

North East New Territories (NENT) Landfill Extension

Monthly Environmental
Monitoring and Audit Report
(No. 33) – August 2025

2025-09-12

Our Ref.: CL/91823/2938-VES
Date: 12 September 2025

By Email

Veolia Hong Kong Holding Limited
40/F, One Taikoo Place
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Attn.: Mr. Colin Mitchell

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Dear Sir

Re: Contract No. EP/SP/77/15
North-East New Territories Landfill Extension (NENTX)
Monthly Environmental Monitoring and Audit Report (No.33) –
August 2025

I refer to Condition 3.3 under Environmental Permit No. EP-292/2007 and Further Environmental Permit No. FEP-02/292/2007, regarding the submission of a monthly Environmental Monitoring and Audit report. I hereby verify the captioned "Monthly Environmental Monitoring and Audit Report (No.33) – August 2025" dated 12 September 2025.

Should you have any queries, please do not hesitate to contact the undersigned at 2859 5409.

Yours faithfully
MEINHARDT INFRASTRUCTURE AND ENVIRONMENT LTD



Claudine Lee
Independent Environmental Checker

Ref: P521530-0000-REP-NN-0112

12 September 2025

[By Email](#)

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.33) – August 2025 R1

In accordance with the requirement specified in Condition 3.3 of Environmental Permit No. EP-292/2007 and Further Environmental Permit No. FEP-02/292/2007, we are pleased to submit the certified “Monthly Environmental Monitoring and Audit Report (No.33) – August 2025 R1” dated 12 September 2025 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.

1. Monthly Environmental Monitoring and Audit Report (No.33) – August 2025 R1
- cc.
1. Veolia (Contractor) – Mr. Matt Choy (By email: matt.choy@veolia.com)

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Executive Summary

- ES1. 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.
- ES2. The construction phase and EM&A programme of the Project commenced on 1 December 2022.
- ES3. This 33rd Monthly EM&A Report presents the EM&A works conducted from 1 to 31 August 2025 in accordance with the Updated EM&A Manual.

Summary of Construction Works undertaken during Report Period

- ES4. The major construction works undertaken during the reporting period include:

ES Table1 Major Construction Works undertaken during the Reporting Period

- Material loading and unloading, backfilling of material and site traffic at Portion A, SBA to alternative disposal ground
- Construction of site buildings at Portion D
- Site clearance at Portion A, B2/E1, E3-1 & E4
- Installation of permanent fencing at Portion A, B1 & E4
- Site formation at Portion A, B2/E1, E3-1 & E4
- Tree felling at whole site
- Shotcreting (Permanent and Temporary) at whole site
- Soil nail installation at Portion A, B2/E1 & E4
- Installation of minipile at Portion A
- Construction of RE wall at Portion E3-1

Environmental Monitoring and Audit Progress

- ES5. A summary of the monitoring activities in this reporting period is listed below:

ES Table2 Summary of the Monitoring Activities during the Reporting Period

Items	Times	Date
- Air Quality Monitoring during normal weekdays at each monitoring station	5 times	2, 8, 14, 20 & 26 Aug 2025
- Construction Noise Monitoring during normal weekdays at each monitoring station	4 times	8, 14, 20 & 26 Aug 2025
- Surface Water Quality Monitoring during normal weekdays at each monitoring station	1 time	12 Aug 2025
- Landfill Gas Monitoring during normal weekdays for Construction Works	25 times	1, 2, 4, 6 to 9, 11 to 16, 18 to 23, 25 to 30 Aug 2025
- Joint Environmental Site Inspection	4 times	4, 11, 18 & 25 Aug 2025
- EPD General Site Inspection	1 time	13 Aug 2025

Environmental Exceedance

Air Quality, Noise Monitoring, Surface Water Quality & Landfill Gas Monitoring

ES6. No exceedance of the Action and Limit Levels were recorded at designated monitoring stations during the reporting period.

Environmental Non-Conformance/Summons and Prosecution

ES7. No non-compliance event and summons/prosecutions were recorded during the reporting period.

Environmental Complaint

ES8. No environmental complaint was recorded during the reporting period.

Reporting Change

ES9. There was no reporting change in the reporting period.

Future Key Issues

ES10. Works to be undertaken in the next month include:

ES Table3 Major Construction Works undertaken during the Next Reporting Period

- Material loading and unloading, backfilling of material and site traffic at Portion A, SBA to alternative disposal ground
- Construction of site buildings at Portion D
- Site clearance at Portion A, B2/E1, E3-1 & E4
- Installation of permanent fencing at Portion A, B1 & E4
- Site formation at Portion A, B2/E1, E3-1 & E4
- Tree felling at whole site
- Shotcreting (Permanent and Temporary) at whole site
- Soil nail installation at Portion A, B2/E1 & E4
- Installation of minipile at Portion A
- Construction of RE wall at Portion E3-1

ES11. 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. Another further of EP (FEP-02/292/2007) was subsequently granted on 23 August 2023. The Updated EM&A Manual was approved by Director of Environmental Protection (DEP) on 4 January 2024.
- 1.1.3 In accordance with the requirements specified in Section 2.7 to 2.11 and Section 12.3 of the Updated EM&A Manual and Condition 3.3 of EP and FEP, Monthly EM&A report should be submitted to 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	<p>The Project mainly consists of the followings: -</p> <p>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: -</p> <ul style="list-style-type: none">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; andviii. 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 33rd Monthly EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 01 to 31 August 2025.

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

Section 15 – Conclusion

2 Project Information

2.1 Construction Activities

2.1.1 Construction programme and a summary of the major construction activities undertaken in this reporting period is shown in **Appendix A**. The major construction works undertaken during the reporting period is presented in **Table 2-1**.

Table 2-1 Major Construction Works undertaken during the Reporting Period

- | |
|---|
| - Material loading and unloading, backfilling of material and site traffic at Portion A, SBA to alternative disposal ground |
| - Construction of site buildings at Portion D |
| - Site clearance at Portion A, B2/E1, E3-1 & E4 |
| - Installation of permanent fencing at Portion A, B1 & E4 |
| - Site formation at Portion A, B2/E1, E3-1 & E4 |
| - Tree felling at whole site |
| - Shotcreting (Permanent and Temporary) at whole site |
| - Soil nail installation at Portion A, B2/E1 & E4 |
| - Installation of minipile at Portion A |
| - Construction of RE wall at Portion E3-1 |

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 Hong Kong Holding Ltd.)	Mr. Matt Choy	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 EP & FEP during reporting period

- 2.3.1 The status of statutory environmental compliance with the EP & FEP conditions under the EIAO, submission status under the EP & FEP during reporting period are presented in **Table 2-3**. The detail status of statutory environmental compliance with the EP & FEP conditions under the EIAO, submission status under the EP & FEP for NENTX project are shown in **Appendix C**.

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

EP Condition	FEP Condition	Submission / Measures	Status
2.3	2.1	Management Organization of Main Construction Companies	Submitted
2.4	2.2	Setting up of Community Liaison Group (CLG)	Community Liaison Group was set up.
2.5	2.3	Submission of EM&A Manual	Submitted
2.6	2.4	Submission of Preservation of Cultural Landscape Features	Submitted
2.7	2.5	Submission of Vegetation Survey (Transplantation Proposal)	Submitted
2.8	2.6	Submission of Translocation Proposal	Submitted
2.9	2.7	Submission of Transplantation Report and Post-Transplantation Monitoring	Submitted
2.10	2.8	Submission of Translocation Report and Post-Translocation Monitoring	Submitted
2.11	2.9	Submission of Detailed Landfill Gas Hazard Assessment Report	Submitted
2.12	2.10	Submission of Waste Management Plan	Submitted
2.13	2.11	Submission of Landscape Plan	Submitted
3.2	3.2	Submission of Baseline Monitoring Report	Submitted
3.3	3.3	Submission of Monthly EM&A Report	Submitted

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 & FEP 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-01/292/2007	Throughout the Contract	Permit granted on 28 April 2022
	FEP-02/292/2007	Throughout the Contract	Permit granted on 23 August 2023
Notification of Construction Works as required under Air Pollution Control (Construction Dust) Regulation	479809	Throughout the Construction Phase	Notified on 13 May 2022
Registration of Waste Producer under Waste Disposal Ordinance	7043692	Throughout the Contract	Registered on 13 April 2022
Construction Noise Permit	GW-RN0508-25	18 August 2025	Permit granted on 8 May 2025
	GW-RN0899-25	18 December 2025	Permit granted on 4 August 2025
Registration as Chemical Waste Producer	5213-642-V2370-01	Throughout the Contract	Registered on 20 Feb 2025
Effluent Discharge License under Water Pollution Control Ordinance	WT00042301-2022	31 October 2027	Permit granted on 18 October 2022 Variation of Licence (Permit granted on 7 February 2023)

2.5 Environmental Monitoring and Audit Progress

- 2.5.1 A summary of the monitoring activities in this reporting period is presented in **Table 2-5**.

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	2, 8, 14, 20 & 26 Aug 2025
- Construction Noise Monitoring during normal weekdays at each monitoring station	4 times	8, 14, 20 & 26 Aug 2025
- Surface Water Quality Monitoring during normal weekdays at each monitoring station	1 time	12 Aug 2025
- Landfill Gas Monitoring during normal weekdays for Construction Works	25 times	1, 2, 4, 6 to 9, 11 to 16, 18 to 23, 25 to 30 Aug 2025
- Joint Environmental Site Inspection	4 times	4, 11, 18 & 25 Aug 2025
- EPD General Site Inspection	1 time	13 Aug 2025

Air Quality

- 2.5.2 5 sets of 1-hr & 24-hr TSP construction dust measurement were carried out at each monitoring stations during normal weekdays of the reporting period. No Action / Limit Level exceedance for 1-hr & 24-hr TSP impact monitoring was recorded during the period.

Noise

- 2.5.3 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

- 2.5.4 The baseline groundwater monitoring was commenced on 28 March 2025. The details of baseline groundwater monitoring will be presented in the Baseline Monitoring Report.

Surface Water Quality

- 2.5.5 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 Level of surface water quality at each monitoring stations was recorded during the reporting period.

Landfill Gas

- 2.5.6 25 sets of landfill gas measurement were carried out at the designated monitoring locations 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

- 2.5.7 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

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

Ecology

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

Environmental Site Inspection

- 2.5.10 4 weekly environmental site inspections were carried out during the reporting period. A joint environmental site inspection was carried out by the representatives of the Employer's Representative (ER), the Contractor, IEC and the ET on 18 Aug 2025. The Contractor has generally implemented part of the mitigation measures as recommended. One (1) general site inspection was conducted by Environmental Protection Department-Regional Office (North) (EPD-RNG) during the reporting period.

3 Air Quality Monitoring

3.1 Construction Dust

3.1.1 Monitoring Requirement

- 3.1.1.1 In accordance with the Updated EM&A Manual, 1-hr & 24-hr Total 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 Updated 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 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 D**. 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)3 to 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 dust monitoring programme. The calibration certificates are shown in **Appendix E**.

Table 3-3 Dust Monitoring Equipment

Equipment	Model	Expiry Date	Monitoring Station
High Volume Sampler (HVS)	TE-5170X (S/N: 1105)	5 Oct 2025	AM1
	TE-5170X (S/N: 1106)		AM2
	TE-5170X (S/N: 1856)		AM3
Direct Reading Dust Meter	Sibata LD-5R (S/N: 0Z4545)	12 Sep 2025	AM1 to AM3
	Sibata LD-5R (S/N: 882106)		
	Sibata LD-5R (S/N: 942532)		
Calibration Kit (for HVS)	TE-5025A (S/N: 3465)	2 Dec 2025	AM1 to AM3

Remarks:

The Expiry Date of Calibration Kit (for HVS) reflected that the calibration certificate fulfils the bi-monthly calibration interval requirement for the HVS.

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 “ESCAPE” 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. The Calibration process shall eyewitness with the representative of ET & IEC.

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 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. Five flow rates are achieved by changing the different plates to change the resistance. Record the manometer reading and the reading from continuous flow recorder. At least 5 sets of data should be recorded.

- 3.1.4.12 The Calibration process shall eyewitness with the representative of ET & IEC.

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 F** and **Appendix G**.

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

Month	Average 1-hr TSP Concentration, $\mu\text{g}/\text{m}^3$ (Range)		
	Dust Monitoring Station		
	AM1	AM2	AM3
Aug 2025	27 (21 – 31)	42 (39 – 46)	54 (48 – 63)
Action Level	>285	>279	>285
Limit Level	>500		

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

Month	Average 24-hr TSP Concentration, $\mu\text{g}/\text{m}^3$ (Range)		
	Dust Monitoring Station		
	AM1	AM2	AM3
Aug 2025	66 (63 – 69)	74 (68 – 81)	82 (76 – 86)
Action Level	>164	>152	>163
Limit Level	>260		

3.1.5.2 The Summary of Impact 1-hr & 24-hr TSP Exceedance during the reporting period are shown in **Table 3-6**. The Notification of Environmental Quality Limits Exceedances are presented in **Appendix H**.

Table 3-6 Summary of Impact 1-hr & 24-hr TSP Exceedance during the Reporting Period

Dust Monitoring Station		AM1		AM2		AM3	
Level Exceedance		Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level
Parameters	1-hr TSP	Exceedance Date	-	-	-	-	-
	24-hr TSP	Exceedance Date	0	0	0	0	0
Parameters	1-hr TSP	Exceedance Count	-	-	-	-	-
	24-hr TSP	Exceedance Count	0	0	0	0	0

Remarks: * equal to non-project related

3.1.5.3 No Action / Limit Level exceedance for 1-hr & 24-hr TSP impact monitoring at AM1, AM2 & AM3 was recorded during the period.

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 I**.

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.

3.1.8 Event and Action Plan

3.1.7.2 Should non-compliance of the criteria occur, action in accordance with the action plan in **Table 3-7** shall be carried out.

Table 3-7 Event and Action Plan for Dust Impact

Event	ET	IEC	Contractor
Exceedance of Action Level			
Exceedance for one sample	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Rectify any unacceptable practice Amend working methods if appropriate
Exceedance for two or more consecutive samples	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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			
Exceedance for one sample	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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
Exceedance for two or more consecutive samples	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 Updated EM&A manual, noise impact monitoring shall be carried out at 2 monitoring stations NM1a and NM2a 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 L_{eq} (5 mins), L_{10} and L_{90} shall also be measured at 5 mins intervals.

4.2 Monitoring Locations, Parameters and Frequency

- 4.2.1 According to the Updated 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 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 D**. 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 Monitoring Parameters, Frequency and Duration

Monitoring Station	Parameter	Frequency and Duration
NM1a and NM2a	L_{eq} (30mins) average of 6 consecutive L_{eq} (5min); $L_{A10(5min)}$ & $L_{A90(5min)}$	Once a week during normal construction working hour (0700-1900 Monday to Saturday)

4.3 Monitoring Equipment

- 4.3.1 Integrating Sound Level Meter (SLM) 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 E**.

Table 4-3 Noise Monitoring Equipment

Equipment	Model	Expiry Date
Sound Level Meter	NTi XL2 (S/N: A2A-13661-E0)	6 Aug 2026
	NTi XL2 (S/N: A2A-13663-E0) ⁽¹⁾	6 Feb 2026
Acoustic Calibrator	Rion NC-75 (S/N: 34724245)	10 Jul 2026
Anemometer	UNI-T UT363 (S/N: C222415356)	17 Feb 2027

Remarks:

(1) The related equipment used in the noise monitoring on 8 & 14 August 2025.

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.

Calibration & Maintenance

- 4.4.2 The sound level meter, sound calibrator, and anemometer should be properly maintained to ensure that the equipment and a continuous power supply were in good working condition. The sound level meter and sound calibrator will be calibrated annually. The anemometer will be calibrated two years interval in accordance with the HOKLAS Supplementary Criteria No.2. Calibration certificate will be provided after calibration.
- 4.4.3 The microphone head of the sound level meter and calibrator should be cleaned with a soft cloth at quarterly intervals.

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 F** and **Appendix G**.

Table 4-4 Summary of Noise Monitoring Results during Normal Working Hours (07:00-19:00, Monday to Saturday)

Month	Average Leq, 30min, dB(A) (Range)	
	Noise Monitoring Station	
	NM1a	NM2a
Aug 2025	59.5 (58.9 – 60.5)	54.3 (53.6 – 55.1)
Action Level	When one documented complaint is received	
Limit Level	>75dB(A)	

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 H**.

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

- 4.5.4 The Summary of Impact Noise Exceedance are shown in **Table 4-5**.

Table 4-5 Summary of Impact Noise Exceedance during the Reporting Period

Parameters	Noise Monitoring Station	NM1(a)		NM2(a)	
		Action Level	Limit Level	Action Level	Limit Level
LA _{eq} (30mins)	Exceedance Date	-	-	-	-
	Exceedance Count	0	0	0	0

Remarks: * equal to non-project related

4.5.5 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 H**.

4.6 Recommended Mitigation Measures

4.6.1 The recommended noise 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 4-6** shall be carried out.

Table 4-6 Event and Action Plan for Construction Noise Monitoring

Event	ET	IEC	Contractor
Exceedance of Action Level	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Submit noise mitigation proposals to IEC Implement the agreed noise mitigation proposals
Exceedance of Limit Level	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 According to the Updated EM&A Manual, baseline water quality (groundwater) monitoring shall be carried out at the 35 monitoring locations (ED-1 to ED-35), which are subject to changes on the design and modification of the Project. Considering the requirements, objectives and feasibility of conducting the baseline water quality (groundwater) monitoring, a total of 35 monitoring locations (CW-1 to CW-35) are proposed along the waste boundary and access road of the project site. Due to the proposed monitoring locations CW-1 to CW-35 locates along the waste filling boundary of the project site, it can maintain to determine the natural seasonal variation in groundwater levels, effects of any ground water abstraction, identification of hydraulic gradients and variation caused by the construction, operation or aftercare of the project site by Section 5.4.1 of the Updated EM&A Manual. The proposed monitoring locations (CW-1 to CW-35) were approved by IEC on 16 January 2025.
- 5.1.1.2 The baseline groundwater monitoring was commenced on 28 March 2025. The details of baseline groundwater monitoring will be presented in the Baseline Monitoring Report.

5.2 Surface Water Monitoring

5.2.1 Monitoring Requirement

- 5.2.1.1 In accordance with the Updated 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 at WM1 and WM2 during the reporting period. The monitoring locations are indicated in **Table 5-1** and **Figure 2**.
- 5.2.2.2 The monitoring parameters, frequency and duration of surface water quality monitoring are summarized in **Table 5-2**. Detailed monitoring schedule is presented in **Appendix D**.

Table 5-1 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 5-2 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 Updated EM&A Manual were used to undertake the surface water quality monitoring for the Project. **Table 5-3** summarises the equipment used in the impact surface water quality monitoring works. Copies of the calibration certificates are attached in **Appendix E**.

Table 5-3 Surface Water Quality Monitoring Equipment

Equipment	Model	Expiry Date
Water Quality Meter	YSI ProDSS (S/N: 22C106561)	16 Sep 2025
Water Flow Meter	Global Water FP111 (S/N: 22K100859)	10 Feb 2026

5.2.4 Summary of Surface Water Quality Monitoring Procedure

Operational/ Analytical Procedures

- 5.2.4.1 In general, 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 5-4** 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 5-4**.

Table 5-4 Surface Water Monitoring Detection Limits and Limit of Reporting

Parameters	Detection Limit (in Updated EM&A Manual)	Limit of Reporting	Method Reference
pH	0.1	0.1	APHA 4500 H+ B
Electrical conductivity	1 mS/cm	1 mS/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 NH ₃ G
TKN	0.4 mg/L	0.1 mg/L	APHA 4500Norg: D
Nitrate	0.5 mg/L	0.01 mg/L	APHA 4500 NO ₃ I
Sulphate	5 mg/L	1 mg/L	USEPA 375.4
Sulphite	2 mg/L	2 mg/L	APHA 4500 SO ₃ 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 mg/L	50 mg/L	USEPA 6010C
Mg	50 mg/L	50 mg/L	USEPA 6010C
Ca	50 mg/L	50 mg/L	USEPA 6010C
K	50 mg/L	50 mg/L	USEPA 6010C
Fe	50 mg/L	10 mg/L	USEPA 6010C
Ni	1 mg/L	1 mg/L	USEPA 6020A
Zn	10 mg/L	10 mg/L	USEPA 6020A
Mn	1 mg/L	1 mg/L	USEPA 6020A
Cu	1 mg/L	1 mg/L	USEPA 6020A
Pb	1 mg/L	1 mg/L	USEPA 6020A
Cd	0.2 mg/L	0.2 mg/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. Calibration of temperature, DO, salinity, pH and turbidity is conducted in three-month interval. Calibration of water flow is conducted annually. 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 & WM2 on 12 August 2025. No adverse weather was observed during reporting period. The detailed monitoring schedule is shown in **Appendix D**.
- 5.2.5.2 The summary of monitoring results is presented in **Table 5-5**. 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 F** and **Appendix G**.
- 5.2.5.3 No particular observations are identified near the monitoring stations during the monitoring period.

Table 5-5 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	7.50	>7.7	>7.8	7.2	>7.6	>7.7
DO in mg/L	8.0	<7.4	<4	8.1	<5	<4
Turbidity in NTU	2.4	>9.2	>9.5	53.1	>108.3	>108.9
Electrical Conductivity in $\mu\text{S}/\text{cm}$	52	---	---	189	---	---
SS in mg/L	<0.1	>9.7	>11.4	87.6	>94.5	>94.7
Alkalinity in mg/L	8	---	---	51	---	---
COD in mg/L	<5			5		
BOD ₅ in mg/L	<2			<2		
TOC in mg/L	2			2		
Ammonia-nitrogen in mg/L	0.02			0.11		
TKN in mg/L	0.2			0.2		
Nitrate in mg/L	0.03			0.22		
Sulphate in mg/L	1			31		
Sulphite in mg/L	<2			<2		
Phosphorus in mg/L	<0.01			<0.01		
Chloride in mg/L	4			5		
Sodium in $\mu\text{g}/\text{L}$	10600			5820		
Magnesium in $\mu\text{g}/\text{L}$	970			1900		
Calcium in $\mu\text{g}/\text{L}$	2500			23400		
Potassium in $\mu\text{g}/\text{L}$	700			2730		
Iron in $\mu\text{g}/\text{L}$	300			2900		
Nickel in $\mu\text{g}/\text{L}$	<1			<1		
Zinc in $\mu\text{g}/\text{L}$	<10			26		
Manganese in $\mu\text{g}/\text{L}$	26			1620		
Copper in $\mu\text{g}/\text{L}$	<1			3		
Lead in $\mu\text{g}/\text{L}$	<1			4		
Cadmium in $\mu\text{g}/\text{L}$	<0.2			<0.2		
Coliform Count in cfu/100mL	330000			7600		
Oil and Grease in mg/L	<5			<5		

Remarks:

1. Orange Text equals to exceed the Action Level.
2. Red Text equals to exceed the Limit Level.

5.2.5.4 The Summary of Impact Surface Water Quality Exceedance are shown in **Table 5-6**.

Table 5-6 Summary of Impact Surface Water Quality Exceedance during the Reporting Period

Parameters	Level Exceedance	WM1		WM2	
		Action Level	Limit Level	Action Level	Limit Level
pH	Exceedance Date	-	-	-	-
	Exceedance Count	0	0	0	0
DO	Exceedance Date	-	-	-	-
	Exceedance Count	0	0	0	0
Turbidity	Exceedance Date	-	-	-	-
	Exceedance Count	0	0	0	0
SS	Exceedance Date	-	-	-	-
	Exceedance Count	0	0	0	0

Remarks: * equal to non-project related

- 5.2.5.5 No exceedance of Action and Limit Level of surface water quality at designated monitoring stations was recorded during the reporting period. The Notification of Environmental Quality Limits Exceedance is presented in **Appendix H**.

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 Implementation of the Temporary Surface Water Drainage System (TSWDS)

- 5.2.7.1 The site inspection and audits were carried out by ER, IC, ET & Contractor on weekly basis (IEC on monthly basis) to monitor the construction progress, maintenance performance and effectiveness of temporary surface water drainage system in the Project Site to fulfil

- the FEP Condition 2.13, EP Condition 2.15 and the Section 5.2.1.1 of the Updated EM&A Manual. The joint environmental site inspection records are shown in **Appendix K**.
- 5.2.7.2 All construction site runoff would be treated by silt removal facilities to fulfil the requirement of WPCO licenses from the project. Construction site runoff from the project after treatment was discharged to Ping Yuen River. The surface water monitoring results at WM2 (after the discharge point of silt removal facilities) can reflect the water quality at Ping Yuen River during the reporting period.

5.2.8 Event and Action Plan

- 5.2.8.1 Should non-compliance of the criteria occurs, action in accordance with the action plan in **Table 5-7** shall be carried out.

Table 5-7 Event and Action Plan for Water Quality

Event	ET	IEC	Contractor
Action level being exceeded by one sampling day	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Verify Notification of Exceedance • Check monitoring data and Contractor's working methods 	<ul style="list-style-type: none"> • Rectify unacceptable practice • Amend working methods if appropriate
Action level being exceeded by two or more consecutive sampling days	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 J**.
- 6.1.2 A total of 41,337.14 tonnes of C&D materials was reused in the project site during the reporting period. A total of 96,756 tonnes of C&D materials was reused at alternative disposal ground (NENT Landfill) during the reporting period. A total of 39.03 tonnes of C&D materials was imported fill during the reporting period. No Yard waste (collected to Y-Park) was generated during the reporting period. A total of 1,056.28 tonnes of general refuse and a total 216.04 tonnes of No non-recyclable yard waste was generated during the reporting period. The general refuse generated from the Project were disposed of at the NENT Landfill.
- 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 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:

- CH₄: >10% Lower Explosion Limit (LEL);
- CO₂: >0.5%; and
- O₂: <18% by volume.

7.2 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.

7.2.4 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.

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

7.2.6 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** and the Layout of LFG monitoring locations is presented in **Figure 3**.

Table 7-1 Locations of LFG Monitoring during Reporting Period

Monitoring Location	Type of works
Portion B2/E1	Excavation Works

7.3 Monitoring Equipment

7.3.1.1 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 E**. The detection limits are provided in **Table 7-3**.

Table 7-2 LFG Monitoring Equipment

Monitoring Parameters	Equipment	Model
CH ₄ , CO ₂ & O ₂	Gas Analyser	Blackline Safety G7C-EU2 (S/N: 3571220922)

Table 7-3 Landfill Gas Monitoring Detection Limits

Parameters	Detection Limit
CH ₄	1% LEL
O ₂	0.1%
CO ₂	0.1%

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 7-4** shall be carried out.

Table 7-4 Event and Action Plan for the Landfill Gas 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 CO₂ at 0.5% is set for reference only, assuming no CO₂ emission from a particular location.

Depending on the baseline CO₂ levels, the Action Level at a particular location will be changed.

7.5 Monitoring Results

- 7.5.1 The LFG monitoring was carried out two rounds (at the beginning of works in the morning and after lunch) at the working days. The monitoring period of each round of LFG monitoring is around 5 minutes.
- 7.5.2 The LFG monitoring was conducted at Portion B2/E1 during the reporting period (Conducted on working days). The LFG monitoring results are summarized in **Table 7-5**.

Table 7-5 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 %
		Average Monitoring Results			
Portion B2/E1	1 Aug 2025	0	0	0	20.1
	2 Aug 2025	0	0	0	20.1
	4 Aug 2025	0	0	0	20.0
	6 Aug 2025	0	0	0	20.0
	7 Aug 2025	0	0	0	20.1
	8 Aug 2025	0	0	0	20.1
	9 Aug 2025	0	0	0	20.1
	11 Aug 2025	0	0	0	20.0
	12 Aug 2025	0	0	0	20.0
	13 Aug 2025	0	0	0	20.0
	14 Aug 2025	0	0	0	20.0
	15 Aug 2025	0	0	0	20.1
	16 Aug 2025	0	0	0	20.0
	18 Aug 2025	0	0	0	20.1
	19 Aug 2025	0	0	0	20.1
	20 Aug 2025	0	0	0	20.1
	21 Aug 2025	0	0	0	20.1
	22 Aug 2025	0	0	0	20.0
	23 Aug 2025	0	0	0	20.1
	25 Aug 2025	0	0	0	20.0
	26 Aug 2025	0	0	0	20.1
	27 Aug 2025	0	0	0	20.0
	28 Aug 2025	0	0	0	20.0
	29 Aug 2025	0	0	0	20.1
	30 Aug 2025	0	0	0	20.1
Action Level		>10% LEL	---	>0.5%** CO ₂	<19%
Limit Level		>20% LEL	---	>1.5% CO ₂	<18%

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

** This Limit Level of CO₂ at 0.5% is set for reference only, assuming no CO₂ emission from a particular location.

- 7.5.3 The Summary of Landfill Gas Exceedance are shown in **Table 7-6**.

Table 7-6 Summary of Landfill Gas Exceedance during the Reporting Period

Landfill Gas Monitoring Station		Portion B2/E1	
Parameters	Level Exceedance	Action Level	Limit Level
	CH ₄	Exceedance Date	-
CO ₂	Exceedance Count	0	0
	CH ₄	Exceedance Date	-
O ₂	Exceedance Count	0	0
	CH ₄	Exceedance Date	-
O ₂	Exceedance Count	0	0

Remarks: * equal to non-project related

- 7.5.4 No exceedance of Action and 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 H**.
- 7.5.5 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

- 7.6.1 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 Updated EM&A Manual and their implementation status are summarised in **Appendix L**.

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 23 August 2022 and the verification works carried out on 23 August 2022 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 was certified by ET on 10 Oct 2022, was verified by IEC and submitted to EPD on 12 Oct 2022. The Conditions of G2, G4, G5 G6, G7, G8, G14, G15, G25, G26 and G27 within NENTX was certified by ET, was verified by IEC and submitted to EPD on 15 Oct 2022. No later than four weeks before commencement of construction of the project in accordance with Condition 2.4 of the FEP-02/292/2007.
- 9.1.5 Implementation of the mitigation measures such as permanent 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 permanent 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 The post-transplantation monitoring had been completed in October 2023. No further post-transplantation monitoring will be conducted in accordance with the requirement of the approved Transplantation Proposal for Plant Species of Conservation Importance (Rev.1).
- 10.1.2 The post-translocation monitoring had been completed in July 2023. No further post-translocation monitoring will be conducted in accordance with the requirements of the Revised Translocation Proposal for the Endemic Freshwater Crab *Somanniathelphusa zanklon*.
- 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 10-1**. The softcopies of the submissions are provided in <https://www.nentx-ema.com/ep-submissions/>.

Table 10-1 Milestone of the Ecological Monitoring

Type of Monitoring	Monitoring Event No.	Monitoring Date
Post-transplantation Monitoring	1 st	24 Nov 2022
	2 nd	9 Dec 2022
	3 rd	21 Dec 2022
	4 th	13 Jan 2023
	5 th	26 Jan 2023
	6 th	8 Feb 2023
	7 th	24 Feb 2023
	8 th	20 Mar 2023
	9 th	21 Apr 2023
	10 th	12 May 2023
	11 th	16 Jun 2023
	12 th	18 Jul 2023
	13 th	11 Aug 2023
	14 th	15 Sep 2023
	15 th	13 Oct 2023
Post-translocation Monitoring	1 st (Aug 2022)	29 Aug 2022
	2 nd (Sep 2022)	28 Sep 2022
	3 rd (Oct 2022)	28 Oct 2022
	4 th (Nov 2022)	22 Nov 2022
	5 th (Dec 2022)	29 Dec 2022
	6 th (Jan 2023)	30 Jan 2023
	7 th (Feb 2023)	24 Feb 2023
	8 th (Mar 2023)	20 Mar 2023
	9 th (Apr 2023)	19 Apr 2023
	10 th (May 2023)	17 May 2023
	11 th (Jun 2023)	7 Jun 2023
	12 th (Jul 2023)	12 Jul 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 04, 11, 18 & 25 August 2025. A joint environmental site inspection was carried out by the representatives of the ER, the Contractor, IEC and the ET on 18 August 2025. The joint environmental site inspection records are shown in **Appendix K**. There was no noncompliance recorded during the site inspections.
- 11.1.3 Major findings and recommendations are summarized as follows:

04 Aug 2025

Observation(s):

1. Overloading of waste skip was found at Portion C. The Contractor was advised to increase the frequency of waste collection.

Reminder(s):

1. The Contractor was reminded that the control measures of surface runoff should be implemented in accordance with Appendix A2 of ProPECC PN 1/94.

11 Aug 2025

Observation(s):

1. Unpaved access road was dry and dust dispersion was found at Portion E4. The Contractor was recommended to increase the frequency of watering at the unpaved access road.
2. Damage of bunds was found at Portion B1-1. The Contractor was advised to repair the bunds at Portion B1-1.

Reminder(s):

1. The Contractor was reminded that the control measures of surface runoff should be implemented in accordance with Appendix A2 of ProPECC PN 1/94.

18 Aug 2025

Observation(s):

1. Waste was found at stormwater pond of Portion A and water channel of Portion D. The Contractor was advised to clean the waste at the stormwater pond of Portion A and water channel of Portion D regularly and the enclosed bin should be provided for collection of waste.
2. Stormwater pond without proper water channel was found at Portion D. The Contractor was recommended that the construction runoff at stormwater pond at Portion D should be directed into the Temporary Surface Water Drainage System, final to silt removal facility for treatment.
3. Continuous construction runoff flow was found at the Shek Tsai Ha Road under rain. The Contractor was advised to review the effectiveness of the cut-off drain and water channel along the two sides of the Shek Tsai Ha Road to minimise the construction runoff flow on the road section of Shek Tsai Ha Road) and ensure the construction runoff, which is directed into sedimentation basins for deposition, is finally treated through silt removal facilities by controlling the water flow with proper water channels, earth bunds, or sandbag barriers, etc.

4. Damage of bunds was found at Shek Tsai Ha Road. The Contractor was recommended to repair the bunds of Shek Tsai Ha Road.

Reminder(s):

1. The Contractor was reminded that the control measures of surface runoff should be implemented in accordance with Appendix A2 of ProPECC PN 1/94.

25 Aug 2025

Observation(s):

1. Accumulated waste was found outside of the process building of Portion A. The Contractor was recommended that the accumulated waste outside of process building of Portion A should be removed.
2. Standing water was found in the stormwater pond of Portion A. The Contractor was advised to direct the standing water at stormwater pond of Portion A into silt removal facility for treatment.
3. Accumulated waste, silt and grits was found at the catchpit of Portion E3-1. The Contractor was recommended that accumulated waste, silt and grits should be cleaned up at the catchpit of Portion E3-1, regularly and before the upcoming rainstorm.
4. Shek Tsai Ha Road was dry and dust dispersion was found. The Contractor was advised to enhance the frequency of water spraying at Shek Tsai Ha Road.

Reminder(s):

1. The Contractor was reminded that the control measures of surface runoff should be implemented in accordance with Appendix A2 of ProPECC PN 1/94.

11.1.4 One (1) general site inspection was conducted by Environmental Protection Department-Regional Office (North) (EPD-RNG) during the reporting period.

12 Environmental Non-Conformance

12.1 Summary of Monitoring Exceedance

Air Quality, Noise Monitoring, Surface Water Quality & Landfill Gas Monitoring

- 12.1.1 No exceedance of the Action and Limit Levels were recorded at designated monitoring stations during the reporting period. The Notification of Environmental Quality Limits Exceedance is presented in **Appendix H**.
- 12.1.2 The Summary of Impact 1-hr & 24-hr TSP Exceedance are shown in **Table 12-1**.

Table 12-1 Summary of Impact 1-hr & 24-hr TSP Exceedance during the Reporting Period

Dust Monitoring Station		AM1		AM2		AM3	
Level Exceedance Parameters		Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level
1-hr TSP	Exceedance Date	-	-	-	-	-	-
	Exceedance Count	0	0	0	0	0	0
24-hr TSP	Exceedance Date	-	-	-	-	-	-
	Exceedance Count	0	0	0	0	0	0

Remarks: * equal to non-project related

- 12.1.3 The Summary of Impact Noise Exceedance are shown in **Table 12-2**.

Table 12-2 Summary of Impact Noise Exceedance during the Reporting Period

Noise Monitoring Station		NM1(a)		NM2(a)	
Level Exceedance Parameters		Action Level	Limit Level	Action Level	Limit Level
LA _{eq} (30mins)	Exceedance Date	-	-	-	-
	Exceedance Count	0	0	0	0

Remarks: * equal to non-project related

- 12.1.4 The Summary of Impact Surface Water Quality Exceedance are shown in **Table 12-3**.

Table 12-3 Summary of Impact Surface Water Quality Exceedance during the Reporting Period

Surface Water Quality Monitoring Station	WM1		WM2	
	Action Level	Limit Level	Action Level	Limit Level
Level Exceedance	Parameters			
pH	Exceedance Date	-	-	-
	Exceedance Count	0	0	0
DO	Exceedance Date	-	-	-
	Exceedance Count	0	0	0
Turbidity	Exceedance Date	-	-	-
	Exceedance Count	0	0	0
SS	Exceedance Date	-	-	-
	Exceedance Count	0	0	0

Remarks: * equal to non-project related

12.1.5 The Summary of Landfill Gas Exceedance are shown in **Table 12-4**.

Table 12-4 Summary of Landfill Gas Exceedance during the reporting period

Landfill Gas Monitoring Station	Portion B2/E1	
	Action Level	Limit Level
Level Exceedance	Parameters	
CH₄	Exceedance Date	-
	Exceedance Count	0
CO₂	Exceedance Date	-
	Exceedance Count	0
O₂	Exceedance Date	-
	Exceedance Count	0

Remarks: * equal to non-project related

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. The cumulative statistics on environmental complaints are presented in **Table 12-5**.

Table 12-5 Cumulative Statistics on Environmental Complaints

Reporting Period		Environmental Aspects				
		Air Quality	Noise	Water Quality	Waste	Ecology
Aug 2025	Complaint Date	-	-	-	-	-
	No. of Complaint	0	0	0	0	0
Reporting Period Total		0	0	0	0	0
Accumulate of project		1*	0	7(1*)	0	0

Remarks:

1. * equal to non-project related after the investigation.

2. # equal to the complaint under the investigation.

12.3.2 Cumulative complaint / enquiry log, Summaries of complaints and enquiries are presented in **Appendix N**.

12.4 Summary of Environmental Summons and Successful Prosecution

12.4.1 No summons and successful prosecution were received during the reporting period.

13 Implementation Status on Environmental Mitigation Measures

13.1 General

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

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 A**.

- Material loading and unloading, backfilling of material and site traffic at Portion A, SBA to alternative disposal ground
- Construction of site buildings at Portion D
- Site clearance at Portion A, B2/E1, E3-1 & E4
- Installation of permanent fencing at Portion A, B1 & E4
- Site formation at Portion A, B2/E1, E3-1 & E4
- Tree felling at whole site
- Shotcreting (Permanent and Temporary) at whole site
- Soil nail installation at Portion A, B2/E1 & E4
- Installation of minipile at Portion A
- Construction of RE wall at Portion E3-1

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 D**.

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 for 1-hr & 24-hr TSP impact monitoring 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 The baseline groundwater monitoring was commenced on 28 March 2025. The details of baseline groundwater monitoring will be presented in the Baseline Monitoring Report.
- 15.1.4 Surface Water Quality Monitoring was carried out in the reporting month. No Action / Limit Level exceedance of surface water quality was recorded at WM1 & WM2 during the reporting period.
- 15.1.5 Landfill Gas Monitoring was carried out in the reporting month. No exceedance of Action / 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 permanent 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 Weekly 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.
- 15.1.8 No environmental complaint was recorded during the reporting period.
- 15.1.9 No non-compliance event was recorded during the reporting period.
- 15.1.10 No notification of summons and prosecution was received during the reporting period.
- 15.1.11 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

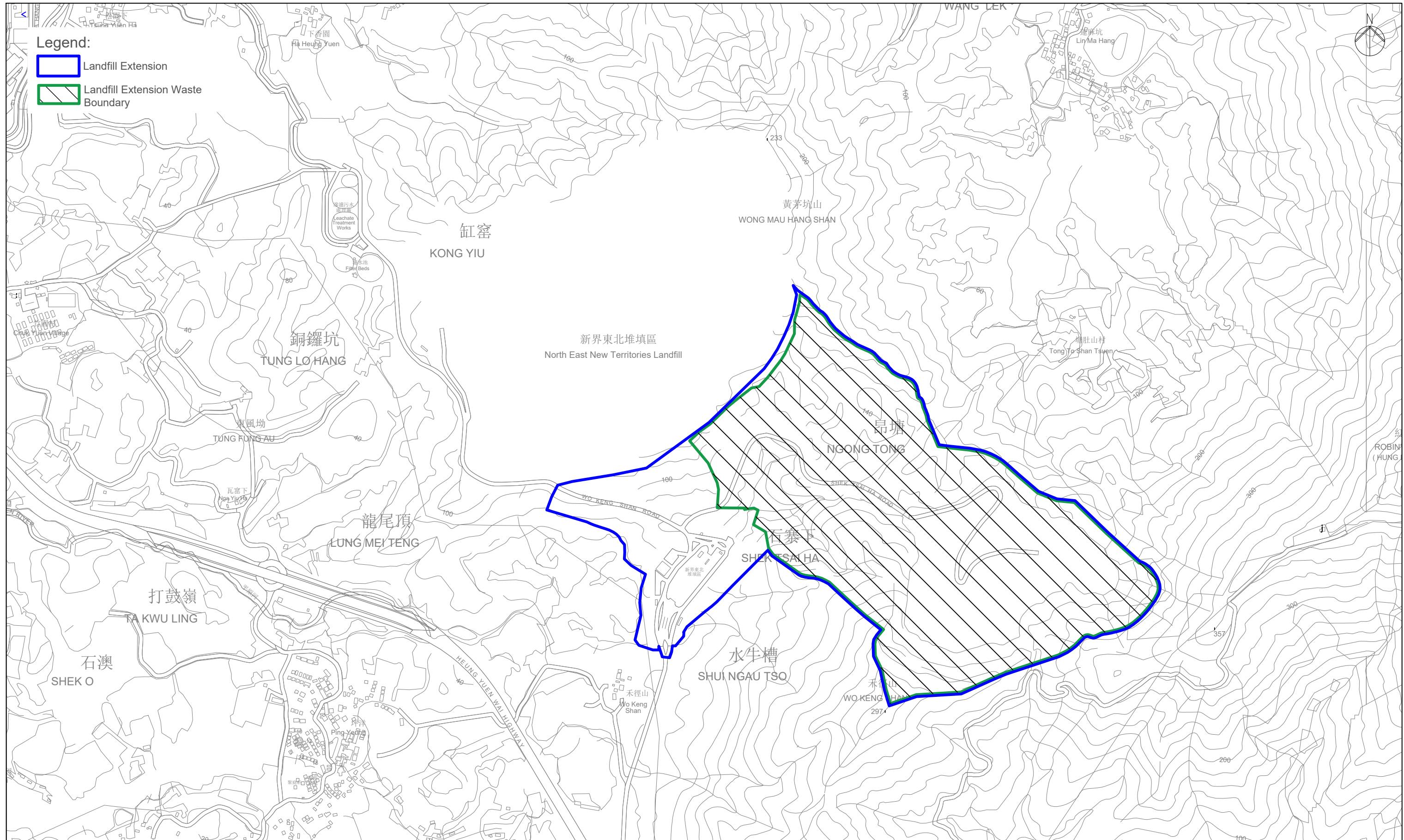


Figure 2 Impact Air Quality, Noise & Surface Water Quality Monitoring Locations

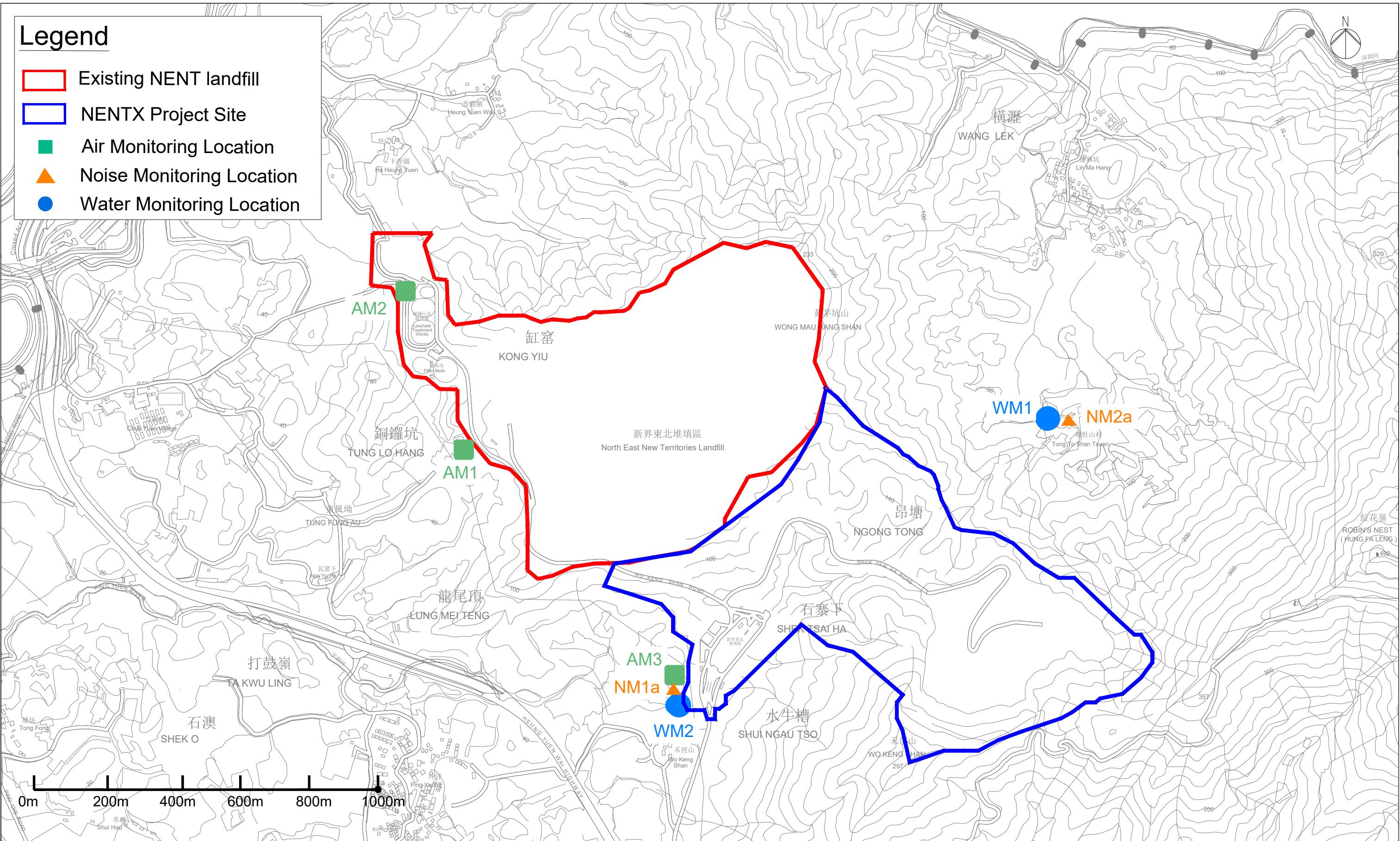


Figure 3 Landfill Gas Monitoring Locations

Gas Monitoring Point 
Monitoring Frequency:
2 times per day



Figure 3 Landfill Gas Monitoring Locations

Appendix A Construction Programme & Construction Activities



環境保護署 Environmental Protection Department



**NORTH EAST NEW TERRITORIES (NENTX) LANDFILL EXTENSION
UPDATED BASELINE PROGRAMME (Rev.4)
Executive Summary
INITIAL WORKS (PHASE 1)**



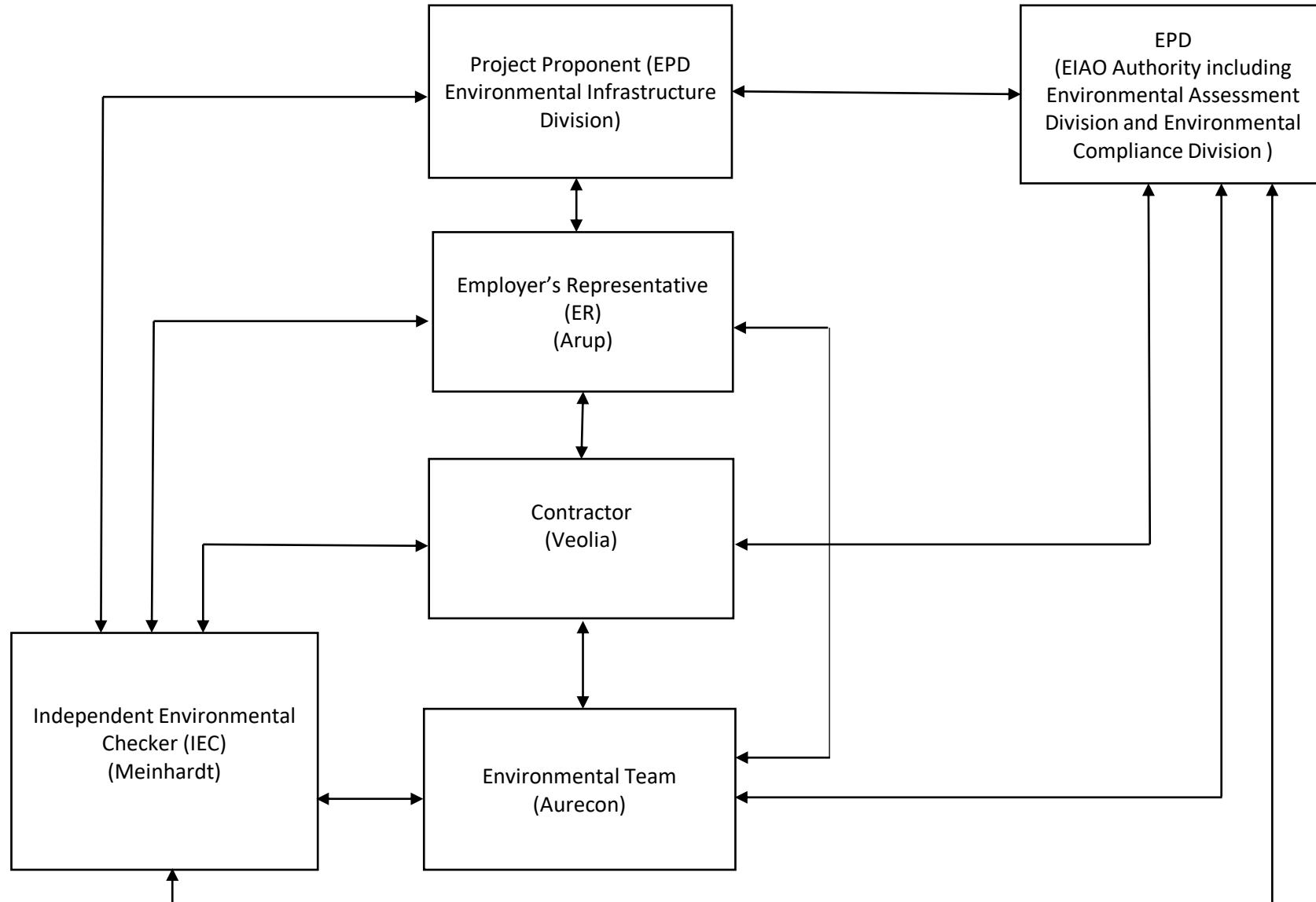
Date	Revision	Ch...	Appr...
22-Jun-22	GENERAL REVISION		
31-Mar-23	GENERAL REVISION		

Construction Activities	Where	Who	What - ENV Impacts	Mitigation Measures
Material loading and unloading, backfilling of material, site traffic	Portion A, SBA to Alternative Disposal Ground	PCL	Dust, bringing mud to the common haul road	Speed limit, covering of materials and water spraying, lorry washing at the exit of the site
Construction of Site buildings	Portion D	PCL	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 discharge point
Site clearance	Portion A, Portion E3-1, Portion E4, Portion E1/B2	PCL	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 point, implementation of trip ticket system
Installation of permanent fencing	Portion A, Portion B1, Portion E4	PCL	Dust	Covering of cement storage area, enclosure of mixing area
Site formation	Portion A, Portion E3-1, Portion E4, Portion E1/B2	PCL	Generation of C&D waste	Implementation of trip ticket system, waste recycling, internal waste transfer
Tree Felling	Whole site	PCL	Generation of yard waste	Implementation of trip ticket system, waste recycling, internal waste transfer
Shotcreting (permanent and temporary)	Whole site	PCL	Dust	Covering of cement storage area, enclosure of mixing area
Soil Nail Installation	Portion A, E1/B2, E4	PCL	Dust	Covering of cement storage area, enclosure of mixing area, watering during works, install dust screen at work area
Installation of minipile	Portion A	PCL	Dust, generation of muddy water	Use of dust shield, regular watering, construct proper drainage to divert muddy water to treatment facility
Construction of RE Wall	Portion E3-1	PCL	Dust	Regular watering

Remark:

PCL is the Sub-contractor for this project

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

← → Line of Communication

Appendix C Detail Status of FEP & EP Submission

Detail 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 (CLG)	Submission Date (12 Oct 2022) 1 st CLG meeting (12 Jan 2023)
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 Sep 2022)
2.6	2.8	Submission of translocation proposal	Submission Date (8 Jul 2022)
2.7	2.9	Submission of Transplantation Report and Post-Transplantation Monitoring	Submission Date (19 Jan 2023) 1 st monitoring (24 Nov 2022) 2 nd monitoring (9 Dec 2022) 3 rd monitoring (21 Dec 2022) 4 th monitoring (13 Jan 2023) 5 th monitoring (26 Jan 2023) 6 th monitoring (8 Feb 2023) 7 th monitoring (24 Feb 2023) 8 th monitoring (20 Mar 2023) 9 th monitoring (21 Apr 2023) 10 th monitoring (12 May 2023) 11 th monitoring (16 Jun 2023) 12 th monitoring (18 Jul 2023) 13 th monitoring (11 Aug 2023) 14 th monitoring (15 Sep 2023) 15 th monitoring (13 Oct 2023)

FEP Condition	EP Condition	Submission / Measures	Status
2.8	2.10	Submission of Translocation Report and Post-Translocation Monitoring	Translocation was carried out in July 2022 Submission Date (27 Dec 2022) 1 st monitoring (29 Aug 2022) 2 nd monitoring (28 Sep 2022) 3 rd monitoring (28 Oct 2022) 4 th monitoring (22 Nov 2022) 5 th monitoring (29 Dec 2022) 6 th monitoring (30 Jan 2023) 7 th monitoring (24 Feb 2023) 8 th monitoring (20 Mar 2023) 9 th monitoring (19 Apr 2023) 10 th monitoring (17 May 2023) 11 th monitoring (7 Jun 2023) 12 th monitoring (12 Jul 2023)
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 Dec 2022)
2.11	2.13	Submission of Landscape Plan	Submission Date (31 May 2023)
3.2	3.2	Submission of Baseline Monitoring Report	Submission Date (30 Nov 2022)

FEP Condition	EP Condition	Submission / Measures	Status
3.3	3.3	Submission of Monthly EM&A Report	<p>1st report (Dec 2022)</p> <p>2nd report (Jan 2023)</p> <p>3rd report (Feb 2023)</p> <p>4th report (Mar 2023)</p> <p>5th report (Apr 2023)</p> <p>6th report (May 2023)</p> <p>7th report (Jun 2023)</p> <p>8th report (Jul 2023)</p> <p>9th report (Aug 2023)</p> <p>10th report (Sep 2023)</p> <p>11th report (Oct 2023)</p> <p>12th report (Nov 2023)</p> <p>13th report (Dec 2023)</p> <p>14th report (Jan 2024)</p> <p>15th report (Feb 2024)</p> <p>16th report (Mar 2024)</p> <p>17th report (Apr 2024)</p> <p>18th report (May 2024)</p> <p>19th report (Jun 2024)</p> <p>20th report (Jul 2024)</p> <p>21st report (Aug 2024)</p> <p>22nd report (Sep 2024)</p> <p>23rd report (Oct 2024)</p> <p>24th report (Nov 2024)</p> <p>25th report (Dec 2024)</p> <p>26th report (Jan 2025)</p> <p>27th report (Feb 2025)</p> <p>28th report (Mar 2025)</p> <p>29th report (Apr 2025)</p> <p>30th report (May 2025)</p> <p>31st report (Jun 2025)</p> <p>32nd report (Jul 2025)</p> <p>33rd report (Aug 2025)</p>

Appendix D Monitoring Schedule for Reporting Month & Next Month

8-2025							
Sun	Mon	Tue	Wed	Thur	Fri	Sat	
27	28	29	30	31	1	2	Air quality monitoring at AM1, AM2 and AM3
3	4	5	6	7	8	9	Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a
10	11	12 Surface water quality monitoring at WM1 & WM2	13	14 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	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	
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). 5. Please arrange a Veolia staff to accompany our staff(s) to each locations for every monitoring.							

9-2025							
Sun	Mon	Tue	Wed	Thur	Fri	Sat	
31	1 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	2	3	4	5	6 Air quality monitoring at AM1, AM2 and AM3	
7	8	9	10	11	12 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a Surface water quality monitoring at WM1 & WM2	13	
14	15	16	17	18 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	19	20	
21	22	23	24 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	25	26	27	
28	29	30 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	1	2	3	4	
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). 5. Please arrange a Veolia staff to accompany our staff(s) to each locations for every monitoring.							

Appendix E Calibration Certificates

Air Quality

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

Information of Calibrated Equipment

Verification Test Date:	13-Sep-24	to	14-Sep-24	Next Verification Test Date:	12-Sep-25
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	0Z4545				
Our Report Reference No.:	RPT-23-HVS-0065				
Calibration Location:	AM2, location near the Leachate Treatment Works within the NENTX Landfill				

Standard Equipment Information

Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1106	3465
Last Calibration Date:	13-Sep-24	16-Jan-24
Next Calibration Date:	12-Sep-25	15-Jan-25

Equipment Verification Result

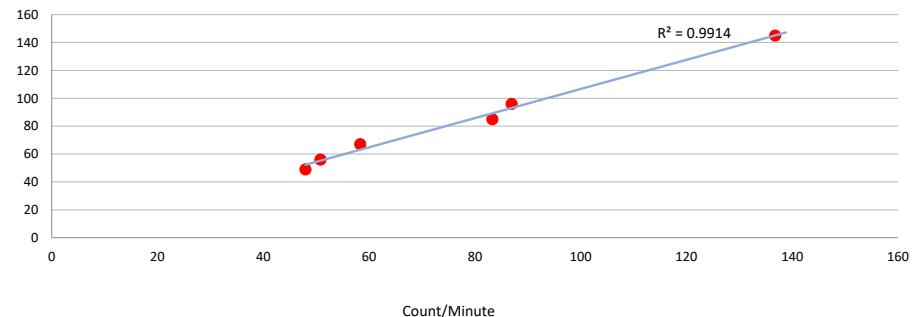
Verification Test No.	Date	Duration			Results from Calibrated Equipment		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration ($\mu\text{g}/\text{m}^3$) y-axis
1	28/11/23	8789.68	8792.68	180.00	15648	87	96
2	28/11/23	8792.68	8795.68	180.00	14993	83	85
3	28/11/23	8795.68	8798.68	180.00	8635	48	49
4	30/11/23	8798.68	8801.68	180.00	10501	58	67
5	30/11/23	8801.68	8804.68	180.00	24622	137	145
6	30/11/23	8804.68	8807.68	180.00	9145	51	56

Linear Regression of y on x

Slope, K factor:	1.0451	Intercept:	2.1545	*Correlation Coefficient, R:	0.9957
Verification Test Result:	Strong Correlation, Results were accepted.				

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

Verification Curve



Operated By:

Andy Li
Project Technician, Environmental

Date: 14-09-2024

Checked By:

Tandy Tse
Senior Consultant, Environmental

Date: 14-09-2024

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

Information of Calibrated Equipment

Verification Test Date:	<u>13-Sep-24</u>	to	<u>14-Sep-24</u>	Next Verification Test Date:	<u>12-Sep-25</u>
Unit-under-Test- Model No.:	<u>Sibata LD-5R</u>				
Unit-under-Test Serial No.:	<u>882106</u>				
Our Report Reference No.:	<u>RPT-23-HVS-0068</u>				
Calibration Location:	<u>AM2, location near the Leachate Treatment Works within the NENTX Landfill</u>				

Standard Equipment Information

Verification Equipment Type:	<u>Tisch TSP HVS</u>	Tisch HVS Calibrator
Standard Equipment Model No.:	<u>TE-5170X</u>	<u>TE-5025A</u>
Equipment serial no.:	<u>1106</u>	<u>3465</u>
Last Calibration Date:	<u>13-Sep-24</u>	<u>16-Jan-24</u>
Next Calibration Date:	<u>12-Sep-25</u>	<u>15-Jan-25</u>

Equipment Verification Result

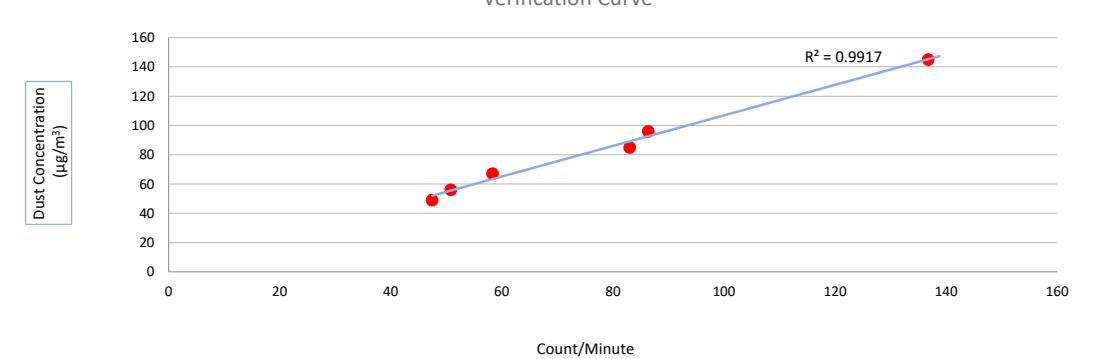
Verification Test No.	Date	Duration			Results from Calibrated Equipment		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration ($\mu\text{g}/\text{m}^3$) y-axis
1	28/11/23	8789.68	8792.68	180.00	15546	86	96
2	28/11/23	8792.68	8795.68	180.00	14944	83	85
3	28/11/23	8795.68	8798.68	180.00	8543	47	49
4	30/11/23	8798.68	8801.68	180.00	10499	58	67
5	30/11/23	8801.68	8804.68	180.00	24622	137	145
6	30/11/23	8804.68	8807.68	180.00	9145	51	56

Linear Regression of y on x

Slope, K factor:	<u>1.0437</u>	Intercept:	<u>2.4993</u>	*Correlation Coefficient, R:	<u>0.9958</u>
Verification Test Result: <u>Strong Correlation, Results were accepted.</u>					

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

Verification Curve



Operated By:

Andy Li

Project Technician, Environmental

Date: 14-09-2024

Checked By:

Tandy Tse

Senior Consultant, Environmental

Date: 14-09-2024

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

Information of Calibrated Equipment

Verification Test Date:	<u>13-Sep-24</u>	to	<u>14-Sep-24</u>	Next Verification Test Date:	<u>12-Sep-25</u>
Unit-under-Test- Model No.:	<u>Sibata LD-5R</u>				
Unit-under-Test Serial No.:	<u>942532</u>				
Our Report Reference No.:	<u>RPT-23-HVS-0071</u>				
Calibration Location:	<u>AM2, location near the Leachate Treatment Works within the NENTX Landfill</u>				

Standard Equipment Information

Verification Equipment Type:	<u>Tisch TSP HVS</u>	Tisch HVS Calibrator
Standard Equipment Model No.:	<u>TE-5170X</u>	<u>TE-5025A</u>
Equipment serial no.:	<u>1106</u>	<u>3465</u>
Last Calibration Date:	<u>13-Sep-24</u>	<u>16-Jan-24</u>
Next Calibration Date:	<u>12-Sep-25</u>	<u>15-Jan-25</u>

Equipment Verification Result

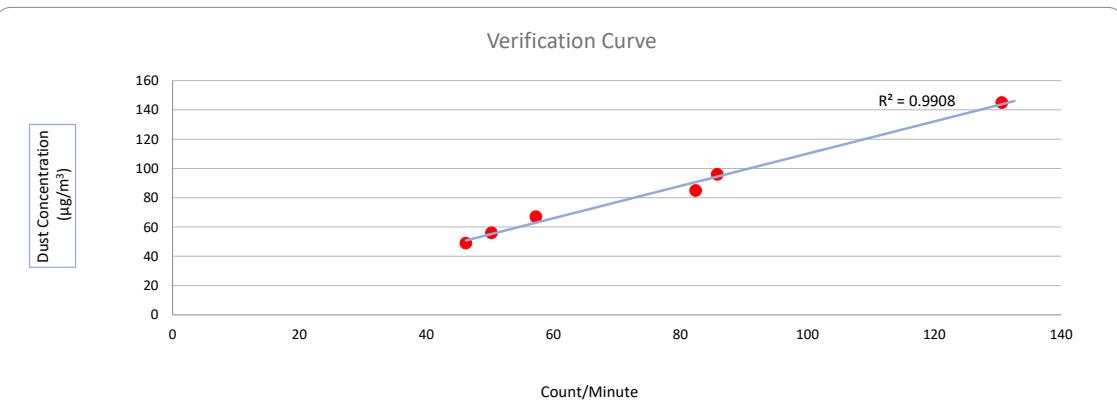
Verification Test No.	Date	Duration			Results from Calibrated Equipment		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration ($\mu\text{g}/\text{m}^3$ y-axis)
1	28/11/23	8789.68	8792.68	180.00	15446	86	96
2	28/11/23	8792.68	8795.68	180.00	14835	82	85
3	28/11/23	8795.68	8798.68	180.00	8320	46	49
4	30/11/23	8798.68	8801.68	180.00	10303	57	67
5	30/11/23	8801.68	8804.68	180.00	23517	131	145
6	30/11/23	8804.68	8807.68	180.00	9043	50	56

Linear Regression of y on x

Slope, K factor:	<u>1.1020</u>	Intercept:	<u>-0.1223</u>	*Correlation Coefficient, R:	<u>0.9954</u>
Verification Test Result: <u>Strong Correlation, Results were accepted.</u>					

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

Verification Curve



Operated By:

Andy Li

Project Technician, Environmental

Date: 14-09-2024

Checked By:

Tandy Tse

Senior Consultant, Environmental

Date: 14-09-2024

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	Representative For Tung Lo Hang	Site ID:	AM1	Cal Date: Exp Date:	5/6/2025 5/8/2025
Serial No:	1105	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P_a) (mm Hg):	756.4	Actual Temperature during Calibration (T_a) (deg K):	301.0
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Calibration Orifice

Model:	TE-5025A	Slope (m_c):	2.08107
Serial No.:	3465	Intercept (b_c):	-0.04295
Calibration Due Date:	15-Jan-25	Corr. Coeff:	0.99999

Calibration Data

Plate or Test #	ΔH_2O (in)	Q_a , X-Axis (m^3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	12.60	1.714	60.0	59.57
13	10.40	1.559	58.0	57.58
10	8.40	1.403	53.0	52.62
7	6.40	1.227	46.0	45.67
5	3.00	0.847	38.0	37.72

Sampler Calibration Relationship (Q_a on x-axis, IC on y-axis)

$m = 26.6399$

$b = 14.6633$

Corr. Coeff = 0.9908

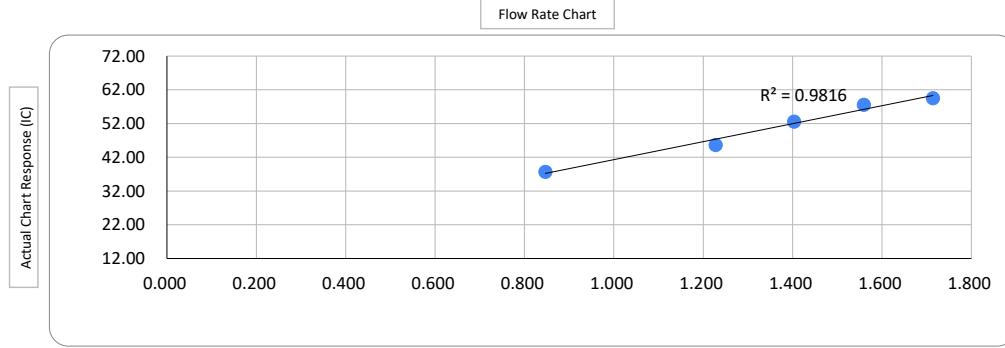
Calculations

$$Q_a = 1/m_c * [\text{Sqrt}(\Delta H_2O * (P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)) - b_c]$$

$$IC = I * [\text{Sqrt}(P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)]$$

Q_a = actual flow rate
 IC = corrected chart response
 I = actual chart response
 m_c = calibrator slope
 b_c = calibrator intercept

m = sampler slope
 b = sampler intercept
 $T_{\text{Std}} = 298$ deg K
 $P_{\text{Std}} = 760$ mm Hg
 T_a = actual temperature during calibration (deg K)
 P_a = actual pressure during calibration (mm Hg)



Checked by: F.C Tsang
Monitoring Team Leader

Date: 08-Jun-2025

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	Representative For Tung Lo Hang	Site ID:	AM1	Cal Date: Exp Date:	6/8/2025 5/10/2025
Serial No:	1105	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P_a) (mm Hg):	755.8	Actual Temperature during Calibration (T_a) (deg K):	300.7
--	-------	--	-------

Calibration Orifice

Model:	TE-5025A	Slope (m_c):	2.08107
Serial No.:	3465	Intercept (b_c):	-0.04295
Calibration Due Date:	2-Dec-25	Corr. Coeff:	0.99999

Calibration Data

Plate or Test #	ΔH_2O (in)	Q_a , X-Axis (m^3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	13.60	1.780	58.0	57.59
13	10.20	1.544	54.0	53.61
10	8.00	1.370	48.0	47.66
7	6.40	1.228	44.0	43.69
5	3.20	0.874	34.0	33.76

Sampler Calibration Relationship (Q_a on x-axis, IC on y-axis)

$m = 27.0313$

$b = 10.5184$

Corr. Coeff = 0.9955

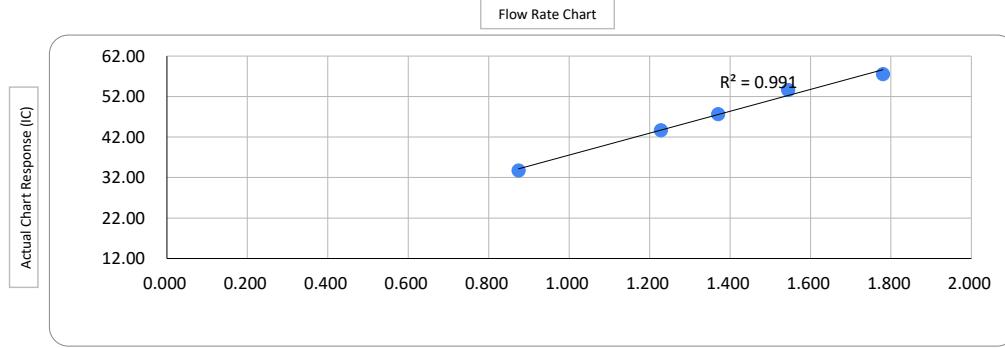
Calculations

$$Q_a = 1/m_c * [\text{Sqrt}(\Delta H_2O * (P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)) - b_c]$$

$$IC = I * [\text{Sqrt}(P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)]$$

Q_a = actual flow rate
 IC = corrected chart response
 I = actual chart response
 m_c = calibrator slope
 b_c = calibrator intercept

m = sampler slope
 b = sampler intercept
 $T_{\text{Std}} = 298$ deg K
 $P_{\text{Std}} = 760$ mm Hg
 T_a = actual temperature during calibration (deg K)
 P_a = actual pressure during calibration (mm Hg)



Checked by: F.C Tsang
Monitoring Team Leader

Date: 07-Aug-2025

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	Representative For Heung YuenWai	Site ID:	AM2	Cal Date: Exp Date:	5/6/2025 5/8/2025
Serial No:	1106	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P_a) (mm Hg):	756.4	Actual Temperature during Calibration (T_a) (deg K):	301.0
--	-------	--	-------

Calibration Orifice

Model:	TE-5025A	Slope (m_c):	2.08107
Serial No.:	3465	Intercept (b_c):	-0.04295
Calibration Due Date:	2-Dec-25	Corr. Coeff:	0.99999

Calibration Data

Plate or Test #	ΔH_2O (in)	Q_a , X-Axis (m^3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	10.20	1.544	62.0	61.55
13	9.60	1.499	58.0	57.58
10	7.40	1.318	52.0	51.62
7	4.60	1.044	44.0	43.68
5	3.50	0.913	36.0	35.74

Sampler Calibration Relationship (Q_a on x-axis, IC on y-axis)

$m = 37.3151$

$b = 2.8828$

Corr. Coeff= 0.9911

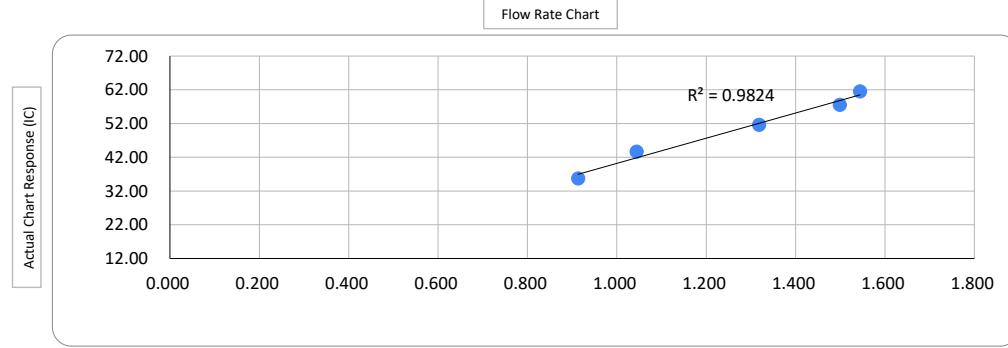
Calculations

$$Q_a = 1/m_c * [\text{Sqrt}(\Delta H_2O * (P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)) - b_c]$$

$$IC = I * [\text{Sqrt}(P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)]$$

Q_a = actual flow rate
 IC = corrected chart response
 I = actual chart response
 m_c = calibrator slope
 b_c = calibrator intercept

m = sampler slope
 b = sampler intercept
 $T_{\text{Std}} = 298$ deg K
 $P_{\text{Std}} = 760$ mm Hg
 T_a = actual temperature during calibration (deg K)
 P_a = actual pressure during calibration (mm Hg)



Checked by: F.C Tsang
Monitoring Team Leader

Date: 08-Jun-2025

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	Representative For Heung YuenWai	Site ID:	AM2	Cal Date: Exp Date:	6/8/2025 5/10/2025
Serial No:	1106	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P_a) (mm Hg):	755.8	Actual Temperature during Calibration (T_a) (deg K):	300.7
--	-------	--	-------

Calibration Orifice

Model:	TE-5025A	Slope (m_c):	2.08107
Serial No.:	3465	Intercept (b_c):	-0.04295
Calibration Due Date:	2-Dec-25	Corr. Coeff:	0.99999

Calibration Data

Plate or	ΔH_2O	Q_a , X-Axis	I, CFM	IC, Y-Axis
Test #	(in)	(m^3/min)	(chart)	(corrected)
18	12.80	1.728	60.0	59.57
13	10.10	1.537	56.0	55.60
10	8.00	1.370	50.0	49.64
7	4.80	1.066	44.0	43.69
5	3.20	0.874	36.0	35.74

Sampler Calibration Relationship (Q_a on x-axis, IC on y-axis)

$m = 27.2080$

$b = 13.0733$

Corr. Coeff= 0.9929

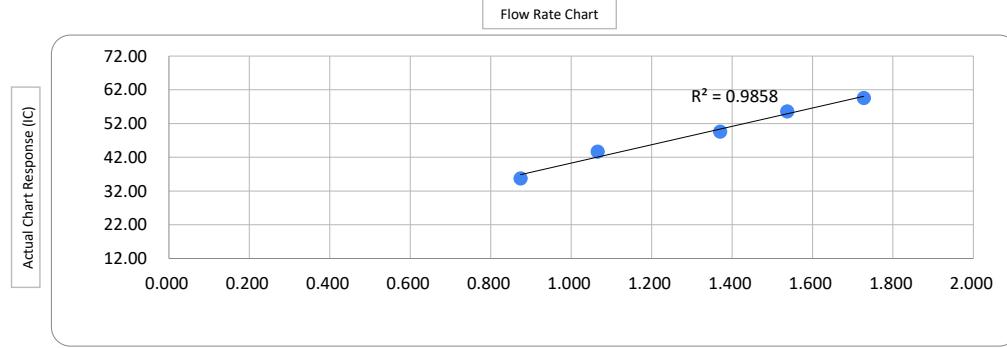
Calculations

$$Q_a = 1/m_c * [\text{Sqrt}(\Delta H_2O * (P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)) - b_c]$$

$$IC = I * [\text{Sqrt}(P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)]$$

Q_a = actual flow rate
 IC = corrected chart response
 I = actual chart response
 m_c = calibrator slope
 b_c = calibrator intercept

m = sampler slope
 b = sampler intercept
 $T_{\text{Std}} = 298$ deg K
 $P_{\text{Std}} = 760$ mm Hg
 T_a = actual temperature during calibration (deg K)
 P_a = actual pressure during calibration (mm Hg)



Checked by: F.C Tsang
Monitoring Team Leader

Date: 07-Aug-2025

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	Representative For Wo Keng Shan Tsuen	Site ID:	AM3	Cal Date: Exp Date:	5/6/2025 5/8/2025
Serial No:	1856	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P_a) (mm Hg):	756.4	Actual Temperature during Calibration (T_a) (deg K):	301.0
--	-------	--	-------

Calibration Orifice

Model:	TE-5025A	Slope (m_c):	2.08107
Serial No.:	3465	Intercept (b_c):	-0.04295
Calibration Due Date:	2-Dec-25	Corr. Coeff:	0.99999

Calibration Data

Plate or Test #	ΔH_2O (in)	Q_a , X-Axis (m^3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	10.20	1.544	62.0	61.55
13	9.10	1.460	58.0	57.58
10	7.00	1.283	54.0	53.61
7	4.80	1.066	46.0	45.67
5	3.20	0.874	40.0	39.71

0

Sampler Calibration Relationship (Q_a on x-axis, IC on y-axis)

$m = 31.9802$

$b = 11.7988$

Corr. Coeff = 0.9974

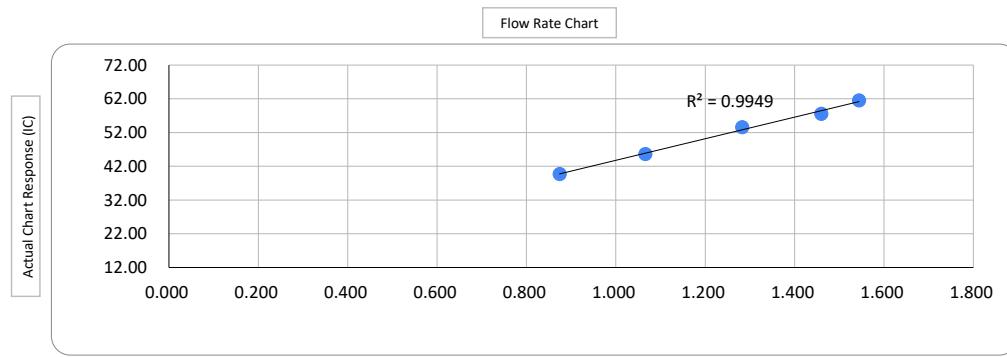
Calculations

$$Q_a = 1/m_c * [\text{Sqrt}(\Delta H_2O * (P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)) - b_c]$$

$$IC = I * [\text{Sqrt}(P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)]$$

Q_a = actual flow rate
 IC = corrected chart response
 I = actual chart response
 m_c = calibrator slope
 b_c = calibrator intercept

m = sampler slope
 b = sampler intercept
 $T_{\text{Std}} = 298$ deg K
 $P_{\text{Std}} = 760$ mm Hg
 T_a = actual temperature during calibration (deg K)
 P_a = actual pressure during calibration (mm Hg)



Checked by: F.C Tsang
Monitoring Team Leader

Date: 08-Jun-2025

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	Representative For Wo Keng Shan Tsuen	Site ID:	AM3	Cal Date: Exp Date:	6/8/2025 5/10/2025
Serial No:	1856	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P_a) (mm Hg):	755.8	Actual Temperature during Calibration (T_a) (deg K):	300.7
--	-------	--	-------

Calibration Orifice

Model:	TE-5025A	Slope (m_c):	2.08107
Serial No.:	3465	Intercept (b_c):	-0.04295
Calibration Due Date:	2-Dec-25	Corr. Coeff:	0.99999

Calibration Data

Plate or Test #	ΔH_2O (in)	Q_a , X-Axis (m^3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	13.40	1.767	62.0	61.56
13	10.20	1.544	56.0	55.60
10	7.40	1.318	48.0	47.66
7	5.60	1.150	42.0	41.70
5	3.80	0.951	36.0	35.74

0

Sampler Calibration Relationship (Q_a on x-axis, IC on y-axis)

$m = 32.2815$

$b = 4.9994$

Corr. Coeff = 0.9989

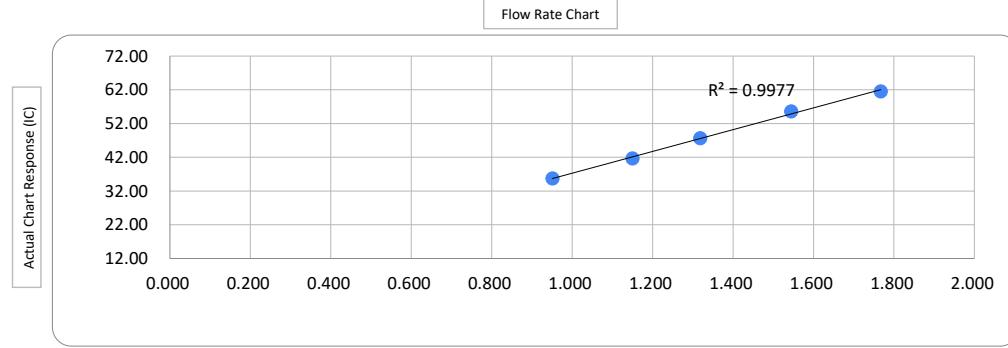
Calculations

$$Q_a = 1/m_c * [\text{Sqrt}(\Delta H_2O * (P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)) - b_c]$$

$$IC = I * [\text{Sqrt}(P_a/P_{\text{Std}}) * (T_{\text{Std}}/T_a)]$$

Q_a = actual flow rate
 IC = corrected chart response
 I = actual chart response
 m_c = calibrator slope
 b_c = calibrator intercept

m = sampler slope
 b = sampler intercept
 $T_{\text{Std}} = 298$ deg K
 $P_{\text{Std}} = 760$ mm Hg
 T_a = actual temperature during calibration (deg K)
 P_a = actual pressure during calibration (mm Hg)



Checked by: F.C Tsang
Monitoring Team Leader

Date: 07-Aug-2025



RECALIBRATION

DUE DATE:

December 2, 2025

Certificate of Calibration

Calibration Certification Information

Cal. Date:	December 2, 2024	Rootsmeter S/N:	438320	Ta:	293	°K
Operator:	Jim Tisch			Pa:	757.4	mm Hg
Calibration Model #:	TE-5025A	Calibrator S/N: 3465				

Run	Vol. Init (m ³)	Vol. Final (m ³)	ΔVol. (m ³)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H ₂ O)
1	1	2	1	1.4300	3.2	2.00
2	3	4	1	1.0190	6.4	4.00
3	5	6	1	0.9090	7.9	5.00
4	7	8	1	0.8680	8.8	5.50
5	9	10	1	0.7170	12.8	8.00

Data Tabulation

Vstd (m ³)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)}$ (y-axis)
1.0093	0.7058	1.4238	0.9958	0.6963	0.8796
1.0051	0.9863	2.0136	0.9916	0.9731	1.2439
1.0031	1.1035	2.2512	0.9896	1.0886	1.3907
1.0018	1.1542	2.3611	0.9884	1.1387	1.4586
0.9965	1.3898	2.8476	0.9831	1.3711	1.7592
m=		2.08107	m=		1.30313
QSTD		b=	b=		-0.02653
r=		0.99999	r=		0.99999

Calculations

$$Vstd = \Delta Vol \left(\frac{(Pa - \Delta P)}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)$$

$$Va = \Delta Vol \left(\frac{(Pa - \Delta P)}{Pa} \right)$$

$$Qstd = Vstd / \Delta Time$$

$$Qa = Va / \Delta Time$$

For subsequent flow rate calculations:

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

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

Standard Conditions

Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH: calibrator manometer reading (in H ₂ O)	
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

Noise

Certificate of Calibration

for

Description: Sound Level Meter
Manufacturer: NTi Audio
Type No.: XL2 (Serial No.: A2A-13661-E0)
Microphone: ACO 7052 (Serial No.:84464)
Preamplifier: NTi Audio MA220 (M2211) (Serial No.:5287)

Submitted by:

Customer: Aurecon Hong Kong Limited
Address: Unit 1608, 16/F, Tower B, Manulife Financial Centre,
223-231 Wai Yip Street, Kwun Tong,
Kowloon, Hong Kong

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

- Within (31.5Hz – 8kHz)
 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: 12 August 2024

Date of calibration: 13 August 2024

Date of NEXT calibration: 12 August 2025

Calibrated by: 
Calibration Technician

Date of issue: 13 August 2024

Certificate No.: APJ24-049-CC001

Certified by: 
Mr. Ng Yan Wa
Laboratory Manager



Page 1 of 4



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:	23.3 °C
Air Pressure:	1006 hPa
Relative Humidity:	62.3 %

3. Calibration Equipment:

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	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	94.0	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	94.0	Ref
			Slow			94.1	±0.3

Certificate No.: APJ24-049-CC001



Page 2 of 4

Frequency Response

Linear Response

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	dB SPL	Fast	94	31.5	94.1	± 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	94.4	± 1.6
				4000	95.0	± 1.6
				8000	94.5	$+2.1; -3.1$

A-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	31.5	54.7	-39.4 ± 2.0
				63	67.9	-26.2 ± 1.5
				125	77.9	-16.1 ± 1.5
				250	85.4	-8.6 ± 1.4
				500	90.9	-3.2 ± 1.4
				1000	94.1	Ref
				2000	95.6	$+1.2 \pm 1.6$
				4000	96.0	$+1.0 \pm 1.6$
				8000	93.4	$-1.1 + 2.1; -3.1$

C-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	dB SPL	Fast	94	31.5	91.1	-3.0 ± 2.0
				63	93.3	-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	94.2	-0.2 ± 1.6
				4000	94.2	-0.8 ± 1.6
				8000	91.5	$-3.0 + 2.1; -3.1$

Certificate No.: APJ24-049-CC001



Page 3 of 4

5. Calibration Results Applied

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

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.10
	125 Hz	± 0.10
	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.

Certificate No.: APJ24-049-CC001



Page 4 of 4

Certificate of Calibration

for

Description: Sound Level Meter
Manufacturer: NTi Audio
Type No.: XL2 (Serial No.: A2A-13663-F0)
Microphone: ACO 7052 (Serial No.: 84413)
Preamplifier: NTi Audio M2211 MA220 (Serial No.: 7014)

Submitted by:

Customer: Aurecon Hong Kong Limited
Address: Unit 1608, 16/F, Tower B,
Manulife Financial Centre,
223-231 Wai Yip Street, Kwun Tong,
Kowloon, Hong Kong.

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

Within (31.5Hz – 8kHz)

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: 05 February 2025

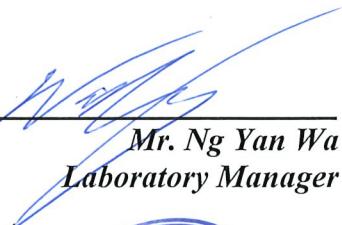
Date of calibration: 07 February 2025

Date of NEXT calibration: 06 February 2026

Calibrated by: 
Calibration Technician

Date of issue: 07 February 2025

Certificate No.: APJ24-142-CC006

Certified by: 
Mr. Ng Yan Wa
Laboratory Manager



Page 1 of 4

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: 21.2 °C
 Air Pressure: 1006 hPa
 Relative Humidity: 52.1 %

3. Calibration Equipment:

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	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	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	94	1000	94.1	Ref
					104.1	±0.3
					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	94	1000	94.1	Ref
					94.1	±0.3

Certificate No.: APJ24-142-CC006



Page 2 of 4

Frequency Response

Linear Response

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	dB SPL	Fast	94	31.5	94.1	± 2.0
				63	94.2	± 1.5
				125	94.1	± 1.5
				250	94.1	± 1.4
				500	94.2	± 1.4
				1000	94.1	Ref
				2000	94.4	± 1.6
				4000	94.7	± 1.6
				8000	93.9	+2.1; -3.1

A-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	31.5	54.7	-39.4 ± 2.0
				63	68.0	-26.2 ± 1.5
				125	78.0	-16.1 ± 1.5
				250	85.5	-8.6 ± 1.4
				500	91.0	-3.2 ± 1.4
				1000	94.1	Ref
				2000	95.6	$+1.2 \pm 1.6$
				4000	95.7	$+1.0 \pm 1.6$
				8000	92.8	$-1.1 + 2.1; -3.1$

C-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	dB SPL	Fast	94	31.5	91.1	-3.0 ± 2.0
				63	93.3	-0.8 ± 1.5
				125	94.0	-0.2 ± 1.5
				250	94.1	-0.0 ± 1.4
				500	94.2	-0.0 ± 1.4
				1000	94.1	Ref
				2000	94.2	-0.2 ± 1.6
				4000	93.9	-0.8 ± 1.6
				8000	90.9	$-3.0 + 2.1; -3.1$

Certificate No.: APJ24-142-CC006



Page 3 of 4

5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacturer'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.

Certificate No.: APJ24-142-CC006



Certificate of Calibration

for

Description: Sound Level Calibrator
Manufacturer: RION
Type No.: NC-75
Serial No.: 34724245

Submitted by:

Customer: Aurecon Hong Kong Limited
Address: Unit 1608, 16/F, Tower B,
Manulife Financial Centre,
223-231 Wai Yip Street, Kwun Tong,
Kowloon, Hong Kong

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

- Within
 Outside

the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

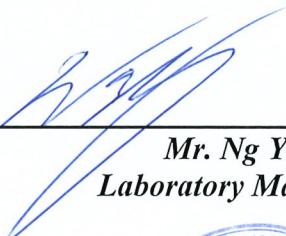
Date of receipt: 10 July 2025

Date of calibration: 11 July 2025

Date of NEXT calibration: 10 July 2026

Calibrated by: 
Calibration Technician

Date of issue: 11 July 2025

Certified by: 
Mr. Ng Yan Wa
Laboratory Manager



Certificate No.: APJ25-045-CC003

Page 1 of 2

1. Calibration Precautions:

- 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 Specifications:

Calibration check

3. Calibration Conditions:

Air Temperature:	24.6 °C
Air Pressure:	1006 hPa
Relative Humidity:	57.5 %

4. Calibration Equipment:

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV240109	HOKLAS

5. Calibration Results

5.1 Sound Pressure Level

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	94.0

Note:

The values given in this certification only related to the values measured at the time of the calibration.

Certificate No.: APJ25-045-CC003



Page 2 of 2



Cal Lab Limited 校正實驗室有限公司

Room 2103, Technology Plaza, 29-35 Sha Tsui Road,
Tsuen Wan, NT, Hong Kong
Tel: +852 25680106 Email: info@callab.com.hk
Fax: +852 30116194 Website: www.callab.com.hk



Calibration Certificate No.: CC0182502

Information provided by customer

Customer: Aurecon Hong Kong Limited
Address: Unit 1608, 16/F, Tower B, Manulife Financial Centre, 222-231 Wai Yip Street, Kwun Tong, Hong Kong

Equipment identification provided by customer

Equipment Description	Manufacturer	Model No.	Serial No.	Assigned equipment No.
Air Velocity Meter	UNI-T	UT363	C222415356	A-02

Certificate Information

Date of Receipt:	12 February 2025	Calibration Condition:	22.4°C, 54%RH, 1011hPa
Date of Calibration:	18 February 2025	Adjustment:	N/A
Recommended Next Cal. Date:	N/A	Appearance:	Good
Calibration Procedure:	SOP-112	Remark:	N/A

Reference Equipment Identification

Equipment Description	Model	Serial No.	Expiration Date
Hot Wire Anemometer	405-V1	41576231	17 July 2026

Result of Calibration

Air Velocity

Reference Reading (m/s)	Measured Reading (m/s)	Error (m/s)	Uncertainty (%)	Technical Requirement	Technical Reference Doc.
1.04	1.0	0.0	3.6	± 5 %	Mfr's Spec.
2.02	2.1	0.1	3.6	± 5 %	Mfr's Spec.
4.98	5.1	0.1	3.6	± 5 %	Mfr's Spec.
8.01	8.2	0.2	3.6	± 5 %	Mfr's Spec.

CT-AFR-01

- Note1: The estimated expanded uncertainties have been calculated in "Evaluation and expression of uncertainty in measurement" and give an internal estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.
- Note2: The standard (s) and instrument used in the calibration are traceable to national or international recognized standard and are calibrated on a schedule to maintain the accuracy and good condition.
- Note3: The result reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long term stability of the instrument.
- Note4: The result shows in this calibration certificate relate only to the item calibrated, and the result only applies to the calibration item as received.

Calibrated By:

Wing Cheng

Checked and Approved By:

Warren Yeung

Company Chop:

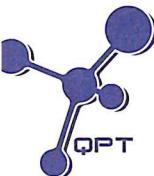


Certificate Issue Date: 20 February 2025

CT-BEG-04

*** End of Certificate ***

Water Quality



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BE060091
Date of Issue : 18 June 2025
Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
Unit 1608, 16/F, Tower B, Manulife Fin. Centre 223 - 231 Wai Yip Street, Kwun Tong, Kowloon (HK) Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS Multi Parameters
Manufacturer : YSI
Serial Number : 22C106561
Date of Received : 12 June 2025
Date of Calibration : 16 June 2025
Date of Next Calibration : 16 September 2025
Request No. : D-BE060091

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

<u>Test Parameter</u>	<u>Reference Method</u>
pH value	APHA 21e 4500-H ⁺ B
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 23e 4500-O G (Membrane Electrode Method)
Turbidity	APHA 21e 2130 B (Nephelometric Method)
Conductivity	APHA 21e 2510 B

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.06	0.06	Satisfactory
7.42	7.29	-0.13	Satisfactory
10.01	9.95	-0.06	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance (°C)	Result
43.2	42.0	-1.2	Satisfactory
28.3	27.4	-0.9	Satisfactory
10.3	10.6	0.3	Satisfactory

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

(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.96	-0.4	Satisfactory
20	19.57	-2.15	Satisfactory
30	29.47	-1.77	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED
SIGNATORY:

FUNG Yuen-ching
Laboratory Manager



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 5/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-BE060091

Date of Issue : 18 June 2025

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(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance (mg/L)	Result
7.43	7.67	0.24	Satisfactory
4.28	4.49	0.21	Satisfactory
3.11	3.25	0.14	Satisfactory
0.09	0.39	0.30	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance ^(a) (%)	Result
0	0.37	-	Satisfactory
10	10.48	4.8	Satisfactory
20	20.01	0.05	Satisfactory
100	102.81	2.81	Satisfactory
800	811.84	1.48	Satisfactory

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

(6) Conductivity

Expected Reading ($\mu\text{S}/\text{cm}$ at 25°C)	Display Reading ($\mu\text{S}/\text{cm}$ at 25°C)	Tolerance (%)	Result
146.9	157.7	7.35	Satisfactory
1412	1412	0	Satisfactory
12890	12897	0.05	Satisfactory
58670	59353	1.16	Satisfactory
111900	115441	3.16	Satisfactory

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

^(a) For 0 NTU, Display Reading should be less than 1 NTU

Remark(s): -

- The "Date of Next Calibration" is recommended according to best practice principles followed by QPT or relevant international standards.
- The results relate only to the calibrated equipment as received.
- The performance of the equipment stated in this report is checked using independent reference material, with results compared against a calibrated secondary source.
- "Displayed Reading" denotes the figure shown on the item under calibration/checking, regardless of equipment precision or significant figures.
- The "Tolerance Limit" mentioned is the acceptance criteria applicable to similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.

--- END OF REPORT ---



Cal Lab Limited 校正實驗室有限公司

Room 2103, Technology Plaza, 29-35 Sha Tsui Road,
Tsuen Wan, NT, Hong Kong
Tel: +852 25680106 Email: info@callab.com.hk
Fax: +852 30116194 Website: www.callab.com.hk

Calibration Certificate No.: CC0172502

Information provided by customer

Customer: Acumen Laboratory and Testing Limited
Address: Workshop 04, 7/F, The Whitney, No. 183 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Equipment Identification provided by customer

Equipment Description	Manufacturer	Model No.	Serial No.	Assigned equipment No.
Flow Probe	Global Water	FP111	22K100859	N/A

Certificate Information

Date of Receipt:	10 February 2025	Calibration Condition:	21.7°C, 52%RH, 1008hPa
Date of Calibration:	11 February 2025	Adjustment:	N/A
Due Date of Calibration:	N/A	Appearance:	Good
Calibration Procedure:	JJG 1030-2007	Remark:	N/A

Reference Equipment Identification

Equipment Description	Model	Serial No.	Expiration Date
Water Flow Meter	GW8100	20240628GW8100-P165	13 November 2025

Result of Calibration

Water Flow Rate

Reference Reading (m/s)	Measured Reading (m/s)	Error (m/s)	Uncertainty (%)
0.00	0.0	N/A	N/A
1.03	1.1	-0.07	5.8
2.92	3.0	-0.08	5.8
5.06	5.0	0.06	5.8

- Note1: The estimated expanded uncertainties have been calculated in "Evaluation and expression of uncertainty in measurement" and give an internal estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.
- Note2: The standard (s) and instrument used in the calibration are traceable to national or international recognized standard and are calibrated on a schedule to maintain the accuracy and good condition.
- Note3: The result reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long term stability of the instrument.
- Note4: The result shows in this calibration certificate relate only to the item calibrated, and the result only applies to the calibration item as received.
- Note5: Calibration item/ parameter marked with * is out of scope of Cal Lab Limited (A2LA 3815.01).

Calibrated By:

Wing Cheng

Checked and Approved By:

Warren Yeung

Company Chop:



Certificate Issue Date: 12 February 2025

CT-BEG-04

*** End of Certificate ***

- The certificate shall not be reproduced except in full, without written approval of Cal Lab Limited
- The certificate is issued subject to the latest Terms and Conditions, available at our web site

CC0172502

Page 1 of 1

Landfill Gas

Asia Pacific Industrial Safety Equipment

Tel: 2592 2100

Fax: 3165 8960

Calibration Certificate

Cert. Ref. No.:

BLS/G7C/01/1426

Date: 27/7/2025

Customer: New Concepts Eng Dev Ltd

Attn: Victor Tel: 9840 3136 Fax:

User Details:

Gas Detector Model: Blackline Safety G7C-EU2 Serial No: 3571220922 CART ID: 334341
Calibration Record: Act. Code: L6R 7HB

Inspection before calibration		Visual inspection	Functional Test
Basic Unit - Case, Clip & Display etc.		OK	OK
Battery and charge etc.		OK	OK
Motorized Pump		OK	OK
Other items		-	-

Type of Sensor	Expiry Date
Oxygen Sensor	
CO Sensor	
H2S Sensor	
Combustible (LEL) Sensor	
Carbon Dioxide (CO2) Sensor	

Type of calibration	Date of calibration	H2S (ppm)	CO (ppm)	O2 (%)	LEL (%)	CO2 (ppm)
SENSOR Calibration	9/8/2025	25	100	18	50	5000
		OK	OK	OK	OK	OK

Calibration remarks:

Blackline Safety Recommended Next Calibration Date*:

5/2/2026

*The calibration Schedule can be configured to match your company's safety policy
and Blackline Safety recommends not exceeding 180 days without a calibration

IMPORTANT NOTES TO Blackline Safety GAS DETECTOR USERS

USERS MUST READ THE OPERATOR'S MANUAL THOROUGHLY BEFORE OPERATING THIS EQUIPMENT AND FOLLOW THEIR OWN SAFETY SUPERVISOR'S INSTRUCTION TO WORK.

All gas detection instrumentation on the market requires periodic calibration to accurately measure gas. Calibration is only as accurate as the test gas used. Blackline Safety quality test gases are made to the highest accuracy and traceability to N.I.S.T. Standard.

Calibration By:

Mind Lau

Services Hotline : 2592 2100



Appendix F Monitoring Results

Air Quality

1-hour TSP Concentration (µg/m³) at Location AM1

Date	Equipment Brand & Model	Equipment Serial No.	K-factor	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)		Reading (2)		Reading (3)		Average	Action Level	Limit Level
								µg/m ³								
02/08/2025	Sibata LD-5R	882106	1.0437	Fine	8:12	9:12	10:12	29	31	23	28	285	500			
08/08/2025	Sibata LD-5R	942532	1.1020	Fine	8:40	9:40	10:40	25	28	21	25					
14/08/2025	Sibata LD-5R	942532	1.1020	Fine	8:30	9:30	10:30	30	31	29	30					
20/08/2025	Sibata LD-5R	882106	1.0437	Fine	8:41	9:41	10:41	26	29	27	27					
26/08/2025	Sibata LD-5R	942532	1.1020	Fine	8:21	9:21	10:21	26	27	26	26					
								Average		27						
								Max.		31						
								Min.		21						

1-hour TSP Concentration (µg/m³) at Location AM2

Date	Equipment Brand & Model	Equipment Serial No.	K-factor	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)		Reading (2)		Reading (3)		Average	Action Level	Limit Level
								µg/m ³								
02/08/2025	Sibata LD-5R	942532	1.1020	Fine	8:25	9:25	10:25	46	44	43	44	279	500			
08/08/2025	Sibata LD-5R	882106	1.0437	Fine	8:51	9:51	10:51	41	40	43	41					
14/08/2025	Sibata LD-5R	0Z4545	1.0451	Fine	8:50	9:50	10:50	40	41	39	40					
20/08/2025	Sibata LD-5R	0Z4545	1.0451	Fine	8:52	9:52	10:52	40	41	44	42					
26/08/2025	Sibata LD-5R	0Z4545	1.0451	Fine	8:50	9:50	10:50	40	41	40	40					
								Average		42						
								Max.		46						
								Min.		39						

1-hour TSP Concentration (µg/m³) at Location AM3

Date	Equipment Brand & Model	Equipment Serial No.	K-factor	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)		Reading (2)		Reading (3)		Average	Action Level	Limit Level
								µg/m ³								
02/08/2025	Sibata LD-5R	0Z4545	1.0451	Fine	8:45	9:45	10:45	60	51	63	58	285	500			
08/08/2025	Sibata LD-5R	0Z4545	1.0451	Fine	8:03	9:03	10:03	51	49	48	49					
14/08/2025	Sibata LD-5R	882106	1.0437	Fine	8:11	9:11	10:11	60	61	63	61					
20/08/2025	Sibata LD-5R	0Z4545	1.0451	Fine	8:10	9:10	10:10	51	49	50	50					
26/08/2025	Sibata LD-5R	882106	1.0437	Fine	8:09	9:09	10:09	50	49	48	49					
								Average		54						
								Max.		63						
								Min.		48						

The Summary of TSP 24-hour Concentration ($\mu\text{g}/\text{m}^3$) at Location AM1

Start Date	Weather Condition	Avg Air Temp ($^{\circ}\text{C}$)	Avg Atmospheric Pressure (hPa)	Elapse Time Initial	Elapse Time Final	Sampling Time (minutes)	Averaged Flow Rate (cfm)	Averaged Flow Rate (m^3/min)	Total Flow Volume (m^3)	Filter Weight (g)	Particulate weight (g)	Concentration ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}3$)	
02/08/2025	Fine	28.7	1003.0	6155.66	6179.66	1440	41	0.9	1361	2.6907	2.7778	0.0871	64	164	260
08/08/2025	Fine	30.0	1008.3	6202.53	6226.53	1440	41	1.1	1569	2.7434	2.8473	0.1039	66		
14/08/2025	Fine	26.9	1007.2	6248.31	6272.31	1440	40	1.1	1551	2.7084	2.8157	0.1073	69		
20/08/2025	Fine	29.3	1011.1	6294.39	6318.39	1440	40	1.1	1551	2.7075	2.8092	0.1017	66		
26/08/2025	Fine	30.1	1009.0	6340.92	6364.92	1440	41	1.1	1570	2.7000	2.7982	0.0982	63		
												Average	66		
												Min	63		
												Max	69		

The Summary of 24-hour TSP Concentration ($\mu\text{g}/\text{m}^3$) at Location AM2

Start Date	Weather Condition	Avg Air Temp ($^{\circ}\text{C}$)	Avg Atmospheric Pressure (hPa)	Elapse Time Initial	Elapse Time Final	Sampling Time (minutes)	Averaged Flow Rate (cfm)	Flow Rate (m^3/min)	Total Flow Volume (m^3)	Filter Weight (g)	Particulate weight (g)	Concentration ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}3$)	
02/08/2025	Fine	28.7	1003.0	5967.21	5991.21	1440	41	1.0	1426	2.7030	2.7998	0.0968	66	152	260
08/08/2025	Fine	30.0	1008.3	6013.35	6037.35	1440	41	1.0	1450	2.7313	2.8352	0.1039	72		
14/08/2025	Fine	26.9	1007.2	6059.76	6083.76	1440	41	1.0	1432	2.7199	2.8273	0.1074	75		
20/08/2025	Fine	29.3	1011.1	6106.19	6130.19	1440	41	1.0	1432	2.6899	2.7942	0.1043	73		
26/08/2025	Fine	30.1	1009.0	6152.07	6176.07	1440		1.0	1425	2.7384	2.8539	0.1155	81		
												Average	74		
												Min	68		
												Max	81		

The Summary of 24-hour TSP Concentration ($\mu\text{g}/\text{m}^3$) at Location AM3

Start Date	Weather Condition	Avg Air Temp ($^{\circ}\text{C}$)	Avg Atmospheric Pressure (hPa)	Elapse Time Initial	Elapse Time Final	Sampling Time (minutes)	Averaged Flow Rate (cfm)	Flow Rate (m^3/min)	Total Flow Volume (m^3)	Filter Weight (g)	Particulate weight (g)	Concentration ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}3$)	
02/08/2025	Fine	28.7	1003.0	6772.34	6796.34	1440	42	0.9	1307	2.7309	2.8396	0.1087	83	163	260
08/08/2025	Fine	30.0	1008.3	6818.68	6842.68	1440	42	1.1	1604	2.7084	2.8464	0.1380	86		
14/08/2025	Fine	26.9	1007.2	6865.29	6889.29	1440	42	1.1	1611	2.7036	2.8305	0.1269	79		
20/08/2025	Fine	29.3	1011.1	6911.45	6935.45	1440	41	1.1	1589	2.7072	2.8274	0.1202	76		
26/08/2025	Fine	30.1	1009.0	6955.63	6979.63	1440	41	1.1	1583	2.7032	2.8371	0.1339	85		
												Average	82		
												Min	76		
												Max	86		

Remarks:

1. Orange Text equal to exceed Action Level
2. Red Text equal to exceed Limit Level

Noise

Impact Phase Construction Noise Monitoring Data at Location NM1a

Impact Phase Construction Noise Monitoring Data at Location NM2a

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
12-Aug-25	11:04	Fine	0.16	0.1	25.5	8.0	<7.4	<4	7.5	>7.7	>7.8	2.4	>9.2	>9.5	<0.1	>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
12-Aug-25	8:34	Fine	0.30	0.5	25.8	8.1	<5	<4	7.2	>7.6	>7.7	53.1	>108.3	>108.9	87.6	>94.5	>94.7

Remarks

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

2. "TBC" equal to "To be confirm"

3. Orange Text equal to exceed Action Level

4. Red Text equal to exceed Limit Level



CERTIFICATE OF ANALYSIS

Client	: ACUMEN LABORATORY AND TESTING LIMITED	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 9
Contact Address	: MR. HUNTINGTON HUI : WORKSHOP 04, 7/F, THE WHITNEY NO.183 : WAI YIP STREET, KWUN TONG, KOWLOON	Contact Address	: Richard Fung : 11/F., Chung Shun Knitting Centre, 1 - 3 Wing : Yip Street, Kwai Chung, N.T., Hong Kong	Work Order	: HK2534332
E-mail	: Huntington.Hui@aurecongroup.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: ---	Telephone	: +852 2610 1044		
Facsimile	: ---	Facsimile	: +852 2610 2021		
Project	: NENTX			Date Samples Received	: 12-Aug-2025
Order number	: ---	Quote number	: HKE/2751/2022_V5	Issue Date	: 26-Aug-2025
C-O-C number	: ---			No. of samples received	: 2
Site	: ---			No. of samples analysed	: 2

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the written approval of the laboratory.

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

<u>Signatories</u>	<u>Position</u>	<u>Authorised results for</u>
	Fung Lim Chee, Richard	Managing Director
	Fung Lim Chee, Richard	Managing Director
Ng Sin Kou, May	Laboratory Manager	Microbiology_ENV

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 12-Aug-2025 to 25-Aug-2025.

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: HK2534332

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. The result(s) is/are related only to the item(s) tested.

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition.

Microbiological sample(s) was/ were collected in 250mL sterile plastic bottles containing sodium thiosulfate. Sample(s) arrived at the laboratory at 12:55.

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.

EK058A - Nitrate is the difference of Nitrite + Nitrate and Nitrite.

Analytical Results

Sub-Matrix: WATER		Sample ID	WM1	WM2	---	---	---	
			Sampling date / time	12-Aug-2025	12-Aug-2025	---	---	---
Compound	CAS Number	LOR	Unit	HK2534332-001	HK2534332-002	---	---	---
EA/ED: Physical and Aggregate Properties								
EA025: Suspended Solids (SS)	---	0.1	mg/L	<0.1	87.6	---	---	---
ED037: Total Alkalinity as CaCO ₃	---	1	mg/L	8	51	---	---	---
ED/EK: Inorganic Nonmetallic Parameters								
ED041K: Sulphate as SO ₄ - Turbidimetric	---	1	mg/L	1	31	---	---	---
ED045K: Chloride	16887-00-6	0.5	mg/L	4	5	---	---	---
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.02	0.11	---	---	---
EK058A: Nitrate as N	14797-55-8	0.01	mg/L	0.03	0.22	---	---	---
EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	0.2	0.2	---	---	---
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	---	---	---
EK086: Sulphite as SO ₃ 2-	14265-45-3	2	mg/L	<2	<2	---	---	---
EP: Aggregate Organics								
EP005: Total Organic Carbon	---	1	mg/L	2	2	---	---	---
EP020: Oil & Grease	---	5	mg/L	<5	<5	---	---	---
EP026C: Chemical Oxygen Demand	---	5	mg/L	<5	5	---	---	---
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	3	---	---	---
EG020: Lead	7439-92-1	1	µg/L	<1	4	---	---	---
EG020: Manganese	7439-96-5	1	µg/L	26	1620	---	---	---
EG020: Nickel	7440-02-0	1	µg/L	<1	<1	---	---	---
EG020: Zinc	7440-66-6	10	µg/L	<10	26	---	---	---
EG032: Calcium	7440-70-2	50	µg/L	2500	23400	---	---	---
EG032: Iron	7439-89-6	10	µg/L	300	2900	---	---	---
EG032: Magnesium	7439-95-4	50	µg/L	970	1900	---	---	---
EG032: Potassium	7440-09-7	50	µg/L	700	2730	---	---	---
EG032: Sodium	7440-23-5	50	µg/L	10600	5820	---	---	---
EM: Microbiological Testing								
EM002: E. coli	---	1	CFU/100mL	120000	1400	---	---	---

Sub-Matrix: WATER		Sample ID <i>Sampling date / time</i>	WM1	WM2	---	---	---
Compound	CAS Number		LOR	Unit	HK2534332-001	HK2534332-002	-----
EM: Microbiological Testing - Continued							
EM003: Total Coliforms	---	1	CFU/100mL	330000	7600	---	---

----- END OF REPORT -----

Laboratory Duplicate (DUP) Report

In the Laboratory Duplicate (DUP) report, RPD (%) of sample duplicate reporting "0.0" denotes that the difference between unrounded results of the sample and its duplicate analyses is less than the value of the limit of reporting of the specific testing. The RPD (%) meets the quality control requirement of the corresponding testing procedure.

Matrix: WATER							Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
EG: Metals and Major Cations - Total (QC Lot: 6787741) - Continued											
HK2534332-002	WM2	EG032: Iron	7439-89-6	10	µg/L	2900	2740	5.8			
		EG032: Calcium	7440-70-2	50	µg/L	23400	23400	0.1			
		EG032: Magnesium	7439-95-4	50	µg/L	1900	1870	2.0			
		EG032: Potassium	7440-09-7	50	µg/L	2730	2670	2.2			
		EG032: Sodium	7440-23-5	50	µg/L	5820	5680	2.6			

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

Matrix: WATER			Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
						Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)
Method: Compound	CAS Number	LOR	Unit	Result	LCS	DCS	Low	High	Value	Control Limit	
EA/ED: Physical and Aggregate Properties (QC Lot: 6785460)											
EA025: Suspended Solids (SS)	---	0.5	mg/L	<0.5	10 mg/L	88.0	---	85.0	115	---	---
EA/ED: Physical and Aggregate Properties (QC Lot: 6800012)											
ED037: Total Alkalinity as CaCO3	---	1	mg/L	<1	50 mg/L	104	---	95.0	105	---	---
					2000 mg/L	99.4	---	95.0	105	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 6787816)											
ED041K: Sulphate as SO4 - Turbidimetric	---	1	mg/L	<1	5 mg/L	106	---	89.8	117	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 6787817)											
ED045K: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	99.7	---	91.8	106	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 6788505)											
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	99.6	---	90.2	107	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 6795400)											
EK086: Sulphite as SO3 2-	14265-45-3	2	mg/L	<2	---	---	---	---	---	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 6800113)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	101	---	85.2	112	---	---
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 6800435)											
EK061A: Total Kjeldahl Nitrogen as N	---	0.1	mg/L	<0.1	0.5 mg/L	97.1	---	85.0	115	---	---
EP: Aggregate Organics (QC Lot: 6784990)											
EP030: Biochemical Oxygen Demand	---	---	mg/L	---	198 mg/L	94.2	---	85.0	115	---	---

Matrix: WATER	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report														
	Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)							
							LCS	DCS	Low	High	Value	Control Limit						
EP: Aggregate Organics (QC Lot: 6794818)																		
EP005: Total Organic Carbon	---	1		mg/L	<1	5 mg/L	102	---	85.0	115	---	---						
					<1	100 mg/L	95.6	---	84.1	117	---	---						
EP: Aggregate Organics (QC Lot: 6799963)																		
EP020: Oil & Grease	---	2		mg/L	<2	20 mg/L	98.3	---	85.0	115	---	---						
EP: Aggregate Organics (QC Lot: 6801219)																		
EP020: Oil & Grease	---	2		mg/L	<2	20 mg/L	96.8	---	85.0	115	---	---						
EP: Aggregate Organics (QC Lot: 6803456)																		
EP026C: Chemical Oxygen Demand	---	---		mg/L	---	25 mg/L	99.2	---	90.0	111	---	---						
					---	250 mg/L	100	---	94.3	104	---	---						
EG: Metals and Major Cations - Total (QC Lot: 6787739)																		
EG020: Cadmium	7440-43-9	0.2		µg/L	<0.2	5 µg/L	103	---	85.0	109	---	---						
EG020: Copper	7440-50-8	1		µg/L	<1	50 µg/L	108	---	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	102	---	85.0	115	---	---						
EG020: Nickel	7440-02-0	1		µg/L	<1	50 µg/L	107	---	87.0	110	---	---						
EG020: Zinc	7440-66-6	10		µg/L	<10	50 µg/L	114	---	86.0	114	---	---						
EG: Metals and Major Cations - Total (QC Lot: 6787741)																		
EG032: Calcium	7440-70-2	50		µg/L	<50	2000 µg/L	105	---	85.0	115	---	---						
EG032: Iron	7439-89-6	10		µg/L	<10	2000 µg/L	108	---	85.0	115	---	---						
EG032: Magnesium	7439-95-4	50		µg/L	<50	2000 µg/L	105	---	85.0	115	---	---						
EG032: Potassium	7440-09-7	50		µg/L	<50	2000 µg/L	101	---	85.0	115	---	---						
EG032: Sodium	7440-23-5	50		µg/L	<50	2000 µg/L	106	---	85.0	115	---	---						

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: 6787816)													
HK2534728-001	Anonymous	ED041K: Sulphate as SO ₄ - Turbidimetric	---	50 mg/L	105	---	75.0	125	---	---			
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 6787817)													
HK2534728-001	Anonymous	ED045K: Chloride	16887-00-6	5 mg/L	90.4	---	75.0	125	---	---			
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 6788505)													
HK2534728-001	Anonymous	EK071K: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	112	---	75.0	125	---	---			
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 6800113)													
HK2535220-001	Anonymous	EK055K: Ammonia as N	7664-41-7	50 mg/L	112	---	75.0	125	---	---			
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 6800435)													
HK2534332-001	WM1	EK061A: Total Kjeldahl Nitrogen as N	---	0.5 mg/L	94.9	---	75.0	125	---	---			
EP: Aggregate Organics (QC Lot: 6794818)													
HK2533559-002	Anonymous	EP005: Total Organic Carbon	---	25 mg/L	91.3	---	75.0	125	---	---			
EP: Aggregate Organics (QC Lot: 6803456)													
HK2534332-001	WM1	EP026C: Chemical Oxygen Demand	---	10 mg/L	98.0	---	75.0	125	---	---			
EG: Metals and Major Cations - Total (QC Lot: 6787739)													
HK2532605-001	Anonymous	EG020: Cadmium	7440-43-9	5 µg/L	104	---	75.0	125	---	---			
		EG020: Copper	7440-50-8	50 µg/L	100	---	75.0	125	---	---			
		EG020: Lead	7439-92-1	50 µg/L	97.1	---	75.0	125	---	---			
		EG020: Manganese	7439-96-5	50 µg/L	95.8	---	75.0	125	---	---			
		EG020: Nickel	7440-02-0	50 µg/L	103	---	75.0	125	---	---			
		EG020: Zinc	7440-66-6	50 µg/L	102	---	75.0	125	---	---			
EG: Metals and Major Cations - Total (QC Lot: 6787741)													
HK2534332-001	WM1	EG032: Calcium	7440-70-2	2000 µg/L	112	---	75.0	125	---	---			
		EG032: Iron	7439-89-6	2000 µg/L	112	---	75.0	125	---	---			
		EG032: Magnesium	7439-95-4	2000 µg/L	81.0	---	75.0	125	---	---			
		EG032: Potassium	7440-09-7	2000 µg/L	96.4	---	75.0	125	---	---			

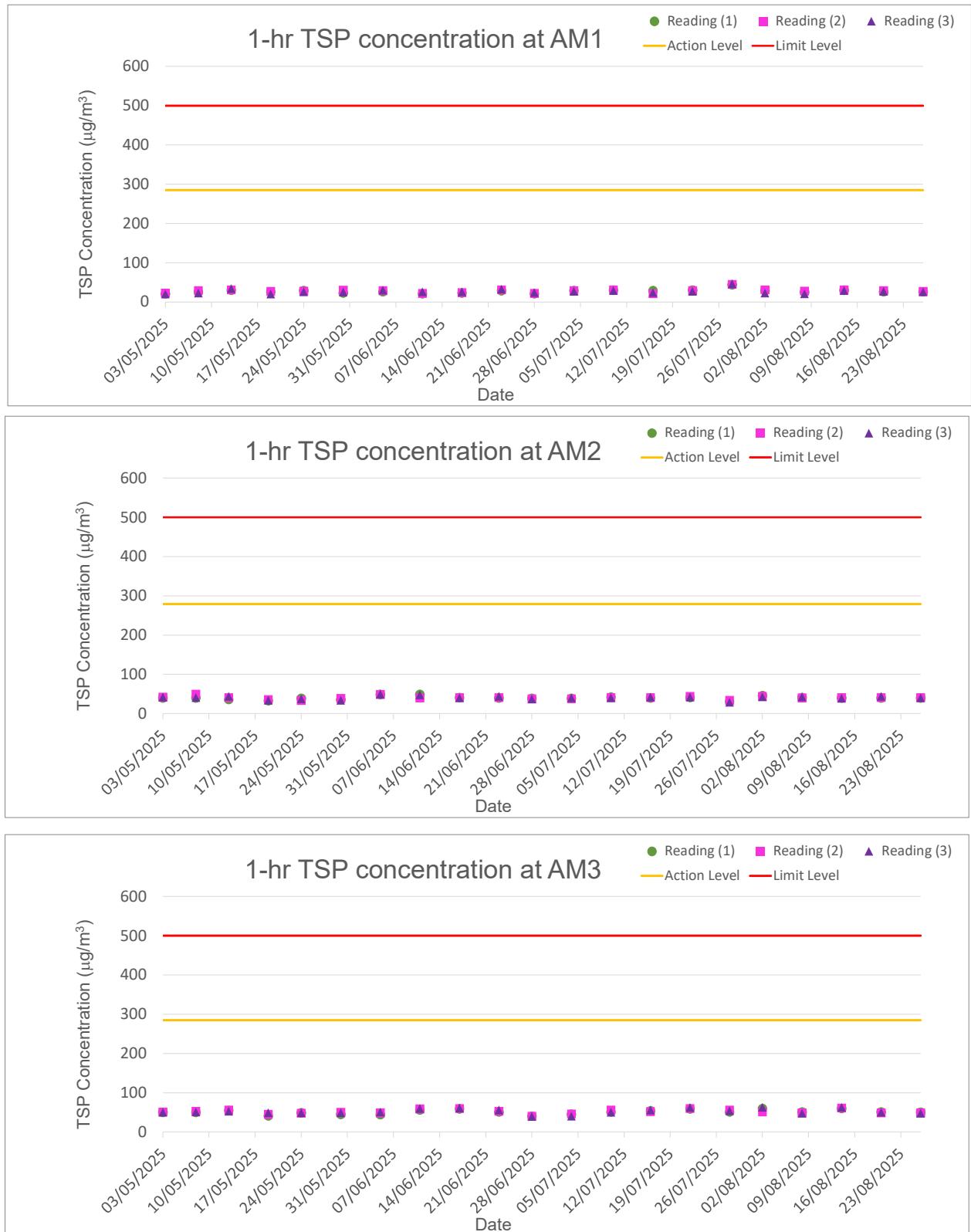
Matrix: WATER

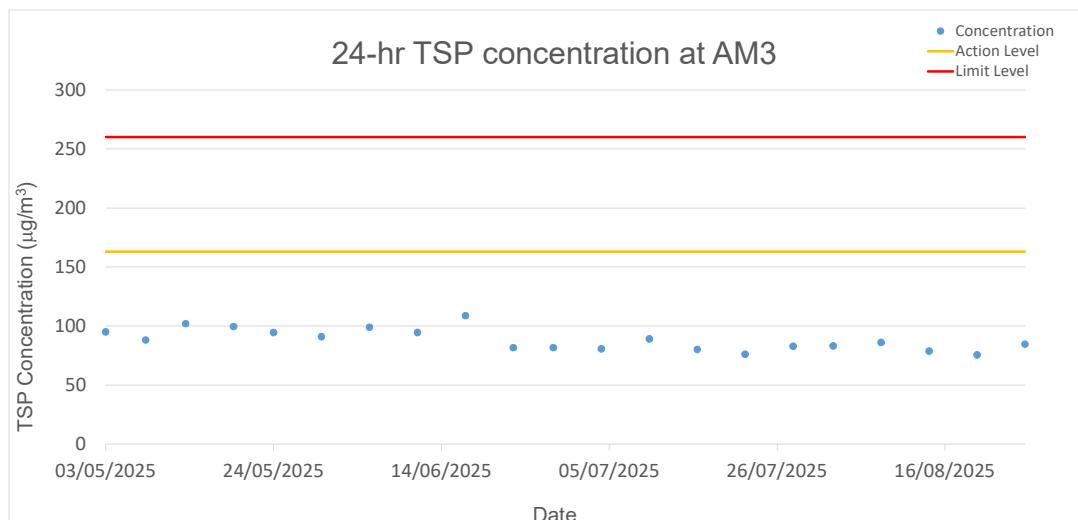
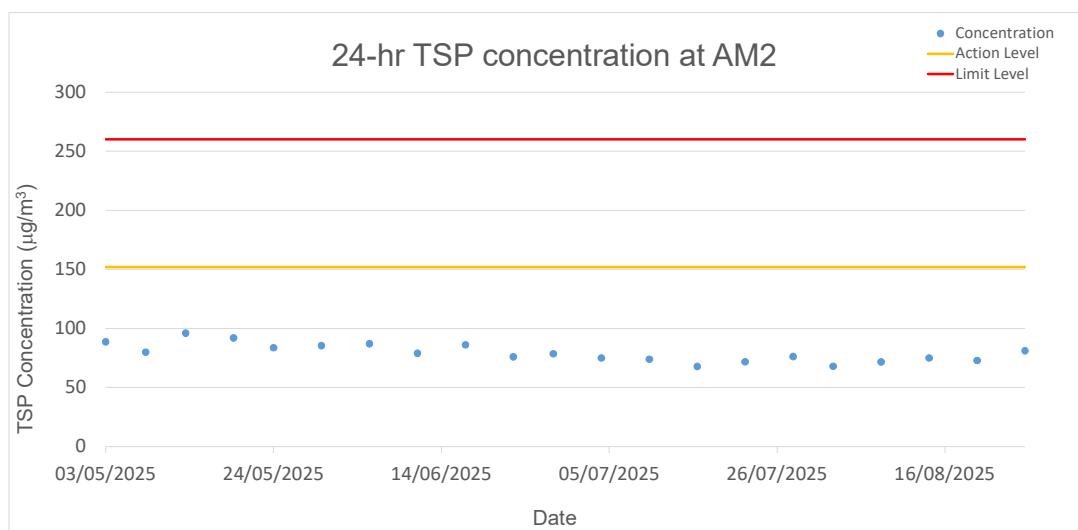
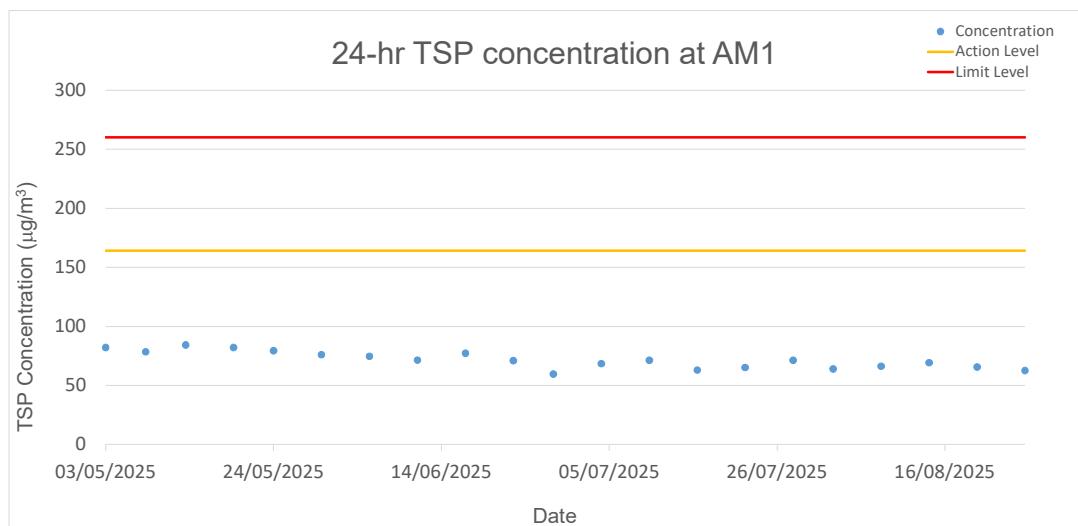
Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations - Total (QC Lot: 6787741) - Continued										
HK2534332-001	WM1	EG032: Sodium	7440-23-5	2000 µg/L	# Not Determined	----	75.0	125	----	----

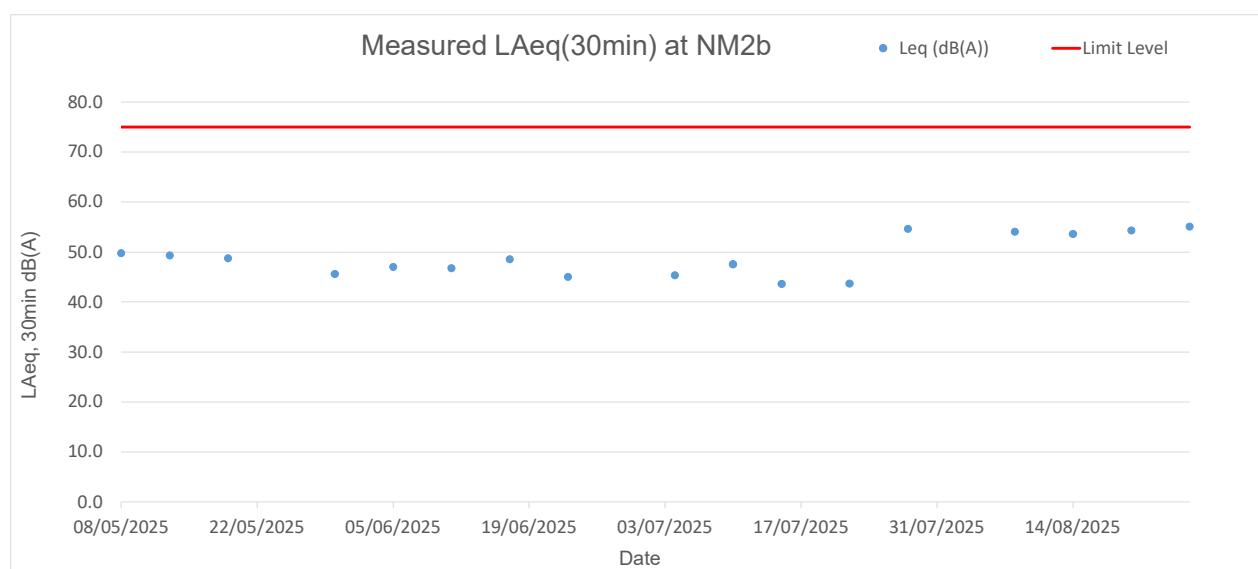
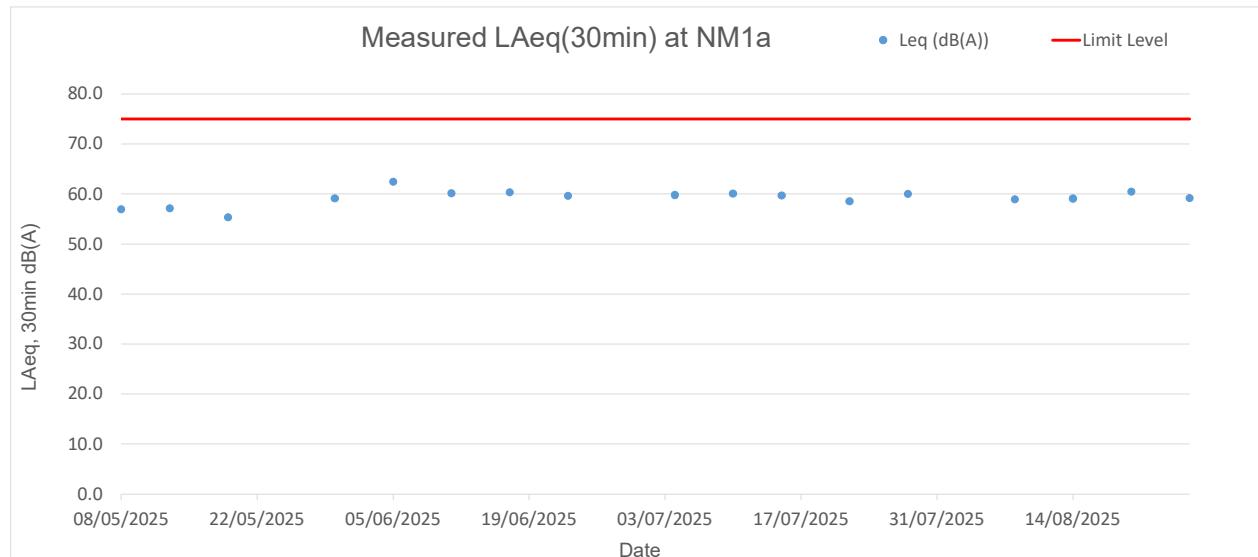
Appendix G Graphical Presentations

Air Quality



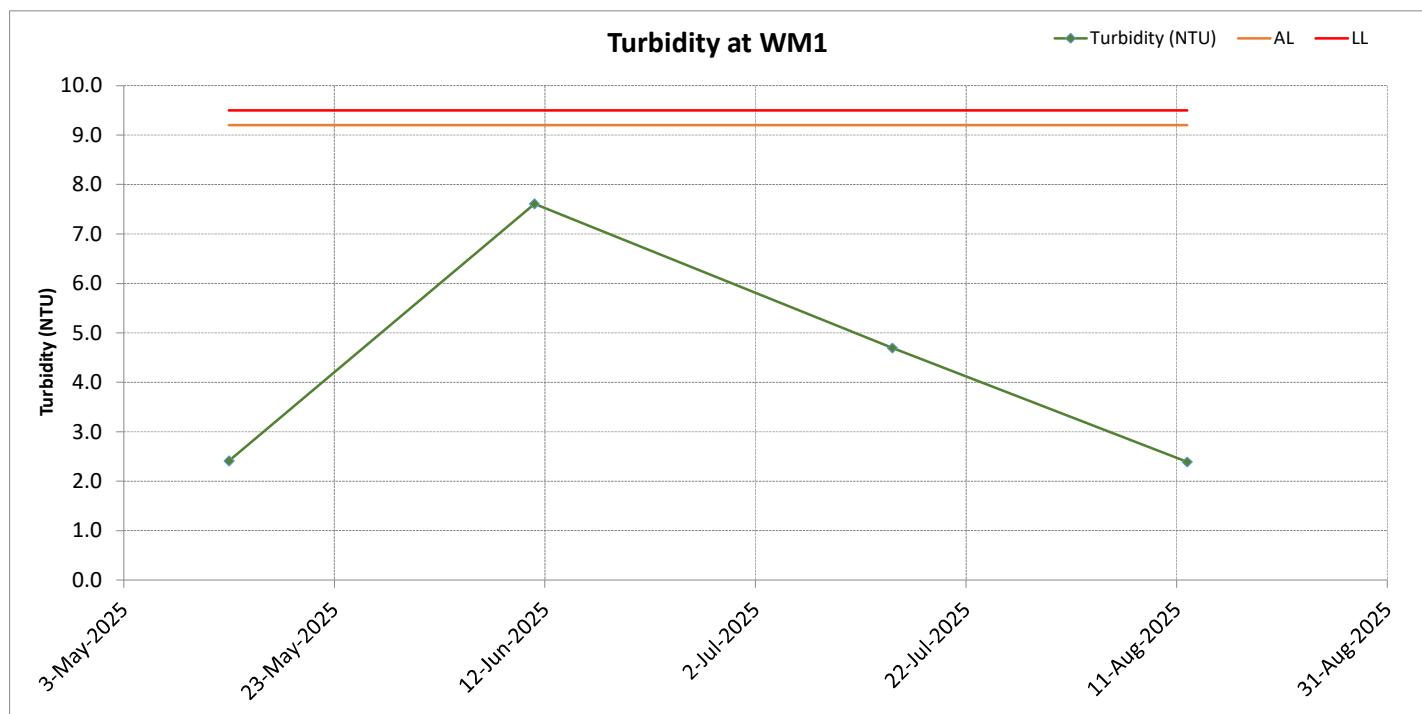
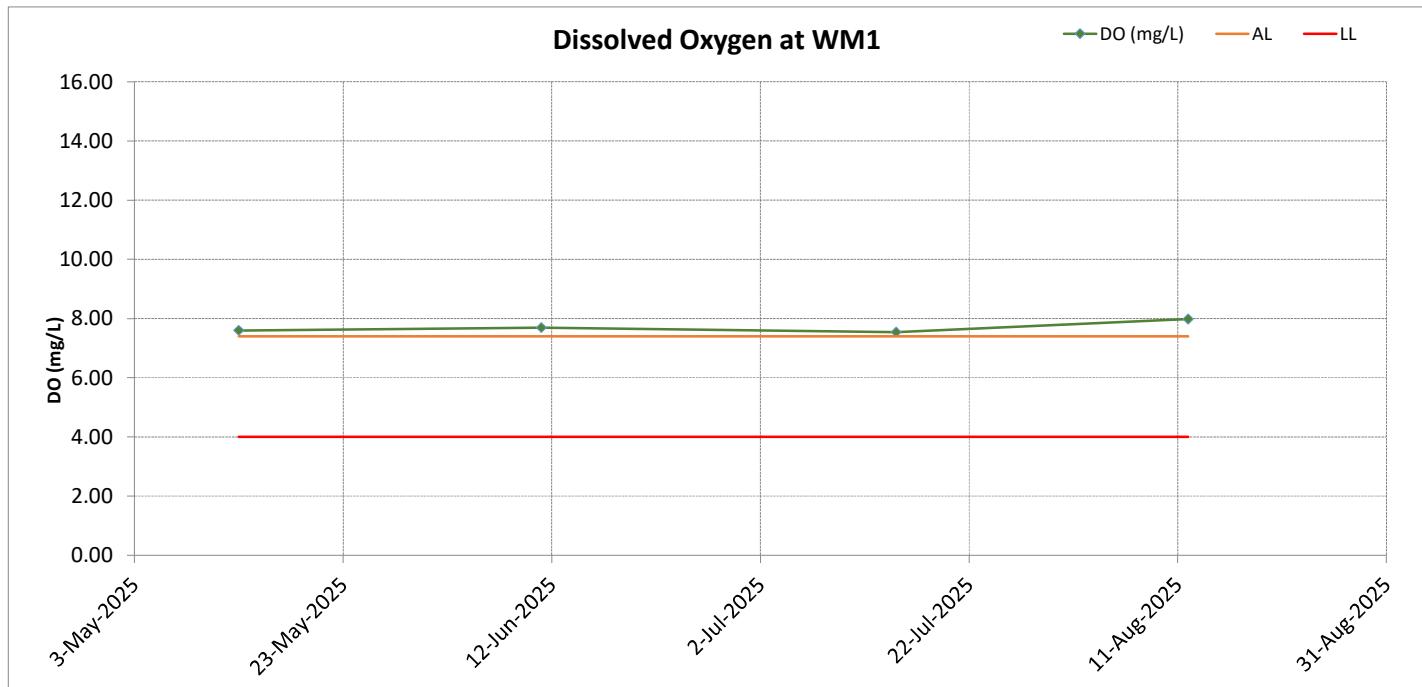


Noise

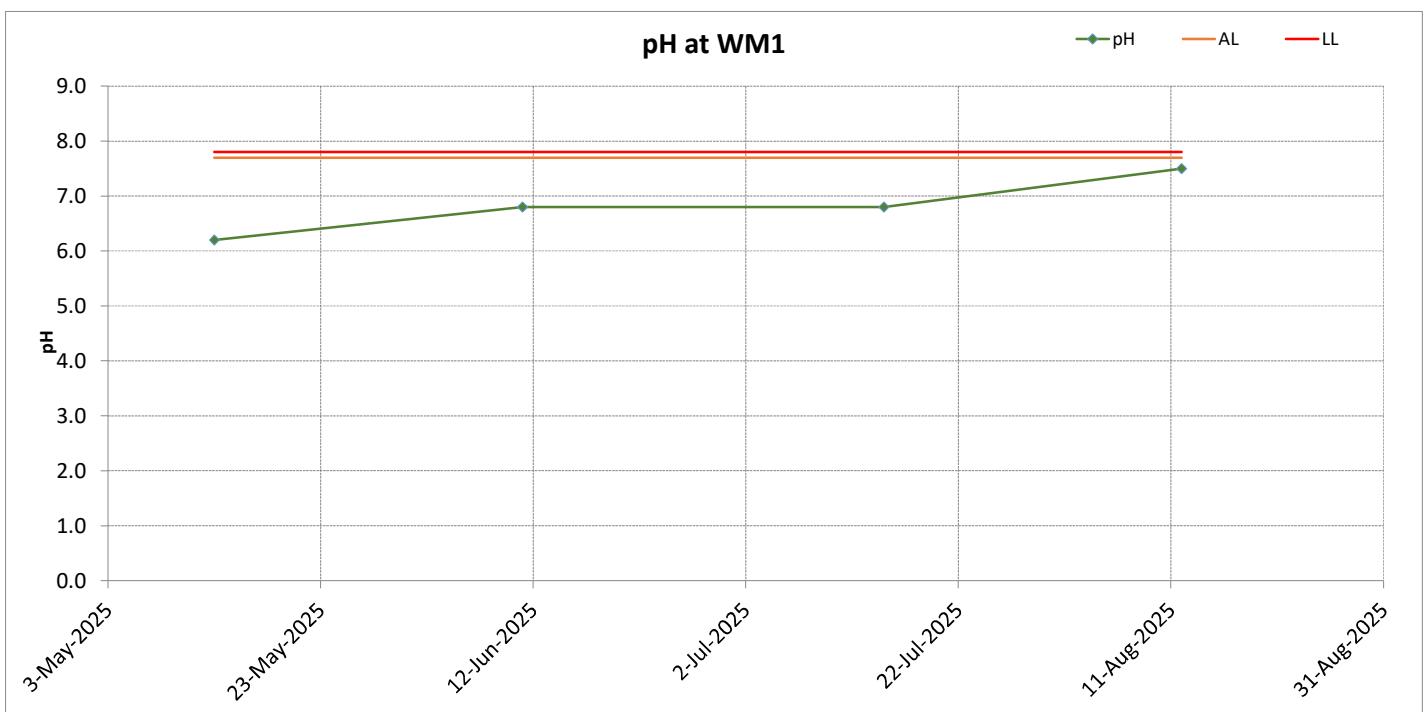
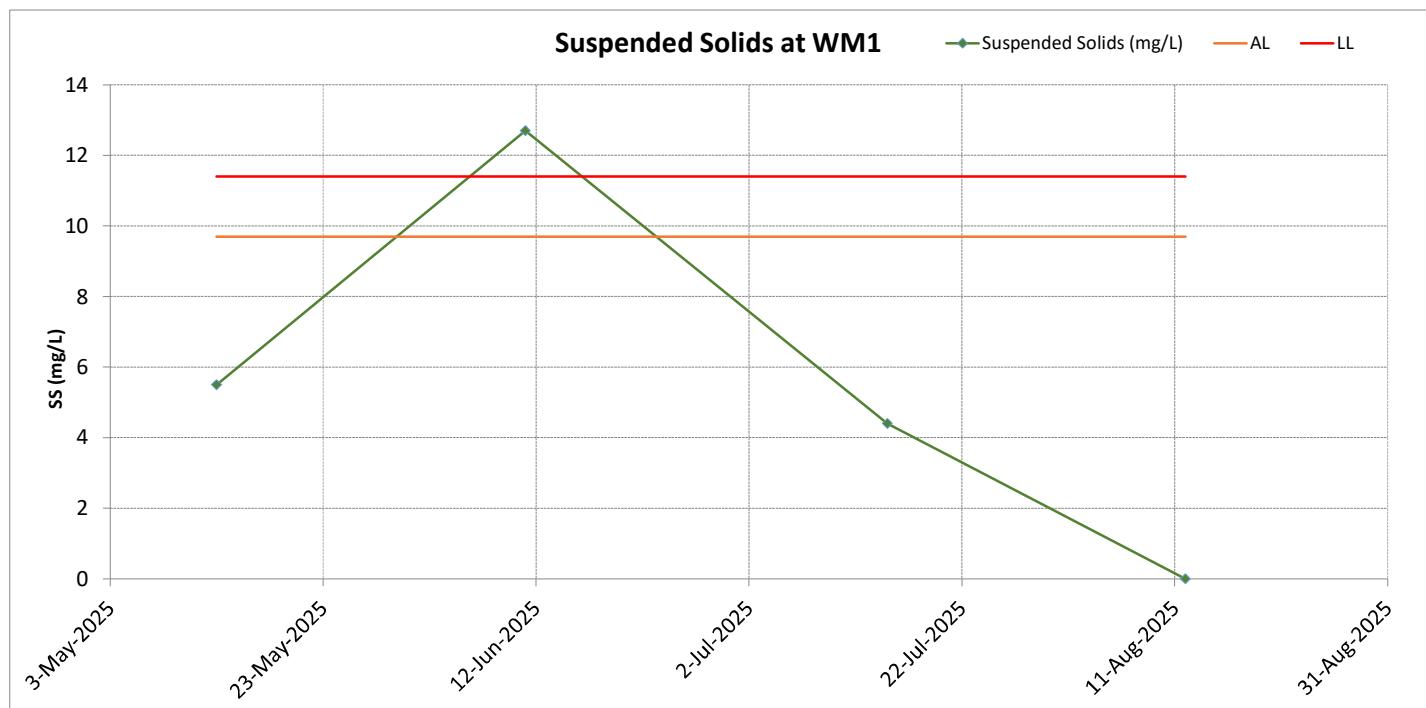


Water Quality

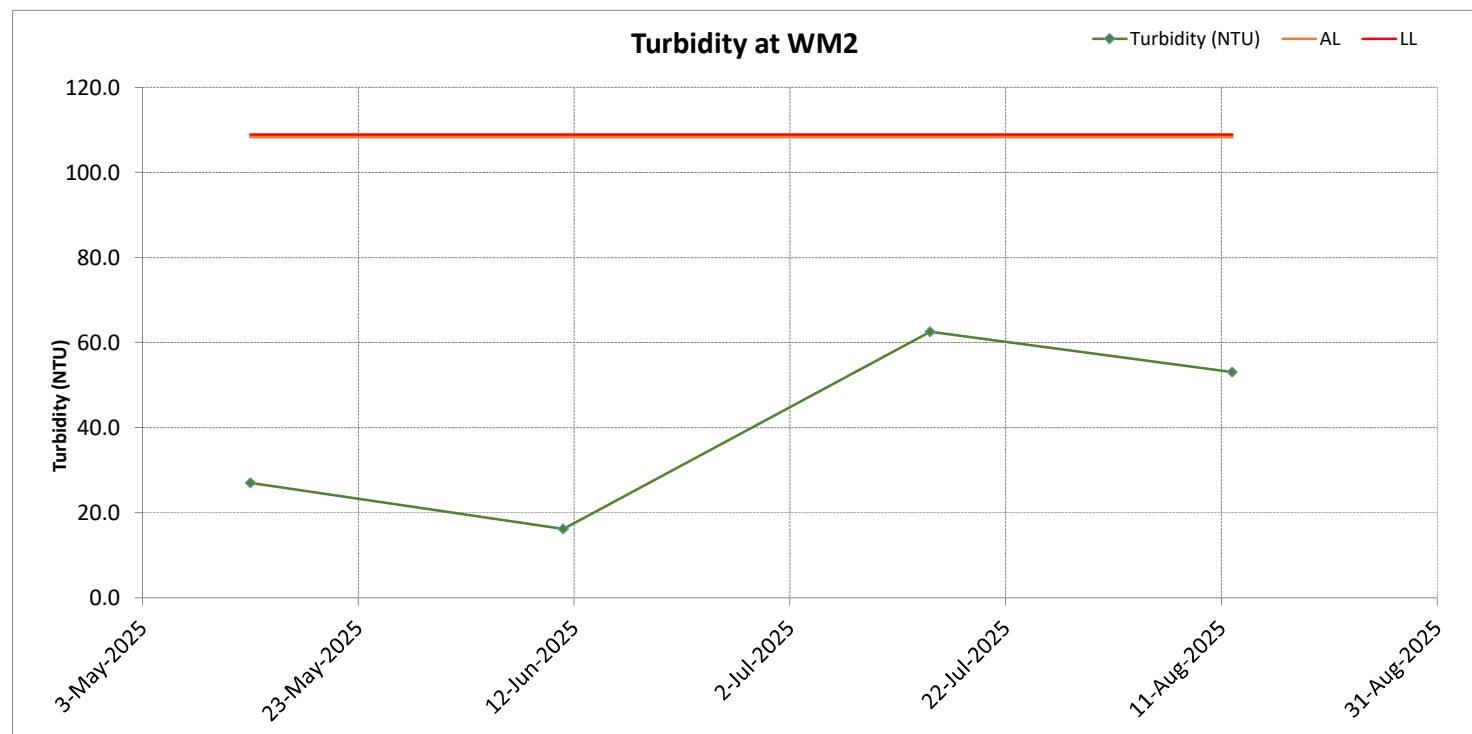
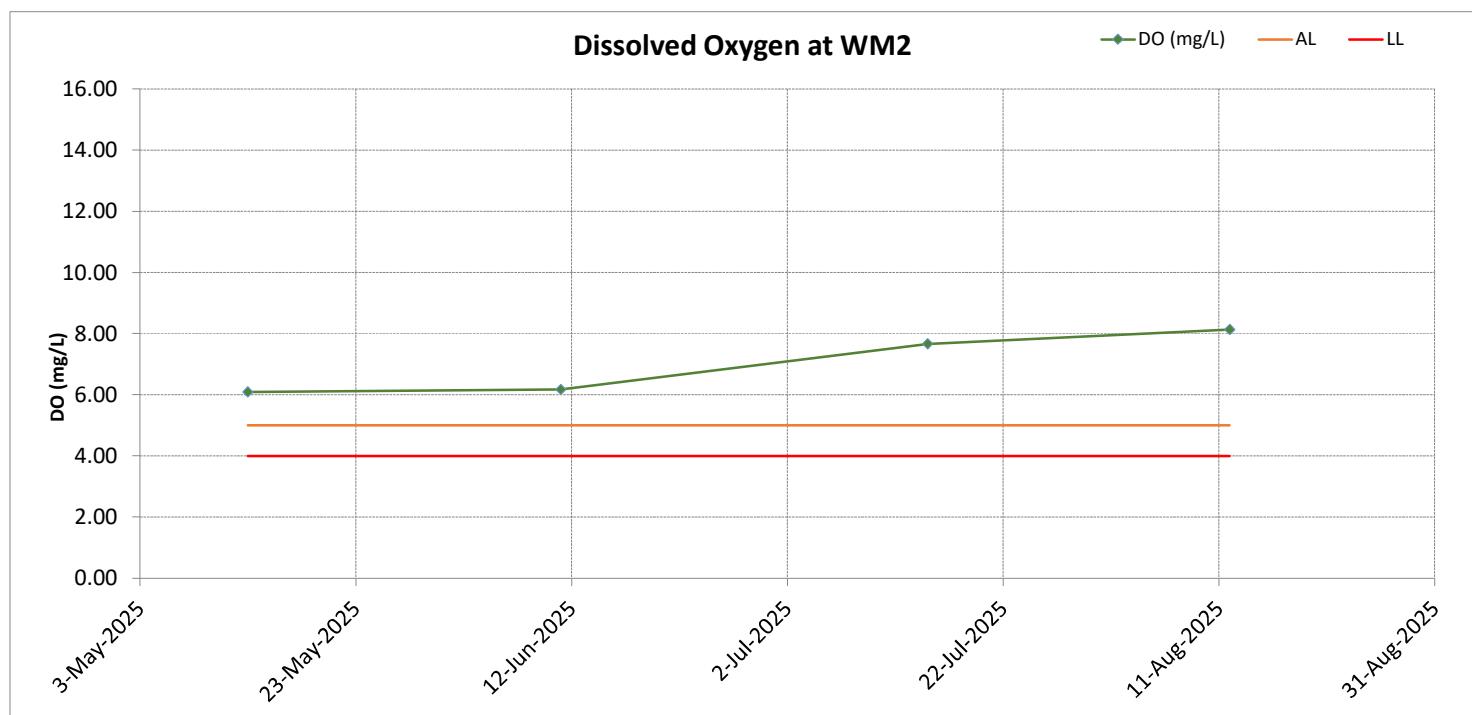
Surface Water Monitoring Results at WM1



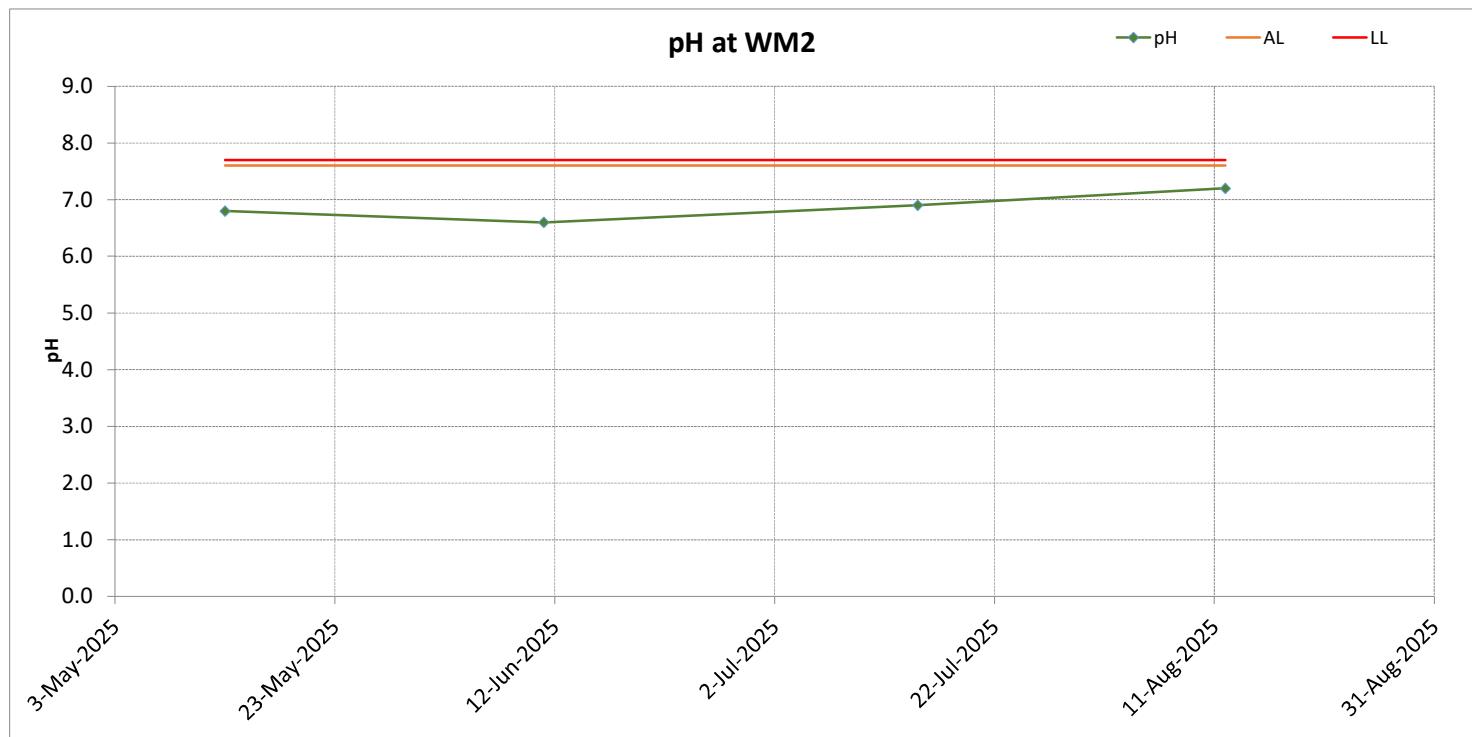
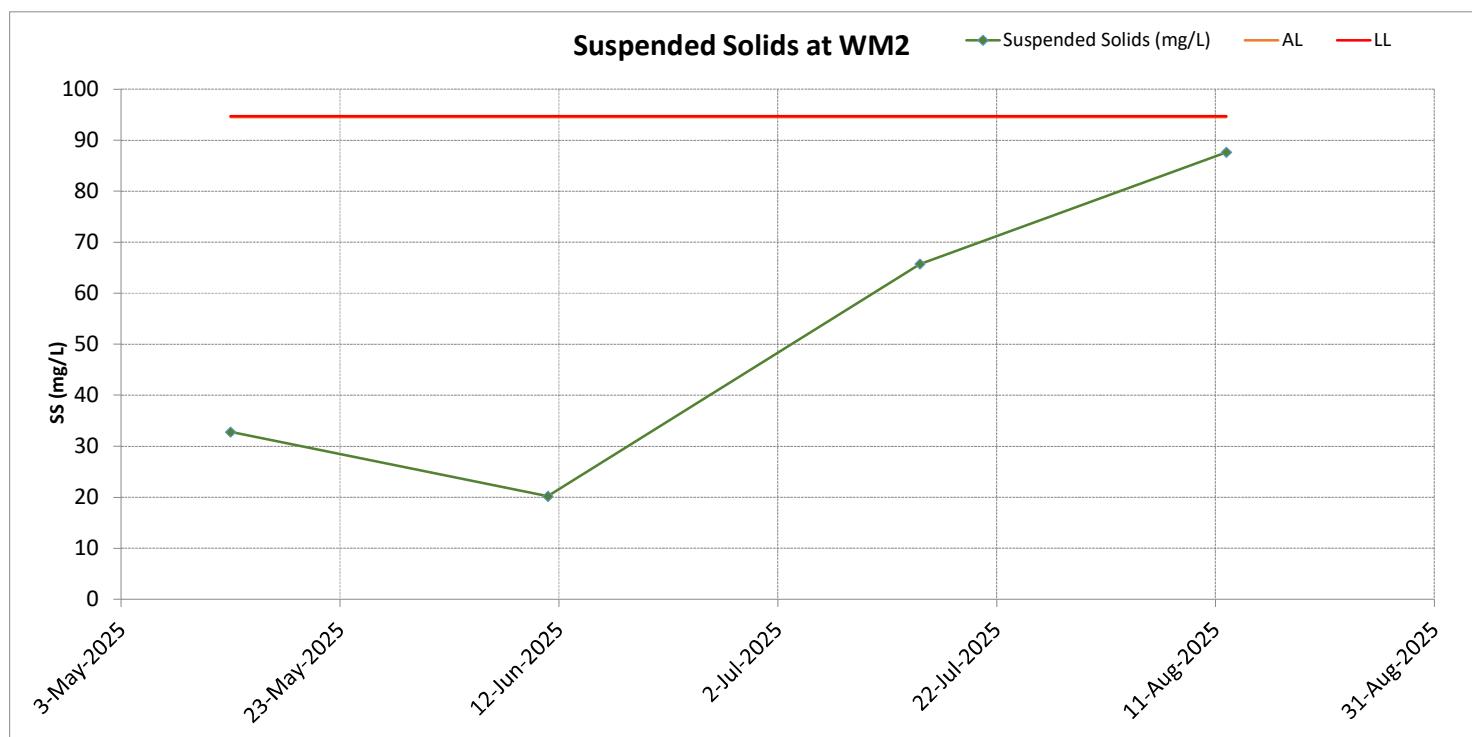
Surface Water Monitoring Results at WM1



Surface Water Monitoring Results at WM2



Surface Water Monitoring Results at WM2



Appendix H Notification of Environmental Quality Limits Exceedance

Notification of Environmental Quality Limits Exceedance

Air Quality Monitoring - Construction Dust

Dust Monitoring Station	Level Exceedance	1-hr TSP Exceedance Count				24-hr TSP Exceedance Count			
		Reporting period		Accumulate project to date		Reporting period		Accumulate project to date	
		Project related	Non-project related	Project related	Non-project related	Project related	Non-project related	Project related	Non-project related
AM1	Action	0	0	0	0	0	0	0	2
	Limit	0	0	0	0	0	0	0	3
AM2	Action	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0
AM3	Action	0	0	0	0	0	0	0	4
	Limit	0	0	0	0	0	0	0	3

Noise Monitoring

Noise Monitoring Station	Level Exceedance	LAeq (30mins) Exceedance Count			
		Reporting period		Accumulate project to date	
		Project related	Non-project related	Project related	Non-project related
NM1a	Action	0	0	0	0
	Limit	0	0	0	0
NM2a	Action	0	0	0	0
	Limit	0	0	0	0

Notification of Environmental Quality Limits Exceedance

Surface Water Monitoring

Surface Water Quality Monitoring Station	Level Exceedance	Exceedance Count															
		Reporting period								Accumulate project to date							
		Project related				Non-project related				Project related				Non-project related			
		DO	pH	Turb	SS	DO	pH	Turb	SS	DO	pH	Turb	SS	DO	pH	Turb	SS
WM1	Action	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
WM2	Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

Remarks:

1. "DO" equal to Dissolved Oxygen
2. "Turb" equal to Turbidity
3. "SS" equal to Suspended Solids

Landfill Gas (LFG) Monitoring

Appendix I Wind Data

Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction
20250801	00:00	0.0	---
20250801	00:15	0.0	---
20250801	00:30	0.0	---
20250801	00:45	0.0	---
20250801	01:00	0.0	---
20250801	01:15	0.0	---
20250801	01:30	0.0	---
20250801	01:45	0.0	---
20250801	02:00	0.0	---
20250801	02:15	0.0	---
20250801	02:30	0.9	SE
20250801	02:45	0.9	SE
20250801	03:00	0.4	SE
20250801	03:15	0.4	SE
20250801	03:30	0.4	SE
20250801	03:45	0.4	SE
20250801	04:00	0.0	SE
20250801	04:15	0.0	SE
20250801	04:30	0.4	SSE
20250801	04:45	0.0	ESE
20250801	05:00	0.9	ESE
20250801	05:15	1.3	SE
20250801	05:30	0.4	SE
20250801	05:45	0.4	SE
20250801	06:00	0.0	---
20250801	06:15	0.0	---
20250801	06:30	0.0	---
20250801	06:45	0.0	---
20250801	07:00	0.0	---
20250801	07:15	0.4	SE
20250801	07:30	0.0	ENE
20250801	07:45	0.0	ENE
20250801	08:00	0.0	---
20250801	08:15	0.0	---
20250801	08:30	0.0	---
20250801	08:45	0.4	WNW
20250801	09:00	0.4	NNW
20250801	09:15	1.3	SE
20250801	09:30	0.4	N
20250801	09:45	0.0	WSW
20250801	10:00	0.4	SE
20250801	10:15	0.9	SE
20250801	10:30	0.4	W
20250801	10:45	0.9	NNW
20250801	11:00	1.3	NW
20250801	11:15	1.8	NNW
20250801	11:30	1.3	WSW
20250801	11:45	0.9	WSW

Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)
20250801	12:00	1.3	WSW	20250802
20250801	12:15	1.8	WSW	20250802
20250801	12:30	1.8	N	20250802
20250801	12:45	1.8	N	20250802
20250801	13:00	1.8	WSW	20250802
20250801	13:15	1.8	WSW	20250802
20250801	13:30	1.8	WSW	20250802
20250801	13:45	1.8	WSW	20250802
20250801	14:00	1.8	WSW	20250802
20250801	14:15	2.2	SE	20250802
20250801	14:30	1.8	SSE	20250802
20250801	14:45	2.7	SE	20250802
20250801	15:00	2.2	SE	20250802
20250801	15:15	1.8	SE	20250802
20250801	15:30	2.2	SE	20250802
20250801	15:45	1.8	SE	20250802
20250801	16:00	1.3	SE	20250802
20250801	16:15	0.4	SE	20250802
20250801	16:30	0.4	SE	20250802
20250801	16:45	0.4	SSE	20250802
20250801	17:00	0.0	ENE	20250802
20250801	17:15	0.0	ESE	20250802
20250801	17:30	0.4	SE	20250802
20250801	17:45	0.0	---	20250802
20250801	18:00	0.4	SE	20250802
20250801	18:15	0.4	SE	20250802
20250801	18:30	0.9	SE	20250802
20250801	18:45	1.3	SE	20250802
20250801	19:00	0.9	SE	20250802
20250801	19:15	0	SE	20250802
20250801	19:30	0	SE	20250802
20250801	19:45	0	SE	20250802
20250801	20:00	0.4	SE	20250802
20250801	20:15	0	SE	20250802
20250801	20:30	0	SE	20250802
20250801	20:45	0	---	20250802
20250801	21:00	0	SE	20250802
20250801	21:15	0.4	NNE	20250802
20250801	21:30	0	NE	20250802
20250801	21:45	0	NE	20250802
20250801	22:00	0	NE	20250802
20250801	22:15	0	NE	20250802
20250801	22:30	0	NE	20250802
20250801	22:45	0	NE	20250802
20250801	23:00	0	---	20250802
20250801	23:15	0.4	ENE	20250802
20250801	23:30	0	---	20250802
20250801	23:45	0	ENE	20250802

Time (HH:MM)	Wind Speed (m/s)	Wind Direction
00:00	0.0	---
00:15	0.0	---
00:30	0.0	SE
00:45	0.0	SSE
01:00	0.0	---
01:15	0.0	---
01:30	0.0	---
01:45	0.0	SSE
02:00	0.0	---
02:15	0.4	SSE
02:30	0.0	SSE
02:45	0.0	SSE
03:00	0.0	NNW
03:15	0.0	ENE
03:30	0.4	ENE
03:45	0.0	ENE
04:00	0.4	ENE
04:15	0.0	ENE
04:30	0.0	E
04:45	0.0	E
05:00	0.4	E
05:15	0.0	---
05:30	0.0	E
05:45	0.4	E
06:00	0.0	---
06:15	0.0	---
06:30	0.0	E
06:45	0.0	E
07:00	0.0	E
07:15	0.4	NNW
07:30	0.4	ESE
07:45	0.9	SE
08:00	0.4	ESE
08:15	1.3	SE
08:30	0.4	SE
08:45	0.4	W
09:00	0.4	NNE
09:15	0.0	---
09:30	0.0	WNW
09:45	0.0	WNW
10:00	0.9	SE
10:15	1.8	WSW
10:30	0.9	SE
10:45	0.9	SE
11:00	0.4	ESE
11:15	0.0	ESE
11:30	0.0	ESE
11:45	0.0	---

Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)
20250802	12:00	0.4	SE	20250803	00:00
20250802	12:15	0.9	SE	20250803	00:15
20250802	12:30	0.4	ESE	20250803	00:30
20250802	12:45	0.9	ESE	20250803	00:45
20250802	13:00	1.3	SE	20250803	01:00
20250802	13:15	0.9	SE	20250803	01:15
20250802	13:30	0.4	SE	20250803	01:30
20250802	13:45	0.4	SE	20250803	01:45
20250802	14:00	0.9	SSE	20250803	02:00
20250802	14:15	0.9	SSE	20250803	02:15
20250802	14:30	1.3	SE	20250803	02:30
20250802	14:45	0.9	SE	20250803	02:45
20250802	15:00	0.4	SE	20250803	03:00
20250802	15:15	0.0	S	20250803	03:15
20250802	15:30	0.0	SSE	20250803	03:30
20250802	15:45	0.0	SSE	20250803	03:45
20250802	16:00	0.0	SSE	20250803	04:00
20250802	16:15	0.0	---	20250803	04:15
20250802	16:30	0.0	---	20250803	04:30
20250802	16:45	0.0	---	20250803	04:45
20250802	17:00	0.0	SSE	20250803	05:00
20250802	17:15	0.0	---	20250803	05:15
20250802	17:30	0.0	---	20250803	05:30
20250802	17:45	0.4	SSE	20250803	05:45
20250802	18:00	0	SE	20250803	06:00
20250802	18:15	0	---	20250803	06:15
20250802	18:30	0	---	20250803	06:30
20250802	18:45	0	SE	20250803	06:45
20250802	19:00	0	SE	20250803	07:00
20250802	19:15	0	SE	20250803	07:15
20250802	19:30	0.4	N	20250803	07:30
20250802	19:45	0.4	N	20250803	07:45
20250802	20:00	0	N	20250803	08:00
20250802	20:15	0	N	20250803	08:15
20250802	20:30	0	N	20250803	08:30
20250802	20:45	0.4	E	20250803	08:45
20250802	21:00	0.9	SE	20250803	09:00
20250802	21:15	0.9	SE	20250803	09:15
20250802	21:30	1.8	SSE	20250803	09:30
20250802	21:45	0.9	SE	20250803	09:45
20250802	22:00	1.3	SE	20250803	10:00
20250802	22:15	1.8	SE	20250803	10:15
20250802	22:30	2.2	SE	20250803	10:30
20250802	22:45	1.8	SE	20250803	10:45
20250802	23:00	1.3	SE	20250803	11:00
20250802	23:15	0.9	SE	20250803	11:15
20250802	23:30	0.9	SSE	20250803	11:30
20250802	23:45	0	SW	20250803	11:45

Wind Speed (m/s)	Wind Direction
0.0	S
0.0	S
0.0	---
0.0	S
0.4	S
0.4	S
0.0	S
0.4	S
0.0	S
0.9	S
0.9	SE
0.4	NE
0.0	NE
0.4	NE
0.0	NE
0.4	NE
0.4	ENE
0.4	E
0.4	ESE
1.3	SE
0.9	SW
0.4	ESE
1.3	ENE
0.4	SE
0.9	SSE
0.9	SE
0.4	SE
0.4	SE
0.0	SE
0.4	SE
0.4	SE
0.9	SE
0.4	SE
0.4	SE
0.0	SE
0.4	SE
0.4	SE
1.3	SE
1.3	SE
0.9	SE
0.4	SE
0.9	SSE
0.9	SE
0.9	SE
1.3	SE
0.9	SE

Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
20250803	12:00	1.3	SE	20250804	00:00	0.0
20250803	12:15	1.3	SE	20250804	00:15	0.4
20250803	12:30	0.4	SE	20250804	00:30	0.9
20250803	12:45	0.9	SE	20250804	00:45	0.4
20250803	13:00	1.3	SE	20250804	01:00	0.9
20250803	13:15	0.4	WSW	20250804	01:15	0.9
20250803	13:30	0.4	WSW	20250804	01:30	0.4
20250803	13:45	0.0	S	20250804	01:45	0.0
20250803	14:00	0.0	S	20250804	02:00	0.0
20250803	14:15	0.0	---	20250804	02:15	0.0
20250803	14:30	0.9	SE	20250804	02:30	0.9
20250803	14:45	0.9	SE	20250804	02:45	0.4
20250803	15:00	0.9	SE	20250804	03:00	0.4
20250803	15:15	0.9	SE	20250804	03:15	0.4
20250803	15:30	0.4	SE	20250804	03:30	0.9
20250803	15:45	0.4	SE	20250804	03:45	0.4
20250803	16:00	0.4	SE	20250804	04:00	0.9
20250803	16:15	0.4	SSE	20250804	04:15	0.4
20250803	16:30	0.0	SE	20250804	04:30	0.4
20250803	16:45	0.4	SE	20250804	04:45	0.4
20250803	17:00	0.4	SSE	20250804	05:00	0.4
20250803	17:15	0.4	SE	20250804	05:15	0.4
20250803	17:30	0.9	SE	20250804	05:30	0.4
20250803	17:45	0.4	SE	20250804	05:45	0.0
20250803	18:00	0	SE	20250804	06:00	0.4
20250803	18:15	0.9	SE	20250804	06:15	0.9
20250803	18:30	0.9	SE	20250804	06:30	0.9
20250803	18:45	0.9	SE	20250804	06:45	0.4
20250803	19:00	0.9	SE	20250804	07:00	0.0
20250803	19:15	0.4	SE	20250804	07:15	0.0
20250803	19:30	0	SE	20250804	07:30	0.0
20250803	19:45	0.9	SE	20250804	07:45	0.0
20250803	20:00	0.4	SE	20250804	08:00	0.0
20250803	20:15	0.9	SE	20250804	08:15	0.4
20250803	20:30	0.4	SE	20250804	08:30	0.9
20250803	20:45	0	SE	20250804	08:45	0.9
20250803	21:00	0	SE	20250804	09:00	0.4
20250803	21:15	0	---	20250804	09:15	0.9
20250803	21:30	0	---	20250804	09:30	0.9
20250803	21:45	0	---	20250804	09:45	0.4
20250803	22:00	0	---	20250804	10:00	0.9
20250803	22:15	0	---	20250804	10:15	1.3
20250803	22:30	0.4	ESE	20250804	10:30	1.3
20250803	22:45	0	E	20250804	10:45	1.3
20250803	23:00	0	N	20250804	11:00	0.4
20250803	23:15	0	---	20250804	11:15	1.3
20250803	23:30	0.4	N	20250804	11:30	0.9
20250803	23:45	0	N	20250804	11:45	1.3

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
N	20250804	12:00	1.8	N	20250805	00:00	1.8
ESE	20250804	12:15	0.9	SSE	20250805	00:15	1.3
SE	20250804	12:30	2.2	SE	20250805	00:30	1.3
SE	20250804	12:45	0.4	ENE	20250805	00:45	0.9
ESE	20250804	13:00	0.9	SE	20250805	01:00	0.4
SSE	20250804	13:15	0.0	E	20250805	01:15	0.9
SSE	20250804	13:30	0.0	E	20250805	01:30	0.9
SSE	20250804	13:45	0.4	E	20250805	01:45	0.9
---	20250804	14:00	0.0	N	20250805	02:00	0.9
---	20250804	14:15	0.4	SE	20250805	02:15	0.4
SSE	20250804	14:30	0.4	N	20250805	02:30	2.2
SSE	20250804	14:45	0.4	SE	20250805	02:45	1.8
SSE	20250804	15:00	0.4	ESE	20250805	03:00	0.4
SSE	20250804	15:15	0.4	SE	20250805	03:15	0.4
SSE	20250804	15:30	0.4	SSW	20250805	03:30	0.0
SSE	20250804	15:45	0.4	SSW	20250805	03:45	0.9
SSE	20250804	16:00	0.9	SSW	20250805	04:00	0.4
SSE	20250804	16:15	0.4	WNW	20250805	04:15	0.9
SE	20250804	16:30	0.0	---	20250805	04:30	1.8
SE	20250804	16:45	0.0	---	20250805	04:45	3.1
SE	20250804	17:00	0.4	WNW	20250805	05:00	3.6
SE	20250804	17:15	0.4	WNW	20250805	05:15	1.3
W	20250804	17:30	0.0	SSW	20250805	05:30	1.8
E	20250804	17:45	0.0	WSW	20250805	05:45	0.9
ESE	20250804	18:00	0.4	NW	20250805	06:00	1.3
SE	20250804	18:15	0.4	NW	20250805	06:15	0.9
SSE	20250804	18:30	0	NW	20250805	06:30	1.3
SE	20250804	18:45	0	---	20250805	06:45	0.4
SE	20250804	19:00	0	---	20250805	07:00	0.4
ESE	20250804	19:15	0	---	20250805	07:15	0.9
---	20250804	19:30	0	NE	20250805	07:30	0.9
---	20250804	19:45	0	NE	20250805	07:45	0.9
ENE	20250804	20:00	0	NE	20250805	08:00	0.4
ENE	20250804	20:15	0	NE	20250805	08:15	0.9
ENE	20250804	20:30	0	---	20250805	08:30	0.4
SE	20250804	20:45	0	NE	20250805	08:45	0.4
SE	20250804	21:00	0	NE	20250805	09:00	0.4
SE	20250804	21:15	0	NE	20250805	09:15	0.9
SE	20250804	21:30	0.4	ESE	20250805	09:30	0.4
SSE	20250804	21:45	0	ESE	20250805	09:45	0.4
SE	20250804	22:00	0	ESE	20250805	10:00	0.4
SE	20250804	22:15	0	E	20250805	10:15	1.8
SE	20250804	22:30	0	E	20250805	10:30	2.2
SE	20250804	22:45	0	E	20250805	10:45	0.9
SE	20250804	23:00	0	E	20250805	11:00	0.4
SE	20250804	23:15	0.4	E	20250805	11:15	0.4
SE	20250804	23:30	0.9	SSE	20250805	11:30	0.4
SE	20250804	23:45	0.9	ENE	20250805	11:45	0.4

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250805	12:00	0.0	SSE	20250806	00:00	1.8
SE	20250805	12:15	0.4	SSE	20250806	00:15	0.9
SE	20250805	12:30	0.4	SSE	20250806	00:30	0.4
SSE	20250805	12:45	0.4	SSE	20250806	00:45	0.4
SSE	20250805	13:00	0.0	SSE	20250806	01:00	0.4
SE	20250805	13:15	0.4	SSE	20250806	01:15	0.9
SE	20250805	13:30	0.4	SE	20250806	01:30	1.3
SE	20250805	13:45	0.4	WSW	20250806	01:45	0.9
N	20250805	14:00	0.4	NW	20250806	02:00	0.0
E	20250805	14:15	0.4	NNW	20250806	02:15	0.0
SE	20250805	14:30	0.9	S	20250806	02:30	0.4
SE	20250805	14:45	1.3	SE	20250806	02:45	0.0
SE	20250805	15:00	0.9	SE	20250806	03:00	0.4
SE	20250805	15:15	0.9	SE	20250806	03:15	0.4
SE	20250805	15:30	1.8	SE	20250806	03:30	0.4
E	20250805	15:45	1.3	SE	20250806	03:45	0.4
N	20250805	16:00	0.0	SE	20250806	04:00	0.9
N	20250805	16:15	0.4	S	20250806	04:15	1.3
NNW	20250805	16:30	0.4	SSE	20250806	04:30	0.9
NNW	20250805	16:45	0.9	SSE	20250806	04:45	0.9
NW	20250805	17:00	0.0	SSE	20250806	05:00	0.9
SE	20250805	17:15	0.4	SSE	20250806	05:15	0.4
NNW	20250805	17:30	0.9	ENE	20250806	05:30	0.9
NNW	20250805	17:45	0.4	ENE	20250806	05:45	0.4
SE	20250805	18:00	0.4	ENE	20250806	06:00	0.4
SE	20250805	18:15	0.9	ENE	20250806	06:15	0.9
SSE	20250805	18:30	0	NE	20250806	06:30	1.3
S	20250805	18:45	0.9	N	20250806	06:45	0.9
S	20250805	19:00	0.9	N	20250806	07:00	0.4
SE	20250805	19:15	0.4	N	20250806	07:15	0.4
SE	20250805	19:30	0.4	SSE	20250806	07:30	0.9
SE	20250805	19:45	0.4	ENE	20250806	07:45	1.3
SE	20250805	20:00	0.4	ENE	20250806	08:00	1.8
SE	20250805	20:15	1.3	SE	20250806	08:15	1.3
NNE	20250805	20:30	1.8	SE	20250806	08:30	1.3
E	20250805	20:45	1.3	SE	20250806	08:45	0.9
SE	20250805	21:00	0.9	SE	20250806	09:00	0.4
SE	20250805	21:15	1.3	SE	20250806	09:15	0.4
SE	20250805	21:30	0.4	SE	20250806	09:30	0.0
E	20250805	21:45	0.9	SE	20250806	09:45	0.9
SSW	20250805	22:00	0.9	SE	20250806	10:00	0.9
SE	20250805	22:15	1.3	SE	20250806	10:15	0.9
SSE	20250805	22:30	0.9	SE	20250806	10:30	0.4
W	20250805	22:45	0.9	SSE	20250806	10:45	0.4
W	20250805	23:00	1.3	SE	20250806	11:00	0.9
WNW	20250805	23:15	0.4	WSW	20250806	11:15	0.4
WNW	20250805	23:30	0.4	SSE	20250806	11:30	0.9
SSW	20250805	23:45	1.3	SE	20250806	11:45	1.3

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250806	12:00	1.8	SE	20250807	00:00	0.0
SE	20250806	12:15	2.7	N	20250807	00:15	0.0
SE	20250806	12:30	0.9	W	20250807	00:30	0.0
SE	20250806	12:45	1.3	SE	20250807	00:45	0.0
SE	20250806	13:00	0.9	SE	20250807	01:00	0.0
SE	20250806	13:15	0.4	NE	20250807	01:15	0.0
SE	20250806	13:30	0.4	ESE	20250807	01:30	0.0
N	20250806	13:45	0.9	ESE	20250807	01:45	0.0
N	20250806	14:00	0.4	SE	20250807	02:00	0.0
E	20250806	14:15	0.9	SE	20250807	02:15	0.0
E	20250806	14:30	0.4	SE	20250807	02:30	0.0
SE	20250806	14:45	0.0	---	20250807	02:45	0.0
E	20250806	15:00	0.0	---	20250807	03:00	0.0
20250806	15:15	0.0	---	20250807	03:15	0.4	
20250806	15:30	0.0	---	20250807	03:30	0.4	
SSE	20250806	15:45	0.4	NNE	20250807	03:45	0.9
SE	20250806	16:00	0.4	N	20250807	04:00	0.9
SE	20250806	16:15	0.4	SE	20250807	04:15	0.4
SE	20250806	16:30	0.4	W	20250807	04:30	0.0
SE	20250806	16:45	0.0	N	20250807	04:45	0.4
SE	20250806	17:00	0.0	N	20250807	05:00	0.4
SE	20250806	17:15	0.4	N	20250807	05:15	0.4
NNW	20250806	17:30	0.0	E	20250807	05:30	0.4
ESE	20250806	17:45	0.9	SE	20250807	05:45	0.4
SSW	20250806	18:00	0.4	E	20250807	06:00	0.0
SE	20250806	18:15	0.4	NE	20250807	06:15	0.0
SE	20250806	18:30	0	NE	20250807	06:30	0.4
SSE	20250806	18:45	0	NE	20250807	06:45	0.0
SSE	20250806	19:00	0	NW	20250807	07:00	0.0
SSE	20250806	19:15	0.4	SE	20250807	07:15	0.4
SSE	20250806	19:30	0.4	SE	20250807	07:30	0.9
SE	20250806	19:45	0.4	NNE	20250807	07:45	0.4
SE	20250806	20:00	0.4	NNE	20250807	08:00	0.0
SE	20250806	20:15	0	ESE	20250807	08:15	0.4
SE	20250806	20:30	0	ESE	20250807	08:30	0.4
SE	20250806	20:45	0.4	SE	20250807	08:45	0.9
SE	20250806	21:00	0	SE	20250807	09:00	0.9
SE	20250806	21:15	0	---	20250807	09:15	1.3
---	20250806	21:30	0	SE	20250807	09:30	0.9
SE	20250806	21:45	0.4	SE	20250807	09:45	0.9
SE	20250806	22:00	0.4	N	20250807	10:00	1.3
SE	20250806	22:15	0	NE	20250807	10:15	1.3
SE	20250806	22:30	0	NE	20250807	10:30	0.9
SE	20250806	22:45	0.4	ENE	20250807	10:45	0.4
SE	20250806	23:00	0.4	ESE	20250807	11:00	1.3
SE	20250806	23:15	0.4	E	20250807	11:15	1.3
SE	20250806	23:30	0.4	NNE	20250807	11:30	1.8
SE	20250806	23:45	0	---	20250807	11:45	1.8

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
---	20250807	12:00	1.8	SE	20250808	00:00	0.0
---	20250807	12:15	1.8	SE	20250808	00:15	0.0
---	20250807	12:30	1.8	SE	20250808	00:30	0.9
---	20250807	12:45	1.8	SE	20250808	00:45	0.9
---	20250807	13:00	2.2	SE	20250808	01:00	0.4
---	20250807	13:15	1.8	SE	20250808	01:15	0.0
---	20250807	13:30	1.3	SE	20250808	01:30	0.0
---	20250807	13:45	2.2	SE	20250808	01:45	0.4
---	20250807	14:00	1.3	SE	20250808	02:00	0.4
---	20250807	14:15	1.8	SE	20250808	02:15	0.0
---	20250807	14:30	1.8	SE	20250808	02:30	0.0
---	20250807	14:45	1.3	SE	20250808	02:45	0.0
---	20250807	15:00	1.3	SE	20250808	03:00	0.0
NW	20250807	15:15	1.3	WSW	20250808	03:15	0.9
NNE	20250807	15:30	1.3	SE	20250808	03:30	0.4
N	20250807	15:45	0.9	WSW	20250808	03:45	0.0
N	20250807	16:00	1.3	WSW	20250808	04:00	0.4
N	20250807	16:15	1.8	SE	20250808	04:15	0.4
NNE	20250807	16:30	1.3	WSW	20250808	04:30	0.0
NNE	20250807	16:45	1.3	WSW	20250808	04:45	0.0
SE	20250807	17:00	1.3	WSW	20250808	05:00	0.4
SE	20250807	17:15	0.9	WSW	20250808	05:15	0.0
S	20250807	17:30	0.9	N	20250808	05:30	0.0
NNW	20250807	17:45	0.9	WSW	20250808	05:45	0.0
NNW	20250807	18:00	0.4	WSW	20250808	06:00	0.0
NNW	20250807	18:15	0.4	S	20250808	06:15	0.0
E	20250807	18:30	0.4	S	20250808	06:30	0.0
E	20250807	18:45	0.4	WSW	20250808	06:45	0.0
E	20250807	19:00	0.4	SW	20250808	07:00	0.4
E	20250807	19:15	0.4	SW	20250808	07:15	0.0
NNE	20250807	19:30	0	SSW	20250808	07:30	0.0
NNE	20250807	19:45	0	SSW	20250808	07:45	0.4
NNE	20250807	20:00	0.9	SE	20250808	08:00	0.4
E	20250807	20:15	0.4	S	20250808	08:15	0.0
SE	20250807	20:30	0.4	SE	20250808	08:30	0.0
SE	20250807	20:45	1.3	SE	20250808	08:45	0.4
SE	20250807	21:00	0	---	20250808	09:00	0.0
SE	20250807	21:15	0	---	20250808	09:15	0.0
SE	20250807	21:30	0	---	20250808	09:30	0.4
SE	20250807	21:45	0	---	20250808	09:45	1.3
SE	20250807	22:00	0	---	20250808	10:00	1.3
SE	20250807	22:15	0	---	20250808	10:15	1.3
SE	20250807	22:30	0	SSE	20250808	10:30	1.3
SE	20250807	22:45	0	SSE	20250808	10:45	1.3
SE	20250807	23:00	0	SSE	20250808	11:00	0.9
SE	20250807	23:15	0	---	20250808	11:15	0.9
SE	20250807	23:30	0	---	20250808	11:30	0.9
SE	20250807	23:45	0	---	20250808	11:45	0.9

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
---	20250808	12:00	0.9	WSW	20250809	00:00	0.0
---	20250808	12:15	0.9	N	20250809	00:15	0.0
SE	20250808	12:30	1.3	WSW	20250809	00:30	0.0
SE	20250808	12:45	1.3	WSW	20250809	00:45	0.0
SE	20250808	13:00	0.9	NW	20250809	01:00	0.0
NNE	20250808	13:15	1.3	NW	20250809	01:15	0.0
NNE	20250808	13:30	0.9	N	20250809	01:30	0.0
NNE	20250808	13:45	1.3	WSW	20250809	01:45	0.0
NE	20250808	14:00	1.3	N	20250809	02:00	0.0
ENE	20250808	14:15	1.3	WSW	20250809	02:15	0.0
---	20250808	14:30	1.3	WSW	20250809	02:30	0.0
---	20250808	14:45	1.3	WSW	20250809	02:45	0.0
---	20250808	15:00	1.3	WSW	20250809	03:00	0.0
SE	20250808	15:15	1.3	NNW	20250809	03:15	0.0
SE	20250808	15:30	1.3	WSW	20250809	03:30	0.0
SE	20250808	15:45	1.8	WSW	20250809	03:45	0.0
SE	20250808	16:00	1.3	WSW	20250809	04:00	0.0
NE	20250808	16:15	1.8	WSW	20250809	04:15	0.0
NE	20250808	16:30	1.3	WSW	20250809	04:30	0.0
---	20250808	16:45	1.8	WSW	20250809	04:45	0.0
SE	20250808	17:00	1.3	WSW	20250809	05:00	0.0
S	20250808	17:15	1.3	WSW	20250809	05:15	0.0
---	20250808	17:30	0.9	WSW	20250809	05:30	0.0
---	20250808	17:45	1.3	WSW	20250809	05:45	0.0
---	20250808	18:00	0.9	WSW	20250809	06:00	0.0
S	20250808	18:15	0.4	SE	20250809	06:15	0.0
S	20250808	18:30	0.4	SE	20250809	06:30	0.0
S	20250808	18:45	0.4	SE	20250809	06:45	0.4
S	20250808	19:00	0	SSE	20250809	07:00	0.0
---	20250808	19:15	0.4	SSE	20250809	07:15	0.4
---	20250808	19:30	0	SSE	20250809	07:30	0.4
ESE	20250808	19:45	0	---	20250809	07:45	0.4
ESE	20250808	20:00	0	SSE	20250809	08:00	0.0
ESE	20250808	20:15	0	SSE	20250809	08:15	0.0
E	20250808	20:30	0	---	20250809	08:30	0.0
NNE	20250808	20:45	0	---	20250809	08:45	0.0
NW	20250808	21:00	0	---	20250809	09:00	0.4
NW	20250808	21:15	0	---	20250809	09:15	0.0
WSW	20250808	21:30	0	---	20250809	09:30	0.0
WSW	20250808	21:45	0	---	20250809	09:45	0.9
WSW	20250808	22:00	0	---	20250809	10:00	0.4
NNW	20250808	22:15	0	---	20250809	10:15	0.4
N	20250808	22:30	0	---	20250809	10:30	0.0
NNW	20250808	22:45	0	---	20250809	10:45	0.4
NW	20250808	23:00	0	---	20250809	11:00	0.4
NNW	20250808	23:15	0	---	20250809	11:15	0.9
N	20250808	23:30	0	---	20250809	11:30	0.9
WSW	20250808	23:45	0	---	20250809	11:45	1.3

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
---	20250809	12:00	1.3	SE	20250810	00:00	0.9
---	20250809	12:15	0.9	WSW	20250810	00:15	0.9
---	20250809	12:30	0.9	WSW	20250810	00:30	0.9
---	20250809	12:45	1.8	SE	20250810	00:45	0.9
---	20250809	13:00	0.9	ESE	20250810	01:00	0.9
---	20250809	13:15	0.9	ESE	20250810	01:15	0.9
---	20250809	13:30	1.3	SE	20250810	01:30	1.3
---	20250809	13:45	1.3	SE	20250810	01:45	0.9
---	20250809	14:00	0.9	NNE	20250810	02:00	1.3
---	20250809	14:15	0.4	N	20250810	02:15	1.3
---	20250809	14:30	0.4	N	20250810	02:30	1.3
---	20250809	14:45	0.9	SW	20250810	02:45	0.4
---	20250809	15:00	0.9	W	20250810	03:00	0.0
SSE	20250809	15:15	1.3	SE	20250810	03:15	0.0
---	20250809	15:30	2.2	SE	20250810	03:30	0.0
---	20250809	15:45	1.8	SE	20250810	03:45	0.4
---	20250809	16:00	1.3	SE	20250810	04:00	0.4
---	20250809	16:15	1.3	SE	20250810	04:15	0.4
---	20250809	16:30	1.3	SE	20250810	04:30	0.0
---	20250809	16:45	1.3	SE	20250810	04:45	0.0
---	20250809	17:00	1.8	SE	20250810	05:00	0.0
---	20250809	17:15	1.8	SE	20250810	05:15	0.0
---	20250809	17:30	1.8	SE	20250810	05:30	0.0
---	20250809	17:45	1.8	SE	20250810	05:45	0.0
---	20250809	18:00	1.3	SE	20250810	06:00	0.4
SSE	20250809	18:15	1.8	SE	20250810	06:15	0.4
SSE	20250809	18:30	1.8	SE	20250810	06:30	0.4
SSE	20250809	18:45	1.8	SE	20250810	06:45	0.0
SSE	20250809	19:00	2.7	SE	20250810	07:00	0.0
SSE	20250809	19:15	2.2	SE	20250810	07:15	0.0
SSE	20250809	19:30	1.8	SE	20250810	07:30	0.4
SSE	20250809	19:45	1.3	SE	20250810	07:45	0.4
SSE	20250809	20:00	0.4	SE	20250810	08:00	0.4
S	20250809	20:15	0.4	SE	20250810	08:15	0.9
SSE	20250809	20:30	0.4	SE	20250810	08:30	0.4
SE	20250809	20:45	0.4	SE	20250810	08:45	0.4
SSE	20250809	21:00	0.4	SE	20250810	09:00	1.3
SSE	20250809	21:15	0.9	SE	20250810	09:15	0.4
SSE	20250809	21:30	0.4	SE	20250810	09:30	0.9
NNW	20250809	21:45	0.9	SE	20250810	09:45	1.3
NNW	20250809	22:00	0.9	SE	20250810	10:00	0.9
NNW	20250809	22:15	0.4	SE	20250810	10:15	1.3
ENE	20250809	22:30	0.4	ESE	20250810	10:30	1.3
N	20250809	22:45	0.9	SE	20250810	10:45	1.3
SSW	20250809	23:00	0.4	SE	20250810	11:00	1.3
SE	20250809	23:15	0	ENE	20250810	11:15	1.3
ESE	20250809	23:30	0.4	SE	20250810	11:30	1.3
WSW	20250809	23:45	0.4	ESE	20250810	11:45	0.9

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250810	12:00	1.3	SE	20250811	00:00	1.3
SE	20250810	12:15	1.3	SE	20250811	00:15	0.9
SE	20250810	12:30	1.3	SE	20250811	00:30	0.9
SE	20250810	12:45	0.9	WSW	20250811	00:45	0.0
ESE	20250810	13:00	1.3	SE	20250811	01:00	0.4
SE	20250810	13:15	1.3	N	20250811	01:15	0.9
SE	20250810	13:30	1.8	SE	20250811	01:30	0.9
SE	20250810	13:45	1.3	SE	20250811	01:45	0.9
SE	20250810	14:00	2.2	SE	20250811	02:00	0.4
SE	20250810	14:15	1.8	SE	20250811	02:15	0.0
SE	20250810	14:30	1.8	SE	20250811	02:30	0.0
SE	20250810	14:45	1.8	SE	20250811	02:45	0.9
SE	20250810	15:00	1.3	SE	20250811	03:00	0.4
SE	20250810	15:15	1.8	SE	20250811	03:15	0.0
SE	20250810	15:30	1.8	SE	20250811	03:30	0.0
SE	20250810	15:45	1.8	SE	20250811	03:45	0.0
ESE	20250810	16:00	1.8	SE	20250811	04:00	0.0
E	20250810	16:15	1.8	SE	20250811	04:15	0.4
---	20250810	16:30	1.8	SE	20250811	04:30	0.9
---	20250810	16:45	1.8	SE	20250811	04:45	0.0
---	20250810	17:00	1.8	SE	20250811	05:00	0.0
---	20250810	17:15	1.8	SE	20250811	05:15	0.0
ESE	20250810	17:30	1.3	SE	20250811	05:30	0.0
ESE	20250810	17:45	1.8	SE	20250811	05:45	0.0
SE	20250810	18:00	1.3	SE	20250811	06:00	0.4
E	20250810	18:15	1.3	SE	20250811	06:15	0.0
ENE	20250810	18:30	1.3	SE	20250811	06:30	0.4
---	20250810	18:45	1.3	ESE	20250811	06:45	0.4
---	20250810	19:00	1.3	SE	20250811	07:00	0.4
ENE	20250810	19:15	1.8	SE	20250811	07:15	0.9
SSE	20250810	19:30	1.8	SE	20250811	07:30	0.4
SSE	20250810	19:45	2.2	SE	20250811	07:45	0.4
E	20250810	20:00	1.3	SE	20250811	08:00	0.9
SE	20250810	20:15	1.3	SE	20250811	08:15	0.9
SE	20250810	20:30	1.3	SE	20250811	08:30	0.9
NNW	20250810	20:45	1.3	SE	20250811	08:45	0.9
SE	20250810	21:00	1.3	SE	20250811	09:00	0.9
N	20250810	21:15	1.8	SE	20250811	09:15	0.9
SE	20250810	21:30	1.8	SE	20250811	09:30	0.9
SE	20250810	21:45	1.3	SE	20250811	09:45	1.3
NE	20250810	22:00	2.2	SE	20250811	10:00	1.3
SE	20250810	22:15	1.8	SE	20250811	10:15	0.9
SE	20250810	22:30	1.3	SE	20250811	10:30	1.3
SE	20250810	22:45	1.3	SE	20250811	10:45	1.3
NNW	20250810	23:00	0.4	SE	20250811	11:00	1.3
NNW	20250810	23:15	0.9	SE	20250811	11:15	1.8
N	20250810	23:30	0.4	SE	20250811	11:30	1.3
SE	20250810	23:45	0.9	SE	20250811	11:45	0.9

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250811	12:00	1.3	SE	20250812	00:00	0.0
SE	20250811	12:15	0.9	SE	20250812	00:15	0.0
SE	20250811	12:30	0.9	SE	20250812	00:30	0.0
SE	20250811	12:45	0.0	SE	20250812	00:45	0.4
SE	20250811	13:00	0.4	SE	20250812	01:00	0.9
SE	20250811	13:15	0.9	SE	20250812	01:15	0.0
SE	20250811	13:30	0.9	SE	20250812	01:30	0.0
SE	20250811	13:45	0.9	SE	20250812	01:45	0.0
SE	20250811	14:00	0.4	SE	20250812	02:00	0.0
SE	20250811	14:15	0.0	SE	20250812	02:15	0.0
---	20250811	14:30	0.0	---	20250812	02:30	0.0
SE	20250811	14:45	0.9	SE	20250812	02:45	0.0
S	20250811	15:00	0.4	S	20250812	03:00	0.0
S	20250811	15:15	0.0	S	20250812	03:15	0.0
---	20250811	15:30	0.0	---	20250812	03:30	0.0
---	20250811	15:45	0.0	---	20250812	03:45	0.0
---	20250811	16:00	0.0	---	20250812	04:00	0.0
S	20250811	16:15	0.4	S	20250812	04:15	0.0
S	20250811	16:30	0.9	S	20250812	04:30	0.0
S	20250811	16:45	0.0	S	20250812	04:45	0.0
S	20250811	17:00	0.0	S	20250812	05:00	0.0
---	20250811	17:15	0.0	---	20250812	05:15	0.0
---	20250811	17:30	0.0	---	20250812	05:30	0.0
---	20250811	17:45	0.0	---	20250812	05:45	0.0
S	20250811	18:00	0.4	S	20250812	06:00	0.0
S	20250811	18:15	0	S	20250812	06:15	0.0
S	20250811	18:30	0.4	S	20250812	06:30	0.0
S	20250811	18:45	0.4	S	20250812	06:45	0.0
S	20250811	19:00	0.4	S	20250812	07:00	0.0
S	20250811	19:15	0.9	S	20250812	07:15	0.4
SE	20250811	19:30	0.4	SE	20250812	07:30	0.0
SSE	20250811	19:45	0.4	SSE	20250812	07:45	0.0
SSE	20250811	20:00	0.9	SSE	20250812	08:00	0.4
SE	20250811	20:15	0.9	SE	20250812	08:15	0.4
WSW	20250811	20:30	0.9	WSW	20250812	08:30	0.4
WSW	20250811	20:45	0.9	WSW	20250812	08:45	0.4
WSW	20250811	21:00	0.9	WSW	20250812	09:00	0.9
WSW	20250811	21:15	0.9	WSW	20250812	09:15	0.9
WSW	20250811	21:30	0.9	WSW	20250812	09:30	0.9
WSW	20250811	21:45	1.3	WSW	20250812	09:45	0.9
WSW	20250811	22:00	1.3	WSW	20250812	10:00	0.9
WSW	20250811	22:15	0.9	WSW	20250812	10:15	1.8
WSW	20250811	22:30	1.3	WSW	20250812	10:30	1.8
WSW	20250811	22:45	1.3	WSW	20250812	10:45	1.3
WSW	20250811	23:00	1.3	WSW	20250812	11:00	1.3
WSW	20250811	23:15	1.8	WSW	20250812	11:15	1.8
WSW	20250811	23:30	1.3	WSW	20250812	11:30	0.9
WSW	20250811	23:45	0.9	WSW	20250812	11:45	1.3

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
---	20250812	12:00	1.3	NNW	20250813	00:00	0.0
---	20250812	12:15	1.3	WSW	20250813	00:15	0.0
SE	20250812	12:30	0.9	ESE	20250813	00:30	0.0
SE	20250812	12:45	0.9	SE	20250813	00:45	0.0
SE	20250812	13:00	0.9	SE	20250813	01:00	0.0
SE	20250812	13:15	0.9	SE	20250813	01:15	0.0
---	20250812	13:30	1.8	SE	20250813	01:30	0.0
---	20250812	13:45	1.3	WSW	20250813	01:45	0.0
---	20250812	14:00	1.3	WSW	20250813	02:00	0.0
---	20250812	14:15	1.3	WSW	20250813	02:15	0.0
---	20250812	14:30	1.3	WSW	20250813	02:30	0.0
---	20250812	14:45	1.3	N	20250813	02:45	0.0
---	20250812	15:00	1.8	WSW	20250813	03:00	0.0
---	20250812	15:15	2.2	NNW	20250813	03:15	0.0
---	20250812	15:30	1.8	NNW	20250813	03:30	0.0
---	20250812	15:45	1.3	NNW	20250813	03:45	0.0
---	20250812	16:00	1.3	WSW	20250813	04:00	0.0
---	20250812	16:15	1.3	WSW	20250813	04:15	0.0
---	20250812	16:30	1.8	WSW	20250813	04:30	0.0
---	20250812	16:45	1.8	WSW	20250813	04:45	0.0
---	20250812	17:00	1.3	WSW	20250813	05:00	0.0
---	20250812	17:15	1.3	WSW	20250813	05:15	0.0
---	20250812	17:30	1.3	WSW	20250813	05:30	0.0
---	20250812	17:45	0.9	WSW	20250813	05:45	0.0
---	20250812	18:00	0.4	SE	20250813	06:00	0.0
---	20250812	18:15	0.9	SSW	20250813	06:15	0.0
---	20250812	18:30	0.4	WSW	20250813	06:30	0.0
---	20250812	18:45	0.4	WSW	20250813	06:45	0.0
---	20250812	19:00	0	---	20250813	07:00	0.0
S	20250812	19:15	0	---	20250813	07:15	0.0
S	20250812	19:30	0	---	20250813	07:30	0.0
S	20250812	19:45	0	---	20250813	07:45	0.0
NNW	20250812	20:00	0	---	20250813	08:00	0.4
NNW	20250812	20:15	0	---	20250813	08:15	0.0
NNW	20250812	20:30	0	---	20250813	08:30	0.4
N	20250812	20:45	0	---	20250813	08:45	1.3
WSW	20250812	21:00	0	---	20250813	09:00	1.3
NW	20250812	21:15	0	---	20250813	09:15	0.4
WSW	20250812	21:30	0	---	20250813	09:30	0.9
WSW	20250812	21:45	0	---	20250813	09:45	0.9
SW	20250812	22:00	0	---	20250813	10:00	1.3
WSW	20250812	22:15	0	---	20250813	10:15	0.4
WSW	20250812	22:30	0	---	20250813	10:30	0.9
WSW	20250812	22:45	0	---	20250813	10:45	2.2
WSW	20250812	23:00	0	---	20250813	11:00	1.8
N	20250812	23:15	0	---	20250813	11:15	1.3
WSW	20250812	23:30	0	---	20250813	11:30	0.9
WSW	20250812	23:45	0	---	20250813	11:45	1.3

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
---	20250813	12:00	0.9	WSW	20250814	00:00	0.4
---	20250813	12:15	0.9	NNW	20250814	00:15	0.0
---	20250813	12:30	0.9	WSW	20250814	00:30	0.4
---	20250813	12:45	0.9	NW	20250814	00:45	0.4
---	20250813	13:00	0.0	NW	20250814	01:00	0.4
---	20250813	13:15	0.9	WSW	20250814	01:15	0.0
---	20250813	13:30	0.9	WSW	20250814	01:30	0.4
---	20250813	13:45	1.8	WSW	20250814	01:45	0.4
---	20250813	14:00	0.9	WSW	20250814	02:00	0.0
---	20250813	14:15	0.9	WSW	20250814	02:15	0.0
S	20250813	14:30	0.9	WSW	20250814	02:30	0.4
---	20250813	14:45	0.4	W	20250814	02:45	0.0
---	20250813	15:00	0.9	WSW	20250814	03:00	0.0
---	20250813	15:15	1.3	WSW	20250814	03:15	0.4
---	20250813	15:30	1.3	WSW	20250814	03:30	0.4
---	20250813	15:45	1.8	WSW	20250814	03:45	0.4
---	20250813	16:00	1.8	WSW	20250814	04:00	0.4
---	20250813	16:15	1.8	WSW	20250814	04:15	0.4
---	20250813	16:30	2.2	WSW	20250814	04:30	0.9
---	20250813	16:45	0.9	WSW	20250814	04:45	0.9
---	20250813	17:00	0.9	WSW	20250814	05:00	0.4
---	20250813	17:15	1.8	WSW	20250814	05:15	0.9
---	20250813	17:30	1.3	WSW	20250814	05:30	1.3
---	20250813	17:45	1.3	WSW	20250814	05:45	1.3
---	20250813	18:00	1.8	WSW	20250814	06:00	1.3
---	20250813	18:15	0.9	WSW	20250814	06:15	1.3
---	20250813	18:30	0.9	WSW	20250814	06:30	0.9
---	20250813	18:45	0.9	WSW	20250814	06:45	0.4
---	20250813	19:00	0.4	SW	20250814	07:00	0.9
---	20250813	19:15	0.4	SE	20250814	07:15	0.0
---	20250813	19:30	0.4	SE	20250814	07:30	0.9
---	20250813	19:45	0.4	SE	20250814	07:45	0.9
SE	20250813	20:00	0.4	ENE	20250814	08:00	0.4
SE	20250813	20:15	0.4	ENE	20250814	08:15	0.4
WSW	20250813	20:30	0.4	ESE	20250814	08:30	0.9
SE	20250813	20:45	0.4	S	20250814	08:45	1.3
WSW	20250813	21:00	0.4	SSE	20250814	09:00	1.3
WSW	20250813	21:15	0.4	ESE	20250814	09:15	0.4
WSW	20250813	21:30	0.4	SE	20250814	09:30	0.4
WSW	20250813	21:45	0	SSE	20250814	09:45	0.9
N	20250813	22:00	0	SSE	20250814	10:00	1.3
N	20250813	22:15	0.4	SSE	20250814	10:15	0.4
N	20250813	22:30	0.4	SSE	20250814	10:30	0.4
N	20250813	22:45	0.4	SSE	20250814	10:45	0.4
WSW	20250813	23:00	0.4	SSE	20250814	11:00	0.9
WSW	20250813	23:15	0.9	SE	20250814	11:15	1.3
WSW	20250813	23:30	0.4	ESE	20250814	11:30	0.9
NW	20250813	23:45	0.4	S	20250814	11:45	0.9

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SW	20250814	12:00	2.7	SE	20250815	00:00	1.8
SSW	20250814	12:15	1.3	ESE	20250815	00:15	1.8
W	20250814	12:30	0.4	SSE	20250815	00:30	1.8
SSE	20250814	12:45	0.4	NW	20250815	00:45	1.8
ESE	20250814	13:00	0.9	SE	20250815	01:00	0.9
ESE	20250814	13:15	2.7	SE	20250815	01:15	1.3
SE	20250814	13:30	2.7	SE	20250815	01:30	1.8
ESE	20250814	13:45	0.9	SE	20250815	01:45	2.2
---	20250814	14:00	0.4	NE	20250815	02:00	0.9
---	20250814	14:15	1.3	SE	20250815	02:15	0.9
ESE	20250814	14:30	1.3	SE	20250815	02:30	1.3
WSW	20250814	14:45	0.4	SE	20250815	02:45	0.9
SSW	20250814	15:00	0.9	E	20250815	03:00	0.9
SSW	20250814	15:15	0.4	N	20250815	03:15	0.9
SSE	20250814	15:30	0.4	N	20250815	03:30	1.3
SSE	20250814	15:45	0.4	N	20250815	03:45	2.2
ESE	20250814	16:00	0.9	E	20250815	04:00	1.3
SE	20250814	16:15	1.8	SE	20250815	04:15	1.8
ESE	20250814	16:30	2.2	SE	20250815	04:30	1.3
SE	20250814	16:45	2.2	SE	20250815	04:45	1.3
SE	20250814	17:00	2.7	SE	20250815	05:00	0.9
W	20250814	17:15	1.8	SE	20250815	05:15	1.3
WSW	20250814	17:30	2.7	SE	20250815	05:30	1.8
WSW	20250814	17:45	3.1	SE	20250815	05:45	2.2
WSW	20250814	18:00	3.1	SE	20250815	06:00	2.2
SE	20250814	18:15	3.6	SE	20250815	06:15	1.8
SE	20250814	18:30	3.1	SE	20250815	06:30	2.2
SE	20250814	18:45	2.7	SE	20250815	06:45	1.8
SE	20250814	19:00	3.1	SE	20250815	07:00	2.2
SE	20250814	19:15	2.7	SE	20250815	07:15	2.2
SW	20250814	19:30	2.7	SE	20250815	07:30	2.2
SSE	20250814	19:45	2.2	SE	20250815	07:45	1.8
NE	20250814	20:00	1.8	SE	20250815	08:00	1.8
E	20250814	20:15	1.3	SE	20250815	08:15	2.7
SE	20250814	20:30	1.8	SE	20250815	08:30	2.2
SE	20250814	20:45	0.9	SE	20250815	08:45	1.8
SE	20250814	21:00	0.4	E	20250815	09:00	3.1
SE	20250814	21:15	0.9	SE	20250815	09:15	2.2
SE	20250814	21:30	1.3	SE	20250815	09:30	2.2
SE	20250814	21:45	1.3	SE	20250815	09:45	2.2
SE	20250814	22:00	2.2	SE	20250815	10:00	3.1
NW	20250814	22:15	2.7	SE	20250815	10:15	3.6
NNW	20250814	22:30	1.3	SE	20250815	10:30	3.1
ESE	20250814	22:45	1.8	SE	20250815	10:45	2.7
SE	20250814	23:00	1.3	SE	20250815	11:00	1.8
SE	20250814	23:15	2.2	SE	20250815	11:15	2.2
SE	20250814	23:30	2.2	SE	20250815	11:30	2.2
SSE	20250814	23:45	2.2	SE	20250815	11:45	2.2

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250815	12:00	2.2	SSE	20250816	00:00	2.2
SE	20250815	12:15	2.2	SE	20250816	00:15	2.2
SE	20250815	12:30	2.7	SSE	20250816	00:30	2.7
SE	20250815	12:45	1.8	SE	20250816	00:45	2.2
SSE	20250815	13:00	2.2	S	20250816	01:00	1.8
S	20250815	13:15	2.2	SE	20250816	01:15	2.7
SSE	20250815	13:30	2.2	SE	20250816	01:30	3.1
S	20250815	13:45	1.8	E	20250816	01:45	3.1
S	20250815	14:00	1.8	SSE	20250816	02:00	3.6
SE	20250815	14:15	1.3	SSE	20250816	02:15	3.1
SSE	20250815	14:30	1.8	ESE	20250816	02:30	2.7
SSE	20250815	14:45	1.8	SSE	20250816	02:45	2.2
ENE	20250815	15:00	2.7	SE	20250816	03:00	2.2
SE	20250815	15:15	1.8	SSE	20250816	03:15	2.2
SE	20250815	15:30	2.7	SE	20250816	03:30	2.7
SE	20250815	15:45	1.8	SSE	20250816	03:45	2.7
SE	20250815	16:00	2.2	ESE	20250816	04:00	2.7
SE	20250815	16:15	2.7	SE	20250816	04:15	3.1
SSW	20250815	16:30	1.3	SE	20250816	04:30	3.1
SE	20250815	16:45	1.3	SSE	20250816	04:45	2.2
SE	20250815	17:00	0.9	SSE	20250816	05:00	2.2
ESE	20250815	17:15	0.9	SE	20250816	05:15	2.2
SSE	20250815	17:30	0.4	WSW	20250816	05:30	1.8
SSE	20250815	17:45	1.3	SE	20250816	05:45	2.2
SE	20250815	18:00	1.8	SE	20250816	06:00	1.3
SE	20250815	18:15	1.8	SE	20250816	06:15	0.9
E	20250815	18:30	2.7	SE	20250816	06:30	0.9
SE	20250815	18:45	2.2	SE	20250816	06:45	0.9
SSE	20250815	19:00	1.3	SE	20250816	07:00	1.3
S	20250815	19:15	0.9	SE	20250816	07:15	1.3
SE	20250815	19:30	1.3	SE	20250816	07:30	0.9
SSE	20250815	19:45	0.9	SE	20250816	07:45	1.3
SE	20250815	20:00	0.9	N	20250816	08:00	1.8
SE	20250815	20:15	0.9	ESE	20250816	08:15	2.2
SE	20250815	20:30	1.3	SE	20250816	08:30	1.3
SE	20250815	20:45	0.9	SE	20250816	08:45	1.8
SE	20250815	21:00	1.3	SE	20250816	09:00	2.7
SE	20250815	21:15	1.3	SE	20250816	09:15	2.2
SSE	20250815	21:30	1.3	SE	20250816	09:30	1.8
SSW	20250815	21:45	1.3	SE	20250816	09:45	2.2
SSW	20250815	22:00	1.8	SE	20250816	10:00	1.8
SE	20250815	22:15	1.8	SSE	20250816	10:15	1.8
SE	20250815	22:30	1.8	SSE	20250816	10:30	2.2
SSE	20250815	22:45	2.2	SE	20250816	10:45	2.2
ESE	20250815	23:00	1.8	SSE	20250816	11:00	2.2
SE	20250815	23:15	1.8	E	20250816	11:15	1.8
SSE	20250815	23:30	2.2	SSE	20250816	11:30	2.2
SE	20250815	23:45	2.2	SE	20250816	11:45	1.8

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250816	12:00	1.8	SE	20250817	00:00	1.8
SE	20250816	12:15	1.8	SE	20250817	00:15	1.8
SE	20250816	12:30	1.8	SE	20250817	00:30	1.8
SE	20250816	12:45	1.8	SE	20250817	00:45	2.2
SE	20250816	13:00	1.3	SE	20250817	01:00	2.7
SE	20250816	13:15	1.3	SE	20250817	01:15	2.2
SE	20250816	13:30	1.3	SE	20250817	01:30	1.8
SE	20250816	13:45	0.9	WSW	20250817	01:45	2.2
SE	20250816	14:00	1.3	ESE	20250817	02:00	2.7
SE	20250816	14:15	1.3	SE	20250817	02:15	2.2
SE	20250816	14:30	1.3	WSW	20250817	02:30	1.8
SE	20250816	14:45	0.9	WSW	20250817	02:45	1.3
SE	20250816	15:00	1.3	SE	20250817	03:00	1.8
SE	20250816	15:15	0.9	E	20250817	03:15	1.3
SE	20250816	15:30	1.8	SE	20250817	03:30	0.9
SE	20250816	15:45	1.8	SE	20250817	03:45	1.8
SE	20250816	16:00	2.2	SE	20250817	04:00	1.3
SE	20250816	16:15	2.2	SE	20250817	04:15	0.9
SE	20250816	16:30	2.2	SE	20250817	04:30	1.3
SE	20250816	16:45	2.7	SE	20250817	04:45	1.3
SE	20250816	17:00	2.2	SE	20250817	05:00	1.3
SE	20250816	17:15	2.2	SE	20250817	05:15	1.3
SE	20250816	17:30	2.7	SE	20250817	05:30	0.9
SE	20250816	17:45	2.2	SE	20250817	05:45	0.9
SE	20250816	18:00	1.8	SE	20250817	06:00	0.9
SE	20250816	18:15	2.2	SE	20250817	06:15	0.9
SE	20250816	18:30	2.7	SE	20250817	06:30	1.8
SE	20250816	18:45	1.8	SE	20250817	06:45	1.3
SE	20250816	19:00	2.2	SE	20250817	07:00	0.9
SE	20250816	19:15	1.8	SE	20250817	07:15	1.8
SE	20250816	19:30	2.2	SE	20250817	07:30	1.3
SE	20250816	19:45	2.2	SE	20250817	07:45	2.2
SE	20250816	20:00	2.2	SE	20250817	08:00	1.8
SE	20250816	20:15	2.7	SE	20250817	08:15	1.8
SE	20250816	20:30	2.7	SE	20250817	08:30	2.2
SE	20250816	20:45	2.2	SE	20250817	08:45	1.3
SE	20250816	21:00	2.2	SE	20250817	09:00	0.4
SE	20250816	21:15	2.2	SE	20250817	09:15	0.9
SE	20250816	21:30	2.7	SE	20250817	09:30	1.3
SE	20250816	21:45	2.2	SE	20250817	09:45	0.4
SSE	20250816	22:00	3.1	SE	20250817	10:00	0.9
SE	20250816	22:15	3.6	SE	20250817	10:15	1.8
SE	20250816	22:30	3.1	SE	20250817	10:30	1.8
SE	20250816	22:45	2.7	SE	20250817	10:45	1.8
SE	20250816	23:00	2.2	SE	20250817	11:00	0.9
SE	20250816	23:15	1.8	SE	20250817	11:15	1.8
SE	20250816	23:30	2.2	SE	20250817	11:30	1.8
SE	20250816	23:45	1.8	SE	20250817	11:45	2.2

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250817	12:00	2.7	SE	20250818	00:00	1.8
SE	20250817	12:15	2.2	SE	20250818	00:15	1.8
SE	20250817	12:30	2.2	SE	20250818	00:30	1.8
SE	20250817	12:45	2.2	SE	20250818	00:45	1.8
SE	20250817	13:00	1.3	ESE	20250818	01:00	1.8
SE	20250817	13:15	1.8	SE	20250818	01:15	1.3
SE	20250817	13:30	2.7	SE	20250818	01:30	1.3
SE	20250817	13:45	2.7	SE	20250818	01:45	1.3
SE	20250817	14:00	3.1	SE	20250818	02:00	1.3
SE	20250817	14:15	2.2	SE	20250818	02:15	1.3
SE	20250817	14:30	3.1	SE	20250818	02:30	1.3
SE	20250817	14:45	2.2	SE	20250818	02:45	1.3
SE	20250817	15:00	2.2	SE	20250818	03:00	1.8
SE	20250817	15:15	2.2	SE	20250818	03:15	1.3
SE	20250817	15:30	2.2	SE	20250818	03:30	2.2
SE	20250817	15:45	2.2	SE	20250818	03:45	2.2
SE	20250817	16:00	1.8	SE	20250818	04:00	1.8
SE	20250817	16:15	2.7	SE	20250818	04:15	1.3
SE	20250817	16:30	2.2	SE	20250818	04:30	1.8
SE	20250817	16:45	2.7	SE	20250818	04:45	1.8
SE	20250817	17:00	2.7	SE	20250818	05:00	1.3
SE	20250817	17:15	2.2	SE	20250818	05:15	1.3
E	20250817	17:30	2.2	SE	20250818	05:30	1.8
SE	20250817	17:45	3.1	SE	20250818	05:45	1.8
SE	20250817	18:00	2.7	SE	20250818	06:00	1.3
SE	20250817	18:15	3.1	SE	20250818	06:15	1.8
SE	20250817	18:30	2.2	SE	20250818	06:30	1.8
SE	20250817	18:45	2.2	SE	20250818	06:45	1.3
ESE	20250817	19:00	2.2	SE	20250818	07:00	1.8
SE	20250817	19:15	2.2	SE	20250818	07:15	1.8
SE	20250817	19:30	2.2	SE	20250818	07:30	1.8
SE	20250817	19:45	1.3	SE	20250818	07:45	1.8
SE	20250817	20:00	1.3	SE	20250818	08:00	2.2
SE	20250817	20:15	0.9	NE	20250818	08:15	1.8
SE	20250817	20:30	0.9	SE	20250818	08:30	1.8
SE	20250817	20:45	1.8	SE	20250818	08:45	1.3
E	20250817	21:00	2.2	SE	20250818	09:00	1.8
E	20250817	21:15	1.8	SE	20250818	09:15	1.8
SE	20250817	21:30	1.8	SE	20250818	09:30	1.3
ESE	20250817	21:45	2.7	SE	20250818	09:45	0.9
SE	20250817	22:00	2.7	SE	20250818	10:00	1.3
SE	20250817	22:15	1.3	SE	20250818	10:15	0.9
SE	20250817	22:30	1.3	SE	20250818	10:30	1.3
SE	20250817	22:45	1.3	ESE	20250818	10:45	1.3
ESE	20250817	23:00	1.3	SE	20250818	11:00	0.9
SE	20250817	23:15	1.8	SE	20250818	11:15	0.9
SE	20250817	23:30	1.8	SE	20250818	11:30	0.4
SE	20250817	23:45	2.2	SE	20250818	11:45	0.9

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250818	12:00	0.4	NNE	20250819	00:00	2.7
SE	20250818	12:15	0.4	NNE	20250819	00:15	2.2
SE	20250818	12:30	1.3	NNE	20250819	00:30	1.3
SE	20250818	12:45	1.8	SE	20250819	00:45	2.2
SE	20250818	13:00	0.9	SE	20250819	01:00	0.9
SE	20250818	13:15	0.9	SE	20250819	01:15	1.3
SSE	20250818	13:30	0.9	SE	20250819	01:30	1.3
SE	20250818	13:45	1.8	SE	20250819	01:45	1.3
E	20250818	14:00	1.3	SE	20250819	02:00	2.2
E	20250818	14:15	1.3	SE	20250819	02:15	2.2
ESE	20250818	14:30	1.3	SE	20250819	02:30	1.8
SE	20250818	14:45	0.9	SE	20250819	02:45	1.8
SSE	20250818	15:00	0.9	SE	20250819	03:00	2.2
ESE	20250818	15:15	0.9	SE	20250819	03:15	1.8
SE	20250818	15:30	0.9	ESE	20250819	03:30	0.9
SE	20250818	15:45	0.9	SE	20250819	03:45	1.8
SE	20250818	16:00	1.3	SE	20250819	04:00	2.7
SE	20250818	16:15	1.8	SE	20250819	04:15	0.9
SE	20250818	16:30	1.8	SE	20250819	04:30	0.9
SE	20250818	16:45	1.8	SE	20250819	04:45	2.2
SSE	20250818	17:00	1.8	ESE	20250819	05:00	1.3
SSE	20250818	17:15	1.8	SE	20250819	05:15	1.3
SE	20250818	17:30	1.3	SE	20250819	05:30	0.4
SE	20250818	17:45	0.4	SE	20250819	05:45	0.4
SE	20250818	18:00	0.4	SE	20250819	06:00	0.4
SE	20250818	18:15	0.9	SE	20250819	06:15	1.3
SE	20250818	18:30	0.9	ESE	20250819	06:30	1.3
SE	20250818	18:45	0.9	ESE	20250819	06:45	0.9
SE	20250818	19:00	0.4	SE	20250819	07:00	0.4
SE	20250818	19:15	0.9	SE	20250819	07:15	1.3
SE	20250818	19:30	0.9	ESE	20250819	07:30	0.4
SE	20250818	19:45	0.4	ESE	20250819	07:45	0.4
SE	20250818	20:00	0.9	SE	20250819	08:00	0.0
SE	20250818	20:15	0.4	SE	20250819	08:15	0.4
SE	20250818	20:30	0	E	20250819	08:30	0.0
SE	20250818	20:45	0.4	E	20250819	08:45	0.4
SE	20250818	21:00	0	E	20250819	09:00	0.0
SE	20250818	21:15	0.4	E	20250819	09:15	0.0
SE	20250818	21:30	0.9	SE	20250819	09:30	0.4
SE	20250818	21:45	0.9	SE	20250819	09:45	0.4
SE	20250818	22:00	0.4	SE	20250819	10:00	0.0
SE	20250818	22:15	0.4	E	20250819	10:15	1.8
SE	20250818	22:30	0.9	ENE	20250819	10:30	1.8
SE	20250818	22:45	1.8	SE	20250819	10:45	1.3
SE	20250818	23:00	1.3	SE	20250819	11:00	0.4
SE	20250818	23:15	1.8	SE	20250819	11:15	0.4
ESE	20250818	23:30	1.8	SE	20250819	11:30	0.4
SE	20250818	23:45	2.7	SE	20250819	11:45	0.4

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250819	12:00	0.0	---	20250820	00:00	0.4
SE	20250819	12:15	0.4	SSW	20250820	00:15	0.4
SE	20250819	12:30	0.0	SSW	20250820	00:30	0.4
SE	20250819	12:45	0.4	SSW	20250820	00:45	0.4
SE	20250819	13:00	0.4	SSW	20250820	01:00	1.3
SE	20250819	13:15	0.0	NW	20250820	01:15	0.9
SE	20250819	13:30	0.4	ENE	20250820	01:30	0.4
SE	20250819	13:45	0.4	ENE	20250820	01:45	1.3
SE	20250819	14:00	0.4	ENE	20250820	02:00	1.3
SE	20250819	14:15	0.4	NNE	20250820	02:15	1.3
SE	20250819	14:30	0.0	NNE	20250820	02:30	0.9
SE	20250819	14:45	0.4	ESE	20250820	02:45	0.9
SE	20250819	15:00	0.0	SE	20250820	03:00	0.4
SE	20250819	15:15	0.4	SW	20250820	03:15	0.0
SE	20250819	15:30	0.4	SW	20250820	03:30	0.4
SE	20250819	15:45	0.0	SW	20250820	03:45	0.4
SE	20250819	16:00	0.0	SW	20250820	04:00	0.0
SE	20250819	16:15	0.9	SSE	20250820	04:15	0.0
SE	20250819	16:30	0.4	SSE	20250820	04:30	0.0
SE	20250819	16:45	0.4	N	20250820	04:45	0.0
SE	20250819	17:00	0.4	SE	20250820	05:00	0.0
SE	20250819	17:15	0.4	SE	20250820	05:15	0.0
ESE	20250819	17:30	0.9	SE	20250820	05:30	0.0
SE	20250819	17:45	0.9	SE	20250820	05:45	0.0
ENE	20250819	18:00	1.3	SE	20250820	06:00	0.0
SE	20250819	18:15	0.9	SE	20250820	06:15	0.0
SE	20250819	18:30	0.9	ESE	20250820	06:30	0.0
SE	20250819	18:45	0.4	ENE	20250820	06:45	0.0
SE	20250819	19:00	0.4	E	20250820	07:00	0.0
SE	20250819	19:15	0.9	ESE	20250820	07:15	0.4
SE	20250819	19:30	0.9	ESE	20250820	07:30	0.0
SE	20250819	19:45	0.9	E	20250820	07:45	0.9
SE	20250819	20:00	0.9	SE	20250820	08:00	0.4
NW	20250819	20:15	0	SE	20250820	08:15	0.0
E	20250819	20:30	0.9	SE	20250820	08:30	0.9
E	20250819	20:45	0.9	E	20250820	08:45	0.9
ENE	20250819	21:00	0.4	E	20250820	09:00	1.3
ENE	20250819	21:15	0	ENE	20250820	09:15	1.3
ENE	20250819	21:30	0.4	SSE	20250820	09:30	0.9
ENE	20250819	21:45	0.4	SE	20250820	09:45	0.9
ENE	20250819	22:00	0.9	SE	20250820	10:00	0.9
SE	20250819	22:15	1.3	ESE	20250820	10:15	1.3
SE	20250819	22:30	0.9	SE	20250820	10:30	0.4
SE	20250819	22:45	1.3	SE	20250820	10:45	0.9
ESE	20250819	23:00	0.9	ESE	20250820	11:00	1.3
ESE	20250819	23:15	1.3	SE	20250820	11:15	1.8
SW	20250819	23:30	0.9	ESE	20250820	11:30	1.8
SSW	20250819	23:45	0.9	SE	20250820	11:45	2.2

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
ESE	20250820	12:00	1.8	ESE	20250821	00:00	0.4
SSE	20250820	12:15	2.2	SE	20250821	00:15	0.0
ESE	20250820	12:30	1.8	SE	20250821	00:30	0.0
E	20250820	12:45	1.8	SE	20250821	00:45	0.0
SE	20250820	13:00	1.3	SE	20250821	01:00	0.0
SE	20250820	13:15	1.8	SE	20250821	01:15	0.0
SE	20250820	13:30	1.8	SE	20250821	01:30	0.0
SE	20250820	13:45	1.3	SE	20250821	01:45	0.0
SE	20250820	14:00	1.3	SE	20250821	02:00	0.4
SE	20250820	14:15	2.2	SE	20250821	02:15	0.4
SE	20250820	14:30	1.3	SE	20250821	02:30	0.0
SE	20250820	14:45	1.3	ESE	20250821	02:45	0.0
ESE	20250820	15:00	1.3	SE	20250821	03:00	0.4
NNE	20250820	15:15	1.3	ESE	20250821	03:15	0.0
E	20250820	15:30	0.9	SE	20250821	03:30	0.0
ESE	20250820	15:45	0.9	NW	20250821	03:45	0.0
---	20250820	16:00	0.4	N	20250821	04:00	0.0
---	20250820	16:15	1.3	SE	20250821	04:15	0.0
---	20250820	16:30	1.8	SE	20250821	04:30	0.0
---	20250820	16:45	2.7	SE	20250821	04:45	0.0
---	20250820	17:00	2.2	SE	20250821	05:00	0.0
---	20250820	17:15	2.2	SE	20250821	05:15	0.4
---	20250820	17:30	2.2	SE	20250821	05:30	0.4
---	20250820	17:45	1.8	SE	20250821	05:45	0.0
---	20250820	18:00	1.8	SE	20250821	06:00	0.0
---	20250820	18:15	1.3	SE	20250821	06:15	0.4
---	20250820	18:30	1.8	SE	20250821	06:30	0.4
---	20250820	18:45	1.3	SE	20250821	06:45	0.0
---	20250820	19:00	0.9	SE	20250821	07:00	0.4
N	20250820	19:15	0.4	SE	20250821	07:15	0.0
NNW	20250820	19:30	0.4	SE	20250821	07:30	0.4
NNW	20250820	19:45	0.9	SE	20250821	07:45	0.0
NNW	20250820	20:00	0.9	ESE	20250821	08:00	0.0
NNE	20250820	20:15	1.3	SE	20250821	08:15	0.0
SE	20250820	20:30	0.9	SE	20250821	08:30	0.0
SE	20250820	20:45	0.4	SE	20250821	08:45	0.4
SE	20250820	21:00	0.4	SE	20250821	09:00	0.4
SE	20250820	21:15	0.4	SE	20250821	09:15	0.4
SE	20250820	21:30	0.4	SE	20250821	09:30	0.0
SE	20250820	21:45	0.9	SE	20250821	09:45	0.4
SE	20250820	22:00	0.4	SE	20250821	10:00	0.4
SE	20250820	22:15	0	SE	20250821	10:15	0.9
SE	20250820	22:30	0	SE	20250821	10:30	1.3
SE	20250820	22:45	0	---	20250821	10:45	0.4
SE	20250820	23:00	0	SE	20250821	11:00	0.9
SE	20250820	23:15	0	SSE	20250821	11:15	1.3
SE	20250820	23:30	0	SSE	20250821	11:30	1.3
SE	20250820	23:45	0.4	SSE	20250821	11:45	1.3

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250821	12:00	0.9	SE	20250822	00:00	0.0
SE	20250821	12:15	1.8	SE	20250822	00:15	0.4
SE	20250821	12:30	1.3	SE	20250822	00:30	0.0
---	20250821	12:45	0.9	SE	20250822	00:45	0.0
---	20250821	13:00	1.3	SE	20250822	01:00	0.0
---	20250821	13:15	1.3	SE	20250822	01:15	0.0
---	20250821	13:30	1.3	SE	20250822	01:30	0.0
---	20250821	13:45	0.9	SE	20250822	01:45	0.0
SE	20250821	14:00	1.3	SE	20250822	02:00	0.0
SE	20250821	14:15	1.3	SE	20250822	02:15	0.0
NE	20250821	14:30	1.3	SE	20250822	02:30	0.0
NE	20250821	14:45	0.9	SE	20250822	02:45	0.0
E	20250821	15:00	0.9	SE	20250822	03:00	0.0
---	20250821	15:15	1.3	SE	20250822	03:15	0.0
ESE	20250821	15:30	0.4	ESE	20250822	03:30	0.0
ESE	20250821	15:45	0.4	SE	20250822	03:45	0.4
ESE	20250821	16:00	0.9	SE	20250822	04:00	0.0
ESE	20250821	16:15	0.9	SE	20250822	04:15	0.4
ESE	20250821	16:30	1.3	SE	20250822	04:30	0.4
---	20250821	16:45	1.3	SE	20250822	04:45	0.0
ESE	20250821	17:00	1.3	SE	20250822	05:00	0.0
ESE	20250821	17:15	0.9	SE	20250822	05:15	0.0
ESE	20250821	17:30	0.4	SSE	20250822	05:30	0.0
ESE	20250821	17:45	0.9	SE	20250822	05:45	0.0
ESE	20250821	18:00	0.9	SE	20250822	06:00	0.0
ESE	20250821	18:15	1.3	SE	20250822	06:15	0.0
ESE	20250821	18:30	1.3	SE	20250822	06:30	0.0
ESE	20250821	18:45	0.4	SE	20250822	06:45	0.0
E	20250821	19:00	0.4	SE	20250822	07:00	0.0
E	20250821	19:15	0.4	SE	20250822	07:15	0.4
E	20250821	19:30	0.4	SE	20250822	07:30	0.0
E	20250821	19:45	0	SE	20250822	07:45	0.0
E	20250821	20:00	0	---	20250822	08:00	0.0
E	20250821	20:15	0	---	20250822	08:15	0.0
WSW	20250821	20:30	0	---	20250822	08:30	0.0
SE	20250821	20:45	0	---	20250822	08:45	0.0
SSE	20250821	21:00	0	SE	20250822	09:00	0.0
SSE	20250821	21:15	0	S	20250822	09:15	0.0
SSE	20250821	21:30	0	---	20250822	09:30	0.0
SSE	20250821	21:45	0	---	20250822	09:45	0.0
S	20250821	22:00	0	---	20250822	10:00	0.0
WSW	20250821	22:15	0	---	20250822	10:15	0.0
SE	20250821	22:30	0	---	20250822	10:30	0.4
WSW	20250821	22:45	0	---	20250822	10:45	0.4
SE	20250821	23:00	0	---	20250822	11:00	0.0
SE	20250821	23:15	0	S	20250822	11:15	0.4
SE	20250821	23:30	0	S	20250822	11:30	0.4
SE	20250821	23:45	0	S	20250822	11:45	0.4

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
S	20250822	12:00	0.0	WSW	20250823	00:00	0.0
S	20250822	12:15	0.4	SW	20250823	00:15	0.0
S	20250822	12:30	0.4	WSW	20250823	00:30	0.0
---	20250822	12:45	0.9	WSW	20250823	00:45	0.0
---	20250822	13:00	0.0	WSW	20250823	01:00	0.0
---	20250822	13:15	0.0	WSW	20250823	01:15	0.0
---	20250822	13:30	0.4	NNW	20250823	01:30	0.0
---	20250822	13:45	0.0	WNW	20250823	01:45	0.0
---	20250822	14:00	0.4	N	20250823	02:00	0.0
---	20250822	14:15	0.4	N	20250823	02:15	0.0
---	20250822	14:30	0.4	N	20250823	02:30	0.0
---	20250822	14:45	0.4	N	20250823	02:45	0.0
S	20250822	15:00	0.4	WSW	20250823	03:00	0.0
S	20250822	15:15	0.9	WSW	20250823	03:15	0.0
S	20250822	15:30	0.4	WSW	20250823	03:30	0.0
S	20250822	15:45	0.9	WSW	20250823	03:45	0.0
S	20250822	16:00	0.4	WSW	20250823	04:00	0.0
S	20250822	16:15	0.4	WSW	20250823	04:15	0.0
S	20250822	16:30	0.4	WSW	20250823	04:30	0.0
S	20250822	16:45	0.0	WSW	20250823	04:45	0.0
S	20250822	17:00	0.0	WSW	20250823	05:00	0.0
---	20250822	17:15	0.0	WSW	20250823	05:15	0.0
S	20250822	17:30	0.0	SE	20250823	05:30	0.0
---	20250822	17:45	0.0	SE	20250823	05:45	0.0
---	20250822	18:00	0	SE	20250823	06:00	0.0
S	20250822	18:15	0.4	SE	20250823	06:15	0.0
S	20250822	18:30	0.4	SE	20250823	06:30	0.0
S	20250822	18:45	0.4	SE	20250823	06:45	0.4
S	20250822	19:00	0	SE	20250823	07:00	0.9
S	20250822	19:15	0	---	20250823	07:15	0.4
S	20250822	19:30	0	---	20250823	07:30	0.0
---	20250822	19:45	0	---	20250823	07:45	0.0
---	20250822	20:00	0	---	20250823	08:00	0.0
---	20250822	20:15	0	---	20250823	08:15	0.0
---	20250822	20:30	0	---	20250823	08:30	0.0
---	20250822	20:45	0	SE	20250823	08:45	0.4
---	20250822	21:00	0.9	SE	20250823	09:00	0.9
---	20250822	21:15	1.3	SE	20250823	09:15	0.4
---	20250822	21:30	2.2	SE	20250823	09:30	0.4
---	20250822	21:45	0.9	SE	20250823	09:45	0.9
NNW	20250822	22:00	0	SW	20250823	10:00	0.9
WSW	20250822	22:15	0	SW	20250823	10:15	1.3
WSW	20250822	22:30	0	SW	20250823	10:30	1.8
NNW	20250822	22:45	0	---	20250823	10:45	1.3
NNW	20250822	23:00	0	---	20250823	11:00	1.3
WSW	20250822	23:15	0	SW	20250823	11:15	1.3
WSW	20250822	23:30	0	SW	20250823	11:30	2.2
SE	20250822	23:45	0	SW	20250823	11:45	1.3

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
---	20250823	12:00	1.8	SE	20250824	00:00	2.7
SW	20250823	12:15	2.7	SE	20250824	00:15	1.8
---	20250823	12:30	1.8	SE	20250824	00:30	0.9
---	20250823	12:45	2.2	SE	20250824	00:45	1.3
---	20250823	13:00	2.2	SE	20250824	01:00	0.4
---	20250823	13:15	2.2	SE	20250824	01:15	1.8
---	20250823	13:30	1.8	SE	20250824	01:30	1.8
---	20250823	13:45	1.8	SE	20250824	01:45	0.9
---	20250823	14:00	1.8	SE	20250824	02:00	0.9
---	20250823	14:15	2.7	SE	20250824	02:15	1.3
---	20250823	14:30	3.1	SE	20250824	02:30	1.3
---	20250823	14:45	2.7	SE	20250824	02:45	0.9
---	20250823	15:00	2.7	SE	20250824	03:00	1.3
---	20250823	15:15	2.2	SE	20250824	03:15	1.3
---	20250823	15:30	3.1	SE	20250824	03:30	1.8
---	20250823	15:45	2.2	SE	20250824	03:45	1.8
---	20250823	16:00	3.1	SE	20250824	04:00	1.8
---	20250823	16:15	3.1	SE	20250824	04:15	1.3
---	20250823	16:30	1.8	SE	20250824	04:30	0.9
NNE	20250823	16:45	2.7	SE	20250824	04:45	1.3
NNE	20250823	17:00	2.7	SE	20250824	05:00	1.8
---	20250823	17:15	2.2	SE	20250824	05:15	1.8
---	20250823	17:30	1.8	SE	20250824	05:30	1.3
---	20250823	17:45	1.8	SE	20250824	05:45	1.3
ESE	20250823	18:00	1.8	SE	20250824	06:00	1.3
ESE	20250823	18:15	1.3	SE	20250824	06:15	1.8
ESE	20250823	18:30	1.8	SE	20250824	06:30	1.8
ESE	20250823	18:45	2.2	SE	20250824	06:45	1.8
SE	20250823	19:00	1.3	ESE	20250824	07:00	1.8
SE	20250823	19:15	1.8	SE	20250824	07:15	1.8
N	20250823	19:30	2.2	SE	20250824	07:30	1.3
---	20250823	19:45	2.7	SE	20250824	07:45	1.8
---	20250823	20:00	1.3	SE	20250824	08:00	0.9
---	20250823	20:15	1.8	SSE	20250824	08:15	0.9
---	20250823	20:30	2.7	SE	20250824	08:30	1.8
S	20250823	20:45	2.7	SE	20250824	08:45	1.8
SW	20250823	21:00	3.1	SE	20250824	09:00	1.3
NNW	20250823	21:15	3.1	SE	20250824	09:15	0.9
NNW	20250823	21:30	2.7	SE	20250824	09:30	1.8
E	20250823	21:45	2.7	SE	20250824	09:45	1.8
SE	20250823	22:00	1.8	SE	20250824	10:00	1.3
SE	20250823	22:15	2.2	SE	20250824	10:15	1.8
SSE	20250823	22:30	2.2	SE	20250824	10:30	1.8
SE	20250823	22:45	1.8	SE	20250824	10:45	2.2
NNW	20250823	23:00	1.8	SE	20250824	11:00	2.7
SE	20250823	23:15	3.1	SE	20250824	11:15	2.7
SE	20250823	23:30	3.1	SE	20250824	11:30	1.3
SE	20250823	23:45	1.8	SE	20250824	11:45	1.3

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250824	12:00	1.3	SSE	20250825	00:00	1.3
SE	20250824	12:15	1.3	ESE	20250825	00:15	1.8
SE	20250824	12:30	2.2	SE	20250825	00:30	2.2
SE	20250824	12:45	2.2	SE	20250825	00:45	1.8
ESE	20250824	13:00	1.8	SE	20250825	01:00	2.7
SE	20250824	13:15	2.7	SE	20250825	01:15	2.2
SE	20250824	13:30	2.2	SE	20250825	01:30	3.1
SE	20250824	13:45	1.8	SE	20250825	01:45	2.2
SE	20250824	14:00	2.2	SE	20250825	02:00	2.2
SE	20250824	14:15	2.7	SE	20250825	02:15	2.2
SE	20250824	14:30	2.7	SE	20250825	02:30	1.8
ESE	20250824	14:45	2.7	SE	20250825	02:45	2.2
SE	20250824	15:00	2.7	SE	20250825	03:00	1.3
SE	20250824	15:15	2.2	SE	20250825	03:15	2.2
SE	20250824	15:30	2.2	SE	20250825	03:30	2.2
SE	20250824	15:45	2.2	SE	20250825	03:45	1.3
SE	20250824	16:00	2.2	SE	20250825	04:00	1.8
ESE	20250824	16:15	1.8	SE	20250825	04:15	1.3
ESE	20250824	16:30	2.7	SE	20250825	04:30	0.9
SE	20250824	16:45	2.2	SE	20250825	04:45	1.3
SE	20250824	17:00	2.7	SE	20250825	05:00	1.3
SE	20250824	17:15	3.1	SE	20250825	05:15	1.3
SE	20250824	17:30	2.7	SE	20250825	05:30	1.8
SE	20250824	17:45	2.2	SE	20250825	05:45	1.8
SE	20250824	18:00	2.2	SE	20250825	06:00	0.9
SE	20250824	18:15	2.2	SE	20250825	06:15	0.9
SE	20250824	18:30	2.2	SE	20250825	06:30	0.9
SE	20250824	18:45	2.2	SE	20250825	06:45	0.9
SE	20250824	19:00	2.2	SE	20250825	07:00	1.3
SE	20250824	19:15	1.8	SE	20250825	07:15	1.8
SE	20250824	19:30	1.3	SE	20250825	07:30	1.3
SE	20250824	19:45	2.2	SE	20250825	07:45	2.2
SE	20250824	20:00	2.2	SE	20250825	08:00	1.3
SE	20250824	20:15	2.2	SE	20250825	08:15	1.8
ESE	20250824	20:30	2.2	SE	20250825	08:30	1.3
SE	20250824	20:45	2.2	SE	20250825	08:45	2.2
SE	20250824	21:00	1.8	SE	20250825	09:00	1.3
SE	20250824	21:15	2.2	SE	20250825	09:15	1.3
SE	20250824	21:30	1.8	SE	20250825	09:30	0.9
SE	20250824	21:45	2.2	SE	20250825	09:45	0.9
SE	20250824	22:00	2.2	SE	20250825	10:00	1.3
SE	20250824	22:15	1.8	SE	20250825	10:15	1.3
SE	20250824	22:30	1.3	SE	20250825	10:30	1.3
SE	20250824	22:45	0.9	SE	20250825	10:45	1.3
SE	20250824	23:00	0.9	SE	20250825	11:00	2.2
SE	20250824	23:15	1.8	ESE	20250825	11:15	1.3
ENE	20250824	23:30	1.8	SE	20250825	11:30	0.9
SSE	20250824	23:45	1.3	SE	20250825	11:45	1.3

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250825	12:00	1.8	SE	20250826	00:00	0.9
SE	20250825	12:15	1.3	SE	20250826	00:15	0.4
SE	20250825	12:30	1.3	SE	20250826	00:30	0.0
SE	20250825	12:45	1.3	SE	20250826	00:45	0.0
SE	20250825	13:00	1.3	SE	20250826	01:00	0.0
SE	20250825	13:15	1.3	SE	20250826	01:15	0.4
SE	20250825	13:30	1.3	SE	20250826	01:30	0.4
SE	20250825	13:45	1.3	SE	20250826	01:45	0.0
SE	20250825	14:00	1.3	SE	20250826	02:00	0.0
SE	20250825	14:15	1.3	SE	20250826	02:15	0.0
SE	20250825	14:30	2.2	SE	20250826	02:30	0.0
SE	20250825	14:45	1.8	SE	20250826	02:45	0.0
SE	20250825	15:00	1.8	SE	20250826	03:00	0.0
SE	20250825	15:15	2.2	SE	20250826	03:15	0.0
SE	20250825	15:30	2.2	SE	20250826	03:30	0.0
SE	20250825	15:45	1.3	SE	20250826	03:45	0.4
SE	20250825	16:00	1.3	SE	20250826	04:00	0.4
SE	20250825	16:15	1.3	SE	20250826	04:15	0.0
SE	20250825	16:30	1.3	SE	20250826	04:30	0.0
SE	20250825	16:45	1.3	SE	20250826	04:45	0.0
SE	20250825	17:00	1.3	SE	20250826	05:00	0.4
SE	20250825	17:15	2.2	SE	20250826	05:15	0.9
SE	20250825	17:30	1.8	SE	20250826	05:30	0.9
SE	20250825	17:45	1.3	SE	20250826	05:45	0.0
SE	20250825	18:00	1.8	SE	20250826	06:00	0.0
E	20250825	18:15	1.8	SE	20250826	06:15	0.0
ESE	20250825	18:30	0.9	SE	20250826	06:30	0.0
SE	20250825	18:45	0.9	SE	20250826	06:45	0.0
SE	20250825	19:00	1.8	SE	20250826	07:00	0.0
SE	20250825	19:15	2.2	SE	20250826	07:15	0.0
SE	20250825	19:30	2.7	SE	20250826	07:30	0.0
SE	20250825	19:45	1.3	SE	20250826	07:45	0.0
SE	20250825	20:00	0.9	SE	20250826	08:00	0.9
SE	20250825	20:15	1.3	SE	20250826	08:15	0.9
SE	20250825	20:30	1.8	SE	20250826	08:30	1.3
SE	20250825	20:45	2.7	SE	20250826	08:45	1.3
SE	20250825	21:00	1.8	SE	20250826	09:00	0.9
SE	20250825	21:15	1.3	SE	20250826	09:15	0.9
ESE	20250825	21:30	0.9	SE	20250826	09:30	1.3
SE	20250825	21:45	0.9	SE	20250826	09:45	0.9
SE	20250825	22:00	0.9	SE	20250826	10:00	1.8
SE	20250825	22:15	0.9	SE	20250826	10:15	1.3
SE	20250825	22:30	1.8	SE	20250826	10:30	0.9
SE	20250825	22:45	1.3	SE	20250826	10:45	0.9
SE	20250825	23:00	0.4	SE	20250826	11:00	0.9
SE	20250825	23:15	0.4	SE	20250826	11:15	1.3
SE	20250825	23:30	0.9	SE	20250826	11:30	0.9
SE	20250825	23:45	0.4	E	20250826	11:45	1.3

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
E	20250826	12:00	0.9	SE	20250827	00:00	0.9
NE	20250826	12:15	1.3	SE	20250827	00:15	0.4
NE	20250826	12:30	1.3	SE	20250827	00:30	0.9
NE	20250826	12:45	1.8	SE	20250827	00:45	1.3
NE	20250826	13:00	0.9	SSE	20250827	01:00	1.3
NE	20250826	13:15	1.3	SE	20250827	01:15	1.3
NNE	20250826	13:30	1.3	WNW	20250827	01:30	0.9
NNE	20250826	13:45	1.3	SE	20250827	01:45	0.9
NNE	20250826	14:00	1.3	ESE	20250827	02:00	0.9
NNE	20250826	14:15	1.8	SE	20250827	02:15	0.9
---	20250826	14:30	0.9	S	20250827	02:30	0.4
---	20250826	14:45	0.9	SE	20250827	02:45	0.9
---	20250826	15:00	1.8	SE	20250827	03:00	0.4
---	20250826	15:15	0.9	SE	20250827	03:15	0.4
---	20250826	15:30	0.9	SSE	20250827	03:30	0.4
E	20250826	15:45	1.3	SE	20250827	03:45	0.0
E	20250826	16:00	1.3	SE	20250827	04:00	0.0
---	20250826	16:15	1.8	SE	20250827	04:15	0.0
---	20250826	16:30	1.8	SE	20250827	04:30	0.0
---	20250826	16:45	1.3	SE	20250827	04:45	0.0
SSE	20250826	17:00	1.3	SE	20250827	05:00	0.0
SSE	20250826	17:15	1.3	SE	20250827	05:15	0.0
SSE	20250826	17:30	0.4	SE	20250827	05:30	0.0
---	20250826	17:45	0.9	ESE	20250827	05:45	0.0
SSE	20250826	18:00	0.9	SE	20250827	06:00	0.4
---	20250826	18:15	0.4	SE	20250827	06:15	0.0
---	20250826	18:30	0.4	SE	20250827	06:30	0.0
---	20250826	18:45	0	---	20250827	06:45	0.0
---	20250826	19:00	0	---	20250827	07:00	0.4
---	20250826	19:15	0	SE	20250827	07:15	0.0
---	20250826	19:30	0.4	SE	20250827	07:30	0.0
SSE	20250826	19:45	0.4	SE	20250827	07:45	0.0
NNE	20250826	20:00	0	SE	20250827	08:00	0.9
N	20250826	20:15	0	---	20250827	08:15	0.4
NNW	20250826	20:30	0.4	SE	20250827	08:30	0.4
N	20250826	20:45	0.9	SE	20250827	08:45	0.4
N	20250826	21:00	1.3	SE	20250827	09:00	0.9
N	20250826	21:15	1.8	SE	20250827	09:15	0.9
N	20250826	21:30	1.8	SE	20250827	09:30	1.3
ESE	20250826	21:45	0	WSW	20250827	09:45	0.9
NNW	20250826	22:00	1.8	SE	20250827	10:00	1.3
N	20250826	22:15	2.7	SE	20250827	10:15	0.9
N	20250826	22:30	2.2	SE	20250827	10:30	0.9
SE	20250826	22:45	1.8	SE	20250827	10:45	0.9
N	20250826	23:00	1.8	SE	20250827	11:00	1.3
SE	20250826	23:15	2.2	SE	20250827	11:15	0.9
SE	20250826	23:30	2.2	SE	20250827	11:30	1.8
SE	20250826	23:45	0.9	SE	20250827	11:45	1.8

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250827	12:00	1.8	SE	20250828	00:00	0.0
SE	20250827	12:15	1.3	NNW	20250828	00:15	0.4
SE	20250827	12:30	1.8	SE	20250828	00:30	0.4
SE	20250827	12:45	1.8	SE	20250828	00:45	0.9
SE	20250827	13:00	1.3	SE	20250828	01:00	0.4
SE	20250827	13:15	1.3	SE	20250828	01:15	1.3
SE	20250827	13:30	0.9	ESE	20250828	01:30	0.9
SE	20250827	13:45	0.9	NE	20250828	01:45	0.4
SE	20250827	14:00	0.9	SSE	20250828	02:00	0.9
ESE	20250827	14:15	0.9	E	20250828	02:15	2.7
SE	20250827	14:30	0.9	SE	20250828	02:30	0.4
SE	20250827	14:45	1.3	SE	20250828	02:45	0.0
SSE	20250827	15:00	1.8	SE	20250828	03:00	0.4
SSE	20250827	15:15	1.8	SE	20250828	03:15	0.0
SSE	20250827	15:30	2.7	SE	20250828	03:30	0.4
SSE	20250827	15:45	2.2	SE	20250828	03:45	0.9
SSE	20250827	16:00	1.8	SE	20250828	04:00	0.4
SE	20250827	16:15	1.8	SE	20250828	04:15	0.0
SE	20250827	16:30	1.8	SSE	20250828	04:30	0.0
SE	20250827	16:45	2.2	SE	20250828	04:45	0.0
SE	20250827	17:00	1.8	SE	20250828	05:00	0.0
---	20250827	17:15	1.8	SE	20250828	05:15	0.0
---	20250827	17:30	1.3	SE	20250828	05:30	0.0
SE	20250827	17:45	1.8	SE	20250828	05:45	0.0
SE	20250827	18:00	1.3	SE	20250828	06:00	0.4
---	20250827	18:15	1.3	SE	20250828	06:15	0.0
SE	20250827	18:30	1.3	SE	20250828	06:30	0.0
---	20250827	18:45	0.9	SE	20250828	06:45	0.4
SE	20250827	19:00	0.9	SE	20250828	07:00	0.4
SE	20250827	19:15	0.4	SE	20250828	07:15	0.4
---	20250827	19:30	0.4	SE	20250828	07:30	0.4
E	20250827	19:45	0.9	SE	20250828	07:45	0.4
NNW	20250827	20:00	0.4	SE	20250828	08:00	0.0
N	20250827	20:15	0.4	SE	20250828	08:15	0.0
NNW	20250827	20:30	0.9	SE	20250828	08:30	0.0
SE	20250827	20:45	0.9	SE	20250828	08:45	0.0
E	20250827	21:00	0.4	SE	20250828	09:00	0.4
NW	20250827	21:15	0	SE	20250828	09:15	0.4
SE	20250827	21:30	0.4	SE	20250828	09:30	0.4
N	20250827	21:45	1.3	SE	20250828	09:45	0.4
NNW	20250827	22:00	0.9	SE	20250828	10:00	0.4
NNE	20250827	22:15	0	SE	20250828	10:15	0.9
NNW	20250827	22:30	0	NE	20250828	10:30	0.4
NNE	20250827	22:45	0	WNW	20250828	10:45	0.4
SE	20250827	23:00	0	SSE	20250828	11:00	0.4
SE	20250827	23:15	0.4	SE	20250828	11:15	0.4
SE	20250827	23:30	1.3	SE	20250828	11:30	0.4
SE	20250827	23:45	0.4	SE	20250828	11:45	0.4

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
ENE	20250828	12:00	0.4	NNW	20250829	00:00	1.3
SE	20250828	12:15	0.4	NNW	20250829	00:15	1.3
SE	20250828	12:30	0.4	NNW	20250829	00:30	1.3
SE	20250828	12:45	0.4	SE	20250829	00:45	0.9
SE	20250828	13:00	0.9	SSE	20250829	01:00	1.3
SE	20250828	13:15	0.9	SE	20250829	01:15	1.3
SE	20250828	13:30	1.3	ESE	20250829	01:30	0.9
S	20250828	13:45	0.9	SE	20250829	01:45	0.9
SE	20250828	14:00	0.9	SE	20250829	02:00	0.9
SE	20250828	14:15	0.4	ESE	20250829	02:15	0.9
SSE	20250828	14:30	0.4	N	20250829	02:30	0.9
S	20250828	14:45	0.4	NNE	20250829	02:45	0.9
SE	20250828	15:00	0.9	N	20250829	03:00	0.4
---	20250828	15:15	0.9	N	20250829	03:15	0.9
SE	20250828	15:30	0.9	E	20250829	03:30	0.9
SE	20250828	15:45	0.4	ENE	20250829	03:45	0.9
SSE	20250828	16:00	0.4	NNW	20250829	04:00	0.4
---	20250828	16:15	0.4	SE	20250829	04:15	0.9
---	20250828	16:30	0.4	N	20250829	04:30	1.3
---	20250828	16:45	0.9	SE	20250829	04:45	1.3
---	20250828	17:00	0.9	E	20250829	05:00	1.3
---	20250828	17:15	0.9	SE	20250829	05:15	1.3
---	20250828	17:30	0.4	ESE	20250829	05:30	0.9
---	20250828	17:45	0.4	ESE	20250829	05:45	0.9
SE	20250828	18:00	0.4	SE	20250829	06:00	1.3
SE	20250828	18:15	0.9	SE	20250829	06:15	1.3
---	20250828	18:30	1.3	ESE	20250829	06:30	1.8
SE	20250828	18:45	1.3	SE	20250829	06:45	1.8
SE	20250828	19:00	1.8	SE	20250829	07:00	1.8
SE	20250828	19:15	2.2	SE	20250829	07:15	1.8
SE	20250828	19:30	2.7	SE	20250829	07:30	1.8
SE	20250828	19:45	2.2	SE	20250829	07:45	1.8
S	20250828	20:00	2.2	SE	20250829	08:00	1.8
S	20250828	20:15	1.8	SE	20250829	08:15	0.9
---	20250828	20:30	1.3	SE	20250829	08:30	1.3
---	20250828	20:45	1.8	SE	20250829	08:45	1.8
SE	20250828	21:00	1.8	SE	20250829	09:00	2.7
N	20250828	21:15	0.9	SE	20250829	09:15	1.8
NNW	20250828	21:30	0.4	SE	20250829	09:30	3.1
N	20250828	21:45	1.3	SE	20250829	09:45	2.2
N	20250828	22:00	1.3	SE	20250829	10:00	2.2
N	20250828	22:15	1.8	SE	20250829	10:15	2.2
NNW	20250828	22:30	1.8	SE	20250829	10:30	2.7
NNE	20250828	22:45	1.3	SE	20250829	10:45	1.8
E	20250828	23:00	1.3	SE	20250829	11:00	2.2
SSW	20250828	23:15	1.3	E	20250829	11:15	1.8
N	20250828	23:30	1.3	SE	20250829	11:30	1.3
N	20250828	23:45	1.3	SE	20250829	11:45	2.2

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250829	12:00	2.2	SE	20250830	00:00	1.8
SE	20250829	12:15	2.7	SE	20250830	00:15	1.8
SE	20250829	12:30	2.2	SE	20250830	00:30	1.3
SE	20250829	12:45	2.7	SE	20250830	00:45	1.3
SE	20250829	13:00	3.6	SE	20250830	01:00	2.7
SE	20250829	13:15	2.7	SE	20250830	01:15	2.2
SE	20250829	13:30	2.2	SE	20250830	01:30	1.8
SE	20250829	13:45	2.2	SE	20250830	01:45	1.8
SSE	20250829	14:00	2.7	SE	20250830	02:00	2.2
ESE	20250829	14:15	1.3	SE	20250830	02:15	2.7
SE	20250829	14:30	1.8	SE	20250830	02:30	2.7
SE	20250829	14:45	1.8	SE	20250830	02:45	2.7
ESE	20250829	15:00	1.8	SE	20250830	03:00	2.2
SE	20250829	15:15	1.8	SE	20250830	03:15	2.2
SE	20250829	15:30	2.7	SE	20250830	03:30	1.3
ESE	20250829	15:45	2.2	SE	20250830	03:45	0.9
SE	20250829	16:00	1.8	SE	20250830	04:00	1.3
SE	20250829	16:15	2.7	SE	20250830	04:15	1.3
SE	20250829	16:30	2.7	SE	20250830	04:30	1.8
SE	20250829	16:45	2.2	SE	20250830	04:45	1.3
ESE	20250829	17:00	2.7	SE	20250830	05:00	1.8
ESE	20250829	17:15	2.7	SE	20250830	05:15	2.7
SE	20250829	17:30	4.0	SE	20250830	05:30	1.8
SE	20250829	17:45	3.1	SE	20250830	05:45	2.2
SSE	20250829	18:00	2.7	SE	20250830	06:00	1.8
SE	20250829	18:15	2.7	SE	20250830	06:15	1.3
SE	20250829	18:30	2.7	SE	20250830	06:30	1.8
SE	20250829	18:45	3.6	SE	20250830	06:45	1.3
SE	20250829	19:00	3.1	SE	20250830	07:00	0.4
SE	20250829	19:15	3.1	SE	20250830	07:15	1.3
SE	20250829	19:30	2.7	SE	20250830	07:30	1.8
SE	20250829	19:45	2.7	SE	20250830	07:45	1.8
SE	20250829	20:00	2.2	SE	20250830	08:00	1.8
E	20250829	20:15	2.7	SE	20250830	08:15	1.8
SE	20250829	20:30	2.7	SE	20250830	08:30	1.8
SE	20250829	20:45	2.7	SE	20250830	08:45	1.8
SE	20250829	21:00	1.8	SE	20250830	09:00	1.8
ESE	20250829	21:15	1.8	SE	20250830	09:15	1.8
SE	20250829	21:30	2.2	SE	20250830	09:30	1.8
SE	20250829	21:45	2.2	SE	20250830	09:45	1.8
SE	20250829	22:00	2.2	SE	20250830	10:00	1.3
SE	20250829	22:15	2.7	SE	20250830	10:15	1.8
SE	20250829	22:30	2.7	SE	20250830	10:30	1.3
SE	20250829	22:45	1.8	SE	20250830	10:45	1.3
SE	20250829	23:00	0.9	ESE	20250830	11:00	1.8
SE	20250829	23:15	0.9	SE	20250830	11:15	1.8
SSE	20250829	23:30	1.8	SE	20250830	11:30	2.2
SE	20250829	23:45	1.8	SE	20250830	11:45	1.8

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)
SE	20250830	12:00	2.2	SE	20250831	00:00	0.4
SE	20250830	12:15	2.7	SE	20250831	00:15	0.9
SE	20250830	12:30	2.2	S	20250831	00:30	0.9
SE	20250830	12:45	2.2	SE	20250831	00:45	1.3
SSE	20250830	13:00	1.8	ESE	20250831	01:00	1.3
SE	20250830	13:15	2.2	SE	20250831	01:15	1.8
SE	20250830	13:30	2.7	SSE	20250831	01:30	1.3
SE	20250830	13:45	2.2	SE	20250831	01:45	1.3
SE	20250830	14:00	2.2	SE	20250831	02:00	1.8
SSE	20250830	14:15	2.2	SE	20250831	02:15	1.8
E	20250830	14:30	3.1	SE	20250831	02:30	1.8
SE	20250830	14:45	2.7	SE	20250831	02:45	2.2
SE	20250830	15:00	1.3	SSE	20250831	03:00	1.8
SE	20250830	15:15	0.9	E	20250831	03:15	1.8
NNE	20250830	15:30	1.8	SE	20250831	03:30	1.3
SE	20250830	15:45	2.2	SE	20250831	03:45	0.9
SE	20250830	16:00	2.7	SE	20250831	04:00	1.3
ESE	20250830	16:15	2.2	SE	20250831	04:15	0.9
SSE	20250830	16:30	3.1	SSE	20250831	04:30	0.4
ESE	20250830	16:45	2.7	SE	20250831	04:45	0.4
SSE	20250830	17:00	1.8	ESE	20250831	05:00	0.4
SE	20250830	17:15	1.3	SSE	20250831	05:15	0.0
SSE	20250830	17:30	1.3	SSE	20250831	05:30	0.4
SE	20250830	17:45	1.3	SE	20250831	05:45	0.0
SE	20250830	18:00	1.8	SE	20250831	06:00	0.0
ESE	20250830	18:15	1.8	S	20250831	06:15	0.0
SE	20250830	18:30	1.3	SE	20250831	06:30	0.0
SE	20250830	18:45	0.9	SE	20250831	06:45	0.0
E	20250830	19:00	0.9	SE	20250831	07:00	0.0
SSE	20250830	19:15	0.9	SE	20250831	07:15	0.0
SE	20250830	19:30	0.4	SE	20250831	07:30	0.0
SSE	20250830	19:45	1.3	SSE	20250831	07:45	0.0
ESE	20250830	20:00	0.9	SE	20250831	08:00	0.0
SE	20250830	20:15	0.9	SE	20250831	08:15	0.4
SSE	20250830	20:30	2.2	SSE	20250831	08:30	0.4
SE	20250830	20:45	1.8	SE	20250831	08:45	0.4
SE	20250830	21:00	2.2	SE	20250831	09:00	0.9
ENE	20250830	21:15	1.3	SSE	20250831	09:15	0.4
SE	20250830	21:30	0.4	SE	20250831	09:30	0.4
SE	20250830	21:45	0.9	ESE	20250831	09:45	0.9
SE	20250830	22:00	1.8	SE	20250831	10:00	0.9
SE	20250830	22:15	2.2	SE	20250831	10:15	0.9
SE	20250830	22:30	1.8	SE	20250831	10:30	0.4
SSE	20250830	22:45	1.8	SE	20250831	10:45	0.9
SE	20250830	23:00	1.3	SE	20250831	11:00	1.3
ESE	20250830	23:15	0.9	SE	20250831	11:15	1.3
SE	20250830	23:30	0.9	SE	20250831	11:30	1.8
SSE	20250830	23:45	0.9	SE	20250831	11:45	2.2

Wind Direction	Date (YYYYMMDD)	Time (HH:MM)	Wind Speed (m/s)	Wind Direction
E	20250831	12:00	1.3	SE
ESE	20250831	12:15	0.9	NNE
SE	20250831	12:30	1.3	SE
SE	20250831	12:45	0.9	SE
SE	20250831	13:00	1.8	SE
SE	20250831	13:15	1.3	SE
SE	20250831	13:30	1.3	SE
SE	20250831	13:45	0.9	SE
SE	20250831	14:00	1.3	SE
SE	20250831	14:15	1.8	SE
SE	20250831	14:30	1.8	SE
SE	20250831	14:45	1.8	SE
SE	20250831	15:00	1.3	SE
SE	20250831	15:15	1.8	SE
SE	20250831	15:30	2.2	SE
SE	20250831	15:45	2.2	SE
SE	20250831	16:00	1.8	SE
SE	20250831	16:15	1.8	SE
SE	20250831	16:30	2.2	SE
ESE	20250831	16:45	2.2	SE
SE	20250831	17:00	2.2	SE
SE	20250831	17:15	2.2	SE
SE	20250831	17:30	2.2	SE
SE	20250831	17:45	2.2	SE
---	20250831	18:00	1.8	SE
SE	20250831	18:15	1.8	SE
SE	20250831	18:30	1.8	SE
---	20250831	18:45	1.3	SE
NE	20250831	19:00	1.3	SE
---	20250831	19:15	1.3	SE
---	20250831	19:30	1.3	SE
NE	20250831	19:45	0.9	SE
NE	20250831	20:00	0.9	SE
E	20250831	20:15	0.9	SE
ENE	20250831	20:30	0.9	SE
SSE	20250831	20:45	0.4	SE
SE	20250831	21:00	0.9	SE
N	20250831	21:15	0	SE
NNE	20250831	21:30	0	---
N	20250831	21:45	0	---
SE	20250831	22:00	0	SE
SE	20250831	22:15	0.4	SE
ESE	20250831	22:30	0.9	SE
SE	20250831	22:45	0.9	SE
SE	20250831	23:00	0.9	SE
SE	20250831	23:15	0.9	SE
SE	20250831	23:30	0.4	SE
SE	20250831	23:45	0.9	SE

Appendix J 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 (to Y-Park)	Chemical Waste	General Refuse	Others, e.g. non-recyclable yard waste
		(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in '000L)	(in tonne)	(in tonne)
Jan-25	168,646.98	0	48361.85	119,302	0	849.35	0	0	0	0	0	57.76	76.02
Feb-25	289,409.40	0	120705.57	168,201	0	115.28	0	0	0	0	0	241.88	145.67
Mar-25	206,271.43	0	52172.73	153,388	0	418.2	0	0	0	0	0	156.26	136.24
Apr-25	192,901.99	0	62122.45	129,495	0	1121.65	0	0	0	0	0	118.11	45.03
May-25	214,400.19	0	79056.7	134,473	0	648.15	0	0	0	0	0	222.34	0
Jun-25	107,274.99	0	43268.36	63,736	0	18.75	0	0	0	0	0	185.82	66.06
Jul-25	171,463.08	0	63631.4	106,019	0	948.55	0	0	0	0	0	263.36	600.77
Aug-25	139,404.49	0	41337.14	96,756	0	39.03	0	0	0	0	0	1056.28	216.04
Total	1,489,772.55	0.00	510,656.20	971,369.75	0.00	4,158.96	0.00	0.00	0.00	0.00	0.00	2,301.81	1,285.83

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. Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

Appendix K Joint Environmental Site Inspection Records

Follow up action for previous Site Inspection:

1. 14 Jul 2025 Observation 1 – The standing water at drip tray under the generator of temporary site office was removed by the Contractor.
2. 21 Jul 2025 Observation 1 – Standing water at the U-channel of Portion A was removed by the Contractor.
3. 28 Jul 2025 Observation 1 – Accumulated waste at Portion A was collected by waste collector.
4. 28 Jul 2025 Observation 3 – The cover had been provided for enclosed rubbish bin of temporary site office.

Observation(s):

1. Overloading of waste skip was found at Portion C.

Reminder(s):

1. The Contractor was reminded that the control measures of surface runoff should be implemented in accordance with Appendix A2 of ProPECC PN 1/94.
 - I. Precautions to be taken at any time of year when rainstorms are likely
 - a. Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly.
 - b. Temporarily exposed slope surfaces should be covered e.g. by tarpaulin.
 - c. Temporary access roads should be protected by crushed stone or gravel.
 - d. Intercepting channels should be provided (e.g. along the crest/edge of excavation) to prevent storm runoff from washing across exposed soil surfaces.
 - e. Trenches should be dug and backfilled in short sections. Measures should be taken to minimize the ingress of rainwater into trenches.
 - II. Actions to be taken when a rainstorm is imminent or forecast
 - a. Silt removal facilities, channels and manholes should be checked to ensure that they can function properly.
 - b. Open stockpiles of construction materials (e.g. aggregates, sand and fill materials) on site should be covered with tarpaulin or similar fabric.
 - c. All temporary covers to slopes and stockpiles should be secured.
 - III. Actions to be taken during or after rainstorms
 - a. Silt removal facilities, channels and manholes should be checked and maintained to ensure satisfactory working conditions. Attention should be given to safety when carrying out this work.

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

1. The Contractor was advised to increase the frequency of waste collection.

	Environmental Team's Representative:	Independent Environmental Checker's Representative:	Contractor's Representative:	Employee's Representative
Signature:		/		
Name:	Jason Man	/	Matt Choy/Kristy Wong	Simon Lee/ Kenneth Lam
Date:	4 August 2025	/	4 August 2025	4 August 2025

Follow up action for previous Site Inspection:

Nil

Observation(s):

1. Unpaved access road was dry and dust dispersion was found at Portion E4.
2. Damage of bunds was found at Portion B1-1.

Reminder(s):

1. The Contractor was reminded that the control measures of surface runoff should be implemented in accordance with Appendix A2 of ProPECC PN 1/94.
 - I. Precautions to be taken at any time of year when rainstorms are likely
 - a. Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly.
 - b. Temporarily exposed slope surfaces should be covered e.g. by tarpaulin.
 - c. Temporary access roads should be protected by crushed stone or gravel.
 - d. Intercepting channels should be provided (e.g. along the crest/edge of excavation) to prevent storm runoff from washing across exposed soil surfaces.
 - e. Trenches should be dug and backfilled in short sections. Measures should be taken to minimize the ingress of rainwater into trenches.
 - II. Actions to be taken when a rainstorm is imminent or forecast
 - a. Silt removal facilities, channels and manholes should be checked to ensure that they can function properly.
 - b. Open stockpiles of construction materials (e.g. aggregates, sand and fill materials) on site should be covered with tarpaulin or similar fabric.
 - c. All temporary covers to slopes and stockpiles should be secured.
 - III. Actions to be taken during or after rainstorms
 - a. Silt removal facilities, channels and manholes should be checked and maintained to ensure satisfactory working conditions. Attention should be given to safety when carrying out this work.

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

1. The Contractor was recommended to increase the frequency of watering at the unpaved access road.
2. The Contractor was advised to repair the bunds at Portion B1-1.

	Environmental Team's Representative:	Independent Environmental Checker's Representative:	Contractor's Representative:	Employee's Representative
Signature:		/		
Name:	Jason Man	/	Matt Choy/Kristy Wong	Simon Lee/Kenneth Lam
Date:	11 August 2025	/	11 August 2025	11 August 2025

Follow up action for previous Site Inspection:

1. 30 December 2024 Observation 3 – The site condition was changed under the site inspection, the related item closes.
2. 4 Aug 2025 Observation 1 – The accumulated waste at the waste skip of Portion C was collected by approval waste collector.
3. 11 Aug 2025 Observation 2 & 18 Aug 2025 Observation 4 – The damage of bunds at Shek Tsai Ha Road was repaired by the Contractor.

Observation(s):

1. Waste was found at stormwater pond of Portion A and water channel of Portion D.
2. Stormwater pond without proper water channel was found at Portion D.
3. Continuous construction runoff flow was found at the Shek Tsai Ha Road under rain.
4. Damage of bunds was found at Shek Tsai Ha Road.

Reminder(s):

1. The Contractor was reminded that the control measures of surface runoff should be implemented in accordance with Appendix A2 of ProPECC PN 1/94.
 - I. Precautions to be taken at any time of year when rainstorms are likely
 - a. Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly.
 - b. Temporarily exposed slope surfaces should be covered e.g. by tarpaulin.
 - c. Temporary access roads should be protected by crushed stone or gravel.
 - d. Intercepting channels should be provided (e.g. along the crest/edge of excavation) to prevent storm runoff from washing across exposed soil surfaces.
 - e. Trenches should be dug and backfilled in short sections. Measures should be taken to minimize the ingress of rainwater into trenches.
 - II. Actions to be taken when a rainstorm is imminent or forecast
 - a. Silt removal facilities, channels and manholes should be checked to ensure that they can function properly.
 - b. Open stockpiles of construction materials (e.g. aggregates, sand and fill materials) on site should be covered with tarpaulin or similar fabric.
 - c. All temporary covers to slopes and stockpiles should be secured.
 - III. Actions to be taken during or after rainstorms
 - a. Silt removal facilities, channels and manholes should be checked and maintained to ensure satisfactory working conditions. Attention should be given to safety when carrying out this work.

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

1. The Contractor was advised to clean the waste at the stormwater pond of Portion A and water channel of Portion D regularly and the enclosed bin should be provided for collection of waste.
2. The Contractor was recommended that the construction runoff at stormwater pond at Portion D should be directed into the Temporary Surface Water Drainage System, final to silt removal facility for treatment.
3. The Contractor was advised to review the effectiveness of the cut-off drain and water channel along the two sides of the Shek Tsai Ha Road to minimise the construction runoff flow on the road section of Shek Tsai Ha Road) and ensure the construction runoff, which is directed into sedimentation basins for deposition, is finally treated through silt removal facilities by controlling the water flow with proper water channels, earth bunds, or sandbag barriers, etc.
4. The Contractor was recommended to repair the bunds of Shek Tsai Ha Road.

	Environmental Team's Representative:	Independent Environmental Checker's Representative:	Contractor's Representative:	Employee's Representative
Signature:				
Name:	Jason Man	Echo Hung	Matt Choy/ Kristy Wong	Simon Lee/ Kenneth Lam
Date:	18 August 2025	18 August 2025	18 August 2025	18 August 2025

Follow up action for previous Site Inspection:

Nil

Observation(s):

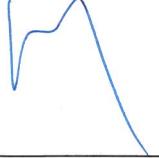
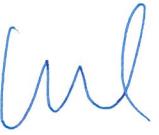
1. Accumulated waste was found outside of the process building of Portion A.
2. Standing water was found in the stormwater pond of Portion A.
3. Accumulated waste, silt and grits was found at the catchpit of Portion E3-1.
4. Shek Tsai Ha Road was dry and dust dispersion was found.

Reminder(s):

1. The Contractor was reminded that the control measures of surface runoff should be implemented in accordance with Appendix A2 of ProPECC PN 1/94.
 - I. Precautions to be taken at any time of year when rainstorms are likely
 - a. Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly.
 - b. Temporarily exposed slope surfaces should be covered e.g. by tarpaulin.
 - c. Temporary access roads should be protected by crushed stone or gravel.
 - d. Intercepting channels should be provided (e.g. along the crest/edge of excavation) to prevent storm runoff from washing across exposed soil surfaces.
 - e. Trenches should be dug and backfilled in short sections. Measures should be taken to minimize the ingress of rainwater into trenches.
 - II. Actions to be taken when a rainstorm is imminent or forecast
 - a. Silt removal facilities, channels and manholes should be checked to ensure that they can function properly.
 - b. Open stockpiles of construction materials (e.g. aggregates, sand and fill materials) on site should be covered with tarpaulin or similar fabric.
 - c. All temporary covers to slopes and stockpiles should be secured.
 - III. Actions to be taken during or after rainstorms
 - a. Silt removal facilities, channels and manholes should be checked and maintained to ensure satisfactory working conditions. Attention should be given to safety when carrying out this work.

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

1. The Contractor was recommended that the accumulated waste outside of process building of Portion A should be removed.
2. The Contractor was advised to direct the standing water at stormwater pond of Portion A into silt removal facility for treatment.
3. The Contractor was recommended that accumulated waste, silt and grits should be cleaned up at the catchpit of Portion E3-1, regularly and before the upcoming rainstorm.
4. The Contractor was advised to enhance the frequency of water spraying at Shek Tsai Ha Road.

	Environmental Team's Representative:	Independent Environmental Checker's Representative:	Contractor's Representative:	Employee's Representative
Signature:		/		
Name:	Jason Man	/	Matt Choy/Kristy Wong	Simon Lee/ Kenneth Lam
Date:	25 August 2025	/	25 August 2025	25 August 2025

Appendix L 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.	Weekly Site Inspection Item	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	B7 – B36	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	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 criteria of EIA Report (Register No. AEIAR-111/2007)	✓
		B4, B15 & B18	• Dust emission from construction vehicle movement is confined within the worksites area.					✓
		B11 – B12	• Watering facilities will be provided at every designated vehicular exit point.					Vehicle washing facilities provided at vehicular exit point in Portion A, B1-2, D, E3-1 & E4
		-	• Good site practice is recommended during construction phase.					✓
Construction Noise								
S4	S4.9	C1	1) Use of good site practices to limit noise emissions by considering the following: (a) Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;	Control construction airborne noise by means of good site practices	Contractor	Entire construction site	Noise Control Ordinance	✓
		C2	(b) 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;					✓
		C3	(c) Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;					✓
		C4	(d) Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;					N/A
		C5	(e) Mobile plant should be sited as far away from NSRs as possible and practicable;					✓
		C6	(f) Material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.					✓
S4	S4.9	C11 C13	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	✓
Construction Runoff								
S5.8.1	S5.2.1	D1	<u>Construction on Site Runoff</u> • (a) 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. (b) 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.	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	(a) ✓ (b) ✓
		D2	(a) The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. (b) Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. (c) The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates.					(a) ✓ (b) ✓ (c) ✓
		D3	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.					✓
		D4	(a) Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). (b) 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. (c) 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.					(a) ✓ (b) ✓ (c) ✓

Remarks:

✓ Compliance of mitigation measure

* Recommendation was made during site audit but improved/rectified by the contractor

Recommendation was made during site audit but not yet improved/rectified by the contractor.

N/A Not Applicable at this stage were conducted in the reporting period.

@ (Which measure) Alternative measure was made by the contractor.

EIA Ref.	EM&A Log Ref	Weekly Site Inspection Item	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	D5	<ul style="list-style-type: none"> (a) The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows, and (b) 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. 	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 DSD Technical Circular TC01/2017 Water Pollution Control Ordinance	(a) ✓ (b) ✓
		D6	<ul style="list-style-type: none"> (a) All drainage facilities and erosion and sediment control structures should be regularly inspected and (b) maintained to ensure proper and efficient operation at all times and particularly following rainstorms. (c) Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. 					(a) ✓, All drainage facilities and erosion and sediment control structure had been inspected by Contractor regularly and especially after rainstorm. (b) ✓, All drainage facilities and erosion and sediment control structure had been maintained by Contractor regularly and especially after rainstorm. (c) ✓, Deposited silt and grit had been removed regularly and especially after rainstorm.
		D7	<ul style="list-style-type: none"> (a) 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. (b) Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. 					(a) ✓ (b) ✓
		D8	<ul style="list-style-type: none"> Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50 m³ 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. 					✓
		D9	<ul style="list-style-type: none"> (a) Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as (b) to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. 					(a) ✓ (b) ✓
		D10	<ul style="list-style-type: none"> 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 silty surface runoff during storm events, especially for areas located near steep slopes. 					✓
		D11	<ul style="list-style-type: none"> (a) 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. (b) An adequately designed and sited wheel washing bay should be provided at every construction site exit. (c) Wash-water should have sand and silt settled out and removed at least on a weekly basis (d) to ensure the continued efficiency of the process. (e) 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 silty water to public roads and drains. 					(a) ✓ (b) ✓ (c) ✓ (d) ✓ (e) ✓
		D12	<ul style="list-style-type: none"> (a) Oil interceptors should be provided in the site drainage system downstream of any oil/fuel pollution sources. (b) 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. (c) A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. 					(a) N/A (b) N/A (c) N/A
		D13	<ul style="list-style-type: none"> 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. 					✓
		D14	<ul style="list-style-type: none"> 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. 					✓
		D15	<ul style="list-style-type: none"> To prevent pollution risks arising from works area (waste reception area) and haul roads, intercepting bund or barrier along the roadside should be constructed. 					✓

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Construction Runoff (Cont'd)								
S5.8.1	S5.2.1	D19	<u>Sewage Effluent from Workforce</u> (a) Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. (b) A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	Control sewage effluent arising from the sanitary facilities provided for the on-site construction workforce	Contractor	On-site sanitary facilities	ProPECC PN 1/94 DSD Technical Circular TC01/2017 Water Pollution Control Ordinance Waste Disposal Ordinance	(a) ✓ (b) ✓
		D20	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.					N/A
		-	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.					✓
S5.8.1	S5.2.1	D21	<u>Accidental Spillage of Chemical</u> • (a) Any service workshop and maintenance facilities shall be located within a bunded area, and sumps and oil interceptors shall be provided. (b) 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	(a) N/A (b) N/A
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.	Erosion control	Contractor	Drainage system	ProPECC PN 1/94 Water Pollution Control Ordinance	✓
		-	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.					To be implemented
		-	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.					To be implemented
		-	f. Sod Establishes permanent turf for immediate erosion protection and stabilizes drainageways.					✓
		-	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.					✓

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

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Erosion Control Measures (Cont'd)								
S5.8.2	S5.2.2		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.	Erosion control	Contractor	Drainage system	ProPECC PN 1/94 Water Pollution Control Ordinance	✓
			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.					✓, Mist Cannons, Water Trucks, Water Sprinklers had been applied for dust control at access roads and exposed area of the project site.
Surface Water Drainage System								
S5.8.2	S5.2.2	D22	• (a) Temporary surface water drainage system will be provided to manage runoff during construction and operation. (b) This system will consist of channels as constructed around the perimeter of the site area. (c) This system will collect surface water from the areas of higher elevations to those of lower elevations and ultimately to the point of discharge. (d) Erosion will therefore be minimised.	Surface Water Management/ Control run off	Contractor	Surface water system Construction	Water Pollution Control Ordinance TM-water	(a) ✓ (b) ✓ (c) ✓ (d) ✓
		D23	• (a) 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. (b) Regular cleaning will be carried out to prevent blockage of the passage of water flow in silt fence.					(a) ✓ (b) ✓, Regular cleaning at silt fence had been conducted by the contractor, especially, after rainstorm.
		-	• 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.					N/A
		-	• 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.					N/A
Waste Management								
S6	WM1	-	<u>C&D Materials</u> <ul style="list-style-type: none">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.	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	✓
		-	<ul style="list-style-type: none">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.					✓
		-	<ul style="list-style-type: none">Appropriate waste management should be implemented in accordance with the ETWB TC(W) No. 19/2005.					✓
		E4	<ul style="list-style-type: none">(a) 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. (b) The contract specifications should specify no excavated materials should be removed from the landfill extension site, but should be fully reused.					(a) ✓ (b) ✓
		E5	<ul style="list-style-type: none">Careful design, planning and good site management to minimise over-ordering and waste materials such as concrete, mortars and cement grouts. (a)(b) The design of formwork should maximise the use of standard wooden panels so that high reuse levels can be achieved. (c) Alternatives such as steel formwork or plastic fencing should be considered to increase the potential for reuse.					(a) ✓ (b) ✓ (c) ✓
		E6	<ul style="list-style-type: none">(a) The Contractor should recycle as much as possible the C&D waste on-site through proper waste segregation on-site. (b) Concrete and masonry should be used as general fill and steel reinforcement bars can be used by scrap steel mills. (c) Proper areas should be designated for waste segregation and storage wherever site conditions permit. (d) Maximise the use of reusable steel formwork to reduce the amount of C&D material.					(a) ✓ (b) ✓ (c) ✓ (d) ✓

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Waste Management (Cont'd)								
S6	WM1	E7	<ul style="list-style-type: none"> (a) 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. (b) 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	(a) ✓ (b) ✓
		E8	<ul style="list-style-type: none"> (a) 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. (b)(c) Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers 					(a) ✓ (b) ✓ (c) ✓
		E9	<ul style="list-style-type: none"> 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. 					✓
		E10	<ul style="list-style-type: none"> 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. 					✓
		E11	<ul style="list-style-type: none"> Training of site personnel for cleanliness, proper waste management procedures including chemical waste handling, and waste reduction, reuse and recycling concepts. 					✓
		E12	<ul style="list-style-type: none"> Regular cleaning and maintenance programme systems, sumps and oil interceptors. 					✓
		E13	<ul style="list-style-type: none"> (a) 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. (b)(c) Proper storage and site practices should be implemented to minimise the potential for damage or contamination of construction materials. 					(a) ✓ (b) ✓ (c) N/A
			<ul style="list-style-type: none"> 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. 					✓
S6	WM2	E16 – E23	<u>Chemical Waste</u> <ul style="list-style-type: none"> 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. 	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	✓
		-	<ul style="list-style-type: none"> 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 					✓
		E17 & E18	<ul style="list-style-type: none"> 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. 					✓
		E19	<ul style="list-style-type: none"> (a) The storage area for chemical wastes should be clearly labelled and used solely for storage of chemical waste, (b) 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, (c)(d) whichever is the greatest, having adequate ventilation, being covered to prevent rainfall entering, and being arranged so that incompatible materials are adequately separated. 					(a) ✓ (b) N/A (c) N/A (d) N/A
		E20	<ul style="list-style-type: none"> Chemical waste should be collected by licensed waste collectors and disposed of at licensed facility, e.g. Chemical Waste Treatment Centre. 					✓

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North East New Territories (NENT) Landfill Extension
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Waste Management (Cont'd)													
S6	WM3	E1	<u>General Refuse</u> <ul style="list-style-type: none"> General refuse generated on-site should be properly stored in enclosed bins or compaction units separately from construction and chemical wastes. 	Minimise generation of general refuse to avoid odour, pest and visual nuisance	Contractor	Entire construction site	Waste Disposal Ordinance	✓					
		E2	<ul style="list-style-type: none"> (a) 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. (b)(c)(d) Regular collection should be arranged by an approved waste collector in purpose-built vehicles that minimise environmental impacts during transportation 					(a) ✓ (b) ✓ (c) ✓ (d) ✓					
		-	<ul style="list-style-type: none"> 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. 					✓					
		-	<ul style="list-style-type: none"> 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. 					✓					
		-	<ul style="list-style-type: none"> Office waste paper should be 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. 					✓					
LFG													
Within NENT Landfill Extension													
S7	LFG1	F1	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	N/A					
	LFG2	F2	Prominent safety warning signs should be erected on-site to alert all personnel and visitors of LFG hazards during excavation works.					✓					
	LFG3	F3	No smoking or burning should be permitted on-site.					✓					
	LFG4	F4	Prominent 'No smoking' and 'No Naked Flames' signs should be erected on-site.					✓					
	LFG5	F5	No worker should be allowed to work alone at any time in excavated trenches or confined areas on-site.					✓					
	LFG6	F6	Adequate fire fighting equipment should be provided on-site.					✓					
	LFG7	F7	Construction equipment should be equipped with vertical exhaust at least 0.6m above ground installed with spark arrestors.					✓					
	LFG8	F8	Electrical motors and extension cords should be explosion-proof and intrinsically safe for use on-site.					✓					
	LFG9	F9	'Permit to Work' system should be implemented.					✓					
	LFG10	F10	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.					✓					
	LFG11	F11	(a) For piping assembly or conduit construction, all valves and seals should be closed immediately after installation to avoid accumulation and migration of LFG. (b) If installation of large diameter pipes (diameter >600mm) is required, the pipe ends should be sealed on one side during installation. (c) Forced ventilation is required prior to operation of installed pipeline. (d) Forced ventilation should also be required for works inside trenches deeper than 1m.					(a) N/A (b) N/A (c) N/A (d) N/A					
	LFG12	F12	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.					✓					
	LFG13	F13	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.					✓					
	LFG14	F14	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.					✓					
	LFG15	F15	(a) 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. (b) 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.					(a) N/A (b) N/A					

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LFG (Cont'd)								
Within NENT Landfill Extension								
S7	LFG16	F16	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%	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	✓ (a) N/A (b) N/A (c) N/A
	LFG17	F17	(a) 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. (b) Routine monitoring should be carried out in all excavations, manholes, created by temporary storage of building materials on-site. (c) All measurements in excavations should be made with monitoring tube located not more than 10mm from exposed ground surface.					✓
	LFG18	F18	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.					
	LFG19	F19	For excavations between 300mm and 1m, measurements should be conducted: • Directly after excavation has been completed; and Periodic all whilst excavation remains open.					
	LFG20	F20	For excavations less than 300mm, monitoring may be omitted at the discretion of Safety Officer or appropriately qualified person.					
Landscape and Visual Phases								
S8	LV1	G4	<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	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	✓ To be implemented during operation phase
S8	LV2	G5	<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.				DEVB TC(W) No. 6/2011 - Maintenance of Man-made Slopes and Emergency Repair on Stability of Land	✓ ✓
S8	LV3	G6	<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.					
S8	LV4	G7	<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.					

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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)	✓
	E2	-	Reinstatement of the work areas immediately after completion of the works.					✓
	E3	-	Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme.				Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, EPD (1992)	✓
	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.					✓
	E5	-	Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs.				ETWB TC(W) No. 33/2002 Management of Construction and Demolition Material Including Rock	✓
	E6	-	Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works.					N/A
	E7	-	Mobile plant should be sited as far away from NSRs as possible and practicable.				DEVB TC(W) No. 6/2010 Trip Ticket System for Disposal of Construction and Demolition Materials	✓
	E8	-	Material stockpiles, site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.					✓
	E9	-	Use of "quiet" plant and working methods.				ETWB TC(W) No. 19/2005 Environmental Management on Construction Sites	✓
	E10	-	Construction phase mitigation measures in the Practice Note for Professional Persons on Construction Site Drainage.					✓
	E11	-	Design and set up of the temporary on-site drainage system will be undertaken by the contractor prior to the commencement of construction.					✓
	E12	-	Design and incorporation of silt/sediment traps in the permanent drainage channels to enhance deposition rates and regular removal of deposited silt and grit.					✓
	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.					✓
	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.					✓
	E15	-	Provision of oil interceptors in the drainage system downstream of any oil/fuel pollution sources					N/A

Remarks:

✓ Compliance of mitigation measure

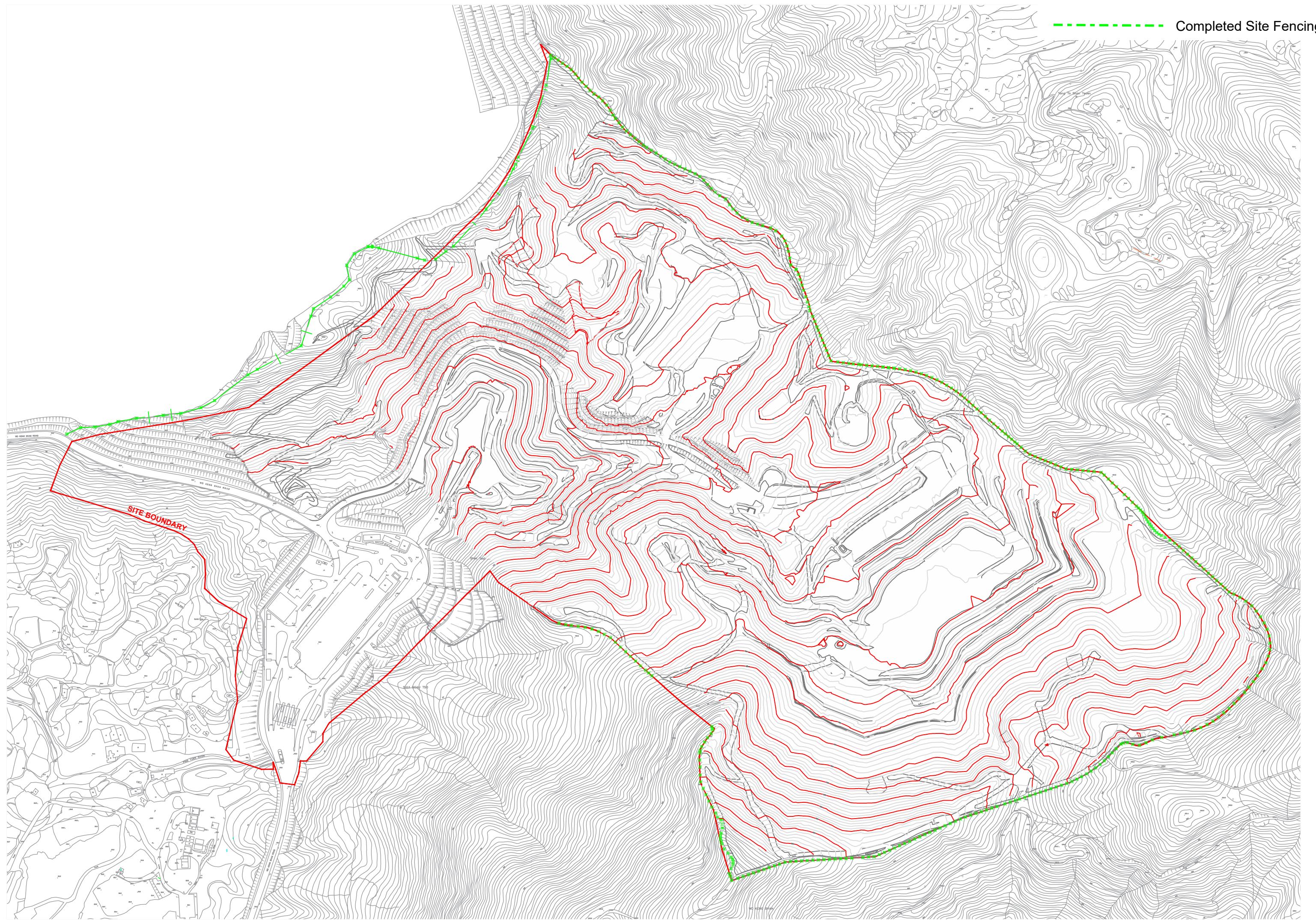
* Recommendation was made during site audit but improved/rectified by the contractor

Recommendation was made during site audit but not yet improved/rectified by the contractor.

N/A Not Applicable at this stage were conducted in the reporting period.

@ (Which measure) Alternative measure was made by the contractor.

Appendix M Mitigation Measures of Cultural Landscape Features



Appendix N Cumulative Complaint / Enquiry Log, Summaries of Complaints and Enquiries

Environmental Complaints Log

Complaint Ref. No.	Date of Complaint Received	Received from	Received by	Aspect of Complaint	Date of Investigation	Investigation Summary & Conclusion	Date of Reply
C001_20221220	21 Dec 2022	Veolia (Contractor)	ET	Air Quality (Construction Dust)	5, 12 & 19 Dec 2022	<p>It was noted from Veolia's email to the ET on 20 December 2022 that Veolia received complaint lodged regarding presenting much dusty materials at roundabout at Wo Keng Shan Road & dusty flying problem at Kowloon-bound traffic at Lung Shan Tunnel. No dusty materials and wastes were transported out from the NENTX site during the complaint period. During the regular weekly site inspection on 5, 12 & 19 December 2022, it was observed that the wheel washing facilities with high-pressure water jets have been provided at all site exits of NENTX and cleaned all vehicles before allowing them to leave the construction site to ensure that no mud or debris would be brought to the public area. All site vehicles of NENTX are also required to go through the auto wheel washing facility, which is managed by the operator of the NENT landfill, before entering the public area. The road section between the washing facilities and the exit point was paved with concrete, or bituminous materials were implemented in all site entrances. No mud generated from vehicles under the NENTX project after exiting the site entrance was observed. In conclusion, there is no direct evidence showing that the complaint is likely related to the NENTX project.</p>	5 Jan 2023
C002_20230614	14 Jun 2023	EPD-RNG	ET	Water Quality	16, 21 Jun, 24, 25 Jul & 2 Aug 2023	<p>It was noted from EPD-RNG's email to the ET on 14 Jun 2023 that EPD received complaint lodged regarding the muddy water was observed at Lin MA Hang International Bridge. In summary of the investigation, the pollutant water appeared crimson colour with bubbles at the LMH-OP01 (Monitoring Point from EPD). The colour and pattern of pollutant water is different from the runoff at surface WQM monitoring location WM1. Hence, the project is not the major source causing the pollutant water. To minimise the potential impact of the project, the enhancement of mitigation measures at north boundary were advised to implement by contractor. The related rectified actions had been conducted by the contractor.</p>	29 Jun & 21 Aug 2023

Complaint Ref. No.	Date of Complaint Received	Received from	Received by	Aspect of Complaint	Date of Investigation	Investigation Summary & Conclusion	Date of Reply
C003_20230615	15 Jun 2023	EPD-RNG	ET	Water Quality	16, 19, 21 Jun, 18 Jul 2023	<p>It was noted from EPD-RNG's email to the ET on 15 June 2023 that EPD received information regarding the muddy water was observed at River Ganges (GR3) (Water Quality Monitoring Location from EPD). In summary of the investigation, the muddy water caused from multi-potential sources while the runoff from the box culvert under the Wo Keng Shan Road is the major source including runoff from Existing channel near Portion E3-1, discharge water from the silt removal facilities at Portion E3-1 of the project, runoff from branch near the entrance of Portion E3-1, runoff from weighting plaza of NENT Landfill & natural stream near Wo Keng Shan & Shui Ngau Tso etc.. Hence, the project is a part of factor causing the high turbidity muddy water. To minimise the potential impact of construction runoff from the project, the further mitigation measures and enhancement of the temporary surface water drainage system were advised to implement by contractor. The related rectified actions had been conducted by the contractor.</p>	15 Jun, 21 Aug 2023
C004_20230803	3 Aug 2023	EPD-RNG	ET	Water Quality	18 Jul 2023	<p>It was noted from EPD-RNG's email to the ET on 3 Aug 2023 that EPD received information regarding the muddy water was observed at River Ganges (GR3) (Water Quality Monitoring Location from EPD). In summary of the investigation, the muddy water caused from multi-potential sources while the runoff from the box culvert under the Wo Keng Shan Road is the major source including runoff from Existing channel near Portion E3-1, discharge water from the silt removal facilities at Portion E3-1 of the project, runoff from branch near the entrance of Portion E3-1, runoff from weighting plaza of NENT Landfill & natural stream near Wo Keng Shan & Shui Ngau Tso etc.. Hence, the project is a part of factor causing the high turbidity muddy water. To minimise the potential impact of construction runoff from the project, the further mitigation measures and enhancement of the temporary surface water drainage system were advised to implement by contractor. The related rectified actions had been conducted by the contractor.</p>	14 Aug 2023

Complaint Ref. No.	Date of Complaint Received	Received from	Received by	Aspect of Complaint	Date of Investigation	Investigation Summary & Conclusion	Date of Reply
C005_20230818	18 Aug 2023	EPD-RNG	ET	Water Quality	18 Sep 2023	It was noted from EPD-RNG's email to the ET on 18 August 2023 that EPD received information regarding the muddy water was observed at River Ganges (GR3) (Water Quality Monitoring Location from EPD) on 14 August 2023. In summary of the investigation, the complaint is project related. It viewed that muddy water arising from wheel washing water from the site entrance at Portion E4 & Runoff from Existing Channel near Portion E3-1 & discharge water from the silt removal facilities at Portion E3-1 eventually flows into the box culvert under Wo Keng Shan Road, WM2 and ultimately to GR3. The related rectified actions had been conducted by the contractor.	13 October 2023
C006_20230914	14 Sep 2023	EPD-RNG	ET	Water Quality	18 Sep 2023	It was noted from EPD-RNG's email to the ET on 14 September 2023 that EPD received information regarding the muddy water was observed at River Ganges (GR3) (Water Quality Monitoring Location from EPD) on 11 September 2023. In summary of the investigation, the complaint is project related. It viewed that muddy water arising from wheel washing water from the site entrance at Portion E4 & Runoff from Existing Channel near Portion E3-1 & discharge water from the silt removal facilities at Portion E3-1 eventually flows into the box culvert under Wo Keng Shan Road, WM2 and ultimately to GR3. The related rectified actions had been conducted by the contractor.	13 October 2023
C007_20240509	9 May 2024	EPD-RNG	ET	Water Quality	13 May 2024	It was noted from EPD-RNG's email to the ET on 9 May 2024 that EPD received a memo from DSD/Mainland North regarding the incident of muddy water observed in Ping Yuen River, at the downstream of NENTX, on 23 April 2024. In summary of the investigation, the muddy water at the complaint location involved multi-potential sources (including the construction runoff of the project and runoff from existing landfill) based on the distance between the outlet of the project discharge point and the complaint location (distance around 1.16 km). The mitigation measures are recommended and reminded to implement and review by the contractor.	16 July 2024
C008_20241128	28 Nov 2024	EPD-RNG	ET	Water Quality	2 & 5 Dec 2024	It was noted from EPD-RNG's email to the ET on 28 November 2024 regarding the incident of muddy water observed in Ping Yuen River, at the downstream of NENTX, on 13 November 2024. Based on the surface water monitoring results, construction activities & related mitigation measures, weather record, environmental mitigation implementation status, joint weekly site inspections on 11, 18 November & 2 December 2024, additional site investigation / audit on 5 December 2024, the muddy water at the complaint location involved multi-potential sources (including the construction runoff of the	9 April 2025

project and runoff from existing landfill). While the major source of causing high turbidity level should be Surface runoff from Wo Keng Shan Road between Northing (m): 844604, Easting (m): 835332 and the entrance of Shek Tsai Ha Road in accordance with the actual observation on 13 November 2024 & Surface Runoff from Drainage System of NENT Landfill. The muddy water from drainage system including stormwater channels and drains collected the runoff from rainfall and runoff from dust control measures of existing landfill increase the concentration of runoff at Ping Yuen River.

Due to rainfall occurs on 13 November 2024, the severe weather increased the risk of landslips, finally increasing the concentration of suspended solids for surface runoff. Most rivers/streams/channels were affected by high amount of rainfall. Hence, the water quality of runoff at the complaint location would be affected by runoff from Wo Keng Shan, Shui Ngau Tso and other area between Surface WQM Location WM2 and the complaint location.

Although the silt removal facilities of the project were functionable normally under the investigation. The mitigation measures are recommended and reminded to implement and review by the contractor.

Remarks:

1. "ET" equal to "Environmental Team"
2. "EPD-RNG" equal to "Environmental Protection Department-Regional Office (North)"
3. "TBC" equal to "To Be Confirm"

Environmental Enquiries Log

Enquiry Ref. No.	Date of Enquiry Received	Received from	Received by	Aspect of Complaint	Date of Investigation	Investigation Summary & Conclusion	Date of Reply
E009_20250410	10 Apr 2025	EPD-RNG	ET	Water Quality	7 Apr 2025	<p>It was noted from EPD-RNG's email to the ET on 10 April 2025 regarding the incident of muddy water observed in Ping Yuen River, at the downstream of NENTX, on 7 April 2025. In summary of the investigation, the major source of causing high turbidity level should be surface runoff from Wo Keng Shan road between Northing (m): 844604, Easting (m): 835332 and the entrance of Shek Tsai Ha Road & surface runoff from drainage system of NENT Landfill. The muddy water from drainage system including stormwater channels and drains collected the runoff from rainfall and runoff from dust control measures of existing landfill increase the concentration of runoff at Ping Yuen River. Hence, the enquiry is not project related.</p>	14 Jun 2025
E010_20250703	3 Jul 2025	Contractor	ET	Water Quality	3 Jul 2025	<p>It was noted from Contractor's email to the ET on 3 July 2025 regarding the complaint from SZ 涉港事務部 on muddy water on SZ river on 29 May 2025. In summary of the investigation, no exceedance was observed at the water quality monitoring in June & July 2025 and the mitigation measures was considered to be effective to minimise the risk causing muddy water discharge into Ping Yuen River. The discharge of treated runoff at the silt removal facilities of the project site were clear from 28 to 31 May 2025. Moreover, the rainstorm on 29 May 2025 increased the risk of landslides and subsequently raises the concentration of suspended solids in surface runoff (flow into Ping Yuen River and final flow into Shenzhen River). Based on above investigation, there is no direct evidence showing that the complaint is likely related to the Project. Therefore, the case is considered closed. To avoid the potential impact of construction runoff from the project, some mitigation measures are recommended & reminded to implemented & review by the contractor. Besides implementation of above mitigation measures, the desilting works at Ping Yuen River were conducted by the Contractor in July 2025.</p>	TBC

Remarks:

1. "ET" equal to "Environmental Team"
2. "EPD-RNG" equal to "Environmental Protection Department-Regional Office (North)"
3. "NA" equal to "Not Applicable"

Cumulative Statistics on Complaints

Aspects	Cumulative No. Brought Forward	No. of Complaints during reporting period	Cumulative Project-to-Date
Air Quality	1*	0	1*
Noise	0	0	0
Water Quality	7(1* & 1#)	0	7(1*)
Waste Management	0	0	0
Total	8(2* & 1#)	0	8(2*)

Remarks:

1. * Equal to non-project related
2. # Equal to the complaint under the investigation.

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