Agreement No. CE 20/2004(EP) North East New Territories (NENT) Landfill Extension

Monthly Environmental Monitoring and Audit Report (No. 2) – January 2023

2023-02-13

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Our Ref.: CL/91823/0262-VES
Date: 13 February 2023

By Email

Veolia Environmental Services Hong Kong Limited
40/F, One Taikoo Place
979 King's Road
Quarry Bay
Hong Kong

Attn.: Mr. Alvin Kam

Dear Sir

Re: Contract No. EP/SP/77/15
North-East New Territories Landfill Extension (NENTX)
Monthly Environmental Monitoring and Audit Report (No.2) – January 2023

I refer to Conditions 3.3 under Environmental Permit No. EP-292/2007 and Further Environmental Permit No. FEP-01/292/2007, regarding the submission of a report for environmental monitoring and audit. I hereby verified the captioned "Environmental Monitoring and Audit Report (No.2) – January 2023" dated 13 February 2023.

Yours faithfully
MEINHARDT INFRASTRUCTURE AND ENVIRONMENT LTD

Claudine Lee
Independent Environmental Checker

Aurecon Hong Kong Limited
Unit 1608, 16/F, Tower B,
Manulife Financial Centre,
223 – 231 Wai Yip Street, Kwun Tong
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Ref: P521530-0000-REP-NN-0025

By Email

13 February 2023

Meinhardt Infrastructure & Environment Ltd.
10/F Genesis
33-35 Wong Chuk Hand Road
Hong Kong

Attn: Ms. Claudine Lee,

Dear Claudine,

Re: Contract No. EP/SP/77/15
Northeast New Territories Landfill Extension
Submission of Monthly Environmental Monitoring and Audit Report (No. 2) – January 2023

In accordance with the requirement specified in Condition 3.3 of Environmental Permit No. EP-292/2007 and Further Environmental Permit No. FEP-01/292/2007, we are pleased to submit the certified "Monthly Environmental Monitoring and Audit Report (No. 2) – January 2023" dated 13 February 2023 for your verification.

Should you require any further information or clarification, please do not hesitate to contact the undersigned or our Mr. Keith Chau on 3664 6788.

Yours faithfully,
For and on behalf of
Aurecon Hong Kong Limited

Fredrick Leong
Environmental Team Leader

Encl.
Monthly Environmental Monitoring and Audit Report (No. 2) – January 2023
cc.
1. IEC - Ms. Claudine Lee (By email: claudinelee@meinhardt.com.hk)
2. IEC Representative - Mr. Jimmy Lui (By email: jimmylui@meinhardt.com.hk)

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Document control						
Report title	Monthly Environmental Monitoring and Audit Report (No. 2) – January 2023					
Document ID		**Project number**				
File path						
Client	Veolia Hong Kong Holding Limited					
Client contact		**Client reference**				
Rev	**Date**	**Revision details/status**	**Author**	**Reviewer**	**Verifier** (if required)	**Approver**
0	6 February 2023	Submit to IEC	Various	K.Chau		FL
1	13 February 2023	Submit to IEC	Various	K.Chau		FL
Current revision	**1**					

Approval			
Reviewer's signature		Approver's signature	
Name	Keith Chau	Name	Fredrick Leong
Title	Associate, Environmental	Title	Environmental Team Leader

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Executive Summary

Aurecon Hong Kong Limited (Aurecon) was appointed to undertake the role of Environmental Team (ET) and carry out Environmental Monitoring and Audit for the North East New Territories (NENT) Landfill Extension.

The construction phase and EM&A programme of the Project commenced on 1 December 2022.

This 2nd Monthly EM&A Report presents the EM&A works conducted from 1 January 2023 to 31 January 2023 in accordance with the EM&A Manual.

Summary of Construction Works undertaken during Report Period

The major construction works undertaken during the reporting period include:

- Material loading and unloading, site traffic
- Site clearance
- Installation of permanent fencing
- Site formation
- Tree felling

Environmental Monitoring and Audit Progress

A summary of the monitoring activities in this reporting period is listed below:

Items	Times	Date
- Air Quality Monitoring during normal weekdays at each monitoring station	5 times	3, 9, 14, 20 & 26 January 2023
- Construction Noise Monitoring during normal weekdays at each monitoring station	4 times	3, 9, 20 & 26 January 2023
- Surface Water Quality Monitoring during normal weekdays at each monitoring station	1 time	9 January 2023
- Landfill Gas Monitoring during normal weekdays for Construction Works	6 times	3 to 7 & 9 January 2023
- Post-translocation Monitoring during normal weekdays at recipient site	1 time	30 January 2023
- Post-transplantation monitoring and audit during normal weekdays for transplanted plants and receptor sites	2 time	13 & 26 January 2023
- Joint Environmental Site Inspection	4 times	3, 9, 16 & 27 January 2023

Environmental Exceedance/Non-conformance/Compliant/Summons and Prosecution

No exceedance of the Action and Limit Levels was recorded at designated monitoring stations during the reporting period.

No non-compliance event and complaint were recorded during the reporting period.

No summons/prosecutions were received in this reporting period.

Reporting Change

There was no reporting change in the reporting period.

Future Key Issues

Works to be undertaken in the next month include:

- Material loading and unloading, site traffic
- Permanent site office foundation works with pouring of concrete
- Site clearance
- Installation of permanent fencing
- Site formation
- Tree felling

Potential environmental impacts arising from the above construction activities are mainly associated with air quality, construction noise, water quality, waste management, landfill gas monitoring, landscape and visual, cultural heritage and ecology.

1. Introduction

1.1. Background

1.1.1. The North East New Territories Landfill Extension (the NENTX Project) is located adjacent to the existing North East New Territories (NENT) Landfill at Ta Kwu Ling. The extension site is located in a valley covering mainly the existing NENT Landfill Stockpile and Borrow Area that was formed to the east of the existing landfill as part of the original site development of the landfill, and layout plan shown in **Figure 1**.

1.1.2. The NENTX is a designated project. The Environmental Impact Assessment (EIA) Report (AEIAR-111/2007) and an Environmental Monitoring and Audit Manual were approved on 20 September 2007. The project is governed by an Environmental Permit (EP) (EP-292/2007) which was granted on 26 November 2007. A further of EP (FEP) was applied and the FEP (FEP-01/292/2007) was subsequently granted on 28 April 2022.

1.1.3. In accordance with the requirements specified in Section 2.6 to 2.10 and Section 12.3 of the approved Environmental Monitoring and Audit (EM&A) Manual and Environmental Permit (EP and FEP) condition 3.3, Monthly EM&A report should be submitted to the Director of Environmental Protection (DEP), within 2 weeks after the end of the reporting month. The submissions shall be certified by the Environmental Team (ET) Leader and verified by the Independent Environmental Checker (IEC).

1.1.4. The construction phase and EM&A programme of the Project commenced on 1 December 2022.

1.2. Nature, Scale and Scope of the captioned Designated Project

1.2.1 The Nature, Scale and Scope of the captioned Designated Project is presented in **Table 1-1**.

Table 1-1 Nature, Scale and Scope of the captioned Designated Project

Item(s)	Content
Nature of Designated Project	Construction and operation of a landfill for waste as defined in the "Waste Disposal Ordinance" (Cap. 354)
Scale and Scope of Designated Project	The Project mainly consists of the followings: - Construction and operation of a landfill extension of about 70 hectares with a target void space of at least 19 million cubic metres on the eastern side of the existing NENT Landfill, including the followings: - i. Site formation and preparation; ii. Installation of liner system; iii. Installation of leachate collection, treatment and disposal facilities; iv. Installation of gas collection, utilization and management facilities; v. Utilities provisions and drainage diversion; vi. Landfilling operation; vii. Restoration and aftercare in subsequent stages; and viii. Measures to mitigate environmental impacts as well as environmental monitoring and auditing to be implemented.

1.3. Purpose of this Report

1.3.1. This is the 2nd Monthly EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 01 January 2023 to 31 January 2023.

1.4. Structure of the Report

1.4.1. The structure of the report is as follows:

Section 1 – Introduction
- details the background, purpose and structure of the report.

Section 2 – Project Information
- summarises background and scope of the Project, site description, project organization and contact details, construction programme, the construction works undertaken and the status of Environmental Permit(s)/License(s) during the reporting period.

Section 3 – Air Quality Monitoring

- Construction Dust

Section 4 – Noise Monitoring

Section 5 – Water Quality Monitoring

- Groundwater Monitoring

- Surface Water Monitoring

Section 6 – Waste Management

Section 7 – Landfill Gas Monitoring

Section 8 – Landscape and Visual

Section 9 – Cultural Heritage

Section 10 – Ecological Monitoring

Section 11 – Site Inspection and Audit

Section 12 – Environmental Non-Conformance

Section 13 – Implementation Status on Environmental Mitigation Measures

Section 14 – Future Key Issues

2. Project Information

2.1. Construction Activities

2.1.1. A summary of the major construction activities undertaken in this reporting period is shown in **Table 2.1**. Construction programme is illustrated in **Appendix A**. Detailed construction activities and the construction layout plan are summarized in **Appendix L**.

Table 2-1 Major Construction Activities Undertaken in the Reporting Period

Construction Activities Undertaken	
-	Material loading and unloading, site traffic
-	Site clearance
-	Installation of permanent fencing
-	Site formation
-	Tree felling

2.2. Project Organization & Management Structure

2.2.1. The Project Organization Chart & Management Structure are shown in **Appendix B**. The key personnel contact information is summarized in **Table 2-2**.

Table 2-2 Contact Information of Key Personnel

Party	Name	Contact Number
Contractor (Veolia Environmental Service Hong Kong Holding Ltd.)	Mr. William Wan	2902 5296
Independent Environmental Checker (IEC) (Meinhardt Infrastructure and Environment Ltd.)	Ms. Claudine Lee	2859 5409
Environmental Team Leader (ETL) (Aurecon Hong Kong Limited)	Mr. Fredrick Leong	3664 6888

2.3. Status of Submission required under the FEP & EP

2.3.1. The status of statutory environmental compliance with the EP conditions under the EIAO, submission status under the FEP & EP are presented in **Table 2-3**.

Table 2-3 Status of Submissions required under the FEP & EP

FEP Condition	EP Condition	Submission / Measures	Status
2.1	2.3	Management Organization of Main Construction Companies	Submission Date (12 Oct 2022)
2.2	2.4	Setting up of Community Liaison Group	Submission Date (12 Oct 2022)
2.3	2.5	Submission of EM&A Manual	Submission Date (12 Oct 2022)
2.4	2.6	Submission of Preservation of Cultural Landscape Features	Survey and Preservation of Grave Records: Submission Date (15 Oct 2022) Survey and Preservation of Boulder Paths: Submission Date (12 Oct 2022)
2.5	2.7	Submission of Vegetation Survey (Transplantation Proposal)	Submission Date (2 September 2022)
2.6	2.8	Submission of translocation proposal	Submission Date (8 July 2022)
2.7	2.9	Submission of Transplantation Report	Submission Date (19 Jan 2023)
2.8	2.10	Translocation and translocation monitoring	Translocation was carried out in July 2022 1st translocation monitoring commenced in August Submission Date (27 December 2022)
2.9	2.11	Submission of Detailed Landfill Gas Hazard Assessment Report	Submission Date (6 Oct 2022)
2.10	2.12	Submission of Waste Management Plan	Submission Date (30 December 2022)
3.2	3.2	Submission of Baseline Monitoring Report	Submission Date (30 Nov 2022)

2.4. Status of Environmental Approval Document

2.4.1. A summary of the relevant valid permits, licences, and/or notifications on environmental protection for this Project since the granting of the EP is presented in **Table 2.4**.

Table 2-4 Summary of the relevant valid permits, licences, and/or notifications on environmental protection

Permit / Licenses / Notification	Reference	Expiry Date	Remark
Environmental Permit (EP)	EP-292/2007	Throughout the Contract	Permit granted on 26 November 2007
Further Environmental Permit (FEP)	FEP-210/2022	Throughout the Contract	Permit granted on 28 April 2022
Notification of Construction Works as required under Air Pollution Control (Construction Dust) Regulation	479809	Throughout the Contract	Approved on 13 May 2022
Registration of Waste Producer under Waste Disposal Ordinance	7043692	Throughout the Contract	Approved on 13 April 2022
Registration as Chemical Waste Producer	5213-642-P1034-18	Throughout the Contract	Approved on 11 July 2022
Construction Noise Permit	GW-RN1151-22	28 February 2023	Approved on 29 November 2022
Effluent Discharge License under Water Pollution Control Ordinance	WT00042301-2022	31 October 2027	Approved on 18 October 2022

2.5. Environmental Monitoring and Audit Progress

2.5.1. A summary of the monitoring activities in this reporting period is presented in **Table2-5**.

Table 2-5 Summary of the Monitoring Activities in this reporting period

	Items	Times	Date
-	Air Quality Monitoring during normal weekdays at each monitoring station	5 times	3, 9, 14, 20 & 26 January 2023
-	Construction Noise Monitoring during normal weekdays at each monitoring station	4 times	3, 9, 20 & 26 January 2023
-	Surface Water Quality Monitoring during normal weekdays at each monitoring station	1 time	9 January 2023
-	Landfill Gas Monitoring during normal weekdays for Construction Works	6 times	3 to 7 & 9 January 2023
-	Post-translocation Monitoring during normal weekdays at recipient site	1 time	30 January 2023
-	Post-transplantation monitoring and audit during normal weekdays for transplanted plants and receptor sites	2 time	13 & 26 January 2023
-	Joint Environmental Site Inspection	4 times	3, 9, 16 & 27 January 2023

Air Quality

5 sets of 1-hr TSP & 24-hr TSP construction dust measurement were carried out at each monitoring stations during normal weekdays of the reporting period. No exceedance of Action and Limit Levels of construction dust was recorded during the reporting period.

Noise

4 sets of 30-minute construction noise measurement were carried out at each monitoring stations during normal weekdays of the reporting period. No exceedance of Action and Limit Levels of construction noise was recorded during the reporting period.

Groundwater

Site clearance of future landfilling area is in progress. The installation of groundwater monitoring boreholes will be installed after the site formation work of the landfilling area. The target commencement period of groundwater monitoring will be in 2026.

Surface Water Quality

1 set of surface water quality measurement were carried out at each monitoring stations during normal weekdays of the reporting period. No exceedance of Action and Limit Levels of surface water quality was recorded during the reporting period

Landfill Gas

21 sets of landfill gas measurement were carried out at a designated monitoring location during normal weekdays of the reporting period. No exceedance of Action and Limit Levels of landfill gas was recorded during the reporting period.

Landscape and Visual

All the specified and affected LCAs, LRs and VSRs have been monitored during the reporting period. No exceedance of Action and Limit Levels of landscape and visual was recorded during the reporting period.

Cultural Heritage

Implementation of the mitigation measures during construction phase of the Project has been monitored through the regular site inspection/audit.

Ecology

1 set of post-translocation monitoring at recipient site and 2 sets of post-transplantation monitoring and audit for transplanted plants and receptor sites during normal weekdays of the reporting period were carried out. Implementation of the mitigation measures during construction phase of the Project has been monitored through the regular site inspection/audit.

Environmental Site Inspection

ET weekly environmental site inspections were carried out on 03, 09, 16 and 27 January 2023. A joint environmental site inspection was carried out by the representatives of the Employer's Representative (ER), the Contractor, IEC and the ET on 16 January 2023. The Contractor has generally implemented the mitigation measures as recommended.

3. Air Quality Monitoring

3.1 Construction Dust

3.1.1 Monitoring Requirement

3.1.1.1 In accordance with the EM&A Manual, 1-hr & 24-hrTotal Suspended Particulates (TSP) levels should be measured at the designated air quality monitoring stations in every 6 days to ensure that any deteriorating air quality could be readily detected, and timely action shall be undertaken to rectify such situation. For 1-hr TSP monitoring, the sampling frequency of at least three times in every six-days should be undertaken when the highest dust impact occurs. The specific time to start and stop the 24- hr TSP monitoring shall be clearly defined for each location.

3.1.2 Monitoring Parameters, Frequency and Location

3.1.2.1 According to the EM&A Manual, three monitoring stations namely AM(D)1, AM(D)2 and AM(D)3 are selected for the impact monitoring.

3.1.2.2 A baseline monitoring plan has been submitted to IEC and EPD on 31 May 2022 including the proposal with justification of change of monitoring locations. Due to limited access to the original monitoring locations at AM(D)1, AM(D)2 and AM(D)3, the adjusted stations at AM1, AM2 and AM3 were agreed with IEC and no comment received from EPD prior to the baseline and impact monitoring. The locations of adjusted dust monitoring locations are shown in **Figure 2**.

3.1.2.3 The detailed monitoring schedule is shown in **Appendix C**. The locations of dust monitoring stations are shown in **Table 3-1**. The monitoring parameters, frequency and duration are shown in **Table 3-2**.

Table 3-1 Locations of Dust Monitoring Stations

Monitoring Station	Representative for	Monitoring Parameters
AM1	Tung Lo Hang	1-hr and 24-hr TSP
AM2	Heung Yuen Wai	1-hr and 24-hr TSP
AM3	Wo Keng Shan Tsuen	1-hr and 24-hr TSP

Remarks:

The contractor passed correspondence including original monitoring locations specified on the Approved EM&A Manual to the village representatives on 26 April 2022. After a meeting with Ta Kwu Ling District Rural Committee (RC) Chairman, representative from the RC and a few villagers on 1 May 2022, all the Village Heads of Wo Keng Shan Tsuen, Heung Yuen Wai and Lin Ma Hang verbally refused to accept our proposal for installation of dust and / or noise monitoring equipment within or next to their villages, for the baseline & impact monitoring.

AM(D)1 Tung Lo Hang, AM(D)2 Heung Yuen Wai, AM(D)3 Wo Keng Shan Tsuen are the air monitoring stations for the construction phase EM&A programme as identified in the approved EM&A Manual for the Project. The access to Tung Lo Hang, Heung Yuen

Wai and Wo Keng Shan Tsuen were denied. A search for alternative air monitoring locations (AM1, AM2 & AM3) was carried out during the site visit.

The Baseline Monitoring Plan has been submitted to IEC and EPD including the proposal of change of monitoring locations on 31 May 2022. This arrangement was conducted between baseline and impact monitoring and has been agreed by the Independent Environmental Checker (IEC) and no comment received from EPD.

Due to the adjustment of the location of AM(D)1, AM(D)2 & AM(D)3to AM1, AM2 & AM3, the measured air quality levels at AM1, AM2 & AM3 would represent the air quality levels at AM(D)1, AM(D)2 & AM(D)3.

Table 3-2 Dust Impact Monitoring Parameters, Frequency and Duration

Monitoring Station	Parameter	Frequency and Duration
AM1, AM2, AM3	1-hr TSP	At least 3 times per 6 days
	24-hr TSP	1 time per 6 days

3.1.3 Monitoring Equipment

3.1.3.1 High volume samplers (HVSs) were used for carrying out 24-hr TSP monitoring. For 1-hr TSP monitoring, direct reading dust meters were used to measure 1-hr TSP levels.

3.1.3.2 **Table 3-3** summarises the equipment that were used in the baseline dust monitoring programme. The calibration certificates are shown in **Appendix D**.

Table 3-3 Dust Monitoring Equipment

Equipment	Model	Monitoring Station
High Volume Sampler (HVS)	TE-5170X (S/N: 1105)	AM1
	TE-5170X (S/N: 1106)	AM2
	TE-5170X (S/N: 1856)	AM3
Direct Reading Dust Meter	Sibata LD-5R (S/N: 0Z4545)	AM1 to AM3
	Sibata LD-5R (S/N: 882106)	
	Sibata LD-5R (S/N: 882110)	
	Sibata LD-5R (S/N: 942532)	
Calibration Kit (for HVS)	TE-5025A (S/N: 3465)	AM1 to AM3

3.1.4 Monitoring Methodology

1-hr TSP Monitoring

3.1.4.1 The 1-hr TSP impact monitoring was conducted using a portable direct reading dust meter.

Measuring Procedures

3.1.4.2 The measuring procedures of the 1-hr dust meter has been undertaken in accordance with the Manufacturer's Instruction Manual as follows:

Procedure of starting monitoring

- Place the 1-hr dust meter at least 1.3m above ground;
- Turn on the "On/Off" button at the side of instrument. Program will be changed to "BG" mode and leave it for 1 minute.
- Pull out the Suction adaptor and turn the button at the side. Cover with hand at the suction adaptor measure the background for 10 seconds.
- Press " UP" and " DOWN" for choosing "SPAM Mode" for SPAM Measurement.
- Press "Up" and "Down" to select "Measurement Mode" with 60 minutes interval and unit in ug/m3.
- Press "Start/Stop" to start monitoring.

Procedure of setting measurement timer

- Press "Up" or "Down" to find "Setting LOG".
- Select "Record Cycle" and change the record time subject to different project requirement. For example, setting the record cycle as 60 minutes for normal operation.
- Press "ESCAPS" back to the main page.
- Press "Up" or "Down" to access "Measurement Timer" and select "Measurement time" to change the time to 3 hours.
- Information such as sampling date, time, count value and site condition will be recorded during the monitoring period.

Calibration & Maintenance

3.1.4.3 The direct reading dust meters will be verified against calibrated high volume samples (HVSs) annually. A 2-day, three 3-hour measurement results per day from direct reading dust meter will be taken to compare with the sampling results from the HVS. The correlation between the direct reading dust meter and the HVS will then be concluded. By accounting for the correlation factor, the direct reading dust meter will be considered to achieve comparable results as that of the HVS.

3.1.4.4 All digital dust indicator will be calibrated with on-site HVS annually. Calibration certificate will be provided after calibration.

Quality Audit

3.1.4.5 Checklist of regular checking for digital dust meter will be conducted bi-weekly by environmental technician to ensure the all-digital dust meter are in good condition and submitted to supervisors. All checklists will be kept by supervisors.

3.1.4.6 Logbook is provided to environmental technician record the transferal of equipment to other colleagues, reporting to supervisors is required.

24-hr TSP Monitoring

3.1.4.7 The 24-hr TSP monitoring has been conducted using a High-Volume Sampler (HVS).

Measuring Procedures

3.1.4.8 The HVS has been set-up at the monitoring location with a fixed power supply for operation. The measuring procedures of the 24-hr TSP measurements has been undertaken in accordance with the specifications listed in the EM&A Manual. Each HVS includes a motor, a filter holder, a flow controller and a sampling inlet in accordance with the performance specification of the USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50), Appendix B. The measuring procedures of the 24-hr dust meter was undertaken in accordance with the Manufacturer's Instruction Manual as follows:

- The power supply will be checked to ensure the HVS works properly;
- The filter holder and the area surrounding the filter will be cleaned;
- The filter holder will be removed by loosening the four bolts and a new filter on a supporting screen will be aligned carefully;
- The filter will be properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter;
- The swing bolts will be fastened to hold the filter holder down to the frame. The pressure applied should be sufficient to avoid air leakage at the edges;
- The shelter lid will be closed and secured with the aluminium strip;
- The HVS will be warmed-up to establish run-temperature conditions;
- A new flowrate record sheet will be set into the flow recorder;
- The programmable timer will be set for a sampling period of 24 hour, and the starting time, weather condition and the filter number will be recorded;
- The initial elapsed time will be recorded;
- At the end of sampling, the sampled filter will be removed carefully and folded in half-length so that only surfaces with collected particulate matter will be in contact;
- The sample will be placed in a clean plastic envelope and sealed;
- All monitoring information will be recorded on a standard data sheet; and
- The filters will be taken back to HOKLAS accredited laboratory for analysis.

3.1.4.9 In addition, site conditions and dust sources were recorded in a standard form for direct input into a database.

Calibration & Maintenance

3.1.4.10 The high volume motors and their accessories should be properly maintained, including routine motor brushes replacement and electrical wiring checking, to ensure that the equipment and a continuous power supply were in good working condition.

3.1.4.11 Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually.

The detail procedure of calibration of HVS is listed below:

1. Make sure the electrical circuit is connected properly. The motor should be directly connected to the power source.
2. Open the top cover and unlock the screws at the four corners.
3. Install the variable orifice and adapter plate to high volume air sample. Tighten the nut securely. Turn the knob of orifice clock-wise to close the four holes on the bottom open.
4. Hold the water manometer on the cover of mass flow controller vertically. Connect one side of a water manometer to the pressure tap on the side of the orifice with a rubber vacuum tube. Leave opposite side of the manometer open to the atmosphere.
5. Turn on the sampler
6. Turn the knob orifice counter clock-wise to adjust the openings the four holes on the bottom open. Record the manometer reading and the reading from continuous flow recorder. At least 5 sets of data should be recorded.

3.1.5 Monitoring Results

3.1.5.1 The impact dust monitoring results are summarized in **Table 3-4** and **Table 3-5.** The monitoring data together with graphical presentations are presented in **Appendix E** and **Appendix F**.

Table 3-4 Summary of Impact 1-hr TSP Monitoring Results

Dust Monitoring Station	Average 1-hr TSP Concentration, µg/m³ (Range)	Action Level, µg/m³	Limit Level, µg/m³
AM1	49 (34 – 60)	>285	>500
AM2	42 (32 – 53)	>279	>500
AM3	52 (39 – 67)	>285	>500

Table 3-5 Summary of Impact 24-hr TSP Monitoring Results

Dust Monitoring Station	Average 24-hr TSP Concentration, µg/m³ (Range)	Action Level, µg/m³	Limit Level, µg/m³
AM1	98 (60 – 133)	>164	>260
AM2	53 (21 – 79)	>152	>260
AM3	85 (56 – 134)	>163	>260

3.1.5.2 No exceedance of Action and Limit Levels of construction dust was recorded during the reporting period. Therefore, there was no record of Notification of Environmental Quality Limits Exceedance in the **Appendix G**.

3.1.5.3 No effect that arose from the other special phenomena and work progress of the concerned site was noted during the current monitoring month.

3.1.6 Wind Data Monitoring

3.1.6.1 During the monitoring period. wind data from existing weather station in the vicinity of the designated monitoring location, i.e Ta Kwu Ling station operated by Hong Kong Observatory was adopted. It is considered that the wind data obtained from Ta Kwu Ling station are representative of the Project area and could be used for the construction dust monitoring programme for the Project. The results for wind data monitoring are presented in **Appendix H**.

3.1.7 Recommended Mitigation Measures

3.1.7.1 The recommended dust mitigation measures from EIA report are listed as followed:

- The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.
- Dust emission from construction vehicle movement is confined within the worksites area.
- Watering facilities will be provided at every designated vehicular exit point.
- Good site practice is recommended during construction phase. Covering with impermeable sheet should be provided for the inactive tipping area.

3.1.8 Event and Action Plan

3.1.8.1 Should non-compliance of the criteria occur, action in accordance with the action plan in **Table 3-6** shall be carried out.

Table 3-6 Event and Action Plan for dust impact

Event	ET	IEC	Contractor
Exceedance of Action Level			
1.Exceedance for one sample	• Identify source • Prepare Notification of Exceedance • Inform IEC and Contractor • Repeat measurement to confirm findings • Increase monitoring frequency to daily if exceedance is due to the Project and continue until the monitoring results reduce to below action level	• Verify the Notification of Exceedance • Check monitoring data submitted by ET and Contractor's working methods • Discuss with ET and Contractor on proposed remedial measures	• Rectify any unacceptable practice • Amend working methods if appropriate
2.Exceedance for two or more consecutive samples	• Identify source • Prepare Notification of Exceedance • Inform Contractor and IEC • Repeat measurements to confirm findings • Increase monitoring frequency to daily if exceedance is due to the Project and continue until the monitoring results reduce to below action level • Discuss with IEC for remedial action required • Ensure remedial measures are properly implemented • Continue monitoring at daily intervals if exceedance is due to the Project • If no exceedance for 3 consecutive days, cease additional monitoring	• Verify the Notification of Exceedance • Check monitoring data submitted by ET and Contractor's working methods • Discuss with ET and Contractor on proposed remedial measures • Review with analysed results submitted by ET • Review the proposed remedial measures by Contractor • Supervise the implementation of remedial measures	• Submit proposals for remedial actions to IEC within 3 working days of notification • Implement the agreed proposals • Amend proposal if appropriate

Event	ET	IEC	Contractor
Exceedance of Limit Level			
1.Exceedance for one sample	• Identify source • Prepare Notification of Exceedance • Inform IEC and Contractor • Repeat measurement to confirm findings • Increase monitoring frequency to daily if exceedance is due to the Project and continue until the monitoring results reduce to below limit level • Assess effectiveness of Contractor's remedial actions and keep EPD and IEC informed of the results	• Verify the Notification of Exceedance • Check monitoring data submitted by ET and Contractor's working methods • Discuss with ET and Contractor potential remedial actions • Supervise the implementation of remedial measures	• Take immediate action to avoid further exceedance • Submit proposals for remedial actions to IEC within 3 working days of notification • Implement the agreed proposals • Amend proposal if appropriate
2.Exceedance for two or more consecutive samples	• Identify source • Prepare Notification of Exceedance • Inform IEC and EPD the causes and actions taken for the exceedances • Discuss with IEC for remedial action required • Ensure remedial measures are properly implemented • Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and informed of the results • Increase monitoring frequency to confirm findings • If exceedance stops, cease additional monitoring	• Verify the Notification of Exceedance • Check monitoring data submitted by ET and Contractor's working methods • Discuss amongst ET and Contractor on the potential remedial actions. • Review Contractor's remedial actions whenever necessary to assure their effectiveness • Supervise the implementation of remedial measures	• Take immediate action to avoid further exceedance • Submit proposals for remedial actions to IEC of notification • Implement the agreed proposals • Resubmit proposals if problem still not under control • Stop the relevant activity of works until the exceedance is abated

4 Noise Monitoring

4.1 Monitoring Requirement

4.1.1 In accordance with the EM&A manual, noise impact monitoring shall be carried out at 2 monitoring stations NM1 and NM2 once a week during normal construction working hour (0700-1900 Monday to Saturday). The minimum logging interval shall be 30 minutes with average of 6 consecutive Leq 5 mins. L10 and L90 shall also be measured at 5 mins intervals.

4.2 Monitoring Locations, Parameters and Frequency

4.2.1 According to the EM&A Manual, two monitoring stations namely NM1 and NM2 are selected for the impact monitoring.

4.2.2 A baseline monitoring plan has been submitted to IEC and EPD on 31 May 2022 including the proposal with justification of change of monitoring locations. Due to limited access to the original monitoring locations at NM1 and NM2, the adjusted stations at NM1a and NM2a were agreed with IEC and no comments received from EPD prior to the baseline and impact monitoring. The noise monitoring locations are summarized in **Table 4-1** and shown in **Figure 2**.

4.2.3 The detailed monitoring schedule is shown in **Appendix C**. The frequency and duration are shown in **Table 4-2**.

Table 4-1 Noise Monitoring Locations

Monitoring Station	Representative for	Type of Measurement
NM1a	Wo Keng Shan Tsuen	Free field
NM2a	Lin Ma Hang	Free field

Remarks:

The contractor passed correspondence including original monitoring locations specified on the Approved EM&A Manual to the village representatives on 26 April 2022. After a meeting with Ta Kwu Ling District Rural Committee (RC) Chairman, representative from the RC and a few villagers on 1 May 2022, all the Village Heads of Wo Keng Shan Tsuen, Heung Yuen Wai and Lin Ma Hang verbally refused to accept our proposal for installation of dust and / or noise monitoring equipment within or next to their villages, for the baseline & impact monitoring.

NM1 Wo Keng Shan Tsuen & NM2 Lin Ma Hang are the noise monitoring stations for the construction phase EM&A programme as identified in the approved EM&A Manual for the Project. The access to Tung Lo Hang, Heung Yuen Wai and Wo Keng Shan Tsuen were denied. A search for alternative noise monitoring locations (NM1a & NM2a) was carried out during the site visit.

The Baseline Monitoring Plan has been submitted to IEC and EPD including the proposal of change of monitoring locations on 31 May 2022. This arrangement was conducted between baseline and impact monitoring and has been agreed by the Independent Environmental Checker (IEC) and no comments received from EPD. Noise measurement at NM1a & NM2a will be considered as free-field and a correction of +3dB(A) would be made to the noise monitoring results.

Due to the adjustment of the location of NM1 & NM2 to NM1a & NM2a, the measured noise levels at NM1 & NM2 would represent the noise levels at NM1 & NM2.

Table 4-2 Noise Baseline Monitoring Parameters, Frequency and Duration

Monitoring Station	Parameter	Frequency and Duration
NM1a and NM2a	L_{Aeq} (30mins) average of 6 consecutive L_{eq} (5min); L10 (5min) & L90 (5min)	once a week during normal construction working hour (0700-1900 Monday to Saturday)

4.3 Monitoring Equipment

4.3.1 Integrating Sound Level Meters (SLMs) was used for noise impact monitoring. The SLM complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications shall be used for carrying out noise monitoring. The accuracy of the SLM was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements shall be accepted as valid only if the calibration level from prior to and after the noise measurement agrees to within 1.0dB.

4.3.2 A portable wind speed meter was used for measuring wind speeds in m/s.

4.3.3 **Table 4-3** summarises the equipment that have been used in the impact noise monitoring programme. The calibration certificates are shown in **Appendix D**.

Table 4-3 Noise Monitoring Equipment

Equipment	Model
Sound Level Meter	NTi XL2 (S/N: A2A-09696-E0)
Acoustic Calibrator	Rion NC-74 (S/N: 34504770)
Anemometer	RS-90 (S/N: 210722168)

4.4 Monitoring Methodology

4.4.1 The details of noise measurement procedures are described as follows:

- Free-field measurements were made at the monitoring locations.
- For free field, the Sound Level Meter was set at a height of 1.2 m above the ground. The battery condition was checked to ensure the proper 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
- Measurement time: 5 minutes (Leq (30-min) would be determined for daytime noise by calculating the logarithmic average of six Leq (5min) data.)

- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after recalibration or repair of the equipment.
- Noise measurement should be paused during periods of high intrusive noise if possible and observation shall be recorded when intrusive noise is not avoided.
- At the end of the monitoring period, the Leq, L10 and L90 shall be recorded. In addition, site conditions and noise sources should be recorded on a standard record sheet.
- All noise monitoring will be conducted with the wind speed not exceeding 5m/s and no gusts exceeding 10m/s.

4.5 Monitoring Results

4.5.1 The impact noise monitoring results are summarized in **Table 4-4**. The monitoring data together with graphical presentations are presented in **Appendix E** and **Appendix F**.

Table 4-4 Summary of Noise Monitoring Results during normal working hours (07:00-19:00, Monday to Saturday)

Noise Monitoring Station	Average Leq, 30min, dB(A) (Range)	Action Level	Limit Level
NM1a	51.1 (48.2 – 54.0)	When one documented complaint is received	>75dB(A)
NM2a	48.1 (47.6 – 50.0)		

Remark:

(1) * A correction of +3 dB(A) was made to the free field measurements

(2) If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

4.5.2 No exceedance of Action and Limit Levels of construction noise was recorded during the reporting period. Therefore, there was no record of Notification of Environmental Quality Limits Exceedance in the **Appendix G**.

4.5.3 No particular observations are identified near the monitoring stations during the monitoring period.

4.6 Recommended Mitigation Measures

4.6.1 The recommended dust mitigation measures from EIA report are listed as followed:

1. Use of good site practices to limit noise emissions by considering the following:
   - Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;
   - Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;

- Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;
- Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;
- Mobile plant should be sited as far away from NSRs as possible and practicable;
- Material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.

2. Select “Quiet plants” which comply with the BS 5228 Part 1 or TM standards.

4.7 Event and Action Plan

4.7.1 Should non-compliance of the criteria occurs, action in accordance with the action plan in **Table 4-5** shall be carried out.

Table 4-5 Event and action plan for construction noise monitoring

Event	ET	IEC	Contractor
Exceedance of Action Level	• Identify source, investigate the causes of exceedance • Prepare Notification of Exceedance • Inform IEC and Contractor • Report the results of investigation to IEC, and Contractor • Discuss with Contractor and IEC for formulate remedial measures • Ensure remedial measures are properly implemented • Have additional monitoring if exceedance is due to the Project. If exceedance stops, cease additional monitoring	• Verify the Notification of Exceedance • Review the analysed results submitted by ET • Discuss with ET, and Contractor on the potential remedial actions • Review the proposed remedial measures • Supervise the implementation of remedial measures	• Submit noise mitigation proposals to IEC • Implement the agreed noise mitigation proposals
Exceedance of Limit Level	• Identify source, investigate the causes of exceedance • Prepare Notification of Exceedance • Inform IEC and Contractor • Repeat measurements to confirm findings • Discuss with Contractor and IEC for remedial measures • Ensure remedial measures are properly implemented • Assess effectiveness of Contractor's remedial actions and keep IEC and EPD informed of the results • Have additional monitoring if exceedance is due to the Project. If exceedance stops, cease additional monitoring	• Verify the Notification of Exceedance • Review the analysed results submitted by ET • Discuss with ET, and Contractor on the potential remedial actions • Review the proposed remedial measures • Supervise the implementation of remedial measures	• Take immediate action to avoid further exceedance • Submit proposals for remedial actions to IEC of notification • Implement the agreed proposals • Resubmit proposals if problem still not under control • Stop the relevant portion of works as determined by project proponent until the exceedance is abated.

5 Water Quality Monitoring

5.1 Groundwater Monitoring

5.1.1 Monitoring Requirement

5.1.1.1 In accordance with the EM&A manual, groundwater quality monitoring shall be carried out at least once per month at the 35 designated groundwater monitoring locations (i.e ED1 to ED35). Based on the existing construction programme, site clearance and site formation works for future landfilling area are in progress. The groundwater monitoring locations ED1 to ED35 will be installed after the site formation work of the landfilling area.

5.2 Surface Water Monitoring

5.2.1 Monitoring Requirement

5.2.1.1 In accordance with the EM&A manual, impact surface water quality monitoring was carried out at the two designated surface water discharge points (i.e WM1 and WM2) for once per month from commencement of construction works of the Project.

5.2.2 Monitoring Locations, Parameters and Frequency

5.2.2.1 Impact surface water monitoring was carried out on 9 January 2023 at WM1 and WM2. The monitoring locations are indicated in **Table 5-5** and **Figure 2**.

5.2.2.2 The monitoring parameters, frequency and duration of surface water quality baseline monitoring are summarized in **Table 5-6**. Detailed monitoring schedule is presented in **Appendix C**.

Table 5-5 Surface water quality monitoring locations

Monitoring Station	Location	Coordinates (HK Grid)	
		Easting	Northing
WM1	Upstream of Lin Ma Hang River	836665	845020
WM2	Ping Yuen River	835592	844186

Table 5-6 Surface water quality monitoring Parameters, Frequency and Duration

Parameter	Frequency
pH, Electrical conductivity, DO, Turbidity, SS, Alkalinity, COD, BOD_5, TOC, Ammonia-nitrogen, TKN, Nitrate, Sulphate, Sulphite, Phosphate, Chloride, Sodium, Mg, Ca, K, Fe, Ni, Zn, Mn, Cu, Pb, Cd, Coliform Count, Oil and Grease	once per month

5.2.3 Monitoring Equipment

5.2.3.1 The measurements of pH, electrical conductivity (EC), DO, turbidity, water temperature and air temperature were undertaken in situ. In situ monitoring instruments in compliance with the specifications listed under Section 5.5 of the EM&A Manual were used to undertake the surface water quality monitoring for the Project. **Table 5-7** summarises the equipment used in the impact surface water quality monitoring works. Copies of the calibration certificates are attached in **Appendix D**.

Table 5-7 Surface Water Quality Monitoring Equipment

Equipment	Model
Water Quality Meter	Horiba U-53 (S/N: PORBNFNT)
Water Flow Meter	FP111 (S/N: 22K100859)

5.2.4 Summary of Surface Water Quality Monitoring Procedure

Operational/ Analytical Procedures

5.2.4.1 Water samples were collected from within 500 mm of the water surface. Water was collected by a small clean open-mouthed bucket with the lip pointing upstream. Usually, water was then transferred to the sample bottles until they were filled to the top with no remaining air space before the lid was securely screwed on. For samples that were preserved with acid or alkalis prior to transport to the laboratory, the samples bottles were filled to the level specified by the analytical laboratory.

5.2.4.2 Analyses shall be carried out in accordance with methods described in ASTM or APHA - AWWA-WEF Standard.

Laboratory Analytical Methods

5.2.4.3 The testing of parameters presented in **Table 5-8** for all stations was conducted by ALS Technichem (HK) Pty Ltd. (HOKLAS Registration No. 066). Comprehensive quality assurance and control procedures were in place in order to ensure quality and consistency in results. The detection limits are provided in **Table 5-8**.

Table 5-8 Surface Water Monitoring Detection Limits and Limit of Reporting

Parameters	Detection Limit (in EM&A Manual)	Limit of Reporting	Method Reference
pH	0.1	0.1	APHA 4500 H+ B
Electrical conductivity	1 μS/cm	1 μS/cm	APHA 2510 B
Alkalinity	1 mg/L	1 mg/L	APHA 2320 B
COD	10 mg/L	5 mg/L	APHA 5220 C
BOD_5	3 mg/L	2 mg/L	APHA 5210 B
TOC	1 mg/L	1 mg/L	APHA 5310 B
SS	0.1 mg/L	0.1 mg/L	APHA 2540 D
Ammonia-nitrogen	0.2 mg/L	0.01 mg/L	APHA 4500 NH3 G
TKN	0.4 mg/L	0.1 mg/L	APHA 4500Norg: D
Nitrate	0.5 mg/L	0.01 mg/L	APHA 4500 NO3 I
Sulphate	5 mg/L	1 mg/L	USEPA 375.4
Sulphite	2 mg/L	2 mg/L	APHA 4500 SO3 B
Phosphate	0.01 mg/L	0.01 mg/L	APHA 4500-P B & F
Chloride	0.5 mg/L	0.5 mg/L	USEPA 325.1
Sodium	50 μg/L	50 μg/L	USEPA 6010C
Mg	50 μg/L	50 μg/L	USEPA 6010C
Ca	50 μg/L	50 μg/L	USEPA 6010C
K	50 μg/L	50 μg/L	USEPA 6010C
Fe	50 μg/L	10 μg/L	USEPA 6010C
Ni	1 μg/L	1 μg/L	USEPA 6020A
Zn	10 μg/L	10 μg/L	USEPA 6020A
Mn	1 μg/L	1 μg/L	USEPA 6020A
Cu	1 μg/L	1 μg/L	USEPA 6020A
Pb	1 μg/L	1 μg/L	USEPA 6020A
Cd	0.2 μg/L	0.2 μg/L	USEPA 6020A
Coliform Count	1 cfu/ 100mL	1 cfu/ 100mL	DoE section 7.8, 7.9.4.1 & 3
Oil and Grease	5 mg/L	5 mg/L	APHA 5520 B

QA/ QC Requirements

5.2.4.4 All in situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or other international accreditation scheme before use, and subsequently re-calibrated at the intervals according to manufacturer's requirement throughout all stages of the surface water quality monitoring programme. Responses of sensors and electrodes were checked with certified standard solutions before each use. Calibration for a DO meter was carried out before measurement according to the instruction manual of the equipment model. For the on-site calibration of field equipment, the requirements of the BS 1427:2018, "Guide to on-site test methods for the analysis of waters" was observed.

Decontamination Procedures

5.2.4.5 Water sampling equipment used during the course of the monitoring programme was decontaminated by manual washing and rinsed with clean distilled water after each sampling location.

Sampling Management and Supervision

5.2.4.6 All sampling bottles were labelled with the sample ID (including the indication of sampling station), laboratory number and sampling date. Water samples were dispatched to the testing laboratory for analysis as soon as possible after the sampling. All samples were stored in a cool box and kept at less than 4°C but without frozen. All water samples were handled under chain of custody protocols and relinquished to the laboratory representatives at locations specified by the laboratory. The laboratory determination works started within 24 hours after collection of water samples.

Quality Control Measures for Sample Testing

5.2.4.7 The samples testing was performed by ALS Technichem (HK) Pty Ltd. The following quality control programme was performed by the laboratory:

- One method blank; and
- One sample duplicate.

5.2.5 Monitoring Results

5.2.5.1 Impact surface water quality monitoring was conducted at WM1 and WM2 on 9 January 2023. No adverse weather was observed during reporting period. The detailed monitoring schedule is shown in **Appendix C**.

5.2.5.2 The summary of monitoring results are presented in **Table 5-9**. Detailed monitoring results at each monitoring station and graphical presentations of surface water quality (DO, SS and Turbidity) at the monitoring stations are given in **Appendix E** and **Appendix F.**

5.2.5.3 No particular observations are identified near the monitoring stations during the monitoring period.

5.2.5.4 No exceedance of Action and Limit Levels of surface water monitoring was recorded during the reporting period. Therefore, there was no record of Notification of Environmental Quality Limits Exceedance in the **Appendix G**.

Table 5-9 Summary of Impact Surface Water Monitoring Results

Monitoring Parameter(s)	Monitoring Station					
	WM1			WM2		
	Monitoring Results	Action Level	Limit Level	Monitoring Results	Action Level	Limit Level
pH	7.1	>7.7	>7.8	7.3	>7.6	>7.7
Electrical Conductivity in µS/cm	51	---	---	120	---	---
DO in mg/L	10.5	<7.4	<4	6.9	<5	<4
Turbidity in NTU	6.6	>9.2	>9.5	4.1	>108.3	>108.9
SS in mg/L	7.1	>9.7	>11.4	20.4	>94.5	>94.7
Alkalinity	16	---		38	---	
COD	5.0			6		
BOD_5	<2			<2		
TOC	3			2		
Ammonia-nitrogen	0.02			0.16		
TKN	0.1			0.3		
Nitrate	0.02			0.10		
Sulphate	3			7		
Sulphite	<2			<2		
Phosphate	<0.01			<0.01		
Chloride	5			7		
Sodium	7830			6400		
Mg	440			1020		
Ca	3030			11200		
K	290			1680		
Fe	660			6040		
Ni	<1			<1		
Zn	<10			31		
Mn	55			2100		
Cu	<1			2		
Pb	<1			1		
Cd	<0.2			<0.2		
Coliform Count	26			21		
Oil and Grease	<5			<5		

5.2.6 Recommended Mitigation Measure

5.2.6.1 The recommended surface water mitigation measures from EIA report are listed as followed:

- Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities.

- The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows.
- The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silts and sediment traps should be 5 minutes under maximum flow conditions.
- All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads.
- Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts.
- Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.

5.2.7 Event and Action Plan

5.2.7.1 Should non-compliance of the criteria occurs, action in accordance with the action plan in **Table 5-10** shall be carried out.

Table 5-10 Event and Action Plan for Water Quality

Event	ET	IEC	Contractor
Action level being exceeded by one sampling day	• Repeat in situ measurement to confirm findings • Identify source(s) of impact • Prepare Notification of Exceedance • Inform IEC and Contractor • Check monitoring data, all plant, equipment and Contractor's working methods • Repeat measurement on next day of exceedance	• Verify Notification of Exceedance • Check monitoring data and Contractor's working methods	• Rectify unacceptable practice • Amend working methods if appropriate
Action level being exceeded by two or more consecutive sampling days	• Repeat in situ measurement to confirm findings • Identify source(s) of impact • Prepare Notification of Exceedance • Inform IEC and Contractor • Check monitoring data, all plant, equipment and Contractor's working methods • Discuss with Contractor and IEC for remedial measures • Ensure mitigation measures are implemented • Increase the monitoring frequency to daily until no exceedance of Action level • Repeat measurement on next day of exceedance	• Verify Notification of Exceedance • Check monitoring data and Contractor's working method • Discuss with ET and Contractor on possible remedial actions • Review the proposed mitigation measures • Supervise the implementation of mitigation measures	• Submit proposal of additional mitigation measures to IEC of notification • Implement the agreed mitigation measures • Amend proposal if appropriate

Event	ET	IEC	Contractor
Limit Level being exceeded by one sampling day	• Repeat in situ measurement to confirm findings • Identify source(s) of impact • Prepare Notification of Exceedance • Inform IEC and Contractor; • Check monitoring data, all plant, equipment and Contractor's working methods • Discuss mitigation measures with IEC and Contractor • Ensure mitigation measure are implemented	• Verify Notification of Exceedance • Check monitoring data submitted By ET and Contractor's working method • Discuss with ET and Contractor on possible remedial actions • Review the proposed mitigation measures • Supervise the implementation of mitigation measures	• Critically review the working method • Rectify unacceptable practice • Take immediate corrective actions to avoid further exceedance • Submit proposal of mitigation measures to IEC • Implement the agreed mitigation measures •
Limit level being exceeded by two or more consecutive sampling days	• Repeat in situ measurement to confirm findings • Identify source(s) of impact • Prepare Notification of Exceedance • Inform IEC, contractor and EPD • Check monitoring data, all plant, equipment and Contractor's working methods • Discuss mitigation measures with IEC and Contractor • Ensure mitigation measure are implemented	• Verify Notification of Exceedance • Check monitoring data submitted by ET and Contractor's working method • Discuss with ET and Contractor on possible remedial actions • Review the proposed mitigation measures • Supervise the implementation of mitigation measures	• Critically review the working method • Rectify unacceptable practice • Take immediate corrective actions to avoid further exceedance • Submit proposal of mitigation measures to IEC • Implement the agreed mitigation measures • Resubmit proposals if problem still not under control • Slow down or to stop relevant activity until exceedance is abated

6 Waste Management

6.1.1 Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. Non-inert C&D materials were made up of general refuse, steels and paper/cardboard packaging materials. Steel materials generated from the Project were also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in **Appendix I**.

6.1.2 A total of 15.38 tonnes of general refuse & non-recyclable yard waste was generated during the reporting period. The general refuse generated from the Project were disposed of at the NENT Landfill. No inert waste was generated during the reporting period.

6.1.3 The recommended waste management mitigation measures from EIA report are listed as followed:

- Implement a trip-ticket system to ensure that the movement of C&D materials are properly documented and verified in accordance with DEVB TC(W) No. 6/2010.
- Concrete and masonry should be used as general fill and steel reinforcement bars can be used by scrap steel mills.
- Proper areas should be designated for waste segregation and storage wherever site conditions permit.
- Maximise the use of reusable steel formwork to reduce the amount of C&D material.
- Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement.
- On-site sorting and segregation facility of all type of wastes is considered as one of the best practice in waste management and hence, should be implemented in all projects generating construction waste.
- The sorted public fill and C&D waste should be properly reused.
- Excavated slope, stockpiled material and bund walls should be covered by tarpaulin until used in order to prevent wind-blown dust during dry weather, and to reduce muddy runoff during wet weather.

7 Landfill Gas Monitoring

7.1 Monitoring Requirement during Construction

Monitoring for Construction Works

7.1.1 Intrinsically safe portable gas detectors should be used during excavation or when working in any confined spaces, which have the potential for presence of LFG and risk of explosion or asphyxiation. The monitoring equipment should alarm, both audibly and visually, when the concentrations of the following gases were exceeded:

- CH_4: >10% Lower Explosion Limit (LEL);
- CO_2: >0.5%; and
- O_2: <18% by volume.

7.2 Monitoring Location

Monitoring Locations

7.2.1 During the construction works within the NENT Landfill Extension site with excavation of 1m deep or more, LFG concentrations should be monitored before entry and periodically during the progress of works. If drilling is required, the procedures for safety management and working procedures as stipulated in EPD's Landfill Gas Hazard Assessment – Guidance Note should be strictly adopted.

7.2.2 The monitoring frequency and areas to be monitored should be set down prior to commencement of groundworks by the Safety Officer. All measurements in excavations should be made with the monitoring tube located not more than 10mm from the exposed ground surface. Monitoring of excavations should be undertaken as follows:

7.2.3 For excavation works deeper than 1m, measurements should be made:

• at ground surface prior to excavation;
• immediately before any worker enters the excavation;
• at the beginning of each working day for the entire period the excavation remains open; and
• periodically through the working day whilst workers are in the excavation.

For excavation between 300mm and 1m deep, measurements should be made:

• directly after the excavation has been completed; and
• periodically whilst the excavation remains open.

7.2.4 For excavations less than 300mm deep, monitoring may be omitted, at the discretion of the Safety Officer.

7.2.5 The locations of LFG monitoring locations during reporting period are shown in **Table 7-1**. The Site formation layout plan is shown in **Figure 2**.

Table 7-1 Locations of LFG Monitoring during reporting period

Monitoring Location	Type of works
Portion A +58 mpD,+55 mpD Platform	Excavation Works

7.3 Monitoring Equipment

7.3.1 Gas Detector was used for carrying out LFG monitoring for Construction Works. **Table 7-2** summarises the equipment that were used in the LFG monitoring programme. The calibration certificates are shown in **Appendix D**.

Table 7-2 LFG Monitoring Equipment

Equipment	Model
Gas Detector	PS200 (S/N: 373075)

7.4 Event and Action Plan (EAP)

7.4.1 Should non-compliance of the criteria occur, action in accordance with the action plan in **Table 7-2** shall be carried out.

Table 7-2 Action Plan for the monitoring during construction phase

Parameter	Monitoring Result	Action
Oxygen (O_2)	Action Level <19% O_2	Ventilate trench/void to restore O_2 to >19%
	Limit Level <18% O_2	Stop works Evacuate personnel/prohibit entry Increase ventilation to restore O_2 to >19%
Methane (CH_4)	Action Level >10% LEL*	Prohibit hot works Increase ventilation to restore CH_4 to <10% LEL
	Limit Level >20% LEL*	Stop works Evacuate personnel/prohibit entry Increase ventilation to restore CH_4 to <10% LEL
Carbon dioxide (CO_2)	Action Level** >0.5%** CO_2	Ventilate to restore CO_2 to <0.5%
	Limit Level >1.5% CO_2	Stop works Evacuate personnel / prohibit entry Increase ventilation to restore CO_2 to <0.5%

* LEL: Lower Explosive Limit - concentrations in air below which there is not enough fuel to continue an explosion.

** This Action Level of CO_2 at 0.5% is set for reference only, assuming no CO_2 emission from a particular location.

Depending on the baseline CO_2 levels, the Action Level at a particular location will be changed.

7.5 Monitoring Results

7.5.1 The LFG monitoring was conducted at Portion A +58 mpD,+55 mpD Platform in January 2023 (Conducted on working days). The LFG monitoring results are summarized in **Table 7-3.** The details monitoring data are presented in **Appendix E**.

Table 7-3 Summary of LFG Monitoring Results

LFG Monitoring Station	Monitoring Date	Monitoring Parameter(s)			
		CH_4 in %	LEL in %/v	CO_2 in %	O_2 in %
		Monitoring Results			
Portion A +58 mpD,+55 mpD Platform	3 Jan 2023	0	0	0	20.5
	4 Jan 2023	0	0	0	20.4
	5 Jan 2023	0	0	0	20.4
	6 Jan 2023	0	0	0	20.6
	7 Jan 2023	0	0	0	20.6
	9 Jan 2023	0	0	0	20.4
	10 Jan 2023	0	0	0	20.3
	11 Jan 2023	0	0	0	20.3
	12 Jan 2023	0	0	0	20.3
	13 Jan 2023	0	0	0	20.1
	14 Jan 2023	0	0	0	20.1
	16 Jan 2023	0	0	0	20.2
	17 Jan 2023	0	0	0	20.2
	18 Jan 2023	0	0	0	20.3
	19 Jan 2023	0	0	0	20.3
	20 Jan 2023	0	0	0	20.3
	21 Jan 2023	0	0	0	20.4
	27 Jan 2023	0	0	0	20.3
	28 Jan 2023	0	0	0	20.2
	30 Jan 2023	0	0	0	20.3
	31 Jan 2023	0	0	0	20.3
Action Level		>10% LEL	---	>0.5%** CO_2	<19%

* LEL: Lower Explosive Limit - concentrations in air below which there is not enough fuel to continue an explosion.

** This Limit Level of CO_2 at 0.5% is set for reference only, assuming no CO_2 emission from a particular location.

7.5.2 No exceedance of Limit Levels of LFG was recorded during the reporting period. Therefore, there was no record of Notification of Environmental Quality Limits Exceedance in the **Appendix G**.

7.5.3 No effect that arose from the other special phenomena and work progress of the concerned site was noted during the current monitoring month.

7.6 Recommended Mitigation Measures

3.1.7.2 The recommended landfill gas mitigation measures from EIA report are listed as followed:

- Special LFG precautions should be taken due to close proximity of NENT landfill extension site to existing landfill to avoid potential hazards of LFG exposure (ignition, explosion, asphyxiation, toxicity).
- Prominent safety warning signs should be erected on-site to alert all personnel and visitors of LFG hazards during excavation works.

- No smoking or burning should be permitted on-site.
- Prominent 'No smoking' and ‘No Naked Flames’ signs should be erected on-site.
- No worker should be allowed to work alone at any time in excavated trenches or confined areas on-site.
- Adequate fire fighting equipment should be provided on-site.
- Construction equipment should be equipped with vertical exhaust at least 0.6m above ground installed with spark arrestors.
- Electrical motors and extension cords should be explosion-proof and intrinsically safe for use on-site.
- ’Permit to Work' system should be implemented.
- Welding, flame-cutting or other hot works should be conducted only under ‘Permit to Work’ system following clear safety requirements, gas monitoring procedures and presence of qualified persons to supervise the works.

8 Landscape and Visual

8.1 Monitoring Requirement

8.1.1 In order to monitor the landscape and visual impact after providing mitigation measures effectively, all the specified and affected LCAs, LRs and VSRs should be monitored. Implementation of the mitigation measures during construction phase of the Project has been monitored through the regular site inspection/audit.

8.1.2 All relevant environmental mitigation measures listed in the approved EIA Report and the EM&A Manual and their implementation status are summarised in **Appendix K**.

8.2 Result and Observation

8.2.1 Measures to mitigate the landscape and visual impacts during the construction phase has been checked to ensure compliance with the intended aims of the measures within the reporting period. The progress of the engineering works are regularly reviewed on site to identify the earliest practical opportunities for the landscape works to be undertaken.

8.2.2 In order to monitor the landscape and visual impact after providing mitigation measures effectively, all the specified and affected LCAs, LRs and VSRs should be monitored. Implementation of the mitigation measures during construction phase of the Project has been monitored through the regular site inspection/audit.

9 Cultural Heritage

9.1.1 The Mitigation measures for preservation of the cultural landscape feature located within the project area was conducted before commencement of construction of the project based on the requirement of Survey Report and Mapping Records for Boulder Paths BP1 & 2 & Conditions of G2, G4, G5 G6, G7, G8, G14, G15, G25, G26 and G27 within NENTX.

9.1.2 The survey and mapping works carried out on 25 April 2022 and the verification works carried out on 23 August 22 confirmed that both 2 boulder paths BP1 and BP2 are fall outside the site boundary and the Project area.

9.1.3 All the affected graves within the waste boundary have been removed in accordance with section 119(1) of the Public Health and Municipal Services Ordinance (Cap 132). Removal of the graves as shown on Figure 2 attached to the FEP was proven by the visit of graves on 8 July 2022. All the graves as shown on Figure 2 attached to the FEP were abandoned and removed and no mitigation or preservation measures is necessary.

9.1.4 The Survey Report and Mapping Records for Boulder Paths BP1 & 2 & Conditions of G2, G4, G5 G6, G7, G8, G14, G15, G25, G26 and G27 within NENTX were certified by ET and verified by IEC on 15 October 2022 and submitted to EPD (on 15 October 2022) no later than four weeks before commencement of construction of the project in accordance with Condition 2.4 of the FEP-01/292/2007.

9.1.5 Implementation of the mitigation measures such as temporary fencing to protect the boulder path and setting up warning notices during construction phase of the Project has been monitored through the regular site inspection/audit. The temporary fencing locations are shown in **Appendix M**. In case of any presence of undiscovered grave during construction phase, AMO will be informed as soon as possible.

10 Ecological Monitoring

10.1.1 In the reporting period, the post-translocation monitoring for the Endemic Freshwater Crab *Somanniathelphusa zanklon* was conducted on 30 January 2023 based on the requirement of the approved Revised Translocation Proposal for the Endemic Freshwater Crab *Somanniathelphusa zanklon*. The 6th Post-Translocation Monitoring Report (January 2023) presents the details of requirements, monitoring results and site inspection with photos. The site inspection photos are also summarized in **Appendix N**. During the reporting period, no *S. zanklon* individual is identified.

10.1.2 The post-transplantation monitoring was conducted on 13 and 26 January 2023 based on the requirement of the approved Transplantation Proposal for Plant Species of Conservation Importance (Rev.1). The 4th Post-transplantation Monitoring and Audit Report (13th January 2023) & 5th Post-transplantation Monitoring and Audit Report (26th January 2023) present the details of requirements, monitoring results and site inspection with photos. The site inspection photos are also summarized in **Appendix N**. During the reporting period, the numbers, measurements, and health conditions of the transplanted plant species are recorded.

10.1.3 The details of requirements, monitoring results and site inspection with photos for the post-translocation monitoring and post-transplantation monitoring would be reported separately.

10.1.4 The milestone of the ecological monitoring is presented in **Table 11-1.** The softcopies of the submissions is provided in https://www.nentx-ema.com/ep-submissions/.

Table 11-1 Milestone of the Ecological Monitoring

Type of Monitoring	Monitoring Event No.	Monitoring Date
Post-translocation Monitoring	1st (Aug 2022)	29 Aug 2022
	2nd (Sep 2022)	28 Sep 2022
	3rd (Oct 2022)	28 Oct 2022
	4th (Nov 2022)	22 Nov 2022
	5th (Dec 2022)	29 Dec 2022
	6th (Jan 2023)	30 Jan 2023
Post-transplantation Monitoring	1st	24 Nov 2022
	2nd	9 Dec 2022
	3rd	21 Dec 2022
	4th	13 Jan 2023
	5th	26 Jan 2023

11 Site Inspection and Audit

11.1.1 Site Inspection and audits were carried out by ET on weekly basis to monitor the implementation of proper environmental management practices and mitigation measures in the Project Site.

11.1.2 Weekly ET environmental site inspections were conducted in the reporting period on 03, 09, 16 and 27 January 2023. A joint environmental site inspection was carried out by the representatives of the ER, the Contractor, IEC and the ET on 16 January 2023. The joint environmental site inspection records are shown in **Appendix J**. There was no noncompliance recorded during the site inspections.

11.1.3 Major findings and recommendations are summarized as follows:

03 January 2023

- The work area was dry and fugitive dust was observed from loading and unloading activity in Portion A and Portion D. The Contractor has been reminded to schedule watering for the work area.
- Rotten leaves and sediments were observed in the channel at Portion D. The Contractor has been reminded to clean up the channel at Portion D.

09 January 2023

- Plant equipment was placed on the ground without impervious sheets in SBA. The Contractor has been reminded to place the maintenance parts and equipment on impervious sheet to prevent land contamination.
- The work area in SBA was observed dry and fugitive dust was observed. The Contractor has been reminded to schedule watering for work area in SBA area.

16 January 2023

- The vehicle entrance was not maintained properly in Portion A. Earth bund shall be provided at the vehicle washing entrance to prevent leakage of the run-off. The Contractor has been reminded to repave the road section between the washing facilities and the exit point.
- Open stockpile was observed in Portion D. The Contractor has been reminded to cover the open stockpile with impervious sheets.
- Sand and silt were accumulated in the channel of the vehicle washing. The Contractor has been reminded to remove the sand and silt in the channel regularly.

27 January 2023

- Dusty stockpiles were observed in SBA. The contractor was recommended that dusty stockpile shall be covered with impervious sheet to prevent dust dispersion.
- Oil stains were observed under the excavator in Portion D. The contractor was recommended that Oil stains shall be cleared and disposed of as chemical waste.

- The exposed earth was dry and dusty in Portion D. The Contractor has been reminded to cover the exposed earth with impervious sheets or other means to prevent dust dispersion.
- Water spray or dust suppression chemical shall be provided during mechanical breaking operation in SBA. The Contractor has been reminded to spray water on surface continuously during breaking work.

11.1.4 Environmental Protection Department-Regional Office (North) conducted general site inspection on 18 January 2023. No special findings were identified during the inspection.

12 Environmental Non-conformance

12.1 Summary of Monitoring Exceedance

12.1.1 No exceedance of the Action and Limit Levels was recorded at monitoring station during the reporting period.

12.2 Summary of Environmental Non-compliance

12.2.1 No non-compliance event was recorded during the reporting period.

12.3 Summary of Environmental Complaint

12.3.1 No environmental complaint was recorded during the reporting period.

12.4 Summary of Environmental Summons and Successful Prosecution

12.4.1 No summons was received during the reporting period

13 Implementation Status on Environmental Mitigation Measures

13.1.1 The Contractor has generally implemented environmental mitigation measures and requirements as stated in the EIA Report, the EP and EM&A Manual and the contract documents. The implementation status during the reporting period is summarized in **Appendix K**.

14 Future Key Issues

14.1 Key Issues for the Coming Month

14.1.1 Works to be undertaken for the coming monitoring periods are summarized below. Detailed construction activities and locations are summarized in **Appendix L**.

-	Material loading and unloading, site traffic
-	Permanent site office foundation works with pouring of concrete
-	Site clearance
-	Installation of permanent fencing
-	Site formation
-	Tree felling

14.1.2 Potential environmental impacts arising from the above construction activities are mainly associated with air quality, construction noise, water quality, waste management, landfill gas monitoring, landscape and visual, cultural heritage and ecology

14.2 Monitoring Schedule for the Next Month

14.2.1 The tentative schedule of environmental monitoring for the next reporting period is presented in **Appendix C**.

14.3 Construction Programme for the Next Month

14.3.1 The most updated construction programme for the Project is presented in **Appendix A**.

15 Conclusion

15.1.1 1-hr & 24-hr TSP impact monitoring was carried out in the reporting month. No Action / Limit Level exceedance at AM1, AM2 & AM3 was recorded during the period.

15.1.2 Construction noise monitoring was carried out in the reporting month. No Action / Limit Level exceedance at NM1a & NM2a was recorded during the period.

15.1.3 Site clearance of future landfilling area is in progress. The installation of groundwater monitoring boreholes will be installed after the site formation work of the landfilling area. The target commencement period of groundwater monitoring will be in 2026.

15.1.4 Surface water monitoring was carried out in the reporting month. No Action / Limit Level exceedance at WM1 & WM2 was recorded during the period.

15.1.5 Landfill Gas Monitoring was carried out in the reporting month. No exceedance of Limit Levels of LFG was recorded during the reporting period.

15.1.6 In terms of cultural heritage, implementation of the mitigation measures such as temporary fencing to protect the boulder path and setting up warning notices during construction phase of the Project has been monitored through the regular site inspection/audit in the reporting period. All the mitigation measures are in order.

15.1.7 Post-translocation Monitoring was carried out in the reporting period. No *S. zanklon* individual was found. Post-transplantation monitoring was carried out in the reporting month. The numbers, measurements and health conditions of the transplanted species are recorded.

15.1.8 Four environmental site inspections were carried out in the reporting month. Recommendations on mitigation measures for Permit/ Licenses were given to the Contractor for remediating the deficiencies identified during the site inspections.

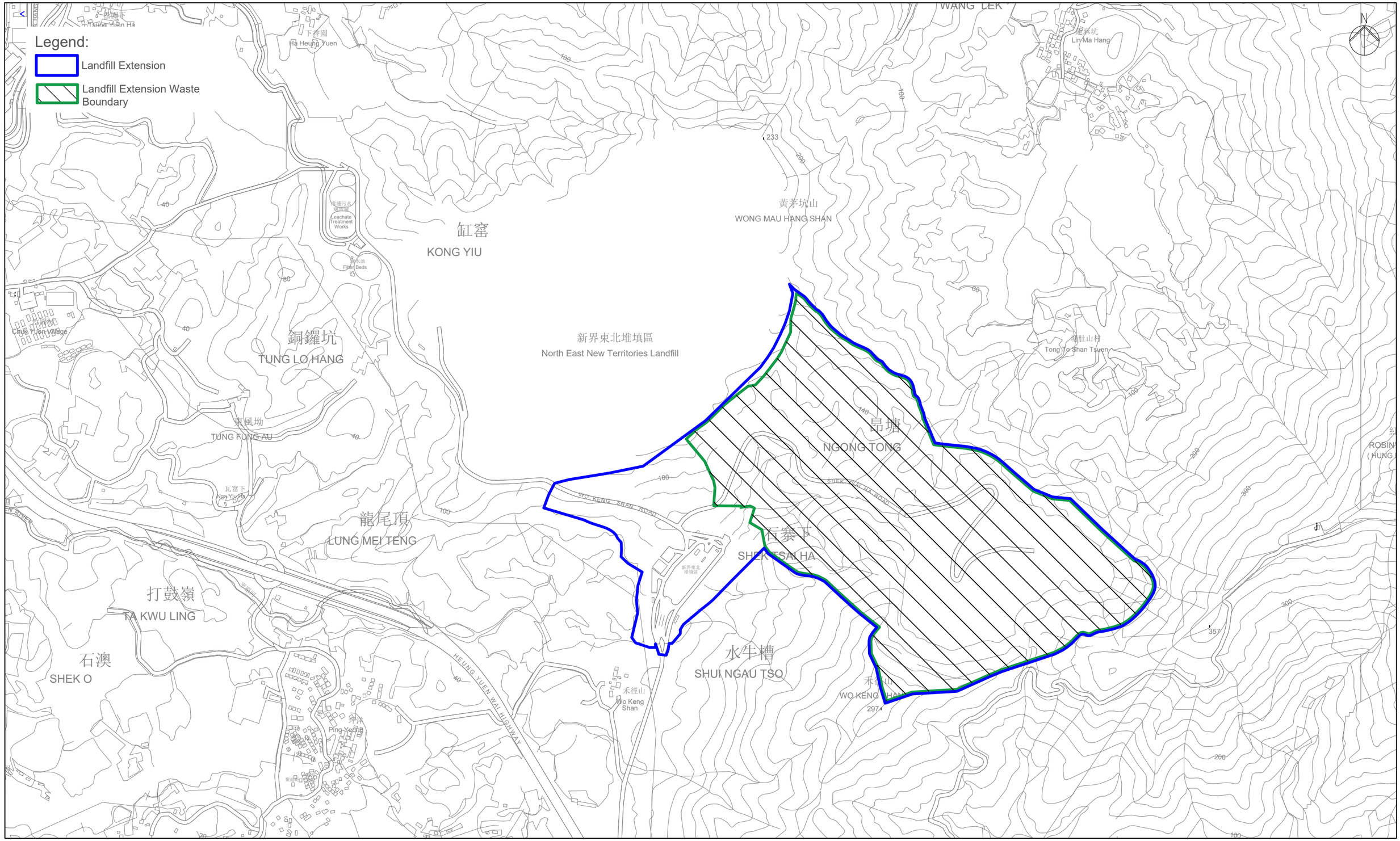
15.1.9 No environmental complaint was recorded during the reporting period.

15.1.10 No non-compliance event was recorded during the reporting period.

15.1.11 No notification of summons and prosecution was received during the reporting period.

15.1.12 The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Figure 1 Location of the Project Site



Aurecon Hong Kong Limited	North-East New Territories (NENT) Landfill Extension Location Plan of the Project Site	Figure 1.1 Scale: 1:10000

Figure 2 Impact Air, Noise & Surface Water Quality Monitoring Locations

Legend:

- Landfill Extension
- Air Quality Monitoring Station
- Noise Monitoring Station
- Water Quality Monitoring Station

AM1
AM2
AM3
NM1a
NM2a
WM1
WM2

缸窰
KONG YIU
銅鑼坑
TUNG LO HANG
東風坳
TUNG FUNG AU
龍尾頂
LUNG MEI TENG
打鼓嶺
TA KWU LING
石澳
SHEK O
黃茅坑山
WONG MAU HANG SHAN
新界東北堆填區
North East New Territories Landfill
昂塘
NGONG TONG
石寨下
SHEK TSAI HA
水牛槽
SHUI NGAU TSO
禾徑山
WO KENG SHAN
WO KENG SHAN ROAD
SHEK TSAI HA ROAD
HEUNG YUEN WAI HIGHWAY
Chuk Yuen Village
Ping Yeung
Fish Beds
Leachate Treatment Works
Tong To Shan Tsuen
Lin Ma Hang
Ha Heung Yuen

Aurecon Hong Kong Limited

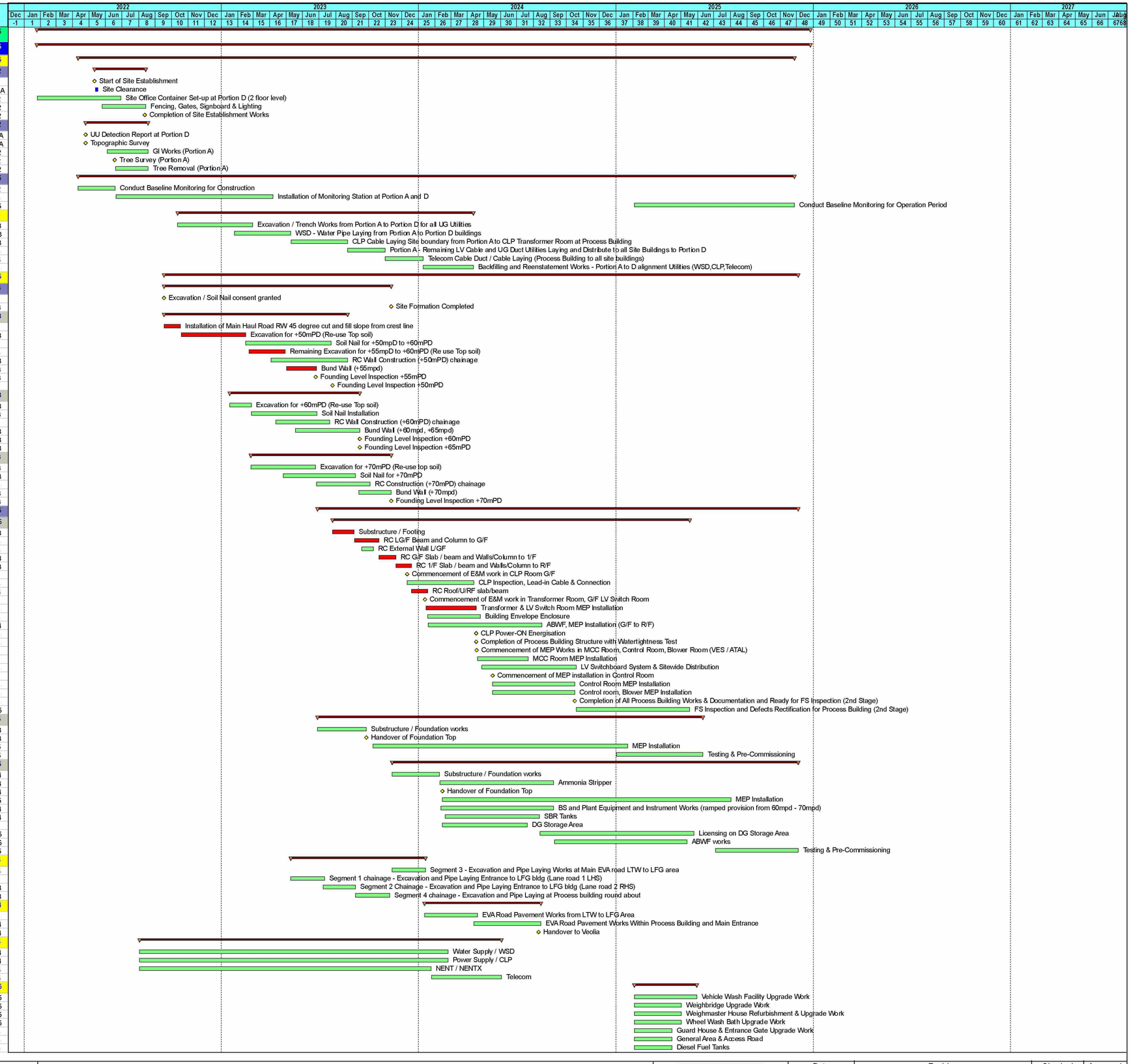
North-East New Territories (NENT) Landfill Extension
Impact Monitoring Locations

Figure 2

Scale: 1:10000

Appendix A Construction Program

Activity ID	Activity Name	OD	Start	Finish
NENTX		1432	25-Jan-22 A	27-Dec-25
CONSTRUCTION - INITIAL WORKS PHASE 1		1432	25-Jan-22 A	27-Dec-25
PORTION A - Advance Works & Site Establishment		1403	11-Apr-22 A	27-Nov-25
SITE ESTABLISHMENT AND MOBILISATION		202	12-May-22 A	14-Aug-22
05-0001	Start of Site Establishment	0	12-May-22 A	
05-0002	Site Clearance	12	13-May-22 A	18-May-22 A
05-0003	Site Office Container Set-up at Portion D (2 floor level)	60	13-May-22 A	29-Jun-22
05-0004	Fencing, Gates, Signboard & Lighting	80	25-May-22	14-Aug-22
05-0005	Completion of Site Establishment Works	0		12-Aug-22
SITE SURVEY & INVESTIGATION WORKS		75	25-Apr-22 A	18-Aug-22
05-0007	UU Detection Report at Portion D	0		25-Apr-22 A
05-0008	Topographic Survey	0		25-Apr-22 A
05-0009	GI Works (Portion A)	75	04-Jun-22	18-Aug-22
05-0010	Tree Survey (Portion A)	0		17-Jun-22
05-0011	Tree Removal (Portion A)	59	19-Jun-22	18-Aug-22
ENVIRONMENTAL MONITORING		1138	11-Apr-22	27-Nov-25
05-0018	Conduct Baseline Monitoring for Construction	60	11-Apr-22	18-Jun-22
05-0019	Installation of Monitoring Station at Portion A and D	250	20-Jun-22	06-Apr-23
05-0020	Conduct Baseline Monitoring for Operation Period	255	04-Feb-25	27-Nov-25
SITEWIDE Underground UTILITIES (Portion A to Portion D)		470	12-Oct-22	11-Apr-24
05-0012	Excavation / Trench Works from Portion A to Portion D for all UG Utilities	120	12-Oct-22	28-Feb-23
05-0013	WSD - Water Pipe Laying from Portion A to Portion D buildings	90	25-Jan-23	09-May-23
05-0014	CLP Cable Laying Site boundary from Portion A to CLP Transformer Room at Process Building	90	10-May-23	22-Aug-23
05-0015	Portion A - Remaining LV Cable and UG Duct Utilities Laying and Distribute to all Site Buildings t	60	22-Aug-23	31-Oct-23
05-0016	Telecom Cable Duct / Cable Laying (Process Building to all site buildings)	60	31-Oct-23	09-Jan-24
05-0017	Backfilling and Reenstatement Works - Portion A to D alignment Utilities (WSD,CLP,Telecom)	80	09-Jan-24	11-Apr-24
PORTION A - Infrastructure Treatment Area		1174	17-Sep-22	04-Dec-25
SITE FORMATION		397	17-Sep-22	11-Nov-23
05-0021	Excavation / Soil Nail consent granted	0	17-Sep-22	
05-0022	Site Formation Completed	0		11-Nov-23
Soil Ground Platform at +50mPD/+55mPD		320	17-Sep-22	22-Aug-23
05-0023	Installation of Main Haul Road RW 45 degree cut and fill slope from crest line	28	17-Sep-22	17-Oct-22
05-0024	Excavation for +50mPD (Re-use Top soil)	111	19-Oct-22	15-Feb-23
05-0025	Soil Nail for +50mpD to +60mPD	150	15-Feb-23	23-Jul-23
05-0026	Remaining Excavation for +55mpD to +60mPD (Re use Top soil)	64	21-Feb-23	29-Apr-23
05-0027	RC Wall Construction (+50mPD) chainage	134	03-Apr-23	22-Aug-23
05-0028	Bund Wall (+55mpd)	54	02-May-23	26-Jun-23
05-0029	Founding Level Inspection +55mPD	0		24-Jun-23
05-0030	Founding Level Inspection +50mPD	0		26-Jul-23
Soil Ground Platform at +60mPD (LTW Plant)		229	17-Jan-23	14-Sep-23
05-0031	Excavation for +60mPD (Re-use Top soil)	36	17-Jan-23	25-Feb-23
05-0032	Soil Nail Installation	115	25-Feb-23	27-Jun-23
05-0033	RC Wall Construction (+60mPD) chainage	96	12-Apr-23	20-Jul-23
05-0034	Bund Wall (+60mpd, +65mpd)	117	18-May-23	14-Sep-23
05-0035	Founding Level Inspection +60mPD	0		14-Sep-23
05-0036	Founding Level Inspection +65mPD	0		14-Sep-23
Soil Ground Platform at +70mPD (LTW Plant)		248	25-Feb-23	11-Nov-23
05-0037	Excavation for +70mPD (Re-use top soil)	113	25-Feb-23	24-Jun-23
05-0038	Soil Nail for +70mPD	130	26-Apr-23	06-Sep-23
05-0039	RC Construction (+70mPD) chainage	96	26-Jun-23	03-Oct-23
05-0040	Bund Wall (+70mpd)	56	13-Sep-23	11-Nov-23
05-0041	Founding Level Inspection +70mPD	0		11-Nov-23
PROCESS TREATMENT AREA		891	28-Jun-23	04-Dec-25
Process Building (+50mpd)		661	26-Jul-23	17-May-25
05-0042	Substructure / Footing	40	26-Jul-23	04-Sep-23
05-0043	RC LG/F Beam and Column to G/F	42	05-Sep-23	20-Oct-23
05-0044	RC External Wall L/GF	18	18-Sep-23	09-Oct-23
05-0045	RC G/F Slab / beam and Walls/Column to 1/F	30	20-Oct-23	20-Nov-23
05-0046	RC 1/F Slab / beam and Walls/Column to R/F	29	20-Nov-23	19-Dec-23
05-0047	Commencement of E&M work in CLP Room G/F	0	11-Dec-23	
05-0048	CLP Inspection, Lead-in Cable & Connection	107	11-Dec-23	12-Apr-24
05-0050	RC Roof/U/RF slab/beam	27	19-Dec-23	18-Jan-24
05-0051	Commencement of E&M work in Transformer Room, G/F LV Switch Room	0	13-Jan-24	
05-0052	Transformer & LV Switch Room MEP Installation	80	15-Jan-24	17-Apr-24
05-0053	Building Envelope Enclosure	90	18-Jan-24	25-Apr-24
05-0054	ABWF, MEP Installation (G/F to R/F)	180	19-Jan-24	16-Aug-24
05-0055	CLP Power-ON Energisation	0		17-Apr-24
05-0056	Completion of Process Building Structure with Watertightness Test	0		17-Apr-24
05-0057	Commencement of MEP Works in MCC Room, Control Room, Blower Room (VES / ATAL)	0	18-Apr-24	
05-0058	MCC Room MEP Installation	80	19-Apr-24	22-Jul-24
05-0059	LV Switchboard System & Sitewide Distribution	150	27-Apr-24	19-Oct-24
05-0060	Commencement of MEP installation in Control Room	0	17-May-24	
05-0061	Control Room MEP Installation	130	17-May-24	16-Oct-24
05-0062	Control room, Blower MEP Installation	130	17-May-24	16-Oct-24
05-0063	Completion of All Process Building Works & Documentation and Ready for FS Inspection (2nd S	0		16-Oct-24
05-0064	FS Inspection and Defects Rectification for Process Building (2nd Stage)	180	19-Oct-24	17-May-25
LFG Plant (+55mpd)		678	28-Jun-23	10-Jun-25
05-0065	Substructure / Foundation works	90	28-Jun-23	26-Sep-23
05-0066	Handover of Foundation Top	0		26-Sep-23
05-0067	MEP Installation	450	08-Oct-23	22-Jan-25
05-0068	Testing & Pre-Commissioning	150	02-Jan-25	10-Jun-25
LTW Plant (+60mpd, +70mpd)		753	13-Nov-23	04-Dec-25
05-0069	Substructure / Foundation works	86	13-Nov-23	09-Feb-24
05-0070	Ammonia Stripper	180	10-Feb-24	07-Sep-24
05-0071	Handover of Foundation Top	0		14-Feb-24
05-0072	MEP Installation	510	14-Feb-24	01-Aug-25
05-0073	BS and Plant Equipment and Instrument Works (ramped provision from 60mpd - 70mpd)	180	12-Feb-24	07-Sep-24
05-0074	SBR Tanks	150	19-Feb-24	12-Aug-24
05-0075	DG Storage Area	150	14-Feb-24	20-Jul-24
05-0076	Licensing on DG Storage Area	270	13-Aug-24	25-May-25
05-0077	ABWF works	210	09-Sep-24	12-May-25
05-0078	Testing & Pre-Commissioning	150	04-Jul-25	04-Dec-25
PORTION A - Undergound Drainage and Process Pipeworks		240	09-May-23	14-Jan-24
05-0079	Segment 3 - Excavation and Pipe Laying Works at Main EVA road LTW to LFG area	60	13-Nov-23	14-Jan-24
05-0080	Segment 1 chainage - Excavation and Pipe Laying Entrance to LFG bldg (Lane road 1 LHS)	60	09-May-23	11-Jul-23
05-0081	Segment 2 Chainage - Excavation and Pipe Laying Entrance to LFG bldg (Lane road 2 RHS)	60	08-Jul-23	06-Sep-23
05-0082	Segment 4 chainage - Excavation and Pipe Laying at Process building round about	60	06-Sep-23	09-Nov-23
PORTION A - EVA Road Paving Works		203	12-Jan-24	14-Aug-24
05-0067.01	EVA Road Pavement Works from LTW to LFG Area	90	12-Jan-24	19-Apr-24
05-0067.02	EVA Road Pavement Works Within Process Building and Main Entrance	120	12-Apr-24	14-Aug-24
05-0067.03	Handover to Veolia	0		10-Aug-24
SITEWIDE Interfacing and Coordination		633	03-Aug-22	02-Jun-24
05-0083	Water Supply / WSD	540	03-Aug-22	24-Feb-24
05-0084	Power Supply / CLP	540	03-Aug-22	24-Feb-24
05-0085	NENT / NENTX	513	03-Aug-22	24-Jan-24
05-0086	Telecom	120	25-Jan-24	02-Jun-24
PORTION C - Waste Reception Area		100	04-Feb-25	30-May-25
05-0087	Vehicle Wash Facility Upgrade Work	100	04-Feb-25	30-May-25
05-0089	Weighbridge Upgrade Work	75	04-Feb-25	01-May-25
05-0091	Weighmaster House Refurbishment & Upgrade Work	75	04-Feb-25	01-May-25
05-0092	Wheel Wash Bath Upgrade Work	75	04-Feb-25	01-May-25
05-0093	Guard House & Entrance Gate Upgrade Work	60	04-Feb-25	14-Apr-25
05-0094	General Area & Access Road	60	04-Feb-25	14-Apr-25
05-0095	Diesel Fuel Tanks	60	04-Feb-25	14-Apr-25



環境保護署
Environmental Protection Department

- Remaining Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone
- Summary

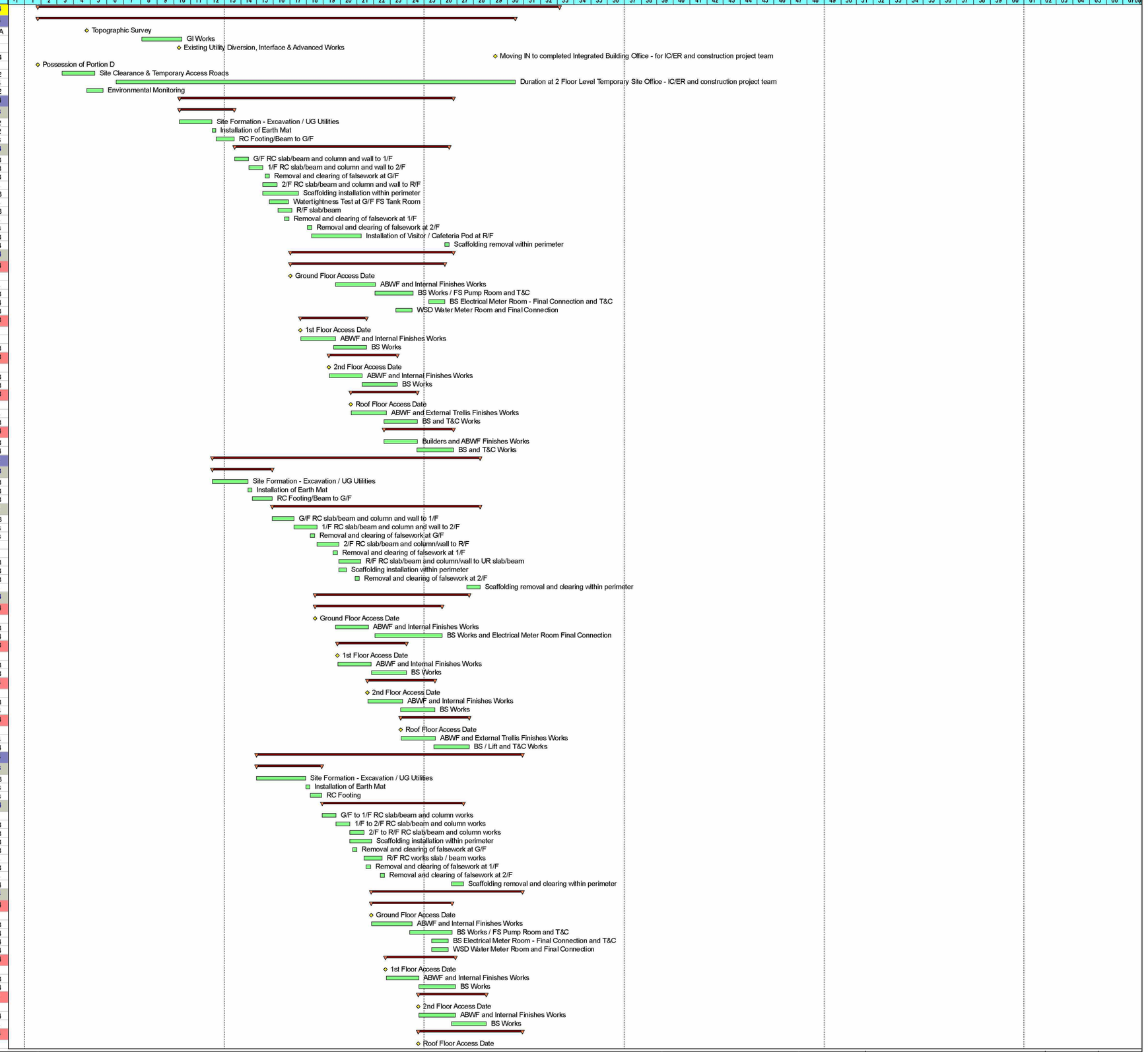
NORTH EAST NEW TERRITORIES (NENTX) LANDFILL EXTENSION

BASELINE PROGRAMME - EXTRACTED (REV.3)
INITIAL WORKS (PHASE 1)

VEOLIA

Date	Revision	Checked	Approved
08-Jul-22	EXTRACTED - ISSUED 14JAN2023	DW	AY

Activity ID	Activity Name	OD	Start	Finish
PORTION D - Accomodation Buildings		**954**	**25-Jan-22 A**	**04-Sep-24**
Advanced Works		**822**	**25-Jan-22 A**	**15-Jun-24**
05-00100	Topographic Survey	0		25-Apr-22 A
05-00101	GI Works	70	04-Aug-22	15-Oct-22
05-00102	Existing Utility Diversion, Interface & Advanced Works	0		10-Oct-22
05-00104	Moving IN to completed Integrated Building Office - for IC/ER and construction project team	0		10-May-24
05-0096	Possession of Portion D	0	25-Jan-22	
05-0097	Site Clearance & Temporary Access Roads	52	11-Mar-22	09-May-22
05-0098	Duration at 2 Floor Level Temporary Site Office - IC/ER and construction project team	690	18-Jun-22	15-Jun-24
05-0099	Environmental Monitoring	26	25-Apr-22	24-May-22
FIRE SERVICE BUILDING		**501**	**11-Oct-22**	**24-Feb-24**
Substructure		**95**	**11-Oct-22**	**19-Jan-23**
05-00105	Site Formation - Excavation / UG Utilities	60	11-Oct-22	09-Dec-22
05-00106	Installation of Earth Mat	7	10-Dec-22	16-Dec-22
05-00107	RC Footing/Beam to G/F	28	17-Dec-22	19-Jan-23
Superstructure		**393**	**20-Jan-23**	**16-Feb-24**
05-00108	G/F RC slab/beam and column and wall to 1/F	22	20-Jan-23	14-Feb-23
05-00109	1/F RC slab/beam and column and wall to 2/F	25	15-Feb-23	12-Mar-23
05-00110	Removal and clearing of falsework at G/F	8	16-Mar-23	24-Mar-23
05-00111	2/F RC slab/beam and column and wall to R/F	25	12-Mar-23	07-Apr-23
05-00112	Scaffolding installation within perimeter	65	12-Mar-23	16-May-23
05-00113	Watertightness Test at G/F FS Tank Room	35	24-Mar-23	28-Apr-23
05-00114	R/F slab/beam	24	09-Apr-23	04-May-23
05-00115	Removal and clearing of falsework at 1/F	8	21-Apr-23	29-Apr-23
05-00116	Removal and clearing of falsework at 2/F	8	02-Jun-23	10-Jun-23
05-00117	Installation of Visitor / Cafeteria Pod at R/F	90	10-Jun-23	08-Sep-23
05-00118	Scaffolding removal within perimeter	8	08-Feb-24	16-Feb-24
ABWF & E&M		**298**	**01-May-23**	**24-Feb-24**
Ground Floor		**283**	**01-May-23**	**08-Feb-24**
05-00119	Ground Floor Access Date	0	01-May-23	
05-00120	ABWF and Internal Finishes Works	70	23-Jul-23	04-Oct-23
05-00121	BS Works / FS Pump Room and T&C	70	03-Oct-23	12-Dec-23
05-00122	BS Electrical Meter Room - Final Connection and T&C	30	09-Jan-24	08-Feb-24
05-00123	WSD Water Meter Room and Final Connection	30	10-Nov-23	10-Dec-23
1st Floor		**121**	**20-May-23**	**18-Sep-23**
05-00124	1st Floor Access Date	0	20-May-23	
05-00125	ABWF and Internal Finishes Works	60	21-May-23	23-Jul-23
05-00126	BS Works	60	20-Jul-23	18-Sep-23
2nd Floor		**125**	**11-Jul-23**	**13-Nov-23**
05-00127	2nd Floor Access Date	0	11-Jul-23	
05-00128	ABWF and Internal Finishes Works	60	12-Jul-23	10-Sep-23
05-00129	BS Works	60	10-Sep-23	13-Nov-23
Roof Floor		**122**	**20-Aug-23**	**20-Dec-23**
05-00130	Roof Floor Access Date	0	20-Aug-23	
05-00131	ABWF and External Trellis Finishes Works	60	21-Aug-23	24-Oct-23
05-00132	BS and T&C Works	60	20-Oct-23	20-Dec-23
Visitor Cafeteria POD		**119**	**20-Oct-23**	**24-Feb-24**
05-00331	Builders and ABWF Finishes Works	60	20-Oct-23	20-Dec-23
05-00332	BS and T&C Works	60	19-Dec-23	24-Feb-24
INTEGRATED OFFICE BUILDING		**489**	**10-Dec-22**	**12-Apr-24**
Substructure		**101**	**10-Dec-22**	**29-Mar-23**
05-00133	Site Formation - Excavation / UG Utilities	57	10-Dec-22	13-Feb-23
05-00134	Installation of Earth Mat	7	13-Feb-23	20-Feb-23
05-00135	RC Footing/Beam to G/F	37	21-Feb-23	29-Mar-23
Superstructure		**379**	**30-Mar-23**	**12-Apr-24**
05-00136	G/F RC slab/beam and column and wall to 1/F	35	30-Mar-23	08-May-23
05-00137	1/F RC slab/beam and column and wall to 2/F	40	09-May-23	19-Jun-23
05-00138	Removal and clearing of falsework at G/F	8	07-Jun-23	15-Jun-23
05-00139	2/F RC slab/beam and column/wall to R/F	38	19-Jun-23	29-Jul-23
05-00140	Removal and clearing of falsework at 1/F	8	19-Jul-23	27-Jul-23
05-00141	R/F RC slab/beam and column/wall to UR slab/beam	40	29-Jul-23	07-Sep-23
05-00142	Scaffolding installation within perimeter	14	29-Jul-23	12-Aug-23
05-00143	Removal and clearing of falsework at 2/F	8	28-Aug-23	05-Sep-23
05-00144	Scaffolding removal and clearing within perimeter	24	19-Mar-24	12-Apr-24
ABWF & E&M		**281**	**16-Jun-23**	**23-Mar-24**
Ground Floor		**232**	**16-Jun-23**	**03-Feb-24**
05-00145	Ground Floor Access Date	0	16-Jun-23	
05-00146	ABWF and Internal Finishes Works	60	23-Jul-23	21-Sep-23
05-00147	BS Works and Electrical Meter Room Final Connection	120	03-Oct-23	03-Feb-24
1st Floor		**126**	**27-Jul-23**	**30-Nov-23**
05-00148	1st Floor Access Date	0	27-Jul-23	
05-00149	ABWF and Internal Finishes Works	60	28-Jul-23	26-Sep-23
05-00150	BS Works	60	27-Sep-23	30-Nov-23
2nd Floor		**124**	**19-Sep-23**	**21-Jan-24**
05-00151	2nd Floor Access Date	0	19-Sep-23	
05-00152	ABWF and Internal Finishes Works	60	20-Sep-23	23-Nov-23
05-00153	BS Works	60	19-Nov-23	21-Jan-24
Roof Floor		**125**	**19-Nov-23**	**23-Mar-24**
05-00154	Roof Floor Access Date	0	19-Nov-23	
05-00155	ABWF and External Trellis Finishes Works	60	20-Nov-23	22-Jan-24
05-00156	BS / Lift and T&C Works	60	19-Jan-24	23-Mar-24
OPERATION AND MAINTENANCE BUILDING		**487**	**01-Mar-23**	**29-Jun-24**
Substructure		**113**	**01-Mar-23**	**28-Jun-23**
05-00157	Site Formation - Excavation / UG Utilities	84	01-Mar-23	29-May-23
05-00158	Installation of Earth Mat	7	30-May-23	06-Jun-23
05-00159	RC Footing	21	07-Jun-23	28-Jun-23
Superstructure		**259**	**29-Jun-23**	**13-Mar-24**
05-00160	G/F to 1/F RC slab/beam and column works	25	29-Jun-23	24-Jul-23
05-00161	1/F to 2/F RC slab/beam and column works	25	24-Jul-23	18-Aug-23
05-00162	2/F to R/F RC slab/beam and column works	26	18-Aug-23	13-Sep-23
05-00163	Scaffolding installation within perimeter	40	18-Aug-23	27-Sep-23
05-00164	Removal and clearing of falsework at G/F	8	23-Aug-23	31-Aug-23
05-00165	R/F RC works slab / beam works	30	13-Sep-23	16-Oct-23
05-00166	Removal and clearing of falsework at 1/F	8	17-Sep-23	25-Sep-23
05-00167	Removal and clearing of falsework at 2/F	8	13-Oct-23	21-Oct-23
05-00168	Scaffolding removal and clearing within perimeter	22	20-Feb-24	13-Mar-24
ABWF & E&M		**277**	**26-Sep-23**	**29-Jun-24**
Ground Floor		**148**	**26-Sep-23**	**21-Feb-24**
05-00169	Ground Floor Access Date	0	26-Sep-23	
05-00170	ABWF and Internal Finishes Works	70	27-Sep-23	10-Dec-23
05-00171	BS Works / FS Pump Room and T&C	70	06-Dec-23	21-Feb-24
05-00172	BS Electrical Meter Room - Final Connection and T&C	30	15-Jan-24	14-Feb-24
05-00173	WSD Water Meter Room and Final Connection	30	15-Jan-24	14-Feb-24
1st Floor		**128**	**22-Oct-23**	**27-Feb-24**
05-00174	1st Floor Access Date	0	22-Oct-23	
05-00175	ABWF and Internal Finishes Works	60	24-Oct-23	22-Dec-23
05-00176	BS Works	60	22-Dec-23	27-Feb-24
2nd Floor		**125**	**21-Dec-23**	**24-Apr-24**
05-00177	2nd Floor Access Date	0	21-Dec-23	
05-00178	ABWF and Internal Finishes Works	60	22-Dec-23	27-Feb-24
05-00179	BS Works	60	20-Feb-24	24-Apr-24
Roof Floor		**191**	**21-Dec-23**	**29-Jun-24**
05-00180	Roof Floor Access Date	0	21-Dec-23	



Remaining Level of Effort
Actual Work
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Critical Remaining Work
Milestone
Summary

環境保護署
Environmental Protection Department

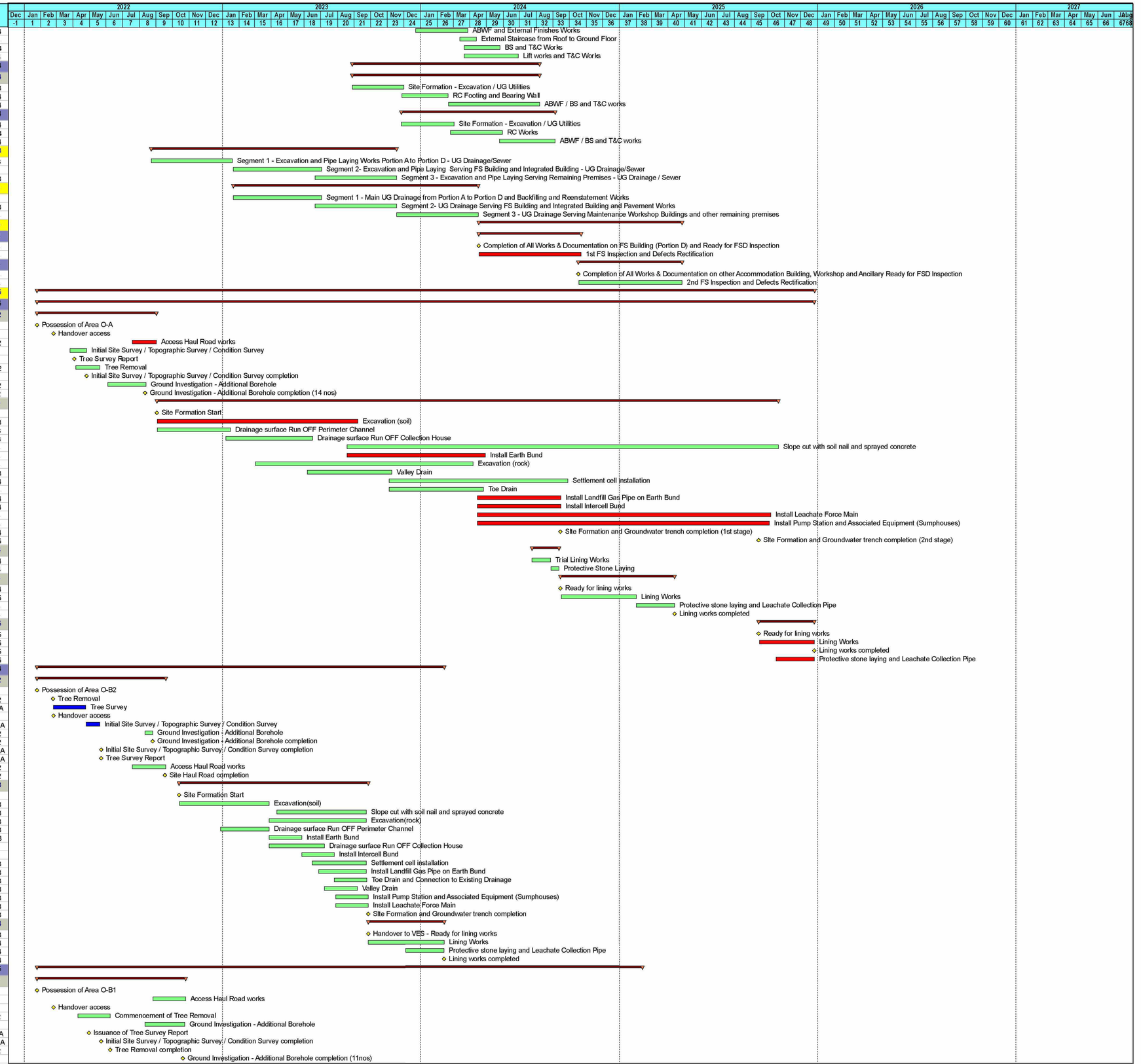
NORTH EAST NEW TERRITORIES (NENTX) LANDFILL EXTENSION

BASELINE PROGRAMME - EXTRACTED (REV.3)
INITIAL WORKS (PHASE 1)

VEOLIA

Date	Revision	Checked	Approved
08-Jul-22	EXTRACTED - ISSUED 14JAN2023	DW	AY

Activity ID	Activity Name	OD	Start	Finish
05-00181	ABWF and External Finishes Works	90	22-Dec-23	28-Mar-24
05-00182	External Staircase from Roof to Ground Floor	30	13-Mar-24	12-Apr-24
05-00183	BS and T&C Works	60	21-Mar-24	26-May-24
05-00184	Lift works and T&C Works	100	21-Mar-24	29-Jun-24
MAINTENANCE WORKSHOP		326	28-Aug-23	07-Aug-24
Vehicle		326	28-Aug-23	07-Aug-24
05-00185	Site Formation - Excavation / UG Utilities	90	28-Aug-23	30-Nov-23
05-00186	RC Footing and Bearing Wall	79	27-Nov-23	20-Feb-24
05-00187	ABWF / BS and T&C works	160	21-Feb-24	07-Aug-24
ANCILLARY BUILDINGS (PORTION D)		268	26-Nov-23	04-Sep-24
05-00188	Site Formation - Excavation / UG Utilities	90	26-Nov-23	02-Mar-24
05-00189	RC Works	90	24-Feb-24	30-May-24
05-00190	ABWF / BS and T&C works	100	25-May-24	04-Sep-24
PORTION D - Underground Drainage and Pipe Laying Works		428	22-Aug-22	17-Nov-23
05-00191	Segment 1 - Excavation and Pipe Laying Works Portion A to Portion D - UG Drainage/Sewer	142	22-Aug-22	19-Jan-23
05-00192	Segment 2- Excavation and Pipe Laying Serving FS Building and Integrated Building - UG Drai	150	21-Jan-23	02-Jul-23
05-00193	Segment 3 - Excavation and Pipe Laying Serving Remaining Premises - UG Drainage / Sewer	144	20-Jun-23	17-Nov-23
PORTION D - EVA Road Road Pavement Works		424	21-Jan-23	16-Apr-24
05-1818	Segment 1 - Main UG Drainage from Portion A to Portion D and Backfilling and Reenstatement	150	21-Jan-23	02-Jul-23
05-1819	Segment 2- UG Drainage Serving FS Building and Integrated Building and Pavement Works	144	20-Jun-23	17-Nov-23
05-1820	Segment 3 - UG Drainage Serving Maintenance Workshop Buildings and other remaining prem	140	17-Nov-23	16-Apr-24
FS Inspection Stages		357	17-Apr-24	26-Apr-25
Stage 1 FS Inspection		181	17-Apr-24	22-Oct-24
05-00194	Completion of All Works & Documentation on FS Building (Portion D) and Ready for FSD Inspec	0		17-Apr-24
05-00195	1st FS Inspection and Defects Rectification	180	18-Apr-24	22-Oct-24
Stage 2 FS Inspection		180	17-Oct-24	26-Apr-25
05-00196	Completion of All Works & Documentation on other Accommodation Building, Workshop and An	0		17-Oct-24
05-00197	2nd FS Inspection and Defects Rectification	180	18-Oct-24	26-Apr-25
Landfill Area (Portion E3, E4, E1, B1 & B2)		1402	25-Jan-22 A	27-Dec-25
AREA 0-A (E4 & B1)		1371	25-Jan-22 A	25-Dec-25
Advanced Works		150	25-Jan-22 A	01-Sep-22
05-00251	Possession of Area O-A	0	25-Jan-22 A	
05-00252	Handover access	0	24-Feb-22 A	
05-00253	Access Haul Road works	44	19-Jul-22	01-Sep-22
05-00254	Initial Site Survey / Topographic Survey / Condition Survey	27	26-Mar-22	25-Apr-22
05-00255	Tree Survey Report	0		03-Apr-22
05-00256	Tree Removal	38	06-Apr-22	20-May-22
05-00257	Initial Site Survey / Topographic Survey / Condition Survey completion	0		25-Apr-22
05-00258	Ground Investigation - Additional Borehole	70	04-Jun-22	13-Aug-22
05-00259	Ground Investigation - Additional Borehole completion (14 nos)	0		11-Aug-22
Landfill Site Formation and Groundwater Trench		1086	02-Sep-22	20-Oct-25
05-00260	Site Formation Start	0	02-Sep-22	
05-00261	Excavation (soil)	349	03-Sep-22	07-Sep-23
05-00262	Drainage surface Run OFF Perimeter Channel	126	03-Sep-22	15-Jan-23
05-00263	Drainage surface Run OFF Collection House	150	07-Jan-23	16-Jun-23
05-00264	Slope cut with soil nail and sprayed concrete	756	18-Aug-23	20-Oct-25
05-00265	Install Earth Bund	240	18-Aug-23	29-Apr-24
05-00266	Excavation (rock)	378	03-Mar-23	06-Apr-24
05-00267	Valley Drain	150	06-Jun-23	09-Nov-23
05-00267.01	Settlement cell installation	314	03-Nov-23	28-Sep-24
05-00268	Toe Drain	163	03-Nov-23	25-Apr-24
05-00269	Install Landfill Gas Pipe on Earth Bund	150	14-Apr-24	15-Sep-24
05-00270	Install Intercell Bund	150	14-Apr-24	15-Sep-24
05-00271	Install Leachate Force Main	518	14-Apr-24	06-Oct-25
05-00272	Install Pump Station and Associated Equipment (Sumphouses)	516	14-Apr-24	04-Oct-25
05-00273	Site Formation and Groundwater trench completion (1st stage)	0		14-Sep-24
05-00273.01	Site Formation and Groundwater trench completion (2nd stage)	0		14-Sep-25
Landfill Trial Area		50	24-Jul-24	11-Sep-24
05-00223	Trial Lining Works	35	24-Jul-24	27-Aug-24
05-00224	Protective Stone Laying	15	28-Aug-24	11-Sep-24
Landfill Liner Stage 1-3 (Portion E4, & B1) - 1st Stage		210	14-Sep-24	12-Apr-25
05-00274	Ready for lining works	0		14-Sep-24
05-0167	Lining Works	120	16-Sep-24	01-Feb-25
05-0168	Protective stone laying and Leachate Collection Pipe	60	01-Feb-25	12-Apr-25
05-0169	Lining works completed	0		12-Apr-25
Landfill Liner Stage 1-3 (Portion E4, & B1) - 2nd Stage		102	14-Sep-25	25-Dec-25
05-00275	Ready for lining works	0		14-Sep-25
05-1815	Lining Works	87	16-Sep-25	25-Dec-25
05-1816	Lining works completed	0		25-Dec-25
05-1817	Protective stone laying and Leachate Collection Pipe	60	16-Oct-25	25-Dec-25
AREA 0-B2 (Portion E3, B1 & E4)		719	25-Jan-22 A	13-Feb-24
Advanced Works		196	25-Jan-22 A	18-Sep-22
05-00198	Possession of Area O-B2	0	25-Jan-22 A	
05-00199	Tree Removal	0		23-Feb-22
05-00200	Tree Survey	58	24-Feb-22 A	24-Apr-22 A
05-00201	Handover access	0	24-Feb-22 A	
05-00202	Initial Site Survey / Topographic Survey / Condition Survey	29	25-Apr-22 A	20-May-22 A
05-00203	Ground Investigation - Additional Borehole	14	11-Aug-22	25-Aug-22
05-00204	Ground Investigation - Additional Borehole completion	0		25-Aug-22
05-00205	Initial Site Survey / Topographic Survey / Condition Survey completion	0		23-May-22 A
05-00206	Tree Survey Report	0		23-May-22 A
05-00207	Access Haul Road works	60	19-Jul-22	18-Sep-22
05-00208	Site Haul Road completion	0		17-Sep-22
Landfill Site Formation and Groundwater Trench		331	13-Oct-22	26-Sep-23
05-00209	Site Formation Start	0	13-Oct-22	
05-00210	Excavation(soil)	156	14-Oct-22	28-Mar-23
05-00211	Slope cut with soil nail and sprayed concrete	162	11-Apr-23	23-Sep-23
05-00212	Excavation(rock)	172	28-Mar-23	23-Sep-23
05-00213	Drainage surface Run OFF Perimeter Channel	84	28-Dec-22	28-Mar-23
05-00214	Install Earth Bund	54	28-Mar-23	27-May-23
05-00215	Drainage surface Run OFF Collection House	94	28-Mar-23	08-Jul-23
05-00216	Install Intercell Bund	58	27-May-23	26-Jul-23
05-00216.01	Settlement cell installation	98	15-Jun-23	23-Sep-23
05-00217	Install Landfill Gas Pipe on Earth Bund	88	27-Jun-23	23-Sep-23
05-00218	Toe Drain and Connection to Existing Drainage	60	26-Jul-23	24-Sep-23
05-00219	Valley Drain	60	08-Jul-23	06-Sep-23
05-00220	Install Pump Station and Associated Equipment (Sumphouses)	60	28-Jul-23	26-Sep-23
05-00221	Install Leachate Force Main	60	28-Jul-23	26-Sep-23
05-00222	Site Formation and Groundwater trench completion	0		26-Sep-23
Landfill Liner Stages 1&2 (Portion E3, B1 & E4)		140	26-Sep-23	13-Feb-24
05-00225	Handover to VES - Ready for lining works	0		26-Sep-23
05-0191	Lining Works	120	26-Sep-23	13-Feb-24
05-0192	Protective stone laying and Leachate Collection Pipe	60	05-Dec-23	13-Feb-24
05-0193	Lining works completed	0		13-Feb-24
AREA 0-B1 (Portion E3)		1040	25-Jan-22 A	12-Feb-25
Advanced Works		187	25-Jan-22 A	25-Oct-22
05-00226	Possession of Area O-B1	0	25-Jan-22 A	
05-00227	Access Haul Road works	58	26-Aug-22	25-Oct-22
05-00228	Handover access	0	24-Feb-22 A	
05-00229	Commencement of Tree Removal	52	10-Apr-22	08-Jun-22
05-00230	Ground Investigation - Additional Borehole	70	11-Aug-22	23-Oct-22
05-00231	Issuance of Tree Survey Report	0		30-Apr-22 A
05-00232	Initial Site Survey / Topographic Survey / Condition Survey completion	0		23-May-22 A
05-00233	Tree Removal completion	0		08-Jun-22
05-00234	Ground Investigation - Additional Borehole completion (11nos)	0		20-Oct-22



Remaining Level of Effort
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NORTH EAST NEW TERRITORIES (NENTX) LANDFILL EXTENSION

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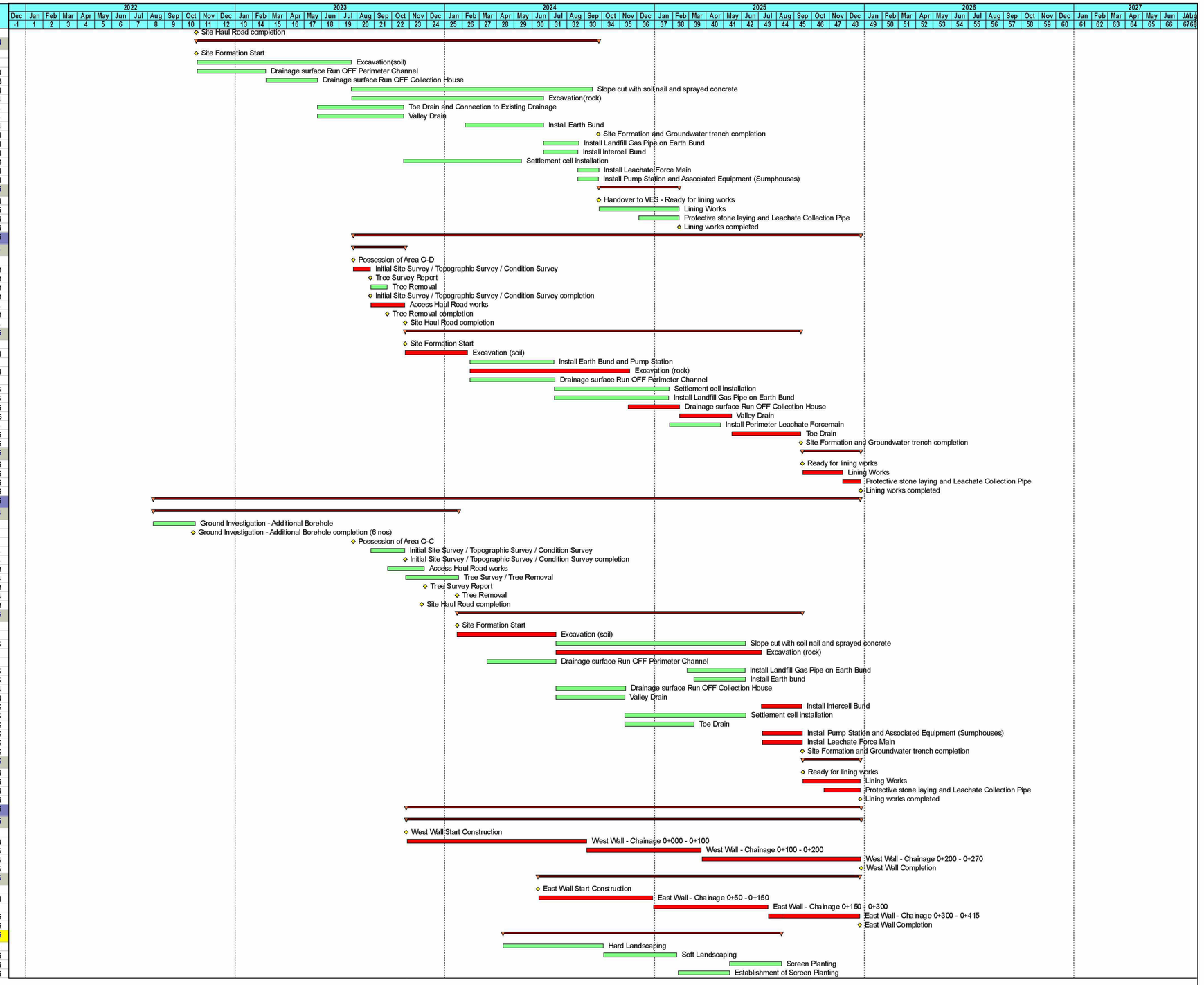
Date	Revision	Checked	Approved
08-Jul-22	EXTRACTED - ISSUED 14JAN2023	DW	AY

Activity ID	Activity Name	OD	Start	Finish
05-00235	Site Haul Road completion	0		25-Oct-22
Landfill Site Formation and Groundwater Trench		664	25-Oct-22	25-Sep-24
05-00236	Site Formation Start	0	25-Oct-22	
05-00237	Excavation(soil)	252	27-Oct-22	22-Jul-23
05-00238	Drainage surface Run OFF Perimeter Channel	111	27-Oct-22	23-Feb-23
05-00239	Drainage surface Run OFF Collection House	85	24-Feb-23	24-May-23
05-00240	Slope cut with soil nail and sprayed concrete	401	22-Jul-23	14-Sep-24
05-00241	Excavation(rock)	317	23-Jul-23	21-Jun-24
05-00242	Toe Drain and Connection to Existing Drainage	144	24-May-23	21-Oct-23
05-00243	Valley Drain	144	24-May-23	21-Oct-23
05-00244	Install Earth Bund	126	05-Feb-24	21-Jun-24
05-00245	Site Formation and Groundwater trench completion	0		24-Sep-24
05-00246	Install Landfill Gas Pipe on Earth Bund	60	21-Jun-24	21-Aug-24
05-00247	Install Intercell Bund	59	21-Jun-24	20-Aug-24
05-00247.01	Settlement cell installation	192	21-Oct-23	13-May-24
05-00248	Install Leachate Force Main	35	20-Aug-24	25-Sep-24
05-00249	Install Pump Station and Associated Equipment (Sumphouses)	34	20-Aug-24	24-Sep-24
Landfill Liner Stage 1-2 (Portion E3)		140	25-Sep-24	12-Feb-25
05-00250	Handover to VES - Ready for lining works	0		25-Sep-24
05-0143	Lining Works	120	26-Sep-24	12-Feb-25
05-0144	Protective stone laying and Leachate Collection Pipe	60	04-Dec-24	12-Feb-25
05-0145	Lining works completed	0		12-Feb-25
Area 0-D (Portion E1 & B2)/ Access Road)		884	26-Jul-23	25-Dec-25
Advanced Works		86	26-Jul-23	24-Oct-23
05-00301	Possession of Area O-D	0	26-Jul-23	
05-00302	Initial Site Survey / Topographic Survey / Condition Survey	30	26-Jul-23	24-Aug-23
05-00303	Tree Survey Report	0		24-Aug-23
05-00304	Tree Removal	30	25-Aug-23	23-Sep-23
05-00305	Initial Site Survey / Topographic Survey / Condition Survey completion	0		24-Aug-23
05-00306	Access Haul Road works	56	25-Aug-23	23-Oct-23
05-00307	Tree Removal completion	0		23-Sep-23
05-00308	Site Haul Road completion	0		24-Oct-23
Landfill Site Formation and Groundwater Trench		690	24-Oct-23	12-Sep-25
05-00309	Site Formation Start	0	24-Oct-23	
05-00310	Excavation (soil)	106	24-Oct-23	10-Feb-24
05-00311	Install Earth Bund and Pump Station	140	14-Feb-24	09-Jul-24
05-00312	Excavation (rock)	268	14-Feb-24	18-Nov-24
05-00313	Drainage surface Run OFF Perimeter Channel	141	14-Feb-24	11-Jul-24
05-00313.01	Settlement cell installation	200	10-Jul-24	26-Jan-25
05-00314	Install Landfill Gas Pipe on Earth Bund	193	10-Jul-24	25-Jan-25
05-00315	Drainage surface Run OFF Collection House	84	16-Nov-24	13-Feb-25
05-00316	Valley Drain	84	13-Feb-25	14-May-25
05-00317	Install Perimeter Leachate Forcemain	82	27-Jan-25	25-Apr-25
05-00318	Toe Drain	118	15-May-25	12-Sep-25
05-00319	Site Formation and Groundwater trench completion	0		12-Sep-25
Landfill Liner Stage 1&2 (Portion E1 & B2)		101	15-Sep-25	25-Dec-25
05-00320	Ready for lining works	0		15-Sep-25
05-0232.04	Lining Works	60	16-Sep-25	24-Nov-25
05-0232.05	Protective stone laying and Leachate Collection Pipe	27	24-Nov-25	25-Dec-25
05-0232.06	Lining works completed	0		25-Dec-25
AREA 0-C (Portion E1,B1 & E4)		1231	11-Aug-22	25-Dec-25
Advanced Works		505	11-Aug-22	25-Jan-24
05-00276	Ground Investigation - Additional Borehole	70	11-Aug-22	23-Oct-22
05-00277	Ground Investigation - Additional Borehole completion (6 nos)	0		20-Oct-22
05-00278	Possession of Area O-C	0	26-Jul-23	
05-00279	Initial Site Survey / Topographic Survey / Condition Survey	56	25-Aug-23	23-Oct-23
05-00280	Initial Site Survey / Topographic Survey / Condition Survey completion	0		24-Oct-23
05-00281	Access Haul Road works	60	24-Sep-23	26-Nov-23
05-00282	Tree Survey / Tree Removal	90	25-Oct-23	25-Jan-24
05-00283	Tree Survey Report	0		28-Nov-23
05-00284	Tree Removal	0		22-Jan-24
05-00285	Site Haul Road completion	0		22-Nov-23
Landfill Site Formation and Groundwater Trench		572	23-Jan-24	15-Sep-25
05-00286	Site Formation Start	0	23-Jan-24	
05-00287	Excavation (soil)	160	23-Jan-24	13-Jul-24
05-00288	Slope cut with soil nail and sprayed concrete	314	13-Jul-24	08-Jun-25
05-00289	Excavation (rock)	341	13-Jul-24	06-Jul-25
05-00290	Drainage surface Run OFF Perimeter Channel	112	15-Mar-24	13-Jul-24
05-00291	Install Landfill Gas Pipe on Earth Bund	95	26-Feb-25	07-Jun-25
05-00292	Install Earth bund	83	10-Mar-25	08-Jun-25
05-00293	Drainage surface Run OFF Collection House	118	13-Jul-24	11-Nov-24
05-00294	Valley Drain	117	13-Jul-24	10-Nov-24
05-00295	Install Intercell Bund	70	06-Jul-25	14-Sep-25
05-00295.01	Settlement cell installation	198	10-Nov-24	09-Jun-25
05-00296	Toe Drain	114	10-Nov-24	10-Mar-25
05-00297	Install Pump Station and Associated Equipment (Sumphouses)	70	07-Jul-25	15-Sep-25
05-00298	Install Leachate Force Main	70	07-Jul-25	15-Sep-25
05-00299	Site Formation and Groundwater trench completion	0		15-Sep-25
Landfill Liner Stage 1&2 (Portion E1, B1 & E4)		100	16-Sep-25	25-Dec-25
05-00300	Ready for lining works	0		16-Sep-25
05-0215	Lining Works	86	16-Sep-25	25-Dec-25
05-0216	Protective stone laying and Leachate Collection Pipe	55	22-Oct-25	25-Dec-25
05-0217	Lining works completed	0		25-Dec-25
Geotechnical Retaining Structure & Access Road		756	26-Oct-23	27-Dec-25
West Wall		756	26-Oct-23	27-Dec-25
05-00321	West Wall Start Construction	0	26-Oct-23	
05-00322	West Wall - Chainage 0+000 - 0+100	298	28-Oct-23	04-Sep-24
05-00323	West Wall - Chainage 0+100 - 0+200	190	05-Sep-24	22-Mar-25
05-00324	West Wall - Chainage 0+200 - 0+270	265	24-Mar-25	25-Dec-25
05-00325	West Wall Completion	0		27-Dec-25
EAST Wall		540	11-Jun-24	24-Dec-25
05-00326	East Wall Start Construction	0	11-Jun-24	
05-00327	East Wall - Chainage 0+50 - 0+150	193	13-Jun-24	28-Dec-24
05-00328	East Wall - Chainage 0+150 - 0+300	188	30-Dec-24	17-Jul-25
05-00329	East Wall - Chainage 0+300 - 0+415	157	18-Jul-25	24-Dec-25
05-00330	East Wall Completion	0		24-Dec-25
Landscape Works		485	12-Apr-24	09-Aug-25
05-0242	Hard Landscaping	150	12-Apr-24	03-Oct-24
05-0243	Soft Landscaping	110	04-Oct-24	08-Feb-25
05-0252	Screen Planting	88	11-May-25	09-Aug-25
05-0262	Establishment of Screen Planting	84	10-Feb-25	11-May-25



環境保護署
Environmental Protection Department

Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

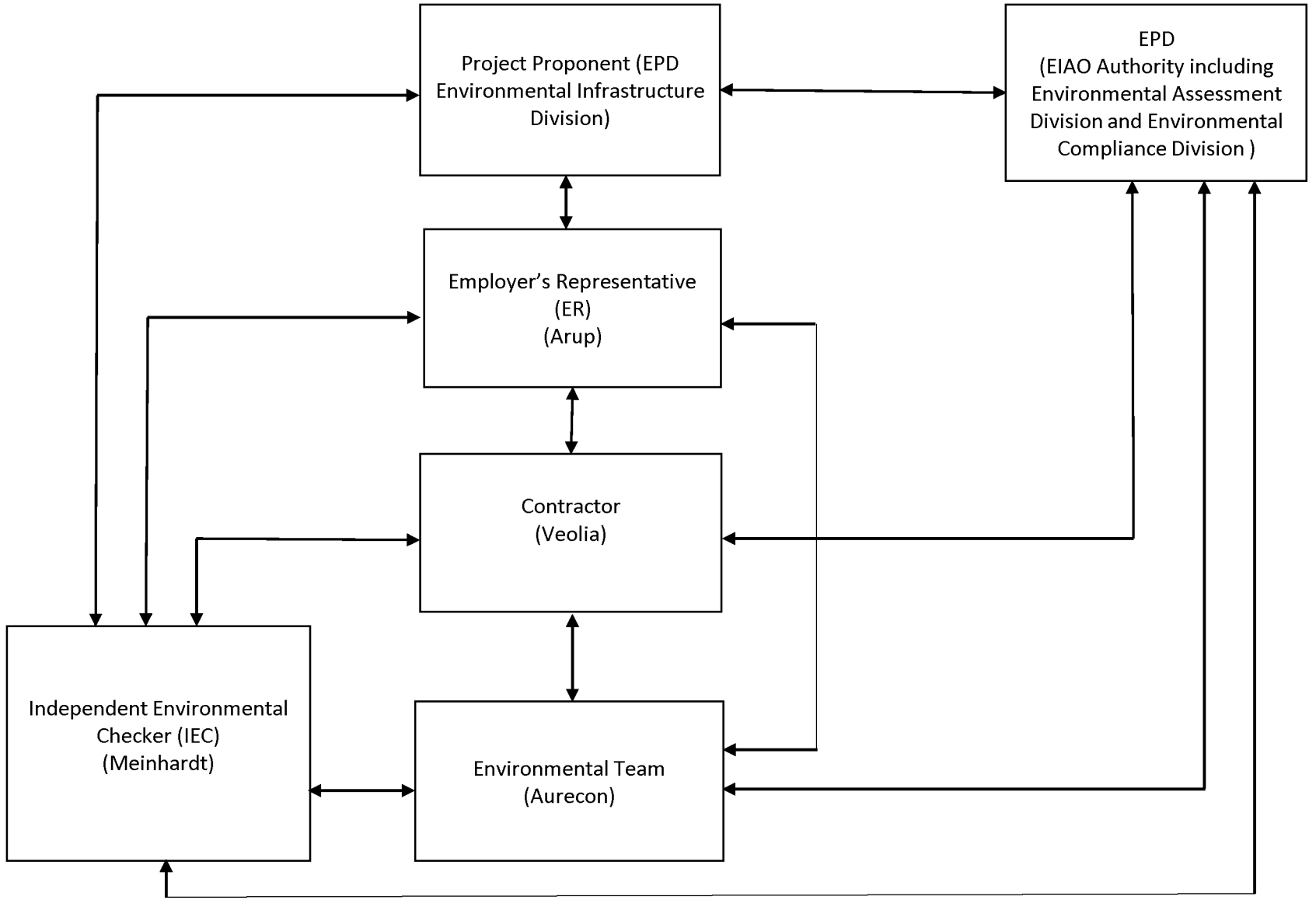
NORTH EAST NEW TERRITORIES (NENTX) LANDFILL EXTENSION

BASELINE PROGRAMME - EXTRACTED (REV.3)
INITIAL WORKS (PHASE 1)

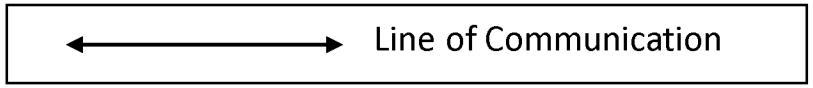
VEOLIA

Date	Revision	Checked	Approved
08-Jul-22	EXTRACTED - ISSUED 14JAN2023	DW	AY

Appendix B Project Organization Chart & Management Structure



Notes:
EPD - Environmental Protection Department
Arup – Ove Arup & Partners Limited
Veolia - Veolia Environmental Services Hong Kong Limited
Meinhardt - Meinhardt Infrastructure And Environment Limited
Aurecon - Aurecon Hong Kong Limited



Appendix C Monitoring Schedule for Reporting Month & Next Month

Impact Monitoring Schedule for NENT Landfill Extension (January 2023)

2-2023						
Sun	**Mon**	**Tue**	**Wed**	**Thur**	**Fri**	**Sat**
1	**2**	**3** Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	**4**	**5**	**6**	**7**
8	**9** Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a Surface water quality monitoring at WM1 and WM2	**10**	**11**	**12**	**13**	**14** Air quality monitoring at AM1, AM2 and AM3
15	**16**	**17**	**18**	**19**	**20** Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	**21**
22	**23**	**24**	**25**	**26** Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	**27**	**28**
29	**30**	**31**				

Remark:

1. Air quality monitoring includes 1-hour TSP and 24-hour TSP monitoring at AM1, AM2 and AM3 (Ref.: Table 3.1 of the approved EM&A Manual).
2. Noise monitoring includes 30-minute construction noise monitoring at NM1a and NM2a (Ref.: Table 4.1 of the approved EM&A Manual).
3. Surface water quality monitoring includes in-situ measurement and water sampling for laboratory analysis at WM1 and WM2 (Ref.: Table 5.5 and Section 5.5.6 of the approved EM&A Manual).

Impact Monitoring Schedule for NENT Landfill Extension (February 2023) (version 1.0)

2-2023						
Sun	**Mon**	**Tue**	**Wed**	**Thur**	**Fri**	**Sat**
			1 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	**2**	**3**	**4**
5	**6**	**7** Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a Surface water quality monitoring at WM1 and WM2	**8**	**9**	**10**	**11**
12	**13** Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	**14**	**15**	**16**	**17**	**18** Air quality monitoring at AM1, AM2 and AM3
19	**20**	**21**	**22**	**23**	**24** Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	**25**
26	**27**	**28**				

Remark:

1. The schedule is tentative only and would be subject to changes due to unforeseen circumstances.
2. Air quality monitoring includes 1-hour TSP and 24-hour TSP monitoring at AM1, AM2 and AM3 (Ref.: Table 3.1 of the approved EM&A Manual).
3. Noise monitoring includes 30-minute construction noise monitoring at NM1a and NM2a (Ref.: Table 4.1 of the approved EM&A Manual).
4. Surface water quality monitoring includes in-situ measurement and water sampling for laboratory analysis at WM1 and WM2 (Ref.: Table 5.5 and Section 5.5.6 of the approved EM&A Manual).

Appendix D Calibration Certificates

Noise

MAXLAB

CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	11-Feb-2022	**Certificate Number**	MLCN220284S

Customer Information

Company Name	Acuity Sustainability Consulting Limited
Address	Unit E, 12/F., Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, HK

Equipment-under-Test (EUT)

Description	Sound Level Calibrator
Manufacturer	Rion
Model Number	NC-74
Serial Number	34504770
Equipment Number	--

Calibration Particular

Date of Calibration	11-Feb-2022		
Calibration Equipment	4231(MLTE008) / AV200063 / 23-Jun-23 1357(MLTE190) / MLEC21/05/02 / 26-May-22		
Calibration Procedure	MLCG00, MLCG15		
Calibration Conditions	Laboratory	Temperature	23 °C ± 5 °C
		Relative Humidity	55% ± 25%
	EUT	Stabilizing Time	Over 3 hours
		Warm-up Time	Not applicable
		Power Supply	Internal battery
Calibration Results	Calibration data were detailed in the continuation pages. Calibration result was within EUT specification.		

Approved By & Date

K.O. Lo 11-Feb-2022

Statements

* Calibration equipment used for this calibration are traceable to national / international standards.
* The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the EUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.
* MaxLab Calibration Centre Limited shall not be liable for any loss or damage resulting from the use of the EUT.
* The copy of this Certificate is owned by MaxLab Calibration Centre Limited. No part of this Certificate may be reproduced without the prior written approval of MaxLab Calibration Centre Limited.

萬儀校正中心有限公司
MaxLab Calibration Centre Limited
香港新界葵涌華星街 16-18 號保盈工業大廈 9 樓 B 室
Unit B, 9/F., Boldwin Industrial Bldg., 16-18 Wah Sing Street, Kwai Chung, N.T., Hong Kong Tel: (852) 2116 1380 Fax: (852) 2264 6480 Email: info@maxlab.com.hk

MAXLAB

Certificate No. MLCN220284S

Calibration Data

EUT Setting	Standard Reading	EUT Error from Setting	Calibration Uncertainty	EUT Specification
94 dB	94.0 dB	0.0 dB	0.20 dB	± 0.3 dB

- END -

Calibrated By : Dan
Date : 11-Feb-22

Checked By : K.O. Lo
Date : 11-Feb-22

萬儀校正中心有限公司
MaxLab Calibration Centre Limited
香港新界葵涌華星街 16-18 號保盈工業大廈 9 樓 B 室
Unit B, 9/F., Boldwin Industrial Bldg., 16-18 Wah Sing Street, Kwai Chung, N.T., Hong Kong Tel: (852) 2116 1380 Fax: (852) 2264 6480 Email: info@maxlab.com.hk

Certificate of Calibration

for

Description:	*Sound Level Meter*
Manufacturer:	*NTi Audio*
Type No.:	*XL2 (Serial No.: A2A-09696-E0)*
Microphone:	*ACO 7052 (Serial No.:68840)*
Preamplifier:	*NTi Audio M2211 MA220 (Serial No.:5287)*

Submitted by:

Customer:	*Acumen Environmental Engineering and Technologies Co. Ltd.*
Address:	*Unit D, 12/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong*

Upon receipt for calibration, the instrument was found to be:

☑ **Within**
☐ **Outside**

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 24 March 2022

Date of calibration: 26 March 2022

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 26 March 2022

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A) *L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precaution:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Conditions:*

Air Temperature:	22.6 °C
Air Pressure:	1006 hPa
Relative Humidity:	74.5 %

3. *Calibration Equipment:*

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV200041	HOKLAS

4. *Calibration Results*

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.1	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.1	Ref
			104		104.1	±0.3
			114		114.1	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.1	Ref
		Slow			94.1	±0.3

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dB SPL	Fast	94	31.5	94.0	±2.0
				63	94.1	±1.5
				125	94.1	±1.5
				250	94.0	±1.4
				500	94.1	±1.4
				1000	94.1	Ref
				2000	94.3	±1.6
				4000	94.9	±1.6
				8000	93.6	+2.1; -3.1

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA SPL	Fast	94	31.5	54.7	-39.4 ±2.0
				63	67.9	-26.2 ±1.5
				125	78.0	-16.1 ±1.5
				250	85.4	-8.6 ±1.4
				500	90.9	-3.2 ±1.4
				1000	94.1	Ref
				2000	95.5	+1.2 ±1.6
				4000	95.9	+1.0 ±1.6
				8000	92.5	-1.1+2.1; -3.1

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBC SPL	Fast	94	31.5	91.0	-3.0 ±2.0
				63	93.2	-0.8 ±1.5
				125	93.9	-0.2 ±1.5
				250	94.0	-0.0 ±1.4
				500	94.1	-0.0 ±1.4
				1000	94.1	Ref
				2000	94.1	-0.2 ±1.6
				4000	94.1	-0.8 ±1.6
				8000	90.6	–3.0 +2.1: –3.1

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

5. *Calibration Results Applied*

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.05
	63 Hz	± 0.05
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:
The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow 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 calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C216243
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC21-2101) Date of Receipt / 收件日期 : 12 October 2021

Description / 儀器名稱 : Mini Anemometer
Manufacturer / 製造商 : RS PRO
Model No. / 型號 : RS-90
Serial No. / 編號 : 210722168
Supplied By / 委託者 : Acuity Sustainability Consulting Limited
Room C 11/F, Ford Glory Plaza, No. 37-39 Wing Hong Street,
Cheung Sha Wan, Kowloon

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 25 October 2021

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Testo Industrial Services GmbH, Germany
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By 測試 : CKLo
C K Lo
Assistant Engineer

Certified By 核證 : H C Chan
Engineer

Date of Issue 簽發日期 : 26 October 2021

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C216243
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. Test equipment :

Equipment ID	Description	Certificate No.
CL018	Portable Calibrator	C204749
CL041 & CL041B	Digital Thermometer	C212654
CL042 & CL042B	Digital Thermometer	C212655
CL292	Recorder	C214057
CL330	Environmental Chamber	C205909
CL386	Multi-function Measuring Instrument	S16494

3. Test procedure : MA006 & MA130N.

4. Results :

4.1 Air Velocity

Applied Value (m/s)	UUT Reading (m/s)	Measured Correction		
		Value (m/s)	Measurement Uncertainty	
			Expanded Uncertainty (m/s)	Coverage Factor
2.01	1.70	+0.31	0.15	2.0
4.00	3.75	+0.25	0.20	2.0
6.01	5.81	+0.20	0.25	2.0
8.00	7.74	+0.26	0.29	2.0
10.01	9.84	+0.17	0.34	2.0

The results presented are the mean of 10 measurements at each calibration point.

4.2 Temperature

Applied Value (°C)	UUT Reading (°C)	Measured Correction		
		Value (°C)	Measurement Uncertainty	
			Expanded Uncertainty (°C)	Coverage Factor
25.0	24.8	+0.2	0.5	2.0

The results presented are the mean of 3 measurements at each calibration point.

Remarks : - The Measured Corrections are defined as :
Value = Applied Value - UUT Reading

- The expanded uncertainties are for a level of confidence of 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this 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 environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 - 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Air Quality

ACUITY
SUSTAINABILITY
CONSULTING LIMITED

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Unit E, 12/F, Ford Glory Plaza
Nos. 37-39 Wing Hong Street,
Cheung Sha Wan, Kowloon
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Fax : (852) 2698 9383

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Verification Test Date: 3-Dec-22 to 4-Dec-22

Next Verification Test Date: 2-Dec-23

Unit-under-Test- Model No. Sibata LD-5R

Unit-under-Test Serial No. 0Z4545

Our Report Refrence No. RPT-22-HVS-0026

Calibration Location: AM2, Located near the Leachate Treatment Works within the NENT Landfill

Standard Equipment Information			
Verification Equipment Type		Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.		TE-5170X	TE-5025A
Equipment serial no.	MFC	1106	3465
Last Calibration Date		1-Dec-22	28-Jun-22
Next Calibration Date		31-Jan-23	27-Jun-23

Verification Test No.	Date	Time			K-Factor	Counts/ Minute (R)	Total Counts (TC)	TSP Sample ID No.	Dust Concentration (ug/m3), (C)
		Start-time	End-time	Elapsed Time (in min)	K-Factor (K=C/R)	x-axis			y axis
1	3/12/2022	194.73	198.08	201.00	0.00120	51	10251	R222043/1	61
2	3/12/2022	198.08	201.27	191.40	0.00102	34	6444	R222043/2	34
3	3/12/2022	201.27	204.35	184.80	0.00111	44	8193	R222043/3	49
4	4/12/2022	252.37	255.36	179.40	0.00122	55	9927	R222044/1	67
5	4/12/2022	255.38	258.38	180.00	0.00120	52	9360	R222044/2	62
6	4/12/2022	258.38	261.38	180.00	0.00112	63	11340	R222044/3	70
					0.00114				

K-Factor to be inputted in LD-5R (corrected 1 decimal point): 1.1

By Linear Regression of y on x:

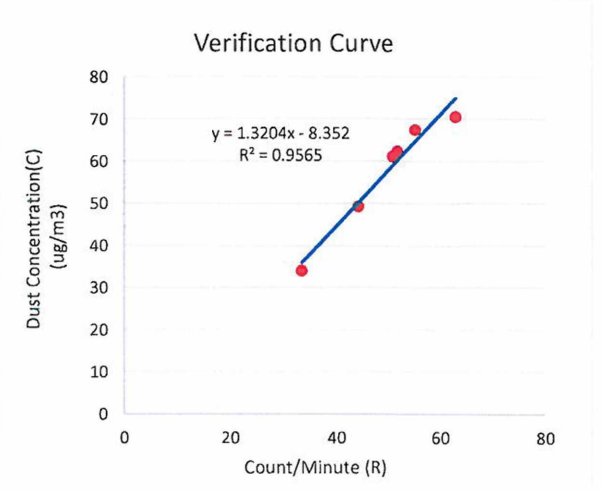
slope, mh= 1.3204

intercept,ch= -8.3520

*Correlation Coefficient,R= 0.9780

Verification Test Result: Strong Correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.



Verified By: _____ Date: 05-12-2022

Technical Manager

ACUITY
SUSTAINABILITY
CONSULTING LIMITED

Website: www.acuityhk.com
Unit E, 12/F, Ford Glory Plaza
Nos. 37-39 Wing Hong Street,
Cheung Sha Wan, Kowloon.
Tel.: (852) 2698 6833
Fax.: (852) 2698 9383

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Verification Test Date: 3-Dec-22 to 4-Dec-22

Next Verification Test Date: 2-Dec-23

Unit-under-Test- Model No.: Sibata LD-5R

Unit-under-Test Serial No.: 882106

Our Report Refrence No.: RPT-22-HVS-0027

Calibration Location: AM2, Located near the Leachate Treatment Works within the NENT Landfill

Standard Equipment Information			
Verification Equipment Type		Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.		TE-5170X	TE-5025A
Equipment serial no.	MFC	1106	3465
Last Calibration Date		1-Dec-22	28-Jun-22
Next Calibration Date		31-Jan-23	27-Jun-23

Verification Test No.	Date	Time			K-Factor	Counts/ Minute (R)	Total Counts (TC)	TSP Sample ID No.	Dust Concentration (ug/m3), (C)
		Start-time	End-time	Elapsed Time (in min)	K-Factor (K=C/R)	x-axis			y axis
1	3/12/2022	194.73	198.08	201.00	0.00123	50	9983	R222043/1	61
2	3/12/2022	198.08	201.27	191.40	0.00092	37	7146	R222043/2	34
3	3/12/2022	201.27	204.35	184.80	0.00103	48	8870	R222043/3	49
4	4/12/2022	252.37	255.36	179.40	0.00108	62	11183	R222044/1	67
5	4/12/2022	255.38	258.38	180.00	0.00110	57	10260	R222044/2	62
6	4/12/2022	258.38	261.38	180.00	0.00108	65	11760	R222044/3	70
					0.00107				

K-Factor to be inputted in LD-5R (corrected 1 decimal point): 1.1

By Linear Regression of y on x:

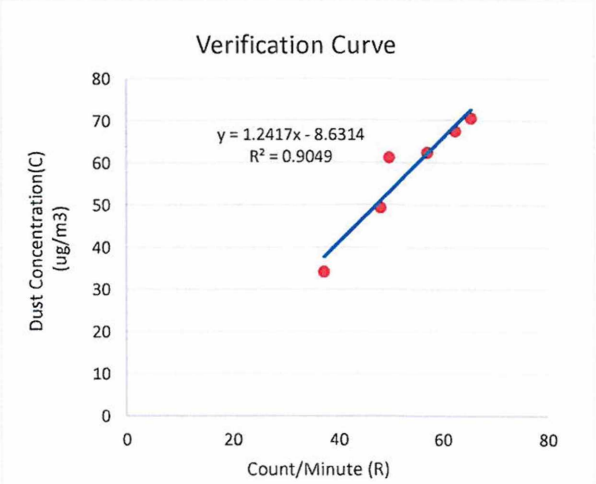
slope, mh= 1.2417

intercept,ch= -8.6314

*Correlation Coefficient,R= 0.9513

Verification Test Result: Strong Correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.



Verified By: _____ Date: 05-12-2022

Technical Manager

ACUITY
SUSTAINABILITY
CONSULTING LIMITED

Website: www.acuityhk.com
Unit E, 12/F, Ford Glory Plaza
Nos. 37-39 Wing Hong Street,
Cheung Sha Wan, Kowloon
Tel.: (852) 2698 6833
Fax.: (852) 2698 9383

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Verification Test Date: 3-Dec-22 to 4-Dec-22
Next Verification Test Date: 2-Dec-23
Unit-under-Test- Model No. Sibata LD-5R
Unit-under-Test Serial No. 882110
Our Report Refrence No. RPT-22-HVS-0025
Calibration Location: AM2, Located near the Leachate Treatment Works within the NENT Landfill

Standard Equipment Information			
Verification Equipment Type		Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.		TE-5170X	TE-5025A
Equipment serial no.	MFC	1106	3465
Last Calibration Date		1-Dec-22	28-Jun-22
Next Calibration Date		31-Jan-23	27-Jun-23

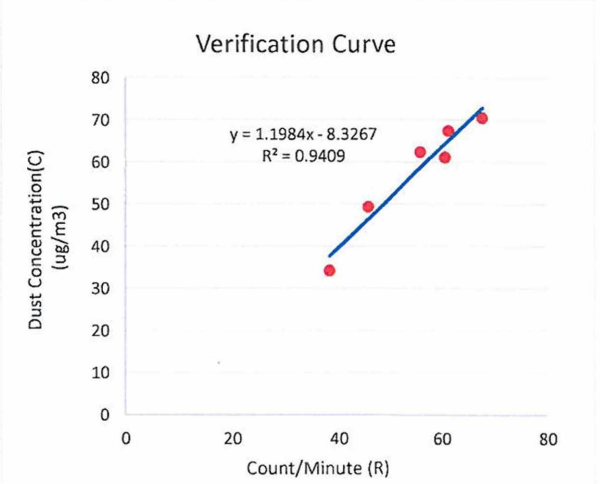
Verification Test No.	Date	Time			K-Factor	Counts/ Minute (R)	Total Counts (TC)	TSP Sample ID No.	Dust Concentration (ug/m3), (C)
		Start-time	End-time	Elapsed Time (in min)	K-Factor (K=C/R)	x-axis			y axis
1	3/12/2022	194.73	198.08	201.00	0.00101	61	12194	R222043/1	61
2	3/12/2022	198.08	201.27	191.40	0.00089	38	7337	R222043/2	34
3	3/12/2022	201.27	204.35	184.80	0.00108	46	8439	R222043/3	49
4	4/12/2022	252.37	255.36	179.40	0.00110	61	11003	R222044/1	67
5	4/12/2022	255.38	258.38	180.00	0.00112	56	10080	R222044/2	62
6	4/12/2022	258.38	261.38	180.00	0.00104	68	12180	R222044/3	70
					0.00104				

K-Factor to be inputted in LD-5R (corrected 1 decimal point): 1.0

By Linear Regression of y on x:

slope, mh= 1.1984
intercept,ch= -8.3267
*Correlation Coefficient,R= 0.9700
Verification Test Result: Strong Correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.



Verified By: _____ Date: 05-12-2022
Technical Manager

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Website www.acuityhk.com
Unit E, 12/F, Ford Glory Plaza
Nos. 37-39 Wing Hong Street,
Cheung Sha Wan, Kowloon
Tel.: (852) 2698 6833
Fax: (852) 2698 9383

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Verification Test Date: 3-Dec-22 to 4-Dec-22

Next Verification Test Date: 2-Dec-23

Unit-under-Test- Model No. Sibata LD-5R

Unit-under-Test Serial No. 942532

Our Report Refrence No. RPT-22-HVS-0024

Calibration Location: AM2, Located near the Leachate Treatment Works within the NENT Landfill

Standard Equipment Information			
Verification Equipment Type		Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.		TE-5170X	TE-5025A
Equipment serial no.	MFC	1106	3465
Last Calibration Date		1-Dec-22	28-Jun-22
Next Calibration Date		31-Jan-23	27-Jun-23

Verification Test No.	Date	Time			K-Factor	Counts/ Minute (R)	Total Counts (TC)	TSP Sample ID No.	Dust Concentration (ug/m3), (C)
		Start-time	End-time	Elapsed Time (in min)	K-Factor (K=C/R)	x-axis			y axis
1	3/12/2022	194.73	198.08	201.00	0.00111	55	11122	R222043/1	61
2	3/12/2022	198.08	201.27	191.40	0.00093	37	7082	R222043/2	34
3	3/12/2022	201.27	204.35	184.80	0.00110	45	8316	R222043/3	49
4	4/12/2022	252.37	255.36	179.40	0.00113	60	10704	R222044/1	67
5	4/12/2022	255.38	258.38	180.00	0.00120	52	9360	R222044/2	62
6	4/12/2022	258.38	261.38	180.00	0.00104	68	12180	R222044/3	70
					0.00108				

K-Factor to be inputted in LD-5R (corrected 1 decimal point): 1.1

By Linear Regression of y on x:

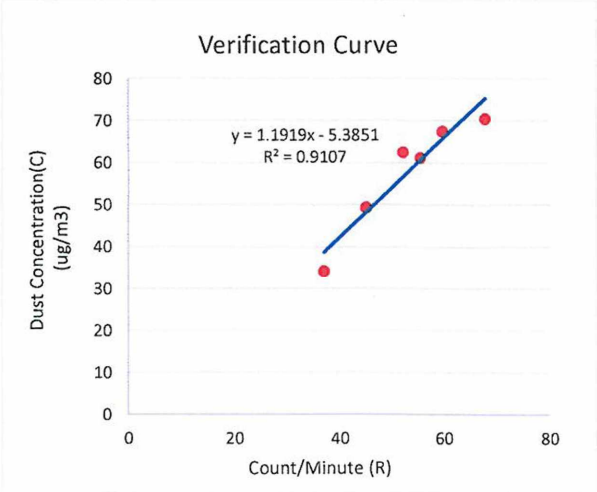
slope, mh= 1.1919

intercept,ch= -5.3851

*Correlation Coefficient,R= 0.9543

Verification Test Result: Strong Correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.



Verified By: _____ Date: 05-12-2022

Technical Manager

ACUITY sustainability
Member of the Aurecon Group

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HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	**Site ID:**	AM1	**Date:**	01-Dec-2022
Serial No:	1105	**Model:**	TE-5170X	**Operator:**	Andy Li

Ambient Condition

Corrected Pressure (mm Hg):	759.7	**Temperature (deg K):**	302.1

Calibration Orifice

Model:	TE-5025A	**Slope:**	1.28946
Serial No.:	3465	**Intercept:**	-0.01207
Calibration Due Date:	28-Jun-23	**Corr. Coeff**	0.99998

Calibration Data

Plate or Test #	In,H2O (in)	Qa, X-Axis (m3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
1	0.60	0.388	45.0	28.37
2	1.10	0.522	51.0	32.16
3	1.50	0.608	54.0	34.05
4	1.90	0.683	57.0	35.94
5	2.40	0.767	60.0	37.83

Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)

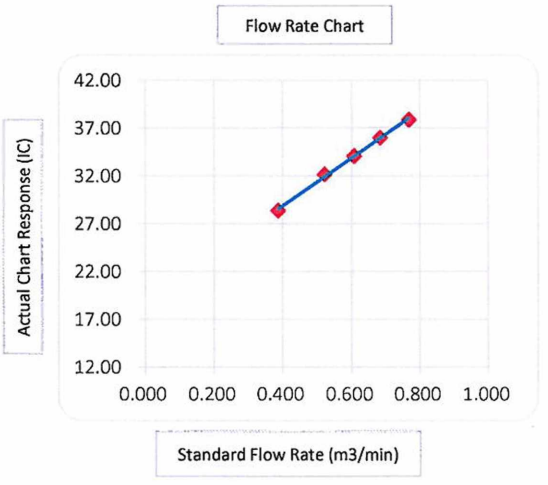
m= 24.8397 b= 18.9217 Corr. Coeff= 0.9988

Sampler set point(SSP) 49 CFM

Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart response
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
(1.21*m+b)/[Sqrt(298/Tav)(Pav/760)]
m = sampler slope
b = sampler intercept
I = chart response
Tav = average temperature
Pav = average pressure



Checked by: _____ Date: 01-Dec-2022

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HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM2	Date:	01-Dec-2022
Serial No:	1106	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Corrected Pressure (mm Hg):	759.7	Temperature (deg K):	302.1

Calibration Orifice

Model:	TE-5025A	Slope:	1.28946
Serial No.:	3465	Intercept:	-0.01207
Calibration Due Date:	28-Jun-23	Corr. Coeff	0.99998

Calibration Data

Plate or Test #	In,H2O (in)	Qa, X-Axis (m3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
1	0.30	0.277	41.0	25.85
2	1.00	0.498	48.0	30.27
3	1.80	0.665	52.0	32.79
4	2.30	0.751	57.0	35.94
5	2.90	0.842	62.0	39.09

Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)

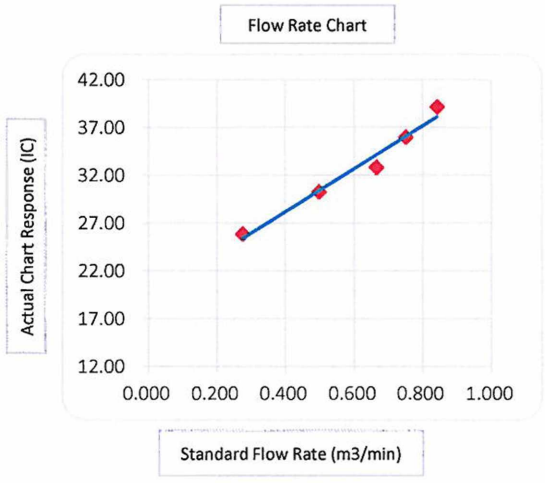
m= 22.4910 b= 19.1407 Corr. Coeff= 0.9855

Sampler set point(SSP) 47 CFM

Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart response
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
(1.21*m+b)/[Sqrt(298/Tav)(Pav/760)]
m = sampler slope
b = sampler intercept
I = chart response
Tav = average temperature
Pav = average pressure



Checked by: _____ Date: 01-Dec-2022

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HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM3	Date:	01-Dec-2022
Serial No:	1856	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Corrected Pressure (mm Hg):	759.7	Temperature (deg K):	302.1

Calibration Orifice

Model:	TE-5025A	Slope:	1.28946
Serial No.:	3465	Intercept:	-0.01207
Calibration Due Date:	28-Jun-23	Corr. Coeff	0.99998

Calibration Data

Plate or Test #	In,H2O (in)	Qa, X-Axis (m3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
1	0.40	0.319	42.0	26.48
2	0.90	0.473	46.0	29.01
3	1.20	0.545	51.0	32.16
4	1.90	0.683	56.0	35.31
5	2.20	0.735	58.0	36.57

Sampler Calibtation Relationship (Qa on x-axis, IC on y-axis)

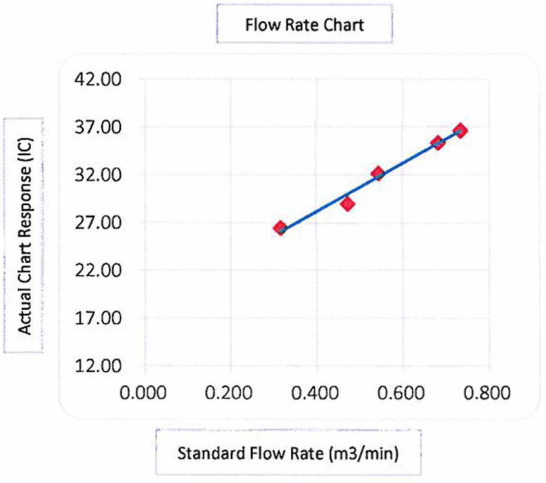
m= 25.0757 b= 18.0890 Corr. Coeff= 0.9913

Sampler set point(SSP) 49 CFM

Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart response
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
(1.21*m+b)/[Sqrt(298/Tav)(Pav/760)]
m = sampler slope
b = sampler intercept
I = chart response
Tav = average temperature
Pav = average pressure



Checked by: _____ Date: 01-Dec-2022

TISCH Environmental

RECALIBRATION DUE DATE:
June 28, 2023

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	June 28, 2022	**Rootsmeter S/N:** 438320	**Ta:** 296	°K
Operator:	Jim Tisch		**Pa:** 755.1	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **3465**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4290	3.2	2.00
2	3	4	1	1.0130	6.4	4.00
3	5	6	1	0.9050	7.9	5.00
4	7	8	1	0.8590	8.8	5.50
5	9	10	1	0.7110	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9961	0.6970	1.4144	0.9958	0.6968	0.8854
0.9918	0.9791	2.0003	0.9915	0.9788	1.2522
0.9899	1.0938	2.2364	0.9895	1.0934	1.4000
0.9887	1.1509	2.3456	0.9883	1.1506	1.4683
0.9834	1.3831	2.8289	0.9830	1.3826	1.7708
QSTD	**m=**	**2.05924**	**QA**	**m=**	**1.28946**
	b=	**-0.01929**		**b=**	**-0.01207**
	r=	**0.99998**		**r=**	**0.99998**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

RECALIBRATION
US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

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

PROMAT (HK) LTD
寶時(香港)有限公司
901 New Trend Centre, 704 Prince Edward Road East, San Po Kong, Kowloon, Hong Kong
Tel: (852)2661 2392 Fax: (852)2661 2086 Email: info@promat.hk http://www.promat.hk

PROMAT
Your Solution To Testing Instrument

Calibration Certificate

Customer Name	**Paul Y Construction Co. Ltd**
Model	**PS200**
Serial	**373075**
Tested On	**16 November, 2022**
Cal Expires	**16 November, 2023**
Audible Alarm	**PASS**
Visual Alarm	**PASS**
Calibrated For	**METHANE**
100% LEL Equivalent	**4.4% by VOL**
Overall Results	**PASS**

Calibration Result

Gas Applied	Range	Reading	Calibrated	Result
Zero Air	% LEL	0	0	PASS
Zero Air	% O2	20.9	20.9	PASS
Zero Air	PPM CO	0	0	PASS
Zero Air	PPM H2S	0	0	PASS

Gas Applied	Range	Reading	Calibrated	Result
50% LEL Methane	% LEL	61	50	PASS
18% VOL Oxygen	% O2	17.8	N/A	PASS
100 PPM Carbon Monoxide	PPM CO	71	100	PASS
25 PPM Hydrogen Sulphide	PPM H2S	22	25	PASS

Calibrated By Ivan Lo : _____

PROMAT (HK) LTD 寶時

Water Quality

YSF Corporation Ltd.
5A, Blk1 Kin Ho Ind. Bldg., 20-24 Au Pui Wan St., Fo Tan, Shatin, N.T., HK.
Tel: (852) 8109 8368 Fax: (852) 3007 4857 E-mail: sales@ysftool.com
www.sokkia.com.hk www.ysf.com.hk
Supply, Repair, Rental, Scanning and Calibration Service of Surveying Instruments and Accessories

CERTIFICATE OF CALIBRATION

Certificate No.	: CS-CC- 220859	Customer	: Paul Y Engineering Group
Manufacturer	: Yamayo	Address	: 11/F., Paul Y. Centre,
Equipment	: Water Level Measure		51 Hung To Road,
Model	: RWL100		Kwun Tong, Kowloon, HK
Serial No.	: 11801	Calibration Interval	: 12 months
Calibration Date	: 4th August, 2022	Reference Document	: CS/ME/ 1(HKST)
Expire Date	: 3rd August, 2023	Report No.	: CS-CR- 220859

The instrument has been checked and calibrated according to document procedures and using standards and instruments which are traceable to international accepted standards. The standards and instruments used in the calibration are calibrated on a schedule which is adjusted to maintain traceability at the required accuracy level, or have been derived from the ratio type of self-calibration techniques. This is established by our Quality Management System, audited to ISO9001 :2015 by an independent national accredited body.

The specified calibration interval is a recommendation. Depending on the type of use ambient conditions or accuracy requirements, other calibration intervals may be applicable. The user shall be responsible that calibration is carried out at adequate intervals.

YSF Corporation Ltd. hereby certifies this instrument meets or exceeds all published specifications of the manufacturer at present inforce. This calibration certificate may only be distruibuted in a complete and unchanged form. Unsigned calibration certificates are invalid.

Calibrated by

Wayne

Wayne Ng, Service Engineer
4th August, 2022

Checked by

Wallace Yu, Service Manager
4th August, 2022

CKL/CSL/220859

YSF Corporation Ltd.

Calibration Report

Certificate No. : CS-CC-220859 Certificate Report No. : CS-CR-220859

Client : Paul Y Engineering Group

Address : 11/F., Paul Y. Centre, 51 Hung To Road, Kwun Tong, Kowloon, HK

Item Calibrated **:Name/Description:** Water Level Measure

Manufacturer: Yamayo

Model: RWL100 **Serial No:** 11801

Reference Standard : 784049
Calibration check according to customer's requirement.

Calibration Method **:** Procedure CS01

Calibration Conditions

Temperature : (26 ± 3℃)

Relative Humidity : 90% RH

Date of Test : 4th August, 2022

Test Results **: PASS** (All calibration points were within the tolerances as shown in the attached calibration results.)

Calibrated by : Wayne
Wayne Ng, Service Engineer
Date: 4th August, 2022

HKCS Approved Signatory: _____
Wallace Yu, Service Manager
Date: 4th August, 2022

Notes: 1, The test equipment used for calibration are traceable to national standards/international system of units(SI)
2, The values given in this calibration certificate only to the values measured at the time of test & 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. YSF Corporation Ltd. shall not be liable for any loss/damage resulting from the use of the equipment.
3, The test results apply to the above Unit-Under-Test only.
4, This certificate shall not be reproduced, except on full, without approval of YSF Corporation Ltd.

YSF Corporation Ltd.
5A, Blk1 Kin Ho Ind. Bldg., 20-24 Au Pui Wan St., Fo Tan, Shatin, N.T., HK.
Tel: (852) 8109 8368 Fax: (852) 3007 4857 E-mail: sales@ysftool.com
www.sokkia.com.hk www.ysf.com.hk
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CERTIFICATE OF CALIBRATION

Certificate No.	: CS-CC- 220858	Customer	: Paul Y Engineering Group
Manufacturer	: Yamayo	Address	: 11/F., Paul Y. Centre,
Equipment	: Water Level Measure		51 Hung To Road,
Model	: RWL50		Kwun Tong, Kowloon, HK
Serial No.	: 12711	Calibration Interval	: 12 months
Calibration Date	: 4th August, 2022	Reference Document	: CS/ME/ 1(HKST)
Expire Date	: 3rd August, 2023	Report No.	: CS-CR- 220858

The instrument has been checked and calibrated according to document procedures and using standards and instruments which are traceable to international accepted standards. The standards and instruments used in the calibration are calibrated on a schedule which is adjusted to maintain traceability at the required accuracy level, or have been derived from the ratio type of self-calibration techniques. This is established by our Quality Management System, audited to ISO9001 :2015 by an independent national accredited body.

The specified calibration interval is a recommendation. Depending on the type of use ambient conditions or accuracy requirements, other calibration intervals may be applicable. The user shall be responsible that calibration is carried out at adequate intervals.

YSF Corporation Ltd. hereby certifies this instrument meets or exceeds all published specifications of the manufacturer at present inforce. This calibration certificate may only be distruibuted in a complete and unchanged form. Unsigned calibration certificates are invalid.

Calibrated by

Wayne

Wayne Ng, Service Engineer
4th August, 2022

Checked by

Wallace Yu, Service Manager
4th August, 2022

CKL/CSL/220858

YSF Corporation Ltd.

Calibration Report

Certificate No. : CS-CC-220858 Certificate Report No. : CS-CR-220858

Client : Paul Y Engineering Group

Address : 11/F., Paul Y. Centre, 51 Hung To Road, Kwun Tong, Kowloon, HK

Item Calibrated **:Name/Description:** Water Level Measure

Manufacturer: Yamayo

Model: RWL50 **Serial No.:** 12711

Reference Standard : 784049
Calibration check according to customer's requirement.

Calibration Method **:** Procedure CS01

Calibration Conditions

Temperature : (26 ± 3℃)

Relative Humidity : 90% RH

Date of Test : 4th August, 2022

Test Results **: PASS** (All calibration points were within the tolerances as shown in the attached calibration results.)

Calibrated by : Wayne
Wayne Ng, Service Engineer
Date: 4th August, 2022

HKCS Approved Signatory:
Wallace Yu, Service Manager
Date: 4th August, 2022

Notes: 1, The test equipment used for calibration are traceable to national standards/international system of units(SI)
2, The values given in this calibration certificate only to the values measured at the time of test & 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. YSF Corporation Ltd. shall not be liable for any loss/damage resulting from the use of the equipment.
3, The test results apply to the above Unit-Under-Test only.
4, This certificate shall not be reproduced, except on full, without approval of YSF Corporation Ltd.

Hong Kong Calibration Ltd.
香 港 校 正 有限公司

Calibration Certificate

Certificate No. 210252 Page 1 of 2 Pages

Customer : Acuity Sustainability Consulting Limited

Address : Unit E, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, H.K.

Order No. : Q24081 **Date of receipt :** 31-Oct-22

Item Tested

Description : Flow Probe

Manufacturer : Global Water **I.D. :** --

Model : FP111 **Serial No. :** 22K100859

Test Conditions

Date of Test : 7-Nov-22 **Supply Voltage :** --

Ambient Temperature : 23°C **Relative Humidity :** 78%

Test Specifications

Calibration check.

Ref. Document/Procedure : V12

Test Results

All results were within the manufacturer's specification.

The results are shown in the attached page(s).

Main Test equipment used:

Equipment No.	Description	Cert. No.	Traceable to
S179	Std. Tape	201868	NIM-PRC
S136A	Stop Watch	201878	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 : Kin Wong

Approved by : Alan Chu

Date: 7-Nov-22

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

Hong Kong Calibration Ltd.
香 港 校 正 有限公司

Calibration Certificate

Certificate No. 210252

Results :

Applied Value (m/s)	UUT Reading (m/s)	Mfr's Spec.
0.96	1.0	± 0.1 m/s

Remarks : 1. UUT : Unit-Under-Test
2. Uncertainty : ± 1 %, for a confidence probability of not less than 95%.

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

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB100037
Date of Issue : 12 October 2022

PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
Unit E, 12/F, Ford Glory Plaza 37-39 Wing Hong Street, Cheung Sha Wan
Kowloon (HK) Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment :	HORIBA U-53
Manufacturer :	HORIBA
Serial Number :	PORBNFNT
Date of Received :	10 October 2022
Date of Calibration :	12 October 2022
Date of Next Calibration :	11 January 2023
Request No. :	D-BB100037

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500 H^+
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.12	0.12	Satisfactory
7.42	7.61	0.19	Satisfactory
10.01	10.19	0.18	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
12	12.20	0.20	Satisfactory
26	25.36	-0.64	Satisfactory
37	35.44	-1.56	Satisfactory

Tolerance of Temperature should be less than ± 2.0 (°C)

(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.98	-0.20	Satisfactory
20	20.23	1.15	Satisfactory
30	31.20	4.00	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

LEE Chun-ning
Assistant Manager (Chemical Testing)

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB100037
Date of Issue : 12 October 2022

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.87	7.45	-0.42	Satisfactory
4.09	4.05	-0.04	Satisfactory
1.26	1.00	-0.26	Satisfactory
0.01	0.06	0.05	Satisfactory

Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.00	--	Satisfactory
10	9.34	-6.6	Satisfactory
20	19.3	-3.5	Satisfactory
100	101	1.0	Satisfactory
800	780	-2.5	Satisfactory

Tolerance of Turbidity should be less than ± 10.0 (%)

Remark(s)

·The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.

·The results relate only to the calibrated equipment as received

·The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

·"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

·The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

--- END OF REPORT ---

Appendix E Monitoring Results

Air Quality

1-hour TSP Concentration (μg/m^3) at Location AM1

Date	Equipment Brand & Model	Equipment Serial No.	K-factor	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1) μg/m^3	Reading (2) μg/m^3	Reading (3) μg/m^3	Average μg/m^3	Action Level μg/m^3	Limit Level μg/m^3
3/1/2023	Sibata LD-5R	942532	0.00108	Fine	14:19	15:19	16:19	59	60	57	59	285	500
9/1/2023	Sibata LD-5R	0Z4545	0.00114	Fine	14:41	15:41	16:41	57	59	55	57		
14/1/2023	Sibata LD-5R	0Z4545	0.00114	Fine	14:10	15:10	16:10	41	34	41	39		
20/1/2023	Sibata LD-5R	0Z4545	0.00114	Fine	14:06	15:06	16:06	46	50	48	48		
26/1/2023	Sibata LD-5R	0Z4545	0.00114	Fine	10:09	11:09	12:09	41	43	40	41		
							Average	**49**					
							Max.	**60**					
							Min.	**34**					

1-hour TSP Concentration (μg/m^3) at Location AM2

Date	Equipment Brand & Model	Equipment Serial No.	K-factor	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1) μg/m^3	Reading (2) μg/m^3	Reading (3) μg/m^3	Average μg/m^3	Action Level μg/m^3	Limit Level μg/m^3
3/1/2023	Sibata LD-5R	882106	0.00107	Fine	14:09	15:09	16:09	51	53	49	51	279	500
9/1/2023	Sibata LD-5R	942532	0.00108	Fine	14:34	15:34	16:34	43	44	41	43		
14/1/2023	Sibata LD-5R	942532	0.00108	Fine	14:21	15:21	16:21	32	41	35	36		
20/1/2023	Sibata LD-5R	942532	0.00108	Fine	14:19	15:19	16:19	41	43	39	41		
26/1/2023	Sibata LD-5R	942532	0.00108	Fine	10:21	11:21	12:21	43	40	42	42		
							Average	**42**					
							Max.	**53**					
							Min.	**32**					

1-hour TSP Concentration (μg/m^3) at Location AM3

Date	Equipment Brand & Model	Equipment Serial No.	K-factor	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1) μg/m^3	Reading (2) μg/m^3	Reading (3) μg/m^3	Average μg/m^3	Action Level μg/m^3	Limit Level μg/m^3
3/1/2023	Sibata LD-5R	0Z4545	0.00114	Fine	14:26	15:26	16:26	63	67	65	65	285	500
9/1/2023	Sibata LD-5R	882106	0.00107	Fine	14:56	15:56	16:56	51	53	49	51		
14/1/2023	Sibata LD-5R	882106	0.00107	Fine	14:36	15:36	16:36	40	39	41	40		
20/1/2023	Sibata LD-5R	882106	0.00107	Fine	14:55	15:55	16:55	50	54	53	52		
26/1/2023	Sibata LD-5R	882106	0.00107	Fine	10:36	11:36	12:36	51	55	53	53		
							Average	**52**					
							Max.	**67**					
							Min.	**39**					

The Summary of TSP 24-hour Concentration (μg/m^3) at Location AM1

Start Date	Avg Air Temp	Avg Atmospheric Pressure	Weather Condition	Elapse Time		Sampling Time	Averaged Flow Rate	Averaged Flow Rate	Total Flow Volume	Filter Weight (g)		Particulate weight	Concentration	Action Level	Limit Level
	(°C)	(hPa)		Initial	Final	(minutes)	(cfm)	(m^3/min)	(m^3)	Initial	Final	(g)	(μg/m^3)	(μg/m^3)	(μg/m3)
3/1/2023	18.4	1023.6	Fine	349.81	373.81	1440	42	0.97	1397	2.7624	2.9118	0.1494	107	164	260
9/1/2023	18.6	1017.9	Fine	373.81	397.81	1440	40	0.87	1253	2.6204	2.7429	0.1225	98		
14/1/2023	20.6	1011.9	Fine	397.81	421.81	1440	42	0.92	1325	2.6924	2.8166	0.1242	94		
20/1/2023	17.8	1020.5	Fine	421.81	445.81	1440	39	0.83	1195	2.6694	2.7408	0.0714	60		
26/1/2023	16.6	1020.9	Fine	445.81	469.81	1440	40	0.88	1267	2.6349	2.8039	0.1690	133		
												Average	**98**		
												Min	**60**		
												Max	**133**		

The Summary of 24-hour TSP Concentration (μg/m^3) at Location AM2

Start Date	Avg Air Temp	Avg Atmospheric Pressure	Weather Condition	Elapse Time		Sampling Time	Averaged Flow Rate	Flow Rate	Total Flow Volume	Filter Weight (g)		Particulate weight	Concentration	Action Level	Limit Level
	(°C)	(hPa)		Initial	Final	(minutes)	(cfm)	(m^3/min)	(m^3)	Initial	Final	(g)	(μg/m^3)	(μg/m^3)	(μg/m3)
3/1/2023	18.4	1023.6	Fine	261.38	285.39	1441	41	0.99	1426	2.7847	2.8969	0.1122	79	152	260
9/1/2023	18.6	1017.9	Fine	285.39	309.39	1440	41	1.00	1440	2.6321	2.6830	0.0509	35		
14/1/2023	20.6	1011.9	Fine	309.39	333.39	1440	42	1.01	1454	2.6785	2.7092	0.0307	21		
20/1/2023	17.8	1020.5	Fine	333.39	357.39	1440	40	0.94	1354	2.684	2.7775	0.0935	69		
26/1/2023	16.6	1020.9	Fine	357.39	381.39	1440	30	0.51	734	2.6432	2.6892	0.0460	63		
												Average	**53**		
												Min	**21**		
												Max	**79**		

The Summary of 24-hour TSP Concentration (μg/m^3) at Location AM3

Start Date	Avg Air Temp	Avg Atmospheric Pressure	Weather Condition	Elapse Time		Sampling Time	Averaged Flow Rate	Flow Rate	Total Flow Volume	Filter Weight (g)		Particulate weight	Concentration	Action Level	Limit Level
	(°C)	(hPa)		Initial	Final	(minutes)	(cfm)	(m^3/min)	(m^3)	Initial	Final	(g)	(μg/m^3)	(μg/m^3)	(μg/m3)
3/1/2023	18.4	1023.6	Fine	1102.04	1126.04	1440	42	0.97	1397	2.7543	2.9409	0.1866	134	163	260
9/1/2023	18.6	1017.9	Fine	1126.04	1150.04	1440	42	0.97	1397	2.7750	2.8721	0.0971	70		
14/1/2023	20.6	1011.9	Fine	1150.04	1174.04	1440	43	0.98	1411	2.6833	2.7909	0.1076	76		
20/1/2023	17.8	1020.5	Fine	1198.04	1222.04	1440	30	0.50	720	2.6929	2.7335	0.0406	56		
26/1/2023	16.6	1020.9	Fine	1222.04	1246.04	1440	40	0.91	1310	2.6530	2.7714	0.1184	90		
												Average	**85**		
												Min	**56**		
												Max	**134**		

Noise

Impact Phase Construction Noise Monitoring Data at Location NM1

Date	Weather	Wind speed	Start Time	End Time	L_{eq} (dB(A))							L_{10} (dB(A))						L_{90} (dB(A))					
		m/s			1st	2nd	3rd	4th	5th	6th	Overall (30min)	1st	2nd	3rd	4th	5th	6th	1st	2nd	3rd	4th	5th	6th
3/1/2023	Fine	2.1	14:09	14:39	47.6	48.6	48.3	47.9	48.3	48.6	48.2	49.2	50.6	51.5	53.2	52.6	50.6	45.2	46.3	45.2	43.2	44.2	45.1
9/1/2023	Fine	2.2	15:05	15:35	51.0	50.8	50.6	51.2	50.7	50.1	50.7	54.0	53.6	54.1	55.6	53.6	51.1	49.1	48.6	49.6	48.2	49.3	48.7
20/1/2023	Fine	1.9	17:00	17:30	55.3	54.4	53.2	54.1	53.3	53.4	54.0	57.3	56.6	56.7	57.5	56.4	55.5	52.2	53.4	52.3	53.1	51.2	51.5
26/1/2023	Fine	2.1	17:00	17:30	51.6	49.3	49.1	48.6	45.2	47.7	49.0	53.3	52.8	51.2	51.7	47.5	51.5	41.5	41.7	44.5	42.7	40.3	38.5

Average	51.1
Baseline Level	55.4
Action Level	When one valid documented complaint is received
Limit Level	75

Impact Phase Construction Noise Monitoring Data at Location NM2

Date	Weather	Wind speed	Start Time	End Time	L_{eq} (dB(A))							L_{10} (dB(A))						L_{90} (dB(A))					
		m/s			1st	2nd	3rd	4th	5th	6th	Overall (30min)	1st	2nd	3rd	4th	5th	6th	1st	2nd	3rd	4th	5th	6th
3/1/2023	Fine	1.6	12:37	13:07	49.3	49.2	49.6	50	50.9	50.5	50.0	53.6	54.6	53.2	51.6	52.2	51.9	45.1	46.3	44.6	49.1	48.1	49.1
9/1/2023	Fine	1.4	12:35	13:05	48.7	49.6	49.5	49.2	49	49.3	49.2	53.2	54.6	55.2	52.6	55.1	56.1	45.1	46.1	45.5	44.1	45.9	46.6
20/1/2023	Fine	2.6	10:10	10:40	44.3	38.7	41.3	40.9	41.4	42.1	41.8	47.5	39.9	44.6	42.3	45.2	46.3	33.7	33.4	34.2	35.2	36.2	37.1
26/1/2023	Fine	2.6	12:00	12:30	46.7	47.1	46.2	48.2	47.4	49.2	47.6	50.5	51.2	49.5	52.5	51.3	53.1	37.5	38.5	33.9	41.6	38.6	40.1

Average	48.0
Baseline Level	54.5
Action Level	When one valid documented complaint is received
Limit Level	75

Water Quality

Monitoring Location: WM1

Date	Time	Weather	Water Depth (m)	Water Flow (L/s)	Water Temperature (°C)	DO (mg/L)			pH			Turbidity (NTU)			SS (mg/L)		
						Value	Action Level	Limit Level	Value	Action Level	Limit Level	Value	Action Level	Limit Level	Value	Action Level	Limit Level
9-Jan-23	12:24	Fine	0.1	-	19.1	10.5	7.4	4.0	7.1	7.7	7.8	6.6	9.2	9.5	7.1	9.7	11.4

Monitoring Location: WM2

Date	Time	Weather	Water Depth (m)	Water Flow (L/s)	Water Temperature (°C)	DO (mg/L)			pH			Turbidity (NTU)			SS (mg/L)		
						Value	Action Level	Limit Level	Value	Action Level	Limit Level	Value	Action Level	Limit Level	Value	Action Level	Limit Level
9-Jan-23	10:29	Fine	0.16	0.10	19.5	6.9	5.0	4.0	7.3	7.6	7.7	4.1	108.3	108.9	20.4	94.5	94.7

Remarks

1. Sample will be grabbed on surface when the water depth is less than 1m.

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: ACUMEN LABORATORY AND TESTING LIMITED	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 9
Contact	: MR HUNTINGTON HUI	Contact	: Richard Fung	Work Order	: HK2301406
Address	: UNIT D, 12/F, FORD GLORY PLAZA, NOS.37-39 WING HONG STREET, CHEUNG SHA WAN, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: htthui@acumen-env.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: +852 2333 6823	Telephone	: +852 2610 1044		
Facsimile	: +852 2333 1316	Facsimile	: +852 2610 2021		
Project	: NENTX			Date Samples Received	: 09-Jan-2023
Order number	: ——	Quote number	: HKE/2751/2022_V2	Issue Date	: 26-Jan-2023
C-O-C number	: ——			No. of samples received	: 2
Site	:			No. of samples analysed	: 2

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

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

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 09-Jan-2023 to 26-Jan-2023.

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

Specific Comments for Work Order: HK2301406

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

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

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Microbiological sample(s) was/ were collected in 250mL sterile plastic bottles containing sodium thiosulfate. Sample(s) arrived at the laboratory at 16:40.

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

ED037 - Titration end point for Total Alkalinity is pH 4.5 while end point for Total Alkalinity <20mg/L is pH 4.2.

Water sample(s) digested by in-house method E-3005 prior to the determination of total metals. The in-house method is developed based on USEPA method 3005.

EA002 - pH value is reported as at 25°C. Calibration range of pH value is 4.0 - 10.0. Results exceeding this range is for reference only.

EA025 - The accredited LOR of Total Suspended Solids is 0.5mg/L. Results below this LOR are for reference only.

Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Sample ID	WM1	WM2	----	----	----
				Sampling date / time	09-Jan-2023	09-Jan-2023	----	----	----
					HK2301406-001	HK2301406-002	--------	--------	--------
EA/ED: Physical and Aggregate Properties									
EA002: pH Value	----	0.1	pH Unit		7.4	7.7	----	----	----
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm		59	118	----	----	----
EA025: Suspended Solids (SS)	----	0.1	mg/L		7.1	20.4	----	----	----
ED037: Total Alkalinity as CaCO3	----	1	mg/L		16	38	----	----	----
ED/EK: Inorganic Nonmetallic Parameters									
ED041K: Sulphate as SO4 - Turbidimetric	----	1	mg/L		3	7	----	----	----
ED045K: Chloride	16887-00-6	0.5	mg/L		5	7	----	----	----
EK055K: Ammonia as N	7664-41-7	0.01	mg/L		0.02	0.16	----	----	----
EK058A: Nitrate as N	14797-55-8	0.01	mg/L		0.02	0.10	----	----	----
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L		0.1	0.3	----	----	----
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L		<0.01	<0.01	----	----	----
EK086: Sulphite as SO3 2-	14265-45-3	2	mg/L		<2	<2	----	----	----
EP: Aggregate Organics									
EP005: Total Organic Carbon	----	1	mg/L		3	2	----	----	----
EP020: Oil & Grease	----	5	mg/L		<5	<5	----	----	----
EP026C: Chemical Oxygen Demand	----	5	mg/L		5	6	----	----	----
EP030: Biochemical Oxygen Demand	----	2	mg/L		<2	<2	----	----	----
EG: Metals and Major Cations - Total									
EG020: Cadmium	7440-43-9	0.2	µg/L		<0.2	<0.2	----	----	----
EG020: Copper	7440-50-8	1	µg/L		<1	2	----	----	----
EG020: Lead	7439-92-1	1	µg/L		<1	1	----	----	----
EG020: Manganese	7439-96-5	1	µg/L		55	2100	----	----	----
EG020: Nickel	7440-02-0	1	µg/L		<1	<1	----	----	----
EG020: Zinc	7440-66-6	10	µg/L		<10	31	----	----	----
EG032: Calcium	7440-70-2	50	µg/L		3030	11200	----	----	----
EG032: Iron	7439-89-6	10	µg/L		660	6040	----	----	----
EG032: Magnesium	7439-95-4	50	µg/L		440	1020	----	----	----
EG032: Potassium	7440-09-7	50	µg/L		290	1680	----	----	----
EG032: Sodium	7440-23-5	50	µg/L		7830	6400	----	----	----

Sub-Matrix: WATER			Sample ID	WM1	WM2	----	----	----
			Sampling date / time	09-Jan-2023	09-Jan-2023	----	----	----
Compound	CAS Number	LOR	Unit	HK2301406-001	HK2301406-002	--------	--------	--------
EM: Microbiological Testing								
EM002: E. coli	----	1	CFU/100mL	21	15	----	----	----
EM003: Total Coliforms	----	1	CFU/100mL	26	21	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4807774)								
HK2301325-002	Anonymous	EA002: pH Value	----	0.1	pH Unit	8.0	8.0	0.0
HK2301329-004	Anonymous	EA002: pH Value	----	0.1	pH Unit	7.1	7.0	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 4807775)								
HK2301371-001	Anonymous	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	1	1	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 4808005)								
HK2301064-001	Anonymous	ED037: Total Alkalinity as CaCO3	----	1	mg/L	882	881	0.1
EA/ED: Physical and Aggregate Properties (QC Lot: 4813456)								
HK2301296-001	Anonymous	EA025: Suspended Solids (SS)	----	0.5	mg/L	118	123	3.9
HK2301759-001	Anonymous	EA025: Suspended Solids (SS)	----	0.5	mg/L	4.0	4.3	7.3
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4809576)								
HK2301371-001	Anonymous	EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4809952)								
HK2301371-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.04	0.04	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4812358)								
HK2301406-001	WM1	ED041K: Sulphate as SO4 - Turbidimetric	----	1	mg/L	3	3	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4812359)								
HK2301406-001	WM1	ED045K: Chloride	16887-00-6	1	mg/L	5	6	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4817375)								
HK2301849-001	Anonymous	EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	3760	3750	0.3
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4825132)								
HK2301474-001	Anonymous	EK086: Sulphite as SO3 2-	14265-45-3	2	mg/L	<2	<2	0.0
EP: Aggregate Organics (QC Lot: 4821153)								
HK2301404-001	Anonymous	EP026C: Chemical Oxygen Demand	----	5	mg/L	8	7	0.0
EP: Aggregate Organics (QC Lot: 4823932)								
HK2302278-005	Anonymous	EP005: Total Organic Carbon	----	1	mg/L	<1	<1	0.0
EG: Metals and Major Cations - Total (QC Lot: 4809477)								
HK2301406-002	WM2	EG032: Iron	7439-89-6	10	µg/L	6040	5980	1.0
		EG032: Calcium	7440-70-2	50	µg/L	11200	11200	0.4
		EG032: Magnesium	7439-95-4	50	µg/L	1020	1020	0.0
		EG032: Potassium	7440-09-7	50	µg/L	1680	1680	0.0

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report: LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Total (QC Lot: 4809477) - Continued								
HK2301406-002	WM2	EG032: Sodium	7440-23-5	50	µg/L	6400	6290	1.7
EG: Metals and Major Cations - Total (QC Lot: 4809478)								
HK2301406-002	WM2	EG020: Cadmium	7440-43-9	0.2	µg/L	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	µg/L	2	2	0.0
		EG020: Lead	7439-92-1	1	µg/L	1	1	0.0
		EG020: Manganese	7439-96-5	1	µg/L	2100	2150	2.6
		EG020: Nickel	7440-02-0	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	31	26	15.2

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report: LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%): LCS	DCS	Recovery Limits(%): Low	High	RPD (%): Value	Control Limit
EA/ED: Physical and Aggregate Properties (QC Lot: 4807775)											
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	<1	146.9 µS/cm	100	----	93.5	106	----	----
				<1	1412 µS/cm	97.5	----	94.3	105	----	----
EA/ED: Physical and Aggregate Properties (QC Lot: 4808005)											
ED037: Total Alkalinity as CaCO3	----	1	mg/L	<1	50 mg/L	104	----	95.0	105	----	----
				<1	2000 mg/L	99.0	----	95.0	105	----	----
EA/ED: Physical and Aggregate Properties (QC Lot: 4813456)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	10 mg/L	108	----	85.1	117	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4809576)											
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	96.5	----	93.5	104	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4809952)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	98.5	----	91.0	108	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4812358)											
ED041K: Sulphate as SO4 - Turbidimetric	----	1	mg/L	<1	5 mg/L	98.4	----	89.8	108	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4812359)											
ED045K: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	94.3	----	91.1	111	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4817375)											
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	0.5 mg/L	100	----	89.0	120	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4825132)											
EK086: Sulphite as SO3 2-	14265-45-3	2	mg/L	<2	----	----	----	----	----	----	----
EP: Aggregate Organics (QC Lot: 4810278)											
EP030: Biochemical Oxygen Demand	----	----	mg/L	----	198 mg/L	101	----	78.6	118	----	----
EP: Aggregate Organics (QC Lot: 4821153)											
EP026C: Chemical Oxygen Demand	----	----	mg/L	----	25 mg/L	95.2	----	92.0	108	----	----
				----	250 mg/L	100	----	92.3	106	----	----
EP: Aggregate Organics (QC Lot: 4823932)											
EP005: Total Organic Carbon	----	1	mg/L	<1	5 mg/L	98.9	----	83.4	124	----	----
				<1	100 mg/L	99.9	----	87.8	119	----	----
EP: Aggregate Organics (QC Lot: 4824842)											
EP020: Oil & Grease	----	2	mg/L	<2	20 mg/L	90.9	----	81.3	107	----	----
EG: Metals and Major Cations - Total (QC Lot: 4809477)											
EG032: Calcium	7440-70-2	50	µg/L	<50	2000 µg/L	100	----	85.0	115	----	----
EG032: Iron	7439-89-6	10	µg/L	<10	2000 µg/L	107	----	85.0	115	----	----
EG032: Magnesium	7439-95-4	50	µg/L	<50	2000 µg/L	103	----	85.0	115	----	----
EG032: Potassium	7440-09-7	50	µg/L	<50	2000 µg/L	105	----	85.0	115	----	----
EG032: Sodium	7440-23-5	50	µg/L	<50	2000 µg/L	102	----	85.0	115	----	----
EG: Metals and Major Cations - Total (QC Lot: 4809478)											
EG020: Cadmium	7440-43-9	0.2	µg/L	<0.2	5 µg/L	102	----	85.0	109	----	----
EG020: Copper	7440-50-8	1	µg/L	<1	50 µg/L	104	----	90.0	111	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	50 µg/L	102	----	89.0	111	----	----
EG020: Manganese	7439-96-5	1	µg/L	<1	50 µg/L	103	----	85.0	115	----	----
EG020: Nickel	7440-02-0	1	µg/L	<1	50 µg/L	102	----	87.0	110	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	50 µg/L	101	----	86.0	114	----	----

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

Matrix: **WATER**

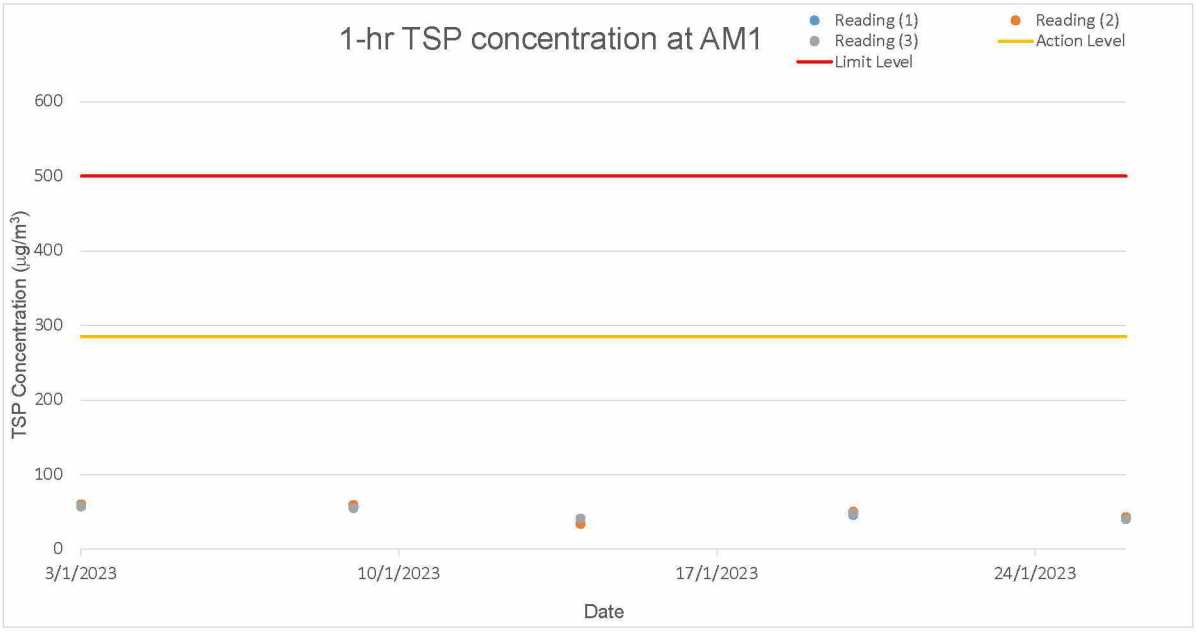
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4809576)										
HK2301371-001	Anonymous	EK071K: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	94.8	----	75.0	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4809952)										
HK2301371-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.5 mg/L	103	----	75.0	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4812358)										
HK2301406-001	WM1	ED041K: Sulphate as SO4 - Turbidimetric	----	5 mg/L	94.0	----	75.0	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4812359)										
HK2301406-001	WM1	ED045K: Chloride	16887-00-6	5 mg/L	97.3	----	75.0	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4817375)										
HK2301849-001	Anonymous	EK061A: Total Kjeldahl Nitrogen as N	----	500 mg/L	# Not Determined	----	75.0	125	----	----
EP: Aggregate Organics (QC Lot: 4821153)										
HK2301406-002	WM2	EP026C: Chemical Oxygen Demand	----	10 mg/L	113	----	75.0	125	----	----
EP: Aggregate Organics (QC Lot: 4823932)										
HK2302278-005	Anonymous	EP005: Total Organic Carbon	----	5 mg/L	102	----	75.0	125	----	----
EG: Metals and Major Cations - Total (QC Lot: 4809477)										
HK2301406-001	WM1	EG032: Calcium	7440-70-2	2000 µg/L	98.2	----	75.0	125	----	----
		EG032: Iron	7439-89-6	2000 µg/L	108	----	75.0	125	----	----
		EG032: Magnesium	7439-95-4	2000 µg/L	102	----	75.0	125	----	----
		EG032: Potassium	7440-09-7	2000 µg/L	105	----	75.0	125	----	----
		EG032: Sodium	7440-23-5	2000 µg/L	100	----	75.0	125	----	----
EG: Metals and Major Cations - Total (QC Lot: 4809478)										
HK2301406-001	WM1	EG020: Cadmium	7440-43-9	5 µg/L	108	----	75.0	125	----	----
		EG020: Copper	7440-50-8	50 µg/L	103	----	75.0	125	----	----
		EG020: Lead	7439-92-1	50 µg/L	102	----	75.0	125	----	----
		EG020: Manganese	7439-96-5	50 µg/L	99.3	----	75.0	125	----	----

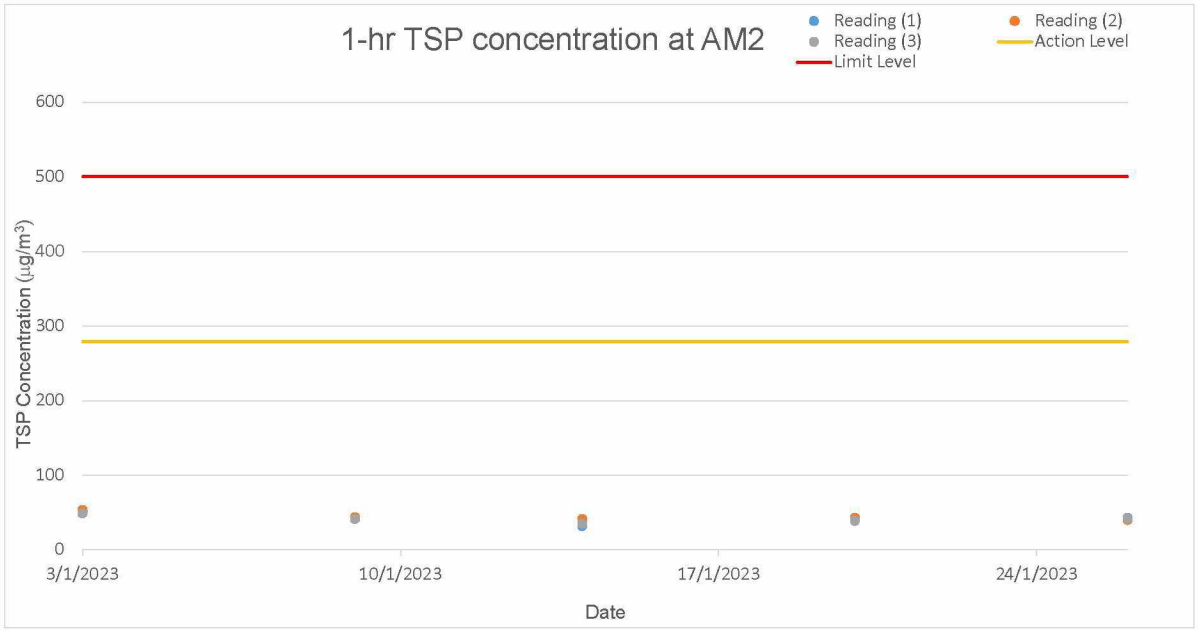
Matrix: **WATER**

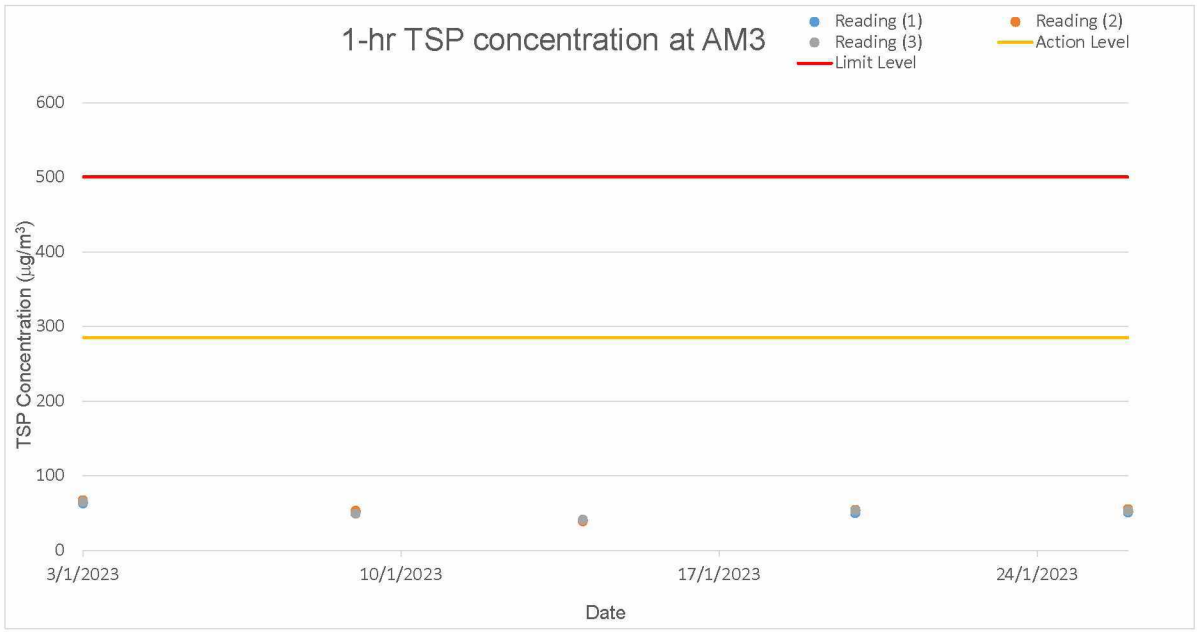
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations - Total (QC Lot: 4809478) - Continued										
HK2301406-001	WM1	**EG020: Nickel**	7440-02-0	50 µg/L	100	----	75.0	125	----	----
		EG020: Zinc	7440-66-6	50 µg/L	99.8	----	75.0	125	----	----

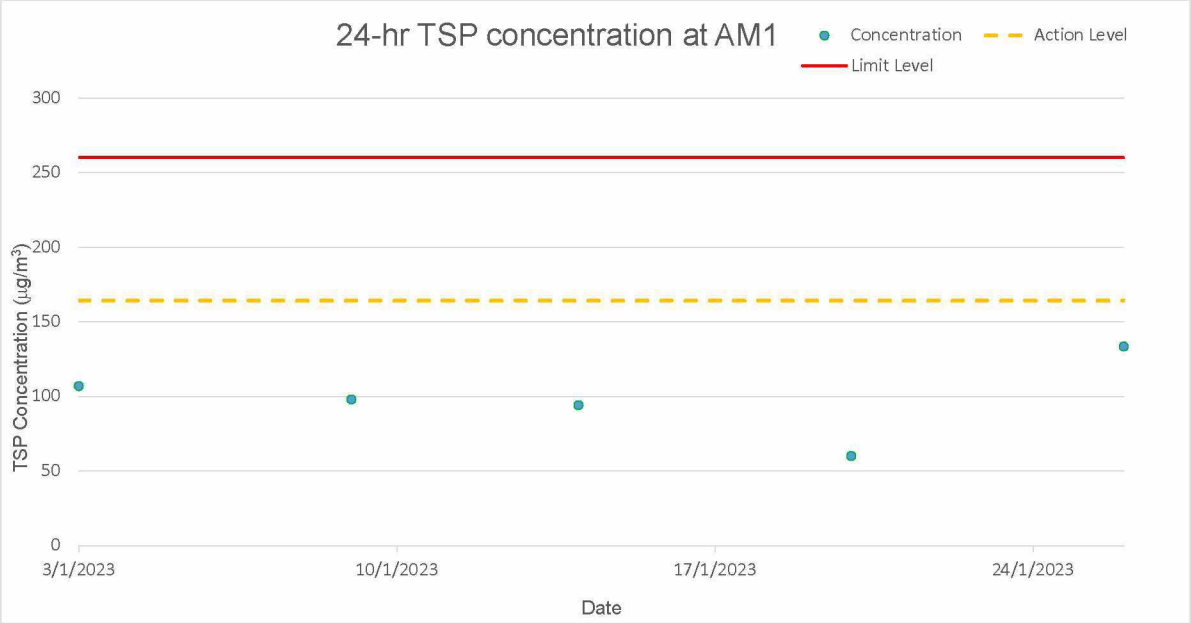
Appendix F Graphical Presentations

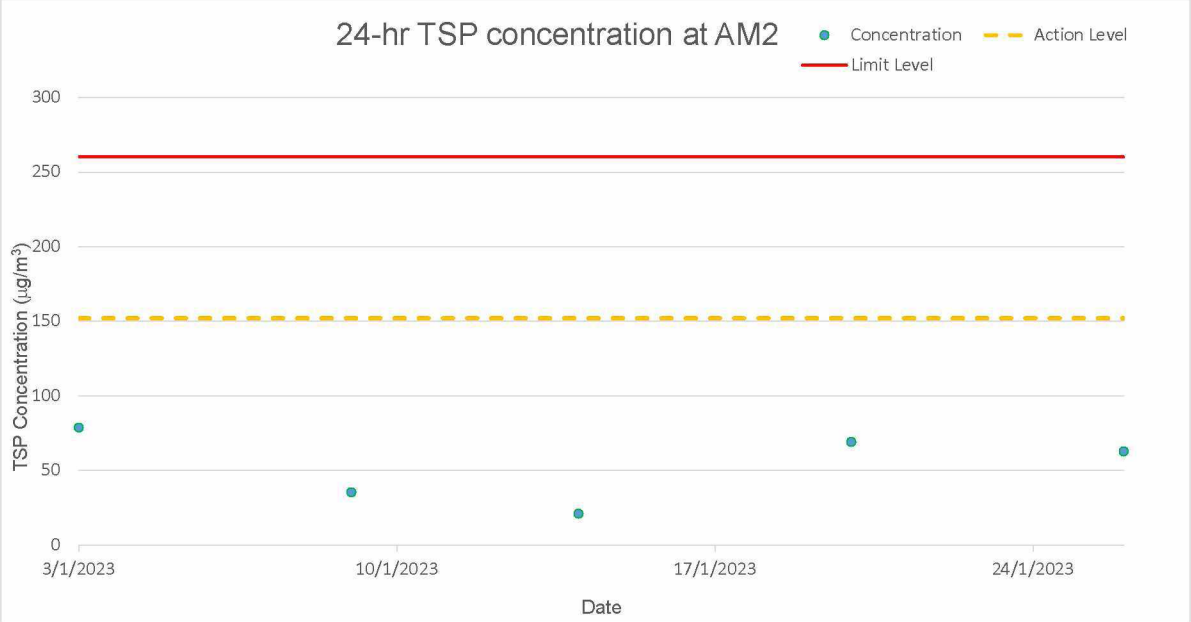
Air Quality

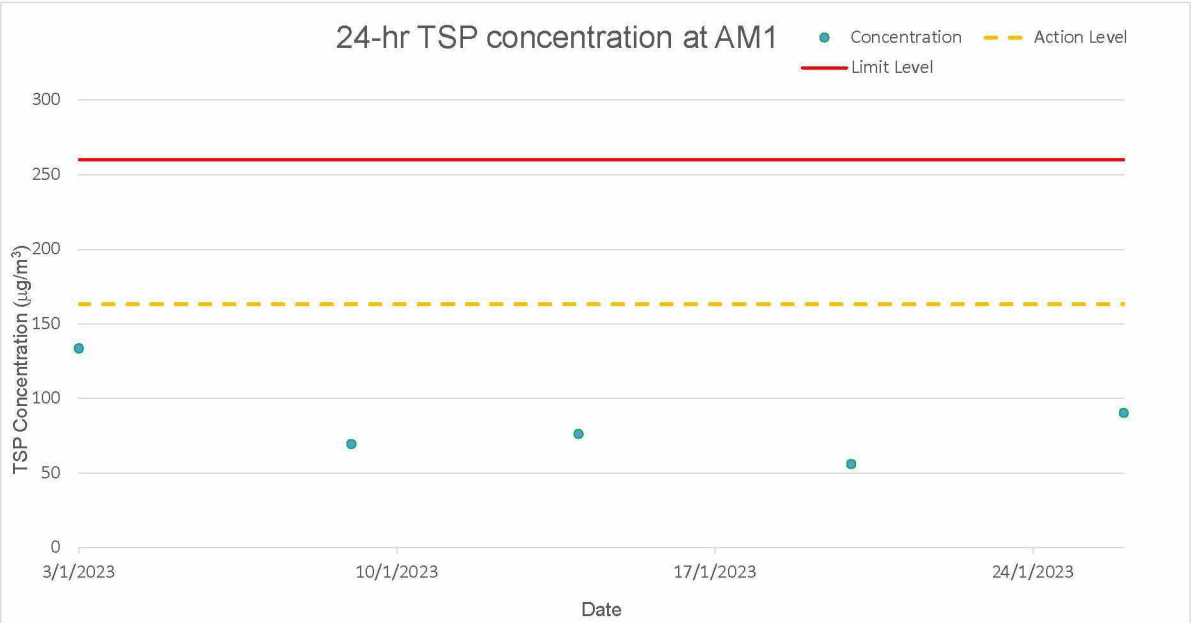

1-hr TSP concentration at AM1
Reading (1)
Reading (2)
Reading (3)
Action Level
Limit Level
600
500
400
300
200
100
0
TSP Concentration (µg/m³)
3/1/2023
10/1/2023
17/1/2023
24/1/2023
Date


1-hr TSP concentration at AM2
Reading (1)
Reading (2)
Reading (3)
Action Level
Limit Level
600
500
400
300
200
100
0
TSP Concentration (µg/m³)
3/1/2023
10/1/2023
17/1/2023
24/1/2023
Date

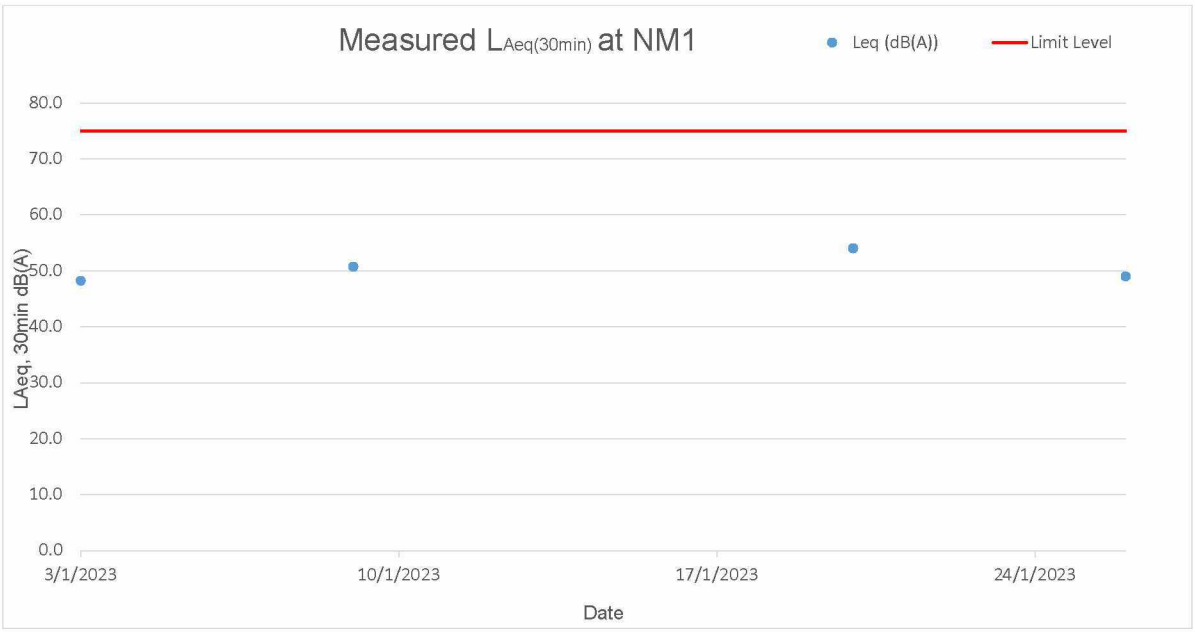

1-hr TSP concentration at AM3
Reading (1)
Reading (2)
Reading (3)
Action Level
Limit Level
600
500
400
300
200
100
0
TSP Concentration (µg/m³)
3/1/2023
10/1/2023
17/1/2023
24/1/2023
Date

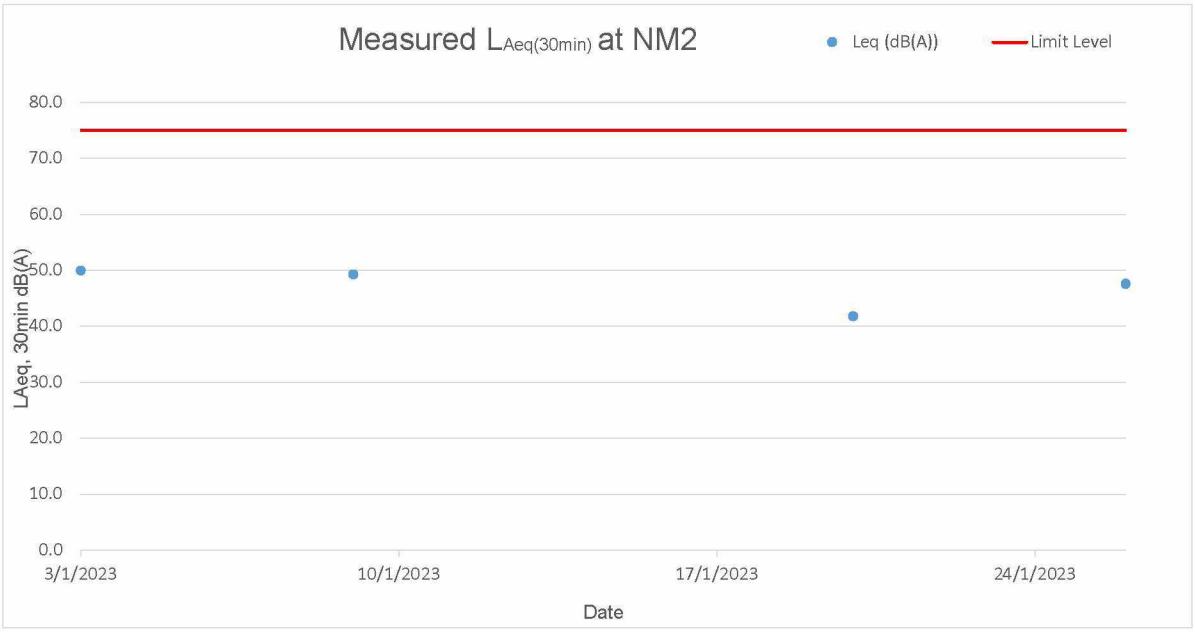

24-hr TSP concentration at AM1
Concentration
Action Level
Limit Level
300
250
200
150
100
50
0
TSP Concentration (μg/m³)
3/1/2023
10/1/2023
17/1/2023
24/1/2023
Date


24-hr TSP concentration at AM2
Concentration
Action Level
Limit Level
300
250
200
150
100
50
0
TSP Concentration (μg/m³)
3/1/2023
10/1/2023
17/1/2023
24/1/2023
Date


24-hr TSP concentration at AM1
Concentration
Action Level
Limit Level
300
250
200
150
100
50
0
TSP Concentration (μg/m³)
3/1/2023
10/1/2023
17/1/2023
24/1/2023
Date

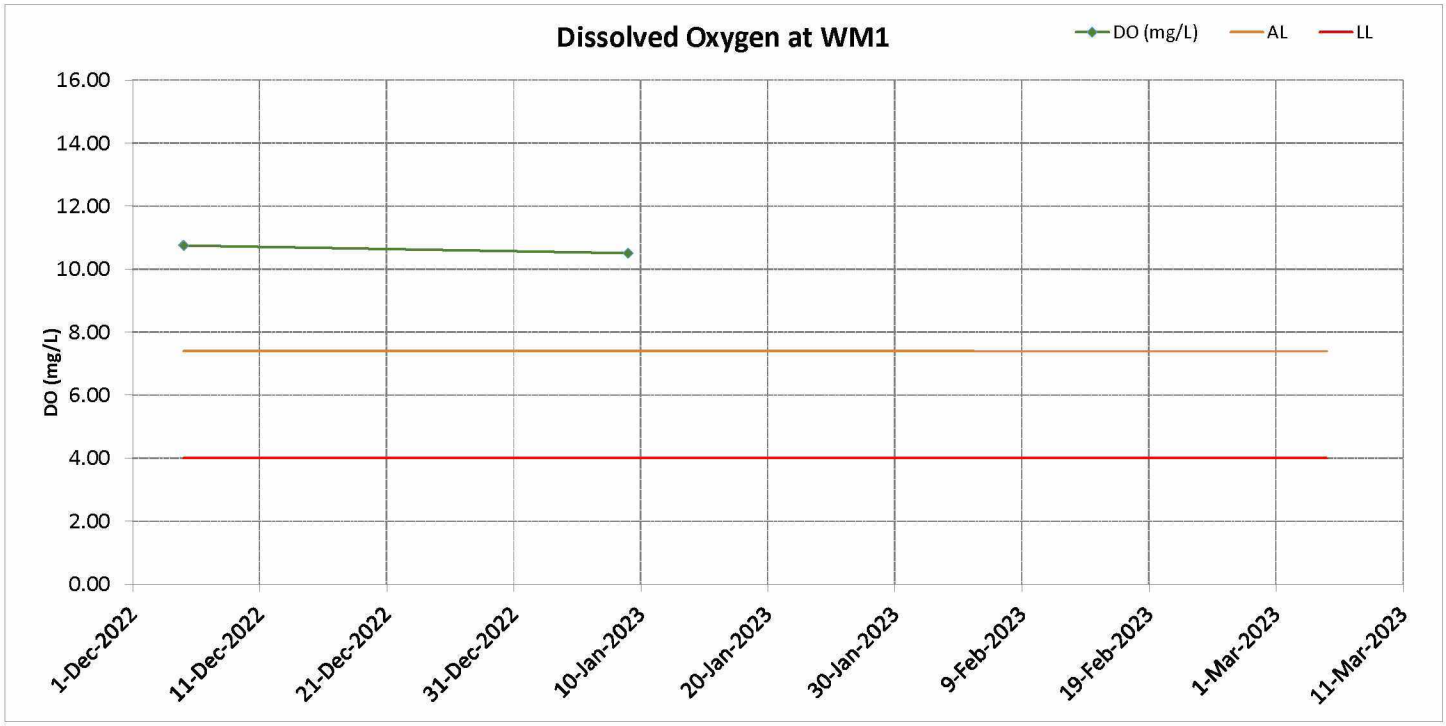
Noise

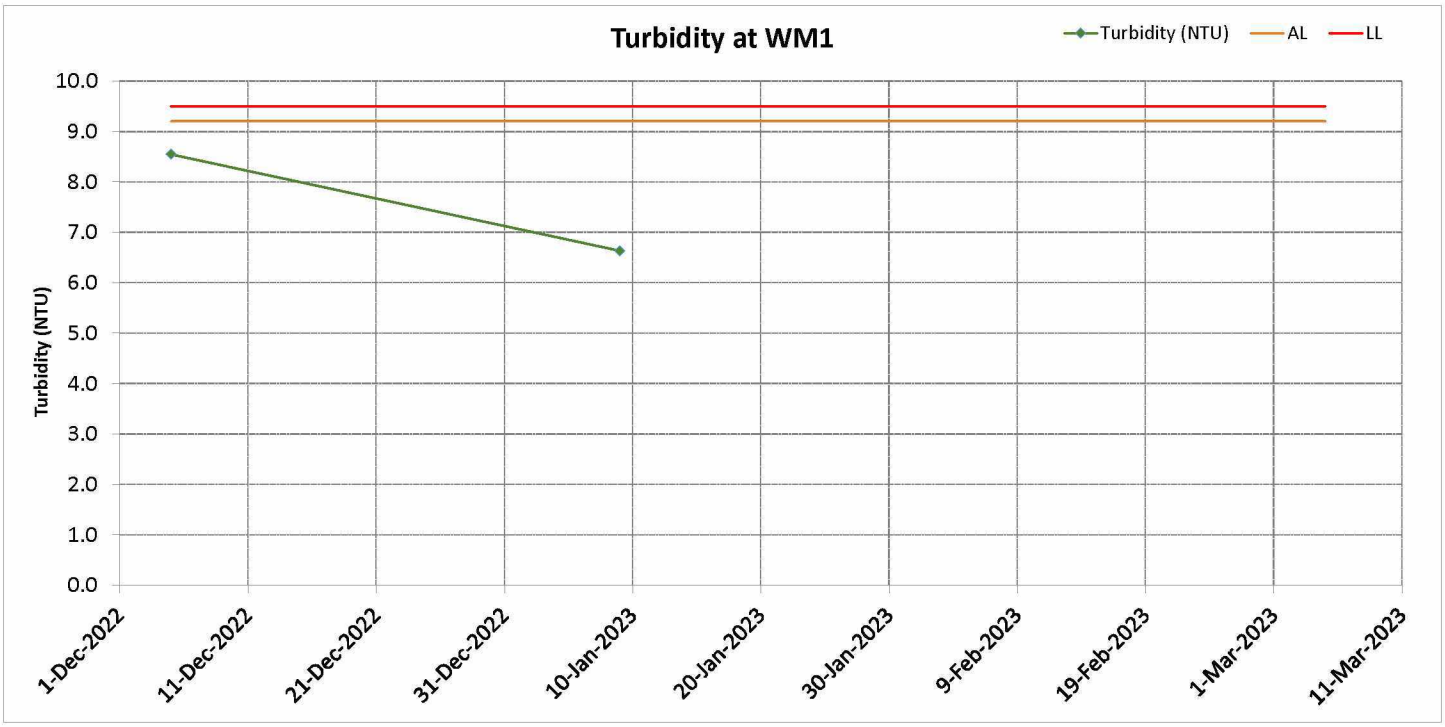

Measured LAeq(30min) at NM1
Leq (dB(A))
Limit Level
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
LAeq, 30min dB(A)
3/1/2023
10/1/2023
17/1/2023
24/1/2023
Date


Measured LAeq(30min) at NM2
Leq (dB(A))
Limit Level
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
LAeq, 30min dB(A)
3/1/2023
10/1/2023
17/1/2023
24/1/2023
Date

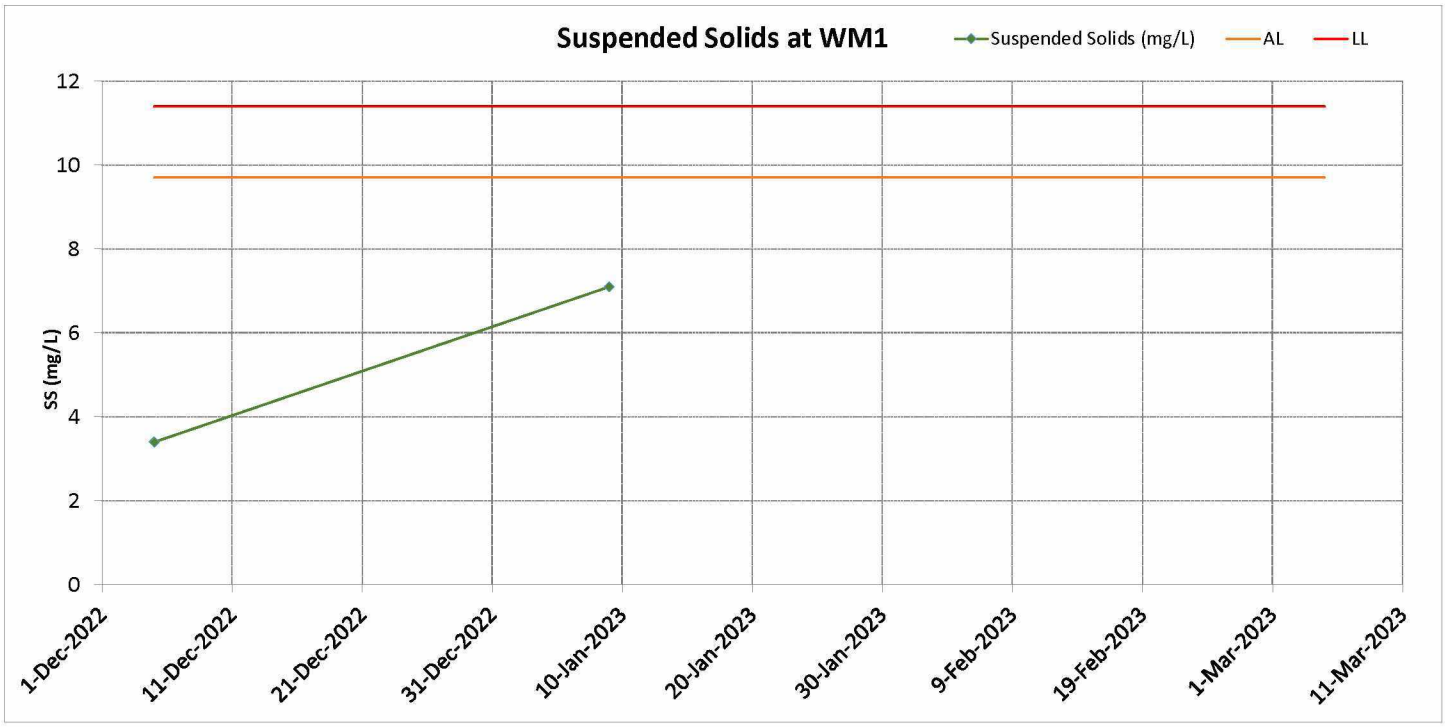
Water Quality

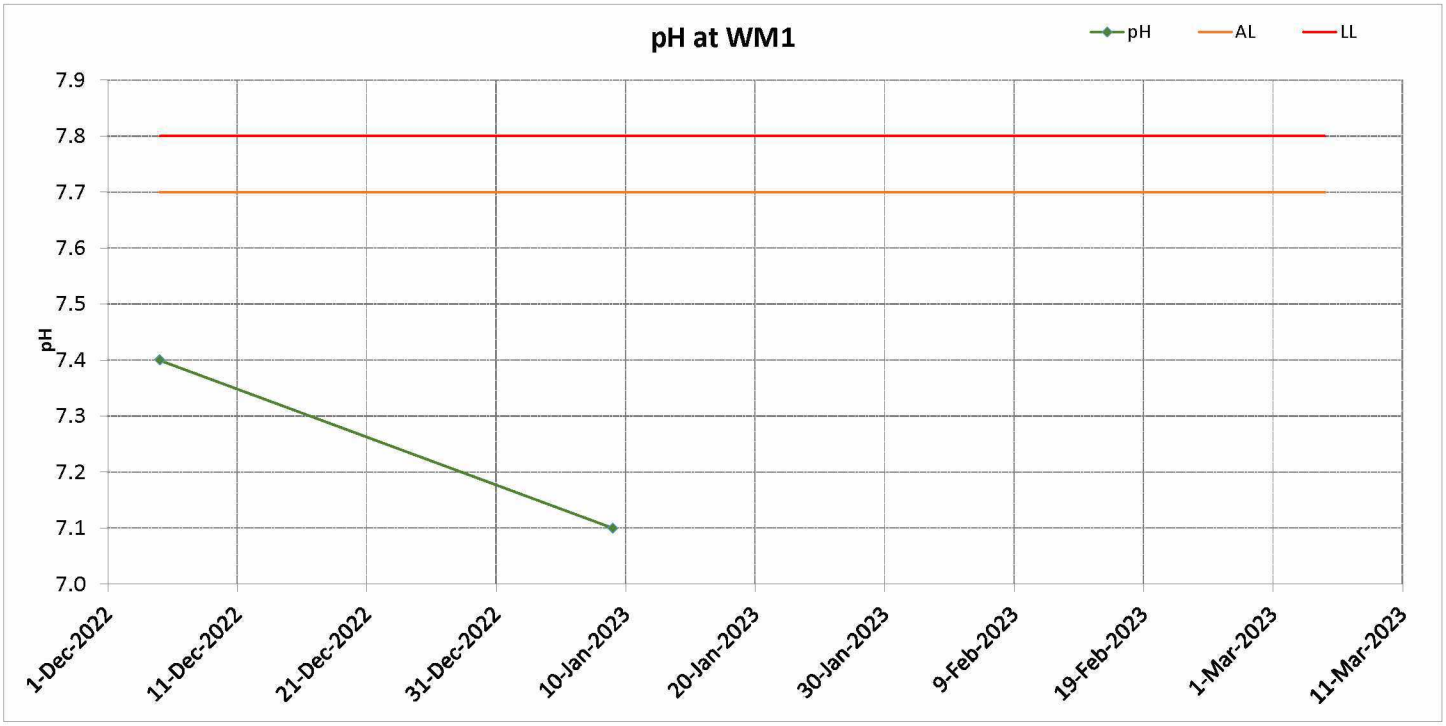
Surface Water Monitoring Results at WM1



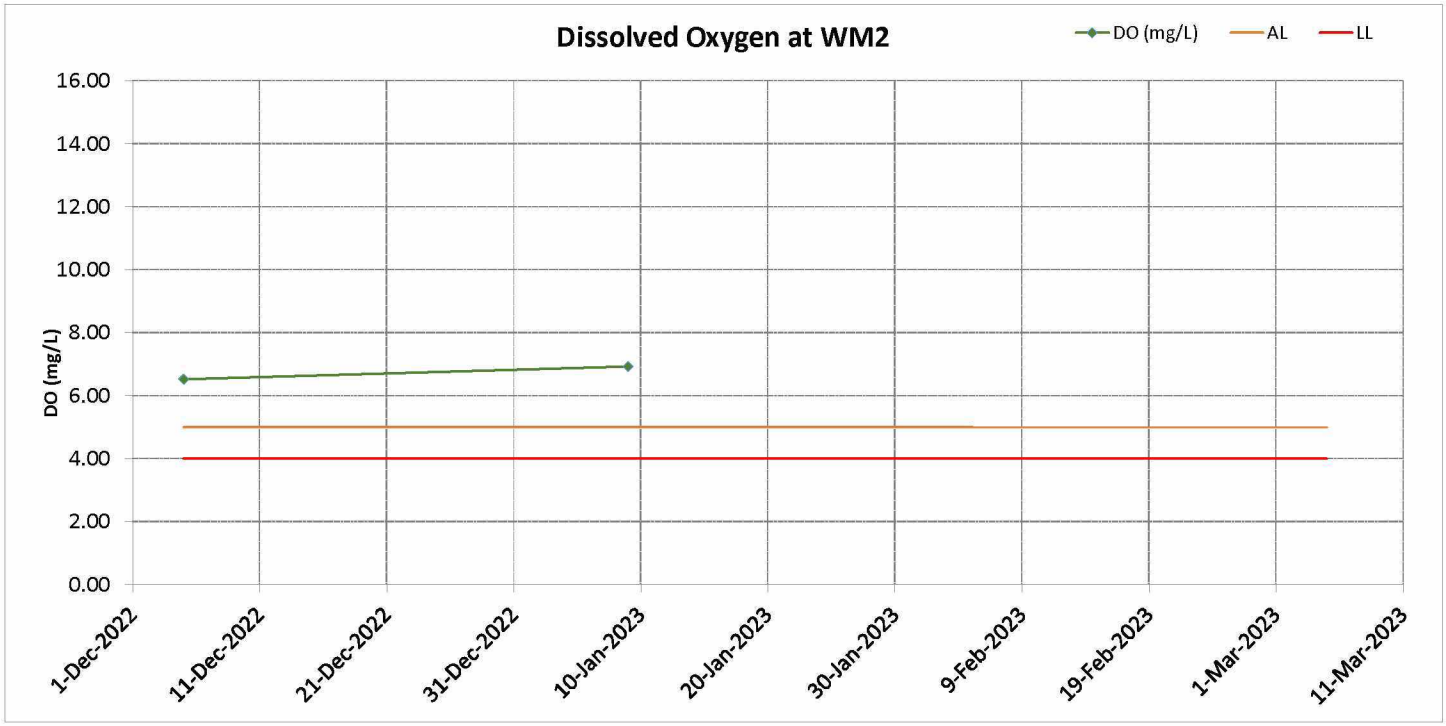


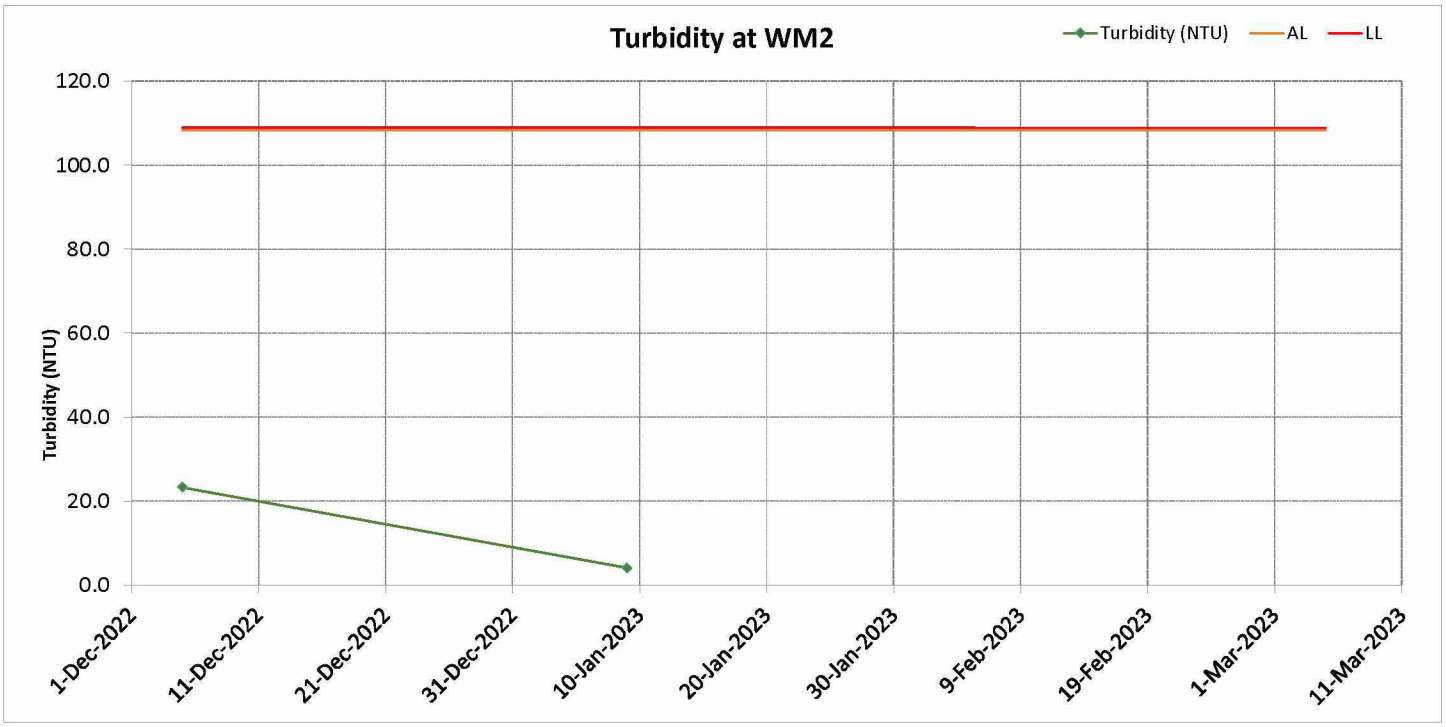
Surface Water Monitoring Results at WM1



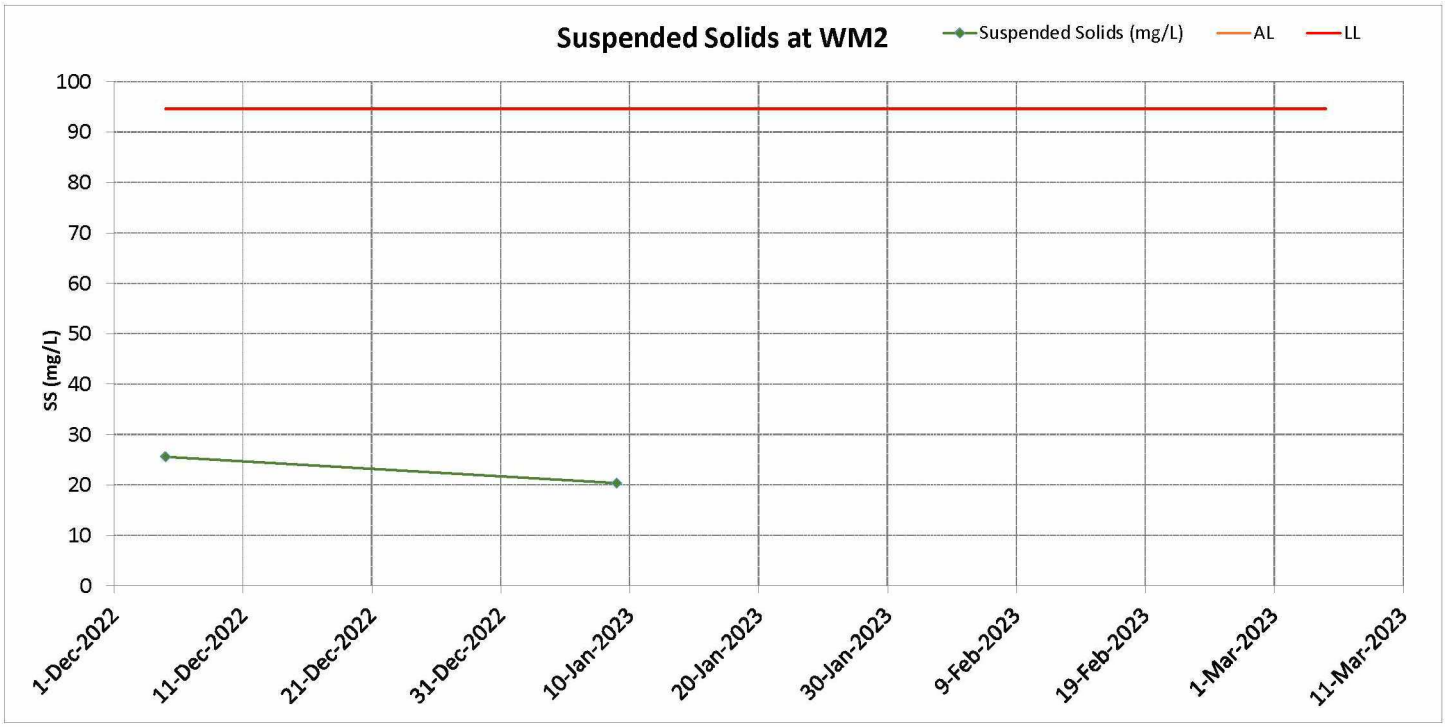


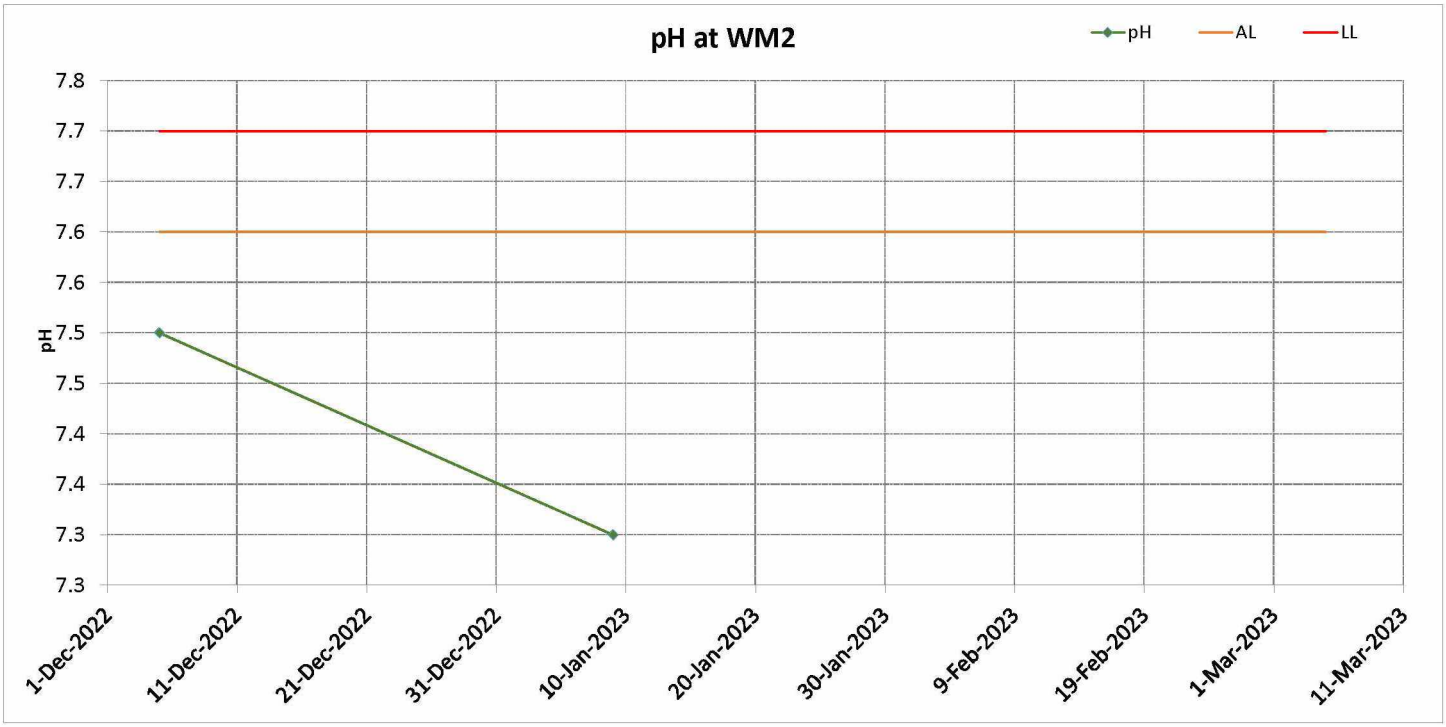
Surface Water Monitoring Results at WM2





Surface Water Monitoring Results at WM2





Appendix G Notification of Environmental Quality Limits Exceedance

Notification of Environmental Quality Limits Exceedance

Construction Dust

Monitoring Station	Monitoring Parameter(s)	No. of Exceedance	
		Action Level	Limit Level
WM1	1-hr TSP	0	0
	24-hr TSP	0	0
WM2	1-hr TSP	0	0
	24-hr TSP	0	0

Noise Monitoring

Monitoring Station	Monitoring Parameter(s)	No. of Exceedance	
		Action Level	Limit Level
NM1a	LAeq (30mins)	0	0
NM2a		0	0

Surface Water Monitoring

Monitoring Station	Monitoring Parameter(s)	No. of Exceedance	
		Action Level	Limit Level
WM1	Dissolved Oxygen	0	0
	pH	0	0
	Turbidity	0	0
	Suspended Solids	0	0
WM2	Dissolved Oxygen	0	0
	pH	0	0
	Turbidity	0	0
	Suspended Solids	0	0

Notification of Environmental Quality Limits Exceedance

Landfill Gas (LFG) Monitoring

LFG Monitoring Station	Monitoring Parameter(s)	No. of Exceedance Limit Level
Portion A +58 mpD,+55 mpD Platform	CH_4	0
	CO_2	0
	O_2	0

Appendix H Wind Data

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230101_0000	0	N
20230101_0010	0.3	SSW
20230101_0020	0	N
20230101_0020	0	N
20230101_0030	0	N
20230101_0040	0	N
20230101_0050	0	N
20230101_0100	0	N
20230101_0110	0	N
20230101_0120	0	N
20230101_0130	0	N
20230101_0140	0	N
20230101_0150	0	N
20230101_0200	0	N
20230101_0210	0	N
20230101_0220	0	N
20230101_0230	0	N
20230101_0240	0	N
20230101_0250	0	N
20230101_0300	0	N
20230101_0310	0.3	SW
20230101_0320	0.3	WNW
20230101_0330	0.8	NNE
20230101_0340	0.3	N
20230101_0350	0.3	NNE
20230101_0400	0.8	NNE
20230101_0410	1.7	N
20230101_0420	1.7	N
20230101_0430	1.7	NNE
20230101_0440	1.4	NNE
20230101_0450	1.1	NNE
20230101_0500	1.4	NNE
20230101_0510	1.1	NNE
20230101_0520	0.6	N
20230101_0530	0.3	-
20230101_0540	0	N
20230101_0550	0.3	E
20230101_0600	0	N
20230101_0610	0	N
20230101_0620	0	N
20230101_0630	0	N
20230101_0640	0	N
20230101_0650	0	N
20230101_0700	0.3	ESE
20230101_0710	0	N
20230101_0720	0	N
20230101_0730	0.3	SSW
20230101_0740	0.3	N
20230101_0750	0.3	NNE
20230101_0800	0	N
20230101_0810	1.4	N
20230101_0820	1.9	N
20230101_0830	2.2	N
20230101_0840	2.8	N
20230101_0850	2.8	N
20230101_0900	2.8	N
20230101_0910	2.8	NNE
20230101_0920	2.2	N
20230101_0930	1.7	N
20230101_0940	2.8	N
20230101_0950	2.5	N
20230101_1000	2.5	N
20230101_1010	3.1	N
20230101_1020	3.3	N
20230101_1030	2.2	N
20230101_1040	2.8	N
20230101_1050	1.9	N
20230101_1100	2.2	N
20230101_1110	2.8	N
20230101_1120	3.3	N
20230101_1130	3.1	N
20230101_1140	2.2	NNW
20230101_1150	2.5	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230101_1200	2.2	NNW
20230101_1210	1.7	NNW
20230101_1220	2.2	NW
20230101_1230	2.5	NW
20230101_1240	2.5	NNW
20230101_1250	1.9	NNW
20230101_1300	2.5	NNW
20230101_1310	2.2	NNW
20230101_1320	1.7	NNW
20230101_1330	2.2	NNW
20230101_1340	2.8	NNE
20230101_1350	2.8	N
20230101_1400	2.8	N
20230101_1410	1.9	N
20230101_1420	3.3	N
20230101_1430	5	NNE
20230101_1440	4.4	NNE
20230101_1450	3.9	NNE
20230101_1500	3.3	NNE
20230101_1510	4.4	NNE
20230101_1520	2.8	N
20230101_1530	2.5	N
20230101_1540	1.9	N
20230101_1550	2.2	N
20230101_1600	3.3	N
20230101_1610	3.3	N
20230101_1620	2.2	N
20230101_1630	1.4	NNW
20230101_1640	1.4	N
20230101_1650	2.2	N
20230101_1700	2.2	N
20230101_1710	1.7	N
20230101_1720	2.5	N
20230101_1730	1.4	N
20230101_1740	1.7	N
20230101_1750	1.7	NNE
20230101_1800	1.4	N
20230101_1810	0.3	NNW
20230101_1820	1.1	N
20230101_1830	0.8	NNW
20230101_1840	0.6	NW
20230101_1850	0.6	WNW
20230101_1900	0.3	W
20230101_1910	0.6	NNW
20230101_1920	0.3	NE
20230101_1930	0.3	NNE
20230101_1940	0	N
20230101_1950	0	N
20230101_2000	0	N
20230101_2010	0	N
20230101_2020	0	N
20230101_2030	0	N
20230101_2040	0.8	SSW
20230101_2050	0.3	SSE
20230101_2100	0	N
20230101_2110	0	N
20230101_2120	0	N
20230101_2130	0	N
20230101_2140	0	N
20230101_2150	0	N
20230101_2200	0.8	SSE
20230101_2210	0.3	SSE
20230101_2220	0.3	SSE
20230101_2230	0.3	S
20230101_2240	0.3	SSE
20230101_2250	0.3	NE
20230101_2300	0.3	NE
20230101_2310	0	N
20230101_2320	0	N
20230101_2330	0.3	S
20230101_2340	0.3	-
20230101_2350	0.3	N

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230102_0000	0	N
20230102_0010	0.3	ESE
20230102_0020	0	N
20230102_0020	0	N
20230102_0030	0	N
20230102_0040	0.3	S
20230102_0050	1.1	SSW
20230102_0100	0.3	SSE
20230102_0110	0.3	NNE
20230102_0120	0.3	SE
20230102_0130	0.6	SSE
20230102_0140	0.3	SW
20230102_0150	0.3	W
20230102_0200	0.3	NE
20230102_0210	0.3	ENE
20230102_0220	0	N
20230102_0230	0.3	SW
20230102_0240	0.3	WSW
20230102_0250	0.3	SW
20230102_0300	0.3	S
20230102_0310	0.8	S
20230102_0320	0	N
20230102_0330	0.3	NE
20230102_0340	0.6	NNE
20230102_0350	0.3	W
20230102_0400	0.3	N
20230102_0410	0.3	N
20230102_0420	0.3	NNW
20230102_0430	0.3	E
20230102_0440	0.3	SE
20230102_0450	0.3	SSE
20230102_0500	0.3	E
20230102_0510	0.8	NNE
20230102_0520	0.3	N
20230102_0530	1.4	NNE
20230102_0540	1.1	NNE
20230102_0550	1.1	NNW
20230102_0600	0.3	NNW
20230102_0610	1.1	N
20230102_0620	1.4	N
20230102_0630	1.9	N
20230102_0640	2.5	N
20230102_0650	2.2	NE
20230102_0700	2.5	NNE
20230102_0710	2.2	NE
20230102_0720	3.3	NNE
20230102_0730	1.7	NNE
20230102_0740	0.3	ENE
20230102_0750	1.4	NNE
20230102_0800	2.2	NNE
20230102_0810	3.3	NNE
20230102_0820	2.8	N
20230102_0830	2.8	N
20230102_0840	2.5	N
20230102_0850	2.8	N
20230102_0900	2.8	NNE
20230102_0910	2.2	NNE
20230102_0920	2.2	N
20230102_0930	1.7	N
20230102_0940	2.5	N
20230102_0950	1.9	N
20230102_1000	2.5	N
20230102_1010	2.5	N
20230102_1020	3.3	N
20230102_1030	3.3	N
20230102_1040	3.9	N
20230102_1050	3.3	N
20230102_1100	3.9	N
20230102_1110	3.1	N
20230102_1120	2.5	N
20230102_1130	3.1	N
20230102_1140	2.8	NNW
20230102_1150	2.8	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230102_1200	2.5	N
20230102_1210	2.8	N
20230102_1220	2.8	N
20230102_1230	2.8	N
20230102_1240	2.5	NNW
20230102_1250	2.8	N
20230102_1300	2.8	N
20230102_1310	2.5	N
20230102_1320	3.3	N
20230102_1330	3.1	N
20230102_1340	2.5	N
20230102_1350	2.5	N
20230102_1400	2.2	N
20230102_1410	3.3	N
20230102_1420	2.8	N
20230102_1430	2.5	N
20230102_1440	3.1	N
20230102_1450	2.8	N
20230102_1500	2.2	N
20230102_1510	2.2	NNW
20230102_1520	2.2	NNW
20230102_1530	2.5	N
20230102_1540	2.5	N
20230102_1550	2.8	N
20230102_1600	3.3	NNE
20230102_1610	3.3	NNE
20230102_1620	3.9	NNE
20230102_1630	3.3	NNE
20230102_1640	3.9	NNE
20230102_1650	1.9	N
20230102_1700	2.2	N
20230102_1710	2.5	N
20230102_1720	2.5	NNE
20230102_1730	2.5	N
20230102_1740	1.9	N
20230102_1750	2.2	N
20230102_1800	1.7	N
20230102_1810	1.1	NNE
20230102_1820	1.1	N
20230102_1830	1.4	N
20230102_1840	1.4	N
20230102_1850	1.1	N
20230102_1900	0.8	N
20230102_1910	0.3	N
20230102_1920	0.6	N
20230102_1930	0.8	N
20230102_1940	0.8	N
20230102_1950	0.3	NNW
20230102_2000	0.8	N
20230102_2010	1.7	N
20230102_2020	2.5	NNE
20230102_2030	3.3	NNE
20230102_2040	3.1	NNE
20230102_2050	3.1	NNE
20230102_2100	2.5	NNE
20230102_2110	1.4	NNE
20230102_2120	2.5	N
20230102_2130	2.8	N
20230102_2140	2.8	N
20230102_2150	3.1	NNE
20230102_2200	3.3	NNE
20230102_2210	3.1	NNE
20230102_2220	3.1	NNE
20230102_2230	3.1	NNE
20230102_2240	2.2	NNE
20230102_2250	3.1	NNE
20230102_2300	1.7	N
20230102_2310	1.7	N
20230102_2320	1.4	N
20230102_2330	1.7	N
20230102_2340	2.5	N
20230102_2350	2.5	N

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230103_0000	2.8	N
20230103_0010	3.1	NNE
20230103_0020	2.2	NNE
20230103_0020	2.2	NNE
20230103_0030	1.7	NNE
20230103_0040	1.4	NNE
20230103_0050	1.7	NNE
20230103_0100	1.7	NNE
20230103_0110	2.2	N
20230103_0120	1.4	N
20230103_0130	2.2	NNE
20230103_0140	1.7	N
20230103_0150	1.7	N
20230103_0200	1.9	NNE
20230103_0210	1.9	NNE
20230103_0220	2.2	N
20230103_0230	3.1	NNE
20230103_0240	3.3	N
20230103_0250	2.8	N
20230103_0300	3.3	N
20230103_0310	3.3	N
20230103_0320	3.3	NNE
20230103_0330	3.9	NNE
20230103_0340	4.2	NNE
20230103_0350	3.9	N
20230103_0400	4.7	N
20230103_0410	4.4	NNE
20230103_0420	4.2	NNE
20230103_0430	3.6	NNE
20230103_0440	4.7	NNE
20230103_0450	3.9	N
20230103_0500	3.3	N
20230103_0510	3.9	N
20230103_0520	4.2	NNE
20230103_0530	4.7	NNE
20230103_0540	3.9	NNE
20230103_0550	3.9	NNE
20230103_0600	3.3	NNE
20230103_0610	3.6	NNE
20230103_0620	3.6	N
20230103_0630	4.4	N
20230103_0640	4.4	N
20230103_0650	5.3	NNE
20230103_0700	3.1	NNE
20230103_0710	2.5	N
20230103_0720	2.5	NNE
20230103_0730	3.1	N
20230103_0740	3.9	NNE
20230103_0750	3.3	NNE
20230103_0800	3.9	NNE
20230103_0810	2.8	N
20230103_0820	3.3	N
20230103_0830	4.2	NNE
20230103_0840	3.9	NNE
20230103_0850	3.9	N
20230103_0900	4.7	NNE
20230103_0910	4.7	NNE
20230103_0920	4.2	NNE
20230103_0930	3.9	N
20230103_0940	3.1	N
20230103_0950	3.3	N
20230103_1000	3.9	N
20230103_1010	4.4	NNE
20230103_1020	4.7	NNE
20230103_1030	4.4	NNE
20230103_1040	4.2	NNE
20230103_1050	5	NNE
20230103_1100	3.9	N
20230103_1110	3.9	N
20230103_1120	4.2	NNE
20230103_1130	4.2	N
20230103_1140	4.7	N
20230103_1150	3.3	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230103_1200	4.2	NNE
20230103_1210	4.2	N
20230103_1220	4.2	N
20230103_1230	3.3	NNE
20230103_1240	3.1	N
20230103_1250	3.1	NNE
20230103_1300	4.2	NNE
20230103_1310	3.3	N
20230103_1320	4.4	NNE
20230103_1330	3.6	NNE
20230103_1340	4.2	NNE
20230103_1350	3.1	N
20230103_1400	4.7	NNE
20230103_1410	4.4	NNE
20230103_1420	2.2	NNE
20230103_1430	2.8	N
20230103_1440	2.5	N
20230103_1450	2.8	NNE
20230103_1500	3.3	NNE
20230103_1510	2.8	N
20230103_1520	2.8	N
20230103_1530	3.3	N
20230103_1540	3.9	NNE
20230103_1550	3.9	N
20230103_1600	3.6	N
20230103_1610	3.9	NNE
20230103_1620	4.4	NNE
20230103_1630	4.7	NNE
20230103_1640	4.7	N
20230103_1650	3.3	N
20230103_1700	4.2	N
20230103_1710	3.3	NNE
20230103_1720	3.9	N
20230103_1730	3.6	NNE
20230103_1740	2.8	NNE
20230103_1750	2.2	NNE
20230103_1800	2.2	NNE
20230103_1810	1.1	NE
20230103_1820	0.3	NNE
20230103_1830	0.3	N
20230103_1840	0.6	NE
20230103_1850	0.3	SE
20230103_1900	0	N
20230103_1910	0.3	SW
20230103_1920	0.3	-
20230103_1930	0.3	NNE
20230103_1940	1.7	NNE
20230103_1950	1.4	N
20230103_2000	2.8	NNE
20230103_2010	2.5	NNE
20230103_2020	2.8	NE
20230103_2030	1.9	NE
20230103_2040	0.3	SE
20230103_2050	0.8	SE
20230103_2100	0.3	-
20230103_2110	0.3	W
20230103_2120	0.3	SSE
20230103_2130	0.3	S
20230103_2140	0.3	-
20230103_2150	0.8	NNE
20230103_2200	0.6	NNE
20230103_2210	0.3	E
20230103_2220	0.3	-
20230103_2230	0	N
20230103_2240	0.3	-
20230103_2250	0	N
20230103_2300	0	N
20230103_2310	0.3	NNE
20230103_2320	1.1	NNE
20230103_2330	1.1	N
20230103_2340	1.1	N
20230103_2350	0.8	NNW

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230104_0000	0.6	NNW
20230104_0010	0.8	N
20230104_0020	0.6	NNW
20230104_0020	0.6	NNW
20230104_0030	1.4	N
20230104_0040	1.7	N
20230104_0050	1.7	N
20230104_0100	1.1	N
20230104_0110	1.4	N
20230104_0120	2.2	N
20230104_0130	2.8	NNE
20230104_0140	3.1	NNE
20230104_0150	2.8	NNE
20230104_0200	1.7	NNE
20230104_0210	1.7	NNE
20230104_0220	2.2	NNE
20230104_0230	2.2	NNE
20230104_0240	2.8	NNE
20230104_0250	2.5	NNE
20230104_0300	2.5	NNE
20230104_0310	2.2	NNE
20230104_0320	1.7	N
20230104_0330	1.7	N
20230104_0340	1.4	N
20230104_0350	1.7	NNE
20230104_0400	1.4	NNE
20230104_0410	1.4	N
20230104_0420	1.4	N
20230104_0430	1.4	N
20230104_0440	1.4	N
20230104_0450	1.1	NNE
20230104_0500	0.8	NNE
20230104_0510	1.1	N
20230104_0520	1.1	NNE
20230104_0530	1.4	NNE
20230104_0540	1.1	NNE
20230104_0550	1.1	NE
20230104_0600	0.3	-
20230104_0610	0	N
20230104_0620	0.3	NE
20230104_0630	0.3	NE
20230104_0640	0	N
20230104_0650	0.3	NNE
20230104_0700	0.3	NNE
20230104_0710	0.3	NNE
20230104_0720	0	N
20230104_0730	0	N
20230104_0740	0	N
20230104_0750	0	N
20230104_0800	1.1	NNE
20230104_0810	1.4	N
20230104_0820	1.1	N
20230104_0830	0.8	N
20230104_0840	0.8	NNE
20230104_0850	0.8	N
20230104_0900	0.3	NE
20230104_0910	0.3	NNE
20230104_0920	1.1	N
20230104_0930	1.7	N
20230104_0940	3.3	N
20230104_0950	2.8	NNE
20230104_1000	2.2	N
20230104_1010	2.8	N
20230104_1020	3.1	NNE
20230104_1030	3.3	NNE
20230104_1040	2.8	N
20230104_1050	3.1	NNE
20230104_1100	3.1	N
20230104_1110	3.1	N
20230104_1120	3.1	N
20230104_1130	2.5	NNE
20230104_1140	1.7	NNW
20230104_1150	1.7	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230104_1200	1.7	NNW
20230104_1210	1.4	N
20230104_1220	2.2	NNW
20230104_1230	1.9	NNW
20230104_1240	2.2	NW
20230104_1250	2.2	NNW
20230104_1300	1.9	N
20230104_1310	2.8	NW
20230104_1320	1.7	N
20230104_1330	1.7	NNW
20230104_1340	1.7	NNW
20230104_1350	1.4	NNW
20230104_1400	1.7	N
20230104_1410	1.9	N
20230104_1420	1.7	N
20230104_1430	1.1	NNW
20230104_1440	1.4	E
20230104_1450	1.4	-
20230104_1500	1.9	E
20230104_1510	1.7	ENE
20230104_1520	1.7	NNE
20230104_1530	1.1	ENE
20230104_1540	1.4	E
20230104_1550	1.4	ESE
20230104_1600	1.4	ENE
20230104_1610	2.2	E
20230104_1620	1.9	E
20230104_1630	1.9	ESE
20230104_1640	1.7	E
20230104_1650	1.7	ESE
20230104_1700	1.7	E
20230104_1710	2.2	E
20230104_1720	2.2	E
20230104_1730	2.2	E
20230104_1740	2.5	E
20230104_1750	1.9	E
20230104_1800	1.7	E
20230104_1810	1.7	E
20230104_1820	1.7	E
20230104_1830	2.2	ESE
20230104_1840	1.9	E
20230104_1850	1.7	E
20230104_1900	1.1	ENE
20230104_1910	1.1	E
20230104_1920	0.8	SE
20230104_1930	0.8	SE
20230104_1940	1.1	SSE
20230104_1950	1.4	SE
20230104_2000	1.1	ESE
20230104_2010	0.8	-
20230104_2020	1.1	ESE
20230104_2030	1.4	ESE
20230104_2040	1.7	ESE
20230104_2050	1.7	ESE
20230104_2100	1.1	SE
20230104_2110	0.3	W
20230104_2120	0.3	WSW
20230104_2130	0.3	-
20230104_2140	0.6	ESE
20230104_2150	0.8	SE
20230104_2200	1.7	ESE
20230104_2210	0.8	ESE
20230104_2220	1.1	E
20230104_2230	1.4	ENE
20230104_2240	1.4	E
20230104_2250	1.4	ENE
20230104_2300	1.4	ENE
20230104_2310	1.1	ENE
20230104_2320	0.8	ENE
20230104_2330	0.3	ENE
20230104_2340	1.4	E
20230104_2350	1.1	ENE

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230105_0000	0.6	ENE
20230105_0010	1.1	ENE
20230105_0020	0.8	ENE
20230105_0020	0.8	ENE
20230105_0030	1.1	NE
20230105_0040	1.1	ENE
20230105_0050	1.1	E
20230105_0100	0.8	E
20230105_0110	0.8	E
20230105_0120	0.8	ESE
20230105_0130	0.3	ESE
20230105_0140	0.8	E
20230105_0150	0.8	E
20230105_0200	0.8	E
20230105_0210	0.8	ESE
20230105_0220	0	N
20230105_0230	0.3	ESE
20230105_0240	0.8	E
20230105_0250	0.8	E
20230105_0300	1.1	ENE
20230105_0310	1.1	E
20230105_0320	1.4	ENE
20230105_0330	1.1	E
20230105_0340	0.8	ENE
20230105_0350	1.1	ENE
20230105_0400	0.8	NE
20230105_0410	0.3	ENE
20230105_0420	0	N
20230105_0430	0.3	SE
20230105_0440	0.8	SE
20230105_0450	0.3	ESE
20230105_0500	0.3	ESE
20230105_0510	0.3	SSE
20230105_0520	0.3	E
20230105_0530	0.6	SE
20230105_0540	0.8	E
20230105_0550	0.3	NE
20230105_0600	0.8	E
20230105_0610	0.3	E
20230105_0620	0.3	ESE
20230105_0630	0.6	ESE
20230105_0640	0.3	E
20230105_0650	0	N
20230105_0700	0	N
20230105_0710	0.3	NE
20230105_0720	0	N
20230105_0730	0	N
20230105_0740	0	N
20230105_0750	0	N
20230105_0800	0.3	NNW
20230105_0810	0.3	N
20230105_0820	0.3	N
20230105_0830	0	N
20230105_0840	0	N
20230105_0850	0.3	SW
20230105_0900	0.3	SW
20230105_0910	0.3	-
20230105_0920	0.8	ESE
20230105_0930	1.1	ENE
20230105_0940	0.3	NNE
20230105_0950	1.4	N
20230105_1000	0.8	-
20230105_1010	1.1	N
20230105_1020	1.7	NNE
20230105_1030	1.1	NNW
20230105_1040	1.7	N
20230105_1050	1.1	NE
20230105_1100	1.4	NNE
20230105_1110	0.8	ENE
20230105_1120	1.9	N
20230105_1130	2.2	NW
20230105_1140	1.7	NW
20230105_1150	1.7	NW

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230105_1200	1.7	WNW
20230105_1210	1.1	NNE
20230105_1220	1.4	WSW
20230105_1230	1.4	WSW
20230105_1240	1.7	SSW
20230105_1250	1.7	NNE
20230105_1300	2.2	NNE
20230105_1310	1.7	N
20230105_1320	2.2	N
20230105_1330	2.5	NNW
20230105_1340	3.3	N
20230105_1350	3.1	N
20230105_1400	2.2	N
20230105_1410	2.8	NNE
20230105_1420	2.8	N
20230105_1430	2.5	NNW
20230105_1440	2.2	NNW
20230105_1450	2.2	NNW
20230105_1500	2.2	N
20230105_1510	2.5	N
20230105_1520	2.5	NNE
20230105_1530	2.8	N
20230105_1540	1.7	N
20230105_1550	1.7	N
20230105_1600	1.7	NNE
20230105_1610	1.1	NNE
20230105_1620	1.1	NNE
20230105_1630	1.4	E
20230105_1640	1.1	ESE
20230105_1650	2.2	ESE
20230105_1700	2.5	ESE
20230105_1710	2.5	ESE
20230105_1720	2.5	ESE
20230105_1730	2.2	ESE
20230105_1740	2.5	ESE
20230105_1750	2.5	ESE
20230105_1800	1.1	SW
20230105_1810	0.3	SSW
20230105_1820	0	N
20230105_1830	0.3	SE
20230105_1840	1.7	SE
20230105_1850	2.2	ESE
20230105_1900	1.7	SE
20230105_1910	2.2	SE
20230105_1920	3.1	ESE
20230105_1930	2.8	ESE
20230105_1940	1.7	ESE
20230105_1950	2.2	ESE
20230105_2000	2.5	ESE
20230105_2010	1.4	ESE
20230105_2020	1.7	SE
20230105_2030	1.7	ESE
20230105_2040	1.9	ESE
20230105_2050	1.4	ESE
20230105_2100	1.4	ESE
20230105_2110	1.1	ESE
20230105_2120	1.1	ESE
20230105_2130	1.4	SE
20230105_2140	1.1	SE
20230105_2150	1.4	SSE
20230105_2200	1.7	SE
20230105_2210	1.9	SE
20230105_2220	1.7	SE
20230105_2230	1.4	SSE
20230105_2240	1.7	SE
20230105_2250	2.2	SE
20230105_2300	1.7	SE
20230105_2310	1.9	SE
20230105_2320	1.9	SE
20230105_2330	1.7	SE
20230105_2340	1.7	SE
20230105_2350	1.4	SSE

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230106_0000	1.7	SSE
20230106_0010	1.7	SE
20230106_0020	1.7	SE
20230106_0020	1.7	SE
20230106_0030	1.4	SE
20230106_0040	1.7	ESE
20230106_0050	1.1	ESE
20230106_0100	0.6	ESE
20230106_0110	0.8	SE
20230106_0120	0.6	E
20230106_0130	0	N
20230106_0140	0	N
20230106_0150	0	N
20230106_0200	0	N
20230106_0210	0	N
20230106_0220	0	N
20230106_0230	0	N
20230106_0240	0.6	SE
20230106_0250	1.1	S
20230106_0300	1.4	S
20230106_0310	1.1	S
20230106_0320	0	N
20230106_0330	0.3	NW
20230106_0340	0	N
20230106_0350	0	N
20230106_0400	0	N
20230106_0410	0	N
20230106_0420	0.3	-
20230106_0430	0.3	WSW
20230106_0440	0	N
20230106_0450	0.3	ESE
20230106_0500	0.3	SE
20230106_0510	0.3	S
20230106_0520	0.6	S
20230106_0530	0.8	-
20230106_0540	0	N
20230106_0550	0.3	S
20230106_0600	0.3	-
20230106_0610	0.3	ESE
20230106_0620	0.3	-
20230106_0630	0.3	SE
20230106_0640	0.3	S
20230106_0650	0.3	-
20230106_0700	0	N
20230106_0710	0.3	SSE
20230106_0720	0.3	-
20230106_0730	0.3	-
20230106_0740	0.6	WSW
20230106_0750	0.3	-
20230106_0800	0.6	W
20230106_0810	0.3	W
20230106_0820	0.3	ESE
20230106_0830	0.3	-
20230106_0840	0.8	ENE
20230106_0850	2.5	NNE
20230106_0900	3.1	NNE
20230106_0910	2.8	NNE
20230106_0920	4.2	NNE
20230106_0930	4.4	N
20230106_0940	5.3	N
20230106_0950	4.4	NNE
20230106_1000	4.4	N
20230106_1010	5.8	N
20230106_1020	4.7	NNE
20230106_1030	5.6	N
20230106_1040	4.7	N
20230106_1050	5.3	N
20230106_1100	5.8	NNE
20230106_1110	5.3	NNE
20230106_1120	4.4	N
20230106_1130	5.8	N
20230106_1140	5	NNE
20230106_1150	5	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230106_1200	5	NNE
20230106_1210	4.7	N
20230106_1220	5.3	N
20230106_1230	5.3	NNE
20230106_1240	5	N
20230106_1250	5.3	N
20230106_1300	4.7	NNE
20230106_1310	4.2	NNE
20230106_1320	4.4	NE
20230106_1330	3.3	NE
20230106_1340	5.8	NE
20230106_1350	3.9	NNE
20230106_1400	4.7	NE
20230106_1410	4.4	NE
20230106_1420	4.7	NNE
20230106_1430	5	NE
20230106_1440	4.4	NNE
20230106_1450	5	NE
20230106_1500	5.3	NE
20230106_1510	5	NE
20230106_1520	5	NE
20230106_1530	5.3	NE
20230106_1540	5.3	NNE
20230106_1550	4.7	NE
20230106_1600	5.3	NNE
20230106_1610	3.9	NNE
20230106_1620	3.3	NE
20230106_1630	5	NNE
20230106_1640	4.2	NNE
20230106_1650	4.2	NNE
20230106_1700	3.3	NNE
20230106_1710	3.6	NNE
20230106_1720	5	NNE
20230106_1730	3.6	NNE
20230106_1740	3.3	NNE
20230106_1750	2.8	NE
20230106_1800	2.8	NE
20230106_1810	2.5	NNE
20230106_1820	2.2	NNE
20230106_1830	2.8	NNE
20230106_1840	2.8	NNE
20230106_1850	2.8	NNE
20230106_1900	3.1	NNE
20230106_1910	3.1	NE
20230106_1920	1.7	NE
20230106_1930	1.9	NE
20230106_1940	1.7	NE
20230106_1950	1.7	NE
20230106_2000	1.7	NE
20230106_2010	2.8	NE
20230106_2020	3.1	NE
20230106_2030	2.8	NE
20230106_2040	3.3	NE
20230106_2050	1.7	NE
20230106_2100	3.9	NE
20230106_2110	1.4	NE
20230106_2120	2.2	ENE
20230106_2130	1.1	NE
20230106_2140	2.2	NE
20230106_2150	2.2	NE
20230106_2200	3.3	NE
20230106_2210	3.9	NE
20230106_2220	3.9	NNE
20230106_2230	3.3	NNE
20230106_2240	3.3	NNE
20230106_2250	3.6	NNE
20230106_2300	2.5	NNE
20230106_2310	2.8	NNE
20230106_2320	4.2	NE
20230106_2330	4.2	NE
20230106_2340	3.1	NNE
20230106_2350	3.3	NNE

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230107_0000	2.8	NNE
20230107_0010	3.6	NNE
20230107_0020	3.1	NNE
20230107_0030	3.1	NNE
20230107_0040	2.8	N
20230107_0050	2.2	N
20230107_0100	2.2	N
20230107_0110	2.8	N
20230107_0120	1.7	NNE
20230107_0130	1.7	N
20230107_0140	3.3	NNE
20230107_0150	2.2	NNE
20230107_0200	1.7	N
20230107_0210	1.1	NNE
20230107_0220	0.6	SE
20230107_0230	0.8	SSE
20230107_0240	0.6	SSE
20230107_0250	0.6	-
20230107_0300	0.8	SSE
20230107_0310	0.8	SSE
20230107_0320	0.3	SSE
20230107_0330	0.3	SSE
20230107_0340	0.3	-
20230107_0350	0	N
20230107_0400	0.3	SSE
20230107_0410	0.3	SSE
20230107_0420	0.3	SSE
20230107_0430	0.3	-
20230107_0440	0.3	-
20230107_0450	0.8	SSE
20230107_0500	0.3	SSE
20230107_0510	0.3	-
20230107_0520	0.3	-
20230107_0530	0.3	SSE
20230107_0540	0.8	SE
20230107_0550	0.3	ESE
20230107_0600	0.3	SE
20230107_0610	0	N
20230107_0620	0	N
20230107_0630	0.3	SSE
20230107_0640	0.8	ESE
20230107_0650	0.8	SE
20230107_0700	0	N
20230107_0710	0.3	-
20230107_0720	0.3	-
20230107_0730	0	N
20230107_0740	0.3	SSE
20230107_0750	0	N
20230107_0800	0.3	SE
20230107_0810	0	N
20230107_0820	0.3	SSE
20230107_0830	0	N
20230107_0840	0	N
20230107_0850	0.3	ENE
20230107_0900	0.3	-
20230107_0910	0.3	S
20230107_0920	0.3	SE
20230107_0930	0.6	NE
20230107_0940	1.1	NNE
20230107_0950	1.7	NNE
20230107_1000	1.7	NNE
20230107_1010	2.5	NNE
20230107_1020	2.8	NNE
20230107_1030	2.5	NNE
20230107_1040	2.2	N
20230107_1050	1.1	NE
20230107_1100	1.1	NNW
20230107_1110	1.1	N
20230107_1120	0.3	-
20230107_1130	0.6	NE
20230107_1140	0.8	NNE
20230107_1150	0.3	-

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230107_1200	0.3	-
20230107_1210	0.6	ENE
20230107_1220	0.8	-
20230107_1230	2.5	ESE
20230107_1240	3.3	E
20230107_1250	3.1	E
20230107_1300	3.1	E
20230107_1310	2.5	E
20230107_1320	2.8	E
20230107_1330	2.8	E
20230107_1340	3.1	ESE
20230107_1350	3.3	SE
20230107_1400	2.8	ESE
20230107_1410	3.3	SE
20230107_1420	2.2	SE
20230107_1430	2.5	ESE
20230107_1440	2.2	SE
20230107_1450	2.8	SE
20230107_1500	2.2	ESE
20230107_1510	1.7	E
20230107_1520	2.5	ESE
20230107_1530	1.9	ESE
20230107_1540	2.2	ESE
20230107_1550	2.2	ESE
20230107_1600	2.5	ESE
20230107_1610	2.2	ESE
20230107_1620	2.2	ESE
20230107_1630	2.2	E
20230107_1640	2.8	ESE
20230107_1650	2.5	ESE
20230107_1700	3.3	ESE
20230107_1710	3.3	E
20230107_1720	3.3	E
20230107_1730	3.1	E
20230107_1740	3.1	E
20230107_1750	2.8	E
20230107_1800	3.3	ESE
20230107_1810	3.3	ESE
20230107_1820	1.7	ESE
20230107_1830	2.2	E
20230107_1840	2.8	E
20230107_1850	2.8	E
20230107_1900	2.5	E
20230107_1910	2.5	E
20230107_1920	2.8	ESE
20230107_1930	2.2	ESE
20230107_1940	2.5	SE
20230107_1950	3.1	SE
20230107_2000	2.5	SE
20230107_2010	2.5	SE
20230107_2020	1.9	SE
20230107_2030	0.8	-
20230107_2040	1.7	E
20230107_2050	3.3	ESE
20230107_2100	2.2	ESE
20230107_2110	1.4	ESE
20230107_2120	1.1	E
20230107_2130	1.4	ESE
20230107_2140	1.7	ESE
20230107_2150	1.4	ESE
20230107_2200	1.1	ESE
20230107_2210	0.8	ESE
20230107_2220	1.1	ESE
20230107_2230	0.8	NE
20230107_2240	1.4	ENE
20230107_2250	1.7	ENE
20230107_2300	1.7	ENE
20230107_2310	1.1	E
20230107_2320	1.1	E
20230107_2330	0.8	ESE
20230107_2340	1.1	SE
20230107_2350	1.1	ESE

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230108_0000	1.1	E
20230108_0010	1.7	E
20230108_0020	2.5	E
20230108_0030	2.2	E
20230108_0030	2.2	E
20230108_0040	2.5	E
20230108_0050	2.2	E
20230108_0100	2.2	E
20230108_0110	2.2	ESE
20230108_0120	2.8	ESE
20230108_0130	2.5	ENE
20230108_0140	1.9	E
20230108_0150	1.7	E
20230108_0200	0.6	E
20230108_0210	1.7	ENE
20230108_0220	2.2	E
20230108_0230	1.7	E
20230108_0240	1.7	ESE
20230108_0250	1.9	E
20230108_0300	2.2	E
20230108_0310	2.2	E
20230108_0320	2.5	E
20230108_0330	1.4	ENE
20230108_0340	1.9	E
20230108_0350	1.7	E
20230108_0400	1.4	E
20230108_0410	1.4	E
20230108_0420	1.1	ESE
20230108_0430	1.1	ESE
20230108_0440	1.4	ESE
20230108_0450	0.3	E
20230108_0500	1.1	E
20230108_0510	1.1	E
20230108_0520	0.8	E
20230108_0530	1.4	ESE
20230108_0540	1.1	ESE
20230108_0550	1.7	ESE
20230108_0600	1.7	E
20230108_0610	0.8	ESE
20230108_0620	0.6	ESE
20230108_0630	1.1	ESE
20230108_0640	1.1	SE
20230108_0650	1.4	SE
20230108_0700	1.4	SE
20230108_0710	1.7	SE
20230108_0720	1.9	SE
20230108_0730	1.7	ESE
20230108_0740	1.9	ESE
20230108_0750	1.7	ESE
20230108_0800	0.6	ENE
20230108_0810	0.3	SE
20230108_0820	0.3	SE
20230108_0830	1.4	SE
20230108_0840	1.7	ESE
20230108_0850	1.4	ESE
20230108_0900	1.7	ESE
20230108_0910	1.7	ESE
20230108_0920	1.7	ESE
20230108_0930	2.2	ESE
20230108_0940	2.2	SE
20230108_0950	1.7	ESE
20230108_1000	2.8	ESE
20230108_1010	2.5	ESE
20230108_1020	2.2	ESE
20230108_1030	1.7	E
20230108_1040	1.7	ESE
20230108_1050	1.7	ESE
20230108_1100	1.7	SE
20230108_1110	1.7	ESE
20230108_1120	2.2	SE
20230108_1130	2.2	ESE
20230108_1140	2.2	E
20230108_1150	2.5	E

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230108_1200	2.5	E
20230108_1210	2.2	ESE
20230108_1220	1.9	ENE
20230108_1230	1.7	ESE
20230108_1240	1.7	E
20230108_1250	2.2	ESE
20230108_1300	2.8	ESE
20230108_1310	2.5	ESE
20230108_1320	2.8	ENE
20230108_1330	2.2	E
20230108_1340	2.5	E
20230108_1350	2.5	E
20230108_1400	1.4	E
20230108_1410	2.8	ENE
20230108_1420	2.5	E
20230108_1430	1.4	E
20230108_1440	3.1	ENE
20230108_1450	2.5	E
20230108_1500	3.1	E
20230108_1510	1.7	E
20230108_1520	1.7	-
20230108_1530	2.5	ESE
20230108_1540	2.5	ESE
20230108_1550	2.5	ESE
20230108_1600	1.7	E
20230108_1610	2.8	E
20230108_1620	1.7	E
20230108_1630	1.7	ESE
20230108_1640	1.7	ESE
20230108_1650	1.7	ESE
20230108_1700	2.2	ESE
20230108_1710	2.8	ESE
20230108_1720	1.7	ESE
20230108_1730	1.7	SE
20230108_1740	2.2	ESE
20230108_1750	1.7	ESE
20230108_1800	1.4	E
20230108_1810	2.2	E
20230108_1820	2.5	E
20230108_1830	0.8	E
20230108_1840	0.6	ESE
20230108_1850	0.8	SE
20230108_1900	0.3	SE
20230108_1910	0.3	E
20230108_1920	1.1	-
20230108_1930	1.1	NE
20230108_1940	0.8	SE
20230108_1950	1.7	E
20230108_2000	2.2	ESE
20230108_2010	2.8	ESE
20230108_2020	2.2	E
20230108_2030	1.4	ESE
20230108_2040	1.7	SE
20230108_2050	1.7	SE
20230108_2100	1.4	ESE
20230108_2110	1.1	SE
20230108_2120	0.8	SE
20230108_2130	0.6	SSE
20230108_2140	0.3	SE
20230108_2150	0.8	SSE
20230108_2200	0.8	SSE
20230108_2210	0.3	E
20230108_2220	0.8	NE
20230108_2230	0.3	NE
20230108_2240	0.3	-
20230108_2250	0	N
20230108_2300	0	N
20230108_2310	0	N
20230108_2320	0	N
20230108_2330	0.3	SSW
20230108_2340	0	N
20230108_2350	0.3	E

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230109_0000	0	N
20230109_0010	0	N
20230109_0020	0	N
20230109_0030	0	N
20230109_0020	0	N
20230109_0030	0	N
20230109_0040	0	N
20230109_0050	0	N
20230109_0100	0	N
20230109_0110	0	N
20230109_0120	0	N
20230109_0130	0	N
20230109_0140	0.3	E
20230109_0150	0	N
20230109_0200	0.3	SE
20230109_0210	0.3	-
20230109_0220	0	N
20230109_0230	0	N
20230109_0240	0.3	SSE
20230109_0250	0.3	SSE
20230109_0300	0.6	SSE
20230109_0310	0.8	ESE
20230109_0320	0	N
20230109_0330	0	N
20230109_0340	0.3	S
20230109_0350	0.3	-
20230109_0400	0.3	SSE
20230109_0410	1.4	ESE
20230109_0420	0.8	ESE
20230109_0430	0.6	ESE
20230109_0440	1.1	ESE
20230109_0450	1.4	ESE
20230109_0500	1.1	SSE
20230109_0510	1.1	SSE
20230109_0520	1.1	ESE
20230109_0530	1.4	ESE
20230109_0540	1.7	ESE
20230109_0550	1.7	SE
20230109_0600	1.1	SE
20230109_0610	1.4	SSE
20230109_0620	1.4	SE
20230109_0630	1.7	ESE
20230109_0640	1.7	ESE
20230109_0650	1.7	ESE
20230109_0700	1.7	SE
20230109_0710	1.7	ESE
20230109_0720	1.1	ESE
20230109_0730	0.8	SE
20230109_0740	1.4	SE
20230109_0750	1.7	SE
20230109_0800	2.2	SE
20230109_0810	1.7	SE
20230109_0820	2.2	SE
20230109_0830	1.9	SE
20230109_0840	1.7	SE
20230109_0850	1.7	ESE
20230109_0900	1.1	E
20230109_0910	0.6	N
20230109_0920	0.3	NW
20230109_0930	0.3	N
20230109_0940	0	N
20230109_0950	0	N
20230109_1000	0.6	NNW
20230109_1010	0.6	NNE
20230109_1020	1.1	N
20230109_1030	1.4	N
20230109_1040	1.7	NNE
20230109_1050	1.7	N
20230109_1100	2.2	NNE
20230109_1110	1.7	N
20230109_1120	1.4	N
20230109_1130	1.7	NNE
20230109_1140	2.2	NNE
20230109_1150	1.4	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230109_1200	1.4	N
20230109_1210	1.1	N
20230109_1220	1.4	NNW
20230109_1230	1.1	N
20230109_1240	1.7	NNE
20230109_1250	1.7	N
20230109_1300	1.4	N
20230109_1310	1.4	N
20230109_1320	1.1	N
20230109_1330	1.7	NNE
20230109_1340	2.5	NNE
20230109_1350	1.7	NNE
20230109_1400	0.8	N
20230109_1410	0.6	NNE
20230109_1420	1.1	NNE
20230109_1430	0.8	N
20230109_1440	1.1	NNW
20230109_1450	1.1	N
20230109_1500	1.4	NNE
20230109_1510	1.7	N
20230109_1520	1.4	N
20230109_1530	1.7	N
20230109_1540	2.2	N
20230109_1550	1.7	N
20230109_1600	1.4	N
20230109_1610	1.7	N
20230109_1620	1.4	N
20230109_1630	1.7	N
20230109_1640	2.2	NNE
20230109_1650	2.2	N
20230109_1700	1.7	N
20230109_1710	2.2	N
20230109_1720	2.2	N
20230109_1730	2.8	NNE
20230109_1740	2.8	N
20230109_1750	3.6	N
20230109_1800	3.3	N
20230109_1810	2.8	N
20230109_1820	2.8	N
20230109_1830	2.8	N
20230109_1840	3.6	N
20230109_1850	3.3	N
20230109_1900	2.8	N
20230109_1910	3.3	N
20230109_1920	3.1	NNE
20230109_1930	1.7	NNE
20230109_1940	1.7	ENE
20230109_1950	1.1	ESE
20230109_2000	0	N
20230109_2010	0	N
20230109_2020	0.3	SSW
20230109_2030	0.3	S
20230109_2040	0.3	SSW
20230109_2050	0.3	SSW
20230109_2100	0.6	SW
20230109_2110	0	N
20230109_2120	0	N
20230109_2130	0	N
20230109_2140	0.3	WNW
20230109_2150	0.3	NNE
20230109_2200	0.3	E
20230109_2210	0	N
20230109_2220	0.8	ESE
20230109_2230	1.1	E
20230109_2240	1.9	ESE
20230109_2250	1.7	E
20230109_2300	0.8	ENE
20230109_2310	0.6	NE
20230109_2320	1.1	ESE
20230109_2330	2.5	ESE
20230109_2340	2.2	ESE
20230109_2350	1.9	ESE

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230110_0000	2.2	ESE
20230110_0010	2.2	E
20230110_0020	1.7	ENE
20230110_0020	1.7	ENE
20230110_0030	1.1	NE
20230110_0040	0.8	-
20230110_0050	0.3	NE
20230110_0100	1.4	E
20230110_0110	1.1	ESE
20230110_0120	1.4	ESE
20230110_0130	1.4	E
20230110_0140	1.1	NE
20230110_0150	0.6	NE
20230110_0200	0.3	NNE
20230110_0210	0.8	N
20230110_0220	0.3	ESE
20230110_0230	0.3	-
20230110_0240	0.3	-
20230110_0250	0	N
20230110_0300	0.6	N
20230110_0310	0.6	NE
20230110_0320	0.3	NNE
20230110_0330	0.8	N
20230110_0340	0.8	N
20230110_0350	0.8	N
20230110_0400	0.8	NNW
20230110_0410	1.1	NNW
20230110_0420	0.8	N
20230110_0430	0.6	N
20230110_0440	0.6	NNW
20230110_0450	0.8	NNE
20230110_0500	0.3	N
20230110_0510	0.3	W
20230110_0520	1.1	NNW
20230110_0530	0.8	N
20230110_0540	0.8	N
20230110_0550	1.1	N
20230110_0600	1.4	N
20230110_0610	1.4	N
20230110_0620	1.4	N
20230110_0630	1.1	NNW
20230110_0640	1.1	NNW
20230110_0650	1.7	N
20230110_0700	1.1	N
20230110_0710	1.1	N
20230110_0720	0.8	NNW
20230110_0730	0.8	WNW
20230110_0740	0.8	NW
20230110_0750	1.1	N
20230110_0800	1.7	N
20230110_0810	1.4	N
20230110_0820	1.1	N
20230110_0830	1.4	N
20230110_0840	1.4	N
20230110_0850	1.4	N
20230110_0900	2.5	NNE
20230110_0910	1.7	NNE
20230110_0920	1.7	NNE
20230110_0930	1.7	NNE
20230110_0940	1.1	NNE
20230110_0950	1.7	NNE
20230110_1000	1.7	N
20230110_1010	1.7	NNE
20230110_1020	1.4	N
20230110_1030	1.4	N
20230110_1040	1.1	N
20230110_1050	1.7	NNE
20230110_1100	2.5	NNE
20230110_1110	2.5	N
20230110_1120	2.8	NNE
20230110_1130	2.5	N
20230110_1140	2.5	NNE
20230110_1150	1.7	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230110_1200	1.9	N
20230110_1210	1.4	NNE
20230110_1220	1.4	NNE
20230110_1230	1.7	N
20230110_1240	1.1	N
20230110_1250	1.1	N
20230110_1300	1.1	NNE
20230110_1310	1.7	NNE
20230110_1320	1.4	NE
20230110_1330	1.4	NE
20230110_1340	1.4	E
20230110_1350	1.1	ENE
20230110_1400	0.6	NNE
20230110_1410	0.3	NE
20230110_1420	0.3	NW
20230110_1430	0	N
20230110_1440	0	N
20230110_1450	0.3	N
20230110_1500	0.3	N
20230110_1510	0.3	NE
20230110_1520	0.3	-
20230110_1530	0	N
20230110_1540	0.3	-
20230110_1550	1.4	N
20230110_1600	1.4	NNE
20230110_1610	1.4	N
20230110_1620	0.8	N
20230110_1630	1.1	N
20230110_1640	1.1	NNE
20230110_1650	1.7	NNE
20230110_1700	1.4	NNE
20230110_1710	1.7	NNE
20230110_1720	1.9	NNE
20230110_1730	2.5	NNE
20230110_1740	1.7	NNE
20230110_1750	0.8	NNE
20230110_1800	0.3	NE
20230110_1810	0	N
20230110_1820	0	N
20230110_1830	0.3	WNW
20230110_1840	0.3	NNW
20230110_1850	0	N
20230110_1900	0	N
20230110_1910	0	N
20230110_1920	0.3	-
20230110_1930	0	N
20230110_1940	0.3	NNW
20230110_1950	0.3	NW
20230110_2000	0.3	NW
20230110_2010	0.3	-
20230110_2020	0	N
20230110_2030	0.3	ESE
20230110_2040	0	N
20230110_2050	0	N
20230110_2100	0.3	NW
20230110_2110	0.3	N
20230110_2120	0.3	NNW
20230110_2130	0.3	E
20230110_2140	0.3	W
20230110_2150	0	N
20230110_2200	0	N
20230110_2210	0.3	ESE
20230110_2220	0.3	SSE
20230110_2230	0.8	ESE
20230110_2240	1.1	E
20230110_2250	0.8	ESE
20230110_2300	1.4	ESE
20230110_2310	0.8	ESE
20230110_2320	0.8	E
20230110_2330	0.3	ENE
20230110_2340	0.3	ESE
20230110_2350	0.3	ESE

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230111_0000	0	N
20230111_0010	0	N
20230111_0020	0	N
20230111_0020	0	N
20230111_0030	0.3	ESE
20230111_0040	0	N
20230111_0050	0.3	NE
20230111_0100	0.3	NE
20230111_0110	0.3	NE
20230111_0120	0.3	NNE
20230111_0130	0.3	N
20230111_0140	0.8	N
20230111_0150	0.3	-
20230111_0200	0	N
20230111_0210	0.3	E
20230111_0220	1.7	E
20230111_0230	1.4	E
20230111_0240	1.7	E
20230111_0250	1.7	E
20230111_0300	1.7	E
20230111_0310	1.7	E
20230111_0320	1.4	ESE
20230111_0330	2.5	E
20230111_0340	2.2	E
20230111_0350	2.2	E
20230111_0400	2.5	ESE
20230111_0410	1.7	E
20230111_0420	1.7	E
20230111_0430	1.4	E
20230111_0440	1.7	E
20230111_0450	1.1	E
20230111_0500	1.4	E
20230111_0510	1.1	ESE
20230111_0520	1.1	ESE
20230111_0530	1.1	NE
20230111_0540	0.3	ENE
20230111_0550	0.3	ENE
20230111_0600	0.3	NW
20230111_0610	0	N
20230111_0620	0	N
20230111_0630	0	N
20230111_0640	0	N
20230111_0650	0.3	-
20230111_0700	0.3	NNE
20230111_0710	0	N
20230111_0720	0	N
20230111_0730	0	N
20230111_0740	0	N
20230111_0750	0.3	N
20230111_0800	0.3	ENE
20230111_0810	0.8	NE
20230111_0820	1.4	E
20230111_0830	1.7	ESE
20230111_0840	1.9	ESE
20230111_0850	2.5	ESE
20230111_0900	2.2	ESE
20230111_0910	2.2	ESE
20230111_0920	2.2	ESE
20230111_0930	2.2	ESE
20230111_0940	1.1	E
20230111_0950	0.6	ESE
20230111_1000	1.7	ESE
20230111_1010	2.2	ESE
20230111_1020	2.2	SE
20230111_1030	2.2	ESE
20230111_1040	1.4	E
20230111_1050	1.7	E
20230111_1100	1.7	ESE
20230111_1110	2.2	E
20230111_1120	2.2	E
20230111_1130	2.2	E
20230111_1140	2.5	ENE
20230111_1150	2.8	ENE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230111_1200	2.5	ENE
20230111_1210	2.5	ENE
20230111_1220	2.5	ENE
20230111_1230	1.7	ENE
20230111_1240	1.9	E
20230111_1250	2.2	E
20230111_1300	2.2	ENE
20230111_1310	1.7	E
20230111_1320	0.8	ESE
20230111_1330	1.7	E
20230111_1340	1.4	E
20230111_1350	1.7	ESE
20230111_1400	1.1	ESE
20230111_1410	2.2	ESE
20230111_1420	2.2	ESE
20230111_1430	2.5	ESE
20230111_1440	1.9	ESE
20230111_1450	2.2	E
20230111_1500	2.5	E
20230111_1510	2.8	E
20230111_1520	2.5	E
20230111_1530	1.9	E
20230111_1540	1.7	E
20230111_1550	1.7	E
20230111_1600	1.7	E
20230111_1610	1.9	E
20230111_1620	2.5	E
20230111_1630	2.5	E
20230111_1640	2.2	E
20230111_1650	2.5	E
20230111_1700	2.2	E
20230111_1710	1.4	E
20230111_1720	1.4	SE
20230111_1730	1.4	ESE
20230111_1740	1.4	ESE
20230111_1750	1.7	E
20230111_1800	1.7	E
20230111_1810	1.7	ESE
20230111_1820	1.4	ESE
20230111_1830	1.7	ESE
20230111_1840	1.7	ESE
20230111_1850	2.2	ESE
20230111_1900	2.5	ESE
20230111_1910	1.9	E
20230111_1920	2.2	ESE
20230111_1930	1.1	E
20230111_1940	1.4	E
20230111_1950	1.1	SE
20230111_2000	1.7	ESE
20230111_2010	1.4	ESE
20230111_2020	2.2	ESE
20230111_2030	2.8	E
20230111_2040	2.5	ESE
20230111_2050	1.4	ESE
20230111_2100	1.4	E
20230111_2110	1.7	E
20230111_2120	2.8	E
20230111_2130	3.3	E
20230111_2140	2.8	E
20230111_2150	2.8	ESE
20230111_2200	2.8	ESE
20230111_2210	2.8	SE
20230111_2220	2.5	ESE
20230111_2230	3.1	ESE
20230111_2240	3.6	ESE
20230111_2250	2.8	SE
20230111_2300	3.3	SE
20230111_2310	3.6	SE
20230111_2320	2.5	SE
20230111_2330	2.8	SE
20230111_2340	3.6	ESE
20230111_2350	3.3	ESE

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230112_0000	3.3	SE
20230112_0010	3.3	SE
20230112_0020	4.2	SE
20230112_0020	4.2	SE
20230112_0030	3.6	SE
20230112_0040	3.3	ESE
20230112_0050	3.3	ESE
20230112_0100	3.6	ESE
20230112_0110	3.3	ESE
20230112_0120	2.8	E
20230112_0130	2.2	ESE
20230112_0140	2.5	ESE
20230112_0150	2.5	ESE
20230112_0200	3.1	ESE
20230112_0210	3.3	ESE
20230112_0220	3.9	ESE
20230112_0230	3.1	ESE
20230112_0240	2.8	ESE
20230112_0250	2.8	SE
20230112_0300	3.1	ESE
20230112_0310	3.1	ESE
20230112_0320	3.3	ESE
20230112_0330	3.1	ESE
20230112_0340	2.8	ESE
20230112_0350	3.1	ESE
20230112_0400	3.3	SE
20230112_0410	2.8	ESE
20230112_0420	2.5	SE
20230112_0430	2.2	SE
20230112_0440	1.9	ESE
20230112_0450	2.8	ESE
20230112_0500	2.8	ESE
20230112_0510	2.8	ESE
20230112_0520	2.2	ESE
20230112_0530	3.1	SE
20230112_0540	3.1	SE
20230112_0550	2.2	SE
20230112_0600	2.5	SE
20230112_0610	2.2	SE
20230112_0620	1.7	SSE
20230112_0630	1.7	SE
20230112_0640	2.5	SE
20230112_0650	2.2	SE
20230112_0700	2.2	SE
20230112_0710	2.5	SE
20230112_0720	2.8	SE
20230112_0730	2.2	ESE
20230112_0740	2.8	ESE
20230112_0750	2.8	SE
20230112_0800	2.2	SE
20230112_0810	2.5	ESE
20230112_0820	3.1	SE
20230112_0830	3.3	SE
20230112_0840	3.9	ESE
20230112_0850	4.2	ESE
20230112_0900	3.3	ESE
20230112_0910	2.5	ESE
20230112_0920	3.1	ESE
20230112_0930	2.8	ESE
20230112_0940	2.5	E
20230112_0950	4.2	ESE
20230112_1000	3.9	E
20230112_1010	3.9	ESE
20230112_1020	4.2	ESE
20230112_1030	3.9	ESE
20230112_1040	4.7	ESE
20230112_1050	4.2	ESE
20230112_1100	4.2	E
20230112_1110	3.3	ESE
20230112_1120	4.4	ESE
20230112_1130	3.9	ESE
20230112_1140	3.3	SE
20230112_1150	3.9	ESE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230112_1200	4.2	ESE
20230112_1210	4.4	ESE
20230112_1220	3.9	ESE
20230112_1230	4.2	ESE
20230112_1240	3.9	ESE
20230112_1250	5.8	ESE
20230112_1300	4.2	ESE
20230112_1310	4.2	SE
20230112_1320	4.2	SE
20230112_1330	3.3	SE
20230112_1340	3.3	SE
20230112_1350	3.9	SE
20230112_1400	2.8	ESE
20230112_1410	1.7	ESE
20230112_1420	2.2	ESE
20230112_1430	3.1	E
20230112_1440	3.6	E
20230112_1450	3.6	ENE
20230112_1500	3.1	E
20230112_1510	3.3	ENE
20230112_1520	3.9	E
20230112_1530	2.8	E
20230112_1540	3.1	E
20230112_1550	3.9	E
20230112_1600	3.1	E
20230112_1610	2.8	E
20230112_1620	3.1	E
20230112_1630	3.9	E
20230112_1640	3.1	E
20230112_1650	3.1	E
20230112_1700	1.9	ESE
20230112_1710	2.2	E
20230112_1720	3.1	ESE
20230112_1730	2.5	ESE
20230112_1740	1.1	-
20230112_1750	2.8	E
20230112_1800	2.8	ESE
20230112_1810	2.5	SE
20230112_1820	2.2	SE
20230112_1830	2.2	ESE
20230112_1840	2.2	ESE
20230112_1850	2.2	ESE
20230112_1900	1.7	SE
20230112_1910	1.7	ESE
20230112_1920	2.5	ESE
20230112_1930	2.5	ESE
20230112_1940	3.1	ESE
20230112_1950	2.2	ESE
20230112_2000	2.8	ESE
20230112_2010	2.5	ESE
20230112_2020	2.2	ESE
20230112_2030	2.5	SE
20230112_2040	3.1	ESE
20230112_2050	3.3	E
20230112_2100	1.9	SE
20230112_2110	2.8	ESE
20230112_2120	1.9	ESE
20230112_2130	3.3	E
20230112_2140	3.9	E
20230112_2150	3.9	E
20230112_2200	3.1	ESE
20230112_2210	2.5	E
20230112_2220	2.8	E
20230112_2230	2.2	E
20230112_2240	3.1	ESE
20230112_2250	3.3	ESE
20230112_2300	3.3	E
20230112_2310	2.8	ESE
20230112_2320	3.3	ESE
20230112_2330	3.3	ESE
20230112_2340	3.3	E
20230112_2350	3.3	E

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230113_0000	4.2	E
20230113_0010	3.3	ESE
20230113_0020	2.8	ESE
20230113_0020	2.8	ESE
20230113_0030	2.8	ESE
20230113_0040	3.3	SE
20230113_0050	2.8	ESE
20230113_0100	3.1	E
20230113_0110	2.5	ESE
20230113_0120	3.3	ESE
20230113_0130	3.9	ESE
20230113_0140	3.3	ESE
20230113_0150	3.3	ESE
20230113_0200	3.1	ESE
20230113_0210	2.2	E
20230113_0220	2.2	E
20230113_0230	2.2	E
20230113_0240	2.2	E
20230113_0250	2.2	E
20230113_0300	2.5	E
20230113_0310	2.5	E
20230113_0320	3.3	E
20230113_0330	2.8	E
20230113_0340	3.3	E
20230113_0350	3.1	E
20230113_0400	2.8	E
20230113_0410	2.5	E
20230113_0420	2.2	ESE
20230113_0430	3.1	E
20230113_0440	2.8	ESE
20230113_0450	2.5	ESE
20230113_0500	3.1	ESE
20230113_0510	2.5	ESE
20230113_0520	2.2	ESE
20230113_0530	2.8	E
20230113_0540	2.5	E
20230113_0550	1.9	ESE
20230113_0600	2.5	ESE
20230113_0610	2.5	ESE
20230113_0620	2.2	ESE
20230113_0630	1.4	SE
20230113_0640	1.9	SSE
20230113_0650	2.2	ESE
20230113_0700	1.7	ESE
20230113_0710	1.4	SE
20230113_0720	2.5	ESE
20230113_0730	1.4	ESE
20230113_0740	1.7	SE
20230113_0750	1.9	SE
20230113_0800	2.2	SSE
20230113_0810	1.9	SE
20230113_0820	2.2	SE
20230113_0830	1.7	ESE
20230113_0840	2.2	ESE
20230113_0850	2.2	ESE
20230113_0900	2.8	E
20230113_0910	1.7	ESE
20230113_0920	1.4	SSE
20230113_0930	1.7	SSE
20230113_0940	1.1	SSE
20230113_0950	0.3	NW
20230113_1000	0.3	-
20230113_1010	0.8	SE
20230113_1020	0.8	ESE
20230113_1030	1.4	ESE
20230113_1040	1.4	SE
20230113_1050	1.7	SE
20230113_1100	1.9	SE
20230113_1110	2.2	ESE
20230113_1120	1.7	ESE
20230113_1130	1.1	ESE
20230113_1140	1.1	SE
20230113_1150	1.4	SE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230113_1200	1.7	SE
20230113_1210	1.1	ESE
20230113_1220	0.8	ESE
20230113_1230	0.6	SE
20230113_1240	1.1	ESE
20230113_1250	0.8	E
20230113_1300	1.1	ESE
20230113_1310	1.9	ESE
20230113_1320	2.2	ESE
20230113_1330	2.2	E
20230113_1340	1.4	ESE
20230113_1350	1.1	ESE
20230113_1400	0.3	SE
20230113_1410	0.8	E
20230113_1420	1.1	E
20230113_1430	1.4	ESE
20230113_1440	1.7	E
20230113_1450	1.7	ESE
20230113_1500	0.6	ESE
20230113_1510	1.1	SE
20230113_1520	1.1	ESE
20230113_1530	1.4	E
20230113_1540	1.1	ESE
20230113_1550	0.3	SE
20230113_1600	0	N
20230113_1610	0.3	-
20230113_1620	0.6	ESE
20230113_1630	0.8	ESE
20230113_1640	0.8	E
20230113_1650	1.1	ESE
20230113_1700	0.8	ESE
20230113_1710	0.6	SE
20230113_1720	0.3	NE
20230113_1730	0.3	NE
20230113_1740	0.8	ESE
20230113_1750	0.3	SSE
20230113_1800	0.3	SE
20230113_1810	1.1	SE
20230113_1820	1.1	SSE
20230113_1830	1.4	SE
20230113_1840	1.4	ESE
20230113_1850	1.4	SE
20230113_1900	0.6	SE
20230113_1910	0	N
20230113_1920	0.3	S
20230113_1930	0	N
20230113_1940	0	N
20230113_1950	0	N
20230113_2000	0.3	-
20230113_2010	0	N
20230113_2020	0.3	-
20230113_2030	0.3	-
20230113_2040	0.3	SW
20230113_2050	0.3	-
20230113_2100	0.3	SSE
20230113_2110	0.3	-
20230113_2120	0	N
20230113_2130	0	N
20230113_2140	0	N
20230113_2150	0	N
20230113_2200	0	N
20230113_2210	0.3	-
20230113_2220	0.3	-
20230113_2230	0	N
20230113_2240	0.3	S
20230113_2250	0.3	S
20230113_2300	0.3	S
20230113_2310	0.3	ENE
20230113_2320	0.3	SSW
20230113_2330	0.3	SSW
20230113_2340	0.3	ESE
20230113_2350	0.3	-

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230114_0000	0.3	SSE
20230114_0010	0	N
20230114_0020	0.8	SE
20230114_0020	0.8	SE
20230114_0030	0.6	ESE
20230114_0040	0.3	SE
20230114_0050	0.3	-
20230114_0100	0.3	SE
20230114_0110	0.3	ENE
20230114_0120	0.3	SSE
20230114_0130	0	N
20230114_0140	0.3	SSE
20230114_0150	0.3	E
20230114_0200	0.8	SE
20230114_0210	0	N
20230114_0220	0	N
20230114_0230	0	N
20230114_0240	0	N
20230114_0250	0.3	ENE
20230114_0300	0	N
20230114_0310	0	N
20230114_0320	0.3	SSE
20230114_0330	0.3	S
20230114_0340	0.3	ENE
20230114_0350	0.3	N
20230114_0400	0.3	SW
20230114_0410	0	N
20230114_0420	0.3	SE
20230114_0430	0.3	SE
20230114_0440	0	N
20230114_0450	0	N
20230114_0500	0.6	SSE
20230114_0510	0.3	-
20230114_0520	0	N
20230114_0530	0	N
20230114_0540	0	N
20230114_0550	0	N
20230114_0600	0	N
20230114_0610	0	N
20230114_0620	0.3	S
20230114_0630	0.3	-
20230114_0640	0	N
20230114_0650	0	N
20230114_0700	0	N
20230114_0710	0.3	NE
20230114_0720	0	N
20230114_0730	0	N
20230114_0740	0	N
20230114_0750	0	N
20230114_0800	0	N
20230114_0810	0	N
20230114_0820	0.3	S
20230114_0830	0.8	SE
20230114_0840	0.8	SSE
20230114_0850	1.1	S
20230114_0900	1.1	S
20230114_0910	1.4	ESE
20230114_0920	0.8	ESE
20230114_0930	0.3	SE
20230114_0940	1.4	E
20230114_0950	1.9	ESE
20230114_1000	1.7	ESE
20230114_1010	1.1	ESE
20230114_1020	0.8	ESE
20230114_1030	0.3	SE
20230114_1040	0.3	ESE
20230114_1050	0.6	ESE
20230114_1100	0.8	S
20230114_1110	1.1	SSW
20230114_1120	0.8	WNW
20230114_1130	1.7	WNW
20230114_1140	0.8	-
20230114_1150	1.1	SSW

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230114_1200	1.7	W
20230114_1210	2.2	W
20230114_1220	2.2	W
20230114_1230	2.5	W
20230114_1240	1.7	WNW
20230114_1250	2.8	W
20230114_1300	2.2	W
20230114_1310	2.5	WSW
20230114_1320	2.2	SW
20230114_1330	1.7	WSW
20230114_1340	2.2	WSW
20230114_1350	3.3	WSW
20230114_1400	2.5	WSW
20230114_1410	2.5	WSW
20230114_1420	2.8	W
20230114_1430	3.1	W
20230114_1440	2.8	WNW
20230114_1450	2.8	W
20230114_1500	3.3	W
20230114_1510	3.3	W
20230114_1520	2.8	W
20230114_1530	3.1	W
20230114_1540	2.5	W
20230114_1550	3.3	W
20230114_1600	2.5	W
20230114_1610	2.2	W
20230114_1620	1.7	WSW
20230114_1630	1.7	WSW
20230114_1640	1.7	WSW
20230114_1650	1.7	W
20230114_1700	1.7	W
20230114_1710	1.1	W
20230114_1720	1.4	W
20230114_1730	1.4	W
20230114_1740	0.8	WSW
20230114_1750	0.8	WSW
20230114_1800	1.4	WSW
20230114_1810	1.1	WSW
20230114_1820	0.8	WSW
20230114_1830	0.3	SSW
20230114_1840	0.3	SE
20230114_1850	0.3	SE
20230114_1900	0.3	SSE
20230114_1910	0.3	SSE
20230114_1920	0.3	SSE
20230114_1930	0.3	SSE
20230114_1940	0	N
20230114_1950	0	N
20230114_2000	0.3	SSW
20230114_2010	0.3	-
20230114_2020	0	N
20230114_2030	0	N
20230114_2040	0.3	S
20230114_2050	0	N
20230114_2100	0	N
20230114_2110	0	N
20230114_2120	0	N
20230114_2130	0.3	SE
20230114_2140	0.3	SE
20230114_2150	0.3	-
20230114_2200	0.3	SSE
20230114_2210	0	N
20230114_2220	0.3	SSE
20230114_2230	0.8	SE
20230114_2240	0.3	S
20230114_2250	0.3	S
20230114_2300	0.3	SE
20230114_2310	0.8	ESE
20230114_2320	0.3	-
20230114_2330	0	N
20230114_2340	0.3	ENE
20230114_2350	0.6	E

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230115_0000	0.3	E
20230115_0010	1.1	ESE
20230115_0020	0.3	SE
20230115_0020	0.3	SE
20230115_0030	1.1	ESE
20230115_0040	0.3	NE
20230115_0050	0.3	ESE
20230115_0100	0.3	ESE
20230115_0110	0.3	E
20230115_0120	0.3	ESE
20230115_0130	0.6	ESE
20230115_0140	1.4	SE
20230115_0150	1.1	ESE
20230115_0200	0.8	ESE
20230115_0210	0.3	ESE
20230115_0220	0.3	E
20230115_0230	0	N
20230115_0240	0.3	E
20230115_0250	0.3	ESE
20230115_0300	0	N
20230115_0310	0.3	NNE
20230115_0320	0.6	NNE
20230115_0330	0.3	NE
20230115_0340	0	N
20230115_0350	0	N
20230115_0400	0	N
20230115_0410	0	N
20230115_0420	0	N
20230115_0430	0	N
20230115_0440	0	N
20230115_0450	0	N
20230115_0500	0.3	SW
20230115_0510	0	N
20230115_0520	0.3	ESE
20230115_0530	0	N
20230115_0540	0.3	E
20230115_0550	0.3	E
20230115_0600	0	N
20230115_0610	0	N
20230115_0620	0.3	WNW
20230115_0630	0.6	W
20230115_0640	0.8	WNW
20230115_0650	1.4	N
20230115_0700	1.7	N
20230115_0710	1.7	N
20230115_0720	2.5	N
20230115_0730	3.3	NNE
20230115_0740	3.3	N
20230115_0750	4.2	N
20230115_0800	3.1	N
20230115_0810	3.1	N
20230115_0820	3.3	N
20230115_0830	3.3	N
20230115_0840	3.3	N
20230115_0850	4.4	N
20230115_0900	3.9	N
20230115_0910	5.3	N
20230115_0920	3.9	NNE
20230115_0930	4.7	NNE
20230115_0940	4.7	N
20230115_0950	4.7	N
20230115_1000	4.7	N
20230115_1010	4.7	N
20230115_1020	5	N
20230115_1030	4.7	N
20230115_1040	5	N
20230115_1050	4.2	N
20230115_1100	4.7	N
20230115_1110	4.4	N
20230115_1120	4.2	N
20230115_1130	5	NNE
20230115_1140	4.2	N
20230115_1150	5	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230115_1200	4.2	NNE
20230115_1210	5.6	NNE
20230115_1220	5.3	NNE
20230115_1230	4.4	NNE
20230115_1240	4.7	NNE
20230115_1250	3.9	NNE
20230115_1300	5.8	NNE
20230115_1310	5	NNE
20230115_1320	4.4	N
20230115_1330	6.1	NNE
20230115_1340	4.4	N
20230115_1350	5.3	N
20230115_1400	5.3	N
20230115_1410	5.3	N
20230115_1420	5	N
20230115_1430	6.1	NNE
20230115_1440	5.3	N
20230115_1450	4.7	N
20230115_1500	4.7	N
20230115_1510	5.8	N
20230115_1520	5.6	N
20230115_1530	5.3	NNE
20230115_1540	5.3	N
20230115_1550	5.3	NNE
20230115_1600	5.3	NNE
20230115_1610	5.3	N
20230115_1620	4.7	N
20230115_1630	5.8	NNE
20230115_1640	6.1	NNE
20230115_1650	5.8	NNE
20230115_1700	5.3	N
20230115_1710	5	NNE
20230115_1720	5.3	NNE
20230115_1730	5.3	NNE
20230115_1740	5.3	NNE
20230115_1750	5.3	N
20230115_1800	5	NNE
20230115_1810	5.3	NNE
20230115_1820	5.3	N
20230115_1830	6.1	NNE
20230115_1840	5.8	NNE
20230115_1850	5.3	NNE
20230115_1900	6.7	NNE
20230115_1910	6.4	NNE
20230115_1920	5.3	NNE
20230115_1930	5.8	NNE
20230115_1940	5.3	N
20230115_1950	5.8	N
20230115_2000	5.6	NNE
20230115_2010	5.8	NNE
20230115_2020	5.3	N
20230115_2030	5.6	NNE
20230115_2040	6.4	N
20230115_2050	5.8	N
20230115_2100	6.7	NNE
20230115_2110	6.1	N
20230115_2120	5.8	N
20230115_2130	6.1	NNE
20230115_2140	6.1	NNE
20230115_2150	5	NNE
20230115_2200	5.8	NNE
20230115_2210	6.1	NNE
20230115_2220	5.3	NNE
20230115_2230	5.8	NNE
20230115_2240	6.7	NNE
20230115_2250	6.1	NNE
20230115_2300	6.1	NNE
20230115_2310	4.7	NNE
20230115_2320	5	NNE
20230115_2330	6.1	N
20230115_2340	5.3	N
20230115_2350	5.8	NNE

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230116_0000	6.7	NNE
20230116_0010	6.1	NNE
20230116_0020	5	N
20230116_0020	5	N
20230116_0030	6.1	N
20230116_0040	5.8	NNE
20230116_0050	4.2	N
20230116_0100	4.4	N
20230116_0110	5	N
20230116_0120	4.7	N
20230116_0130	4.4	N
20230116_0140	4.2	N
20230116_0150	4.4	N
20230116_0200	5	N
20230116_0210	3.9	N
20230116_0220	5	N
20230116_0230	6.1	NNE
20230116_0240	5.3	N
20230116_0250	5	N
20230116_0300	5	NNE
20230116_0310	5.8	NNE
20230116_0320	5.8	NNE
20230116_0330	6.1	NNE
20230116_0340	5.3	N
20230116_0350	5	N
20230116_0400	5.3	NNE
20230116_0410	5.3	NNE
20230116_0420	5	NNE
20230116_0430	5.3	N
20230116_0440	4.7	N
20230116_0450	5.8	NNE
20230116_0500	5.8	N
20230116_0510	5	N
20230116_0520	5	N
20230116_0530	5.6	N
20230116_0540	5.8	NNE
20230116_0550	6.1	NNE
20230116_0600	6.1	NNE
20230116_0610	5.8	NNE
20230116_0620	6.4	NNE
20230116_0630	5.6	NNE
20230116_0640	4.7	N
20230116_0650	5.8	NNE
20230116_0700	5.3	N
20230116_0710	5.3	N
20230116_0720	5	N
20230116_0730	4.7	N
20230116_0740	4.4	N
20230116_0750	5	N
20230116_0800	5	NNE
20230116_0810	5.8	NNE
20230116_0820	5	NNE
20230116_0830	4.7	NNE
20230116_0840	4.4	N
20230116_0850	4.2	N
20230116_0900	5.3	N
20230116_0910	4.4	N
20230116_0920	5	N
20230116_0930	5.3	NNE
20230116_0940	5	NNE
20230116_0950	5.3	NNE
20230116_1000	5.3	NNE
20230116_1010	6.1	NNE
20230116_1020	5	NNE
20230116_1030	5.3	N
20230116_1040	5.8	NNE
20230116_1050	5.3	NNE
20230116_1100	4.4	NNE
20230116_1110	4.7	N
20230116_1120	4.7	NNE
20230116_1130	4.7	NNE
20230116_1140	4.2	N
20230116_1150	3.9	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230116_1200	3.3	N
20230116_1210	4.4	N
20230116_1220	4.7	NNE
20230116_1230	4.7	NNE
20230116_1240	4.4	NNE
20230116_1250	4.4	N
20230116_1300	3.9	N
20230116_1310	3.9	NNE
20230116_1320	4.7	NNE
20230116_1330	4.2	N
20230116_1340	4.4	N
20230116_1350	4.2	N
20230116_1400	4.2	N
20230116_1410	3.3	N
20230116_1420	3.3	N
20230116_1430	3.3	N
20230116_1440	3.9	NNE
20230116_1450	3.3	N
20230116_1500	3.3	NNE
20230116_1510	4.2	N
20230116_1520	4.7	NNE
20230116_1530	3.9	NNE
20230116_1540	3.3	N
20230116_1550	3.9	N
20230116_1600	3.6	N
20230116_1610	3.1	N
20230116_1620	3.3	N
20230116_1630	3.3	NNE
20230116_1640	3.3	N
20230116_1650	2.8	N
20230116_1700	3.3	NNE
20230116_1710	3.3	N
20230116_1720	3.3	N
20230116_1730	3.3	N
20230116_1740	3.3	N
20230116_1750	3.3	NNE
20230116_1800	3.6	NNE
20230116_1810	3.3	N
20230116_1820	3.3	NNE
20230116_1830	3.3	NNE
20230116_1840	3.9	NNE
20230116_1850	3.9	NNE
20230116_1900	3.9	N
20230116_1910	3.9	N
20230116_1920	3.9	N
20230116_1930	4.2	NNE
20230116_1940	3.9	NNE
20230116_1950	3.1	N
20230116_2000	3.3	NNE
20230116_2010	3.3	NNE
20230116_2020	3.3	NNE
20230116_2030	3.1	NNE
20230116_2040	2.5	N
20230116_2050	2.8	N
20230116_2100	3.3	NNE
20230116_2110	2.8	NNE
20230116_2120	2.5	N
20230116_2130	2.8	N
20230116_2140	1.7	N
20230116_2150	2.2	NNE
20230116_2200	1.7	N
20230116_2210	1.9	NNE
20230116_2220	1.7	NNE
20230116_2230	1.7	NNE
20230116_2240	2.5	NNE
20230116_2250	1.9	NNE
20230116_2300	1.4	N
20230116_2310	1.4	N
20230116_2320	1.9	N
20230116_2330	2.5	N
20230116_2340	2.2	N
20230116_2350	3.3	NNE

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230117_0000	3.6	NNE
20230117_0010	3.9	NNE
20230117_0020	4.4	NNE
20230117_0020	4.4	NNE
20230117_0030	3.9	NNE
20230117_0040	3.9	N
20230117_0050	3.3	N
20230117_0100	3.9	N
20230117_0110	3.9	N
20230117_0120	3.1	N
20230117_0130	3.1	N
20230117_0140	3.3	NNE
20230117_0150	3.9	NNE
20230117_0200	3.3	N
20230117_0210	3.1	NNE
20230117_0220	3.3	NNE
20230117_0230	3.1	NNE
20230117_0240	3.1	NNE
20230117_0250	3.3	NNE
20230117_0300	2.5	NNE
20230117_0310	2.5	NNE
20230117_0320	2.8	NNE
20230117_0330	3.1	N
20230117_0340	2.8	N
20230117_0350	3.1	NNE
20230117_0400	2.8	NNE
20230117_0410	2.2	N
20230117_0420	1.7	N
20230117_0430	3.1	NNE
20230117_0440	2.5	N
20230117_0450	2.8	N
20230117_0500	2.8	N
20230117_0510	2.5	N
20230117_0520	2.8	N
20230117_0530	3.3	N
20230117_0540	3.6	N
20230117_0550	2.8	NNE
20230117_0600	3.1	N
20230117_0610	2.2	N
20230117_0620	3.3	NNE
20230117_0630	2.5	NNE
20230117_0640	1.7	NNE
20230117_0650	0.8	NNE
20230117_0700	0.3	E
20230117_0710	0.3	ENE
20230117_0720	0	N
20230117_0730	0.3	N
20230117_0740	1.1	N
20230117_0750	1.1	N
20230117_0800	0.8	N
20230117_0810	1.1	N
20230117_0820	1.1	N
20230117_0830	2.2	N
20230117_0840	2.5	N
20230117_0850	2.2	NNW
20230117_0900	2.5	N
20230117_0910	3.3	N
20230117_0920	3.3	N
20230117_0930	2.8	N
20230117_0940	3.3	N
20230117_0950	3.3	N
20230117_1000	2.8	N
20230117_1010	3.1	N
20230117_1020	3.1	N
20230117_1030	2.2	N
20230117_1040	2.5	N
20230117_1050	2.5	N
20230117_1100	2.8	N
20230117_1110	2.5	N
20230117_1120	2.5	N
20230117_1130	2.5	N
20230117_1140	3.3	N
20230117_1150	3.3	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230117_1200	2.8	N
20230117_1210	2.8	N
20230117_1220	2.8	N
20230117_1230	2.5	N
20230117_1240	2.8	N
20230117_1250	2.5	N
20230117_1300	3.3	N
20230117_1310	2.2	N
20230117_1320	1.9	N
20230117_1330	2.2	NNW

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230118_0020	3.3	NNE
20230118_0030	3.1	N
20230118_0040	2.5	N
20230118_0050	3.1	N
20230118_0100	2.5	N
20230118_0110	2.5	N
20230118_0120	2.8	N
20230118_0130	3.3	N
20230118_0140	3.3	N
20230118_0150	3.3	N
20230118_0200	3.3	N
20230118_0210	3.3	NNE
20230118_0220	3.3	N
20230118_0230	4.2	N
20230118_0240	4.2	N
20230118_0250	4.2	N
20230118_0300	4.4	N
20230118_0310	4.2	N
20230118_0320	4.4	N
20230118_0330	4.2	N
20230118_0340	4.7	N
20230118_0350	4.4	NNE
20230118_0400	4.4	N
20230118_0410	5.3	NNE
20230118_0420	5	NNE
20230118_0430	5	NNE
20230118_0440	6.1	NNE
20230118_0450	5	NNE
20230118_0500	5.6	N
20230118_0510	5	N
20230118_0520	4.4	N
20230118_0530	3.3	N
20230118_0540	3.3	NNE
20230118_0550	2.8	N
20230118_0600	3.3	N
20230118_0610	4.4	N
20230118_0620	5	N
20230118_0630	4.2	N
20230118_0640	2.8	N
20230118_0650	3.1	NE
20230118_0700	1.7	NNE
20230118_0710	2.8	NNE
20230118_0720	2.8	NNE
20230118_0730	2.8	NNE
20230118_0740	3.1	N
20230118_0750	2.8	NNE
20230118_0800	2.8	NNE
20230118_0810	3.1	NNE
20230118_0820	3.9	NNE
20230118_0830	4.2	N
20230118_0840	3.6	N
20230118_0850	3.3	N
20230118_0900	2.8	NNE
20230118_0910	2.5	N
20230118_0920	3.9	N
20230118_0930	3.3	N
20230118_0940	3.3	N
20230118_0950	3.1	N
20230118_1000	3.3	N
20230118_1010	3.9	N
20230118_1020	3.3	N
20230118_1030	4.2	N
20230118_1040	4.2	N
20230118_1050	3.6	N
20230118_1100	3.1	N
20230118_1110	2.8	NNW
20230118_1120	2.5	N
20230118_1130	2.5	N
20230118_1140	3.1	NNW
20230118_1150	3.1	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230118_1200	2.8	N
20230118_1210	3.1	N
20230118_1220	3.3	N
20230118_1230	3.1	N
20230118_1240	2.8	N
20230118_1250	2.8	N
20230118_1300	2.5	N
20230118_1310	1.9	N
20230118_1320	2.2	N
20230118_1330	2.2	NNW
20230118_1340	2.5	N
20230118_1350	1.9	NW
20230118_1400	2.2	NW
20230118_1410	1.7	NNW
20230118_1420	2.5	NW
20230118_1430	1.9	NW
20230118_1440	1.7	NNW
20230118_1450	1.7	NNW
20230118_1500	2.5	N
20230118_1510	2.8	N
20230118_1520	2.2	N
20230118_1530	2.2	NNW
20230118_1540	2.2	N
20230118_1550	2.2	N
20230118_1600	2.5	N
20230118_1610	2.2	N
20230118_1620	2.8	N
20230118_1630	1.7	N
20230118_1640	1.4	N
20230118_1650	2.2	N
20230118_1700	2.2	NNE
20230118_1710	2.2	N
20230118_1720	1.4	N
20230118_1730	1.1	N
20230118_1740	0.8	NNW
20230118_1750	0.8	NNW
20230118_1800	0.3	NNW
20230118_1810	0	N
20230118_1820	0.3	NNW
20230118_1830	0	N
20230118_1840	0.3	N
20230118_1850	0.3	NNE
20230118_1900	0.3	NNE
20230118_1910	0.8	N
20230118_1920	0.3	N
20230118_1930	0.3	N
20230118_1940	0	N
20230118_1950	0	N
20230118_2000	0	N
20230118_2010	0	N
20230118_2020	0.3	WSW
20230118_2030	0	N
20230118_2040	0.3	WSW
20230118_2050	0.3	SW
20230118_2100	0.3	SSW
20230118_2110	0	N
20230118_2120	0	N
20230118_2130	0	N
20230118_2140	0.3	S
20230118_2150	0.3	S
20230118_2200	0	N
20230118_2210	0	N
20230118_2220	0	N
20230118_2230	0.3	SE
20230118_2240	0.3	SSE
20230118_2250	0	N
20230118_2300	0	N
20230118_2310	0	N
20230118_2320	0	N
20230118_2330	0.3	SSE
20230118_2340	0	N
20230118_2350	0.3	-

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230119_0000	0	N
20230119_0010	0	N
20230119_0020	0.3	SE
20230119_0020	0.3	SE
20230119_0030	0.3	SE
20230119_0040	0	N
20230119_0050	0	N
20230119_0100	0	N
20230119_0110	0	N
20230119_0120	0.3	-
20230119_0130	0.3	SSW
20230119_0140	0	N
20230119_0150	0	N
20230119_0200	0	N
20230119_0210	0	N
20230119_0220	0	N
20230119_0230	0	N
20230119_0240	0	N
20230119_0250	0	N
20230119_0300	0	N
20230119_0310	0	N
20230119_0320	0	N
20230119_0330	0	N
20230119_0340	0	N
20230119_0350	0	N
20230119_0400	0	N
20230119_0410	0	N
20230119_0420	0	N
20230119_0430	0	N
20230119_0440	0	N
20230119_0450	0	N
20230119_0500	0	N
20230119_0510	0	N
20230119_0520	0	N
20230119_0530	0	N
20230119_0540	0	N
20230119_0550	0	N
20230119_0600	0	N
20230119_0610	0	N
20230119_0620	0	N
20230119_0630	0	N
20230119_0640	0	N
20230119_0650	0	N
20230119_0700	0	N
20230119_0710	0	N
20230119_0720	0	N
20230119_0730	0.3	SSE
20230119_0740	0	N
20230119_0750	0.3	-
20230119_0800	0	N
20230119_0810	0	N
20230119_0820	0.3	S
20230119_0830	0.3	S
20230119_0840	0.3	S
20230119_0850	0	N
20230119_0900	0	N
20230119_0910	0.3	SSE
20230119_0920	0	N
20230119_0930	0.8	NE
20230119_0940	0.8	-
20230119_0950	0.8	N
20230119_1000	1.4	N
20230119_1010	0.8	NW
20230119_1020	1.7	NW
20230119_1030	1.7	NW
20230119_1040	1.7	N
20230119_1050	1.1	NW
20230119_1100	1.4	NW
20230119_1110	1.4	NNW
20230119_1120	2.2	N
20230119_1130	2.2	N
20230119_1140	1.4	NNW
20230119_1150	1.7	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230119_1200	2.2	NNE
20230119_1210	1.1	-
20230119_1220	1.1	NW
20230119_1230	1.9	NNW
20230119_1240	1.4	-
20230119_1250	1.7	-
20230119_1300	2.2	N
20230119_1310	1.7	N
20230119_1320	1.7	N
20230119_1330	2.2	NNE
20230119_1340	2.8	N
20230119_1350	2.2	N
20230119_1400	1.7	N
20230119_1410	3.3	N
20230119_1420	2.2	N
20230119_1430	2.2	NNW
20230119_1440	2.5	NNW
20230119_1450	2.5	NNW
20230119_1500	2.5	N
20230119_1510	2.8	N
20230119_1520	2.8	N
20230119_1530	1.4	NW
20230119_1540	1.4	N
20230119_1550	1.4	W
20230119_1600	1.1	NNW
20230119_1610	1.1	NNW
20230119_1620	1.7	NW
20230119_1630	1.9	NNW
20230119_1640	1.7	NNW
20230119_1650	1.4	NW
20230119_1700	2.2	N
20230119_1710	1.4	N
20230119_1720	1.1	N
20230119_1730	1.4	NNW
20230119_1740	0.8	N
20230119_1750	1.1	N
20230119_1800	0.8	N
20230119_1810	0	N
20230119_1820	0.3	-
20230119_1830	0	N
20230119_1840	0	N
20230119_1850	0	N
20230119_1900	0	N
20230119_1910	0	N
20230119_1920	0	N
20230119_1930	0	N
20230119_1940	0	N
20230119_1950	0	N
20230119_2000	0	N
20230119_2010	0	N
20230119_2020	0	N
20230119_2030	0	N
20230119_2040	0	N
20230119_2050	0	N
20230119_2100	0	N
20230119_2110	0	N
20230119_2120	0.3	WSW
20230119_2130	0	N
20230119_2140	0	N
20230119_2150	0	N
20230119_2200	0	N
20230119_2210	0	N
20230119_2220	0	N
20230119_2230	0	N
20230119_2240	0	N
20230119_2250	0	N
20230119_2300	0	N
20230119_2310	0	N
20230119_2320	0.3	SW
20230119_2330	0	N
20230119_2340	0.6	S
20230119_2350	0.3	S

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230120_0000	0.3	S
20230120_0010	0	N
20230120_0020	0	N
20230120_0030	0.3	SSE
20230120_0040	0.3	S
20230120_0050	0.3	WNW
20230120_0100	0.3	NNE
20230120_0110	0.3	NE
20230120_0120	0.3	SW
20230120_0130	0.8	S
20230120_0140	0	N
20230120_0150	0.3	-
20230120_0200	0	N
20230120_0210	0	N
20230120_0220	0	N
20230120_0230	0.3	SSE
20230120_0240	0	N
20230120_0250	0.3	SSE
20230120_0300	0.6	SSE
20230120_0310	0	N
20230120_0320	0	N
20230120_0330	0	N
20230120_0340	0	N
20230120_0350	0.8	SW
20230120_0400	0.3	-
20230120_0410	0	N
20230120_0420	0.3	ENE
20230120_0430	0.3	ESE
20230120_0440	0	N
20230120_0450	0	N
20230120_0500	0.3	-
20230120_0510	0.3	-
20230120_0520	0.8	NNW
20230120_0530	0.3	NNE
20230120_0540	0.3	-
20230120_0550	0	N
20230120_0600	0.6	NNW
20230120_0610	1.1	NNE
20230120_0620	1.1	NNE
20230120_0630	1.1	N
20230120_0640	0.8	N
20230120_0650	2.2	NNE
20230120_0700	2.5	N
20230120_0710	2.2	N
20230120_0720	1.9	N
20230120_0730	2.2	N
20230120_0740	1.1	ENE
20230120_0750	0.3	NE
20230120_0800	0	N
20230120_0810	0.3	SSE
20230120_0820	0.3	SSE
20230120_0830	0.3	S
20230120_0840	0.3	ESE
20230120_0850	0.3	ENE
20230120_0900	0.3	NNE
20230120_0910	0.8	N
20230120_0920	1.1	N
20230120_0930	1.1	N
20230120_0940	1.1	N
20230120_0950	1.4	N
20230120_1000	1.4	NNE
20230120_1010	0.8	N
20230120_1020	0.8	NNW
20230120_1030	0.3	NNW
20230120_1040	0.6	NNW
20230120_1050	0.3	NNW
20230120_1100	0.3	-
20230120_1110	0.6	S
20230120_1120	0.3	NNE
20230120_1130	1.4	N
20230120_1140	1.4	NNW
20230120_1150	1.4	NNW

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230120_1200	1.4	NNW
20230120_1210	1.7	NNW
20230120_1220	1.7	NNW
20230120_1230	1.7	NNW
20230120_1240	1.7	N
20230120_1250	1.7	NNW
20230120_1300	1.7	N
20230120_1310	2.2	N
20230120_1320	1.7	NNW
20230120_1330	1.7	N
20230120_1340	1.7	N
20230120_1350	1.1	NW
20230120_1400	2.2	WNW
20230120_1410	1.7	NNW
20230120_1420	1.9	N
20230120_1430	1.4	NNW
20230120_1440	1.7	NNW
20230120_1450	2.8	N
20230120_1500	2.5	NNW
20230120_1510	1.7	NNW
20230120_1520	1.9	NNW
20230120_1530	1.7	NNW
20230120_1540	1.7	NNE
20230120_1550	2.2	NNW
20230120_1600	2.2	NNW
20230120_1610	2.2	NNW
20230120_1620	1.7	NNW
20230120_1630	1.4	NNW
20230120_1640	1.7	N
20230120_1650	1.4	NNW
20230120_1700	1.4	NNW
20230120_1710	1.7	NNW
20230120_1720	1.1	NNW
20230120_1730	0.8	NNW
20230120_1740	0.8	NW
20230120_1750	0.8	NW
20230120_1800	0.3	-
20230120_1810	0.3	S
20230120_1820	0.3	S
20230120_1830	0	N
20230120_1840	0	N
20230120_1850	0.3	-
20230120_1900	0.3	SE
20230120_1910	0	N
20230120_1920	0.3	SW
20230120_1930	0	N
20230120_1940	0	N
20230120_1950	0	N
20230120_2000	0	N
20230120_2010	0	N
20230120_2020	0	N
20230120_2030	0.8	SE
20230120_2040	1.1	ESE
20230120_2050	1.7	E
20230120_2100	0.8	E
20230120_2110	1.1	ESE
20230120_2120	0.8	E
20230120_2130	0.3	SSE
20230120_2140	0.8	E
20230120_2150	0.3	-
20230120_2200	0.3	ENE
20230120_2210	0.8	E
20230120_2220	0.8	E
20230120_2230	1.1	ESE
20230120_2240	1.1	E
20230120_2250	2.2	E
20230120_2300	1.4	E
20230120_2310	1.1	E
20230120_2320	0.8	SE
20230120_2330	0.3	E
20230120_2340	1.1	ESE
20230120_2350	1.1	ESE

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230121_0000	1.7	E
20230121_0010	1.7	ESE
20230121_0020	2.2	ESE
20230121_0020	2.2	ESE
20230121_0030	1.9	E
20230121_0040	2.5	E
20230121_0050	2.2	E
20230121_0100	1.9	E
20230121_0110	1.7	E
20230121_0120	2.8	E
20230121_0130	0.8	E
20230121_0140	1.1	ENE
20230121_0150	1.1	E
20230121_0200	1.1	E
20230121_0210	1.1	ENE
20230121_0220	0.8	E
20230121_0230	1.4	ESE
20230121_0240	1.1	ESE
20230121_0250	0.3	NNE
20230121_0300	0.3	W
20230121_0310	0	N
20230121_0320	0.3	ESE
20230121_0330	0.6	SE
20230121_0340	1.1	SE
20230121_0350	0.8	ESE
20230121_0400	1.1	ESE
20230121_0410	0.8	SE
20230121_0420	0.3	ESE
20230121_0430	1.1	ENE
20230121_0440	0.3	-
20230121_0450	0	N
20230121_0500	0	N
20230121_0510	0	N
20230121_0520	1.1	NE
20230121_0530	0.8	NE
20230121_0540	0.3	NNE
20230121_0550	0.8	NE
20230121_0600	0	N
20230121_0610	0	N
20230121_0620	0	N
20230121_0630	0	N
20230121_0640	0.8	ENE
20230121_0650	0.8	E
20230121_0700	1.4	E
20230121_0710	1.1	E
20230121_0720	1.1	E
20230121_0730	1.1	E
20230121_0740	1.1	E
20230121_0750	0.8	ENE
20230121_0800	0.8	ENE
20230121_0810	0.8	E
20230121_0820	0.8	E
20230121_0830	1.1	ESE
20230121_0840	1.4	ESE
20230121_0850	1.7	ESE
20230121_0900	1.7	E
20230121_0910	1.7	ESE
20230121_0920	1.7	ESE
20230121_0930	2.5	SE
20230121_0940	2.8	SE
20230121_0950	2.8	ESE
20230121_1000	1.7	E
20230121_1010	2.8	ESE
20230121_1020	2.5	ESE
20230121_1030	2.2	SE
20230121_1040	1.7	ESE
20230121_1050	2.2	ESE
20230121_1100	2.5	ESE
20230121_1110	3.1	ESE
20230121_1120	2.5	ESE
20230121_1130	2.2	E
20230121_1140	2.8	ENE
20230121_1150	2.8	E

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230121_1200	2.8	ENE
20230121_1210	2.8	E
20230121_1220	2.8	E
20230121_1230	3.3	E
20230121_1240	3.1	E
20230121_1250	4.2	ENE
20230121_1300	3.3	E
20230121_1310	3.6	E
20230121_1320	3.1	E
20230121_1330	3.6	E
20230121_1340	3.1	ENE
20230121_1350	3.3	E
20230121_1400	3.3	E
20230121_1410	2.8	E
20230121_1420	3.6	E
20230121_1430	3.3	E
20230121_1440	3.3	ENE
20230121_1450	3.1	E
20230121_1500	3.3	E
20230121_1510	3.1	E
20230121_1520	3.1	ENE
20230121_1530	3.3	E
20230121_1540	3.3	E
20230121_1550	3.3	ENE
20230121_1600	3.1	ENE
20230121_1610	2.8	E
20230121_1620	2.8	E
20230121_1630	3.3	E
20230121_1640	3.3	E
20230121_1650	2.5	E
20230121_1700	3.3	E
20230121_1710	3.1	ENE
20230121_1720	2.5	ENE
20230121_1730	2.8	E
20230121_1740	2.2	E
20230121_1750	1.7	E
20230121_1800	2.2	E
20230121_1810	2.8	E
20230121_1820	2.2	E
20230121_1830	2.5	E
20230121_1840	2.2	E
20230121_1850	2.2	ESE
20230121_1900	1.9	E
20230121_1910	1.1	E
20230121_1920	1.4	ESE
20230121_1930	2.5	ESE
20230121_1940	2.2	ESE
20230121_1950	2.5	ESE
20230121_2000	1.7	ESE
20230121_2010	1.4	ESE
20230121_2020	1.1	ESE
20230121_2030	1.1	SE
20230121_2040	1.7	ESE
20230121_2050	1.4	ESE
20230121_2100	0.8	ESE
20230121_2110	1.4	E
20230121_2120	0.6	SE
20230121_2130	1.1	E
20230121_2140	1.1	ESE
20230121_2150	1.7	ESE
20230121_2200	1.4	E
20230121_2210	2.2	ESE
20230121_2220	2.5	ESE
20230121_2230	2.2	ESE
20230121_2240	1.9	ESE
20230121_2250	2.2	ESE
20230121_2300	1.7	ESE
20230121_2310	2.5	ESE
20230121_2320	2.5	ESE
20230121_2330	1.9	ESE
20230121_2340	1.9	ESE
20230121_2350	2.5	ESE

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230122_0000	2.8	ESE
20230122_0010	1.7	E
20230122_0020	1.4	E
20230122_0020	1.4	E
20230122_0030	1.7	E
20230122_0040	1.7	E
20230122_0050	1.7	E
20230122_0100	0.8	ESE
20230122_0110	1.7	ESE
20230122_0120	1.4	E
20230122_0130	1.4	E
20230122_0140	1.7	E
20230122_0150	1.7	E
20230122_0200	1.7	E
20230122_0210	1.7	ESE
20230122_0220	1.7	ESE
20230122_0230	2.2	ESE
20230122_0240	1.4	ESE
20230122_0250	1.4	SE
20230122_0300	1.4	ESE
20230122_0310	0.8	ESE
20230122_0320	0.8	SE
20230122_0330	1.4	E
20230122_0340	0.3	ENE
20230122_0350	0.3	ESE
20230122_0400	0.3	ESE
20230122_0410	0	N
20230122_0420	0	N
20230122_0430	0.3	SE
20230122_0440	0.3	SSW
20230122_0450	0.3	NW
20230122_0500	0.3	WNW
20230122_0510	0	N
20230122_0520	0.3	SSE
20230122_0530	0	N
20230122_0540	0.3	SW
20230122_0550	0	N
20230122_0600	0.3	E
20230122_0610	0	N
20230122_0620	0	N
20230122_0630	0	N
20230122_0640	0	N
20230122_0650	0	N
20230122_0700	0	N
20230122_0710	0	N
20230122_0720	0	N
20230122_0730	0	N
20230122_0740	0.3	SW
20230122_0750	0.3	S
20230122_0800	0.8	S
20230122_0810	0.6	ESE
20230122_0820	0	N
20230122_0830	0	N
20230122_0840	0.8	WSW
20230122_0850	0.3	NNE
20230122_0900	1.1	NE
20230122_0910	0.8	NNE
20230122_0920	0.8	NNE
20230122_0930	0.8	NNW
20230122_0940	1.1	N
20230122_0950	0.8	N
20230122_1000	1.4	N
20230122_1010	1.4	NNE
20230122_1020	1.7	NNE
20230122_1030	1.1	NNW
20230122_1040	1.1	NW
20230122_1050	1.1	NNW
20230122_1100	0.6	NW
20230122_1110	0.8	N
20230122_1120	0.3	-
20230122_1130	0.3	SSW
20230122_1140	1.1	SW
20230122_1150	1.1	S

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230122_1200	0.8	-
20230122_1210	1.4	E
20230122_1220	1.7	E
20230122_1230	1.7	ESE
20230122_1240	2.2	E
20230122_1250	2.5	E
20230122_1300	2.2	ESE
20230122_1310	1.9	E
20230122_1320	2.2	ENE
20230122_1330	1.9	SSE
20230122_1340	1.7	SE
20230122_1350	1.7	ESE
20230122_1400	1.9	E
20230122_1410	2.5	E
20230122_1420	3.1	E
20230122_1430	3.3	E
20230122_1440	3.1	ESE
20230122_1450	3.1	ESE
20230122_1500	3.1	ESE
20230122_1510	3.3	ESE
20230122_1520	3.9	ESE
20230122_1530	3.9	E
20230122_1540	3.9	E
20230122_1550	3.1	E
20230122_1600	3.3	ESE
20230122_1610	2.8	E
20230122_1620	3.3	ESE
20230122_1630	4.2	ESE
20230122_1640	3.3	ESE
20230122_1650	3.3	ESE
20230122_1700	2.5	ESE
20230122_1710	2.8	ESE
20230122_1720	2.5	ESE
20230122_1730	2.8	ESE
20230122_1740	2.5	ESE
20230122_1750	2.8	ESE
20230122_1800	3.3	ESE
20230122_1810	3.3	ESE
20230122_1820	2.5	ESE
20230122_1830	2.2	SE
20230122_1840	1.7	SE
20230122_1850	1.7	SE
20230122_1900	2.2	SE
20230122_1910	2.2	SE
20230122_1920	1.4	ESE
20230122_1930	1.1	SE
20230122_1940	0.6	SSE
20230122_1950	0.3	-
20230122_2000	0.3	-
20230122_2010	0.3	S
20230122_2020	0.8	SE
20230122_2030	1.4	SE
20230122_2040	1.7	SE
20230122_2050	1.7	SE
20230122_2100	1.4	SE
20230122_2110	1.7	SE
20230122_2120	1.7	SE
20230122_2130	1.4	SE
20230122_2140	1.7	SSE
20230122_2150	1.7	SE
20230122_2200	1.7	SE
20230122_2210	1.1	SSE
20230122_2220	1.7	SE
20230122_2230	1.4	SSE
20230122_2240	2.2	SE
20230122_2250	2.2	SSE
20230122_2300	2.2	SSE
20230122_2310	1.4	SSE
20230122_2320	0.3	-
20230122_2330	0.3	-
20230122_2340	0.3	SW
20230122_2350	0.3	SSW

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230123_0000	1.1	SSE
20230123_0010	1.4	SSE
20230123_0020	1.4	SSE
20230123_0020	1.4	SSE
20230123_0030	1.7	SSE
20230123_0040	1.9	SSE
20230123_0050	1.7	SE
20230123_0100	1.4	SE
20230123_0110	1.1	SSE
20230123_0120	1.1	ESE
20230123_0130	1.4	ESE
20230123_0140	1.7	ESE
20230123_0150	1.1	SSE
20230123_0200	0.8	ESE
20230123_0210	0.3	ENE
20230123_0220	0.3	WNW
20230123_0230	0	N
20230123_0240	0	N
20230123_0250	0	N
20230123_0300	0	N
20230123_0310	0	N
20230123_0320	0	N
20230123_0330	0	N
20230123_0340	0	N
20230123_0350	0	N
20230123_0400	0	N
20230123_0410	0	N
20230123_0420	0	N
20230123_0430	0	N
20230123_0440	0	N
20230123_0450	0.3	SW
20230123_0500	0.3	SSW
20230123_0510	0	N
20230123_0520	0	N
20230123_0530	0	N
20230123_0540	0	N
20230123_0550	0	N
20230123_0600	0.3	WSW
20230123_0610	0.3	E
20230123_0620	0.3	E
20230123_0630	0	N
20230123_0640	0	N
20230123_0650	0.3	SSW
20230123_0700	0.3	S
20230123_0710	0	N
20230123_0720	0.3	E
20230123_0730	0.3	NE
20230123_0740	0.3	WNW
20230123_0750	0.3	E
20230123_0800	0.3	E
20230123_0810	0.3	WNW
20230123_0820	0	N
20230123_0830	0.3	WNW
20230123_0840	0	N
20230123_0850	0	N
20230123_0900	0.3	ESE
20230123_0910	0	N
20230123_0920	0.3	S
20230123_0930	0.3	WSW
20230123_0940	0.3	NW
20230123_0950	0.8	NW
20230123_1000	0.8	-
20230123_1010	1.1	WNW
20230123_1020	0.8	-
20230123_1030	1.4	W
20230123_1040	1.1	NNE
20230123_1050	0.3	-
20230123_1100	0.6	SSW
20230123_1110	1.4	WNW
20230123_1120	1.1	NW
20230123_1130	1.4	N
20230123_1140	1.4	W
20230123_1150	1.7	WSW

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230123_1200	1.4	WNW
20230123_1210	1.1	WSW
20230123_1220	0.8	SSW
20230123_1230	1.1	NNE
20230123_1240	1.1	NNW
20230123_1250	0.3	SW
20230123_1300	0.6	SW
20230123_1310	1.4	SSW
20230123_1320	2.2	E
20230123_1330	2.8	ESE
20230123_1340	3.3	ESE
20230123_1350	3.9	E
20230123_1400	4.2	E
20230123_1410	4.2	E
20230123_1420	3.9	ESE
20230123_1430	3.9	ESE
20230123_1440	3.3	E
20230123_1450	3.9	E
20230123_1500	3.9	ESE
20230123_1510	3.9	ESE
20230123_1520	3.9	E
20230123_1530	4.2	ESE
20230123_1540	4.2	E
20230123_1550	4.7	ESE
20230123_1600	4.7	ESE
20230123_1610	3.3	ESE
20230123_1620	3.3	ESE
20230123_1630	3.9	ESE
20230123_1640	3.3	ESE
20230123_1650	2.8	ESE
20230123_1700	2.8	ESE
20230123_1710		
20230123_1720	3.1	ESE
20230123_1730	2.8	ESE
20230123_1740	3.1	ESE
20230123_1750	2.8	ESE
20230123_1800	2.5	ESE
20230123_1810	2.2	E
20230123_1820	1.7	E
20230123_1830	1.1	ESE
20230123_1840	1.9	E
20230123_1850	1.7	ESE
20230123_1900	2.2	ESE
20230123_1910	2.5	ESE
20230123_1920	2.8	ESE
20230123_1930	2.2	ESE
20230123_1940	2.2	ESE
20230123_1950	1.1	SE
20230123_2000	1.7	ESE
20230123_2010	1.7	ESE
20230123_2020	2.2	ESE
20230123_2030	1.7	ESE
20230123_2040	1.7	ESE
20230123_2050	2.2	ESE
20230123_2100	1.7	ESE
20230123_2110	1.7	ESE
20230123_2120	1.4	ESE
20230123_2130	1.7	ESE
20230123_2140	1.1	ESE
20230123_2150	1.4	ESE
20230123_2200	1.4	ESE
20230123_2210	1.7	ESE
20230123_2220	1.7	ESE
20230123_2230	1.7	ESE
20230123_2240	1.4	E
20230123_2250	1.7	E
20230123_2300	1.9	E
20230123_2310	1.7	E
20230123_2320	1.9	E
20230123_2330	1.9	ESE
20230123_2340	1.4	E
20230123_2350	0.8	E

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230124_0000	0.8	SE
20230124_0010	1.1	ESE
20230124_0020	0.6	SW
20230124_0020	0.6	SW
20230124_0030	0.3	-
20230124_0040	1.1	N
20230124_0050	3.9	NNE
20230124_0100	3.9	NNE
20230124_0110	3.3	NNE
20230124_0120	3.3	NNE
20230124_0130	4.2	NNE
20230124_0140	4.2	NNE
20230124_0150	4.2	NNE
20230124_0200	4.7	NNE
20230124_0210	4.2	NNE
20230124_0220	4.7	NNE
20230124_0230	4.2	NE
20230124_0240	3.6	NNE
20230124_0250	4.2	NNE
20230124_0300	3.3	NE
20230124_0310	4.7	NE
20230124_0320	3.3	NNE
20230124_0330	5	NE
20230124_0340	5.8	NE
20230124_0350	5	NNE
20230124_0400	5.3	NNE
20230124_0410	5.3	NE
20230124_0420	6.7	NNE
20230124_0430	5.8	NNE
20230124_0440	6.9	NE
20230124_0450	5.3	NNE
20230124_0500	7.2	NNE
20230124_0510	6.7	NNE
20230124_0520	5.8	NNE
20230124_0530	4.2	NNE
20230124_0540	4.4	NE
20230124_0550	3.9	NNE
20230124_0600	2.8	NNE
20230124_0610	3.1	NNE
20230124_0620	4.2	NNE
20230124_0630	4.4	NNE
20230124_0640	3.3	NNE
20230124_0650	3.3	NNE
20230124_0700	3.6	NNE
20230124_0710	4.2	NNE
20230124_0720	5	NNE
20230124_0730	3.1	NNE
20230124_0740	3.3	NNE
20230124_0750	3.3	NNE
20230124_0800	3.1	NNE
20230124_0810	2.8	N
20230124_0820	2.5	NNE
20230124_0830	5.3	NE
20230124_0840	4.7	NE
20230124_0850	6.9	NNE
20230124_0900	6.7	NNE
20230124_0910	5.3	NE
20230124_0920	6.4	NE
20230124_0930	6.4	NNE
20230124_0940	6.7	NE
20230124_0950	6.4	NE
20230124_1000	7.2	NE
20230124_1010	6.7	NE
20230124_1020	6.1	NNE
20230124_1030	5.3	NNE
20230124_1040	6.1	NNE
20230124_1050	8.9	NE
20230124_1100	6.9	NNE
20230124_1110	6.7	NNE
20230124_1120	6.4	NNE
20230124_1130	6.1	NE
20230124_1140	7.2	NNE
20230124_1150	7.5	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230124_1200	6.4	NE
20230124_1210	6.4	NNE
20230124_1220	5.8	NNE
20230124_1230	5.3	NE
20230124_1240	4.7	NNE
20230124_1250	6.7	NNE
20230124_1300	5.3	NE
20230124_1310	6.4	NNE
20230124_1320	5.6	NE
20230124_1330	5.8	NE
20230124_1340	5	NNE
20230124_1350	5.3	NNE
20230124_1400	5.3	NE
20230124_1410	5.3	NNE
20230124_1420	6.4	NNE
20230124_1430	6.1	NE
20230124_1440	5	NNE
20230124_1450	5.8	NE
20230124_1500	5.3	NE
20230124_1510	5.3	NE
20230124_1520	5.3	NNE
20230124_1530	6.7	NE
20230124_1540	6.7	NE
20230124_1550	6.4	NE
20230124_1600	7.2	NE
20230124_1610	7.5	NNE
20230124_1620	6.4	NE
20230124_1630	5.3	NNE
20230124_1640	6.1	NNE
20230124_1650	7.2	NNE
20230124_1700	6.1	NNE
20230124_1710	5.8	NNE
20230124_1720	6.1	NNE
20230124_1730	5.3	NNE
20230124_1740	6.4	NNE
20230124_1750	5.8	NNE
20230124_1800	5.8	NNE
20230124_1810	6.7	NNE
20230124_1820	6.4	NNE
20230124_1830	6.4	NNE
20230124_1840	5.8	NNE
20230124_1850	5.8	NNE
20230124_1900	5.8	NNE
20230124_1910	5.3	NE
20230124_1920	6.7	NNE
20230124_1930	5.3	NE
20230124_1940	4.7	NE
20230124_1950	4.7	NE
20230124_2000	5	NE
20230124_2010	4.7	NE
20230124_2020	3.3	NE
20230124_2030	3.3	NE
20230124_2040	5	NE
20230124_2050	6.4	NNE
20230124_2100	6.4	NE
20230124_2110	6.1	NE
20230124_2120	5.8	NE
20230124_2130	4.7	NNE
20230124_2140	5.8	NE
20230124_2150	5.3	NE
20230124_2200	5	NE
20230124_2210	5.3	NE
20230124_2220	3.3	NNE
20230124_2230	4.2	NE
20230124_2240	3.9	NNE
20230124_2250	4.7	NNE
20230124_2300	4.2	NE
20230124_2310	4.4	NNE
20230124_2320	3.9	NNE
20230124_2330	4.2	NNE
20230124_2340	5	NNE
20230124_2350	4.7	NNE

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230125_0000	3.9	NNE
20230125_0010	5	NNE
20230125_0020	4.7	NNE
20230125_0020	4.7	NNE
20230125_0030	4.7	NNE
20230125_0040	3.9	NNE
20230125_0050	5	NNE
20230125_0100	5.3	NNE
20230125_0110	4.4	NNE
20230125_0120	4.7	NNE
20230125_0130	4.4	NNE
20230125_0140	5	NNE
20230125_0150	5	NNE
20230125_0200	4.2	NNE
20230125_0210	4.7	NNE
20230125_0220	5.6	NNE
20230125_0230	5	NNE
20230125_0240	4.7	NNE
20230125_0250	4.4	NNE
20230125_0300	4.2	NNE
20230125_0310	5	NNE
20230125_0320	5	NNE
20230125_0330	4.4	NNE
20230125_0340	3.3	NNE
20230125_0350	3.9	NNE
20230125_0400	3.6	NNE
20230125_0410	4.2	NNE
20230125_0420	3.6	N
20230125_0430	3.3	NNE
20230125_0440	3.1	NNE
20230125_0450	3.3	NNE
20230125_0500	3.6	NNE
20230125_0510	3.3	NNE
20230125_0520	3.3	NNE
20230125_0530	3.3	NNE
20230125_0540	4.2	NNE
20230125_0550	3.3	NNE
20230125_0600	3.6	NNE
20230125_0610	3.3	NNE
20230125_0620	3.9	NNE
20230125_0630	3.3	NNE
20230125_0640	4.4	NNE
20230125_0650	3.3	NNE
20230125_0700	3.3	NNE
20230125_0710	4.2	NNE
20230125_0720	3.9	NNE
20230125_0730	3.3	NNE
20230125_0740	3.3	NNE
20230125_0750	3.3	NNE
20230125_0800	3.9	NNE
20230125_0810	3.6	NNE
20230125_0820	2.8	NNE
20230125_0830	3.3	NNE
20230125_0840	3.3	N
20230125_0850	2.8	N
20230125_0900	1.9	N
20230125_0910	2.8	N
20230125_0920	2.5	N
20230125_0930	2.2	NNE
20230125_0940	2.8	N
20230125_0950	2.5	N
20230125_1000	2.2	N
20230125_1010	2.8	N
20230125_1020	2.5	N
20230125_1030	2.5	N
20230125_1040	1.7	N
20230125_1050	1.7	N
20230125_1100	2.2	N
20230125_1110	1.4	NNE
20230125_1120	2.2	NNE
20230125_1130	1.7	N
20230125_1140	1.7	N
20230125_1150	2.2	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230125_1200	2.2	N
20230125_1210	2.5	N
20230125_1220	2.2	NNE
20230125_1230	2.5	N
20230125_1240	1.7	NNE
20230125_1250	1.7	-
20230125_1300	2.5	NW
20230125_1310	2.2	NW
20230125_1320	1.7	WNW
20230125_1330	1.7	NNW
20230125_1340	2.5	NE
20230125_1350	2.2	NNE
20230125_1400	2.2	N
20230125_1410	1.7	NNE
20230125_1420	1.7	NW
20230125_1430	1.9	N
20230125_1440	2.2	N
20230125_1450	1.9	N
20230125_1500	1.7	N
20230125_1510	1.9	N
20230125_1520	1.7	NNE
20230125_1530	2.2	N
20230125_1540	1.7	NNW
20230125_1550	2.2	NNE
20230125_1600	2.2	N
20230125_1610	1.7	NNW
20230125_1620	2.2	N
20230125_1630	2.5	NNE
20230125_1640	2.2	NNE
20230125_1650	1.7	NNE
20230125_1700	1.7	NNE
20230125_1710	1.4	NE
20230125_1720	1.4	E
20230125_1730	1.7	ENE
20230125_1740	1.7	ESE
20230125_1750	1.1	ESE
20230125_1800	1.4	ESE
20230125_1810	1.1	ESE
20230125_1820	0.8	ESE
20230125_1830	0.8	E
20230125_1840	0.3	ENE
20230125_1850	0	N
20230125_1900	0.6	SW
20230125_1910	0.6	SSE
20230125_1920	0.3	SSW
20230125_1930	0.3	SSW
20230125_1940	0.3	WSW
20230125_1950	0.3	WSW
20230125_2000	0	N
20230125_2010	0	N
20230125_2020	0	N
20230125_2030	0.3	SE
20230125_2040	0.8	SE
20230125_2050	0.3	ESE
20230125_2100	0.3	E
20230125_2110	1.1	E
20230125_2120	0.3	ESE
20230125_2130	0.3	E
20230125_2140	0.8	ENE
20230125_2150	1.4	E
20230125_2200	1.1	ENE
20230125_2210	1.7	ENE
20230125_2220	1.4	E
20230125_2230	1.1	ESE
20230125_2240	1.4	ESE
20230125_2250	1.7	SE
20230125_2300	1.4	SSE
20230125_2310	0.3	ESE
20230125_2320	1.1	SE
20230125_2330	1.1	ESE
20230125_2340	0.8	NE
20230125_2350	1.1	NNE

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230126_0000	1.1	NNE
20230126_0010	1.4	NE
20230126_0020	1.4	NNE
20230126_0020	1.4	NNE
20230126_0030	1.7	NNE
20230126_0040	0.8	NNE
20230126_0050	0.3	NNE
20230126_0100	0	N
20230126_0110	0	N
20230126_0120	0.8	N
20230126_0130	0.3	NNW
20230126_0140	0.3	SSW
20230126_0150	0	N
20230126_0200	0.3	NNW
20230126_0210	0.3	-
20230126_0220	0.3	NNW
20230126_0230	0	N
20230126_0240	0	N
20230126_0250	0	N
20230126_0300	0.3	NW
20230126_0310	0	N
20230126_0320	0	N
20230126_0330	0	N
20230126_0340	0.3	N
20230126_0350	0.3	-
20230126_0400	0	N
20230126_0410	0	N
20230126_0420	0	N
20230126_0430	0	N
20230126_0440	0	N
20230126_0450	0	N
20230126_0500	0	N
20230126_0510	0	N
20230126_0520	0.3	-
20230126_0530	0	N
20230126_0540	0.3	-
20230126_0550	0	N
20230126_0600	0.3	WSW
20230126_0610	0	N
20230126_0620	0	N
20230126_0630	0	N
20230126_0640	0	N
20230126_0650	0	N
20230126_0700	0	N
20230126_0710	0.3	W
20230126_0720	0	N
20230126_0730	0.3	SSW
20230126_0740	0.3	S
20230126_0750	0	N
20230126_0800	0	N
20230126_0810	0	N
20230126_0820	0.3	NNE
20230126_0830	0	N
20230126_0840	0.8	NNE
20230126_0850	0.8	NNE
20230126_0900	0.3	-
20230126_0910	0.8	NNE
20230126_0920	0.8	N
20230126_0930	0.8	NNE
20230126_0940	1.1	NNE
20230126_0950	1.7	E
20230126_1000	2.5	ESE
20230126_1010	2.8	ESE
20230126_1020	3.1	E
20230126_1030	1.9	E
20230126_1040	2.5	E
20230126_1050	2.8	E
20230126_1100	2.2	E
20230126_1110	2.2	E
20230126_1120	2.2	E
20230126_1130	2.5	E
20230126_1140	2.5	E
20230126_1150	2.2	E

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230126_1200	2.5	ENE
20230126_1210	3.3	E
20230126_1220	2.2	E
20230126_1230	2.5	E
20230126_1240	2.2	SE
20230126_1250	2.8	ESE
20230126_1300	2.5	ESE
20230126_1310	3.1	ENE
20230126_1320	2.8	E
20230126_1330	2.8	E
20230126_1340	2.5	ENE
20230126_1350	2.8	E
20230126_1400	3.1	ESE

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230127_0020	0.3	WSW
20230127_0030	0.3	NNE
20230127_0040	0.3	N
20230127_0050	0	N
20230127_0100	0	N
20230127_0110	0.3	SSW
20230127_0120	0.3	-
20230127_0130	0.3	SSE
20230127_0140	0.3	SSE
20230127_0150	0.3	S
20230127_0200	0.3	SSE
20230127_0210	0.3	-
20230127_0220	0	N
20230127_0230	0.6	NNE
20230127_0240	1.7	N
20230127_0250	2.5	N
20230127_0300	2.5	N
20230127_0310	3.1	NNE
20230127_0320	2.8	N
20230127_0330	3.6	N
20230127_0340	3.3	NNE
20230127_0350	3.9	NNE
20230127_0400	5	NNE
20230127_0410	6.1	NNE
20230127_0420	5.3	NNE
20230127_0430	5.3	NNE
20230127_0440	6.4	NNE
20230127_0450	6.1	NNE
20230127_0500	6.4	NNE
20230127_0510	6.7	NNE
20230127_0520	8.1	NNE
20230127_0530	6.1	NNE
20230127_0540	5.8	NNE
20230127_0550	6.1	NNE
20230127_0600	4.4	NNE
20230127_0610	4.2	NE
20230127_0620	5.3	NE
20230127_0630	5	NE
20230127_0640	6.7	NE
20230127_0650	5.8	NE
20230127_0700	3.9	NNE
20230127_0710	2.8	NE
20230127_0720	3.3	NE
20230127_0730	5.3	NE
20230127_0740	5.8	NNE
20230127_0750	4.7	NNE
20230127_0800	7.5	NNE
20230127_0810	6.9	NNE
20230127_0820	5	NNE
20230127_0830	5.6	NNE
20230127_0840	5.6	NNE
20230127_0850	4.2	NNE
20230127_0900	4.2	NNE
20230127_0910	5	N
20230127_0920	6.1	NNE
20230127_0930	5.8	N
20230127_0940	5.8	NNE
20230127_0950	6.1	NNE
20230127_1000	6.1	NNE
20230127_1010	7.8	NNE
20230127_1020	6.7	NNE
20230127_1030	6.4	NNE
20230127_1040	5.8	NNE
20230127_1050	4.7	NNE
20230127_1100	3.9	NNE
20230127_1110	4.7	NNE
20230127_1120	4.2	NNE
20230127_1130	4.2	NNE
20230127_1140	5	NNE
20230127_1150	3.6	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230127_1200	4.4	NNE
20230127_1210	4.4	NNE
20230127_1220	4.7	NNE
20230127_1230	4.7	NNE
20230127_1240	6.1	NNE
20230127_1250	4.7	NE
20230127_1300	5.3	NE
20230127_1310	5.3	NNE
20230127_1320	5	NNE
20230127_1330	5.3	NNE
20230127_1340	4.2	NNE
20230127_1350	4.7	NNE
20230127_1400	5.3	NNE
20230127_1410	4.7	NNE
20230127_1420	4.2	NNE
20230127_1430	5.8	NNE
20230127_1440	5.8	NNE
20230127_1450	4.2	NE
20230127_1500	5.3	NNE
20230127_1510	6.4	NNE
20230127_1520	5.3	NNE
20230127_1530	5.8	NNE
20230127_1540	5.8	NE
20230127_1550	4.2	NNE
20230127_1600	4.7	NE
20230127_1610	5	NNE
20230127_1620	5	NNE
20230127_1630	4.2	NNE
20230127_1640	3.3	NNE
20230127_1650	3.9	NNE
20230127_1700	3.3	NNE
20230127_1710	3.9	N
20230127_1720	4.2	NNE
20230127_1730	4.2	NNE
20230127_1740	3.3	NNE
20230127_1750	3.1	NE
20230127_1800	2.2	NE
20230127_1810	2.5	NE
20230127_1820	3.6	NE
20230127_1830	4.7	NNE
20230127_1840	4.2	NNE
20230127_1850	3.3	NE
20230127_1900	3.3	NNE
20230127_1910	2.8	NNE
20230127_1920	3.3	NNE
20230127_1930	2.8	NNE
20230127_1940	7.2	NNE
20230127_1950	5.3	NNE
20230127_2000	6.1	NNE
20230127_2010	3.6	NNE
20230127_2020	4.2	NNE
20230127_2030	5	NNE
20230127_2040	5	NNE
20230127_2050	5.3	NNE
20230127_2100	5.3	NNE
20230127_2110	6.7	NNE
20230127_2120	6.4	NNE
20230127_2130	6.1	NNE
20230127_2140	4.4	NNE
20230127_2150	4.4	NNE
20230127_2200	5.8	NNE
20230127_2210	5.8	NNE
20230127_2220	5.6	NNE
20230127_2230	6.4	NNE
20230127_2240	5.8	NNE
20230127_2250	4.2	NNE
20230127_2300	4.2	NNE
20230127_2310	4.2	NNE
20230127_2320	3.6	NNE
20230127_2330	5	NNE
20230127_2340	5.6	NNE
20230127_2350	5.8	NNE

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230128_0000	5.3	NNE
20230128_0010	4.2	NNE
20230128_0020	3.3	NNE
20230128_0020	3.3	NNE
20230128_0030	4.2	NNE
20230128_0040	4.7	NNE
20230128_0050	4.4	NNE
20230128_0100	4.2	NE
20230128_0110	3.9	NNE
20230128_0120	4.7	NNE
20230128_0130	4.4	NNE
20230128_0140	5.6	NNE
20230128_0150	4.2	NNE
20230128_0200	3.3	NE
20230128_0210	5.8	NNE
20230128_0220	5.3	NNE
20230128_0230	5.8	NNE
20230128_0240	6.1	NNE
20230128_0250	4.7	NNE
20230128_0300	6.1	NNE
20230128_0310	4.7	NNE
20230128_0320	4.7	NNE
20230128_0330	4.7	NNE
20230128_0340	5	NNE
20230128_0350	5	NNE
20230128_0400	6.1	NNE
20230128_0410	5.3	NNE
20230128_0420	5	NNE
20230128_0430	5	NNE
20230128_0440	5	NNE
20230128_0450	5.3	NNE
20230128_0500	5.8	NNE
20230128_0510	6.4	NNE
20230128_0520	4.7	NNE
20230128_0530	5.3	NNE
20230128_0540	5.3	NNE
20230128_0550	4.7	NNE
20230128_0600	4.4	NNE
20230128_0610	3.9	NNE
20230128_0620	3.9	NNE
20230128_0630	3.9	NNE
20230128_0640	4.2	NNE
20230128_0650	4.2	NE
20230128_0700	5.3	NE
20230128_0710	4.4	NE
20230128_0720	3.3	NE
20230128_0730	4.4	NNE
20230128_0740	5	NNE
20230128_0750	5.3	NNE
20230128_0800	4.7	NNE
20230128_0810	5.8	NNE
20230128_0820	5.3	NNE
20230128_0830	7.2	NNE
20230128_0840	6.4	NNE
20230128_0850	6.1	NNE
20230128_0900	4.4	NNE
20230128_0910	6.1	NNE
20230128_0920	6.7	NNE
20230128_0930	6.1	NNE
20230128_0940	5.3	NNE
20230128_0950	6.9	NNE
20230128_1000	6.9	NNE
20230128_1010	6.9	NNE
20230128_1020	7.2	NNE
20230128_1030	6.7	NNE
20230128_1040	6.1	NNE
20230128_1050	5.8	NNE
20230128_1100	5.3	NNE
20230128_1110	6.1	NNE
20230128_1120	7.2	NNE
20230128_1130	6.1	NNE
20230128_1140	5.3	NNE
20230128_1150	6.4	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230128_1200	5.3	N
20230128_1210	5.8	NNE
20230128_1220	5.8	NNE
20230128_1230	4.7	NNE
20230128_1240	5	NNE
20230128_1250	5.3	NNE
20230128_1300	4.4	NNE
20230128_1310	4.2	NNE
20230128_1320	4.7	NNE
20230128_1330	5.3	N
20230128_1340	5.8	NNE
20230128_1350	5.3	NNE
20230128_1400	4.7	NNE
20230128_1410	5	NNE
20230128_1420	3.9	NNE
20230128_1430	3.3	NNE
20230128_1440	5	NNE
20230128_1450	3.9	N
20230128_1500	4.2	NNE
20230128_1510	3.9	NNE
20230128_1520	3.3	NNE
20230128_1530	3.9	NNE
20230128_1540	3.9	N
20230128_1550	3.1	NNE
20230128_1600	4.2	NNE
20230128_1610	3.3	NNE
20230128_1620	2.5	NE
20230128_1630	2.2	NE
20230128_1640	2.5	NNE
20230128_1650	2.5	NNE
20230128_1700	1.7	NE
20230128_1710	2.2	NNE
20230128_1720	2.2	NNE
20230128_1730	1.7	NE
20230128_1740	2.2	NE
20230128_1750	1.7	NE
20230128_1800	1.1	ENE
20230128_1810	0.6	ENE
20230128_1820	0.8	E
20230128_1830	0.8	ENE
20230128_1840	0.3	E
20230128_1850	0	N
20230128_1900	0.3	SSE
20230128_1910	0	N
20230128_1920	0.3	S
20230128_1930	0.3	SSW
20230128_1940	0.3	SW
20230128_1950	0	N
20230128_2000	0	N
20230128_2010	0.3	S
20230128_2020	0.3	SW
20230128_2030	0	N
20230128_2040	0.3	-
20230128_2050	0.3	WSW
20230128_2100	0.3	S
20230128_2110	0.3	SSW
20230128_2120	0	N
20230128_2130	0.3	-
20230128_2140	0	N
20230128_2150	0	N
20230128_2200	0	N
20230128_2210	0.3	E
20230128_2220	0.3	SSW
20230128_2230	0.3	WSW
20230128_2240	0.8	SSW
20230128_2250	0.3	SSW
20230128_2300	0.3	-
20230128_2310	0.3	-
20230128_2320	0.3	-
20230128_2330	0.3	N
20230128_2340	0.3	NNW
20230128_2350	1.7	NE

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230129_0000	2.5	NE
20230129_0010	2.5	NE
20230129_0020	1.4	NE
20230129_0020	1.4	NE
20230129_0030	2.8	NE
20230129_0040	3.3	NE
20230129_0050	3.3	NNE
20230129_0100	3.3	NNE
20230129_0110	3.1	NNE
20230129_0120	5	NNE
20230129_0130	3.3	NNE
20230129_0140	2.8	NNE
20230129_0150	2.5	NNE
20230129_0200	1.1	NE
20230129_0210	1.4	NNE
20230129_0220	0.6	-
20230129_0230	0.3	NE
20230129_0240	1.1	NE
20230129_0250	2.2	NE
20230129_0300	2.2	NNE
20230129_0310	2.5	NNE
20230129_0320	2.5	NNE
20230129_0330	2.5	NNE
20230129_0340	3.3	NNE
20230129_0350	2.8	N
20230129_0400	2.8	NNE
20230129_0410	3.3	NNE
20230129_0420	2.8	NNE
20230129_0430	2.2	NNE
20230129_0440	1.4	NNE
20230129_0450	1.1	NNE
20230129_0500	1.4	NNE
20230129_0510	1.1	NNE
20230129_0520	2.8	NNE
20230129_0530	3.9	NNE
20230129_0540	3.9	NNE
20230129_0550	3.3	NNE
20230129_0600	2.2	NE
20230129_0610	0.6	-
20230129_0620	0.3	-
20230129_0630	0.6	-
20230129_0640	0.3	NNE
20230129_0650	0.3	SSE
20230129_0700	0.3	E
20230129_0710	0.3	-
20230129_0720	0.3	-
20230129_0730	0.3	-
20230129_0740	0.8	-
20230129_0750	0.3	SE
20230129_0800	0.3	SE
20230129_0810	0.6	ENE
20230129_0820	0.8	NNE
20230129_0830	3.3	N
20230129_0840	3.9	N
20230129_0850	3.3	N
20230129_0900	3.3	N
20230129_0910	3.3	N
20230129_0920	4.7	N
20230129_0930	4.7	N
20230129_0940	3.9	N
20230129_0950	4.2	N
20230129_1000	4.7	N
20230129_1010	5	N
20230129_1020	4.7	N
20230129_1030	3.9	NNE
20230129_1040	2.8	N
20230129_1050	4.2	NNE
20230129_1100	4.2	N
20230129_1110	3.3	NNE
20230129_1120	3.1	N
20230129_1130	3.3	N
20230129_1140	2.8	NNW
20230129_1150	2.5	NNW

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230129_1200	2.8	N
20230129_1210	2.2	NNW
20230129_1220	2.2	N
20230129_1230	2.2	N
20230129_1240	2.2	NNW
20230129_1250	1.7	-
20230129_1300	1.7	NNW
20230129_1310	1.9	NW
20230129_1320	2.2	NW
20230129_1330	1.4	-
20230129_1340	1.7	NNW
20230129_1350	1.7	NE
20230129_1400	2.2	NW
20230129_1410	2.5	NNE
20230129_1420	2.2	NW
20230129_1430	1.9	N
20230129_1440	1.7	WNW
20230129_1450	1.9	NW
20230129_1500	2.5	W
20230129_1510	1.9	WNW
20230129_1520	1.7	N
20230129_1530	1.7	NNW
20230129_1540	1.7	WNW
20230129_1550	1.4	NNW
20230129_1600	2.2	NNW
20230129_1610	1.7	NNW
20230129_1620	2.5	NNE
20230129_1630	1.7	N
20230129_1640	1.7	N
20230129_1650	1.7	N
20230129_1700	1.7	NNE
20230129_1710	1.7	NNW
20230129_1720	0.3	N
20230129_1730	0.8	N
20230129_1740	1.4	N
20230129_1750	1.1	N
20230129_1800	0.8	N
20230129_1810	0.3	-
20230129_1820	0	N
20230129_1830	0	N
20230129_1840	0	N
20230129_1850	0	N
20230129_1900	0	N
20230129_1910	0	N
20230129_1920	0	N
20230129_1930	0.3	S
20230129_1940	0	N
20230129_1950	0.3	SSE
20230129_2000	0.3	SSE
20230129_2010	0	N
20230129_2020	0	N
20230129_2030	0	N
20230129_2040	0	N
20230129_2050	0	N
20230129_2100	0.3	-
20230129_2110	0	N
20230129_2120	0.3	NNE
20230129_2130	0.6	-
20230129_2140	0.3	-
20230129_2150	0.3	SE
20230129_2200	0.3	SE
20230129_2210	0.3	SE
20230129_2220	0	N
20230129_2230	0	N
20230129_2240	0	N
20230129_2250	0	N
20230129_2300	0	N
20230129_2310	0	N
20230129_2320	0	N
20230129_2330	0	N
20230129_2340	0	N
20230129_2350	0	N

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230130_0000		
20230130_0010		
20230130_0020		
20230130_0020		
20230130_0030		
20230130_0040		
20230130_0050		
20230130_0100		
20230130_0110		
20230130_0120		
20230130_0130		
20230130_0140		
20230130_0150		
20230130_0200		
20230130_0210		
20230130_0220		
20230130_0230		
20230130_0240		
20230130_0250		
20230130_0300		
20230130_0310		
20230130_0320		
20230130_0330		
20230130_0340		
20230130_0350		
20230130_0400		
20230130_0410		
20230130_0420		
20230130_0430		
20230130_0440		
20230130_0450		
20230130_0500		
20230130_0510		
20230130_0520		
20230130_0530		
20230130_0540		
20230130_0550		
20230130_0600		
20230130_0610		
20230130_0620		
20230130_0630		
20230130_0640		
20230130_0650		
20230130_0700		
20230130_0710		
20230130_0720		
20230130_0730		
20230130_0740		
20230130_0750		
20230130_0800		
20230130_0810		
20230130_0820		
20230130_0830		
20230130_0840		
20230130_0850		
20230130_0900		
20230130_0910		
20230130_0920		
20230130_0930		
20230130_0940		
20230130_0950		
20230130_1000		
20230130_1010		
20230130_1020		
20230130_1030		
20230130_1040		
20230130_1050		
20230130_1100		
20230130_1110		
20230130_1120		
20230130_1130		
20230130_1140		
20230130_1150		

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230130_1200	0	N
20230130_1210	0	N
20230130_1220	0	N
20230130_1230	0	N
20230130_1240	0	N
20230130_1250	0	N
20230130_1300	0	N
20230130_1310	0	N
20230130_1320	0	N
20230130_1330	0	N
20230130_1340	0	N
20230130_1350	0	N
20230130_1400	0	N
20230130_1410	0	N
20230130_1420	0	N
20230130_1430	0	N
20230130_1440	0	N
20230130_1450	0.3	SW
20230130_1500	0	N
20230130_1510	0	N
20230130_1520	0	N
20230130_1530	0	N
20230130_1540	0	N
20230130_1550	0	N
20230130_1600	0	N
20230130_1610	0	N
20230130_1620	0	N
20230130_1630	0	N
20230130_1640	0	N
20230130_1650	0	N
20230130_1700	0	N
20230130_1710	0	N
20230130_1720	0	N
20230130_1730	0	N
20230130_1740	0	N
20230130_1750	0	N
20230130_1800	0	N
20230130_1810	0	N
20230130_1820	0	N
20230130_1830	0	N
20230130_1840	0	N
20230130_1850	0	N
20230130_1900	0	N
20230130_1910	0	N
20230130_1920	0	N
20230130_1930	0	N
20230130_1940	0	N
20230130_1950	0	N
20230130_2000	0	N
20230130_2010	0	N
20230130_2020	0	N
20230130_2030	0	N
20230130_2040	0	N
20230130_2050	0	N
20230130_2100	0	N
20230130_2110	0.3	SSW
20230130_2120	0	N
20230130_2130	0	N
20230130_2140	0.3	SW
20230130_2150	0.3	-
20230130_2200	0.6	-
20230130_2210	0.8	NNE
20230130_2220	0.3	N
20230130_2230	1.1	NW
20230130_2240	0.8	NW
20230130_2250	1.1	WNW
20230130_2300	1.9	NW
20230130_2310	2.8	E
20230130_2320	3.3	ESE
20230130_2330	3.1	E
20230130_2340	3.9	E
20230130_2350	3.3	E

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Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230131_0000	0.8	ESE
20230131_0010	0.8	E
20230131_0020	1.1	SE
20230131_0020	1.1	SE
20230131_0030	1.4	ESE
20230131_0040	1.7	ESE
20230131_0050	2.5	ESE
20230131_0100	2.2	ESE
20230131_0110	2.5	ESE
20230131_0120	2.5	ESE
20230131_0130	2.2	ESE
20230131_0140	1.7	ESE
20230131_0150	0.8	SE
20230131_0200	0.8	SSE
20230131_0210	1.1	SE
20230131_0220	1.4	SSE
20230131_0230	1.4	SSE
20230131_0240	1.7	SE
20230131_0250	1.1	SSE
20230131_0300	1.4	S
20230131_0310	1.7	S
20230131_0320	1.7	S
20230131_0330	1.4	SSE
20230131_0340	1.7	S
20230131_0350	1.7	S
20230131_0400	1.4	SSE
20230131_0410	2.2	SSE
20230131_0420	1.7	SSE
20230131_0430	1.7	SE
20230131_0440	1.7	SE
20230131_0450	2.2	SSE
20230131_0500	1.4	SE
20230131_0510	1.1	SE
20230131_0520	0.3	ESE
20230131_0530	0.3	E
20230131_0540	1.1	SE
20230131_0550	1.4	SE
20230131_0600	0.3	E
20230131_0610	0.8	SE
20230131_0620	2.2	SE
20230131_0630	2.2	ESE
20230131_0640	1.7	E
20230131_0650	1.1	ESE
20230131_0700	0.8	NNE
20230131_0710	0	N
20230131_0720	0.3	WSW
20230131_0730	0.3	NW
20230131_0740	0.3	ESE
20230131_0750	0.6	SSE
20230131_0800	1.4	SSE
20230131_0810	1.1	SSE
20230131_0820	0.3	NNW
20230131_0830	0.8	S
20230131_0840	1.4	ESE
20230131_0850	1.7	ESE
20230131_0900	2.5	ESE
20230131_0910	2.8	E
20230131_0920	1.4	NNW
20230131_0930	2.2	E
20230131_0940	2.8	E
20230131_0950	3.3	ESE
20230131_1000	3.1	ESE
20230131_1010	3.1	SE
20230131_1020	3.1	SE
20230131_1030	3.9	ESE
20230131_1040	3.6	E
20230131_1050	4.4	E
20230131_1100	3.3	E
20230131_1110	3.6	E
20230131_1120	3.3	E
20230131_1130	3.3	E
20230131_1140	3.6	E
20230131_1150	3.9	E

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230131_1200	3.3	E
20230131_1210	3.9	ENE
20230131_1220	4.2	ENE
20230131_1230	4.2	E
20230131_1240	3.3	E
20230131_1250	3.9	E
20230131_1300	3.9	E
20230131_1310	3.6	E
20230131_1320	4.2	ENE
20230131_1330	4.2	ENE
20230131_1340	4.2	ENE
20230131_1350	3.1	E
20230131_1400	3.3	ENE
20230131_1410	4.4	E
20230131_1420	3.3	E
20230131_1430	3.3	E
20230131_1440	3.1	E
20230131_1450	3.1	E
20230131_1500	3.1	E
20230131_1510	3.3	E
20230131_1520	2.8	E
20230131_1530	2.8	E
20230131_1540	3.1	E
20230131_1550	3.3	E
20230131_1600	2.8	E
20230131_1610	2.8	E
20230131_1620	2.5	ESE
20230131_1630	2.8	E
20230131_1640	3.3	E
20230131_1650	2.8	ESE
20230131_1700	2.2	ESE
20230131_1710	2.5	ESE
20230131_1720	3.1	ESE
20230131_1730	2.8	ESE
20230131_1740	2.2	SE
20230131_1750	2.5	SE
20230131_1800	2.2	SE
20230131_1810	2.5	SE
20230131_1820	2.2	SE
20230131_1830	2.2	SE
20230131_1840	2.2	SE
20230131_1850	1.9	SE
20230131_1900	2.8	ESE
20230131_1910	2.8	ESE
20230131_1920	3.1	ESE
20230131_1930	3.1	ESE
20230131_1940	2.5	ESE
20230131_1950	3.3	ESE
20230131_2000	3.3	SE
20230131_2010	2.8	ESE
20230131_2020	3.1	SE
20230131_2030	3.1	ESE
20230131_2040	3.3	SE
20230131_2050	2.8	ESE
20230131_2100	3.3	ESE
20230131_2110	3.3	ESE
20230131_2120	2.5	ESE
20230131_2130	3.1	ESE
20230131_2140	2.8	ESE
20230131_2150	2.2	ESE
20230131_2200	2.8	ESE
20230131_2210	3.3	ESE
20230131_2220	3.3	ESE
20230131_2230	3.3	E
20230131_2240	3.1	E
20230131_2250	3.1	E
20230131_2300	3.9	ESE
20230131_2310	3.1	E
20230131_2320	3.3	ESE
20230131_2330	2.5	ESE
20230131_2340	2.5	ESE
20230131_2350	3.3	ESE

The relevant wind data of Ta Kwu Ling weather station is extracted from the Hong Kong Observatory website (https://www.hko.gov.hk/en/wxinfo/awsgis/regional_weather_gis.html)

Appendix I Waste Flow Table

Waste Flow Table

Month	Total Quantity Generated	Total Quantities of Inert C&D Materials to be Generated from the Contract					Total Quantities of Recyclables Generation				Total Quantities of C&D Materials to be Generated from the Contract	
		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	Yard Waste	Chemical Waste	Others, e.g. general refuse & non-recyclable yard waste
	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in '000L)	(in tonne)
Dec-22	384.77	300	0	0	0	0	0	0	0	11.49	0	73.28
Jan-23	15.38	0	0	0	0	0	0	0	0	0	0	15.38
Total	400.15	0	0	0	0	0	0	0	0	11.49	0	88.66

Note:

1. The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
2. A total of 300 tonnes of hard rock and large broken concrete was generated from the contract in Dec 2022. Due to the hard rock and large broken concrete was stored in the project site, the contractor had not yet reused in the contract during reporting period. Therefore, the quantities do not count in "Reused in the Contract" between Dec-22 & Jan-23.
3. Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

Appendix J Joint Environmental Site Inspection Records

Inspection Date:	03 January 202	Inspected By:	Andy Ng, Jason Man
Time:	14:00	Weather Condition:	Sunny
Participants:	Sylvia Ho (ER), William Wan (Contractor), Andy Ng (ET), Jason Man(ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	☐	☒	☐	EP No.: EP-292/2007 FEP No.: FEP-01/292/2007
A2	Are Construction Noise Permits/ Environmental license/ other permit available for inspection/posted at site entrance.	☐	☒	☐	CNP No: GW-RN0993-22 GW-RN0824-22
A3	Is wastewater discharge licence available for inspection?	☐	☒	☐	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	☐	☒	☐	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	☐	☒	☐	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	☐	☒	☐	
B2	Are completed earthworks sealed as soon as practicable?	☒	☐	☐	N/A
B3	Are plant and equipment well maintained (i.e. without black smoke from powered plant)?	☐	☒	☐	
B4	Any remedial action undertaken?	☒	☐	☐	N/A
B5	Observed dust source(s)				
		☒ Wind erosion			
		☐ Vehicle/ Equipment Movements			
		☐ Loading/ unloading of materials			
		☐ Others: _____			
B6	Are unpaved areas/ designated roads watered regularly to avoid dust generation?	☒	☐	☐	
B7	Are dusty materials covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading?	☐	☒	☐	
B8	After removal of stockpile, are the remained dusty materials wetted with water and cleared from surface of roads?	☒	☐	☐	N/A
B9	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones?	☐	☒	☐	

B10	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	☐	☒	☐	
B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	☐	☒	☐	
B12	Are all vehicles and plant cleaned before they leave the construction site?	☐	☒	☐	
B13	Are hoarding ≥ 2.4m tall provided beside roads or area with public access?	☒	☐	☐	N/A
B14	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	☐	☒	☐	
B15	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously?	☒	☐	☐	N/A
B16	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet?	☒	☐	☐	N/A
B17	Is scaffolding erected around the perimeter of a building under construction?	☒	☐	☐	N/A
B18	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	☒	☐	☐	N/A
B19	Is the skip for materials transport enclosed by impervious sheeting?	☒	☐	☐	N/A
B20	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	☒	☐	☐	Not Observed
B21	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	☐	☒	☐	
B22	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	☒	☐	☐	N/A
B23	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system?	☒	☐	☐	N/A
B24	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilizer within six months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	☒	☐	☐	N/A
B25	Are the worksites wetted with water regularly?	☐	☐	☒	Refer to Reminder 1
B26	Is generation of dust avoided during loading or unloading?	☐	☒	☐	
B27	Are all trucks loaded to a level within the side and tail boards?	☐	☒	☐	

B28	Are appropriate speed limit sign displayed?	☐	☒	☐	
B29	Are designated roads paved?	☐	☒	☐	
B30	Are site vehicle movements confined to designated roads?	☐	☒	☐	
B31	Are NRMM labels properly affixed on the PMEs?	☐	☒	☐	

C	Noise	N/A or Not Observed	Yes	No	Remarks / Photo
C1	Is well-maintained plant operated on-site and plant served regularly?	☐	☒	☐	
C2	Are vehicles and equipment switched off or throttled down while not in use?	☐	☒	☐	
C3	Is the noise directed away from nearby NSRs?	☐	☒	☐	
C4	Are the silencers or mufflers properly fitted on construction equipment and maintained regularly?	☒	☐	☐	N/A
C5	Are mobile and/or noisy plant sited as far away from NSRs as possible and practicable and orientated so that the noise is directed away from nearby NSRs?	☐	☒	☐	
C6	Are material stockpiles, mobile container officer and other structures utilised to screen noisy activates?	☒	☐	☐	N/A
C7	Is temporary hoarding installed located on the site boundaries between noisy construction activities and NSRs?	☒	☐	☐	N/A
C8	Are noise barriers (typically density @14kg/m^2) acoustic mat or full enclosure close to noise plants including air compressor, generators and saw etc. provided to protect NSRs?	☒	☐	☐	N/A
C9	Is the sequencing operation of construction plants where practicable?	☐	☒	☐	
C10	Is the hoarding maintained properly?	☒	☐	☐	N/A
C11	Air compressors (500 kPa or above) and hand held percussive breaker (mass of above 10 kg) with valid noise labels?	☒	☐	☐	N/A
C12	Are compressor operated with doors closed?	☒	☐	☐	N/A
C13	QPME used with valid noise labels?	☐	☒	☐	
C14	Major noise source(s)				
		☐ Traffic			
		☒ Construction activities inside of site			
		☐ Construction activities outside of site			
		☐ Others: _____			

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Activities					
D1	At the start of site establishment, are perimeter cut-off drains constructed to direct off-site water around the site with internal drainage works and erosion and sedimentation control facilities implemented?	☐	☒	☐	
D2	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to such silt removal facilities?	☐	☒	☐	
D3	Have dikes or embankments for flood protection implemented around the boundaries of earthwork areas?	☒	☐	☐	Not Observed
D4	Have temporary ditches provided to facilitate the runoff discharge into an appropriate watercourse, through a site/ sediment trap?	☐	☒	☐	
D5	Are the sediment/ silt traps incorporated in the permanent drainage channels to enhance deposition rate?	☐	☒	☐	
D6	Are the retention time for silt/s and traps of the silt removal facilities be 5 minutes under maximum flow conditions?	☐	☒	☐	
D7	Is surface excavation works minimised during rainy seasons (April to September), as possible?	☒	☐	☐	N/A
D8	Are all exposed earth areas completed or vegetated as soon as possible after earthworks completed, or alternatively, within 14 days of the cessation of earthworks where practicable?	☒	☐	☐	N/A
D9	Are exposed slope surfaces covered by tarpaulin sheets?	☐	☒	☐	
D10	Have the overall slope of the site should be kept a minimum?	☐	☒	☐	
D11	Are all trafficked areas and access roads protected by coarse stone ballast?	☐	☐	☐	
D12	Is wastewater from temporary site facilities controlled to prevent direct discharge to surface	☐	☒	☐	
D13	Are the silt removal facilities, channels and manholes maintained regularly?	☐	☐	☒	Refer to Reminder 2
D14	Is the deposited silt and grit removed regularly?	☐	☒	☐	
D15	Have the excavation of trenches in wet periods be dug and backfilled in short sections?	☒	☐	☐	N/A
D16	Is rainwater pumped out from trenches discharged into storm drains via silt system?	☒	☐	☐	N/A
D17	Are open stockpiles of construction materials e.g. aggregates and sand of more than $50m^3$ on site covered with tarpaulin or similar fabric during rainstorms?	☒	☐	☐	N/A
D18	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	☐	☒	☐	
D19	Are the discharges of surface run-off into foul sewer always prevented?	☐	☒	☐	
D20	Is a wheel washing bay provided at every site exit?	☐	☒	☐	

D21	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	☐	☒	☐	
D22	Is the section of construction road between the wheel washing bay and the public road surfaced with crushed stone or coarse gravel?	☐	☒	☐	
D23	Are the vehicle wash-water have sand and silt settled out and removed at least on a weekly basis?	☐	☒	☐	
D24	Are site drainage systems provided over the entire project site with sediment control facilities?	☐	☒	☐	
D25	Are sedimentation tanks provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	☐	☒	☐	
D26	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning?	☐	☒	☐	
D27	Are portable chemical toilets and sewage holding tanks provided?	☐	☒	☐	
D28	Is the sewage generated from toilets collected by licensed contractor and responsible for disposal and maintenance?	☐	☒	☐	
D29	Is there any sediment plume observed in nearby watercourses?	☒	☐	☐	N/A
D30	Are oil interceptors provided in the site drainage system downstream of any oil/ fuel pollution sources? And the oil interceptors are emptied and cleaned regularly? Has a bypass provided to prevent flushing during heavy rain?	☒	☐	☐	Not Observed
D31	Is chemical leakage or spillages contained and cleaned up immediately?	☒	☐	☐	N/A
D32	Service workshop and maintenance facilities located within a bunded area, and sumps and oil interceptors be provided?	☒	☐	☐	N/A

E	Waste / Chemical Management	N/A or Not Observed	Yes	No	Remarks / Photo
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	☐	☒	☐	
E2	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	☐	☒	☐	
E3	Does accumulation of waste avoid?	☐	☒	☐	
E4	Is waste disposed regularly?	☐	☒	☐	
E5	Regular waste collection by approved waste collector in purpose-built vehicles?	☐	☒	☐	
E6	Burning of refuse on construction site prohibited?	☐	☒	☐	
Construction Waste					

E7	Are the temporary stockpiles maintained regularly?	☐	☒	☐	
E8	Is the excavated fill material reused for backfilling and reinstatement?	☒	☐	☐	N/A
E9	Are the C&D materials sorted and recycled on-site?	☒	☐	☐	N/A
E10	Is there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	☒	☐	☐	Not Observed
E11	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	☐	☒	☐	
E12	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	☐	☒	☐	
E13	Is the durable formwork or plastic facing for construction works used?	☒	☐	☐	N/A
E14	Do the wooden hoardings avoid to be used?	☒	☐	☐	N/A
E15	Is metal hoarding used to enhance the possibility of recycling?	☒	☐	☐	N/A
E16	Is the segregation and storage of C&D wastes undertaken in designated area?	☐	☒	☐	
E17	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	☐	☒	☐	
E18	Do the excavated materials appear contaminated?	☐	☐	☒	
E19	If suspected contaminated, appropriate procedures followed?	☒	☐	☐	N/A
E20	Is hydroseeding of the topsoil on the stockpile implemented to improve visual appearance and prevent soil erosion?	☒	☐	☐	N/A
Chemical / Fuel Storage Area					
E21	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	☒	☐	☐	Not Observed
E22	Are the storage area enclosed 3 sides by walls/ fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste?	☒	☐	☐	Not Observed
E23	Are the storage areas labelled and separated (if needed)?	☒	☐	☐	Not Observed
E24	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering?	☒	☐	☐	Not Observed
E25	Are the containers used for the storage of chemical wastes suitable for the substance that are holding, resist to corrosion, maintained in a good condition, and securely closed?	☒	☐	☐	Not Observed
E26	If no specification has been approved by EPD, are container with <450L capacity provided for storage of chemicals waste?	☒	☐	☐	Not Observed
Chemical Waste / Waste Oil					
E27	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area?	☐	☒	☐	

E28	Are chemicals and waste oil recycled or disposed properly?	☒	☐	☐	Not Observed
E29	Is chemical waste collected by licensed waste collectors and disposed of at licensed facility eg. Chemical Waste Treatment Centre?	☐	☒	☐	
Records					
E30	Is a licensed waste hauler used for waste collection?	☐	☒	☐	
E31	Are the records of quantities of wastes generated, recycled and disposed properly kept?	☐	☒	☐	
E32	For the demolition material/ waste, is the number of loads for each day recorded as appropriate?	☒	☐	☐	N/A

F	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
F1	Is the work site confined within site boundaries?	☐	☒	☐	
F2	Is damage to surrounding areas avoided?	☐	☒	☐	
F3	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	☒	☐	☐	Not Observed
F4	Is early planting using fast growing plants at strategic locations within site implemented?	☒	☐	☐	N/A
F5	Is boundary green belt planting implemented around the site perimeter and the construction of temporary soil bunds?	☒	☐	☐	N/A
F6	Is temporary landscape treatment as green surface cover implemented?	☒	☐	☐	N/A
F7	Are existing and affected tree which identified as ecological significant preserved whenever possible?	☒	☐	☐	Not Observed

G	Ecology	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Is transplantation of the important plant species implemented? Is post-transplantation maintained and monitored regularly?	☒	☐	☐	Not Observed

H	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Environmental Complaint received during this week?	☐	☐	☒	

I	General Housekeeping / Others	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Are the defined boundaries of working areas identified to prevent loss of vegetation	☐	☒	☐	
I2	Are the portable toilets maintained in a state, which will not deter the workers from utilizing these portable toilets?	☐	☒	☐	

Follow up action for previous Site Inspection:

1. The exposed slopes with no construction work conducted have been paved with cement to minimize dust dispersion.
2. The entrance has been cleaned up in Portion A after site inspection.
3. The Contactor has scheduled watering for work area and for loading and unloading activity in Portion D after site inspection.
4. The paint drums were removed in Portion A.

Observation(s):

Nil

Reminder(s):

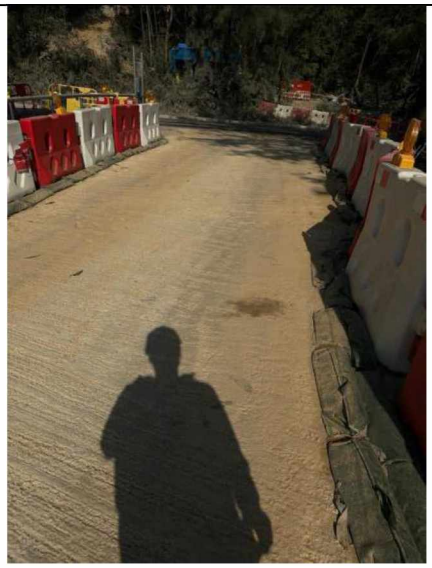
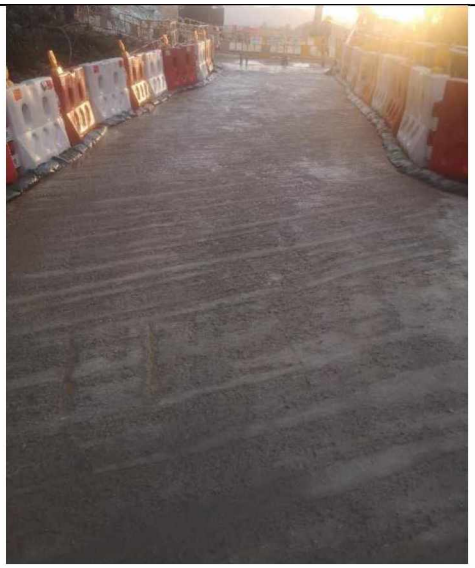
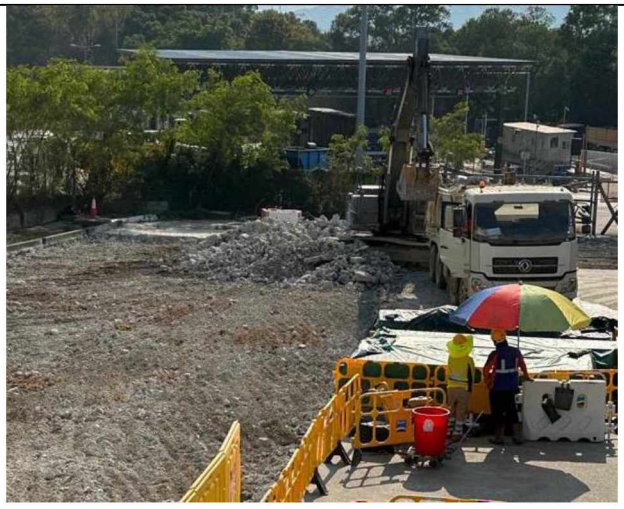
1. The work area is dry and fugitive dust is observed from loading and unloading activity in Portion D.
2. Rotten leaves and sediments are observed in the channel at Portion D.

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

1. The Contractor has been reminded to schedule watering for the workarea.
2. The Contractor has been reminded to clean up the channel at Portion D.

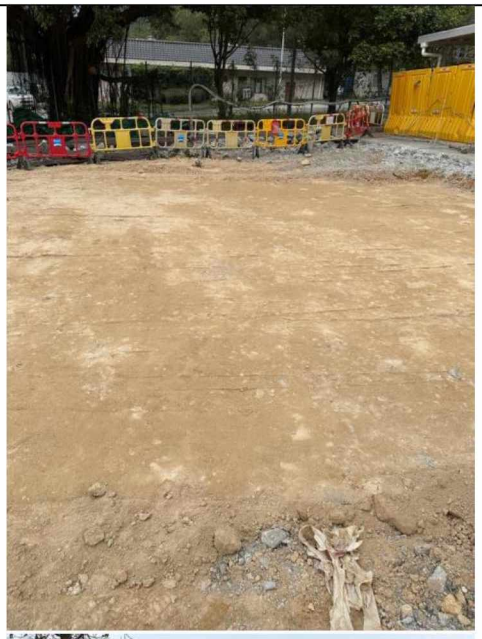
	Environmental Team Representative:	IEC's Representative:	Contractor's Representative:	Engineer's Representative
Signature:		/		
Name:	Andy Ng	/		
Date:	03 January 2023	/	03 January 2023	03 January 2023

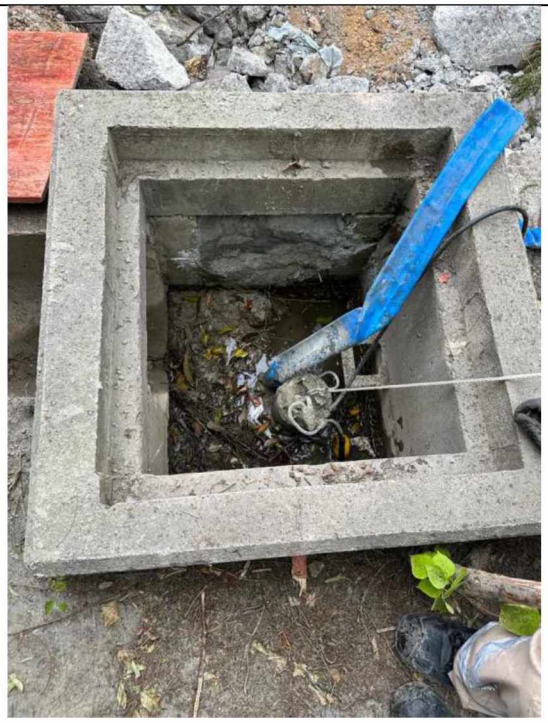
PART I Follow-up status of the previous site inspection

Observation and Recommendation	Follow-up status
 1.The Contactor had been reminded to cover the exposed slope with impervious sheet for upcoming rainfall in this week.	 The exposed slopes with no construction work conducted have been paved with cement to minimize dust dispersion.
 2. The vehicle road is covered with dusty materials in Portion A.	 The entrance has been cleaned up in Portion A after site inspection.
 3. The work area is dry and fugitive dust is observed from loading and unloading activity in Portion D.	 The Contactor has scheduled watering for work area and for loading and unloading activity in Portion D after site inspection.

Observation and Recommendation	Follow-up status
 4. Latex paint drums are observed without drip trays in Portion A.	 The paint drums were removed in Portion A..

PART II Observation and recommendation identified during the environmental site inspection

Observation and Recommendation	Follow-up status
  1. The workarea in Portion A and Portion D are dry and fugutive dust is observed.	

Observation and Recommendation	Follow-up status
 2. Rotten leaves and sediments are observed in the channel at Portion D.	

Inspection Date:	09 January 202	Inspected By:	Andy Ng
Time:	14:00	Weather Condition:	Overcast
Participants:	Sylvia Ho (ER), William Wan (Contractor), Andy Ng (ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	☐	☒	☐	EP No.: EP-292/2007 FEP No.: FEP-01/292/2007
A2	Are Construction Noise Permits/ Environmental license/ other permit available for inspection/posted at site entrance.	☐	☒	☐	CNP No: GW-RN0993-22 GW-RN0824-22
A3	Is wastewater discharge licence available for inspection?	☐	☒	☐	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	☐	☒	☐	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	☐	☒	☐	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	☐	☒	☐	
B2	Are completed earthworks sealed as soon as practicable?	☒	☐	☐	N/A
B3	Are plant and equipment well maintained (i.e. without black smoke from powered plant)?	☐	☒	☐	
B4	Any remedial action undertaken?	☒	☐	☐	N/A
B5	Observed dust source(s)				
		☒ Wind erosion			
		☒ Vehicle/ Equipment Movements			
		☐ Loading/ unloading of materials			
		☐ Others: _____			
B6	Are unpaved areas/ designated roads watered regularly to avoid dust generation?	☒	☐	☐	
B7	Are dusty materials covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading?	☐	☒	☐	
B8	After removal of stockpile, are the remained dusty materials wetted with water and cleared from surface of roads?	☒	☐	☐	N/A
B9	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones?	☐	☒	☐	

B10	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	☐	☒	☐	
B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	☒	☐	☐	Not Observed
B12	Are all vehicles and plant cleaned before they leave the construction site?	☒	☐	☐	Not Observed
B13	Are hoarding ≥ 2.4m tall provided beside roads or area with public access?	☒	☐	☐	N/A
B14	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	☐	☒	☐	
B15	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously?	☒	☐	☐	N/A
B16	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet?	☒	☐	☐	N/A
B17	Is scaffolding erected around the perimeter of a building under construction?	☒	☐	☐	N/A
B18	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	☒	☐	☐	N/A
B19	Is the skip for materials transport enclosed by impervious sheeting?	☒	☐	☐	N/A
B20	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	☒	☐	☐	Not Observed
B21	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	☐	☒	☐	
B22	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	☒	☐	☐	N/A
B23	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system?	☒	☐	☐	N/A
B24	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilizer within six months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	☒	☐	☐	N/A
B25	Are the worksites wetted with water regularly?	☐	☒	☐	Refer to Observation 2
B26	Is generation of dust avoided during loading or unloading?	☐	☒	☐	
B27	Are all trucks loaded to a level within the side and tail boards?	☐	☒	☐	

B28	Are appropriate speed limit sign displayed?	☐	☒	☐	
B29	Are designated roads paved?	☐	☒	☐	
B30	Are site vehicle movements confined to designated roads?	☐	☒	☐	
B31	Are NRMM labels properly affixed on the PMEs?	☐	☒	☐	

C	Noise	N/A or Not Observed	Yes	No	Remarks / Photo
C1	Is well-maintained plant operated on-site and plant served regularly?	☐	☒	☐	
C2	Are vehicles and equipment switched off or throttled down while not in use?	☐	☒	☐	
C3	Is the noise directed away from nearby NSRs?	☐	☒	☐	
C4	Are the silencers or mufflers properly fitted on construction equipment and maintained regularly?	☒	☐	☐	N/A
C5	Are mobile and/or noisy plant sited as far away from NSRs as possible and practicable and orientated so that the noise is directed away from nearby NSRs?	☐	☒	☐	
C6	Are material stockpiles, mobile container officer and other structures utilised to screen noisy activates?	☒	☐	☐	N/A
C7	Is temporary hoarding installed located on the site boundaries between noisy construction activities and NSRs?	☒	☐	☐	N/A
C8	Are noise barriers (typically density @14kg/m^2) acoustic mat or full enclosure close to noise plants including air compressor, generators and saw etc. provided to protect NSRs?	☒	☐	☐	N/A
C9	Is the sequencing operation of construction plants where practicable?	☐	☒	☐	
C10	Is the hoarding maintained properly?	☒	☐	☐	N/A
C11	Air compressors (500 kPa or above) and hand held percussive breaker (mass of above 10 kg) with valid noise labels?	☒	☐	☐	N/A
C12	Are compressor operated with doors closed?	☒	☐	☐	N/A
C13	QPME used with valid noise labels?	☐	☒	☐	
C14	Major noise source(s)				
		☐ Traffic			
		☒ Construction activities inside of site			
		☐ Construction activities outside of site			
		☐ Others: _____			

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Activities					
D1	At the start of site establishment, are perimeter cut-off drains constructed to direct off-site water around the site with internal drainage works and erosion and sedimentation control facilities implemented?	☐	☒	☐	
D2	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to such silt removal facilities?	☐	☒	☐	
D3	Have dikes or embankments for flood protection implemented around the boundaries of earthwork areas?	☒	☐	☐	Not Observed
D4	Have temporary ditches provided to facilitate the runoff discharge into an appropriate watercourse, through a site/ sediment trap?	☐	☒	☐	
D5	Are the sediment/ silt traps incorporated in the permanent drainage channels to enhance deposition rate?	☐	☒	☐	
D6	Are the retention time for silt/s and traps of the silt removal facilities be 5 minutes under maximum flow conditions?	☐	☒	☐	
D7	Is surface excavation works minimised during rainy seasons (April to September), as possible?	☒	☐	☐	N/A
D8	Are all exposed earth areas completed or vegetated as soon as possible after earthworks completed, or alternatively, within 14 days of the cessation of earthworks where practicable?	☒	☐	☐	N/A
D9	Are exposed slope surfaces covered by tarpaulin sheets?	☐	☒	☐	
D10	Have the overall slope of the site should be kept a minimum?	☐	☒	☐	
D11	Are all trafficked areas and access roads protected by coarse stone ballast?	☐	☐	☐	
D12	Is wastewater from temporary site facilities controlled to prevent direct discharge to surface	☐	☒	☐	
D13	Are the silt removal facilities, channels and manholes maintained regularly?	☐	☒	☐	
D14	Is the deposited silt and grit removed regularly?	☐	☒	☐	
D15	Have the excavation of trenches in wet periods be dug and backfilled in short sections?	☒	☐	☐	N/A
D16	Is rainwater pumped out from trenches discharged into storm drains via silt system?	☒	☐	☐	N/A
D17	Are open stockpiles of construction materials e.g. aggregates and sand of more than $50m^3$ on site covered with tarpaulin or similar fabric during rainstorms?	☒	☐	☐	N/A
D18	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	☐	☒	☐	
D19	Are the discharges of surface run-off into foul sewer always prevented?	☐	☒	☐	
D20	Is a wheel washing bay provided at every site exit?	☒	☐	☐	Not Observed

D21	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	☐	☒	☐	
D22	Is the section of construction road between the wheel washing bay and the public road surfaced with crushed stone or coarse gravel?	☐	☒	☐	
D23	Are the vehicle wash-water have sand and silt settled out and removed at least on a weekly basis?	☒	☐	☐	Not Observed
D24	Are site drainage systems provided over the entire project site with sediment control facilities?	☐	☒	☐	
D25	Are sedimentation tanks provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	☐	☒	☐	
D26	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning?	☐	☒	☐	
D27	Are portable chemical toilets and sewage holding tanks provided?	☐	☒	☐	
D28	Is the sewage generated from toilets collected by licensed contractor and responsible for disposal and maintenance?	☐	☒	☐	
D29	Is there any sediment plume observed in nearby watercourses?	☒	☐	☐	N/A
D30	Are oil interceptors provided in the site drainage system downstream of any oil/ fuel pollution sources? And the oil interceptors are emptied and cleaned regularly? Has a bypass provided to prevent flushing during heavy rain?	☒	☐	☐	Not Observed
D31	Is chemical leakage or spillages contained and cleaned up immediately?	☒	☐	☐	N/A
D32	Service workshop and maintenance facilities located within a bunded area, and sumps and oil interceptors be provided?	☒	☐	☐	N/A

E	Waste / Chemical Management	N/A or Not Observed	Yes	No	Remarks / Photo
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	☐	☒	☐	
E2	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	☐	☒	☐	
E3	Does accumulation of waste avoid?	☐	☒	☐	
E4	Is waste disposed regularly?	☐	☒	☐	
E5	Regular waste collection by approved waste collector in purpose-built vehicles?	☐	☒	☐	
E6	Burning of refuse on construction site prohibited?	☐	☒	☐	
Construction Waste					

E7	Are the temporary stockpiles maintained regularly?	☐	☒	☐	
E8	Is the excavated fill material reused for backfilling and reinstatement?	☒	☐	☐	N/A
E9	Are the C&D materials sorted and recycled on-site?	☒	☐	☐	N/A
E10	Is there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	☒	☐	☐	Not Observed
E11	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	☐	☒	☐	
E12	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	☐	☒	☐	
E13	Is the durable formwork or plastic facing for construction works used?	☒	☐	☐	N/A
E14	Do the wooden hoardings avoid to be used?	☒	☐	☐	N/A
E15	Is metal hoarding used to enhance the possibility of recycling?	☒	☐	☐	N/A
E16	Is the segregation and storage of C&D wastes undertaken in designated area?	☐	☒	☐	
E17	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	☐	☒	☐	
E18	Do the excavated materials appear contaminated?	☐	☐	☒	
E19	If suspected contaminated, appropriate procedures followed?	☒	☐	☐	N/A
E20	Is hydroseeding of the topsoil on the stockpile implemented to improve visual appearance and prevent soil erosion?	☒	☐	☐	N/A
Chemical / Fuel Storage Area					
E21	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	☒	☐	☐	Not Observed
E22	Are the storage area enclosed 3 sides by walls/ fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste?	☒	☐	☐	Not Observed
E23	Are the storage areas labelled and separated (if needed)?	☒	☐	☐	Not Observed
E24	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering?	☒	☐	☐	Not Observed
E25	Are the containers used for the storage of chemical wastes suitable for the substance that are holding, resist to corrosion, maintained in a good condition, and securely closed?	☒	☐	☐	Not Observed
E26	If no specification has been approved by EPD, are container with <450L capacity provided for storage of chemicals waste?	☒	☐	☐	Not Observed
Chemical Waste / Waste Oil					
E27	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area?	☐	☒	☐	

E28	Are chemicals and waste oil recycled or disposed properly?	☒	☐	☐	Not Observed
E29	Is chemical waste collected by licensed waste collectors and disposed of at licensed facility eg. Chemical Waste Treatment Centre?	☐	☒	☐	
Records					
E30	Is a licensed waste hauler used for waste collection?	☐	☒	☐	
E31	Are the records of quantities of wastes generated, recycled and disposed properly kept?	☐	☒	☐	
E32	For the demolition material/ waste, is the number of loads for each day recorded as appropriate?	☒	☐	☐	N/A

F	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
F1	Is the work site confined within site boundaries?	☐	☒	☐	
F2	Is damage to surrounding areas avoided?	☐	☒	☐	
F3	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	☒	☐	☐	Not Observed
F4	Is early planting using fast growing plants at strategic locations within site implemented?	☒	☐	☐	N/A
F5	Is boundary green belt planting implemented around the site perimeter and the construction of temporary soil bunds?	☒	☐	☐	N/A
F6	Is temporary landscape treatment as green surface cover implemented?	☒	☐	☐	N/A
F7	Are existing and affected tree which identified as ecological significant preserved whenever possible?	☒	☐	☐	Not Observed

G	Ecology	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Is transplantation of the important plant species implemented? Is post-transplantation maintained and monitored regularly?	☒	☐	☐	Not Observed

H	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Environmental Complaint received during this week?	☐	☐	☒	

I	General Housekeeping / Others	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Are the defined boundaries of working areas identified to prevent loss of vegetation	☐	☒	☐	
I2	Are the portable toilets maintained in a state, which will not deter the workers from utilizing these portable toilets?	☐	☒	☐	

Follow up action for previous Site Inspection:

1. The Contractor has scheduled watering for the workarea in Portion D.
2. The Contractor has cleaned up the channel in Portion D and ensured it proper function.

Observation(s):

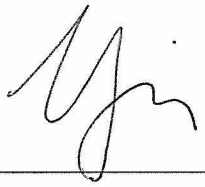
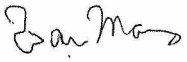
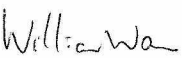
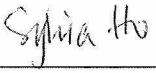
1. Plant equipment is placed on the ground without impervious sheets in SBA.
2. The workarea in SBA is observed dry and fugitive dust is generated.

Reminder(s):

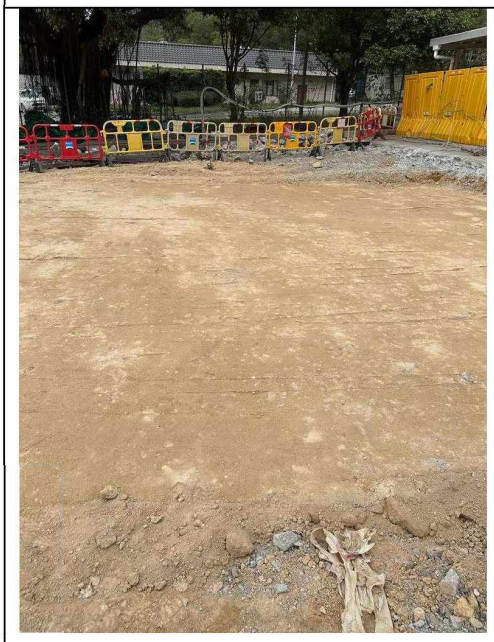
Nil

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

1. The Contractor has been reminded to place the maintenance parts and equipment on impervious sheet to prevent land contamination.
2. The Contractor has been reminded to schedule watering for workarea in SBA area.

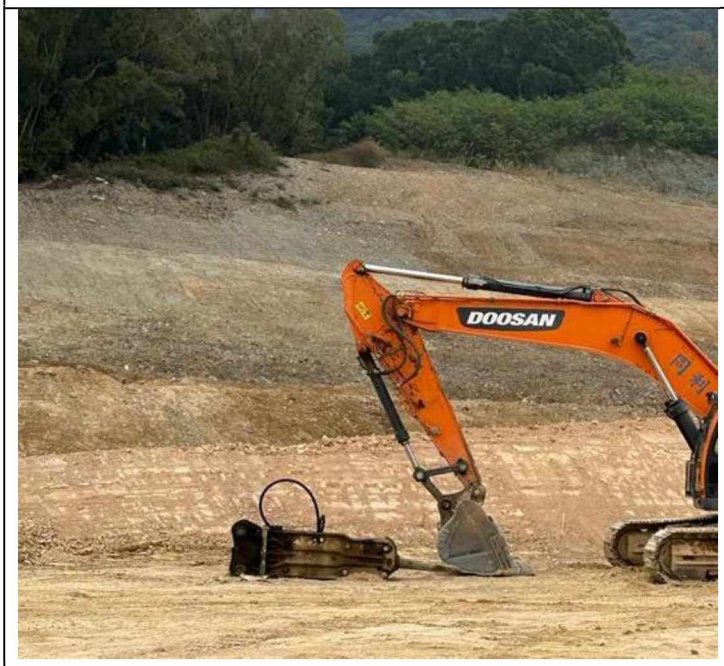
	Environmental Team Representative:	IEC's Representative:	Contractor's Representative:	Engineer's Representative
Signature:		/		
Name:	Andy Ng	/		
Date:	09 January 2023	/	09 January 2023	09 January 2023

PART I Follow-up status of the previous site inspection

Observation and Recommendation	Follow-up status
  1. The workarea in Portion A and Portion D are dry and fugutive dust is observed.	 The Contractor has scheduled watering for the workarea in Portion A.  The Contractor has scheduled watering for the workarea in Portion D.

Observation and Recommendation	Follow-up status
 2. Rotten leaves and sediments are observed in the channel at Portion D.	 The Contractor has cleaned up the channel and ensured it proper function.

PART II Observation and recommendation identified during the environmental site inspection

Observation and Recommendation	Follow-up status
 1. Plant equipment is placed on the ground without impervious sheets in SBA.	
 2. The workarea in SBA is observed dry and fugitive dust is observed.	

Inspection Date:	16 January 202	Inspected By:	Andy Ng, Daisy Au Yeung
Time:	14:00	Weather Condition:	Overcast
Participants:	Sylvia Ho (ER), William Wan (Contractor), Andy Ng (ET), Daisy Au Yeung (ET), Jimmy (IEC)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	☐	☒	☐	EP No.: EP-292/2007 FEP No.: FEP-01/292/2007
A2	Are Construction Noise Permits/ Environmental license/ other permit available for inspection/posted at site entrance.	☐	☒	☐	CNP No: GW-RN0824-22 GW-RN1151-22
A3	Is wastewater discharge licence available for inspection?	☐	☒	☐	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	☐	☒	☐	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	☐	☒	☐	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	☐	☒	☐	
B2	Are completed earthworks sealed as soon as practicable?	☒	☐	☐	N/A
B3	Are plant and equipment well maintained (i.e. without black smoke from powered plant)?	☐	☒	☐	
B4	Any remedial action undertaken?	☒	☐	☐	N/A
B5	Observed dust source(s)				
		☐ Wind erosion			
		☐ Vehicle/ Equipment Movements			
		☐ Loading/ unloading of materials			
		☒ Others: Not Observed			
B6	Are unpaved areas/ designated roads watered regularly to avoid dust generation?	☒	☐	☐	N/A
B7	Are dusty materials covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading?	☐	☐	☒	Refer to Reminder 2
B8	After removal of stockpile, are the remained dusty materials wetted with water and cleared from surface of roads?	☒	☐	☐	N/A
B9	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones?	☐	☒	☐	

B10	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	☐	☒	☐	
B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	☐	☒	☐	
B12	Are all vehicles and plant cleaned before they leave the construction site?	☐	☒	☐	
B13	Are hoarding ≥ 2.4m tall provided beside roads or area with public access?	☒	☐	☐	N/A
B14	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	☐	☒	☐	
B15	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously?	☒	☐	☐	N/A
B16	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet?	☒	☐	☐	N/A
B17	Is scaffolding erected around the perimeter of a building under construction?	☒	☐	☐	N/A
B18	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	☒	☐	☐	N/A
B19	Is the skip for materials transport enclosed by impervious sheeting?	☒	☐	☐	N/A
B20	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	☒	☐	☐	Not Observed
B21	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	☐	☐	☒	Refer to Reminder 1
B22	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	☒	☐	☐	N/A
B23	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system?	☒	☐	☐	N/A
B24	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilizer within six months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	☒	☐	☐	N/A
B25	Are the worksites wetted with water regularly?	☐	☒	☐	
B26	Is generation of dust avoided during loading or unloading?	☐	☒	☐	
B27	Are all trucks loaded to a level within the side and tail boards?	☐	☒	☐	
B28	Are appropriate speed limit sign displayed?	☐	☒	☐	

B29	Are designated roads paved?	☐	☒	☐	
B30	Are site vehicle movements confined to designated roads?	☐	☒	☐	
B31	Are NRMM labels properly affixed on the PMEs?	☐	☒	☐	

C	Noise	N/A or Not Observed	Yes	No	Remarks / Photo
C1	Is well-maintained plant operated on-site and plant served regularly?	☐	☒	☐	
C2	Are vehicles and equipment switched off or throttled down while not in use?	☐	☒	☐	
C3	Is the noise directed away from nearby NSRs?	☐	☒	☐	
C4	Are the silencers or mufflers properly fitted on construction equipment and maintained regularly?	☒	☐	☐	N/A
C5	Are mobile and/or noisy plant sited as far away from NSRs as possible and practicable and orientated so that the noise is directed away from nearby NSRs?	☐	☒	☐	
C6	Are material stockpiles, mobile container officer and other structures utilised to screen noisy activates?	☒	☐	☐	N/A
C7	Is temporary hoarding installed located on the site boundaries between noisy construction activities and NSRs?	☒	☐	☐	N/A
C8	Are noise barriers (typically density @14kg/m^2) acoustic mat or full enclosure close to noise plants including air compressor, generators and saw etc. provided to protect NSRs?	☒	☐	☐	N/A
C9	Is the sequencing operation of construction plants where practicable?	☐	☒	☐	
C10	Is the hoarding maintained properly?	☒	☐	☐	N/A
C11	Air compressors (500 kPa or above) and hand held percussive breaker (mass of above 10 kg) with valid noise labels?	☒	☐	☐	N/A
C12	Are compressor operated with doors closed?	☒	☐	☐	N/A
C13	QPME used with valid noise labels?	☐	☒	☐	
C14	Major noise source(s)				
		☐ Traffic			
		☒ Construction activities inside of site			
		☐ Construction activities outside of site			
		☐ Others: _____			

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Activities					
D1	At the start of site establishment, are perimeter cut-off drains constructed to direct off-site water around the site with internal drainage works and erosion and sedimentation control facilities implemented?	☐	☒	☐	
D2	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to such silt removal facilities?	☐	☒	☐	
D3	Have dikes or embankments for flood protection implemented around the boundaries of earthwork areas?	☒	☐	☐	Not Observed
D4	Have temporary ditches provided to facilitate the runoff discharge into an appropriate watercourse, through a site/ sediment trap?	☐	☒	☐	
D5	Are the sediment/ silt traps incorporated in the permanent drainage channels to enhance deposition rate?	☐	☒	☐	
D6	Are the retention time for silt/s and traps of the silt removal facilities be 5 minutes under maximum flow conditions?	☐	☒	☐	
D7	Is surface excavation works minimised during rainy seasons (April to September), as possible?	☒	☐	☐	N/A
D8	Are all exposed earth areas completed or vegetated as soon as possible after earthworks completed, or alternatively, within 14 days of the cessation of earthworks where practicable?	☒	☐	☐	N/A
D9	Are exposed slope surfaces covered by tarpaulin sheets?	☐	☒	☐	
D10	Have the overall slope of the site should be kept a minimum?	☐	☒	☐	
D11	Are all trafficked areas and access roads protected by coarse stone ballast?	☐	☒	☐	
D12	Is wastewater from temporary site facilities controlled to prevent direct discharge to surface	☐	☒	☐	
D13	Are the silt removal facilities, channels and manholes maintained regularly?	☐	☐	☒	Refer to Reminder 3
D14	Is the deposited silt and grit removed regularly?	☐	☐	☒	Refer to Reminder 3
D15	Have the excavation of trenches in wet periods be dug and backfilled in short sections?	☒	☐	☐	N/A
D16	Is rainwater pumped out from trenches discharged into storm drains via silt system?	☒	☐	☐	N/A
D17	Are open stockpiles of construction materials e.g. aggregates and sand of more than $50m^3$ on site covered with tarpaulin or similar fabric during rainstorms?	☒	☐	☐	N/A
D18	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	☐	☒	☐	
D19	Are the discharges of surface run-off into foul sewer always prevented?	☐	☒	☐	

D20	Is a wheel washing bay provided at every site exit?	☐	☒	☐	
D21	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	☐	☒	☐	
D22	Is the section of construction road between the wheel washing bay and the public road surfaced with crushed stone or coarse gravel?	☐	☐	☒	Refer to Reminder 1
D23	Are the vehicle wash-water have sand and silt settled out and removed at least on a weekly basis?	☐	☐	☒	Refer to Reminder 3
D24	Are site drainage systems provided over the entire project site with sediment control facilities?	☐	☒	☐	
D25	Are sedimentation tanks provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	☐	☒	☐	
D26	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning?	☐	☒	☐	
D27	Are portable chemical toilets and sewage holding tanks provided?	☐	☒	☐	
D28	Is the sewage generated from toilets collected by licensed contractor and responsible for disposal and maintenance?	☐	☒	☐	
D29	Is there any sediment plume observed in nearby watercourses?	☒	☐	☐	N/A
D30	Are oil interceptors provided in the site drainage system downstream of any oil/ fuel pollution sources? And the oil interceptors are emptied and cleaned regularly? Has a bypass provided to prevent flushing during heavy rain?	☒	☐	☐	Not Observed
D31	Is chemical leakage or spillages contained and cleaned up immediately?	☒	☐	☐	N/A
D32	Service workshop and maintenance facilities located within a bunded area, and sumps and oil interceptors be provided?	☒	☐	☐	N/A

E	Waste / Chemical Management	N/A or Not Observed	Yes	No	Remarks / Photo
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	☐	☒	☐	
E2	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	☐	☒	☐	
E3	Does accumulation of waste avoid?	☐	☒	☐	
E4	Is waste disposed regularly?	☐	☒	☐	
E5	Regular waste collection by approved waste collector in purpose-built vehicles?	☐	☒	☐	
E6	Burning of refuse on construction site prohibited?	☐	☒	☐	

Construction Waste					
E7	Are the temporary stockpiles maintained regularly?	☐	☒	☐	
E8	Is the excavated fill material reused for backfilling and reinstatement?	☒	☐	☐	N/A
E9	Are the C&D materials sorted and recycled on-site?	☐	☒	☐	
E10	Is there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	☒	☐	☐	Not Observed
E11	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	☐	☒	☐	
E12	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	☐	☒	☐	
E13	Is the durable formwork or plastic facing for construction works used?	☒	☐	☐	N/A
E14	Do the wooden hoardings avoid to be used?	☒	☐	☐	N/A
E15	Is metal hoarding used to enhance the possibility of recycling?	☒	☐	☐	N/A
E16	Is the segregation and storage of C&D wastes undertaken in designated area?	☐	☒	☐	
E17	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	☐	☒	☐	
E18	Do the excavated materials appear contaminated?	☐	☐	☒	
E19	If suspected contaminated, appropriate procedures followed?	☒	☐	☐	N/A
E20	Is hydroseeding of the topsoil on the stockpile implemented to improve visual appearance and prevent soil erosion?	☒	☐	☐	N/A
Chemical / Fuel Storage Area					
E21	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	☒	☐	☐	Not Observed
E22	Are the storage area enclosed 3 sides by walls/ fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste?	☒	☐	☐	Not Observed
E23	Are the storage areas labelled and separated (if needed)?	☒	☐	☐	Not Observed
E24	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering?	☒	☐	☐	Not Observed
E25	Are the containers used for the storage of chemical wastes suitable for the substance that are holding, resist to corrosion, maintained in a good condition, and securely closed?	☒	☐	☐	Not Observed
E26	If no specification has been approved by EPD, are container with <450L capacity provided for storage of chemicals waste?	☒	☐	☐	Not Observed
Chemical Waste / Waste Oil					

E27	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area?	☒	☐	☐	Not Observed
E28	Are chemicals and waste oil recycled or disposed properly?	☒	☐	☐	Not Observed
E29	Is chemical waste collected by licensed waste collectors and disposed of at licensed facility eg. Chemical Waste Treatment Centre?	☐	☒	☐	
Records					
E30	Is a licensed waste hauler used for waste collection?	☐	☒	☐	
E31	Are the records of quantities of wastes generated, recycled and disposed properly kept?	☐	☒	☐	
E32	For the demolition material/ waste, is the number of loads for each day recorded as appropriate?	☒	☐	☐	N/A

F	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
F1	Is the work site confined within site boundaries?	☐	☒	☐	
F2	Is damage to surrounding areas avoided?	☐	☒	☐	
F3	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	☒	☐	☐	Not Observed
F4	Is early planting using fast growing plants at strategic locations within site implemented?	☒	☐	☐	N/A
F5	Is boundary green belt planting implemented around the site perimeter and the construction of temporary soil bunds?	☒	☐	☐	N/A
F6	Is temporary landscape treatment as green surface cover implemented?	☒	☐	☐	N/A
F7	Are existing and affected tree which identified as ecological significant preserved whenever possible?	☒	☐	☐	Not Observed

G	Ecology	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Is transplantation of the important plant species implemented? Is post-transplantation maintained and monitored regularly?	☒	☐	☐	Not Observed

H	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Environmental Complaint received during this week?	☐	☐	☒	

I	General Housekeeping / Others	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Are the defined boundaries of working areas identified to prevent loss of vegetation	☐	☒	☐	

I2	Are the portable toilets maintained in a state, which will not deter the workers from utilizing these portable toilets?	☐	☒	☐	

Follow up action for previous Site Inspection:

1. The Contractor arranged watering for the site area in SBA.

Observation(s):

Nil

Reminder(s):

1. The vehicle washing bay is not maintained properly in Portion A.
2. Open stockpile is observed in Portion D.
3. Sand and silt are accumulated in the channel of the vehicle washing bay in Portion A.

Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

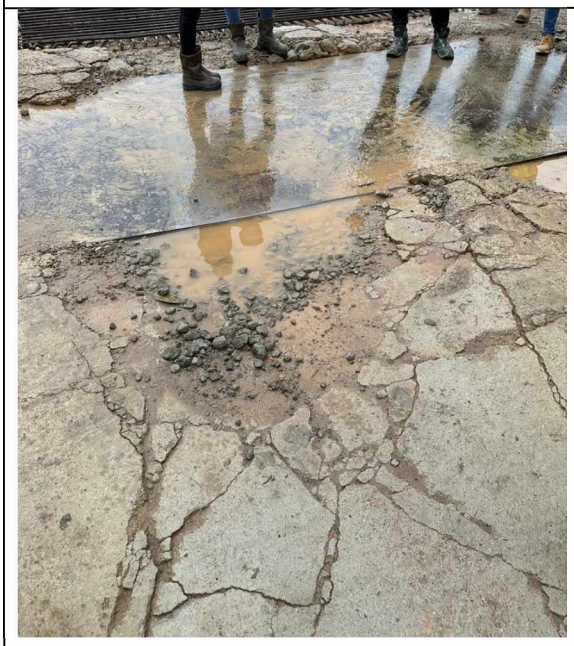
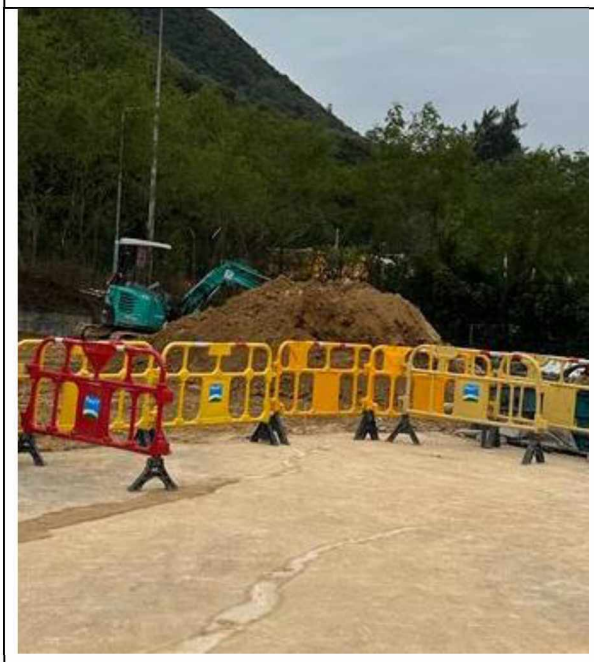
1. The Contractor has been recommended to repave the road section between the washing facilities and the exit point.
2. The Contractor has been reminded to cover the open stockpile with impervious sheets.
3. The Contractor has been reminded to remove the sand and silt in the channel regularly.

	Environmental Team Representative:	IEC's Representative:	Contractor's Representative:	Engineer's Representative
Signature:				
Name:	Andy Ng	Lui Chi Yung	William Wan	Sylvia Ho
Date:	16 January 2023	16 January 2023	16 January 2023	16 January 2023

PART I Follow-up status of the previous site inspection

Observation and Recommendation	Follow-up status
 1. Plant equipment was placed on the ground without impervious sheets in SBA.	 The Plant equipment was removed.
 2. The workarea in SBA was observed dry and fugitive dust was observed.	 The Contractor arranged watering for the site area in SBA.

PART II Observation and recommendation identified during the environmental site inspection

Observation and Recommendation	Follow-up status
 1. The vehicle washing bay is not maintained properly in Portion A.	
 2. Open stockpile is observed in Portion D.	

Observation and Recommendation	Follow-up status
 3. Sand and silt are accumulated in the channel of the vehicle washing bay in Portion A.	

Inspection Date:	27 January 2023	Inspected By:	Andy Ng
Time:	14:00	Weather Condition:	Sunny
Participants:	Henry Lau (ER), Gloria Wong (Contractor), Andy Ng (ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	☐	☒	☐	EP No.: EP-292/2007 FEP No.: FEP-01/292/2007
A2	Are Construction Noise Permits/ Environmental license/ other permit available for inspection/posted at site entrance.	☐	☒	☐	CNP No: GW-RN0824-22 GW-RN1151-22
A3	Is wastewater discharge licence available for inspection?	☐	☒	☐	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	☐	☒	☐	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	☐	☒	☐	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	☐	☒	☐	
B2	Are completed earthworks sealed as soon as practicable?	☐	☒	☐	
B3	Are plant and equipment well maintained (i.e. without black smoke from powered plant)?	☐	☒	☐	
B4	Any remedial action undertaken?	☒	☐	☐	N/A
B5	Observed dust source(s)				
		☒ Wind erosion			
		☐ Vehicle/ Equipment Movements			
		☐ Loading/ unloading of materials			
		☐ Others: _____			
B6	Are unpaved areas/ designated roads watered regularly to avoid dust generation?	☐	☐	☒	Refer to Reminder 1
B7	Are dusty materials covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading?	☐	☐	☒	Refer to Observation 1
B8	After removal of stockpile, are the remained dusty materials wetted with water and cleared from surface of roads?	☒	☐	☐	N/A
B9	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones?	☐	☒	☐	

B10	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	☒	☐	☐	Not Observed
B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	☐	☒	☐	
B12	Are all vehicles and plant cleaned before they leave the construction site?	☒	☐	☐	Not Observed
B13	Are hoarding ≥ 2.4m tall provided beside roads or area with public access?	☒	☐	☐	N/A
B14	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	☐	☒	☐	
B15	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously?	☐	☐	☒	Refer to Reminder 2
B16	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet?	☒	☐	☐	N/A
B17	Is scaffolding erected around the perimeter of a building under construction?	☒	☐	☐	N/A
B18	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	☒	☐	☐	N/A
B19	Is the skip for materials transport enclosed by impervious sheeting?	☒	☐	☐	N/A
B20	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	☒	☐	☐	Not Observed
B21	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	☐	☒	☐	
B22	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	☒	☐	☐	N/A
B23	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system?	☒	☐	☐	N/A
B24	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilizer within six months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	☒	☐	☐	N/A
B25	Are the worksites wetted with water regularly?	☐	☒	☐	
B26	Is generation of dust avoided during loading or unloading?	☐	☒	☐	
B27	Are all trucks loaded to a level within the side and tail boards?	☐	☒	☐	
B28	Are appropriate speed limit sign displayed?	☐	☒	☐	

B29	Are designated roads paved?	☐	☒	☐	
B30	Are site vehicle movements confined to designated roads?	☐	☒	☐	
B31	Are NRMM labels properly affixed on the PMEs?	☐	☒	☐	

C	Noise	N/A or Not Observed	Yes	No	Remarks / Photo
C1	Is well-maintained plant operated on-site and plant served regularly?	☐	☒	☐	
C2	Are vehicles and equipment switched off or throttled down while not in use?	☐	☒	☐	
C3	Is the noise directed away from nearby NSRs?	☐	☒	☐	
C4	Are the silencers or mufflers properly fitted on construction equipment and maintained regularly?	☒	☐	☐	N/A
C5	Are mobile and/or noisy plant sited as far away from NSRs as possible and practicable and orientated so that the noise is directed away from nearby NSRs?	☐	☒	☐	
C6	Are material stockpiles, mobile container officer and other structures utilised to screen noisy activates?	☒	☐	☐	N/A
C7	Is temporary hoarding installed located on the site boundaries between noisy construction activities and NSRs?	☒	☐	☐	N/A
C8	Are noise barriers (typically density @14kg/m^2) acoustic mat or full enclosure close to noise plants including air compressor, generators and saw etc. provided to protect NSRs?	☒	☐	☐	N/A
C9	Is the sequencing operation of construction plants where practicable?	☐	☒	☐	
C10	Is the hoarding maintained properly?	☒	☐	☐	N/A
C11	Air compressors (500 kPa or above) and hand held percussive breaker (mass of above 10 kg) with valid noise labels?	☒	☐	☐	N/A
C12	Are compressor operated with doors closed?	☒	☐	☐	N/A
C13	QPME used with valid noise labels?	☒	☐	☐	Not Observed
C14	Major noise source(s)				
		☐ Traffic			
		☐ Construction activities inside of site			
		☐ Construction activities outside of site			
		☒ Others: Not observed			

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Activities					
D1	At the start of site establishment, are perimeter cut-off drains constructed to direct off-site water around the site with internal drainage works and erosion and sedimentation control facilities implemented?	☐	☒	☐	
D2	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to such silt removal facilities?	☐	☒	☐	
D3	Have dikes or embankments for flood protection implemented around the boundaries of earthwork areas?	☒	☐	☐	Not Observed
D4	Have temporary ditches provided to facilitate the runoff discharge into an appropriate watercourse, through a site/ sediment trap?	☐	☒	☐	
D5	Are the sediment/ silt traps incorporated in the permanent drainage channels to enhance deposition rate?	☐	☒	☐	
D6	Are the retention time for silt/s and traps of the silt removal facilities be 5 minutes under maximum flow conditions?	☐	☒	☐	
D7	Is surface excavation works minimised during rainy seasons (April to September), as possible?	☒	☐	☐	N/A
D8	Are all exposed earth areas completed or vegetated as soon as possible after earthworks completed, or alternatively, within 14 days of the cessation of earthworks where practicable.	☒	☐	☐	N/A
D9	Are exposed slope surfaces covered by tarpaulin sheets?	☐	☒	☐	
D10	Have the overall slope of the site should be kept a minimum?	☐	☒	☐	
D11	Are all trafficked areas and access roads protected by coarse stone ballast	☐	☒	☐	
D12	Is wastewater from temporary site facilities controlled to prevent direct discharge to surface	☐	☒	☐	
D13	Are the silt removal facilities, channels and manholes maintained regularly?	☐	☒	☐	
D14	Is the deposited silt and grit removed regularly?	☐	☒	☐	
D15	Have the excavation of trenches in wet periods be dug and backfilled in short sections?	☒	☐	☐	N/A
D16	Is rainwater pumped out from trenches discharged into storm drains via silt system?	☒	☐	☐	N/A
D17	Are open stockpiles of construction materials e.g. aggregates and sand of more than $50m^3$ on site covered with tarpaulin or similar fabric during rainstorms?	☒	☐	☐	N/A
D18	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	☐	☒	☐	
D19	Are the discharges of surface run-off into foul sewer always prevented?	☐	☒	☐	
D20	Is a wheel washing bay provided at every site exit?	☐	☒	☐	

D21	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	☒	☐	☐	Not Observed
D22	Is the section of construction road between the wheel washing bay and the public road surfaced with crushed stone or coarse gravel?	☐	☒	☐	
D23	Are the vehicle wash-water have sand and silt settled out and removed at least on a weekly basis?	☒	☐	☐	Not Observed
D24	Are site drainage systems provided over the entire project site with sediment control facilities?	☐	☒	☐	
D25	Are sedimentation tanks provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	☐	☒	☐	
D26	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning?	☐	☒	☐	
D27	Are portable chemical toilets and sewage holding tanks provided?	☐	☒	☐	
D28	Is the sewage generated from toilets collected by licensed contractor and responsible for disposal and maintenance?	☐	☒	☐	
D29	Is there any sediment plume observed in nearby watercourses?	☒	☐	☐	N/A
D30	Are oil interceptors provided in the site drainage system downstream of any oil/ fuel pollution sources? And the oil interceptors are emptied and cleaned regularly? Has a bypass provided to prevent flushing during heavy rain?	☒	☐	☐	Not Observed
D31	Is chemical leakage or spillages contained and cleaned up immediately?	☒	☐	☐	N/A
D32	Service workshop and maintenance facilities located within a bunded area, and sumps and oil interceptors be provided?	☒	☐	☐	N/A

E	Waste / Chemical Management	N/A or Not Observed	Yes	No	Remarks / Photo
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	☐	☒	☐	
E2	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	☐	☒	☐	
E3	Does accumulation of waste avoid?	☐	☒	☐	
E4	Is waste disposed regularly?	☐	☒	☐	
E5	Regular waste collection by approved waste collector in purpose-built vehicles?	☐	☒	☐	
E6	Burning of refuse on construction site prohibited?	☐	☒	☐	
Construction Waste					

E7	Are the temporary stockpiles maintained regularly?	☐	☒	☐	
E8	Is the excavated fill material reused for backfilling and reinstatement?	☒	☐	☐	N/A
E9	Are the C&D materials sorted and recycled on-site?	☐	☒	☐	
E10	Is there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	☒	☐	☐	Not Observed
E11	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	☐	☒	☐	
E12	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	☐	☒	☐	
E13	Is the durable formwork or plastic facing for construction works used?	☒	☐	☐	N/A
E14	Do the wooden hoardings avoid to be used?	☒	☐	☐	N/A
E15	Is metal hoarding used to enhance the possibility of recycling?	☒	☐	☐	N/A
E16	Is the segregation and storage of C&D wastes undertaken in designated area?	☐	☒	☐	
E17	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	☐	☒	☐	
E18	Do the excavated materials appear contaminated?	☐	☐	☒	
E19	If suspected contaminated, appropriate procedures followed?	☒	☐	☐	N/A
E20	Is hydroseeding of the topsoil on the stockpile implemented to improve visual appearance and prevent soil erosion?	☒	☐	☐	N/A
Chemical / Fuel Storage Area					
E21	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	☒	☐	☐	Not Observed
E22	Are the storage area enclosed 3 sides by walls/ fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste?	☒	☐	☐	Not Observed
E23	Are the storage areas labelled and separated (if needed)?	☒	☐	☐	Not Observed
E24	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering?	☒	☐	☐	Not Observed
E25	Are the containers used for the storage of chemical wastes suitable for the substance that are holding, resist to corrosion, maintained in a good condition, and securely closed?	☒	☐	☐	Not Observed
E26	If no specification has been approved by EPD, are container with <450L capacity provided for storage of chemicals waste?	☒	☐	☐	Not Observed
Chemical Waste / Waste Oil					
E27	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area?	☒	☐	☐	Not Observed

E28	Are chemicals and waste oil recycled or disposed properly?	☐	☐	☒	Refer to Observation 2
E29	Is chemical waste collected by licensed waste collectors and disposed of at licensed facility eg. Chemical Waste Treatment Centre?	☐	☒	☐	
Records					
E30	Is a licensed waste hauler used for waste collection?	☐	☒	☐	
E31	Are the records of quantities of wastes generated, recycled and disposed properly kept?	☐	☒	☐	
E32	For the demolition material/ waste, is the number of loads for each day recorded as appropriate?	☒	☐	☐	N/A

F	LFG	N/A or Not Observed	Yes	No	Remarks / Photo
F1	Are special LFG precautions taken to avoid potential hazards of LFG exposure (ignition, explosion, asphyxiation, toxicity)?	☒	☐	☐	Not Observed
F2	Are prominent safety warning signs erected on-site to alert all personnel and visitors of LFG hazards during excavation works.?	☒	☐	☐	Not Observed
F3	Is no smoking or burning permitted on-site?	☒	☐	☐	Not Observed
F4	Are prominent 'No smoking' and 'No Naked Flames' signs erected on-site?	☒	☐	☐	Not Observed
F5	Is no worker allowed to work alone at any time in excavated trenches or confined areas on-site?	☒	☐	☐	Not Observed
F6	Is adequate fire fighting equipment provided on-site?	☒	☐	☐	Not Observed
F7	Are construction equipment equipped with vertical exhaust at least 0.6m above ground installed with spark arrestors?	☒	☐	☐	Not Observed
F8	Are electrical motors and extension cords explosion-proof and intrinsically safe for use on-site?	☒	☐	☐	Not Observed
F9	Is 'Permit to Work' system implemented?	☐	☒	☐	
F10	Are welding, flame-cutting or other hot works conducted only under 'Permit to Work' system following clear safety requirements, gas monitoring procedures and presence of qualified persons to supervise the works?	☒	☐	☐	Not Observed
F11a	For piping assembly or conduit construction, are all valves and seals closed immediately after installation?	☒	☐	☐	Not Observed
F11b	Are the pipe ends sealed on one side during installation if installation of large diameter pipes (diameter >600mm) is required?	☒	☐	☐	Not Observed
F11c	Is forced ventilation implemented prior to operation of installed pipeline?	☒	☐	☐	Not Observed
F11d	Is forced ventilation implemented for works inside trenches deeper than 1m?	☒	☐	☐	Not Observed
F12	Is frequency and location of LFG monitoring within excavation area determined prior to commencement of works?	☒	☐	☐	Not Observed

	*LFG monitoring in excavations should be conducted at no more than 10mm from exposed ground surface.				
F13	For excavation works, Is LFG monitoring conducted (1) at ground surface prior to excavation, (2) immediately before workers entering excavations, (3) at the beginning of each half-day work, and (4) periodically throughout the working day when workers are in the excavation?	☒	☐	☐	Not Observed
F14	Are LFG monitoring conducted periodically when any cracks on ground level encountered on-site? *Appropriate action should be taken in accordance with the action plan in Table 7.6 of EIA Report.	☒	☐	☐	Not Observed
F15a	Are LFG precautionary measures involved in excavation and piping works provided in accordance with LFG Guidance Note and included in Safety Plan of construction phase?	☒	☐	☐	Not Observed
F15b	Are temporary offices or buildings located where free LFG has been proven or raised clear of ground at a separation distance of at least 500mm?	☒	☐	☐	Not Observed
F16	Is a Safety Officer trained in the use of gas detection equipment and LFG- related hazards present on-site throughout the groundwork phase? *The Safety Officer should be provided with an intrinsically safe portable instrument appropriately calibrated and capable of measuring the following gases: •CH_4: 0-100% and LEL: 0-100%/v •CO_2: 0-100% •O_2: 0-21%	☒	☐	☐	Not Observed
F17a	Periodically during groundwork construction, Is the works area monitored for CH_4 CO_2 and O_2 using appropriately calibrated portable gas detection equipment? *The monitoring frequency and areas should be established prior to commencement of groundwork either by Safety Officer or appropriately qualified person.	☒	☐	☐	Not Observed
F17b	Is routine monitoring carried out in all excavations, manholes, created by temporary storage of building materials on-site?	☒	☐	☐	Not Observed
F17c	Are all measurements in excavations made with monitoring tube located not more than 10mm from exposed ground surface?	☒	☐	☐	Not Observed
F18	For excavations deeper than 1m, are measurements conducted? • At ground surface before excavation commences; • Immediately before any worker enters the excavation;	☒	☐	☐	Not Observed

	• At the beginning of each working day for entire period the excavation remains open; and • Periodically throughout the working day whilst workers are in excavation.				
F19	For excavations between 300mm and 1m, are measurements conducted? • Directly after excavation has been completed; and • Periodic all whilst excavation remains open.	☒	☐	☐	Not Observed
F20	For excavations less than 300mm, are monitoring omitted at the discretion of Safety Officer or appropriately qualified person?	☒	☐	☐	Not Observed

G	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Is the work site confined within site boundaries?	☐	☒	☐	
G2	Is damage to surrounding areas avoided?	☐	☒	☐	
G3	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	☒	☐	☐	Not Observed
G4	Is early planting using fast growing plants at strategic locations within site implemented?	☒	☐	☐	N/A
G5	Is boundary green belt planting implemented around the site perimeter and the construction of temporary soil bunds?	☒	☐	☐	N/A
G6	Is temporary landscape treatment as green surface cover implemented?	☒	☐	☐	N/A
G7	Are existing and affected tree which identified as ecological significant preserved whenever possible?	☒	☐	☐	Not Observed

H	Ecology	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Is transplantation of the important plant species implemented? Is post-transplantation maintained and monitored regularly?	☒	☐	☐	Not Observed

I	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Environmental Complaint received during this week?	☐	☐	☒	

J	General Housekeeping / Others	N/A or Not Observed	Yes	No	Remarks / Photo
J1	Are the defined boundaries of working areas identified to prevent loss of vegetation	☐	☒	☐	
J2	Are the portable toilets maintained in a state, which will not deter the workers from utilizing these portable toilets?	☐	☒	☐	

Follow up action for previous Site Inspection:

1. The open stockpile was covered with impervious sheet in Portion D.

Observation(s):

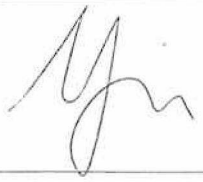
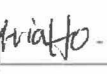
1. Dusty stockpiles are observed in SBA.
2. Oil stains are observed under the excavator in Portion D.

Reminder(s):

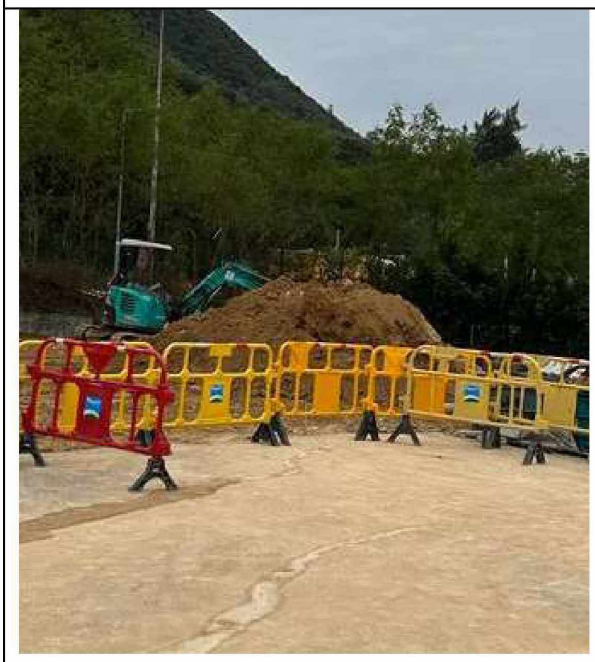
1. The exposed earth is dry and dusty in Portion D.
2. Water spray or dust suppression chemical shall be provided during mechanical breaking operation in SBA.

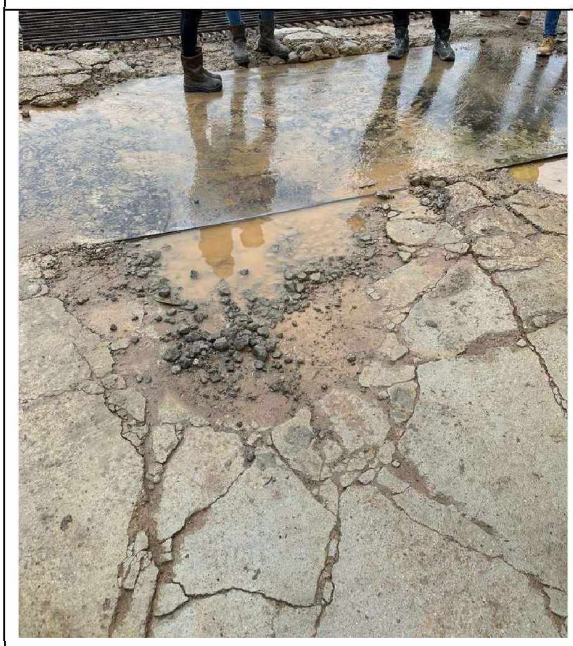
Corrective Actions – Mitigation Measures Implemented or Proposed (if any):

1. Dusty stockpile shall be covered with impervious sheet to prevent dust dispersion.
2. Oil stains shall be cleared and disposed of as chemical waste.
3. The Contractor has been reminded to cover the exposed earth with impervious sheets or other means to prevent dust dispersion.
4. The Contractor has been reminded to spray water on surface continuously during breaking work.

	Environmental Team's Representative:	Independent Environmental Checker's Representative:	Contractor's Representative:	Employee's Representative
Signature:		/		
Name:	Andy Ng	/		
Date:	27 January 2023	/	27 January 2023	27 January 2023

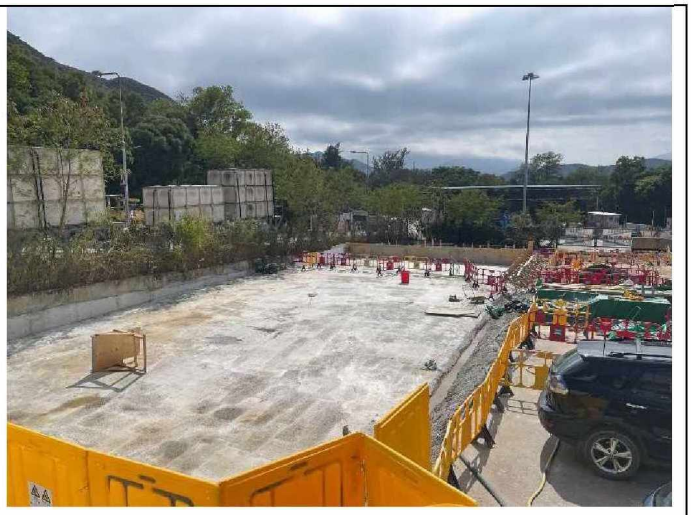
PART I Follow-up status of the previous site inspection

Observation and Recommendation	Follow-up status
 1. Plant equipment was placed on the ground without impervious sheets in SBA.	 The hydraulic breaker was removed in SBA.
 2. Open stockpile was observed in Portion D.	 The open stockpile was covered with impervious sheet in Portion D.

Observation and Recommendation	Follow-up status
 3. The vehicle washing bay was not maintained properly in Portion A..	The vehicle washing bay will be maintained before or on 15 Feb 2023.
 4. Sand and silt were accumulated in the channel of the vehicle washing bay.	 The channel of vehicle washing bay has been cleared.

PART II Observation and recommendation identified during the environmental site inspection

Observation and Recommendation	Follow-up status
  Observation 1: Dusty stockpiles are observed in SBA.	 The dusty stockpiles have been covered with impervious sheets in SBA.
 Observation 2: Oil stains are observed under the excavator in Portion D.	 Oil stains were cleared and disposed of as chemical waste.

	
Reminder 1: The exposed earth is dry and dusty in Portion D.	The exposed earth was paved to prevent dust dispersion.
	
Reminder 2: Water spray or dust suppression chemical shall be provided during mechanical breaking operation in SBA.	The breaking works were stopped and the mitigation measure was reminded to workers when conducting the breaking works.

Appendix K Environmental Mitigation Implementation Schedule (EMIS)

North East New Territories (NENT) Landfill Extension
Environmental Mitigation Implementation Schedule (EMIS) Construction Phase

EIA Ref.	EM&A Log Ref.	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Air Quality							
S3.8.1	S3.1.8	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation. • Dust emission from construction vehicle movement is confined within the worksites area. • Watering facilities will be provided at every designated vehicular exit point. • Good site practice is recommended during construction phase. Covering with impermeable sheet should be provided for the inactive tipping area.	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	Entire NENT Landfill Extension site	To control the dust impact to within the HKAQO and TM - EIA criteria (Ref. 1-hr and 24hr TSP levels are 500 $\mu g/m^{-3}$ and 260 $\mu g/m^{-3}$, respectively)	✓
Construction Noise							
S4	S4.9	1) Use of good site practices to limit noise emissions by considering the following: • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; • Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; • Mobile plant should be sited as far away from NSRs as possible and practicable; • Material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	Control construction airborne noise by means of good site practices	Contractor	Entire construction site	Noise Control Ordinance	✓
S4	S4.9	2) Select "Quiet plants" which comply with the BS 5228 Part 1 or TM standards.	Reduce the noise levels of plant items	Contractor	Entire construction site	Noise Control Ordinance & its TM Annex 5, TM-EIA	✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Construction Runoff							
S5.8.1	S5.2.1	Construction on Site Runoff • At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. • The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates. • The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silts and sediment traps should be 5 minutes under maximum flow conditions. • Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means. • The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows, and all traffic areas and access roads protected by coarse stone ballast. An additional advantage accruing from the use of crushed stone is the positive traction gained during prolonged periods of inclement weather and the reduction of surface sheet flows. • All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas.	Control construction runoff and erosion from site surface, drainage channel, stockpiles, wheel washing facilities, etc to minimize water quality during construction stage	Contractor	Entire construction site	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Construction Runoff (Cont'd)							
S5.8.1	S5.2.1	• Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. • Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50 m^3 should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. • Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. • Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silly surface runoff during storm events, especially for areas located near steep slopes. • All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing bay should be provided at every construction site exit. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silly water to public roads and drains. • Oil interceptors should be provided in the site drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain.	Control construction runoff and erosion from site surface, drainage channel, stockpiles, wheel washing facilities, etc to minimize water quality during construction stage	Contractor	Entire Construction site	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Construction Runoff							
S5.8.1	S5.2.1	• Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. Requirements for solid waste management are detailed in Section 6 of this Report. • All fuel tanks and storage areas should be provided with docks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. • To prevent pollution risks arising from works area (waste reception area) and haul roads, intercepting bund or barrier along the roadside should be constructed.	Control construction runoff and erosion from site surface, drainage channel, stockpiles, wheel washing facilities, etc to minimize water quality during construction stage	Contractor	Entire construction site	ProPECC PN 1/94 Water Pollution Control Ordinance	✓
S5.8.1	S5.2.1	<u>Sewage Effluent from Workforce</u> • Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance. • Notices will be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. • Regular environmental audit on the construction site can provide an effective control of any malpractices and can achieve continual improvement of environmental performance on site.	Control sewage effluent arising from the sanitary facilities provided for the on- site construction workforce	Contractor	On-site sanitary facilities	ProPECC PN 1/94 Water Pollution Control Ordinance Waste Disposal Ordinance	✓
S5.8.1	S5.2.1	<u>Accidental Spillage of Chemical</u> Any service workshop and maintenance facilities shall be located within a bunded area, and sumps and oil interceptors shall be provided. Maintenance of equipment involving activities with potential for leakage and spillage will only be undertaken within the areas.	Control of chemical leakage	Contractor	Service workshop and maintenance facilities	ProPECC PN 1/94 Water Pollution Control Ordinance Waste Disposal Ordinance	✓

North East New Territories (NENT) Landfill Extension
Environmental Mitigation Implementation Schedule (EMIS) Construction Phase

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Erosion Control Measures							
S5.8.2	S5.2.2	<u>Erosion Control /Measures</u> a. Preserve Natural Vegetation This Best Management Practices will involve preserving natural vegetation to the greatest extent possible during the construction process. and after construction where appropriate. Maintaining natural vegetation is the most effective and inexpensive form of erosion prevention control. b. Provision of Buffer Zone A buffer zone consists of an undisturbed area or strip of natural vegetation or an established suitable planting adjacent to a disturbed area that reduces erosion and runoff. The rooted vegetation holds soils acts as a wind break and filters runoff that may leave the site. c. Seeding (Temporary/Permanent) A well-established vegetative cover is one of the most effective methods of reducing erosion. Vegetation should be established on construction sites as the slopes are finished, rather than waiting until all the grading is complete. Besides, Hydroseeding will be applied on the surface of stockpiled soil and on temporary soil covers for inactive tipping areas to prevent soil erosion during rainy season. d. Ground Cover Ground Cover is a protective layer of straw or other suitable material applied to the soil surface. Straw mulch and/or hydromulch are also used in conjunction with seeding of critical areas for the establishment of temporary or permanent vegetation. Ground cover provides immediate temporary protection from erosion. Mulch also enhances plant establishment by conserving moisture, holding fertilizer, seed, and topsoil in place, and moderating soil temperatures.	Erosion control	Contractor	Drainage system	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Erosion Control Measures							
S5.8.2	S5.2.2	e. Hydraulic Application Hydraulic application is a mechanical method of applying erosion control materials to bare soil in order to establish erosion-resistant vegetation on disturbed areas and critical slopes. By using hydraulic equipment, soil amendments, mulch, tackifying agents, Bonded Fiber Matrix (BFM) and liquid co-polymers can be uniformly broadcast, as homogenous slurry, onto the soil. These erosion and dust control materials can often be applied in one operation. f. Sod Establishes permanent turf for immediate erosion protection and stabilizes rainageways. g. Matting There are numerous erosion control products available that can be described in various ways, such as matting, blankets, fabric and nets. These products are referred as matting. A wide range of materials and combination of materials are used to produce matting including, but not limited to: straw, jute, wood fiber, coir (coconut fiber), plastic netting, and Bonded Fiber Matrix. The selection of matting materials for a site can make a significant difference in the effectiveness of the Best Management Practices. h. Plastic Sheeting Plastic Sheeting will provide immediate protection to slopes and stockpiles. However, it has been known to transfer erosion problems because water will sheet flow off the plastic at high velocity. This is usually attributable to poor application, installation and maintenance. i. Dust Control Dust Control is one preventative measure to minimize the wind transport of soil, prevent traffic hazards and reduce sediment transported by wind and deposited in water resources.	Erosion control	Contractor	Drainage system	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Surface Water Drainage System							
S5.8.2	S5.2.2	Temporary surface water drainage system will be provided to manage runoff during construction and operation. This system will consist of channels as constructed around the perimeter of the site area. This system will collect surface water from the areas of higher elevations to those of lower elevations and ultimately to the point of discharge. Erosion will therefore be minimised. The temporary surface water drainage system will include the use of a silt fence around the soil stockpile areas to prevent sediment from entering the system. Regular cleaning will be carried out to prevent blockage of the passage of water flow in silt fence. Intermediate drainage system will be installed for filled cell/phase. The major purpose of the intermediate drainage system is to prevent the clean surface water run-off from the filled phases coming into contact with the waste mass in active cell and to prevent excessive surface water infiltration through the intermediate cover, thus contribute to increasing volume of leachate. The intermediate drainage system will collect the clean surface water run-off and divert it to the permanent discharge channels connected to the public drainage system. In addition, surface flow from the haul road (especially near the wheel washing facility) will be collected to a dry weather flow interceptor and conveyed to the on-site leachate treatment plant for further treatment.	Surface Water Management/ Control run off	Contractor	Surface water system Construction	Water Pollution Control Ordinance TM-water	✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Groundwater Regime							
S5.8.2	GW1	1) Adopt precautionary / mitigation measures: • Provision of adequate water supply for irrigation purposes for the operational lifetime of the landfill extension, i.e. 10 to 12 years; • Installation of a network of monitoring stations to keep track of the stream flow volumes. Should monitoring of stream flow indicate insufficient quantities to provide sufficient water for irrigation downstream, a contractual requirement for the landfill operator to "tank in" water from an external source could be imposed. This is the system currently in place for the existing NENT Landfill; • Diversion of flow from other catchments. The surface runoff generated in the catchments with abandoned agricultural lands could be collected and conveyed to the active agricultural lands: • Formation of new extraction wells that extend deeper down within the aquifers • Provision of Piped Water Supply; and • Artificial recharge by surface spreading, spray irrigation or pumping water directly into the ground via vertical shafts.	Control and maintain ground water yield	Contractor	Entire construction site and villages around the site	TM-EIAO, Annex 6 and 14 HKPSG	To be implemented during operation, restoration and aftercare phases.

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Waste Management							
S6	WM1	<u>C&D Materials</u> Implement proper waste management measures during construction phase as stipulated in the Environmental Management Plan (EMP) in accordance with the ETWB TC(W) No. 19/2005 Environmental Management in Construction Sites. Implement a trip-ticket system to ensure that the movement of C&D materials are properly documented and verified in accordance with DEVB TC(W) No. 6/2010. Copies/counterfoils from trip-tickets (with quantities of C&D Materials off-site) should be kept for record purposes. Appropriate waste management should be implemented in accordance with the ETWB TC(W) No. 19/2005. Make provisions in Contract documents to allow and promote the use of recycled aggregates where appropriate. Ensure material balance in terms of excavated C&D materials in the design of NENT landfill extension project. The contract specifications should specify no excavated materials should be removed from the landfill extension site, but should be fully reused. Careful design, planning and good site management to minimise over-ordering and waste materials such as concrete, mortars and cement grouts. The design of formwork should maximise the use of standard wooden panels so that high reuse levels can be achieved. Alternatives such as steel formwork or plastic fencing should be considered to increase the potential for reuse. The Contractor should recycle as much as possible the C&D waste on-site through proper waste segregation on-site. Concrete and masonry should be used as general fill and steel reinforcement bars can be used by scrap steel mills. Proper areas should be designated for waste segregation and storage wherever site conditions permit. Maximise the use of reusable steel formwork to reduce the amount of C&D material. Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement. On-site sorting and segregation facility of all type of wastes is considered as one of the best practice in waste management and hence, should be implemented in all projects generating construction waste. The sorted public fill and C&D waste should be properly reused.	Good site practice to minimise C&D waste generation and reuse/recycle all C&D on-site as far as possible	Contractor	Entire construction site	Waste Disposal Ordinance ETWB TC(W) No. 19/2005 DEVB TC(W) No. 6/2010	✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
S6	WM1	<u>C&D Materials (Cont'd)</u> Excavated slope, stockpiled material and bund walls should be covered by tarpaulin until used in order to prevent wind-blown dust during dry weather, and to reduce muddy runoff during wet weather. Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers. If any topsoil-like materials need to be stockpiled for any length of time, consideration should be given to hydroseeding of the topsoil on the stockpile to improve its visual appearance and prevent soil erosion. Nomination of approved personnel to be responsible for good site practices and making arrangements for collection of all wastes generated on-site and effective disposal. Training of site personnel for cleanliness, proper waste management procedures including chemical waste handling, and waste reduction, reuse and recycling concepts. Regular cleaning and maintenance programme systems, sumps and oil interceptors. Prior to disposal of C&D waste, wood, steel and other metals should be separated for re-use and/or recycling to minimise the quantity of waste to be disposed of to landfill. Proper storage and site practices should be implemented to minimise the potential for damage or contamination of construction materials. Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. Minimise excessive ordering of concrete, mortars and cement grout by doing careful check before ordering.	Good site practice to minimise C&D waste generation and reuse/recycle all C&D on-site as far as possible	Contractor	Entire construction site	Waste Disposal Ordinance ETWB TC(W) No. 19/2005 DEVB TC(W) No. 6/2010	✓
S6	WM2	<u>Chemical Waste</u> Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Plant/equipment maintenance schedule should be designed to optimise maintenance effectiveness and to minimise the generation of chemical wastes. Where possible, chemical wastes (e.g. waste lube oil) should be recycled by licensed treatment facilities	Ensure proper disposal of chemical waste generated on-site to minimise the associated hazards on human health and environment	Contractor	Entire construction site	Waste Disposal (Chemical Waste) General Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	
S6	WM2	<u>Chemical Waste (Cont'd)</u> Containers used for storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulation. The storage area for chemical wastes should be clearly labelled and used solely for storage of chemical waste, enclosed with at least 3 sides, having an impermeable floor and bund of sufficient capacity to accommodate 110% of volume of the largest container or 20 % of total volume of waste stored in that area, whichever is the greatest, having adequate ventilation, being covered to prevent rainfall entering, and being arranged so that incompatible materials are adequately separated. Chemical waste should be collected by licensed waste collectors and disposed of at licensed facility, e.g. Chemical Waste Treatment Centre.	Ensure proper disposal of chemical waste generated on-site to minimise the associated hazards on human health and environment.	Contractor	Entire construction site	Waste Disposal (Chemical Waste) General Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	✓
S6	WM3	<u>General Refuse</u> General refuse generated on-site should be properly stored in enclosed bins or compaction units separately from construction and chemical wastes. All recyclable materials (separated from the general waste) should be stored on-site in appropriate containers with cover prior to collection by a local recycler for subsequent reuse and recycling. Residual, non-recyclable, general waste should be stored in appropriate containers to avoid odour. Regular collection should be arranged by an approved waste collector in purpose-built vehicles that minimise environmental impacts during transportation Reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimise odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law. Aluminium cans should be separated from general waste stream and collected by recyclers. Proper collection bins should be provided on- site to facilitate the waste sorting.	Minimise generation of general refuse to avoid odour, pest and visual nuisance	Contractor	Entire construction site	Waste Disposal Ordinance	✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	
S6	WM3	<u>General Refuse (Cont'd)</u> Office waste paper should recycled if the volume warrant collection by recyclers. Participation in community waste paper recycling programme should be considered by the Contractor, including waste paper, aluminium cans, plastic bottles, waste batteries, etc.	Minimise generation of general refuse to avoid odour, pest and visual nuisance	Contractor	Entire construction site	Waste Disposal Ordinance	✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
LFG							
Within NENT Landfill Extension							
S7	LFG1	Special LFG precautions should be taken due to close proximity of NENT landfill extension site to existing landfill to avoid potential hazards of LFG exposure (ignition, explosion, asphyxiation, toxicity).	To minimise the risk of LFG hazards to personnel in construction site	Contractor	Entire construction site	Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97) F&IU (Confined Spaces) Regulations Code of Practice on Safety and Health at Work in Confined Spaces	✓
S7	LFG2	Prominent safety warning signs should be erected on-site to alert all personnel and visitors of LFG hazards during excavation works.					✓
S7	LFG3	No smoking or burning should be permitted on-site.					✓
S7	LFG4	Prominent 'No smoking' and 'No Naked Flames' signs should be erected on-site.					✓
S7	LFG5	No worker should be allowed to work alone at any time in excavated trenches or confined areas on-site.					✓
S7	LFG6	Adequate fire fighting equipment should be provided on-site.					✓
S7	LFG7	Construction equipment should be equipped with vertical exhaust at least 0.6m above ground installed with spark arrestors.					✓
S7	LFG8	Electrical motors and extension cords should be explosion-proof and intrinsically safe for use on-site.					✓
S7	LFG9	'Permit to Work' system should be implemented.					✓
S7	LFG10	Welding, flame-cutting or other hot works should be conducted only under 'Permit to Work' system following clear safety requirements, gas monitoring procedures and presence of qualified persons to supervise the works.					✓
S7	LFG11	For piping assembly or conduit construction, all valves and seals should be closed immediately after installation to avoid accumulation and migration of LFG. If installation of large diameter pipes (diameter >600mm) is required, the pipe ends should be sealed on one side during installation. Forced ventilation is required prior to operation of installed pipeline. Forced ventilation should also be required for works inside trenches deeper than 1m.	To minimise the risk of LFG hazards to personnel in construction site	Contractor	Entire construction site	Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97) F&IU (Confined Spaces) Regulations Code of Practice on Safety and Health at Work in Confined Spaces	✓
S7	LFG12	Frequency and location of LFG monitoring within excavation area should be determined prior to commencement of works. LFG monitoring in excavations should be conducted at no more than 10mm from exposed ground surface.					✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
LFG							
Within NENT Landfill Extension							
S7	LFG13	For excavation works, LFG monitoring should be conducted (1) at ground surface prior to excavation, (2) immediately before workers entering excavations, (3) at the beginning of each half-day work, and (4) periodically throughout the working day when workers are in the excavation.	To minimise the risk of LFG hazards to personnel in construction site	Contractor	Entire construction site	Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97) F&IU (Confined Spaces) Regulations Code of Practice on Safety and Health at Work in Confined Spaces	✓
S7	LFG14	Any cracks on ground level encountered on-site should be monitored for LFG periodically. Appropriate action should be taken in accordance with the action plan in Table 7.6 of EIA Report.					✓
S7	LFG15	LFG precautionary measures involved in excavation and piping works should be provided in accordance with LFG Guidance Note and included in Safety Plan of construction phase. Temporary offices or buildings should be located where free LFG has been proven or raised clear of ground at a separation distance of at least 500mm.					✓
S7	LFG16	For large development such as NENT landfill extension, a Safety Officer trained in the use of gas detection equipment and LFG-related hazards should be present on-site throughout the groundwork phase. The Safety Officer should be provided with an intrinsically safe portable instrument appropriately calibrated and capable of measuring the following gases: •CH_4: 0-100% and LEL: 0-100%/v •CO_2: 0-100% •O_2: 0-21%					✓
S7	LFG17	Periodically during groundwork construction, the works area should be monitored for CH_4 CO_2 and O_2 using appropriately calibrated portable gas detection equipment. The monitoring frequency and areas should be established prior to commencement of groundwork either by Safety Officer or appropriately qualified person. Routine monitoring should be carried out in all excavations, manholes, created by temporary storage of building materials on-site. All measurements in excavations should be made with monitoring tube located not more than 10mm from exposed ground surface.					✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Within NENT Landfill Extension (Cont'd)							
S7	LFG18	For excavations deeper than 1m, measurements should be conducted: • At ground surface before excavation commences; • Immediately before any worker enters the excavation; • At the beginning of each working day for entire period the excavation remains open; and • Periodically throughout the working day whilst workers are in excavation.	To minimise the risk of LFG hazards to personnel in construction site	Contractor	Entire construction site	Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97) F&IU (Confined Spaces) Regulations Code of Practice on Safety and Health at Work in Confined Spaces	✓
S7	LFG19	For excavations between 300mm and 1m, measurements should be conducted: • Directly after excavation has been completed; and • Periodic all whilst excavation remains open.					✓
S7	LFG20	For excavations less than 300mm, monitoring may be omitted at the discretion of Safety Officer or appropriately qualified person.					✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Landscape and Visual Phases							
S8	LV1	<u>Advanced screening tree planting</u> • Early planting using fast growing trees and tall shrubs at strategic locations within site to block major view corridors to the site from the VSRs, and to locally screen haul roads, excavation works and site preparation works. • Roadside planter and shrub planting design in front of Cheung Shan Temple.	To minimise the impact on existing vegetation retained by personnel in construction To provide initiation on permanent landscape and visual mitigation measures	Contractor	Entire construction site	DEVB TC(W) No. 4/2020 - Tree Preservation DEVB TC(W)) No. 6/2015 - Maintenance of Vegetation and Hard Landscape Features DEVB TC(W) No. 6/2011 - Maintenance of Man-made Slopes and Emergency Repair on Stability of Land	✓
S8	LV2	<u>Boundary Green Belt planting</u> • Considerable planting belts proposed around the site perimeter and the construction of temporary soil bunds will screen the landfill operations to a certain degree. Fast growing and fire resistant plant species will be used.					To be implemented during operation phase
S8	LV3	<u>Temporary landscape treatment as green surface cover</u> • For certain areas where landfilling operations would have to be suspended temporarily for periods of years, simple temporary landscape treatment such as hydroseeding should be considered. During construction and operational phases, grass hydroseeding or synthetic covering material of green colour should also be used as a temporary slope cover if applicable.					Grass hydroseeding will be applied at Portion E3-2 within the coming 2 months.
S8	LV4	<u>Existing tree preservation</u> • Transplant existing trees and vegetation, which are identified as ecologically significant in Ecological Impact Assessment and as rare tree species recorded in the tree survey, under circumstances where technically feasible. For all affected trees, the principle of avoidance of tree felling and tree transplanting of tree before felling should apply whenever possible. A tree felling application should be submitted to DEVB-GLTMS and be approved before any trees are felled or transplanted.					✓

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Ecology							
General Protection Measures:							
S10	E1	Restriction of construction activities to the work areas that would be clearly demarcated.	To minimise environmental impacts and therefore potential ecological impacts within and near the construction site	Contractor	Entire construction site	Practice Note for Professional Persons (ProPECC), Construction Site Drainage (PN1/94) Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, EPD (1992) ETWB TC(W)) No. 33/2002 Management of Construction and Demolition Material Including Rock DEVB TC(W) No. 6/2010 Trip Ticket System for Disposal of Construction and Demolition Materials ETWB TC(W)No.19/2005 Environmental Management on Construction Sites	√
S10	E2	Reinstatement of the work areas immediately after completion of the works.					√
S10	E3	Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme.					√
S10	E4	Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.					√
S10	E5	Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs.					√
S10	E6	Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works.					√
S10	E7	Mobile plant should be sited as far away from NSRs as possible and practicable.					√
S10	E8	Material stockpiles, site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.					√
S10	E9	Use of “quiet” plant and working methods.					√
S10	E10	Construction phase mitigation measures in the Practice Note for Professional Persons on Construction Site Drainage.					√

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Ecology							
General Protection Measures:							
S10	E11	Design and set up of the temporary on-site drainage system will be undertaken by the contractor prior to the commencement of construction.	To minimise environmental impacts and therefore potential ecological impacts within and near the construction site	Contractor	Entire construction	WBTC No. 12/2002, Specifications Facilitating the Use of Recycled Aggregates WBTC Nos. 25/99,25/99A and 25/99C. Incorporation of Information on Construction and Demolition Material Management in Public Works Subcommittee Papers	✓
S10	E12	Design and incorporation of silt/sediment traps in the permanent drainage channels to enhance deposition rates and regular removal of reposited silt and grit.					✓
S10	E13	Minimization of surface excavation works during the rainy seasons (April to September), and in particular, control of silty surface runoff during storm events, especially for areas located near steep slopes.					To be implemented during rainy seasons
S10	E14	Regular inspection and maintenance of all drainage facilities and erosion and sediment control structures to ensure proper and efficient operation at all times and particularly following rainstorms.					✓
S10	E15	Provision of oil interceptors in the drainage system downstream of any oil/fuel pollution sources					✓

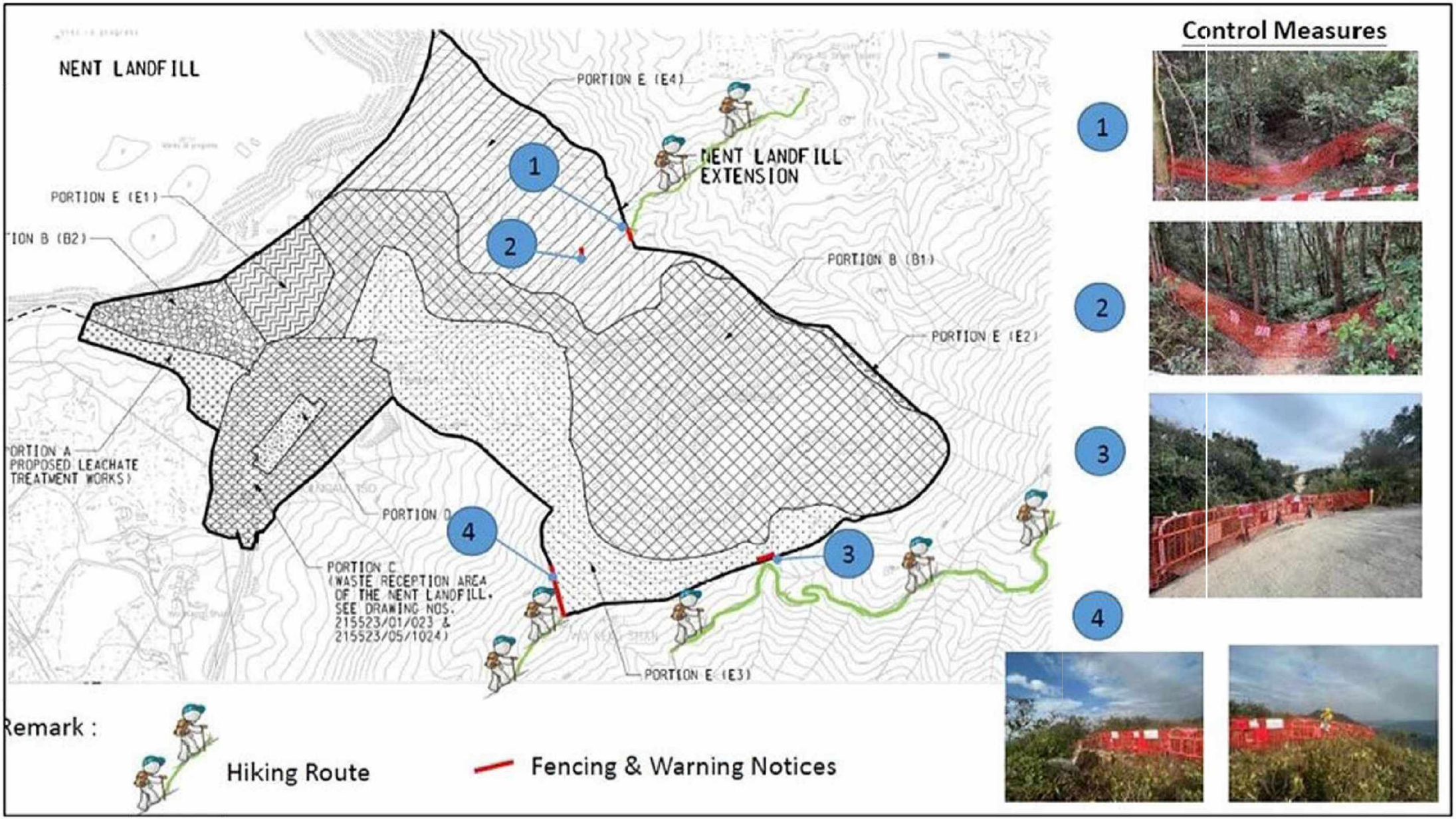
Appendix L Construction Site Activities

Construction Site Acitivities for Jan 2023

Construction Activities	Photos	Construction Period	Where	Contractor/ Sub-contractor	Potential Environmental Impacts	Mitigation Measures
GI Works		Dec 22, Jan 23	Portion A, Portion D, Landfill Area	Sub-contractor	Washout flowing to site water discharge point	Recycling of water, operation and maintenance of water treatment facility at Discharge points(DPs)
Material loading and unloading, site traffic		Dec 22 to Dec 23	Portion A to SBA, Portion D to SBA	Sub-contractor	Dust	Speed limit, covers and water spraying
Permanent site office foundation works with pouring of concrete		Dec 22 to June 23	Portion D	Sub-contractor	Washout flowing to site water discharge point, dust emissions	Avoid the spillage of concrete, lorry washing at designated area, operation and maintenance of water treatment facility at DPs
Site clearance		Dec 22 to June 23	Portion A, Portion E3-1	Sub-contractor	Wash out going to surface water channel and site water discharge point, generation of yard waste	Cover exposed slope by tarpaulin, diversion of surface water, operation and maintenance of water treatment facility at discharge points, implementation of trip ticket system
Installation of permanent fencing		Dec 22 to June 23	Portion A, Portion E3-2, Portion E4	Sub-contractor	Dust	Covering of cement storage area, enclosure of mixing area
Site formation		Dec 22 to Dec 23	Portion A	Sub-contractor	Generation of C&D waste	Implementation of trip ticket system, waste recycling, internal waste transfer
Tree Felling		Dec 22 to June 23	Portion A (until Feb 23), Portion E3-1 (until June 23)	Sub-contractor	Generation of yard waste	Implementation of trip ticket system, waste recycling, internal waste transfer

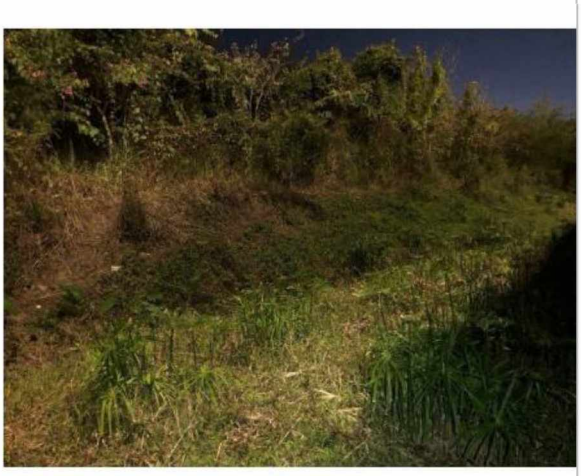
Appendix M Mitigation Measures of Cultural Landscape Features

Site boundary control to prevent from trespassing

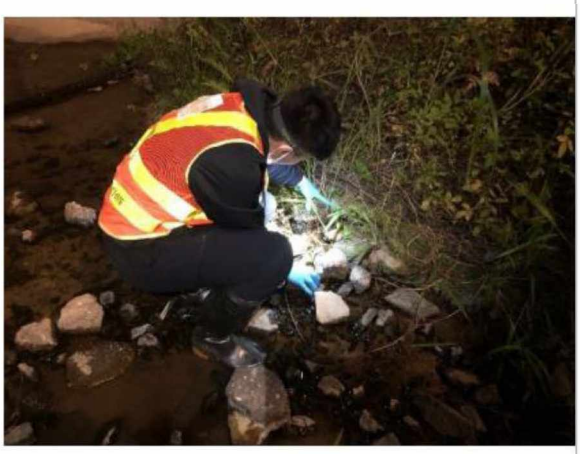


Appendix N Ecological Monitoring Record

Post-translocation monitoring photo record extracted from post-translocation report (January 2023)

Site photos of the monitoring area

Direct observation to search for *S. zanklon*


Kick-netting to search for *S. zanklon*

B.1 Incense Tree *Aquilaria sinensis*

Photo B.1.1. : General view of the transplanted individual AS-03.

Photo B.1.2. : Branch condition of the transplanted individual AS-03.

Photo B.1.3. : General view of the transplanted individual AS-02.

Photo B.1.4. : Branch condition of the transplanted individual AS-02.

B.2 Lamb of Tartary *Cibotium barometz*

Photo B.2.1. : General view of the transplanted individual CB-01.

Photo B.2.2. : Leaf condition of the transplanted individual CB-01.

Photo B.2.3. : Leaf condition of the transplanted individual CB-01.

Photo B.2.4. : Leaf condition of the transplanted individual CB-01.

B.3 Bottlebrush Orchid *Goodyera procera*

Photo B.3.1: Individual GP-01. Partially wilted leaf.

Photo B.3.2: Individual GP-01. Partially wilted leaf.

Photo B.3.3: Individual GP-02.

Photo B.3.4: Individual GP-03. Perforated leaves.

Photo B.3.5: Individual GP-03. Perforated leaves.

Photo B.3.6: Individual GP-04. Wilted leaf.

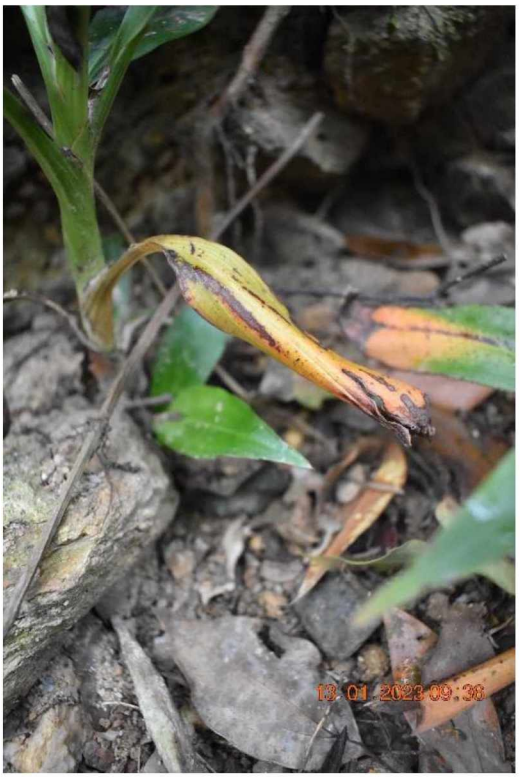


Photo B.3.7: Individual GP-04. Wilted leaf.

Photo B.3.8: Individual GP-05. Partially wilted leaf.

Photo B.3.9: Individual GP-06. Partially wilted leaf.

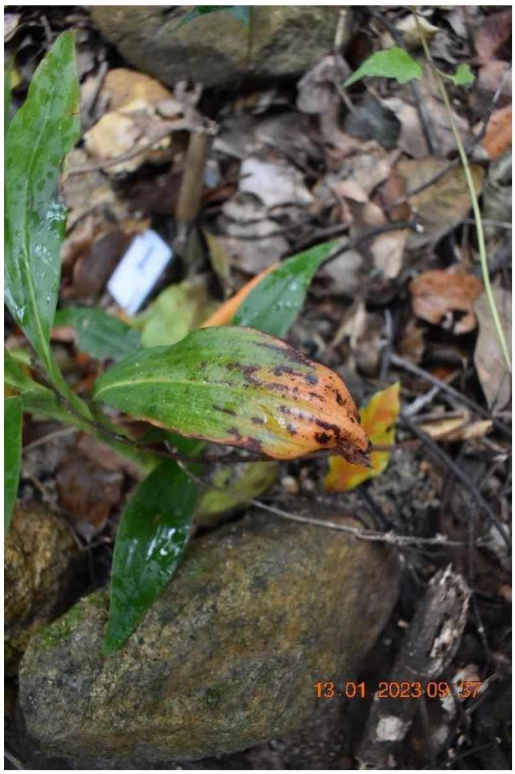


Photo B.3.10: Individual GP-06. Partially chlorotic and wilted leaf.

Photo B.3.11: Individual GP-07.

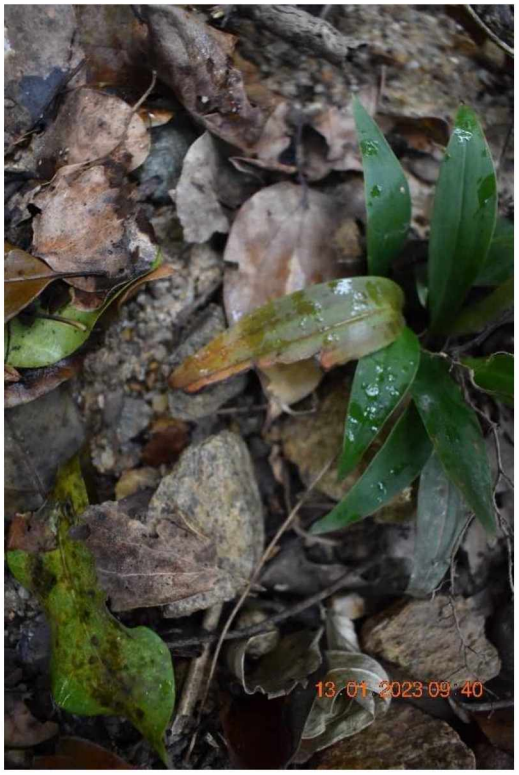


Photo B.3.12: Individual GP-07. Single chlorotic leaf.

Photo B.3.13: Individual GP-08. Chlorotic leaves.

Photo B.3.14: Individual GP-08. Minor chlorotic leaves.

Photo B.3.15: Individual GP-09.

Photo B.3.16: Individual GP-10. Holes in leaves.

Photo B.3.17: Individual GP-11. Partially wilted leaves.

Photo B.3.18: Individual GP-12. Perforated leaves.

Photo B.3.19: Individual GP-13.

Photo B.3.20: Individual GP-14. Chlorotic leaves.

Photo B.3.21: Individual GP-15. Partially chlorotic leaves.

Photo B.3.22: Individual GP-16.

Photo B.3.23: Individual GP-17. Partially wilted leaf.

Photo B.3.24: Individual GP-18. Partially wilted leaves.

Photo B.3.25: Individual GP-19.

Photo B.3.26: Individual GP-19. Chlorotic and partially wilted leaves.

B.1 Incense Tree *Aquilaria sinensis*

Photo B.1.1. : General view of the transplanted individual AS-03.

Photo B.1.2. : Branch condition of the transplanted individual AS-03.

Photo B.1.3. : General view of the transplanted individual AS-02.

Photo B.1.4. : Branch condition of the transplanted individual AS-02.

B.2 Lamb of Tartary *Cibotium barometz*

Photo B.2.1. : General view of the transplanted individual CB-01.

Photo B.2.2. : Leaf condition of the transplanted individual CB-01.

Photo B.2.3. : Leaf condition of the transplanted individual CB-01.

Photo B.2.4. : Leaf condition of the transplanted individual CB-01.

B.3 Bottlebrush Orchid *Goodyera procera*

Photo B.3.1: Individual GP-01. Partially wilted leaf.

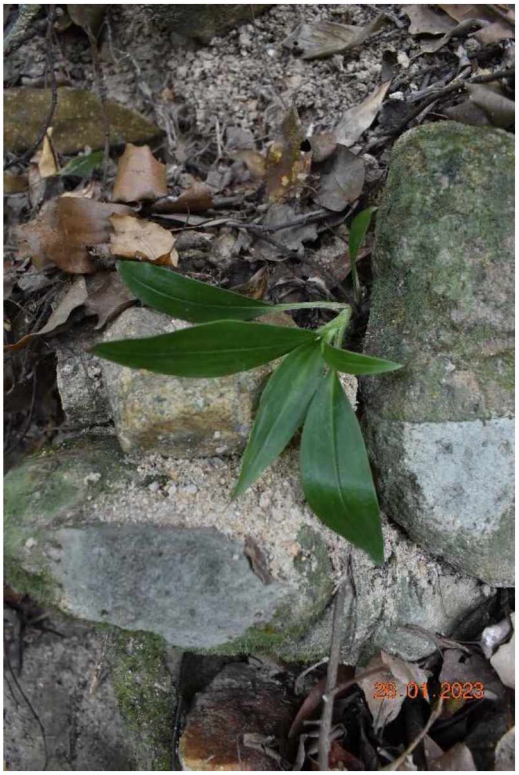


Photo B.3.2: Individual GP-02.

Photo B.3.3: Individual GP-03. Perforated leaves.

Photo B.3.4: Individual GP-03. Perforated leaves.

Photo B.3.5: Individual GP-04. Leaning.

Photo B.3.6: Individual GP-04. Leaning.

Photo B.3.7: Individual GP-05. Partially wilted leaf.

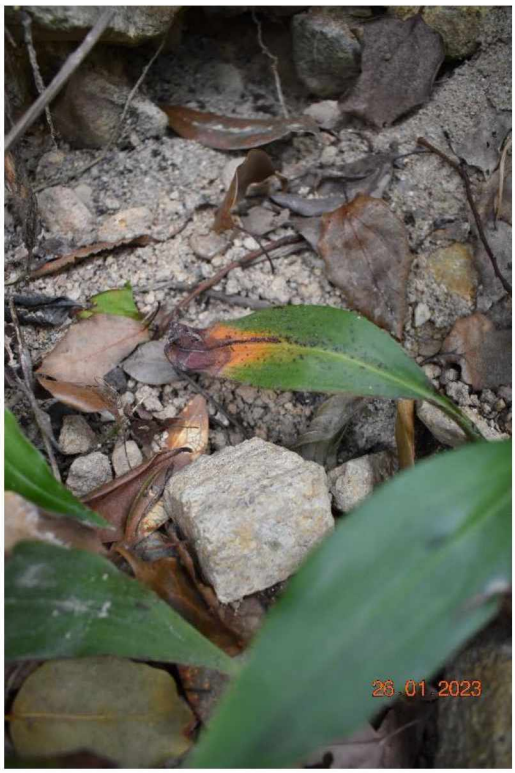


Photo B.3.8: Individual GP-05. Partially wilted leaf.

Photo B.3.9: Individual GP-06. Partially wilted leaf.

Photo B.3.10: Individual GP-06. Partially chlorotic and wilted leaf.

Photo B.3.11: Individual GP-07.

Photo B.3.12: Individual GP-07. Pest sign.

Photo B.3.13: Individual GP-08. Chlorotic leaves.

Photo B.3.14: Individual GP-08. Minor chlorotic leaves.

Photo B.3.15: Individual GP-09.

Photo B.3.16: Individual GP-10. Holes in leaves.

Photo B.3.17: Individual GP-11. Partially wilted leaves.

Photo B.3.18: Individual GP-12. Perforated leaves.

Photo B.3.19: Individual GP-13.

Photo B.3.20: Individual GP-14. Chlorotic leaves.

Photo B.3.21: Individual GP-15. Partially chlorotic leaves.

Photo B.3.22: Individual GP-16.

Photo B.3.23: Individual GP-17. Partially wilted leaf.

Photo B.3.24: Individual GP-18. Partially wilted leaves.

Photo B.3.25: Individual GP-19.

Photo B.3.26: Individual GP-19. Chlorotic and partially wilted leaves.

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