

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

Monthly Environmental
Monitoring and Audit Report
(No. 6) – May 2023

2023-06-12

Our Ref.: CL/91823/0485-VES
Date: 12 June 2023

By Email

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

Attn.: Mr. Colin Mitchell

**Meinhardt Infrastructure and
Environment Ltd**
邁進基建環保工程顧問有限公司

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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.6) – May 2023

I refer to Condition 3.3 under Environmental Permit No. EP-292/2007 and Further Environmental Permit No. FEP-01/292/2007, regarding the submission of a monthly Environmental Monitoring and Audit report. I hereby verify the captioned "Monthly Environmental Monitoring and Audit Report (No.6) – May 2023" dated 12 June 2023.

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

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The Aurecon logo features a green square above the letter 'a' in the word 'aurecon', which is written in a bold, dark grey sans-serif font.

Ref: P521530-0000-REP-NN-0059

12 June 2023

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.6) – May 2023

In accordance with the requirement specified in Condition 3.3 of Environmental Permit No. EP-292/2007 and Further Environmental Permit No. FEP-01/292/2007, we are pleased to submit the certified “Monthly Environmental Monitoring and Audit Report (No.6) – May 2023” dated 12 June 2023 for your verification.

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

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

A handwritten signature in blue ink, appearing to read 'Fredrick Leong', is positioned above the printed name and title.

Fredrick Leong
Environmental Team Leader

Encl.

1. Monthly Environmental Monitoring and Audit Report (No.6) – May 2023

cc.

1. IEC - Ms. Claudine Lee (By email: claudinelee@meinhardt.com.hk)
2. IEC Representative – Ms. Echo Hung (By email: echohung@meinhardt.com.hk)

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Title	Associate, Environmental	Title	Environmental Team Leader

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Executive Summary

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

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

This 6th Monthly EM&A Report presents the EM&A works conducted from 1 to 31 May 2023 in accordance with the EM&A Manual.

Summary of Construction Works undertaken during Report Period

The major construction works undertaken during the reporting period include:

- Material loading and unloading, site traffic at Portion A, SBA to alternative disposal ground
- Permanent site office foundation works with pouring of concrete at Portion D
- Site clearance at Portion A & E3-1
- Installation of permanent fencing at Portion A, B1 & E4
- Site formation at Portion A & E3-1
- Tree felling at Portion E3-1 & E4

Environmental Monitoring and Audit Progress

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

Items	Times	Date
- Air Quality Monitoring during normal weekdays at each monitoring station	5 times	5, 11, 17, 23 & 29 May 2023
- Construction Noise Monitoring during normal weekdays at each monitoring station	5 times	5, 11, 17, 23 & 29 May 2023
- Surface Water Quality Monitoring during normal weekdays at each monitoring station	1 time	5 May 2023
- Landfill Gas Monitoring during normal weekdays for Construction Works	26 times	2 to 6, 8 to 13, 15 to 20, 22 to 27, 29 to 31 May 2023
- Post-translocation Monitoring during normal weekdays at recipient site	1 time	17 May 2023
- Post-transplantation monitoring and audit during normal weekdays for transplanted plants and receptor sites	1 time	12 May 2023
- Joint Environmental Site Inspection	5 times	2, 8, 15, 22 & 29 May 2023

Environmental Exceedance

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

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

Environmental Non-conformance/Compliant/Summons and Prosecution

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

No summons/prosecutions were received in this reporting period.

Reporting Change

There was no reporting change in the reporting period.

Future Key Issues

Works to be undertaken in the next month include:

-
- Material loading and unloading, site traffic at Portion A, SBA to alternative disposal ground

 - Permanent site office foundation works with pouring of concrete at Portion D

 - Site clearance at Portion A & E3-1

 - Installation of permanent fencing at Portion A, B1 & E4

 - Site formation at Portion A & E3-1

 - Tree felling at Portion E3-1 & E4

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

1. Introduction

1.1. Background

- 1.1.1. The North East New Territories Landfill Extension (the NENTX Project) is located adjacent to the existing North East New Territories (NENT) Landfill at Ta Kwu Ling. The extension site is located in a valley covering mainly the existing NENT Landfill Stockpile and Borrow Area that was formed to the east of the existing landfill as part of the original site development of the landfill, and layout plan shown in **Figure 1**.
- 1.1.2. The NENTX is a designated project. The Environmental Impact Assessment (EIA) Report (AEIAR-111/2007) and an Environmental Monitoring and Audit Manual were approved on 20 September 2007. The project is governed by an Environmental Permit (EP) (EP-292/2007) which was granted on 26 November 2007. A further of EP (FEP) was applied and the FEP (FEP-01/292/2007) was subsequently granted on 28 April 2022.
- 1.1.3. In accordance with the requirements specified in Section 2.6 to 2.10 and Section 12.3 of the approved Environmental Monitoring and Audit (EM&A) Manual and Environmental Permit (EP and FEP) condition 3.3, Monthly EM&A report should be submitted to the Director of Environmental Protection (DEP), within 2 weeks after the end of the reporting month. The submissions shall be certified by the Environmental Team (ET) Leader and verified by the Independent Environmental Checker (IEC).
- 1.1.4. The construction phase and EM&A programme of the Project commenced on 1 December 2022.

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

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

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

Item(s)	Content
Nature of Designated Project	Construction and operation of a landfill for waste as defined in the “Waste Disposal Ordinance” (Cap. 354)
Scale and Scope of Designated Project	<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; and viii. Measures to mitigate environmental impacts as well as environmental monitoring and auditing to be implemented.

1.3. Purpose of this Report

- 1.3.1. This is the 6th 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 May 2023.

1.4. Structure of the Report

- 1.4.1. The structure of the report is as follows:

Section 1 – Introduction

- details the background, purpose and structure of the report.

Section 2 – Project Information

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

Section 3 – Air Quality Monitoring

- Construction Dust

Section 4 – Noise Monitoring

Section 5 – Water Quality Monitoring

- Groundwater Monitoring
- Surface Water Monitoring

Section 6 – Waste Management

Section 7 – Landfill Gas Monitoring

Section 8 – Landscape and Visual

Section 9 – Cultural Heritage

Section 10 – Ecological Monitoring

Section 11 – Site Inspection and Audit

Section 12 – Environmental Non-Conformance

Section 13 – Implementation Status on Environmental Mitigation Measures

Section 14 – Future Key Issues

2. Project Information

2.1. Construction Activities

2.1.1. A summary of the major construction activities undertaken in this reporting period is shown in **Appendix L**. Construction programme is illustrated in **Appendix A**.

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 2-1**.

Table 2-1 Contact Information of Key Personnel

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

2.3. Status of Submission required under the FEP & EP during reporting period

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

Table 2-2 Status of Submissions required under the FEP & EP during reporting period

FEP Condition	EP Condition	Submission / Measures	Status
2.1	2.3	Management Organization of Main Construction Companies	Submitted
2.2	2.4	Setting up of Community Liaison Group (CLG)	Community Liaison Group was set up.
2.3	2.5	Submission of EM&A Manual	Submitted
2.5	2.7	Submission of Vegetation Survey (Transplantation Proposal)	Submitted
2.6	2.8	Submission of translocation proposal	Submitted
2.7	2.9	Submission of Transplantation Report and Post-Transplantation Monitoring	Submitted 10 th post-transplantation monitoring (17 May 2023)
2.8	2.10	Submission of Translocation Report and Post-Translocation Monitoring	Translocation was carried out and the report submitted. 10 th post-translocation monitoring (12 May 2023)
2.9	2.11	Submission of Detailed Landfill Gas Hazard Assessment Report	Submitted
2.10	2.12	Submission of Waste Management Plan	Submitted
3.2	3.2	Submission of Baseline Monitoring 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 FEP & EP is presented in **Table 2-4**.

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

Permit / Licenses / Notification	Reference	Expiry Date	Remark
Environmental Permit (EP)	EP-292/2007	Throughout the Contract	Permit granted on 26 November 2007
Further Environmental Permit (FEP)	FEP-210/2022	Throughout the Contract	Permit granted on 28 April 2022
Notification of Construction Works as required under Air Pollution Control (Construction Dust) Regulation	479809	Throughout the Construction Phase	Notified on 13 May 2022
Registration of Waste Producer under Waste Disposal Ordinance	7043692	Throughout the Contract	Registered on 13 April 2022
Registration as Chemical Waste Producer	5213-642-P1034-18	Throughout the Contract	Registered on 11 July 2022
Construction Noise Permit	GW-RN0299-23	22 June 2023	Permit granted on 21 March 2023
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	5, 11, 17, 23 & 29 May 2023
- Construction Noise Monitoring during normal weekdays at each monitoring station	5 times	5, 11, 17, 23 & 29 May 2023
- Surface Water Quality Monitoring during normal weekdays at each monitoring station	1 time	5 May 2023
- Landfill Gas Monitoring during normal weekdays for Construction Works	26 times	2 to 6, 8 to 13, 15 to 20, 22 to 27, 29 to 31 May 2023
- Post-translocation Monitoring during normal weekdays at recipient site	1 time	17 May 2023
- Post-transplantation monitoring and audit during normal weekdays for transplanted plants and receptor sites	1 time	12 May 2023
- Joint Environmental Site Inspection	5 times	2, 8, 15, 22 & 29 May 2023

Air Quality

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 at AM1, AM2 & AM3 was recorded during the period.

Noise

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

Groundwater

Site clearance of future landfilling area is in progress. The installation of groundwater monitoring boreholes will be installed after the site formation work of the landfilling area. The target commencement period of groundwater monitoring will be in 2026. No groundwater monitoring is required before the completion of site formation work of the landfilling area.

Surface Water Quality

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

Landfill Gas

26 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

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

Cultural Heritage

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

Ecology

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

Environmental Site Inspection

5 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 15 May 2023. The Contractor has generally implemented the mitigation measures as recommended.

3. Air Quality Monitoring

3.1 Construction Dust

3.1.1 Monitoring Requirement

3.1.1.1 In accordance with the EM&A Manual, 1-hr & 24-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 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 C**. The locations of dust monitoring stations are shown in **Table 3-1**. The monitoring parameters, frequency and duration are shown in **Table 3-2**.

Table 3-1 Locations of Dust Monitoring Stations

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

Remarks:

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

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

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

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

Due to the adjustment of the location of AM(D)1, AM(D)2 & AM(D)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 D**.

Table 3-3 Dust Monitoring Equipment

Equipment	Model	Expiry Date	Monitoring Station
High Volume Sampler (HVS)	TE-5170X (S/N: 1105)	5 Jul 2023	AM1
	TE-5170X (S/N: 1106)		AM2
	TE-5170X (S/N: 1856)		AM3
Direct Reading Dust Meter	Sibata LD-5R (S/N: 0Z4545)	2 Dec 2023	AM1 to AM3
	Sibata LD-5R (S/N: 882106)		
	Sibata LD-5R (S/N: 882110)		
	Sibata LD-5R (S/N: 942532)		
Calibration Kit (for HVS)	TE-5025A (S/N: 3465)	28 Jun 2023	AM1 to AM3

3.1.4 Monitoring Methodology

1-hr TSP Monitoring

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

Measuring Procedures

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

Procedure of starting monitoring

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

Procedure of setting measurement timer

- Press "Up" or "Down" to find "Setting LOG".
- Select "Record Cycle" and change the record time subject to different project requirement. For example, setting the record cycle as 60 minutes for normal operation.
- Press "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 E** and **Appendix F**.

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

Dust Monitoring Station	Average 1-hr TSP Concentration, $\mu\text{g}/\text{m}^3$ (Range)	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM1	23 (15 – 40)	>285	>500
AM2	30 (15 – 43)	>279	>500
AM3	35 (26 – 49)	>285	>500

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

Dust Monitoring Station	Average 24-hr TSP Concentration, $\mu\text{g}/\text{m}^3$ (Range)	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM1	62 (28 – 106)	>164	>260
AM2	73 (53 – 87)	>152	>260
AM3	93 (29 – 121)	>163	>260

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

Table 3-6 Summary of Impact 1-hr & 24-hr TSP Exceedance during the reporting period

Dust Monitoring Station	Parameter	1-hr TSP	24-hr TSP	Exceedance Count
	Level Exceedance			
AM1	Action	0	0	0
	Limit	0	0	0
AM2	Action	0	0	0
	Limit	0	0	0
AM3	Action	0	0	0
	Limit	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 H**.

3.1.7 Recommended Mitigation Measures

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

- The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.
- Dust emission from construction vehicle movement is confined within the worksites area.

- Watering facilities will be provided at every designated vehicular exit point.
- Good site practice is recommended during construction phase.

3.1.8 Event and Action Plan

- 3.1.8.1 Should non-compliance of the criteria occur, action in accordance with the action plan in **Table 3-7** 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 EM&A manual, noise impact monitoring shall be carried out at 2 monitoring stations NM1 and NM2 once a week during normal construction working hour (0700-1900 Monday to Saturday). The minimum logging interval shall be 30 minutes with average of 6 consecutive Leq 5 mins. L10 and L90 shall also be measured at 5 mins intervals.

4.2 Monitoring Locations, Parameters and Frequency

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

4.2.2 A baseline monitoring plan has been submitted to IEC and EPD on 31 May 2022 including the proposal with justification of change of monitoring locations. Due to limited access to the original monitoring locations at NM1 and NM2, the adjusted stations at NM1a and NM2a were agreed with IEC prior to the baseline and impact monitoring. The noise monitoring locations are summarized in **Table 4-1** and shown in **Figure 2**.

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

Table 4-1 Noise Monitoring Locations

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

Remarks:

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

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

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

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

Table 4-2 Noise Monitoring Parameters, Frequency and Duration

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

4.3 Monitoring Equipment

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

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

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

Table 4-3 Noise Monitoring Equipment

Equipment	Model	Expiry Date
Sound Level Meter	NTi XL2 (S/N: A2A-13661-E0)	21 Aug 2023
Acoustic Calibrator	Rion NC-75 (S/N: 34724243)	10 Jul 2023
Anemometer	RS PRO RS-90 (S/N: 210722208)	12 Feb 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 E** and **Appendix F**.

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

Noise Monitoring Station	Average Leq, 30min, dB(A) (Range)	Action Level	Limit Level
NM1a	57.4 (47.6 – 61.0)	When one documented complaint is received	>75dB(A)
NM2a	55.8 (48.4 – 58.0)		

Remark:

- (1) * A correction of +3 dB(A) was made to the free field measurements
- (2) If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

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

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

4.6 Recommended Mitigation Measures

4.6.1 The recommended 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 4-5** shall be carried out.

Table 4-5 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 In accordance with the EM&A manual, groundwater quality monitoring shall be carried out at least once per month at the 35 designated groundwater monitoring locations (i.e ED1 to ED35). Based on the existing construction programme, site clearance and site formation works for future landfilling area are in progress. The groundwater monitoring locations ED1 to ED35 will be installed after the site formation work of the landfilling area. No groundwater monitoring is required before the completion of site formation work of the landfilling area.

5.2 Surface Water Monitoring

5.2.1 Monitoring Requirement

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

5.2.2 Monitoring Locations, Parameters and Frequency

5.2.2.1 Impact surface water monitoring was carried out on 5 May 2023 at WM1 and WM2. 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 C**.

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 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 D**.

Table 5-3 Surface Water Quality Monitoring Equipment

Equipment	Model	Expiry Date
Water Quality Meter	YSI ProDSS (S/N: 22C106561)	24 Jul 2023
Water Flow Meter	FP111 (S/N: 22K100859)	6 Nov 2023

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

QA/ QC Requirements

5.2.4.4 All in situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or other international accreditation scheme before use, and subsequently re-calibrated at the intervals according to manufacturer's requirement throughout all stages of the surface water quality monitoring programme. 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 and WM2 on 5 May 2023. No adverse weather was observed during reporting period. The detailed monitoring schedule is shown in **Appendix C**.

5.2.5.2 The summary of monitoring results 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 E** and **Appendix F**.

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

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

Table 5-5 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	6.9	>7.7	>7.8	7.3	>7.6	>7.7
Electrical Conductivity in $\mu\text{S}/\text{cm}$	69	---	---	212	---	---
DO in mg/L	7.9	<7.4	<4	8.1	<5	<4
Turbidity in NTU	3.1	>9.2	>9.5	30.6	>108.3	>108.9
SS in mg/L	3.3	>9.7	>11.4	34.2	>94.5	>94.7
Alkalinity	18	---	---	58	---	---
COD	10			13		
BOD ₅	<2			3.0		
TOC	3			5		
Ammonia-nitrogen	0.06			0.39		
TKN	0.4			0.8		
Nitrate	<0.01			0.03		
Sulphate	4			8		
Sulphite	<2			<2		
Phosphate	0.0			<0.01		
Chloride	7			15		
Sodium	8590			11800		
Mg	470			1420		
Ca	3460			18600		
K	570			3900		
Fe	660			8990		
Ni	<1			1		
Zn	<10			26		
Mn	84			2370		
Cu	2.0			3		
Pb	<1			3		
Cd	<0.2			<0.2		
Coliform Count	40000			1500		
Oil and Grease	<5	<5				

5.2.6 Recommended Mitigation Measure

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

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

5.2.7 Implementation of the temporary surface water drainage system

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 EM&A Manual. The joint environmental site inspection records are shown in **Appendix J**.

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 5-6** shall be carried out.

Table 5-6 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 I**.
- 6.1.2** A total of 28,473 tonnes of C&D materials was reused at alternative disposal ground (NENT Landfill) during the reporting period. No yard waste was generated during the reporting period. A total of 7.45 tonnes of general refuse and A total of 409.16 tonnes of 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 A +55 mpD to 70 mpD Platform	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 D**. The detection limits are provided in **Table 7-3**.

Table 7-2 LFG Monitoring Equipment

Monitoring Parameters	Equipment	Model	Expiry Date
CH ₄ & O ₂	Gas Detector	PS200 (S/N: 373075)	16 Nov 2023
CO ₂	Gas Analyser	GEM5000 (S/N: G508566)	16 Aug 2023

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 Action Plan for the monitoring during construction phase

Parameter	Monitoring Result	Action
Oxygen (O ₂)	Action Level <19% O ₂	Ventilate trench/void to restore O ₂ to >19%
	Limit Level <18% O ₂	Stop works Evacuate personnel/prohibit entry Increase ventilation to restore O ₂ to >19%
Methane (CH ₄)	Action Level >10% LEL*	Prohibit hot works Increase ventilation to restore CH ₄ to <10% LEL
	Limit Level >20% LEL*	Stop works Evacuate personnel/prohibit entry Increase ventilation to restore CH ₄ to <10% LEL
Carbon dioxide (CO ₂)	Action Level** >0.5%** CO ₂	Ventilate to restore CO ₂ to <0.5%
	Limit Level >1.5% CO ₂	Stop works Evacuate personnel / prohibit entry Increase ventilation to restore CO ₂ to <0.5%

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

** This Action Level of 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 A +55 mpD to 70 mpD Platform in May 2023 (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 A +55 mpD to 70 mpD Platform	2 May 2023	0	0	0	20.3
	3 May 2023	0	0	0	20.2
	4 May 2023	0	0	0	20.1
	5 May 2023	0	0	0	20.2
	6 May 2023	0	0	0	20.2
	8 May 2023	0	0	0	20.1
	9 May 2023	0	0	0	20.3
	10 May 2023	0	0	0	20.2
	11 May 2023	0	0	0	20.2
	12 May 2023	0	0	0	20.1
	13 May 2023	0	0	0	20.1
	15 May 2023	0	0	0	20.1
	16 May 2023	0	0	0	20.2
	17 May 2023	0	0	0	20.1
	18 May 2023	0	0	0	20.1
	19 May 2023	0	0	0	20.2
	20 May 2023	0	0	0	20.2
	22 May 2023	0	0	0	20.1
	23 May 2023	0	0	0	20.3
	24 May 2023	0	0	0	20.1
	25 May 2023	0	0	0	20.1
26 May 2023	0	0	0	20.2	
27 May 2023	0	0	0	20.1	
29 May 2023	0	0	0	20.2	
30 May 2023	0	0	0	20.2	
31 May 2023	0	0	0	20.1	
Action Level		>10% LEL	---	>0.5%** CO ₂	<19%

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

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

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

7.5.4 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 EM&A Manual and their implementation status are summarised in **Appendix K**.

8.2 Result and Observation

- 8.2.1 Measures to mitigate the landscape and visual impacts during the construction phase has been checked to ensure compliance with the intended aims of the measures within the reporting period. The progress of the engineering works are regularly reviewed on site to identify the earliest practical opportunities for the landscape works to be undertaken.
- 8.2.2 In order to monitor the landscape and visual impact after providing mitigation measures effectively, all the specified and affected LCAs, LRs and VSRs should be monitored. Implementation of the mitigation measures during construction phase of the Project has been monitored through the regular site inspection/audit.

9 Cultural Heritage

- 9.1.1** The Mitigation measures for preservation of the cultural landscape feature located within the project area was conducted before commencement of construction of the project based on the requirement of Survey Report and Mapping Records for Boulder Paths BP1 & 2 & Conditions of G2, G4, G5 G6, G7, G8, G14, G15, G25, G26 and G27 within NENTX.
- 9.1.2** The survey and mapping works carried out on 23 August 2022 and the verification works carried out on 23 August 22 confirmed that both 2 boulder paths BP1 and BP2 are fall outside the site boundary and the Project area.
- 9.1.3** All the affected graves within the waste boundary have been removed in accordance with section 119(1) of the Public Health and Municipal Services Ordinance (Cap 132). Removal of the graves as shown on Figure 2 attached to the FEP was proven by the visit of graves on 8 July 2022. All the graves as shown on Figure 2 attached to the FEP were abandoned and removed and no mitigation or preservation measures is necessary.
- 9.1.4** The Survey Report and Mapping Records for Boulder Paths BP1 & 2 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-01/292/2007.
- 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** In the reporting period, the post-translocation monitoring for the Endemic Freshwater Crab *Somanniathelphusa zanklon* was conducted on 17 May 2023 based on the requirement of the approved Revised Translocation Proposal for the Endemic Freshwater Crab *Somanniathelphusa zanklon*. The 10th Post-Translocation Monitoring Report (May 2023) presents the details of requirements, monitoring results and site inspection with photos. The site inspection photos are also summarized in **Appendix N**. During the reporting period, no *S. zanklon* individual is identified.
- 10.1.2** The post-transplantation monitoring was conducted on 12 May 2023 based on the requirement of the approved Transplantation Proposal for Plant Species of Conservation Importance (Rev.1). The 10th Post-transplantation Monitoring and Audit Report (12th May 2023) presents the details of requirements, monitoring results and site inspection with photos. The site inspection photos are also summarized in **Appendix N**. During the reporting period, the numbers, measurements, and health conditions of the transplanted plant species are recorded.
- 10.1.3** The details of requirements, monitoring results and site inspection with photos for the post-translocation monitoring and post-transplantation monitoring would be reported separately.
- 10.1.4** The milestone of the ecological monitoring is presented in **Table 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-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
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 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 2, 8, 15, 22 & 29 May 2023. A joint environmental site inspection was carried out by the representatives of the ER, the Contractor, IEC and the ET on 15 May 2023. The joint environmental site inspection records are shown in **Appendix J**. There was no noncompliance recorded during the site inspections.

11.1.3 Major findings and recommendations are summarized as follows:

02 May 2023

- Water in the drip tray shall be cleared off at Portion A. The contractor was recommended to collect and dispose of any stagnant water accumulated in the drip trays and handle them as chemical waste.
- Sand and silt were observed at the road leading to SBA. The contractor was recommended that road surface shall be kept clear of sand and silt.
- Dust suppression measure shall be enhanced to cover all work area and dusty stockpiles in SBA. The contractor was reminded to ensure the implementation of dust suppression measure for the dry work area and dusty stockpile.

08 May 2023

- Accumulated sand and silt shall be cleared off in the wheel washing bay in SBA. The contractor was reminded to conduct regularly cleaning work for the wheel washing bay and to ensure the implementation of vehicle washing in SBA.
- The contractor was reminded to cover the waste skip with impervious sheets during and rainfall, to avoid accumulation of waste and to implement waste sorting.
- The contractor was reminded to ensure all silt removal facilities functioning properly for the upcoming rainfall and the discharged wastewater shall comply with WPCO requirement. The construction and surface runoff shall be directed to silt removal facilities and treated wastewater shall fulfill WPCO requirement.

15 May 2023

- The accumulate of the uprooting of trees without covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides were found at the work area at SBA. 1. The contractor was recommended that the demolished trees should be covered by impervious sheeting or placed in an area sheltered on the top and the 3 sides.
- The accumulate water was found at the lower area at the Portion D. The contractor was recommended that the surface water should be collected to silt removal facilities.
- Accumulate water in drip tray was observed at Portion D. The contractor was recommended to keep cleaning the accumulated water in drip tray to minimize

the large amount of potential chemical waste when the chemical leakage was found.

22 May 2023

- The unrooting trees at Portion A was not covered by impervious sheeting and or placed in an area sheltered on the top and the 3 sides within a day of demolition. The contractor was recommended that all demolished items (including trees) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides within a day of demolition.
- The sand and soil near the channel at Portion E3-1 were found. The contractor was recommended to avoid the untreated surface runoff contaminated with related materials discharged to channel directly. All construction runoffs should be collected to silt removal facilities for treatment.

29 May 2023

- Portion of road leading to Portion A and Portion B2 shall be kept clear of dusty and muddy materials. The Contractor was reminded to clear dusty and muddy material on the portion of road leading to Portion A and Portion B2.
- Slope protection work in Portion A shall be maintained properly to minimize dust dispersion and surface runoff. The Contractor was recommended to apply surface protection on the exposed slope in Portion A.
- The accumulated uprooting trees is found behind the silt removal facilities in Portion B2. 3. The accumulated uprooting trees shall be covered with impervious sheets, placed in an area sheltered on the top and the 3 sides or disposed properly.

11.1.4 No Environmental Protection Department-Regional Office (North) conducted general site inspection in May 2023.

12 Environmental Non-conformance

12.1 Summary of Monitoring Exceedance

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

12.2 Summary of Environmental Non-compliance

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

12.3 Summary of Environmental Complaint

12.3.1 No environmental complaint was recorded during the reporting period.

12.4 Summary of Environmental Summons and Successful Prosecution

12.4.1 No summons was received during the reporting period

13 Implementation Status on Environmental Mitigation Measures

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

14 Future Key Issues

14.1 Key Issues for the Coming Month

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

-
- Material loading and unloading, site traffic at Portion A, SBA to alternative disposal ground

 - Permanent site office foundation works with pouring of concrete at Portion D

 - Site clearance at Portion A & E3-1

 - Installation of permanent fencing at Portion A, B1 & E4

 - Site formation at Portion A & E3-1

 - Tree felling at Portion E3-1 & E4

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

14.2 Monitoring Schedule for the Next Month

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

14.3 Construction Programme for the Next Month

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

15 Conclusion

- 15.1.1** 1-hr & 24-hr TSP impact monitoring was carried out in the reporting month. No Action / Limit Level exceedance for 1-hr & 24-hr TSP impact monitoring at AM1, AM2 & AM3 was recorded during the period.
- 15.1.2** Construction noise monitoring was carried out in the reporting month. No Action / Limit Level exceedance at NM1a & NM2a was recorded during the period.
- 15.1.3** Site clearance of future landfilling area is in progress. The installation of groundwater monitoring boreholes will be installed after the site formation work of the landfilling area. The target commencement period of groundwater monitoring will be in 2026. No groundwater monitoring is required before the completion of site formation work of the landfilling area.
- 15.1.4** Surface water monitoring was carried out in the reporting month. No Action / Limit Level exceedance at WM1 & WM2 was recorded during the period.
- 15.1.5** Landfill Gas Monitoring was carried out in the reporting month. No exceedance of Limit Levels of LFG was recorded during the reporting period.
- 15.1.6** In terms of cultural heritage, implementation of the mitigation measures such as 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** Post-translocation Monitoring was carried out in the reporting period. No *S. zanklon individual* was found. Post-transplantation monitoring was carried out in the reporting month. The numbers, measurements and health conditions of the transplanted species are recorded.
- 15.1.8** Five environmental site inspections were carried out in the reporting month. Recommendations on mitigation measures for Permit/ Licenses were given to the Contractor for remediating the deficiencies identified during the site inspections.
- 15.1.9** No environmental complaint was recorded during the reporting period.
- 15.1.10** No non-compliance event was recorded during the reporting period.
- 15.1.11** No notification of summons and prosecution was received during the reporting period.
- 15.1.12** The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Figure 1 Location of the Project Site

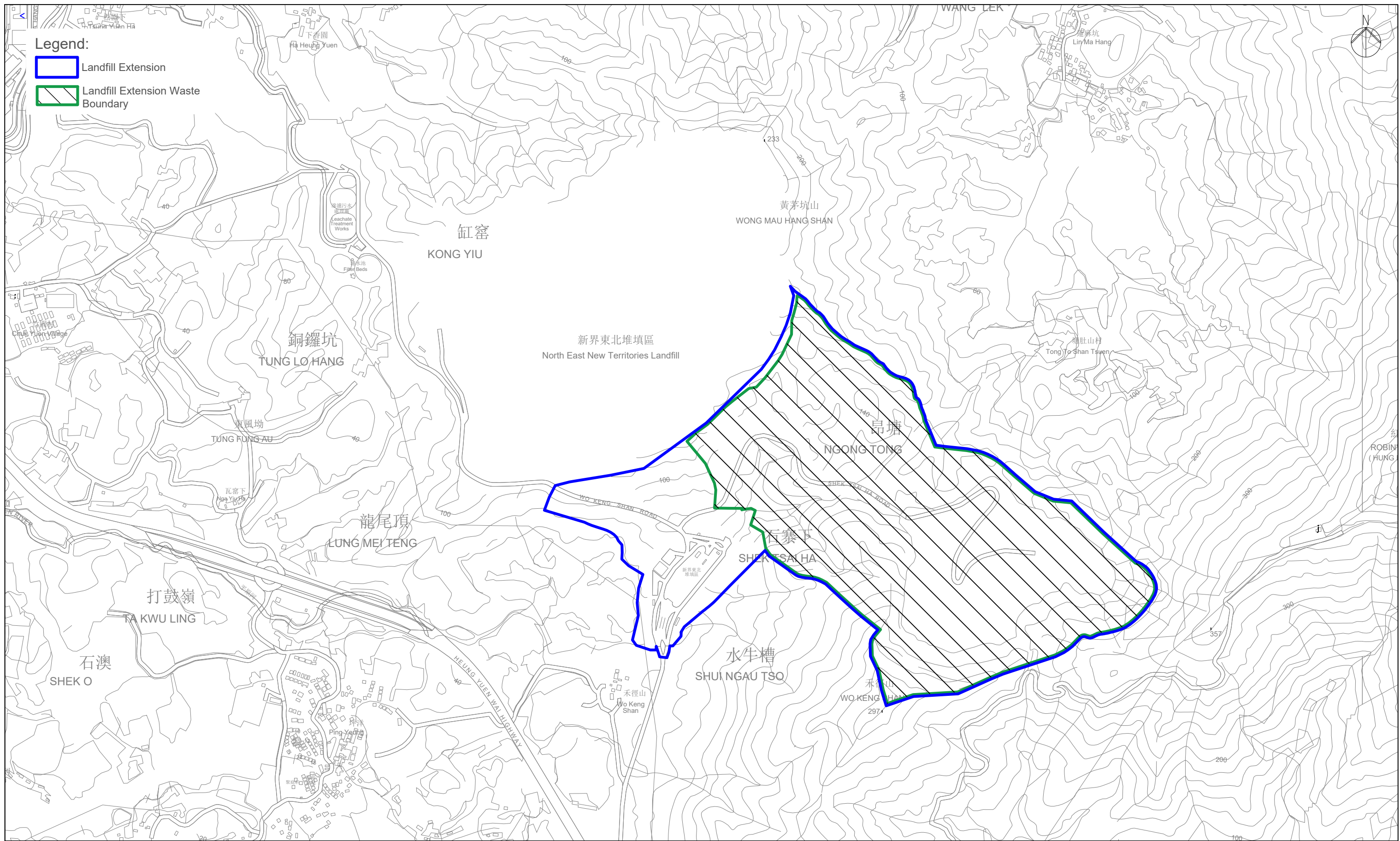


Figure 2 Impact Air Quality, Noise & Surface Water Quality Monitoring Locations

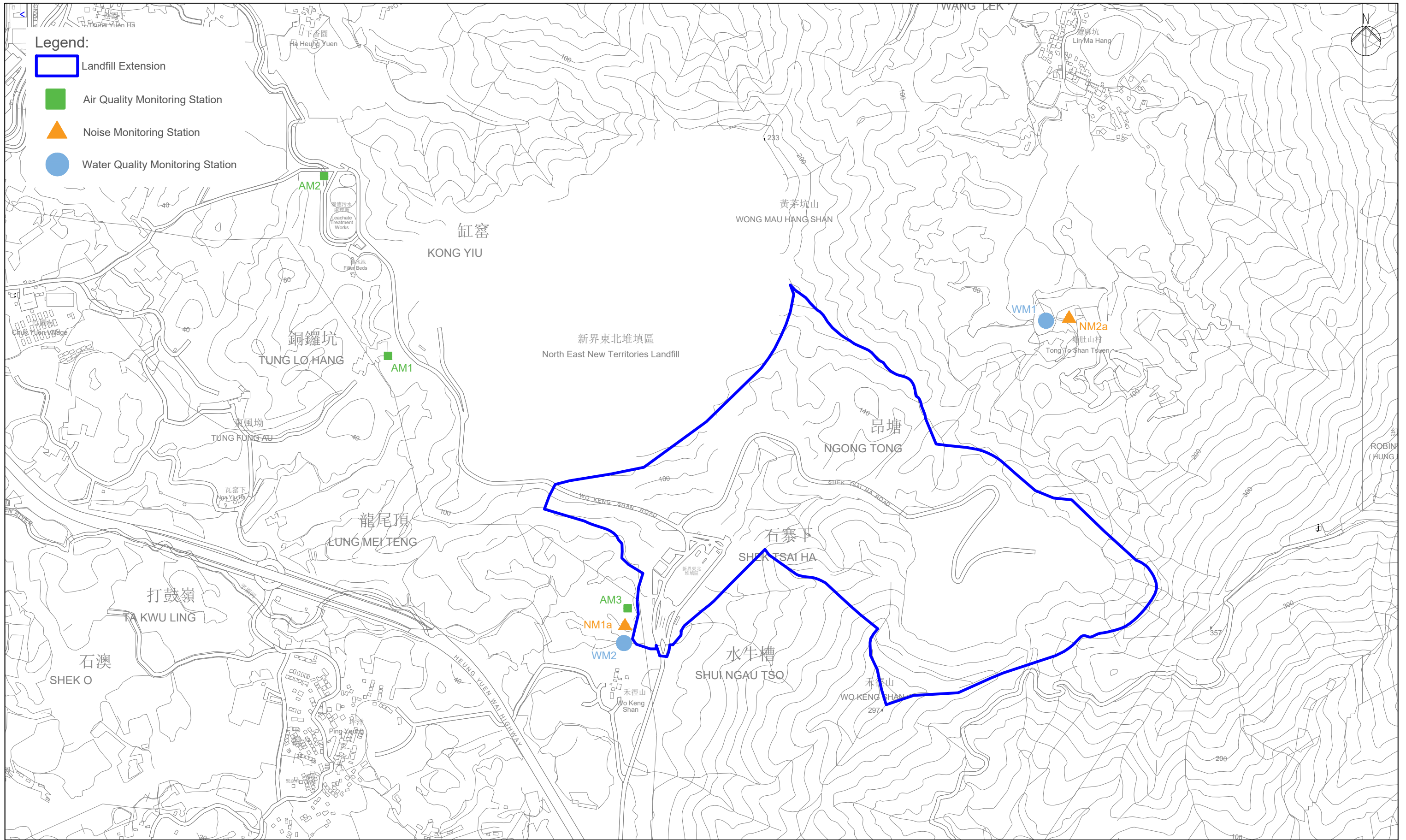


Figure 3 Landfill Gas Monitoring Locations

Gas Monitoring Point ●

Monitoring Frequency: 2 times per day

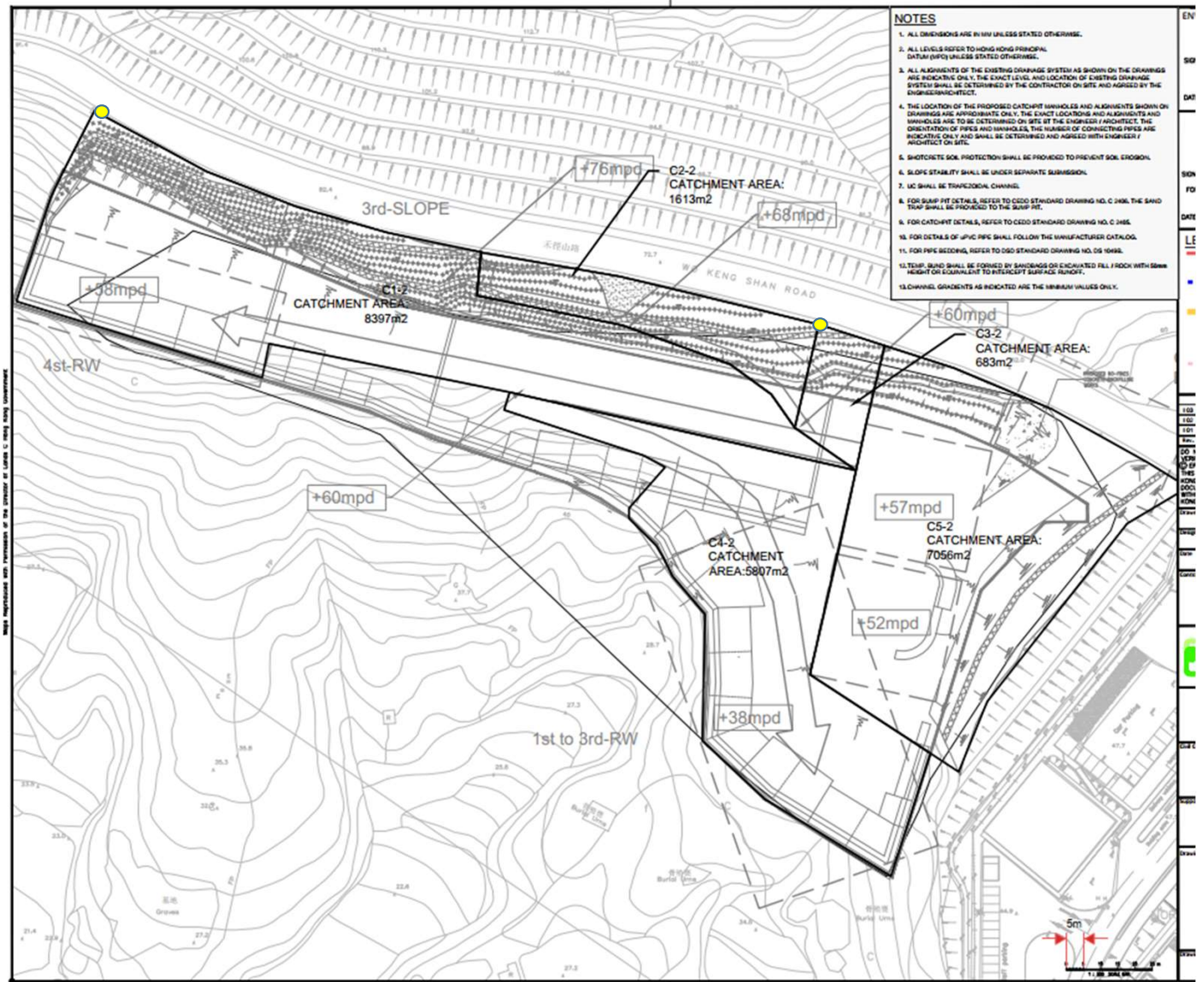
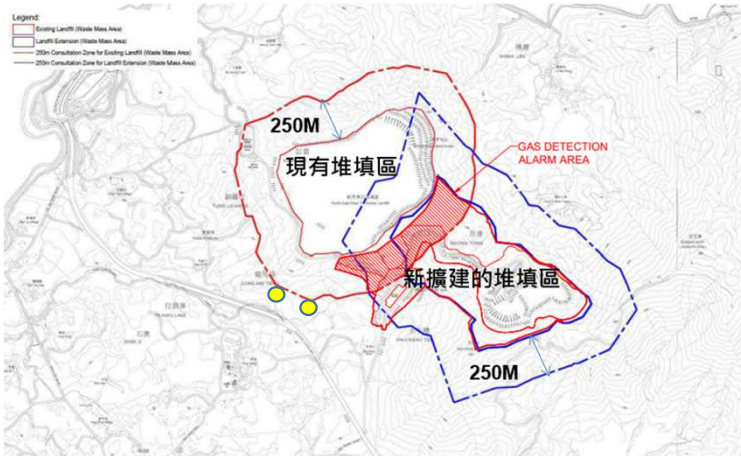
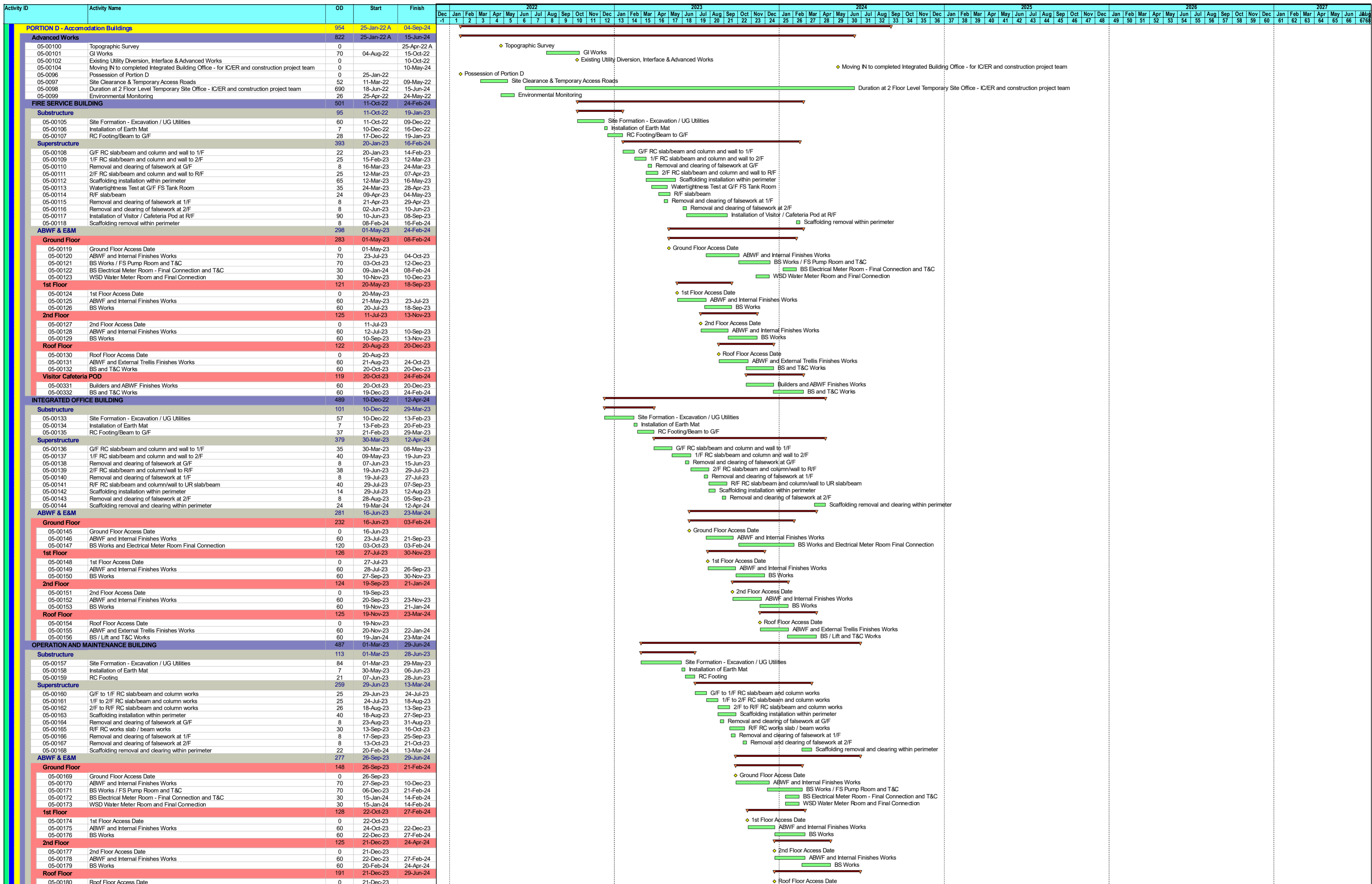


Figure 3 Landfill Gas Monitoring Locations

Appendix A Construction Programme



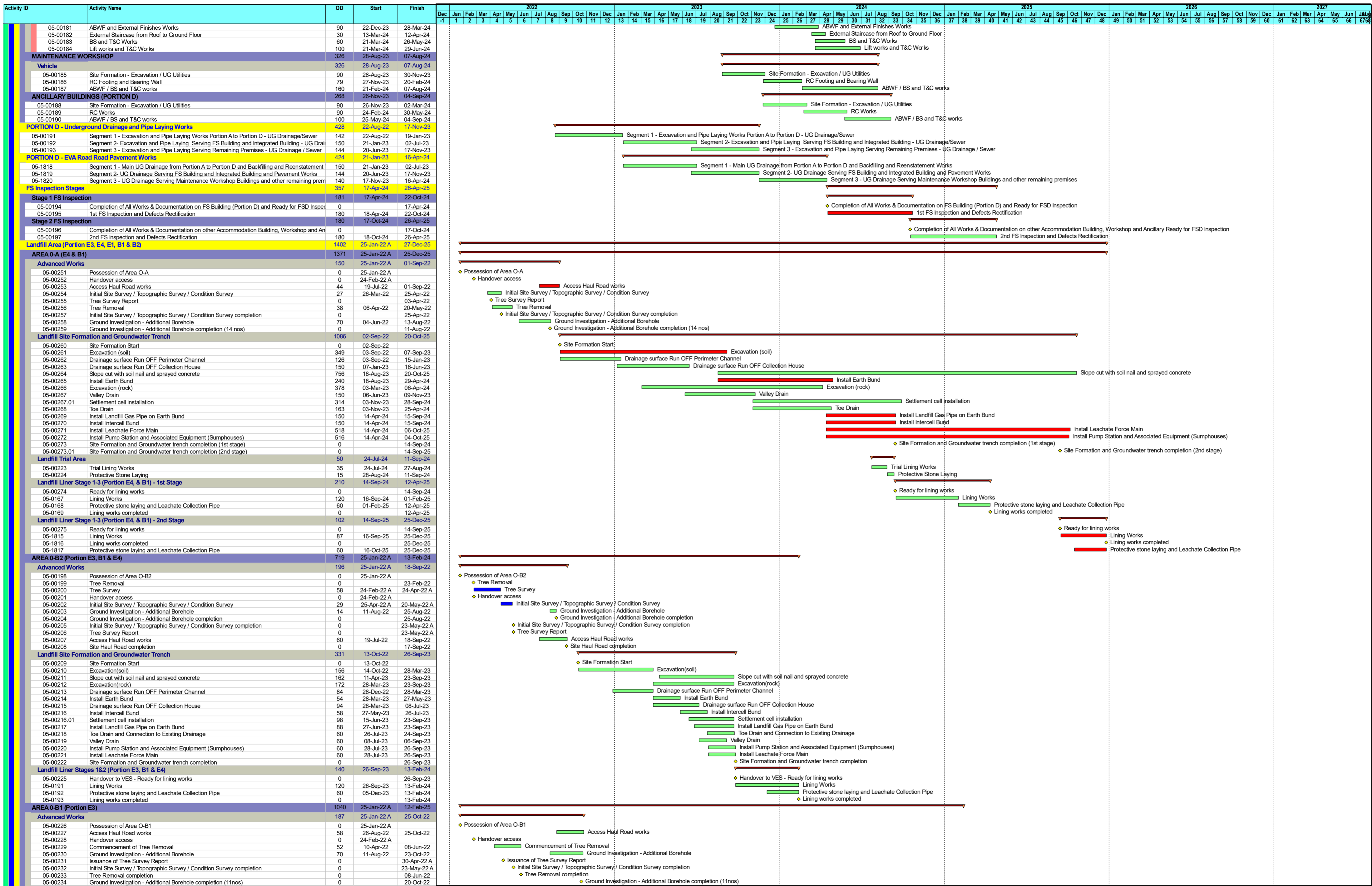
- █ Remaining Level of Effort
- █ Actual Work
- █ Remaining Work
- █ Critical Remaining Work
- ◆ Milestone
- Summary

NORTH EAST NEW TERRITORIES (NENTX) LANDFILL EXTENSION

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



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



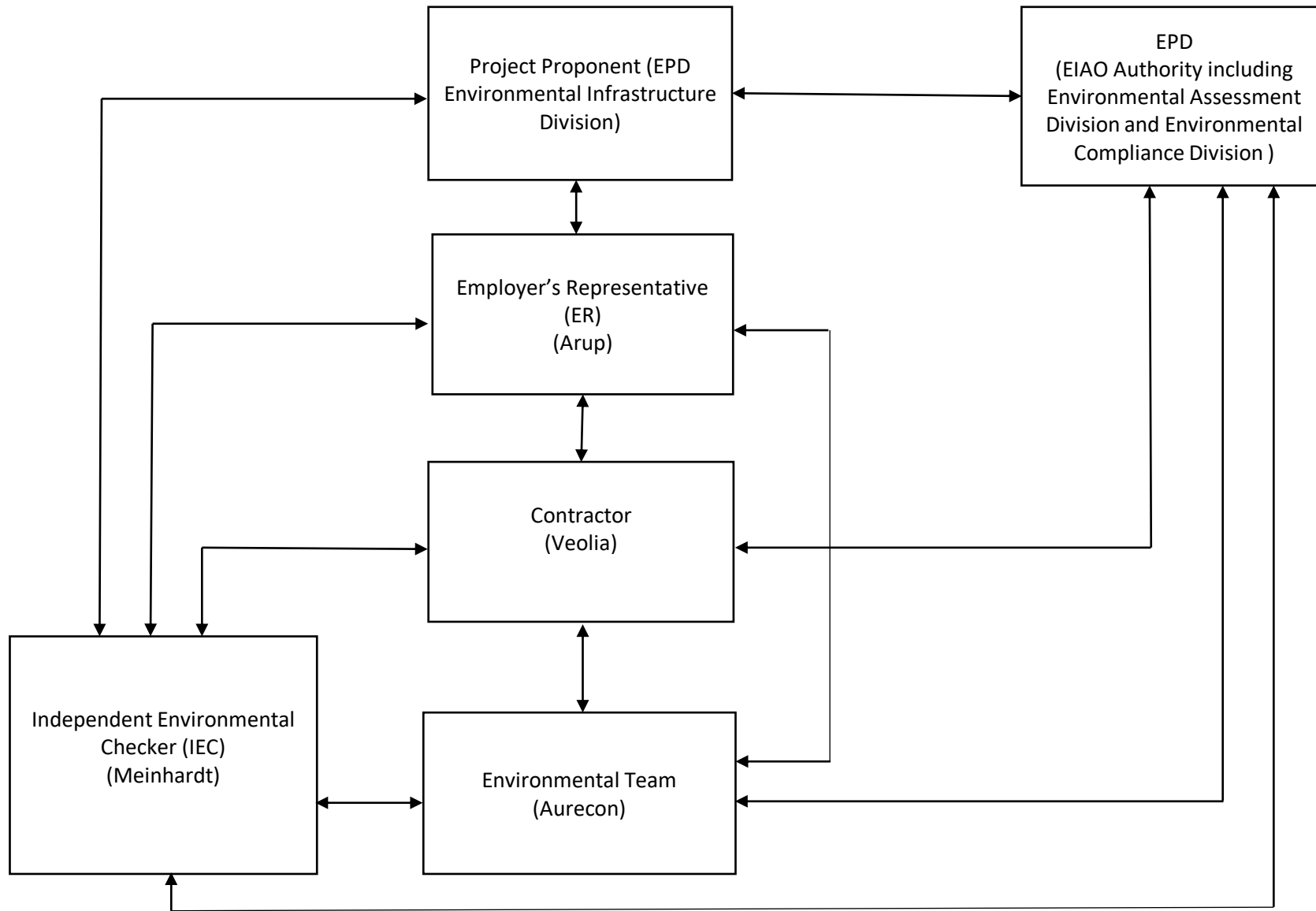
- ▬ Remaining Level of Effort
- ▬ Actual Work
- ▬ Remaining Work
- ▬ Critical Remaining Work
- ◆ Milestone
- ▬ Summary

NORTH EAST NEW TERRITORIES (NENTX) LANDFILL EXTENSION
BASELINE PROGRAMME - EXTRACTED (REV.3)
INITIAL WORKS (PHASE 1)



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

Appendix B Project Organization Chart & Management Structure



Notes:

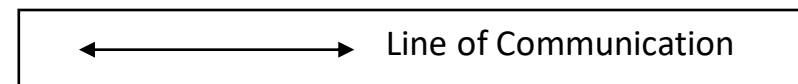
EPD - Environmental Protection Department

Arup – Ove Arup & Partners Limited

Veolia - Veolia Environmental Services Hong Kong Limited

Meinhardt - Meinhardt Infrastructure And Environment Limited

Aurecon - Aurecon Hong Kong Limited



Appendix C Monitoring Schedule for Reporting Month & Next Month

Impact Monitoring Schedule for NENT Landfill Extension (May 2023) (version 2.0)

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

Remark:

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

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

6-2023						
Sun	Mon	Tue	Wed	Thur	Fri	Sat
				1	2 Air quality monitoring at AM1, AM2 and AM3	3
4	5	6	7	8 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	9	10
11	12	13	14 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a Surface water quality monitoring at WM1 and WM2	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 Air quality monitoring at AM1, AM2 and AM3	3

Remark:

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

Appendix D Calibration Certificates

Air Quality

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

Verification Test Date: 3-Dec-22 to 4-Dec-22
 Next Verification Test Date: 2-Dec-23
 Unit-under-Test- Model No. Sibata LD-5R
 Unit-under-Test Serial No. OZ4545
 Our Report Reference No. RPT-22-HVS-0026
 Calibration Location: AM2, Located near the Leachate Treatment Works within the NENT Landfill

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

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

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

By Linear Regression of y on x:

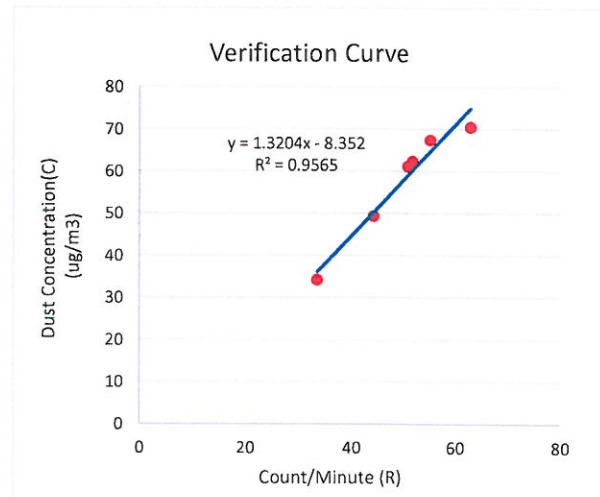
slope, mh= 1.3204

intercept, ch= -8.3520

*Correlation Coefficient, R= 0.9780

Verification Test Result: Strong Correlation, Results were accepted.

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



Verified By: 
 Technical Manager

Date: 05-12-2022

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

Verification Test Date: 3-Dec-22 to 4-Dec-22
 Next Verification Test Date: 2-Dec-23
 Unit-under-Test- Model No.: Sibata LD-5R
 Unit-under-Test Serial No.: 882106
 Our Report Reference No.: RPT-22-HVS-0027
 Calibration Location: AM2, Located near the Leachate Treatment Works within the NENT Landfill

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

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

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

By Linear Regression of y on x:

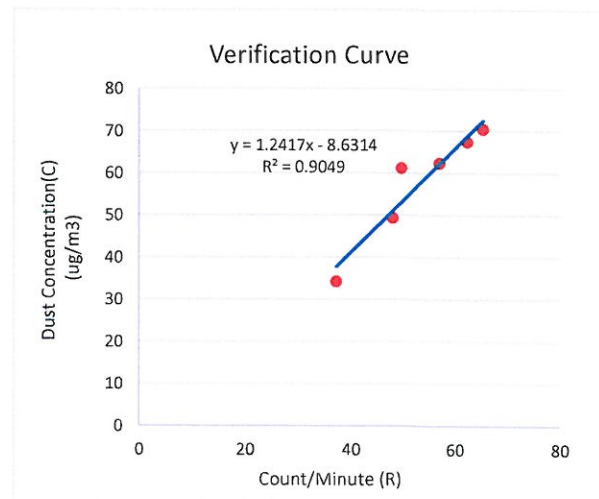
slope, mh= 1.2417

intercept, ch= -8.6314

*Correlation Coefficient, R= 0.9513

Verification Test Result: Strong Correlation, Results were accepted.

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



Verified By: IA
 Technical Manager

Date: 05-12-2022

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

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

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

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

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

By Linear Regression of y on x:

slope, mh= 1.1984

intercept, ch= -8.3267

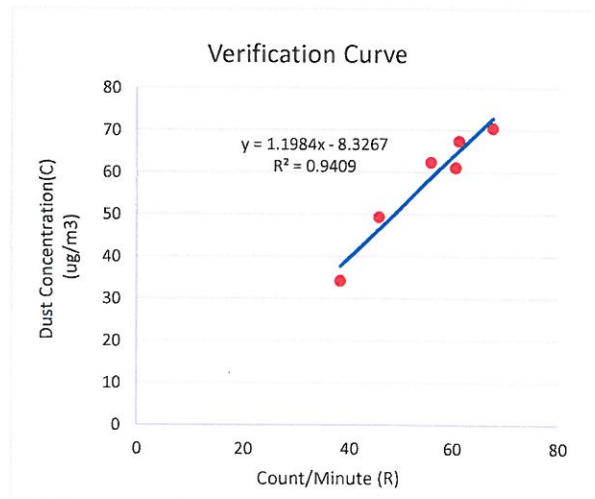
*Correlation Coefficient, R= 0.9700

Verification Test Result: Strong Correlation, Results were accepted.

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

Verified By: 
 Technical Manager

Date: 05-12-2022



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

Verification Test Date: 3-Dec-22 to 4-Dec-22
 Next Verification Test Date: 2-Dec-23
 Unit-under-Test- Model No. Sibata LD-5R
 Unit-under-Test Serial No. 942532
 Our Report Reference No. RPT-22-HVS-0024
 Calibration Location: AM2, Located near the Leachate Treatment Works within the NENT Landfill

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

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

0.00108

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

By Linear Regression of y on x:

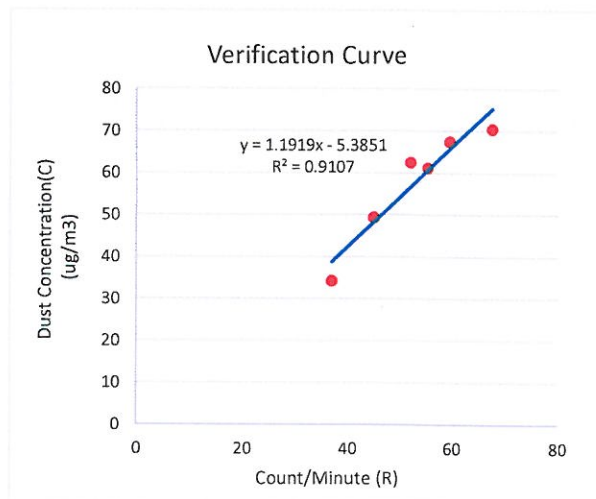
slope, mh= 1.1919

intercept, ch= -5.3851

*Correlation Coefficient, R= 0.9543

Verification Test Result: Strong Correlation, Results were accepted.

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



Verified By: [Signature]
Technical Manager

Date: 05-12-2022

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM1	Date:	07-Mar-2023
Serial No.:	1105	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P _a) (mm Hg):	759.0	Actual Temperature during Calibration (T _a) (deg K):	296.4
---------------------------------------------------------------	-------	------------------------------------------------------------------	-------

Calibration Orifice

Model:	TE-5025A	Slope (m _c):	2.05924
Serial No.:	3465	Intercept (b _c):	-0.01929
Calibration Due Date:	28-Jun-23	Corr. Coeff:	0.99998

Calibration Data

Plate or Test #	ΔH ₂ O (in)	Q _a , X-Axis (m ³ /min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	11.30	1.645	55.0	55.11
13	9.20	1.485	50.0	50.10
10	6.90	1.288	44.0	44.09
7	4.50	1.042	37.0	37.08
5	2.80	0.824	30.0	30.06

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

m = 30.2340 b = 5.2945 Corr. Coeff = 0.9998

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

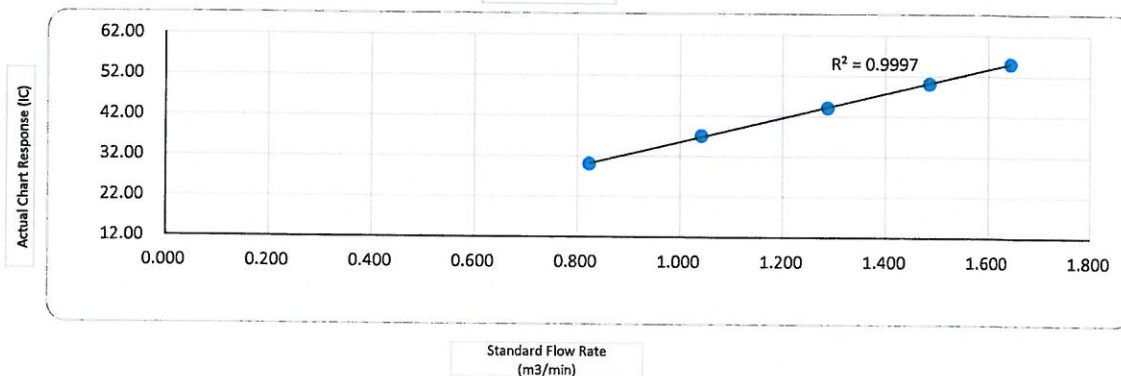
$$IC = I * (\text{Sqrt}(P_a/P_{Std}) * (T_{Std}/T_a))$$

Calculations

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_{Std} = 298 deg K
 P_{Std} = 760 mm Hg
 T_a = actual temperature during calibration (deg K)
 P_a = actual pressure during calibration (mm Hg)

Flow Rate Chart



Checked by: _____



Date: _____

07-Mar-2023

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM1	Date:	06-May-2023
Serial No.:	1105	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P _a) (mm Hg):	760.8	Actual Temperature during Calibration (T _a) (deg K):	297.2
---------------------------------------------------------------	-------	------------------------------------------------------------------	-------

Calibration Orifice

Model:	TE-5025A	Slope (m _c):	2.05924
Serial No.:	3465	Intercept (b _c):	-0.01929
Calibration Due Date:	28-Jun-23	Corr. Coeff:	0.99998

Calibration Data

Plate or Test #	ΔH ₂ O (in)	Q _a , X-Axis (m ³ /min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	9.60	1.517	54.0	54.10
13	7.80	1.368	50.0	50.09
10	5.90	1.191	45.0	45.08
7	3.70	0.945	39.0	39.07
5	2.50	0.779	36.0	36.07

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

m = 24.7528 b = 16.1708 Corr. Coeff = 0.9975

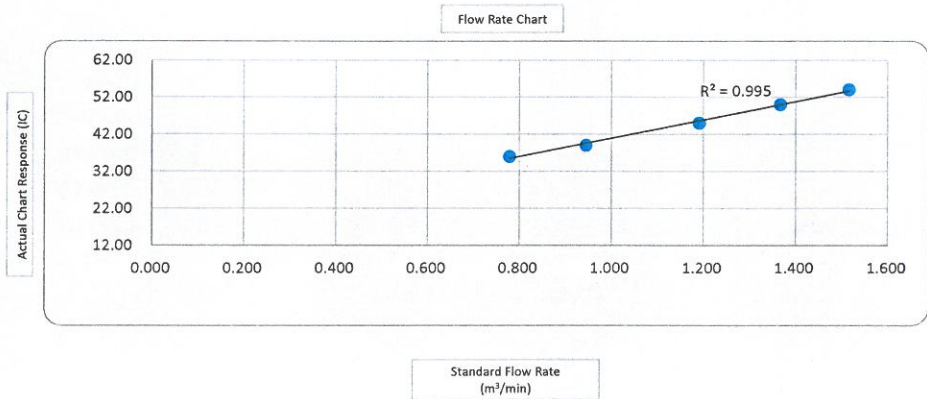
Calculations


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

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

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_{Std} = 298 deg K
P_{Std} = 760 mm Hg
T_a = actual temperature during calibration (deg K)
P_a = actual pressure during calibration (mm Hg)



Checked by: HUI WAI FUNG 
Laboratory Manager

Date: 06-May-2023

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM2	Date:	07-Mar-2023
Serial No:	1106	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P _a) (mm Hg):	759.0	Actual Temperature during Calibration (T _a) (deg K):	296.4
---------------------------------------------------------------	-------	------------------------------------------------------------------	-------

Calibration Orifice

Model:	TE-5025A	Slope (m _c):	2.05924
Serial No.:	3465	Intercept (b _c):	-0.01929
Calibration Due Date:	28-Jun-23	Corr. Coeff:	0.99998

Calibration Data

Plate or Test #	ΔH ₂ O (in)	Q _a , X-Axis (m ³ /min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	12.10	1.702	62.0	62.13
13	9.40	1.501	57.0	57.12
10	7.20	1.315	50.0	50.10
7	4.50	1.042	42.0	42.09
5	2.90	0.838	36.0	36.07

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

m = 30.6717 b = 10.2530 Corr. Coeff = 0.9989

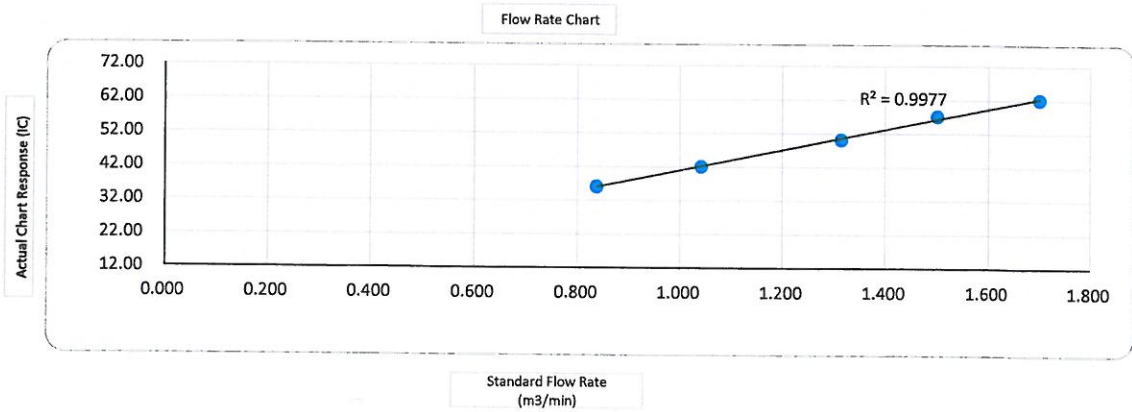
Calculations

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

$$IC = I \cdot (\text{Sqrt}(P_a/P_{std}) \cdot (T_{std}/T_a))$$

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_{std} = 298 deg K
P_{std} = 760 mm Hg
T_a = actual temperature during calibration (deg K)
P_a = actual pressure during calibration (mm Hg)



Checked by: AL

Date: 07-Mar-2023

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM2	Date:	06-May-2023
Serial No.:	1106	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P _a) (mm Hg):	760.8	Actual Temperature during Calibration (T _a) (deg K):	297.2
---------------------------------------------------------------	-------	------------------------------------------------------------------	-------

Calibration Orifice

Model:	TE-5025A	Slope (m _c):	2.05924
Serial No.:	3465	Intercept (b _c):	-0.01929
Calibration Due Date:	28-Jun-23	Corr. Coeff:	0.99998

Calibration Data

Plate or Test #	ΔH ₂ O (in)	Q _a , X-Axis (m ³ /min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	11.00	1.623	57.0	57.11
13	8.90	1.461	52.0	52.10
10	6.90	1.287	46.0	46.09
7	4.40	1.030	39.0	39.07
5	2.60	0.794	33.0	33.06

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

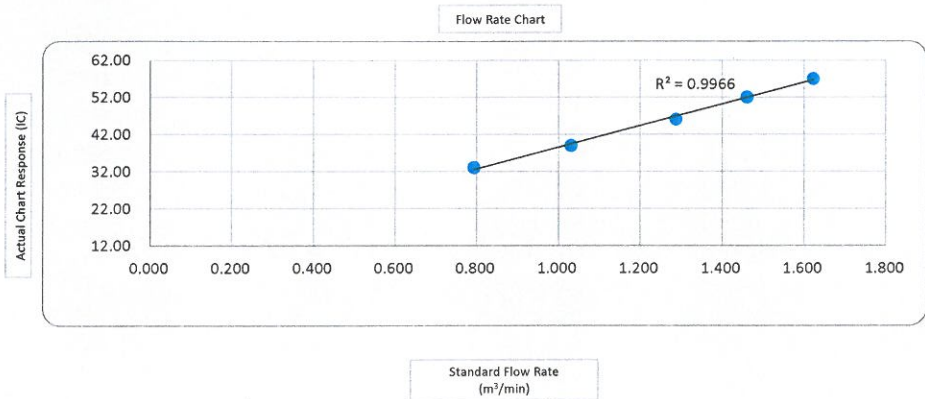
m = 29.1007 b = 9.4295 Corr. Coeff = 0.9983

Calculations

Q_a = 1/m_c * [Sqrt (ΔH₂O * (P_a/P_{Std}) * (T_{Std}/T_a)) - b_c]
 IC = I * (Sqrt (P_a/P_{Std}) * (T_{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_{Std} = 298 deg K
 P_{Std} = 760 mm Hg
 T_a = actual temperature during calibration (deg K)
 P_a = actual pressure during calibration (mm Hg)



Checked by: HUI WAI FUNG 
 Laboratory Manager

Date: 06-May-2023

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM3	Date:	07-Mar-2023
Serial No:	1856	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P_a) (mm Hg):	759.0	Actual Temperature during Calibration (T_a) (deg K):	296.4
-------------------------------------------------------	-------	----------------------------------------------------------	-------

Calibration Orifice

Model:	TE-5025A	Slope (m_c):	2.05924
Serial No.:	3465	Intercept (b_c):	-0.01929
Calibration Due Date:	28-Jun-23	Corr. Coeff:	0.99998

Calibration Data

Plate or Test #	ΔH_2O (in)	Qa, X-Axis (m^3/min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	12.70	1.743	58.0	58.12
13	10.00	1.548	52.0	52.11
10	7.80	1.368	45.0	45.09
7	4.90	1.087	37.0	37.08
5	3.10	0.866	29.0	29.06

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

$m = 32.9317$

$b = 0.7369$

Corr. Coeff = 0.9991

Calculations

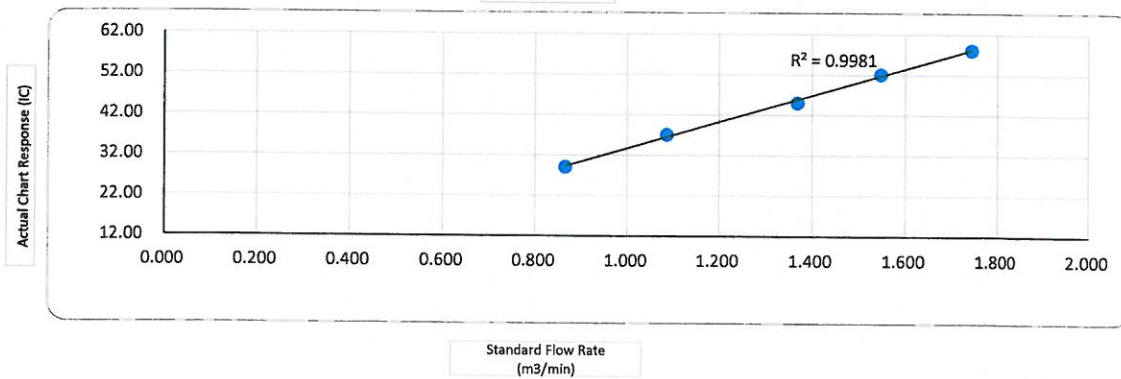
$$Qa = 1/m_c * [\text{Sqrt} (\Delta H_2O * (P_a/P_{Std}) * (T_{Std}/T_a)) - b_c]$$

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

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

Flow Rate Chart



Checked by: _____

Date: 07-Mar-2023

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM3	Date:	06-May-2023
Serial No.:	1856	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Actual Pressure during Calibration (P _a) (mm Hg):	760.8	Actual Temperature during Calibration (T _a) (deg K):	297.2
---------------------------------------------------------------	-------	------------------------------------------------------------------	-------

Calibration Orifice

Model:	TE-5025A	Slope (m _c):	2.05924
Serial No.:	3465	Intercept (b _c):	-0.01929
Calibration Due Date:	28-Jun-23	Corr. Coeff:	0.99998

Calibration Data

Plate or Test #	ΔH ₂ O (in)	Q _a , X-Axis (m ³ /min)	I, CFM (chart)	IC, Y-Axis (corrected)
18	10.60	1.593	62.0	62.12
13	8.20	1.403	57.0	57.11
10	6.20	1.221	52.0	52.10
7	4.20	1.006	45.0	45.08
5	2.30	0.747	40.0	40.07

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

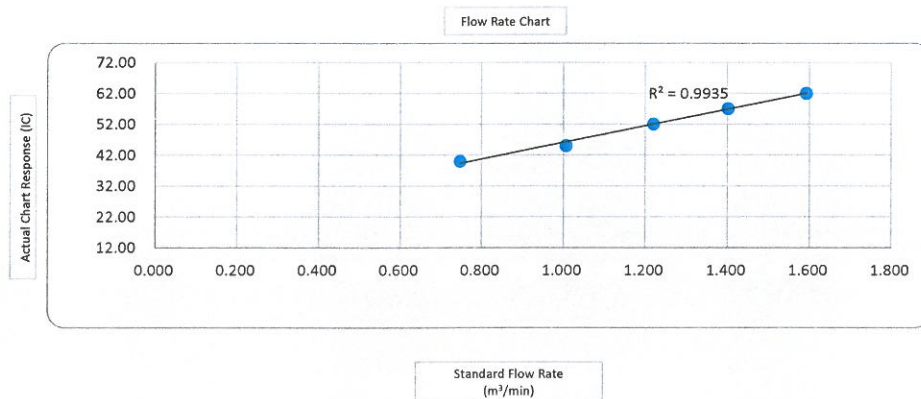
m = 26.7568 b = 19.3460 Corr. Coeff = 0.9968

Calculations

Q_a = 1/m_c * [Sqrt (ΔH₂O * (P_a/P_{Std}) * (T_{Std}/T_a)) - b_c]
 IC = I * (Sqrt (P_a/P_{Std}) * (T_{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_{Std} = 298 deg K
 P_{Std} = 760 mm Hg
 T_a = actual temperature during calibration (deg K)
 P_a = actual pressure during calibration (mm Hg)



Checked by: HUI WAI FUNG
 Laboratory Manager *[Signature]*

Date: 06-May-2023

Certificate of Calibration

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

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

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

Calculations			
Vstd=	$\Delta Vol((Pa-\Delta P)/Pstd)(Tstd/Ta)$	Va=	$\Delta Vol((Pa-\Delta P)/Pa)$
Qstd=	Vstd/ΔTime	Qa=	Va/ΔTime
For subsequent flow rate calculations:			
Qstd=	$1/m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$	Qa=	$1/m \left(\left(\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)} \right) - b \right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH: calibrator manometer reading (in H2O)	
ΔP: rootsmeter manometer reading (mm Hg)	
Ta: actual absolute temperature (°K)	
Pa: actual barometric pressure (mm Hg)	
b: intercept	
m: slope	

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

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.:68914)
Preamplifier: NTi Audio MA220 (M2211) (Serial No.:6282)

Submitted by:

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

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

- Within (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: 20 August 2022

Date of calibration: 22 August 2022

Date of NEXT calibration: 21 August 2023

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 22 August 2022

Certificate No.: APJ22-071-CC001



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: 23.4 °C
 Air Pressure: 1005 hPa
 Relative Humidity: 68.5 %

3. Calibration Equipment:

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV220061	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	93.8	±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	93.8	Ref	
			104		103.8	±0.3	
			114		114.0	±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	93.8	Ref	
		Slow			93.8	±0.3	

Certificate No.: APJ22-071-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	94	Fast	31.5	93.9	±2.0
					63	94.0	±1.5
					125	93.9	±1.5
					250	93.8	±1.4
					500	93.8	±1.4
					1000	93.8	Ref
					2000	93.4	±1.6
					4000	93.0	±1.6
				8000	92.2	+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	94	Fast	31.5	54.6	-39.4 ±2.0
					63	67.7	-26.2 ±1.5
					125	77.8	-16.1 ±1.5
					250	85.2	-8.6 ±1.4
					500	90.6	-3.2 ±1.4
					1000	93.8	Ref
					2000	94.6	+1.2 ±1.6
					4000	94.0	+1.0 ±1.6
				8000	91.2	-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	dBC	SPL	94	Fast	31.5	90.9	-3.0 ±2.0
					63	93.1	-0.8 ±1.5
					125	93.7	-0.2 ±1.5
					250	93.8	-0.0 ±1.4
					500	93.8	-0.0 ±1.4
					1000	93.8	Ref
					2000	93.3	-0.2 ±1.6
					4000	92.2	-0.8 ±1.6
				8000	89.3	-3.0 +2.1; -3.1	

5. Calibration Results Applied

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

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.10
	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.



CALIBRATION CERTIFICATE

Product : SOUND CALIBRATOR
 Type : NC-75
 Serial number : 34724243
 Manufacturer : RION CO., LTD.
 Calibration quantities : Sound pressure level (with reference standard microphone)
 Calibration method : Measured by specified secondary standard microphone
 according to JCSS calibration procedure specified by RION.
 Ambient conditions : Temperature 23.9 °C, Relative humidity 49 %,
 Static pressure 99.9 kPa
 Calibration date : 05/07/2022 (DD/MM/YYYY)
 Calibration location : 3-20-41 Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan
 RION CO., LTD. Calibration Room

We hereby certify that the results of this calibration were as follows.

Issue date : 11/07/2022 (DD/MM/YYYY)

Junichi Kawamura
 Manager
 Quality Assurance Section,
 Quality Assurance Department,
 Environmental Instrument Division,
 RION CO., LTD.
 3-20-41 Higashimotomachi, Kokubunji,
 Tokyo 185-8533, Japan



This certificate is based on article 144 of the Measurement Law and indicates the result of calibration in accordance with measurement standards traceable to Primary Measurement Standards (National Standards) which realizes the physical units of measurement according to the International System of Units (SI).

The accreditation symbol is attestation of which the result of calibration is traceable to Primary Measurement Standards (National Standards).

The certificate shall not be reproduced except in full, without the written approval of the issuing laboratory.

The calibration laboratory who issued this calibration certificate conforms to ISO/IEC 17025:2017.

This calibration certificate was issued by the calibration laboratory accredited by IAJapan who is a signatory to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC) and Asia Pacific Accreditation Cooperation (APAC). This (These) calibration result(s) may be accepted internationally through ILAC/APAC MRA.

CALIBRATION RESULT

1. Sound pressure level (with reference standard microphone)

Measured value	Expanded uncertainty *1
93.99 dB	0.09 dB

Specified secondary standard microphone:

Type : 4160
 Serial number : 2973341
 Reference Sound pressure : 2×10^{-5} Pa

*1 Defines an interval estimated to have a level of confidence of approximately 95 %.

Coverage factor $k=2$

Calibration result is the calibration value in ambient conditions during calibration.

BE OUT OF JCSS CALIBRATION

1. Frequency

Measured value	Measurement uncertainty ($k=2$)
1000.0 Hz	3.9×10^{-4} Hz

Working measurement standard universal counter:

Type : 53132A
 Serial number : MY40005574
 (JCSS Calibration Certificate No. 21081499079575510)

2. Total distortion

Measured value
0.2 %

Working measurement standard distortion meter:

Type : VA-2230A
 Serial number : 11076061
 (A2LA Calibration Certificate No. 1501-03080)

- closing -



AI

Calibration Certificate

Certificate No. **300737**

Page 1 of 2 Pages

Customer : Acuity Sustainability Consulting Limited

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

Order No. : Q30320

Date of receipt : 2-Feb-23

Item Tested

Description : Hot Wire Anemometer

Manufacturer : RS PRO

I.D. : ASCL-EQ-111

Model : RS-90

Serial No. : 210722208

Test Conditions

Date of Test : 13-Feb-23

Supply Voltage : --

Ambient Temperature : (23 ± 3)°C

Relative Humidity : (50 ± 25) %

Test Specifications

Calibration check.

Ref. Document/Procedure : T03, Z04.

Test Results

All results were within the manufacturer's specification.

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

Main Test equipment used:

<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Traceable to</u>
S155	Std. Anemometer	206240	NIM-PRC
S223C	Std. Thermometer	205617	NIM-PRC

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

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

Calibrated by :

James Yau

Approved by :

Steve Kwan

Date: 13-Feb-23

This Certificate is issued by:

Hong Kong Calibration Ltd.

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

Tel: 2425 8801 Fax: 2425 8646



Calibration Certificate

Certificate No. 300737

Page 2 of 2 Pages

Results :

1. Velocity

Applied Value (m/s)	UUT Reading (m/s)	Mfr's Spec.
0.00	0.00	± (3 % of reading + 0.3 m/s)
2.50	2.43	
5.00	5.04	
10.00	10.07	
15.00	15.65	
19.00	19.87	

2. Temperature

Applied Value (°C)	UUT Reading (°C)	Mfr's Spec.
23.12	23.0	± 2 °C

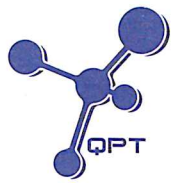
Remark : 1. UUT: Unit-Under-Test

2. Uncertainty : ± (0.9 % + 0.16 m/s) for Velocity, ± 0.1 °C for Temperature, for a confidence probability of not less than 95 %.

3. Atmospheric Pressure: 1 002 hPa

----- END -----

Water Quality



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-BC040109
Date of Issue : 25 April 2023
Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

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

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : S/N: 22C106561
Date of Received : 18 April 2023
Date of Calibration : 25 April 2023
Date of Next Calibration : 24 July 2023
Request No. : D-BC040109

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.10	0.10	Satisfactory
7.42	7.50	0.08	Satisfactory
10.01	10.01	0.00	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
10	10.5	0.5	Satisfactory
23	23.1	0.1	Satisfactory
35	34.4	-0.1	Satisfactory

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

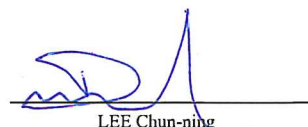
(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.81	-1.90	Satisfactory
20	20.47	2.35	Satisfactory
30	31.31	4.37	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED
SIGNATORY:


LEE Chun-ning
Assistant Manager (Chemical Testing)



專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 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-BC040109
Date of Issue : 25 April 2023
Page No. : 2 of 2

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
8.07	8.08	0.01	Satisfactory
5.10	4.80	-0.30	Satisfactory
2.06	2.17	0.11	Satisfactory
0.24	0.37	0.13	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.74	--	Satisfactory
10	9.60	-4.00	Satisfactory
20	18.94	-5.30	Satisfactory
100	95.17	-4.80	Satisfactory
800	752.06	-6.00	Satisfactory

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

Remark(s)

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

--- END OF REPORT ---



Calibration Certificate

Certificate No. **210252**

Page 1 of 2 Pages

Customer : Acuity Sustainability Consulting Limited

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

Order No. : Q24081

Date of receipt : 31-Oct-22

Item Tested

Description : Flow Probe

Manufacturer : Global Water

Model : FP111

I.D. : --

Serial No. : 22K100859

Test Conditions

Date of Test : 7-Nov-22

Ambient Temperature : 23°C

Supply Voltage : --

Relative Humidity : 78%

Test Specifications

Calibration check.

Ref. Document/Procedure : V12

Test Results

All results were within the manufacturer's specification.

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

Main Test equipment used:

<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Traceable to</u>
S179	Std. Tape	201868	NIM-PRC
S136A	Stop Watch	201878	SCL-HKSAR

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

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

Calibrated by : 
Kin Wong

Approved by : 
Alan Chu

This Certificate is issued by:
Hong Kong Calibration Ltd.

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

Date: 7-Nov-22



Calibration Certificate

Certificate No. 210252

Page 2 of 2 Pages

Results :

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

Remarks : 1. UUT : Unit-Under-Test

2. Uncertainty : ± 1 %, for a confidence probability of not less than 95%.

----- END -----

Landfill Gas

Calibration Certificate

Customer Name Paul Y Construction Co. Ltd
 Model PS200
 Serial 373075
 Tested On 16 November, 2022
 Cal Expires 16 November, 2023

Audible Alarm PASS
 Visual Alarm PASS
 Calibrated For METHANE
 100% LEL Equivalent 4.4% by VOL

Overall Results PASS



Calibration Result

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

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

Calibrated By Ivan Lo :



CERTIFICATION OF CALIBRATION



Date Of Calibration: 17-Aug-2022

Certificate Number: G508566_2/31066

Issued by: QED Environmental Systems Ltd.

Customer: Onuee Electronics Ltd
C3-E TCL Science Park No.1001 Zhong Shan Yuan Rd.
Nanshan Shenzhen 518052 CHINA

Description: Gas Analyser

Model: GEM5000

Serial Number: G508566

UKAS Accredited results:

Methane (CH ₄)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.072
15.0	14.9	0.13
60.0	59.6	0.42

Carbon Dioxide (CO ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	5.0	0.074
15.0	14.9	0.13
40.0	40.0	0.29

Oxygen (O ₂)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
21.2	21.3	0.25

All concentrations are molar.

CH₄, CO₂ readings recorded at : 33.0 °C ± 2.5 °C

O₂ readings recorded at : 22.7 °C ± 2.5 °C

Barometric Pressure : 1002 mbar ± 4 mbar

Method of Test : The analyser is calibrated in a temperature controlled chamber using a series of reference gases, in compliance with procedure LP004.

Instrument has passed calibration as the measurement result is within the specification limit. The specification limit takes into account the measurement uncertainty.

The results relate only to the item calibrated

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance:114 IGC Instance:N/A

Page 1 of 2 | LP015GIUKAS-2.5

www.qedenv.com +44 (0) 333 800 0088 sales@qedenv.co.uk

QED Environmental Systems Ltd. Cyan Park - Unit 3, Jimmy Hill Way, Coventry, CV2 4QP, UNITED KINGDOM

Registered in England and Wales 1898734

CERTIFICATION OF CALIBRATION



Date Of Calibration: 17-Aug-2022

Certificate Number: G508566_2/31066

Issued by: QED Environmental Systems Ltd.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Calibrations marked 'Non-UKAS Accredited results' on this certificate have been included for completeness.

Non-UKAS accredited results after adjustment:

Barometer (mbar)	
Reference	Instrument Reading
1002	1002

Additional Gas Cells		
Gas	Certified Gas (ppm)	Instrument Reading (ppm)
H ₂ S	52.6	53

Date of Issue : 18-Aug-2022

Approved by Signatory

Keeley Knight

Laboratory Inspection

End of Certificate

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 114 IGC Instance: N/A

Page 2 of 2 | LP015GIUKAS-2.5

www.qedenv.com +44 (0) 333 800 0088 sales@qedenv.co.uk

QED Environmental Systems Ltd. Cyan Park - Unit 3, Jimmy Hill Way, Coventry, CV2 4QP, UNITED KINGDOM

Registered in England and Wales 1898734

Appendix E Monitoring Results

Air Quality

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

Date	Equipment Brand & Model	Equipment Serial No.	K-factor	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average	Action Level	Limit Level
								$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
5/5/2023	Sibata LD-5R	942532	0.00108	Fine	8:30	9:30	10:30	15	21	20	19	285	500
11/5/2023	Sibata LD-5R	942532	0.00108	Fine	11:46	12:46	13:46	16	21	19	19		
17/5/2023	Sibata LD-5R	942532	0.00108	Fine	14:00	15:00	16:00	21	23	22	22		
23/5/2023	Sibata LD-5R	942532	0.00108	Fine	11:30	12:30	13:30	16	24	19	20		
29/5/2023	Sibata LD-5R	942532	0.00108	Cloudy	12:19	13:19	14:19	34	40	38	37		
Average								23					
Max.								40					
Min.								15					

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

Date	Equipment Brand & Model	Equipment Serial No.	K-factor	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average	Action Level	Limit Level
								$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
5/5/2023	Sibata LD-5R	882106	0.00107	Fine	8:45	9:45	10:45	20	34	29	28	279	500
11/5/2023	Sibata LD-5R	882106	0.00107	Fine	12:00	13:00	14:00	15	24	19	19		
17/5/2023	Sibata LD-5R	882106	0.00107	Fine	14:20	15:20	16:20	31	34	32	32		
23/5/2023	Sibata LD-5R	882106	0.00107	Fine	11:45	12:45	13:45	26	34	30	30		
29/5/2023	Sibata LD-5R	882106	0.00107	Cloudy	12:36	13:36	14:36	41	43	40	41		
Average								30					
Max.								43					
Min.								15					

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

Date	Equipment Brand & Model	Equipment Serial No.	K-factor	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average	Action Level	Limit Level
								$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
5/5/2023	Sibata LD-5R	024545	0.00114	Fine	8:10	9:10	10:10	26	31	29	29	285	500
11/5/2023	Sibata LD-5R	024545	0.00114	Fine	10:35	11:35	12:35	39	49	40	43		
17/5/2023	Sibata LD-5R	024545	0.00114	Fine	14:10	15:10	16:10	32	38	33	34		
23/5/2023	Sibata LD-5R	024545	0.00114	Fine	11:10	12:10	13:10	31	34	33	33		
29/5/2023	Sibata LD-5R	024545	0.00114	Cloudy	13:00	14:00	15:00	35	40	36	37		
Average								35					
Max.								49					
Min.								26					

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

Start Date	Weather Condition	Avg Air Temp	Avg Atmospheric Pressure	Elapse Time		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 ($\mu\text{g}/\text{m}^3$)
		($^{\circ}\text{C}$)	(hPa)	Initial	Final					Initial	Final				
5/5/2023	Fine	27.9	1005.1	1071.34	1095.34	1440	40	1.13	1629	2.6676	2.7171	0.0495	30	164	260
11/5/2023	Fine	24.2	1014.8	1095.47	1119.47	1440	40.5	0.99	1422	2.6707	2.7978	0.1271	89		
17/5/2023	Fine	27.9	1007.4	1119.47	1143.47	1440	41	0.99	1419	2.6584	2.7373	0.0789	56		
23/5/2023	Cloudy	28.7	1009.8	1143.47	1167.47	1440	40	0.95	1364	2.6638	2.7025	0.0387	28		
29/5/2023	Cloudy	30.1	1006.0	1167.47	1191.47	1440	39.5	0.92	1322	2.6655	2.8059	0.1404	106		
												Average	62		
												Min	28		
												Max	106		

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

Start Date	Weather Condition	Avg Air Temp	Avg Atmospheric Pressure	Elapse Time		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 ($\mu\text{g}/\text{m}^3$)
		($^{\circ}\text{C}$)	(hPa)	Initial	Final					Initial	Final				
5/5/2023	Fine	27.9	1005.1	844.41	868.41	1440	41	0.99	1419	2.6766	2.7525	0.0759	53	164	260
11/5/2023	Fine	24.2	1014.8	868.46	892.46	1440	40.5	1.07	1543	2.6674	2.7815	0.1141	74		
17/5/2023	Fine	27.9	1007.4	892.46	916.46	1440	36.5	0.92	1320	2.6751	2.7849	0.1098	83		
23/5/2023	Cloudy	28.7	1009.8	916.46	940.46	1440	41	1.07	1543	2.6491	2.7552	0.1061	69		
29/5/2023	Cloudy	30.1	1006.0	940.46	964.46	1440	41.5	1.08	1555	2.6794	2.8151	0.1357	87		
												Average	73		
												Min	53		
												Max	87		

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

Start Date	Weather Condition	Avg Air Temp	Avg Atmospheric Pressure	Elapse Time		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 ($\mu\text{g}/\text{m}^3$)
		($^{\circ}\text{C}$)	(hPa)	Initial	Final					Initial	Final				
5/5/2023	Fine	27.9	1005.1	1850.77	1874.77	1440	40	1.18	1695	2.6620	2.7115	0.0495	29	164	260
11/5/2023	Fine	24.2	1014.8	1874.84	1898.84	1440	40	0.78	1118	2.6792	2.8144	0.1352	121		
17/5/2023	Fine	27.9	1007.4	1898.84	1922.84	1440	39	0.72	1035	2.6792	2.7875	0.1083	105		
23/5/2023	Cloudy	28.7	1009.8	1922.84	1946.84	1440	40	0.76	1091	2.6534	2.7669	0.1135	104		
29/5/2023	Cloudy	30.1	1006.0	1946.84	1970.84	1440	40	0.75	1078	2.6653	2.7810	0.1157	107		
												Average	93		
												Min	29		
												Max	121		

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

Date	Weather	Wind speed m/s	Start Time	End Time	L_{eq} (dB(A))							L_{10} (dB(A))						L_{90} (dB(A))					
					1st	2nd	3rd	4th	5th	6th	Overall (30min)	1st	2nd	3rd	4th	5th	6th	1st	2nd	3rd	4th	5th	6th
5/5/2023	Fine	0	7:10	7:40	46.1	47.9	46.6	48.9	47.1	48.1	47.6	47.6	49.2	47.7	50.2	48.6	49.7	45.9	46.6	45.1	47.1	45.7	46.5
11/5/2023	Fine	0	10:40	11:10	56.2	55.9	56.4	55.7	55.5	56.1	56.0	62.7	67.3	67.7	60.2	62.7	67.1	52.8	53.4	54.1	52.9	53	54.2
17/5/2023	Fine	0.2	14:21	14:51	57.2	58.6	59.2	60.2	58.4	60.4	59.1	60.3	61.2	62.6	63.3	62.4	62.9	51.2	52.3	54.1	55.2	54.4	58.4
23/5/2023	Cloudy	1.2	10:02	10:32	52.4	53.3	54.1	53.6	53.9	54.4	53.7	55.4	56.3	58.1	56.5	57.1	58.3	50.3	49.2	51.3	50.2	50.2	52.3
29/5/2023	Cloudy	3.1	9:34	10:04	60.2	61.2	61.9	60.3	60.9	61.1	61.0	60.8	61.9	62.1	61.3	61.4	62.6	59.1	58.2	59.2	58.3	59.2	57.1

Average	57.4
Baseline Level	55.4
Action Level	When one valid documented complaint is received
Limit Level	75

Impact Phase Construction Noise Monitoring Data at Location NM2a

Date	Weather	Wind speed m/s	Start Time	End Time	L_{eq} (dB(A))							L_{10} (dB(A))						L_{90} (dB(A))					
					1st	2nd	3rd	4th	5th	6th	Overall (30min)	1st	2nd	3rd	4th	5th	6th	1st	2nd	3rd	4th	5th	6th
5/5/2023	Fine	0.2	12:00	12:30	45.5	43.4	46.6	42.6	48.4	53.5	48.4	49.7	46.3	46.8	45.4	48.9	59.2	37.9	37.5	38.1	37.2	39	38.7
11/5/2023	Fine	0	14:24	14:54	56.6	57.1	55.1	57.4	56.3	55.2	56.4	70.7	71.2	69.4	72.2	70.1	68.2	35.4	36.4	34.9	37.4	35.1	36.4
17/5/2023	Fine	0.9	16:41	17:11	57.2	58.3	57.3	56.3	58.2	59.2	57.8	60.3	61.3	60.9	59.3	61.4	62.4	52.3	53.2	54.2	55.2	52.2	55.9
23/5/2023	Cloudy	2.1	15:30	16:00	50.2	51.3	49.9	52.1	51.9	52.4	51.4	53.2	54.4	52.1	53.6	54.2	54.3	47.2	48.4	48.1	49.2	48.8	48.1
29/5/2023	Cloudy	2.1	16:00	16:30	60.2	58.2	57.4	57.7	56.3	57.4	58.0	62.2	59.3	58.5	58.9	59.2	58.4	59.1	54.2	56.1	54.1	52.1	53.2

Average	55.8
Baseline Level	54.5
Action Level	When one valid documented complaint is received
Limit Level	75

Water Quality

Monitoring Location: WM1

Date	Time	Weather	Water Depth (m)	Water Flow (L/s)	Water Temperature (°C)	DO (mg/L)			pH			Turbidity (NTU)			SS (mg/L)		
						Value	Action Level	Limit Level	Value	Action Level	Limit Level	Value	Action Level	Limit Level	Value	Action Level	Limit Level
5-May-23	11:47	Fine	0.1	0	24.3	7.9	<7.4	<4	6.9	>7.7	>7.8	3.1	>9.2	>9.5	3.3	>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
5-May-23	7:46	Fine	0.16	0	25.2	8.1	<5	<4	7.3	>7.6	>7.7	30.6	>108.3	>108.9	34.2	>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"






CERTIFICATE OF ANALYSIS

Client	: ACUMEN LABORATORY AND TESTING LIMITED	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 9
Contact	: MR HUNTINGTON HUI	Contact	: Richard Fung	Work Order	: HK2317588
Address	: UNIT D, 12/F, FORD GLORY PLAZA, NOS.37-39 WING HONG STREET, CHEUNG SHA WAN, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: htthui@acumen-env.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: +852 2333 6823	Telephone	: +852 2610 1044		
Facsimile	: +852 2333 1316	Facsimile	: +852 2610 2021		
Project	: NENTX			Date Samples Received	: 05-May-2023
Order number	: ----	Quote number	: HKE/2751/2022_V2	Issue Date	: 19-May-2023
C-O-C number	: ----			No. of samples received	: 2
Site	:			No. of samples analysed	: 2

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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	Inorganics
 Fung Lim Chee, Richard	Managing Director	Metals_ENV
 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 05-May-2023 to 18-May-2023.

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

Specific Comments for Work Order: HK2317588

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

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.

Microbiological sample(s) was/ were collected in 250mL sterile plastic bottles containing sodium thiosulfate. Sample(s) arrived at the laboratory at 17:55.

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.

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

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



Analytical Results

Sub-Matrix: WATER

				Sample ID	WM1	WM2	----	----	----
				Sampling date / time	05-May-2023	05-May-2023	----	----	----
Compound	CAS Number	LOR	Unit	HK2317588-001	HK2317588-002	-----	-----	-----	-----
EA/ED: Physical and Aggregate Properties									
EA002: pH Value	----	0.1	pH Unit	6.4	6.8	----	----	----	----
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	67	188	----	----	----	----
EA025: Suspended Solids (SS)	----	0.1	mg/L	3.3	34.2	----	----	----	----
ED037: Total Alkalinity as CaCO3	----	1	mg/L	18	58	----	----	----	----
ED/EK: Inorganic Nonmetallic Parameters									
ED041K: Sulphate as SO4 - Turbidimetric	----	1	mg/L	4	8	----	----	----	----
ED045K: Chloride	16887-00-6	0.5	mg/L	7	15	----	----	----	----
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.06	0.39	----	----	----	----
EK058A: Nitrate as N	14797-55-8	0.01	mg/L	<0.01	0.03	----	----	----	----
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.4	0.8	----	----	----	----
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.02	<0.01	----	----	----	----
EK086: Sulphite as SO3 2-	14265-45-3	2	mg/L	<2	<2	----	----	----	----
EP: Aggregate Organics									
EP005: Total Organic Carbon	----	1	mg/L	3	5	----	----	----	----
EP020: Oil & Grease	----	5	mg/L	<5	<5	----	----	----	----
EP026C: Chemical Oxygen Demand	----	5	mg/L	10	13	----	----	----	----
EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	3	----	----	----	----
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	2	3	----	----	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	3	----	----	----	----
EG020: Manganese	7439-96-5	1	µg/L	84	2370	----	----	----	----
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	3460	18600	----	----	----	----
EG032: Iron	7439-89-6	10	µg/L	660	8990	----	----	----	----
EG032: Magnesium	7439-95-4	50	µg/L	470	1420	----	----	----	----
EG032: Potassium	7440-09-7	50	µg/L	570	3900	----	----	----	----
EG032: Sodium	7440-23-5	50	µg/L	8590	11800	----	----	----	----



Sub-Matrix: WATER				Sample ID	WM1	WM2	----	----	----
				Sampling date / time	05-May-2023	05-May-2023	----	----	----
Compound	CAS Number	LOR	Unit	HK2317588-001	HK2317588-002	-----	-----	-----	
EM: Microbiological Testing									
EM002: E. coli	----	1	CFU/100mL	30000	110	----	----	----	
EM003: Total Coliforms	----	1	CFU/100mL	40000	1500	----	----	----	



Laboratory Duplicate (DUP) Report

Matrix: WATER

				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 5035238)								
HK2317636-001	Anonymous	EA002: pH Value	----	0.1	pH Unit	8.5	8.5	0.0
HK2317756-002	Anonymous	EA002: pH Value	----	0.1	pH Unit	8.6	8.6	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 5035346)								
HK2317588-001	WM1	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	67	67	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 5035347)								
HK2317588-001	WM1	ED037: Total Alkalinity as CaCO3	----	1	mg/L	18	18	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 5042299)								
HK2317203-001	Anonymous	EA025: Suspended Solids (SS)	----	0.5	mg/L	38.7	39.6	2.2
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5034311)								
HK2317588-002	WM2	EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5034664)								
HK2317485-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	33.7	32.6	3.5
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5036644)								
HK2317588-001	WM1	ED041K: Sulphate as SO4 - Turbidimetric	----	1	mg/L	4	4	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5036647)								
HK2317588-001	WM1	ED045K: Chloride	16887-00-6	1	mg/L	7	7	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5037580)								
HK2317339-001	Anonymous	EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	1.0	1.0	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5052026)								
HK2318315-002	Anonymous	EK086: Sulphite as SO3 2-	14265-45-3	2	mg/L	<2	<2	0.0
EP: Aggregate Organics (QC Lot: 5046151)								
HK2317488-005	Anonymous	EP005: Total Organic Carbon	----	1	mg/L	<1	<1	0.0
EP: Aggregate Organics (QC Lot: 5056979)								
HK2317892-003	Anonymous	EP026C: Chemical Oxygen Demand	----	5	mg/L	5	5	0.0
EG: Metals and Major Cations - Total (QC Lot: 5033993)								
HK2317340-002	Anonymous	EG020: Cadmium	7440-43-9	0.2	µg/L	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	µg/L	58	61	4.7
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Manganese	7439-96-5	1	µg/L	<1	<1	0.0
		EG020: Nickel	7440-02-0	1	µg/L	<1	<1	0.0



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: 5033993) - Continued									
HK2317340-002	Anonymous	EG020: Zinc	7440-66-6	10	µg/L	43	43	0.0	
EG: Metals and Major Cations - Total (QC Lot: 5033999)									
HK2317588-002	WM2	EG032: Iron	7439-89-6	10	µg/L	8990	9280	3.2	
		EG032: Calcium	7440-70-2	50	µg/L	18600	19300	3.5	
		EG032: Magnesium	7439-95-4	50	µg/L	1420	1490	4.5	
		EG032: Potassium	7440-09-7	50	µg/L	3900	3950	1.4	
		EG032: Sodium	7440-23-5	50	µg/L	11800	12200	3.0	

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					
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)							
						LCS	DCS	Low	High	Value	Control Limit						
EA/ED: Physical and Aggregate Properties (QC Lot: 5035346)																	
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	<1	146.9 µS/cm	102	----	93.5	106	----	----						
				<1	1412 µS/cm	98.4	----	94.3	105	----	----						
EA/ED: Physical and Aggregate Properties (QC Lot: 5035347)																	
ED037: Total Alkalinity as CaCO3	----	1	mg/L	<1	50 mg/L	101	----	95.0	105	----	----						
EA/ED: Physical and Aggregate Properties (QC Lot: 5042299)																	
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	10 mg/L	91.0	----	82.4	118	----	----						
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5034311)																	
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	101	----	92.4	106	----	----						
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5034664)																	
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	104	----	89.3	109	----	----						
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5036644)																	
ED041K: Sulphate as SO4 - Turbidimetric	----	1	mg/L	<1	5 mg/L	105	----	89.8	108	----	----						
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5036647)																	
ED045K: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	98.8	----	88.2	108	----	----						
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5037580)																	
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	0.5 mg/L	103	----	89.0	120	----	----						



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
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5052026)											
EK086: Sulphite as SO3 2-	14265-45-3	2	mg/L	<2	----	----	----	----	----	----	----
EP: Aggregate Organics (QC Lot: 5032687)											
EP030: Biochemical Oxygen Demand	----	----	mg/L	----	198 mg/L	99.2	----	78.6	118	----	----
EP: Aggregate Organics (QC Lot: 5046151)											
EP005: Total Organic Carbon	----	1	mg/L	<1	5 mg/L	103	----	78.1	123	----	----
				<1	100 mg/L	93.6	----	79.9	119	----	----
EP: Aggregate Organics (QC Lot: 5049731)											
EP020: Oil & Grease	----	2	mg/L	<2	20 mg/L	96.0	----	84.2	110	----	----
EP: Aggregate Organics (QC Lot: 5056979)											
EP026C: Chemical Oxygen Demand	----	----	mg/L	----	25 mg/L	103	----	92.0	108	----	----
				----	250 mg/L	100	----	92.3	106	----	----
EG: Metals and Major Cations - Total (QC Lot: 5033993)											
EG020: Cadmium	7440-43-9	0.2	µg/L	<0.2	5 µg/L	97.4	----	85.0	109	----	----
EG020: Copper	7440-50-8	1	µg/L	<1	50 µg/L	101	----	90.0	111	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	50 µg/L	108	----	89.0	111	----	----
EG020: Manganese	7439-96-5	1	µg/L	<1	50 µg/L	101	----	85.0	115	----	----
EG020: Nickel	7440-02-0	1	µg/L	<1	50 µg/L	101	----	87.0	110	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	50 µg/L	106	----	86.0	114	----	----
EG: Metals and Major Cations - Total (QC Lot: 5033999)											
EG032: Calcium	7440-70-2	50	µg/L	<50	2000 µg/L	99.5	----	85.0	115	----	----
EG032: Iron	7439-89-6	10	µg/L	<10	2000 µg/L	104	----	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	101	----	85.0	115	----	----



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

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
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5034311)										
HK2317588-002	WM2	EK071K: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	98.5	----	75.0	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5034664)										
HK2317485-001	Anonymous	EK055K: Ammonia as N	7664-41-7	50 mg/L	110	----	75.0	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5036644)										
HK2317588-001	WM1	ED041K: Sulphate as SO4 - Turbidimetric	----	5 mg/L	93.7	----	75.0	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5036647)										
HK2317588-001	WM1	ED045K: Chloride	16887-00-6	5 mg/L	86.1	----	75.0	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 5037580)										
HK2317339-001	Anonymous	EK061A: Total Kjeldahl Nitrogen as N	----	1 mg/L	125	----	75.0	125	----	----
EP: Aggregate Organics (QC Lot: 5046151)										
HK2317488-005	Anonymous	EP005: Total Organic Carbon	----	5 mg/L	103	----	75.0	125	----	----
EP: Aggregate Organics (QC Lot: 5056979)										
HK2317892-003	Anonymous	EP026C: Chemical Oxygen Demand	----	10 mg/L	103	----	75.0	125	----	----
EG: Metals and Major Cations - Total (QC Lot: 5033993)										
HK2317340-001	Anonymous	EG020: Cadmium	7440-43-9	5 µg/L	94.8	----	75.0	125	----	----
		EG020: Copper	7440-50-8	50 µg/L	# Not Determined	----	75.0	125	----	----
		EG020: Lead	7439-92-1	50 µg/L	105	----	75.0	125	----	----
		EG020: Manganese	7439-96-5	50 µg/L	103	----	75.0	125	----	----
		EG020: Nickel	7440-02-0	50 µg/L	100	----	75.0	125	----	----
		EG020: Zinc	7440-66-6	50 µg/L	103	----	75.0	125	----	----
EG: Metals and Major Cations - Total (QC Lot: 5033999)										
HK2317588-001	WM1	EG032: Calcium	7440-70-2	2000 µg/L	119	----	75.0	125	----	----
		EG032: Iron	7439-89-6	2000 µg/L	112	----	75.0	125	----	----
		EG032: Magnesium	7439-95-4	2000 µg/L	113	----	75.0	125	----	----

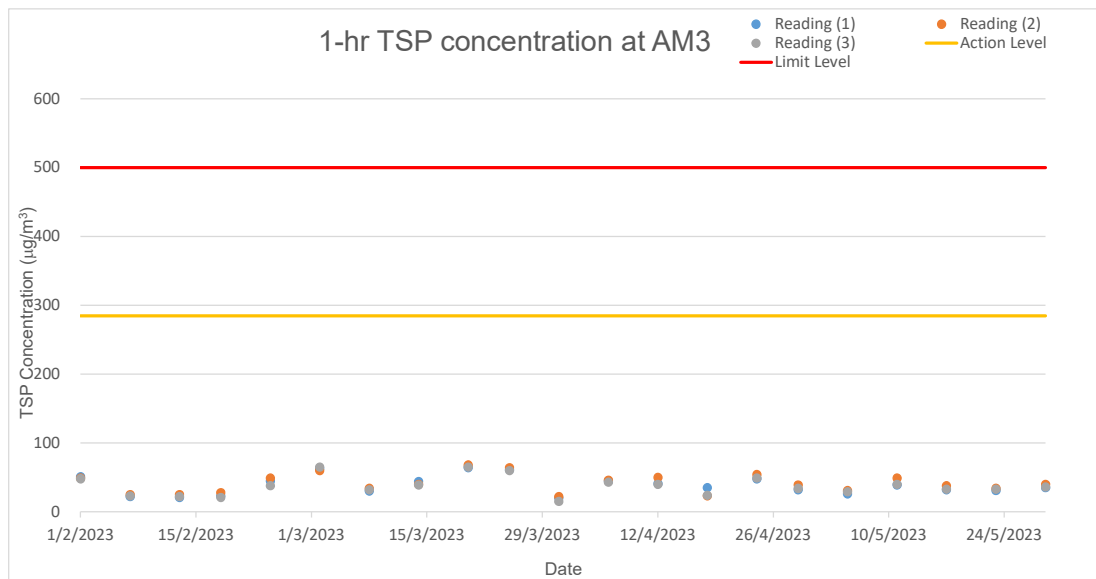
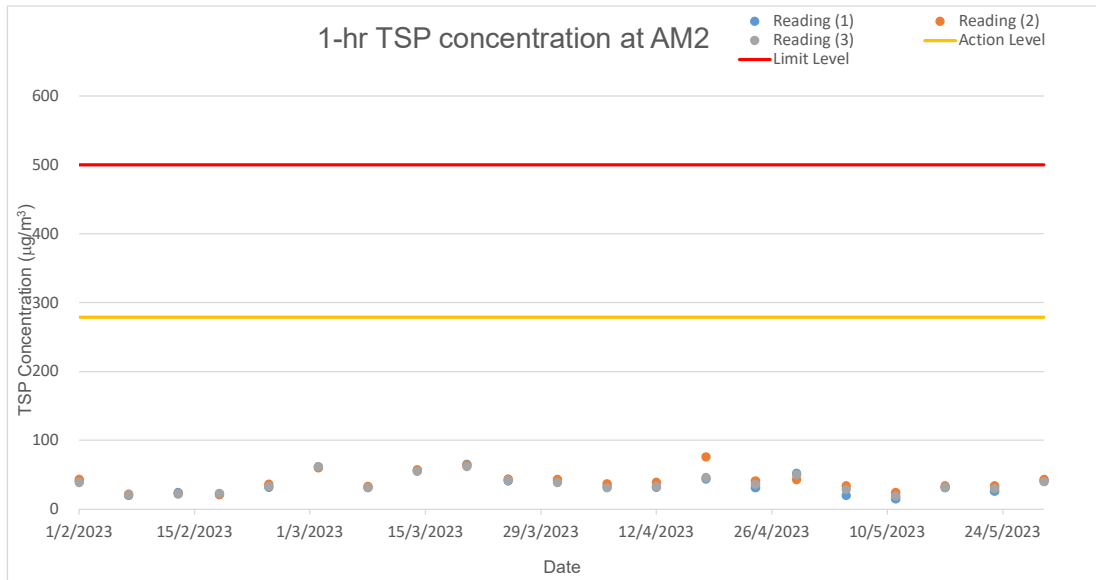
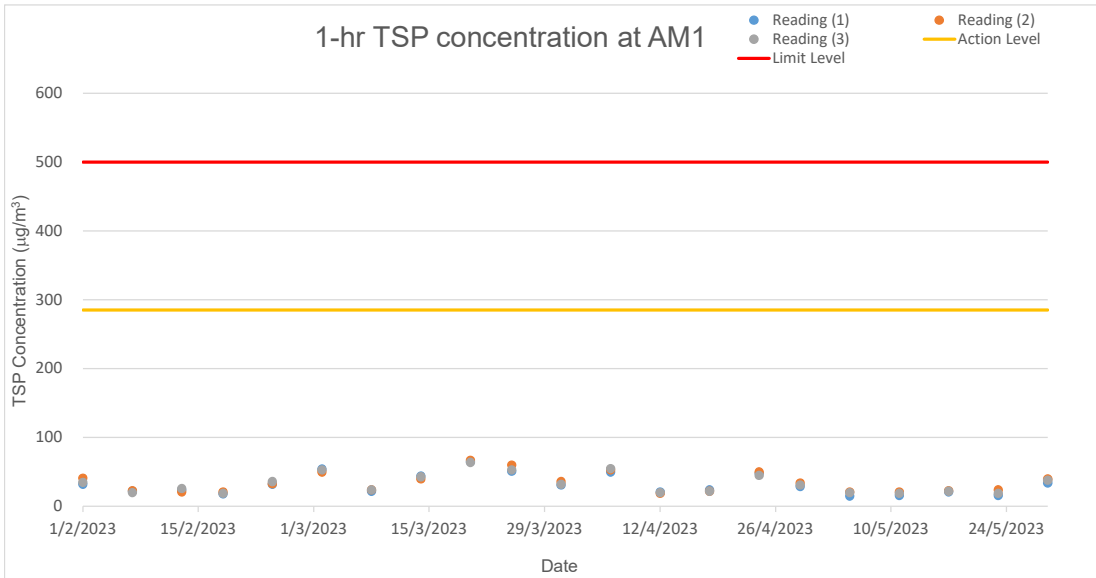


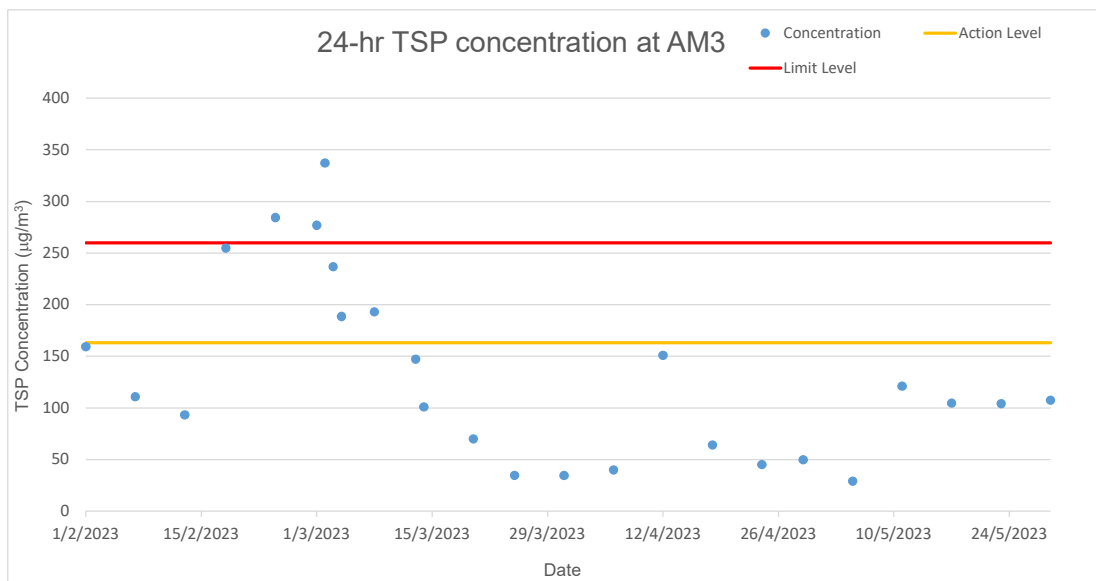
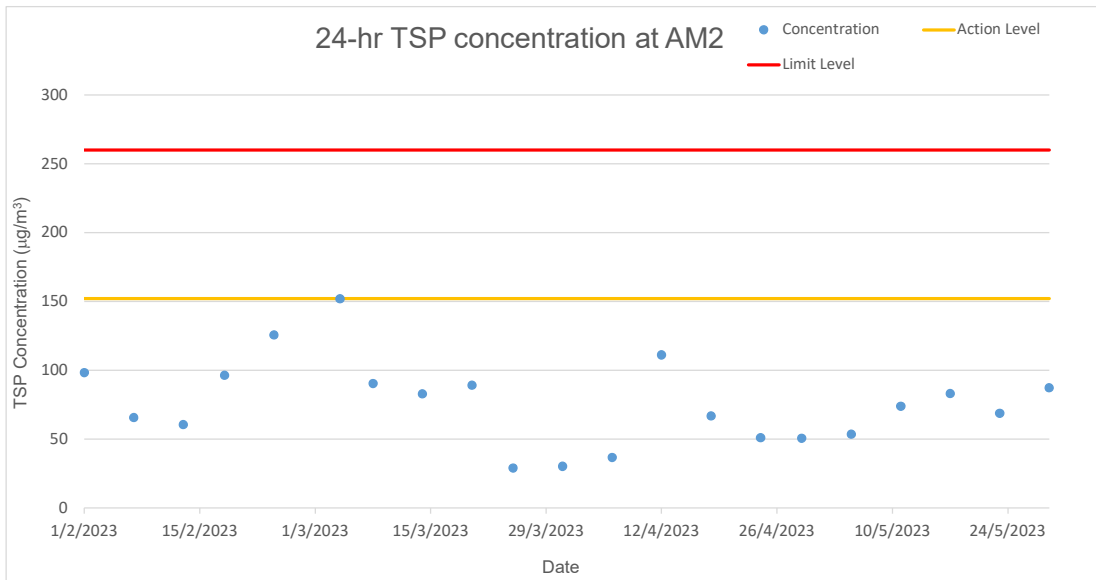
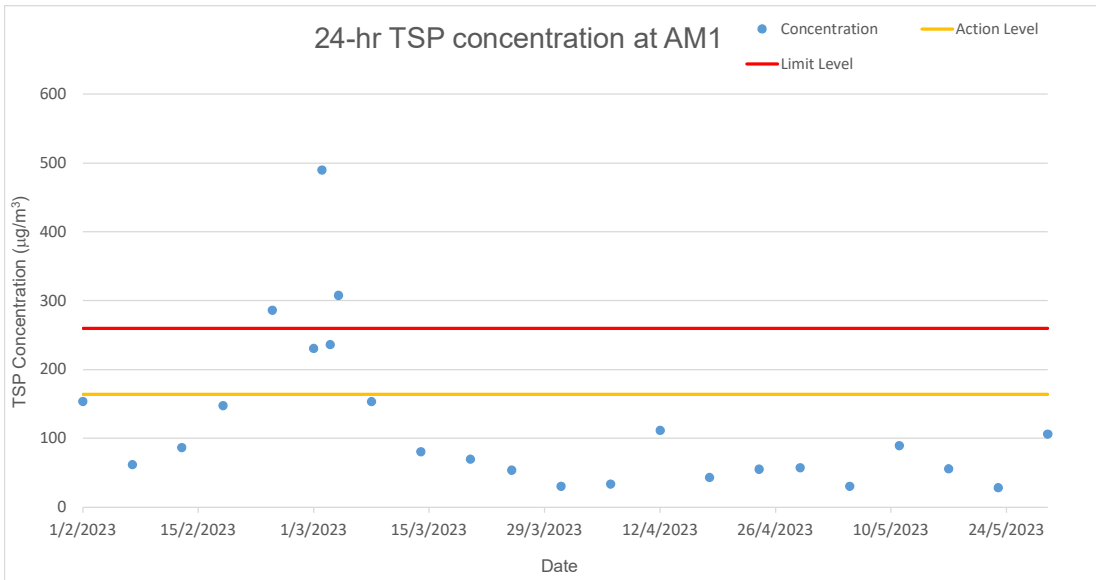
Matrix: WATER

				<i>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report</i>						
<i>Laboratory sample ID</i>	<i>Sample ID</i>	<i>Method: Compound</i>	<i>CAS Number</i>	<i>Spike Concentration</i>	<i>Spike Recovery (%)</i>		<i>Recovery Limits (%)</i>		<i>RPD (%)</i>	
					<i>MS</i>	<i>MSD</i>	<i>Low</i>	<i>High</i>	<i>Value</i>	<i>Control Limit</i>
EG: Metals and Major Cations - Total (QC Lot: 5033999) - Continued										
HK2317588-001	WM1	EG032: Potassium	7440-09-7	2000 µg/L	109	----	75.0	125	----	----
		EG032: Sodium	7440-23-5	2000 µg/L	# Not Determined	----	75.0	125	----	----

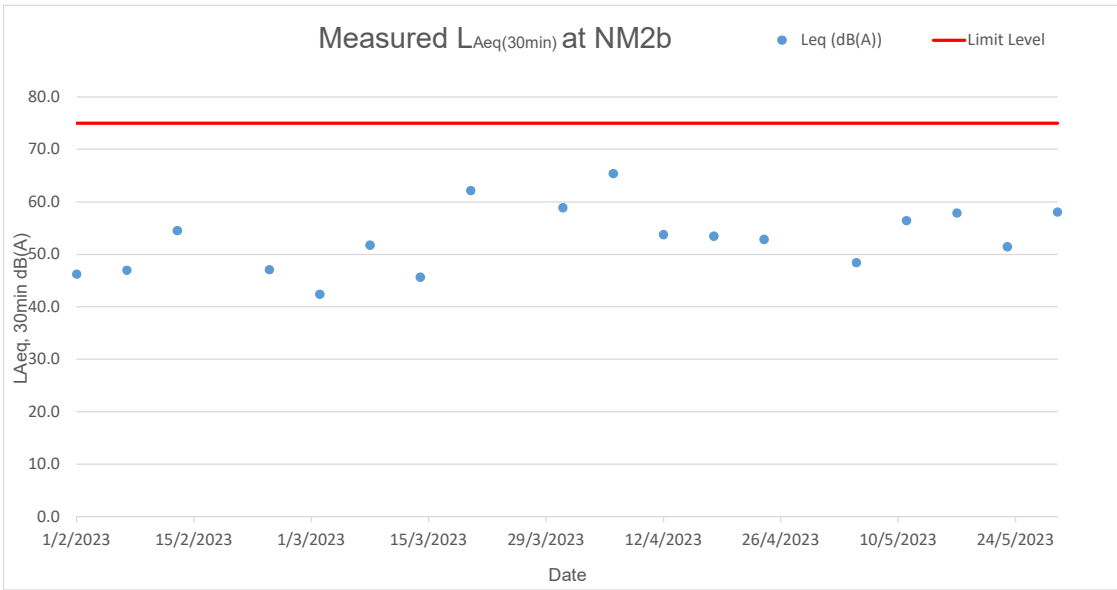
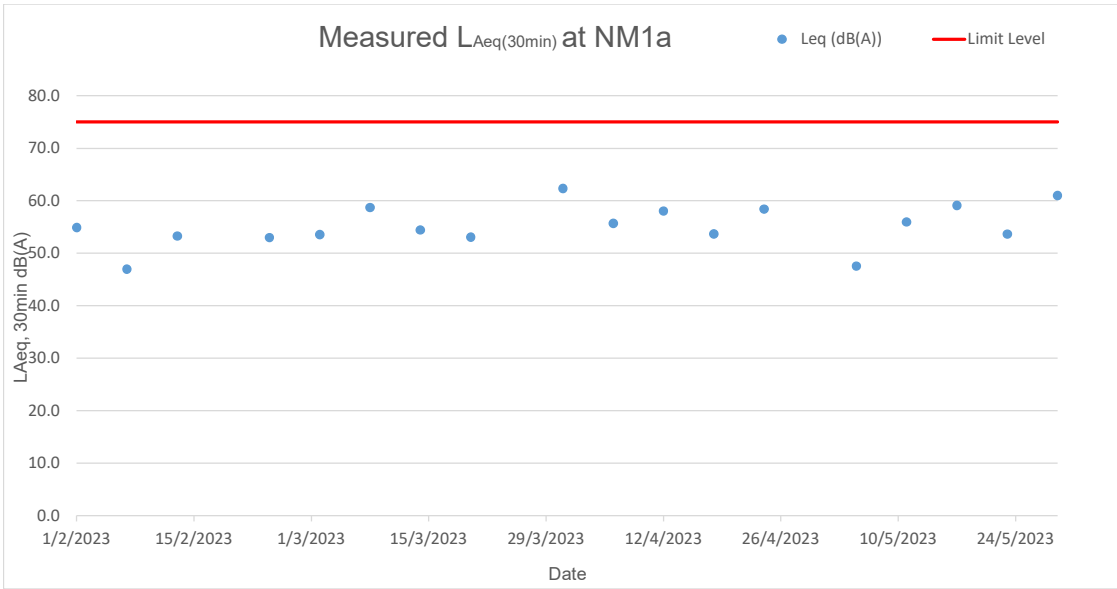
Appendix F Graphical Presentations

Air Quality



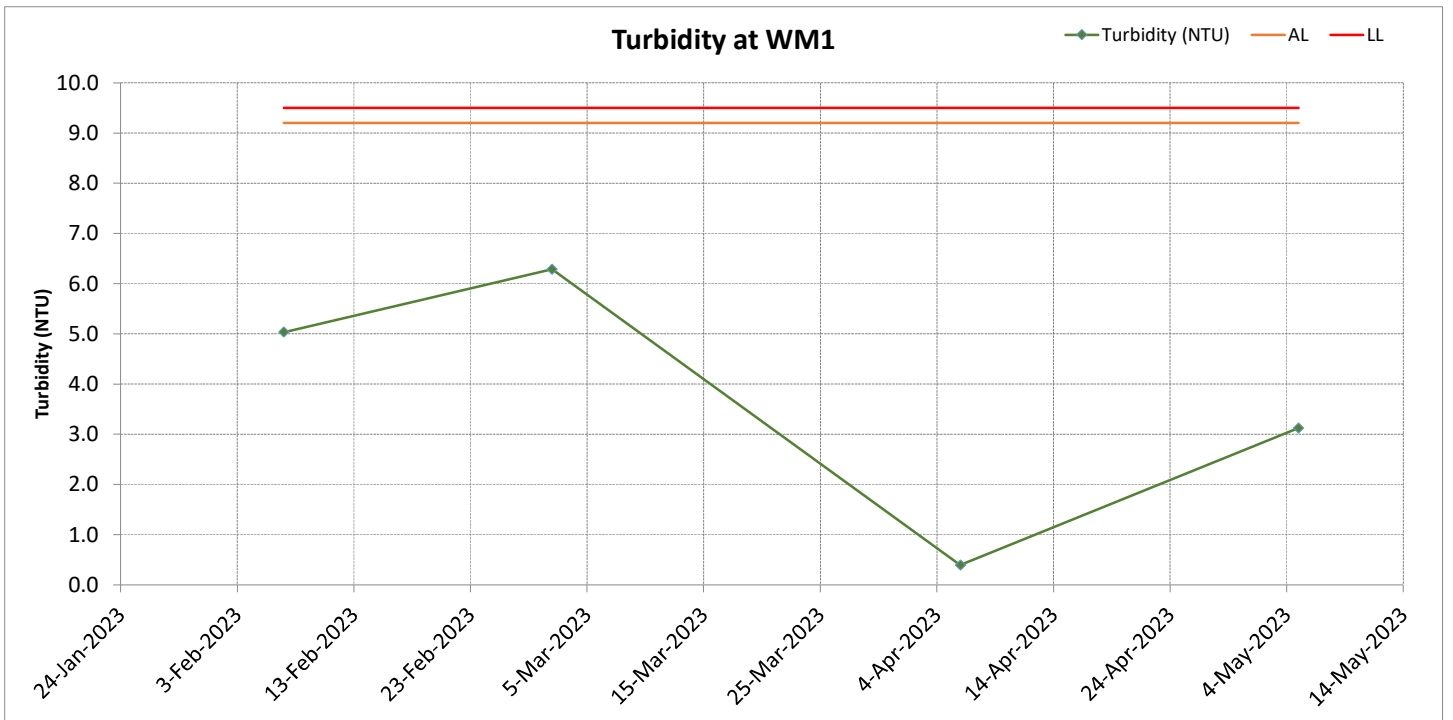
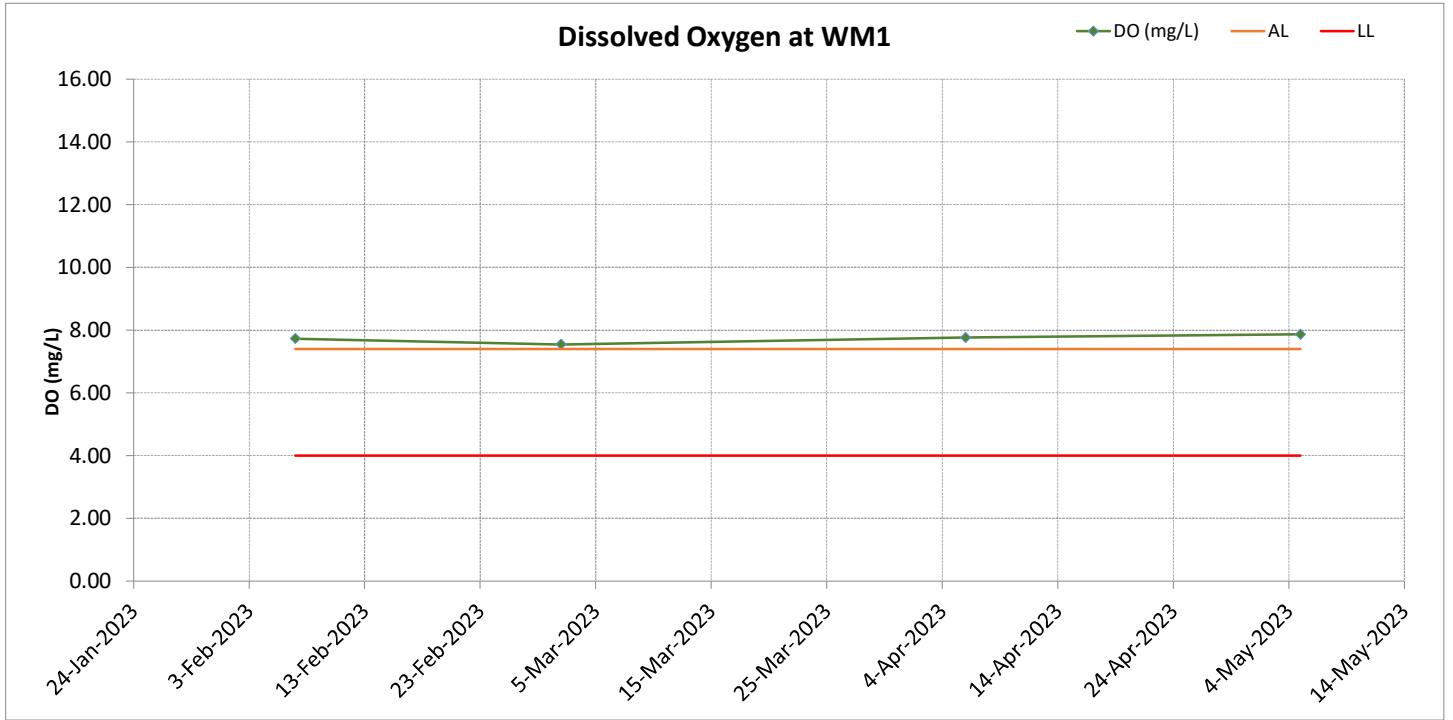


Noise

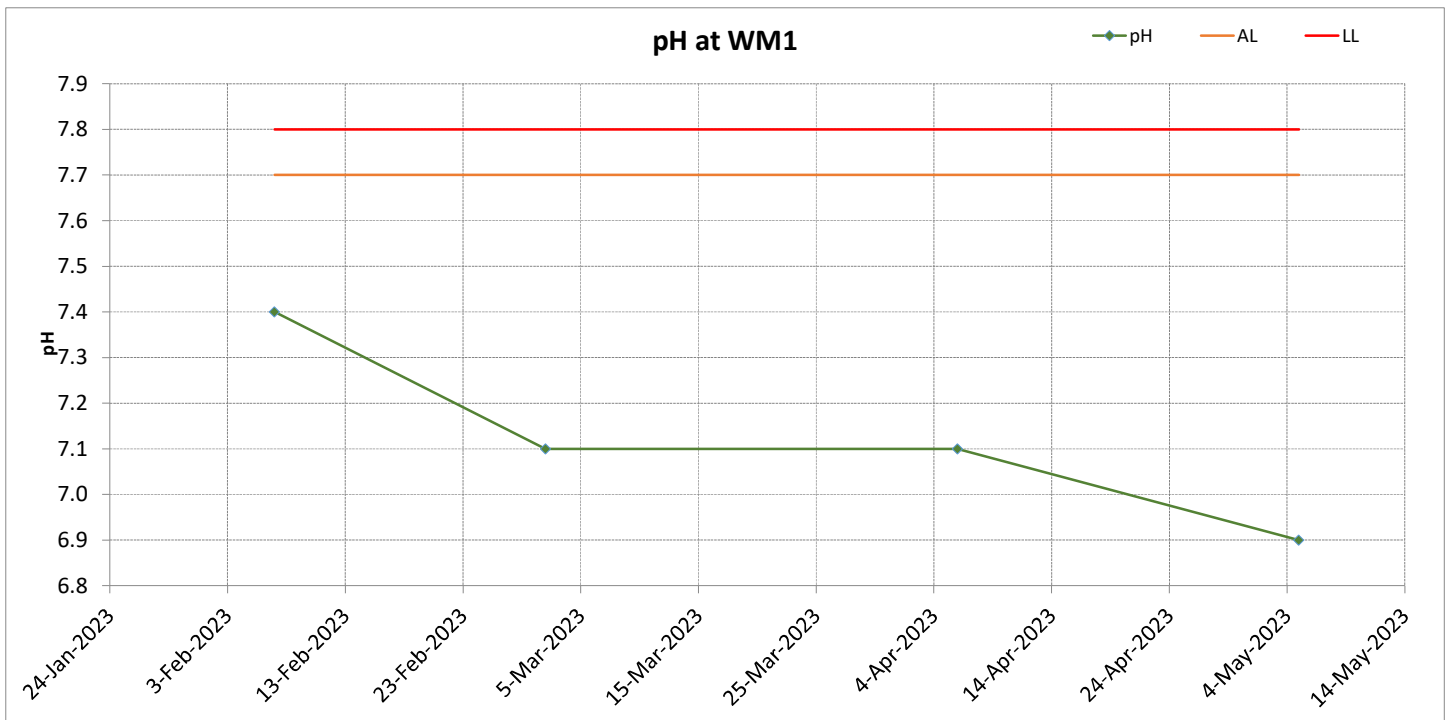
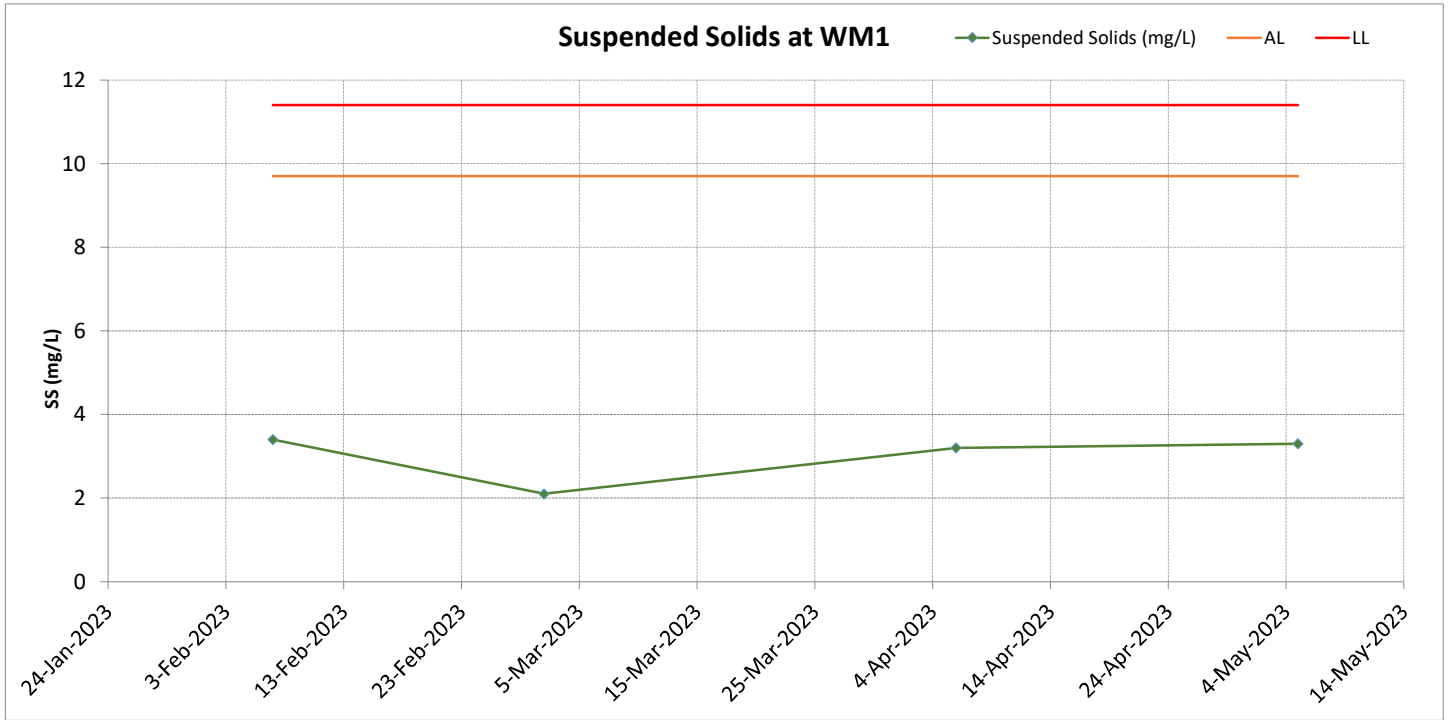


Water Quality

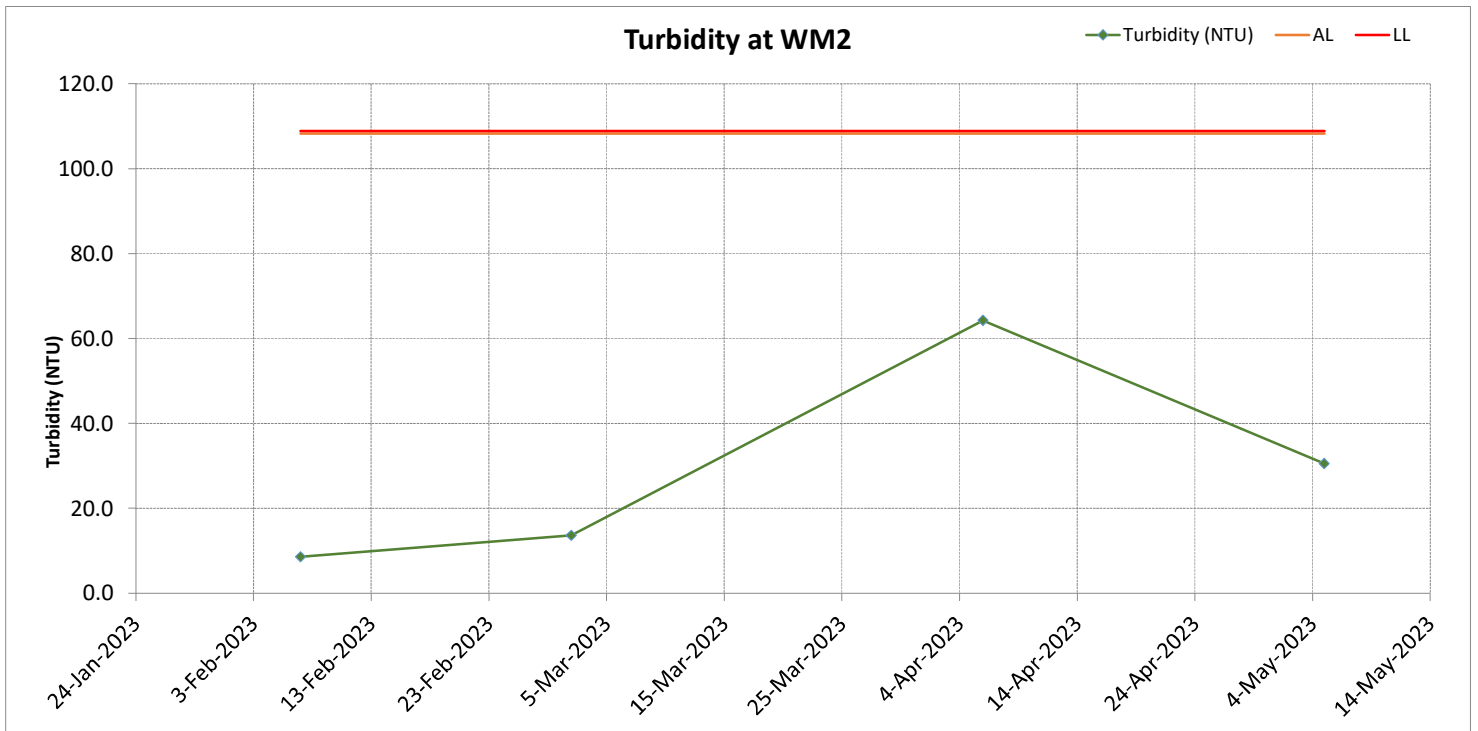
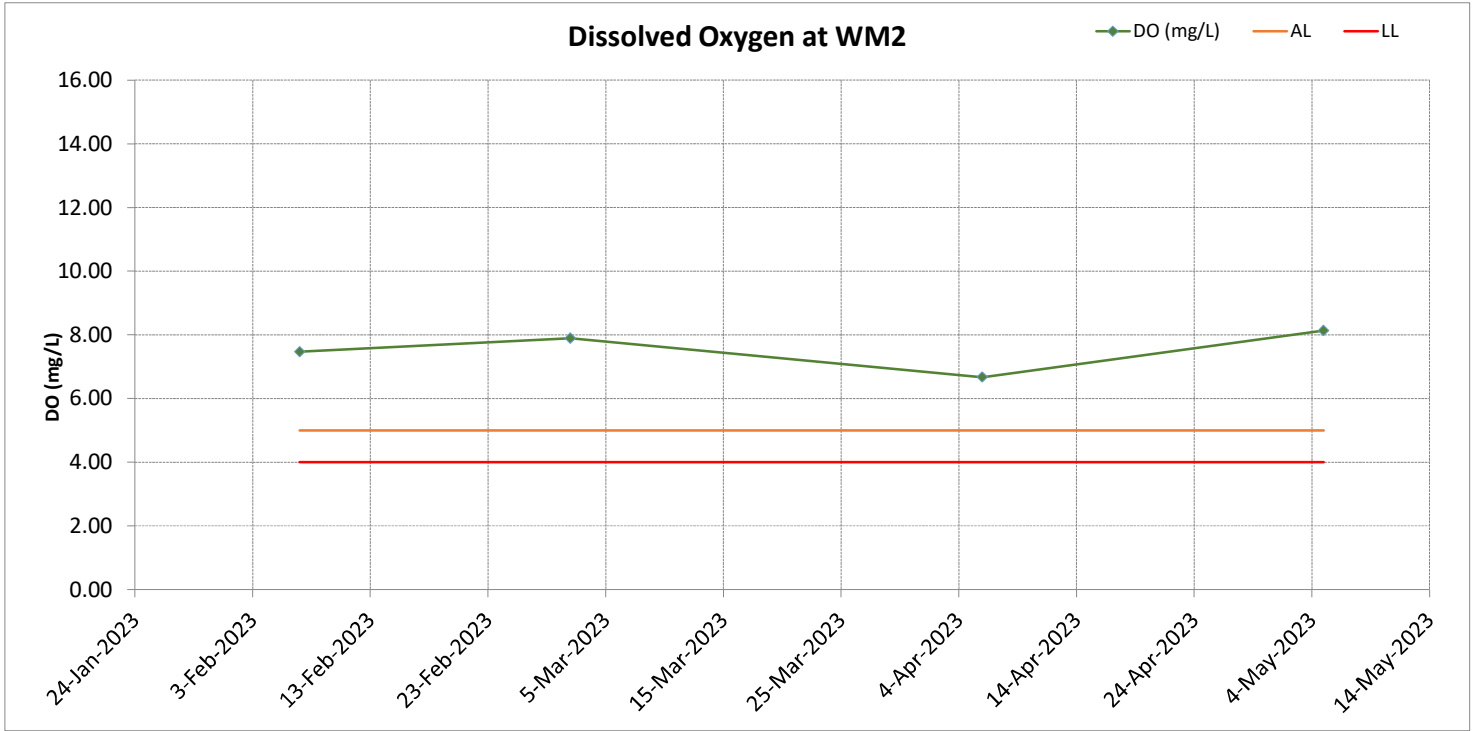
Surface Water Monitoring Results at WM1



Surface Water Monitoring Results at WM1

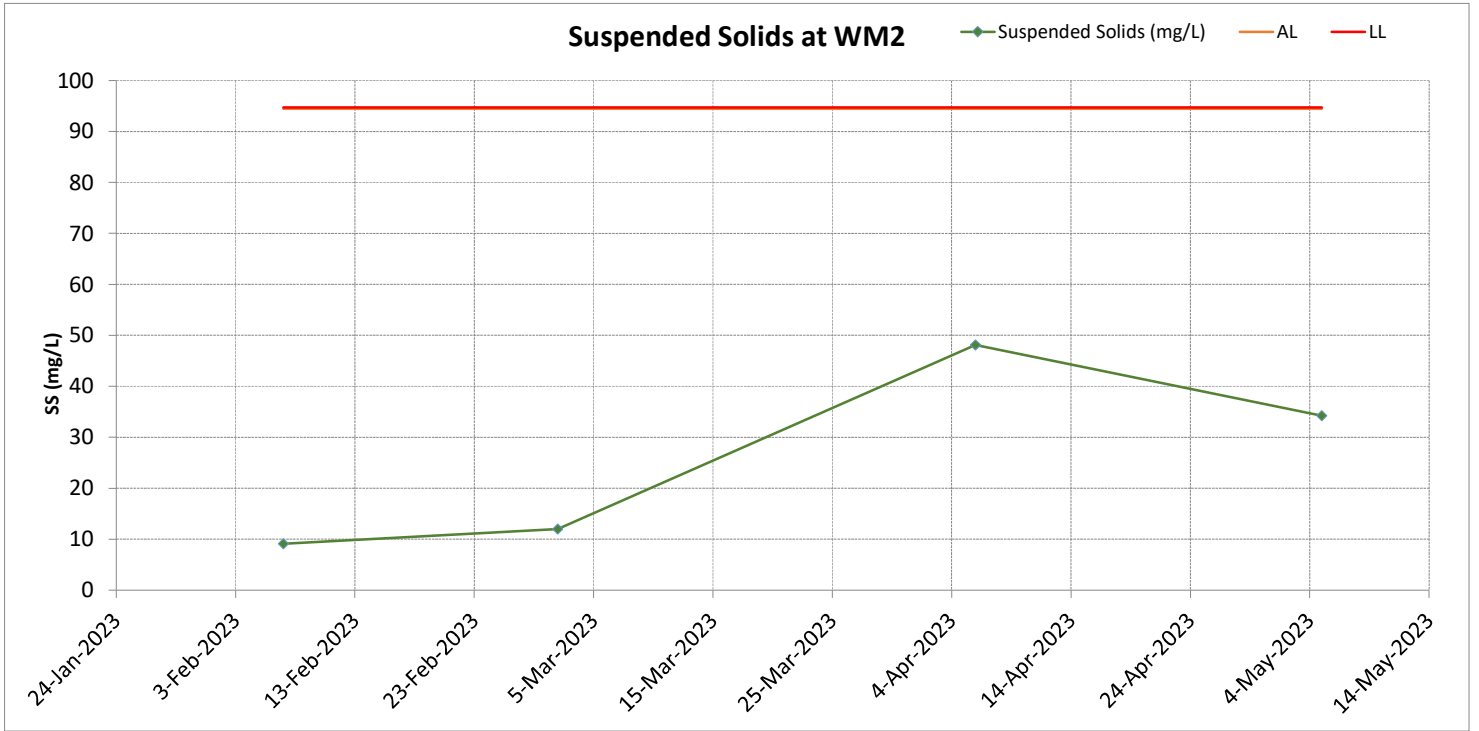


Surface Water Monitoring Results at WM2

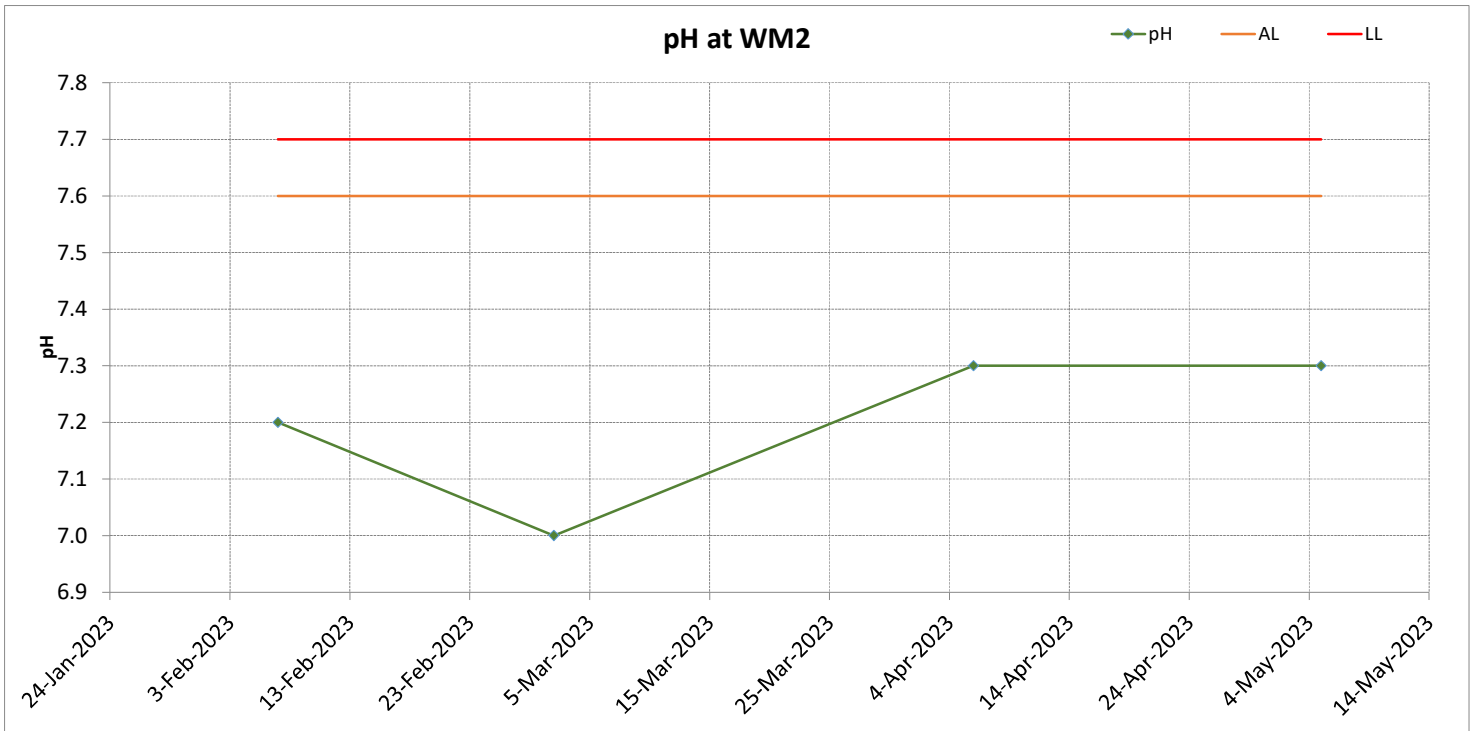


Surface Water Monitoring Results at WM2

Suspended Solids at WM2



pH at WM2



Appendix G Notification of Environmental Quality Limits Exceedance

Notification of Environmental Quality Limits Exceedance

Construction Dust

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

Remarks: * equal to non-project related

Noise Monitoring

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

Notification of Environmental Quality Limits Exceedance

Surface Water Monitoring

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

Landfill Gas (LFG) Monitoring

LFG Monitoring Station	Monitoring Parameter(s)	No. of Exceedance
		Limit Level
Portion A +50 mpD to +70 mpD Platform	CH ₄	0
	CO ₂	0
	O ₂	0

Appendix H Wind Data

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230501 0000	2.2	SE
20230501 0010	2.8	SE
20230501 0020	3.1	ESE
20230501 0030	2.5	ESE
20230501 0040	1.9	ESE
20230501 0050	3.1	ESE
20230501 0100	2.2	ESE
20230501 0110	2.2	ESE
20230501 0120	2.2	ESE
20230501 0130	1.7	ESE
20230501 0140	2.2	ESE
20230501 0150	2.2	ESE
20230501 0200	2.5	E
20230501 0210	2.8	ESE
20230501 0220	3.1	E
20230501 0230	2.5	E
20230501 0240	2.8	ESE
20230501 0250	2.2	ESE
20230501 0300	2.5	ESE
20230501 0310	2.2	ESE
20230501 0320	2.8	ESE
20230501 0330	2.8	ESE
20230501 0340	3.1	ESE
20230501 0350	2.2	ESE
20230501 0400	2.8	SE
20230501 0410	3.3	ESE
20230501 0420	2.8	ESE
20230501 0430	2.8	ESE
20230501 0440	2.8	ESE
20230501 0450	2.8	ESE
20230501 0500	2.5	SE
20230501 0510	2.5	ESE
20230501 0520	2.2	ESE
20230501 0530	2.5	ESE
20230501 0540	2.5	SE
20230501 0550	2.2	ESE
20230501 0600	2.5	SE
20230501 0610	2.5	ESE
20230501 0620	2.2	ESE
20230501 0630	2.5	ESE
20230501 0640	1.7	E
20230501 0650	1.7	E
20230501 0700	1.7	ESE
20230501 0710	1.7	ESE
20230501 0720	1.7	ESE
20230501 0730	1.9	ESE
20230501 0740	1.7	ESE
20230501 0750	2.5	ESE
20230501 0800	2.2	ESE
20230501 0810	2.5	ESE
20230501 0820	2.5	ESE
20230501 0830	2.5	E
20230501 0840	2.5	E
20230501 0850	2.8	E
20230501 0900	2.5	E
20230501 0910	2.5	E
20230501 0920	2.5	E
20230501 0930	2.8	E
20230501 0940	2.5	E
20230501 0950	3.1	E
20230501 1000	2.8	E
20230501 1010	2.5	ENE
20230501 1020	2.5	ESE
20230501 1030	2.8	E
20230501 1040	2.5	E
20230501 1050	2.8	E
20230501 1100	3.1	ENE
20230501 1110	2.8	ENE
20230501 1120	3.1	E
20230501 1130	2.8	E
20230501 1140	2.8	E
20230501 1150	2.5	E

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230501 1200	3.1	E
20230501 1210	3.3	E
20230501 1220	3.3	E
20230501 1230	3.3	E
20230501 1240	3.1	ENE
20230501 1250	3.6	E
20230501 1300	2.8	E
20230501 1310	3.9	E
20230501 1320	3.1	E
20230501 1330	3.3	ESE
20230501 1340	3.1	E
20230501 1350	2.8	ESE
20230501 1400	3.3	E
20230501 1410	2.8	ESE
20230501 1420	3.3	SE
20230501 1430	3.3	ESE
20230501 1440	2.8	E
20230501 1450	3.3	E
20230501 1500	3.3	ESE
20230501 1510	3.6	E
20230501 1520	2.8	ESE
20230501 1530	2.8	SE
20230501 1540	3.1	ESE
20230501 1550	3.1	ESE
20230501 1600	4.2	E
20230501 1610	4.2	ESE
20230501 1620	3.3	ESE
20230501 1630	3.3	ESE
20230501 1640	3.3	ESE
20230501 1650	3.9	SE
20230501 1700	3.6	SE
20230501 1710	3.1	ESE
20230501 1720	2.8	ESE
20230501 1730	2.8	ESE
20230501 1740	3.1	ESE
20230501 1750	2.5	ESE
20230501 1800	2.8	ESE
20230501 1810	1.9	SE
20230501 1820	1.7	E
20230501 1830	1.4	ESE
20230501 1840	2.2	ESE
20230501 1850	2.8	ESE
20230501 1900	1.1	SE
20230501 1910	1.7	ESE
20230501 1920	1.4	SE
20230501 1930	2.5	SE
20230501 1940	1.7	SE
20230501 1950	2.5	SE
20230501 2000	3.1	SE
20230501 2010	3.1	ESE
20230501 2020	4.2	ESE
20230501 2030	4.7	ESE
20230501 2040	4.7	SE
20230501 2050	4.4	SE
20230501 2100	5	SE
20230501 2110	3.9	SE
20230501 2120	3.9	SE
20230501 2130	4.4	SE
20230501 2140	3.9	SE
20230501 2150	3.1	SE
20230501 2200	2.8	SE
20230501 2210	3.1	ESE
20230501 2220	3.9	SE
20230501 2230	3.9	SE
20230501 2240	3.6	ESE
20230501 2250	3.3	SE
20230501 2300	3.9	SE
20230501 2310	4.7	SE
20230501 2320	4.7	SE
20230501 2330	4.7	ESE
20230501 2340	5	SE
20230501 2350	4.4	SE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230502 0000	4.7	SE
20230502 0010	3.9	SE
20230502 0020	3.9	SE
20230502 0030	3.6	ESE
20230502 0040	3.3	SE
20230502 0050	3.3	SE
20230502 0100	2.8	SE
20230502 0110	3.3	SE
20230502 0120	3.3	SE
20230502 0130	3.9	SE
20230502 0140	2.8	SE
20230502 0150	3.3	SE
20230502 0200	2.8	SE
20230502 0210	2.5	SE
20230502 0220	2.8	ESE
20230502 0230	3.1	SE
20230502 0240	3.3	ESE
20230502 0250	3.3	SE
20230502 0300	4.7	SE
20230502 0310	4.2	SE
20230502 0320	3.3	ESE
20230502 0330	3.3	SE
20230502 0340	3.3	SE
20230502 0350	2.5	SE
20230502 0400	3.9	SE
20230502 0410	4.2	SE
20230502 0420	3.9	SE
20230502 0430	3.3	ESE
20230502 0440	3.3	ESE
20230502 0450	3.3	SE
20230502 0500	4.7	SE
20230502 0510	5	SE
20230502 0520	4.4	SE
20230502 0530	4.2	SE
20230502 0540	3.3	ESE
20230502 0550	3.9	ESE
20230502 0600	3.3	ESE
20230502 0610	3.6	ESE
20230502 0620	3.9	ESE
20230502 0630	3.9	ESE
20230502 0640	3.9	ESE
20230502 0650	3.9	ESE
20230502 0700	2.2	-
20230502 0710	2.8	SE
20230502 0720	3.3	ESE
20230502 0730	2.8	SE
20230502 0740	2.2	SE
20230502 0750	2.2	ESE
20230502 0800	2.5	ESE
20230502 0810	2.8	ESE
20230502 0820	3.3	ESE
20230502 0830	3.9	ESE
20230502 0840	3.3	ESE
20230502 0850	3.3	ESE
20230502 0900	3.6	ESE
20230502 0910	3.3	ESE
20230502 0920	3.9	ESE
20230502 0930	2.8	ESE
20230502 0940	3.1	ESE
20230502 0950	3.1	ESE
20230502 1000	2.8	ESE
20230502 1010	2.8	ESE
20230502 1020	2.8	ESE
20230502 1030	3.3	ESE
20230502 1040	2.5	ESE
20230502 1050	2.2	E
20230502 1100	2.5	E
20230502 1110	2.8	ESE
20230502 1120	2.8	E
20230502 1130	2.8	E
20230502 1140	3.1	E
20230502 1150	2.5	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230502 1200	3.3	E
20230502 1210	3.3	ESE
20230502 1220	2.8	ESE
20230502 1230	2.8	ESE
20230502 1240	2.8	ESE
20230502 1250	2.5	E
20230502 1300	2.8	ESE
20230502 1310	2.8	ESE
20230502 1320	3.1	ESE
20230502 1330	2.8	E
20230502 1340	2.5	E
20230502 1350	2.5	E
20230502 1400	2.2	E
20230502 1410	2.8	E
20230502 1420	2.2	E
20230502 1430	2.5	E
20230502 1440	2.8	E
20230502 1450	2.5	E
20230502 1500	2.8	ESE
20230502 1510	2.8	E
20230502 1520	3.3	E
20230502 1530	2.8	ESE
20230502 1540	2.5	E
20230502 1550	2.8	E
20230502 1600	2.5	E
20230502 1610	2.8	E
20230502 1620	1.7	ESE
20230502 1630	2.2	E
20230502 1640	2.8	ESE
20230502 1650	3.1	E
20230502 1700	2.5	E
20230502 1710	2.5	ESE
20230502 1720	2.2	E
20230502 1730	1.9	E
20230502 1740	2.2	E
20230502 1750	2.8	E
20230502 1800	2.5	ESE
20230502 1810	2.2	E
20230502 1820	1.7	E
20230502 1830	1.7	E
20230502 1840	1.9	ESE
20230502 1850	1.4	ESE
20230502 1900	0.8	SE
20230502 1910	0.3	ESE
20230502 1920	0.3	ESE
20230502 1930	0.6	ESE
20230502 1940	0.8	E
20230502 1950	1.1	E
20230502 2000	1.1	E
20230502 2010	1.1	ESE
20230502 2020	1.1	E
20230502 2030	1.1	E
20230502 2040	1.4	E
20230502 2050	1.1	E
20230502 2100	1.1	ESE
20230502 2110	1.4	ESE
20230502 2120	1.1	SE
20230502 2130	1.4	SE
20230502 2140	1.4	ESE
20230502 2150	1.7	ESE
20230502 2200	1.9	SE
20230502 2210	1.4	SE
20230502 2220	1.1	SE
20230502 2230	0.8	ESE
20230502 2240	0.8	SE
20230502 2250	1.4	SE
20230502 2300	1.4	SE
20230502 2310	1.1	ESE
20230502 2320	1.1	E
20230502 2330	1.1	E
20230502 2340	1.4	ESE
20230502 2350	1.4	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230503 0000	0.3	S
20230503 0010	0.8	SSE
20230503 0020	0.8	SE
20230503 0030	1.4	ESE
20230503 0040	1.7	E
20230503 0050	1.1	ESE
20230503 0100	0.8	ESE
20230503 0110	1.1	SE
20230503 0120	0.8	ESE
20230503 0130	1.1	SE
20230503 0140	1.1	SE
20230503 0150	1.1	SE
20230503 0200	1.4	ESE
20230503 0210	1.4	ESE
20230503 0220	1.4	ESE
20230503 0230	1.7	E
20230503 0240	1.4	ESE
20230503 0250	1.4	SE
20230503 0300	1.4	ESE
20230503 0310	1.9	E
20230503 0320	2.2	E
20230503 0330	1.7	ESE
20230503 0340	1.1	SE
20230503 0350	0.8	SSE
20230503 0400	0.3	SSE
20230503 0410	0.3	SSE
20230503 0420	1.7	ESE
20230503 0430	1.9	ESE
20230503 0440	2.2	ESE
20230503 0450	2.8	ESE
20230503 0500	2.2	ESE
20230503 0510	1.7	ESE
20230503 0520	1.4	ESE
20230503 0530	1.4	E
20230503 0540	1.7	E
20230503 0550	1.7	E
20230503 0600	1.7	E
20230503 0610	1.9	E
20230503 0620	2.5	E
20230503 0630	1.9	E
20230503 0640	2.5	E
20230503 0650	3.3	ESE
20230503 0700	3.3	ESE
20230503 0710	2.8	ESE
20230503 0720	3.3	ESE
20230503 0730	3.1	ESE
20230503 0740	2.5	ESE
20230503 0750	2.2	ESE
20230503 0800	2.8	ESE
20230503 0810	2.8	ESE
20230503 0820	2.8	E
20230503 0830	2.2	E
20230503 0840	2.2	ESE
20230503 0850	2.2	ESE
20230503 0900	1.9	ESE
20230503 0910	1.7	ESE
20230503 0920	2.2	ESE
20230503 0930	2.2	ESE
20230503 0940	2.5	ESE
20230503 0950	2.2	E
20230503 1000	3.1	ESE
20230503 1010	3.3	E
20230503 1020	3.3	ESE
20230503 1030	3.1	ESE
20230503 1040	3.1	E
20230503 1050	2.8	E
20230503 1100	2.8	E
20230503 1110	2.2	SE
20230503 1120	2.5	ESE
20230503 1130	2.2	SE
20230503 1140	2.5	SE
20230503 1150	2.2	SE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230503 1200	2.5	SSE
20230503 1210	2.2	SE
20230503 1220	2.2	ESE
20230503 1230	3.1	E
20230503 1240	2.8	ESE
20230503 1250	2.8	E
20230503 1300	2.8	E
20230503 1310	2.2	ESE
20230503 1320	3.1	ESE
20230503 1330	3.3	ESE
20230503 1340	3.1	ESE
20230503 1350	2.5	SE
20230503 1400	2.8	SE
20230503 1410	3.3	ESE
20230503 1420	3.1	ESE
20230503 1430	2.2	E
20230503 1440	3.3	ESE
20230503 1450	3.1	ESE
20230503 1500	2.2	ESE
20230503 1510	3.3	ESE
20230503 1520	3.3	E
20230503 1530	3.3	ESE
20230503 1540	3.3	ESE
20230503 1550	2.8	ESE
20230503 1600	2.8	ESE
20230503 1610	3.9	ESE
20230503 1620	3.1	ESE
20230503 1630	3.3	ESE
20230503 1640	3.9	ESE
20230503 1650	3.3	ESE
20230503 1700	3.9	ESE
20230503 1710	3.1	ESE
20230503 1720	3.3	ESE
20230503 1730	2.8	ESE
20230503 1740	3.9	ESE
20230503 1750	3.3	ESE
20230503 1800	3.3	ESE
20230503 1810	3.1	ESE
20230503 1820	3.3	E
20230503 1830	2.8	E
20230503 1840	3.3	E
20230503 1850	3.3	E
20230503 1900	3.3	ESE
20230503 1910	2.5	ESE
20230503 1920	3.3	ESE
20230503 1930	3.1	ESE
20230503 1940	3.6	ESE
20230503 1950	3.1	ESE
20230503 2000	3.3	ESE
20230503 2010	2.8	E
20230503 2020	2.8	ESE
20230503 2030	3.3	E
20230503 2040	2.5	ESE
20230503 2050	2.5	ESE
20230503 2100	1.7	ESE
20230503 2110	1.4	ESE
20230503 2120	1.7	ESE
20230503 2130	1.7	ESE
20230503 2140	2.2	SE
20230503 2150	2.5	SE
20230503 2200	2.2	SE
20230503 2210	2.8	ESE
20230503 2220	2.5	ESE
20230503 2230	2.5	ESE
20230503 2240	2.2	ESE
20230503 2250	2.5	ESE
20230503 2300	1.7	ESE
20230503 2310	1.7	ESE
20230503 2320	2.5	ESE
20230503 2330	2.5	E
20230503 2340	2.2	ESE
20230503 2350	2.5	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230504 0000	2.2	ESE
20230504 0010	2.2	ESE
20230504 0020	2.5	ESE
20230504 0030	2.2	ESE
20230504 0040	1.7	ESE
20230504 0050	1.7	ESE
20230504 0100	1.9	ESE
20230504 0110	1.9	ESE
20230504 0120	2.2	ESE
20230504 0130	2.2	ESE
20230504 0140	2.5	ESE
20230504 0150	3.1	ESE
20230504 0200	3.3	ESE
20230504 0210	3.3	ESE
20230504 0220	3.3	ESE
20230504 0230	3.3	ESE
20230504 0240	3.9	ESE
20230504 0250	4.2	ESE
20230504 0300	3.3	ESE
20230504 0310	3.1	E
20230504 0320	3.1	E
20230504 0330	2.8	E
20230504 0340	2.2	E
20230504 0350	1.9	ESE
20230504 0400	2.2	ESE
20230504 0410	2.8	ESE
20230504 0420	3.3	ESE
20230504 0430	2.5	ESE
20230504 0440	2.2	E
20230504 0450	2.2	E
20230504 0500	2.2	ESE
20230504 0510	1.7	ESE
20230504 0520	1.7	ESE
20230504 0530	1.4	SE
20230504 0540	1.4	SE
20230504 0550	1.1	ESE
20230504 0600	0.3	-
20230504 0610	1.1	SE
20230504 0620	1.7	ESE
20230504 0630	1.9	SE
20230504 0640	2.5	ESE
20230504 0650	2.2	ESE
20230504 0700	1.4	ESE
20230504 0710	1.7	ESE
20230504 0720	2.2	ESE
20230504 0730	1.7	ESE
20230504 0740	2.8	ESE
20230504 0750	2.5	ESE
20230504 0800	1.9	E
20230504 0810	2.2	SE
20230504 0820	2.2	ESE
20230504 0830	1.7	ESE
20230504 0840	2.5	E
20230504 0850	2.2	E
20230504 0900	2.5	E
20230504 0910	2.5	E
20230504 0920	2.2	E
20230504 0930	2.5	E
20230504 0940	2.2	E
20230504 0950	2.5	E
20230504 1000	2.5	E
20230504 1010	1.9	E
20230504 1020	2.8	E
20230504 1030	1.7	ESE
20230504 1040	2.2	E
20230504 1050	2.8	E
20230504 1100	3.3	E
20230504 1110	3.3	E
20230504 1120	2.8	E
20230504 1130	2.5	ESE
20230504 1140	3.1	E
20230504 1150	3.9	E

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230504 1200	3.1	E
20230504 1210	3.3	E
20230504 1220	3.3	E
20230504 1230	3.1	E
20230504 1240	2.8	E
20230504 1250	3.9	E
20230504 1300	4.2	E
20230504 1310	3.9	E
20230504 1320	4.4	E
20230504 1330	4.2	E
20230504 1340	5	ESE
20230504 1350	4.2	ESE
20230504 1400	3.3	E
20230504 1410	3.6	E
20230504 1420	3.6	ESE
20230504 1430	3.3	ESE
20230504 1440	3.3	E
20230504 1450	3.9	E
20230504 1500	3.9	E
20230504 1510	3.3	E
20230504 1520	3.3	E
20230504 1530	3.9	E
20230504 1540	3.9	E
20230504 1550	3.9	E
20230504 1600	3.3	E
20230504 1610	4.4	E
20230504 1620	3.9	E
20230504 1630	4.2	E
20230504 1640	4.2	E
20230504 1650	3.3	ESE
20230504 1700	3.9	E
20230504 1710	3.9	E
20230504 1720	3.9	E
20230504 1730	3.3	E
20230504 1740	2.8	ESE
20230504 1750	3.9	ESE
20230504 1800	3.6	E
20230504 1810	3.3	ESE
20230504 1820	3.3	ESE
20230504 1830	3.3	ESE
20230504 1840	3.3	ESE
20230504 1850	3.1	ESE
20230504 1900	2.2	SE
20230504 1910	2.2	SE
20230504 1920	2.5	SE
20230504 1930	2.5	SE
20230504 1940	2.5	SE
20230504 1950	1.7	SE
20230504 2000	1.9	SE
20230504 2010	2.2	SE
20230504 2020	1.7	SSE
20230504 2030	1.7	SE
20230504 2040	1.9	SE
20230504 2050	1.7	SE
20230504 2100	1.7	SE
20230504 2110	1.7	ESE
20230504 2120	1.7	ESE
20230504 2130	1.7	ESE
20230504 2140	1.7	ESE
20230504 2150	1.4	SE
20230504 2200	1.7	SE
20230504 2210	1.7	SE
20230504 2220	1.1	SE
20230504 2230	1.7	SE
20230504 2240	1.1	SE
20230504 2250	0.8	SE
20230504 2300	1.1	SE
20230504 2310	0.3	ESE
20230504 2320	0.8	SSE
20230504 2330	0	-
20230504 2340	0	SSE
20230504 2350	0.3	SSE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230505 0000	1.1	SSE
20230505 0010	1.1	SSE
20230505 0020	1.7	ESE
20230505 0030	1.1	ESE
20230505 0040	0.8	E
20230505 0050	0.3	WNW
20230505 0100	0.6	W
20230505 0110	0.3	SSW
20230505 0120	1.1	ESE
20230505 0130	1.7	ESE
20230505 0140	1.4	ESE
20230505 0150	1.7	ESE
20230505 0200	1.7	SE
20230505 0210	1.7	SE
20230505 0220	1.7	SE
20230505 0230	1.9	SE
20230505 0240	1.4	SE
20230505 0250	1.4	SE
20230505 0300	1.1	SE
20230505 0310	0.6	ESE
20230505 0320	1.1	ENE
20230505 0330	0.3	E
20230505 0340	0.6	S
20230505 0350	0.8	SSE
20230505 0400	1.1	E
20230505 0410	0.8	E
20230505 0420	2.2	SE
20230505 0430	2.5	SE
20230505 0440	1.7	ESE
20230505 0450	2.2	SE
20230505 0500	2.2	SE
20230505 0510	2.2	E
20230505 0520	1.7	ESE
20230505 0530	2.2	ESE
20230505 0540	2.2	ESE
20230505 0550	2.2	ESE
20230505 0600	1.7	ESE
20230505 0610	2.8	ESE
20230505 0620	2.2	ESE
20230505 0630	1.4	SE
20230505 0640	2.2	ESE
20230505 0650	1.7	SE
20230505 0700	1.7	ESE
20230505 0710	2.5	SE
20230505 0720	2.2	ESE
20230505 0730	2.2	ESE
20230505 0740	2.5	ESE
20230505 0750	2.5	ESE
20230505 0800	2.5	ESE
20230505 0810	2.5	ESE
20230505 0820	1.7	ESE
20230505 0830	2.5	E
20230505 0840	2.5	E
20230505 0850	2.2	ESE
20230505 0900	3.1	ESE
20230505 0910	2.8	ESE
20230505 0920	2.5	ESE
20230505 0930	2.2	ESE
20230505 0940	2.5	E
20230505 0950	2.5	E
20230505 1000	2.8	E
20230505 1010	2.5	ESE
20230505 1020	1.9	SE
20230505 1030	1.7	E
20230505 1040	1.7	S
20230505 1050	2.2	ESE
20230505 1100	1.1	SW
20230505 1110	1.4	SW
20230505 1120	1.4	SE
20230505 1130	1.4	SE
20230505 1140	2.2	SW
20230505 1150	3.6	SW

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230505 1200	3.1	SW
20230505 1210	3.3	SW
20230505 1220	3.3	SSW
20230505 1230	4.2	SSW
20230505 1240	3.9	SW
20230505 1250	3.3	SW
20230505 1300	4.2	SW
20230505 1310	3.3	SW
20230505 1320	3.9	SW
20230505 1330	2.8	SW
20230505 1340	4.2	SW
20230505 1350	3.3	SW
20230505 1400	3.9	SW
20230505 1410	3.3	SSW
20230505 1420	3.3	SW
20230505 1430	4.4	SW
20230505 1440	3.9	SW
20230505 1450	4.2	SW
20230505 1500	3.3	SW
20230505 1510	3.6	SW
20230505 1520	3.9	SW
20230505 1530	3.3	SW
20230505 1540	3.3	SSW
20230505 1550	2.8	S
20230505 1600	3.6	SSW
20230505 1610	3.9	SW
20230505 1620	3.3	SW
20230505 1630	3.3	SW
20230505 1640	3.9	SSW
20230505 1650	3.3	SW
20230505 1700	3.9	SW
20230505 1710	3.3	SSW
20230505 1720	3.9	SSW
20230505 1730	3.6	SSW
20230505 1740	3.1	SW
20230505 1750	3.3	SSW
20230505 1800	3.6	SW
20230505 1810	2.8	SSW
20230505 1820	2.8	SW
20230505 1830	2.5	SSW
20230505 1840	1.7	SSW
20230505 1850	2.2	S
20230505 1900	3.1	S
20230505 1910	2.2	S
20230505 1920	2.5	SE
20230505 1930	2.2	SSE
20230505 1940	1.4	SE
20230505 1950	1.4	SE
20230505 2000	2.2	SSE
20230505 2010	2.2	SSE
20230505 2020	1.4	SE
20230505 2030	1.4	ESE
20230505 2040	1.7	ESE
20230505 2050	1.1	ESE
20230505 2100	1.1	E
20230505 2110	1.7	ESE
20230505 2120	1.1	SE
20230505 2130	1.1	SE
20230505 2140	1.4	ESE
20230505 2150	1.4	SE
20230505 2200	1.4	ESE
20230505 2210	1.7	ESE
20230505 2220	2.2	ESE
20230505 2230	2.2	ESE
20230505 2240	2.2	ESE
20230505 2250	2.2	ESE
20230505 2300	1.7	ESE
20230505 2310	1.7	ESE
20230505 2320	1.7	ESE
20230505 2330	1.9	E
20230505 2340	1.1	ESE
20230505 2350	1.4	E

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230506 0000	1.4	E
20230506 0010	2.2	ESE
20230506 0020	2.2	ESE
20230506 0030	2.2	E
20230506 0040	1.7	E
20230506 0050	1.7	E
20230506 0100	1.4	ESE
20230506 0110	1.1	ESE
20230506 0120	1.1	ESE
20230506 0130	1.7	ESE
20230506 0140	2.2	ESE
20230506 0150	1.4	ESE
20230506 0200	1.7	SE
20230506 0210	1.1	ESE
20230506 0220	1.1	ESE
20230506 0230	0.8	SE
20230506 0240	0.8	SE
20230506 0250	0.8	SE
20230506 0300	0.8	SE
20230506 0310	1.1	SE
20230506 0320	0.6	SE
20230506 0330	0.8	SE
20230506 0340	0.8	SE
20230506 0350	1.4	ESE
20230506 0400	1.1	SE
20230506 0410	1.1	ESE
20230506 0420	1.4	ESE
20230506 0430	0.8	SE
20230506 0440	0.8	SE
20230506 0450	0.8	SE
20230506 0500	1.1	SE
20230506 0510	1.4	ESE
20230506 0520	1.1	ESE
20230506 0530	2.2	E
20230506 0540	2.2	E
20230506 0550	2.2	ESE
20230506 0600	2.2	ESE
20230506 0610	1.4	ESE
20230506 0620	1.4	ESE
20230506 0630	1.1	SE
20230506 0640	0.6	ESE
20230506 0650	0.8	SE
20230506 0700	1.1	ESE
20230506 0710	1.1	ESE
20230506 0720	1.1	SE
20230506 0730	1.1	SE
20230506 0740	1.7	SSE
20230506 0750	1.7	SSE
20230506 0800	1.7	SSE
20230506 0810	2.2	SSE
20230506 0820	1.7	SSE
20230506 0830	1.7	S
20230506 0840	1.9	SSW
20230506 0850	2.2	S
20230506 0900	2.8	SSW
20230506 0910	3.9	SSW
20230506 0920	3.3	SSW
20230506 0930	2.8	SSW
20230506 0940	3.3	S
20230506 0950	3.9	SSW
20230506 1000	3.3	S
20230506 1010	3.3	SSW
20230506 1020	2.5	SSW
20230506 1030	3.6	SSW
20230506 1040	5	SSW
20230506 1050	4.2	SSW
20230506 1100	4.4	SSW
20230506 1110	4.2	SSW
20230506 1120	4.2	SSW
20230506 1130	4.2	SSW
20230506 1140	4.7	S
20230506 1150	3.9	SSW

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230506 1200	3.3	SW
20230506 1210	4.2	SW
20230506 1220	3.9	SW
20230506 1230	3.3	SW
20230506 1240	3.3	SSW
20230506 1250	4.4	SSW
20230506 1300	4.2	SW
20230506 1310	4.7	SSW
20230506 1320	4.7	SSW
20230506 1330	4.4	SW
20230506 1340	4.7	SSW
20230506 1350	4.2	SW
20230506 1400	3.9	SW
20230506 1410	4.7	SW
20230506 1420	3.9	SW
20230506 1430	3.9	SW
20230506 1440	3.9	SW
20230506 1450	3.9	SW
20230506 1500	3.9	SW
20230506 1510	3.3	SW
20230506 1520	2.8	WSW
20230506 1530	3.1	SW
20230506 1540	2.5	SW
20230506 1550	3.1	SSW
20230506 1600	2.8	SSW
20230506 1610	3.3	SSW
20230506 1620	3.3	SW
20230506 1630	3.3	SW
20230506 1640	3.3	SSW
20230506 1650	3.3	SW
20230506 1700	2.8	SSW
20230506 1710	3.1	SW
20230506 1720	3.3	SW
20230506 1730	2.8	SW
20230506 1740	3.1	SW
20230506 1750	3.3	SSW
20230506 1800	3.3	SSW
20230506 1810	2.5	SW
20230506 1820	2.8	SW
20230506 1830	2.5	SW
20230506 1840	2.5	SSW
20230506 1850	1.7	SW
20230506 1900	1.7	SW
20230506 1910	1.7	SW
20230506 1920	1.4	SSW
20230506 1930	1.4	SSW
20230506 1940	0.6	SW
20230506 1950	1.1	SW
20230506 2000	0.8	SW
20230506 2010	0.8	S
20230506 2020	1.4	SSW
20230506 2030	1.7	SSW
20230506 2040	1.7	SSW
20230506 2050	1.7	SSW
20230506 2100	1.4	SSW
20230506 2110	1.1	SSW
20230506 2120	1.4	SSW
20230506 2130	1.4	SSW
20230506 2140	1.7	SSW
20230506 2150	1.7	SSW
20230506 2200	1.9	SSW
20230506 2210	1.4	S
20230506 2220	0.8	SSE
20230506 2230	1.1	S
20230506 2240	1.1	S
20230506 2250	0.8	SE
20230506 2300	0.3	SSE
20230506 2310	0.3	SSE
20230506 2320	0.3	-
20230506 2330	0.3	SSE
20230506 2340	0.3	-
20230506 2350	0	NE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230507 0000	0.3	ENE
20230507 0010	0.3	ESE
20230507 0020	0.3	SE
20230507 0030	0.3	SE
20230507 0040	0	-
20230507 0050	0	-
20230507 0100	0	-
20230507 0110	0	-
20230507 0120	0	-
20230507 0130	0	-
20230507 0140	0	-
20230507 0150	0	-
20230507 0200	0.3	-
20230507 0210	0.3	ESE
20230507 0220	0	-
20230507 0230	0	-
20230507 0240	0.3	SSE
20230507 0250	0.3	ESE
20230507 0300	0.6	ESE
20230507 0310	0.3	-
20230507 0320	0.6	SE
20230507 0330	0.3	SE
20230507 0340	0.3	ESE
20230507 0350	0.8	ESE
20230507 0400	0.8	ESE
20230507 0410	0.3	E
20230507 0420	1.1	ENE
20230507 0430	1.1	E
20230507 0440	0.3	ENE
20230507 0450	0	SSE
20230507 0500	0.3	SE
20230507 0510	0.8	ESE
20230507 0520	0.6	E
20230507 0530	0.6	-
20230507 0540	0.3	-
20230507 0550	0.3	ENE
20230507 0600	0.3	SW
20230507 0610	0.3	SW
20230507 0620	0	-
20230507 0630	0.3	ESE
20230507 0640	0.3	WSW
20230507 0650	0	-
20230507 0700	0.3	-
20230507 0710	0.3	NNE
20230507 0720	0.3	SW
20230507 0730	0.6	SW
20230507 0740	0	-
20230507 0750	0.3	SE
20230507 0800	0.6	SSW
20230507 0810	0	-
20230507 0820	0.3	E
20230507 0830	0.3	SSE
20230507 0840	0	S
20230507 0850	0	-
20230507 0900	1.1	E
20230507 0910	1.1	E
20230507 0920	1.4	ESE
20230507 0930	2.2	ESE
20230507 0940	1.7	ESE
20230507 0950	1.4	SE
20230507 1000	1.9	SE
20230507 1010	1.7	SE
20230507 1020	2.2	SE
20230507 1030	1.7	SSE
20230507 1040	2.5	SE
20230507 1050	3.3	SE
20230507 1100	2.8	SE
20230507 1110	2.5	SSE
20230507 1120	2.5	SE
20230507 1130	1.7	SE
20230507 1140	2.2	ESE
20230507 1150	1.7	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230507 1200	1.4	ESE
20230507 1210	0.6	ESE
20230507 1220	0.8	WSW
20230507 1230	5	NW
20230507 1240	2.8	N
20230507 1250	2.5	NW
20230507 1300	0.6	NE
20230507 1310	1.1	SSW
20230507 1320	0.8	W
20230507 1330	0.8	-
20230507 1340	2.5	SW
20230507 1350	3.3	WSW
20230507 1400	1.4	W
20230507 1410	0	ENE
20230507 1420	1.9	E
20230507 1430	1.4	SSW
20230507 1440	2.2	SW
20230507 1450	1.4	WSW
20230507 1500	1.4	SSW
20230507 1510	1.1	S
20230507 1520	0.6	SW
20230507 1530	0	-
20230507 1540	1.4	SE
20230507 1550	1.4	SE
20230507 1600	1.7	ESE
20230507 1610	0.8	ESE
20230507 1620	1.7	SE
20230507 1630	3.1	ESE
20230507 1640	3.3	SE
20230507 1650	2.2	SE
20230507 1700	2.8	SE
20230507 1710	1.1	SE
20230507 1720	1.4	ENE
20230507 1730	0.6	ENE
20230507 1740	1.7	NE
20230507 1750	0.8	WNW
20230507 1800	0.3	WNW
20230507 1810	0.8	NW
20230507 1820	0.8	NNW
20230507 1830	0.8	N
20230507 1840	0.3	NW
20230507 1850	0.6	SW
20230507 1900	1.1	NW
20230507 1910	0.8	NW
20230507 1920	1.4	NW
20230507 1930	0.8	WNW
20230507 1940	0.8	WNW
20230507 1950	1.4	NW
20230507 2000	1.1	NW
20230507 2010	1.1	NW
20230507 2020	1.4	WSW
20230507 2030	0.8	WNW
20230507 2040	0.3	NNE
20230507 2050	0	-
20230507 2100	0.3	SE
20230507 2110	0.3	S
20230507 2120	0.3	SSW
20230507 2130	0.3	-
20230507 2140	0.3	SE
20230507 2150	0	SE
20230507 2200	0	-
20230507 2210	0	-
20230507 2220	0	S
20230507 2230	0	SW
20230507 2240	0	-
20230507 2250	0.3	SSE
20230507 2300	0.6	NW
20230507 2310	0.3	WNW
20230507 2320	0.3	SE
20230507 2330	0.3	SSW
20230507 2340	0.3	N
20230507 2350	1.7	N

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230508 0000	1.9	NNE
20230508 0010	1.4	NNE
20230508 0020	0.3	-
20230508 0030	0	-
20230508 0040	0	-
20230508 0050	0	-
20230508 0100	0.8	N
20230508 0110	1.1	N
20230508 0120	1.4	NNE
20230508 0130	1.4	N
20230508 0140	1.7	N
20230508 0150	2.5	NNE
20230508 0200	0.8	NNE
20230508 0210	1.1	NNE
20230508 0220	1.4	N
20230508 0230	0.8	NNW
20230508 0240	1.7	N
20230508 0250	1.7	N
20230508 0300	2.8	N
20230508 0310	1.7	NNE
20230508 0320	1.1	NNE
20230508 0330	0.3	NE
20230508 0340	0	-
20230508 0350	0.8	N
20230508 0400	0.8	NNE
20230508 0410	0.8	NE
20230508 0420	1.1	NNE
20230508 0430	0.6	N
20230508 0440	0.3	-
20230508 0450	1.1	N
20230508 0500	1.7	NNE
20230508 0510	0.8	N
20230508 0520	1.1	N
20230508 0530	2.2	N
20230508 0540	2.2	N
20230508 0550	1.9	N
20230508 0600	3.1	NNE
20230508 0610	2.8	N
20230508 0620	2.2	N
20230508 0630	1.7	N
20230508 0640	2.5	N
20230508 0650	2.5	N
20230508 0700	2.2	N
20230508 0710	2.2	N
20230508 0720	1.7	N
20230508 0730	1.7	N
20230508 0740	3.3	NNE
20230508 0750	1.9	N
20230508 0800	1.9	NNE
20230508 0810	0.8	NNW
20230508 0820	0.8	N
20230508 0830	0.3	NE
20230508 0840	0.8	E
20230508 0850	0.3	-
20230508 0900	0.3	N
20230508 0910	1.4	NNW
20230508 0920	2.2	N
20230508 0930	2.5	N
20230508 0940	2.8	N
20230508 0950	1.7	N
20230508 1000	2.5	N
20230508 1010	2.2	N
20230508 1020	2.2	N
20230508 1030	1.7	NNE
20230508 1040	1.1	NNE
20230508 1050	0.8	N
20230508 1100	0.8	N
20230508 1110	1.1	N
20230508 1120	1.4	N
20230508 1130	1.7	N
20230508 1140	1.7	NNE
20230508 1150	1.1	NNE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230508 1200	2.2	NNE
20230508 1210	1.4	NNE
20230508 1220	2.2	NNE
20230508 1230	2.2	NNE
20230508 1240	2.5	N
20230508 1250	2.5	N
20230508 1300	2.2	N
20230508 1310	2.2	N
20230508 1320	2.8	NNE
20230508 1330	1.7	N
20230508 1340	2.2	N
20230508 1350	2.8	N
20230508 1400	2.2	N
20230508 1410	3.1	N
20230508 1420	2.8	NNE
20230508 1430	2.5	NNE
20230508 1440	2.2	NNE
20230508 1450	2.2	NNE
20230508 1500	1.7	N
20230508 1510	0.8	NNE
20230508 1520	0.8	NNE
20230508 1530	0.3	NW
20230508 1540	0.6	NE
20230508 1550	0.3	N
20230508 1600	0.3	NNE
20230508 1610	1.1	NNE
20230508 1620	1.1	NNE
20230508 1630	0.8	N
20230508 1640	1.1	NNE
20230508 1650	0.8	NE
20230508 1700	0.3	E
20230508 1710	0	E
20230508 1720	0	-
20230508 1730	0	SW
20230508 1740	0	WSW
20230508 1750	0.3	NNW
20230508 1800	0.8	NNW
20230508 1810	1.1	N
20230508 1820	1.1	N
20230508 1830	0.8	NNE
20230508 1840	0	-
20230508 1850	0	-
20230508 1900	0	-
20230508 1910	0.3	NE
20230508 1920	0.3	NE
20230508 1930	0.3	E
20230508 1940	0	-
20230508 1950	0	-
20230508 2000	0.3	NE
20230508 2010	0	-
20230508 2020	0	N
20230508 2030	0	SW
20230508 2040	0	SW
20230508 2050	0	SSE
20230508 2100	0	SSE
20230508 2110	0	SW
20230508 2120	0	N
20230508 2130	0	-
20230508 2140	0	-
20230508 2150	0	-
20230508 2200	0.3	ENE
20230508 2210	0.6	E
20230508 2220	1.1	ESE
20230508 2230	2.2	ESE
20230508 2240	1.7	ESE
20230508 2250	1.4	ESE
20230508 2300	1.7	ESE
20230508 2310	1.7	E
20230508 2320	1.7	E
20230508 2330	1.4	E
20230508 2340	1.1	ESE
20230508 2350	1.7	SE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230509 0000	2.2	SE
20230509 0010	1.9	ESE
20230509 0020	1.4	ESE
20230509 0030	1.7	-
20230509 0030	1.4	E
20230509 0040	0.8	E
20230509 0050	1.1	SE
20230509 0100	1.1	SE
20230509 0110	1.1	SE
20230509 0120	0.6	SE
20230509 0130	0.6	E
20230509 0140	0.6	ESE
20230509 0150	1.7	E
20230509 0200	1.1	E
20230509 0210	1.1	ENE
20230509 0220	1.1	ENE
20230509 0230	1.7	ENE
20230509 0240	1.4	ENE
20230509 0250	1.4	ENE
20230509 0300	1.4	ENE
20230509 0310	1.4	ENE
20230509 0320	1.7	ENE
20230509 0330	1.7	E
20230509 0340	1.1	ENE
20230509 0350	1.7	ENE
20230509 0400	1.9	ENE
20230509 0410	2.2	ENE
20230509 0420	1.7	E
20230509 0430	1.1	ESE
20230509 0440	1.9	E
20230509 0450	1.7	E
20230509 0500	1.1	ESE
20230509 0510	1.4	SE
20230509 0520	1.1	SE
20230509 0530	0.3	E
20230509 0540	1.9	ESE
20230509 0550	0.8	-
20230509 0600	1.7	ESE
20230509 0610	1.4	E
20230509 0620	0.8	E
20230509 0630	0.8	E
20230509 0640	0.8	E
20230509 0650	1.1	E
20230509 0700	1.4	ESE
20230509 0710	2.5	SE
20230509 0720	1.4	ENE
20230509 0730	1.1	ESE
20230509 0740	1.1	ESE
20230509 0750	2.2	SE
20230509 0800	1.4	ESE
20230509 0810	1.1	E
20230509 0820	1.4	E
20230509 0830	2.8	E
20230509 0840	2.8	ESE
20230509 0850	2.2	SE
20230509 0900	2.2	E
20230509 0910	1.4	E
20230509 0920	1.7	E
20230509 0930	2.5	E
20230509 0940	3.1	E
20230509 0950	2.2	ENE
20230509 1000	2.8	E
20230509 1010	2.8	ESE
20230509 1020	3.3	E
20230509 1030	2.8	E
20230509 1040	3.1	E
20230509 1050	2.5	E
20230509 1100	3.3	E
20230509 1110	3.6	E
20230509 1120	2.8	E
20230509 1130	2.8	ESE
20230509 1140	2.2	ESE
20230509 1150	3.1	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230509 1200	2.5	ESE
20230509 1210	2.8	ESE
20230509 1220	2.8	ESE
20230509 1230	2.5	ESE
20230509 1240	1.9	ESE
20230509 1250	2.2	E
20230509 1300	3.3	ESE
20230509 1310	2.5	E
20230509 1320	2.8	E
20230509 1330	3.3	E
20230509 1340	3.1	E
20230509 1350	2.8	ESE
20230509 1400	3.1	ESE
20230509 1410	2.8	SE
20230509 1420	4.2	E
20230509 1430	3.3	ESE
20230509 1440	3.1	ESE
20230509 1450	3.3	ENE
20230509 1500	2.8	SE
20230509 1510	2.8	ESE
20230509 1520	3.9	E
20230509 1530	3.3	E
20230509 1540	3.3	ESE
20230509 1550	2.8	ESE
20230509 1600	3.6	E
20230509 1610	3.1	E
20230509 1620	2.8	E
20230509 1630	3.3	E
20230509 1640	3.3	E
20230509 1650	2.8	E
20230509 1700	3.3	E
20230509 1710	3.1	E
20230509 1720	3.3	ESE
20230509 1730	2.8	E
20230509 1740	2.5	E
20230509 1750	1.7	ESE
20230509 1800	2.2	ESE
20230509 1810	2.5	ESE
20230509 1820	2.5	E
20230509 1830	1.9	ESE
20230509 1840	1.9	ESE
20230509 1850	1.4	ESE
20230509 1900	1.4	SE
20230509 1910	1.7	ESE
20230509 1920	1.4	ESE
20230509 1930	1.7	E
20230509 1940	1.4	ESE
20230509 1950	1.1	-
20230509 2000	2.2	ESE
20230509 2010	1.7	SE
20230509 2020	2.2	ESE
20230509 2030	2.2	SSE
20230509 2040	1.9	SE
20230509 2050	2.5	ESE
20230509 2100	1.9	SE
20230509 2110	2.2	SE
20230509 2120	2.5	SE
20230509 2130	2.8	SE
20230509 2140	2.8	SE
20230509 2150	3.3	SE
20230509 2200	2.8	SE
20230509 2210	2.2	ESE
20230509 2220	2.5	ESE
20230509 2230	2.8	ESE
20230509 2240	2.2	ESE
20230509 2250	2.2	SE
20230509 2300	2.5	SE
20230509 2310	2.8	SE
20230509 2320	2.5	SE
20230509 2330	3.3	SE
20230509 2340	3.1	SE
20230509 2350	2.8	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230510 0000	3.3	ESE
20230510 0010	3.9	SE
20230510 0020	4.2	ESE
20230510 0030	3.9	ESE
20230510 0030	3.3	ESE
20230510 0040	4.2	ESE
20230510 0050	3.9	ESE
20230510 0100	4.4	ESE
20230510 0110	4.4	ESE
20230510 0120	4.2	ESE
20230510 0130	3.9	ESE
20230510 0140	3.3	SE
20230510 0150	3.3	ESE
20230510 0200	3.6	ESE
20230510 0210	3.3	SE
20230510 0220	3.9	ESE
20230510 0230	2.5	ESE
20230510 0240	2.8	ESE
20230510 0250	3.1	ESE
20230510 0300	2.8	ESE
20230510 0300	2.8	ESE
20230510 0320	2.5	ESE
20230510 0330	2.8	ESE
20230510 0340	2.5	ESE
20230510 0350	2.5	E
20230510 0400	3.3	ESE
20230510 0410	3.1	ESE
20230510 0420	2.8	ESE
20230510 0430	2.8	ESE
20230510 0440	2.2	E
20230510 0450	3.3	ESE
20230510 0500	3.3	ESE
20230510 0510	2.5	ESE
20230510 0520	2.8	ESE
20230510 0530	3.3	ESE
20230510 0540	2.5	E
20230510 0550	2.2	ESE
20230510 0600	2.2	E
20230510 0610	3.3	ESE
20230510 0620	3.3	ESE
20230510 0630	3.1	ESE
20230510 0640	3.1	ESE
20230510 0650	2.5	ESE
20230510 0700	2.8	ESE
20230510 0710	2.5	ESE
20230510 0720	2.8	ESE
20230510 0730	3.1	ESE
20230510 0740	3.3	ESE
20230510 0750	3.6	ESE
20230510 0800	4.4	ESE
20230510 0810	4.7	ESE
20230510 0820	3.6	ESE
20230510 0830	3.6	ESE
20230510 0840	3.3	ESE
20230510 0850	2.8	ESE
20230510 0900	3.1	E
20230510 0910	2.8	E
20230510 0920	3.9	ESE
20230510 0930	4.2	ESE
20230510 0940	3.3	E
20230510 0950	3.9	E
20230510 1000	4.4	ESE
20230510 1010	3.3	ESE
20230510 1020	3.3	ESE
20230510 1030	3.3	ESE
20230510 1040	4.2	ESE
20230510 1050	4.4	ESE
20230510 1100	4.7	ESE
20230510 1110	3.9	ESE
20230510 1120	4.2	ESE
20230510 1130	2.8	SE
20230510 1140	3.1	ESE
20230510 1150	2.8	SE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230510 1200	4.2	SE
20230510 1210	4.2	SE
20230510 1220	4.7	SE
20230510 1230	4.2	SE
20230510 1240	4.2	ESE
20230510 1250	4.2	SE
20230510 1300	3.3	ESE
20230510 1310	3.3	ESE
20230510 1320	3.3	ESE
20230510 1330	4.4	ESE
20230510 1340	4.2	ESE
20230510 1350	4.7	ESE
20230510 1400	4.7	ESE
20230510 1410	4.2	ESE
20230510 1420	3.9	ESE
20230510 1430	4.2	ESE
20230510 1440	4.7	ESE
20230510 1450	4.7	E
20230510 1500	4.7	E
20230510 1510	4.7	ESE
20230510 1520	3.3	ESE
20230510 1530	3.9	ESE
20230510 1540	3.9	E
20230510 1550	3.9	ESE
20230510 1600	3.3	ESE
20230510 1610	3.3	SE
20230510 1620	2.8	ESE
20230510 1630	3.1	E
20230510 1640	3.3	ESE
20230510 1650	3.3	ESE
20230510 1700	3.3	ESE
20230510 1710	3.6	ESE
20230510 1720	3.3	ESE
20230510 1730	3.3	ESE
20230510 1740	2.5	ESE
20230510 1750	2.5	ESE
20230510 1800	2.8	SE
20230510 1810	3.3	ESE
20230510 1820	2.5	SE
20230510 1830	2.8	SE
20230510 1840	2.5	SE
20230510 1850	2.2	ESE
20230510 1900	-	-
20230510 1910	1.4	SE
20230510 1920	2.2	SSE
20230510 1930	2.2	SE
20230510 1940	2.5	SE
20230510 1950	2.5	SE
20230510 2000	1.4	SE
20230510 2010	1.9	ESE
20230510 2020	2.5	ESE
20230510 2030	2.8	SE
20230510 2040	2.5	SE
20230510 2050	1.7	SE
20230510 2100	2.5	SE
20230510 2110	1.9	SE
20230510 2120	1.1	ESE
20230510 2130	2.5	ESE
20230510 2140	2.2	ESE
20230510 2150	2.5	ESE
20230510 2200	2.2	ESE
20230510 2210	2.2	ESE
20230510 2220	2.5	ESE
20230510 2230	1.9	ESE
20230510 2240	2.5	SE
20230510 2250	2.2	SE
20230510 2300	1.7	ESE
20230510 2310	2.2	SE
20230510 2320	2.5	SE
20230510 2330	2.8	ESE
20230510 2340	2.5	ESE
20230510 2350	2.5	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230511 0000	1.7	ESE
20230511 0010	1.7	SE
20230511 0020	2.5	SE
20230511 0030	2.2	SE
20230511 0030	1.9	SE
20230511 0040	1.7	SSE
20230511 0050	1.9	SE
20230511 0100	2.2	SE
20230511 0110	2.2	SE
20230511 0120	3.3	SE
20230511 0130	4.2	SE
20230511 0140	3.9	SE
20230511 0150	3.9	SE
20230511 0200	3.6	SE
20230511 0210	3.1	SE
20230511 0220	2.8	SE
20230511 0230	3.3	SE
20230511 0240	2.5	ESE
20230511 0250	3.9	SE
20230511 0300	3.3	SE
20230511 0310	3.3	SE
20230511 0320	3.3	SE
20230511 0330	2.8	SE
20230511 0340	2.2	ESE
20230511 0350	3.1	SE
20230511 0400	2.5	ESE
20230511 0410	2.2	ESE
20230511 0420	2.2	ESE
20230511 0430	1.7	SE
20230511 0440	1.4	SE
20230511 0450	2.2	SE
20230511 0500	2.5	ESE
20230511 0510	1.7	ESE
20230511 0520	1.7	ESE
20230511 0530	1.7	E
20230511 0540	1.7	ESE
20230511 0550	1.7	E
20230511 0600	1.1	SE
20230511 0610	1.1	SE
20230511 0620	1.1	SE
20230511 0630	0.8	SE
20230511 0640	1.7	SSE
20230511 0650	1.4	SE
20230511 0700	2.2	SE
20230511 0710	1.9	SE
20230511 0720	1.7	ESE
20230511 0730	1.7	ESE
20230511 0740	1.7	ESE
20230511 0750	1.7	ESE
20230511 0800	2.5	ESE
20230511 0810	3.3	ESE
20230511 0820	2.5	ESE
20230511 0830	3.1	ESE
20230511 0840	2.8	ESE
20230511 0850	3.3	ESE
20230511 0900	4.2	ESE
20230511 0910	3.9	ESE
20230511 0920	3.3	E
20230511 0930	2.8	E
20230511 0940	2.8	E
20230511 0950	3.3	E
20230511 1000	4.2	E
20230511 1010	4.2	E
20230511 1020	3.9	ESE
20230511 1030	3.3	E
20230511 1040	3.3	ENE
20230511 1050	3.1	E
20230511 1100	2.8	E
20230511 1110	2.8	E
20230511 1120	2.2	ESE
20230511 1130	2.2	ESE
20230511 1140	2.2	ESE
20230511 1150	3.3	E

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230511 1200	3.3	E
20230511 1210	3.9	ENE
20230511 1220	3.6	E
20230511 1230	4.7	ENE
20230511 1240	3.1	E
20230511 1250	3.3	ENE
20230511 1300	3.3	E
20230511 1310	3.3	E
20230511 1320	3.3	ENE
20230511 1330	3.3	E
20230511 1340	3.3	ENE
20230511 1350	2.8	E
20230511 1400	1.7	E
20230511 1410	2.5	E
20230511 1420	2.2	E
20230511 1430	3.1	E
20230511 1440	3.1	E
20230511 1450	2.2	E
20230511 1500	2.8	E
20230511 1510	2.2	E
20230511 1520	2.5	E
20230511 1530	2.2	E
20230511 1540	2.2	ESE
20230511 1550	1.7	E
20230511 1600	2.5	E
20230511 1610	2.5	E
20230511 1620	2.5	E
20230511 1630	2.2	E
20230511 1640	2.5	E
20230511 1650	2.2	ESE
20230511 1700	2.5	ESE
20230511 1710	1.7	E
20230511 1720	1.7	E
20230511 1730	1.7	E
20230511 1740	1.7	ESE
20230511 1750	1.4	ESE
20230511 1800	1.7	E
20230511 1810	1.7	E
20230511 1820	1.4	E
20230511 1830	1.4	ENE
20230511 1840	1.4	ENE
20230511 1850	1.7	ENE
20230511 1900	1.4	ENE
20230511 1910	1.7	ENE
20230511 1920	1.4	ENE
20230511 1930	1.4	NE
20230511 1940	0.8	ENE
20230511 1950	0.6	ENE
20230511 2000	0.8	ENE
20230511 2010	0.8	E
20230511 2020	0.8	E
20230511 2030	0.8	ESE
20230511 2040	0.8	SE
20230511 2050	1.1	ESE
20230511 2100	0.8	E
20230511 2110	0.8	ENE
20230511 2120	0.8	ESE
20230511 2130	0.3	E
20230511 2140	0.8	ENE
20230511 2150	0.6	E
20230511 2200	0.8	E
20230511 2210	1.1	ESE
20230511 2220	0.8	SE
20230511 2230	0.3	SE
20230511 2240	0.8	SE
20230511 2250	1.1	E
20230511 2300	1.4	ESE
20230511 2310	0.8	ESE
20230511 2320	0.8	E
20230511 2330	0.8	E
20230511 2340	1.1	ENE
20230511 2350	1.4	ENE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230512 0000	1.1	ESE
20230512 0010	1.4	SE
20230512 0020	1.1	SE
20230512 0030	0.8	ESE
20230512 0030	1.1	E
20230512 0040	1.4	E
20230512 0050	1.4	ESE
20230512 0100	0.8	ESE
20230512 0110	0.8	ESE
20230512 0120	0.3	ESE
20230512 0130	0.8	ENE
20230512 0140	0.8	NE
20230512 0150	1.1	ESE
20230512 0200	1.4	ESE
20230512 0210	1.1	ESE
20230512 0220	1.7	ESE
20230512 0230	1.1	SE
20230512 0240	0.8	E
20230512 0250	1.4	ESE
20230512 0300	0.8	SE
20230512 0310	0.8	ESE
20230512 0320	0.3	SE
20230512 0330	0.3	SE
20230512 0340	0.8	ESE
20230512 0350	0.3	SE
20230512 0400	0.3	ESE
20230512 0410	0.3	NNE
20230512 0420	0.8	NNE
20230512 0430	0.8	NE
20230512 0440	1.1	NNE
20230512 0450	1.4	NNE
20230512 0500	1.7	NNE
20230512 0510	1.1	NE
20230512 0520	0.8	N
20230512 0530	0.3	N
20230512 0540	0.3	NE
20230512 0550	0.3	N
20230512 0600	0.3	NNW
20230512 0610	1.4	N
20230512 0620	1.1	NNE
20230512 0630	1.1	N
20230512 0640	0.8	N
20230512 0650	0.6	N
20230512 0700	0.8	N
20230512 0710	1.4	N
20230512 0720	0.8	NNE
20230512 0730	1.1	NNE
20230512 0740	1.4	NNE
20230512 0750	0.8	NNE
20230512 0800	1.7	NNE
20230512 0810	1.4	N
20230512 0820	1.4	N
20230512 0830	1.7	N
20230512 0840	1.9	N
20230512 0850	2.2	NNE
20230512 0900	2.2	N
20230512 0910	2.2	N
20230512 0920	2.2	N
20230512 0930	2.5	NNE
20230512 0940	1.9	NNE
20230512 0950	2.2	N
20230512 1000	1.7	N
20230512 1010	1.7	NNE
20230512 1020	1.7	NNE
20230512 1030	1.4	-
20230512 1040	0.8	NNE
20230512 1050	0.3	SSE
20230512 1100	1.1	E
20230512 1110	1.7	ESE
20230512 1120	1.4	ESE
20230512 1130	2.2	ESE
20230512 1140	2.8	E
20230512 1150	2.8	E

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230512 1200	2.2	ESE
20230512 1210	1.7	E
20230512 1220	2.2	E
20230512 1230	1.1	NE
20230512 1240	1.7	NE
20230512 1250	1.4	NNE
20230512 1300	1.7	NNE
20230512 1310	2.2	NNE
20230512 1320	2.2	N
20230512 1330	1.7	N
20230512 1340	2.5	N
20230512 1350	2.8	N
20230512 1400	2.2	NNE
20230512 1410	2.2	N
20230512 1420	2.2	N
20230512 1430	2.2	NNE
20230512 1440	1.9	N
20230512 1450	1.7	NNE
20230512 1500	2.2	N
20230512 1510	2.8	NNE
20230512 1520	2.2	N
20230512 1530	1.9	N
20230512 1540	2.2	N
20230512 1550	1.7	N
20230512 1600	2.5	N
20230512 1610	2.2	N
20230512 1620	2.2	N
20230512 1630	1.4	N
20230512 1640	1.7	N
20230512 1650	1.7	N
20230512 1700	1.9	N
20230512 1710	2.2	N
20230512 1720	1.7	N
20230512 1730	2.5	N
20230512 1740	2.5	NNE
20230512 1750	1.7	N
20230512 1800	1.7	N
20230512 1810	2.2	N
20230512 1820	1.1	N
20230512 1830	1.1	NNW
20230512 1840	1.1	NNW
20230512 1850	1.1	N
20230512 1900	0	-
20230512 1910	0.3	W
20230512 1920	0.3	WNW
20230512 1930	0.3	SSW
20230512 1940	0.3	SSW
20230512 1950	0.3	SSW
20230512 2000	0.3	S
20230512 2010	0.3	SE
20230512 2020	0	-
20230512 2030	0.3	ENE
20230512 2040	0	NE
20230512 2050	0.3	W
20230512 2100	0.3	WNW
20230512 2110	0.3	WSW
20230512 2120	0.6	S
20230512 2130	0	S
20230512 2140	0	-
20230512 2150	0.3	SE
20230512 2200	0.3	SSE
20230512 2210	0.3	NNW
20230512 2220	0.8	NNE
20230512 2230	0.3	-
20230512 2240	0.3	SSW
20230512 2250	0.3	SSW
20230512 2300	0.3	SW
20230512 2310	0.3	S
20230512 2320	0.6	SSE
20230512 2330	0.6	SE
20230512 2340	0	NE
20230512 2350	0	-

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230513 0000	0	N
20230513 0010	0.3	-
20230513 0020	0.3	S
20230513 0030	0.8	SW
20230513 0040	0.3	SW
20230513 0050	0	-
20230513 0100	0	-
20230513 0110	0.3	S
20230513 0120	0.3	S
20230513 0130	0.3	SSW
20230513 0140	0.3	SW
20230513 0150	0	SSW
20230513 0200	0	-
20230513 0210	0	ESE
20230513 0220	0.3	E
20230513 0230	0.3	NNE
20230513 0240	0	NNW
20230513 0250	0.3	NW
20230513 0300	0.3	SSW
20230513 0310	0.3	SSW
20230513 0320	0.3	SE
20230513 0330	0.3	SE
20230513 0340	0.3	SSE
20230513 0350	0	-
20230513 0400	0	-
20230513 0410	0.3	S
20230513 0420	0.3	SSE
20230513 0430	0.3	-
20230513 0440	0	-
20230513 0450	0	-
20230513 0500	0	-
20230513 0510	0	-
20230513 0520	0.3	SSE
20230513 0530	0.3	SSE
20230513 0540	0.3	SE
20230513 0550	0	-
20230513 0600	0.3	NE
20230513 0610	0	SSW
20230513 0620	0.3	S
20230513 0630	0.3	SE
20230513 0640	0	SSE
20230513 0650	0	N
20230513 0700	0.3	N
20230513 0710	0	-
20230513 0720	0	N
20230513 0730	0	SSW
20230513 0740	0	-
20230513 0750	0.3	WNW
20230513 0800	0.3	NW
20230513 0810	0.3	N
20230513 0820	0	ESE
20230513 0830	0.3	SSE
20230513 0840	0.3	S
20230513 0850	0.3	S
20230513 0900	0.3	SE
20230513 0910	0.3	NNE
20230513 0920	0.8	NNE
20230513 0930	0.3	NE
20230513 0940	0	ESE
20230513 0950	0.3	NE
20230513 1000	0	-
20230513 1010	0	SSW
20230513 1020	0.3	-
20230513 1030	0.3	NNW
20230513 1040	0.3	-
20230513 1050	0.3	N
20230513 1100	0.3	NW
20230513 1110	0.3	NNE
20230513 1120	0.8	N
20230513 1130	0.8	NNE
20230513 1140	0.8	NNE
20230513 1150	0.8	NNW

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230513 1200	1.4	NNE
20230513 1210	0.3	-
20230513 1220	0.8	NNE
20230513 1230	1.1	NE
20230513 1240	0.6	N
20230513 1250	0.6	SE
20230513 1300	1.1	E
20230513 1310	1.1	ESE
20230513 1320	1.1	S
20230513 1330	0.8	NE
20230513 1340	0.8	E
20230513 1350	0.3	ESE
20230513 1400	0.8	N
20230513 1410	1.1	N
20230513 1420	1.4	NNE
20230513 1430	1.1	N
20230513 1440	0.8	NNW
20230513 1450	0.8	NNW
20230513 1500	1.1	NNW
20230513 1510	0.6	-
20230513 1520	0.3	N
20230513 1530	0.3	NNE
20230513 1540	0.3	NW
20230513 1550	0.3	WNW
20230513 1600	0	-
20230513 1610	0	SSE
20230513 1620	0	ESE
20230513 1630	0	E
20230513 1640	0.3	S
20230513 1650	0.3	ESE
20230513 1700	0.3	E
20230513 1710	0	NNE
20230513 1720	0	-
20230513 1730	0	-
20230513 1740	1.4	N
20230513 1750	2.2	N
20230513 1800	2.2	N
20230513 1810	1.9	N
20230513 1820	1.7	N
20230513 1830	1.7	N
20230513 1840	1.9	N
20230513 1850	1.7	N
20230513 1900	1.7	N
20230513 1910	1.4	NNW
20230513 1920	1.7	NNW
20230513 1930	1.9	NNW
20230513 1940	2.5	N
20230513 1950	2.2	NNW
20230513 2000	1.1	N
20230513 2010	0.6	NE
20230513 2020	0.3	S
20230513 2030	0.8	SW
20230513 2040	0.3	S
20230513 2050	0.3	SSW
20230513 2100	0.3	WSW
20230513 2110	0.8	S
20230513 2120	0.3	SSW
20230513 2130	0	NNE
20230513 2140	0.3	NNW
20230513 2150	0	-
20230513 2200	0.6	SE
20230513 2210	0.8	S
20230513 2220	0.6	NNW
20230513 2230	0.3	NNW
20230513 2240	0	NNE
20230513 2250	0	-
20230513 2300	0.3	SW
20230513 2310	0	-
20230513 2320	0.3	SW
20230513 2330	0	NW
20230513 2340	0	-
20230513 2350	0	-

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230514 0000	0	SSE
20230514 0010	0	S
20230514 0020	0.3	S
20230514 0030	0.8	SW
20230514 0040	0.3	-
20230514 0050	0.3	W
20230514 0100	0.3	NNW
20230514 0110	0.3	N
20230514 0120	0	N
20230514 0130	0.3	-
20230514 0140	0.6	S
20230514 0150	0.8	SSW
20230514 0200	0.8	S
20230514 0210	0.3	S
20230514 0220	0	SSW
20230514 0230	0.3	WNW
20230514 0240	0.6	SW
20230514 0250	0.3	SW
20230514 0300	0	-
20230514 0310	0.3	N
20230514 0320	0.3	NW
20230514 0330	0.3	SW
20230514 0340	0.3	S
20230514 0350	0.3	SE
20230514 0400	0	-
20230514 0410	0	N
20230514 0420	0	E
20230514 0430	0	-
20230514 0440	0.3	SSW
20230514 0450	0	-
20230514 0500	0	-
20230514 0510	0.8	NW
20230514 0520	0.3	N
20230514 0530	0	-
20230514 0540	0.3	SW
20230514 0550	0	-
20230514 0600	0	-
20230514 0610	0	-
20230514 0620	0.3	SSW
20230514 0630	0.3	SSW
20230514 0640	0.3	S
20230514 0650	0.3	SSE
20230514 0700	0.3	-
20230514 0710	0.8	SSE
20230514 0720	1.1	SSE
20230514 0730	0.8	SSE
20230514 0740	0.8	SSE
20230514 0750	0.8	S
20230514 0800	0.8	S
20230514 0810	0.3	S
20230514 0820	0.6	S
20230514 0830	0.6	SSE
20230514 0840	0.3	S
20230514 0850	0	-
20230514 0900	0.3	WNW
20230514 0910	0.3	WSW
20230514 0920	0.3	-
20230514 0930	0.6	NW
20230514 0940	0.8	NNW
20230514 0950	0.8	N
20230514 1000	1.1	NNE
20230514 1010	0	-
20230514 1020	0.3	ESE
20230514 1030	0.3	SSE
20230514 1040	0.6	SSE
20230514 1050	0.8	S
20230514 1100	0.8	SSW
20230514 1110	0.3	WSW
20230514 1120	0	-
20230514 1130	0	E
20230514 1140	0	ESE
20230514 1150	0.6	SE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230514 1200	1.4	ESE
20230514 1210	0.8	SE
20230514 1220	0.6	ESE
20230514 1230	0.6	ESE
20230514 1240	0.3	ESE
20230514 1250	0.3	NW
20230514 1300	0.3	NW
20230514 1310	1.1	WNW
20230514 1320	0.8	NNW
20230514 1330	0.6	NNW
20230514 1340	0.8	N
20230514 1350	0.3	ENE
20230514 1400	1.1	E
20230514 1410	1.7	SE
20230514 1420	1.4	ESE
20230514 1430	1.4	ESE
20230514 1440	1.7	ESE
20230514 1450	1.7	ESE
20230514 1500	1.1	ESE
20230514 1510	1.4	E
20230514 1520	1.7	ESE
20230514 1530	1.7	E
20230514 1540	1.7	E
20230514 1550	0.8	ESE
20230514 1600	1.4	ESE
20230514 1610	2.2	ESE
20230514 1620	2.2	ESE
20230514 1630	1.7	ESE
20230514 1640	0.8	ESE
20230514 1650	0.8	SE
20230514 1700	0.8	SSE
20230514 1710	1.1	S
20230514 1720	0.8	SSE
20230514 1730	0.6	ESE
20230514 1740	1.1	E
20230514 1750	0.8	SE
20230514 1800	0.6	SSE
20230514 1810	0.3	S
20230514 1820	0	-
20230514 1830	0.3	ESE
20230514 1840	1.1	E
20230514 1850	1.4	E
20230514 1900	1.4	ESE
20230514 1910	1.4	ESE
20230514 1920	1.7	ESE
20230514 1930	2.5	ESE
20230514 1940	2.2	ESE
20230514 1950	2.2	E
20230514 2000	1.7	ESE
20230514 2010	1.9	ESE
20230514 2020	1.9	ESE
20230514 2030	2.2	ESE
20230514 2040	2.2	ESE
20230514 2050	2.2	ESE
20230514 2100	1.7	ESE
20230514 2110	2.2	ESE
20230514 2120	2.8	SE
20230514 2130	2.5	SE
20230514 2140	1.4	SSE
20230514 2150	2.5	SE
20230514 2200	1.9	SE
20230514 2210	1.7	ESE
20230514 2220	1.4	ESE
20230514 2230	1.4	SE
20230514 2240	1.1	SE
20230514 2250	1.1	E
20230514 2300	1.4	E
20230514 2310	0.8	ESE
20230514 2320	0.8	SE
20230514 2330	0.3	ESE
20230514 2340	0.8	NNE
20230514 2350	0.3	NNE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230515 0000	0.3	SE
20230515 0010	1.1	SE
20230515 0020	0.6	E
20230515 0030	0.3	NNE
20230515 0040	0.3	-
20230515 0050	1.1	ENE
20230515 0100	1.1	N
20230515 0110	1.1	NNE
20230515 0120	1.1	N
20230515 0130	1.1	NNE
20230515 0140	1.1	N
20230515 0150	0.3	NE
20230515 0200	0.3	NNE
20230515 0210	0.3	ENE
20230515 0220	0.3	-
20230515 0230	0	-
20230515 0240	0	N
20230515 0250	0.8	N
20230515 0300	0.3	N
20230515 0310	0.8	NE
20230515 0320	0.3	-
20230515 0330	0.8	N
20230515 0340	0.3	-
20230515 0350	0.3	-
20230515 0400	0.3	NNW
20230515 0410	0	N
20230515 0420	0.3	N
20230515 0430	0.3	NNE
20230515 0440	0	-
20230515 0450	0	N
20230515 0500	0	W
20230515 0510	0	-
20230515 0520	0.3	SW
20230515 0530	0.3	SSW
20230515 0540	0.3	-
20230515 0550	0.3	WNW
20230515 0600	0	-
20230515 0610	0	SSE
20230515 0620	0.3	S
20230515 0630	0	-
20230515 0640	0	-
20230515 0650	0.3	S
20230515 0700	0	-
20230515 0710	0	-
20230515 0720	0	-
20230515 0730	0.3	SSW
20230515 0740	0.3	SSE
20230515 0750	0	SE
20230515 0800	0	NW
20230515 0810	0	-
20230515 0820	0.3	S
20230515 0830	0.3	N
20230515 0840	0.3	NNE
20230515 0850	0.3	NNE
20230515 0900	0.3	NNE
20230515 0910	0.8	NW
20230515 0920	0.8	NNW
20230515 0930	1.1	N
20230515 0940	1.1	N
20230515 0950	0.8	NNE
20230515 1000	1.4	NNE
20230515 1010	1.1	N
20230515 1020	0.6	NE
20230515 1030	1.1	-
20230515 1040	0.8	SE
20230515 1050	1.4	ESE
20230515 1100	1.7	E
20230515 1110	1.4	ESE
20230515 1120	1.1	SSE
20230515 1130	0.8	SE
20230515 1140	1.4	S
20230515 1150	1.7	S

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230515 1200	0.3	-
20230515 1210	0.8	ESE
20230515 1220	1.4	-
20230515 1230	1.7	SSE
20230515 1240	1.1	SW
20230515 1250	0.8	NE
20230515 1300	1.4	ENE
20230515 1310	1.7	ESE
20230515 1320	1.4	E
20230515 1330	2.2	E
20230515 1340	2.2	ESE
20230515 1350	1.7	E
20230515 1400	1.9	ESE
20230515 1410	2.5	ENE
20230515 1420	2.2	E
20230515 1430	1.9	E
20230515 1440	2.5	E
20230515 1450	1.7	ESE
20230515 1500	2.2	E
20230515 1510	2.2	ESE
20230515 1520	1.7	ESE
20230515 1530	1.9	SE
20230515 1540	1.7	SE
20230515 1550	1.1	SE
20230515 1600	1.4	SE
20230515 1610	1.4	ESE
20230515 1620	1.7	SE
20230515 1630	1.1	ESE
20230515 1640	1.4	ESE
20230515 1650	1.4	ESE
20230515 1700	1.7	SE
20230515 1710	1.7	ESE
20230515 1720	1.9	ESE
20230515 1730	1.7	SE
20230515 1740	1.1	SE
20230515 1750	1.4	SE
20230515 1800	1.4	SE
20230515 1810	1.7	SE
20230515 1820	1.4	ESE
20230515 1830	1.1	SE
20230515 1840	0.3	SE
20230515 1850	0.8	SE
20230515 1900	1.1	ESE
20230515 1910	1.1	ESE
20230515 1920	1.1	E
20230515 1930	0.8	ESE
20230515 1940	0.8	SE
20230515 1950	1.1	SE
20230515 2000	1.1	ESE
20230515 2010	1.1	SE
20230515 2020	1.4	SE
20230515 2030	1.4	SE
20230515 2040	1.4	SE
20230515 2050	1.4	ESE
20230515 2100	1.4	SE
20230515 2110	1.7	SE
20230515 2120	1.7	SE
20230515 2130	1.9	SE
20230515 2140	1.4	SE
20230515 2150	1.1	SSE
20230515 2200	1.4	ESE
20230515 2210	1.7	SE
20230515 2220	1.1	SE
20230515 2230	0.6	SE
20230515 2240	0.8	-
20230515 2250	0.8	-
20230515 2300	0.8	ESE
20230515 2310	0	-
20230515 2320	0.6	SE
20230515 2330	0.8	SE
20230515 2340	0.3	ESE
20230515 2350	0.8	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230516 0000	0.8	ESE
20230516 0010	0.3	ESE
20230516 0020	0	-
20230516 0030	0.3	SSE
20230516 0040	0.8	SSE
20230516 0050	1.1	SSE
20230516 0100	1.4	SSE
20230516 0110	1.4	SSE
20230516 0120	1.7	SE
20230516 0130	1.1	SSE
20230516 0140	1.4	SSE
20230516 0150	1.1	SSE
20230516 0200	0.6	SE
20230516 0210	0.6	SE
20230516 0220	0.8	SE
20230516 0230	0.8	SE
20230516 0240	0.3	-
20230516 0250	0	-
20230516 0300	0.3	-
20230516 0310	0.6	S
20230516 0320	1.1	SSE
20230516 0330	0.8	SSE
20230516 0340	0.8	SSE
20230516 0350	0.8	SSE
20230516 0400	1.1	S
20230516 0410	0.8	SSE
20230516 0420	0.3	SE
20230516 0430	0.3	SE
20230516 0440	0.3	WNW
20230516 0450	0	-
20230516 0500	0	S
20230516 0510	1.1	SSE
20230516 0520	1.4	SE
20230516 0530	1.1	SSE
20230516 0540	0.3	SSE
20230516 0550	0.8	SE
20230516 0600	0.3	ESE
20230516 0610	0.3	-
20230516 0620	0.3	W
20230516 0630	0.3	-
20230516 0640	0.6	E
20230516 0650	0.6	ENE
20230516 0700	0.3	E
20230516 0710	0.6	NE
20230516 0720	1.1	NE
20230516 0730	0.8	ESE
20230516 0740	2.2	E
20230516 0750	2.5	E
20230516 0800	2.5	E
20230516 0810	2.8	ESE
20230516 0820	2.5	E
20230516 0830	2.5	E
20230516 0840	2.5	ENE
20230516 0850	2.2	E
20230516 0900	1.7	ESE
20230516 0910	1.7	E
20230516 0920	2.2	E
20230516 0930	1.7	ESE
20230516 0940	1.9	ESE
20230516 0950	2.5	ESE
20230516 1000	2.8	ESE
20230516 1010	2.2	ESE
20230516 1020	3.1	SE
20230516 1030	3.3	SSE
20230516 1040	4.2	SSE
20230516 1050	3.6	SE
20230516 1100	2.2	E
20230516 1110	3.3	E
20230516 1120	2.8	E
20230516 1130	3.9	E
20230516 1140	4.2	E
20230516 1150	3.9	E

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230516 1200	3.9	E
20230516 1210	3.9	E
20230516 1220	3.3	E
20230516 1230	3.3	E
20230516 1240	3.1	ESE
20230516 1250	3.9	E
20230516 1300	3.9	E
20230516 1310	3.6	E
20230516 1320	3.1	ESE
20230516 1330	2.2	ESE
20230516 1340	1.7	ESE
20230516 1350	1.7	ESE
20230516 1400	2.2	SE
20230516 1410	2.5	ESE
20230516 1420	2.2	ESE
20230516 1430	1.7	SSE
20230516 1440	2.2	ESE
20230516 1450	2.2	ESE
20230516 1500	3.1	E
20230516 1510	2.5	ESE
20230516 1520	2.2	SE
20230516 1530	2.8	ESE
20230516 1540	2.8	ESE
20230516 1550	2.8	ESE
20230516 1600	2.8	SE
20230516 1610	2.2	ESE
20230516 1620	2.5	ESE
20230516 1630	2.2	ESE
20230516 1640	2.2	ESE
20230516 1650	2.8	ESE
20230516 1700	3.1	ESE
20230516 1710	2.5	E
20230516 1720	2.5	E
20230516 1730	1.7	SE
20230516 1740	1.7	SE
20230516 1750	1.4	ESE
20230516 1800	1.7	ESE
20230516 1810	1.7	ESE
20230516 1820	1.7	ESE
20230516 1830	2.5	ESE
20230516 1840	1.9	ESE
20230516 1850	2.5	ESE
20230516 1900	2.2	ESE
20230516 1910	2.2	ESE
20230516 1920	2.8	ESE
20230516 1930	2.8	ESE
20230516 1940	2.8	ESE
20230516 1950	2.2	ESE
20230516 2000	2.5	ESE
20230516 2010	2.5	ESE
20230516 2020	3.1	ESE
20230516 2030	2.8	ESE
20230516 2040	2.2	SE
20230516 2050	2.2	E
20230516 2100	2.8	ESE
20230516 2110	3.1	ESE
20230516 2120	2.8	ESE
20230516 2130	3.3	ESE
20230516 2140	2.5	ESE
20230516 2150	2.5	ESE
20230516 2200	2.2	ESE
20230516 2210	1.9	SE
20230516 2220	1.9	ESE
20230516 2230	2.2	ESE
20230516 2240	1.7	ESE
20230516 2250	1.9	ESE
20230516 2300	1.7	ESE
20230516 2310	2.2	ESE
20230516 2320	2.5	ESE
20230516 2330	3.3	ESE
20230516 2340	3.3	ESE
20230516 2350	3.1	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230517 0000	2.5	E
20230517 0010	1.7	ESE
20230517 0020	2.2	ESE
20230517 0030	2.2	ESE
20230517 0040	2.5	E
20230517 0050	1.7	ESE
20230517 0100	1.1	ESE
20230517 0110	0.8	SE
20230517 0120	1.1	E
20230517 0130	1.1	SE
20230517 0140	1.1	ESE
20230517 0150	1.1	SE
20230517 0200	1.1	SE
20230517 0210	2.2	ESE
20230517 0220	1.9	ESE
20230517 0230	2.2	ESE
20230517 0240	1.7	SE
20230517 0250	1.7	SE
20230517 0300	2.2	ESE
20230517 0310	1.9	ESE
20230517 0320	2.2	ESE
20230517 0330	1.7	ESE
20230517 0340	1.7	ESE
20230517 0350	1.7	ESE
20230517 0400	2.2	ESE
20230517 0410	2.2	SE
20230517 0420	2.2	SE
20230517 0430	2.2	ESE
20230517 0440	2.2	ESE
20230517 0450	2.2	SE
20230517 0500	1.9	SSE
20230517 0510	2.2	SSE
20230517 0520	2.5	SE
20230517 0530	2.2	SE
20230517 0540	1.7	SE
20230517 0550	1.4	SE
20230517 0600	1.4	SE
20230517 0610	1.4	ESE
20230517 0620	1.7	SE
20230517 0630	1.9	SE
20230517 0640	2.2	ESE
20230517 0650	3.3	ESE
20230517 0700	3.3	ESE
20230517 0710	2.5	ESE
20230517 0720	2.8	ESE
20230517 0730	1.9	ESE
20230517 0740	1.9	ESE
20230517 0750	2.2	SE
20230517 0800	1.9	SE
20230517 0810	1.7	SE
20230517 0820	2.2	ESE
20230517 0830	2.8	SE
20230517 0840	1.7	SE
20230517 0850	2.2	SSE
20230517 0900	1.7	SE
20230517 0910	1.7	SE
20230517 0920	1.7	SE
20230517 0930	2.2	SE
20230517 0940	1.4	S
20230517 0950	0.8	SSE
20230517 1000	0.3	SSW
20230517 1010	0.8	E
20230517 1020	0.6	ESE
20230517 1030	0.6	ESE
20230517 1040	0.6	SE
20230517 1050	1.1	ESE
20230517 1100	1.7	SE
20230517 1110	1.4	SE
20230517 1120	1.1	ESE
20230517 1130	1.1	SE
20230517 1140	1.7	SE
20230517 1150	1.4	E

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230517 1200	1.4	ESE
20230517 1210	2.5	ESE
20230517 1220	1.7	SE
20230517 1230	1.7	SSE
20230517 1240	1.7	SSW
20230517 1250	3.3	S
20230517 1300	4.2	SSW
20230517 1310	1.1	S
20230517 1320	1.1	E
20230517 1330	0.3	SSE
20230517 1340	0.8	SE
20230517 1350	0.3	FNE
20230517 1400	0.8	SSW
20230517 1410	2.2	S
20230517 1420	1.7	S
20230517 1430	2.5	S
20230517 1440	2.5	S
20230517 1450	2.2	S
20230517 1500	2.5	S
20230517 1510	3.3	S
20230517 1520	1.7	S
20230517 1530	3.1	SSW
20230517 1540	4.2	SW
20230517 1550	4.2	SSW
20230517 1600	3.6	SSW
20230517 1610	3.9	SSW
20230517 1620	4.2	SSW
20230517 1630	4.2	SW
20230517 1640	3.9	SW
20230517 1650	3.3	SW
20230517 1700	3.1	SSW
20230517 1710	3.6	SSW
20230517 1720	2.8	SSW
20230517 1730	3.3	SW
20230517 1740	3.3	SW
20230517 1750	2.8	SSW
20230517 1800	1.9	SSW
20230517 1810	2.8	SSW
20230517 1820	1.7	SE
20230517 1830	0.8	SSE
20230517 1840	1.4	S
20230517 1850	1.7	SSW
20230517 1900	1.7	SW
20230517 1910	2.2	SW
20230517 1920	2.8	SW
20230517 1930	1.7	SW
20230517 1940	1.7	SSW
20230517 1950	1.4	SSW
20230517 2000	2.5	SSW
20230517 2010	2.2	SSW
20230517 2020	2.5	SSW
20230517 2030	1.7	SSW
20230517 2040	1.4	SSW
20230517 2050	1.4	SW
20230517 2100	1.7	SSW
20230517 2110	1.1	S
20230517 2120	0.8	SW
20230517 2130	0.8	ESE
20230517 2140	0.8	E
20230517 2150	0.6	ESE
20230517 2200	0.3	SSE
20230517 2210	0	-
20230517 2220	0.3	ESE
20230517 2230	0.3	SE
20230517 2240	0	-
20230517 2250	0	N
20230517 2300	0	-
20230517 2310	0.3	S
20230517 2320	0.3	-
20230517 2330	0.3	E
20230517 2340	0.3	SSE
20230517 2350	0.3	-

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230518 0000	0	-
20230518 0010	0	-
20230518 0020	0	-
20230518 0030	0.3	SE
20230518 0040	0.3	SSW
20230518 0050	0.3	-
20230518 0100	0	-
20230518 0110	0	SE
20230518 0120	0	SE
20230518 0130	0	ESE
20230518 0140	0	-
20230518 0150	0	-
20230518 0200	0.3	SSE
20230518 0210	1.1	SSE
20230518 0220	0.6	ESE
20230518 0230	0	-
20230518 0240	0	-
20230518 0250	0.3	SE
20230518 0300	0	-
20230518 0310	0	-
20230518 0320	0	-
20230518 0330	0.3	SW
20230518 0340	0.8	SSW
20230518 0350	0.3	SSE
20230518 0400	0.3	ESE
20230518 0410	0.6	SE
20230518 0420	0.8	SE
20230518 0430	0.6	SE
20230518 0440	0.8	SE
20230518 0450	0.8	SE
20230518 0500	0	-
20230518 0510	0	SSE
20230518 0520	0	-
20230518 0530	0	-
20230518 0540	0	-
20230518 0550	0	-
20230518 0600	0	-
20230518 0610	0	-
20230518 0620	0	-
20230518 0630	0	ESE
20230518 0640	0	-
20230518 0650	0	-
20230518 0700	0.3	-
20230518 0710	0	SSW
20230518 0720	0.3	S
20230518 0730	0.3	SE
20230518 0740	0.8	SE
20230518 0750	1.1	SE
20230518 0800	1.4	SE
20230518 0810	1.4	ESE
20230518 0820	1.7	ESE
20230518 0830	1.9	SE
20230518 0840	1.7	ESE
20230518 0850	1.7	E
20230518 0900	1.4	ESE
20230518 0910	1.7	ESE
20230518 0920	1.7	ESE
20230518 0930	1.7	ESE
20230518 0940	1.9	E
20230518 0950	1.4	ESE
20230518 1000	1.4	E
20230518 1010	1.4	E
20230518 1020	0.3	-
20230518 1030	0.8	-
20230518 1040	1.4	WNW
20230518 1050	1.4	NW
20230518 1100	2.2	WNW
20230518 1110	2.2	W
20230518 1120	2.2	SW
20230518 1130	1.7	WSW
20230518 1140	2.5	WSW
20230518 1150	2.8	WSW

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230518 1200	2.2	-
20230518 1210	1.9	WNW
20230518 1220	2.5	W
20230518 1230	2.5	W
20230518 1240	1.7	WSW
20230518 1250	2.2	WSW
20230518 1300	2.2	WSW
20230518 1310	1.7	WSW
20230518 1320	1.7	-
20230518 1330	2.2	SW
20230518 1340	1.7	SW
20230518 1350	2.5	SW
20230518 1400	2.8	SW
20230518 1410	2.8	WSW
20230518 1420	2.5	WSW
20230518 1430	2.8	WSW
20230518 1440	1.7	WSW
20230518 1450	2.8	WSW
20230518 1500	3.3	SSW
20230518 1510	2.8	SW
20230518 1520	2.8	SSW
20230518 1530	2.2	SW
20230518 1540	2.5	WSW
20230518 1550	3.3	SW
20230518 1600	2.8	WSW
20230518 1610	2.2	SW
20230518 1620	2.2	SW
20230518 1630	2.5	SW
20230518 1640	2.2	SW
20230518 1650	2.8	SSW
20230518 1700	3.1	SSW
20230518 1710	2.8	SSW
20230518 1720	2.8	SSW
20230518 1730	2.5	SW
20230518 1740	2.5	SW
20230518 1750	2.5	SW
20230518 1800	2.2	SW
20230518 1810	1.9	SW
20230518 1820	1.4	SW
20230518 1830	1.1	WSW
20230518 1840	0.6	WSW
20230518 1850	0.8	W
20230518 1900	0.6	WNW
20230518 1910	1.4	SSW
20230518 1920	0	SSE
20230518 1930	0.3	SSE
20230518 1940	0.8	SSW
20230518 1950	0.8	SW
20230518 2000	0.8	S
20230518 2010	0.8	ESE
20230518 2020	0.8	E
20230518 2030	0.8	ESE
20230518 2040	0.3	ESE
20230518 2050	0.8	S
20230518 2100	0.3	S
20230518 2110	0.8	S
20230518 2120	0.8	SSE
20230518 2130	0.3	E
20230518 2140	0.8	SSW
20230518 2150	0.8	S
20230518 2200	0.8	SSE
20230518 2210	0.3	SE
20230518 2220	1.1	SSW
20230518 2230	0.3	SSW
20230518 2240	0.8	SSE
20230518 2250	0.3	ESE
20230518 2300	0.3	S
20230518 2310	0.3	-
20230518 2320	0.6	S
20230518 2330	0.3	-
20230518 2340	0.3	SSW
20230518 2350	1.1	SSW

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230519 0000	2.8	SE
20230519 0010	2.8	ESE
20230519 0020	1.7	SE
20230519 0030	2.5	ESE
20230519 0040	2.2	ESE
20230519 0050	2.8	ESE
20230519 0100	3.1	ESE
20230519 0110	2.8	E
20230519 0120	2.8	ESE
20230519 0130	2.5	ESE
20230519 0140	2.5	SE
20230519 0150	2.5	ESE
20230519 0200	2.8	ESE
20230519 0210	2.8	ESE
20230519 0220	3.3	ESE
20230519 0230	2.8	ESE
20230519 0240	3.3	ESE
20230519 0250	2.5	ESE
20230519 0300	3.1	ESE
20230519 0310	3.1	ESE
20230519 0320	2.8	ESE
20230519 0330	2.8	E
20230519 0340	2.8	E
20230519 0350	2.2	E
20230519 0400	3.3	E
20230519 0410	2.5	ENE
20230519 0420	1.7	E
20230519 0430	1.9	ENE
20230519 0440	2.2	E
20230519 0450	1.4	-
20230519 0500	1.1	N
20230519 0510	1.1	N
20230519 0520	1.7	N
20230519 0530	0.8	N
20230519 0540	2.2	NNE
20230519 0550	2.8	NNE
20230519 0600	3.6	NNE
20230519 0610	3.3	NNE
20230519 0620	3.6	NNE
20230519 0630	3.3	NNE
20230519 0640	3.1	NNE
20230519 0650	3.3	NNE
20230519 0700	3.3	NNE
20230519 0710	3.3	NNE
20230519 0720	2.8	NNE
20230519 0730	1.7	NNE
20230519 0740	1.9	N
20230519 0750	1.9	N
20230519 0800	2.8	NNE
20230519 0810	2.2	N
20230519 0820	2.5	N
20230519 0830	1.7	NNE
20230519 0840	2.2	NNE
20230519 0850	1.7	N
20230519 0900	1.7	N
20230519 0910	2.5	N
20230519 0920	3.1	NNE
20230519 0930	2.5	N
20230519 0940	2.5	N
20230519 0950	3.3	NNE
20230519 1000	2.5	NNE
20230519 1010	1.7	NNE
20230519 1020	2.2	NNE
20230519 1030	2.2	NNE
20230519 1040	2.5	NNE
20230519 1050	2.8	NNE
20230519 1100	2.8	NNE
20230519 1110	3.3	NNE
20230519 1120	3.3	NNE
20230519 1130	4.2	NNE
20230519 1140	3.6	NNE
20230519 1150	3.9	NNE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230519 1200	4.2	NNE
20230519 1210	3.9	N
20230519 1220	4.4	NNE
20230519 1230	5	NNE
20230519 1240	4.4	N
20230519 1250	4.7	N
20230519 1300	4.4	N
20230519 1310	4.7	NNE
20230519 1320	5.3	NNE
20230519 1330	4.2	N
20230519 1340	4.7	N
20230519 1350	4.2	NNE
20230519 1400	3.9	NNE
20230519 1410	4.7	NNE
20230519 1420	5.3	NNE
20230519 1430	5.3	NNE
20230519 1440	5	NNE
20230519 1450	4.2	NNE
20230519 1500	4.7	NNE
20230519 1510	3.3	NNE
20230519 1520	4.7	N
20230519 1530	3.9	N
20230519 1540	3.9	N
20230519 1550	3.6	N
20230519 1600	3.1	N
20230519 1610	3.9	N
20230519 1620	3.3	N
20230519 1630	3.3	N
20230519 1640	4.7	NNE
20230519 1650	4.2	NNE
20230519 1700	5	NNE
20230519 1710	3.9	NNE
20230519 1720	2.8	N
20230519 1730	3.6	NNE
20230519 1740	3.9	NNE
20230519 1750	3.6	NNE
20230519 1800	3.9	NNE
20230519 1810	3.9	NNE
20230519 1820	4.2	NNE
20230519 1830	3.3	NE
20230519 1840	3.9	NNE
20230519 1850	3.3	NNE
20230519 1900	4.7	NNE
20230519 1910	3.3	NNE
20230519 1920	3.9	NNE
20230519 1930	3.3	NNE
20230519 1940	3.1	NNE
20230519 1950	3.9	NNE
20230519 2000	3.3	NNE
20230519 2010	3.9	N
20230519 2020	3.3	NNE
20230519 2030	2.8	N
20230519 2040	2.2	N
20230519 2050	2.8	N
20230519 2100	3.1	N
20230519 2110	4.2	N
20230519 2120	4.2	N
20230519 2130	3.3	N
20230519 2140	2.8	N
20230519 2150	3.3	N
20230519 2200	2.5	N
20230519 2210	3.9	N
20230519 2220	3.9	N
20230519 2230	3.6	N
20230519 2240	3.3	N
20230519 2250	3.9	N
20230519 2300	4.2	N
20230519 2310	3.3	N
20230519 2320	4.7	N
20230519 2330	2.8	N
20230519 2340	4.2	N
20230519 2350	3.3	NNE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230520 0000	3.3	NNE
20230520 0010	3.1	NNE
20230520 0020	3.3	NNE
20230520 0030	3.1	NNE
20230520 0040	3.3	N
20230520 0050	3.3	N
20230520 0100	3.6	N
20230520 0110	3.9	N
20230520 0120	3.9	N
20230520 0130	3.9	N
20230520 0140	4.2	N
20230520 0150	3.3	N
20230520 0200	3.3	N
20230520 0210	3.3	N
20230520 0220	3.3	N
20230520 0230	3.6	N
20230520 0240	3.1	N
20230520 0250	3.9	N
20230520 0300	3.1	N
20230520 0310	3.1	NNE
20230520 0320	2.8	NNE
20230520 0330	3.3	N
20230520 0340	3.6	N
20230520 0350	3.9	N
20230520 0400	3.3	N
20230520 0410	3.3	N
20230520 0420	3.1	N
20230520 0430	3.3	N
20230520 0440	3.3	N
20230520 0450	3.3	N
20230520 0500	3.3	N
20230520 0510	3.9	NNE
20230520 0520	3.1	NNE
20230520 0530	3.3	NNE
20230520 0540	3.3	NNE
20230520 0550	4.2	NNE
20230520 0600	3.3	N
20230520 0610	3.3	N
20230520 0620	4.4	N
20230520 0630	5.3	NNE
20230520 0640	4.7	NNE
20230520 0650	4.2	N
20230520 0700	3.9	N
20230520 0710	4.2	N
20230520 0720	4.7	NNE
20230520 0730	5.3	NNE
20230520 0740	5.3	NNE
20230520 0750	4.4	NNE
20230520 0800	5.3	NNE
20230520 0810	4.7	NNE
20230520 0820	4.2	NNE
20230520 0830	4.2	NNE
20230520 0840	3.9	N
20230520 0850	4.2	N
20230520 0900	3.6	N
20230520 0910	3.9	N
20230520 0920	3.3	N
20230520 0930	3.3	N
20230520 0940	4.7	NNE
20230520 0950	4.2	N
20230520 1000	3.3	NNE
20230520 1010	3.9	NNE
20230520 1020	5	NNE
20230520 1030	3.6	N
20230520 1040	3.3	N
20230520 1050	3.3	N
20230520 1100	3.3	N
20230520 1110	3.9	N
20230520 1120	3.3	N
20230520 1130	3.6	N
20230520 1140	3.3	NNE
20230520 1150	2.5	N

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230520 1200	3.9	N
20230520 1210	3.1	N
20230520 1220	3.1	N
20230520 1230	3.3	N
20230520 1240	3.3	N
20230520 1250	3.9	N
20230520 1300	4.2	N
20230520 1310	3.9	N
20230520 1320	4.2	N
20230520 1330	3.9	N
20230520 1340	4.7	N
20230520 1350	3.9	N
20230520 1400	4.4	N
20230520 1410	5	NNE
20230520 1420	3.9	NNE
20230520 1430	4.2	NNE
20230520 1440	4.4	NNE
20230520 1450	4.4	NNE
20230520 1500	4.2	NNE
20230520 1510	4.4	NNE
20230520 1520	4.4	NNE
20230520 1530	3.9	NNE
20230520 1540	4.4	NNE
20230520 1550	4.7	NNE
20230520 1600	3.6	NNE
20230520 1610	3.3	NNE
20230520 1620	3.6	NNE
20230520 1630	4.2	NNE
20230520 1640	3.9	NNE
20230520 1650	2.8	NNE
20230520 1700	2.8	NNE
20230520 1710	2.8	N
20230520 1720	3.3	NNE
20230520 1730	3.3	NNE
20230520 1740	3.9	NNE
20230520 1750	4.2	NNE
20230520 1800	3.9	NNE
20230520 1810	3.9	NNE
20230520 1820	3.9	NNE
20230520 1830	3.9	NNE
20230520 1840	2.2	ENE
20230520 1850	0.8	NNE
20230520 1900	0.3	N
20230520 1910	2.2	NNE
20230520 1920	1.7	ENE
20230520 1930	0.3	-
20230520 1940	0.3	-
20230520 1950	1.1	NNE
20230520 2000	1.4	NNE
20230520 2010	0.8	N
20230520 2020	0	N
20230520 2030	0.3	NW
20230520 2040	0.8	SW
20230520 2050	0.6	WNW
20230520 2100	0.3	-
20230520 2110	0.3	WSW
20230520 2120	0.3	NNW
20230520 2130	1.4	N
20230520 2140	2.2	N
20230520 2150	2.2	N
20230520 2200	2.5	N
20230520 2210	3.1	N
20230520 2220	2.2	N
20230520 2230	1.7	N
20230520 2240	1.1	N
20230520 2250	0.8	ENE
20230520 2300	0.8	ENE
20230520 2310	0.8	ENE
20230520 2320	0.3	SSW
20230520 2330	0.8	SSE
20230520 2340	0.8	SSE
20230520 2350	0.3	SSE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230521 0000	0	N
20230521 0010	0.6	S
20230521 0020	0.3	N
20230521 0030	0.3	-
20230521 0040	0	N
20230521 0050	0.3	SSW
20230521 0100	0.3	SW
20230521 0110	0.3	SW
20230521 0120	0.3	S
20230521 0130	0.3	SE
20230521 0140	0.8	SSE
20230521 0150	0.3	-
20230521 0200	0.3	ESE
20230521 0210	0	N
20230521 0220	0	N
20230521 0230	0.3	-
20230521 0240	0.3	SSE
20230521 0250	0.3	S
20230521 0300	0.8	SSE
20230521 0310	0	N
20230521 0320	0.3	SE
20230521 0330	0.3	SE
20230521 0340	0.3	-
20230521 0350	0	N
20230521 0400	0.3	S
20230521 0410	0	N
20230521 0420	0	N
20230521 0430	0	N
20230521 0440	0.3	-
20230521 0450	0	N
20230521 0500	0.3	S
20230521 0510	0.3	SSE
20230521 0520	0	N
20230521 0530	0.3	S
20230521 0540	0.3	SSE
20230521 0550	0.3	SSE
20230521 0600	0.3	SE
20230521 0610	0.3	-
20230521 0620	0	N
20230521 0630	0.3	S
20230521 0640	0.3	SSE
20230521 0650	0.3	S
20230521 0700	0.8	SSE
20230521 0710	0.6	SSE
20230521 0720	0.6	S
20230521 0730	0	N
20230521 0740	0	N
20230521 0750	0.3	S
20230521 0800	0.3	W
20230521 0810	0.3	SSW
20230521 0820	0.8	E
20230521 0830	0.3	-
20230521 0840	1.9	N
20230521 0850	1.7	NNW
20230521 0900	3.3	N
20230521 0910	3.1	N
20230521 0920	3.3	N
20230521 0930	3.1	N
20230521 0940	2.5	N
20230521 0950	2.5	N
20230521 1000	1.7	NE
20230521 1010	2.8	SE
20230521 1020	2.5	E
20230521 1030	2.8	E
20230521 1040	3.3	E
20230521 1050	2.5	ESE
20230521 1100	3.1	ESE
20230521 1110	2.8	ESE
20230521 1120	3.1	ESE
20230521 1130	3.1	ESE
20230521 1140	2.8	ESE
20230521 1150	2.8	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230521 1200	2.2	-
20230521 1210	2.5	SE
20230521 1220	1.7	S
20230521 1230	1.4	S
20230521 1240	2.8	NE
20230521 1250	2.2	ESE
20230521 1300	1.7	ESE
20230521 1310	1.4	N
20230521 1320	1.7	ESE
20230521 1330	1.1	NNW
20230521 1340	1.4	-
20230521 1350	1.7	-
20230521 1400	1.1	SW
20230521 1410	1.1	SSW
20230521 1420	1.1	SSW
20230521 1430	2.2	NNW
20230521 1440	1.7	NNW
20230521 1450	1.9	NW
20230521 1500	1.9	NNW
20230521 1510	2.2	NNW
20230521 1520	1.7	NW
20230521 1530	2.5	N
20230521 1540	1.7	N
20230521 1550	2.8	NNE
20230521 1600	1.7	N
20230521 1610	1.4	NNW
20230521 1620	1.7	N
20230521 1630	1.7	NNE
20230521 1640	2.5	NE
20230521 1650	1.1	NNE
20230521 1700	1.1	E
20230521 1710	2.2	ESE
20230521 1720	2.5	E
20230521 1730	2.5	E
20230521 1740	2.5	E
20230521 1750	2.8	E
20230521 1800	2.5	E
20230521 1810	3.1	E
20230521 1820	2.5	E
20230521 1830	3.1	E
20230521 1840	2.8	ESE
20230521 1850	2.5	E
20230521 1900	2.2	ESE
20230521 1910	2.8	ESE
20230521 1920	2.8	ESE
20230521 1930	2.8	ESE
20230521 1940	2.8	SE
20230521 1950	2.8	ESE
20230521 2000	2.2	ESE
20230521 2010	2.2	ESE
20230521 2020	1.4	SE
20230521 2030	1.9	SE
20230521 2040	2.2	SE
20230521 2050	1.7	SE
20230521 2100	1.4	SE
20230521 2110	1.4	SE
20230521 2120	1.7	SE
20230521 2130	1.4	ESE
20230521 2140	1.1	ESE
20230521 2150	0.8	-
20230521 2200	1.4	ESE
20230521 2210	1.4	E
20230521 2220	2.2	ESE
20230521 2230	1.9	ESE
20230521 2240	1.7	ESE
20230521 2250	1.7	ESE
20230521 2300	1.7	SE
20230521 2310	1.9	ESE
20230521 2320	1.9	ESE
20230521 2330	1.7	ESE
20230521 2340	2.5	ESE
20230521 2350	2.5	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230522 0000	1.9	ESE
20230522 0010	1.7	SE
20230522 0020	1.7	ESE
20230522 0030	1.9	ESE
20230522 0040	1.7	ESE
20230522 0050	1.7	SE
20230522 0100	1.4	ESE
20230522 0110	1.4	E
20230522 0120	1.4	E
20230522 0130	1.4	E
20230522 0140	1.4	E
20230522 0150	1.4	ESE
20230522 0200	1.4	SE
20230522 0210	0.8	SE
20230522 0220	0.8	SE
20230522 0230	1.1	ESE
20230522 0240	0.8	SE
20230522 0250	0	N
20230522 0300	0	N
20230522 0310	0	N
20230522 0320	0.3	SSW
20230522 0330	0.3	SSE
20230522 0340	1.1	SE
20230522 0350	1.4	SE
20230522 0400	1.7	SE
20230522 0410	1.1	SE
20230522 0420	0.3	WNW
20230522 0430	0.3	W
20230522 0440	0.3	W
20230522 0450	0.3	W
20230522 0500	0	N
20230522 0510	0	N
20230522 0520	0	N
20230522 0530	0	N
20230522 0540	0	N
20230522 0550	0.3	N
20230522 0600	0	N
20230522 0610	0	N
20230522 0620	0	N
20230522 0630	0.3	SW
20230522 0640	0	N
20230522 0650	0	N
20230522 0700	0	N
20230522 0710	0	N
20230522 0720	0	N
20230522 0730	0	N
20230522 0740	0.3	NNW
20230522 0750	0.3	NE
20230522 0800	0.3	NW
20230522 0810	0.3	NNE
20230522 0820	0.3	N
20230522 0830	0.8	NE
20230522 0840	0.8	N
20230522 0850	1.4	NNE
20230522 0900	0.8	NNE
20230522 0910	1.1	N
20230522 0920	1.4	N
20230522 0930	1.1	NW
20230522 0940	0.8	NNW
20230522 0950	1.1	-
20230522 1000	2.2	ESE
20230522 1010	2.5	N
20230522 1020	0.8	-
20230522 1030	2.8	SE
20230522 1040	3.3	ESE
20230522 1050	3.1	ESE
20230522 1100	3.3	ESE
20230522 1110	3.3	ESE
20230522 1120	3.3	SE
20230522 1130	3.3	ESE
20230522 1140	3.3	ESE
20230522 1150	3.9	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230522 1200	3.3	ESE
20230522 1210	3.3	E
20230522 1220	3.3	ESE
20230522 1230	3.3	ESE
20230522 1240	3.3	ESE
20230522 1250	3.3	ESE
20230522 1300	3.3	ESE
20230522 1310	3.3	ESE
20230522 1320	3.1	ESE
20230522 1330	3.1	E
20230522 1340	2.8	ESE
20230522 1350	2.5	E
20230522 1400	2.8	E
20230522 1410	3.1	E
20230522 1420	3.3	E
20230522 1430	2.8	ESE
20230522 1440	3.3	E
20230522 1450	2.8	E
20230522 1500	3.1	E
20230522 1510	3.3	E
20230522 1520	3.3	ESE
20230522 1530	3.1	E
20230522 1540	3.1	E
20230522 1550	3.3	E
20230522 1600	2.8	E
20230522 1610	2.8	E
20230522 1620	3.1	E
20230522 1630	3.3	E
20230522 1640	3.3	E
20230522 1650	3.1	E
20230522 1700	3.3	E
20230522 1710	3.3	E
20230522 1720	3.3	E
20230522 1730	3.3	E
20230522 1740	3.1	E
20230522 1750	3.3	E
20230522 1800	1.4	ESE
20230522 1810	2.2	ESE
20230522 1820	2.2	ESE
20230522 1830	2.8	ESE
20230522 1840	2.5	ESE
20230522 1850	2.5	ESE
20230522 1900	2.5	ESE
20230522 1910	2.2	ESE
20230522 1920	2.5	SE
20230522 1930	2.2	SE
20230522 1940	2.5	SE
20230522 1950	2.5	SE
20230522 2000	2.8	SE
20230522 2010	2.8	SE
20230522 2020	2.8	SE
20230522 2030	1.9	SE
20230522 2040	2.2	ESE
20230522 2050	2.2	ESE
20230522 2100	2.2	ESE
20230522 2110	1.9	ESE
20230522 2120	2.2	SE
20230522 2130	2.2	ESE
20230522 2140	2.2	ESE
20230522 2150	1.7	SE
20230522 2200	1.4	SE
20230522 2210	1.1	SE
20230522 2220	1.4	SE
20230522 2230	1.1	SE
20230522 2240	0.3	-
20230522 2250	0.3	SE
20230522 2300	0.8	SSE
20230522 2310	0.8	SE
20230522 2320	0.8	SSE
20230522 2330	0.8	SE
20230522 2340	0.3	ESE
20230522 2350	0	N

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230523 0000	0.3	S
20230523 0010	1.1	SSE
20230523 0020	1.9	SSE
20230523 0030	2.2	SSE
20230523 0040	1.7	SSE
20230523 0050	1.9	SSE
20230523 0100	2.2	SSE
20230523 0110	2.2	SSE
20230523 0120	1.1	SSE
20230523 0130	0.3	S
20230523 0140	1.1	SSE
20230523 0150	0.8	SSE
20230523 0200	1.1	SSE
20230523 0210	0.8	SSE
20230523 0220	0.8	SE
20230523 0230	1.1	SSE
20230523 0240	1.4	SE
20230523 0250	1.1	ESE
20230523 0300	0.8	ESE
20230523 0310	1.1	ESE
20230523 0320	0.3	SE
20230523 0330	0.8	SE
20230523 0340	1.1	SE
20230523 0350	0.3	ESE
20230523 0400	0.3	E
20230523 0410	0.8	E
20230523 0420	0.3	E
20230523 0430	0	N
20230523 0440	0.3	ESE
20230523 0450	1.4	SE
20230523 0500	1.4	SE
20230523 0510	1.7	SE
20230523 0520	1.7	SE
20230523 0530	1.1	SE
20230523 0540	0.8	SE
20230523 0550	1.4	SSE
20230523 0600	1.7	SE
20230523 0610	1.7	SE
20230523 0620	1.4	SE
20230523 0630	1.1	-
20230523 0640	1.7	ESE
20230523 0650	1.7	ESE
20230523 0700	1.7	ESE
20230523 0710	1.7	ESE
20230523 0720	1.7	E
20230523 0730	1.1	ENE
20230523 0740	1.4	ESE
20230523 0750	1.1	E
20230523 0800	1.4	ESE
20230523 0810	1.7	ESE
20230523 0820	2.5	ESE
20230523 0830	2.2	E
20230523 0840	2.5	E
20230523 0850	2.8	ENE
20230523 0900	2.8	ENE
20230523 0910	3.3	E
20230523 0920	2.5	E
20230523 0930	3.1	E
20230523 0940	3.1	E
20230523 0950	3.3	ESE
20230523 1000	3.3	E
20230523 1010	3.3	E
20230523 1020	3.1	ESE
20230523 1030	3.1	ESE
20230523 1040	3.1	E
20230523 1050	3.1	E
20230523 1100	2.8	E
20230523 1110	3.1	E
20230523 1120	3.3	E
20230523 1130	3.3	E
20230523 1140	3.3	ESE
20230523 1150	2.8	ENE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230523 1200	3.1	ENE
20230523 1210	2.8	E
20230523 1220	2.5	ENE
20230523 1230	3.1	E
20230523 1240	3.1	F
20230523 1250	2.8	ESE
20230523 1300	3.1	E
20230523 1310	2.8	SE
20230523 1320	2.2	E
20230523 1330	2.8	E
20230523 1340	2.5	E
20230523 1350	2.5	E
20230523 1400	2.8	E
20230523 1410	3.1	-
20230523 1420	3.1	E
20230523 1430	3.3	E
20230523 1440	3.3	E
20230523 1450	3.3	E
20230523 1500	3.3	E
20230523 1510	3.3	E
20230523 1520	3.9	E
20230523 1530	3.9	E
20230523 1540	3.9	E
20230523 1550	3.9	E
20230523 1600	3.9	E
20230523 1610	3.3	E
20230523 1620	3.1	E
20230523 1630	2.8	ESE
20230523 1640	2.2	E
20230523 1650	2.8	E
20230523 1700	3.3	E
20230523 1710	3.3	E
20230523 1720	3.3	E
20230523 1730	3.3	E
20230523 1740	3.3	E
20230523 1750	2.8	E
20230523 1800	2.8	ESE
20230523 1810	2.8	ESE
20230523 1820	1.7	E
20230523 1830	2.2	ENE
20230523 1840	1.7	E
20230523 1850	1.7	E
20230523 1900	1.9	E
20230523 1910	1.7	ENE
20230523 1920	1.7	E
20230523 1930	1.7	E
20230523 1940	2.2	ESE
20230523 1950	1.1	ESE
20230523 2000	1.4	ESE
20230523 2010	1.4	ESE
20230523 2020	1.4	SSE
20230523 2030	1.1	SE
20230523 2040	1.1	SE
20230523 2050	1.1	SE
20230523 2100	1.4	SE
20230523 2110	1.7	SE
20230523 2120	2.5	SE
20230523 2130	1.7	SE
20230523 2140	1.7	SE
20230523 2150	1.1	SE
20230523 2200	1.7	SE
20230523 2210	1.7	SE
20230523 2220	1.1	ESE
20230523 2230	1.4	ESE
20230523 2240	0.8	E
20230523 2250	0.8	ESE
20230523 2300	0.8	SSE
20230523 2310	1.4	SE
20230523 2320	0.8	ESE
20230523 2330	1.1	SE
20230523 2340	1.1	SE
20230523 2350	1.1	SSE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230524 0000	1.4	SSE
20230524 0010	1.1	SE
20230524 0020	1.1	ESE
20230524 0030	1.4	E
20230524 0040	1.4	E
20230524 0050	1.4	E
20230524 0100	1.1	E
20230524 0110	1.4	E
20230524 0120	0.8	E
20230524 0130	1.1	E
20230524 0140	1.1	E
20230524 0150	1.1	ESE
20230524 0200	1.1	ESE
20230524 0210	1.4	SE
20230524 0220	1.1	SE
20230524 0230	0.8	SE
20230524 0240	0.3	ESE
20230524 0250	0	N
20230524 0300	1.1	SE
20230524 0310	1.1	SE
20230524 0320	0.8	ESE
20230524 0330	0.3	ESE
20230524 0340	1.1	ESE
20230524 0350	0.8	E
20230524 0400	0.8	E
20230524 0410	0.8	ESE
20230524 0420	0.8	ESE
20230524 0430	0.8	ESE
20230524 0440	1.1	ESE
20230524 0450	1.1	ESE
20230524 0500	1.1	E
20230524 0510	0.8	E
20230524 0520	1.4	SE
20230524 0530	1.1	ESE
20230524 0540	2.2	SE
20230524 0550	1.7	SE
20230524 0600	2.5	SE
20230524 0610	1.4	SSE
20230524 0620	1.7	SE
20230524 0630	1.4	SSE
20230524 0640	1.7	ESE
20230524 0650	1.9	ESE
20230524 0700	2.2	SE
20230524 0710	2.8	E
20230524 0720	2.5	ESE
20230524 0730	2.5	ESE
20230524 0740	2.8	ESE
20230524 0750	2.5	ESE
20230524 0800	2.5	E
20230524 0810	2.2	ESE
20230524 0820	1.9	E
20230524 0830	2.8	ENE
20230524 0840	2.5	E
20230524 0850	2.8	E
20230524 0900	2.8	E
20230524 0910	3.3	E
20230524 0920	3.1	E
20230524 0930	2.5	E
20230524 0940	2.5	ESE
20230524 0950	2.8	ESE
20230524 1000	2.8	ESE
20230524 1010	2.8	E
20230524 1020	2.8	ESE
20230524 1030	2.2	SE
20230524 1040	2.5	E
20230524 1050	2.5	SE
20230524 1100	2.8	SE
20230524 1110	1.9	ENE
20230524 1120	2.2	E
20230524 1130	2.5	SE
20230524 1140	2.8	E
20230524 1150	2.5	E

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230524 1200	2.5	E
20230524 1210	2.5	E
20230524 1220	2.5	E
20230524 1230	2.2	ESE
20230524 1240	2.2	ESE
20230524 1250	2.5	ESE
20230524 1300	2.5	ESE
20230524 1310	1.9	SE
20230524 1320	2.2	ESE
20230524 1330	2.8	E
20230524 1340	2.8	E
20230524 1350	3.1	E
20230524 1400	2.8	E
20230524 1410	3.3	ESE
20230524 1420	3.3	ESE
20230524 1430	3.3	E
20230524 1440	3.3	E
20230524 1450	3.6	E
20230524 1500	3.3	E
20230524 1510	3.9	E
20230524 1520	3.6	E
20230524 1530	3.3	E
20230524 1540	2.5	ESE
20230524 1550	3.1	ESE
20230524 1600	3.3	E
20230524 1610	3.1	E
20230524 1620	3.3	E
20230524 1630	3.1	ESE
20230524 1640	3.3	E
20230524 1650	3.3	E
20230524 1700	3.3	E
20230524 1710	3.1	E
20230524 1720	3.3	E
20230524 1730	2.8	E
20230524 1740	2.5	E
20230524 1750	2.8	ESE
20230524 1800	3.3	ESE
20230524 1810	3.3	ESE
20230524 1820	3.1	E
20230524 1830	3.3	ESE
20230524 1840	3.1	ESE
20230524 1850	2.5	ESE
20230524 1900	3.1	ESE
20230524 1910	2.8	ESE
20230524 1920	2.8	SE
20230524 1930	2.8	ESE
20230524 1940	2.5	SE
20230524 1950	3.3	SE
20230524 2000	3.1	SE
20230524 2010	2.5	ESE
20230524 2020	2.5	ESE
20230524 2030	2.5	ESE
20230524 2040	2.5	ESE
20230524 2050	1.7	ESE
20230524 2100	2.5	SE
20230524 2110	2.8	SE
20230524 2120	2.2	SE
20230524 2130	2.5	SE
20230524 2140	2.5	SE
20230524 2150	3.1	SE
20230524 2200	2.5	SE
20230524 2210	2.5	SE
20230524 2220	1.7	SE
20230524 2230	2.5	SE
20230524 2240	2.2	SE
20230524 2250	2.8	SE
20230524 2300	3.1	SE
20230524 2310	2.8	SE
20230524 2320	2.8	SE
20230524 2330	2.2	SE
20230524 2340	3.3	SE
20230524 2350	2.5	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230525 0000	2.5	ESE
20230525 0010	2.2	ESE
20230525 0020	1.9	SE
20230525 0030	1.7	SE
20230525 0040	2.5	SE
20230525 0050	2.5	ESE
20230525 0100	1.9	ESE
20230525 0110	2.2	ESE
20230525 0120	1.9	ESE
20230525 0130	1.7	SE
20230525 0140	1.7	SE
20230525 0150	1.7	SE
20230525 0200	1.1	SSE
20230525 0210	1.7	SSE
20230525 0220	1.4	SE
20230525 0230	0.8	-
20230525 0240	1.1	ESE
20230525 0250	0.8	E
20230525 0300	0.8	E
20230525 0310	1.4	E
20230525 0320	1.7	ENE
20230525 0330	1.4	E
20230525 0340	1.1	ESE
20230525 0350	1.1	ESE
20230525 0400	1.7	ESE
20230525 0410	1.1	SE
20230525 0420	1.4	ESE
20230525 0430	0.8	ESE
20230525 0440	0.8	E
20230525 0450	1.1	ESE
20230525 0500	0.8	E
20230525 0510	0.3	SE
20230525 0520	1.1	ESE
20230525 0530	1.1	ESE
20230525 0540	1.7	E
20230525 0550	0.8	E
20230525 0600	0.8	SSE
20230525 0610	0.8	NE
20230525 0620	1.1	ENE
20230525 0630	0.6	ENE
20230525 0640	0.8	SE
20230525 0650	0.3	SE
20230525 0700	0.8	SE
20230525 0710	0.8	ESE
20230525 0720	1.4	ESE
20230525 0730	1.4	ESE
20230525 0740	1.1	SE
20230525 0750	0.8	SE
20230525 0800	0.8	SE
20230525 0810	1.1	SE
20230525 0820	1.4	SE
20230525 0830	1.1	NE
20230525 0840	1.1	E
20230525 0850	1.7	ESE
20230525 0900	1.9	ESE
20230525 0910	2.5	E
20230525 0920	2.8	E
20230525 0930	2.5	E
20230525 0940	2.5	ESE
20230525 0950	2.8	E
20230525 1000	2.2	ENE
20230525 1010	1.7	ESE
20230525 1020	2.2	ESE
20230525 1030	1.9	ESE
20230525 1040	2.5	E
20230525 1050	2.2	ESE
20230525 1100	2.5	E
20230525 1110	2.5	E
20230525 1120	3.1	E
20230525 1130	3.3	E
20230525 1140	2.5	E
20230525 1150	2.8	SE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230525 1200	2.8	ESE
20230525 1210	2.8	E
20230525 1220	2.5	E
20230525 1230	2.8	ESE
20230525 1240	2.8	E
20230525 1250	2.2	ESE
20230525 1300	2.5	E
20230525 1310	2.8	ENE
20230525 1320	2.5	E
20230525 1330	2.2	E
20230525 1340	2.5	E
20230525 1350	2.5	E
20230525 1400	2.5	E
20230525 1410	2.8	E
20230525 1420	2.8	ESE
20230525 1430	3.1	ESE
20230525 1440	2.8	ESE
20230525 1450	2.8	ESE
20230525 1500	2.2	ESE
20230525 1510	1.7	ESE
20230525 1520	1.7	ESE
20230525 1530	1.1	ESE
20230525 1540	0.6	SSW
20230525 1550	1.1	SE
20230525 1600	1.7	ESE
20230525 1610	1.7	ESE
20230525 1620	1.7	ESE
20230525 1630	1.7	E
20230525 1640	1.7	E
20230525 1650	2.5	ESE
20230525 1700	3.3	E
20230525 1710	3.3	E
20230525 1720	3.1	ESE
20230525 1730	2.8	ESE
20230525 1740	2.8	ESE
20230525 1750	3.3	ESE
20230525 1800	2.5	ESE
20230525 1810	2.2	ESE
20230525 1820	2.5	ESE
20230525 1830	1.4	ENE
20230525 1840	1.1	NE
20230525 1850	0.8	NE
20230525 1900	0.3	SSE
20230525 1910	1.7	SE
20230525 1920	1.1	-
20230525 1930	0.6	SE
20230525 1940	1.4	ESE
20230525 1950	1.4	ESE
20230525 2000	1.7	ESE
20230525 2010	2.2	ESE
20230525 2020	2.2	E
20230525 2030	1.1	E
20230525 2040	1.4	ENE
20230525 2050	1.4	E
20230525 2100	1.4	ESE
20230525 2110	1.1	SE
20230525 2120	0.3	SE
20230525 2130	0.3	-
20230525 2140	0.3	SE
20230525 2150	0.3	E
20230525 2200	0.8	E
20230525 2210	0.6	E
20230525 2220	1.1	ENE
20230525 2230	1.4	ENE
20230525 2240	1.1	ESE
20230525 2250	1.4	SE
20230525 2300	0.6	SE
20230525 2310	0.3	SSW
20230525 2320	0	N
20230525 2330	0	N
20230525 2340	0.3	S
20230525 2350	0.8	SSE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230526 0000	0.8	S
20230526 0010	0.3	S
20230526 0020	0.8	SSE
20230526 0030	0.8	SSW
20230526 0040	0.6	SSW
20230526 0050	1.1	S
20230526 0100	1.4	SSE
20230526 0110	1.4	S
20230526 0120	1.4	SSE
20230526 0130	1.7	SE
20230526 0140	0.8	SSW
20230526 0150	1.1	ESE
20230526 0200	0.8	SE
20230526 0210	0.8	SSE
20230526 0220	1.7	SSE
20230526 0230	1.7	SE
20230526 0240	1.1	ESE
20230526 0250	1.7	ESE
20230526 0300	1.7	SE
20230526 0310	1.7	SE
20230526 0320	1.1	ESE
20230526 0330	1.4	ESE
20230526 0340	1.1	ESE
20230526 0350	0.8	ESE
20230526 0400	0.8	SE
20230526 0410	0.3	ESE
20230526 0420	1.4	ESE
20230526 0430	1.7	ESE
20230526 0440	1.7	E
20230526 0450	1.1	E
20230526 0500	1.9	ENE
20230526 0510	1.7	E
20230526 0520	0.8	SE
20230526 0530	1.1	SSE
20230526 0540	0.8	SSE
20230526 0550	0.8	S
20230526 0600	1.1	SSE
20230526 0610	0.3	NNE
20230526 0620	0	N
20230526 0630	0	N
20230526 0640	0.3	SE
20230526 0650	0.3	SSE
20230526 0700	0	N
20230526 0710	0.6	S
20230526 0720	1.1	SSW
20230526 0730	0.8	S
20230526 0740	0.6	SSE
20230526 0750	0.3	E
20230526 0800	0.3	ESE
20230526 0810	0.3	SSW
20230526 0820	0.3	SSW
20230526 0830	0	N
20230526 0840	0.3	NW
20230526 0850	0.6	NE
20230526 0900	1.1	WNW
20230526 0910	0.3	NW
20230526 0920	0	N
20230526 0930	0.3	NE
20230526 0940	1.1	E
20230526 0950	1.7	E
20230526 1000	1.7	E
20230526 1010	1.4	E
20230526 1020	1.4	E
20230526 1030	1.1	ENE
20230526 1040	1.7	ESE
20230526 1050	2.5	E
20230526 1100	2.8	E
20230526 1110	2.8	E
20230526 1120	2.5	E
20230526 1130	3.1	E
20230526 1140	2.2	E
20230526 1150	2.2	E

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230526 1200	2.5	E
20230526 1210	2.2	E
20230526 1220	2.8	E
20230526 1230	3.3	E
20230526 1240	3.1	E
20230526 1250	2.5	E
20230526 1300	2.2	E
20230526 1310	1.7	ESE
20230526 1320	0.8	ESE
20230526 1330	1.1	E
20230526 1340	1.7	E
20230526 1350	0.8	ENE
20230526 1400	0.6	SE
20230526 1410	0.8	ENE
20230526 1420	0.3	ESE
20230526 1430	0.3	ENE
20230526 1440	0.8	ENE
20230526 1450	0.8	NE
20230526 1500	1.4	ENE
20230526 1510	1.7	ENE
20230526 1520	2.2	ENE
20230526 1530	1.7	NE
20230526 1540	1.7	ENE
20230526 1550	1.9	NE
20230526 1600	2.2	ENE
20230526 1610	1.7	ENE
20230526 1620	1.7	ENE
20230526 1630	1.4	E
20230526 1640	1.7	E
20230526 1650	1.4	E
20230526 1700	0.8	ESE
20230526 1710	1.4	E
20230526 1720	1.7	E
20230526 1730	1.7	E
20230526 1740	2.2	E
20230526 1750	2.2	ESE
20230526 1800	2.2	ESE
20230526 1810	0.8	ENE
20230526 1820	1.7	ENE
20230526 1830	1.4	ENE
20230526 1840	1.1	ENE
20230526 1850	1.4	ENE
20230526 1900	1.4	ENE
20230526 1910	1.4	E
20230526 1920	0.8	ENE
20230526 1930	1.1	ENE
20230526 1940	0.8	ENE
20230526 1950	1.4	ENE
20230526 2000	1.4	ENE
20230526 2010	1.7	NE
20230526 2020	1.7	ENE
20230526 2030	1.1	E
20230526 2040	0.8	E
20230526 2050	1.1	ENE
20230526 2100	1.1	NE
20230526 2110	1.4	ENE
20230526 2120	1.1	ENE
20230526 2130	0.8	ENE
20230526 2140	1.1	NE
20230526 2150	0.8	NE
20230526 2200	1.1	E
20230526 2210	1.4	ENE
20230526 2220	1.1	NE
20230526 2230	0.8	ENE
20230526 2240	1.1	ESE
20230526 2250	1.1	ESE
20230526 2300	1.4	E
20230526 2310	1.4	E
20230526 2320	0.3	NE
20230526 2330	0.3	NNE
20230526 2340	0.3	N
20230526 2350	0.3	NNW

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230527 0000	0.3	NE
20230527 0010	0.8	ENE
20230527 0020	1.4	E
20230527 0030	1.1	NE
20230527 0040	1.1	NE
20230527 0050	0.8	ENE
20230527 0100	0.8	SE
20230527 0110	0.3	NNW
20230527 0120	1.1	ENE
20230527 0130	1.1	ESE
20230527 0140	1.4	ENE
20230527 0150	1.1	E
20230527 0200	0.8	ESE
20230527 0210	0	N
20230527 0220	0.8	ENE
20230527 0230	1.4	NE
20230527 0240	1.4	E
20230527 0250	1.4	ENE
20230527 0300	1.4	ENE
20230527 0310	1.7	ENE
20230527 0320	1.1	ENE
20230527 0330	1.4	ENE
20230527 0340	1.4	ENE
20230527 0350	1.4	ENE
20230527 0400	1.1	ENE
20230527 0410	0.8	NE
20230527 0420	0.8	ENE
20230527 0430	0.6	ENE
20230527 0440	0.3	ENE
20230527 0450	0.8	E
20230527 0500	0	N
20230527 0510	0.3	ENE
20230527 0520	1.1	E
20230527 0530	1.1	E
20230527 0540	0.3	E
20230527 0550	0.3	ENE
20230527 0600	0	N
20230527 0610	0.3	SE
20230527 0620	0.8	ESE
20230527 0630	1.1	ENE
20230527 0640	0.3	NE
20230527 0650	0.6	NNE
20230527 0700	0.3	NE
20230527 0710	0.8	NE
20230527 0720	0.8	ENE
20230527 0730	0	N
20230527 0740	0	N
20230527 0750	0.3	NNE
20230527 0800	0.8	NNE
20230527 0810	0.3	-
20230527 0820	1.1	E
20230527 0830	0.8	SE
20230527 0840	1.1	E
20230527 0850	1.7	E
20230527 0900	1.7	E
20230527 0910	1.7	E
20230527 0920	1.7	E
20230527 0930	2.2	ESE
20230527 0940	1.9	E
20230527 0950	1.7	ESE
20230527 1000	1.7	ESE
20230527 1010	1.9	ESE
20230527 1020	2.2	E
20230527 1030	2.5	E
20230527 1040	2.2	E
20230527 1050	2.2	E
20230527 1100	2.5	E
20230527 1110	2.5	E
20230527 1120	2.8	E
20230527 1130	2.8	E
20230527 1140	3.3	E
20230527 1150	2.8	ENE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230527 1200	3.3	ESE
20230527 1210	3.3	ESE
20230527 1220	3.1	E
20230527 1230	3.3	ESE
20230527 1240	3.3	E
20230527 1250	2.5	E
20230527 1300	3.3	E
20230527 1310	3.3	E
20230527 1320	3.3	E
20230527 1330	3.3	E
20230527 1340	3.3	E
20230527 1350	3.3	E
20230527 1400	3.6	E
20230527 1410	3.3	ENE
20230527 1420	3.9	ENE
20230527 1430	3.3	E
20230527 1440	3.1	E
20230527 1450	3.3	E
20230527 1500	3.1	E
20230527 1510	3.6	E
20230527 1520	3.6	E
20230527 1530	3.3	E
20230527 1540	3.9	E
20230527 1550	3.3	E
20230527 1600	3.3	E
20230527 1610	3.3	E
20230527 1620	3.3	E
20230527 1630	4.2	E
20230527 1640	3.3	ESE
20230527 1650	3.3	E
20230527 1700	3.6	ESE
20230527 1710	3.6	ESE
20230527 1720	4.2	ESE
20230527 1730	3.3	ESE
20230527 1740	3.1	E
20230527 1750	2.8	E
20230527 1800	2.8	ESE
20230527 1810	2.5	ESE
20230527 1820	1.9	ESE
20230527 1830	2.5	E
20230527 1840	2.5	ESE
20230527 1850	2.8	ESE
20230527 1900	2.5	SE
20230527 1910	1.7	SE
20230527 1920	2.5	SE
20230527 1930	2.2	SE
20230527 1940	2.5	ESE
20230527 1950	2.8	ESE
20230527 2000	2.8	ESE
20230527 2010	3.3	ESE
20230527 2020	3.6	ESE
20230527 2030	2.8	ESE
20230527 2040	2.8	ESE
20230527 2050	2.8	ESE
20230527 2100	2.8	SE
20230527 2110	3.1	SE
20230527 2120	3.3	SE
20230527 2130	2.8	SE
20230527 2140	2.5	SE
20230527 2150	2.2	ESE
20230527 2200	3.3	SE
20230527 2210	2.2	SE
20230527 2220	2.5	ESE
20230527 2230	3.3	ESE
20230527 2240	2.2	ESE
20230527 2250	2.8	ESE
20230527 2300	3.3	ESE
20230527 2310	3.3	ESE
20230527 2320	3.3	ESE
20230527 2330	3.9	SE
20230527 2340	3.6	ESE
20230527 2350	3.3	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230528 0000	2.5	E
20230528 0010	1.7	ESE
20230528 0020	2.2	ESE
20230528 0030	3.3	ESE
20230528 0040	2.2	ESE
20230528 0050	3.1	ESE
20230528 0100	2.8	ESE
20230528 0110	1.7	ESE
20230528 0120	2.2	ESE
20230528 0130	2.8	ESE
20230528 0140	2.5	ESE
20230528 0150	2.5	ESE
20230528 0200	2.5	ESE
20230528 0210	2.5	E
20230528 0220	2.5	E
20230528 0230	2.5	E
20230528 0240	1.7	E
20230528 0250	1.7	ESE
20230528 0300	1.9	E
20230528 0310	1.7	ESE
20230528 0320	1.7	E
20230528 0330	1.1	E
20230528 0340	1.7	E
20230528 0350	2.2	E
20230528 0400	2.2	E
20230528 0410	2.2	E
20230528 0420	2.2	E
20230528 0430	1.7	E
20230528 0440	2.2	E
20230528 0450	2.5	E
20230528 0500	1.9	ESE
20230528 0510	1.4	E
20230528 0520	1.7	E
20230528 0530	1.9	E
20230528 0540	1.4	E
20230528 0550	1.7	E
20230528 0600	1.7	ESE
20230528 0610	1.4	ESE
20230528 0620	1.7	SE
20230528 0630	1.7	ESE
20230528 0640	2.2	ESE
20230528 0650	2.5	ESE
20230528 0700	2.5	ESE
20230528 0710	2.2	E
20230528 0720	2.2	E
20230528 0730	2.2	ESE
20230528 0740	2.2	ESE
20230528 0750	2.5	ESE
20230528 0800	2.8	E
20230528 0810	2.5	E
20230528 0820	2.2	E
20230528 0830	2.2	E
20230528 0840	2.2	E
20230528 0850	2.5	ESE
20230528 0900	2.8	E
20230528 0910	2.5	E
20230528 0920	3.1	E
20230528 0930	3.3	E
20230528 0940	3.1	E
20230528 0950	2.8	E
20230528 1000	2.8	E
20230528 1010	3.3	E
20230528 1020	3.1	E
20230528 1030	3.3	E
20230528 1040	3.1	E
20230528 1050	3.3	ESE
20230528 1100	3.6	ESE
20230528 1110	3.6	ESE
20230528 1120	3.9	E
20230528 1130	3.9	E
20230528 1140	3.9	E
20230528 1150	3.9	E

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230528 1200	4.2	E
20230528 1210	3.3	E
20230528 1220	4.2	E
20230528 1230	3.9	E
20230528 1240	3.9	E
20230528 1250	3.3	ESE
20230528 1300	4.4	E
20230528 1310	4.2	E
20230528 1320	3.9	E
20230528 1330	4.2	E
20230528 1340	4.4	E
20230528 1350	3.9	E
20230528 1400	4.2	E
20230528 1410	4.2	E
20230528 1420	4.2	E
20230528 1430	4.4	ENE
20230528 1440	4.2	E
20230528 1450	4.2	E
20230528 1500	4.4	E
20230528 1510	3.6	E
20230528 1520	3.9	E
20230528 1530	3.9	E
20230528 1540	3.9	E
20230528 1550	3.3	E
20230528 1600	4.2	E
20230528 1610	3.9	E
20230528 1620	3.3	E
20230528 1630	3.9	E
20230528 1640	3.9	E
20230528 1650	3.6	E
20230528 1700	3.3	E
20230528 1710	3.3	E
20230528 1720	3.1	E
20230528 1730	2.5	ESE
20230528 1740	2.8	E
20230528 1750	2.8	E
20230528 1800	2.2	E
20230528 1810	2.5	ESE
20230528 1820	2.5	ESE
20230528 1830	1.7	ESE
20230528 1840	1.4	ESE
20230528 1850	1.4	ESE
20230528 1900	1.4	SE
20230528 1910	1.7	SE
20230528 1920	2.2	ESE
20230528 1930	2.2	ESE
20230528 1940	2.2	E
20230528 1950	2.2	E
20230528 2000	2.2	ESE
20230528 2010	2.2	E
20230528 2020	2.2	ESE
20230528 2030	2.2	ESE
20230528 2040	1.9	ESE
20230528 2050	2.5	ESE
20230528 2100	2.5	ESE
20230528 2110	2.2	ESE
20230528 2120	1.7	ESE
20230528 2130	1.9	ESE
20230528 2140	1.7	ESE
20230528 2150	1.7	ESE
20230528 2200	1.7	ESE
20230528 2210	1.4	ESE
20230528 2220	1.7	ESE
20230528 2230	1.7	ESE
20230528 2240	1.7	ESE
20230528 2250	1.7	ESE
20230528 2300	2.2	ESE
20230528 2310	1.7	ESE
20230528 2320	1.7	ESE
20230528 2330	1.4	SE
20230528 2340	1.7	ESE
20230528 2350	1.7	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230529 0000	1.7	ESE
20230529 0010	2.2	ESE
20230529 0020	1.7	ESE
20230529 0030	1.7	ESE
20230529 0040	1.7	ESE
20230529 0050	1.4	ESE
20230529 0100	1.1	ESE
20230529 0110	1.1	ESE
20230529 0120	1.4	E
20230529 0130	2.2	ESE
20230529 0140	1.4	ESE
20230529 0150	1.4	ESE
20230529 0200	0.8	ESE
20230529 0210	1.1	E
20230529 0220	1.4	ESE
20230529 0230	1.4	ESE
20230529 0240	1.1	ESE
20230529 0250	1.4	ESE
20230529 0300	0.6	ENE
20230529 0310	0.8	ENE
20230529 0320	0.3	ENE
20230529 0330	0.3	ENE
20230529 0340	0.3	-
20230529 0350	0.8	ENE
20230529 0400	1.9	ENE
20230529 0410	2.2	ENE
20230529 0420	1.7	E
20230529 0430	2.2	ENE
20230529 0440	2.8	E
20230529 0450	3.1	E
20230529 0500	3.1	E
20230529 0510	3.3	E
20230529 0520	3.3	E
20230529 0530	3.3	E
20230529 0540	2.8	E
20230529 0550	2.8	E
20230529 0600	3.3	E
20230529 0610	3.3	ENE
20230529 0620	3.3	ENE
20230529 0630	2.5	E
20230529 0640	2.8	E
20230529 0650	3.1	E
20230529 0700	2.5	E
20230529 0710	2.5	ESE
20230529 0720	3.1	SE
20230529 0730	2.5	E
20230529 0740	3.1	ESE
20230529 0750	2.5	ESE
20230529 0800	2.8	ESE
20230529 0810	2.8	ESE
20230529 0820	2.8	ESE
20230529 0830	2.5	ESE
20230529 0840	2.8	E
20230529 0850	2.8	E
20230529 0900	2.8	E
20230529 0910	2.5	ESE
20230529 0920	3.1	E
20230529 0930	2.5	E
20230529 0940	2.5	E
20230529 0950	2.8	E
20230529 1000	2.8	ESE
20230529 1010	3.1	E
20230529 1020	3.3	E
20230529 1030	3.3	E
20230529 1040	2.5	E
20230529 1050	2.2	E
20230529 1100	2.5	ESE
20230529 1110	2.2	E
20230529 1120	1.7	E
20230529 1130	1.4	ESE
20230529 1140	2.2	ESE
20230529 1150	2.8	ESE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230529 1200	1.9	ESE
20230529 1210	1.7	ESE
20230529 1220	2.2	E
20230529 1230	1.7	ESE
20230529 1240	1.7	ESE
20230529 1250	1.7	ESE
20230529 1300	2.2	SE
20230529 1310	1.4	S
20230529 1320	1.7	SE
20230529 1330	0.8	ESE
20230529 1340	0.8	SE
20230529 1350	0.8	S
20230529 1400	0.3	NNE
20230529 1410	0.3	N
20230529 1420	0.3	NNE
20230529 1430	0.8	W
20230529 1440	0.8	SW
20230529 1450	0	N
20230529 1500	0	N
20230529 1510	0.3	S
20230529 1520	0.8	ESE
20230529 1530	0.3	NNE
20230529 1540	0.3	NNE
20230529 1550	0	N
20230529 1600	0.3	SW
20230529 1610	0.3	NNW
20230529 1620	0.8	W
20230529 1630	1.1	SSW
20230529 1640	0.8	E
20230529 1650	1.1	E
20230529 1700	1.1	-
20230529 1710	0.3	SW
20230529 1720	0.3	W
20230529 1730	0.3	E
20230529 1740	0.3	SE
20230529 1750	1.4	SSE
20230529 1800	1.1	SSE
20230529 1810	1.1	S
20230529 1820	1.4	S
20230529 1830	1.1	S
20230529 1840	1.4	S
20230529 1850	0.8	SW
20230529 1900	0.8	E
20230529 1910	0.3	E
20230529 1920	0.3	WNW
20230529 1930	0.8	SSW
20230529 1940	1.1	SSE
20230529 1950	0.6	SE
20230529 2000	0	N
20230529 2010	0.3	S
20230529 2020	0.8	SSE
20230529 2030	1.4	SSE
20230529 2040	1.1	SE
20230529 2050	0.3	SSE
20230529 2100	0.3	-
20230529 2110	0.8	SSE
20230529 2120	0.3	-
20230529 2130	0.3	-
20230529 2140	0	N
20230529 2150	0	N
20230529 2200	0.3	ENE
20230529 2210	0.8	-
20230529 2220	0	N
20230529 2230	0.3	SSW
20230529 2240	0.3	ESE
20230529 2250	0	N
20230529 2300	0	N
20230529 2310	0.3	ESE
20230529 2320	0.8	ESE
20230529 2330	0.3	-
20230529 2340	0	N
20230529 2350	0	N

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230530 0000	0	N
20230530 0010	0	N
20230530 0020	0	N
20230530 0030	0	N
20230530 0040	0	N
20230530 0050	0	N
20230530 0100	0	N
20230530 0110	0	N
20230530 0120	0.8	ESE
20230530 0130	0.3	SSE
20230530 0140	1.4	SE
20230530 0150	1.4	ESE
20230530 0200	1.4	ESE
20230530 0210	2.5	NNE
20230530 0220	1.1	SSE
20230530 0230	1.9	NNE
20230530 0240	1.7	SSE
20230530 0250	1.4	SSW
20230530 0300	1.7	ENE
20230530 0310	0.8	-
20230530 0320	2.2	NNE
20230530 0330	3.1	NE
20230530 0340	1.4	SSW
20230530 0350	1.7	W
20230530 0400	0.3	-
20230530 0410	1.1	ENE
20230530 0420	0.3	-
20230530 0430	1.4	WSW
20230530 0440	1.4	NNE
20230530 0450	1.1	ESE
20230530 0500	0.6	ESE
20230530 0510	0.3	-
20230530 0520	0.6	SE
20230530 0530	1.4	E
20230530 0540	1.7	E
20230530 0550	0.3	NE
20230530 0600	1.1	NE
20230530 0610	0.8	-
20230530 0620	0.3	E
20230530 0630	0.8	NNE
20230530 0640	1.7	SE
20230530 0650	2.8	SSE
20230530 0700	1.1	SSE
20230530 0710	1.7	S
20230530 0720	1.1	S
20230530 0730	1.4	SE
20230530 0740	0.8	SSE
20230530 0750	0.8	SE
20230530 0800	0.3	-
20230530 0810	0	N
20230530 0820	0.3	-
20230530 0830	1.1	S
20230530 0840	0.8	SSE
20230530 0850	0.8	SE
20230530 0900	0.8	WNW
20230530 0910	0.3	ENE
20230530 0920	1.1	ENE
20230530 0930	0.8	NNW
20230530 0940	1.4	NNE
20230530 0950	1.4	NNE
20230530 1000	1.4	ENE
20230530 1010	1.1	SE
20230530 1020	0.8	ESE
20230530 1030	0	N
20230530 1040	0	N
20230530 1050	0	N
20230530 1100	0.3	ESE
20230530 1110	0.3	E
20230530 1120	1.1	ESE
20230530 1130	0.8	ESE
20230530 1140	0.8	SSE
20230530 1150	0.6	SE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230530 1200	1.1	ESE
20230530 1210	1.7	SE
20230530 1220	1.4	SSE
20230530 1230	0	N
20230530 1240	0	N
20230530 1250	0	N
20230530 1300	0.8	SSE
20230530 1310	1.1	S
20230530 1320	1.1	SE
20230530 1330	0.3	ESE
20230530 1340	0	N
20230530 1350	0.8	E
20230530 1400	1.4	ESE
20230530 1410	1.4	SE
20230530 1420	0.8	ESE
20230530 1430	0.6	-
20230530 1440	0.8	ESE
20230530 1450	0	N
20230530 1500	0	N
20230530 1510	0.8	WSW
20230530 1520	1.1	WSW
20230530 1530	1.7	WSW
20230530 1540	1.7	SW
20230530 1550	2.5	SW
20230530 1600	2.2	SW
20230530 1610	1.4	SW
20230530 1620	1.7	SW
20230530 1630	0.8	WSW
20230530 1640	1.7	WSW
20230530 1650	2.2	SW
20230530 1700	1.7	WSW
20230530 1710	0.8	W
20230530 1720	0.6	W
20230530 1730	0.8	WSW
20230530 1740	0.3	-
20230530 1750	0.3	SSW
20230530 1800	0	N
20230530 1810	0	N
20230530 1820	0.3	NW
20230530 1830	1.4	WNW
20230530 1840	0.8	W
20230530 1850	0	N
20230530 1900	0	NNE
20230530 1910	0.8	E
20230530 1920	0.8	NE
20230530 1930	0.6	NE
20230530 1940	0.3	SSE
20230530 1950	0.8	NNE
20230530 2000	0.8	SSW
20230530 2010	0.3	-
20230530 2020	0.3	N
20230530 2030	0.6	NW
20230530 2040	0	N
20230530 2050	1.1	SSE
20230530 2100	1.4	SSE
20230530 2110	0.8	SW
20230530 2120	1.4	S
20230530 2130	0.8	S
20230530 2140	0.6	ESE
20230530 2150	0.6	E
20230530 2200	0.3	ESE
20230530 2210	0.3	-
20230530 2220	0	N
20230530 2230	0	N
20230530 2240	0	N
20230530 2250	0.3	E
20230530 2300	0	N
20230530 2310	0	N
20230530 2320	0	N
20230530 2330	0	N
20230530 2340	0	N
20230530 2350	0.3	ENE

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230531 0000	0.3	ENE
20230531 0010	0	N
20230531 0020	0	N
20230531 0030	0	N
20230531 0040	0	N
20230531 0050	0	N
20230531 0100	0	N
20230531 0110	0.3	S
20230531 0120	0	N
20230531 0130	0	N
20230531 0140	0	N
20230531 0150	0	N
20230531 0200	0	N
20230531 0210	0	N
20230531 0220	0	N
20230531 0230	0	N
20230531 0240	0	N
20230531 0250	0	N
20230531 0300	0	N
20230531 0310	0	N
20230531 0320	0.3	SSW
20230531 0330	0	N
20230531 0340	0.3	-
20230531 0350	0	N
20230531 0400	0	N
20230531 0410	2.2	S
20230531 0420	1.1	S
20230531 0430	0.8	SSE
20230531 0440	0.3	NW
20230531 0450	0.3	NE
20230531 0500	0.3	ENE
20230531 0510	0.3	-
20230531 0520	0	N
20230531 0530	0	N
20230531 0540	0.3	NE
20230531 0550	0.3	SW
20230531 0600	0.3	-
20230531 0610	0	N
20230531 0620	0	N
20230531 0630	0	N
20230531 0640	0	N
20230531 0650	0	N
20230531 0700	0	N
20230531 0710	0	N
20230531 0720	0	N
20230531 0730	0	N
20230531 0740	0	N
20230531 0750	0	N
20230531 0800	0	N
20230531 0810	0	N
20230531 0820	0	N
20230531 0830	0	N
20230531 0840	0.3	S
20230531 0850	0.3	SSW
20230531 0900	0.6	SSE
20230531 0910	0.3	-
20230531 0920	0	N
20230531 0930	0	N
20230531 0940	0	N
20230531 0950	0	N
20230531 1000	0.3	WSW
20230531 1010	0.3	SSW
20230531 1020	0.3	SW
20230531 1030	0.3	-
20230531 1040	0	N
20230531 1050	0	N
20230531 1100	0	N
20230531 1110	0.3	WSW
20230531 1120	1.1	WSW
20230531 1130	0.8	WSW
20230531 1140	0.3	W
20230531 1150	0.3	W

Date & Time (YYYYMMBB HHMM)	Wind Speed (m/s)	Wind Direction (From)
20230531 1200	0.8	W
20230531 1210	1.4	W
20230531 1220	1.7	W
20230531 1230	1.7	W
20230531 1240	1.7	W
20230531 1250	1.4	W
20230531 1300	1.7	WSW
20230531 1310	1.9	W
20230531 1320	1.7	WNW
20230531 1330	1.1	WNW
20230531 1340	1.1	WNW
20230531 1350	1.4	NW
20230531 1400	0.6	NW
20230531 1410	0.8	NNW
20230531 1420	0.6	NNW
20230531 1430	0.6	NW
20230531 1440	1.1	W
20230531 1450	1.7	W
20230531 1500	1.7	WSW
20230531 1510	1.7	W
20230531 1520	1.1	W
20230531 1530	1.1	WSW
20230531 1540	1.1	W
20230531 1550	0.3	WNW
20230531 1600	0.3	NW
20230531 1610	0.3	ENE
20230531 1620	0.8	ESE
20230531 1630	0.8	SE
20230531 1640	0.3	SSE
20230531 1650	0.8	SSE
20230531 1700	0.3	S
20230531 1710	0.3	SSE
20230531 1720	0	N
20230531 1730	0.3	WNW
20230531 1740	0.3	NW
20230531 1750	0	N
20230531 1800	0	N
20230531 1810	0.6	SSW
20230531 1820	1.1	S
20230531 1830	0.8	SE
20230531 1840	0.3	NNW
20230531 1850	0.8	NNW
20230531 1900	2.2	NNE
20230531 1910	2.2	NNW
20230531 1920	1.4	N
20230531 1930	0.8	SW
20230531 1940	0.3	SSE
20230531 1950	0.3	E
20230531 2000	0	N
20230531 2010	1.1	SE
20230531 2020	1.7	SSE
20230531 2030	1.4	ESE
20230531 2040	1.4	ESE
20230531 2050	1.9	ESE
20230531 2100	1.7	SE
20230531 2110	1.4	NE
20230531 2120	1.4	NNE
20230531 2130	0.8	-
20230531 2140	1.7	ESE
20230531 2150	1.9	ESE
20230531 2200	1.7	E
20230531 2210	1.1	-
20230531 2220	0.8	ESE
20230531 2230	1.7	SE
20230531 2240	1.7	ESE
20230531 2250	0.8	NW
20230531 2300	1.1	NW
20230531 2310	0.8	NNE
20230531 2320	0.3	NE
20230531 2330	0	N
20230531 2340	0.3	-
20230531 2350	1.4	NNE

Appendix I Waste Flow Table

Waste Flow Table

Month	Total Quantity Generated	Total Quantities of Inert C&D Materials to be Generated from the Contract					Total Quantities of Recyclables Generation				Total Quantities of C&D Materials to be Generated from the Contract		
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Yard Waste (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 tonne)	(in '000L)	(in tonne)	(in tonne)
Dec-22	84.77	0	0	0	0	0	0	0	0	11.49	0	7.53	65.75
Jan-23	24.51	0	0	0	0	0	0	0	0	0	0	24.51	0
Feb-23	506.45	0	0	0	0	0	0	0	0	3.16	0	5.85	497.44
Mar-23	9,581.15	0	0	9,187	0	0	0	0	0	3.69	0	6.96	383.5
Apr-23	18,532.07	0	0	18,466	0	0	0	0	0	1.97	0	5.81	58.29
May-23	28,889.61	0	0	28,473	0	0	0	0	0	0	0	7.45	409.16
Total	57,618.56	0	0	56126	0	0	0	0	0	20.31	0	58.11	1414.14

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 J Joint Environmental Site Inspection Records

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 2)

Inspection Date:	02 May 2023	Inspected By:	Andy Ng
Time:	14:00	Weather Condition:	Cloudy
Participants:	Sylvia Ho (ER), William Wan (Contractor), Kristy Wong (Contractor), Andy Ng (ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EP No.: EP-292/2007 FEP No.: FEP-01/292/2007
A2	Are Construction Noise Permits/ Environmental license/ other permit available for inspection/posted at site entrance.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CNP No: GW-RN0131-23
A3	Is wastewater discharge licence available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 2)

B10	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B12	Are all vehicles and plant cleaned before they leave the construction site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B13	Are hoarding $\geq 2.4\text{m}$ tall provided beside roads or area with public access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B14	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Observation 2
B15	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B16	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B17	Is scaffolding erected around the perimeter of a building under construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B18	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B19	Is the skip for materials transport enclosed by impervious sheeting?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B20	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
B21	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B22	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B23	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B24	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilizer within six months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B25	Are the worksites wetted with water regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Reminder 1
B26	Is generation of dust avoided during loading or unloading?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B27	Are all trucks loaded to a level within the side and tail boards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 2)

B28	Are appropriate speed limit sign displayed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B29	Are designated roads paved?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B30	Are site vehicle movements confined to designated roads?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B31	Are NRMM labels properly affixed on the PMEs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Activities					
D1	At the start of site establishment, are perimeter cut-off drains constructed to direct off-site water around the site with internal drainage works and erosion and sedimentation control facilities implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to such silt removal facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D3	Have dikes or embankments for flood protection implemented around the boundaries of earthwork areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4	Have temporary ditches provided to facilitate the runoff discharge into an appropriate watercourse, through a site/ sediment trap?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D5	Are the sediment/ silt traps incorporated in the permanent drainage channels to enhance deposition rate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6	Are the retention time for silt/s and traps of the silt removal facilities be 5 minutes under maximum flow conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D7	Is surface excavation works minimised during rainy seasons (April to September), as possible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D8	Are all exposed earth areas completed or vegetated as soon as possible after earthworks completed, or alternatively, within 14 days of the cessation of earthworks where practicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D9	Are exposed slope surfaces covered by tarpaulin sheets?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Will be treated with shotcrete in Portion E3-1.
D10	Have the overall slope of the site should be kept a minimum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11	Are all trafficked areas and access roads protected by coarse stone ballast	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D12	Is wastewater from temporary site facilities controlled to prevent direct discharge to surface	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D13	Are the silt removal facilities, channels and manholes maintained regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D14	Is the deposite silt and grit removed regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D15	Have the excavation of trenches in wet periods be dug and backfilled in short sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D16	Is rainwater pumped out from trenches discharged into storm drains via silt system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D17	Are open stockpiles of construction materials e.g. aggregates and sand of more than 50m ³ on site covered with tarpaulin or similar fabric during rainstorms?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D18	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D19	Are the discharges of surface run-off into foul sewer always prevented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

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

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

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

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

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Environmental Site Inspection Checklist (Rev. 2)

F12	Is frequency and location of LFG monitoring within excavation area determined prior to commencement of works? *LFG monitoring in excavations should be conducted at no more than 10mm from exposed ground surface.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F13	For excavation works, Is LFG monitoring conducted (1) at ground surface prior to excavation, (2) immediately before workers entering excavations, (3) at the beginning of each half-day work, and (4) periodically throughout the working day when workers are in the excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F14	Are LFG monitoring conducted periodically when any cracks on ground level encountered on-site? *Appropriate action should be taken in accordance with the action plan in Table 7.6 of EIA Report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
F15a	Are LFG precautionary measures involved in excavation and piping works provided in accordance with LFG Guidance Note and included in Safety Plan of construction phase?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
F15b	Are temporary offices or buildings located where free LFG has been proven or raised clear of ground at a separation distance of at least 500mm?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
F16	Is a Safety Officer trained in the use of gas detection equipment and LFG- related hazards present on-site throughout the groundwork phase? *The Safety Officer should be provided with an intrinsically safe portable instrument appropriately calibrated and capable of measuring the following gases: •CH ₄ : 0-100% and LEL: 0-100%/v •CO ₂ : 0-100% •O ₂ : 0-21%	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
F17a	Periodically during groundwork construction, Is the works area monitored for CH ₄ CO ₂ and O ₂ using appropriately calibrated portable gas detection equipment? *The monitoring frequency and areas should be established prior to commencement of groundwork either by Safety Officer or appropriately qualified person.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
F17b	Is routine monitoring carried out in all excavations, manholes, created by temporary storage of building materials on-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17c	Are all measurements in excavations made with monitoring tube located not more than 10mm from exposed ground surface?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F18	For excavations deeper than 1m, are measurements conducted? • At ground surface before excavation commences;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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Environmental Site Inspection Checklist (Rev. 2)

	<ul style="list-style-type: none"> 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. 				
F19	For excavations between 300mm and 1m, are measurements conducted? <ul style="list-style-type: none"> Directly after excavation has been completed; and Periodic all whilst excavation remains open. 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F20	For excavations less than 300mm, are monitoring omitted at the discretion of Safety Officer or appropriately qualified person?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

H	Ecology	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Is transplantation of the important plant species implemented? Is post-transplantation maintained and monitored regularly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed

I	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Environmental Complaint received during this week?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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

Follow up action for previous Site Inspection:

1. The Contractor scheduled watering at the entrance of Portion A.
2. Rotten leaves were removed from the channels.
3. The Silt Removal Facilities were functioned properly and the Contractor conducted cleaning work on them.

Observation(s):


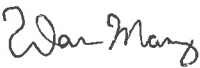

1. Water in the drip tray shall be cleared off at Portion A.
2. Sand and silt are observed at the road leading to SBA.

Reminder(s):


1. Dust suppression measure shall be enhanced to cover all work area and dusty stockpiles in SBA.

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

1. The Contractor has been recommended to collect and dispose of any stagnant water accumulated in the drip trays and handle them as chemical waste.
2. The Contractor has been recommended that road surface shall be kept clear of sand and silt.
3. The Contractor has been reminded to ensure the implementation of dust suppression measure for the dry work area and dusty stockpile.

	Environmental Team Representative:	IEC's Representative:	Contractor's Representative:	Engineer's Representative
Signature:		/		
Name:	Andy Ng	/	William Wan	Sylvia Ho
Date:	02 May 2023	/	02 May 2023	02 May 2023

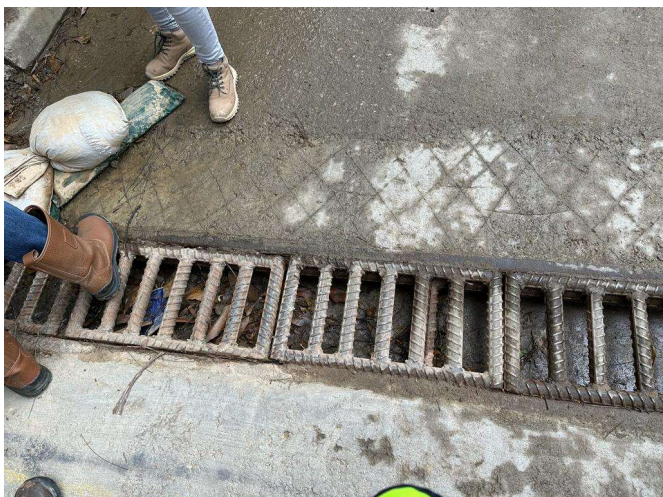
PART I Follow-up status of the previous site inspection

Observation and Recommendation	Follow-up status
 <p>1. The exposed slope surface near the stream has been covered with impervious sheets as a temporary mitigation measure. Shotcrete will be applied to the exposed surface by the end of April to prevent surface runoff into stream in long term.</p>	<p>To be implemented</p>
 <p>2. The entrance of Portion A was observed muddy.</p>	 <p>The Contractor scheduled watering at the entrance of Portion A.</p>



3. The Contractor was reminded to spray water on the surface of dusty material in SBA to prevent dust dispersion.

Waiting for Contractor's Input



4. The channels at the entrance of SBA were accumulated with rotten leaves, sand and silt.



Rotten leaves were removed from the channels.



5. The surface protection works in Portion A shall be maintained properly.

Waiting for Contractor's Input

Portion E3



Portion A



Portion E3



Portion A



Portion D




6. The Contractor has been reminded to ensure all silt removal facilities functioning properly for the upcoming rainfall.

Portion D



The Silt Removal Facilities were functioned properly and the Contractor conducted cleaning work on them.

PART II Observation and recommendation identified during the environmental site inspection

Observation and Recommendation	Follow-up status
 <p>1. Water in the drip tray shall be cleared off at Portion A.</p>	

Observation and Recommendation	Follow-up status
 <p>The top photograph shows a wide, unpaved road with a textured surface of sand and gravel. The road is bordered by a red and white striped safety barrier on the right. The sky is overcast with grey clouds. The bottom photograph shows a similar road, but with significant accumulation of sand and silt on the left side, partially covering the textured surface. A small vehicle is visible in the distance on the road.</p> <p>2. Sand and silt are observed at the road leading to SBA</p>	

Observation and Recommendation	Follow-up status
 <p data-bbox="129 1133 815 1189">3. Dust suppression measure shall be enhanced to cover all dry work area and dusty stockpile in SBA.</p>	

PART III Temporary surface water drainage system photo record during the environmental site inspection

<p>Photo 1 Portion A</p> 	<p>Photo 2 Portion A</p> 
<p>Photo 3 Portion A</p> 	<p>Photo 4 Portion D</p> 

Photo 5 Portion D



Photo 6 Portion B1 Cut-off drain with Silt fence



Photo 7 Portion B1 Silt fence at the soil stockpile areas



Photo 8 Portion B1 Cut-off drain with Silt fence



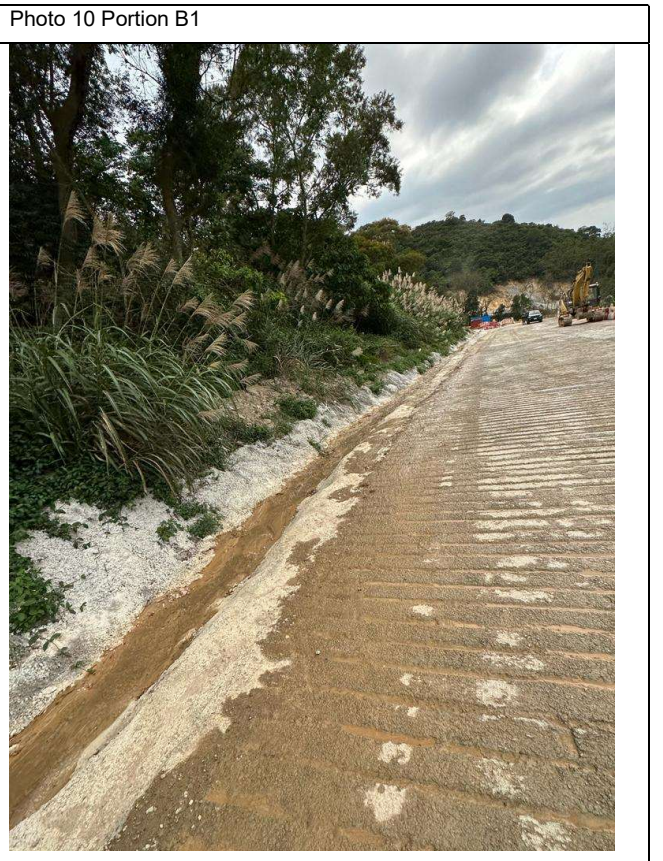
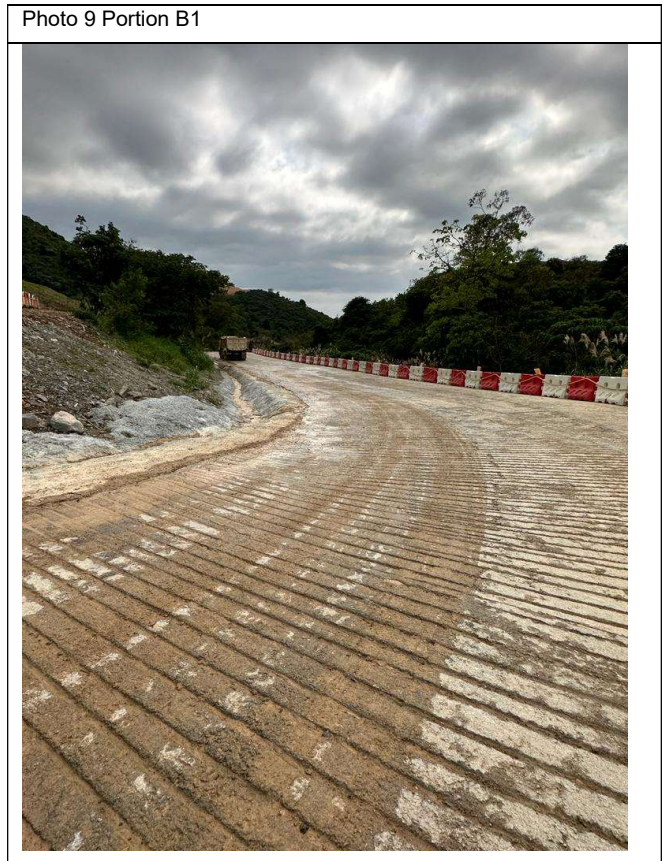


Photo 13 Portion B1	
	

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 2)

Inspection Date:	08 May 2023	Inspected By:	Andy Ng
Time:	14:00	Weather Condition:	Rainy
Participants:	Sylvia Ho (ER), Kristy Wong (Contractor), Andy Ng (ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EP No.: EP-292/2007 FEP No.: FEP-01/292/2007
A2	Are Construction Noise Permits/ Environmental license/ other permit available for inspection/posted at site entrance.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CNP No: GW-RN0131-23
A3	Is wastewater discharge licence available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 2)

B10	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B12	Are all vehicles and plant cleaned before they leave the construction site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Observation 1
B13	Are hoarding $\geq 2.4\text{m}$ tall provided beside roads or area with public access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B14	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Observation 2 on 20230502
B15	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B16	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B17	Is scaffolding erected around the perimeter of a building under construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B18	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B19	Is the skip for materials transport enclosed by impervious sheeting?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B20	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
B21	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B22	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B23	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B24	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilizer within six months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B25	Are the worksites wetted with water regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B26	Is generation of dust avoided during loading or unloading?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B27	Are all trucks loaded to a level within the side and tail boards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B28	Are appropriate speed limit sign displayed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

B29	Are designated roads paved?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B30	Are site vehicle movements confined to designated roads?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B31	Are NRMM labels properly affixed on the PME's?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Activities					
D1	At the start of site establishment, are perimeter cut-off drains constructed to direct off-site water around the site with internal drainage works and erosion and sedimentation control facilities implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to such silt removal facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D3	Have dikes or embankments for flood protection implemented around the boundaries of earthwork areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4	Have temporary ditches provided to facilitate the runoff discharge into an appropriate watercourse, through a site/ sediment trap?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D5	Are the sediment/ silt traps incorporated in the permanent drainage channels to enhance deposition rate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6	Are the retention time for silt/s and traps of the silt removal facilities be 5 minutes under maximum flow conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D7	Is surface excavation works minimised during rainy seasons (April to September), as possible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D8	Are all exposed earth areas completed or vegetated as soon as possible after earthworks completed, or alternatively, within 14 days of the cessation of earthworks where practicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D9	Are exposed slope surfaces covered by tarpaulin sheets?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	To be treated with shotcrete in Portion E3-1.
D10	Have the overall slope of the site should be kept a minimum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11	Are all trafficked areas and access roads protected by coarse stone ballast	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D12	Is wastewater from temporary site facilities controlled to prevent direct discharge to surface	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D13	Are the silt removal facilities, channels and manholes maintained regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Reminder 2
D14	Is the deposite silt and grit removed regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D15	Have the excavation of trenches in wet periods be dug and backfilled in short sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D16	Is rainwater pumped out from trenches discharged into storm drains via silt system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D17	Are open stockpiles of construction materials e.g. aggregates and sand of more than 50m ³ on site covered with tarpaulin or similar fabric during rainstorms?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D18	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D19	Are the discharges of surface run-off into foul sewer always prevented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

E	Waste / Chemical Management	N/A or Not Observed	Yes	No	Remarks / Photo
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Reminder 1
E2	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Reminder 1
E3	Does accumulation of waste avoid?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Reminder 1
E4	Is waste disposed regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Reminder 1
E5	Regular waste collection by approved waste collector in purpose-built vehicles?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6	Burning of refuse on construction site prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

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

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

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F12	Is frequency and location of LFG monitoring within excavation area determined prior to commencement of works? *LFG monitoring in excavations should be conducted at no more than 10mm from exposed ground surface.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F13	For excavation works, Is LFG monitoring conducted (1) at ground surface prior to excavation, (2) immediately before workers entering excavations, (3) at the beginning of each half-day work, and (4) periodically throughout the working day when workers are in the excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F14	Are LFG monitoring conducted periodically when any cracks on ground level encountered on-site? *Appropriate action should be taken in accordance with the action plan in Table 7.6 of EIA Report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
F15a	Are LFG precautionary measures involved in excavation and piping works provided in accordance with LFG Guidance Note and included in Safety Plan of construction phase?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
F15b	Are temporary offices or buildings located where free LFG has been proven or raised clear of ground at a separation distance of at least 500mm?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
F16	Is a Safety Officer trained in the use of gas detection equipment and LFG- related hazards present on-site throughout the groundwork phase? *The Safety Officer should be provided with an intrinsically safe portable instrument appropriately calibrated and capable of measuring the following gases: •CH ₄ : 0-100% and LEL: 0-100%/v •CO ₂ : 0-100% •O ₂ : 0-21%	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
F17a	Periodically during groundwork construction, Is the works area monitored for CH ₄ CO ₂ and O ₂ using appropriately calibrated portable gas detection equipment? *The monitoring frequency and areas should be established prior to commencement of groundwork either by Safety Officer or appropriately qualified person.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed
F17b	Is routine monitoring carried out in all excavations, manholes, created by temporary storage of building materials on-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17c	Are all measurements in excavations made with monitoring tube located not more than 10mm from exposed ground surface?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F18	For excavations deeper than 1m, are measurements conducted? • At ground surface before excavation commences;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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	<ul style="list-style-type: none"> 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. 				
F19	For excavations between 300mm and 1m, are measurements conducted? <ul style="list-style-type: none"> Directly after excavation has been completed; and Periodic all whilst excavation remains open. 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F20	For excavations less than 300mm, are monitoring omitted at the discretion of Safety Officer or appropriately qualified person?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

H	Ecology	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Is transplantation of the important plant species implemented? Is post-transplantation maintained and monitored regularly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not Observed

I	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Environmental Complaint received during this week?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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

Follow up action for previous Site Inspection:

1. The Contractor scheduled watering for the dusty stockpile.

Observation(s):

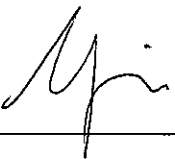
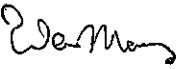

1. Accumulated sand and silt shall be cleared off in the wheel washing bay in SBA.

Reminder(s):


1. The Contractor has been reminded to cover the waste skip with impervious sheets during and rainfall, to avoid accumulation of waste and to implement waste sorting.
2. The Contractor has been reminded to ensure all silt removal facilities functioning properly for the upcoming rainfall and the discharged wastewater shall comply with WPCO requirement.

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

1. The Contractor has been reminded to conduct regularly cleaning work for the wheel washing bay and to ensure the implementation of vehicle washing in SBA.
2. Waste skip shall be covered with impervious sheets during rainfall. General waste shall be properly sorted, recycled and regularly disposed.
3. Construction and surface runoff shall be directed to silt removal facilities and treated wastewater shall fulfill WPCO requirement.

	Environmental Team Representative:	IEC's Representative:	Contractor's Representative:	Engineer's Representative
Signature:		/		
Name:	Andy Ng	/	William Wan	Sylvia Ho
Date:	08 May 2023	/	08 May 2023	08 May 2023

PART I Follow-up status of the previous site inspection

Observation and Recommendation	Follow-up status
 <p>1. The exposed slope surface near the stream has been covered with impervious sheets as a temporary mitigation measure. Shotcrete will be applied to the exposed surface by the end of April to prevent surface runoff into stream in long term.</p>	<p>To be implemented</p>



2. The Contractor was reminded to spray water on the surface of dusty material in SBA to prevent dust dispersion.
3. Dust suppression measure shall be enhanced to cover all dry work area and dusty stockpile in SBA.

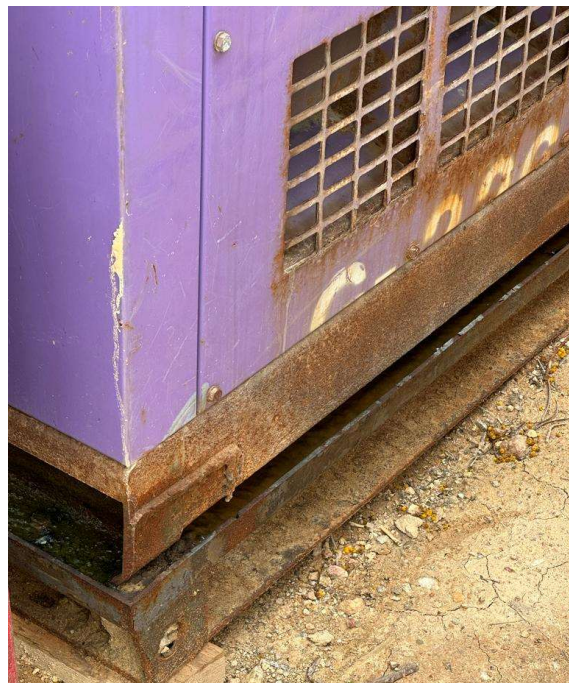


The Contractor scheduled watering for the dusty stockpile.



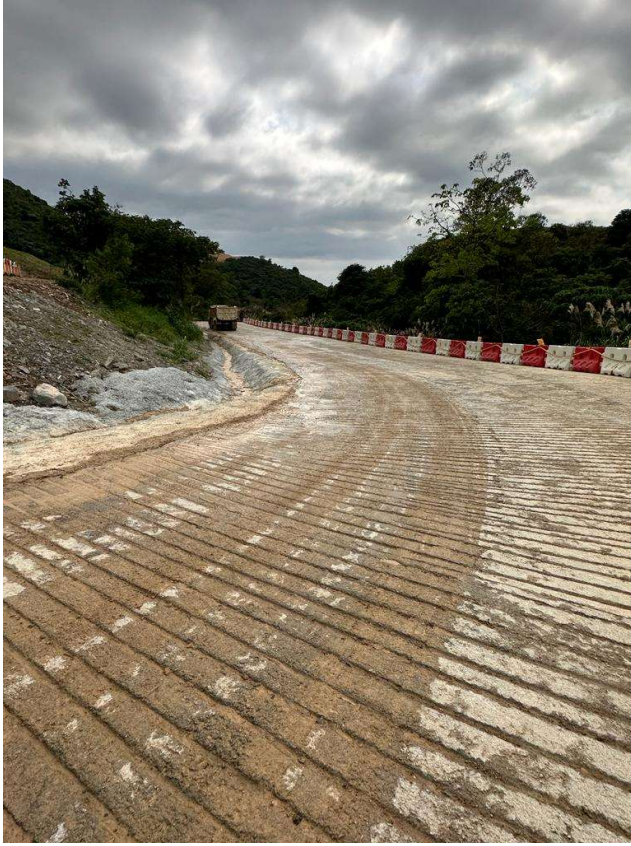
Waiting for Contractor's Input

4. The surface protection works in Portion A shall be maintained properly.



Waiting for Contractor's Input

5. Water in the drip tray shall be cleared off at Portion A.




Waiting for Contractor's Input

6. Sand and silt were observed at the road leading to SBA

PART II Observation and recommendation identified during the environmental site inspection

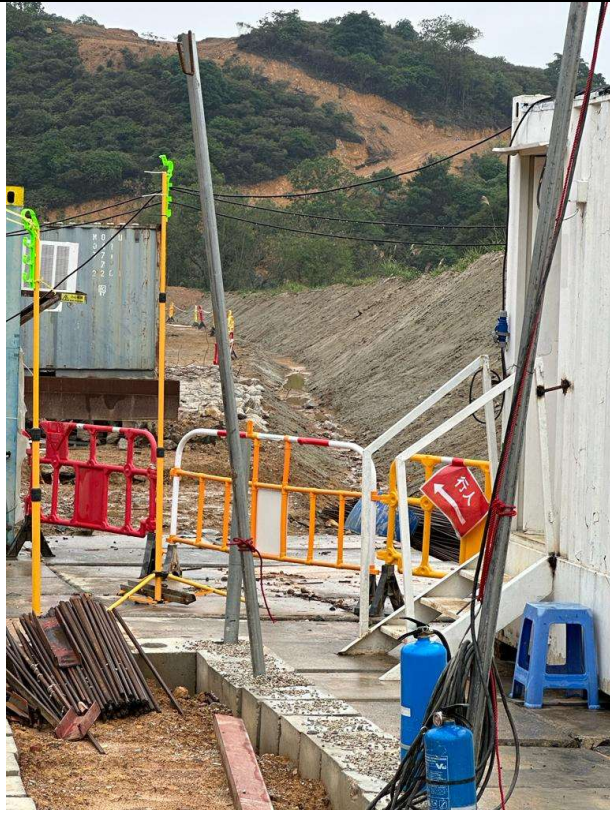
Observation and Recommendation	Follow-up status
 <p>1. Accumulated sand and silt shall be cleared off in the wheel washing bay in SBA.</p>	
 <p>2. The Contractor has been reminded to cover the waste skip with impervious sheets during rainfall, to avoid accumulation of waste and to implement waste sorting.</p>	

Observation and Recommendation	Follow-up status
 <p data-bbox="129 804 831 891">3. The Contractor has been reminded to ensure all silt removal facilities functioning properly for the upcoming rainfall and the discharged wastewater shall comply with WPCO requirement.</p>	

PART III Temporary surface water drainage system photo record during the environmental site inspection

Photo 1 Portion D	Photo 2 Portion E3 Silt removal facilities
	
Photo 3 Portion E3 Sediment Basin	Photo 5 Portion B1 Silt fence at soil stockpile areas
	

Photo 5 Portion B1



Inspection Date:	15 May 2023	Inspected By:	Jason Man
Time:	14:00	Weather Condition:	Fine
Participants:	Sylvia Ho (ER), William Wan (Contractor), Kristy Wong (Contractor), Echo Hung (IEC) & Jason Man (ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A2	Are Construction Noise Permits/ Environmental license/ other permit available for inspection/posted at site entrance.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A3	Is wastewater discharge licence available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B2	Are plant and equipment well maintained (i.e. without black smoke from powered plant)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B3	Any remedial action undertaken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B4	Are the worksites wetted with water regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B5	Are NRMM labels properly affixed on the PMEs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B6	Observed dust source(s)	<input type="checkbox"/> Wind erosion <input checked="" type="checkbox"/> Vehicle/ Equipment Movements <input type="checkbox"/> Loading/ unloading of materials <input type="checkbox"/> Others: _____			

Air Pollution Control (Construction Dust) Regulation

Part I Control Requirements for Notifiable Works

Demolition of building

B7	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
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Construction of the superstructure of a building

B8	Is scaffolding erected around the perimeter of a building under construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
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B9	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B10	Is the skip for materials transport enclosed by impervious sheeting ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Part III General Control Requirements					
Site boundary and entrance					
B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B12	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B13	Are the hoarding $\geq 2.4\text{m}$ tall provided at the site boundary near a road, street, service lane or other area accessible to the public?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Assess road					
B14	Are every main haul road (having a vehicle passing rate of higher than 4 in any 30 minutes) paved with concrete, bituminous materials, hardcores or metal plates, and kept clear of dusty materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B15	Are every main haul road sprayed with water or a dust suppression chemical?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B16	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B17	Are appropriate speed limit sign displayed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B18	Is unpaved main haul road wet by water spraying?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Cement and dry pulverized fuel ash (PFA)					
B19	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
B20	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B21	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Exposed earth					
B22	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilizer within 6 months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Part IV Control Requirements for Individual Activities					
Stockpiling of dusty materials					
B23	Are the stockpiling of dusty materials (a) covered entirely by impervious sheeting or (b) placed in an area sheltered on the top and the 3 sides or (c) sprayed with water or a dust suppression chemical to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B24	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Loading, unloading or transfer of dusty materials					
B25	Are all dusty materials sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B26	Are all trucks loaded to a level within the side and tail boards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Use of vehicles					
B27	Are every vehicle washed immediately to remove any dusty materials from its body and wheels before leaving a construction site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B28	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B29	Are site vehicle movements confined to designated roads?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Pneumatic or power-driven drilling, cutting and polishing					
B30	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously? *Unless the process is accompanied by the operation of an effective dust extraction and filtering device.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Debris handling					
B31	Are any debris covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B32	Are every debris chute shall be enclosed by impervious sheeting or similar materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B33	Are the watering spray or a dust suppression chemical conducted before debris is dumped into a debris chute?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

Excavation or earth moving					
B34	Are the working area of any excavation or earth moving operation sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Site clearance					
B35	Are the working area for the uprooting of trees, shrubs, or vegetation or for the removal of boulders, poles, pillars or temporary or permanent structures sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B36	Are all demolished items (including trees, shrubs, vegetation, boulders, poles, pillars, structures, debris, rubbish and other items arising from site clearance) that may dislodge dust particles covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides within a day of demolition?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Observation 1

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 3)

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

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 3)

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Runoff					
D1a	At the start of site establishment, are perimeter cut-off drains constructed to direct off-site water around the site with internal drainage works and erosion and sedimentation control facilities implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D1b	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to silt removal facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2a	Have dikes or embankments for flood protection implemented around the boundaries of earthwork areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2b	Have temporary ditches provided to facilitate the runoff discharge into an appropriate watercourse, through a site/ sediment trap?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2c	Are the sediment/ silt traps incorporated in the permanent drainage channels to enhance deposition rate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D3	Are the retention time for silt/s and traps of the silt removal facilities be 5 minutes under maximum flow conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4a	Are surface excavation works minimised during rainy seasons (April to September), as possible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4b	Are all exposed earth areas completed or vegetated as soon as possible after earthworks completed, or alternatively, within 14 days of the cessation of earthworks where practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4c	Are exposed slope surfaces covered by tarpaulin sheets?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	To be treated with shotcrete at part of slope surface.
D5a	Have the overall slope of the site should be kept a minimum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D5b	Are all trafficked areas and access roads protected by coarse stone ballast?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6a	Are all drainage facilities and erosion and sediment control structures inspected regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6b	Are all drainage facilities and erosion and sediment control structures maintained to ensure proper and efficient operation at all times and particularly following rainstorms?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6c	Is the deposited silt and grit removed regularly and disposed of by spreading evenly over stable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D7a	Have the excavation of trenches in wet periods be dug and backfilled in short sections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D7b	Is rainwater pumped out from trenches discharged into storm drains via silt system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D8	Are open stockpiles of construction materials e.g. aggregates and sand of more than 50m ³ on site covered with tarpaulin or similar fabric during rainstorms?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
D9a	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D9b	Are the discharges of surface run-off into foul sewer always prevented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10a	Are particular attention paid to the control of silty surface runoff during storm event ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10b	Are the precautions to be taken at any time of year when rainstorms are likely? (Appendix A2 of ProPECC PN 1/94) i. Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly. ii. Temporarily exposed slope surfaces should be cover by tarpaulin. iii. Temporary access roads should be protected by crushed stone or gravel. iv. Intercepting channels should be provided (e.g. along the crest/edge of excavation) to prevent storm runoff from washing across exposed soil surfaces. v. Trenches should be dug and backfilled in short sections. Measures should be taken to minimize the ingress of rainwater into trenches.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10c	Are the actions to be taken when a rainstorm is imminent or forecast ? (Appendix A2 of ProPECC PN 1/94) i. Silt removal facilities, channels and manholes should be checked to ensure that they can function properly. ii. Open stockpiles of construction materials (e.g. aggregates, sand and fill materials) on site should be covered with tarpaulin or similar fabric. iii. All temporary covers to slopes and stockpiles should be secured.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D10d	Are the actions to be taken during or after rainstorms ? (Appendix A2 of ProPECC PN 1/94) i. 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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11a	Are all vehicles and plant cleaned before leaving a construction site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11b	Is the wheel washing bay provided at every site exit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11c	Are the vehicle wash-water have sand and silt settled out and removed at least on a weekly basis?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11d	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11e	Is the section of construction road between the wheel washing bay and the public road paved with backfill?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11f	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D12a	Are oil interceptors provided in the site drainage system downstream of any oil/ fuel pollution sources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D12b	Are the oil interceptors are emptied and cleaned regularly to prevent the release of O&G into the storm water drainage system after accidental spillage?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 3)

D12c	Has a bypass provided to prevent flushing during heavy rain?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D13	Are the construction solid waste, debris and rubbish on site collected, handled and disposed of properly? (same with waste item)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D14	Are all fuel tanks and storage areas provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D15	Is Intercepting bund or barrier along the roadside constructed to prevent pollution risk arising from work area (waste reception area)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D16	Are site drainage systems provided over the entire project site with sediment control facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D17	Are sedimentation tanks provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D18	Is there any sediment plume observed in nearby watercourses?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Sewage Effluent from Workforce (On-site sanitary facilities)					
D19a	Are portable chemical toilets and sewage holding tanks provided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D19b	Is the sewage generated from toilets collected by licensed contractor and responsible for disposal and maintenance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D20	Are the notices posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
Accidental Spillage of Chemical (Service workshop and maintenance facilities)					
D21a	Are the service workshop and maintenance facilities located within a bunded area, and sumps and oil interceptors?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
D21b	Are all maintenance of equipment involving activities with potential for leakage and spillage undertaken within the areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
D21c	Is chemical leakage or spillages contained and cleaned up immediately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
Surface Water Drainage System					
D22a	Is the temporary surface water drainage system provided to manage runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D22b	Does the system consist of channel as constructed around the perimeter of the site area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D22c	Does the system collect surface water from the areas of higher elevations to those of lower elevations and ultimately to the discharge point?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Observation 2
D22d	Is the erosion minimised?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D23a	Does the system include the use of a silt fence around the soil stockpile areas to prevent sediment from entering the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D23b	Is the regular cleaning carried out to prevent blockage of the passage of waste flow in silt fence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

E	Waste / Chemical Management	N/A or Not Observed	Yes	No	Remarks / Photo
Waste Management					
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2a	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2b	Does accumulation of waste avoid?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2c	Is waste disposed regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2d	Regular waste collection by approved waste collector in purpose-built vehicles?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E3	Burning of refuse on construction site prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C&D Materials					
E4a	Are there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
E4b	Are the C&D materials sorted and recycled on-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5a	Is the durable formwork or plastic facing for construction works used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5b	Do the wooden hoardings avoid to be used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5c	Is metal hoarding used to enhance the possibility of recycling?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6a	Are the concrete and masonry used as general fill ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6b	Are the steel reinforcement bars used by scrap steel mills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6c	Is the segregation and storage of C&D wastes undertaken in designated area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6d	Does the use of reusable steel formwork maximise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E7a	Are the temporary stockpiles maintained regularly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
E7b	Is the excavated fill material reused for backfilling and reinstatement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E8a	Are the excavated slope, stockpile material and bund walls covered by tarpaulin?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E8b	Are covering trucks or transporting wastes in enclosed containers when transportation of waste ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
E8c	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E9	Is hydroseeding of the topsoil on the stockpile implemented to improve visual appearance and prevent soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E10	Is the 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 implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

E11	Are the training of site personnel for cleanliness, proper waste management procedures including chemical waste handling, and waste reduction, reuse and recycling concept implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E12	Are the regular cleaning and maintenance programme for drainage systems, sumps, oil interceptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E13a	Are wood, steel and other metals separated for re-use and/or recycling?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E13b	Do the excavated materials appear contaminated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
E13c	If suspected contaminated, appropriate procedures followed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A								
E14	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E15	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
Chemical Waste / Waste Oil													
E16	Are chemicals and waste oil recycled or disposed properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
Chemical Packaging													
E17a	Have the containers a capacity of <450 L unless the specification has been approved by EPD?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
E17b	Are the containers (holding, resistant to corrosion, maintained in a good condition, and securely closed) used for storage of chemical wastes ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
Chemical Labelling													
E18	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area? <table border="1" data-bbox="220 1261 746 1424"> <thead> <tr> <th>Capacity of Container</th> <th>Dimensions of Label</th> </tr> </thead> <tbody> <tr> <td>< 50L</td> <td>No less than 90 x 100mm</td> </tr> <tr> <td>50 to 450L</td> <td>No less than 120 x 150mm</td> </tr> <tr> <td>> 450L</td> <td>No less than 180 x 200mm</td> </tr> </tbody> </table>	Capacity of Container	Dimensions of Label	< 50L	No less than 90 x 100mm	50 to 450L	No less than 120 x 150mm	> 450L	No less than 180 x 200mm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Capacity of Container	Dimensions of Label												
< 50L	No less than 90 x 100mm												
50 to 450L	No less than 120 x 150mm												
> 450L	No less than 180 x 200mm												
Chemical Waste / Fuel Storage Area													
E19a	Are the storage area are clearly labelled and separated (if needed)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O								
E19b	Are the storage area enclosed 3 sides by walls/fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O								
E19c	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering and reduce heat from sunlight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O								
E19d	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O								
E20	Is chemical waste collected by licensed waste collectors and disposed of at licensed facility eg. Chemical Waste Treatment Centre?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									

Records					
E21	Is a licensed waste hauler used for waste collection ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E22	Are the records of quantities of wastes generated, recycled and disposed properly kept?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E23	For the demolition material / waste, is the number of loads for each day recorded as appropriate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 3)

	*LFG monitoring in excavations should be conducted at < 10mm from exposed ground surface.				
F13	For excavation works, Is LFG monitoring conducted (1) at ground surface prior to excavation, (2) immediately before workers entering excavations, (3) at the beginning of each half-day work, and (4) periodically throughout the working day when workers are in the excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F14	Are LFG monitoring conducted periodically when any cracks on ground level encountered on-site? *Appropriate action should be taken in accordance with the action plan in Table 7.6 of EIA Report.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F15a	Are LFG precautionary measures involved in excavation and pipng works provided in accordance with LFG Guidance Note and included in Safety Plan of construction phase?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F15b	Are temporary offices or buildings located where free LFG has been proven or raised clear of ground at a separation distance of at least 500mm?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F16	Is a Safety Officer trained in the use of gas detection equipment and LFG- related hazards present on-site throughout the groundwork phase? *The Safety Officer should be provided with an intrinsically safe portable instrument appropriately calibrated and capable of measuring the following gases: •CH ₄ : 0-100% and LEL: 0-100%/v •CO ₂ : 0-100% •O ₂ : 0-21%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17a	Periodically during groundwork construction, Is the works area monitored for CH ₄ CO ₂ and O ₂ using appropriately calibrated portable gas detection equipment? *The monitoring frequency and areas should be established prior to commencement of groundwork either by Safety Officer or appropriately qualified person.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17b	Is routine monitoring carried out in all excavations, manholes, created by temporary storage of building materials on-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17c	Are all measurements in excavations made with monitoring tube located < 10mm from exposed ground surface?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F18	For excavations > 1m, are measurements 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 3)

	<ul style="list-style-type: none"> Periodically throughout the working day whilst workers are in excavation. 				
F19	<p>For excavations 300mm to 1m, are measurements conducted?</p> <ul style="list-style-type: none"> Directly after excavation has been completed; and Periodic all whilst excavation remains open. 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F20	For excavations < 300mm, are monitoring omitted at the discretion of Safety Officer or appropriately qualified person?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

G	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Is the work site confined within site boundaries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
G2	Is damage to surrounding areas avoided ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
G3	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Advanced screening tree planting					
G4a	Is early planting using fast growing plants and tall shrubs at strategic locations within site implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
G4b	Are the roadside planter and shrub planting implemented in front of Cheung Sha Temple ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Boundary Green Belt planting					
G5	Are the fast growing and fire-resistant plant species planted around the site perimeter?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Temporary landscape treatment as green surface cover					
G6	Are grass hydroseeding or synthetic covering material of green colour used as a temporary slope cover ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Existing tree preservation					
G7	Are existing and affected tree which identified as ecological significant preserved whenever possible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

H	Ecology	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Is transplantation of the important plant species implemented? Is post-transplantation maintained and monitored regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

I	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Environmental Complaint received during this week?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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

Follow up action for previous Site Inspection:



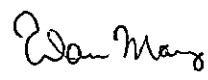
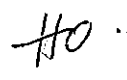
1. The surface protection works at Portion A was conducted by contractor.
2. The contractor arranged the water tank conducted the cleaning work at the road section between SBA and Portion A.

Observation(s):


1. The accumulate of the uprooting of trees without covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides were found at the work area at SBA.
2. The accumulate water was found at the lower area at the Portion D.
3. Accumulate water in drip tray was observed at Portion D.


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

1. The contractor was recommended that the demolished trees should be covered by impervious sheeting or placed in an area sheltered on the top and the 3 sides.
2. The contractor was recommended that the surface water should be collected to silt removal facilities.
3. The contractor was recommended to keep cleaning the accumulated water in drip tray to minimize the large amount of potential chemical waste when the chemical leakage was found.

	Environmental Team's Representative:	Independent Environmental Checker's Representative:	Contractor's Representative:	Employee's Representative
Signature:				
Name:	Jason Man	Echo Hung	William Wan	Sylvia Ho
Date:	15 May 2023	15 May 2023	15 May 2023	15 May 2023

PART I Follow-up status of the previous site inspection

Observation and Recommendation	Follow-up status
<p><u>03 April 2023</u></p>  <p>The exposed slope surface near the stream has been covered with impervious sheets as a temporary mitigation measure. Shotcrete will be applied to the exposed surface by the end of April to prevent surface runoff into stream in long term.</p>	<p>To be implemented</p>
<p><u>25 April 2023</u></p>  <p>The surface protection works in Portion A shall be maintained properly.</p>	 <p>The surface protection works at Portion A was conducted by contractor.</p>

Observation and Recommendation	Follow-up status
<p data-bbox="132 248 248 275">2 May 2023</p>  <p data-bbox="132 1361 644 1388">Water in the drip tray shall be cleared off at Portion A.</p>	<p data-bbox="1050 1093 1331 1120">Waiting for Contractor's Input</p>

Observation and Recommendation	Follow-up status
<p data-bbox="130 244 248 271">2 May 2023</p>  <p data-bbox="130 1733 663 1760">Sand and silt were observed at the road leading to SBA</p>	 <p data-bbox="847 1559 1528 1608">The contractor arranged the water tank conducted the cleaning work at the road section between SBA and Portion A.</p>

Observation and Recommendation	Follow-up status
<p data-bbox="134 465 248 495">8 May 2023</p>  <p data-bbox="134 1697 820 1753">Accumulated sand and silt shall be cleared off in the wheel washing bay in SBA.</p>	<p data-bbox="1050 1093 1331 1122" style="text-align: center;">Waiting for Contractor's Input</p>

Observation and Recommendation	Follow-up status
<p data-bbox="132 248 248 275">8 May 2023</p>  <p data-bbox="132 949 823 1028">The Contractor has been reminded to cover the waste skip with impervious sheets during rainfall, to avoid accumulation of waste and to implement waste sorting.</p>	<p data-bbox="1050 622 1329 649">Waiting for Contractor's Input</p>
<p data-bbox="132 1055 248 1081">8 May 2023</p>  <p data-bbox="132 1720 823 1798">The Contractor has been reminded to ensure all silt removal facilities functioning properly for the upcoming rainfall and the discharged wastewater shall comply with WPCO requirement.</p>	<p data-bbox="1050 1413 1329 1440">Waiting for Contractor's Input</p>

PART II Observation and recommendation identified during the environmental site inspection

Observation and Recommendation	Follow-up status
 <p>Observation:</p> <ol style="list-style-type: none"> 1. The accumulate of the uprooting of trees without covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides were found at the work area at SBA. 	
 <p>Observation:</p> <ol style="list-style-type: none"> 2. The accumulate water was found at the lower area at the Portion D. 	
	

Observation and Recommendation	Follow-up status
 <p>Observation:</p> <p>3. Accumulate water in drip tray was observed at Portion D.</p>	

PART III Temporary surface water drainage system photo record during the environmental site inspection

<p>Photo 1 Portion D</p> 	<p>Photo 2 Portion D Submersible pump</p> 
<p>Photo 3 Portion A</p> 	<p>Photo 4 Portion A</p> 
<p>Photo 5 Portion B1 Silt fence at stockpile area</p> 	<p>Photo 6 Photo B1 Silt fence at stockpile area</p> 

Photo 7 Portion E3 Silt removal facilities	Photo 8 Portion E3 Sediment Basin
	

Inspection Date:	22 May 2023	Inspected By:	Jason Man
Time:	14:00	Weather Condition:	Fine
Participants:	Sylvia Ho (ER), Kristy Wong (Contractor) & Jason Man (ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A2	Are Construction Noise Permits/ Environmental license/ other permit available for inspection/posted at site entrance.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A3	Is wastewater discharge licence available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B2	Are plant and equipment well maintained (i.e. without black smoke from powered plant)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B3	Any remedial action undertaken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B4	Are the worksites wetted with water regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B5	Are NRMM labels properly affixed on the PMEs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B6	Observed dust source(s)	<input type="checkbox"/> Wind erosion <input checked="" type="checkbox"/> Vehicle/ Equipment Movements <input type="checkbox"/> Loading/ unloading of materials <input type="checkbox"/> Others: _____			

Air Pollution Control (Construction Dust) Regulation**Part I Control Requirements for Notifiable Works****Demolition of building**

B7	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
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Construction of the superstructure of a building

B8	Is scaffolding erected around the perimeter of a building under construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
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B9	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B10	Is the skip for materials transport enclosed by impervious sheeting ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Part III General Control Requirements					
Site boundary and entrance					
B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B12	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B13	Are the hoarding $\geq 2.4\text{m}$ tall provided at the site boundary near a road, street, service lane or other area accessible to the public?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Assess road					
B14	Are every main haul road (having a vehicle passing rate of higher than 4 in any 30 minutes) paved with concrete, bituminous materials, hardcores or metal plates, and kept clear of dusty materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B15	Are every main haul road sprayed with water or a dust suppression chemical?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B16	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B17	Are appropriate speed limit sign displayed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B18	Is unpaved main haul road wet by water spraying?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Cement and dry pulverized fuel ash (PFA)					
B19	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
B20	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B21	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Exposed earth					
B22	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilizer within 6 months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Part IV Control Requirements for Individual Activities					
Stockpiling of dusty materials					
B23	Are the stockpiling of dusty materials (a) covered entirely by impervious sheeting or (b) placed in an area sheltered on the top and the 3 sides or (c) sprayed with water or a dust suppression chemical to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B24	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Loading, unloading or transfer of dusty materials					
B25	Are all dusty materials sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B26	Are all trucks loaded to a level within the side and tail boards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Use of vehicles					
B27	Are every vehicle washed immediately to remove any dusty materials from its body and wheels before leaving a construction site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B28	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B29	Are site vehicle movements confined to designated roads?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Pneumatic or power-driven drilling, cutting and polishing					
B30	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously? *Unless the process is accompanied by the operation of an effective dust extraction and filtering device.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Debris handling					
B31	Are any debris covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B32	Are every debris chute shall be enclosed by impervious sheeting or similar materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B33	Are the watering spray or a dust suppression chemical conducted before debris is dumped into a debris chute?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

Excavation or earth moving					
B34	Are the working area of any excavation or earth moving operation sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Site clearance					
B35	Are the working area for the uprooting of trees, shrubs, or vegetation or for the removal of boulders, poles, pillars or temporary or permanent structures sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B36	Are all demolished items (including trees, shrubs, vegetation, boulders, poles, pillars, structures, debris, rubbish and other items arising from site clearance) that may dislodge dust particles covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides within a day of demolition?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Observation 1

(Construction Phase)

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

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 3)

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Runoff					
D1a	At the start of site establishment, are perimeter cut-off drains constructed to direct off-site water around the site with internal drainage works and erosion and sedimentation control facilities implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D1b	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to silt removal facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2a	Have dikes or embankments for flood protection implemented around the boundaries of earthwork areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2b	Have temporary ditches provided to facilitate the runoff discharge into an appropriate watercourse, through a site/ sediment trap?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2c	Are the sediment/ silt traps incorporated in the permanent drainage channels to enhance deposition rate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D3	Are the retention time for silt/s and traps of the silt removal facilities be 5 minutes under maximum flow conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4a	Are surface excavation works minimised during rainy seasons (April to September), as possible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4b	Are all exposed earth areas completed or vegetated as soon as possible after earthworks completed, or alternatively, within 14 days of the cessation of earthworks where practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4c	Are exposed slope surfaces covered by tarpaulin sheets?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	To be treated with shotcrete at part of slope surface. Refer to Observation 2
D5a	Have the overall slope of the site should be kept a minimum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D5b	Are all trafficked areas and access roads protected by coarse stone ballast?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6a	Are all drainage facilities and erosion and sediment control structures inspected regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6b	Are all drainage facilities and erosion and sediment control structures maintained to ensure proper and efficient operation at all times and particularly following rainstorms?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6c	Is the deposited silt and grit removed regularly and disposed of by spreading evenly over stable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D7a	Have the excavation of trenches in wet periods be dug and backfilled in short sections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D7b	Is rainwater pumped out from trenches discharged into storm drains via silt system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D8	Are open stockpiles of construction materials e.g. aggregates and sand of more than 50m ³ on site covered with tarpaulin or similar fabric during rainstorms?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O

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D9a	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D9b	Are the discharges of surface run-off into foul sewer always prevented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10a	Are particular attention paid to the control of silty surface runoff during storm event ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10b	Are the precautions to be taken at any time of year when rainstorms are likely? (Appendix A2 of ProPECC PN 1/94) i. Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly. ii. Temporarily exposed slope surfaces should be cover by tarpaulin. iii. Temporary access roads should be protected by crushed stone or gravel. iv. Intercepting channels should be provided (e.g. along the crest/edge of excavation) to prevent storm runoff from washing across exposed soil surfaces. v. Trenches should be dug and backfilled in short sections. Measures should be taken to minimize the ingress of rainwater into trenches.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10c	Are the actions to be taken when a rainstorm is imminent or forecast ? (Appendix A2 of ProPECC PN 1/94) i. Silt removal facilities, channels and manholes should be checked to ensure that they can function properly. ii. Open stockpiles of construction materials (e.g. aggregates, sand and fill materials) on site should be covered with tarpaulin or similar fabric. iii. All temporary covers to slopes and stockpiles should be secured.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10d	Are the actions to be taken during or after rainstorms ? (Appendix A2 of ProPECC PN 1/94) i. 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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11a	Are all vehicles and plant cleaned before leaving a construction site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11b	Is the wheel washing bay provided at every site exit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11c	Are the vehicle wash-water have sand and silt settled out and removed at least on a weekly basis?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11d	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11e	Is the section of construction road between the wheel washing bay and the public road paved with backfill?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11f	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D12a	Are oil interceptors provided in the site drainage system downstream of any oil/ fuel pollution sources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

D12b	Are the oil interceptors emptied and cleaned regularly to prevent the release of O&G into the storm water drainage system after accidental spillage?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D12c	Has a bypass provided to prevent flushing during heavy rain?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D13	Are the construction solid waste, debris and rubbish on site collected, handled and disposed of properly? (same with waste item)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D14	Are all fuel tanks and storage areas provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D15	Is Intercepting bund or barrier along the roadside constructed to prevent pollution risk arising from work area (waste reception area)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D16	Are site drainage systems provided over the entire project site with sediment control facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D17	Are sedimentation tanks provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D18	Is there any sediment plume observed in nearby watercourses?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Sewage Effluent from Workforce (On-site sanitary facilities)					
D19a	Are portable chemical toilets and sewage holding tanks provided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D19b	Is the sewage generated from toilets collected by licensed contractor and responsible for disposal and maintenance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D20	Are the notices posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
Accidental Spillage of Chemical (Service workshop and maintenance facilities)					
D21a	Are the service workshop and maintenance facilities located within a bunded area, and sumps and oil interceptors?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
D21b	Are all maintenance of equipment involving activities with potential for leakage and spillage undertaken within the areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
D21c	Is chemical leakage or spillages contained and cleaned up immediately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
Surface Water Drainage System					
D22a	Is the temporary surface water drainage system provided to manage runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D22b	Does the system consist of channel as constructed around the perimeter of the site area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D22c	Does the system collect surface water from the areas of higher elevations to those of lower elevations and ultimately to the discharge point?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D22d	Is the erosion minimised?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D23a	Does the system include the use of a silt fence around the soil stockpile areas to prevent sediment from entering the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D23b	Is the regular cleaning carried out to prevent blockage of the passage of waste flow in silt fence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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E	Waste / Chemical Management	N/A or Not Observed	Yes	No	Remarks / Photo
Waste Management					
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2a	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2b	Does accumulation of waste avoid?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2c	Is waste disposed regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2d	Regular waste collection by approved waste collector in purpose-built vehicles?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E3	Burning of refuse on construction site prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C&D Materials					
E4a	Are there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E4b	Are the C&D materials sorted and recycled on-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5a	Is the durable formwork or plastic facing for construction works used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5b	Do the wooden hoardings avoid to be used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5c	Is metal hoarding used to enhance the possibility of recycling?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6a	Are the concrete and masonry used as general fill ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6b	Are the steel reinforcement bars used by scrap steel mills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6c	Is the segregation and storage of C&D wastes undertaken in designated area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6d	Does the use of reusable steel formwork maximise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E7a	Are the temporary stockpiles maintained regularly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
E7b	Is the excavated fill material reused for backfilling and reinstatement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E8a	Are the excavated slope , stockpile material and bund walls covered by tarpaulin?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E8b	Are covering trucks or transporting wastes in enclosed containers when transportation of waste ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E8c	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E9	Is hydroseeding of the topsoil on the stockpile implemented to improve visual appearance and prevent soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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E10	Is the 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 implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E11	Are the training of site personnel for cleanliness, proper waste management procedures including chemical waste handling, and waste reduction, reuse and recycling concept implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E12	Are the regular cleaning and maintenance programme for drainage systems, sumps, oil interceptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E13a	Are wood , steel and other metals separated for re-use and/or recycling?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E13b	Do the excavated materials appear contaminated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
E13c	If suspected contaminated, appropriate procedures followed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A								
E14	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E15	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
Chemical Waste / Waste Oil													
E16	Are chemicals and waste oil recycled or disposed properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
Chemical Packaging													
E17a	Have the containers a capacity of <450 L unless the specification has been approved by EPD?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
E17b	Are the containers (holding, resistant to corrosion, maintained in a good condition, and securely closed) used for storage of chemical wastes ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
Chemical Labelling													
E18	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area? <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Capacity of Container</th> <th>Dimensions of Label</th> </tr> </thead> <tbody> <tr> <td>< 50L</td> <td>No less than 90 x 100mm</td> </tr> <tr> <td>50 to 450L</td> <td>No less than 120 x 150mm</td> </tr> <tr> <td>> 450L</td> <td>No less than 180 x 200mm</td> </tr> </tbody> </table>	Capacity of Container	Dimensions of Label	< 50L	No less than 90 x 100mm	50 to 450L	No less than 120 x 150mm	> 450L	No less than 180 x 200mm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Capacity of Container	Dimensions of Label												
< 50L	No less than 90 x 100mm												
50 to 450L	No less than 120 x 150mm												
> 450L	No less than 180 x 200mm												
Chemical Waste / Fuel Storage Area													
E19a	Are the storage area are clearly labelled and separated (if needed)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O								
E19b	Are the storage area enclosed 3 sides by walls/fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O								
E19c	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering and reduce heat from sunlight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O								

E19d	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
E20	Is chemical waste collected by licensed waste collectors and disposed of at licensed facility eg. Chemical Waste Treatment Centre?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Records					
E21	Is a licensed waste hauler used for waste collection ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E22	Are the records of quantities of wastes generated, recycled and disposed properly kept?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E23	For the demolition material / waste, is the number of loads for each day recorded as appropriate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

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F12	Is frequency and location of LFG monitoring within excavation area determined prior to commencement of works? *LFG monitoring in excavations should be conducted at < 10mm from exposed ground surface.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F13	For excavation works, Is LFG monitoring conducted (1) at ground surface prior to excavation, (2) immediately before workers entering excavations, (3) at the beginning of each half-day work, and (4) periodically throughout the working day when workers are in the excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F14	Are LFG monitoring conducted periodically when any cracks on ground level encountered on-site? *Appropriate action should be taken in accordance with the action plan in Table 7.6 of EIA Report.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F15a	Are LFG precautionary measures involved in excavation and pipng works provided in accordance with LFG Guidance Note and included in Safety Plan of construction phase?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F15b	Are temporary offices or buildings located where free LFG has been proven or raised clear of ground at a separation distance of at least 500mm?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F16	Is a Safety Officer trained in the use of gas detection equipment and LFG- related hazards present on-site throughout the groundwork phase? *The Safety Officer should be provided with an intrinsically safe portable instrument appropriately calibrated and capable of measuring the following gases: •CH ₄ : 0-100% and LEL: 0-100%/v •CO ₂ : 0-100% •O ₂ : 0-21%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17a	Periodically during groundwork construction, Is the works area monitored for CH ₄ CO ₂ and O ₂ using appropriately calibrated portable gas detection equipment? *The monitoring frequency and areas should be established prior to commencement of groundwork either by Safety Officer or appropriately qualified person.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17b	Is routine monitoring carried out in all excavations, manholes, created by temporary storage of building materials on-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17c	Are all measurements in excavations made with monitoring tube located < 10mm from exposed ground surface?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F18	For excavations > 1m, are measurements conducted? • At ground surface before excavation commences;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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	<ul style="list-style-type: none"> 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. 				
F19	For excavations 300mm to 1m, are measurements conducted? <ul style="list-style-type: none"> Directly after excavation has been completed; and Periodic all whilst excavation remains open. 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F20	For excavations < 300mm, are monitoring omitted at the discretion of Safety Officer or appropriately qualified person?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

G	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Is the work site confined within site boundaries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
G2	Is damage to surrounding areas avoided ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
G3	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Advanced screening tree planting					
G4a	Is early planting using fast growing plants and tall shrubs at strategic locations within site implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
G4b	Are the roadside planter and shrub planting implemented in front of Cheung Sha Temple ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Boundary Green Belt planting					
G5	Are the fast growing and fire-resistant plant species planted around the site perimeter?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Temporary landscape treatment as green surface cover					
G6	Are grass hydroseeding or synthetic covering material of green colour used as a temporary slope cover ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Existing tree preservation					
G7	Are existing and affected tree which identified as ecological significant preserved whenever possible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

H	Ecology	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Is transplantation of the important plant species implemented? Is post-transplantation maintained and monitored regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

I	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Environmental Complaint received during this week?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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

Follow up action for previous Site Inspection:




1. The slope protection is conducting in progress by contractor to minimize the high suspended solid surface runoff to treat by silt removal facilities & avoid it directly discharged to channel.
2. The cleaning work for accumulated sand and silt in the wheel washing bay at SBA was conducted by contractor.
3. The accumulated water in drip tray at Portion D was removed by contractor.

Observation(s):

1. The unrooting trees at Portion A was not covered by impervious sheeting and or placed in an area sheltered on the top and the 3 sides within a day of demolition.
2. The sand and soil near the channel at Portion E3-1 were found.

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



1. The contractor has been recommended that all demolished items (including trees) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides within a day of demolition
2. The contractor has been recommended to avoid the untreated surface runoff contaminated with related materials discharged to channel directly. All construction runoffs should be collected to silt removal facilities for treatment.



	Environmental Team's Representative:	Independent Environmental Checker's Representative:	Contractor's Representative:	Employee's Representative
Signature:		/		
Name:	Jason Man	/	Kristy Wong	Sylvia Ho
Date:	22 May 2023	/	22 May 2023	22 May 2023

PART I Follow-up status of the previous site inspection

Observation and Recommendation	Follow-up status
<p>03 April 2023</p>  <p>The exposed slope surface near the stream has been covered with impervious sheets as a temporary mitigation measure. Shotcrete will be applied to the exposed surface by the end of April to prevent surface runoff into channel in long term.</p>	 <p>The slope protection is conducting in progress by contractor to minimize the high suspended solid surface runoff to treat by silt removal facilities & avoid it directly discharged to channel.</p>
<p>2 May 2023</p>   <p>Water in the drip tray shall be cleared off at Portion A.</p>	<p>Waiting for Contractor's Input</p>



Observation and Recommendation	Follow-up status
<p data-bbox="134 465 248 495">8 May 2023</p>  <p data-bbox="134 1697 820 1753">Accumulated sand and silt shall be cleared off in the wheel washing bay at SBA.</p>	 <p data-bbox="852 1346 1538 1402">The cleaning work for accumulated sand and silt in the wheel washing bay at SBA was conducted by contractor.</p>

Observation and Recommendation	Follow-up status
<p data-bbox="132 248 248 275">8 May 2023</p>  <p data-bbox="132 949 823 1025">The Contractor has been reminded to cover the waste skip with impervious sheets during rainfall, to avoid accumulation of waste and to implement waste sorting.</p>	<p data-bbox="1050 624 1334 651">Waiting for Contractor's Input</p>
<p data-bbox="132 1050 248 1077">8 May 2023</p>  <p data-bbox="132 1718 823 1794">The Contractor has been reminded to ensure all silt removal facilities functioning properly for the upcoming rainfall and the discharged wastewater shall comply with WPCO requirement.</p>	<p data-bbox="1050 1408 1334 1435">Waiting for Contractor's Input</p>

Observation and Recommendation	Follow-up status
<p><u>15 May 2023</u></p>  <p>Observation: The accumulate of the uprooting of trees without covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides were found at the work area at SBA.</p>	<p>Waiting for Contractor's Input</p>
<p><u>15 May 2023</u></p>  <p>Observation: The accumulate water was found at the lower area at the Portion D. The contractor has been recommended that the surface water should be collected to silt removal facilities.</p>	<p>Waiting for Contractor's Input</p>

Observation and Recommendation	Follow-up status
<p data-bbox="134 244 261 271">15 May 2023</p>  <p data-bbox="134 1285 258 1312">Observation:</p> <p data-bbox="134 1330 823 1433">Accumulate water in drip tray was observed at Portion D. The contractor was recommended to keep cleaning the accumulated water in drip tray to minimize the large amount of potential chemical waste when the chemical leakage was found.</p>	 <p data-bbox="849 866 1461 918">The accumulated water in drip tray at Portion D was removed by contractor.</p> <p data-bbox="1050 978 1334 1005">Waiting for Contractor's Input</p>

PART II Observation and recommendation identified during the environmental site inspection

Observation and Recommendation	Follow-up status
 <p>Observation:</p> <ol style="list-style-type: none"> 1. The unrooting trees at Portion A was not covered by impervious sheeting and or placed in an area sheltered on the top and the 3 sides within a day of demolition. 	
 <p>Observation:</p> <ol style="list-style-type: none"> 2. The sand and soil near the channel at Portion E3-1 were found. The contractor was recommended to avoid the untreated surface runoff contaminated with related materials discharged to channel directly. All construction runoffs should be collected to silt removal facilities for treatment. 	

PART III Temporary surface water drainage system photo record during the environmental site inspection

<p>Photo 1 Portion D</p> 	<p>Photo 2 Portion A</p> 
<p>Photo 3 Portion B1</p> 	<p>Photo 4 Portion B1 Cut-off drain with silt fence at stockpile area</p> 
<p>Photo 5 Portion B1 Silt fence at stockpile area</p> 	<p>Photo 6 Portion B1 Silt fence at stockpile area</p> 



Inspection Date:	29 May 2023	Inspected By:	Andy Ng
Time:	14:00	Weather Condition:	Sunny
Participants:	Sylvia Ho (ER), Kristy Wong (Contractor) & Andy Ng (ET)		

A	Permits/Licenses	N/A or Not Observed	Yes	No	Remarks / Photo
A1	Are Environmental Permit, license/ other permit displayed at major site exit and vehicle access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A2	Are Construction Noise Permits/ Environmental license/ other permit available for inspection/posted at site entrance.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A3	Is wastewater discharge licence available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A4	Are trip tickets for chemical waste and construction waste disposal available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
A5	Are relevant licence/permit for disposal of construction waste or excavated materials available for inspection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

B	Air Quality	N/A or Not Observed	Yes	No	Remarks / Photo
B1	Is open burning avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B2	Are plant and equipment well maintained (i.e. without black smoke from powered plant)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B3	Any remedial action undertaken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B4	Are the worksites wetted with water regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B5	Are NRMM labels properly affixed on the PMEs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B6	Observed dust source(s)	<input type="checkbox"/> Wind erosion <input type="checkbox"/> Vehicle/ Equipment Movements <input type="checkbox"/> Loading/ unloading of materials <input checked="" type="checkbox"/> Others: <u>Not Observed</u>			

Air Pollution Control (Construction Dust) Regulation**Part I Control Requirements for Notifiable Works****Demolition of building**

B7	Is the area involved demolition activities sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
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Construction of the superstructure of a building

B8	Is scaffolding erected around the perimeter of a building under construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
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B9	Are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the building, or a canopy provided from the first floor level up to the highest level of the scaffolding?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B10	Is the skip for materials transport enclosed by impervious sheeting ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Part III General Control Requirements					
Site boundary and entrance					
B11	Are wheel washing facilities with high pressure water jet provided at all site exits if practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B12	Are the areas of washing facilities and the road section between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B13	Are the hoarding $\geq 2.4\text{m}$ tall provided at the site boundary near a road, street, service lane or other area accessible to the public?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Assess road					
B14	Are every main haul road (having a vehicle passing rate of higher than 4 in any 30 minutes) paved with concrete, bituminous materials, hardcores or metal plates, and kept clear of dusty materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B15	Are every main haul road sprayed with water or a dust suppression chemical?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B16	Is the portion of any road leading only to construction site (within 30m of a vehicle entrance or exit) kept clear of dusty materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Observation 1
B17	Are appropriate speed limit sign displayed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B18	Is unpaved main haul road wet by water spraying?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Cement and dry pulverized fuel ash (PFA)					
B19	Is every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
B20	Are the activities of loading, unloading, transfer, handing or storage of bulk cement or dry PFA carried out in a totally enclosed system or facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B21	Is any vent or exhaust fitted with an effective fabric filter or equipment air pollution control system ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Exposed earth					
B22	Is the exposed earth properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabilizer within 6 months after last construction activity on the construction site or part of the construction site where the exposed earth lies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Part IV Control Requirements for Individual Activities					
Stockpiling of dusty materials					
B23	Are the stockpiling of dusty materials (a) covered entirely by impervious sheeting or (b) placed in an area sheltered on the top and the 3 sides or (c) sprayed with water or a dust suppression chemical to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B24	Is the stockpile of dusty materials avoid to be extend beyond the pedestrian barriers, fencing or traffic cones ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Loading, unloading or transfer of dusty materials					
B25	Are all dusty materials sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B26	Are all trucks loaded to a level within the side and tail boards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Use of vehicles					
B27	Are every vehicle washed immediately to remove any dusty materials from its body and wheels before leaving a construction site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B28	Are loaded dump trucks covered by impervious sheeting appropriately before leaving the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B29	Are site vehicle movements confined to designated roads?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Pneumatic or power-driven drilling, cutting and polishing					
B30	Are surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operations takes place sprayed with water or a dust suppression chemical continuously? *Unless the process is accompanied by the operation of an effective dust extraction and filtering device.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Debris handling					
B31	Are any debris covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B32	Are every debris chute shall be enclosed by impervious sheeting or similar materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
B33	Are the watering spray or a dust suppression chemical conducted before debris is dumped into a debris chute?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

Excavation or earth moving					
B34	Are the working area of any excavation or earth moving operation sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Site clearance					
B35	Are the working area for the uprooting of trees, shrubs, or vegetation or for the removal of boulders, poles, pillars or temporary or permanent structures sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
B36	Are all demolished items (including trees, shrubs, vegetation, boulders, poles, pillars, structures, debris, rubbish and other items arising from site clearance) that may dislodge dust particles covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides within a day of demolition?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Refer to Observation 3

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 3)

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

D	Water Quality	N/A or Not Observed	Yes	No	Remarks / Photo
Construction Runoff					
D1a	At the start of site establishment, are perimeter cut-off drains constructed to direct off-site water around the site with internal drainage works and erosion and sedimentation control facilities implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D1b	Are channels, earth bunds or sandbag barriers provided on site to properly direct stormwater to silt removal facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2a	Have dikes or embankments for flood protection implemented around the boundaries of earthwork areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2b	Have temporary ditches provided to facilitate the runoff discharge into an appropriate watercourse, through a site/ sediment trap?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D2c	Are the sediment/ silt traps incorporated in the permanent drainage channels to enhance deposition rate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D3	Are the retention time for silt/s and traps of the silt removal facilities be 5 minutes under maximum flow conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4a	Are surface excavation works minimised during rainy seasons (April to September), as possible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4b	Are all exposed earth areas completed or vegetated as soon as possible after earthworks completed, or alternatively, within 14 days of the cessation of earthworks where practicable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D4c	Are exposed slope surfaces covered by tarpaulin sheets?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	To be treated with shotcrete at part of slope surface. Refer to Observation 2
D5a	Have the overall slope of the site should be kept a minimum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D5b	Are all trafficked areas and access roads protected by coarse stone ballast?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6a	Are all drainage facilities and erosion and sediment control structures inspected regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6b	Are all drainage facilities and erosion and sediment control structures maintained to ensure proper and efficient operation at all times and particularly following rainstorms?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D6c	Is the deposited silt and grit removed regularly and disposed of by spreading evenly over stable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D7a	Have the excavation of trenches in wet periods be dug and backfilled in short sections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D7b	Is rainwater pumped out from trenches discharged into storm drains via silt system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D8	Are open stockpiles of construction materials e.g. aggregates and sand of more than 50m ³ on site covered with tarpaulin or similar fabric during rainstorms?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O

D9a	Are manholes adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D9b	Are the discharges of surface run-off into foul sewer always prevented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10a	Are particular attention paid to the control of silty surface runoff during storm event ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10b	Are the precautions to be taken at any time of year when rainstorms are likely? (Appendix A2 of ProPECC PN 1/94) i. Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly. ii. Temporarily exposed slope surfaces should be cover by tarpaulin. iii. Temporary access roads should be protected by crushed stone or gravel. iv. Intercepting channels should be provided (e.g. along the crest/edge of excavation) to prevent storm runoff from washing across exposed soil surfaces. v. Trenches should be dug and backfilled in short sections. Measures should be taken to minimize the ingress of rainwater into trenches.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10c	Are the actions to be taken when a rainstorm is imminent or forecast ? (Appendix A2 of ProPECC PN 1/94) i. Silt removal facilities, channels and manholes should be checked to ensure that they can function properly. ii. Open stockpiles of construction materials (e.g. aggregates, sand and fill materials) on site should be covered with tarpaulin or similar fabric. iii. All temporary covers to slopes and stockpiles should be secured.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D10d	Are the actions to be taken during or after rainstorms ? (Appendix A2 of ProPECC PN 1/94) i. 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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11a	Are all vehicles and plant cleaned before leaving a construction site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11b	Is the wheel washing bay provided at every site exit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11c	Are the vehicle wash-water have sand and silt settled out and removed at least on a weekly basis?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11d	Is the wheel wash overflow directed to silt removal facilities before being discharged to the storm drain?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11e	Is the section of construction road between the wheel washing bay and the public road paved with backfill?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D11f	Is the treated wastewater reused for vehicle washing, dust suppression and general cleaning ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D12a	Are oil interceptors provided in the site drainage system downstream of any oil/ fuel pollution sources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A

D12b	Are the oil interceptors emptied and cleaned regularly to prevent the release of O&G into the storm water drainage system after accidental spillage?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
D12c	Has a bypass provided to prevent flushing during heavy rain?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D13	Are the construction solid waste, debris and rubbish on site collected, handled and disposed of properly? (same with waste item)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D14	Are all fuel tanks and storage areas provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D15	Is Intercepting bund or barrier along the roadside constructed to prevent pollution risk arising from work area (waste reception area)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D16	Are site drainage systems provided over the entire project site with sediment control facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D17	Are sedimentation tanks provided to treat the large amount of sediment-laden wastewater generated from wheel washing, site runoff and construction works?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D18	Is there any sediment plume observed in nearby watercourses?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Sewage Effluent from Workforce (On-site sanitary facilities)					
D19a	Are portable chemical toilets and sewage holding tanks provided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D19b	Is the sewage generated from toilets collected by licensed contractor and responsible for disposal and maintenance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D20	Are the notices posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
Accidental Spillage of Chemical (Service workshop and maintenance facilities)					
D21a	Are the service workshop and maintenance facilities located within a bunded area, and sumps and oil interceptors?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
D21b	Are all maintenance of equipment involving activities with potential for leakage and spillage undertaken within the areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
D21c	Is chemical leakage or spillages contained and cleaned up immediately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
Surface Water Drainage System					
D22a	Is the temporary surface water drainage system provided to manage runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D22b	Does the system consist of channel as constructed around the perimeter of the site area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D22c	Does the system collect surface water from the areas of higher elevations to those of lower elevations and ultimately to the discharge point?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D22d	Is the erosion minimised?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
D23a	Does the system include the use of a silt fence around the soil stockpile areas to prevent sediment from entering the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

D23b	Is the regular cleaning carried out to prevent blockage of the passage of waste flow in silt fence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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E	Waste / Chemical Management	N/A or Not Observed	Yes	No	Remarks / Photo
Waste Management					
General Waste					
E1	Is the general waste generated on-site stored in enclosed bins or compaction units separately from the construction and chemical wastes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2a	Is the general waste collected properly by using the waste separation facilities for paper, aluminium cans, plastic bottles etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2b	Does accumulation of waste avoid?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2c	Is waste disposed regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E2d	Regular waste collection by approved waste collector in purpose-built vehicles?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E3	Burning of refuse on construction site prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
C&D Materials					
E4a	Are there any contract documents provided to allow and promote the use of recycled aggregates where appropriate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E4b	Are the C&D materials sorted and recycled on-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5a	Is the durable formwork or plastic facing for construction works used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5b	Do the wooden hoardings avoid to be used?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5c	Is metal hoarding used to enhance the possibility of recycling?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6a	Are the concrete and masonry used as general fill ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6b	Are the steel reinforcement bars used by scrap steel mills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6c	Is the segregation and storage of C&D wastes undertaken in designated area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E6d	Does the use of reusable steel formwork maximise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E7a	Are the temporary stockpiles maintained regularly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A
E7b	Is the excavated fill material reused for backfilling and reinstatement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E8a	Are the excavated slope , stockpile material and bund walls covered by tarpaulin?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E8b	Are covering trucks or transporting wastes in enclosed containers when transportation of waste ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E8c	Are waste storage area properly cleaned and do not cause windblown litter and dust nuisance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E9	Is hydroseeding of the topsoil on the stockpile implemented to improve visual appearance and prevent soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

E10	Is the 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 implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E11	Are the training of site personnel for cleanliness, proper waste management procedures including chemical waste handling, and waste reduction, reuse and recycling concept implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E12	Are the regular cleaning and maintenance programme for drainage systems, sumps, oil interceptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E13a	Are wood , steel and other metals separated for re-use and/or recycling?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E13b	Do the excavated materials appear contaminated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
E13c	If suspected contaminated, appropriate procedures followed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A								
E14	Is the disposal of C&D materials avoided onto any sensitive locations e.g. agricultural lands etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
E15	Are the public fill and C&D waste segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
Chemical Waste / Waste Oil													
E16	Are chemicals and waste oil recycled or disposed properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
Chemical Packaging													
E17a	Have the containers a capacity of <450 L unless the specification has been approved by EPD?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
E17b	Are the containers (holding, resistant to corrosion, maintained in a good condition, and securely closed) used for storage of chemical wastes ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
Chemical Labelling													
E18	Is chemical waste or waste oil stored and labelled in English and Chinese properly in designated area? <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Capacity of Container</th> <th>Dimensions of Label</th> </tr> </thead> <tbody> <tr> <td>< 50L</td> <td>No less than 90 x 100mm</td> </tr> <tr> <td>50 to 450L</td> <td>No less than 120 x 150mm</td> </tr> <tr> <td>> 450L</td> <td>No less than 180 x 200mm</td> </tr> </tbody> </table>	Capacity of Container	Dimensions of Label	< 50L	No less than 90 x 100mm	50 to 450L	No less than 120 x 150mm	> 450L	No less than 180 x 200mm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Capacity of Container	Dimensions of Label												
< 50L	No less than 90 x 100mm												
50 to 450L	No less than 120 x 150mm												
> 450L	No less than 180 x 200mm												
Chemical Waste / Fuel Storage Area													
E19a	Are the storage area are clearly labelled and separated (if needed)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O								
E19b	Are the storage area enclosed 3 sides by walls/fence of ≥2m tall and bounded with adequate bund capacity (>110% of largest container) or do the storage area allow storage of 20% of total volume of waste ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O								
E19c	Do the storage areas have adequate ventilation and be covered to prevent rainfall entering and reduce heat from sunlight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O								

E19d	Are the fuel tanks and chemical storage areas provided with locks and sited on sealed areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/O
E20	Is chemical waste collected by licensed waste collectors and disposed of at licensed facility eg. Chemical Waste Treatment Centre?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Records					
E21	Is a licensed waste hauler used for waste collection ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E22	Are the records of quantities of wastes generated, recycled and disposed properly kept?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E23	For the demolition material / waste, is the number of loads for each day recorded as appropriate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

(Construction Phase)

Environmental Site Inspection Checklist (Rev. 3)

F12	Is frequency and location of LFG monitoring within excavation area determined prior to commencement of works? *LFG monitoring in excavations should be conducted at < 10mm from exposed ground surface.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F13	For excavation works, Is LFG monitoring conducted (1) at ground surface prior to excavation, (2) immediately before workers entering excavations, (3) at the beginning of each half-day work, and (4) periodically throughout the working day when workers are in the excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F14	Are LFG monitoring conducted periodically when any cracks on ground level encountered on-site? *Appropriate action should be taken in accordance with the action plan in Table 7.6 of EIA Report.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F15a	Are LFG precautionary measures involved in excavation and pipng works provided in accordance with LFG Guidance Note and included in Safety Plan of construction phase?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F15b	Are temporary offices or buildings located where free LFG has been proven or raised clear of ground at a separation distance of at least 500mm?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F16	Is a Safety Officer trained in the use of gas detection equipment and LFG- related hazards present on-site throughout the groundwork phase? *The Safety Officer should be provided with an intrinsically safe portable instrument appropriately calibrated and capable of measuring the following gases: •CH ₄ : 0-100% and LEL: 0-100%/v •CO ₂ : 0-100% •O ₂ : 0-21%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17a	Periodically during groundwork construction, Is the works area monitored for CH ₄ CO ₂ and O ₂ using appropriately calibrated portable gas detection equipment? *The monitoring frequency and areas should be established prior to commencement of groundwork either by Safety Officer or appropriately qualified person.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17b	Is routine monitoring carried out in all excavations, manholes, created by temporary storage of building materials on-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F17c	Are all measurements in excavations made with monitoring tube located < 10mm from exposed ground surface?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F18	For excavations > 1m, are measurements conducted? • At ground surface before excavation commences;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

	<ul style="list-style-type: none"> 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. 				
F19	For excavations 300mm to 1m, are measurements conducted? <ul style="list-style-type: none"> Directly after excavation has been completed; and Periodic all whilst excavation remains open. 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
F20	For excavations < 300mm, are monitoring omitted at the discretion of Safety Officer or appropriately qualified person?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

G	Landscape and Visual Impacts	N/A or Not Observed	Yes	No	Remarks / Photo
G1	Is the work site confined within site boundaries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
G2	Is damage to surrounding areas avoided ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
G3	Are the protective fencing erected along or beyond the perimeter of the tree protection zone of each individual tree?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Advanced screening tree planting					
G4a	Is early planting using fast growing plants and tall shrubs at strategic locations within site implemented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
G4b	Are the roadside planter and shrub planting implemented in front of Cheung Sha Temple ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Boundary Green Belt planting					
G5	Are the fast growing and fire-resistant plant species planted around the site perimeter?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Temporary landscape treatment as green surface cover					
G6	Are grass hydroseeding or synthetic covering material of green colour used as a temporary slope cover ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Existing tree preservation					
G7	Are existing and affected tree which identified as ecological significant preserved whenever possible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

H	Ecology	N/A or Not Observed	Yes	No	Remarks / Photo
H1	Is transplantation of the important plant species implemented? Is post-transplantation maintained and monitored regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

I	Environmental Complaint	N/A or Not Observed	Yes	No	Remarks / Photo
I1	Environmental Complaint received during this week?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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

Follow up action for previous Site Inspection:

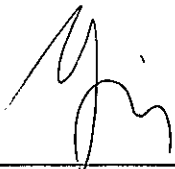
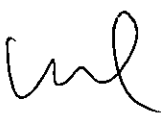

1. The slope protection in Portion E3-1 is conducting in progress by contractor to minimize the high suspended solid surface runoff to treat by silt removal facilities & avoid it directly discharged to channel.
2. The silt removal facilities in Portion E3-1 were monitored and maintained in good condition by Contractor.
3. The accumulation of the uprooting of trees in SBA are continuously removed by the Contractor.
4. The accumulate water was diverted to the silt removal facilities at Portion D.
5. The accumulated water in drip tray at Portion D was removed by contractor.
6. The unrooting trees at Portion A was removed by contractor.
7. The sand and soil near the channel at Portion E3-1 was removed by contractor.
- 8.

Observation(s):

1. Portion of road leading to Portion A and Portion B2 shall be kept clear of dusty and muddy materials.
2. Slope protection work in Portion A shall be maintained properly to minimize dust dispersion and surface runoff.
3. The accumulated uprooting trees is found behind the wetsep in Portion B2.

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

1. The Contractor has been reminded to clear dusty and muddy material on the portion of road leading to Portion A and Portion B2.
2. The Contractor has been reminded to apply surface protection on the exposed slope in Portion A.
3. The accumulated uprooting trees shall be covered with impervious sheets, placed in an area sheltered on the top and the 3 sides or disposed properly.


	Environmental Team's Representative:	Independent Environmental Checker's Representative:	Contractor's Representative:	Employee's Representative
Signature:		/		
Name:	Andy Ng	/	Kristy Wong	Sylvia Ho
Date:	29 May 2023	/	29 May 2023	29 May 2023

PART I Follow-up status of the previous site inspection

Observation and Recommendation	Follow-up status
<p>03 April 2023</p>  <p>The exposed slope surface near the stream has been covered with impervious sheets as a temporary mitigation measure. Shotcrete will be applied to the exposed surface by the end of April to prevent surface runoff into channel in long term.</p>	 <p>The slope protection in Portion E3-1 is conducting in progress by contractor to minimize the high suspended solid surface runoff to treat by silt removal facilities & avoid it directly discharged to channel.</p>
<p>2 May 2023</p>   <p>Water in the drip tray shall be cleared off at Portion A.</p>	<p>Waiting for Contractor's Input</p>

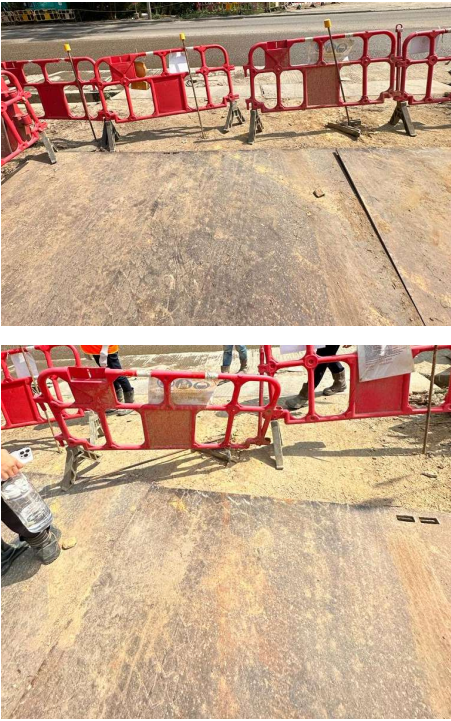


Observation and Recommendation	Follow-up status
<p>8 May 2023</p>  <p>The Contractor has been reminded to cover the waste skip with impervious sheets during rainfall, to avoid accumulation of waste and to implement waste sorting.</p>	<p>Waiting for Contractor's Input</p>
<p>8 May 2023</p>  <p>The Contractor has been reminded to ensure all silt removal facilities functioning properly for the upcoming rainfall and the discharged wastewater shall comply with WPCO requirement.</p>	 <p>The silt removal facilities in Portion E3-1 were monitored and maintained in good condition by contractor.</p>

Observation and Recommendation	Follow-up status
<p>15 May 2023</p>  <p>Observation:</p> <p>The accumulate of the uprooting of trees without covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides were found at the work area at SBA.</p>	 <p>The accumulate of the uprooting of trees in SBA are continuously removed by contractor.</p>
<p>15 May 2023</p>  <p>Observation:</p> <p>The accumulate water was found at the lower area at the Portion D. The contractor has been recommended that the surface water should be collected to silt removal facilities.</p>	 <p>The accumulate water was diverted to the silt removal facilities at Portion D.</p>

Observation and Recommendation	Follow-up status
<p data-bbox="132 244 261 271">15 May 2023</p>   <p data-bbox="132 1346 256 1373">Observation:</p> <p data-bbox="132 1391 823 1496">Accumulate water in drip tray was observed at Portion D. The contractor was recommended to keep cleaning the accumulated water in drip tray to minimize the large amount of potential chemical waste when the chemical leakage was found.</p>	  <p data-bbox="849 1321 1535 1373">The accumulated water in drip tray at Portion D was removed by contractor.</p>

Observation and Recommendation	Follow-up status
 <p><u>22 May 2023</u></p> <p>Observation:</p> <p>The unrooting trees at Portion A was not covered by impervious sheeting and or placed in an area sheltered on the top and the 3 sides within a day of demolition.</p>	 <p>The unrooting trees at Portion A was removed by contractor.</p>
 <p><u>22 May 2023</u></p> <p>Observation:</p> <p>The sand and soil near the channel at Portion E3-1 were found. The contractor was recommended to avoid the untreated surface runoff contaminated with related materials discharged to channel directly. All construction runoffs should be collected to silt removal facilities for treatment.</p>	 <p>The sand and soil near the channel at Portion E3-1 was removed by contractor.</p>

PART II Observation and recommendation identified during the environmental site inspection

Observation and Recommendation	Follow-up status
<p><u>Portion B2</u></p>  <p><u>Portion A</u></p>  <p>1. Portion of road leading to Portion A and Portion B2 shall be kept clear of dusty and muddy materials.</p>	<p><u>Portion B2</u></p>  <p>The entrance / exit at Portion B2 was cleaned by contractor.</p> <p><u>Portion A</u></p> <p>Waiting for Contractor's Input</p>



Waiting for Contractor's Input

2. Slope protection work in Portion A shall be maintained properly to minimize dust dispersion and surface runoff.



Waiting for Contractor's Input

3. The accumulated uprooting trees is found behind the wetsep in Portion B2.

PART III Temporary surface water drainage system photo record during the environmental site inspection




<p>Photo 1 Portion A</p> 	<p>Photo 2 Portion A</p> 
<p>Photo 3 Portion A</p> 	<p>Photo 4 Portion A</p> 

Photo 5 Portion B2 Silt removal facilities	Photo 6 Portion B1
	
Photo 7 Portion B1	Photo 8 Portion B1
	

<p>Photo 9 Portion B1</p>	<p>Photo 10 Portion B1 Silt fence at stockpile area</p>
	
<p>Photo 11 Portion B1 Sediment basin</p>	<p>Photo 12 Portion B1 Drainage system</p>
	

<p>Photo 13 Portion B1 Silt fence</p>	<p>Photo 14 Portion B1 Cut-off drain with silt fence</p>
	
<p>Photo 15 Portion E3 Silt removal facilities</p>	
	

Appendix K Environmental Mitigation Implementation Schedule (EMIS)

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

EIA Ref.	EM&A Log Ref.	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Air Quality							
S3.8.1	S3.1.8	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation. <ul style="list-style-type: none"> 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. 	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	Entire NENT Landfill Extension site	To control the dust impact to within the HKAQO and TM - EIA criteria (Ref. 1-hr and 24hr TSP levels are 500 $\mu\text{g}/\text{m}^3$ and 260 $\mu\text{g}/\text{m}^3$, respectively)	✓
Construction Noise							
S4	S4.9	1) Use of good site practices to limit noise emissions by considering the following: <ul style="list-style-type: none"> 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 office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 	Control construction airborne noise by means of good site practices	Contractor	Entire construction site	Noise Control Ordinance	✓
S4	S4.9	2) Select "Quiet plants" which comply with the BS 5228 Part 1 or TM standards.	Reduce the noise levels of plant items	Contractor	Entire construction site	Noise Control Ordinance & its TM Annex 5, TM-EIA	✓

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

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Construction Runoff							
S5.8.1	S5.2.1	<p>Construction on Site Runoff</p> <ul style="list-style-type: none"> At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silts and sediment traps should be 5 minutes under maximum flow conditions. Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means. The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows, and all traffic areas and access roads protected by coarse stone ballast. An additional advantage accruing from the use of crushed stone is the positive traction gained during prolonged periods of inclement weather and the reduction of surface sheet flows. All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. 	Control construction runoff and erosion from site surface, drainage channel, stockpiles, wheel washing facilities, etc to minimize water quality during construction stage	Contractor	Entire construction site	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

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

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Construction Runoff (Cont'd)							
S5.8.1	S5.2.1	<ul style="list-style-type: none"> Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50 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. Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes. All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing bay should be provided at every construction site exit. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. Oil interceptors should be provided in the site drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. 	Control construction runoff and erosion from site surface, drainage channel, stockpiles, wheel washing facilities, etc to minimize water quality during construction stage	Contractor	Entire Construction site	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

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

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Construction Runoff							
S5.8.1	S5.2.1	<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. All fuel tanks and storage areas should be provided with docks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. To prevent pollution risks arising from works area (waste reception area) and haul roads, intercepting bund or barrier along the roadside should be constructed. 	Control construction runoff and erosion from site surface, drainage channel, stockpiles, wheel washing facilities, etc to minimize water quality during construction stage	Contractor	Entire construction site	ProPECC PN 1/94 Water Pollution Control Ordinance	✓
S5.8.1	S5.2.1	<p><u>Sewage Effluent from Workforce</u></p> <ul style="list-style-type: none"> Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance. Notices will be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on the construction site can provide an effective control of any malpractices and can achieve continual improvement of environmental performance on site. 	Control sewage effluent arising from the sanitary facilities provided for the on-site construction workforce	Contractor	On-site sanitary facilities	ProPECC PN 1/94 Water Pollution Control Ordinance Waste Disposal Ordinance	✓
S5.8.1	S5.2.1	<p><u>Accidental Spillage of Chemical</u></p> <p>Any service workshop and maintenance facilities shall be located within a bunded area, and sumps and oil interceptors shall be provided. Maintenance of equipment involving activities with potential for leakage and spillage will only be undertaken within the areas.</p>	Control of chemical leakage	Contractor	Service workshop and maintenance facilities	ProPECC PN 1/94 Water Pollution Control Ordinance Waste Disposal Ordinance	✓

North East New Territories (NENT) Landfill Extension
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Erosion Control Measures							
S5.8.2	S5.2.2	<p><u>Erosion Control /Measures</u></p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	Erosion control	Contractor	Drainage system	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

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Erosion Control Measures							
S5.8.2	S5.2.2	<p>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.</p> <p>f. Sod Establishes permanent turf for immediate erosion protection and stabilizes rainageways.</p> <p>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.</p> <p>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.</p> <p>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.</p>	Erosion control	Contractor	Drainage system	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

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Surface Water Drainage System							
S5.8.2	S5.2.2	<p>Temporary surface water drainage system will be provided to manage runoff during construction and operation. This system will consist of channels as constructed around the perimeter of the site area. This system will collect surface water from the areas of higher elevations to those of lower elevations and ultimately to the point of discharge. Erosion will therefore be minimised.</p> <p>The temporary surface water drainage system will include the use of a silt fence around the soil stockpile areas to prevent sediment from entering the system. Regular cleaning will be carried out to prevent blockage of the passage of water flow in silt fence.</p> <p>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.</p> <p>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.</p>	Surface Water Management/ Control run off	Contractor	Surface water system Construction	Water Pollution Control Ordinance TM-water	✓

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Waste Management							
S6	WM1	<p><u>C&D Materials</u></p> <p>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.</p> <p>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.</p> <p>Appropriate waste management should be implemented in accordance with the ETWB TC(W) No. 19/2005.</p> <p>Make provisions in Contract documents to allow and promote the use of recycled aggregates where appropriate. Ensure material balance in terms of excavated C&D materials in the design of NENT landfill extension project. The contract specifications should specify no excavated materials should be removed from the landfill extension site, but should be fully reused.</p> <p>Careful design, planning and good site management to minimise over-ordering and waste materials such as concrete, mortars and cement grouts. The design of formwork should maximise the use of standard wooden panels so that high reuse levels can be achieved. Alternatives such as steel formwork or plastic fencing should be considered to increase the potential for reuse.</p> <p>The Contractor should recycle as much as possible the C&D waste on-site through proper waste segregation on-site. Concrete and masonry should be used as general fill and steel reinforcement bars can be used by scrap steel mills. Proper areas should be designated for waste segregation and storage wherever site conditions permit. Maximise the use of reusable steel formwork to reduce the amount of C&D material.</p> <p>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.</p>	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	✓

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S6	WM1	<p><u>C&D Materials (Cont'd)</u> Excavated slope, stockpiled material and bund walls should be covered by tarpaulin until used in order to prevent wind-blown dust during dry weather, and to reduce muddy runoff during wet weather. Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.</p> <p>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.</p> <p>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.</p> <p>Training of site personnel for cleanliness, proper waste management procedures including chemical waste handling, and waste reduction, reuse and recycling concepts.</p> <p>Regular cleaning and maintenance programme systems, sumps and oil interceptors. Prior to disposal of C&D waste, wood, steel and other metals should be separated for re-use and/or recycling to minimise the quantity of waste to be disposed of to landfill. Proper storage and site practices should be implemented to minimise the potential for damage or contamination of construction materials.</p> <p>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.</p>	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	<p>Waste Disposal Ordinance</p> <p>ETWB TC(W) No. 19/2005</p> <p>DEVB TC(W) No. 6/2010</p>	✓
S6	WM2	<p><u>Chemical Waste</u> Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.</p> <p>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</p>	Ensure proper disposal of chemical waste generated on-site to minimise the associated hazards on human health and environment	Contractor	Entire construction site	<p>Waste Disposal (Chemical Waste) General Regulation</p> <p>Code of Practice on the Packaging, Labelling and Storage of Chemical Waste</p>	✓

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S6	WM2	<p><u>Chemical Waste (Cont'd)</u> Containers used for storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulation.</p> <p>The storage area for chemical wastes should be clearly labelled and used solely for storage of chemical waste, enclosed with at least 3 sides, having an impermeable floor and bund of sufficient capacity to accommodate 110% of volume of the largest container or 20 % of total volume of waste stored in that area, whichever is the greatest, having adequate ventilation, being covered to prevent rainfall entering, and being arranged so that incompatible materials are adequately separated.</p> <p>Chemical waste should be collected by licensed waste collectors and disposed of at licensed facility, e.g. Chemical Waste Treatment Centre.</p>	Ensure proper disposal of chemical waste generated on-site to minimise the associated hazards on human health and environment.	Contractor	Entire construction site	<p>Waste Disposal (Chemical Waste) General Regulation</p> <p>Code of Practice on the Packaging, Labelling and Storage of Chemical Waste</p>	✓
S6	WM3	<p><u>General Refuse</u> General refuse generated on-site should be properly stored in enclosed bins or compaction units separately from construction and chemical wastes.</p> <p>All recyclable materials (separated from the general waste) should be stored on-site in appropriate containers with cover prior to collection by a local recycler for subsequent reuse and recycling. Residual, non-recyclable, general waste should be stored in appropriate containers to avoid odour. Regular collection should be arranged by an approved waste collector in purpose-built vehicles that minimise environmental impacts during transportation</p> <p>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.</p> <p>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.</p>	Minimise generation of general refuse to avoid odour, pest and visual nuisance	Contractor	Entire construction site	Waste Disposal Ordinance	✓

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S6	WM3	<u>General Refuse (Cont'd)</u> Office waste paper should be recycled if the volume warrants collection by recyclers. Participation in community waste paper recycling programme should be considered by the Contractor, including waste paper, aluminium cans, plastic bottles, waste batteries, etc.	Minimise generation of general refuse to avoid odour, pest and visual nuisance	Contractor	Entire construction site	Waste Disposal Ordinance	✓

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

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

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Within NENT Landfill Extension (Cont'd)							
S7	LFG18	For excavations deeper than 1m, measurements should be conducted: <ul style="list-style-type: none"> At ground surface before excavation commences; Immediately before any worker enters the excavation; At the beginning of each working day for entire period the excavation remains open; and Periodically throughout the working day whilst workers are in excavation. 	To minimise the risk of LFG hazards to personnel in construction site	Contractor	Entire construction site	Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97) F&IU (Confined Spaces) Regulations Code of Practice on Safety and Health at Work in Confined Spaces	✓
S7	LFG19	For excavations between 300mm and 1m, measurements should be conducted: <ul style="list-style-type: none"> Directly after excavation has been completed; and Periodic all whilst excavation remains open. 					✓
S7	LFG20	For excavations less than 300mm, monitoring may be omitted at the discretion of Safety Officer or appropriately qualified person.					✓

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Landscape and Visual Phases							
S8	LV1	<u>Advanced screening tree planting</u> <ul style="list-style-type: none"> Early planting using fast growing trees and tall shrubs at strategic locations within site to block major view corridors to the site from the VSRs, and to locally screen haul roads, excavation works and site preparation works. Roadside planter and shrub planting design in front of Cheung Shan Temple. 	To minimise the impact on existing vegetation retained by personnel in construction To provide initiation on permanent landscape and visual mitigation measures	Contractor	Entire construction site	DEVB TC(W) No. 4/2020 - Tree Preservation DEVB TC(W)) No. 6/2015 - Maintenance of Vegetation and Hard Landscape Features DEVB TC(W) No. 6/2011 - Maintenance of Man-made Slopes and Emergency Repair on Stability of Land	Advanced screen tree planting is under planning.
S8	LV2	<u>Boundary Green Belt planting</u> <ul style="list-style-type: none"> Considerable planting belts proposed around the site perimeter and the construction of temporary soil bunds will screen the landfill operations to a certain degree. Fast growing and fire resistant plant species will be used. 					To be implemented during operation phase
S8	LV3	<u>Temporary landscape treatment as green surface cover</u> <ul style="list-style-type: none"> For certain areas where landfilling operations would have to be suspended temporarily for periods of years, simple temporary landscape treatment such as hydroseeding should be considered. During construction and operational phases, grass hydroseeding or synthetic covering material of green colour should also be used as a temporary slope cover if applicable. 					Grass hydroseeding will be applied at Portion E3-2.
S8	LV4	<u>Existing tree preservation</u> <ul style="list-style-type: none"> 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) Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, EPD (1992) ETWB TC(W) No. 33/2002 Management of Construction and Demolition Material Including Rock DEVB TC(W) No. 6/2010 Trip Ticket System for Disposal of Construction and Demolition Materials ETWB TC(W)No.19/2005 Environmental Management on Construction Sites	✓
S10	E2	Reinstatement of the work areas immediately after completion of the works.					✓
S10	E3	Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme.					✓
S10	E4	Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.					✓
S10	E5	Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs.					✓
S10	E6	Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works.					To be implemented
S10	E7	Mobile plant should be sited as far away from NSRs as possible and practicable.					✓
S10	E8	Material stockpiles, site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.					✓
S10	E9	Use of "quiet" plant and working methods.					✓
S10	E10	Construction phase mitigation measures in the Practice Note for Professional Persons on Construction Site Drainage.					✓

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Ecology							
General Protection Measures:							
S10	E11	Design and set up of the temporary on-site drainage system will be undertaken by the contractor prior to the commencement of construction.	To minimise environmental impacts and therefore potential ecological impacts within and near the construction site	Contractor	Entire construction	WBTC No. 12/2002, Specifications Facilitating the Use of Recycled Aggregates WBTC Nos. 25/99,25/99A and 25/99C. Incorporation of Information on Construction and Demolition Material Management in Public Works Subcommittee Papers	✓
S10	E12	Design and incorporation of silt/sediment traps in the permanent drainage channels to enhance deposition rates and regular removal of repositied silt and grit.					✓
S10	E13	Minimization of surface excavation works during the rainy seasons (April to September), and in particular,control of silty surface runoff during storm events, especially for areas located near steep slopes.					✓
S10	E14	Regular inspection and maintenance of all drainage facilities and erosion and sediment control structures to ensure proper and efficient operation at all times and particularly following rainstorms.					✓
S10	E15	Provision of oil interceptors in the drainage system downstream of any oil/fuel pollution sources					✓

Appendix L Construction Site Activities

Construction Activities	Photos	When	Where	Who	What - ENV Impacts	Mitigation Measures
Material loading and unloading, site traffic		Dec 22 to Dec 23	Portion A, SBA to Alternative Disposal Ground	PYE	Dust, bringing mud to the common haul road	Speed limit, covering of materials and water spraying, lorry washing at the exit of the site
Permanent site office foundation works with pouring of concrete		Dec 22 to June 23	Portion D	PYE	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		Dec 22 to June 23	Portion A, Portion E3-1	PYE	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		Dec 22 to June 23	Portion A, Portion B1, Portion E4	PYE	Dust	Covering of cement storage area, enclosure of mixing area
Site formation		Dec 22 to Dec 23	Portion A, Portion E3-1	PYE	Generation of C&D waste	Implementation of trip ticket system, waste recycling, internal waste transfer
Tree Felling		Dec 22 to June 23	Portion E3-1, E4	PYE	Generation of yard waste	Implementation of trip ticket system, waste recycling, internal waste transfer

Remark:
PYE is the Sub-contractor for this project.

Appendix M Mitigation Measures of Cultural Landscape Features

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.
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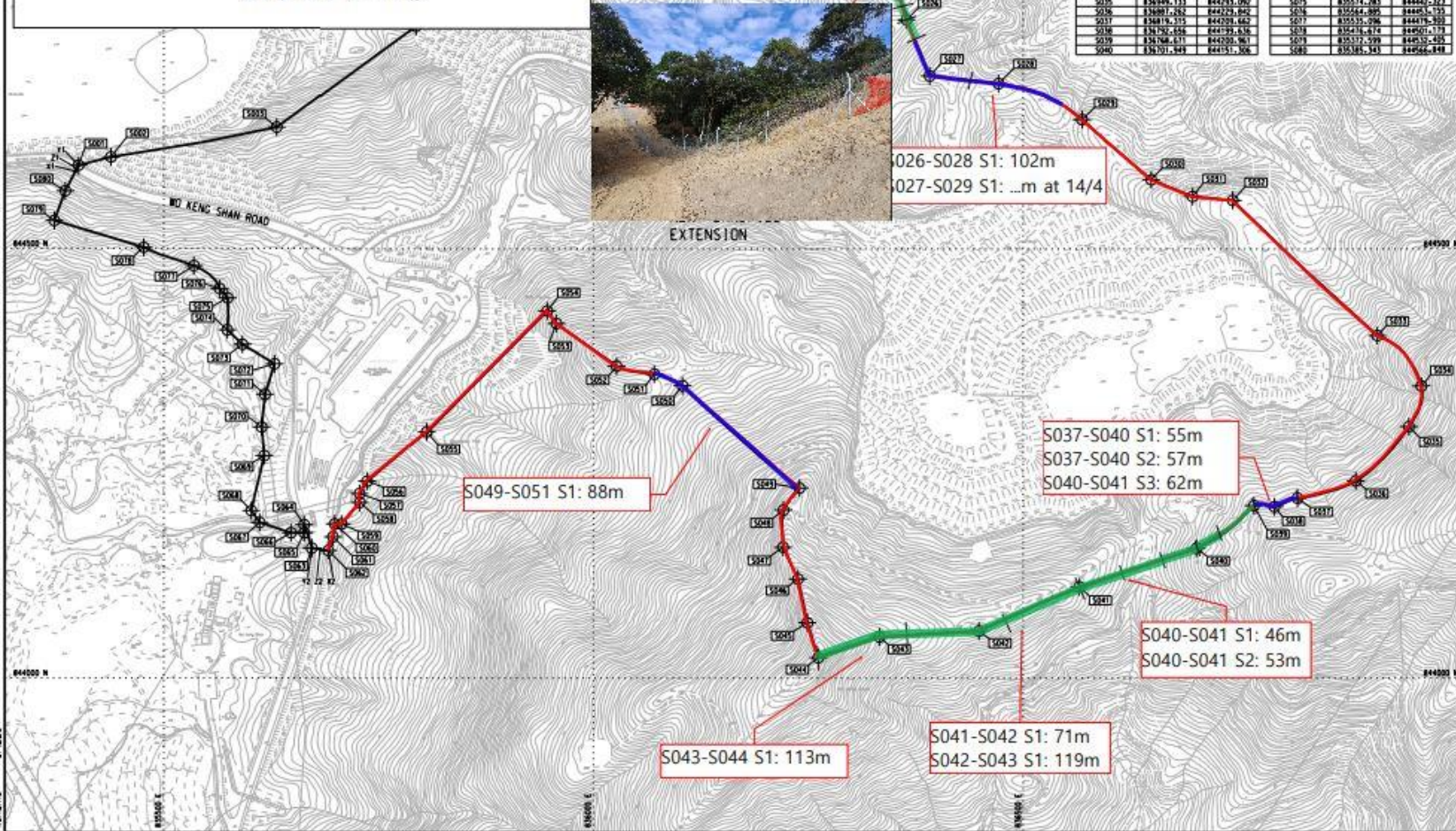


SB Fencing Progress Report as @ 13.3.2023

Start Date: 11.1.2023

Legend

- Proposed fencing length = 3055 m
- Completed footing 1252/3055 m = 41%
- Completed chain link fence 1006/3055 m = 33%



CO-ORDINATES FOR SITE BOUNDARY

SETTING OUT POINT	EASTING	NORTHING
S001	835400.763	844536.681
S002	835436.439	844526.228
S003	835431.400	844441.024
S004	835392.642	844352.456
S005	834876.959	844371.715
S006	834936.245	844388.566
S007	834971.518	844349.837
S008	834912.283	844245.822
S009	834901.422	844291.072
S010	834912.283	844115.203
S011	834924.332	844324.132
S012	834924.332	844382.456
S013	834908.064	844349.446
S014	834908.244	844336.234
S015	83471.458	844353.993
S016	834146.485	844383.803
S017	834176.396	844361.955
S018	834211.023	844347.723
S019	834238.014	844323.212
S020	834254.713	844312.619
S021	834276.337	844282.156
S022	834312.248	844275.463
S023	834336.358	844246.516
S024	834336.358	844246.428
S025	834353.384	844233.702
S026	834364.427	844246.813
S027	834376.385	844236.428
S028	834471.540	844232.580
S029	834566.625	844252.735
S030	834649.132	844280.612
S031	834691.024	844311.038
S032	834744.086	844356.490
S033	834812.213	844339.086
S034	834836.465	844349.243
S035	834848.113	844383.062
S036	834881.282	844322.892
S037	834836.375	844328.662
S038	834792.656	844349.638
S039	834748.611	844300.961
S040	834701.949	844251.306

SETTING OUT POINT	EASTING	NORTHING
S041	834582.887	844106.358
S042	834448.443	844064.336
S043	834332.773	844048.500
S044	834245.595	844032.718
S045	834248.241	844064.518
S046	834218.243	844115.480
S047	834220.400	844152.506
S048	834212.176	844156.738
S049	834219.876	844217.358
S050	834103.489	844306.447
S051	834020.893	844354.689
S052	834026.843	844361.917
S053	833958.335	844313.126
S054	833944.240	844271.911
S055	833958.335	844264.410
S056	833936.415	844236.429
S057	834121.882	844215.710
S058	833738.112	844204.403
S059	833706.353	844176.372
S060	833698.933	844176.738
S061	833698.933	844166.917
S062	833687.380	844146.362
S063	833627.232	844151.583
S064	833626.895	844166.917
S065	833644.443	844166.917
S066	833648.526	844166.327
S067	833611.414	844161.518
S068	833607.144	844194.367
S069	833616.871	844228.437
S070	833581.597	844288.118
S071	833521.809	844326.257
S072	833521.809	844311.081
S073	833514.283	844342.323
S074	833544.895	844361.725
S075	833535.296	844319.803
S076	833514.614	844301.179
S077	833537.599	844352.492
S078	833385.343	844366.848

CO-ORDINATES FOR VEHICULAR ACCESS

SETTING OUT POINT	EASTING	NORTHING
11	835397.108	844589.614
12	834932.161	844596.687
21	835398.934	844583.141
22	834691.380	844146.162
23	834672.232	844151.163
24	834691.380	844149.365

LEGEND

- SITE BOUNDARY
- SETTING OUT POINT

0	ISSUE FOR TENDER	SS	12/20
Rev	Description	By	Date
Consultant ARUP 奧雅納工程顧問 One Arup & Partners Hong Kong Limited			
Project title Contract No. EP/SP/77/15 North East New Territories Landfill Extension			
Drawing title SETTING OUT DETAILS OF SITE BOUNDARY			
Drawing No.	215523/01/016	Rev.	0
Drawn By	Date	Checked By	Approved By
Scale	1:2500 (A1)	Status	TENDER
COPYRIGHT RESERVED			
環境保護署 Environmental Protection Department			

Appendix N Ecological Monitoring Record

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



Site photos of the monitoring area



Hand netting to search for *S. zanklon*



Kick-netting to search for *S. zanklon*



Direct Observation to search for *S. zanklon*

B.1 Incense Tree *Aquilaria sinensis*



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



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



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

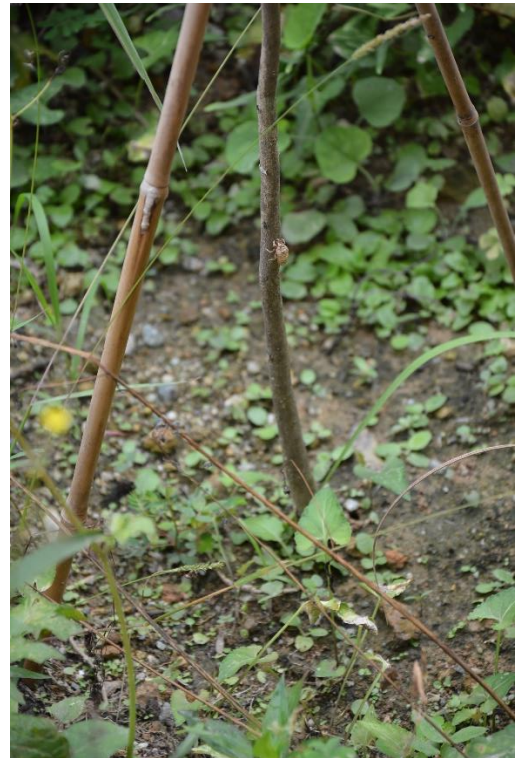


Photo B.1.4 : Stem condition of the transplanted individual AS-02.

B.2 Lamb of Tartary *Cibotium barometz*



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



Photo B.2.2 : New foliage of the transplanted individual CB-01.



Photo B.2.3 : Leaf condition of the new foliage.



Photo B.2.4 : General view of the transplanted individual CB-01.

B.3 **Bottlebrush Orchid *Goodyera procera***



Photo B.3.1: Individual GP-01. Flower withering.



Photo B.3.2: Individual GP-02.



Photo B.3.3: Individual GP-03.

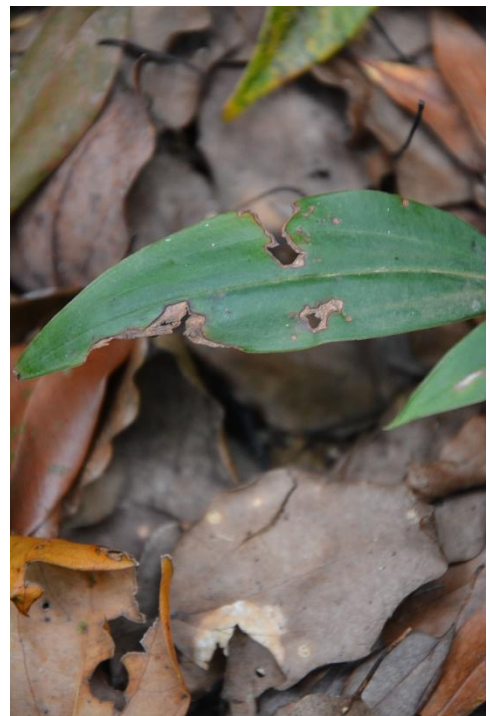


Photo B.3.4: Individual GP-03. Holes in leaves.



Photo B.3.5: Individual GP-04.



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



Photo B.3.7: Individual GP-05.



Photo B.3.8: Individual GP-05. Wilted flower.



Photo B.3.9: Individual GP-06.



Photo B.3.10: Individual GP-06. Wilted flower.



Photo B.3.11: Individual GP-07.

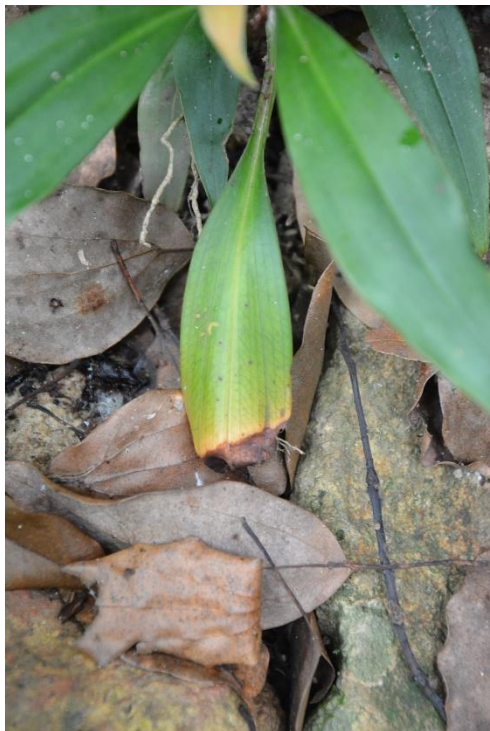


Photo B.3.12: Individual GP-07. Partially wilted leaf.



Photo B.3.13: Individual GP-08.

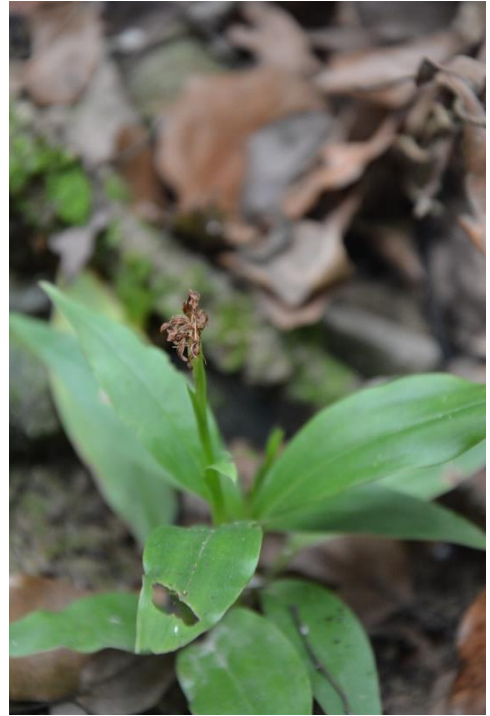


Photo B.3.14: Individual GP-08. Wilted flower.



Photo B.3.15: Individual GP-09. Wilting flower.



Photo B.3.16: Individual GP-10. Wilted flower.



Photo B.3.17: Individual GP-11. Flowering.



Photo B.3.18: Individual GP-11. Wilted flower.



Photo B.3.19: Individual GP-12.



Photo B.3.20: Individual GP-13.



Photo B.3.21: Individual GP-14.



Photo B.3.22: Individual GP-14. Wilted flower.



Photo B.3.23: Individual GP-15.



Photo B.3.24: Individual GP-15. Partially wilted leaves.



Photo B.3.25: Individual GP-16.



Photo B.3.26: Individual GP-16. Wilted flower.



Photo B.3.27: Individual GP-17.



Photo B.3.28: Individual GP-18.



Photo B.3.29: Individual GP-18. Wilted flower.



Photo B.3.30: Individual GP-19. Flowering.



Photo B.3.31: Individual GP-19. Wilted flower.

Appendix O Detail Status of 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 September 2022)
2.6	2.8	Submission of translocation proposal	Submission Date (8 July 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 (17 May 2023)

FEP Condition	EP Condition	Submission / Measures	Status
2.8	2.10	Submission of Translocation Report and Post-Translocation Monitoring	<p>Translocation was carried out in July 2022</p> <p>Submission Date (27 December 2022)</p> <p>1st monitoring (29 Aug 2022)</p> <p>2nd monitoring (28 Sep 2022)</p> <p>3rd monitoring (28 Oct 2022)</p> <p>4th monitoring (28 Oct 2022)</p> <p>5th monitoring (29 Dec 2022)</p> <p>6th monitoring (30 Jan 2023)</p> <p>7th monitoring (24 Feb 2023)</p> <p>8th monitoring (20 Mar 2023)</p> <p>9th monitoring (19 Apr 2023)</p> <p>10th monitoring (12 May 2023)</p>
2.9	2.11	Submission of Detailed Landfill Gas Hazard Assessment Report	Submission Date (6 Oct 2022)
2.10	2.12	Submission of Waste Management Plan	Submission Date (30 December 2022)
3.2	3.2	Submission of Baseline Monitoring Report	Submission Date (30 Nov 2022)

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