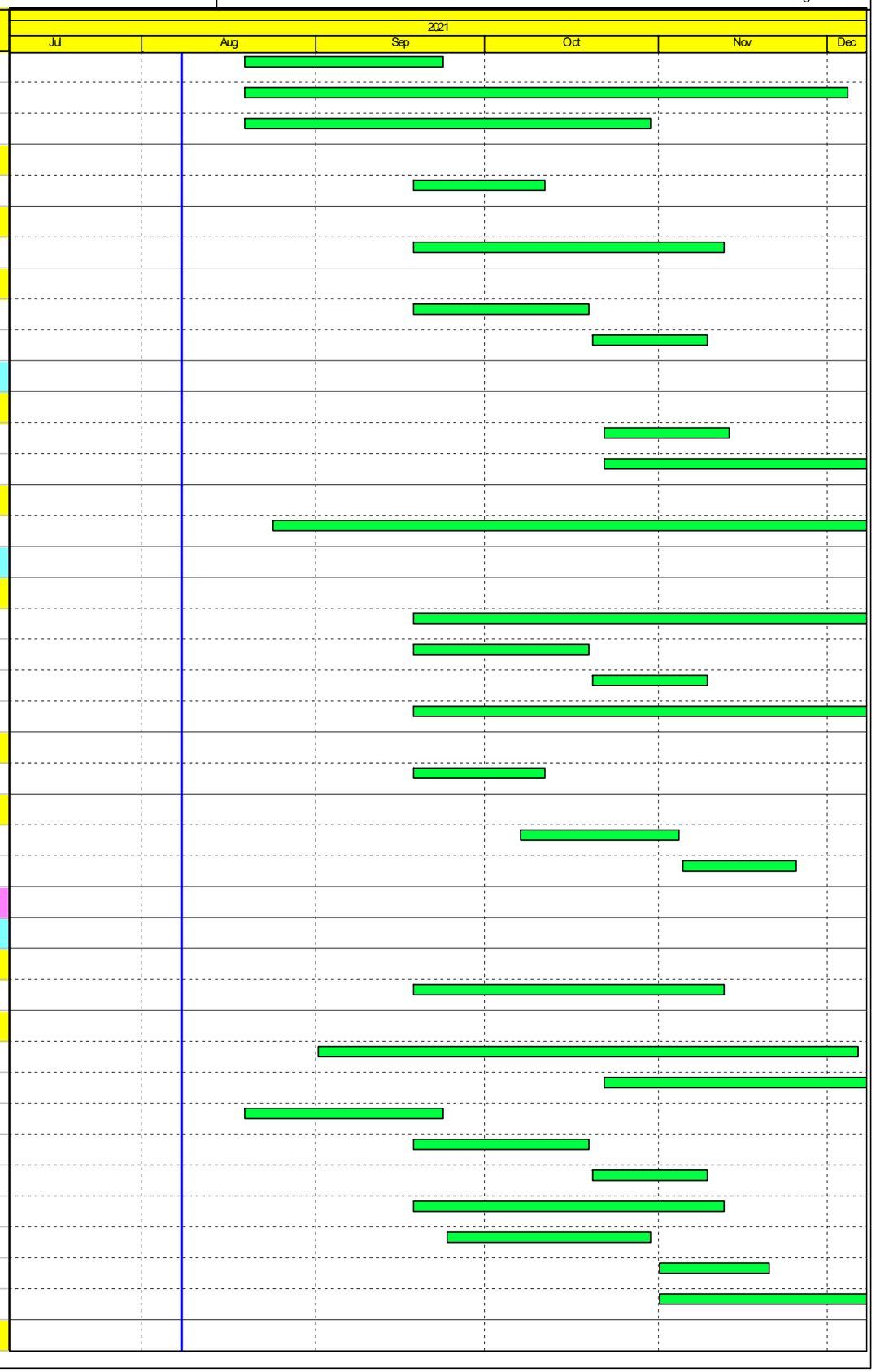
**Contract No. DC/2020/05**
**Relocation of Sha Tin Sewge Treatment Works to Caverns - Main Caverns Construction**
**3 Month Rolling Programme**

China State – Alchmex Joint Venture

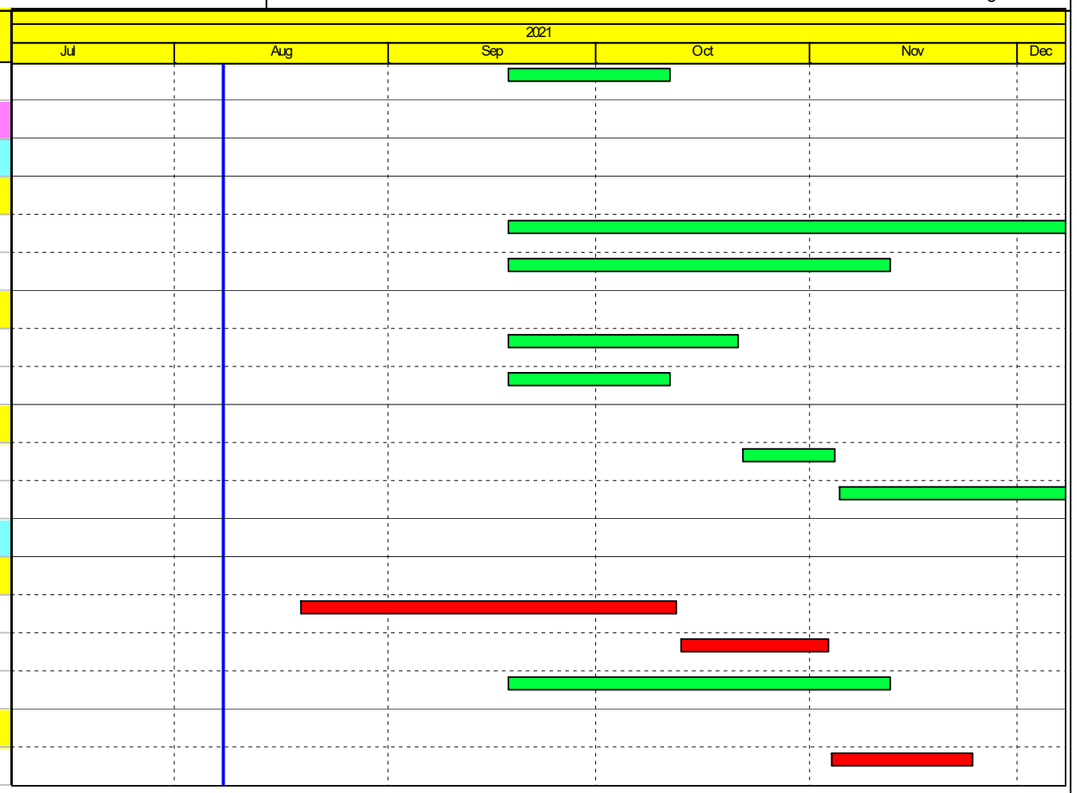
| Activity ID | Activity Name | Original Duration | Start | Finish | Total Float | Late Start | Late Finish |
|---|---|---|---|---|---|---|---|
| A11920 | Design approval by relevant authorities | 150 | 20-Oct-21 | 18-Mar-22 | 105 | 02-Feb-22 | 01-Jul-22 |
| **Site Office** | | | | | | | |
| **General** | | | | | | | |
| A10350 | Sub-letting (asbestos removal & demolition) | 12 | 20-Jul-21 A | 09-Aug-21 | 2 | 11-Aug-21 | 11-Aug-21 |
| **Hoarding** | | | | | | | |
| A10040 | Hoarding erection - WA2 | 18 | 16-Aug-21* | 04-Sep-21 | 0 | 16-Aug-21 | 04-Sep-21 |
| **Demolition** | | | | | | | |
| A10440 | Asbestos removal method statement preparation | 6 | 10-Aug-21 | 16-Aug-21 | 2 | 12-Aug-21 | 18-Aug-21 |
| A10450 | Asbestos removal method statement approval by PM and EPD | 18 | 17-Aug-21 | 06-Sep-21 | 2 | 19-Aug-21 | 08-Sep-21 |
| A10460 | Asbestos removal | 6 | 07-Sep-21 | 13-Sep-21 | 2 | 09-Sep-21 | 15-Sep-21 |
| A10468 | Disconnection utility services | 18 | 17-Aug-21 | 06-Sep-21 | 8 | 26-Aug-21 | 15-Sep-21 |
| A10470 | Demolition of existing Buildings | 45 | 14-Sep-21 | 08-Nov-21 | 2 | 16-Sep-21 | 10-Nov-21 |
| **Site Office Erection** | | | | | | | |
| A10480 | Site office design preparation | 15 | 24-Aug-21 | 09-Sep-21 | 2 | 26-Aug-21 | 11-Sep-21 |
| A10490 | Site office design approval | 18 | 10-Sep-21 | 02-Oct-21 | 2 | 13-Sep-21 | 05-Oct-21 |
| A10500 | Site office off-site fabrication | 30 | 04-Oct-21 | 08-Nov-21 | 2 | 06-Oct-21 | 10-Nov-21 |
| **Area besides Ma On Shan Road** | | | | | | | |
| **Construction Access** | | | | | | | |
| **General** | | | | | | | |
| A10070 | P2 access Design Preparation | 24 | 18-Sep-21 | 19-Oct-21 | 1397 | 29-Jun-26 | 27-Jul-26 |
| A10080 | P2 access Design approval | 18 | 20-Oct-21 | 09-Nov-21 | 1451 | 30-Sep-26 | 22-Oct-26 |
| A10090 | P4 access Design Preparation | 24 | 20-Oct-21 | 16-Nov-21 | 1397 | 28-Jul-26 | 24-Aug-26 |
| A10130 | P2 access STLA application period (if required) | 120 | 05-Jul-21 A | 01-Nov-21 | 1816 | 29-Jul-26 | 22-Oct-26 |
| A10550 | Consent from relevant authorities | 60 | 20-Aug-21 | 01-Nov-21 | 1458 | 11-Aug-26 | 22-Oct-26 |
| **P2 Access** | | | | | | | |
| A10110 | TTA preparation | 18 | 18-Sep-21 | 11-Oct-21 | 1445 | 25-Aug-26 | 14-Sep-26 |
| A10120 | TTA submission & approval | 30 | 12-Oct-21 | 16-Nov-21 | 1445 | 15-Sep-26 | 22-Oct-26 |
| **Noise Barrier** | | | | | | | |
| **General** | | | | | | | |
| A10190 | NB4 design preparation | 21 | 18-Sep-21 | 15-Oct-21 | 1358 | 12-May-26 | 05-Jun-26 |
| A10200 | NB4 design approval | 18 | 16-Oct-21 | 05-Nov-21 | 1358 | 06-Jun-26 | 27-Jun-26 |
| A10230 | NB4 panel submission & procurement | 90 | 06-Nov-21 | 01-Mar-22 | 1358 | 29-Jun-26 | 14-Oct-26 |
| **Main Portal and Tunnel** | | | | | | | |
| **Effluent Pipelines and Connection Chamber** | | | | | | | |
| **Effluent Pipelines** | | | | | | | |
| A17212 | Method statement preparation & submission for Condition survey of THEEs tunnel | 52 | 19-Aug-21 | 21-Oct-21 | 21 | 13-Sep-21 | 15-Nov-21 |
| A17222 | MS Approval period | 18 | 22-Oct-21 | 11-Nov-21 | 33 | 30-Nov-21 | 20-Dec-21 |
| A17224 | Consent from DSD for access | 30 | 22-Oct-21 | 25-Nov-21 | 21 | 16-Nov-21 | 20-Dec-21 |
| **Secondary Portal and Tunnel** | | | | | | | |
| **Site Formation for Secondary Portal** | | | | | | | |
| **Tree** | | | | | | | |
| A11565 | Tree Survey and Tree protective fence erection | 30 | 19-Aug-21 | 23-Sep-21 | 84 | 29-Nov-21 | 05-Jan-22 |



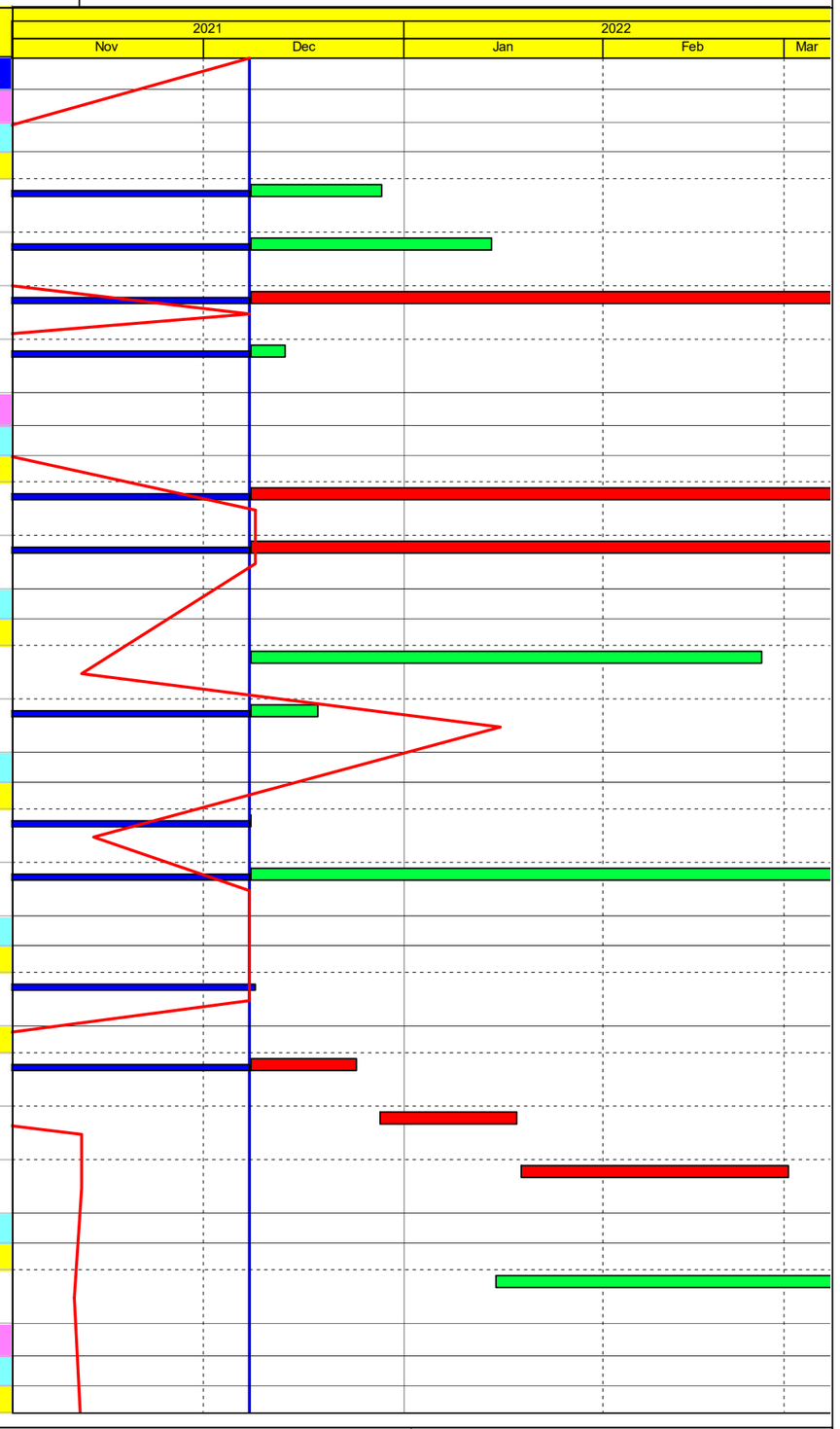
| Activity ID | Activity Name | Original Duration | Start | Finish | Total Float | Late Start | Late Finish |
|---|---|---|---|---|---|---|---|
| A11570 | Tree felling | 30 | 19-Aug-21 | 23-Sep-21 | 84 | 29-Nov-21 | 05-Jan-22 |
| A11580 | Tree Transplant | 90 | 19-Aug-21 | 04-Dec-21 | 24 | 16-Sep-21 | 05-Jan-22 |
| A11590 | Treating of existing flora species | 60 | 19-Aug-21 | 30-Oct-21 | 54 | 25-Oct-21 | 05-Jan-22 |
| **Instrumentation and Monitoring** | | | | | | | |
| A19030 | Settlement marker | 18 | 18-Sep-21 | 11-Oct-21 | 391 | 18-Jan-23 | 14-Feb-23 |
| **Slope SSP1** | | | | | | | |
| A11105 | Temp cut slope with soil nail (+41 to +26mpd) | 45 | 18-Sep-21 | 12-Nov-21 | 266 | 18-Aug-22 | 12-Oct-22 |
| **Flexible Barrier** | | | | | | | |
| A11530 | Flexible barrier design preparation | 24 | 18-Sep-21 | 19-Oct-21 | 277 | 31-Aug-22 | 28-Sep-22 |
| A11540 | Flexible barrier design approval | 18 | 20-Oct-21 | 09-Nov-21 | 277 | 29-Sep-22 | 21-Oct-22 |
| Retaining Wall | | | | | | | |
| **Tree** | | | | | | | |
| A11140 | Tree felling | 20 | 22-Oct-21 | 13-Nov-21 | 683 | 23-Feb-24 | 16-Mar-24 |
| A11150 | Tree Transplant | 90 | 22-Oct-21 | 14-Feb-22 | 505 | 17-Jul-23 | 01-Nov-23 |
| **Soldier Pile Wall SP2** | | | | | | | |
| A11245 | Removal of Existing CLP OHL cable and poles - by CLP | 107 | 24-Aug-21* | 31-Dec-21 | 536 | 26-Jun-23 | 01-Nov-23 |
| Secondary Access Tunnel (SAT) | | | | | | | |
| **Blasting Permit** | | | | | | | |
| A20040 | Boulder survey & condition survey | 80 | 18-Sep-21 | 23-Dec-21 | 289 | 15-Sep-22 | 19-Dec-22 |
| A20070 | Blast Door Design submission | 24 | 18-Sep-21 | 19-Oct-21 | 321 | 25-Oct-22 | 21-Nov-22 |
| A20080 | Blast Door Design approval | 18 | 20-Oct-21 | 09-Nov-21 | 321 | 22-Nov-22 | 12-Dec-22 |
| A20140 | Permanent Power for Tunnel work | 90 | 18-Sep-21 | 07-Jan-22 | 360 | 09-Dec-22 | 03-Apr-23 |
| **Instrumentation and Monitoring** | | | | | | | |
| A11600 | Vibration monitoring station installation (Portion 10) | 18 | 18-Sep-21 | 11-Oct-21 | 353 | 01-Dec-22 | 21-Dec-22 |
| **Soft Ground Excavtion (Drill & Break)** | | | | | | | |
| A11702 | Design submission for steel arch | 24 | 07-Oct-21 | 04-Nov-21 | 298 | 14-Oct-22 | 10-Nov-22 |
| A11704 | Design approval for steel arch | 18 | 05-Nov-21 | 25-Nov-21 | 298 | 11-Nov-22 | 01-Dec-22 |
| **Cavern Complex** | | | | | | | |
| General | | | | | | | |
| **Conveyor Belt System** | | | | | | | |
| A12610 | Prepare detail method statement for Conveyor belt system erection | 45 | 18-Sep-21 | 12-Nov-21 | 220 | 24-Jun-22 | 16-Aug-22 |
| **Blasting Permit** | | | | | | | |
| A12445 | Boulder survey & condition survey | 80 | 01-Sep-21 | 06-Dec-21 | 84 | 11-Dec-21 | 24-Mar-22 |
| A12450 | Update BAR (Blasting Assessment Report) - preparation and submission | 60 | 22-Oct-21 | 03-Jan-22 | 84 | 08-Feb-22 | 22-Apr-22 |
| A12460 | Method statement for tunnel works (Blasting) | 30 | 19-Aug-21 | 23-Sep-21 | 42 | 09-Oct-21 | 13-Nov-21 |
| A12462 | Blast Door Design submission | 24 | 18-Sep-21 | 19-Oct-21 | 97 | 17-Jan-22 | 19-Feb-22 |
| A12464 | Blast Door Design approval | 18 | 20-Oct-21 | 09-Nov-21 | 97 | 21-Feb-22 | 12-Mar-22 |
| A12510 | Permanent Power for Tunnel work | 45 | 18-Sep-21 | 12-Nov-21 | 157 | 04-Apr-22 | 01-Jun-22 |
| A12605 | Temp tunnel ventilation system design preparation (Stage1) | 30 | 24-Sep-21 | 30-Oct-21 | 42 | 15-Nov-21 | 18-Dec-21 |
| A12615 | Temp tunnel ventilation system design approval (Stage1) | 18 | 01-Nov-21 | 20-Nov-21 | 120 | 31-Mar-22 | 25-Apr-22 |
| A20200 | Temp tunnel ventilation system design preparation (Stage 2) | 52 | 01-Nov-21 | 03-Jan-22 | 42 | 20-Dec-21 | 28-Feb-22 |
| **Instrumentation and Monitoring** | | | | | | | |



| Activity ID | Activity Name | Original Duration | Start | Finish | Total Float | Late Start | Late Finish |
|---|---|---|---|---|---|---|---|
| A19040 | Settlement marker (portion 13, 13A) | 18 | 18-Sep-21 | 11-Oct-21 | 170 | 23-Apr-22 | 16-May-22 |
| **Ventilation Shaft and Adit and Explosive Magazine** | | | | | | | |
| Ventilation Shaft | | | | | | | |
| **Blasting Permit** | | | | | | | |
| A18540 | Boulder survey & condition survey | 80 | 18-Sep-21 | 23-Dec-21 | 245 | 25-Jul-22 | 28-Oct-22 |
| A18560 | Blasting Enclosure at Shaft design | 45 | 18-Sep-21 | 12-Nov-21 | 310 | 12-Oct-22 | 02-Dec-22 |
| **Instrumentation and Monitoring** | | | | | | | |
| A18660 | Vibration monitoring station installation (Portion 11, 12) | 26 | 18-Sep-21 | 21-Oct-21 | 158 | 06-Apr-22 | 11-May-22 |
| A19050 | Settlement marker (portion 12, 13A) | 18 | 18-Sep-21 | 11-Oct-21 | 223 | 28-Jun-22 | 19-Jul-22 |
| **Ventilation Shaft - Excavation** | | | | | | | |
| A14620 | Plant mobilization & initial setup | 12 | 22-Oct-21 | 04-Nov-21 | 203 | 06-Jul-22 | 19-Jul-22 |
| A14630 | Pipe-piles (84 nos)(from 177 to 170mpd) | 84 | 05-Nov-21 | 21-Feb-22 | 203 | 20-Jul-22 | 28-Oct-22 |
| Temporary Explosive Magazine | | | | | | | |
| **General** | | | | | | | |
| A17380 | Prepare and submit design of Temporary Explosive Magazine | 45 | 19-Aug-21 | 12-Oct-21 | 2 | 21-Aug-21 | 15-Oct-21 |
| A17580 | Temporary Explosive Magazine design approval | 18 | 13-Oct-21 | 03-Nov-21 | 2 | 16-Oct-21 | 05-Nov-21 |
| A18380 | Prepare method statement of temporary Explosive Magazine for Mines Dept approval | 45 | 18-Sep-21 | 12-Nov-21 | 112 | 10-Feb-22 | 02-Apr-22 |
| **Temporary Explosive Magazine** | | | | | | | |
| A18170 | Excavation and base slab | 18 | 04-Nov-21 | 24-Nov-21 | 2 | 06-Nov-21 | 26-Nov-21 |



| Activity ID | Activity Name | Physical % Complete | Remaining Duration | Start | Finish | Total Float | Late Start | Late Finish |
|---|---|---|---|---|---|---|---|---|
| **Relocation of STST to Caverns - Main Caverns Construction** | | | | | | | | |
| **Preliminary Works** | | | | | | | | |
| Preliminary Works | | | | | | | | |
| **Preliminary Works** | | | | | | | | |
| C1031 | Sub-letting & procurement for the 2nd batch sub-contract | 75% | 16d | 10-Aug-21 A | 28-Dec-21 | 76d | 17-Mar-22 | 04-Apr-22 |
| C1032 | Sub-letting & procurement for the 3rd batch sub-contract | 55% | 30d | 01-Sep-21 A | 14-Jan-22 | 525d | 25-Sep-23 | 01-Nov-23 |
| C1050 | Preservation and Protection of Existing Trees | 7% | 1490d | 05-Jul-21 A | 07-Jan-27 | 0d | 08-Dec-21 | 07-Jan-27 |
| C1130 | Develope a 3D reality model for construction area | 90% | 6d | 05-Jul-21 A | 13-Dec-21 | 1851d | 02-Jan-27 | 07-Jan-27 |
| **General** | | | | | | | | |
| General | | | | | | | | |
| **Maintainance and Upkeeping Works** | | | | | | | | |
| A10630 | Core Boxes at Portion 10 | 7% | 1490d | 05-Jul-21 A | 07-Jan-27* | 0d | 08-Dec-21 | 07-Jan-27 |
| A11890 | Site hoarding and project signboard | 7% | 1490d | 05-Jul-21 A | 07-Jan-27* | 0d | 08-Dec-21 | 07-Jan-27 |
| Hoarding | | | | | | | | |
| **Hoarding** | | | | | | | | |
| A10050 | Hoarding erection - WA4 | 0% | 60d | 08-Dec-21 | 25-Feb-22 | 1430d | 27-Oct-26 | 07-Jan-27 |
| A10060 | Hoarding erection - WA3 | 100% | 10d | 08-Oct-21 A | 18-Dec-21 | 1462d | 03-Dec-26 | 14-Dec-26 |
| Works in WA3 | | | | | | | | |
| **Rock Crushing Plant** | | | | | | | | |
| A11910 | Design approval by PM | 50% | 0d | 22-Oct-21 A | 08-Dec-21 | 160d | 30-Jun-22 | 30-Jun-22 |
| A11920 | Design approval by relevant authorities | 30% | 101d | 22-Oct-21 A | 18-Mar-22 | 105d | 23-Mar-22 | 01-Jul-22 |
| Site Office | | | | | | | | |
| **Demolition** | | | | | | | | |
| A10470 | Demolition of existing Buildings | 100% | 0d | 25-Oct-21 A | 09-Dec-21 A | | | |
| **Site Office Erection** | | | | | | | | |
| A10480 | Site office design preparation | 50% | 15d | 17-Aug-21 A | 24-Dec-21 | -86d | 26-Aug-21 | 11-Sep-21 |
| A10490 | Site office design approval | 0% | 18d | 28-Dec-21 | 18-Jan-22 | -86d | 13-Sep-21 | 05-Oct-21 |
| A10500 | Site office off-site fabrication | 0% | 30d | 19-Jan-22 | 01-Mar-22 | -86d | 06-Oct-21 | 10-Nov-21 |
| Overhead Ventilation Duct, Protected Corridor and Emergency Bypass | | | | | | | | |
| **Overhead Ventilation Duct, Protected Corridor and Emergency Bypass** | | | | | | | | |
| A16500 | Prepare and submit design for OHVD | 0% | 60d | 15-Jan-22* | 01-Apr-22 | 527d | 04-Nov-23 | 16-Jan-24 |
| **Area besides Ma On Shan Road** | | | | | | | | |
| Construction Access | | | | | | | | |
| **General** | | | | | | | | |



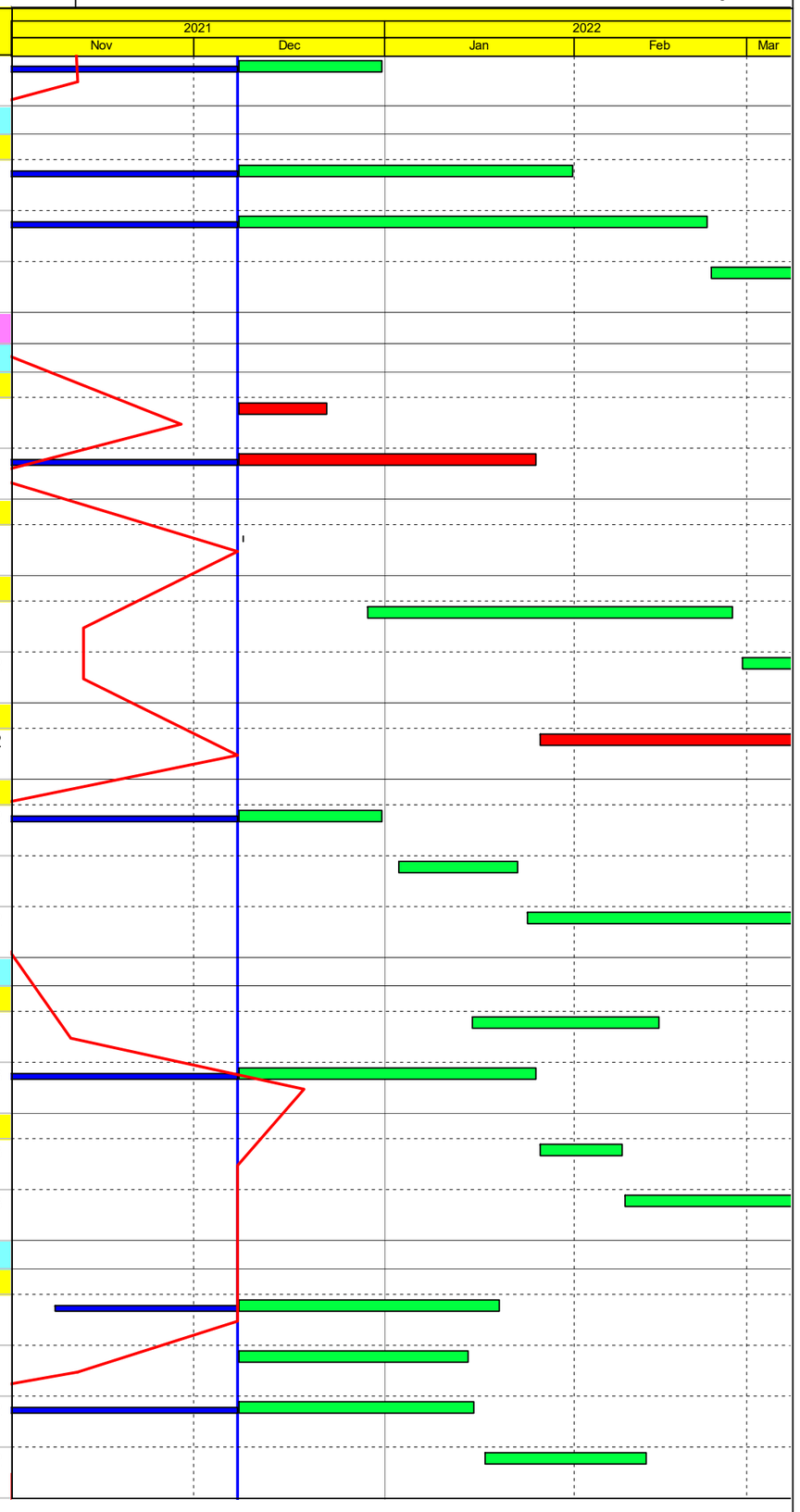

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Crit. Milestone

Project File: C2-MP001-b-(2112)
Layout: MPR - 3M Rolling Prog (submission)
Data Date: 08-Dec-21
Page 1 of 4

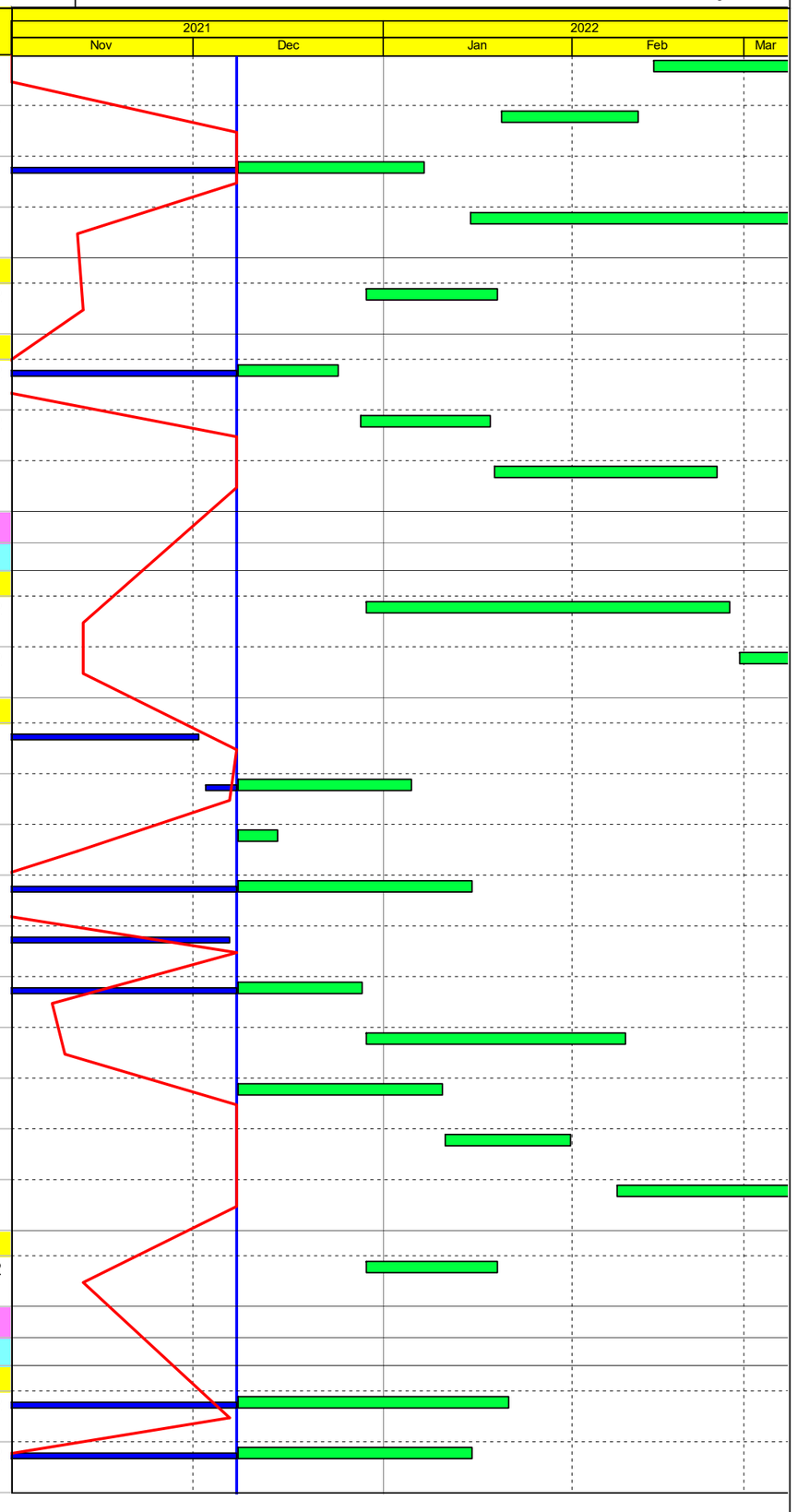
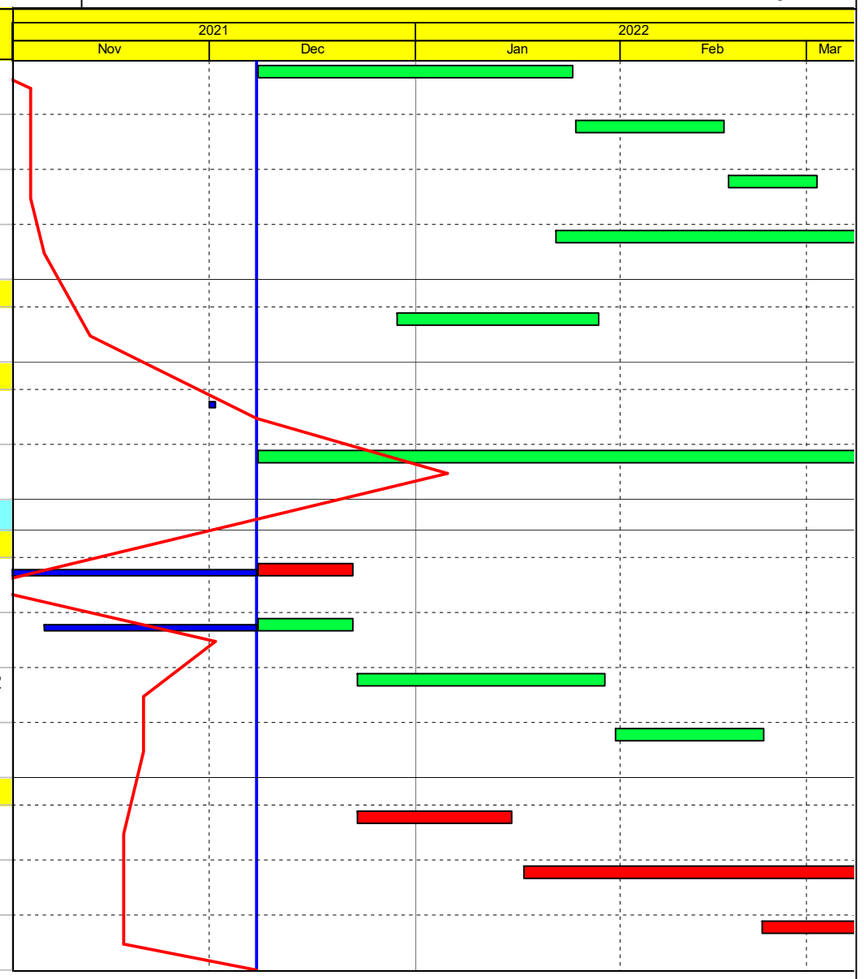
**Contract No. DC/2020/05**
**Relocation of Sha Tin Sewge Treatment Works to Caverns - Main Caverns Construction**
**3 Months Rolling Programme (Dec to Feb 2022)**

China State – Alchmex Joint Venture

| Activity ID | Activity Name | Physical % Complete | Remaining Duration | Start | Finish | Total Float | Late Start | Late Finish |
|---|---|---|---|---|---|---|---|---|
| A10550 | Consent from relevant authorities | 100% | 19d | 17-Sep-21 A | 31-Dec-21 | 1496d | 15-Jan-27 | 05-Feb-27 |
| Noise Barrier | | | | | | | | |
| General | | | | | | | | |
| A10190 | NB4 design preparation | 100% | 44d | 09-Sep-21 A | 31-Jan-22 | 1471d | 14-Dec-26 | 05-Feb-27 |
| A10200 | NB4 design approval | 10% | 57d | 01-Nov-21 A | 22-Feb-22 | 1274d | 20-Apr-26 | 27-Jun-26 |
| A10230 | NB4 panel submission & procurement | 0% | 90d | 23-Feb-22 | 15-Jun-22 | 1274d | 29-Jun-26 | 14-Oct-26 |
| **Secondary Portal and Tunnel** | | | | | | | | |
| Site Formation for Secondary Portal | | | | | | | | |
| Tree | | | | | | | | |
| A11570 | Tree felling | 0% | 13d | 08-Dec-21 | 22-Dec-21 | 9d | 18-Dec-21 | 05-Jan-22 |
| A11580 | Tree Transplant | 56% | 39d | 08-Oct-21 A | 25-Jan-22 | -17d | 18-Nov-21 | 05-Jan-22 |
| Instrumentation and Monitoring | | | | | | | | |
| A19030 | Settlement marker | 100% | 0d | 09-Dec-21 A | 09-Dec-21 A | | | |
| Slope SSP1 | | | | | | | | |
| A11105 | Temp cut slope with soil nail (+41 to +26mpd) | 0% | 45d | 29-Dec-21 | 26-Feb-22 | 184d | 18-Aug-22 | 12-Oct-22 |
| A11110 | Rock Slope (26 - 19.5mpd) | 0% | 30d | 28-Feb-22 | 02-Apr-22 | 184d | 13-Oct-22 | 16-Nov-22 |
| Rigid Barrier RB1 | | | | | | | | |
| A11380 | Form temp access to RB1 | 0% | 90d | 26-Jan-22 | 24-May-22 | -17d | 06-Jan-22 | 03-May-22 |
| Flexible Barrier | | | | | | | | |
| A11530 | Flexible barrier design preparation | 20% | 19d | 18-Sep-21 A | 31-Dec-21 | 216d | 06-Sep-22 | 28-Sep-22 |
| A11540 | Flexible barrier design approval | 0% | 18d | 03-Jan-22 | 22-Jan-22 | 216d | 29-Sep-22 | 21-Oct-22 |
| A11550 | Material procurement & testing | 0% | 45d | 24-Jan-22 | 23-Mar-22 | 216d | 22-Oct-22 | 13-Dec-22 |
| Retaining Wall | | | | | | | | |
| Tree | | | | | | | | |
| A11140 | Tree felling | 0% | 20d | 15-Jan-22 | 14-Feb-22 | 613d | 23-Feb-24 | 16-Mar-24 |
| A11150 | Tree Transplant | 56% | 39d | 08-Oct-21 A | 25-Jan-22 | 516d | 14-Sep-23 | 01-Nov-23 |
| Soldier Pile Wall SP2 | | | | | | | | |
| A11250 | Mobilization | 0% | 6d | 26-Jan-22 | 08-Feb-22 | 516d | 02-Nov-23 | 08-Nov-23 |
| A11260 | Prebored H-pile SP1-12 | 0% | 36d | 09-Feb-22 | 22-Mar-22 | 516d | 09-Nov-23 | 20-Dec-23 |
| Secondary Access Tunnel (SAT) | | | | | | | | |
| Blasting Permit | | | | | | | | |
| A20050 | Update BAR (Blasting Assessment Report) - preparation and submission | 45% | 34d | 08-Nov-21 A | 19-Jan-22 | 294d | 09-Dec-22 | 20-Jan-23 |
| A20060 | Method statement for tunnel works (Blasting) | 0% | 30d | 08-Dec-21 | 14-Jan-22 | 294d | 09-Dec-22 | 16-Jan-23 |
| A20070 | Blast Door Design submission | 70% | 31d | 18-Sep-21 A | 15-Jan-22 | 248d | 17-Oct-22 | 21-Nov-22 |
| A20080 | Blast Door Design approval | 0% | 18d | 17-Jan-22 | 12-Feb-22 | 248d | 22-Nov-22 | 12-Dec-22 |



| Activity ID | Activity Name | Physical % Complete | Remaining Duration | Start | Finish | Total Float | Late Start | Late Finish |
|---|---|---|---|---|---|---|---|---|
| A20090 | Blast Door construction at SAT | 0% | 45d | 14-Feb-22 | 07-Apr-22 | 248d | 13-Dec-22 | 13-Feb-23 |
| A20100 | Blasting Permit/ License - Preparation and submission | 0% | 14d | 20-Jan-22 | 11-Feb-22 | 294d | 28-Jan-23 | 13-Feb-23 |
| A20140 | Permanent Power for Tunnel work | 73% | 24d | 18-Sep-21 A | 07-Jan-22 | 360d | 07-Mar-23 | 03-Apr-23 |
| A20150 | Tunnel Ventilation installation | 0% | 60d | 15-Jan-22 | 01-Apr-22 | 294d | 17-Jan-23 | 03-Apr-23 |
| **Instrumentation and Monitoring** | | | | | | | | |
| A11600 | Vibration monitoring station installation (Portion 10) | 0% | 18d | 29-Dec-21 | 19-Jan-22 | 271d | 01-Dec-22 | 21-Dec-22 |
| **Soft Ground Excavtion (Drill & Break)** | | | | | | | | |
| A11702 | Design submission for steel arch | 38% | 15d | 16-Sep-21 A | 24-Dec-21 | 255d | 25-Oct-22 | 10-Nov-22 |
| A11704 | Design approval for steel arch | 0% | 18d | 28-Dec-21 | 18-Jan-22 | 255d | 11-Nov-22 | 01-Dec-22 |
| A11706 | Steel arch fabrication and delivery | 0% | 26d | 19-Jan-22 | 24-Feb-22 | 255d | 02-Dec-22 | 04-Jan-23 |
| **Cavern Complex** | | | | | | | | |
| General | | | | | | | | |
| **Conveyor Belt System** | | | | | | | | |
| A12610 | Prepare detail method statement for Conveyor belt system erection | 0% | 45d | 29-Dec-21 | 26-Feb-22 | 138d | 24-Jun-22 | 16-Aug-22 |
| A12620 | PM approval | 0% | 18d | 28-Feb-22 | 19-Mar-22 | 138d | 17-Aug-22 | 06-Sep-22 |
| **Blasting Permit** | | | | | | | | |
| A12464 | Blast Door Design approval | 100% | 0d | 22-Oct-21 A | 02-Dec-21 A | | | |
| A12466 | Blast Door construction | 20% | 22d | 03-Dec-21 A | 05-Jan-22 | 1493d | 12-Jan-27 | 05-Feb-27 |
| A12490 | Obtain Blasting Permit/ License | 0% | 6d | 08-Dec-21 | 14-Dec-21 | 130d | 26-May-22 | 01-Jun-22 |
| A12510 | Permanent Power for Tunnel work | 32% | 31d | 18-Sep-21 A | 15-Jan-22 | 105d | 25-Apr-22 | 01-Jun-22 |
| A12605 | Temp tunnel ventilation system design preparation (Stage1) | 100% | 0d | 08-Sep-21 A | 07-Dec-21 A | | | |
| A12615 | Temp tunnel ventilation system design approval (Stage1) | 50% | 16d | 05-Oct-21 A | 28-Dec-21 | 90d | 02-Apr-22 | 25-Apr-22 |
| A12625 | Temp tunnel ventilation system installation (Stage1) | 0% | 30d | 29-Dec-21 | 09-Feb-22 | 90d | 26-Apr-22 | 01-Jun-22 |
| A20200 | Temp tunnel ventilation system design preparation (Stage 2) | 0% | 26d | 08-Dec-21 | 10-Jan-22 | 31d | 17-Jan-22 | 22-Feb-22 |
| A20210 | Temp tunnel ventilation system design approval (Stage 2) | 0% | 18d | 11-Jan-22 | 31-Jan-22 | 31d | 23-Feb-22 | 15-Mar-22 |
| A20220 | Temp tunnel ventilation fan procurement (Stage 2) | 0% | 90d | 08-Feb-22 | 30-May-22 | 31d | 16-Mar-22 | 07-Jul-22 |
| **Instrumentation and Monitoring** | | | | | | | | |
| A19040 | Settlement marker (portion 13, 13A) | 0% | 18d | 29-Dec-21 | 19-Jan-22 | 88d | 23-Apr-22 | 16-May-22 |
| **Ventilation Shaft and Adit and Explosive Magazine** | | | | | | | | |
| Ventilation Shaft | | | | | | | | |
| **Blasting Permit** | | | | | | | | |
| A18550 | Update BAR (Blasting Assessment Report) - preparation and submission | 40% | 36d | 08-Oct-21 A | 21-Jan-22 | 244d | 12-Oct-22 | 22-Nov-22 |
| A18560 | Blasting Enclosure at Shaft design | 31% | 31d | 01-Sep-21 A | 15-Jan-22 | 258d | 28-Oct-22 | 02-Dec-22 |



| Activity ID | Activity Name | Physical % Complete | Remaining Duration | Start | Finish | Total Float | Late Start | Late Finish |
|---|---|---|---|---|---|---|---|---|
| A18580 | Method statement for excavation works (Blasting) | 0% | 38d | 08-Dec-21 | 24-Jan-22 | 270d | 11-Nov-22 | 24-Dec-22 |
| A18590 | Blasting Permit/ License - Preparation and submission | 0% | 14d | 25-Jan-22 | 16-Feb-22 | 270d | 28-Dec-22 | 13-Jan-23 |
| A18600 | Blasting Permit License - review by Mines Department | 0% | 12d | 17-Feb-22 | 02-Mar-22 | 270d | 14-Jan-23 | 03-Feb-23 |
| A18640 | Shaft Ventilation installation | 0% | 60d | 22-Jan-22 | 09-Apr-22 | 244d | 23-Nov-22 | 10-Feb-23 |
| **Instrumentation and Monitoring** | | | | | | | | |
| A18660 | Vibration monitoring station installation (Portion 11, 12) | 0% | 26d | 29-Dec-21 | 28-Jan-22 | 76d | 06-Apr-22 | 11-May-22 |
| **Ventilation Shaft - Excavation** | | | | | | | | |
| A14620 | Plant mobilization & initial setup | 100% | 0d | 01-Dec-21 A | 02-Dec-21 A | | | |
| A14630 | Pipe-piles (84 nos)(from 177 to 170mpd) | 0% | 84d | 08-Dec-21 | 25-Mar-22 | 175d | 20-Jul-22 | 28-Oct-22 |
| Temporary Explosive Magazine | | | | | | | | |
| **General** | | | | | | | | |
| A17580 | Temporary Explosive Magazine design approval | 50% | 13d | 18-Aug-21 A | 22-Dec-21 | -40d | 22-Oct-21 | 05-Nov-21 |
| A18390 | Method statement approval by mines dept. | 54% | 13d | 06-Nov-21 A | 22-Dec-21 | 83d | 25-Mar-22 | 09-Apr-22 |
| A18470 | Submit information of Explosive Delivery Vehicle (EVD) and drivers | 0% | 30d | 23-Dec-21 | 29-Jan-22 | 83d | 11-Apr-22 | 20-May-22 |
| A18520 | EVD and divers approval by mines dept. | 0% | 14d | 31-Jan-22 | 22-Feb-22 | 83d | 21-May-22 | 07-Jun-22 |
| **Temporary Explosive Magazine** | | | | | | | | |
| A18170 | Excavation and base slab | 0% | 18d | 23-Dec-21 | 15-Jan-22 | -40d | 06-Nov-21 | 26-Nov-21 |
| A18190 | Construct Temporary Explosive Store No.1 | 0% | 45d | 17-Jan-22 | 16-Mar-22 | -40d | 27-Nov-21 | 21-Jan-22 |
| A18200 | Construct Temporary Explosive Store No.2 | 0% | 45d | 22-Feb-22 | 19-Apr-22 | -40d | 29-Dec-21 | 26-Feb-22 |