

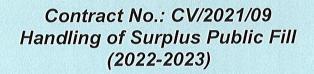


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## **China Harbour Engineering Co Ltd**

TEST REPORT



TUEN MUN AREA 38 FILL BANK

**MONTHLY EM&A REPORT NO.57** 

(JANUARY 2022)

Prepared by:

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Assistant Environmental Officer

Checked by:

LAU, Chi Leung Environmental Team Leader

Issue Date: 18 February 2022

Report No.: ENA20866

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Our Ref: PL-202203024

ETS-Testconsult Limited 8/F, Block B, Veristrong Industrial Centre 34-36 Au Pui Wan Street Fo Tan, Hong Kong

Attention: Mr. C L Lau

17 March 2022

Dear Mr. Lau,

## RE: Contract No. CV/2021/09 Handling of Surplus Public Fill (2022-2023) Monthly EM&A Report (No. 57) for January 2022 for the Tuen Mun Area 38 Fill Bank

Reference is made to your submission of the draft Monthly EM&A Report for January 2022 for the Tuen Mun Area 38 Fill Bank. We are pleased to inform you that we have no adverse comment on the captioned report.

Thank you for your attention. Please do not hesitate to contact the undersigned should you have any queries.

Yours faithfully,

Toang Fandbearg

F. C. Tsang Independent Environmental Checker

cc. CEDD – Mr. T M YEUNG ET Leader – Mr. C L LAU



Contract No.: CV/2021/09 Handling of Surplus Public Fill (2022-2023) – Tuen Mun Area 38 Fill Bank ENA20866 Monthly EM&A Report No.57

東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

#### TABLE OF CONTENTS

Page

EXECUTI	VE SUMMARY	
1.0	INTRODUCTION	1
2.0	PROJECT INFORMATION	
	2.1 Construction Programme	1
	2.2 Project Organization and Management Structure	1
	2.3 Contact Details of Key Personnel	1
3.0	CONSTRUCTION PROGRESS IN THIS REPORTING MONTH	2
4.0	AIR QUALITY MONITORING	
	4.1 Monitoring Requirement	2
	4.2 Monitoring Equipment	2
	4.3 Monitoring Parameters, Frequency and Duration	2
	4.4 Monitoring Locations and Schedule	2
	4.5 Monitoring Methodology	3 4
	4.6 Action and Limit levels 4.7 Event-Action Plans	4
	4.8 Results and Observations	4
5.0	MARINE WATER QUALITY MONITORING	4
5.0	5.1 Monitoring Requirements	4
	5.2 Monitoring Locations	4
	5.3 Monitoring Parameters and Frequency	4
	5.4 Monitoring Methodology and Equipment Used	5 – 6
	5.5 Action and Limit Levels	6 – 7
	5.6 Event and Action Plan	7
	5.7 Monitoring Duration and Period in this reporting month	7
	5.8 Marine Water Monitoring Results	7
6.0	NOISE MONITORING	
	6.1 Monitoring Requirements	8
	6.2 Monitoring Equipment	8
	6.3 Monitoring Parameters, Duration and Frequency	8
	6.4 Monitoring Locations and Period	8
	6.5 Monitoring Procedures and Calibration Details	8 – 9
	6.6 Action and Limit levels	9
	6.7 Event-Action Plans	9
7.0	6.8 Results and Observation	9
7.0	ENVIRONMENTAL AUDIT	0 40
	7.1 Weekly Site Inspection and EPD's Site Inspection	9 – 10
	7.2 Review of Environmental Monitoring Procedures	10
	7.3 Status of Environmental Licensing and Permitting	11 11 - 12
8.0	7.4 Implementation Status LANDSCAPE AND VISUAL	11 - 12
9.0	WASTE MANAGEMENT	12
9.0	9.1 Summary of Waste disposed of in this month	10
		12
40.0	9.2 Advice on the Solid and Liquid Waste Management Status	12
10.0	ENVIRONMENATL NON-CONFORMANCE	40
	10.1 Summary of air quality, noise and marine water quality 10.2 Summary of Environmental Complaints	13
	10.2 Summary of Environmental Complaints 10.3 Summary of Notification of Summons and Prosecution	13 13
11.0	CONCLUSIONS AND RECOMMENTATIONS	13 - 14
12.0	FUTURE KEY ISSUE	13 - 14
14.0		17

#### APPENDIX

A	Organization Chart and Lines of Communication
B1	Calibration Certificates for Impact Air Quality Monitoring Equipments
B2	Impact Air Quality Monitoring Results
B3	Graphical Plots of Impact Air Quality Monitoring Data
C1	Calibration Certificates for Impact Marine Water Quality Monitoring Equipments
C2	Impact Marine Water Quality Monitoring Results
C3	Graphical Plots of Impact Marine Water Quality Monitoring Data
D1	Calibration Certificates for Impact Noise Monitoring Equipments
D2	Impact Noise Monitoring Results
D3	Graphical Plots of Impact Noise Monitoring Data
E	Weather Condition
F	Event-Action Plans
G	Construction Programme
Н	Weekly ET's Site Inspection Record
I	Implementation Schedule of Mitigation Measures
J	Site General Layout Plan
К	Monthly Summary Waste Flow Table
L	Monitoring Schedule for the Coming Month
Μ	Reporting Month Monitoring Schedule
Ν	QA/QC Results of Laboratory Analysis
0	Complaint Log

#### FIGURES

Figure 1	Locations of Air Quality Monitoring Stations – Tuen Mun Area 38 Fill Bank
Figure 2	Locations of Water Quality Monitoring Stations – Tuen Mun Area 38 Fill Bank
Figure 3	Locations of Noise Monitoring Stations – Tuen Mun Area 38 Fill Bank

#### TABLES

2.1	Contact Details of Key Personnel
4.1	Air Quality Monitoring Equipment
4.2	Monitoring parameters, duration and frequency of air quality monitoring
4.3	Action and Limit levels for 24-hr TSP and 1-hr TSP
5.1	Monitoring Parameters and Frequency of the marine water
5.2	Summary of testing procedure
5.3	Details of Water Quality Monitoring Equipment (In-site measurement)
5.4	Water Quality Action and Limit Levels
5.5	Time Schedule of Water Quality Monitoring
5.6	Summary of Marine Water Quality Exceedances in this reporting month
6.1	Noise Monitoring Equipment
6.2	Duration, Frequencies and Parameters of Noise Monitoring
6.3	Action and Limit Levels for noise monitoring
7.1	Key Findings of Weekly ET Site Inspections in this reporting month
7.2	Summary of environmental licensing and permit status
7.3	Summary of Environmental Complaints and Prosecutions
9.1	Actual amounts of waste generated in this reporting month

東業德勤測試顧問有限公司

#### EXECUTIVE SUMMARY

This monthly Environmental Monitoring and Audit (EM&A) report No.57 was prepared by Environmental Team (ET) of ETS-Testconsult Ltd (ETL) for the "Contract No. CV/2021/09 Handling of Surplus Public Fill (2022-2023) – Tuen Mun (TM) Area 38 Fill Bank" (The Project).

This report documented the findings of EM&A Works conducted during the operation phase of Fill Bank at TM Area 38 in January 2022.

#### Site Activities

As informed by the Contractor, the site activities in this reporting period were as below:

- 1. Operation of the Public Fill Reception Facilities at Tuen Mun Fill Bank (TMFB);
- 2. Operation of the Integrated Public Fill Reception Platform (Fixed Rigid Platform) at TMFB;
- 3. Personnel Position Tracking and Proximity Detection System of Moving Plant at TMFB;
- 4. Modification and Operation a Digital Works Supervision System (DWSS) for TMFB;
- 5. Construction and Operation of Concrete slab at Wet Deposition Platform in TMFB;
- 6. Operation of Crushing plant at TMFB and
- 7. Installation and Operation of AI System for Crushing Plant at TMFB

#### Environmental Monitoring Progress

The summary of the monitoring activities in this monitoring month is listed below:

- 24-hour TSP Monitoring: 6 Occasions at 2 designated locations
- 1-hour TSP Monitoring: 15 Occasions at 2 designated locations
- Noise, Daytime: 9 Occasions at 2 designated locations
- Marine Water Quality Monitoring: 14 Occasions at 4 designated locations
- Weekly-site inspection: 4 Occasions

#### Air Monitoring

No exceedance of Action and Limit level was recorded for 1-hr and 24-hr TSP monitoring in the reporting period.

#### Noise Monitoring

No exceedance of Action and Limit level for noise monitoring was recorded in the reporting period.

#### Marine Water Quality Monitoring

No exceedance of action and limit level was recorded in the reporting period.

#### Weekly Site Inspection

In general, performance on environmental mitigation measures implemented was found to be satisfactory in this reporting period. The major findings observed during site inspections are presented in the Section 7.0.

#### Environmental Complaints, Notification of summons and successful prosecutions

No complaint, notification of summon and prosecution with respect to environmental issues was received in this reporting period.

#### Future Key Issues

Based on the site inspections and forecast of engineering works in the coming month, key issues to be considered are as follows:

- Dust generation from activities on site, such as vehicular movements along unpaved area and rock crushing activities;
- Noise impact from operating equipment and machinery on site;
- Wastewater and surface runoff from the site discharged into nearby water body; and
- Storage and usage of chemicals / fuel and chemical waste / waste oil.



#### 1.0 INTRODUCTION

China Harbour Engineering Co Ltd (CHEC) appointed Environmental Team (ET) of ETS-Testconsult Limited (ETL) to undertake the Environmental Monitoring and Audit (EM&A) for the "Contract No: CV/2021/09 –Handling of Surplus Public Fill (2022-2023) – Tuen Mun (TM) Area 38 Fill Bank" (The Project).

In accordance with the Condition 4 of Part C of Environmental Permit (No.: EP-210/2005/E) (the EP), an EM&A programme as set out in the Project Profile should be implemented.

The EM&A programme requires environmental monitoring for air quality, water quality and environmental site inspections for air quality, water quality, landscape and visual, and waste management. The EM&A requirements for each parameter described in the following sections include:

- All monitoring parameters;
- Monitoring schedules for the reporting month and forthcoming months;
- Action and Limit levels for all environmental parameters;
- Event/Action Plans;
- Environmental mitigation measures, as recommended in the Project Profile; and
- Environmental requirements in contract documents.

Baseline monitoring was completed in May 2003 by Stanger Asia Ltd. Action and Limit Levels were established for air and water quality parameters based on the baseline monitoring results.

This report documented the findings of EM&A Works conducted during the operation phase of Fill Bank at Tuen Mun Area 38 in January 2022.

#### 2.0 **PROJECT INFORMATION**

#### 2.1 Construction Programme

Details of construction programme are shown in Appendix G.

#### 2.2 Project Organization and Management Structure

The organization chart and lines of communication with respect to the on-site environmental management and monitoring program are shown in Appendix A.

#### 2.3 Contact Details of Key Personnel

The key personnel contact names and telephone numbers are shown in Table 2.1.

Organization	Name of Key Staff	Project Role	Tel. No.	Fax No.		
CEDD	Leo Lam, T M Yeung, May Lau	Engineer's Representative	2762 5555	2714 0113		
IEC (Acuity)	Mr. F C Tsang	IEC	2698 9097	2333 1316		
Contractor (CHZH-JV)	Zhou Chang Ying	Senior Project Manager	96266299	22474108		
ET (ETL)	C. L. Lau	ET Leader	2946 7791	2695 3944		

 Table 2.1
 Contact Details of Key Personnel



#### 3.0 CONSTRUCTION PROGRESS IN THIS REPORTING MONTH

As informed by the Contractor, the activities in the reporting month include:

- 1. Operation of the Public Fill Reception Facilities at Tuen Mun Fill Bank (TMFB);
- 2. Operation of the Integrated Public Fill Reception Platform (Fixed Rigid Platform) at TMFB;
- 3. Personnel Position Tracking and Proximity Detection System of Moving Plant at TMFB;
- 4. Modification and Operation a Digital Works Supervision System (DWSS) for TMFB;
- 5. Construction and Operation of Concrete slab at Wet Deposition Platform in TMFB;
- 6. Operation of Crushing plant at TMFB and
- 7. Installation and Operation of AI System for Crushing Plant at TMFB

#### 4.0 AIR QUALITY MONITORING

#### 4.1 Monitoring Requirement

1-hr and 24-hr TSP levels were monitored in the reporting month. Table 4.3 shows the Action and Limit Levels for the environmental monitoring works.

#### 4.2 Monitoring Equipment

Both 1-hour and 24-hour TSP air quality monitoring was performed using a GMWS2310 High Volume Air Sampler (HVS) located at each of the designated monitoring station. Table 4.1 summarizes the equipment used in the air quality monitoring programme. Copies of the calibration certificates for the HVS and calibrator are attached in Appendix B1.

#### Table 4.1Air Quality Monitoring Equipment

Equipment	Model and Make
HVS	Greasby GMWS2310
Calibrator	Tisch TE-5025A

#### 4.3 Monitoring Parameters, Frequency and Duration

Table 4.2 summarizes the monitoring parameters, monitoring duration and frequencies of air quality monitoring.

Table 4.2 Monitoring p		Monitoring pa	arameters, duration, free	quency of air quality monitoring	
	Paran	neter	Duration	Frequency	

Parameter	Duration	Frequency
24-hr TSP	24 hr	Once per six days
1-hr TSP	1 hr	Three times per six days

#### 4.4 Monitoring Locations and Schedule

In accordance with the Project Profile, two air-quality monitoring stations, namely TM-A1 and TM-A2, were selected for the 1-hr TSP and 24-hr TSP sampling.

Since the area for existing air monitoring station TM-A2 near Tipping Hall No.1 was handed over to EcoPark, air monitoring station TM-A2 was cancelled and the air monitoring was carried out at an alternative air monitoring station TM-RA2 (refer to Figure 1 attached) from 28 October 2008.

The locations of monitoring stations are shown in Figure 1.

During the reporting month, 1-hr and 24-hr TSP monitoring were carried out as the schedule. The details for 24-hr and 1-hr TSP monitoring carried out in this reporting month are summarized in Appendix B2.

#### 4.5 Monitoring Methodology

#### Both 1-hr and 24-hr air quality monitoring (High Volume Sampler)

#### **Instrumentation**

High volume sampler, as HVS, (Greasby GMWS2310) complete with appropriate sampling inlets were employed for both 1-hour and 24-hour TSP monitoring. The sampler is composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with that required by USEPA standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

#### Installation

The installation of HVS refers to the requirement stated in Appendix D2 "General Technical Requirements of Environmental Monitoring" in the Environmental Monitoring and Audit Guidelines for Development Projects in Hong Kong published by EPD.

#### **Operation/Analytical Procedures**

Operating/analytical procedures for the operation of HVS are as below:

- Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 0.6m<sup>3</sup>/min and 1.7m<sup>3</sup>/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50. The flow rate is indicated on the flow rate chart.
- For TSP sampling, fiberglass filters (GA-55) were used.
- The power supply was checked to ensure the sampler worked properly.
- On sampling, the sampler was operated 5 minutes to establish thermal equilibrium before placing any filter media at designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an air-tight seal on the outer edges of the filter. Then the filter holder frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- The programmable timer will be set for a sampling period of 1 hour / 24 hours. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number.).
- After sampling, the filter was transferred from the filter holder of the HVS to a sealed plastic bag and sent to the laboratory for weighting. The elapsed time was also recoded.
- Before weighting, all filters were equilibrated in a 3esiccators for 24 hour with the temperature of 25°C <u>+</u> 3°C and the relative humidity (RH) <50% <u>+</u>5%.

#### Maintenance & Calibration

- The HVS and their accessories should be maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
- HVS should be calibrated at bi-monthly intervals.

#### Wind Data Monitoring

Wind data included wind speed and wind direction were directly extracted from Tuen Mun Station of Hong Kong Observatory during this reporting month. The wind data are presented in Appendix E.



#### 4.6 Action and Limit Levels

Table 4.3 shows the Action and Limit levels for 24-hr TSP and 1-hr TSP monitoring.

Monitoring 24-hr TSP ( $\mu$ g/m <sup>3</sup> )		24-hr TSP (μg/m³)		Ρ (μg/m³)			
Location	Action Level	Limit Level	Action Level	Limit Level			
TM-A1	192	260	344	500			
TM-RA2 *	192	260	344	500			

Table 4.3 Action and Limit Levels for 24-hr TSP and 1-hr TSP

Remark (\*): Since the area for existing air monitoring station TM-A2 near Tipping Hall No.1 was handed over to EcoPark, air monitoring station TM-A2 was cancelled and the air monitoring was carried out at an alternative air monitoring station TM-RA2 from 28 October 2008. Since dust monitoring stations TM-A2 and TM-RA2 are located close to the major dust emission sources and no significant difference between them on the prevailing meteorological conditions, the baseline data from TM-A2 can also be valid in the case of TM-RA2.

#### 4.7 Event-Action Plans

Please refer to Appendix F for details.

#### 4.8 Results and Observations

All monitoring data of both 1-hr and 24-hr TSP monitoring is provided in Appendix B2. Graphical presentation of 1-hr and 24-hr TSP monitoring results for the reporting period is shown in Appendix B3. Wind data, including wind speed and wind direction, are annexed in Appendix E.

No exceedance of Action and Limit level was recorded for 1-hr and 24-hr TSP monitoring in the reporting month.

Generally, the Contractor implemented sufficient dust mitigation measures, including operation of wheel washing facilities and road dampening by water bowsers on the main haul roads and unpaved areas.

#### 5.0 MARINE WATER QUALITY MONITORING

#### 5.1 Monitoring Requirements

In accordance with the Project Profile, impact marine water quality monitoring was conducted three days per week. Measurements were taken at both mid-flood and mid-ebb tides at three depths (i.e. 1m below surface, mid depth and 1m from seabed) at two control monitoring stations (TM-FC1 and TM-FC2) and two impact monitoring stations (TM-FM1and TM-FM2).

#### 5.2 Monitoring Locations

As stipulated in the EM&A requirement, there were four monitoring stations undertaken during the impact monitoring. Figure 2 shows the locations of the marine water quality monitoring stations.

#### 5.3 Monitoring Parameters and Frequency

Monitoring of the marine water quality parameters and frequency are listed in Table 5.1.

Monitoring Station	Parameter	Frequency	No. of Depths
	Depth (m)		
Control Stations:	Temperature (°C)		3 (Surface, mid-
TM-FC1 (Mid-ebb) and TM-FC2 (Mid-flood)	Dissolved Oxygen	2 dava/wook	
1 WI-FC2 (WIId-11000)	(mg/L and % saturation)	3 days/week, 2 tides/day	
Impact Stations:	Turbidity (NTU)	2 liues/uay	depth & bottom)
TM-FM1 and TM-FM2	Salinity (ppt)		
	Suspended solids (mg/L)		

 Table 5.1 Monitoring Parameters and Frequency of the marine water



#### 5.4 Monitoring Methodology and Equipment Used

#### For Location of the monitoring stations

#### **Global Positing System (GPS)**

A hand-held digital GPS was used to identify the designated monitoring stations prior to water sampling.

#### For Water Depth measurement

#### Echo Sounder

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

#### For In-situ Water Quality Measurement

All in-situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently recalibrated at 3 monthly intervals or sometimes longer throughout all stages of the water quality monitoring.

#### Dissolved Oxygen, Salinity, Turbidity and Temperature Measuring Equipment

A portable, weatherproof multiparameter water quality meter (YSI Pro DSS) which complete with cable, sensor and DC power source were used for measuring DO, turbidity, salinity, pH and temperature:

■a dissolved oxygen level in the range of 0 to 50 mg/L and 0-500 % saturation;

- ■a turbidity in range 0-4000 NTU;
- ■a salinity in range 0-70 ppt;
- ■a temperature of -5-70 degree Celsius

A membrane electrode with automatic temperature compensation complete with a cable was installed.

#### For Water Sampling and Sample Analysis

In-situ monitoring was carried out at three depths: 1 meter below water surface, at mid-depth and 1 meter above the seabed. At each sampling depth, duplicate readings of dissolved oxygen content and turbidity were taken. The probes were drop into water, two consecutive measurements of dissolved oxygen (DO), dissolved oxygen saturation (DOS), turbidity and salinity were taken. The difference between the two readings of each set was more than 25% of the value of the first reading while a third measurement would be conducted to ensure data precision.

#### Water Sampler

A water sampler comprising a transparent PVC cylinder, with a capacity of not less than 2 liters, was lowered into the water body at the predetermined depth. The both opening ends of the sampler were then closed accordingly by dead weight and water samples were collected.

#### Water Container

The sample container, made by high-density polythene, was rinsed with a portion of the water sample. The water sample was then transferred to the container, labeled with a unique sample ID and sealed with a screw cap. The water samples were stored in a cool box maintained at 4°C. The water samples were then delivered to a local HOKLAS-accredited laboratory (Environmental Laboratory, ETS-Testconsult Ltd, HOKLAS Registration No. 022) on the same day for analysis.



The summary of testing method of testing parameter as recommended by EIA or required by EPD, with the QA/QC results in accordance with the requirement of HOKLAS or international accredited scheme is shown in Table 5.2. For the QA/QC procedures, one QC sample, one duplicate sample and one sample spike of every batch of 20 samples were analysis. The QA/QC results are summarized in Appendix N.

#### Table 5.2Summary of testing procedure

Laboratory Analysis	Testing Procedure	Detection Limit
Total suspended solids	In house method based on APHA 19 <sup>th</sup> ed 2540D	1.0 mg/L

#### In-situ measurement

All in-situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use. Responses of sensors and electrodes were checked with certified standard solutions before each use. The DO sensor was calibrated by wet bulb method and a zero check in distilled water was performed with the turbidity and salinity sensor before the strat of measurement.

At each measurement/sampling depth, two consecutive measurements of dissolved oxygen (DO), dissolved oxygen saturation (DOS), turbidity and salinity were taken. For DO, DOS, Turbidity and Salinity, measurements were conducted three days per week at both mid-ebb and mid-flood tides at three depths (i.e. 1m below surface, mid depth and 1m from seabed). The duplicate measurements were averaged if the difference was not greater than 25%. If the difference is greater than 25%, repeat measurement will be required to be carried out.

Table 5.3 shows the equipment used for in-situ monitoring of water quality. The calibration certificates are attached in Appendix C1.

Parameter	Model	Date of Calibration	Due Date	Equipment No.
Coordinate of Monitoring stations	Garmin eTrex 10			ET/EW/005/09
Dissolved Oxygen (Saturation), Temperature, Salinity, Turbidity	YSI Pro DSS Multiparameter Water Quality Meter	03/01/22	02/04/22	ET/EW/008/010*
Water Depth	Speedtech SM-5			ET/EW/002/08

 Table 5.3
 Details of Marine Water Quality Monitoring Equipment (In-site measurement)

Remark: Indicates the instrument should be calibrated on site.

#### 5.5 Action and Limit Levels

The water quality criteria, namely Action and Limit (A/L) levels are presented in the table below.

Parameter	Action Level	Limit Level
DO (mg/L)	Surface & Middle	Surface & Middle
	<4.78 mg/L (5%-ile of baseline data)	<4.00 mg/L (1%-ile of baseline data)
	<u>Bottom</u>	<u>Bottom</u>
	<4.16 mg/L (5%-ile of baseline data)	<2.00 mg/L
SS (mg/L)	>120% of the upstream control station's	>130% of the upstream control station's
(Depth-	SS at the same tide on the same day	SS at the same tide on the same day
averaged)		
Turbidity (NTU)	>120% of the upstream control station's	>130% of the upstream control station's
(Depth-	turbidity at the same tide on the same	turbidity at the same tide on the same
averaged)	day	day

Table 5.4Water Quality Action and Limit Levels



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#### 5.6 Event and Action Plan

Please refer to the Appendix F for details.

#### 5.7 Monitoring Duration and Period in this reporting period

Table 5.5 is the time schedule for the marine water quality monitoring events that were conducted in this reporting period. Duration of marine water quality monitoring is detailed in Appendix C2.

			January 2022	2		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

Remark:  $(\mathbf{V}) = Marine water quality monitoring carried out by ET$ 

As the tidal period is not within the working hour, water monitoring (Mid-ebb) on 13 & 15 January 2022 were cancelled.

#### 5.8 Marine Water Quality Monitoring Results

The impact water quality measurement results are detailed in Appendix C2. Appendix C3 presents the water quality monitoring data and graphical presentations of monitoring results respectively. The summary of marine water quality exceedances is shown in Table 5.6.

	Summ	lary of Marine				Johning perio	u
		Exceedance	D	0			
Tide	Station	Level	Surface & Middle	Bottom	Turbidity	SS	Total
	TM-FM1	Action	0	0	0	0	0
Mid-Ebb	1101-1-1011	Limit	0	0	0	0	0
IVIIU-EDD	TM-FM2	Action	0	0	0	0	0
		Limit	0	0	0	0	0
	TM-FM1	Action	0	0	0	0	0
Mid-	1101-1-1011	Limit	0	0	0	0	0
Flood	TM-FM2	Action	0	0	0	0	0
	TIVI-FIVIZ	Limit	0	0	0	0	0
т	otal	Action	0	0	0	0	0
	Jiai	Limit	0	0	0	0	0

 Table 5.6
 Summary of Marine Water Quality Exceedances in this reporting period

According to the summary of marine water monitoring results, no exceedance of action and limit level was recorded in this reporting month.



#### 6.0 Noise Monitoring

#### 6.1 Monitoring Requirements

Noise monitoring was conducted at 2 designated monitoring stations as specified in the Sections 25.10A of the Particular Specification for good site practice.

The equipment, parameter, frequency, duration, methodology, calibration details, results and observations of the noise monitoring for the reporting month are presented in this section.

#### 6.2 Monitoring Equipment

An Integrating Sound Level Meter was used for noise monitoring. It was a Type 1 sound level meter capable of giving a continuous readout of the noise level reading including equivalent continuous sound pressure level ( $L_{eq}$ ) and percentile sound pressure level (Lx). It complies with International Electro Technical Commission Publications IEC 61672 Type 1 specification, and speed in m/s was used to monitor the wind speed.

Table 6.1 summarizes noise monitoring equipment model being used. A copy of the calibration certificate for noise meter and calibrator are attached in Appendix D1.

Table 6.1	Noise Monitoring Equipment
-----------	----------------------------

Equipment	Model
Sound Level Meter	Rion NL-31 / Rion NL-52
Calibrator	Rion NC-73 / Castle GA607

#### 6.3 Monitoring Parameters, Duration and Frequency

Duration, frequencies and parameters of noise measurement are presented in Table 6.2.

Table 6.2	Duration. Fre	quencies and I	Parameters of	Noise Monitoring
	Daradon, 110	quonoioo una i		

Time period	Duration/min	Parameters	Frequency
Day-time: 0700-1900 hrs on normal weekday	30	L <sub>eq</sub> , L <sub>10</sub> , L <sub>90</sub>	Twice per week

#### 6.4 Monitoring Locations and Period

Since Lands Dept did not approve to carry out noise monitoring at their own area where the noise monitoring stations TM-N1 and TM-N2 located due to the security, noise monitoring carried out at two noise monitoring stations TM-RN1 and TM-RN2 (refer to the figure 3 attached) from 18 December 2007.

The noise monitoring locations, TM-RN1 and TM-RN2 are shown in Figure 3. The noise measurement at TM-RN1 and TM-RN2 are façade measurement.

The noise-monitoring period of monitoring stations is summarized in Appendix D2.

#### 6.5 Monitoring Procedures and Calibration Details

**Operation/Analysis Procedures** 

- The Sound Level Meter was set on a tripod at a height of 1.2m above the ground.
- For free field measurement, the meter was positioned away from any nearby reflective surfaces.
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - Frequency weighting: A
  - Time weighting : Fast
  - Time measurement : 30 min



- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94 dB at 1000HZ. If the difference in the calibration level before and after measurement was more than 1dB, the measurement would be considered invalid and repeat measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with a portable wind meter.
- During the monitoring period, the Leq, L10 and L90 were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Free Field correction to the measurements should be made. Correction factor of +3dB(A) should be made to the free Field measurements. Noise monitoring would be cancelled in the presence of fog, rain, wind with a steady speed exceeding 5m/s, or wind gusts exceeding 10m/s.

#### Maintenance and Calibration

- The microphone head of the sound level meter and calibrator are cleaned with soft cloth in quarterly intervals.
- The meter is sent to the supplier or HOKLAS laboratory to check and calibrated in yearly intervals.

#### 6.6 Action and Limit Levels

The Action and Limit levels for noise levels derived as illustrated in Table 6.3.

#### Table 6.3Action and Limit Levels for noise monitoring

Time Period	Action	Limit
0700-1900 hrs on normal weekdays	When one documented complaint is received	65 dB(A)

#### 6.7 Event-Action Plans

Please refer to the Appendix F for details.

#### 6.8 Results and Observation

The detail of the noise monitoring is provided in Appendix D2. Graphical presentation of the monitoring result for the reporting period is shown in Appendix D3.

Since no documented complaint on noise issue was received in this reporting period, no Action Level exceedance was recorded. Besides, no exceedance in Limit Level was recorded according to the result from Day-time noise monitoring.

The major sources of noise pollution observed in this reporting month were noise from the traveling dump trucks and from the operation of site machines.



#### 7.0 ENVIRONMENTAL AUDIT

#### 7.1 Weekly ET Site Inspections and EPD's Site Inspection

#### 7.1.1 Weekly ET Site Inspections

Weekly site inspections were carried out by ET to monitor the timely implementation of proper environmental pollution control and mitigation measures for the Project. In this reporting month, four weekly site inspections were conducted on 06, 13, 20, and 25 January 2022. Summaries of key findings of weekly ET site inspections in this month are described in Table 7.1.

I able 7.1	Key Findings of Weekly	ET Site Inspections in this	s reporting month	
Date	Key Findings	Action(s) Taken recommended by ET	Action(s) Taken by the Contractor during the site audit	Rectification Status by ET
06 January 2022	No defective work or ob	servation was recorded durir	ng the weekly ET site i	inspection
13 January 2022	No defective work or ob	eservation was recorded durin	ng the weekly ET site	inspection
20 January 2022	No defective work or ob	servation was recorded durin	ng the weekly ET site	inspection
25 January 2022	No defective work or ob	servation was recorded durin	ng the weekly ET site	inspection

Table 74	Key Findings of Weekly ET Site Inspections in this reporting month
Table 7.1	Key Findings of Weekly ET Site inspections in this reporting month

#### 7.1.2 EPD's Site Inspection

EPD's site inspection was carried out at TMFB on 13 January 2022.

#### 7.2 Review of Environmental Monitoring Procedures

The monitoring works conducted by the ET were inspected internally on a regular basis. The following observations have been recorded for the monitoring works:

#### Air Quality Monitoring

- The monitoring team recorded the observations around the monitoring stations within and outside of the construction site.
- The monitoring team recorded the temperature, air pressure and general weather condition on the monitoring day.

#### Water Quality Monitoring

- The monitoring team recorded the observations around the monitoring stations, which might affect the results; and
- Major water pollution sources were identified and recorded.

#### Noise Monitoring

- The monitoring team recorded the observations around the monitoring station, which might affect the results.
- Major noise sources were identified and recorded.



#### 7.3 Status of Environmental Licensing and Permitting

All permits/licenses valid in this reporting month are summarized in Table 7.2.

	of environment			
Description	Permit No.		Period	Section
		From	То	
Environmental Permit	EP- 210/2005/E	25/05/20	31/12/23	Issued
Chemical Waste Registration	5296-421- C1186-33	20/04/17		Spent battery containing heavy metals and spent lubricating oil
Effluent Discharge License	WT00028701 -2017	25/09/17	30/09/22	Effluent arising from vehicle washing and dust suppression activities and contaminated surface runoff treated by screening facilities and sedimentation tanks (sedimentation and chemical precipitation).
Marine Dumping Permit	EP/MD/22- 034	08/09/21	31/12/21	Approval for dumping 499,999 tons (approximately equal to 277,777 cu.m. bulked quantity) of Public Fill (Reclamation Materials) from Tseung Kwan O Area 137 Fill Bank and Tuen Mun Area 38 Fill Bank to designated dumping area at Guanghaiwan of Taishan
Billing Account for Waste Disposal	704260115	22/05/17		
Notification Pursuant to Section 3(1) of the Air Pollution Control (Construction Dust)	475208	12/04/17		

|--|

#### 7.4 Implementation Status

#### 7.4.1 Implementation Status of Environmental Mitigation Measures

An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is presented in Appendix I. Most of the necessary mitigation measures were implemented properly.

#### 7.4.2 Implementation Status of Event and Action Plan

No exceedance of Action and Limit levels was recorded for 1-hr and 24-hr TSP monitoring in the reporting month. Apart from this, there was no exceedance on noise recorded in this month.

According to the marine water monitoring results, no action-level and limit-level exceedance was recorded in this reporting period.

Hence, no further action was required to be implemented.

#### 7.4.3 Implementation Status of Environmental Complaint, Notification of Summon and Successful Prosecution Handling

No complaint, notification of summon and prosecution with respect to environmental issues was received in this reporting period.



A summary of environmental complaints, notifications of summons and successful prosecutions was given in Table 7.3.

Complaints logged			Summons s	served	Successful Prosecution								
	January 2022	Cumulative	January 2022	Cumulative	January 2022	Cumulative							
	0 4		0	0	0	0							

 Table 7.3
 Summary of Environmental Complaints and Prosecutions

#### 8.0 LANDSCAPE AND VISUAL

Landscape and visual site audit was carried out on a weekly basis to monitor environmental issues in order to ensure that all mitigation measures were implemented timely and properly. The findings in this reporting period were:

- The maximum stockpiling height at the Fill Bank was limited to a maximum of +40 mPD;
- The Contractor hydroseeded the outer slopes of the Fill Bank as far as practicable;
- The Contractor removed the stockpile of public fill in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable; and
- Lighting was set to minimize night-time glare.

#### 9.0 WASTE MANAGEMENT

#### 9.1 Summary of Waste disposed of in this period

The actual amounts of different types of waste disposed of by the activities of the Project in the period are shown in Table 9.1 and the Monthly Summary Waste Flow Table is shown in Appendix K.

	generated in the repeting menti					
Waste Type	Actual Amount	Disposal Locations				
Public Fill ('000m <sup>3</sup> )	0	Tuen Mun 38 Fill Bank				
C&D Waste ('000kg)	19.53	WENT Landfill				
Chemical Waste (kg)/(L)	0(L)	Collected by licensed collector				

 Table 9.1
 Actual amounts of Waste generated in this reporting month

#### 9.2 Advice on the Solid and Liquid Waste Management Status

The Contractor should provide sufficient preventive measures during equipment maintenance works so as to avoid oil leakage on the ground. In the event of any oil leakage, the Contractor should clean up the polluted soil and handle all the materials used for this cleaning works as chemical waste.

The drain outlet of all the bunded areas should be plugged properly. Besides, pre-cast drip trays were provided for oil drums at several areas, such as workshop and chemical storage area. The Contractor should collect and dispose of any stagnant water accumulated in the concrete bunding and drip trays and handle them as chemical waste.

The Contractor should use suitable containers with proper labels to store chemical wastes in accordance with Code of Practice on the Packaging, Labeling and Storage of Chemical Waste. The Contractor should also advise their workers of the proper procedures in handling the chemical waste. All the trip tickets for chemical waste disposal should be properly kept in the site office.

The Contractor was reminded to increase the frequency of inspection and cleaning of the site drainage system, including permanent desilting chambers, desilting facilities, oil interceptor bypass tank and all the trapezoidal channels. Moreover, the Contractor should apply approved pesticides in the stagnant water ponds.

All the runoff from the parking area should be pumped to the desilting facilities and oil interceptors to remove suspended solids and oil & grease prior to discharge.



#### 10.0 ENVIRONMENTAL NON-CONFORMANCE

#### **10.1** Summary of air quality, noise and marine water quality

No exceedance of Action and Limit level was recorded for 1-hr and 24-hr TSP monitoring in the reporting period.

According to the marine water monitoring results, no action-level and limit-level exceedance was recorded in the reporting period.

The noise level measured at the monitoring station complied with the Limit Level of 65dB(A). No complaint was received regarding noise issue in this reporting period.

#### **10.2** Summary of Environmental Complaints

No complaint was received in this reporting period.

#### **10.3** Summary of Notification of Summons and Prosecution

There was no notification of summon and prosecution respect to environmental issues registered in this reporting period.

#### 11.0 CONCLUSIONS AND RECOMMENDATIONS

#### **Conclusions**

Impact monitoring of air quality, noise and water quality were carried out at designated locations in this reporting period.

According to the summary of air monitoring results, no exceedance of Action and Limit levels was recorded for 1-hr and 24-hr TSP monitoring in the reporting period.

According to the marine water monitoring results, no action-level and limit-level exceedance was recorded in the reporting period.

The noise level measured at the monitoring station complied with the Limit Level of 65dB(A). No complaint was received regarding noise issue in this reporting period.

According to the weekly site inspections carried out in this reporting period, the Contractor generally implemented sufficient dust mitigation measures, including operation of the mist spraying systems and automatic wheel washing facilities, dampening of haul roads and stockpiling areas.

No complaint, prosecution or notification of summons was received in this reporting period.

#### **Recommendations**

According to the environmental site inspections performed in the reporting period, the following recommendations were provided:

#### Air Quality

- Ensure the frequency of water spraying on haul roads, unloading areas and stockpiles to be sufficient to suppress the dust sources;
- Provide proper maintenance for the powered mechanical equipment and barges to avoid emission of dark smoke;
- Provide water spraying onto the truckloads during inspection of fill material;
- Conduct road sweeping on all paved haul roads and public roads especially outside and near the site egress by the road sweeper. Undertake water spraying on stockpiling area by water bowser;
- Erect adequate speed limit signs to advise the truck drivers of the speed limit;
- Operate mist spraying systems and automatic water sprinklers in the Fill Bank;
- Implement the dust mitigation measures for the construction activities;
- Designate proper haul roads to ensure effective water spraying; and



 Ensure all vehicles to be washed before leaving the site egress by provision, operation and maintenance of automatic wheel washing facilities.

#### Noise

- Conduct noisy activities at a farther location from the NSRs.
- Proper schedule of noisy operation and use of quiet machineries on site.

#### Water Quality

- Maintain the drainage system, including the trapezoidal channels and permanent desilting chambers regularly; and
- Remove the stagnant water or provide approved pesticides for the stagnant water in the permanent desilting chambers, if any.

#### Chemical and Waste Management

- Remove waste materials from the site to avoid accumulation regularly;
- Handle and store chemical wastes properly;
- Remove unwanted material in the existing stockpiles and avoid further dumping of such material;
- Provide and maintain sufficient drip trays for diesel drums, chemical containers, chemical waste storage drums and diesel operated generator set;
- Maintain good housekeeping at the workshop area;
- Ensure sufficient tarpaulin sheets are provided to cover drip trays; and
- Avoid soil being polluted during oil filling and equipment maintenance; hence, properly remove and store the contaminated soil, if any.

#### Landscape and Visual

- Provide hydroseeding on the exposed slopes, on which the final profile has been formed;
- Erect all the site hoarding/chaining fences in accordance with agreed design at proper location; and
- Maintain the hydroseeded slopes properly.

#### 12.0 FUTURE KEY ISSUES

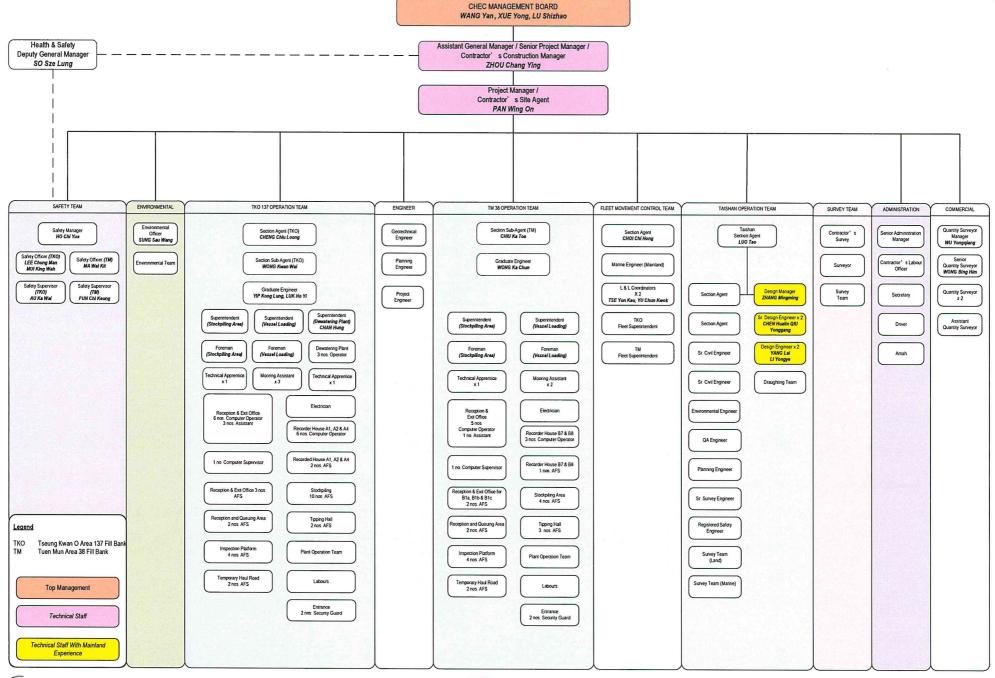
Based on the site inspections and forecast of engineering works in the coming month, key issues to be considered are as follows:

- Dust generation from activities on site, such as vehicular movements along unpaved area and rock crushing activities;
- Noise impact from operating equipment and machinery on site;
- Wastewater and surface runoff from the site discharged into nearby water body;
- Regular checking of the drainage system;
- Flood prevention; and
- Noise from operation of the crushing plant.



Appendix A

**Project Organization Chart** 



Civil Engineering and Development Department CV/2021/09 Handling of Surplus Public Fill





Appendix B1

Calibration Certificates for Impact Air Quality Monitoring Equipments



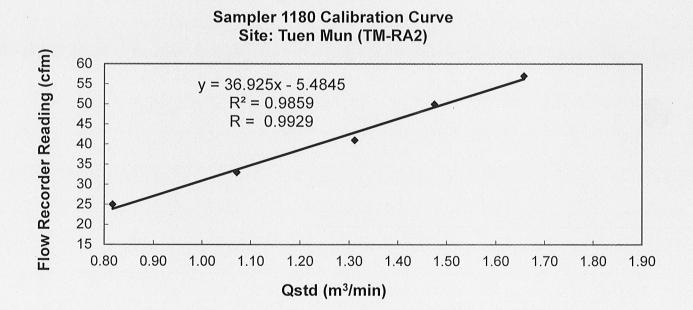
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#### **TEST REPORT**

#### **Calibration Report** of **High Volume Air Sampler** Manufacturer Graseby GMW Date of Calibration 04 December 2021 • Serial No. 1180 (ET/EA/003/04) Calibration Due Date • 03 February 2022 Method Based on Operations Manual for the 5-point calibration using standard calibration kit • manufactured by Tisch TE-5025 A Results Flow recorder reading (cfm) 58 51 42 33 27 Qstd (Actual flow rate, m<sup>3</sup>/min) 1.69 1.50 1.33 1.08 0.83 Pressure : 766.56 292 mm Hg Temp. : K



Acceptance Criteria: Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies\* / does not comply\* with the specified requirements and is deemed acceptable\* / unacceptable \* for use.

Calibrated by : <u>Make the Win</u> MAK, Kei Wai

(Assistant Supervisor)

Checked by :

ĽAU, Chi Leung (Environmental Team Leader)



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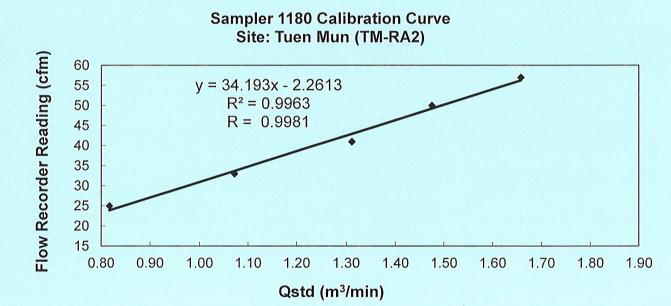
**TEST REPORT** 

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#### <u>Calibration Report</u> of High Volume Air Sampler

Manufacturer	Graseby G	MW	Date of Calib	ration	: <u>11 Ja</u>	11 January 2022			
Serial No.	<u>1180 (ET</u>	180 (ET / EA / 003 / 04)         Calibration Due Date         10 March 2022							
Method		Dperations Manual for the 5 red by Tisch TE-5025 A	5-point calibratio	on using st	andard ca	libration kit			
Results	Flow recor	der reading (cfm)	56	50	43	36	26		
	Qstd (Actu	al flow rate, m <sup>3</sup> /min)	1.69	1.54	1.35	1.09	0.84		
	Pressure :	765.06 mm	ı Hg	Temp. :	289	К			



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies\* / does not comply\* with the specified requirements and is deemed acceptable\* / unacceptable \* for use.

Calibrated by : Mak MAK, Kei Wai

(Assistant Supervisor)

Checked by

LAU, Chi Leung (Environmental Team Leader)



Manufacturer

•

Qstd (Actual flow rate, m<sup>3</sup>/min)

766.56

Pressure :

Serial No.

Method

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29

0.82

### TEST REPORT

#### **Calibration Report** of **High Volume Air Sampler** Date of Calibration 04 December 2021 Graseby GMW 2484 (ET/EA/003/27) Calibration Due Date : 03 February 2022 Five-point calibration by using standard calibration kit Tisch TE-5025A refer to the Operations Manual 40 Flow recorder reading (cfm) 55 45 31

Results

### Sampler 2484 Calibration Curve Site: Tuen Mun 38 (TM-A1)

mm Hg

1.56

1.33

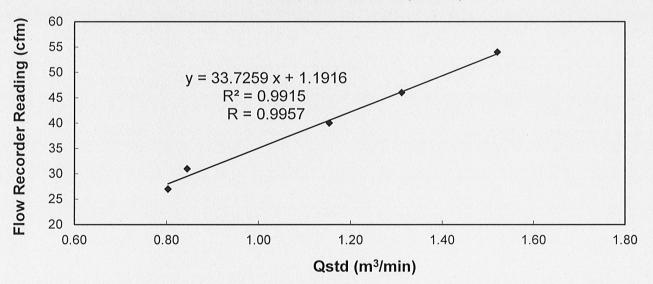
Temp.:

1.18

292

0.86

K



Acceptance Criteria: Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies\* / does not comply\* with the specified requirements and is deemed acceptable\*/ unacceptable\* for use.

Calibrated by	:Mak_	Kei	Wa
	MAK, Kei V		

(Assistant Supervisor)

Checked by :

LAU. Chi Leuna

(Environmental Team Leader)



# 東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

### **TEST REPORT**

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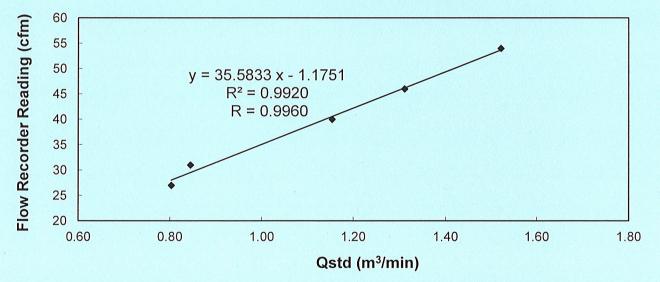
#### **Calibration Report**

of	
U	

High Volume Air Sampler

Manufacturer	: Graseby GMW	Date of Cal	nuary 2022	<u> </u>							
Serial No.	: <u>2484 (ET/EA/003/27)</u>	Calibration	Due Date	: <u>10 Ma</u>	10 March 2022						
Method	: Five-point calibration by using standard calibration kit Tisch TE-5025A refer to the Opera Manual										
Results	Flow recorder reading (cfm)	54	46	42	29	27					
	Qstd (Actual flow rate, m <sup>3</sup> /min)	1.56	1.35	1.16	0.85	0.81					
	Pressure : 765.06 mm	Hg	Temp. :	289	К						





Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies\* / does not comply\* with the specified requirements and is deemed acceptable\*/ unacceptable\* for use.

Calibrated by : <u>Make Wate</u> MAK, Kei Wai (Assistant Supervisor)

Checked by :

LAU, Chi Leung (Environmental Team Leader)

Enviro	6	)	a I		Cal	l. for	D	ALIBRATION UE DATE: ary 11, 2022
<b>1</b>			Calibration					
Cal. Date:	January 11,	2021	The second s	meter S/N:			297	°К
1949	Jim Tisch	2021	RUULSI	neter 3/14:			750.1	mm Hg
•		TE FOREA	C - L'I		2062	rd.	750.1	hini ng
Calibration M	viodel #:	TE-5025A	Calix	orator S/N:	2002			
[		Vol. Init	Vol. Final	ΔVol.	ΔTime	Δр	ΔН	
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.4540	3.2	2.00	
[	2	3	4	1	1.0210	6.4	4.00	
	3	5	6	1	0.9090	8.0	5.00	4
	4	7	8	1	0.8700	8.8	5.50	
l	5	9	10	1	0.7190	12.8	8.00	]
			C	Data Tabulat	tion			
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)}$	)( <u>Tstd</u> )		Qa	√∆Н(Та/Ра)	
	(m3)	(x-axis)	(y-ax	5 S	Va	(x-axis)	(y-axis)	
	0.9860	0.6781	1.407	CONTRACTOR OF THE OWNER OWN	0.9957	0.6848	0.8899	
	0.9818	0.9616	1.990	02	0.9915	0.9711	1.2585	1
	0.9797	1.0778	2.225	51	0.9893	1.0884	1.4071	
	0.9786	1.1249	2.333	and and the local data and the second se	0.9883	1.1359	1.4757	
	0.9733	1.3538	2.814		0.9829	1.3671	1.7798	
	OCTO		2.081	and the second se	0.4		1.30351	
	QSTD	b=	-0.009		QA	b=	-0.00577 0.99993	
l		r=	0.599			r=	0.33333	1
		Silleningen och sen sen sin sen sen sen sen sen sen sen sen sen se		Calculation	Construct on the second s			
	and the second se	the second s	/Pstd)(Tstd/Ta	a)	and the second se	ΔVol((Pa-Δl	P)/Pa)	
	Qstd=	Vstd/∆Time				Va/∆Time		
ļ			For subsequ	ent flow rat	te calculation	15:		
	Qstd=	1/m (( √∆H(	Pa ( <u>Tstd</u> Pstd Ta	))-b)	Qa=	1/m ((√Δŀ	l(Ta/Pa))-b)	
		Conditions						
Tstd:	298.15			[		RECA	LIBRATION	
Pstd:		mm Hg		ſ		mmonde	nnual recalibratio	on ner 1009
All collbrate		(ey or reading (i	n H2O)				Regulations Part !	
ΔH: calibrato ΔP: rootsmet							, Reference Meth	
Ta: actual ab							ended Particulat	
Pa: actual ba							ere, 9.2.17, page 3	and the second se
b: intercept			thilling in the state of the state of the state of the			- Autospile	, J.z.z/, page .	
m: slope				L	And and a second s		And the second se	and the state of the

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15 South Miami Avenue

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<u>www.tisch-env.com</u> TOLL FREE: (877)263-7610 FAX: (513)467-9009

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Appendix B2

Impact Air Quality Monitoring Results



## Summary of 24-hr TSP Monitoring Results

## Monitoring Station : TM-A1

Sta	art	Fin	iish	Elaps	e Time	Sampling	Flow Rate (m <sup>3</sup> /min.)		Average	Filter Weight (g)		Conc. (μg/m <sup>3</sup> )
Date	Time	Date	Time	Initial	Final	Time (hrs)	Initial	Final	(m <sup>3</sup> /min.)	Initial	Final	Conc. (µg/m)
01/01/22	13:00	02/01/22	13:00	14029.31	14053.31	24.00	1.0321	1.0321	1.0321	2.6953	2.7919	65
07/01/22	09:15	08/01/22	09:15	14056.31	14080.31	24.00	1.0617	1.0617	1.0617	2.7008	2.8017	66
13/01/22	11:15	14/01/22	11:15	14083.31	14107.31	24.00	1.1009	1.1009	1.1009	2.6810	2.7879	67
19/01/22	08:30	20/01/22	08:30	14110.31	14134.31	24.00	1.1290	1.1290	1.1290	2.7214	2.8360	70
25/01/22	09:20	26/01/22	09:20	14137.31	14161.31	24.00	1.1009	1.1009	1.1009	2.7728	2.8797	67
31/01/22	08:30	01/02/22	08:30	14164.31	14188.31	24.00	1.1009	1.1009	1.1009	2.8009	2.8968	60

### Monitoring Station

### : TM-RA2

Sta	art	Fin	ish	Elapse	e Time	Sampling	Flow Rate (m <sup>3</sup> /min.)		Average	Filter Weight (g)		Conc. (µg/m <sup>3</sup> )
Date	Time	Date	Time	Initial	Final	Time (hrs)	Initial	Final	(m <sup>3</sup> /min.)	Initial	Final	Conc. (µg/m)
01/01/22	13:00	02/01/22	13:00	29316.53	29340.53	24.00	1.1235	1.1235	1.1235	2.6896	2.8045	71
07/01/22	09:30	08/01/22	09:30	29343.53	29367.53	24.00	1.1506	1.1506	1.1506	2.7359	2.8535	71
13/01/22	11:05	14/01/22	11:05	29370.53	29394.53	24.00	1.1775	1.1775	1.1775	2.6939	2.8177	73
19/01/22	08:30	20/01/22	08:30	29397.53	29421.53	24.00	1.1482	1.1482	1.1482	2.7245	2.8504	76
25/01/22	09:30	26/01/22	09:30	29424.53	29448.53	24.00	1.1482	1.1482	1.1482	2.7694	2.8970	77
31/01/22	08:30	01/02/22	08:30	29451.53	29475.53	24.00	1.1775	1.1775	1.1775	2.7981	2.9117	67



## Summary of 1-hr TSP Monitoring Results

Monitoring	g Station	:	ТМ	-A1							
Date	Tir	me	Elapse Time		Sampling	Flow Rate (m <sup>3</sup> /min.)		Average	Filter Weight (g)		
Dale	Start	Finish	Initial	Final	Time (hrs)	Initial	Final	(m <sup>3</sup> /min.)	Initial	Final	- Conc. (μg/m <sup>3</sup> )
04/01/22	13:00	14:00	14053.31	14054.31	1.00	1.0617	1.0617	1.0617	2.7582	2.7692	173
04/01/22	14:12	15:12	14054.31	14055.31	1.00	1.0914	1.0914	1.0914	2.7642	2.7759	179
06/01/22	09:55	10:55	14055.31	14056.31	1.00	1.0321	1.0321	1.0321	2.7342	2.7455	182
08/01/22	09:30	10:30	14080.31	14081.31	1.00	1.0321	1.0321	1.0321	2.7787	2.7895	174
08/01/22	10:40	11:40	14081.31	14082.31	1.00	1.0617	1.0617	1.0617	2.6643	2.6751	170
11/01/22	08:30	09:30	14082.31	14083.31	1.00	1.0024	1.0024	1.0024	2.7726	2.7828	170
15/01/22	08:24	09:24	14107.31	14108.31	1.00	1.0728	1.0728	1.0728	2.7260	2.7374	177
15/01/22	09:26	10:26	14108.31	14109.31	1.00	1.0728	1.0728	1.0728	2.7271	2.7389	183
18/12/22	13:05	14:05	14109.31	14110.31	1.00	1.1009	1.1009	1.1009	2.7274	2.7396	185
20/01/22	08:57	09:57	14134.31	14135.31	1.00	1.0447	1.0447	1.0447	2.7272	2.7395	196
20/01/22	10:28	11:28	14135.31	14136.31	1.00	1.0447	1.0447	1.0447	2.7241	2.7357	185
22/01/22	09:10	10:10	14136.31	14137.31	1.00	1.0728	1.0728	1.0728	2.8029	2.8137	168
27/01/22	10:30	11:30	14161.31	14162.31	1.00	1.0728	1.0728	1.0728	2.6983	2.7095	174
27/01/22	13:00	14:00	14162.31	14163.31	1.00	1.0728	1.0728	1.0728	2.6943	2.7053	171
29/01/22	09:10	10:10	14163.31	14164.31	1.00	1.1009	1.1009	1.1009	2.7818	2.7950	200



## Summary of 1-hr TSP Monitoring Results

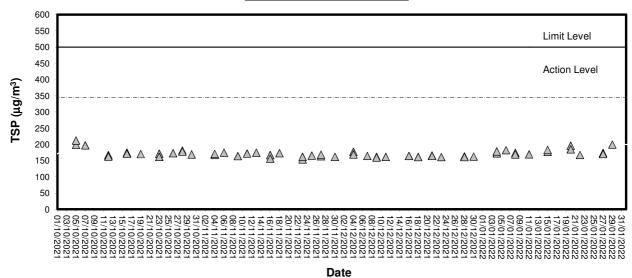
Monitoring	g Station	:	TM-	RA2							
Date	Tir	ne	Elapse Time		Sampling	Flow Rate (m <sup>3</sup> /min.)		Average	Filter Weight (g)		
Dale	Start	Finish	Initial	Final	Time (hrs)	Initial	Final	(m³/min.)	Initial	Final	- Conc. (μg/m <sup>3</sup> )
04/01/22	13:00	14:00	29340.53	29341.53	1.00	1.1506	1.1506	1.1506	2.7486	2.7614	185
04/01/22	14:18	15:18	29341.53	29342.53	1.00	1.1776	1.1776	1.1776	2.6731	2.6866	191
06/01/22	10:09	11:09	29342.53	29343.53	1.00	1.1235	1.1235	1.1235	2.7180	2.7313	197
08/01/22	09:40	10:40	29367.53	29368.53	1.00	1.1235	1.1235	1.1235	2.7756	2.7879	182
08/01/22	10:50	11:50	29368.53	29369.53	1.00	1.1506	1.1506	1.1506	2.7011	2.7141	188
11/01/22	08:40	09:40	29369.53	29370.53	1.00	1.0964	1.0964	1.0964	2.7899	2.8019	182
15/01/22	08:29	09:29	29394.53	29395.53	1.00	1.1482	1.1482	1.1482	2.7295	2.7428	193
15/01/22	09:33	10:33	29395.53	29396.53	1.00	1.1482	1.1482	1.1482	2.7295	2.7437	206
18/12/22	13:16	14:16	29396.53	29397.53	1.00	1.1775	1.1775	1.1775	2.7263	2.7401	195
20/01/22	09:05	10:05	29421.53	29422.53	1.00	1.1775	1.1775	1.1775	2.7260	2.7418	224
20/01/22	10:20	11:20	29422.53	29423.53	1.00	1.1775	1.1775	1.1775	2.7259	2.7405	207
22/01/22	09:20	10:20	29423.53	29424.53	1.00	1.0897	1.0897	1.0897	2.7955	2.8075	184
27/01/22	10:52	11:52	29448.53	29449.53	1.00	1.0897	1.0897	1.0897	2.7150	2.7274	190
27/01/22	13:00	14:00	29449.53	29450.53	1.00	1.1190	1.1190	1.1190	2.6766	2.6896	194
29/01/22	09:20	10:20	29450.53	29451.53	1.00	1.1775	1.1775	1.1775	2.7909	2.8062	217



Appendix B3

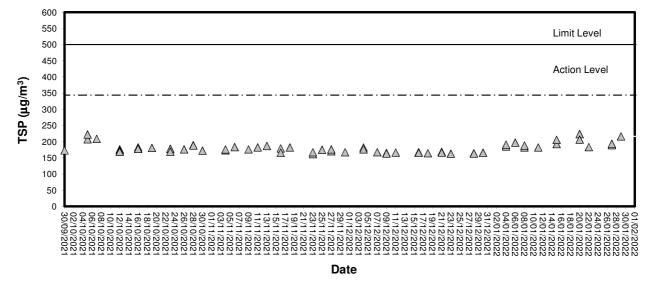
**Graphical Plots of Impact Air Quality Monitoring Data** 



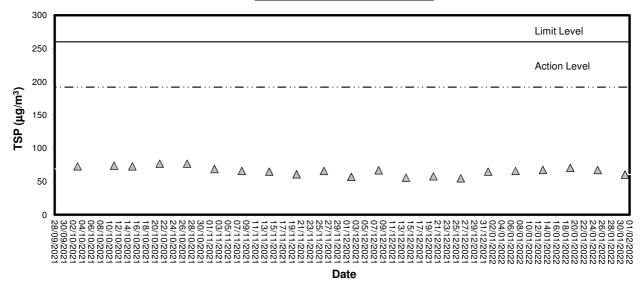


1-hour TSP level at TM-A1

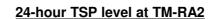


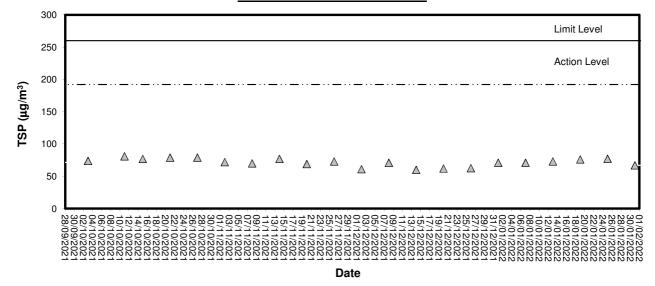






#### 24-hour TSP level at TM-A1







Appendix C1

Calibration Certificates for Impact Marine Water Quality Monitoring Equipments



#### Performance Check / Calibration of Multiparameter Water Quality Meter YSI Manufacturer : ET/EW/008/010 Equipment Ref. No. : 18E105421 Model No. Serial No. : Pro DSS • Calibration Due Date 1/1/2022 : Date of Calibration : 2/10/2021

#### <u>Results</u>

1. Temperature

(Method Reference: Section 6 of internation Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reading of Reference Thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)
18.6	18.8	+0.2
25.0	25.2	+0.2
23.5	23.5	0.0

Tolerance Limit (°C): ± 2.0

#### 2. pH

#### (Method Reference: APHA 19ed 4500-H<sup>+</sup> B)

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.00		
6.86		
9.18		

Tolerance Limit (pH unit):  $\pm 0.10$ 

#### 3. Conductivity

#### (Method Reference: APHA 19ed 2510 B)

Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)
146.9	148.3	+1.0
1412	1441	+2.0
12890	12966	+0.6
58760	59217	+0.8

Tolerance Limit ( $\mu$ S/cm): ± 10.0%

4. Salinity

(Method Reference: APHA 19ed 2520 B)

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)
10.0	9.40	-6.0
20.0	19.20	-4.0
30.0	28.70	-4.3

Tolerance Limit (g/L):  $\pm 10.0\%$ 



Dissolved Oxygen Aethod Reference: APHA 19ed 4500-O G) Expected Reading (mg/L) 2.24 4.19 5.32 Derance Limit (mg/L): ± 0.20 Turbidity	Serial No. Calibration Du Displayed Reading (mg/L) 2.30 4.22 5.36	: <u>18E105421</u> ne Date : <u>1/1/2022</u> Tolerance (mg/L) +0.06 +0.03 +0.04
. Dissolved Oxygen Method Reference: APHA 19ed 4500-O G) Expected Reading (mg/L) 2.24 4.19 5.32 olerance Limit (mg/L): ± 0.20 . Turbidity Method Reference: APHA 19ed 2130 B)	Displayed Reading (mg/L) 2.30 4.22	Tolerance (mg/L) +0.06 +0.03
Method Reference: APHA 19ed 4500-O G)         Expected Reading (mg/L)         2.24         4.19         5.32         olerance Limit (mg/L): ± 0.20         . Turbidity         Method Reference: APHA 19ed 2130 B)	2.30 4.22	+0.06 +0.03
Iethod Reference: APHA 19ed 4500-O G)         Expected Reading (mg/L)         2.24         4.19         5.32         olerance Limit (mg/L): ± 0.20         Turbidity         Iethod Reference: APHA 19ed 2130 B)	2.30 4.22	+0.06 +0.03
Expected Reading (mg/L)         2.24         4.19         5.32         olerance Limit (mg/L): ± 0.20         Turbidity         Method Reference: APHA 19ed 2130 B)	2.30 4.22	+0.06 +0.03
2.24 4.19 5.32 olerance Limit (mg/L): ± 0.20 Turbidity 1ethod Reference: APHA 19ed 2130 B)	2.30 4.22	+0.06 +0.03
4.19       5.32       olerance Limit (mg/L): ± 0.20       Turbidity       1ethod Reference: APHA 19ed 2130 B)	4.22	
5.32 olerance Limit (mg/L): ± 0.20 Turbidity Iethod Reference: APHA 19ed 2130 B)		+0.04
Derance Limit (mg/L): ± 0.20 Turbidity Aethod Reference: APHA 19ed 2130 B)		
Turbidity Iethod Reference: APHA 19ed 2130 B)		
10	Displayed Reading (NTU) 9.79	Tolerance (%) -2.1
40	38.66	-3.4
100	98.39	-1.6
400	382.55	-4.4
he equipment complies <sup>#</sup> / <del>does not comply</del> <sup>#</sup> with Delete as appropriate	n the specified requirements and is dee	emed acceptable <sup>#</sup> / <del>unacceptable.<sup>#</sup></del> for use
•		



# Performance Check / Calibration of Multiparameter Water Quality Meter Equipment Ref. No. : ET/EW/008/010 Manufacturer : YSI

Model No. : Date of Calibration :

: <u>Pro DSS</u> : <u>3/1/2022</u>

#### Manufacturer Serial No. Calibration Due Date

### 18E105421 2/4/2022

:

:

#### <u>Results</u>

1. Temperature

(Method Reference: Section 6 of internation Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reading of Reference Thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)
17.1	17.2	+0.1
25.0	25.2	+0.2
27.7	27.9	+0.2

Tolerance Limit ( $^{\circ}$ C): ± 2.0

#### 2. pH

#### (Method Reference: APHA 19ed 4500-H<sup>+</sup> B)

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.00		
6.86		
9.18		

Tolerance Limit (pH unit): ± 0.10

#### 3. Conductivity

(Method Reference: APHA 19ed 2510 B)

Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)
146.9	144.1	-1.9
1412	1398	-1.0
12890	13020	-1.0
58760	59863	+1.9

Tolerance Limit ( $\mu$ S/cm): ± 10.0%

#### 4. Salinity

(Method Reference: APHA 19ed 2520 B)

(		
Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)
10.0	9.50	-5.0
20.0	19.30	-3.5
30.0	27.80	-7.3

Tolerance Limit (g/L):  $\pm 10.0\%$ 



Performance Check /	Calibration of Multiparamete	er Water Quality Meter
Equipment Ref. No. : ET/EW/008/010	Manufacture	: YSI
Model No. : Pro DSS	Serial No.	: 18E105421
Date of Calibration : $3/1/2022$	Calibration D	Pue Date : <u>2/4/2022</u>
5. Dissolved Oxygen (Method Reference: APHA 19ed 4500-O C Expected Reading (mg/L)	G) Displayed Reading (mg/L)	Tolerance (mg/L)
2.01	2.05	+0.04
4.22	4.26	+0.04
5.61	5.66	+0.05
6. Turbidity (Method Reference: APHA 19ed 2130 B) Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
Expected Reading (NTU) 10	9.51	-4.9
40	38.82	-3.0
100	97.46	-2.5
400	383.77	-4.1
The equipment complies <sup>#</sup> / <del>does not compl</del> <sup>#</sup> Delete as appropriate	+ y <sup>#</sup> with the specified requirements and is de	emed acceptable <sup>#</sup> / <del>unacceptable <sup>#</sup></del> for use.



Appendix C2

Impact Marine Water Quality Monitoring Results



Monitoring Station : TM-FC1

Date	Sampling	Ambient Temp (°C) /	Monitori	ng Depth	Temp	Salini	ty (ppt)	Dissolv	ved Oxygen	(mg/L)		ed Oxygen ation (%)	Τι	urbidity (NT	U)	Susper	nded Solids	s (mg/L)
Dale	Duration	Weather Condition	(1	m)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	19.5	29.8 29.8	29.8	6.90 6.94	6.92		89.6 90.2	89.9	6.97 6.94	6.96		4.4 3.5	4.0	
01/01/22	10:24:14	22/Fine	Middle	11.3	19.2	30.6	30.6	6.62	6.61	6.76	85.9	85.7	7.38	7.37	7.41	3.6	3.8	4.0
			Bottom	21.6	18.7	30.6 31.5	31.5	6.59 6.22	6.23	6.23	85.5 80.4	80.6	7.36 7.90	7.92		3.9 4.1	4.4	
			Dottom	21.0	10.7	31.5 29.4	01.0	6.24 6.82	0.20	0.20	80.7 88.2	00.0	7.93 4.81	1.52		4.7 6.1	4.4	
			Surface	1.0	19.4	29.4	29.4	6.85	6.84	6.66	88.4	88.3	4.83	4.82		6.1	6.1	
04/01/22	10:54:53	22/Fine	Middle	11.4	19.0	30.8 30.8	30.8	6.50 6.48	6.49	0.00	84.1 83.7	83.9	5.62 5.65	5.64	5.59	6.7 5.5	6.1	6.4
			Bottom	21.7	18.5	31.4 31.4	31.4	6.13 6.17	6.15	6.15	78.9 79.3	79.1	6.34 6.30	6.32		6.5 7.7	7.1	
			Ourfeas	1.0	10.5	29.8	00.0	6.95	0.04		90.3	00.0	5.08	5.00		1.8	1.0	
			Surface	1.0	19.5	29.8	29.8	6.93	6.94	6.73	90.2	90.3	5.04	5.06		1.7	1.8	
06/01/22	11:23:13	22/Fine	Middle	11.3	19.1	30.8 30.8	30.8	6.53 6.50	6.52		84.7 84.5	84.6	5.74 5.71	5.73	5.78	2.2 2.8	2.5	3.7
			Bottom	21.6	18.8	31.3 31.3	31.3	6.16 6.12	6.14	6.14	79.7 79.2	79.5	6.53 6.55	6.54		7.2 6.5	6.9	
			Surface	1.0	20.0	29.2	29.2	7.08	7.09		92.5	92.7	5.99	5.98		4.5	4.5	
						29.2 30.5		7.10 6.49		6.78	92.8 84.8		5.97 6.50			4.4 5.0		
08/01/22	14:45:02	22/Fine	Middle	11.3	19.6	30.4	30.4	6.46	6.48		84.2	84.5	6.53	6.52	6.44	6.5	5.8	5.4
			Bottom	21.5	19.2	31.7 31.7	31.7	6.15 6.11	6.13	6.13	80.3 79.8	80.1	6.84 6.81	6.83		5.3 6.5	5.9	
			Surface	1.0	19.4	29.5 29.5	29.5	6.98 6.94	6.96		90.4 90.0	90.2	3.44 3.47	3.46		6.9 6.0	6.5	
11/01/22	15:44:27	22/Fine	Middle	11.4	19.1	30.4 30.4	30.4	6.47 6.49	6.48	6.72	83.7 84.0	83.9	4.17 4.19	4.18	4.07	9.5 7.8	8.7	7.4
			Bottom	21.8	18.8	31.2	31.2	6.16	6.15	6.15	79.6	79.4	4.56	4.58		7.5	7.1	
			Surface	1.0	19.4	31.2 29.6	- 29.6	6.13 6.97	6.98		79.1 90.3	- 90.4	4.60 4.08	4.09		6.7 4.0	3.5	
						29.6 30.1		6.99 6.43		6.71	90.5 83.1		4.10 4.67			3.0 3.6		
13/01/22	16:43:09	22/Fine	Middle	11.3	19.1	30.2	- 30.1	6.46	6.45		83.3	83.2	4.64	4.66	4.63	3.5	3.6	3.4
			Bottom	21.6	18.7	30.6 30.6	30.6	6.17 6.13	6.15	6.15	79.3 78.7	79.0	5.11 5.15	5.13		3.2 3.0	3.1	
			Surface	1.0	19.4	30.4 30.4	30.4	7.01 6.99	7.00		91.2 90.8	91.0	3.54 3.50	3.52		7.1 6.4	6.8	
15/01/22	10:18:11	22/Fine	Middle	11.3	18.9	31.8	31.8	6.42	6.44	6.72	83.4	83.7	4.24	4.23	4.11	3.9	3.9	5.0
			Bottom	21.7	18.6	31.8 32.5	32.5	6.46 6.07	6.06	6.06	84.0 78.8	- 78.6	4.22 4.59	4.58		3.8 3.8	4.3	
			Dottom	£1./	10.0	32.5	02.0	6.04	0.00	0.00	78.3	70.0	4.56	JU		4.7	7.5	



Monitoring Station : TM-FC1

Date	Sampling	Ambient Temp (°C) /	Monitori	ng Depth	Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)		ed Oxygen ation (%)	Τι	urbidity (NT	U)	Suspe	nded Solids	s (mg/L)
Date	Duration	Weather Condition	1)	m)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	18.8	29.7 29.7	29.7	7.40 7.43	7.42		94.8 95.0	94.9	1.52 1.50	1.51		4.8 5.3	5.1	
18/01/22	9:39:10	22/Fine	Middle	11.2	18.4	30.0 30.0	30.0	6.79 6.77	6.78	7.10	86.5 86.3	86.4	1.93 1.96	1.95	1.94	4.0 4.8	4.4	5.1
			Bottom	21.5	18.1	30.6	30.6	6.36 6.40	6.38	6.38	80.8 81.2	81.0	2.39	2.37		5.2	5.8	-
			Surface	1.0	18.9	30.6 29.3	29.3	7.12	7.11		91.2	91.1	3.79	3.78		6.4 4.6	4.8	
20/01/22	11:26:06	22/Fine	Middle	11.3	18.4	29.3 30.5	30.5	7.10 6.59	6.58	6.84	90.9 84.2	- 84.1	3.77 4.56	4.57	4.43	4.9 5.1	- 5.2	5.9
			Bottom	21.6	18.1	30.5 31.8	31.8	6.56 6.29	6.31	6.31	84.0 80.6	80.9	4.58 4.95	4.93	-	5.3 7.1	- 7.9	-
						31.8 28.9		6.33 7.47		0.01	81.1 96.7		4.91 4.56			8.6 3.7		
00/0 : /= -		00 (T)	Surface	1.0	19.6	29.0 29.9	28.9	7.44 6.74	7.46	7.09	96.4 86.9	96.6	4.58 4.99	4.57		3.9 3.1	3.8	
22/01/22	12:39:09	22/Fine	Middle	11.4	19.1	29.9 30.2	29.9	6.70 6.42	6.72		86.3 82.1	86.6	5.03 5.76	5.01	5.11	3.4 2.6	3.3	3.3
			Bottom	21.7	18.5	30.2 29.5	30.2	6.38 7.31	6.40	6.40	81.5 95.3	81.8	5.73 3.84	5.75		3.3	3.0	
			Surface	1.0	19.8	29.5	29.5	7.34	7.33	6.94	95.7	95.5	3.82	3.83		2.9	2.9	-
25/01/22	13:54:07	22/Fine	Middle	11.3	19.3	30.4 30.4	30.4	6.57 6.55	6.56		85.3 85.2	85.3	4.45 4.41	4.43	4.35	4.1 3.6	3.9	3.2
			Bottom	21.6	18.9	31.8 31.8	31.8	6.22 6.26	6.24	6.24	80.9 81.4	81.2	4.77 4.80	4.79		2.1 3.5	2.8	
			Surface	1.0	19.7	30.0 30.0	30.0	7.53 7.50	7.52	7.12	98.3 97.8	98.1	1.21 1.24	1.23		3.5 3.2	3.4	
27/01/22	15:25:03	22/Fine	Middle	11.3	19.4	31.9 31.9	31.9	6.73 6.71	6.72	7.12	88.4 88.0	88.2	1.68 1.70	1.69	1.66	3.9 3.0	- 3.5	3.2
			Bottom	21.6	19.1	32.7 32.7	32.7	6.39 6.35	6.37	6.37	83.8 83.1	83.5	2.07 2.05	2.06		2.6 2.8	2.7	
			Surface	1.0	18.7	29.8 29.8	29.8	7.24 7.21	7.23		92.6 92.3	92.5	1.34 1.31	1.33		1.8 1.8	- 1.8	
29/01/22	9:41:02	22/Fine	Middle	11.3	18.3	30.3 30.3	30.3	6.70 6.66	6.68	6.95	85.3 84.8	- 85.1	1.75 1.79	1.77	1.79	3.5 2.4	3.0	2.4
			Bottom	21.6	17.9	31.8 31.8	31.8	6.32 6.30	6.31	6.31	80.6 80.4	80.5	2.27	2.26		2.3	2.5	1
			Surface	1.0	18.6	30.9 30.9	30.9	7.14	7.16		91.8 92.0	91.9	1.67	1.66		3.5 3.0	- 3.3	
31/01/22	0:00:00	22/Fine	Middle	11.3	18.3	31.2 31.2	31.2	6.53 6.55	6.54	6.85	83.6 84.0	83.8	2.19	2.17	2.13	5.4 4.3	4.9	4.1
			Bottom	21.5	18.0	32.4	32.4	6.24	6.22	6.22	80.1	79.8	2.57	2.56		3.6	4.3	-
			DOCTOR	21.5	10.0	32.4	JZ.4	6.20	0.22	0.22	79.5	79.8	2.55	2.50		5.0	4.3	



Monitoring Station :

TM-FM1

Dissolved Oxygen Ambient Salinity (ppt) Dissolved Oxvaen (ma/L) Turbidity (NTU) Suspended Solids (mg/L) Monitoring Depth Temp Sampling Saturation (%) Temp (°C) Date Duration (m) (°C) Depth-Weather Depth-Depth-Value Average Value Average Value Average Value Average Value Average Condition average average average 30.0 7.04 67.3 7.57 3.6 Surface 1.0 19.5 30.0 7.03 67.3 7.56 4.2 30.0 7.02 67.3 7.55 4.8 6.74 30.7 6.43 67.3 8.04 4.0 67.3 01/01/22 10:04:25 22/Fine Middle 8.9 19.1 30.7 6.45 8.06 7.99 4.1 3.9 30.7 6.47 67.3 8.07 4.1 31.5 67.3 8.34 3.1 6.21 16.8 18.8 31.5 6.20 6.20 67.3 8.36 3.3 Bottom 31.5 3.5 6.18 67.3 8.38 28.6 7.09 67.3 5.85 7.4 Surface 1.0 19.5 28.6 7.07 67.3 5.83 6.5 28.6 7.05 67.3 5.81 5.5 6.75 29.9 6.41 67.3 6.40 11.9 04/01/22 10:35:02 22/Fine Middle 8.9 19.2 29.9 6.43 67.3 6.42 6.44 11.6 9.3 67.3 6.43 11.3 29.9 6.44 30.6 6.21 67.3 7.08 10.6 6.20 67.3 7.07 Bottom 16.9 18.5 30.6 6.20 9.7 30.6 6.19 67.3 7.06 8.8 7.34 67.3 4.6 29.2 6.69 Surface 1.0 19.7 29.2 7.33 67.3 6.68 4.2 29.2 67.3 6.66 3.8 7.31 6.97 67.3 7.32 2.0 30.8 6.59 22/Fine 67.3 06/01/22 11:04:03 Middle 8.9 19.3 30.8 6.61 7.33 7.32 2.7 3.7 30.8 6.63 67.3 7.34 3.3 7.97 3.7 31.0 6.24 67.3 Bottom 16.9 19.1 31.0 6.23 6.23 67.3 7.95 4.3 31.0 6.22 67.3 7.93 4.8 67.3 28.9 7.28 6.42 7.6 Surface 1.0 19.8 28.9 7.27 67.3 6.43 8.2 7.25 28.9 67.3 6.44 8.8 6.97 29.4 6.69 67.3 6.93 2.4 08/01/22 14:22:01 22/Fine Middle 8.9 19.4 29.4 6.68 67.3 6.92 6.97 2.8 5.6 29.4 6.67 67.3 6.90 3.2 30.8 6.24 67.3 7.57 4.7 16.9 19.2 6.22 67.3 7.55 5.7 Bottom 30.8 6.22 30.8 6.20 67.3 7.53 6.7 67.3 5.0 30.2 7.15 4.04 Surface 1.0 19.6 30.2 7.17 67.3 4.03 5.4 30.2 7.18 67.3 4.01 5.7 6.91 31.8 6.65 67.3 4.58 6.1 67.3 4.50 11/01/22 15:18:35 22/Fine Middle 8.9 19.2 31.8 6.66 4.56 6.2 5.4 31.8 6.67 67.3 4.54 6.3 4.4 32.4 6.30 67.3 4.91 Bottom 16.7 19.0 32.4 6.29 6.29 67.3 4.92 4.5 32.4 6.28 67.3 4.93 4.6 29.9 7.32 67.3 3.59 4.1 67.3 3.57 Surface 1.0 19.5 29.9 7.34 4.1 29.9 7.36 67.3 3.55 4.1 7.00 6.65 67.3 30.3 4.21 3.4 13/01/22 16:16:35 22/Fine Middle 8.9 19.1 30.3 6.66 67.3 4.20 4.07 3.7 3.4 30.3 6.67 67.3 4.19 3.9 30.7 6.31 67.3 4.46 2.5 6.30 67.3 4.45 2.5 Bottom 16.8 18.7 30.7 6.30 4.44 30.7 6.28 67.3 2.4 67.3 3.37 5.3 30.0 7.11 Surface 1.0 19.5 30.0 7.12 67.3 3.36 5.2 30.0 7.13 67.3 3.34 5.0 6.84 30.4 6.55 67.3 3.92 4.7 15/01/22 9:53:11 22/Fine Middle 8.9 19.1 30.4 6.57 67.3 3.94 3.87 4.9 5.3 30.4 6.58 67.3 3.96 5.1 31.3 6.29 67.3 4.33 5.0 Bottom 16.8 18.8 31.3 6.27 6.27 67.3 4.32 5.8 31.3 6.25 67.3 4.31 6.6



Monitoring Station :

Date	Sampling	Ambient Temp (°C) /	Monitori	ng Depth	Temp	Salini	ty (ppt)	Dissolv	ved Oxygen	(mg/L)		ed Oxygen ation (%)	Τι	urbidity (NT	U)	Suspe	nded Solids	(mg/L)
Date	Duration	Weather Condition	ı)	m)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	18.7	29.8 29.9	29.8	6.95 6.91	6.93		67.3 67.3	67.3	1.69 1.72	1.71		4.8 4.0	4.4	
18/01/22	9:10:15	22/Fine	Middle	8.9	18.3	30.4	30.4	6.50	6.49	6.71	67.3	67.3	2.16	2.15	2.13	5.6	5.3	5.7
						30.4 30.8		6.47 6.12			67.3 67.3		2.14 2.56			4.9 7.1		
			Bottom	16.7	18.0	30.8	30.8	6.14	6.13	6.13	67.3	67.3	2.53	2.55		7.9	7.5	
			Surface	1.0	19.0	28.8 28.8	28.8	7.32 7.36	7.34		67.3 67.3	67.3	5.09 5.05	5.07		7.3 6.9	7.1	
20/01/22	11:06:02	22/Fine	Middle	8.9	18.6	29.6 29.6	29.6	6.60 6.63	6.62	6.98	67.3 67.3	67.3	5.46 5.44	5.45	5.53	7.3 7.0	7.2	6.9
			Bottom	16.8	18.1	30.5	30.4	6.25	6.24	6.24	67.3	67.3	6.09	6.08		7.0	6.6	
			Dottom	10.0		30.4		6.22	0.12.1	0	67.3	0110	6.06	0.00		6.1	0.0	
			Surface	1.0	19.5	28.8 28.8	28.8	7.25 7.22	7.24	6.92	67.3 67.3	67.3	3.96 3.99	3.98		3.3 3.1	3.2	
22/01/22	12:14:09	22/Fine	Middle	8.9	19.1	29.9 29.9	29.9	6.62 6.60	6.61	0.92	67.3 67.3	67.3	4.32 4.30	4.31	4.38	3.3 2.9	3.1	2.8
			Bottom	16.7	18.8	30.4	30.4	6.24	6.22	6.22	67.3	67.3	4.83	4.85		2.9	2.0	
			Dottom	10.7	10.0	30.4	50.4	6.20	0.22	0.22	67.3	07.0	4.87	4.00		1.4	2.0	
			Surface	1.0	19.7	29.8 29.8	29.8	7.07	7.08	6.76	67.3 67.3	67.3	4.14 4.12	4.13		2.9 2.1	2.5	
25/01/22	13:33:59	22/Fine	Middle	8.9	19.4	30.1 30.1	30.1	6.42 6.46	6.44	0.70	67.3 67.3	67.3	4.66 4.63	4.65	4.61	3.0 2.6	2.8	2.6
			Bottom	16.8	19.1	31.1	31.1	6.19	6.18	6.18	67.3	67.3	5.03	5.05		2.7	2.6	
			0.4		10.5	31.1 31.6		6.16 7.39	7.40		67.3 67.3	07.0	5.07 1.84	1.00		2.4 3.3		
			Surface	1.0	19.5	31.6	31.6	7.41	7.40	7.02	67.3	67.3	1.81	1.83		4.4	3.9	
27/01/22	15:05:05	22/Fine	Middle	8.8	19.3	32.3 32.3	32.3	6.66 6.63	6.65		67.3 67.3	67.3	2.25 2.29	2.27	2.24	4.1 3.0	3.6	3.5
			Bottom	16.6	19.0	33.4 33.5	33.4	6.28 6.32	6.30	6.30	67.3 67.3	67.3	2.64 2.62	2.63		3.0 3.2	3.1	
			Surface	1.0	18.8	30.2	30.1	7.01	7.03		67.3	67.3	1.66	1.65		2.0	2.3	
29/01/22	9:18:00	22/Fine	Middle	8.9	18.4	30.1 31.6	31.6	7.05 6.46	6.45	6.74	67.3 67.3	67.3	1.64 2.05	2.06	2.04	2.5 2.8	2.3	2.2
23/01/22	9.10.00	22/11116	widdie	0.5	10.4	31.6 32.1		6.44 6.11	0.45		67.3 67.3	07.5	2.07 2.44	2.00	2.04	1.7 2.2		2.2
			Bottom	16.8	18.0	32.1	32.1	6.14	6.13	6.13	67.3	67.3	2.44	2.42		2.0	2.1	
			Surface	1.0	18.7	30.0 30.0	30.0	7.24 7.26	7.25		67.3 67.3	67.3	2.08 2.05	2.07		3.1 3.5	3.3	
31/01/22	0:00:00	22/Fine	Middle	8.9	18.5	30.9	30.9	6.65	6.63	6.94	67.3	67.3	2.53	2.51	2.51	3.9	3.5	3.6
			Bottom	16.7	18.1	30.9 31.8	31.7	6.61 6.27	6.26	6.26	67.3 67.3	67.3	2.49 2.95	2.96		3.0 4.0	4.0	
			Dottoill	10.7	10.1	31.7	01.7	6.24	0.20	0.20	67.3	07.0	2.97	2.00		4.0	т. <b>0</b>	



Monitoring Station :

Date	Sampling	Ambient Temp (°C) /	Monitori	ng Depth	Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)		d Oxygen tion (%)	Tu	urbidity (NT	U)	Susper	nded Solids	(mg/L)
Dale	Duration	Weather Condition	(1	m)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	19.5	30.1 30.1	30.1	6.89 6.87	6.88		74.7 74.7	74.7	7.45 7.41	7.43		3.3 3.8	3.6	
01/01/22	9:47:03	22/Fine	Middle	9.0	19.2	31.3 31.3	31.3	6.55	6.54	6.71	74.7 74.7	74.7	7.82 7.80	7.81	7.90	3.7	3.8	3.8
			Bottom	17.0	18.8	31.3	32.5	6.52 6.16	6.14	6.14	74.7	74.7	7.80 8.44	8.46		3.8 4.0	4.2	
			Bottom			32.5 29.8		6.12 7.21		0.14	74.7 74.7		8.47 5.56	0.10		4.4 5.8		
			Surface	1.0	19.5	29.8	29.8	7.24	7.23	6.95	74.7	74.7	5.53	5.55	-	8.6	7.2	
04/01/22	10:18:58	22/Fine	Middle	9.0	19.1	30.5 30.5	30.5	6.69 6.66	6.68		74.7 74.7	74.7	6.73 6.71	6.72	6.50	5.6 7.0	6.3	5.9
			Bottom	17.0	18.6	32.1 32.1	32.1	6.32 6.30	6.31	6.31	74.7 74.7	74.7	7.20 7.24	7.22		4.3 4.3	4.3	
			Surface	1.0	19.7	28.7	28.7	7.03	7.05		74.7	74.7	6.48	6.46		2.6	2.5	
06/01/22	10:49:01	22/Fine	Middle	9.0	19.2	28.7 29.6	29.5	7.06 6.41	6.43	6.74	74.7 74.7	74.7	6.44 7.17	7.16	7.13	2.3 2.8	2.3	2.0
00/01/2E	10.10.01	LEATING				29.5 30.9		6.45 6.16			74.7 74.7		7.15 7.79			1.7 1.4		2.0
			Bottom	17.0	19.0	30.9	30.9	6.18	6.17	6.17	74.7	74.7	7.76	7.78		1.2	1.3	
			Surface	1.0	19.9	29.8 29.8	29.8	7.16 7.13	7.15	6.89	74.7 74.7	74.7	6.23 6.26	6.25		3.8 4.7	4.3	
08/01/22	13:59:05	22/Fine	Middle	9.0	19.5	30.6 30.6	30.6	6.62 6.65	6.64		74.7 74.7	- 74.7	6.73 6.71	6.72	6.74	3.5 3.8	3.7	4.7
			Bottom	17.1	19.2	31.3 31.3	31.3	6.29 6.33	6.31	6.31	74.7 74.7	74.7	7.25 7.23	7.24		6.3 6.3	6.3	
			Surface	1.0	19.5	29.8	29.8	7.08	7.09		74.7	74.7	4.28	4.27		7.3	7.6	
11/01/00	44 57 00	00/51				29.8 30.6		7.10 6.57		6.82	74.7 74.7		4.26 4.69		4.00	7.9 5.5		5.0
11/01/22	14:57:09	22/Fine	Middle	9.0	19.2	30.6 31.6	30.6	6.53 6.24	6.55		74.7 74.7	74.7	4.72 5.12	4.71	4.69	3.4 4.7	4.5	5.9
			Bottom	17.1	18.9	31.6	31.6	6.21	6.23	6.23	74.7	74.7	5.08	5.10		6.3	5.5	
			Surface	1.0	19.6	29.6 29.6	29.6	7.29 7.25	7.27	7.00	74.7 74.7	74.7	3.73 3.71	3.72		3.8 4.6	4.2	
13/01/22	15:54:23	22/Fine	Middle	9.0	19.1	30.0 29.9	29.9	6.77 6.79	6.78	7.03	74.7 74.7	74.7	4.45 4.41	4.43	4.31	2.2 3.4	2.8	3.6
			Bottom	17.0	18.8	30.4	30.4	6.36	6.38	6.38	74.7	74.7	4.75	4.77		4.0	3.7	
			Surface	1.0	19.5	30.4 30.2	30.2	6.39 7.05	7.04		74.7 74.7	74.7	4.78 3.64	3.62		3.4 4.0	4.1	
15/01/00	0.22.50	00/Finc				30.2 31.4		7.03 6.67		6.86	74.7 74.7		3.60 4.03		4.14	4.2 3.1		4.1
15/01/22	9:33:52	22/Fine	Middle	9.0	19.1	31.4 32.6	31.4	6.70 6.33	6.69		74.7 74.7	74.7	4.05 4.78	4.04	4.14	4.7 4.1	3.9	4.1
			Bottom	17.0	18.7	32.6	32.6	6.29	6.31	6.31	74.7	74.7	4.78	4.77		4.1	4.4	



Monitoring Station :

Date	Sampling	Ambient Temp (°C) /		ng Depth	Temp	Salini	ty (ppt)	Dissolv	ved Oxygen	(mg/L)		ed Oxygen ation (%)	Τι	urbidity (NT	U)	Suspe	nded Solids	(mg/L)
Date	Duration	Weather Condition	(1	m)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	18.7	30.5 30.5	30.5	7.12 7.10	7.11		74.7 74.7	74.7	1.81 1.85	1.83		3.3 4.6	4.0	
18/01/22	8:50:08	22/Fine	Middle	9.0	18.3	30.9	30.9	6.65	6.63	6.87	74.7	- 74.7	2.35	2.34	2.32	3.8	4.3	4.1
10/01/22	0.00.00	22/Fille	widdle	9.0	10.3	30.9	30.9	6.61	0.03		74.7	74.7	2.33	2.34	2.32	4.8	4.3	4.1
			Bottom	16.9	18.1	31.3 31.2	31.2	6.24 6.27	6.26	6.26	74.7 74.7	74.7	2.79 2.76	2.78		4.4 3.6	4.0	
			Surface	1.0	18.9	29.1 29.1	29.1	7.24 7.21	7.23		74.7 74.7	74.7	4.84 4.81	4.83		6.6 7.8	7.2	
20/01/22	10:50:01	22/Fine	Middle	9.0	18.5	29.1 30.1	30.1	6.76	6.75	6.99	74.7	- 74.7	4.81 5.39	5.38	5.36	7.8	6.8	6.8
20/01/22	10.00.01	22/1110	widdie	5.0	10.5	30.2	00.1	6.74	0.75		74.7	74.7	5.37	5.50	0.00	6.5	0.0	0.0
			Bottom	17.0	18.1	31.2 31.2	31.2	6.39 6.37	6.38	6.38	74.7 74.7	74.7	5.89 5.86	5.88		6.3 6.3	6.3	
			Quinta a a	1.0	19.5	29.2	00.1	7.36	7.37		74.7	74.7	4.15	4.10		3.6	0.5	
			Surface	1.0	19.5	29.1	29.1	7.38	7.37	7.03	74.7	/4./	4.11	4.13		3.4	3.5	
22/01/22	11:53:07	22/Fine	Middle	9.0	19.2	30.6	30.6	6.71	6.69	1.00	74.7	74.7	4.50	4.51	4.60	3.2	2.9	3.9
						30.6 31.1		6.67 6.37			74.7 74.7		4.52 5.17			2.5 5.0		
			Bottom	17.0	18.8	31.1	31.1	6.40	6.39	6.39	74.7	74.7	5.14	5.16		5.4	5.2	
			Surface	1.0	19.6	28.8	28.8	7.28	7.27		74.7	74.7	4.74	4.76		2.1	2.4	
						28.8		7.26		6.94	74.7		4.78			2.7		
25/01/22	13:19:07	22/Fine	Middle	9.0	19.3	29.4 29.4	29.4	6.63 6.60	6.62		74.7 74.7	74.7	5.29 5.26	5.28	5.20	1.7 2.0	1.9	3.9
			Bottom	17.0	19.0	30.5	30.5	6.33	6.35	6.35	74.7	74.7	5.55	5.56		7.2	7.4	
						30.6 30.9		6.36 7.61			74.7 74.7		5.57 1.41			7.6 3.0		
			Surface	1.0	19.5	30.9	30.9	7.63	7.62		74.7	74.7	1.39	1.40		2.4	2.7	
27/01/22	14:48:59	22/Fine	Middle	8.9	19.2	31.5	31.5	6.97	6.99	7.30	74.7	74.7	1.75	1.76	1.80	5.7	4.1	3.5
27/01/22	14.46.59	22/Fille	widdle	0.9	19.2	31.5	31.5	7.00	0.99		74.7	74.7	1.77	1.70	1.60	2.5	4.1	3.5
			Bottom	16.8	19.0	32.8 32.8	32.8	6.52 6.56	6.54	6.54	74.7 74.7	74.7	2.26	2.24		2.9 4.2	3.6	
						29.8		7.18			74.7		1.48			2.1		
			Surface	1.0	18.8	29.8	29.8	7.16	7.17	6.90	74.7	74.7	1.46	1.47		2.2	2.2	
29/01/22	9:00:22	22/Fine	Middle	9.0	18.4	30.6	30.6	6.64	6.63	6.90	74.7	74.7	1.96	1.98	1.93	1.2	1.5	2.4
						30.6		6.61			74.7		2.00			1.7		
			Bottom	17.1	18.0	31.2 31.2	31.2	6.25 6.21	6.23	6.23	74.7 74.7	74.7	2.36 2.33	2.35		3.4 3.5	3.5	
			. <i>(</i>			30.7		7.15	7.10		74.7		2.33	0.05		3.0		
			Surface	1.0	18.7	30.7	30.7	7.11	7.13	6.90	74.7	74.7	2.26	2.25		3.3	3.2	
31/01/22	0:00:00	22/Fine	Middle	9.0	18.4	31.9	31.9	6.69	6.68	0.90	74.7	74.7	2.75	2.77	2.83	2.5	2.6	3.8
						31.9		6.66			74.7		2.79			2.6		
			Bottom	17.0	18.0	32.4 32.4	32.4	6.34 6.31	6.33	6.33	74.7 74.7	74.7	3.49 3.47	3.48		5.5 5.7	5.6	
	1					32.4	I	0.31			/4./		3.47	I		5.7		



Monitoring Station :

TM-FC2

Date	Sampling	Ambient Temp (°C) /	Monitori	ng Depth	Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)		d Oxygen tion (%)	Ti	urbidity (NTU	J)	Suspe	nded Solids	s (mg/L)
Dale	Duration	Weather	(1	m)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	19.7	30.3 30.3	30.3	7.18 7.15	7.17		93.9 93.3	93.6	7.15 7.17	7.16		4.7 4.4	4.6	
01/01/22	9:25:49	22/Fine	Middle	8.7	19.3	31.5	31.5	6.69	6.70	6.93	87.4	87.6	7.63	7.61	7.60	3.7	4.2	5.1
			Bottom	16.5	18.9	31.5 32.9	32.9	6.71 6.34	6.32	6.32	87.7 83.0	82.8	7.59 8.02	8.04		4.6 6.1	6.5	
			Curfooo	1.0	19.6	32.9 29.6	29.6	6.30 6.96	C OF		82.5 90.5	90.3	8.05 6.05	6.06		6.9 5.9	6.3	
			Surface			29.6 30.2		6.94 6.57	6.95	6.75	90.1 85.1		6.07 6.96	6.06		6.7 6.5		
04/01/22	10:00:59	22/Fine	Middle	8.8	19.2	30.2	30.2	6.53	6.55		84.6	84.9	6.92	6.94	6.85	6.2	6.4	8.0
			Bottom	16.5	18.7	31.3 31.3	31.3	6.26 6.29	6.28	6.28	80.8 81.1	81.0	7.57 7.54	7.56		10.5 12.2	11.4	
			Surface	1.0	19.7	28.7 28.7	28.7	7.29 7.25	7.27	6.04	94.5 94.1	94.3	5.66 5.62	5.64		5.5 4.4	5.0	
06/01/22	10:31:03	22/Fine	Middle	8.8	19.5	29.9 29.9	29.9	6.60 6.63	6.62	6.94	85.8 86.0	85.9	6.08 6.05	6.07	6.11	3.5 4.9	4.2	4.0
			Bottom	16.6	19.1	30.5 30.5	30.5	6.29 6.27	6.28	6.28	81.5 81.0	81.3	6.62 6.64	6.63		2.4	2.8	
			Surface	1.0	20.1	29.3	29.3	7.07	7.06		92.6	92.4	6.56	6.55		9.6	9.6	
08/01/22	13:37:28	22/Fine	Middle	8.8	19.7	29.3 30.2	30.2	7.04 6.56	6.57	6.81	92.1 85.8	85.9	6.53 6.98	6.99	6.99	9.5 6.7	6.0	6.6
			Bottom	16.5	19.3	30.2 31.7	31.7	6.58 6.27	6.25	6.25	85.9 82.1	81.8	7.00 7.41	7.43		5.2 4.9	4.2	
						31.7 29.4	-	6.23 6.88		0.23	81.5 89.3		7.45 3.75			3.4 6.0		
			Surface	1.0	19.6	29.4 30.3	29.4	6.86 6.45	6.87	6.65	88.9 83.5	89.1	3.72 4.07	3.74		6.7 5.6	6.4	
11/01/22	14:30:25	22/Fine	Middle	8.7	19.2	30.3	30.3	6.42	6.44		83.0	83.3	4.04	4.06	4.12	3.2	4.4	5.2
			Bottom	16.5	18.8	31.5 31.5	31.5	6.09 6.05	6.07	6.07	78.9 78.2	78.6	4.57 4.59	4.58		5.6 4.0	4.8	
			Surface	1.0	19.6	30.1 30.2	30.1	7.04 7.06	7.05		91.8 91.9	91.9	3.31 3.34	3.33		3.5 4.3	3.9	
13/01/22	15:30:34	22/Fine	Middle	8.8	19.2	30.7 30.7	30.7	6.61 6.58	6.60	6.82	85.8 85.4	85.6	3.77 3.73	3.75	3.82	2.2 3.0	2.6	3.7
			Bottom	16.6	18.9	31.2 31.2	31.2	6.27 6.23	6.25	6.25	81.2 80.7	81.0	4.39 4.35	4.37		4.1 4.9	4.5	
			Surface	1.0	19.6	29.1	29.1	7.31	7.33		94.8	95.0	3.48	3.47		5.8	5.7	
15/01/22	9:09:11	22/Fine	Middle	8.7	19.3	29.1 30.4	30.4	7.34 6.88	6.87	7.10	95.1 89.4	89.2	3.46 3.82	3.84	3.93	5.6 5.6	5.3	5.0
			Bottom	16.5	18.8	30.4 31.6	31.6	6.86 6.44	6.42	6.42	89.0 83.5	83.2	3.86 4.49	4.48		4.9 3.1	4.0	
			BOLLOIT	10.5	10.0	31.6	31.0	6.40	0.42	0.42	82.9	03.2	4.46	4.40		4.9	4.0	



Monitoring Station :

TM-FC2

Date	Sampling	Ambient Temp (°C) /	Monitori	ng Depth	Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)		d Oxygen tion (%)	Ti	urbidity (NTl	))	Suspe	nded Solids	s (mg/L)
Dale	Duration	Weather	(1	m)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	18.8	30.0 30.0	30.0	7.22 7.25	7.24		92.7 92.9	92.8	1.47 1.44	1.46		5.0 4.5	4.8	
18/01/22	8:31:19	22/Fine	Middle	8.7	18.4	30.4	30.4	6.76	6.75	6.99	86.3	86.2	1.85	1.87	1.85	4.7	3.9	4.5
			Bottom	16.4	18.1	30.4 30.9	30.9	6.74 6.33	6.31	6.31	86.1 80.6	80.3	1.89 2.22	2.21		3.1 4.7	4.8	
						30.9 29.8		6.29 7.47		0.01	80.0 95.8		2.20 5.22			4.8 5.5		
			Surface	1.0	18.8	29.8	29.8	7.44	7.46	7.19	95.6	95.7	5.26	5.24		6.4	6.0	
20/01/22	10:31:08	22/Fine	Middle	8.7	18.5	30.2 30.2	30.2	6.91 6.93	6.92		88.3 88.8	88.6	5.73 5.70	5.72	5.81	10.0 9.3	9.7	7.1
			Bottom	16.4	18.2	31.6 31.6	31.6	6.59 6.55	6.57	6.57	84.4 83.8	84.1	6.47 6.45	6.46		6.3 5.0	5.7	
			Surface	1.0	19.5	28.5 28.5	28.5	7.28 7.32	7.30		93.9 94.2	94.1	4.39 4.36	4.38		6.5 6.3	6.4	
22/01/22	11:30:31	22/Fine	Middle	8.8	19.1	29.6 29.6	29.6	6.81	6.80	7.05	87.7 87.2	87.5	4.73	4.74	4.86	3.6	3.6	5.0
			Bottom	16.5	18.6	30.8	30.8	6.35	6.34	6.34	81.6	81.5	5.48	5.46		3.5 5.3	5.0	
			Surface	1.0	19.8	30.8 28.6	28.6	6.33 7.45	7.44		81.3 96.7	96.4	5.44 3.53	3.55		4.7 6.3	6.0	
07/01/00		00/51				28.7 29.1		7.42 6.87		7.15	96.1 88.7		3.56 3.95			5.7 7.0		
25/01/22	13:01:09	22/Fine	Middle	8.8	19.4	29.1 30.4	29.1	6.85 6.49	6.86		88.5 84.0	88.6	3.91 4.43	3.93	3.97	6.0 2.3	6.5	4.9
			Bottom	16.5	19.1	30.4	30.4	6.45	6.47	6.47	83.3	83.7	4.45	4.44		2.0	2.2	
			Surface	1.0	19.6	31.8 31.9	31.8	7.49 7.46	7.48	7.15	98.7 98.3	98.5	1.51 1.55	1.53		5.7 4.1	4.9	
27/01/22	14:30:59	22/Fine	Middle	8.7	19.2	32.4 32.4	32.4	6.85 6.81	6.83	7.15	89.9 89.5	89.7	1.84 1.81	1.83	1.91	4.8 3.8	4.3	4.2
			Bottom	16.5	18.9	33.7 33.7	33.7	6.43 6.41	6.42	6.42	84.6 84.3	84.5	2.38 2.36	2.37		3.2 3.3	3.3	
			Surface	1.0	18.9	30.8	30.8	7.32	7.33		94.6	94.8	1.69	1.71		1.5	1.5	
29/01/22	8:40:14	22/Fine	Middle	8.7	18.6	30.9 31.5	31.5	7.34 6.87	6.86	7.09	94.9 88.6	88.4	1.72 2.25	2.26	2.22	1.4 3.7	4.0	2.3
			Bottom	16.5	18.1	31.5 32.6	32.6	6.84 6.44	6.46	6.46	88.1 82.8	83.0	2.27 2.66	2.68		4.2 1.7	1.6	
						32.6 31.6		6.48 6.95		0.40	83.2 89.7		2.70 1.87			1.5 6.2		
			Surface	1.0	18.6	31.6	31.6	6.93	6.94	6.74	89.6	89.7	1.85	1.86		4.9	5.6	
31/01/22	0:00:00	22/Fine	Middle	8.8	18.5	32.7 32.7	32.7	6.55 6.51	6.53		85.0 84.3	84.7	2.34 2.30	2.32	2.32	3.7 4.3	4.0	4.1
			Bottom	16.6	18.1	33.4 33.4	33.4	6.22 6.19	6.21	6.21	80.4 79.9	80.2	2.79 2.77	2.78		2.9 2.3	2.6	



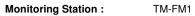
Monitoring Station : TM-FC1

Date	Sampling	Ambient Temp (°C) /		ng Depth	Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)		d Oxygen tion (%)	Т	urbidity (NT	U)	Suspe	nded Solids	s (mg/L)
Duit	Duration	Weather Condition	(r	n)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	19.5	31.3 31.2	31.2	6.76 6.78	6.77		88.6 89.0	88.8	7.26 7.23	7.25		4.6 5.7	5.2	
01/01/22	11:31:06	22/Fine	Middle	11.2	19.1	32.3 32.3	32.3	6.43 6.40	6.42	6.59	84.2 83.9	84.1	7.69	7.68	7.73	4.8	4.4	4.6
			Bottom	21.3	18.8	33.4 33.4	33.4	5.96 5.99	5.98	5.98	78.1 78.5	78.3	8.27 8.25	8.26		5.1 3.6	4.4	
			Surface	1.0	19.5	30.6	30.6	6.62	6.63		86.4	86.6	5.38	5.37		8.8	9.2	
04/01/22	14:41:17	22/Fine	Middle	11.2	19.1	30.6 31.5	31.5	6.64 6.26	6.24	6.44	86.8 81.5	81.3	5.35 6.17	6.18	6.06	9.6 11.5	11.8	11.1
			Bottom	21.4	18.6	31.5 32.0	32.0	6.22 5.98	5.97	5.97	81.1 77.4	77.2	6.19 6.65	6.63		12.1 12.1	12.2	
			Surface	1.0	19.4	32.0 29.5	29.5	5.95 6.75	6.74		77.0 87.4	87.3	6.61 5.41	5.42		12.2 8.3	7.9	
06/01/22	15:31:00	22/Fine	Middle	11.2	19.1	29.5 30.7	30.7	6.72 6.30	6.28	6.51	87.1 81.7	81.4	5.43 6.05	6.07	6.09	10.4	10.2	9.0
			Bottom	21.3	18.7	30.7 31.5	31.5	6.26 5.91	5.92	5.92	81.0 76.4	76.6	6.09 6.78	6.77		8.0	8.8	
			Surface	1.0	19.9	31.5 29.4	29.4	5.93 6.93	6.92		76.7 90.5	90.2	6.76 6.33	6.32		4.5	- 5.1	
08/01/22	17:00:33	22/Fine	Middle	11.1	19.4	29.4 30.6	30.6	6.90 6.30	6.32	6.62	89.9 82.1	82.4	6.30 6.84	6.82	6.76	5.2	5.7	5.7
			Bottom	21.3	19.1	30.6 31.5	31.5	6.34 5.97	5.96	5.96	82.6 77.8	77.6	6.80 7.16	7.15		7.1	6.3	
			Surface	1.0	19.3	31.5 29.3	29.3	5.95 6.81	6.83		77.4 87.9	88.3	7.14 3.86	3.85		6.6	7.3	
11/01/22	8:36:03	22/Fine	Middle	11.2	19.0	29.3 30.6	30.6	6.85 6.24	6.23	6.53	88.6 80.7	80.4	3.83 4.47	4.45	4.39	8.4	6.9	7.2
			Bottom	21.5	18.6	30.6 31.0	31.0	6.21 5.91	5.92	5.92	80.1 76.0	76.1	4.43 4.89	4.88		7.2	7.4	
						31.0		5.93	-		76.2		4.87	-		7.6		
13/01/22							-		-			-						
							-					-						
15/01/22																		
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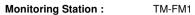
Monitoring Station : TM-FC1

Date	Sampling	Ambient Temp (°C) /	Monitorir	ng Depth	Temp	Salini	ty (ppt)	Dissolv	ved Oxygen	(mg/L)		d Oxygen tion (%)	Τι	urbidity (NT	U)	Suspe	nded Solids	s (mg/L)
Date	Duration	Weather Condition	(n	n)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	18.8	30.2 30.2	30.2	7.28 7.25	7.27		93.5 93.2	93.4	1.86 1.83	1.85		7.4 6.6	7.0	
18/01/22	13:01:06	22/Fine	Middle	11.1	18.5	30.8	30.8	6.61	6.60	6.93	84.8	84.6	2.45	2.43	2.31	7.4	7.6	7.7
						30.8 31.4		6.59 6.22			84.4 79.6		2.41 2.67			7.8 8.8		
			Bottom	21.2	18.2	31.4	31.4	6.18	6.20	6.20	78.9	79.3	2.65	2.66		8.2	8.5	
			Surface	1.0	19.1	29.6 29.6	29.6	6.98 7.01	7.00	6.71	89.9 90.1	90.0	4.22 4.25	4.24		6.0 7.1	6.6	
20/01/22	14:16:05	22/Fine	Middle	11.2	18.6	30.7 30.7	30.7	6.44 6.40	6.42	0.71	82.7 82.0	82.4	4.97 4.99	4.98	4.88	7.7 8.2	8.0	7.4
			Bottom	21.4	18.2	31.7 31.7	31.7	6.16 6.14	6.15	6.15	79.0 78.7	78.9	5.41 5.45	5.43		6.8 8.3	7.6	
			Surface	1.0	19.5	28.5	28.5	7.28	7.29		93.8	93.9	4.91	4.90		5.9	5.5	
22/01/22	16:00:59	22/Fine	Middle	11.3	19.0	28.5 29.4	29.4	7.30 6.49	6.47	6.88	93.9 83.3	83.0	4.88 5.34	5.32	5.45	5.0 4.8	- 5.2	5.2
			Bottom	21.6	18.4	29.4 30.6	30.6	6.45 6.13	6.15	6.15	82.6 78.4	78.7	5.30 6.14	6.13		5.6 5.1	- 5.1	-
						30.6 28.7		6.16 7.15		0.15	78.9 92.5		6.12 4.24			5.0 3.7		
			Surface	1.0	19.6	28.7 29.4	28.7	7.11 6.40	7.13	6.76	91.9 82.5	92.2	4.20 4.75	4.22		3.3 7.4	3.5	
25/01/22	17:00:08	22/Fine	Middle	11.2	19.2	29.4	29.4	6.37	6.39		81.9	82.2	4.73	4.74	4.70	8.3	7.9	5.6
			Bottom	21.5	18.8	30.6 30.6	30.6	6.08 6.06	6.07	6.07	78.3 77.9	78.1	5.13 5.16	5.15		5.8 5.1	- 5.5	
			Surface	1.0	19.5	29.3 29.3	29.3	7.38 7.36	7.37		95.6 95.5	95.6	1.52 1.56	1.54		2.5 3.3	2.9	
27/01/22	8:31:17	22/Fine	Middle	11.1	19.2	30.5 30.5	30.5	6.50 6.54	6.52	6.95	84.3 84.8	84.6	1.95 1.92	1.94	1.95	2.8 4.4	3.6	3.5
			Bottom	21.2	18.9	31.8 31.8	31.8	6.21 6.23	6.22	6.22	80.7 81.1	80.9	2.37	2.36		4.2	4.1	
			Surface	1.0	18.8	30.2	30.2	7.12	7.11		91.5	91.3	1.53	1.52		1.7	- 1.5	
29/01/22	10:31:05	22/Fine	Middle	11.2	18.4	30.2 31.5	31.5	7.09 6.48	6.46	6.78	91.1 83.3	83.0	1.50 2.02	2.03	2.07	1.3 2.5	2.5	2.1
LOIDTILL	10.01.00	EE/T IIIO				31.5 32.8		6.44 6.13			82.6 78.8		2.04 2.63		2.07	2.4 2.7		
			Bottom	21.4	18.0	32.8 31.3	32.8	6.15 6.95	6.14	6.14	79.1 89.7	79.0	2.67 1.96	2.65		2.2 2.3	2.5	
			Surface	1.0	18.7	31.3	31.3	6.97	6.96	6.65	89.8	89.8	1.99	1.98		2.9	2.6	
31/01/22	12:45:08	22/Fine	Middle	11.1	18.4	32.6 32.6	32.6	6.36 6.32	6.34		82.3 81.8	82.1	2.45 2.41	2.43	2.44	3.8 4.2	4.0	3.1
			Bottom	21.2	18.1	33.6 33.6	33.6	6.03 6.06	6.05	6.05	78.1 78.4	78.3	2.89 2.91	2.90		2.6 2.7	2.7	





Date	Sampling	Ambient Temp (°C) /	Monitorir		Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)	Dissolve Satura	d Oxygen tion (%)	Tu	urbidity (NTU	J)	Suspe	nded Solids	s (mg/L)
Dato	Duration	Weather Condition	(n	n)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	19.6	30.7 30.7	30.7	6.86 6.90	6.88		89.8 90.3	90.1	7.71 7.75	7.73		3.8 3.6	3.7	
01/01/22	11:58:51	22/Fine	Middle	8.7	19.2	31.5 31.5	31.5	6.33 6.30	6.32	6.60	82.6 82.0	82.3	8.39 8.36	8.38	8.28	4.6 4.9	4.8	4.2
			Bottom	16.5	18.7	32.6 32.6	32.6	6.02 6.04	6.03	6.03	78.3 78.6	78.5	8.73 8.75	8.74		4.3 3.7	4.0	
			Surface	1.0	19.6	28.9 28.9	28.9	6.90 6.92	6.91		89.3 89.6	89.5	6.22 6.24	6.23		8.3 9.5	8.9	
04/01/22	15:06:12	22/Fine	Middle	8.8	19.1	30.3 30.3	30.3	6.28 6.31	6.30	6.60	81.2 81.7	81.5	6.74 6.70	6.72	6.79	10.9 11.7	11.3	9.8
			Bottom	16.7	18.7	31.4 31.4	31.4	6.04 6.00	6.02	6.02	78.1 77.5	77.8	7.43 7.40	7.42		9.9 8.2	9.1	
			Surface	1.0	19.6	29.0 29.0	29.0	7.15	7.16		92.6 92.9	92.8	7.05	7.07		11.9 11.5	11.7	
06/01/22	15:48:59	22/Fine	Middle	8.8	19.2	29.7 29.7	29.7	6.36 6.33	6.35	6.75	82.1 81.6	81.9	7.63 7.65	7.64	7.65	8.5 6.1	7.3	7.6
			Bottom	16.7	18.9	30.7 30.7	30.7	6.02 5.98	6.00	6.00	77.7	77.4	8.25 8.22	8.24		3.8 3.6	3.7	
			Surface	1.0	19.7	29.3 29.3	29.3	7.02	7.03		91.3 91.5	91.4	6.89 6.92	6.91		5.3 4.7	5.0	
08/01/22	17:19:02	22/Fine	Middle	8.8	19.3	30.9 30.9	30.9	6.55 6.51	6.53	6.78	85.3 84.8	85.1	7.35 7.39	7.37	7.37	5.2 3.6	4.4	5.0
			Bottom	16.7	19.0	31.4 31.4	31.4	6.11 6.08	6.10	6.10	79.4 78.9	79.2	7.83 7.81	7.82		5.3 6.1	5.7	
			Surface	1.0	19.5	29.9 29.8	29.8	7.03	7.05		91.4 91.7	91.6	4.36	4.38		9.2 9.7	9.5	
11/01/22	8:55:59	22/Fine	Middle	8.8	19.2	30.6 30.6	30.6	6.49 6.45	6.47	6.76	84.2 83.6	83.9	4.84	4.82	4.85	6.6 5.6	6.1	8.4
			Bottom	16.5	18.8	31.6 31.6	31.6	6.14 6.12	6.13	6.13	79.6 79.5	79.6	5.37 5.35	5.36		9.4 9.6	9.5	
							-										-	
13/01/22												-					+	
																	+	
15/01/22																		



Date	Sampling	Ambient Temp (°C) /	Monitori	ng Depth	Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)		d Oxygen tion (%)	Т	urbidity (NTl	J)	Suspe	nded Solids	s (mg/L)
Date	Duration	Weather Condition	(r	n)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	18.8	30.3 30.3	30.3	6.83 6.80	6.82	0.00	87.8 87.3	87.6	2.01 2.03	2.02		8.0 8.9	8.5	
18/01/22	13:19:11	22/Fine	Middle	8.8	18.3	30.8 30.8	30.8	6.37 6.39	6.38	6.60	81.4 81.8	81.6	2.54 2.50	2.52	2.47	5.6 6.0	5.8	6.8
			Bottom	16.5	18.1	31.2 31.2	31.2	6.04 6.00	6.02	6.02	77.1 76.4	76.8	2.87 2.84	2.86		5.6 6.9	6.3	
			Surface	1.0	19.2	29.0 29.1	29.0	7.18 7.15	7.17		92.3 91.8	92.1	5.31 5.35	5.33		4.8 5.9	5.4	
20/01/22	14:36:03	22/Fine	Middle	8.8	18.6	30.1 30.1	30.1	6.49 6.46	6.48	6.82	83.1 82.7	82.9	5.86 5.88	5.87	5.87	6.1 5.2	5.7	5.4
			Bottom	16.6	18.2	31.2 31.2	31.2	6.04 6.08	6.06	6.06	77.2	77.5	6.42 6.40	6.41		5.0 5.5	5.3	
			Surface	1.0	19.4	28.3 28.3	28.3	7.03 7.06	7.05		90.3 90.7	90.5	4.34 4.31	4.33		5.1 5.1	5.1	
22/01/22	16:20:01	22/Fine	Middle	8.7	19.0	29.6 29.7	29.6	6.48 6.50	6.49	6.77	83.3 83.6	83.5	4.81 4.85	4.83	4.86	4.0 3.3	3.7	3.8
			Bottom	16.4	18.6	30.2 30.2	30.2	6.04 6.07	6.06	6.06	77.4 77.7	77.6	5.42 5.44	5.43		3.0 2.5	2.8	
			Surface	1.0	19.6	28.5 28.5	28.5	6.87 6.84	6.86		88.7 88.2	88.5	4.53 4.50	4.52		7.2 8.0	7.6	
25/01/22	17:19:09	22/Fine	Middle	8.8	19.2	30.0 30.0	30.0	6.31 6.33	6.32	6.59	81.6 81.9	81.8	4.86 4.88	4.87	4.94	3.6 4.4	4.0	5.1
			Bottom	16.5	18.9	30.7 30.7	30.7	5.96 5.92	5.94	5.94	77.0 76.4	76.7	5.44 5.40	5.42		3.4 3.8	3.6	
			Surface	1.0	19.5	30.5 30.5	30.5	7.23 7.20	7.22		94.3 93.9	94.1	2.02 2.04	2.03		5.6 5.3	5.5	
27/01/22	8:49:00	22/Fine	Middle	8.7	19.2	31.9 31.9	31.9	6.42 6.46	6.44	6.83	84.0 84.3	84.2	2.54 2.51	2.53	2.50	3.7 3.2	3.5	4.1
			Bottom	16.3	18.9	32.7 32.7	32.7	6.17 6.15	6.16	6.16	80.6 80.2	80.4	2.95 2.93	2.94		3.7 2.9	3.3	
			Surface	1.0	19.0	29.9 29.9	29.9	6.89 6.87	6.88		88.8 88.3	88.6	1.92 1.94	1.93		1.4 2.1	1.8	
29/01/22	10:49:09	22/Fine	Middle	8.8	18.5	30.8 30.8	30.8	6.31 6.34	6.33	6.60	80.9 81.3	81.1	2.45 2.49	2.47	2.38	2.3 2.7	2.5	2.2
			Bottom	16.5	18.1	31.5 31.5	31.5	5.99 5.95	5.97	5.97	76.6 76.1	76.4	2.76 2.73	2.75		1.8 2.9	2.4	
			Surface	1.0	18.9	30.9 30.9	30.9	7.15 7.13	7.14		92.4 92.0	92.2	2.36 2.40	2.38		2.8 3.7	3.3	
31/01/22	13:04:22	22/Fine	Middle	8.8	18.5	31.4 31.4	31.4	6.44 6.47	6.46	6.80	82.9 83.3	83.1	2.75 2.78	2.77	2.84	4.9 4.5	4.7	3.8
			Bottom	16.6	18.2	32.8 32.7	32.7	6.13 6.09	6.11	6.11	79.1 78.6	78.9	3.39 3.37	3.38		3.8 3.0	3.4	





Monitoring Station : TM-FM2

Sampling	Ambient Temp (°C) /	Monitori	ng Depth	Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)			Τι	urbidity (NT	J)	Suspe	nded Solids	s (mg/L)
Duration	Weather	(r	n)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
	CONUMER	Surface	1.0	19.6	30.2	30.2	6.72	6.71		87.7 87.5	87.6	7.66	7.68		6.0	6.4	
12:16:46	22/Fine	Middle	8.9	19.3	31.6	31.6	6.36	6.35	6.53	83.2	83.1	8.29	8.28	8.27	3.2	3.3	4.7
		Bottom	16.7	19.0	31.6 32.9	32.0	6.34 5.91	5.02	5.92	82.9 77.5	77.6	8.27 8.88	8 86		3.4 4.7	4.4	
		Dottom	10.7	13.0	32.9	52.5	5.93	5.52	5.52	77.6	77.0	8.84	0.00		4.1	4.4	
		Surface	1.0	19.5	30.1	30.1	7.06	7.05	6 75	91.9	91.7	5.91	5.93		10.8	11.3	
15:24:13	22/Fine	Middle	8.9	19.0	31.3 31.3	31.3	6.48 6.44	6.46	0.70	84.1 83.5	83.8	6.99 6.95	6.97	6.85	9.0 10.2	9.6	11.0
		Bottom	16.8	18.6	32.4	32.4	6.17	6.18	6.18	80.1	80.2	7.67	7.66		12.1	12.2	
		Surface	10	19.6	29.1	29.1	6.94	6.95		90.0	90.1	6.81	6.83		3.1	4 1	
							6.96 6.30		6.62	90.2 81.6					5.0 1.7		
16:04:00	22/Fine	Middle	8.9	19.1	30.6	30.6	6.28	6.29		81.3	81.5	7.42	7.43	7.44	1.4	1.6	2.4
		Bottom	16.9	18.9	31.9 31.9	31.9	5.89 5.86	5.88	5.88	76.6 76.2	76.4	8.04 8.07	8.06		1.2 1.8	1.5	
		Surface	1.0	19.8	28.3 28.3	28.3	6.97 6.95	6.96		90.3 89.8	90.1	6.52 6.56	6.54		6.0 4.0	5.0	
17:34:09	22/Fine	Middle	8.9	19.4	29.6	29.6	6.48	6.46	6.71	83.9	83.7	7.09	7.08	7.08	5.1	4.6	4.7
		Bottom	16.8	19.1	30.3	- 30.3	6.14	6.16	6.16	79.4	79.5	7.64	7.63		3.5	4.4	
					30.3 29.5		6.17 6.94			79.6 89.8		7.61 4.65			5.2 8.5		
		Surface	1.0	19.4	29.5	29.5	6.92	6.93	6.66	89.6	89.7	4.62	4.64		6.4	7.5	-
9:13:05	22/Fine	Middle	8.9	19.1	30.5	30.5	6.40	6.39		82.8	82.6	5.17	5.18	5.12	4.9	5.6	5.7
		Bottom	16.8	18.8	31.4 31.4	31.4	6.05 6.01	6.03	6.03	78.3 77.8	78.1	5.52 5.56	5.54		4.6 3.2	3.9	
						-					_					_	
											_						-
						-					-					-	
	Duration 12:16:46 15:24:13 16:04:00 17:34:09	Sampling DurationTemp (°C) / Weather Condition12:16:4622/Fine15:24:1322/Fine16:04:0022/Fine17:34:0922/Fine	Sampling Duration         Temp (°C) / Weather Condition         Monitoring (no. Surface)           12:16:46         22/Fine         Middle           12:16:46         22/Fine         Middle           15:24:13         22/Fine         Middle           15:24:13         22/Fine         Middle           16:04:00         22/Fine         Middle           16:04:00         22/Fine         Middle           17:34:09         22/Fine         Surface           17:34:09         22/Fine         Middle           9:13:05         22/Fine         Middle	Sampling Duration Network	Sampling Duration Network (C) / Weather	Sampling Duration         Temp (°C) / Weather Condition         Monitoring Depth (°C)         Temp (°C) / Value         Satisfie           10         10         10.6         30.2         30.2           12:16:46         22/Fine         Surface         1.0         19.6         30.2           12:16:46         22/Fine         Middle         8.9         19.3         31.6           12:16:46         22/Fine         Middle         8.9         19.3         31.6           15:24:13         22/Fine         Surface         1.0         19.6         30.1           15:24:13         22/Fine         Surface         1.0         19.6         31.3           15:24:13         22/Fine         Middle         8.9         19.0         31.3           16:04:00         22/Fine         Middle         8.9         19.0         31.9           16:04:00         22/Fine         Middle         8.9         19.1         30.6           16:04:00         22/Fine         Middle         8.9         19.1         31.9           17:34:09         22/Fine         Middle         8.9         19.4         29.6           10:30.3         30.3         29.5         29.5         29.5	Sampling Duration         Temp (°C) / Weather Condition         Monitoring Depth (°C)         Temp (°C) / Value         Satisfier (PD)           12:16:46         22/Fine         Surface Middle         1.0         19.6         30.2         30.2           12:16:46         22/Fine         Surface Middle         1.0         19.6         31.6         31.6         31.6           12:16:46         22/Fine         Middle         8.9         19.3         31.3         31.6           15:24:13         22/Fine         Surface         1.0         19.5         30.1         30.1           15:24:13         22/Fine         Surface         1.0         19.6         31.3         31.3           15:24:13         22/Fine         Middle         8.9         19.0         31.3         31.3           15:24:13         22/Fine         Middle         8.9         19.0         32.9         32.9           16:04:00         22/Fine         Middle         8.9         19.0         29.1         29.1           16:04:00         22/Fine         Middle         8.9         19.1         30.6         30.6           16:04:00         22/Fine         Middle         8.9         19.1         31.9         31.9 <td>Sampling DurationTemp (°C) / Weather ConditionMonitoring Depth (m)Temp (°C) (°C)ValueAverageValue12:16:4622/FineSurface1.019.630.230.26.7212:16:4622/FineSurface1.019.630.230.26.6912:16:4622/FineSurface1.019.631.331.36.3615:24:1322/FineSurface1.019.631.36.4816:04:0022/FineSurface1.019.631.36.4816:04:0022/FineSurface1.019.629.129.116:04:0022/FineSurface1.019.630.630.616:04:0022/FineSurface1.019.830.630.616:04:0022/FineSurface1.019.830.330.317:34:0922/FineSurface</td> <td>Sampling Duration         Temp (°C) Weather         Monitoring Depth (°C)         Temp (°C)         Samily (ph)         Dissourd Oxygen           12:16:46         France Condition         Surface         1.0         19.6         30.2         30.2         6.72         6.69           12:16:46         France Condition         1.0         19.6         31.6         31.6         31.6         6.34         6.35           12:16:46         France Condition         16.7         19.0         32.9         32.9         5.91         5.92           10:0         Bottom         16.7         19.0         30.1         7.03         7.05           15:24:13         France         1.0         19.6         31.3         31.3         6.48         6.46           15:24:13         France         1.0         19.6         31.3         31.3         6.48         6.46           15:24:13         France         1.0         19.6         32.4         32.4         6.17         6.18           16:04:00         Earther         1.0         19.6         29.1         29.1         6.94         6.95           16:04:00         Bottom         16.8         18.9         31.9         31.9         5.86</td> <td>Sampling Duration         Temp (°C) Weather         Monitoring Depth (°C)         Temp (°C) (°C)         Salinity (µD)         Discurse (Ny et) (Ny et) (Ny et)         Depth- average (Ny et)           12:16:46         Surface         1.0         19.6         30.2         30.2         6.72         0.671         average (Ny et)         Depth- average           12:16:46         Surface         1.0         19.6         30.2         30.2         6.72         6.69         6.71         average           12:16:46         Surface         8.9         19.0         31.6         31.6         6.36         6.35         5.92         5.93         5.92         5.91         6.16</td> <td>Sampling DurationTemp (°C) / Weather ConditionMonitoring Depth (°C)Temp (°C) / ValueAverage (°C)Issue (°A)(a)(a)Satura (°C)Satura (°C)12:16:46Average (°C) / Weather ConditionSurface (°C)1.019.630.230.230.26.726.690.718.7787.712:16:46Middle (°C)Middle (°C)19.031.631.631.66.346.346.356.346.3583.283.283.283.283.277.583.277.577.683.277.577.677.677.677.577.677.677.691.932.95.935.925.925.9277.691.991.591.9<td>Sampling Duration         Temp (°C) Weather         Monitoring Depth (°C)         Temp (°C) (°C)         Value         Average         Value         Average         Value         Average         Depth average         Saturation (°S)           12:16:46         Surface         1.0         19.6         30.2         30.2         6.72         6.69         6.71         Pertha         87.7         87.6           12:16:46         Middle         8.9         19.0         31.6         31.6         6.34         6.35         6.71         8.53         87.7         87.6           12:16:46         Middle         8.9         19.0         31.6         31.6         6.34         6.35         6.71         82.9         83.1           12:16:46         Middle         8.9         19.0         32.9         32.9         5.91         7.05         7.7.6         77.6</td><td>Sampling Duration         Temp (°C) / Weather         Monitoring Depth (°C)         Temp (°C)         Value (°C)         Average Value         Note or splet (°C)         Saturation (°C)         Value Value         Average Depth (°C)         Saturation (°C)         Value Value         Average Depth (°C)         Saturation (°C)         Value Value         Average Depth (°C)         Saturation (°C)         Value         Average Depth (°C)         Saturation (°C)         Value         Average Depth (°C)         Depth (°C)         Value         Average Depth (°C)         Depth (°C)         Saturation (°C)         Value         Average Depth (°C)         Depth (°C)         Saturation (°C)         Value         Average         Value           12:16:40         Pathon         16.7         16.7         16.8         0.61         0.61         0.61         0.61         0.61         0.62         0.61         0.62         0.61         0.62         0.62         0.61         0.62         0.61         0.62        0.61         0.62<td>Sampling Durition         Temp (C), Weather         Monitoring Depth (C)         Temp (C), Value         Average         Saturation (K)         Saturation (K)           Durition         Condition         -</td><td>Sample Weather Weather Weather         Minitaring perform (°C)         Temp (°C) (°C)         Temp (°C) (°C)         Value         Average         Saturation (%C)         Saturat</td><td>Sample () () () () () () () () () () () () ()</td><td>Sample (C) (C) weaks (C) (C) (C) (C) (C) (C) (C) (C) (C) (C)</td></td></td>	Sampling DurationTemp (°C) / Weather ConditionMonitoring Depth (m)Temp (°C) (°C)ValueAverageValue12:16:4622/FineSurface1.019.630.230.26.7212:16:4622/FineSurface1.019.630.230.26.6912:16:4622/FineSurface1.019.631.331.36.3615:24:1322/FineSurface1.019.631.36.4816:04:0022/FineSurface1.019.631.36.4816:04:0022/FineSurface1.019.629.129.116:04:0022/FineSurface1.019.630.630.616:04:0022/FineSurface1.019.830.630.616:04:0022/FineSurface1.019.830.330.317:34:0922/FineSurface	Sampling Duration         Temp (°C) Weather         Monitoring Depth (°C)         Temp (°C)         Samily (ph)         Dissourd Oxygen           12:16:46         France Condition         Surface         1.0         19.6         30.2         30.2         6.72         6.69           12:16:46         France Condition         1.0         19.6         31.6         31.6         31.6         6.34         6.35           12:16:46         France Condition         16.7         19.0         32.9         32.9         5.91         5.92           10:0         Bottom         16.7         19.0         30.1         7.03         7.05           15:24:13         France         1.0         19.6         31.3         31.3         6.48         6.46           15:24:13         France         1.0         19.6         31.3         31.3         6.48         6.46           15:24:13         France         1.0         19.6         32.4         32.4         6.17         6.18           16:04:00         Earther         1.0         19.6         29.1         29.1         6.94         6.95           16:04:00         Bottom         16.8         18.9         31.9         31.9         5.86	Sampling Duration         Temp (°C) Weather         Monitoring Depth (°C)         Temp (°C) (°C)         Salinity (µD)         Discurse (Ny et) (Ny et) (Ny et)         Depth- average (Ny et)           12:16:46         Surface         1.0         19.6         30.2         30.2         6.72         0.671         average (Ny et)         Depth- average           12:16:46         Surface         1.0         19.6         30.2         30.2         6.72         6.69         6.71         average           12:16:46         Surface         8.9         19.0         31.6         31.6         6.36         6.35         5.92         5.93         5.92         5.91         6.16	Sampling DurationTemp (°C) / Weather ConditionMonitoring Depth (°C)Temp (°C) / ValueAverage (°C)Issue (°A)(a)(a)Satura (°C)Satura (°C)12:16:46Average (°C) / Weather ConditionSurface (°C)1.019.630.230.230.26.726.690.718.7787.712:16:46Middle (°C)Middle (°C)19.031.631.631.66.346.346.356.346.3583.283.283.283.283.277.583.277.577.683.277.577.677.677.677.577.677.677.691.932.95.935.925.925.9277.691.991.591.9 <td>Sampling Duration         Temp (°C) Weather         Monitoring Depth (°C)         Temp (°C) (°C)         Value         Average         Value         Average         Value         Average         Depth average         Saturation (°S)           12:16:46         Surface         1.0         19.6         30.2         30.2         6.72         6.69         6.71         Pertha         87.7         87.6           12:16:46         Middle         8.9         19.0         31.6         31.6         6.34         6.35         6.71         8.53         87.7         87.6           12:16:46         Middle         8.9         19.0         31.6         31.6         6.34         6.35         6.71         82.9         83.1           12:16:46         Middle         8.9         19.0         32.9         32.9         5.91         7.05         7.7.6         77.6</td> <td>Sampling Duration         Temp (°C) / Weather         Monitoring Depth (°C)         Temp (°C)         Value (°C)         Average Value         Note or splet (°C)         Saturation (°C)         Value Value         Average Depth (°C)         Saturation (°C)         Value Value         Average Depth (°C)         Saturation (°C)         Value Value         Average Depth (°C)         Saturation (°C)         Value         Average Depth (°C)         Saturation (°C)         Value         Average Depth (°C)         Depth (°C)         Value         Average Depth (°C)         Depth (°C)         Saturation (°C)         Value         Average Depth (°C)         Depth (°C)         Saturation (°C)         Value         Average         Value           12:16:40         Pathon         16.7         16.7         16.8         0.61         0.61         0.61         0.61         0.61         0.62         0.61         0.62         0.61         0.62         0.62         0.61         0.62         0.61         0.62        0.61         0.62<td>Sampling Durition         Temp (C), Weather         Monitoring Depth (C)         Temp (C), Value         Average         Saturation (K)         Saturation (K)           Durition         Condition         -</td><td>Sample Weather Weather Weather         Minitaring perform (°C)         Temp (°C) (°C)         Temp (°C) (°C)         Value         Average         Saturation (%C)         Saturat</td><td>Sample () () () () () () () () () () () () ()</td><td>Sample (C) (C) weaks (C) (C) (C) (C) (C) (C) (C) (C) (C) (C)</td></td>	Sampling Duration         Temp (°C) Weather         Monitoring Depth (°C)         Temp (°C) (°C)         Value         Average         Value         Average         Value         Average         Depth average         Saturation (°S)           12:16:46         Surface         1.0         19.6         30.2         30.2         6.72         6.69         6.71         Pertha         87.7         87.6           12:16:46         Middle         8.9         19.0         31.6         31.6         6.34         6.35         6.71         8.53         87.7         87.6           12:16:46         Middle         8.9         19.0         31.6         31.6         6.34         6.35         6.71         82.9         83.1           12:16:46         Middle         8.9         19.0         32.9         32.9         5.91         7.05         7.7.6         77.6	Sampling Duration         Temp (°C) / Weather         Monitoring Depth (°C)         Temp (°C)         Value (°C)         Average Value         Note or splet (°C)         Saturation (°C)         Value Value         Average Depth (°C)         Saturation (°C)         Value Value         Average Depth (°C)         Saturation (°C)         Value Value         Average Depth (°C)         Saturation (°C)         Value         Average Depth (°C)         Saturation (°C)         Value         Average Depth (°C)         Depth (°C)         Value         Average Depth (°C)         Depth (°C)         Saturation (°C)         Value         Average Depth (°C)         Depth (°C)         Saturation (°C)         Value         Average         Value           12:16:40         Pathon         16.7         16.7         16.8         0.61         0.61         0.61         0.61         0.61         0.62         0.61         0.62         0.61         0.62         0.62         0.61         0.62         0.61         0.62        0.61         0.62 <td>Sampling Durition         Temp (C), Weather         Monitoring Depth (C)         Temp (C), Value         Average         Saturation (K)         Saturation (K)           Durition         Condition         -</td> <td>Sample Weather Weather Weather         Minitaring perform (°C)         Temp (°C) (°C)         Temp (°C) (°C)         Value         Average         Saturation (%C)         Saturat</td> <td>Sample () () () () () () () () () () () () ()</td> <td>Sample (C) (C) weaks (C) (C) (C) (C) (C) (C) (C) (C) (C) (C)</td>	Sampling Durition         Temp (C), Weather         Monitoring Depth (C)         Temp (C), Value         Average         Saturation (K)         Saturation (K)           Durition         Condition         -	Sample Weather Weather Weather         Minitaring perform (°C)         Temp (°C) (°C)         Temp (°C) (°C)         Value         Average         Saturation (%C)         Saturat	Sample () () () () () () () () () () () () ()	Sample (C) (C) weaks (C)



Monitoring Station :

Date	Sampling	Ambient Temp (°C) /	Monitori	ng Depth	Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)		d Oxygen tion (%)	Tu	urbidity (NT	U)	Suspe	nded Solids	(mg/L)
Date	Duration	Weather Condition	(1	m)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	18.7	30.3 30.3	30.3	6.93 6.96	6.95		88.9 89.3	89.1	2.23 2.20	2.22		6.5 5.9	6.2	
18/01/22	13:40:10	22/Fine	Middle	8.8	18.4	30.8 30.8	30.8	6.48 6.45	6.47	6.71	82.9 82.6	82.8	2.84 2.80	2.82	2.75	4.5 5.5	5.0	5.8
			Bottom	16.7	18.0	31.5	31.5	6.05	6.03	6.03	77.2	77.0	3.23	3.22		6.0	6.1	
			Surface	1.0	19.1	31.5 29.4	29.4	6.01 7.03	7.05		76.7 90.4	90.7	3.21 5.15	5.16		6.2 9.3	9.4	
00/01/00	44 57 00	00/51				29.4 30.5		7.07 6.50		6.77	91.0 83.4		5.17 5.68		5 70	9.5 8.1		
20/01/22	14:57:06	22/Fine	Middle	8.9	18.6	30.5 31.6	30.5	6.47 6.12	6.49		83.1 78.4	83.3	5.66 6.29	5.67	5.70	8.0 9.3	8.1	8.9
			Bottom	16.7	18.2	31.6	31.6	6.09	6.11	6.11	77.9	78.2	6.25	6.27		9.3	9.3	
			Surface	1.0	19.5	29.3 29.3	29.3	7.17 7.19	7.18	6.85	92.9 93.1	93.0	4.40 4.44	4.42		4.9 4.3	4.6	
22/01/22	16:35:00	22/Fine	Middle	8.8	19.0	30.5 30.5	30.5	6.54 6.51	6.53	0.65	84.5 84.3	84.4	4.96 4.99	4.98	4.99	3.8 3.4	3.6	4.2
			Bottom	16.7	18.7	31.7 31.7	31.7	6.11 6.08	6.10	6.10	79.1 78.7	78.9	5.58 5.56	5.57		4.3 4.4	4.4	
			Surface	1.0	19.5	29.4	29.4	7.05	7.04		91.4	91.2	5.01	5.02		7.8	7.8	
25/01/22	17:37:07	22/Fine	Middle	8.9	19.2	29.4 30.4	30.4	7.02 6.51	6.53	6.78	91.0 84.4	84.7	5.03 5.47	5.46	5.46	7.7 3.9	3.7	4.9
25/01/22	17.57.07	22/11110				30.4 31.3		6.54 6.18			85.0 79.9		5.45 5.92		5.40	3.4 3.3		4.5
			Bottom	16.8	18.8	31.3	31.3	6.14	6.16	6.16	79.4	79.7	5.88	5.90		3.4	3.4	
			Surface	1.0	19.4	29.7 29.7	29.7	7.47 7.49	7.48	7.09	96.8 97.1	97.0	1.55 1.58	1.57		4.4 3.1	3.8	
27/01/22	9:03:59	22/Fine	Middle	8.8	19.1	30.3 30.3	30.3	6.69 6.72	6.71		86.5 86.8	86.7	2.05 2.03	2.04	2.05	2.1 3.6	2.9	3.1
			Bottom	16.6	18.8	32.3 32.3	32.3	6.36 6.32	6.34	6.34	82.7 82.2	82.5	2.57 2.54	2.56		2.9 2.3	2.6	
			Surface	1.0	18.9	30.2 30.1	30.1	7.01 7.05	7.03		90.2 90.7	90.5	1.65 1.69	1.67		3.2 3.0	3.1	
29/01/22	11:04:01	22/Fine	Middle	8.9	18.4	31.5	31.5	6.50	6.51	6.77	83.5	83.7	2.25	2.26	2.23	1.9	1.9	2.4
			Bottom	16.9	18.1	31.5 32.7	32.7	6.52 6.03	6.05	6.05	83.8 77.6	77.8	2.27 2.76	2.75		1.8 1.7	2.1	
			Surface	1.0	18.8	32.7 30.5	30.5	6.06 7.02	7.01		77.9 90.4	90.3	2.73 2.50	2.52		2.5 2.8	2.8	
21/21/27		00/Fi				30.5 32.0		7.00 6.51		6.75	90.1 83.9		2.54 3.06			2.7 2.7		
31/01/22	13:21:57	22/Fine	Middle	8.9	18.4	32.0	32.0	6.48 6.16	6.50		83.7	83.8	3.04	3.05	3.09	2.1 2.0	2.4	2.5
			Bottom	16.9	18.1	33.2 33.2	33.2	6.16 6.20	6.18	6.18	79.5 80.0	79.8	3.72 3.69	3.71		2.0	2.4	



Monitoring Station : TM-FC2

Date	Sampling	Ambient Temp (°C) /		ng Depth	Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)		d Oxygen tion (%)	Tu	urbidity (NTI	J)	Suspe	nded Solids	s (mg/L)
Duio	Duration	Weather Condition	(r	n)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	19.8	30.4 30.4	30.4	6.98 7.02	7.00	6.76	91.5 92.1	91.8	7.58 7.55	7.57		3.5 3.3	3.4	
01/01/22	12:37:24	22/Fine	Middle	8.6	19.4	31.8 31.8	31.8	6.54 6.51	6.53	6.76	85.8 85.4	85.6	8.04 8.06	8.05	8.04	3.9 4.4	4.2	3.6
			Bottom	16.3	19.1	32.7 32.7	32.7	6.22 6.20	6.21	6.21	81.6 81.2	81.4	8.47 8.51	8.49		3.2 3.0	3.1	
			Surface	1.0	19.7	30.0 30.0	30.0	6.83 6.80	6.82		89.1 88.6	88.9	6.35 6.33	6.34		6.0 5.5	5.8	
04/01/22	15:44:19	22/Fine	Middle	8.6	19.3	31.3 31.3	31.3	6.31 6.35	6.33	6.57	82.4 82.8	82.6	7.20 7.24	7.22	7.15	11.8 10.3	11.1	7.4
			Bottom	16.3	18.5	32.7 32.8	32.7	6.04 6.02	6.03	6.03	78.4 78.3	78.4	7.86 7.89	7.88		5.6 5.1	5.4	
			Surface	1.0	19.7	28.8 28.8	28.8	7.03 7.06	7.05		91.1 91.4	91.3	5.93 5.90	5.92		1.0 1.4	1.2	
06/01/22	16:21:00	22/Fine	Middle	8.6	19.4	30.1 30.1	30.1	6.52 6.48	6.50	6.77	84.7 84.2	84.5	6.45 6.43	6.44	6.42	4.3 3.7	4.0	2.9
			Bottom	16.2	19.0	31.9 31.9	31.9	6.09 6.06	6.08	6.08	79.4 78.8	79.1	6.89 6.93	6.91		3.4 3.4	3.4	
			Surface	1.0	19.9	28.7 28.7	28.7	6.88 6.86	6.87		89.5 89.1	89.3	6.79 6.77	6.78		3.5 2.8	3.2	
08/01/22	17:50:59	22/Fine	Middle	8.6	19.5	29.6 29.6	29.6	6.40 6.44	6.42	6.65	83.0 83.5	83.3	7.37 7.34	7.36	7.27	4.1 4.6	4.4	3.9
			Bottom	16.3	19.2	30.4 30.4	30.4	6.07 6.04	6.06	6.06	78.7 78.3	78.5	7.70 7.66	7.68		3.5 4.7	4.1	
			Surface	1.0	19.5	29.7 29.7	29.7	6.70 6.72	6.71		87.0 87.1	87.1	4.09 4.05	4.07		6.6 6.1	6.4	
11/01/22	9:40:04	22/Fine	Middle	8.6	19.1	30.1 30.1	30.1	6.27 6.24	6.26	6.48	81.0 80.4	80.7	4.43 4.45	4.44	4.45	5.4 4.0	4.7	5.5
			Bottom	16.3	18.7	31.3 31.3	31.3	5.84 5.80	5.82	5.82	75.4 74.9	75.2	4.84 4.81	4.83		5.4 5.5	5.5	
									-								-	
13/01/22									-								-	
							-							-				
15/01/22							-		-					-			-	
							-							-				



Monitoring Station : TM-FC2

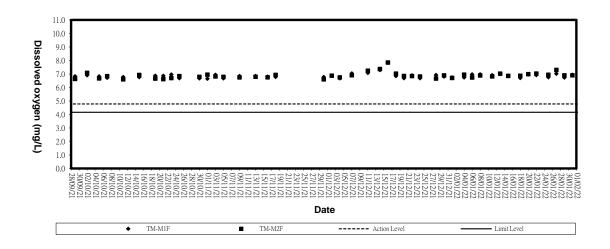
Date	Sampling	Ambient Temp (°C) /	Monitori	• •	Temp	Salini	ty (ppt)	Dissol	ved Oxygen	(mg/L)		ed Oxygen tion (%)	Τι	urbidity (NTI	U)	Suspe	nded Solids	s (mg/L)
Duto	Duration	Weather Condition	(r	n)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	18.9	30.3 30.3	30.3	7.13 7.11	7.12		91.9 91.4	91.7	1.73 1.70	1.72		3.6 3.1	3.4	
18/01/22	13:58:06	22/Fine	Middle	8.6	18.5	30.8 30.8	30.8	6.60 6.62	6.61	6.87	84.6 84.7	84.7	2.24 2.22	2.23	2.19	5.3 4.5	4.9	4.6
			Bottom	16.1	18.2	31.3 31.3	31.3	6.14 6.18	6.16	6.16	78.5 78.9	78.7	2.60 2.64	2.62		5.9 5.0	- 5.5	
			Surface	1.0	19.0	30.0 30.0	30.0	7.28 7.30	7.29		93.8 93.9	93.9	5.74 5.71	5.73		5.1 5.3	5.2	
20/01/22	15:16:08	22/Fine	Middle	8.6	18.5	31.5 31.5	31.5	6.79 6.77	6.78	7.04	87.4 87.2	87.3	6.28 6.24	6.26	6.29	8.0 7.3	7.7	6.2
			Bottom	16.3	18.1	32.2 32.1	32.1	6.31 6.28	6.30	6.30	81.0 80.6	80.8	6.88 6.90	6.89		5.8 5.7	5.8	
			Surface	1.0	19.4	28.5 28.4	28.4	7.12 7.09	7.11		91.6 91.0	91.3	4.76 4.72	4.74		2.1 1.7	1.9	
22/01/22	16:53:01	22/Fine	Middle	8.6	18.9	30.0 30.0	30.0	6.65 6.61	6.63	6.87	85.5 85.0	85.3	5.12 5.14	5.13	5.16	5.0 4.5	4.8	3.3
			Bottom	16.3	18.5	31.5 31.5	31.5	6.22 6.20	6.21	6.21	80.1 79.7	79.9	5.60 5.63	5.62		3.3 3.2	3.3	
			Surface	1.0	19.7	28.9 28.9	28.9	7.29 7.26	7.28		94.5 94.0	94.3	3.80 3.84	3.82		4.9 4.1	4.5	
25/01/22	17:58:15	22/Fine	Middle	8.6	19.3	29.6 29.6	29.6	6.55 6.51	6.53	6.90	84.7 84.2	84.5	4.34 4.32	4.33	4.31	2.3 2.7	2.5	3.2
			Bottom	16.3	19.0	30.7 30.7	30.7	6.23 6.21	6.22	6.22	80.6 80.2	80.4	4.79 4.77	4.78		2.3 3.1	2.7	
			Surface	1.0	19.5	30.1 30.1	30.1	7.35 7.31	7.33	0.00	95.6 94.9	95.3	1.62 1.64	1.63		2.0 1.8	1.9	
27/01/22	9:20:59	22/Fine	Middle	8.6	19.2	31.2 31.2	31.2	6.64 6.61	6.63	6.98	86.5 85.9	86.2	2.13 2.10	2.12	2.13	4.1 4.5	4.3	3.0
			Bottom	16.2	18.9	32.6 32.6	32.6	6.27 6.29	6.28	6.28	81.9 82.0	82.0	2.62 2.66	2.64		2.8 2.5	2.7	
			Surface	1.0	19.1	30.6 30.6	30.6	7.17 7.14	7.16	0.07	92.9 92.5	92.7	1.94 1.91	1.93		2.3 2.1	2.2	
29/01/22	11:21:06	22/Fine	Middle	8.6	18.6	31.3 31.3	31.3	6.58 6.60	6.59	6.87	84.8 85.2	85.0	2.54 2.50	2.52	2.51	1.6 2.2	- 1.9	2.0
			Bottom	16.2	18.2	32.3 32.3	32.3	6.19 6.23	6.21	6.21	79.6 80.2	79.9	3.06 3.08	3.07		1.8 2.0	1.9	
			Surface	1.0	18.8	30.9 30.9	30.9	6.78 6.75	6.77	0.50	87.5 86.9	87.2	2.11 2.13	2.12		3.3 3.4	3.4	
31/01/22	13:43:04	22/Fine	Middle	8.6	18.4	32.5 32.5	32.5	6.34 6.36	6.35	6.56	82.0 82.3	82.2	2.63 2.67	2.65	2.65	4.2 3.2	3.7	4.0
			Bottom	16.2	18.2	33.8 33.8	33.8	6.04 6.00	6.02	6.02	78.4	78.1	3.18 3.15	3.17		4.6 5.0	4.8	



Appendix C3

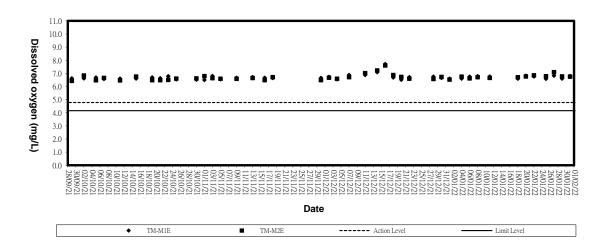
Graphical Plots of Impact Marine Water Quality Monitoring Data





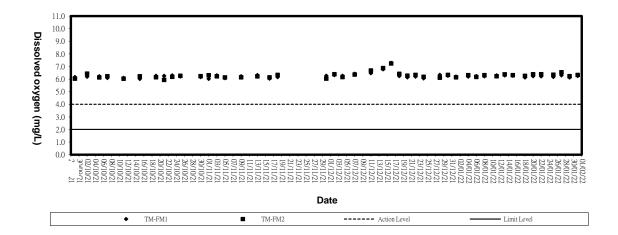
#### Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide

#### Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide

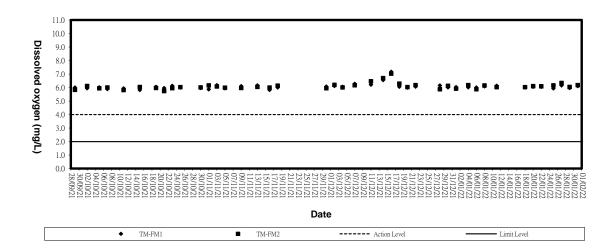




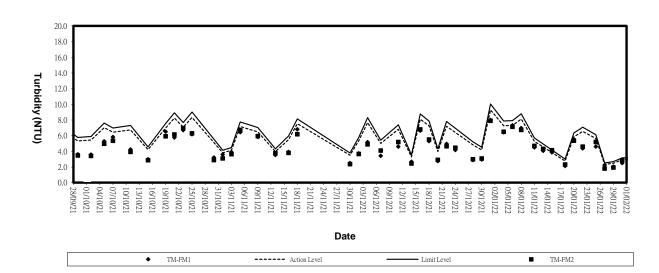
#### Dissolved Oxygen (Bottom) at Mid-Flood Tide



#### Dissolved Oxygen (Bottom) at Mid-Ebb Tide

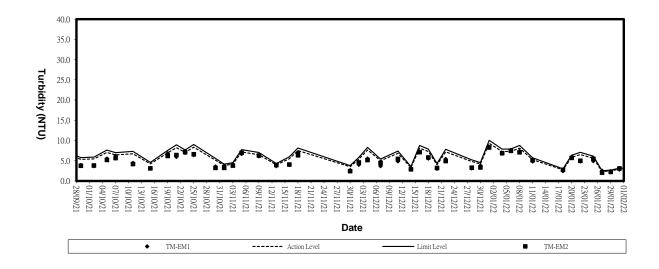






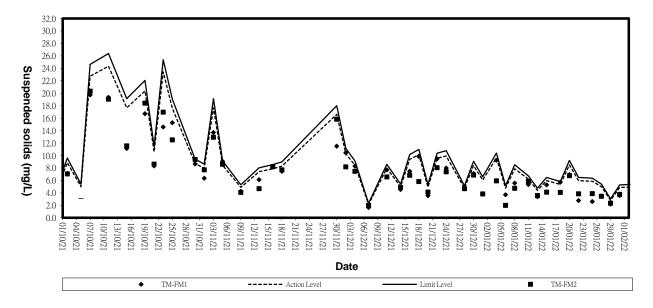
#### Turbidity (Depth-average) at Mid-Flood Tide



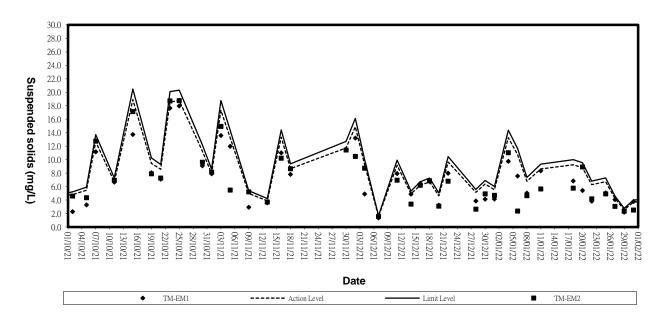








Suspended Solids (Depth-average) at Mid-Ebb Tide





Appendix D1

Calibration Certificates for Impact Noise Monitoring Equipments



Hong Kong Calibration Ltd. 香港校正有限公司

### **Calibration Certificate**

Certificate No.	. 101202		Page	1 of 2 Pages
Customer :	ETS-Testconsult Limited			
Address :	8/F., Block B, Veristrong Indu	strial Centre, 34-36 Au	u Pui Wan St., Fo	tan, Hong Kong.
Order No. :	Q10544		Date of receipt	: 9-Feb-21
Item Tested	nan an			
Description	: Acoustic Calibrator			
Manufacturer	: Castle		I.D.	: ET/EN/002/07
Model :	GA607		Serial No.	: 038641
Test Condit	ions			
Date of Test :	3-Mar-21		Supply Voltage	
Ambient Temp	erature : (23 ± 3)°C		Relative Humid	lity:(50 ± 25) %
Test Specifi	cations			
Calibration chee	ck.			
	/Procedure : IEC 60942, F06, F	20, Z02.		
		,		
Test Results	3			
All results were	within the IEC 60942 Class 1 s	pecification.		
The results are	shown in the attached page(s).			
Main Test equip	oment used:			
Equipment No.		Cert. No.		Traceable to
S014	Spectrum Analyzer	005018		NIM-PRC & SCL-HKSAR
S240	Sound Level Calibrator	003053		NIM-PRC & SCL-HKSAR
S041	Universal Counter	001622		SCL-HKSAR
S206	Sound Level Meter	007031		SCL-HKSAR
will not include allov overloading, mis-ha	this Calibration Certificate only relate t vance for the equipment long term drift ndling, or the capability of any other lal age resulting from the use of the equip	, variations with environme poratory to repeat the meas	ntal changes, vibratio	n and shock during transportation,
	used for calibration are traceable to In ly to the above Unit-Under-Test only	ternational System of Units	(SI), or by reference	to a natural constant.
	AL.	na minina katala kat	2009 Media second dalar dalam seconda ana mani bida seconda dala da seconda da seconda da seconda seconda secon	$\left( \right)$
Calibrated by	XI-	Аррі	roved by :(	MA

Elva Chong

Date:	3-Mar-21
2010.	

Kin Wong

This Certificate is issued by: Hong Kong Calibration Ltd.

Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong. Tel: 2425 8801 Fax: 2425 8646



### **Calibration Certificate**

#### Certificate No. 101202

Page 2 of 2 Pages

Results :

#### 1. Generated Sound Pressure Level

UUT Nominal Value (dB)	Measured Value (dB)	IEC 60942 Class 1 Spec.	
94.0	94.1	± 0.4 dB	

Uncertainty :  $\pm 0.2 \text{ dB}$ 

 Short-term Level Fluctuation : 0.0 dB IEC 60942 Class 1 Spec. : ± 0.1 dB Uncertainty : ± 0.01 dB

#### 3. Frequency

UUT Nominal Value (kHz)	Measured Value (kHz)	IEC 60942 Class 1 Spec.
1	1.000	± 1 %

Uncertainty :  $\pm$  3.6 x 10 <sup>-6</sup>

- 4. Total Distortion : < 3.0% IEC 60942 Class 1 Spec. : < 4 % Uncertainty : ± 2.3 % of reading
- Remark : 1. UUT : Unit-Under-Test
  - 2. The uncertainty claimed is for a confidence probability of not less than 95%.
  - 3. Atmospheric Pressure : 1 012hPa.



Hong Kong Calibration Ltd. 香港校正<sub>有限公司</sub>

### **Calibration Certificate**

Certificate No.	102657		Page	1 of 3	Pages
Customer :	ETS-Testconsult Limited				
Address :	8/F., Block B, Veristrong Industria	al Centre, 34-36 Au	Pui Wan St., Fo	tan, Hong Kor	ng.
Order No. :	Q11106		Date of receipt		25-Mar-21
Item Tested					
Description :	Sound Level Meter				
Manufacturer :	Rion		I.D.	: ET/EN/0	03/17
Model :	NL-52		Serial No.	: 0026451	9
Test Conditi	ons				
Date of Test :	7-Apr-21		Supply Voltage	)	
Ambient Temp	erature: (23 ± 3)°C		Relative Humic	<b>lity:</b> (50 ± 25	) %
Test Specifie	cations				
Calibration chec Ref. Document/	ck. Procedure: Z01, IEC 61672.				
Test Results	3		nning yn ar yw yn gwlang yn gan yn gwlang		
All results were	within the IEC 61672 Type 1 or m	anufacturer's speci	fication.		
	shown in the attached page(s).				
Main Test equip	oment used:				
Equipment No.		<u>Cert. No.</u>		Traceable to	
S017	Multi-Function Generator	C211339		SCL-HKSAR	
S240	Sound Level Calibrator	003053		NIM-PRC & S	SCL-HKSAR

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI), or by reference to a natural constant. The test results apply to the above Unit-Under-Test only

				-
Calibrated by :	Approv	/ed by :	Qui	
Elva Chong			Kin Wong	
This Certificate is issued by:	Date:	7-Apr-21		
Hong Kong Calibration Ltd.				
Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Ko	ong.			
Tel: 2425 8801 Fax: 2425 8646				

The copyright of this certificate is owned by Hong Kong Calibration Ltd.. It may not be reproduced except in full.



Hong Kong Calibration Ltd. 香港校正有限公司

### **Calibration Certificate**

#### Certificate No. 102657

Page 2 of 3 Pages

Results :

Acoustical signal test

#### 1. Self-generated noise: 15.8dBA (Mfr's Spec $\leq$ 17 dBA)

#### 2. Reference Sound Pressure Level

	UUT S				
	Frequency	Time	Octave	Applied	UUT
Range (dB)	Weighting	Weighting	Filter	Value (dB)	Reading (dB)
20~130	A	F	OFF	94.0	94.0
		S	OFF		94.0
	С	F	OFF		94.0
	Z	F	OFF		94.0
	A	F	OFF	114.0	114.0
		S	OFF		114.0
	С	F	OFF		114.0
	Z	F	OFF		114.0

IEC 61672 Type 1 Spec. :  $\pm$  1.1 dB Uncertainty :  $\pm$  0.1 dB

#### **Electrical signal tests**

#### 3. Electrical signal tests of frequency weightings (A weighting)

Frequency	Attenuation (dB)	IEC 61672 Type 1 Spec.
31.5 Hz	-39.9	- 39.4 dB, ± 2 dB
63 Hz	-26.5	- 26.2 dB, ± 1.5 dB
125 Hz	-16.4	- 16.1 dB, ± 1.5 dB
250 Hz	-8.8	- $8.6 \text{ dB}, \pm 1 \text{ dB}$
500 Hz	-3.3	- $3.2 \text{ dB}, \pm 1.4 \text{ dB}$
1 kHz	0.0 (Ref)	$0 \text{ dB}, \pm 1.1 \text{ dB}$
2 kHz	+1.3	$+$ 1.2 dB, $\pm$ 1.6 dB
4 kHz	+1.2	$+$ 1.0 dB, $\pm$ 1.6 dB
8 kHz	-0.9	- 1.1 dB, + 2.1 dB ~ -3.1 dB
16 kHz	-7.8	- $6.6 \text{ dB}, + 3.5 \text{ dB} \sim -17.0 \text{ dB}$

Uncertainty :  $\pm 0.1 \text{ dB}$ 



Hong Kong Calibration Ltd. 香港校正有限公司

### **Calibration Certificate**

#### Certificate No. 102657

Page 3 of 3 Pages

#### 4. Frequency & Time weightings at 1 kHz

4.1 Frequency Weighting (Fast)

UUT	Applied	UUT	Difference	IEC 61672
Setting	Value (dB)	Reading (dB)	(dB)	Type 1 Spec.
А	94.0	94.0 (Ref.)		$\pm 0.4 \text{ dB}$
С	94.0	94.0	0.0	
Z	94.0	94.0	0.0	

#### 4.2 Time Weighting (A-weighted)

UUT	Applied	UUT	Difference	IEC 61672
Setting	Value (dB)	Reading (dB)	(dB)	Type 1 Spec.
Fast	94.0	94.0 (Ref.)		± 0.3 dB
Slow	94.0	94.0	0.0	
Time-averaging	94.0	94.0	0.0	

Uncertainty :  $\pm 0.1 \text{ dB}$ 

Remarks : 1. UUT : Unit-Under-Test

- 2. The uncertainty claimed is for a confidence probability of not less than 95%.
- 3. Atmospheric Pressure : 1 002hPa.
- 4. Microphone model: UC-59, S/N: 03558
- 5. Preamplifier model : NH-25, S/N : 64644
- 6. Firmware Version: 1.7
- 7. Power Supply Check: OK
- 8. The UUT was adjusted with the laboratory's sound calibrator at the reference sound pressure level before the calibration.

----- END -----



## **Calibration Certificate**

Certificate No.	101201		Page	1 of 3 Pages
Customer :	ETS-Testconsult Limited			
Address :	8/F., Block B, Veristrong Industr	ial Centre, 34-36 Au	Pui Wan St., Fo	tan, Hong Kong.
Order No. :	Q10544		Date of receipt	: 9-Feb-21
Item Tested			аналаналанан токот со <u>у</u> токалан	
Description	Sound Level Meter			
Manufacturer	: Rion		I.D.	: ET/EN/003/18
Model :	NL-52		Serial No.	: 00264520
Test Condit	ions			
Date of Test :	3-Mar-21		Supply Voltage	) :
Ambient Temp	erature : (23 ± 3)°C		Relative Humid	<b>lity:</b> (50 ± 25) %
Test Specifi	cations			
Calibration chee	ck.			
Ref. Document/	Procedure: Z01, IEC 61672.			
Test Results	3			
All results were	within the IEC 61672 Type 1 spec	cification. (where ap	plicable)	
The results are	shown in the attached page(s).			
Main Test equip	oment used:			
Equipment No.	Description	<u>Cert. No.</u>		Traceable to
S017A	Multi-Function Generator	906713		SCL-HKSAR
S240	Sound Level Calibrator	003053		NIM-PRC & SCL-HKSAR

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI), or by reference to a natural constant. The test results apply to the above Unit-Under-Test only

Calibrated by :	Appro	ved by :	CAL	
Elva Chong		ge economie	Kin Wong	
This Certificate is issued by:	Date:	3-Mar-21		
Hong Kong Calibration Ltd.				
Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong I	Kong.			
Tel: 2425 8801 Fax: 2425 8646				



# **Calibration Certificate**

Certificate No. 101201

Page 2 of 3 Pages

Results :

Acoustical signal test

#### 1. Self-generated noise: 25.5dBA

#### 2. Reference Sound Pressure Level

	UUT S				
	Frequency	Time	Octave	Applied	UUT
Range (dB)	Weighting	Weighting	Filter	Value (dB)	Reading (dB)
20~130	A	F	OFF	94.0	94.0
		S	OFF		94.0
	C	F	OFF		94.0
	Z	F	OFF		94.0
	A	F	OFF	114.0	114.1
		S	OFF		114.1
	C	F	OFF		114.1
	Z	F	OFF		114.1

IEC 61672 Type 1 Spec. :  $\pm$  1.1 dB Uncertainty :  $\pm$  0.1 dB

#### **Electrical signal tests**

#### 3. Electrical signal tests of frequency weightings (A weighting)

Frequency	Attenuation (dB)	IEC 61672 Type 1 Spec.
31.5 Hz	-39.9	- 39.4 dB, ± 2 dB
63 Hz	-26.4	- 26.2 dB, ± 1.5 dB
125 Hz	-16.4	- 16.1 dB, ± 1.5 dB
250 Hz	-8.8	- $8.6 \text{ dB}, \pm 1 \text{ dB}$
500 Hz	-3.4	$- 3.2 \text{ dB}, \pm 1.4 \text{ dB}$
1 kHz	0.0 (Ref)	$0 \text{ dB}, \pm 1.1 \text{ dB}$
2 kHz	+1.3	$+$ 1.2 dB, $\pm$ 1.6 dB
4 kHz	+1.1	$+ 1.0 \text{ dB}, \pm 1.6 \text{ dB}$
8 kHz	-1.0	- 1.1 dB, +2.1 dB $\sim$ -3.1 dB
16 kHz	-7.9	- 6.6 dB, + 3.5 dB ~ - 17.0 dB

Uncertainty :  $\pm 0.1 \text{ dB}$ 



Hong Kong Calibration Ltd. 香港校正有限公司

# **Calibration Certificate**

#### Certificate No. 101201

Page 3 of 3 Pages

#### 4. Frequency & Time weightings at 1 kHz

4.1 Frequency Weighting (Fast)

UUT	Applied	UUT	Difference	IEC 61672
Setting	Value (dB)	Reading (dB)	(dB)	Type 1 Spec.
A	94.0	94.0 (Ref.)		± 0.4 dB
C	94.0	94.0	0.0	
Z	94.0	94.0	0.0	

#### 4.2 Time Weighting (A-weighted)

r	· · · · · · · · · · · · · · · · · · ·		·····	
UUT	Applied	UUT	Difference	IEC 61672
Setting	Value (dB)	Reading (dB)	(dB)	Type 1 Spec.
Fast	94.0	94.0 (Ref.)		± 0.3 dB
Slow	94.0	94.0	0.0	
Time-averaging	94.0	94.0	0.0	

Uncertainty :  $\pm 0.1 \text{ dB}$ 

#### Remarks : 1. UUT : Unit-Under-Test

- 2. The uncertainty claimed is for a confidence probability of not less than 95%.
- 3. Atmospheric Pressure : 1 012hPa.
- 4. Microphone model: UC-59, S/N : 09668.
- 5. Preamplifier model : NH-25, S/N : 64646.
- 6. Firmware Version: 1.7
- 7. Power Supply Check: OK
- 8. The UUT was adjusted with the supplied sound calibrator at the reference sound pressure level before the calibration.

----- END -----



Appendix D2

Impact Noise Monitoring Results



### Day-time Noise Monitoring`

#### Monitoring Location: TM-RN1 \*

Date Time	Start Sampling	Noi	Noise Level dB (A)		Wind	Major Noise	Weather
		L <sub>eq(30min)</sub>	L <sub>10</sub>	L <sub>90</sub>	Speed (m/s)	Sources	Condition
4/01/2022	09:30	58.4	59.7	54.4	0.2	Vehicle passing by	Fine
6/01/2022	10:15	64.4	67.2	62.5	0.3	Vehicle passing by	Cloudy
11/01/2022	09:30	60.2	61.7	57.7	0.2	Vehicle passing by	Cloudy
13/01/2022	11:25	58.6	59.4	55.3	0.2	Vehicle passing by	Cloudy
18/01/2022	13:01	63.7	66.1	60.4	0.2	Vehicle passing by	Cloudy
20/01/2022	09:12	64.3	67.1	61.8	0.1	Vehicle passing by	Cloudy
25/01/2022	13:50	59.4	60.9	56.8	0.2	Vehicle passing by	Cloudy
27/01/2022	10:35	59.5	60.8	56.6	0.3	Vehicle passing by	Cloudy
31/01/2022	13:02	61.3	63.7	58.1	0.3	Vehicle passing by	Cloudy

Remark: Since Lands Department did not approve us to enter their own area where the noise monitoring stations TM-N1 located due to the security, noise monitoring was carried out at noise monitoring stations TM-RN1 (refer to the figure 3 attached) in this reporting month.

#### Monitoring Location: TM-RN2 \*

Date Start Sampling		Noise Level dB (A)			Wind Speed	Major Noise Sources	Weather Condition
Time (hh:mm)	L <sub>eq(30min)</sub>	L <sub>10</sub>	L <sub>90</sub>	(m/s)			
4/01/2022	09:35	57.6	58.9	54.0	0.2	Vehicle passing by	Fine
6/01/2022	10:18	60.8	62.6	58.1	0.2	Vehicle passing by	Cloudy
11/01/2022	09:35	58.9	59.6	55.3	0.2	Vehicle passing by	Cloudy
13/01/2022	11:30	57.4	58.7	54.4	0.2	Vehicle passing by	Cloudy
18/01/2022	13:35	60.2	62.8	57.6	0.2	Vehicle passing by	Cloudy
20/01/2022	09:45	60.2	62.7	57.8	0.2	Vehicle passing by	Cloudy
25/01/2022	13:55	58.5	59.7	54.8	0.2	Vehicle passing by	Cloudy
27/01/2022	10:40	58.2	59.4	54.7	0.2	Vehicle passing by	Cloudy
31/01/2022	13:05	59.7	62.1	57.2	0.5	Vehicle passing by	Cloudy

Remark: Since Lands Department did not approve us to enter their own area where the noise monitoring stations TM-N2 located due to the security, noise monitoring was carried out at noise monitoring stations TM-RN2 (refer to the figure 3 attached) in this reporting month.

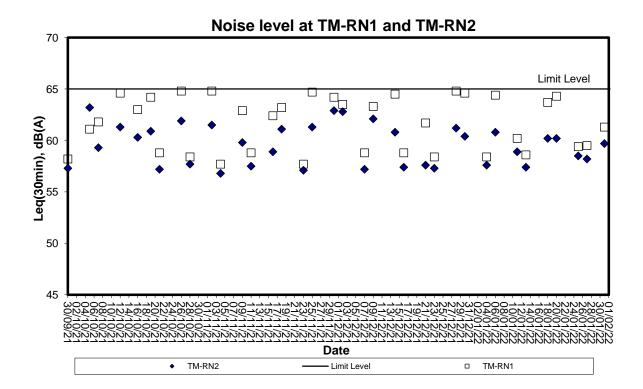


Appendix D3

**Graphical Plots of Impact Noise Monitoring Data** 



# Noise Monitoring (Day-time)





Appendix E

Weather Condition

	Mean				Mean	Mean	Total	Prevailing	Mean
	Pressure	Ai	r Temperatu	ıre	Dew	Relative	Rainfall	Wind	Wind
	(hPa)				Point	Humidity	(mm)	Direction	Speed
Day	(IIF a)						(mm)		_
2 a.j		Absolute	Mean	Absolute	(deg. C)	(%)		(degrees)	(km/h)
		Daily	(deg.C)	Daily					
		Max		Min					
		(deg. C)		(deg. C)					
1	1024.4	19.3	17.6	16.4	13.4	76	-	70	24.4
2	1022.5	22	18.4	16	14.2	77	-	20	15.1
3	1021.1	20.5	18.3	17	14.5	79	-	70	25.1
4	1019.6	21.5	19.1	17.4	14.4	75	-	70	29.6
5	1017.3	23.6	20.4	18.3	15.8	75	Trace	50	13.8
6	1019.2	23.6	20.3	18.3	16.5	80	-	80	21.6
7	1021.6	21.1	18.6	17.2	14.8	79	-	70	31.5
8	1020.5	20.2	17.8	16	13.2	75	-	70	20.7
9	1018.2	20.1	18	16.7	14.3	79	-	70	18.8
10	1017.5	20.9	18.4	16.5	14.1	76	-	60	21.3
11	1020.2	18.8	15.8	13.7	10.1	70	1.2	10	30.4
12	1020.9	17.9	16.1	14.7	11.1	72	-	60	28.8
13	1021.5	18.9	17	15.6	10	64	Trace	10	21.8
14	1020.7	17.3	16.6	15.4	11.9	75	-	70	34.7
15	1020.1	19.8	17.9	16.5	14.8	82	-	60	28.9
16	1020.4	21.1	18.8	17.4	15.6	82	-	50	25.9
17	1020.7	18.4	17.8	17.1	15	84	-	60	27.3
18	1020.9	18.3	17.3	15.8	14.1	82	0.2	30	18.4
19	1019.3	20.3	17.1	14.9	11.5	70	-	10	16.8
20	1018.4	20.8	17.6	15.4	12.6	73	-	60	25.6
21	1017.6	19.7	17.9	16.5	14.4	80	-	70	36.9
22	1014.3	17.8	17.3	16.8	15.8	91	1.5	70	32.8
23	1013.1	21.8	19.4	17.5	16.6	84	0.1	50	15.3
24	1014.3	21.8	19.7	18.8	17.7	88	1	60	18.6
25	1016.7	20.9	18.6	17.5	15.5	82	-	60	26.9
26	1017.1	21.1	19.2	17.7	16.1	83	Trace	70	26.5
27	1016.8	22.1	19.8	18.4	17	84	Trace	60	19.3
28	1016.3	19.9	18.8	18.1	16.4	86	Trace	80	32.7
29	1014.4	20.2	18.1	16.3	14.8	81	0.1	70	17.7
30	1017.5	20	16	13.2	9.1	64	-	360	26.1
31	1019.2	15.5	14.6	13.6	9	70	Trace	40	35

## Daily Extract of Meteorological Observations , January 2022 - Tuen Mun

Rainfall measured in increment of 0.5 mm. Amount of < 0.5 mm cannot be detected



Appendix F

**Event-Action Plans** 

	Contractor			<ol> <li>Submit proposals for remediat actions to IC(E) within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Amend proposal if appropriate</li> </ol>	<ol> <li>Take Infinedate action to avoid further exceedance</li> <li>Submit proposals for remedial actions to IC(E) within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Amend proposal If appropriate.</li> </ol>
ITY EXCEEDANCE	ER		1. Notify Contractor	<ol> <li>Confirm receipt of notification of failure in writing</li> <li>Notify the Contractor</li> <li>Ensure remedial measures property implemented</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing</li> <li>Notify the Contractor</li> <li>Ensure remedial measures properly implemented</li> </ol>
EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE ACTION			<ol> <li>Check monitoring data submitted by the ET</li> <li>Check contractor's working method</li> </ol>	<ol> <li>Check monitoring data submitted by the ET Leader</li> <li>Check the Contractor's working method</li> <li>Check the Contractor's working method</li> <li>Discuss with ET and Contractor on possible remedial measures</li> <li>Advise the ER on the effectiveness of the proposed remedial measures</li> <li>Supervise implementation of remedial measures</li> </ol>	<ol> <li>Check monitoring data submitted by the ET Leader</li> <li>Check Contractor's working method</li> <li>Discuss with ET and Contractor on possible remedial measures</li> <li>Advise the ER on the effectiveness of the proposed remedial measures</li> <li>Supervise implementation of remedial measures</li> </ol>
Ē		EI Leader	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures Inform ER, IC(E) and Contractor Repeat measurement to confirm finding 4. Increase monitoring frequency to daily</li> </ol>	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures</li> <li>Inform IC(E) and Contractor</li> <li>Repeat measurements to confirm finding</li> <li>Increase monitoring frequency to daily for remedial actions</li> <li>Discuss with IC(E) and Contractor on remedial actions</li> <li>If exceedance continues, arrange meeting with IC(E) and ER.</li> <li>If exceedance stops, cease additional monitoring</li> </ol>	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures</li> <li>Inform ER, Contractor and EPD</li> <li>Repeat measurement to confirm finding</li> <li>Increase monitoring frequency to daily</li> <li>Assess the effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results</li> </ol>
EVENT			1. Exceedance for one sample	2. Exceedance for two or more consecutive samples	1. Exceedance for one sample

	- 1	Ţ	
		Contractor	<ol> <li>Take immediate action to avoid further exceedances</li> <li>Submit proposals for remedial actions to IC(E) within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Resubmit proposals if problem still not under control</li> <li>Stop the relevant activity of works as determined by the ER until the exceedance is abated</li> </ol>
TY EXCEEDANCE		ER	<ol> <li>Confirm receipt of notification of failure in writing</li> <li>Notify Contractor</li> <li>In consultation with the IC(E), agree with the Contractor on the remedial measures to be implemented</li> <li>Ensure remedial measures to the exceedances continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated</li> </ol>
ALI			·····
EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE	ACTION	IC(E)	<ol> <li>Discuss amongst ER, ET and Contractor on the potential remedial actions</li> <li>Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly</li> <li>Supervise the implementation of remedial measures</li> </ol>
		ET Leader	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures</li> <li>Notify IC(E), ER, EPD and Contractor</li> <li>Repeat measurement to confirm finding</li> <li>Increase monitoring frequency to daily</li> <li>Carry out analysis of contractor's working procedures to determine possible mitigation to be implemented possible meting with IC(E) and ER to discuss the remedial actions to be taken</li> <li>Assess effectiveness of Contractor's remediai actions and keep IC(E), EPD and ER informed of the results</li> <li>If exceedance stops, cease additional monitoring</li> </ol>
		<u> </u>	
EVENT			2. Exceedance for two or more consecutive samples

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Contractor		<ol> <li>Submit noise mitigation proposals to fC(E).</li> <li>Implement noise mitigation proposals.</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance</li> <li>Submit proposals for remedial actions to IC(E) within 3 working days of notification.</li> <li>Implement the agreed proposals.</li> <li>Resubmit proposals if problem still not under control.</li> <li>Stop the relevant activity of works as determined by the ER until the exceedances is abated.</li> </ol>
EVENT/ACTION PLAN FOR NOISE EXCEEDANCE ACTION		<ol> <li>Confirm receipt of notification of failure in writing.</li> <li>Notify the Contractor.</li> <li>Require the Contractor to propose remedial measures for the analysed noise problem.</li> <li>Ensure remedial measures are properly implemented.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing.</li> <li>Notify the Contractor.</li> <li>Require the Contractor to propose remedial measures for the analysed noise problem.</li> <li>Ensure remedial measures are properly implemented.</li> <li>If exceedances continue, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedances is abated.</li> </ol>
EVENT/ACTION PLAN FOR ACTION	IC(E)	<ol> <li>Review the analysed results submitted by the ET.</li> <li>Review the proposed remedial measures by the Contractor and advise the ER accordingly.</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol> <li>Discuss amongst the ER, the ET Leader and the Contractor on the potential remedial actions.</li> <li>Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly.</li> <li>Supervise the implementation of remedial measures.</li> </ol>
	ET Leader	<ol> <li>Notify the IC(E) and the Contractor.</li> <li>Carry out investigation.</li> <li>Report the results of investigation to the IC(E) and the Contractor.</li> <li>Discuss with the Contractor and formulate remedial measures.</li> <li>Increase monitoring frequency to check mitigation effectiveness</li> </ol>	<ol> <li>Notify the IC(E), the ER, the EPD and the Contractor.</li> <li>Identify source.</li> <li>Repeat measurement to confirm findings.</li> <li>Reneat measurement to confirm findings.</li> <li>Increase monitoring frequency.</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented.</li> <li>Inform the IC(E), the ER and the EPD the causes &amp; actions taken for the exceedances.</li> <li>Assess effectiveness of Contractor's remedial actions and keep the IC(E), the EPD and the ER informed of the results</li> <li>If exceedance due to the construction works stops, cease additional monitoring</li> </ol>
EVENT		Level	Eevel it

				ACTION	z			
<u>+</u>		ET Leader		Contractor		ER		IEC
Action level	-	Identify source(s) of impact:	<u>-</u>	Notify the ER and IEC in writing	<u>.</u> :	Notify EPD and other relevant	<b>:</b>	Check monitoring data
heinn evreened	5	Reneat in-situ measurement to		within 24 hours of identification of		governmental agencies in writing		submitted by ET
by one	i	confirm findings:		exceedance		within 24 hours of the	<u>.</u>	Confirm ET assessment if
n dav	<u>ر</u>	Notify Contractor in writing within	2	Rectify unacceptable practice;		Identification of the exceedance		exceedance is due / not due
	5	24 hours of identification of the	റ	Check all plant and equipment;	2.	Discuss with IEC, ET and		to the works
		exceedance	4	Submit investigation report to IEC		Contractor on the proposed	က်	Discuss with ET, ER and
	4	Check monitoring data, all plant.		and ER within 3 working days of		mitigation measures;		Contractor on the mitigation
	:	equipment and Contractor's		the identification of an	ю.	Require contractor to propose		measures
	_	working methods.		exceedance		remedial measures for the	4	Review contractor's
	Ľ	Carw out investigation	ហ	Consider changes of working		analysed problem if related to the		mitigation measures
	i a	Benort the results of investination	;	method if exceedance is due to		construction works		whenever necessary to
	5	to the Contractor within 3 working		the construction works	4.	Ensure remedial measures are		ensure their effectiveness
		dave of identification of	Ľ	Discuss with FT IFC and FR and		nrooertv implemented		and advise the ER
			;		u	Access the officialized of the		accordingty
		exceedance and advise		propose mitigation measures to	ດ່		L	
		contractor if exceedance is due to		IEC and ER if exceedance is due		mitigation measure	ი -	
		contractor's construction works		to the construction works within 4				implementation of mitigation
	7.	Discuss mitigation measures with		working days of identification of				measures
		Contractor if exceedance is due		an exceedance				
		to the construction works within 4	~	Implement the agreed mitigation				
		working days		measures within reasonable time				
	ω.	Repeat measurement on next day		scale				
		of exceedance if exceedance is					-	
		due to the construction works						

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Action level         ET Leader         Action           ET Leader         ET Leader         Contractor         Noity ETD and other relevant         1. Noity ETD and other relevant         1. Check monitoring data periodes in writing 24 hours of the summerial agencies in writing 24 hours of the same sampling days         2. Repeat In-situ measurement         2. Confin Tassessment           Density         2. Repeat In-situ measurement         3. Oxoff, Contractor in writing periodes in writing 24 hours of the same same sampling days.         3. Confin Tassessment         3. Confin Tassessment           Consecutive sampling days         4. Check monitoring data, all measures for the proposed measures for the sumitactor on the motors of the militication of the militication of an or the militication of the militication of an or the militication of	Event	<u> </u>		Ľ	EVENT AND ACTION PLAN FOR WATER QUALITY	E E	IR WATER QUALITY		
ET Leader         Contractor         ER           Ieveil         1. Identify source(s) of impact;         Notify ED and other relevant         1.           ded by         2. Repart in writing         1. Notify ED and other relevant         1.           ded by         2. Repart in writing         2. Notify Contractor in writing athon of exceedance         writing writin A hours of the identification of the relevant         2.           active         3. Notify Contractor in writing         2. Rectify unacceptable practice;         3. Writing writin A hours of the identification of the exceedance         3.           active         active measures         3. Check and plant and evolves of the identification of exceedance         3. Require contractor to proposed         4.           5. Carry out investigation to the Contractor of an investigation to the Contractor if antification of exceedance identification of exceedance identification of exceedance         6. Discuss with ET, EC and ER         7. Arsees the effectiveness of identification of exceedance         6. Discuss with ET, EC and ER         7. Arsees the effectiveness of identification of exceedance         5. Arsees the effectiveness of identification of exceedance <th></th> <th></th> <th></th> <th></th> <th>ACTIO</th> <th>N</th> <th></th> <th></th> <th></th>					ACTIO	N			
Tievel1.Identify source(s) of impact; than one1.Notify EPD and other relevant acvertanted in measurement itentification of exceedance 		Ŀ	ET Leader		Contractor		ER		IEC
2. Repeat m-sutrement       within 24 hours of the than one cutive       3. worting within 24 hours of the than one cutive       3. within 24 hours of the than one cutive       3. within 24 hours of the than one cutive       3. within 24 hours of the than one cutive identification of the than one cutive identification of the than one cutive identification of the than one identification of the the contractor on the proposed methods;       3. Check and part and than and than a than one identification of the than one identification of the the contractor on the proposed methods;       3. Check and part and than a than a than a than a thours of the identification of the the contractor on the proposed methods;       3. Check and part and than a the the construction works and advise contractor within 4 working days of the the construction works are implemented and propose miligation the analysed problem if related to the the construction works are properly inplemented and avoise contractor within 4 working days of the miligation measures of the miligation of an exceedance.       3. Check and the construction of an exceedance identification of an exceeda	Action level	·		<u>-</u>	Notify IEC and ER in writing		Notify EPD and other relevant	<del>~`</del>	Check monitoring data
a       3. Notify Contractor in writing within 24 hours of the anothin 24 hours of the writing within 24 hours of the writing within 24 hours of the writing within 24 hours of the identification of the writin 24 hours of the identification of the writin 24 hours of the identification of the exceedance actions identification of the exceedance actions identification of the exceedance actions investigation the results of the investigation the contractor if and advise contractor if the mitigation measures for the exceedance is due to writin 3 working days of the investigation to IEC and ER writin 3 working days of the investigation to exceedance is due to writin 3 working days of the mitigation measures for the analysed problem if related to the exceedance is due to works and advise contractor if measures to identification of anot actor exceedance is writin 4 working days of the mitigation measures are implemented.       3.         7. Discuss mitigation measures are interaction writing attor measures are interactor if and advise contractor if measures are interaction of an advise contractor if and advise contractor if and propose mitigation measures are intractor for and advise contractor if and propose mitigation measures are intractor for and advise contractor if and propose mitigation measures are intractor for any writing an exceedance is due to writing at the advise contractor if and advise contractor if and advise contractor if and propose mitigation measures are intractor for advise	being	~	_		within 24 hours of		governmental agencies in		submitted by EI
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ys       identification         4.       Check monitoring data, all pand, equipment; and contractor's working methods; contractor's working methods; contractor's working methods; contractor's working methods; contractor's working methods; contractor's working methods; contractor within 3 working days of the investigation to the Contractor within 3 working days of the investigation to the Contractor within 3 working days of the and advise contractor if and advise contractor if works       2.       Discuss with IEC, ET and contractors on the proposed investigation measures of investigation to the Contractor within 3 working days of and advise contractor if and advise contractor if an exceedance are implemented;       2.       Discuss with IEC, ET and and advise contractor if and advise contractor if and advise contractor if and advise contractor if and advise contractor if an exceedance are implemented;       3.       2.       Discuss with iEC, ET and and advise contractor if and advise contract	consecutive		within 24 hours of	က်	Check all plant and		exceedance		not due to the works
4. Check monitoring data, all plant, equipment and contractor's working methods; Contractor's working methods;4. Consider changes of working methods;Contractor on the proposed mitigation measures;5. Carry out investigation (a contractor's working days of investigation to the contractor investigation to the contractor investigation to the contractor investigation of exceedance and advise contractor if and advise contractor if exceedance is such in 3 working days of the investigation of exceedance and advise contractor if measures to the and advise contractor if and advise contractor if exceedance itentification of an exceedance itentification of and advise contractor advise contractor if and advise contractor if measures to the and advise contractor if and advise contractor of and advise contractor if and advise contractor of exceedance itentification of and advise contractor of and advise contractor if and advise contractor if exceedance within 13 working days of works4. Contractor on the proposed analysed problem if related to the construction works and propose mitigation and propose mitigation and propose mitigation an exceedance and propose mitigation an exceedance and propose mitigation an exceedance and propose mitigation measures are implemented an exceedance4. Contractor on the proposed and propose and propose and propose and advise contractor within an exceedance are implemented an exceedance5. Assess the effectiveness of the mitigation measures and propose and propose but he contractor within an exceedance are implemented an exceedance6. Discuss with the construction on the properity inplemented and propose and propose and advise contractor within an ex	sampling days		identification		equipment;	~i	Discuss with IEC, ET and	က်	Discuss with ET, ER and
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works Discuss mitigation measures with IEC and Contractor within 4 working of identification of an exceedance Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; . Repeat measurement on next day of exceedance.			contractor's construction		within 4 working days of				mitigation measures.
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with IEC and Contractor within 7. 4 working of identification of an exceedance Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; . Repeat measurement on next day of exceedance.		۲.	_		exceedance				
4 working of identification of an exceedance Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; . Repeat measurement on next day of exceedance.			with IEC and Contractor within	~	Implement the agreed				
an exceedance Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; . Repeat measurement on next day of exceedance.			4 working of identification of		mitigation measures within				
			an exceedance		reasonable time scale				
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EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE
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		IEC	. Check monitoring data			It exceedance is due /						mitigation measures	submitted by Contractor	and advise the ER		5. Assess the effectiveness	of the implemented	mitigation measures													
Ц С	}	-	<del>~~</del>	- C	¥ 						4				_				<u>.</u>												
ER QUALITY EXCEEDAN		ER	Notify EPD and other relevant	governmental agencies in	Writing Within 24 hours of	identification of exceedance	Discuss with IEC, ET and	Contractor on the proposed	mitigation measures;	Request Contractor to critically	review the working methods;	Ensure remedial measures	are properly implemented	Assess the effectiveness of	the implemented mitigation	measures.															
ATE	z						2			က် —		4		ഹ																	
EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE	ACTION	Contractor	1. Notify IEC and ER in writing;	within 24 hours of the	identification of the	•	<ol><li>Rectify unacceptable practice;</li></ol>	<ol><li>Check all plant and</li></ol>	equipment;	<ol><li>Consider changes of working</li></ol>	_	<ol><li>Submit the results of the</li></ol>	investigation to IEC and ER	within 3 working days of the	identification of an	exceedance	<ol><li>Discuss with ET, IEC and ER</li></ol>	and propose mitigation	measures to IEC and ER	within 4 working days of the	identification of an		7. Implement the agreed	mitigation measures within	reasonable time scale						
LN NT		_								-	-																				
EVE		ET Leader	1. Repeat in-situ measurement	-	<ol><li>Identify source(s) of impact;</li></ol>	<ol><li>Notify Contractor in writing</li></ol>	within 24 hours of	identification of the	exceedance	<ol><li>Check monitoring data, all</li></ol>	plant, equipment and	Contractor's working methods;	5. Carry out investigation	-	investigation to the Contractor	within 3 working days of	identification of exceedance	and advise contractor if	exceedance is due to	contractor's construction	works	7. Discuss mitigation measures	with IEC, ER and Contractor	within 4 working of	identification of an	exceedance	8. Ensure mitigation measures	are implemented;	<ol><li>Increase the monitoring</li></ol>	frequency to daily until no	exceedance of Limit Level.
			F			<del>ر</del> ی				4																					
Event			Limit level	being	exceeded by	one sampling	dav .	<b>`</b>		<del>.</del> .					·		-														

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Event		EVEN	ITA	ND ACTION PLAN FOR W	ATI	EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE	Щ	
				ACTION	ž			
		ET Leader		Contractor		ER		IEC
imit I aval	-	Dongaf in-citu maasurament	-	Notify FR and IFC in writing	ļ	Notify EPD and other relevant		Check monitoring data
Lunu Level boing	-	to confirm finding:	-	within 24 hours of the	:	dovernmental agencies in		submitted by ET
uaniy evreeded hv	0	Identify source(s) of imnact:		identification of the		writing within 24 hours of	сі	Confirm ET assessment
exceeded by more than one	i e	Notify Contractor in writing		exceedance and		identification of exceedance		if exceedance is due /
concect tive	<u>;</u>	within 24 hours of	2.	Rectify unacceptable practice:	ы М	Discuss with IEC, ET and		not due to the works
sampling days		identification of the	က် 	Check all plant and		Contractor on the proposed		Discuss with ER, ET and
		exceedance		equipment;		mitigation measures;		Contractor on the
	V	Check monitoring data all	4	Consider changes of working	ભં	Request Contractor to critically		mitigation measures.
	÷	nant equipment and		methods:		review the working methods;	4.	Review proposals on
		Contractor's working methods	œ	Submit the results of the	0	Ensure remedial measures		mitigation measures
	Ľ		;	investigation to IEC and ER		are properly implemented		submitted by Contractor
	i c			within 3 working days of the	4	Assess the effectiveness of		and advise the ER
	5			identification of an		the implemented mitigation		accordingly.
		within 3 working days of		exceedance		measures;	പ്	Assess the effectiveness
		identification of exceedance	ີ່ດ	Discuss with ET. IEC and ER	ശ്	Consider and instruct, if		of the implemented
		and advise contractor if		and propose mitigation		necessary, the Contractor to		mitigation measures.
		exceedance is due to		measures to IEC and ER		slow down or to stop all or part		
		contractor's construction		within 4 working days;		of the marine work until no		
		works	<u>.</u>	Implement the agreed		exceedance of Limit Level.		
	~	Discuss mitigation measures		mitigation measures within				
		with IEC, ER and Contractor;		reasonable time scale				
•	ω̈́		7.	As directed by the Engineer,				
	•	are implemented;		to slow down or to stop all or				
	റ്			part of the marine work or				
		frequency to daily until no		construction actives.				
		exceedance of Limit Level for						
		two consecutive days.						

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Appendix G

**Construction Programme** 

ID	0	Task Name				Duration	Start	Finish Pre	edec€	Jan	
1	0	Contract duration of Contract OV/2021	10			720 -	0-1 1110	0.000 04/40/00	27		
1		Contract duration of Contract CV/2021/				730 days		2 Sun 31/12/23		/ <u>1/22</u> 2021	
2		Contract date, Date of the Letter of Ac	ceptance (assumed)				Sat 1/1/22	Mon 20/12/21	12/2	1/1/2022	5
3						0 days 0 days	Sat 1/1/22 Sat 1/1/22			1/1/2022	
4	_	Starting Date of Section 2 of the Works					Sat 1/1/22 Sat 1/1/22			<ul> <li>1/1/2022</li> <li>1/1/2022</li> </ul>	
5		Starting Date of Section 2 of the Works				0 days	Sat 1/1/22 Sat 1/1/22			1 /1 /2022	
6		Date for Completion of the Works				0 days				• 1/1/2022	
8		Completion Date of Section 1 of the Works				0 days 0 days	Sun 31/12/23 Sun 31/12/23	3 Sun 31/12/23 Sun 31/12/23			
		Completion Date of Section 1 of the Works					Sun 31/12/23				
9		Completion Date of Section 2 of the Works				0 days	Sun 31/12/23 Sun 31/12/23				
10		-				0 days					
11		Planned completion dates Planned competion date of Section 1				0 days	Sun 31/12/23 Sun 31/12/23	3 Sun 31/12/23 3 Sun 31/12/23			
12		Planned competion date of Section 1				0 days	Sun 31/12/23 Sun 31/12/23				
13		Planned competion date of Section 2				0 days					
14						0 days	Sun 31/12/23			1/1/2022	
15	100 m	Access Date of the Site	2 A10 and A11 (within 00 -	love offer starting data		0 days	Sat 1/1/22			<ul> <li>1/1/2022</li> <li>1/1/2022</li> </ul>	
16				ays aller starting date)		0 days	Sat 1/1/22		1 11	1/1/2022	
17		Portion B1, B3, B6a, B6b and B7 (within 60 da		an atantinan data)		0 days	Sat 1/1/22		1 11	T	
18				er starting date)		0 days	Sat 1/1/22			1/1/2022	
19		Portion B6c (7 day's advance notice after start	ling date)			0 days	Sat 1/1/22			1/1/2022	
20		Hand back of the Site	0 1 0.4.4 (			0 days		Sun 31/12/23			
21		Portion A2, A3a, A3b, A3c, A4, A5a, A7c2, A1 30 days' advance notice)				0 days	Sun 31/12/23				
22		Portion A1, A7b, A7c1, A9 and A9a (or at an enotice)				0 days	Sun 31/12/23				
23		Portion B1, B3, B6a, B6b and B7 (or at an ear notice) Portion B6c (or at an earlier date as notified by				0 days	Sun 31/12/23 Sun 31/12/23				
24 25		Section 1 of the Works - Tseung Kwan		o days advance notice	)	0 days					
	1075	Taking over the existing facilities at the Tse		ank within Dortion A of	the Site	730 days 0 days	Sat 1/1/22 Sat 1/1/22	Sun 31/12/23 4S Sat 1/1/22 4S		1/1/2022	
26		Operation of the the Tseung Kwan O Area				730 days		Sun 31/12/23 265		1/1/2022	
27	- Co	Operation and maintenance of the surveilla				730 days					
28					nk within Dartian		Sat 1/1/22		· · · · · · · · · · · · · · · · · · ·		
29 30		A of the Site Provision, operation and maintenance of the				730 days 730 days	Sat 1/1/22 Sat 1/1/22				
31		Portion A of the Site Operation and maintenance of the dewateri	-	-		730 days	Sat 1/1/22				
		the Site.			•						
32		137 Fill Bank within Portion A of the Site	-			730 days	Sat 1/1/22				
33		Handing over the facilities at the Tseung Kv	van O Area 137 Fill Bank Wi	unin Portion A of the Sit	e to the Employer	0 days	Sun 31/12/23		<b>,</b>		
34		Planned Completion Date (Section 1)				0 days	Sun 31/12/23				
35		Section 2 of the Works - Tuen Mun Area				730 days		Sun 31/12/23		1/1/2022	Ĩ
36		Taking over the existing facilities at the Tue				0 days	Sat 1/1/22			• 1/1/2022	į
37		Operation of the Tuen Mun Area 38 Fill Ban				730 days	Sat 1/1/22				_
38 39		Operation and maintenance of the surveillar Operation and maintenance of the existing	a second se		in Portion B of the	730 days 730 days	Sat 1/1/22 Sat 1/1/22				
40	100	Site Operation and Maintenance of the Crushing	Plant at the Tues Mus Are	a 38 Fill Ponk within Do	tion B of the Site	730 days	Sat 1/1/22	Sun 31/12/23 555			_
40 41		Operation and maintenance of glass culle Portion B of the Site				730 days	Sat 1/1/22 Sat 1/1/22				
			Task		External Tasks		Di	uration-only			
			Split		External Milestone	$\diamond$		anual Summary Rol			12
Project:	3 month	n rolling Programme Jan22- Mar22 CV/2021/09		•		$\checkmark$			uh 🔺		
	/ed 26/1		Milestone	•	Inactive Milestone		M	anual Summary	٠		
			Summary	<b>V</b>	Inactive Summary		St	art-only			
			Project Summary	$\bigtriangledown$ $\bigtriangledown$	Manual Task	$\diamond$	Fir	nish-only	-	-	,
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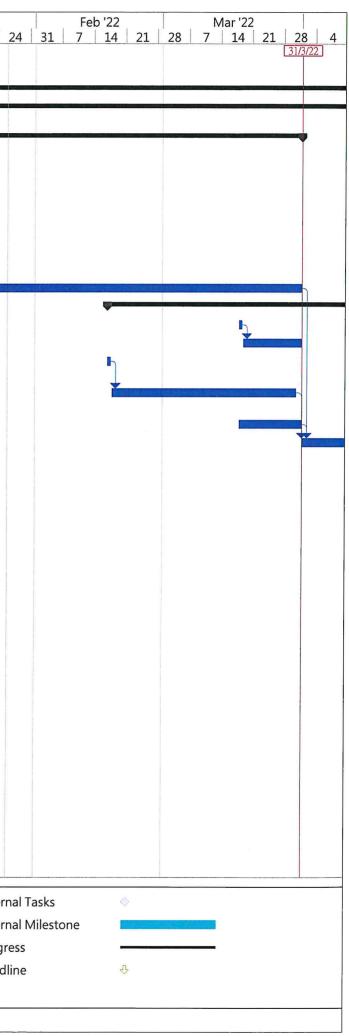
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ID	0	Task Name				Duration	Start	Finish Pred	dece 27 3	Jan '22 10   17	24
42		Handing over the facilities at the Tuen Mun	Area 38 Fill Bank within P	ortion B of the Site to the	Employer	0 days	Sun 31/12/23	Sun 31/12/23 9SS		10 1/	
43		Planned Completion Date (Section 2)				0 days	Sun 31/12/23	Sun 31/12/23			
44		Section 3 of the Works - Designated Re	clamation Sites in the	Mainland		742 days	Mon 20/12/21	Sun 31/12/23			
45		Collection and delivery of 2 million tonn Bank and the Tuen Mun Area 38 Fill Ban				742 days	Mon 20/12/21	Sun 31/12/23			
46		1st quarter of first year				102 days	Mon 20/12/21	Thu 31/3/22			
47		Installing Front End Mobile Unit (FEM	U) onto the proposed vess	els		7 days	Mon 20/12/21	Sun 26/12/21			
48		Submitting application documents to	EPD for application of dum	ping permits		1 day	Mon 20/12/21	Mon 20/12/21			
49		Obtaining the dumping permit from El	PD (assumed on 31/12/21	)		11 days	Tue 21/12/21	Fri 31/12/21 48			
50		Submitting Application documents to sea	the Employer for the applic	ation of the dumping per	mit of waste at the	1 day	Mon 20/12/21	Mon 20/12/21			
51		Obtaining the dumping permits from China through the Employer (assume		nvironment of the People	's Republic of	11 days	Tue 21/12/21	Fri 31/12/21 50			
52		Obtaining all necessary permits, licen	ses, approvals and concen	ts		12 days	Mon 20/12/21	Fri 31/12/21			
53		Collection and delivery of 250000 ton	nes of Public Fill			90 days	Sat 1/1/22	Thu 31/3/22 51,4	9,5:		
54		2nd quarter of first year				134 days	Thu 17/2/22	Thu 30/6/22			
55		Submitting application documents to	EPD for application of dum	ping permits		1 day	Fri 18/3/22	Fri 18/3/22			
56		Obtaining the dumping permit from El	PD (assumed on 31/3/22)			13 days	Sat 19/3/22	Thu 31/3/22 55			
57		Submitting Application documents to sea	the Employer for the applic	ation of the dumping per	mit of waste at the	1 day	Thu 17/2/22	Thu 17/2/22			
58		Obtaining the dumping permits from China through the Employer	Ministry of Ecology and er	wironment of the People	s Republic of	41 days	Fri 18/2/22	Wed 30/3/22 57			
59		Obtaining all necessary permits, licen	ses, approvals and concen	ts		14 days	Fri 18/3/22	Thu 31/3/22			
60		Collection and delivery of 250000 ton	nes of Public Fill			91 days	Fri 1/4/22	Thu 30/6/22 53,5	9,58		
61		3rd quarter of first year				134 days	Fri 20/5/22	Fri 30/9/22			
62		Submitting application documents to I	EPD for application of dum	ping permits		1 day	Fri 17/6/22	Fri 17/6/22			
63		Obtaining the dumping permit from El	D (assumed on 30/6/22)			13 days	Sat 18/6/22	Thu 30/6/22 62			
54		Submitting Application documents to sea	he Employer for the applic	ation of the dumping per	mit of waste at the	1 day	Fri 20/5/22	Fri 20/5/22			
65		Obtaining the dumping permits from China through the Employer	Ministry of Ecology and en	vironment of the People	s Republic of	41 days	Sat 21/5/22	Thu 30/6/22 64			
66		Obtaining all necessary permits, licen	ses, approvals and concent	ts		14 days	Fri 17/6/22	Thu 30/6/22			
67	TE	Collection and delivery of 250000 ton	nes of Public Fill			92 days	Fri 1/7/22	Fri 30/9/22 60,6	6,6:		
58		4th quarter of first year				134 days	Sat 20/8/22	Sat 31/12/22			
59		Submitting application documents to I	EPD for application of dum	ping permits		1 day	Sat 17/9/22	Sat 17/9/22			
70		Obtaining the dumping permit from EF	PD (assumed on 30/9/22)			13 days	Sun 18/9/22	Fri 30/9/22 69			
71		Submiting Application documents to the sea	ne Employer for the applica	ation of the dumping perr	nit of waste at the	1 day	Sat 20/8/22	Sat 20/8/22			
72		Obtaining the dumping permits from China through the Employer (assume		vironment of the People'	s Republic of	41 days	Sun 21/8/22	Fri 30/9/22 7 <u>1</u>			
73	HE	Obtaining all necessary permits, licen	ses, approvals and concent	S		14 days	Sat 17/9/22	Fri 30/9/22			
74		Collection and delivery of 250000 ton	nes of Public Fill			92 days	Sat 1/10/22	Sat 31/12/22 67,7	3,7:		
75		1st quarter of second year				132 days	Sun 20/11/22	Fri 31/3/23			
76		Submitting application documents to E	PD for application of dump	ping permits		1 day	Sun 18/12/22	Sun 18/12/22			
7		Obtaining the dumping permit from EF				13 days	Mon 19/12/22	Sat 31/12/22 76			the part of the
78		Submiting Application documents to the sea	ne Employer for the applica	tion of the dumping perr	nit of waste at the	1 day	Sun 20/11/22	Sun 20/11/22			
79	Ξ	Obtaining the dumping permits from China through the Employer	Ministry of Ecology and en	vironment of the People'	s Republic of	41 days	Mon 21/11/22	Sat 31/12/22 78			
			Task		External Tasks		Dur	ration-only		Exter	rnal
			Split		External Milestone	\$		nual Summary Rollu		Exter	
		h rolling Programme Jan22- Mar22 CV/2021/09		•		~		-	י אי •		
	ed 26/1		Milestone	•	Inactive Milestone		Ma	nual Summary	•	Prog	res
			Summary		Inactive Summary		Star	rt-only		Dead	dlin
			Project Summary		Manual Task	¢.	Eini	sh-only			

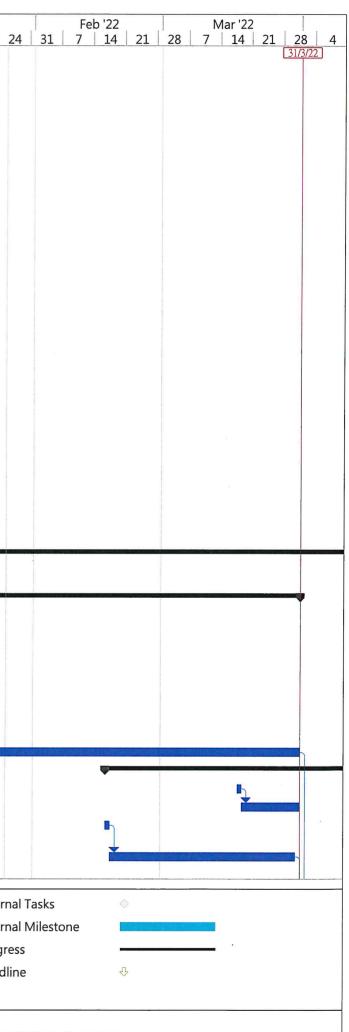
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ID	0	Task Name				Duration	Start	Finish Predeo	1 K	Jan '22 10   17   24
80		Obtaining all necessary permits, licen	ses,approvals and concen	ts		14 days	Sun 18/12/22	Sat 31/12/22	1/1/22	10 11 22
81		Collection and delivery of 250000 ton	nes of Public Fill			90 days	Sun 1/1/23	Fri 31/3/23 74,80,7	re l	
82		2nd quarter of second year				133 days	Sat 18/2/23	Fri 30/6/23		
83		Submitting application documents to I	EPD for application of durr	ping permits		1 day	Sat 18/3/23	Sat 18/3/23		
84		Obtaining the dumping permit from EF	PD (assumed on 31/3/23)			13 days	Sun 19/3/23	Fri 31/3/23 83		
85		Submiting Application documents to the sea	he Employer for the applic	ation of the dumping per	mit of waste at the	1 day	Sat 18/2/23	Sat 18/2/23		
86		Obtaining the dumping permits from China through the Employer (assume		nvironment of the People	's Republic of	41 days	Sun 19/2/23	Fri 31/3/23 85		
87		Obtaining all necessary permits, licen	ses, approvals and concen	ts		14 days	Sat 18/3/23	Fri 31/3/23		
88		Collection and delivery of 250000 ton	nes of Public Fill			91 days	Sat 1/4/23	Fri 30/6/23 81,84,8	C I	
89		3rd quarter of second year				134 days	Sat 20/5/23	Sat 30/9/23		
90		Submitting application documents to E	EPD for application of dum	ping permits		1 day	Sat 17/6/23	Sat 17/6/23		
91		Obtaining the dumping permit from EF				13 days	Sun 18/6/23	Fri 30/6/23 90		
92		Submiting Application documents to the sea	ne Employer for the applic	ation of the dumping per	mit of waste at the	1 day	Sat 20/5/23	Sat 20/5/23		
93		Obtaining the dumping permits from China through the Employer (assume	Ministry of Ecology and er d on 30/6/23)	vironment of the People	's Republic of	41 days	Sun 21/5/23	Fri 30/6/23 92		
94		Obtaining all necessary permits, licent		ts		14 days	Sat 17/6/23	Fri 30/6/23		
95		Collection and delivery of 250000 ton	nes of Public Fill			92 days	Sat 1/7/23	Sat 30/9/23 88,94,9		
96		4th quarter of second year				134 days	Sun 20/8/23	Sun 31/12/23		
97		Submitting application documents to E	EPD for application of dum	ping permits		1 day	Sun 17/9/23	Sun 17/9/23		
98		Obtaining the dumping permit from EF	PD (assumed on 30/9/23)			13 days	Mon 18/9/23	Sat 30/9/23 97		
99		Submiting Application documents to the sea	ne Employer for the application	ation of the dumping per	mit of waste at the	1 day	Sun 20/8/23	Sun 20/8/23		
100		Obtaining the dumping permits from China through the Employer(assumed		vironment of the People	's Republic of	41 days	Mon 21/8/23	Sat 30/9/23 99		
101		Obtaining all necessary permits, licens	ses, approvals and concen	ts		14 days	Sun 17/9/23	Sat 30/9/23		
102		Collection and delivery of 250000 ton	nes of Public Fill			92 days	Sun 1/10/23	Sun 31/12/23 95,101,	C	
103		Collection and delivery of 8 million tonne Bank and the Tuen Mun Area 38 Fill Banl to Project's Manager's instruction )				742 days	Mon 20/12/21	Sun 31/12/23		
104		1st quarter of first year				102 days	Mon 20/12/21	Thu 31/3/22		
105		Installing Front End Mobile Unit (FEM	J) onto the proposed vess	els		7 days	Mon 20/12/21	Sun 26/12/21		
106		Submitting application documents to E	PD for application of dum	ping permits		1 day	Mon 20/12/21	Mon 20/12/21		
107		Obtaining the dumping permit from EF	D (assumed on 31/12/21)	)		11 days	Tue 21/12/21	Fri 31/12/21 106		
108		Submiting Application documents to the sea	ne Employer for the application	ation of the dumping per	mit of waste at the	1 day	Mon 20/12/21	Mon 20/12/21		
109		Obtaining the dumping permits from China through the Employer (assume		vironment of the People	's Republic of	11 days	Tue 21/12/21	Fri 31/12/21 108		
110		Obtaining all necessary permits, licens	ses, approvals and concent	S		12 days	Mon 20/12/21	Fri 31/12/21		
111		Collection and delivery of 1 million ton	nes of Public Fill			90 days	Sat 1/1/22	Thu 31/3/22 110,109		
112		2nd quarter of first year				134 days	Thu 17/2/22	Thu 30/6/22		
		Submitting application documents to E	PD for application of dum	ping permits		1 day	Fri 18/3/22	Fri 18/3/22		
114	HE	Obtaining the dumping permit from EP	D (assumed on 31/3/22)			13 days	Sat 19/3/22	Thu 31/3/22 113		
115		Submiting Application documents to th sea	e Employer for the application	tion of the dumping perr	nit of waste at the	1 day	Thu 17/2/22	Thu 17/2/22		
116		Obtaining the dumping permits from China through the Employer	Ministry of Ecology and en	vironment of the People'	s Republic of	41 days	Fri 18/2/22	Wed 30/3/22 115		
			Task		External Tasks		Du	ration-only		Externa
			Split		External Milestone	$\diamond$		nual Summary Rollup	٠	Externa
		rolling Programme Jan22- Mar22 CV/2021/09		<b>A</b>		·				
ate: W	ed 26/1/2	22	Milestone	•	Inactive Milestone			nual Summary	•	Progres
			Summary	÷	Inactive Summary		Sta	rt-only		Deadlin
			Project Summary	$\bigtriangledown$ $\bigtriangledown$	Manual Task	¢	Fini	ish-only	v	
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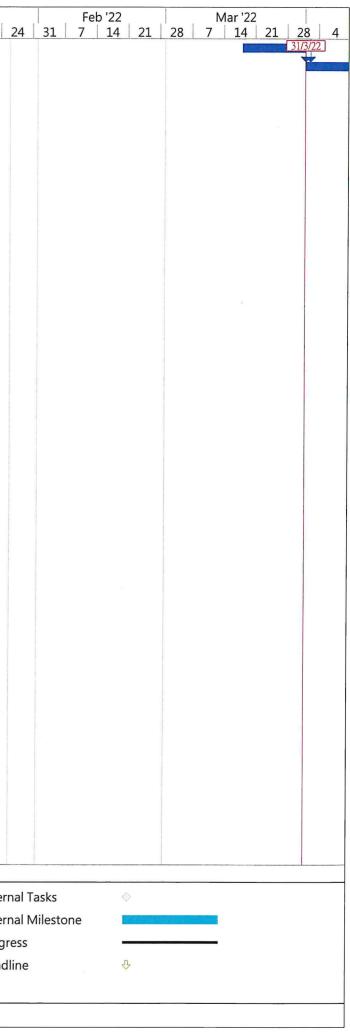
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ID	0	Task Name	Duration	Start	Finish Predece		1 2	Jan '2	
117		Obtaining all necessary permits, licenses, approvals and concents	14 days	Fri 18/3/22	Thu 31/3/22	27		10	1/
18		Collection and delivery of 1million tonnes of Public Fill	91 days	Fri 1/4/22	Thu 30/6/22 117,116				
119	_	3rd quarter of first year	134 days	Fri 20/5/22	Fri 30/9/22				
120		Submitting application documents to EPD for application of dumping permits	1 day	Fri 17/6/22	Fri 17/6/22				
121		Obtaining the dumping permit from EPD (assumed on 30/6/22)	13 days	Sat 18/6/22	Thu 30/6/22 120				
122		Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	1 day	Fri 20/5/22	Fri 20/5/22				
123		Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer	41 days	Sat 21/5/22	Thu 30/6/22 122				
124		Obtaining all necessary permits, licenses, approvals and concents	14 days	Fri 17/6/22	Thu 30/6/22				
125		Collection and delivery of 1 million tonnes of Public Fill	92 days	Fri 1/7/22	Fri 30/9/22 121,124				
126		4th quarter of first year	134 days	Sat 20/8/22	Sat 31/12/22				
127		Submitting application documents to EPD for application of dumping permits	1 day	Sat 17/9/22	Sat 17/9/22				
128		Obtaining the dumping permit from EPD (assumed on 30/9/22)	13 days	Sun 18/9/22	Fri 30/9/22 127				
129		Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	1 day	Sat 20/8/22	Sat 20/8/22				
130	H	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer (assumed on 30/9/22)	41 days	Sun 21/8/22	Fri 30/9/22 129				
131	TTE	Obtaining all necessary permits, licenses, approvals and concents	14 days	Sat 17/9/22	Fri 30/9/22				
132		Collection and delivery of 1 million tonnes of Public Fill	92 days	Sat 1/10/22	Sat 31/12/22 131,125				
133		1st quarter of second year	132 days	Sun 20/11/22	Fri 31/3/23				
134		Submitting application documents to EPD for application of dumping permits	1 day	Sun 18/12/22	Sun 18/12/22				
135		Obtaining the dumping permit from EPD (assumed on 31/12/22)	13 days	Mon 19/12/22	Sat 31/12/22 134				
136		Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	1 day	Sun 20/11/22	Sun 20/11/22				
137		Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer	41 days	Mon 21/11/22	Sat 31/12/22 136				
138		Obtaining all necessary permits, licenses, approvals and concents	14 days	Sun 18/12/22	Sat 31/12/22				
139		Collection and delivery of 1 million tonnes of Public Fill	90 days	Sun 1/1/23	Fri 31/3/23 132,138				
140		2nd quarter of second year	133 days	Sat 18/2/23	Fri 30/6/23				
141		Submitting application documents to EPD for application of dumping permits	1 day	Sat 18/3/23	Sat 18/3/23				
142		Obtaining the dumping permit from EPD (assumed on 31/3/23)	13 days	Sun 19/3/23	Fri 31/3/23				
143		Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	1 day	Sat 18/2/23	Sat 18/2/23				
		Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer	41 days	Sun 19/2/23	Fri 31/3/23				
145		Obtaining all necessary permits, licenses, approvals and concents	14 days	Sat 18/3/23	Fri 31/3/23				
146		Collection and delivery of 1 million tonnes of Public Fill	91 days	Sat 1/4/23	Fri 30/6/23 139,145				
147		3rd quarter of second year	134 days	Sat 20/5/23	Sat 30/9/23				
148		Submitting application documents to EPD for application of dumping permits	1 day	Sat 17/6/23	Sat 17/6/23				
149	<b>III</b>	Obtaining the dumping permit from EPD (assumed on 30/6/23)	13 days	Sun 18/6/23	Fri 30/6/23				
150		Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	1 day	Sat 20/5/23	Sat 20/5/23				
151		Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer	41 days	Sun 21/5/23	Fri 30/6/23				
152		Obtaining all necessary permits, licenses, approvals and concents	14 days	Sat 17/6/23	Fri 30/6/23				
153		Collection and delivery of 1 million tonnes of Public Fill	92 days	Sat 1/7/23	Sat 30/9/23 152,146				
154	1	4th quarter of second year	134 days	Sun 20/8/23	Sun 31/12/23				

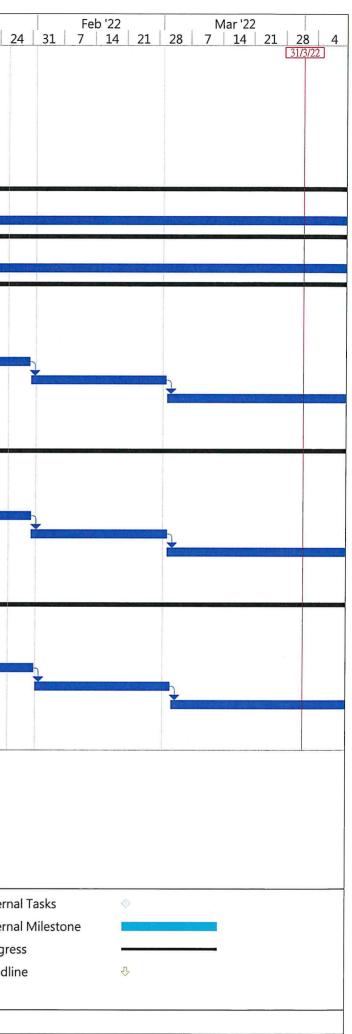
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	Task		External Tasks		Duration-only		Externa
	Split		External Milestone	$\diamond$	Manual Summary Rollup	٠	Externa
Project: 3 month rolling Programme Jan22- Mar22 CV/2021/09 Date: Wed 26/1/22	Milestone	٠	Inactive Milestone		Manual Summary	٠	Progre
	Summary	<b>V</b>	Inactive Summary		Start-only		Deadlin
	Project Summary	$\bigtriangledown$	Manual Task	0	Finish-only	÷	
			Pa	ge 4			



ID	0	Task Name	Duration	Start	Finish Predec	e 27	3	Jan '22 10   17	-
155		Submitting application documents to EPD for application of dumping permits	1 day	Sun 17/9/23	Sun 17/9/23		1/22	10 17	4
156		Obtaining the dumping permit from EPD (assumed on 30/9/23)	13 days	Mon 18/9/23	Sat 30/9/23				
157		Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	1 day	Sun 20/8/23	Sun 20/8/23				
158		Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer (assumed on 30/9/23)	41 days	Mon 21/8/23	Sat 30/9/23				
159	ΠE	Obtaining all necessary permits, licenses, approvals and concents	14 days	Sun 17/9/23	Sat 30/9/23				
160		Collection and delivery of 1 million tonnes of Public Fill	92 days	Sun 1/10/23	Sun 31/12/23 153,158				
161		Removal, excavation and deposition of stockpiled and/or deposited Public Fill within the Designated Reclamation Sites in the Mainland	730 days	Sat 1/1/22		•			
162		Removal, excavation and deposition of stockpiled and/or deposited public fill	730 days	Sat 1/1/22	Sun 31/12/23				
163		Operation and maintenance of the existing navigation channel and turning basins in association with the existing berthing facilituy at Zone E of the Desiganted Reclamation Sites in the Mainland	730 days	Sat 1/1/22	Sun 31/12/23 6SS	•			
164		Operation and maintenance of the existing navigation channel and turning basins	730 days	Sat 1/1/22	Sun 31/12/23				
165		Design, construction, operation and maintenance of the new navigation channel and turning basins in association with the new berthing facility at Zone B of the Designated Reclamation Sites in the Mainland (subject to Project's Manager's instruction)	731 days	Fri 31/12/21	Sun 31/12/23				
166		Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer for Zone A & B (assumed on 31/12/21)	1 day	Fri 31/12/21	Fri 31/12/21	ŀ			
167		Preparation of design submission	30 days	Sat 1/1/22	Sun 30/1/22 166			a have and the section	
168		Obtaining all necessary design approvals and concents	30 days	Mon 31/1/22	Tue 1/3/22 167				
169		Construction of the new navigation channel and turning basins	150 days	Wed 2/3/22	Fri 29/7/22 168				
170		Obtaining the construction completion certificate	30 days	Sat 30/7/22	Sun 28/8/22 169				
.71		Operation and maintenance of navigation channel and turning basins	490 days	Mon 29/8/22	Sun 31/12/23 170				
172		Design, construction, operation and maintenance of new berthing facilities at Zone B of the Designated Reclamation Sites in the Mainland (subject to Project's Manager's instruction)	731 days	Fri 31/12/21	Sun 31/12/23				
173		Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer for Zone A & B (assumed on 31/12/21)	1 day	Fri 31/12/21	Fri 31/12/21				
174		Preparation of design submission	30 days	Sat 1/1/22	Sun 30/1/22 173				-
175		Obtaining all necessary design approvals and concents	30 days	Mon 31/1/22	Tue 1/3/22 174				
176		Construction of the berthing facilities	180 days	Wed 2/3/22	Sun 28/8/22 175				
177		Obtaining the construction completion certificate	30 days	Mon 29/8/22	Tue 27/9/22 176				
.78		Operation and maintenance of new berthing facilities	460 days	Wed 28/9/22	Sun 31/12/23 177				
179		Design and construction of seawalls (approximate 200m) in association with new berthing facility at Zone B of the Designated Reclamation Sites in the Mainland (subject to Project's Manager's	181 days	Sat 1/1/22	Thu 30/6/22	-			
180		Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer for Zone A & B (assumed on 31/12/21)	1 day	Sat 1/1/22	Sat 1/1/22				
181		Preparation of design submission	30 days	Sun 2/1/22	Mon 31/1/22 180				
182	UII	Obtaining all necessary design approvals and concents	30 days	Tue 1/2/22	Wed 2/3/22 181				
183		Construction of seawalls	90 days	Thu 3/3/22	Tue 31/5/22 182				
184		Obtaining the construction completion certificate	30 days	Wed 1/6/22	Thu 30/6/22 183				
185		Planned Completion Date (Section 3)	0 days	Sun 31/12/23	Sun 31/12/23				

			Pag	je 5			
	Project Summary	$\diamond$ $\diamond$	Manual Task	$\diamond$	Finish-only	<b>~</b>	
	Summary		Inactive Summary		Start-only		Dead
Date: Wed 26/1/22	Milestone	•	Inactive Milestone		Manual Summary	٠	Progr
Project: 3 month rolling Programme Jan22- Mar22 CV/2021/09	Split		External Milestone	$\diamond$	Manual Summary Rollup	•	Exter
	Task		External Tasks		Duration-only		Exter





Appendix H

Weekly ET's Site Inspection Record

CEDD Contract No.: CV/2021/09

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Handling of Surplus Public Fill (2022-2023) - Tuen Mun Area 38 Fill Bank

Inspection Date

06/01/2022 15:00

Time

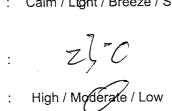
Weather

Wind

: Sunny / Fine / Cloudy / Overcast / Drizzle / Rain / Storm / Hazy : Calm / Light / Breeze / Strong

Temperature

Humidity

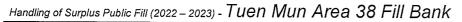


Inspected by	CEDD	Contractor / Sub-Contactor	ET
Signature:	M	And	M
Name:	CKMO	Sar san	Cintulto
Title	Alow	En M	E.T

業德勤測試顧問有限公司 S-TESTCONSULT LTD.



	Environmental Checklist				Remark
		Yes	No	N/A	
Fug	itive Dust Emission				
*	Dust control / mitigation measures shall be provided to prevent dust nuisance.	V			
•	Water sprays shall be provided and used to dampen materials.	V			
	All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.				
•	Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	V			
•	Unpaved areas should be watered regularly to avoid dust generation.	$\checkmark$			
*	The designated site main haul road shall be paved or regular watering.	$\checkmark$			
•	The haul road inside the site and public road around the site entrance should be kept clean and free from dust.	√			
•	Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	$\checkmark$			
	Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	$\checkmark$			
•	The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	$\checkmark$			
•	Vehicle and equipment should be switched off while not in use.	$\checkmark$			
•	All plant and equipment should be well maintained e.g. without black smoke emission.	$\checkmark$			
	Open burning should be prohibited.	√			
•	Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and non- road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APCO Cap.311).	√			
Noi	se Impact				
•	The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	√			
•	The constructions works should be scheduled to minimize noise nuisance.	$\checkmark$			
	Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	$\checkmark$			
•	Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	$\checkmark$			
	Air compressors and hand held breakers should have noise labels.	√			
*	Compressors and generators should operate with door closed.				
•	Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	√			
•	Noisy equipment and mobile plant shall always be site away from NSRs.	$\checkmark$			

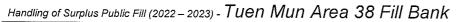




Environmental Checklist		menta tages	Remark
		No	
Water Quality			
<ul> <li>Drainage system and the sand / silt removal facilities should be adequate and well maintained to prevent flooding and overflow, especially after rain storms.</li> </ul>	1		
<ul> <li>The storm water intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.</li> </ul>	√		
<ul> <li>Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.</li> </ul>	1		
<ul> <li>The material shall be properly covered to prevent washed away especially before rainstorm.</li> </ul>	1		
The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	1		
<ul> <li>Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.</li> </ul>	1		
<ul> <li>Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.</li> </ul>	V		
<ul> <li>A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.</li> </ul>	1		
<ul> <li>The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.</li> </ul>	1		
<ul> <li>Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.</li> </ul>	$\checkmark$		
<ul> <li>The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.</li> </ul>	1		
<ul> <li>Tipping halls enclosed with top and 3-side to prevent spillage of material into marine water.</li> </ul>	√		
<ul> <li>The barges shall be in right size such that adequate clearance in maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.</li> </ul>	V		
<ul> <li>All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.</li> </ul>	1		
<ul> <li>Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.</li> </ul>	V		
<ul> <li>Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.</li> </ul>	$\checkmark$		
<ul> <li>The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.</li> </ul>	V		
<ul> <li>A waste collection vessel shall be deployed to remove floating debris.</li> </ul>	√		
Landscape and Visual			
<ul> <li>The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.</li> </ul>	$\checkmark$		
<ul> <li>Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.</li> </ul>	$\checkmark$		
<ul> <li>Stockpile of public fill shall be removed in a sequence to allow the outer hydrseeded to be removed later than other portions as far as practicable.</li> </ul>	√		
<ul> <li>Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at bleast 3m above soil level.</li> </ul>	1		 
<ul> <li>Lighting shall be set to minimise night-time glare.</li> </ul>	$\checkmark$		



					Remark
	Environmental Checklist	S Yes	tages	* N/A	
		res	NO		
Wa	aste Management				
Co	nstruction Waste Management				
•	Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.	√			
•	Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.	V			
•	Mud and debris should be removed from waterworks access roads and associated drainage systems.	$\checkmark$			
	Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	V			
	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	1			
3	Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.	V			
•	In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.	V			
•	Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.				
Cł	nemical Waste Management		_		
•	It is required to register as a chemical waste producer if chemical wastes would be produced from the 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.	V			
×	After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	V			
•	Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	V			
•	Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.	$\checkmark$			
•	Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.	$\checkmark$			
	The designated chemical waste storage area should only be used for storing chemical wastes.	1			
	The set-up of chemical waste storage area should				
	<ul> <li>Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.</li> </ul>	V			
	Be enclosed on at least 3 sides and securely closed.	$\checkmark$			
	<ul> <li>Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.</li> </ul>	1			
	Have adequate ventilation.				
	<ul> <li>Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).</li> </ul>	$\checkmark$			
	<ul> <li>Be arranged so that incompatible materials are adequately separated.</li> </ul>	$\checkmark$			





Environmental Checklist		menta tages		Remark
	Yes		N/A	1
<ul> <li>Warning panels should be displayed at the waste storage area.</li> </ul>	$\checkmark$			
<ul> <li>Waste storage area should be cleaned and maintained regularly.</li> </ul>	1			· · · · · · · · · · · · · · · · · · ·
<ul> <li>Chemical waste should be transported regularly by a registered chemical waste collector to a facility licensed to receive chemical waste.</li> </ul>	1			
<ul> <li>All generators, fuel and oil storage should be within bundle areas.</li> </ul>	· 1			
<ul> <li>Oil leakage from machinery, vehicle and plant should be prevented.</li> </ul>	1			
<ul> <li>In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.</li> </ul>	1			
The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.	1			
Good Site Practices				
<ul> <li>Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.</li> </ul>	1			
<ul> <li>Training of site personnel in proper waste management and chemical handling procedures should be provided.</li> </ul>	1			
<ul> <li>Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.</li> </ul>	V			
<ul> <li>Proper storage and site practices to minimise the potential for damage or contamination of construction materials.</li> </ul>	1			
The Environmental Permit should be displaced conspicuously on site.	1			
Construction noise permits should be posted at site entrance or available for site inspection.	1			
Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	1			
<ul> <li>Chemical storage area provided with lock and located on sealed areas.</li> </ul>				
All chemicals should be placed at the banded area with adequate band capacity (>110% of largest tank).	1			
Any unused chemicals or those with remaining functional capacity should be recycled.	√			
Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	1			
To encourage collection of aluminium cans by individual collectors.	√			
Separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.	1			
A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.	√			· · · · · · · · · · · · · · · · · · ·
A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.	√			



### Summary of the Weekly Site Inspection:

Item	Details of defective works or observations	Proposed Follow Up Action	Photo Ref.	Further Action Required (Yes/No)	Target Completion Date

#### Remark

1	

	Name	Title	Signature	Date
Checked by	June Lau	ET Representative	June	06 January 2022

Handling of Surplus Public Fill (2022-2023) - Tuen Mun Area 38 Fill Bank



Inspection Date : 13/1 | 2 2 Time : 15=15

:

:

Weather : Sunny / Fine / Cloudy / Overcast / Drizzle / Rain / Storm / Hazy

Wind

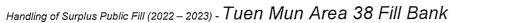
: Calm / Light) Breeze / Strong

Temperature

Humidity

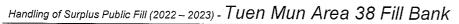
। २°С High / Moderate / (्००)

Inspected by	CEDD	Contractor / Sub-Contactor	ET
Signature:	R	Alle	Mak
Name:	C. K. M.	Schsund	Mak Kei Wan
Title	ALON	GAVADA	ЕЛ





Environmental Checklist			ation * N/A	Remark
Fugitive Dust Emission				
<ul> <li>Dust control / mitigation measures shall be provided to prevent dust nuisance.</li> </ul>	√			~~~~~~~
Water sprays shall be provided and used to dampen materials.	V			
<ul> <li>All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.</li> </ul>	1			
<ul> <li>Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting sic and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall b covered by a clean tarpaulin.</li> </ul>	e √ e			
Unpaved areas should be watered regularly to avoid dust generation.	V			
The designated site main haul road shall be paved or regular watering.	$\checkmark$			
The haul road inside the site and public road around the site entrance should be kept clean and free from dust.	$\checkmark$			
<ul> <li>Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.</li> </ul>				
<ul> <li>Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.</li> </ul>	√			
The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	1			
Vehicle and equipment should be switched off while not in use.	1			
All plant and equipment should be well maintained e.g. without black smoke emission.	V			
Open burning should be prohibited.	√			
<ul> <li>Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and no road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APC Cap.311).</li> </ul>	n- √ O			
Noise Impact			Store of the second sec	
<ul> <li>The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall adapted.</li> </ul>	be √		4 Mar 1	
The constructions works should be scheduled to minimize noise nuisance.	√			
Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	1			
Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	1			
Air compressors and hand held breakers should have noise labels.	√	-		
Compressors and generators should operate with door closed.	√			
<ul> <li>Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimu</li> </ul>				
Noisy equipment and mobile plant shall always be site away from NSRs.	V			

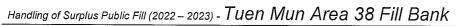




Environmental Checklist		menta tages		Remark
	Yes	No	N/A	
Water Quality				
<ul> <li>Drainage system and the sand / silt removal facilities should be adequate and well maintained to prevent flooding and overflow, especially after rain storms.</li> </ul>	V			
<ul> <li>The storm water intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.</li> </ul>	1			
<ul> <li>Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.</li> </ul>	1			
<ul> <li>The material shall be properly covered to prevent washed away especially before rainstorm.</li> </ul>	1			
<ul> <li>The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.</li> </ul>	√			
<ul> <li>Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.</li> </ul>	√		-	
<ul> <li>Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.</li> </ul>	V			
<ul> <li>A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.</li> </ul>	√			
<ul> <li>The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.</li> </ul>	V			
<ul> <li>Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.</li> </ul>	V			
<ul> <li>The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.</li> </ul>	1			
<ul> <li>Tipping halls enclosed with top and 3-side to prevent spillage of material into marine water.</li> </ul>	√			
<ul> <li>The barges shall be in right size such that adequate clearance in maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.</li> </ul>	√			
<ul> <li>All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.</li> </ul>	1			
<ul> <li>Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.</li> </ul>	V			
Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.	$\checkmark$			
<ul> <li>The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.</li> </ul>	√			
<ul> <li>A waste collection vessel shall be deployed to remove floating debris.</li> </ul>	$\checkmark$			
Landscape and Visual				
<ul> <li>The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.</li> </ul>	$\checkmark$			
<ul> <li>Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.</li> </ul>	√			
<ul> <li>Stockpile of public fill shall be removed in a sequence to allow the outer hydrseeded to be removed later than other portions as far as practicable.</li> </ul>	$\checkmark$			· · · ·
<ul> <li>Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at bleast 3m above soil level.</li> </ul>	V			
<ul> <li>Lighting shall be set to minimise night-time glare.</li> </ul>	$\checkmark$			

Environmental Checklist		stages	*	Remark
	Yes	No	N/A	
Waste Management				
Construction Waste Management				
<ul> <li>Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.</li> </ul>	V			
<ul> <li>Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.</li> </ul>	$\checkmark$			
<ul> <li>Mud and debris should be removed from waterworks access roads and associated drainage systems.</li> </ul>	$\checkmark$			
<ul> <li>Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.</li> </ul>	V			
<ul> <li>Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.</li> </ul>	V			
<ul> <li>Prior to disposal of C&amp;D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.</li> </ul>	V			
<ul> <li>In order to monitor the disposal of C&amp;D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.</li> </ul>	$\checkmark$			
<ul> <li>Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.</li> </ul>	√			
Chemical Waste Management				
<ul> <li>It is required to register as a chemical waste producer if chemical wastes would be produced from the 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.</li> </ul>				
<ul> <li>After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.</li> </ul>	1			
<ul> <li>Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.</li> </ul>	V			
Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.				
<ul> <li>Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.</li> </ul>	√			
<ul> <li>The designated chemical waste storage area should only be used for storing chemical wastes.</li> </ul>	V			
The set-up of chemical waste storage area should				
<ul> <li>Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.</li> </ul>	$\checkmark$			
<ul> <li>Be enclosed on at least 3 sides and securely closed.</li> </ul>	1			
<ul> <li>Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.</li> </ul>	√			
Have adequate ventilation.	1			
<ul> <li>Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).</li> </ul>	√			
<ul> <li>Be arranged so that incompatible materials are adequately separated.</li> </ul>	$\checkmark$			







Environmental Checklist		ementa		Remark
	Yes	No	N/A	1
<ul> <li>Warning panels should be displayed at the waste storage area.</li> </ul>				
<ul> <li>Waste storage area should be cleaned and maintained regularly.</li> </ul>	√			
<ul> <li>Chemical waste should be transported regularly by a registered chemical waste collector to a facility licensed to receive chemical waste.</li> </ul>	√			
<ul> <li>All generators, fuel and oil storage should be within bundle areas.</li> </ul>				
Oil leakage from machinery, vehicle and plant should be prevented.				
<ul> <li>In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.</li> </ul>	$\checkmark$			
The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.	√			
Good Site Practices				
<ul> <li>Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.</li> </ul>				
<ul> <li>Training of site personnel in proper waste management and chemical handling procedures should be provided.</li> </ul>	$\checkmark$			
<ul> <li>Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.</li> </ul>	1			
<ul> <li>Proper storage and site practices to minimise the potential for damage or contamination of construction materials.</li> </ul>	$\checkmark$			
The Environmental Permit should be displaced conspicuously on site.		-		
Construction noise permits should be posted at site entrance or available for site inspection.	$\checkmark$			
<ul> <li>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>				
<ul> <li>Chemical storage area provided with lock and located on sealed areas.</li> </ul>				
<ul> <li>All chemicals should be placed at the banded area with adequate band capacity (&gt;110% of largest tank).</li> </ul>				
<ul> <li>Any unused chemicals or those with remaining functional capacity should be recycled.</li> </ul>	√			
<ul> <li>Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.</li> </ul>				· · · · · · · · · · · · · · · · · · ·
To encourage collection of aluminium cans by individual collectors.	1			
<ul> <li>Separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.</li> </ul>	1			
<ul> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>	1			
A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.	1			



### Summary of the Weekly Site Inspection:

Item	Details of defective works or observations	Proposed Follow Up Action	Photo Ref.	Further Action Required (Yes/No)	Target Completion Date

#### Remark

	Name	Title	Signature	Date
Checked by	June Lau	ET Representative	100	13 January 2022
			J	

東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

Handling of Surplus Public Fill (2022-2023) - Tuen Mun Area 38 Fill Bank

Inspection Date

10/01/2022 15:00

Time

:

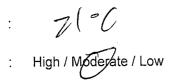
: Sunny / Fine / Cloudy / Overcast / Drizzle / Rain / Storm / Hazy Weather

Wind

: Calm / hight / Breeze / Strong

Temperature

Humidity



Inspected by	CEDD	Contractor / Sub-Contactor	ET
Signature:	M	A	M
Name:	C. KMo	Swhen	Circlache
Title	Alow	Engle	E.T

	Environmental Checklist		Implementation Stages*		Remark	
		Yes	No	N/A		
Fugitive Dust Emission					$\sum_{i=1}^{n} \frac{1}{i} \sum_{i=1}^{n} \frac{1}{i} \sum_{i$	
<ul> <li>Dust control / mitigation me</li> </ul>	easures shall be provided to prevent dust nuisance.	√				
<ul> <li>Water sprays shall be prov</li> </ul>	/ided and used to dampen materials.	√				
<ul> <li>All stockpile of aggregate of</li> </ul>	or spoil should be enclosed or covered and water applied in dry or windy condition.	√				
and tail boards. Material h covered by a clean tarpaul		tting side $$ l shall be				
<ul> <li>Unpaved areas should be</li> </ul>	watered regularly to avoid dust generation.	ν				
<ul> <li>The designated site main I</li> </ul>	haul road shall be paved or regular watering.	V				
<ul> <li>The haul road inside the side</li> </ul>	ite and public road around the site entrance should be kept clean and free from dust.	1				
<ul> <li>Wheel washing facilities in</li> </ul>	cluding high-plessure water jet shall be provided at the entrance of work site.	V				
<ul> <li>Every vehicle shall be was</li> </ul>	shed to remove any dusty materials from its body and wheels before leaving the fill bank.	√				
<ul> <li>The temporary slope surface</li> </ul>	ices shall be covered with impermeable sheet or sprayed with water.	V				
<ul> <li>Vehicle and equipment sh</li> </ul>	ould be switched off while not in use.	√				
<ul> <li>All plant and equipment sh</li> </ul>	nould be well maintained e.g. without black smoke emission.	√				
<ul> <li>Open burning should be p</li> </ul>	rohibited.	√			·	
<ul> <li>Approval or exemption No road vehicles at a conspic Cap.311).</li> </ul>	on-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines cuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulatio	and non- √ n (APCO				
Noise Impact						
adapted.	working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.)					
	hould be scheduled to minimize noise nuisance.	√				
	t should be operated on-site and plant should be serviced regularly during the construction works.	√				
	pment (PME) should be covered or shielded by appropriate acoustic materials.	√				
·	held breakers should have noise labels.	√				
	tors should operate with door closed.	√				
	may be in intermittent use should be shut down between work periods or should be throttled down to a					
<ul> <li>Noisy equipment and mot</li> </ul>	oile plant shall always be site away from NSRs.	√				





Environmental Checklist		Implementation Stages*		Remark
	Yes		N/A	
Water Quality				
<ul> <li>Drainage system and the sand / silt removal facilities should be adequate and well maintained to prevent flooding and overflow, especially after rain storms.</li> </ul>	√			
The storm water intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	V			
<ul> <li>Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.</li> </ul>	1			
<ul> <li>The material shall be properly covered to prevent washed away especially before rainstorm.</li> </ul>	$\checkmark$			
<ul> <li>The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.</li> </ul>	√			
<ul> <li>Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.</li> </ul>	~			
<ul> <li>Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.</li> </ul>	V			
<ul> <li>A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.</li> </ul>	1			
<ul> <li>The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.</li> </ul>	1			
<ul> <li>Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.</li> </ul>	$\checkmark$			
<ul> <li>The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.</li> </ul>	V			
<ul> <li>Tipping halls enclosed with top and 3-side to prevent spillage of material into marine water.</li> </ul>	1			
<ul> <li>The barges shall be in right size such that adequate clearance in maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.</li> </ul>	V			
<ul> <li>All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.</li> </ul>	V			
<ul> <li>Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.</li> </ul>	√			
<ul> <li>Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.</li> </ul>	√			
<ul> <li>The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.</li> </ul>	V			
<ul> <li>A waste collection vessel shall be deployed to remove floating debris.</li> </ul>	$\checkmark$			
Landscape and Visual				
<ul> <li>The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.</li> </ul>	V			
<ul> <li>Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.</li> </ul>	1			
• Stockpile of public fill shall be removed in a sequence to allow the outer hydrseeded to be removed later than other portions as far as practicable.	√			
<ul> <li>Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at bleast 3m above soil level.</li> </ul>	$\checkmark$			
<ul> <li>Lighting shall be set to minimise night-time glare.</li> </ul>	1			



Environmental Checklist			mentation Remark tages*	
	Yes	No	N/A	]
Waste Management				
Construction Waste Management				
<ul> <li>Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.</li> </ul>				
<ul> <li>Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.</li> </ul>	V			
<ul> <li>Mud and debris should be removed from waterworks access roads and associated drainage systems.</li> </ul>	$\checkmark$			
<ul> <li>Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.</li> </ul>	$\checkmark$			
<ul> <li>Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.</li> </ul>	V			
<ul> <li>Prior to disposal of C&amp;D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.</li> </ul>	V			
<ul> <li>In order to monitor the disposal of C&amp;D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.</li> </ul>	V			
<ul> <li>Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.</li> </ul>				
Chemical Waste Management				
<ul> <li>It is required to register as a chemical waste producer if chemical wastes would be produced from the 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.</li> </ul>	V			
<ul> <li>After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.</li> </ul>	1			
<ul> <li>Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.</li> </ul>	7			
<ul> <li>Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.</li> </ul>	$\checkmark$			
<ul> <li>Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.</li> </ul>	$\bigvee$			
<ul> <li>The designated chemical waste storage area should only be used for storing chemical wastes.</li> </ul>				
The set-up of chemical waste storage area should				
<ul> <li>Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.</li> </ul>	$\checkmark$			
Be enclosed on at least 3 sides and securely closed.	√			
<ul> <li>Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.</li> </ul>	√			
Have adequate ventilation.	√			
<ul> <li>Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).</li> </ul>	√		_	
<ul> <li>Be arranged so that incompatible materials are adequately separated.</li> </ul>	$\checkmark$			



Environmental Checklist	Implementation Stages*			Remark
	Yes	No	N/A	
<ul> <li>Warning panels should be displayed at the waste storage area.</li> </ul>	√			
<ul> <li>Waste storage area should be cleaned and maintained regularly.</li> </ul>	√			
<ul> <li>Chemical waste should be transported regularly by a registered chemical waste collector to a facility licensed to receive chemical waste.</li> </ul>	√			
<ul> <li>All generators, fuel and oil storage should be within bundle areas.</li> </ul>	1			
<ul> <li>Oil leakage from machinery, vehicle and plant should be prevented.</li> </ul>				
<ul> <li>In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.</li> </ul>				
The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.	$\checkmark$			
Good Site Practices				
<ul> <li>Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.</li> </ul>	V			
<ul> <li>Training of site personnel in proper waste management and chemical handling procedures should be provided.</li> </ul>	$\checkmark$			
<ul> <li>Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.</li> </ul>	V			
<ul> <li>Proper storage and site practices to minimise the potential for damage or contamination of construction materials.</li> </ul>	$\checkmark$			
The Environmental Permit should be displaced conspicuously on site.	$\checkmark$			
Construction noise permits should be posted at site entrance or available for site inspection.	$\checkmark$			
<ul> <li>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>	$\checkmark$			
<ul> <li>Chemical storage area provided with lock and located on sealed areas.</li> </ul>	$\checkmark$			
<ul> <li>All chemicals should be placed at the banded area with adequate band capacity (&gt;110% of largest tank).</li> </ul>	V			
<ul> <li>Any unused chemicals or those with remaining functional capacity should be recycled.</li> </ul>	$\checkmark$			
<ul> <li>Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.</li> </ul>	V			
To encourage collection of aluminium cans by individual collectors.	V			
<ul> <li>Separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.</li> </ul>	V			
<ul> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>	V			
<ul> <li>A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.</li> </ul>	V			



## Summary of the Weekly Site Inspection:

Item	Details of defective works or observations	Proposed Follow Up Action	Photo Ref.	Further Action Required (Yes/No)	Target Completion Date

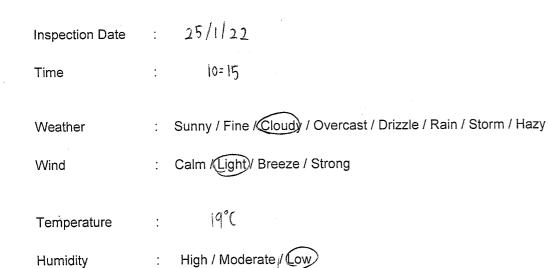
Remark

	Name	Title	Signature	Date
Checked by	June Lau	ET Representative	Ame	20 January 2022
			0	

## 東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

#### CEDD Contract No.: CV/2021/09

Handling of Surplus Public Fill (2022-2023) - Tuen Mun Area 38 Fill Bank



 Inspected by
 CEDD
 Contractor / Sub-Contactor
 ET

 Signature:
 Image: Signature:
 <td

37



Handling of Surplus Public Fill (2022 – 2023) - Tuen Mun Area 38 Fill Bank

Environmental Checklist		ment tages		Remark
Ye				
Fugitive Dust Emission				
<ul> <li>Dust control / mitigation measures shall be provided to prevent dust nuisance.</li> </ul>	V			
Water sprays shall be provided and used to dampen materials.	1			
<ul> <li>All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.</li> </ul>	V			
<ul> <li>Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.</li> </ul>	V			
<ul> <li>Unpaved areas should be watered regularly to avoid dust generation.</li> </ul>	√			
<ul> <li>The designated site main haul road shall be paved or regular watering.</li> </ul>	$\checkmark$			
<ul> <li>The haul road inside the site and public road around the site entrance should be kept clean and free from dust.</li> </ul>	V			
<ul> <li>Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.</li> </ul>	$\checkmark$			
<ul> <li>Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.</li> </ul>	$\checkmark$			
<ul> <li>The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.</li> </ul>	× √			
<ul> <li>Vehicle and equipment should be switched off while not in use.</li> </ul>	$\checkmark$			
<ul> <li>All plant and equipment should be well maintained e.g. without black smoke emission.</li> </ul>	√ √			
Open burning should be prohibited.	$\checkmark$			
<ul> <li>Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and non-road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APCO Cap.311).</li> </ul>	V			
Noise Impact				
<ul> <li>The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.</li> </ul>	V			
<ul> <li>The constructions works should be scheduled to minimize noise nuisance.</li> </ul>	$\checkmark$			
<ul> <li>Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.</li> </ul>	$\checkmark$			
<ul> <li>Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.</li> </ul>	$\checkmark$			
<ul> <li>Air compressors and hand held breakers should have noise labels.</li> </ul>	V			•
Compressors and generators should operate with door closed.	$\checkmark$			
<ul> <li>Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.</li> </ul>	V			
<ul> <li>Noisy equipment and mobile plant shall always be site away from NSRs.</li> </ul>	$\checkmark$			

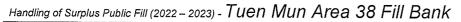


Handling of Surplus Public Fill (2022 – 2023) - Tuen Mun Area 38 Fill Bank

Environmental Checklist		menta tages		Remark
			N/A	1
Water Quality				
<ul> <li>Drainage system and the sand / silt removal facilities should be adequate and well maintained to prevent flooding and overflow, especially after rain storms.</li> </ul>	V			
<ul> <li>The storm water intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.</li> </ul>	V			
Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.	$\checkmark$			
<ul> <li>The material shall be properly covered to prevent washed away especially before rainstorm.</li> </ul>	V			
<ul> <li>The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.</li> </ul>	1			
<ul> <li>Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.</li> </ul>	√			
<ul> <li>Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.</li> </ul>	V			
<ul> <li>A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.</li> </ul>	√			
<ul> <li>The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.</li> </ul>	V			
<ul> <li>Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.</li> </ul>	√			
<ul> <li>The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.</li> </ul>	√			
Tipping halls enclosed with top and 3-side to prevent spillage of material into marine water.	√			
The barges shall be in right size such that adequate clearance in maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	√			
<ul> <li>All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.</li> </ul>	√			
<ul> <li>Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.</li> </ul>	√			
<ul> <li>Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.</li> </ul>	$\checkmark$			
The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.	1			
<ul> <li>A waste collection vessel shall be deployed to remove floating debris.</li> </ul>	√			
Landscape and Visual				
<ul> <li>The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.</li> </ul>	√			
<ul> <li>Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.</li> </ul>	√			
<ul> <li>Stockpile of public fill shall be removed in a sequence to allow the outer hydrseeded to be removed later than other portions as far as practicable.</li> </ul>	√			
<ul> <li>Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at bleast 3m above soil level.</li> </ul>	V			
Lighting shall be set to minimise night-time glare.				



Environmental Checklist			ement		Remark
				N/A	
Wa	aste Management	n en sen sen sen sen sen sen sen sen sen			an an a short a production of the second
Co	onstruction Waste Management				- A Contraction of the second s
•	Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.	$\checkmark$			
	Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.	V			
•	Mud and debris should be removed from waterworks access roads and associated drainage systems.	$\checkmark$			
•	Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	V			
•	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	V			
•	Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.	V			
•	In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.	V			
•	Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.	V			
Cł	hemical Waste Management				
•	It is required to register as a chemical waste producer if chemical wastes would be produced from the 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.	√			
	After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	V			
*	Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	V			
•	Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.	√			
	Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.	√			
•	The designated chemical waste storage area should only be used for storing chemical wastes.	√			
	The set-up of chemical waste storage area should				
	<ul> <li>Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.</li> </ul>	$\checkmark$			
	Be enclosed on at least 3 sides and securely closed.	√			
	<ul> <li>Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.</li> </ul>	V			
	Have adequate ventilation.				
	<ul> <li>Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).</li> </ul>	$\checkmark$			
	<ul> <li>Be arranged so that incompatible materials are adequately separated.</li> </ul>	$\checkmark$			





Environmental Checklist		menta		Remark
	Yes		N/A	
<ul> <li>Warning panels should be displayed at the waste storage area.</li> </ul>				
<ul> <li>Waste storage area should be cleaned and maintained regularly.</li> </ul>	√			
<ul> <li>Chemical waste should be transported regularly by a registered chemical waste collector to a facility licensed to receive chemical waste.</li> </ul>				
<ul> <li>All generators, fuel and oil storage should be within bundle areas.</li> </ul>	√			
Oil leakage from machinery, vehicle and plant should be prevented.				
<ul> <li>In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.</li> </ul>				
<ul> <li>The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.</li> </ul>	$\checkmark$			
Good Site Practices				
<ul> <li>Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.</li> </ul>	V			
<ul> <li>Training of site personnel in proper waste management and chemical handling procedures should be provided.</li> </ul>	$\checkmark$			
Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	V			
<ul> <li>Proper storage and site practices to minimise the potential for damage or contamination of construction materials.</li> </ul>	$\checkmark$			
The Environmental Permit should be displaced conspicuously on site.	$\checkmark$			
Construction noise permits should be posted at site entrance or available for site inspection.				
<ul> <li>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>	$\checkmark$			
<ul> <li>Chemical storage area provided with lock and located on sealed areas.</li> </ul>	$\checkmark$			
<ul> <li>All chemicals should be placed at the banded area with adequate band capacity (&gt;110% of largest tank).</li> </ul>	$\checkmark$			
<ul> <li>Any unused chemicals or those with remaining functional capacity should be recycled.</li> </ul>	$\checkmark$			
<ul> <li>Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.</li> </ul>	V			
<ul> <li>To encourage collection of aluminium cans by individual collectors.</li> </ul>	V			· · · · · · · · · · · · · · · · · · ·
<ul> <li>Separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.</li> </ul>	V			
<ul> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>	V			
A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.	V			



## Summary of the Weekly Site Inspection:

Item	Details of defective works or observations	Proposed Follow Up Action	Photo Ref.	Further Action Required (Yes/No)	Target Completion Date

Remark

	Name	Title	Signature	Date
Checked by	June Lau	ET Representative		25 January 2022
			E w	
		· · · · · · · · · · · · · · · · · · ·		



Appendix I

Implementation Schedule of Mitigation Measures



## Environmental Mitigation Implementation Schedule

	Location	Implementation Status			
Environmental Protection Measures		Implemented	Partially implemented	Not implemented	Not Applicable
Air Quality					
Dust control / mitigation measures shall be provided to prevent dust nuisance.	All areas				
<ul> <li>Water sprays shall be provided and used to dampen materials.</li> </ul>	All areas				
<ul> <li>All stockpile of aggregate or soil should be enclosed or covered and water applied in dry or windy condition.</li> </ul>	All areas				
<ul> <li>Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.</li> </ul>	All areas	V			
<ul> <li>Unpaved areas should be watered regularly to avoid dust generation.</li> </ul>	Site Egress				
<ul> <li>The designated site main haul road shall be paved or regular watering.</li> </ul>	All haul roads				
<ul> <li>The public road around the site entrance should be kept clean and free from dust.</li> </ul>	All areas				
<ul> <li>Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.</li> </ul>	Site Egress				
<ul> <li>Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.</li> </ul>	Site Egress				
<ul> <li>The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.</li> </ul>	All areas				
<ul> <li>Vehicle and equipment should be switched off while not in use.</li> </ul>	All areas				
<ul> <li>All plant and equipment should be well maintained e.g. without black smoke emission.</li> </ul>	All areas				
Open burning should be prohibited.	All areas				
<ul> <li>Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and non-road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APCO Cap.311).</li> </ul>	All areas	~			
Noise Impact					
<ul> <li>The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.</li> </ul>	All areas	$\checkmark$			
Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	All areas				
<ul> <li>Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.</li> </ul>	All areas				
<ul> <li>Air compressors and hand held breakers should have noise labels.</li> </ul>	All areas				
<ul> <li>Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.</li> </ul>	All areas				
<ul> <li>Noisy equipment and mobile plant shall always be site away from NSRs.</li> </ul>	All areas				



	Location	Implementati	on Status		
Environmental Protection Measures		Implemented	Partially implemented	Not implemented	Not Applicable
Water Quality					
The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained.	All areas	$\checkmark$			
<ul> <li>Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels.</li> <li>Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.</li> </ul>	All areas	$\checkmark$			
<ul> <li>The storm water intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.</li> </ul>	All areas	$\checkmark$			
<ul> <li>The material shall be properly covered to prevent washed away especially before rainstorm.</li> </ul>	All areas	$\checkmark$			
<ul> <li>Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.</li> </ul>	All areas				
<ul> <li>The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.</li> </ul>	Temporary Slopes	$\checkmark$			
<ul> <li>Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.</li> </ul>	All areas	$\checkmark$			
<ul> <li>A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.</li> </ul>	Wheel Washing facility	$\checkmark$			
<ul> <li>The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.</li> </ul>	Site Egress	$\checkmark$			
<ul> <li>Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.</li> </ul>	Site Office	$\checkmark$			
<ul> <li>The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.</li> </ul>	All areas	$\checkmark$			
<ul> <li>Tipping halls enclosed with top and 3-side to prevent spillage of material into marine water.</li> </ul>	All areas	$\checkmark$			
<ul> <li>Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.</li> </ul>	Along the seafront	$\checkmark$			
<ul> <li>A waste collection vessel shall be deployed to remove floating debris.</li> </ul>	Along the seafront	$\checkmark$			
Landscape and Visual					
• The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.	All areas				
Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.	Completed slopes	$\checkmark$			
• Stockpile of public fill shall be removed in a sequence to allow the outer hydrseeded to be removed later than other portions as far as practicable.	Completed slopes	$\checkmark$			
• Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level.	Site boundary	$\checkmark$			
Lighting shall be set to minimise night-time glare.	All areas	$\checkmark$			
Waste Management					
Construction Waste Management					
Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.	All areas	$\checkmark$			



		Location	Implementati	on Status		
	Environmental Protection Measures		Implemented	Partially implemented	Not implemented	Not Applicable
•	Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.	All areas	$\checkmark$			
•	Mud and debris should be removed from waterworks access roads and associated drainage systems.	All areas				
•	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	All areas				
•	Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.	All areas	$\checkmark$			
•	In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.	All areas	$\checkmark$			
-	Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.	All areas	$\checkmark$			
С	hemical Waste Management					
•	It is required to register as a chemical waste producer if chemical wastes would be produced from the 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.	Waste Storage Area	$\checkmark$			
•	After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	Waste Storage Area	$\checkmark$			
•	Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	Waste Storage Area	$\checkmark$			
•	Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.	Waste Storage Area	$\checkmark$			
•	Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.	Waste Storage Area	$\checkmark$			
•	The designated chemical waste storage area should only be used for storing chemical wastes.	Waste Storage Area				
ΤΙ	ne set-up of chemical waste storage area should					
•	Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.	Waste Storage Area				
•	Be enclosed on at least 3 sides and securely closed.	Waste Storage Area				
•	Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.	Waste Storage Area				
•	Have adequate ventilation.	Waste Storage Area				
•	Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).	Waste Storage Area				
•	Be arranged so that incompatible materials are adequately separated.	Waste Storage Area	$\checkmark$			
•	Warning panels should be displayed at the waste storage area.	Waste Storage Area	$\checkmark$			



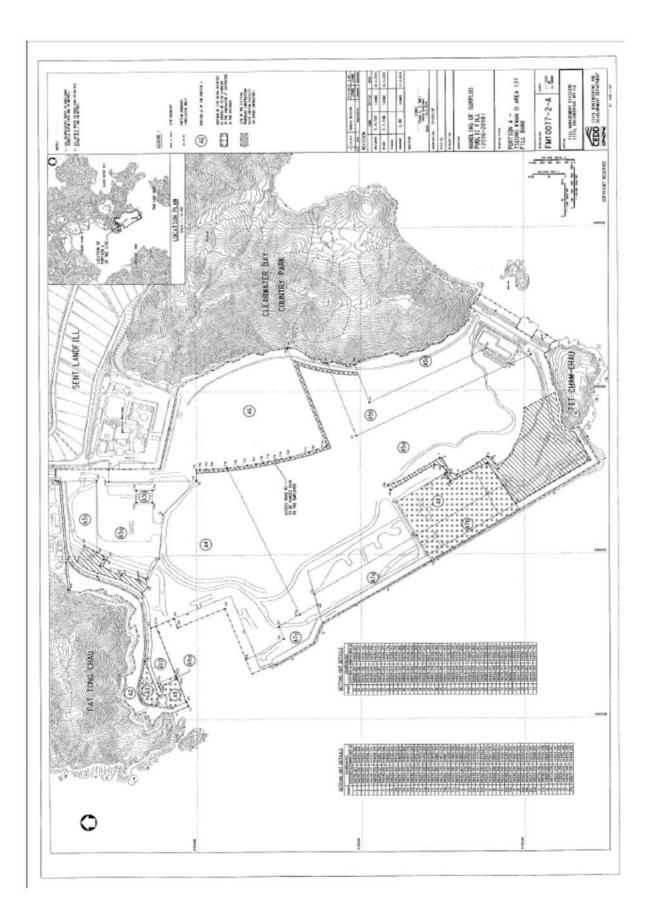
	Location	Implementation Status					
Environmental Protection Measures		Implemented	Partially implemented	Not implemented	Not Applicable		
Waste storage area should be cleaned and maintained regularly.	Waste Storage Area	$\checkmark$					
Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste.	All areas	$\checkmark$					
All generators, fuel and oil storage should be within bundle areas.	All areas						
Oil leakage from machinery, vehicle and plant should be prevented.	All areas						
In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.	All areas						
• The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.	All areas						
Good Site Practices							
Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection     and effective disposal to an appropriate facility, of all wastes generated at the site.	All areas						
Training of site personnel in proper waste management and chemical handling procedures should be provided.	All areas						
• Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	All areas						
Proper storage and site practices to minimise the potential for damage or contamination of construction materials.	All areas						
The Environmental Permit should be displaced conspicuously on site.	Site Entrance						
Construction noise permits should be posted at site entrance or available for site inspection.	Site Entrance				$\checkmark$		
Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	All areas						
Chemical storage area provided with lock and located on sealed areas.	Chemical Storage Area	$\checkmark$					
• All chemicals should be placed at the banded area with adequate band capacity (>110% of largest tank).	Chemical Storage Area	V					
<ul> <li>Any unused chemicals or those with remaining functional capacity should be recycled.</li> </ul>	All areas	$\checkmark$					
• Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	All areas						
• To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.	All areas						
• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.	All areas						
<ul> <li>A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.</li> </ul>	All areas	V					
Remove wastes in a timely manner.	All areas						



Appendix J

Site General Layout plan







Appendix K

Monthly Summary Waste Flow Table

## Monthly Summary Waste Flow Table for 2022

	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)
Jan	0	0	0	0	0	0	0	0	0	0	66.1
Feb											
Mar											
Apr											
May											
Jun											
Sub-total											
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total											

Notes: (1) The performance targets are given in **PS Clause 1.108(14**).

(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material

(4) The *Contractor* shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the *works*, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the *works* is equal to or exceeding 50,000 m<sup>3</sup>.

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Appendix L

Monitoring Schedule for the Coming Month



#### Contract No. CV/2021/09 Handling of Surplus Public Fill (2022-2023) Tuen Mun 38

#### Time Schedule for Impact Water Quality Monitoring (WQM), Impact Air Monitoring (1-hrTSP, 24-hr TSP and 24-hr RSP), Weekly Site Inspection (Weekly SI) and Impact Noise Monitor

#### February 2022

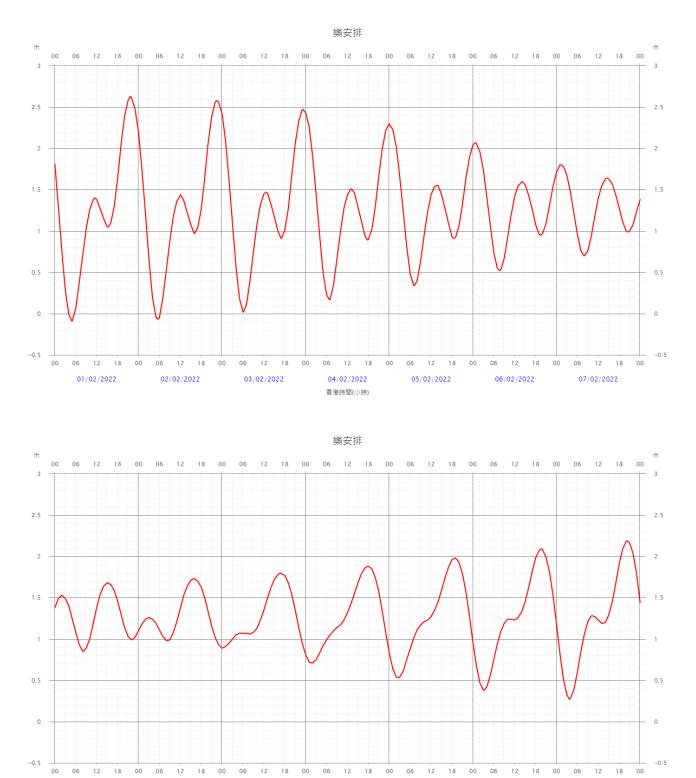
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30-Jan				3-Feb		
	24-hr TSP 24-hr RSP NM WQM Mid-flood				Weekly SI (pm)	1-hr TSP x 3 NM WQM Mid-flood
0.5-1	(08:30-10:00) Mid-ebb (12:30-14:00)	0.5.1	0.5.1	40.5.1	44 5-1	(10:30-12:00) Mid-ebb (16:00-17:30)
6-Feb	7-Feb	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb
24-hr TSP 24-hr RSP		1-hr TSP x 2 NM		1-hr TSP x 1 NM Weekly SI (pm)		24-hr TSP 24-hr RSP
	WQM Mid-flood (11:30-13:00) Mid-ebb (17:00-18:30)		WQM Mid-flood (11:00-12:30) Mid-ebb (16:30-18:00)		WQM Mid-flood (12:00-13:30)	
13-Feb		15-Feb		17-Feb	18-Feb	19-Feb
		1-hr TSP x 2 NM		Weekly SI (pm)	24-hr TSP 24-hr RSP	1-hr TSP x 2
		WQM Mid-flood (08:30-10:00) Mid-ebb (12:30-14:00)		WQM Mid-flood (08:30-10:00) Mid-ebb (13:30-15:00)		WQM Mid-flood (09:30-11:00) Mid-ebb (14:30-16:00)
20-Feb	21-Feb	(12.30-14.00) 22-Feb	23-Feb	24-Feb	25-Feb	(14.30-10.00) 26-Feb
		1-hr TSP x 1 NM		24-hr TSP 24-hr RSP NM Weekly SI (pm)		1-hr TSP x 2
		WQM Mid-flood (10:30-12:00) Mid-ebb (16:00-17:30)		WQM Mid-flood (11:00-12:30) Mid-ebb (17:00-18:30)		WQM Mid-flood (10:00-11:30)
27-Feb	28-Feb	1-Mar	2-Mar	3-Mar	4-Mar	5-Mar
		1-hr TSP x 1 NM	24-hr TSP 24-hr RSP			
		1	1		1	1

 Due to the tidal period is not within the working hour,water monitoring (Mid-ebb) in 11,26/02/2022 have been cancelled.
 TM 38 Fill Bank is closed on Lunar New Year Eve, Lunar New Year Day, 2nd Day and 3rd Day. Remark:



### Contract No. CV/2021/09 Handling of Surplus Public Fill (2022-2023) Tuen Mun 38

### Predicted tide schedule from the Hong Kong Observatory for Impact Water Quality Monitoring (WQM)



11/02/2022

香港時間(小時)

12/02/2022

13/02/2022

14/02/2022

08/02/2022

09/02/2022

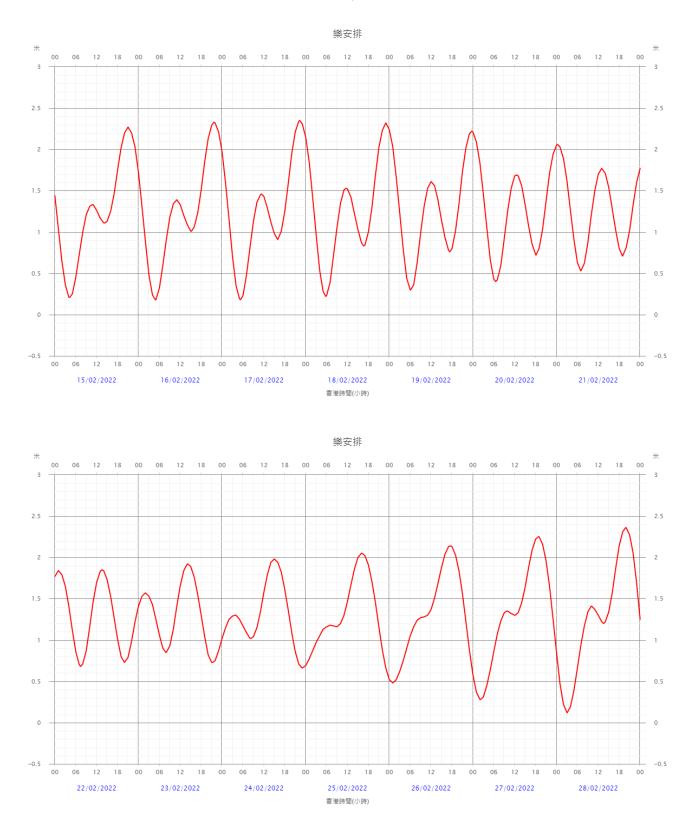
10/02/2022

## February 2022



### Contract No. CV/2021/09 Handling of Surplus Public Fill (2022-2023) Tuen Mun 38

### Predicted tide schedule from the Hong Kong Observatory for Impact Water Quality Monitoring (WQM)



### February 2022



Appendix M

**Reporting Month Monitoring Schedule** 



#### Contract No. CV/2015/07 Handling of Surplus Public Fill (2016-2018) Tuen Mun 38

# Time Schedule for Impact Water Quality Monitoring (WQM), Impact Air Monitoring (1-hrTSP, 24-hr TSP and 24-hr RSP), Weekly Si) and Impact Noise Monitor

#### January 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26-Dec	27-Dec	28-Dec	29-Dec	30-	Dec 31-Dec	: 1-J
24-hr TSP 24-hr RSP		1-hr TSP x 2 NM	Weekly SI (pm)	1-hr TSP x 1 NM		24-hr TSP 24-hr RSP
		WQM	Weekly SI (pill)	WQM		WQM
		Mid-ebb		Mid-ebb		Mid-ebb
		(08:30-10:00)		(09:00-10:30)		(11:30-13:00)
		Mid-flood		Mid-flood		Mid-flood
		(14:00-15:30)		(15:00-16:30)		(15:30-17:00)
2-Jan	3-Jan	4-Jan	5-Jan	6.	Jan 7-Jar	8-J
		1-hr TSP x 2 NM		1-hr TSP x 1 NM Waakky SI (nm)	24-hr TSP 24-hr RSP	1-hr TSP x 2
		WQM		Weekly SI (pm) WQM		WQM
		Mid-flood		Mid-flood		Mid-flood
		(09:00-10:30)		(10:00-11:30)		(10:30-12:00)
		Mid-ebb		Mid-ebb		Mid-flood
		(14:30-16:00)		(15:30-17:00)		(17:00-18:30)
9-Jan	10-Jan	11-Jan	12-Jan	13-	Jan 14-Jar	
				24-hr TSP 24-hr RSP		
		1-hr TSP x 1 NM		NM Weekly SI (pm)		1-hr TSP x 2
		WQM		WQM		WQM
		Mid-ebb		Mid-flood		Mid-flood
		(08:30-10:00)		(14:30-16:00)		(15:30-17:00)
		Mid-flood		(1.100 10100)		(10.00 11.00)
		(13:30-15:00)				
16-Jan	17-Jan	18-Jan	19-Jan	20-	Jan 21-Jan	22-J
		1-hr TSP x 1 NM	24-hr TSP 24-hr RSP	1-hr TSP x 2 NM		1-hr TSP x 1
				Weekly SI (pm)		
		WQM		WQM		WQM
		Mid-flood		Mid-flood		Mid-flood
		(09:00-10:30)		(08:30-10:00)		(10:30-12:00)
		Mid-ebb (13:00-14:30)		Mid-ebb (14:00-15:30)		Mid-ebb (16:00-17:30)
23-Jan	24-Jan	(13.00-14.30) 25-Jan	26-Jan	(14.00-13.30)	Jan 28-Jar	(10.00-17.30)
20 0411	210011	24-hr TSP	20 0011		20 001	200
		24-hr RSP NM		1-hr TSP x 2 NM		1-hr TSP x 1
		Weekly SI (am)				
		WQM	1	WQM		WQM
						Mid-ebb
		Mid-flood		Mid-ebb		
		(11:30-13:00)		(08:30-10:00)		(10:30-12:00)
		(11:30-13:00) Mid-ebb		(08:30-10:00) Mid-flood		(10:30-12:00) Mid-flood
	31-Jan	(11:30-13:00) Mid-ebb (17:00-18:30)	2-Feb	(08:30-10:00) Mid-flood (13:00-14:30)	Feb 4-Fet	(10:30-12:00) Mid-flood (14:30-16:00)
30-Jan	31-Jan 24-hr TSP	(11:30-13:00) Mid-ebb	2-Feb	(08:30-10:00) Mid-flood (13:00-14:30)	Feb 4-Feb	(10:30-12:00) Mid-flood (14:30-16:00)
30-Jan	24-hr TSP	(11:30-13:00) Mid-ebb (17:00-18:30)	2-Feb	(08:30-10:00) Mid-flood (13:00-14:30)	Feb 4-Feb	(10:30-12:00) Mid-flood (14:30-16:00)
30-Jan	24-hr TSP 24-hr RSP	(11:30-13:00) Mid-ebb (17:00-18:30)	2-Feb	(08:30-10:00) Mid-flood (13:00-14:30)	Feb 4-Feb	(10:30-12:00) Mid-flood (14:30-16:00)
	24-hr TSP 24-hr RSP NM	(11:30-13:00) Mid-ebb (17:00-18:30)	2-Feb	(08:30-10:00) Mid-flood (13:00-14:30)	Feb 4-Feb	(10:30-12:00) Mid-flood (14:30-16:00)
30-Jan	24-hr TSP 24-hr RSP NM WQM	(11:30-13:00) Mid-ebb (17:00-18:30)	2-Feb	(08:30-10:00) Mid-flood (13:00-14:30)	Feb 4-Feb	(10:30-12:00) Mid-flood (14:30-16:00)
30-Jan	24-hr TSP 24-hr RSP NM WQM Mid-flood	(11:30-13:00) Mid-ebb (17:00-18:30)	2-Feb	(08:30-10:00) Mid-flood (13:00-14:30)	Feb 4-Feb	(10:30-12:00) Mid-flood (14:30-16:00)
30-Jan	24-hr TSP 24-hr RSP NM WQM	(11:30-13:00) Mid-ebb (17:00-18:30)	2-Feb	(08:30-10:00) Mid-flood (13:00-14:30)	Feb 4-Feb	(10:30-12:00) Mid-flood (14:30-16:00)

Remark: 1. Due to the tidal period is not within the working hour, water monitoring (Mid-ebb) in 13,15/01/2022 have been cancelled.



Appendix N

**QA/QC** Results of Laboratory Analysis



# QA/QC Results of Laboratory Analysis of Total Suspended Solids

	QC Sample Analysis	Sample D	uplicate	Sample	e Spike
Sampling Date	% Recovery *	Sample ID	% Error <sup>#</sup>	Sample ID	% Recovery <sup>@</sup>
Sampling Date	103.8	FC1-S	8.70	FM2-M	111.8
	102.0	FM2-B	0.00	EM1-S	102.1
2022/1/1	102.0	EM1-M	9.09	EC2-B	102.1
2022/1/1	101.9	FC1-S	9.09 8.55	FM2-M	98.9
	102.0	FM2-B	0.00	EM1-S	109.5
2022/1/4	102.2	EM1-M	7.23	EC2-B	96.0
2022/1/4	98.1	FC1-S	5.71	FM2-M	107.4
	97.7	FM2-B	0.00	EM1-S	110.3
2022/1/6	100.6	EM1-M	0.00	EC2-B	109.2
2022/1/0	101.2	FC1-S	8.51	FM2-M	95.7
	101.2	FM2-B	4.88	EM1-S	94.4
2022/4/9	101.0	EM1-M	4.88	EC2-B	88.2
2022/1/8	102.8	FC1-S	7.52	<u>ЕС2-Б</u> FM2-М	93.6
	101.3	FM2-B	8.89	EM1-S	81.5
2022/1/11	102.0	EM1-M	1.50	EC2-B	107.1
2022/1/11	99.4	FC1-S	7.23	FM2-M	118.4
	100.8	FM2-B	5.13	EM1-S	110.4
2022/1/12	100.0	EM1-M	5.15	EC2-B	
2022/1/13	- 99.4	FC1-S	5.80	<u>ЕС2-Б</u> FM2-М	95.0
	99.4				
0000/4/45	-	FM2-B	9.30	EM1-S	-
2022/1/15	-	<u>EM1-M</u>	-	EC2-B	- 95.1
	98.5 98.2	FC1-S	2.06	FM2-M	
0000/4/40		FM2-B	9.52	EM1-S	84.6
2022/1/18	100.8	<u>EM1-M</u>	1.77	EC2-B	86.3
	100.4	FC1-S	8.33	FM2-M	109.3
0000/1/00	103.0	FM2-B	1.60	EM1-S	98.5
2022/1/20	101.7	EM1-M	0.00	EC2-B	85.1
	101.2	FC1-S	2.67	FM2-M	115.8
0000/1/00	98.8	FM2-B	0.00	EM1-S	100.0
2022/1/22	102.3	EM1-M	2.53	EC2-B	106.5
	100.0	FC1-S	3.51	FM2-M	112.0
0000/1/07	100.7	FM2-B	4.26	EM1-S	89.1
2022/1/25	102.5	<u>EM1-M</u>	2.82	EC2-B	95.5
	97.8	FC1-S	8.96	FM2-M	106.6
0000////0-	99.3	FM2-B	3.51	EM1-S	88.3
2022/1/27	101.9	<u>EM1-M</u>	5.56	EC2-B	113.1
	100.3	FC1-S	5.71	FM2-M	101.1
	99.9	FM2-B	2.90	EM1-S	96.7
2022/1/29	100.3	EM1-M	9.09	EC2-B	117.7
	96.7	FC1-S	5.56	FM2-M	111.9
	99.3	FM2-B	3.70	EM1-S	94.1
2022/1/31	100.6	EM1-M	4.17	EC2-B	80.7

Note:(\*)% Recovery of QC sample should be between 80% to 120%. (<sup>#</sup>)% Error of Sample Duplicate should be between –10% to 10%. (<sup>®</sup>)% Recovery of Sample Spike should be between 80% to 120%. (-) Water monitoring (Mid-ebb) in 13&15/01/2022 have been cancelled as the tidal period is not within the working hour.



Appendix O

**Complaint Log** 



# Complaint Log

Log Ref.	Location	Received Date	Details of Complaint	Investigation / Mitigation Action	Status
001	Lung Mun Road near Tuen Mun Area 38 Fill Bank	24 May 2017	One complaint received on 24 May 2017, which was forwarded to ET on 03 June 2017, from public against the rocks and debris deposited on the road surface along Lung Mun Road near Tuen Mun Area 38 Fill Bank. The complainant complained that waste generated caused an environmental nuisance.	<ul> <li>Refer to the ET site investigation on 06 June 2017, the condition of Lung Mun Road near Tuen Mun Area 38 Fill Bank was found satisfactory.</li> <li>Details of Action(s) Taken by the Contactor: <ol> <li>Regular water spraying by water lorries is provided for road cleaning at Lung Mun Road;</li> <li>Regular cleaning on Lung Mun Road and the access road at the site exit by road sweeper to remove mud and gravel is arranged four times on each working day;</li> <li>Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving;</li> <li>Site vehicle for transporting materials are covered properly by using clean tarpaulin sheets;</li> <li>Regular cleaning at the site haul road is provided to minimize the fugitive dust emission.</li> </ol> </li> </ul>	Closed
002	Lung Mun Road near Tuen Mun Area 38 Fill Bank	16 April 2018	One complaint received on 16 April 2018 from public and forwarded to ET by email at 10:51 on 25 May 2018. The complaint detail was"來往屯門第 38 區填料庫的龍 門路沿路有很多泥頭車出人,泥頭會從車上掉至路面 上,要求部門跟進及回覆。"	<ul> <li>Refer to the ET site investigation on 26 May 2018, the condition of Lung Mun Road near Tuen Mun Area 38 Fill Bank was found satisfactory.</li> <li>Details of Action(s) Taken by the Contactor: <ol> <li>Regular cleaning on Lung Mun Road and the access road at the site exit by road sweeper to remove mud and gravel is arranged four times on each working day;</li> <li>Regular water spraying by water lorries is provided for road cleaning at Lung Mun Road;</li> <li>Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving;</li> </ol> </li> <li>Site vehicles for transporting materials are covered properly by using clean tarpaulin sheets;</li> <li>Regular cleaning at the site haul road is provided.</li> </ul>	Closed



003	Lung Mun Road near Tuen Mun Area 38 Fill Bank	26 June 2018	One complaint received on 26 June 2018 from public and forwarded to ET by email at 13:58 on 03 July 2018. The complaint detail was" 當天水車於 6 時出動洗街,導 致交通阻塞."	<ul> <li>Refer to the ET site investigation on 07 July 2018, the condition of Lung Mun Road near Tuen Mun Area 38 Fill Bank was found satisfactory.</li> <li>Details of Action(s) Taken by the Contactor: <ol> <li>Improve the road washing plan to avoid washing in traffic peak peroid</li> <li>Revised the road washing schedule as soon as possible once there is traffic jam</li> </ol> </li> </ul>	Closed
004	Tuen Mun Area 38 Fill Bank	06 October 2021	A complaint was received on 06 October 2021 from public regarding dust nuisance within TM38 Fill Bank and was forwarded to ET by email on 06 October 2021 for investigation.	<ul> <li>Refer to the ET site investigation on 12 October 2021, no defective observation related to dust emission was recorded during the investigation.</li> <li>Details of Action(s) Taken by the Contactor: <ol> <li>Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank.</li> <li>Regular cleaning at the site haul road is provided to minimize the dust emission.</li> </ol> </li> </ul>	Closed



Figures

