Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team

1st Monthly Environmental Monitoring and Audit (EM&A) Report

Revision: 3

2024-12-20

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MOTT MACDONALD

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Attention: Mr. K. S. Shum

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Agreement No. CE 63/2023 (EP)

Independent Environmental Checker for Hung Shui Kiu / Ha Tsuen New Development Area Second Phase Development – Investigation

Environmental Permit No. EP-527/2017, EP-528/2017, EP-529/2017, EP-530/2017 and EP-531/2017:
Monthly Environmental Monitoring and Audit Report No. 1 (Condition 3.4)

23 December 2024

BY EMAIL

Dear Sir,

We refer to email of 20 December 2024 attaching the Monthly Environmental Monitoring and Audit Report No. 1 prepared by the Environmental Team (ET) of the captioned.

We would like to inform you that we have no adverse comment on the captioned submission. Therefore, we write to verify the captioned submission in accordance with the requirement stipulated in Condition 3.4 of the Environmental Permit No. EP-527/2017, EP-528/2017, EP-529/2017, EP-530/2017 and EP-531/2017.

Should you have any queries, please contact the undersigned at 2828 5967.

Yours faithfully,
For and on behalf of the
MOTT MACDONALD HONG KONG LIMITED

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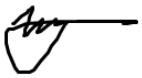
Author signature		Certified by	
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Executive Summary

A1. This is the 1st Monthly Environment Monitoring and Audit (EM&A) Report for Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development (the Project). This report was prepared by Aurecon Hong Kong Limited (Aurecon) under Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team (hereinafter called the "Service Contract"). This report documents the findings of EM&A works at Contract No. YL/2023/01 (hereinafter called the "Contract 1") and Contract No. YL/2023/02 (hereinafter called the "Contract 2") under the Project during the reporting period from 1 to 30 November 2024.

A2. The construction phase EM&A programme started on 1 November 2024.

Key Construction Works in the Reporting Period

A3. A summary of construction activities undertaken during the reporting period is presented below:

Contract 1

- Caring Visit;
- Tree Survey;
- Site Appraisal;
- Underground Utility Detection;
- Ground Investigation.

Contract 2

- Site survey;
- General Site Clearance;
- Tree Condition Survey;
- Tree Felling;
- Ground Investigation;
- Tree Transplant.

Environmental Monitoring and Audit Programme

A4. The monthly EM&A programme was undertaken by the ET in accordance with the Updated EM&A Manual (Apr 2022). A summary of the monitoring and audit activities during the reporting period is presented in **Table A1**.

Table A1 Summary of EM&A activities in the Reporting Period

EM&A Activities	Date
Air Quality Monitoring	1, 2, 5, 7, 11,12, 16, 18, 21, 23, 27, 29 November 2024
Noise Monitoring	2, 5,16, 19 and 26 November 2024
Water Quality Monitoring	1, 4, 6, 8, 11, 13, 15, 18, 20, 22, 25, 27 and 29 November 2024
Weekly Environmental Site Inspection (Contract 1)	1, 8, 15, 21 and 25 November 2024
Weekly Environmental Site Inspection (Contract 2)	1, 8 15, 22 and 29 November 2024

Breaches of Action and Limit Levels

A5. Summary of the environmental exceedances of the reporting period is tabulated in **Table A2**.

Table A2 Summary of Exceedances in the Reporting Period

Environmental Monitoring	Parameter	No. of Exceedances		Total No. of Exceedances	No. of Non-project Related Exceedances		Total No. of Non-project Related Exceedances	No. of Exceedances Related to the Project		Total No. of Exceedances Related to the Project
		AL	LL		AL	LL		AL	LL	
Air Quality	1-hour TSP	0	0	0	0	0	0	0	0	0
Noise	$L_{eq(30mins)}$	0	0	0	0	0	0	0	0	0
Water Quality (1)	DO	3	0	3	0	0	0	0	0	0
	Turbidity	0	10	10	0	0	0	0	0	0
	SS	5	0	5	0	0	0	0	0	0
	pH	0	7	7	0	0	0	0	0	0

Notes:

(1) As the exceedances are still under investigation, the exceedance results will be updated in the next reporting period.

Air Quality

A6. No Action Level or Limit Level exceedance was recorded for air quality monitoring in the reporting period.

Noise

A7. No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.

Water Quality

A8. All water quality monitoring was conducted as scheduled in the reporting period. During the reporting period, 3 action level of exceedances for DO were recorded. 10 limit level of exceedances for turbidity were recorded. 5 action level of exceedances for SS were recorded. 7 limit level of exceedances for pH were recorded. As the exceedances are still under investigation, details of the investigation results will be presented in the next monthly EM&A report.

Complaint Log

A9. No environmental complaint was received in the reporting period.

Notification of Summons and Successful Prosecutions

A10. No notification of summons or successful prosecutions was received in the reporting period.

Reporting Changes

A11. There was no reporting change in the reporting period.

Future Key Issues

A12. The major site activities for the next reporting period are summarized below:

Contract 1

- Caring Visit;
- Tree Survey;
- Site Appraisal;
- Underground Utility Detection;
- Ground Investigation;
- Realign of Bar Fencing;
- Demolition Works;
- Utilities Laying Works;
- Construction of CLC Footing.

Contract 2

- Site survey;
- Tree Felling;
- Ground Investigation;
- Tree Transplant;
- Earthworks;
- Piezometer / Standpipe Installation;
- Site Office Setup.

1 Introduction

1.1 Project Background

1.1.1 The HSK/HT NDA occupies an area of approximately 714 hectares and is located at the north-western part of the New Territories, midway between the Tuen Mun and Tin Shui Wai New Towns. The sites included scatted land pieces in the area near-by the proposed HSK Station, bounded by Castle Peak Road (Hung Shui Kiu) Castle Peak Road to the south, Kong Sham Western Highway to the west and Tin Shui Wai MTR Station. The HSK/HT NDA will provide associated engineering infrastructure and supply land for subsequent development of public and private housing, community facilities, commercial and industrial premises, the Green Transit Corridor (comprising the Environmentally Friendly Transport Services, footpaths and cycle tracks) and other uses, and for construction of the proposed infrastructure works such as district distributor roads, local roads, revitalisation of existing channels, sewerage (including pumping stations), drainage (including pumping stations), water supply, landscaping, electrical and mechanical (E&M), and associated works.

1.1.2 Currently, the HSK/HT NDA development will be implemented in three phases, comprising First Phase, Second Phase and Remaining Phase development. The First Phase development which comprises the site information and engineering infrastructure works under Advance Works Phases 1 and 2 and Stage 1 Works has commenced construction in 2020.

1.1.3 The HSK/HT NDA Advance Works Phase 3 and Stage 2 Works are collectively called Second Phase development (also known as HSK/HT NDA Second Phase Development – the Project). The HSK/HT NDA Advance Works Phase 3 includes site formation and engineering infrastructure works for the site for Dedicated Rehousing Estate (DRE), residential and industrial uses and Government/Institution or Community (G/IC) developments. It also comprises construction of engineering infrastructure works, including a primary distributor road, district distributor roads, local roads, drainage, sewerage (including pumping stations), water supply, landscaping, E&M and associated works as environmental mitigation measures and EM&A programme. The HSK/HT NDA Stage 2 Works includes site information and engineering infrastructure works for the commercial, residential and G/IC developments in the proposed town centre around the proposed HSK Station, logistics, industrial corporate and technology zones village resite, and the remaining batch of multi-storey buildings.

1.1.4 The Project will be delivered under seven works contracts as below and the general layout plan of the works contracts, except Contract 7 of which the exact extent and scope of works are subject to review, is shown in **Figure 1.1**.

Contract 1

- Site clearance and formation (including land decontamination works) for about 30 hectares of lands, together with provision of associated engineering infrastructure
- Construction of Local Roads L6, L7 and L8
- Construction of associated works including footpaths, cycle tracks, drainage, sewerage, landscaping works and other ancillary works
- Relocation and provision of Community Liaison Centre (CLC)
- Implementation of environmental mitigation measures (including noise barriers and low-noise road surfacing)

Contract 2

- Site clearance and formation for about 8.5 hectares of lands
- Construction of Tan Kwai Tsuen East Fresh Water Service Reservoir and associated roadworks, power supply and landscaping works
- Laying of about 4.5 km long freshwater mains and about 3.5 km long flushing water mains
- Implementation of environmental mitigation measures and related environmental monitoring and audit programme for the works mentioned above

Contract 3

- Site clearance and formation (including land decontamination works) for about 60 hectares of lands, together with provision of associated engineering infrastructure
- Construction of Roads D6, D8, L5, L9, L10, L12, L13, L14, L15, L16, road connection between Road P1 and D6 and road connection between Road P1 and Castle Peak Road and relocation of parking area of MTR Emergency Access Point (EAP) 26 in Tuen Mun
- Construction of Footbridge FB13
- Construction of Underpass UP1
- Realignment of Tin Sam Channel
- Construction of Sewage Pumping Station SPS1
- Construction of associated works including footpaths, cycle tracks, drainage, sewerage, water supply, box culvert, district cooling mains, Common Utility Tunnel, landscaping, E&M works and other ancillary works
- Implementation of environmental mitigation measures (including noise barriers and low-noise road surfacing)

Contract 4

- Site clearance and formation (including land decontamination works) for about 57 hectares of lands, together with provision of associated engineering infrastructure
- Construction of Roads D6, D7, L1, L17, L18, L21, L22, L23, L25 and L35
- Construction of river crossing footbridge FB5, FB9, FB8, FB8A, FB8B, FB8C and FB10 and Pedestrian Subway SW6
- River Revitalisation of Tin Sam Channel
- Construction of Sewage Pumping Station SPS3
- Construction of associated works including footpaths, cycle tracks, drainage, sewerage, water supply, box culvert, district cooling mains, landscaping, E&M works and other ancillary works
- Implementation of environmental mitigation measures (including noise barriers and low noise road surfacing)

Contract 5

- Site clearance and formation (including land decontamination works) for about 38 hectares of lands, together with provision of associated engineering infrastructure
- Construction of northern portion of Road P1 and the associated highway connections including the viaducts structures
- Construction of Roads D1, L19, L24, L32, L33 and L36
- Construction of footbridges and pedestrian subways
- Construction of Sewage Pumping Station SPS2
- Slope and natural terrain hazard mitigation works to the hillsides adjacent to Road P1
- Construction of associated works including footpaths, cycle tracks, drainage, sewerage, water supply, district cooling mains, landscaping, E&M works and ancillary works

Contract 6

- Site clearance and formation (including land decontamination works) for about 70 hectares of lands, together with provision of associated engineering infrastructure
- Construction of Roads D3, D5, L30 and L31 and associated connections
- Construction of Sewage Pumping Station SPS4
- Construction of floodable open spaces and the associated drainage works
- Construction of associated works including footpaths, cycle tracks, drainage, sewerage, water supply, landscaping, E&M works and ancillary works

Contract 7

- All remaining landscaping works to regional, district and local open space, landscape within the streetscape, landscape to the floodable open spaces and landscape to river revitalization or polder areas

1.1.5 Aurecon was commissioned by CEDD to provide EM&A services for the works contracts in relation to the Project pursuant to the requirements as specified in relevant EP, the Updated EM&A Manual (Apr 2022) and the approved EIA Report for the Project to discharge the duties of the ET for the Project, including the baseline monitoring works for various monitoring parameters (e.g. AQM, CNM, WQM, etc.).

1.1.6 This is the 1st Monthly EM&A Report summarizing the key findings of the construction phase EM&A programme at Contract 1 and Contract 2 from 1 November to 30 November 2024 (the reporting period) and is submitted to fulfil the requirements in Condition 3.3 of the EPs (i.e. EP-531/2017, EP-530/2017, EP-529/2017, EP-528/2017 & EP-527/2017) and Section 15.3 of the Updated EM&A Manual (Apr 2022) of the Project.

1.2 Project Organisation

1.2.1 Parties with different levels of involvement in the Project organisation are summarized in **Table 1.1**.

Table 1.1 Parties Involved in Project Organisation

Parties	Organization / Company	
Project Proponent	Civil Engineering and Development Department (CEDD)	
Supervisor / Engineer's Representative (ER)	Ove Arup & Partners Hong Kong Limited	
Contractor	Contract No. YL/2023/01 (Contract 1)	Sang Hing – Kuly Joint Venture (SKJV)
	Contract No. YL/2023/02 (Contract 2)	Chun Wo - Build king - Yee Hop Joint Venture (CWBKYH JV)
Environmental Team (ET)	Aurecon Hong Kong Limited	
Independent Environmental Checker (IEC)	Mott MacDonald Hong Kong Limited	

1.2.2 The key personnel contact names and numbers are summarized in **Appendix 1.2**.

1.3 Construction Works Programme and Construction Works Area

1.3.1 The construction phase EM&A programme commenced on 1 November 2024. The construction works programme, and the construction works area of the Project are shown in **Appendix 1.1** and **Figure 1.1** respectively. A summary of construction activities undertaken at Contract 1 and Contract 2 during this reporting period is presented below, and in **Figure 1.2 and Figure 1.3** respectively:

Contract 1

- Caring Visit;
- Tree Survey;
- Site Appraisal;
- Underground Utility Detection;
- Ground Investigation.

Contract 2

- Site survey;
- General Site Clearance;
- Tree Condition Survey;
- Tree Felling;
- Ground Investigation;
- Tree Transplant.

1.4 Summary of Environmental Status

1.4.1 A summary of the relevant permits, licences, and/or notifications on environmental protection for the work contracts that are involved in this reporting period is presented in **Table 1.2** and **Table 1.3** respectively.

Table 1.2 Status of Environmental License, Notifications and Permits for Contract 1

Permit / License Name/No.	Valid Period		Status
	From	To	
Environmental Permit			
EP-527/2017	21/02/2017	N/A	Valid
EP-528/2017	21/02/2017	N/A	Valid
EP-529/2017	21/02/2017	N/A	Valid
EP-530/2017	21/02/2017	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			

Permit / License Name/No.	Valid Period		Status
	From	To	
N/A	N/A	N/A	Under application
Billing Account for Disposal of Construction Waste			
7051388	24/06/2024	N/A	Valid
Registration of Chemical Waste Producer			
N/A	N/A	N/A	Under application
Effluent Discharge License under Water Pollution Control Ordinance			
N/A	N/A	N/A	Under application (Part T, Part E4)
Construction Noise Permit (CNP)			
N/A	N/A	N/A	Under application (Demolition of Existing Gantry at Part T)

Table 1.3 Status of Environmental License, Notifications and Permits for Contract 2

Permit / License Name/No.	Valid Period		Status
	From	To	
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
Notification that notifiable works are anticipated to commence (Area A) (EPD Ref. number: 10005847)	13/06/2024	N/A	Valid
Notification that notifiable works are anticipated to commence (Area B) (EPD Ref. number: 10006337)	26/06/2024	N/A	Valid
Notification that notifiable works are anticipated to commence (Area C) (EPD Ref. number: 10006331)	26/06/2024	N/A	Valid
Notification that notifiable works are anticipated to commence (Area D) (EPD Ref. number: 10006336)	26/06/2024	N/A	Valid
Billing Account for Disposal of Construction Waste			
7051428	26/06/2024	N/A	Valid
Account for Registration of Chemical Waste Producer			
WPN: 5213442C498201	13/08/2024	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance			
N/A	N/A	N/A	Under application (Site Area B)
Construction Noise Permit (CNP)			
N/A	N/A	N/A	N/A

2 Air Quality Monitoring

2.1 Monitoring Requirement

2.1.1 In accordance with the Updated EM&A Manual (Apr 2022), the ET shall carry out impact monitoring during the construction phase of the Project. 1-hour Total Suspended Particulates (TSP) should be conducted at a frequency of at least three times in every six days when the highest dust impact occurs.

2.2 Monitoring Location

2.2.1 According to the Updated EM&A Manual (Apr 2022), the designated locations for impact air quality monitoring in related to the works contracts in the reporting period are listed in **Table 2.1** and their locations are shown in **Figure 2.1**.

Table 2.1 Summary of Impact Air Quality Monitoring Stations in related to the works contracts in the reporting period

Station(s)	EIA ID	Monitoring Location
AM1	A204	Kam Cheong Garden
AM2	A208	Oaklands Court
AM3	A209	Ling Liang Church Primary School
AM4	A310	Tin Ha Road Playground
AM5	A415	Tin Sum Tsuen
AM6	A410	Galore Garden
AM7	A414	Shek Po Tusen
AM8a(1) (2)	A813	Block J, Tin Shing Court
AM10	A802	Kiu Tau Wai
AM11	A703	Sha Chau Lei Tsuen
AM12	A704	Ha Tsuen Shi
AM14	A601	Tseung Kong Wai
AM22	P240	Planned Village Resite at Site 4-20
AM24	P1501	Planned Port Back-up, Storage and Workshop at Site 3-8
AM25a	-	San Wai Sewage Treatment Works

Notes:

(1) AM8a is the alternative noise monitoring stations proposed to replace AM8.

(2) As the Owners' Corporation for Tin Shing Court refused to grant the permission to access to carry out the set-up of monitoring equipment at the proposed location for subsequent impact monitoring period, a new location, which is at a short distance from the original location (25m), has been then identified and submitted through the proposal of the alternative monitoring location for the impact monitoring. Agreement has been obtained from IEC upon proposal of the alternative monitoring location for the impact monitoring at AM8a.

2.2.2 In accordance with the Table A2.4 in Appendix A of the Updated EM&A Manual (Apr 2022), impact air quality monitoring will be carried out at monitoring stations AM22, AM24 and AM25a after the occupation of the planned port back-up, storage and workshop, and the planned village resite.

2.2.3 As confirmed with ER, the planned port back-up, storages and workshops at Site 3-8, Site 3-14 and the planned village resite Site 4-20 are not constructed yet. Thus, the impact air quality monitoring will be carried out at AM22, AM24 and AM25a after the construction and occupation of these planned port back-up, storages and workshops, and the planned village resite. No air quality monitoring of the mentioned stations was carried out in this reporting period.

2.3 Monitoring Parameter and Frequency and Duration

2.3.1 In accordance to the requirements for placement of equipment, as set out in Section 4.7.1 of the Updated EM&A Manual (Apr 2022) of the Project, the monitoring parameter, frequency and duration of impact air quality monitoring are listed in **Table 2.2**.

Table 2.2 Parameters measured in the Impact Air Quality Monitoring

Parameter	Frequency	Duration
1-hour TSP	3 times for every 6 days	Throughout the construction phase

2.3.2 Monitoring location, time and weather conditions and any special phenomena or work underway nearby are recorded during the impact monitoring.

2.4 Monitoring Equipment

2.4.1 Upon approval of the IEC, 1-hour TSP levels can be measured by direct reading method with using handheld dust meter, which is capable of producing comparable results as that by the high-volume sampling method, to indicate short event impacts.

2.4.2 The proposed use of handheld dust meter was submitted to the IEC and agreement was obtained from the IEC in accordance with Section 4.5.5 of the Updated EM&A Manual (Apr 2022).

2.4.3 **Table 2.3** summarizes the equipment used in the air quality monitoring programme. Copies of the calibration certificates of multi-parameter air quality monitoring system are shown in **Appendix 2.1**.

Table 2.3 Air Quality Monitoring Equipment

Equipment	Manufacturer	Model	Quantity	Serial No.
Direct Reading Dust Meter	Sibata	LD-5R	6	467356 467357 467358 467359 467360 467361

2.5 Monitoring Methodology

2.5.1 The 1-hr TSP was sampled by drawing air into the portable dust monitor where particular concentrations were measured instantaneously with an in-built silicon detector sensing light scattered by the particulates in the sampled air. Continuous TSP levels were indicated and logged by a built-in data logger compatible with Windows based program to facilitate data collection, analysis and reporting.

2.5.2 The measuring procedures of the 1-hour dust meter was undertaken in accordance with the Manufacturer's Instruction Manual as follows:

- Placed the 1-hour dust meter at least 1.5m above ground;
- Set POWER to "ON" and make sure that the battery level was not flashed or in low level;
- Pulled the air sampling inlet cover up;
- Pushed the knob at MEASURE position;
- Set time/mode setting to [BG] by pushing the time setting switch. Then, started the background measurement by pushing the start/stop switch once. It took 6 sec. to complete the background measurement;
- Turned knob to SENSI. ADJ position and pressed in;
- Pushed Start/Stop switch once;
- Gently returned knob to the MEASURE position;
- Pushed the time setting switch to change the time setting display to [LOG] at the bottom left of the liquid crystal display;
- Removed the cap and started measurement; and
- Information such as sampling date, time, count value and site condition were recorded during the monitoring period

2.6 Maintenance/Calibration

2.6.1 The following maintenance/calibration was required for the direct dust meters:

2.6.2 Check and calibrate the dust meter by high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. Calibration of dust meter should be carried out every twelve months throughout all stages of the air quality monitoring. The calibration certificates of the monitoring equipment are presented in **Appendix 2.1**.

2.6.3 The correlation coefficient was checked to establish the correlation relationship between the handheld dust meter and HVS. The correlation factor was determined by comparing the results of HVS and handheld dust meter.

2.6.4 Checking is made prior to air quality monitoring commencing to ensure all equipment is in good working condition with necessary power supply. Zero count test were conducted before and after each monitoring event.

2.7 Action and Limit Level for Air Quality Monitoring

2.7.1 The baseline monitoring results formed the basis for determining the air quality criteria for the impact monitoring. The ET shall compare the impact monitoring results with air quality criteria set up for 1-hour TSP. Based on the baseline dust monitoring data and the derivation criteria specified above, the Action/Limit Levels are presented in **Table 2.5**.

Table 2.5 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Action Level (μg/m3)	Limit Level (μg/m3)
AM1	266	500
AM2	271	
AM3	273	
AM4	268	
AM5	272	
AM6	271	
AM7	282	
AM8a	267	
AM10	271	
AM11	276	
AM12	273	
AM14	280	
AM22	274	
AM24(1)	290	
AM25a(1)	300	

Note:
(1) The Action Level of AM24 an AM25a was determined in the baseline monitoring under the baseline air quality monitoring of HSK/HT NDA Stage 1 Works in December 2021.

2.8 Results and Observations

2.8.1 All air quality monitoring was conducted as scheduled in the reporting period. The air quality monitoring schedule for this reporting period is shown in **Appendix 1.4**.

2.8.2 The air quality monitoring results in related to the works contracts in the reporting period are summarized in **Table 2.6**. No Action or Limit levels exceedance was recorded in the reporting period. Details of the results and graphical presentation are shown in **Appendix 2.2**.

Table 2.6 Summary of Air Quality Monitoring Results in related to the works contracts in the reporting period

Monitoring Station	Averaged Measured Value (μg/m^3)	Minimum Measured Value (μg/m^3)	Maximum Measured Value (μg/m^3)	Action Level (μg/m^3)	Limit Level, (μg/m^3)
AM1	28	16	43	266	500
AM2	27	18	43	271	
AM3	26	12	42	273	
AM4	26	16	36	268	
AM5	31	22	42	272	
AM6	27	19	38	271	
AM7	21	16	30	282	
AM8a	25	14	70	267	
AM10	24	20	32	271	
AM11	20	12	26	276	
AM12	24	15	34	273	
AM14	23	11	30	280	

2.8.3 The major dust source at AM1, AM3, AM6, AM7, AM8a and AM11 included vehicle emission and dust from traffic. At AM2 and AM14, major dust sources included vehicle emission observed nearby. No other sources dust emission was observed at AM4, AM5, AM10, AM12 during air quality monitoring.

2.8.4 Weather condition of the whole baseline monitoring period varied from sunny to rainy. Wind data during the period of baseline monitoring from the Hong Kong Observatory Lau Fau Shan Wind Station (22.46889N, 113.98361E), which is located about 1.25 km from the nearest site boundary of Contract 6. The weather information during the reporting period is summarized in **Appendix 2.3**.

2.9 Event and Action Plan

2.9.1 Should any non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix 2.4** shall be followed. Investigation of the exceedances of environmental quality performance limits should be conducted, and the ET will immediately notify the IEC and EPD, as appropriate. The notification should be followed up with advice to the IEC and EPD on the results of the investigation, proposed actions and success of the action taken, with any necessary follow-up proposals.

3 Construction Noise Monitoring

3.1 Monitoring Requirements

3.1.1 In accordance with the Updated EM&A Manual (Apr 2022), the ET shall carry out impact monitoring during the construction phase of the Project in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}) to monitor the construction noise arising from the construction activities. The regular monitoring frequency for each monitoring station was on a weekly basis and one set of measurements between 0700 and 1900 hours on normal weekdays shall be conducted.

3.2 Monitoring Locations

3.2.1 According to the Updated EM&A Manual (Apr 2022), the monitoring designated locations for construction noise monitoring in related to the works contracts in the reporting period are listed in **Table 3.1** and shown in **Figure 3.1**.

Table 3.1 Construction Noise Monitoring Stations near in related to the works contracts in the reporting period

Monitoeing Station	EIA ID	Location	Nature of Uses	Type of Measurement
CM1(2)	ETCW02	No. 739, Oaklands Court	Residential	Free-Field
CM2 (2)	ESFW01	No. 332, Chung Uk Tsuen	Residential	Free-Field
CM3 (2)	ESFW02	Village house, Nai Wai	Residential	Free-Field
CM4a (1) (2)		Village Representative Building at Chung Uk Tsuen	Residential	Free-Field
CM10	ETSW11	YLPMSAA Tang Siu Tong Secondary School	Educational Institution	Façade
CM13	ESLUT01	No. 46A San Lee Uk Tsuen	Residential	Façade
CM14 (2)		No. 62, San Lee Uk Tsuen	Residential	Free Field
CM15a (1) (2)		Block 15, Bellevue Court	Residential	Free Field
CM16	E52505	Hung Yan House, Hung Fuk Estate	Residential	Façade
CM18 (2)	ESPT06	No. 201, Shek Po Tsuen	Residential	Free Field
CM20 (2)	ESCL03	No. 45, Sha Chau Lei Tsuen	Residential	Free-Field
CM28 (2)	42001	Planned Residential Development in Site 4-20	Residential	Free-Field
CM29 (2)	42251	Planned Residential Development in Site 4-22	Residential	Free-Field
CM31(2)	52408	Planned Residential Development in Site 5-24	Residential	Free-Field
CM32 (2)	52151	Planned School in Site 5-21	Educational Institution	Free-Field

Notes:

(1) Alternative noise monitoring stations to replace the original noise monitoring stations in accordance with the Proposal of Alternative Monitoring Locations approved by EPD.

(2) For Free Field measurement, +3 dB(A) should be added to the measured results.

3.2.2 As confirmed with ER, the planned residential development at Site 4-20, Site 5-22 and Site 5-24, and the planned school at Site 5-21 are not constructed yet. Thus, the impact noise monitoring will be carried out at monitoring stations CM28, CM29, CM31 and CM32 after the construction and occupation of these planned residential development and the planned school. No noise monitoring of the mentioned stations was carried out in this reporting period.

3.3 Noise Monitoring Parameter, Frequency and Duration

3.3.1 Construction noise level was measured by the ET and measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq(30mins)}$ used as the monitoring parameter for the construction noise monitoring.

3.3.2 As supplementary information for data auditing, statistical results such as L_{10} and L_{90} were also obtained for reference.

3.3.3 **Table 3.2** summarizes the monitoring parameters, duration, and frequency of construction noise monitoring.

Table 3.2 Construction Noise Monitoring Parameter, Frequency and Duration

Monitoring Station	Parameter	Frequency and Duration
CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	$L_{eq(30mins)}$, L_{10} and L_{90}	Once every week throughout the construction phase

3.4 Monitoring Equipment, Methodology and QA / QC Procedure

3.4.1 As referred to the technical memorandum issued under the Noise Control Ordinance (NCO), sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications were used for carrying out the construction noise monitoring.

3.4.2 Noise measurements were not made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed was checked with a portable wind speed meter capable of measuring the wind speed in m/s.

3.4.3 Sufficient numbers of noise measuring equipment and associated instrumentation were prepared by the ET. All the equipment and associated instrumentation were clearly labelled.

3.4.4 The monitoring procedures are as follows:

- For façade measurement, the monitoring station was set at a point 1 m from the exterior of the sensitive receivers building façade and set at a position 1.2 m above the ground. For free-field measurement, the monitoring station was set at a position 1.2 m above the ground.
- The battery condition was checked to ensure good functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the interval were set as follows:

- Frequency weighting: A
- Time weighting: Fast
- Interval: 30 minutes ($L_{eq(30mins)}$)

- Prior to and after each noise measurement, the meter was calibrated using an acoustic calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement was considered invalid and repeat of noise measurement will be required after re-calibration or repair of the equipment.
- At the end of the monitoring period, the values of L_{eq}, L_{10} and L_{90} were recorded. In addition, noise sources were recorded on a standard record sheet.

3.4.5 **Table 3.3** summarizes the noise monitoring equipment used during the construction noise monitoring. Calibration certificates for the impact noise monitoring equipment are attached in **Appendix 3.1**.

Table 3.3 Construction Noise Monitoring Equipment

Equipment	Manufacturer	Model	No. of Equipment	Serial No.
Sound Level Meter	Nti Audio	XL3	2	A3A-01229-F0 A3A-01230-F0
Acoustic Calibrator	Rion	NC-75	2	34724244 34724245

3.5 Maintenance and Calibration

3.5.1 Maintenance and calibration procedures are as follows:

- The microphone head of the sound level meter and calibrator were regularly cleaned with a soft cloth; and
- The sound level meter and acoustic calibrator were calibrated annually; and
- The accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency immediately prior to and following each noise measurement. Measurements were accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.

3.6 Action and Limit Levels

3.6.1 The Action and Limit levels were established in accordance with the Updated EM&A Manual (Apr 2022). **Table 3.4** presents the Action and Limit Levels for construction noise. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in **Appendix 3.3** shall be carried out.

Table 3.4 Action and Limit Levels for Construction Noise Monitoring

Time Period	Action	Limit Level
07:00 – 19:00 on normal weekdays	When one or more documented complaints are received	75 dB(A)(1)

Notes:
(1) Between 07:00 and 19:00, construction noise limit for school during normal term time is 70 dB(A) and 65 dB(A) during examination period.

3.7 Results and Observations

3.7.1 All air quality monitoring was conducted as scheduled in the reporting period. The air quality monitoring schedule for this reporting period is shown in **Appendix 1.4**.

3.7.2 No Action or Limit levels exceedance was recorded in the reporting period. Details of the results and graphical presentation are shown in **Appendix 3.2**. The construction noise monitoring results are summarized in **Table 3.5**.

Table 3.5 Summary of Construction Noise Monitoring Results in related to the works contracts in the reporting period

Date	Measured Noise Level: $L_{eq(30min)}$, dB(A)	Measured Noise Level with façade correction: $L_{eq(30min)}$, dB(A) (1)	Baseline Level, dB(A)	Construction Noise Level: $L_{eq(30min)}$, dB(A) (3)
CM1 (1)				
02/11/2024	53.6	56.6	58.7	56.6 Measured level ≤ Baseline level
05/11/2024	57.1	60.1	58.7	54.7
16/11/2024	54.6	57.6	58.7	57.6 Measured level ≤ Baseline level
19/11/2024	55.0	58.0	58.7	58.0 Measured level ≤ Baseline level
26/11/2024	57.0	60.0	58.7	54.3
CM2 (1)				
02/11/2024	62.9	65.9	64.2	61.0
05/11/2024	70.2	73.2	64.2	72.7
16/11/2024	71.1	74.1	64.2	73.6
19/11/2024	71.2	74.2	64.2	73.7
26/11/2024	71.6	74.6	64.2	74.2
CM3 (1)				
02/11/2024	69.6	72.6	71.5	66.0
05/11/2024	64.5	67.5	71.5	67.5 Measured level ≤ Baseline level
16/11/2024	65.2	68.2	71.5	68.2 Measured level ≤ Baseline level
19/11/2024	66.4	69.4	71.5	69.4 Measured level ≤ Baseline level
26/11/2024	67.3	70.3	71.5	70.3 Measured level ≤ Baseline level
CM4a (1)				
02/11/2024	60.9	63.9	75.0	63.9 Measured level ≤ Baseline level
05/11/2024	65.7	68.7	75.0	68.7 Measured level ≤ Baseline level
16/11/2024	66.4	69.4	75.0	69.7 Measured level ≤ Baseline level
19/11/2024	61.5	64.5	75.0	64.5 Measured level ≤ Baseline level
26/11/2024	71.8	74.8	75.0	74.8 Measured level ≤ Baseline level
CM10 (2)				
02/11/2024	56.0	N/A	60.9	56.0 Measured level ≤ Baseline level
05/11/2024	58.6	N/A	60.9	58.6 Measured level ≤ Baseline level
16/11/2024	61.1	N/A	60.9	48.3
19/11/2024	61.7	N/A	60.9	54.0
26/11/2024	61.2	N/A	60.9	48.7

Date	Measured Noise Level: $L_{eq(30min)}$, dB(A)	Measured Noise Level with façade correction: $L_{eq(30min)}$, dB(A) (1)	Baseline Level, dB(A)	Construction Noise Level: $L_{eq(30min)}$, dB(A) (3)
CM13				
02/11/2024	49.7	N/A	54.4	49.7 Measured level ≤ Baseline level
05/11/2024	62.9	N/A	54.4	62.2
16/11/2024	51.3	N/A	54.4	51.3 Measured level ≤ Baseline level
19/11/2024	51.8	N/A	54.4	51.8 Measured level ≤ Baseline level
26/11/2024	52.2	N/A	54.4	52.2 Measured level ≤ Baseline level
CM14 (1)				
02/11/2024	57.2	60.2	47.4	60.0
05/11/2024	53.1	56.1	47.4	55.4
16/11/2024	54.1	57.1	47.4	56.6
19/11/2024	57.1	60.1	47.4	59.9
26/11/2024	55.3	58.3	47.4	57.9
CM15a (1)				
02/11/2024	66.7	69.7	64.7	68.0
05/11/2024	66.5	69.5	64.7	67.8
16/11/2024	67.1	70.1	64.7	68.6
19/11/2024	67.8	70.8	64.7	69.6
26/11/2024	67.8	70.8	64.7	69.5
CM16				
02/11/2024	62.1	N/A	71.9	62.1 Measured level ≤ Baseline level
05/11/2024	63.7	N/A	71.9	63.7 Measured level ≤ Baseline level
16/11/2024	62.3	N/A	71.9	62.3 Measured level ≤ Baseline level
19/11/2024	62.0	N/A	71.9	62.0 Measured level ≤ Baseline level
26/11/2024	61.9	N/A	71.9	61.9 Measured level ≤ Baseline level
CM18 (1)				
02/11/2024	66.1	69.1	56.6	68.8
05/11/2024	55.5	58.5	56.6	53.9
16/11/2024	56.3	59.3	56.6	55.9
19/11/2024	58.3	61.3	56.6	59.5
26/11/2024	61.1	64.1	56.6	63.2
CM20 (1)				
02/11/2024	53.4	56.4	57.8	56.4 Measured level ≤ Baseline level
05/11/2024	49.8	52.8	57.8	52.8 Measured level ≤ Baseline level
16/11/2024	50.3	53.3	57.8	53.3 Measured level ≤ Baseline level
19/11/2024	51.3	54.3	57.8	54.3 Measured level ≤ Baseline level
26/11/2024	51.5	54.5	57.8	54.5 Measured level ≤ Baseline level

Note:

(1) For Free Field measurement, +3 dB(A) was added to the measured results.

(2) Between 07:00 and 19:00, construction noise limit for school during normal term time is 70 dB(A) and 65 dB(A) during examination period. The examination period was between 28 October 2024 and 5 November 2024.

(3) The measured noise level was corrected with the corresponding baseline noise level erasing any non-project related noise from the background (e.g. traffic noise, etc.) recorded during the monitoring periods.

3.7.3 During the construction noise monitoring period, road traffic noise may potentially affect the results obtained from CM1, CM2, CM3, CM4a, CM10, CM13 CM14, CM15a CM16, CM18 and CM20.

3.8 Event and Action Plan

3.8.1 Should non-compliance of the noise monitoring criteria occur, actions in accordance with the Event and Action Plan in **Appendix 3.3** shall be carried out.

4 Water Quality

4.1 Monitoring Requirement

4.1.1 In accordance with the Updated EM&A Manual (Apr 2022), impact water quality monitoring should be carried out three days per week at all designated monitoring stations during the construction period. The interval between two sets of monitoring should not be less than 36 hours.

4.1.2 Replicate *in-situ* measurements of dissolved oxygen (DO), temperature, turbidity, pH, and suspended solids (SS) for each independent sampling event shall be collected to ensure a robust statistically interpretable database.

4.2 Monitoring Location

4.2.1 Impact water quality monitoring in related to the works contracts in the reporting period was conducted at 12 monitoring stations which is summarized in **Table 4.1**. The location of water quality monitoring stations is shown in **Figure 4.1**.

Table 4.1 Summary of Impact Water Quality Monitoring Stations in related to the works contracts in the reporting period

Fresh Water System	Monitoring Station ID	Coordinates (HK Grid)		Description [1]
		Easting	Northing	
TSW Main Channel and its tributaries	U2	816240	834009	U
	U5a [2]	816212	832138	U
	U6a [2]	817666	832421	U
	TS1	816815	832297	G
	TS2a [2]	817278	833493	G
	TSR1a [2]	817786	834125	G
	HT	816866	834314	G
	LUTa [2]	817547	834717	G
	D2a [2]	817483	835855	I
Tuen Mun River	D3	816437	831500	I
Upstream / Tributaries of Shan Pui River [3]	D5a [2]	819054	832288	I
	D6a [2]	818934	832032	I

Notes:

(1) G: Gradient Station; I: Impact Station; U: Upstream Station.

(2) U5a, U6a, TS2a, TSR1a, LUTa, D2a, D5a and D6a are the alternative water quality monitoring stations to replace U5, U6, TS2, TSR1, LUT, D2, D5 and D6, respectively, in accordance with the agreed Proposal of Alternative Monitoring Locations.

(3) The original monitoring station (i.e. U7) had been cancelled owing to the location was on a steep slope within densely vegetated area in which no water flowing through in wet season in accordance with the Proposal of Alternative Monitoring Locations.

4.3 Monitoring Parameter and Frequency

4.3.1 The monitoring parameters, frequency and duration of impact water quality monitoring are listed in **Table 4.2**.

Table 4.2 Parameters measured in the Impact Water Quality Monitoring

Parameter	Frequency	Duration
Dissolved oxygen (DO), temperature, turbidity, pH, stream water depth and suspended solids (SS)	3 days in a week	Throughout the construction phase

4.3.2 Monitoring location and position, time, sampling depth, weather conditions and any special phenomena or work underway nearby are recorded during the impact monitoring.

4.4 Sampling Depths & Replication

4.4.1 During impact water quality monitoring, each station was sampled. Due to a shallow water depth (less than 3 m) with low flow rates in rivers, all the monitoring would be located at mid-depth level.

4.4.2 Duplicate water samples were collected at each sampling depth for laboratory measurement of SS. Samples were stored in high density polythene bottles, packed in ice (cooled to 4 °C without being frozen), and delivered to the laboratory on the same day of collection for analysis.

4.5 Monitoring Equipment

4.5.1 The measurement of DO, temperature, turbidity, pH and stream water depth were undertaken *in-situ*. *In-situ* monitoring instruments in compliance with the specifications listed under Section 6.8 of the Updated EM&A Manual (Apr 2022) were adopted to undertake the water quality monitoring for the Project. Water quality monitoring equipment with the following specifications shall be supplied and maintained by the ET.

<u>Dissolved Oxygen and Temperature Measuring Equipment</u>

4.5.2 The instrument for measuring dissolved oxygen and temperature should be portable and weatherproof complete with cable, sensor, and use DC power source. The equipment was capable of measuring:

- A dissolved oxygen level in the range of 0 – 50 mg/L and 0 – 500% saturation; and
- The temperature within -5 – 50 °C.

4.5.3 It should have a membrane electrode with automatic temperature compensation connected with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary (e.g. YSI ProDSS (multi-parameters) or an approved similar instrument).

pH

4.5.4 pH meter (e.g. YSI ProDSS (multi-parameters) or equivalent) should be used to measure pH value of water samples *in-situ*. It should be readable in a range of 0 to 14. Standard buffer solutions of at least pH 7 to pH 10 shall be used for calibration of the instrument before and after use.

Turbidity Measurement Equipment

4.5.5 The instrument should be a portable, weatherproof turbidity-measuring instrument with a comprehensive operation manual. The equipment should use a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0 – 4000 NTU and be equipped with a cable (e.g. YSI ProDSS (multi-parameters) or an approved similar instrument).

Suspended Solids

4.5.6 A water sampler should comprise a transparent PVC cylinder, with a capacity of not less than 2 litres, and should be effectively sealed with latex cups at both ends. The sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (e.g. Wildco 2.2L Water Sampler or an approved similar instrument).

4.5.7 Water samples for suspended solids measurement shall be collected in high density polythene bottles, packed in ice (chilled to 4 °C without being frozen), and delivered to the laboratory as soon as possible after collection.

Water Depth Detector

4.5.8 A portable, battery-operated echo sounder should be used for determining water depth at each designated monitoring station.

4.5.9 For shallow water (less than 1 m deep), a portable water depth ruler in a range 0 – 7m should be used to measure water depth.

Monitoring Position Equipment

4.5.10 A hand-held or boat-fixed digital Global Positioning System (GPS) or other equivalent instrument of similar accuracy shall be provided and used during water quality monitoring to ensure the water sampling locations are correct during water quality monitoring work.

Water Sampling Equipment

4.5.11 A transparent PVC or glass cylinder, which has a volume of not less than 2 litres and can be sealed at both ends with cups, should be equipped with a positive latching system. During the water sampling, a messenger is released to trigger the closure of the water sampler at suitable water depth.

4.5.12 For sampling location with shallow water depth, plastic bucket would be used instead.

Calibration of *In-situ* Instruments

4.5.13 All *in-situ* monitoring instruments should be checked, calibrated and certified by a laboratory accredited under HOKLAS or another international accreditation scheme before use, and subsequently re-calibrated at 3-monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter should be carried out before measurement at each monitoring location.

Back-up Equipment

4.5.14 Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring can proceed uninterruptedly even when some equipment is under maintenance, calibration, etc.

4.5.15 **Table 4.3** summarizes the equipment used in the water quality monitoring programme. Copies of the calibration certificates of multi-parameter water quality monitoring system are shown in **Appendix 4.1**.

Table 4.3 Water Quality Monitoring Equipment

Equipment	Model	Quantity	Serial No.	Parameter	Range	Accuracy
Water Sampler	Wildco 2.2L Water Sampler with messenger or plastic bucket (used in shallow water depth)	1	N/A	N/A	N/A	N/A
Multi-functional Water Quality Meter	YSI ProDSS (multi-parameters)	5	15M101091, 22D100436, 22C106561, 24G101659 and 24G101660	Dissolved Oxygen (DO)	0 to 500%	• 0 to 200%: ±1% of reading • 200 to 500%: ±8% of reading
					0 to 50 mg/L	• 0 to 20 mg/L: ±0.1 mg/L or 1% of reading, whichever is greater • 20 to 50 mg/L: ±8% of reading
				Temperature	-5 to 50 °C	±0.2 °C

Equipment	Model	Quantity	Serial No.	Parameter	Range	Accuracy
				pH	0 to 14 pH units	±0.2 pH units
				Turbidity	0 to 4000 NTU	• 0 to 999 NTU: 0.3 NTU or ±2% of reading, whichever is greater • 1000 to 4000 NTU: ±5% of reading
Water Depth Ruler	鼎峯 0708	1	NA*	Water depth	0 – 7 m (Used for water depth less than 1 m)	±0.01 m
Positioning Equipment	Garmin (GPSmap 78s)	1	1WL223754	Positioning	N/A	GPS: ±1m

4.6 Monitoring Methodology

4.6.1 Water samples were collected at an appropriate water depth using a sealable transparent PVC or glass cylinder. For locations with shallow water depth, a plastic bucket was used as an alternative. 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.

4.6.2 Multi-functional water quality meters were checked, calibrated and certified by Quality Pro Test-Consult Limited (HOKLAS reg no. 259) before use, and would be subsequently re-calibrated at 3-monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter should be carried out before measurement at each monitoring location. Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment should also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.

4.6.3 Water samples for suspended solids measurement were collected in high density polythene bottles, packed in ice (chilled to 4 °C being frozen), and delivered to the laboratory as soon as possible after collection.

4.6.4 Water sampling equipment deployed during the monitoring programme was decontaminated by manual washing and rinsed with clean distilled water after each sampling location.

4.6.5 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.

Laboratory Analytical Methods

4.6.6 Analysis of SS was carried out by a HOKLAS accredited laboratory (Acumen Laboratory and Testing Limited). At least two replicate samples from each independent sampling event were collected for the SS measurement. Sufficient water samples (about 3,000 mL) were collected at the monitoring stations for carrying out the laboratory SS determination. The analytical method for suspended solids is presented in **Table 4.4**.

Table 4.4 Method for Laboratory Analysis for Water Samples

Parameters	Analytical Method	Detection Limit
Suspended Solid (SS)	APHA 2540D (1)	1 mg/L

Note:
(1) APHA American Public Health Association Standard Methods for the Examination of Water and Wastewater.

4.7 QA/QC Requirements

Decontamination Procedures

4.7.1 Water sampling equipment used during the course of the monitoring process was decontaminated by manual washing and rinsed with distilled water after each sampling event. All of the disposable components/ accessories were discarded after sampling.

Sampling Management and Supervision

4.7.2 All sampling bottles were labelled with the sample ID numbers (including the sampling station), and sampling date. Water samples were dispatched to the testing laboratory for analysis as soon as possible. All the collected samples were stored in a cool box to keep the temperature less than 4 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.

Quality Control Measures for Sample Testing

4.7.3 Quality control of laboratory analysis of water samples was performed by Acumen Laboratory and Testing Limited for every batch of 20 samples:

- A minimum of 1 laboratory method blank was analyzed;
- A minimum of 1 sample duplicate was analyzed; and
- A minimum of 1 sample matrix spike was analyzed.

4.8 Action and Limit Level for Water Quality Monitoring

4.8.1 The criteria of action and limit levels for water quality monitoring are defined in **Table 4.5**.

Table 4.5 Action and Limit Levels for Water Quality

Parameters	Action Level	Limit Level
DO in mg/L	< 5%-ile of baseline data	< 4 mg/L or < 1%-ile of baseline data
SS in mg/L	> 95%-ile of baseline data	> 99%-ile of baseline data
Turbidity in NTU	> 95%-ile of baseline data	> 99%-ile of baseline data
pH	Beyond the range 6.6 to 8.4	Beyond the range of 6.5 to 8.5

Notes:
(1) For DO, non-compliance of the water quality limit occurs when monitoring result is lower than the limit.
(2) For SS and turbidity, non-compliance of the water quality limit occurs when monitoring result is higher than the limit.
(3) All the figures given in the table are used for reference only and the EPD may amend the figures whenever it is considered necessary.

4.8.2 Based on the criteria listed in **Table 4.5**, the action and limit levels for water quality are determined in **Table 4.6**.

Table 4.6 Action and Limit Levels of Water Quality

Fresh Water System	Monitoring Station ID	Parameters	Action	Limit
TSW Main Channel and its tributaries	D2a	DO in mg/L	5.4	4 (1)
		SS in mg/L	14.0	15.6
		Turbidity in NTU	11.6	11.7
		pH	Less than 6.6 or greater than 8.4	Less than 6.5 or greater than 8.5
Tuen Mun River	D3	DO in mg/L	4.9	4 (2)
		SS in mg/L	59.4	67.4
		Turbidity in NTU	10.8	11.1
		pH	Less than 6.6 or greater than 8.4	Less than 6.5 or greater than 8.5
Upstream / Tributaries of Shan Pui River (4)	D5a	DO in mg/L	5.2	4 (3)
		SS in mg/L	27.5	264.3
		Turbidity in NTU	19.3	19.4
		pH	Less than 6.6 or greater than 8.4	Less than 6.5 or greater than 8.5
	D6a	DO in mg/L	6.9	4 (4)
		SS in mg/L	16.3	18.3
		Turbidity in NTU	14.8	14.9
		pH	Less than 6.6 or greater than 8.4	Less than 6.5 or greater than 8.5

Notes:
(1) The 1%-ile of baseline DO data at D2a is 5.4 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.
(2) The 1%-ile of baseline DO data at D3 is 4.8 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.
(3) The 1%-ile of baseline DO data at D5a is 5.1 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.
(4) The 1%-ile of baseline DO data at D6a is 6.9 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.

4.9 Results and Observations

4.9.1 All water quality monitoring was conducted as scheduled in the reporting period. The water quality monitoring schedule for this reporting period is shown in **Appendix 1.4**. The monitoring results and graphical presentation of water quality monitoring at the monitoring stations are shown in **Appendix 4.2**.

4.9.2 During the reporting period, 3 action level of exceedances for DO were recorded. 10 limit level of exceedances for turbidity were recorded. 5 action level of exceedances for SS were recorded. 7 limit level of exceedances for pH were recorded. Summaries of exceedance records are shown in **Table 4.7** and **Table 4.8**. As the exceedances are still under investigation, details of the investigation results will be presented in the next monthly EM&A report.

Table 4.7 Summary of Exceedance Records of Water Quality Monitoring in related to the works contracts in the reporting period

Date	Monitoring Station	Parameter (Unit)	Averaged Measured Value	Exceedance		Exceedances due to the Project[1]
				Action Level (AL)	Limit Level (LL)	
1 November 2024	D2a	SS in mg/L	14.7	✓		To be provided
	D6a	Turbidity in NTU	17.8		✓	
4 November 2024	D5a	pH	9.4		✓	
		Turbidity in NTU	55.1		✓	
		SS in mg/L	39.0	✓		
	D6a	Turbidity in NTU	17.2		✓	
6 November 2024	D5a	pH	11.0		✓	
		Turbidity in NTU	46.8		✓	
	D6a	DO in mg/L	6.2	✓		
8 November 2024	D3	pH	6.2		✓	
		Turbidity in NTU	25.8		✓	
	D5a	pH	11.2		✓	
		Turbidity in NTU	60.9		✓	
		SS in mg/L	65.3	✓		
	D6a	pH	8.9		✓	
		Turbidity in NTU	17.5		✓	
11 November 2024	D3	Turbidity in NTU	21.9		✓	
	D5a	pH	6.4		✓	
13 November 2024	D5a	pH	9.5		✓	
		Turbidity in NTU	19.8		✓	
		SS in mg/L	49.4	✓		
	D6a	Turbidity in NTU	15.8		✓	

Date	Monitoring Station	Parameter (Unit)	Averaged Measured Value	Exceedance		Exceedances due to the Project(1)
				Action Level (AL)	Limit Level (LL)	
18 November 2024	D2a	DO in mg/L	5.0	✓		
25 November 2024	D5a	SS in mg/L	34.0	✓		
29 November 2024	D2a	DO in mg/L	4.9	✓		

Notes:
(1) As the exceedances are still under investigation, the exceedance results will be updated in the next reporting period.

Table 4.8 Summary of Exceedance Records of Water Quality Monitoring in related to the works contracts in the reporting period

Parameter	No. of exceedances		Total No. exceedances (1)	No. of non-project related exceedances		Total No. of non-project related exceedances	No. of exceedance related to the Project		Total No. of exceedance related to the Project
	AL (1)	LL (1)		AL	LL		AL	LL	
Dissolved Oxygen	3	0	3	0	0	0	0	0	0
Turbidity	0	10	10	0	0	0	0	0	0
Suspended Solids	5	0	5	0	0	0	0	0	0
pH	0	7	7	0	0	0	0	0	0

Notes:
(1) As the exceedances are still under investigation, the exceedance results will be updated in the next reporting period.

4.9.3 After confirmation of exceedance of the water quality monitoring results, ET has issued Notification of Exceedance (NOE) to inform relevant parties (i.e., EPD, ER, IEC and Contractor) about the exceedances. As the exceedances are still under investigation, details of the investigation results will be presented in the next monthly EM&A report.

4.10 Event and Action Plan

4.10.1 Should any non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix 4.4** shall be followed. Investigation of the exceedances of environmental quality performance limits should be conducted, and the ET will immediately notify the IEC and EPD, as appropriate. The notification should be followed up with advice to the IEC and EPD on the results of the investigation, proposed actions and success of the action taken, with any necessary follow-up proposals.

5 Waste Management

5.1.1 Waste generated from the Project include inert construction and demolition (C&D) materials and non-inert C&D wastes in the reporting period. The amount of waste generated by the construction works in related to the works contracts in the reporting period is shown in **Table 5.1** and **Table 5.2** respectively. The cumulative waste flow table of Contract 1 and Contract 2 under the Project was presented in in **Appendix 5.1**.

Table 5.1 Summary of Waste Generated in Contract 1 the Reporting Period

Month	Actual Quantalities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Lage Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Carboard Packing	Plastics	Chemical Waste	Others e.g., general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
November 2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 5.2 Summary of Waste Generated in Contract 2 the Reporting Period

Month	Actual Quantalities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Lage Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Carboard Packing	Plastics	Chemical Waste	Others e.g., general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
November 2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	171.05

5.1.2 Sorting of construction and demolition (C&D) materials was carried out on site. Sufficient numbers of receptacles were provided for general refuse collection and sorting. Excavated inert C&D materials were reused to minimize the disposal of C&D waste to public fill.

5.1.3 The Contractor is advised to minimize the wastes generated through recycling or reusing. All applicable mitigation measures stipulated in the Updated EM&A Manual (Apr 2022) and waste management plans will be fully implemented.

6 Ecology

6.1 Audit Requirements

6.1.1 With reference to the approved EIA Report, all sites of conservation importance are either located outside the proposed development area or retained in situ under the "Green Belt" ("GB") zoning, except a small strip of "CA" comprising of 0.1 ha would be affected under the construction of slip road under DP12.Mitigation measures recommended in the EIA Report as the audit requirements including, preservation of existing bat species, installation of decorative screen hoarding and management of construction activities and facilities are summarized in **Appendix 1.3**.

6.2 Results and Observations

6.2.1 As the reporting period does not fall in the breeding season (i.e. between March and August) of the ardeids, no site inspection on ecological impact was carried out at Sites 3-32, 3-33, 3-37, 3-39 and 3-40.

6.2.2 During the reporting period, bat roost survey for precautionary check were carried out for the works contracts. In the reporting period, bat roost survey for Contract 2 was carried out on 4 and 18 November 2024. The details of the bat roost survey at Contract 2 during the reporting period are summarized in **Table 6.1**.

Table 6.1 Schedule for Bat Roost Survey at Contract 2 during the Reporting Period

Survey Date	Findings observed during the survey
4-Nov-24	N/A
18-Nov-24	N/A

6.2.3 The schedule of the upcoming bat roost survey at Contract 2 in the next reporting period are summarized in **Table 6.2**.

Table 6.2 Upcoming Schedule for Bat Roost Survey at Contract 2 in the Next Reporting Period

	Survey Date
1st Survey	2-Dec-24
2nd Survey	16-Dec-24(1)

Notes:
(1) The schedule may be updated depends on tell-felling progress or adverse weather condition.

7 Landscape and Visual

7.1 Audit Requirements

7.1.1 According to the Updated EM&A Manual (Apr 2022), site audits should be undertaken at least once every two weeks during the construction period, by a Registered Landscape Architect (RLA). Particularly, to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives. Mitigation measures recommended in the EIA Report as the audit requirements including, preservation of existing vegetation, transplanting of affected trees, compensatory tree planting, control of night-time lighting glare, erection of decorative screen hoarding and management of construction activities and facilities are summarized in **Appendix 1.3**.

7.2 Results and Observations

7.2.1 Bi-weekly landscape and visual site audits were carried out by a Registered Landscape Architect (RLA) on 8 and 22 November 2024. No particular observation was recorded in this reporting period.

7.3 Event and Action Plan

7.3.1 Should any non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix 7.1** shall be followed.

8 Environmental Site Inspection and Audit

8.1 Implementation Status of Environmental Mitigation Measures

8.1.1 Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections at Contract 1 were carried out on 1, 8, 15, 21 and 25 November 2024. Site inspections at Contract 2 were carried out on 1, 8 15, 22 and 29 November 2024.

8.1.2 Environmental deficiencies were observed during weekly site inspection. Key observations during the site inspections at Contract 1 and during the reporting period are summarized in **Table 8.1**.

Table 8.1 Site Observations at Contract 1 during the reporting period

Date	Kay Observations/ Reminders	Follow-up Action
1 November 2024	Reminder: 1. Decolored NRMM label should be replaced at Part E	Nil
8 November 2024	No major environmental deficiency was observed during the site inspection.	Nil
15 November 2024	Reminder: 1. Decolored NRMM label should be replaced at Part E	Nil
21 November 2024	Reminder: 1. Bunding should be provided to prevent water surface runoff exiting site area.	Nil
25 November 2024	Reminder: 1. Excavated materials were placed on bare ground. The Contractor was reminded that all excavated materials should be placed within the designated area with area with bunds provided in order to avoid contamination to the surroundings.	Nil

8.1.3 Environmental deficiencies were observed during weekly site inspection. Key observations during the site inspections at Contract 2 and during the reporting period are summarized in **Table 8.2**.

Table 8.2 Site Observations at Contract 2 during the reporting period

Date	Kay Observations/ Reminders	Follow-up Action
1 November 2024	Reminder: 1. Decolored NRMM label; should be replaced.	Nil
8 November 2024	Reminder: 1. Slope should be properly covered when no works are performed.	Nil
15 November 2024	Reminder: 1. Contractor was reminded to pay more attention on the site drainage condition to prevent surface runoff or overflow to nearby existing site area.	Nil
22 November 2024	No major environmental deficiency was observed during the site inspection.	Nil
29 November 2024	No major environmental deficiency was observed during the site inspection.	Nil

8.1.4 According to the EIA Study Report, Environmental Permit, contract documents and Updated EM&A Manual (Apr 2022), the mitigation measures detailed in the documents should be implemented as much as practical during the reporting period. An updated Implementation Status of Environmental Mitigation Measures (EMIS) is provided in **Appendix 1.3**.

9 Summary of Monitoring Exceedance, Complaints, Notification of Summons and Prosecutions

9.1 Summary of Exceedance

9.1.1 No Action Level or Limit Level exceedance was recorded for air quality monitoring in the reporting period.

9.1.2 No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.

9.1.3 All water quality monitoring was conducted as scheduled in the reporting period. During the reporting period, 3 action level of exceedances for DO were recorded. 10 limit level of exceedances for turbidity were recorded. 5 action level of exceedances for SS were recorded. 7 limit level of exceedances for pH were recorded. As the exceedances are still under investigation, details of the investigation results will be presented in the next monthly EM&A report.

9.2 Summary of Environmental Non-Compliance

9.2.1 No environmental non-compliance was recorded in the reporting period.

9.3 Summary of Environmental Complaint

9.3.1 No environmental complaint was received in the reporting period. The Cumulative Complaint Log is presented in **Appendix 9.1**.

9.4 Summary of Environmental Summon and Successful Prosecution

9.4.1 There was no successful environmental prosecution or notification of summons received since the Project commencement. The Cumulative Log for environmental summon and successful prosecution is presented in **Appendix 9.1**.

10 Future Key Issues

10.1 Works and Potential Environmental Issues in the next Reporting Period

10.1.1 The Impact Monitoring Schedule for the Project for the next reporting period is presented in **Appendix 10.1**.

10.1.2 Works to be undertaken in the next reporting period are summarized below, and in **Figure 1.2 and Figure 1.3** respectively:

Contract 1

- Caring Visit;
- Tree Survey;
- Site Appraisal;
- Underground Utility Detection;
- Ground Investigation;
- Realign of Bar Fencing;
- Demolition Works;
- Utilities Laying Works;
- Construction of CLC Footing.

Contract 2

- Site survey;
- Tree Felling;
- Ground Investigation;
- Tree Transplant;
- Earthworks;
- Piezometer / Standpipe Installation;
- Site Office Setup

10.1.3 Potential environmental impacts arising from the above construction activities are mainly associated with construction noise impact, water quality impact, ecological impact, waste management, and landscape and visual.

10.2 Recommendation

10.2.1 The key environmental mitigation measures for the Project in the coming reporting period expected to be associated with the construction activities include:

Dust

- Regular watering to reduce dust emissions from exposed site surface;

- Stockpile of dusty materials shall be covered entirely by impervious sheeting;
- Provide vehicles washing facilities at all site exits to wash away any dusty materials from vehicle body;
- NRMM Labels should be displayed on the applicable equipment on site by the Contractor;
- Provision of water sprinklers along the haul road for dust suppression.

Noise

- Only well-maintained plant should be operated on-site, and plant should be maintained regularly during the construction programme; and
- Quality Powered Mechanical Equipment (QPME) should be adopted as far as possible.

Water Quality

- No effluent discharge would be allowed before acquired the effluent discharge license;
- Surface run-off from construction sites should be discharged into dedicated discharge point via adequately designed sand/ silt removal facilities;
- Channels/ earth bunds/ sandbags barriers should be provided on site to properly direct stormwater to silt removal facilities;
- Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly;
- Open stockpiles of construction materials on sites should be covered with tarpaulin or similar fabric during rainstorms; and
- Perimeter channels should be provided on site boundaries where necessary to intercept stormwater run-off from outside the site so that it will not wash across the site.

Waste Management

- Provision of sufficient waste disposal points and regular collection of waste;
- Regular cleaning and maintenance programme for drainage system; and
- Chemical containers shall be stored with drip tray underneath.

Landscape and Visual

- Construction activities shall be carefully designed to minimize impact on existing retained trees; and

10.2.2 The tentative schedule of regular air quality, construction noise and water quality monitoring in the next reporting period is presented in **Appendix 10.1**. The regular impact air quality, noise and water quality monitoring will be conducted at the same monitoring locations in the next reporting period.

11 Conclusions

11.1 Conclusion

11.1.1 This 1st Monthly EM&A Report presents the EM&A works at Contract 1 and Contract 2 under the Project during the reporting period from 1 November to 30 November 2024 in accordance with the Updated EM&A Manual (Apr 2022).

11.1.2 No Action Level or Limit Level exceedance was recorded for air quality monitoring in the reporting period.

11.1.3 No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.

11.1.4 All water quality monitoring was conducted as scheduled in the reporting period. During the reporting period, 3 action level of exceedances for DO were recorded. 10 limit level of exceedances for turbidity were recorded. 5 action level of exceedances for SS were recorded. 7 limit level of exceedances for pH were recorded. As the exceedances are still under investigation, details of the investigation results will be presented in the next monthly EM&A report.

11.1.5 Environmental site inspections were conducted at Contract 1 on 1, 8, 15, 21 and 25 November 2024. Environmental site inspections were conducted at Contract 2 out on 1, 8 15, 22 and 29 November 2024.

11.1.6 No environmental complaint was received in the reporting period.

11.1.7 No notification of summons and prosecution was received in the reporting period.

11.1.8 The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

11.1.9 No change to the EM&A programme was made in this reporting period.

11.2 Comments/ Recommendations

11.2.1 The proposed mitigation measures were properly implemented and were considered effective and efficient in pollution control.

Figures

Figure 1.1 General Site Location Plan

N

LAU FAU SHAN

KONG SHAM WESTERN HIGHWAY

NGAU HOM SHEK

FLOODABLE OPEN SPACE

TIN SHUI WAI

HA TSUEN

SEE NOTE 3

HSKEPP

FLOODABLE OPEN SPACE

PING SHAN

CASTLE PEAK ROAD – PING SHAN

YUEN LONG HIGHWAY

HUNG SHUI KIU

YUEN TAU SHAN

RIVER REVITALISATION

HSK STATION (BY OTHERS)

PROPOSED SERVICE RESERVOIRS

LEGEND

- CONTRACT PACKAGE 1
- CONTRACT PACKAGE 2
- CONTRACT PACKAGE 3
- CONTRACT PACKAGE 4
- CONTRACT PACKAGE 5
- CONTRACT PACKAGE 6
- STAGE 1 WORKS / ADVANCE WORKS PHASE 1 & 2 (BY OTHERS)
- OPEN SPACE WORKS / FLOODABLE OPEN SPACE WORKS UNDER CONTRACT PACKAGE 7

NOTES

1. EXTENT ARE INDICATIVE ONLY AND EXACT BOUNDARIES FOR EACH CONTRACT ARE SUBJECT TO REFINEMENT.
2. SITE FORMATION WORKS FOR SITE 4-19, SITE 4-35, ROAD L12 (PART), ROAD L13, ROAD L14, ROAD L15, ROAD D6 AND ROAD D8 TO BE IMPLEMENTED UNDER CONTRACT 1.
3. INTERIM DRAINAGE DETENTION POND IN SITE 3-13 TO BE IMPLEMENTED UNDER CONTRACT 5 AND THE ENTIRE SITE 3-13 WILL BE FORMED BY CONTRACT 6.

Rev	Description	By	Date
G	SEVENTH ISSUE	PY	09/24
F	SIXTH ISSUE	SL	08/24
E	FIFTH ISSUE	PY	07/24
D	FOURTH ISSUE	PY	06/24
C	THIRD ISSUE	PY	02/24
B	SECOND ISSUE	PY	01/24
A	FIRST ISSUE	PY	11/22

Consultant

ARUP

Project Title

Agreement No. CE 1/2020 (CE)
Hung Shui Kiu / Ha Tsuen
New Development Area Package A
Works for Second Phase Development
– Design and Construction

Drawing title

HSK / HT NDA
SECOND PHASE DEVELOPMENT
OVERALL INFRASTRUCTURE
LAYOUT PLAN

Drawing no.			Rev.
278463/GEN/031			G
Drawn: RY	Date: 11/22	Checked: KKC	Approved: DOP
Scale: 1:10000 @ A1		Status: PRELIMINARY	

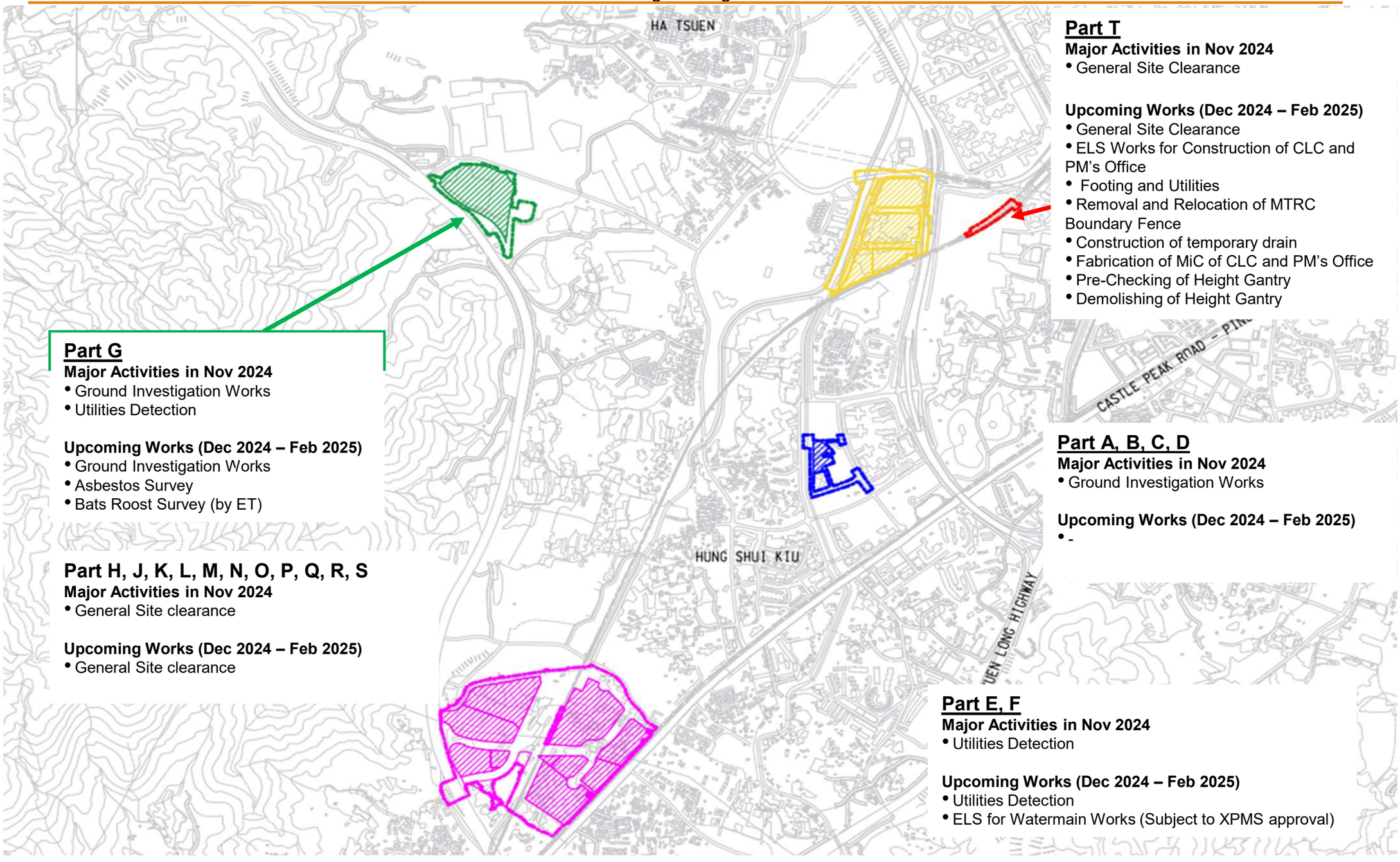
土木工程拓展署
Civil Engineering and Development Department

Printed by : reman.yick Date : 9/10/2024
Filename : J:\278000\278463 CE 1-2020 HSK-HT NDA-DC\05_Int_Proj_Data\05-03_BIM\02-Drawing\Civil\278463_GEN_031-A.dgn

Figure 1.2 Annotated Site Drawing Presenting the Construction Activities Conducted at Contract 1 in the Reporting Period

Contract No. YL/2023/01

Hung Shui Kiu / Ha Tsuen New Development Area Second Phase Development – Contract 1 -
Site Formation and Engineering Infrastructure Works



Part G

Major Activities in Nov 2024

- Ground Investigation Works
- Utilities Detection

Upcoming Works (Dec 2024 – Feb 2025)

- Ground Investigation Works
- Asbestos Survey
- Bats Roost Survey (by ET)

Part H, J, K, L, M, N, O, P, Q, R, S

Major Activities in Nov 2024

- General Site clearance

Upcoming Works (Dec 2024 – Feb 2025)

- General Site clearance

Part T

Major Activities in Nov 2024

- General Site Clearance

Upcoming Works (Dec 2024 – Feb 2025)

- General Site Clearance
- ELS Works for Construction of CLC and PM's Office
- Footing and Utilities
- Removal and Relocation of MTRC Boundary Fence
- Construction of temporary drain
- Fabrication of MiC of CLC and PM's Office
- Pre-Checking of Height Gantry
- Demolishing of Height Gantry

Part A, B, C, D

Major Activities in Nov 2024

- Ground Investigation Works

Upcoming Works (Dec 2024 – Feb 2025)

- -

Part E, F

Major Activities in Nov 2024

- Utilities Detection

Upcoming Works (Dec 2024 – Feb 2025)

- Utilities Detection
- ELS for Watermain Works (Subject to XPMS approval)

Figure 1.3 Annotated Site Drawing Presenting the Construction Activities Conducted at Contract 2 in the Reporting Period

N

816000 E
818000 E
820000 E
836000 N
834000 N
832000 N

LAU FAU SHAN
TIN SHUI WAI
NGAU HOM SHEK
KONG SHAM WESTERN HIGHWAY
HA TSUEN
PING SHAN
CASTLE PEAK ROAD - PING SHAN
YUEN TAU SHAN
HUNG SHUI KIU

Handover-ed Site area are highlighted in Pink

Construction activities undertaken in December 2024 - February 2025

•General Site Clearance
•Tree Condition Survey
•Tree Felling
•Ground Investigation
•Site Office Setup

Construction activities undertaken in December 2024 - February 2025

•Site survey
•Tree Felling
•Tree Transplant
•Earthworks
•Piezometer / Standpipe Installation
•Ground Investigation

Construction activities undertaken in November 2024

•Site survey
•General Site Clearance
•Tree Condition Survey
•Tree Felling
•Ground Investigation
•Tree Transplant

Tentative Handover Date: 7 Jul 2026

Tentative Handover Date: 6 Oct 2024

Tentative Handover Date: 6 Nov 2025

SHEET 1
SHEET 2
SHEET 3
SHEET 4
SHEET 5
SHEET 6
SHEET 7
SHEET 8
SHEET 9
SHEET 10
SHEET 11
SHEET 12
SHEET 13
SHEET 14
SHEET 15
SHEET 16

0 100 200 300 400 500
METRES
1 : 10000

LEGEND

BOUNDARIES OF THE SITE

Rev	Description	By	Date
00	TENDER ISSUE	DT	08/23

Consultant

ARUP

Project Title

Contract No. YL/2023/02
Hung Shui Kiu/Ha Tsuen
New Development Area
Second Phase Development - Contract 2 -
Fresh Water Service Reservoir and
Associated Mainlaying Works

Drawing title

OVERALL LAYOUT PLAN

Drawing no.			Rev.
282748/C2/GEN/1100			00
Drawn	Date	Checked	Approved
MAN	05/23		
Scale		Status	
1:10000 @ A1		TENDER	

CEDD
土木工程拓展署
Civil Engineering and Development Department

Printed by : reman.yick Date : 9/26/2023
File name : J:\282000\282748-00 CE 71-2020 HSK-HT NDA-DC Package B\05_Int_Proj_Data\05_89_Drafting\02-Drawing\Civil\282748_C2_GEN_1100.dgn

Figure 2.1 Impact Air Quality Monitoring Locations

N

LAU FAU SHAN

AM20 AM19 AM18 AM21 AM17

FLOODABLE OPEN SPACE

TIN SHUI WAI

KONG SHAM WESTERN HIGHWAY

NGAU HOM SHEK

AM23 AM15 AM16

HA TSUEN

AM14

E NOTE 3

AM24 AM25a AM13 AM8a AM12 AM11

HSKEPP

AM9 AM10

PING SHAN

AM7

FLOODABLE OPEN SPACE

CASTLE PEAK ROAD – PING SHAN

AM6

YUEN LONG HIGHWAY

HUNG SHUI KIU

YUEN TAU SHAN

AM5

RIVER REVITALISATION

AM4

HSK STATION (BY OTHERS)

PROPOSED SERVICE RESERVOIRS

AM3 AM22 AM2 AM1

Legends:

- Contract 1
- Contract 2
- Contract 3
- Contract 4
- Contract 5
- Contract 6
- Stage 1 Works / Advance Works Phase 1&2 (By others)

Note:
The Layout of Contract 7 is subject to review and is not shown in this drawing

- Designated Monitoring Location
- Alternative Monitoring Location

No.	Revision/Issue	Date

Project Name:
WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team

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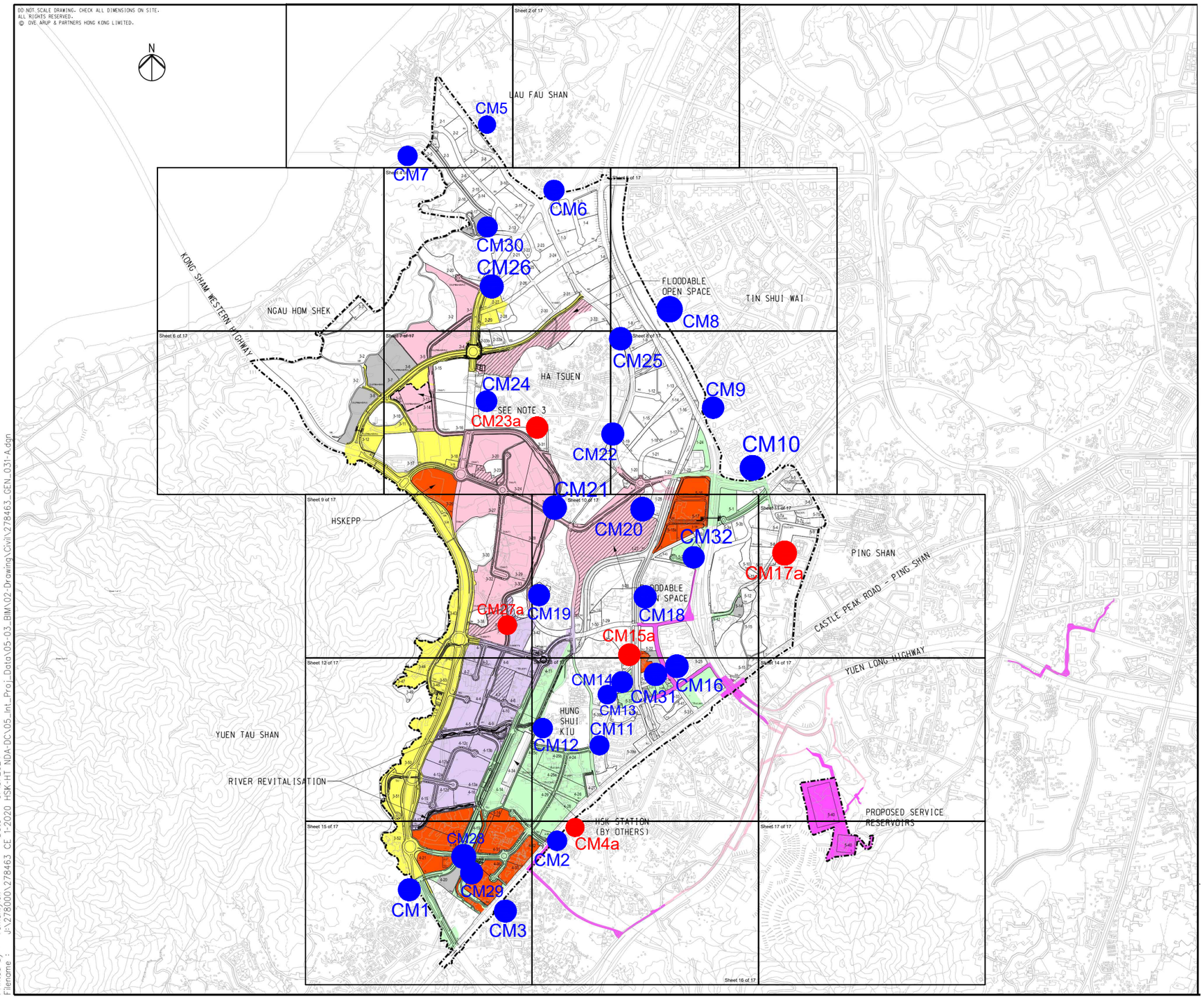
Drawing Title:
Layout Plan of Air Quality Monitoring Locations (Overall)

Date:
30 July 2024

Scale:
Not to Scale

Printed by : reman.yick Date : 9/10/2024
Filename : J:\278000\278463_CE 1-2020 HSK-HT NDA-DC\05_Int_Proj_Data\05-03_BIM\02-Drawing\Civil\278463_GEN_031-A.dgn

Figure 3.1 Impact Noise Monitoring Locations



Legends:

- Contract 1
- Contract 2
- Contract 3
- Contract 4
- Contract 5
- Contract 6
- Stage 1 Works / Advance Works Phase 1&2 (By others)

Note:
The Layout of Contract 7 is subject to review and is not shown in this drawing

- Designated Monitoring Location
- Proposed Alternative Monitoring Location

No.	Revision/Issue	Date

Project Name:
WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team

aurecon
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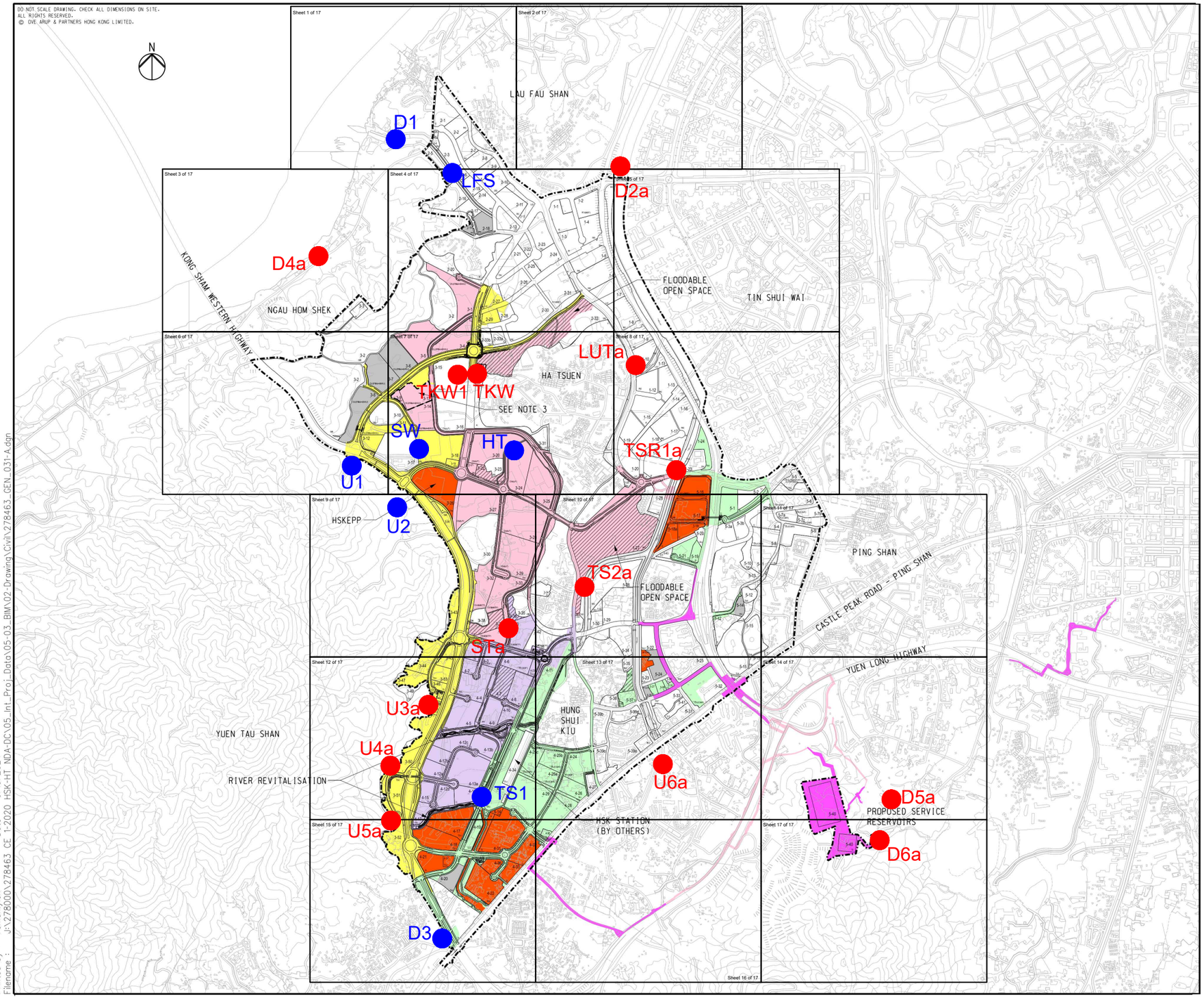
Drawing Title:
Layout Plan of Noise Monitoring Locations

Date:
30 July 2024

Scale:
Not to Scale

Printed by : remon.yick Date : 9/10/2024
Filename : J:\278000\278463_CE 1-2020 HSK-HT NDA-DC\05_Int_Proj_Data\05-03_BIM\02-Drawing\Civil\278463_GEN_031-A.dgn

Figure 4.1 Impact Water Quality Monitoring Locations



Printed by : reman.yick Date : 9/10/2024
Filename : J:\278000\278463_CE 1-2020 HSK-HT NDA-DC\05_Int_Proj_Data\05-03_BIM\02-Drawing\Civil\278463_GEN_031-A.dgn

Legends:

- Contract 1
- Contract 2
- Contract 3
- Contract 4
- Contract 5
- Contract 6
- Stage 1 Works / Advance Works Phase 1&2 (By others)

Note:
The Layout of Contract 7 is subject to review and is not shown in this drawing

- Designated Monitoring Locations
- Proposed Alternative Monitoring Locations

No.	Revision/Issue	Date

Project Name:
WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team

aurecon
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Drawing Title:
Layout Plan of Water Quality Monitoring Locations (Overall)

Date:
30 July 2024

Scale:
Not to Scale

Appendices

Appendix 1.1 Construction Programme

Construction Programme for Contract 1

Contract No. YL/2023/01

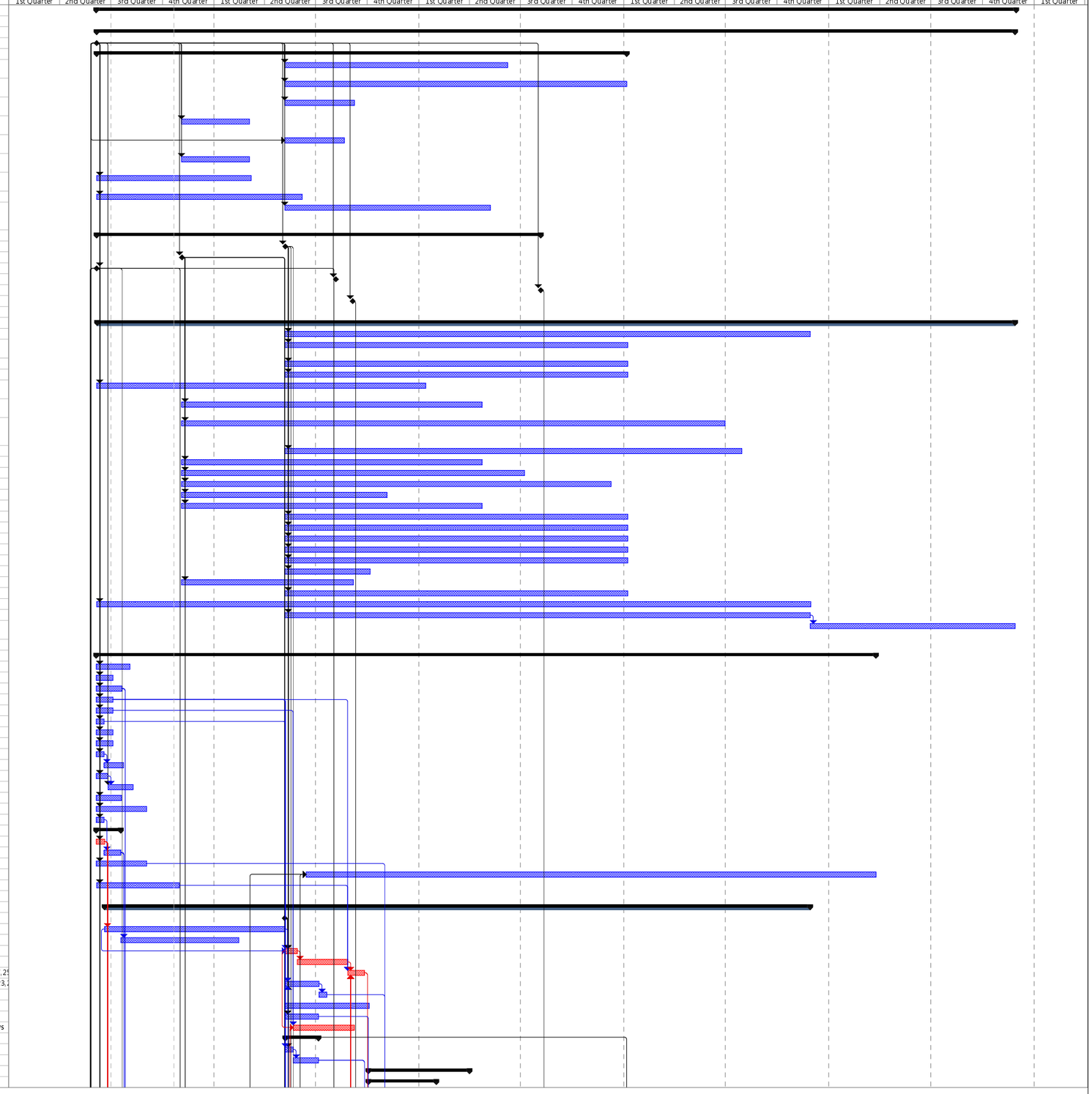
Sang Hing - Kuly Joint Venture

Hung Shui Kiu / Ha Tsuen New Development Area

Second Phase Development - Contract 1 - Site Formation and Engineering Infrastructure Works

Programme for the Works (Data Date : 05 Oct 2024)

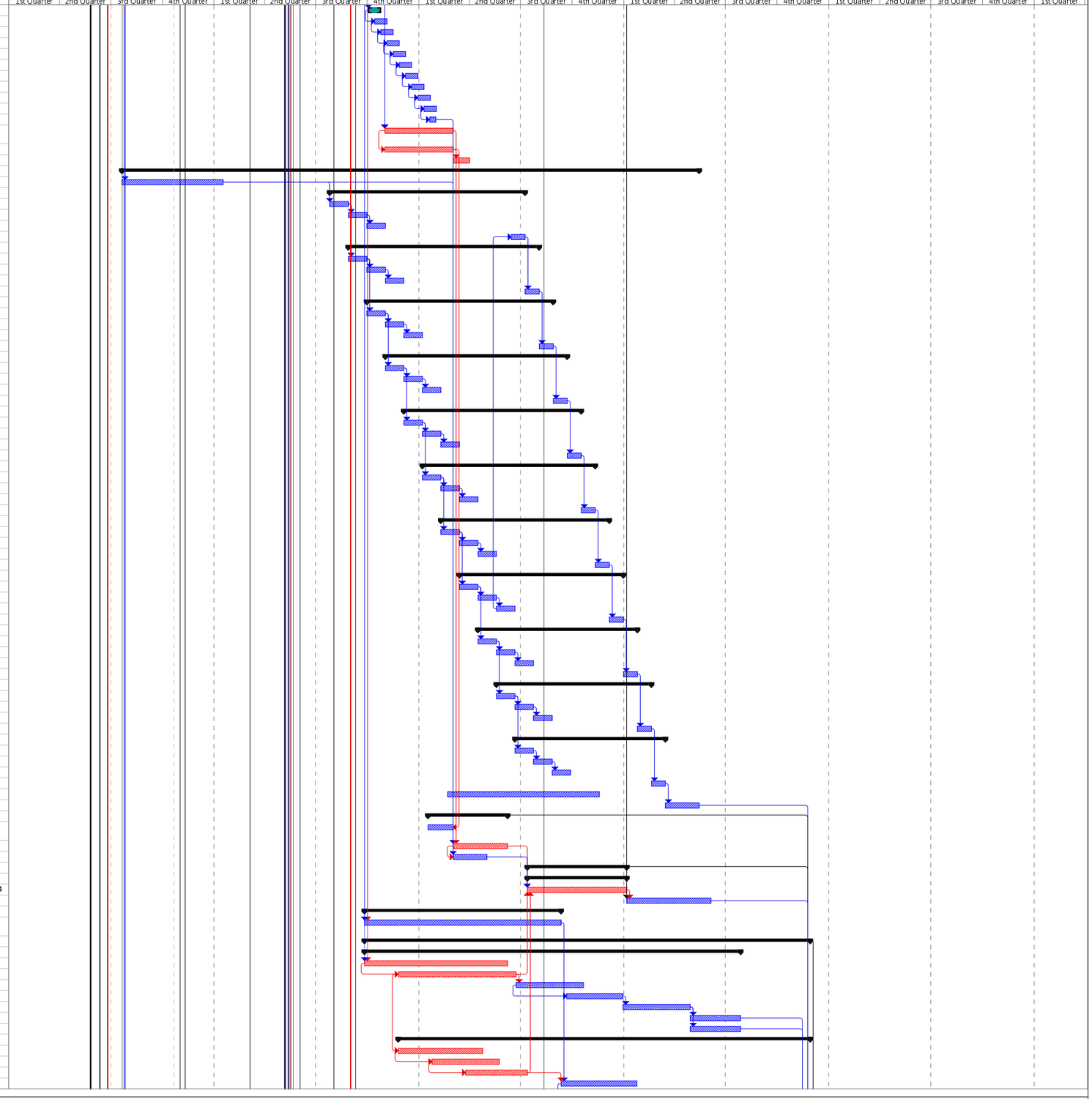
ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Float	Predecessors
1	Project Programme of Works	1639 days	Wed 5/6/24	Wed 29/11/28	Wed 5/6/24	Wed 29/11/28	0 days	
2								
3	1. Commencement of the works	1636 days	Thu 6/6/24	Mon 27/11/28	Thu 6/6/24	Mon 27/11/28	0 days	
4	1.1 Date of commencement (Starting Date : 06 Jun 2024)	0 days	Thu 6/6/24	Thu 6/6/24	Thu 6/6/24	Thu 6/6/24	0 days	
5	1.2 Key Dates	944 days	Thu 6/6/24	Tue 5/1/27	Thu 6/6/24	Tue 5/1/27	1029 days	
6	KD1 - completion construction of drainage works under RoadL7 and its connection to TSW main channel and demolition of existing box culverts	397 days	Wed 7/5/25	Sun 7/6/26	Wed 7/5/25	Sun 7/6/26	906 days	4FS+335 days
7	KD2 - complete the site clearance, land decontamination, site formation works and up to the road works for FB13 by others	609 days	Wed 7/5/25	Tue 5/1/27	Wed 7/5/25	Tue 5/1/27	692 days	4FS+335 days
8	KD3 - complete GI works for drillholes and trial pits incl. Lab testing and report in Drawings GEO/1122, 1123, 1124	124 days	Wed 7/5/25	Sun 7/9/25	Wed 7/5/25	Sun 7/9/25	1179 days	4FS+335 days
9	KD4 - complete GI works for drillholes and trial pits incl. Lab testing and report in Drawings GEO/1121, 1123, 1124	121 days	Mon 4/11/24	Tue 4/3/25	Mon 4/11/24	Tue 4/3/25	1365 days	4FS+150 days
10	KD5 - complete GI works for drillholes and trial pits incl. Lab testing and report in Drawings DCS/GI/201	106 days	Wed 7/5/25	Wed 20/8/25	Wed 7/5/25	Wed 20/8/25	1196 days	4SS+335 days
11	KD6 - complete GI works for drillholes and trial pits incl. Lab testing and report in Drawings DCS/GI/201	121 days	Mon 4/11/24	Tue 4/3/25	Mon 4/11/24	Tue 4/3/25	1365 days	4FS+150 days
12	KD7 - complete and commissioning of the relocated CLC building and the connecting corridor to new CLC building	275 days	Thu 6/6/24	Fri 7/3/25	Thu 6/6/24	Fri 7/3/25	1363 days	4
13	KD7A - complete and commissioning of the remaining CLC compound	366 days	Thu 6/6/24	Fri 6/6/25	Thu 6/6/24	Fri 6/6/25	1272 days	4
14	KD8 - complete all necessary works to facilitate utilities undertakers to carry out utility laying works along Advance Utility Laying Works corridors identified in C1/ELE/series and TEL/series Drawings	366 days	Wed 7/5/25	Thu 7/5/26	Wed 7/5/25	Thu 7/5/26	937 days	4FS+335 days
15	1.3 Site Access Dates	791 days	Thu 6/6/24	Wed 5/8/26	Thu 6/6/24	Wed 5/8/26	0 days	
16	Part A, B, C, D, G1C, G2, H2, L2, M, N, O, P, Q, S1, S2, S3, S4	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	4FS+336 days
17	Part E1, G1A, G1B, G3, G4, H1, H3, J, K1, K2, L1, L3, L4, L5, R1, R2, R3	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	0 days	4FS+152 days
18	Part E2A, E3, E4, F, T	0 days	Thu 6/6/24	Thu 6/6/24	Thu 6/6/24	Thu 6/6/24	0 days	4
19	Part E2B	0 days	Tue 5/8/25	Tue 5/8/25	Tue 5/8/25	Tue 5/8/25	1210 days	4FS+426 days
20	Part G5	0 days	Wed 5/8/26	Wed 5/8/26	Wed 5/8/26	Wed 5/8/26	223 days	4FS+791 days
21	Part S5	0 days	Thu 4/9/25	Thu 4/9/25	Thu 4/9/25	Thu 4/9/25	35 days	4FS+456 days
22								
23	1.4 Sectional Completion of the works	1635 days	Fri 7/6/24	Mon 27/11/28	Fri 7/6/24	Mon 27/11/28	336 days	
24	Section 1 - All works within part A of the Site	936 days	Wed 7/5/25	Sun 28/11/27	Wed 7/5/25	Sun 28/11/27	365 days	16FS-1 day
25	Section 2 - All works within part B of the Site and complete the drainage diversion for demolition of existing BC within part B of the Site	611 days	Wed 7/5/25	Thu 7/1/27	Wed 7/5/25	Thu 7/1/27	690 days	16FS-1 day
26	Section 3 - All works within part C of the Site	611 days	Wed 7/5/25	Thu 7/1/27	Wed 7/5/25	Thu 7/1/27	690 days	16FS-1 day
27	Section 4 - All works within part D of the Site	611 days	Wed 7/5/25	Thu 7/1/27	Wed 7/5/25	Thu 7/1/27	690 days	16FS-1 day
28	Section 5 - All works within part E1, E2A, E2B, E3, E4 and F of the Site and complete the relocation of existing CLC	586 days	Thu 6/6/24	Mon 12/1/26	Thu 6/6/24	Mon 12/1/26	1051 days	4FS-2 days
29	Section 6 - All works within part G1A of the Site and complete the drainage diversion for the backfilling of existing channel / stream within G1A of the	535 days	Mon 4/11/24	Wed 22/4/26	Mon 4/11/24	Wed 22/4/26	952 days	17FS-1 day
30	Section 7 - All works within part G1B and G1C of the Site and complete the drainage diversion for the backfilling of existing channel / stream within G1B and G1C of the Site	968 days	Mon 4/11/24	Tue 29/6/27	Mon 4/11/24	Tue 29/6/27	517 days	17FS-1 day
31	Section 8 - All works within part G2, G3 and G5 of the Site	814 days	Wed 7/5/25	Thu 29/7/27	Wed 7/5/25	Thu 29/7/27	487 days	16FS-1 day
32	Section 9 - All works within part G4 of the Site	535 days	Mon 4/11/24	Wed 22/4/26	Mon 4/11/24	Wed 22/4/26	952 days	17FS-1 day
33	Section 10 - All works within part H1 and H2 of the Site	611 days	Mon 4/11/24	Tue 7/7/26	Mon 4/11/24	Tue 7/7/26	876 days	17FS-1 day
34	Section 11 - All works within part J of the Site	765 days	Mon 4/11/24	Tue 8/12/26	Mon 4/11/24	Tue 8/12/26	720 days	17FS-1 day
35	Section 12 - All works within part K1 of the Site	366 days	Mon 4/11/24	Tue 4/11/25	Mon 4/11/24	Tue 4/11/25	1121 days	17FS-1 day
36	Section 13 - All works within part L1 of the Site	535 days	Mon 4/11/24	Wed 22/4/26	Mon 4/11/24	Wed 22/4/26	952 days	17FS-1 day
37	Section 14 - All works within part M and R2 of the Site	611 days	Wed 7/5/25	Thu 7/1/27	Wed 7/5/25	Thu 7/1/27	690 days	16FS-1 day
38	Section 15 - All works within part N of the Site	611 days	Wed 7/5/25	Thu 7/1/27	Wed 7/5/25	Thu 7/1/27	690 days	16FS-1 day
39	Section 16 - All works within part O and R3 of the Site	611 days	Wed 7/5/25	Thu 7/1/27	Wed 7/5/25	Thu 7/1/27	690 days	16FS-1 day
40	Section 17 - All works within part P of the Site	611 days	Wed 7/5/25	Thu 7/1/27	Wed 7/5/25	Thu 7/1/27	690 days	16FS-1 day
41	Section 18 - All works within part Q and L4 of the Site	611 days	Wed 7/5/25	Thu 7/1/27	Wed 7/5/25	Thu 7/1/27	690 days	16FS-1 day
42	Section 19 - All works within part S3 of the Site	152 days	Wed 7/5/25	Sun 5/10/25	Wed 7/5/25	Sun 5/10/25	1151 days	16FS-1 day
43	Section 20 - All works within part L5 and S4 of the Site	306 days	Mon 4/11/24	Fri 5/9/25	Mon 4/11/24	Fri 5/9/25	1181 days	17FS-1 day
44	Section 21 - All works within part H3, R1, K2, L2, L3, S1, S2 and S5 of the Site	611 days	Wed 7/5/25	Thu 7/1/27	Wed 7/5/25	Thu 7/1/27	690 days	16FS-1 day
45	Section 22 - All works related to the CLC within the part T of the Site	1272 days	Thu 6/6/24	Mon 29/11/27	Thu 6/6/24	Mon 29/11/27	364 days	4FS-1 day
46	Section 23 - All of the landscape works specified in the contract	936 days	Wed 7/5/25	Sun 28/11/27	Wed 7/5/25	Sun 28/11/27	1 day	16FS-1 day
47	Section 24 - the establishment works of all of the landscape softworks under Section 23 of the works	365 days	Mon 29/11/27	Mon 27/11/28	Mon 29/11/27	Mon 27/11/28	2 days	46
48								
49	2. Preliminary works	1389 days	Wed 5/6/24	Fri 24/3/28	Wed 5/6/24	Fri 24/3/28	0 days	
50	Set up site accommodation	60 days	Wed 5/6/24	Sat 3/8/24	Wed 5/6/24	Sat 3/8/24	1579 days	4FS-1 day
51	Prepare, submit & Approve ICE	30 days	Wed 5/6/24	Thu 4/7/24	Wed 5/6/24	Thu 4/7/24	1609 days	4FS-1 day
52	Prepare, submit & Approve Traffic Consultant	46 days	Wed 5/6/24	Sat 20/7/24	Wed 5/6/24	Sat 20/7/24	57 days	4FS-1 day
53	Prepare, submit & Approve Landscape Specialist	30 days	Wed 5/6/24	Thu 4/7/24	Wed 5/6/24	Thu 4/7/24	307 days	4FS-1 day
54	Prepare, submit & Approve G.I. Contractor	30 days	Wed 5/6/24	Thu 4/7/24	Wed 5/6/24	Thu 4/7/24	321 days	4FS-1 day
55	Prepare, submit & Approve Land Decontamination Specialist	14 days	Wed 5/6/24	Tue 18/6/24	Wed 5/6/24	Tue 18/6/24	405 days	4FS-1 day
56	Prepare, submit & Approve Asbestos Specialist	30 days	Wed 5/6/24	Thu 4/7/24	Wed 5/6/24	Thu 4/7/24	1609 days	4FS-1 day
57	Prepare and submit Smart Card System	30 days	Wed 5/6/24	Thu 4/7/24	Wed 5/6/24	Thu 4/7/24	1609 days	4FS-1 day
58	Prepare, submit Draft Safety Plan	14 days	Wed 5/6/24	Tue 18/6/24	Wed 5/6/24	Tue 18/6/24	1590 days	4FS-1 day
59	Review & Approve Safety Plan	35 days	Wed 19/6/24	Tue 23/7/24	Wed 19/6/24	Tue 23/7/24	1590 days	58
60	Prepare, Submit Draft Environmental Management Plan	21 days	Wed 5/6/24	Tue 25/6/24	Wed 5/6/24	Tue 25/6/24	1573 days	4FS-1 day
61	Review & Approve Environmental Management Plan	45 days	Wed 26/6/24	Fri 9/8/24	Wed 26/6/24	Fri 9/8/24	1573 days	4,60
62	Prepare, submit & Approve Site Management Plan for Trip Ticket System	45 days	Wed 5/6/24	Fri 19/7/24	Wed 5/6/24	Fri 19/7/24	1594 days	4FS-1 day
63	Prepare, submit & Approve of Supplier for Noise Barrier - Panel	90 days	Wed 5/6/24	Mon 2/9/24	Wed 5/6/24	Mon 2/9/24	1549 days	4FS-1 day
64	Prepare and submit Interface Management Plan	14 days	Wed 5/6/24	Tue 18/6/24	Wed 5/6/24	Tue 18/6/24	1385 days	4FS-1 day
65	Interface Management Group	44 days	Wed 5/6/24	Thu 18/7/24	Wed 5/6/24	Thu 18/7/24	0 days	
66	Set up of Caring Teams	15 days	Wed 5/6/24	Wed 19/6/24	Wed 5/6/24	Wed 19/6/24	0 days	4FS-1 day
67	Set up of Interface Management Group / utility liaison group	30 days	Wed 19/6/24	Thu 18/7/24	Wed 19/6/24	Thu 18/7/24	1385 days	64
68	Prepare, submit & Approve TDMP to DSD	90 days	Wed 5/6/24	Mon 2/9/24	Wed 5/6/24	Mon 2/9/24	424 days	4FS-1 day
69	Geotechnical Instrumentation and monitoring	1015 days	Sat 14/6/25	Fri 24/3/28	Sat 14/6/25	Fri 24/3/28	248 days	371SS,378SS
70	Application for MTRC consent	147 days	Thu 6/6/24	Wed 30/10/24	Thu 6/6/24	Wed 30/10/24	300 days	4
71								
72	3. Section 1 of the works (Part A of the works) - 935D	1257 days	Thu 20/6/24	Sun 28/11/27	Thu 20/6/24	Sun 28/11/27	1 day	
73	Site possession	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	1 day	
74	Coordination/Liaison with nearby stakeholders by caring team visit	321 days	Thu 20/6/24	Tue 6/5/25	Thu 20/6/24	Tue 6/5/25	1 day	66
75	Interface and utilities undertaker liaison	210 days	Fri 19/7/24	Thu 13/2/25	Fri 19/7/24	Thu 13/2/25	1385 days	67
76	Tree survey and submission	21 days	Thu 8/5/25	Wed 28/5/25	Thu 8/5/25	Wed 28/5/25	0 days	16,53,74SS,73
77	Submission of TPRP and approval	90 days	Thu 29/5/25	Tue 26/8/25	Thu 29/5/25	Tue 26/8/25	0 days	76
78	Tree felling	30 days	Wed 27/8/25	Thu 25/9/25	Wed 27/8/25	Thu 25/9/25	0 days	53,70,77,198,227,2
79	Erection of hoarding / fencing	60 days	Thu 8/5/25	Sun 6/7/25	Thu 8/5/25	Sun 6/7/25	103 days	73,74,194,195,223,
80	Construction of temporary site entrance	14 days	Mon 7/7/25	Sun 20/7/25	Mon 7/7/25	Sun 20/7/25	103 days	79
81	Decommissioning of utility i.e. power supply / water supply	150 days	Wed 7/5/25	Fri 3/10/25	Wed 7/5/25	Fri 3/10/25	1152 days	
82	General site clearance / demolition work	60 days	Wed 7/5/25	Sat 5/7/25	Wed 7/5/25	Sat 5/7/25	1221 days	73
83	Ground Investigation (10 nos. BH) and Lab. Testing/reporting - (KD3)	109 days	Thu 22/5/25	Sun 7/9/25	Thu 22/5/25	Sun 7/9/25	-1 day	54,76SS+14 days
84	Land Contamination Assessment / Treatment	59 days	Thu 8/5/25	Sat 5/7/25	Thu 8/5/25	Sat 5/7/25	82 days	
85	site appraisal	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	82 days	55,16
86	submission / approval (assumed no contamination)	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	82 days	85
87	Construction of Box culvert	180 days	Fri 3/10/25	Tue 31/3/26	Fri 3/10/25	Tue 31/3/26	0 days	
88	Phase 1 - along Road L8 - Bay 3 - 22 : 2 workfronts	121 days	Fri 3/10/25	Sat 31/1/26	Fri 3/10/25	Sat 31/1/26	0 days	



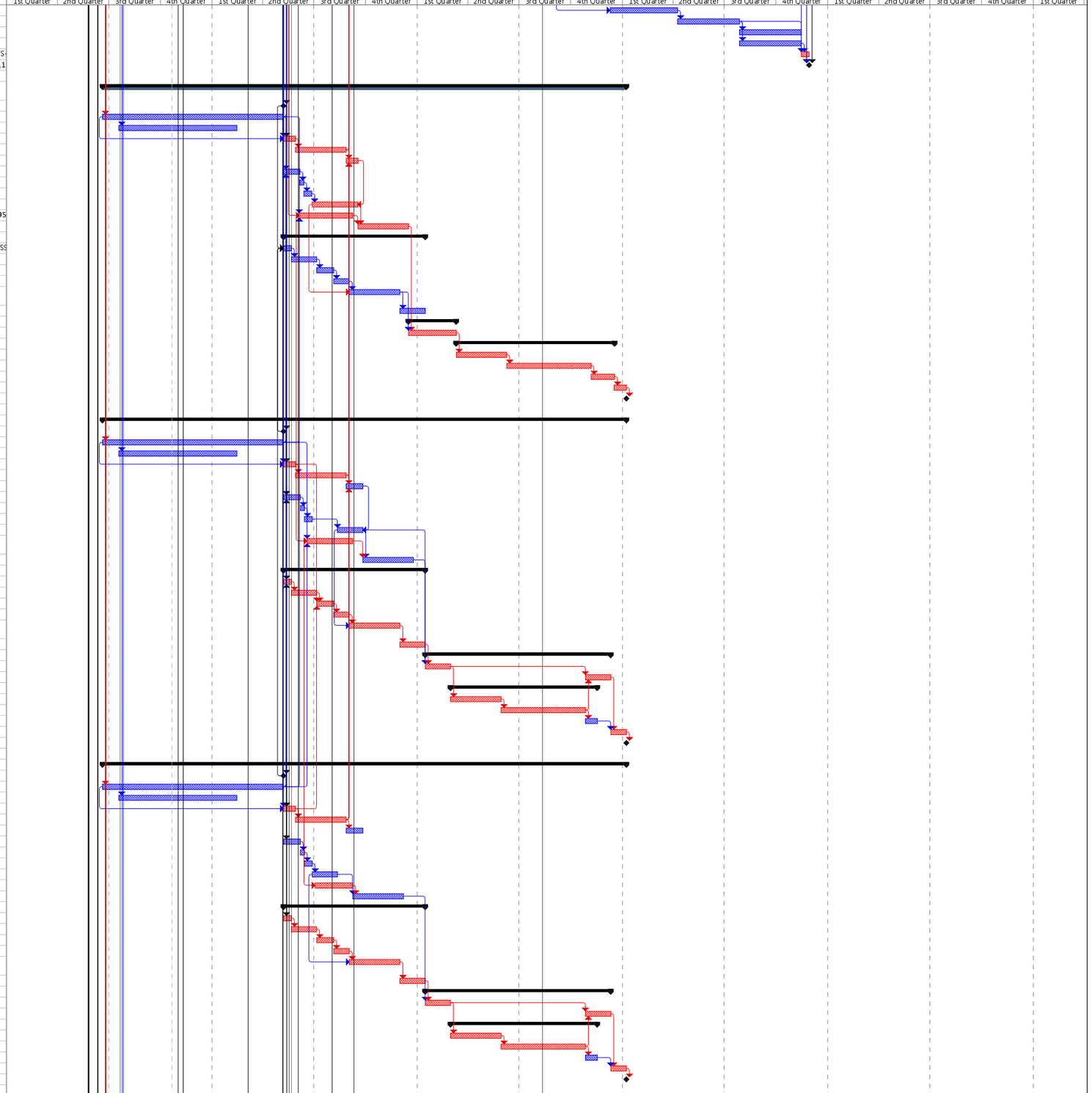
Project : YL/2023/01
Data Date : 05 Oct 2024 (Rev. 4)

Task
Critical Task
Milestone
Summary
Rolled Up Task
Rolled Up Critical Task
Rolled Up Milestone
Rolled Up Progress
Split
External Tasks
Project Summary
Group By Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Progress
Deadline

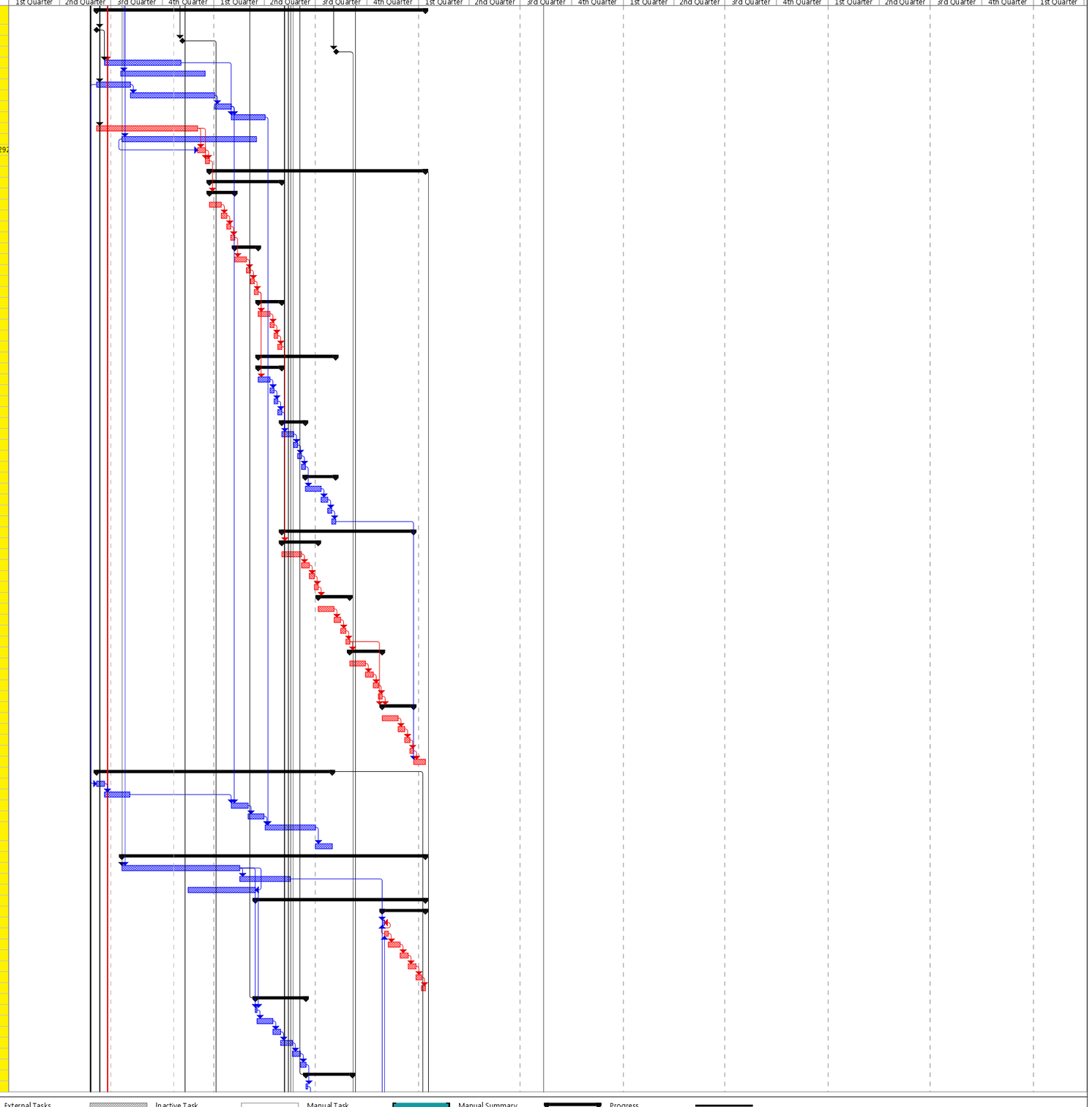
ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Float	Predecessors
89	Bay 3 & 4	22 days	Fri 3/10/25	Fri 24/10/25	Fri 3/10/25	Fri 24/10/25	1132 days	82FS-1 day
90	Bay 5 & 6	22 days	Tue 14/10/25	Tue 4/11/25	Tue 14/10/25	Tue 4/11/25	1120 days	89SS
91	Bay 7 & 8	22 days	Sat 25/10/25	Sat 15/11/25	Sat 25/10/25	Sat 15/11/25	1110 days	90SS
92	Bay 9 & 10	22 days	Wed 5/11/25	Wed 26/11/25	Wed 5/11/25	Wed 26/11/25	107 days	91SS
93	Bay 10 & 11	22 days	Sun 16/11/25	Sun 7/12/25	Sun 16/11/25	Sun 7/12/25	96 days	92SS
94	Bay 12 & 13	22 days	Thu 27/11/25	Thu 18/12/25	Thu 27/11/25	Thu 18/12/25	85 days	93SS
95	Bay 14 & 15	22 days	Mon 8/12/25	Mon 29/12/25	Mon 8/12/25	Mon 29/12/25	74 days	94SS
96	Bay 16 & 17	22 days	Fri 19/12/25	Fri 9/1/26	Fri 19/12/25	Fri 9/1/26	63 days	95SS
97	Bay 18 & 19	22 days	Tue 30/12/25	Tue 20/1/26	Tue 30/12/25	Tue 20/1/26	52 days	96SS
98	Bay 20 & 21	22 days	Sat 10/1/26	Sat 31/1/26	Sat 10/1/26	Sat 31/1/26	41 days	97SS
99	Bay 22	11 days	Tue 20/1/26	Fri 30/1/26	Tue 20/1/26	Fri 30/1/26	31 days	98SS
100	Phase 2 - outfall in existing Hung Shui Kiu Channel (dry season) - TDMP approved by DSD	122 days	Sat 1/11/25	Mon 2/3/26	Sat 1/11/25	Mon 2/3/26	0 days	80,68
101	Phase 3 - connection to exiting box culvert at upstream - Bay 1 - 2	122 days	Sat 1/11/25	Mon 2/3/26	Sat 1/11/25	Mon 2/3/26	0 days	100SS
102	Installation of flap valve	29 days	Tue 3/3/26	Tue 31/3/26	Tue 3/3/26	Tue 31/3/26	0 days	100
103	**Construction of noise barrier - 22 BAYS**	**1028 days**	**Sun 21/7/24**	**Fri 14/5/27**	**Sun 21/7/24**	**Fri 14/5/27**	**414 days**	
104	XP application for road closure	180 days	Sun 21/7/24	Thu 16/1/25	Sun 21/7/24	Thu 16/1/25	414 days	52
105	**Noise barrier (Bay 1)**	**348 days**	**Sat 26/7/25**	**Wed 8/7/26**	**Sat 26/7/25**	**Wed 8/7/26**	**224 days**	
106	Excavation & ELS	33 days	Sat 26/7/25	Wed 27/8/25	Sat 26/7/25	Wed 27/8/25	224 days	104
107	Construction footing	33 days	Thu 28/8/25	Mon 29/9/25	Thu 28/8/25	Mon 29/9/25	1123 days	106
108	Construction Wall Stem	33 days	Tue 30/9/25	Sat 1/11/25	Tue 30/9/25	Sat 1/11/25	1123 days	107
109	installation of noise barrier panel	25 days	Sun 14/6/26	Wed 8/7/26	Sun 14/6/26	Wed 8/7/26	198 days	143SS
110	**Noise barrier (Bay 2)**	**340 days**	**Thu 28/8/25**	**Sun 2/8/26**	**Thu 28/8/25**	**Sun 2/8/26**	**224 days**	
111	Excavation & ELS	33 days	Thu 28/8/25	Mon 29/9/25	Thu 28/8/25	Mon 29/9/25	224 days	106
112	Construction footing	33 days	Tue 30/9/25	Sat 1/11/25	Tue 30/9/25	Sat 1/11/25	1090 days	111
113	Construction Wall Stem	33 days	Sun 2/11/25	Thu 4/12/25	Sun 2/11/25	Thu 4/12/25	1090 days	112
114	installation of noise barrier panel	25 days	Thu 9/7/26	Sun 2/8/26	Thu 9/7/26	Sun 2/8/26	198 days	109
115	**Noise barrier (Bay 3)**	**332 days**	**Tue 30/9/25**	**Thu 27/8/26**	**Tue 30/9/25**	**Thu 27/8/26**	**224 days**	
116	Excavation & ELS	33 days	Tue 30/9/25	Sat 1/11/25	Tue 30/9/25	Sat 1/11/25	224 days	111
117	Construction footing	33 days	Sun 2/11/25	Thu 4/12/25	Sun 2/11/25	Thu 4/12/25	1057 days	116
118	Construction Wall Stem	33 days	Fri 5/12/25	Tue 6/1/26	Fri 5/12/25	Tue 6/1/26	1057 days	117
119	installation of noise barrier panel	25 days	Mon 3/8/26	Thu 27/8/26	Mon 3/8/26	Thu 27/8/26	198 days	114
120	**Noise barrier (Bay 4)**	**324 days**	**Sun 2/11/25**	**Mon 21/9/26**	**Sun 2/11/25**	**Mon 21/9/26**	**224 days**	
121	Excavation & ELS Bay4	33 days	Sun 2/11/25	Thu 4/12/25	Sun 2/11/25	Thu 4/12/25	224 days	116
122	Construction footing	33 days	Fri 5/12/25	Tue 6/1/26	Fri 5/12/25	Tue 6/1/26	1024 days	121
123	Construction Wall Stem	33 days	Wed 7/1/26	Sun 8/2/26	Wed 7/1/26	Sun 8/2/26	1024 days	122
124	installation of noise barrier panel	25 days	Fri 28/8/26	Mon 21/9/26	Fri 28/8/26	Mon 21/9/26	198 days	119
125	**Noise barrier (Bay 5)**	**316 days**	**Fri 5/12/25**	**Fri 16/10/26**	**Fri 5/12/25**	**Fri 16/10/26**	**224 days**	
126	Excavation & ELS Bay5	33 days	Fri 5/12/25	Tue 6/1/26	Fri 5/12/25	Tue 6/1/26	224 days	121
127	Construction footing	33 days	Wed 7/1/26	Sun 8/2/26	Wed 7/1/26	Sun 8/2/26	991 days	126
128	Construction Wall Stem	33 days	Mon 9/2/26	Fri 13/3/26	Mon 9/2/26	Fri 13/3/26	991 days	127
129	installation of noise barrier panel	25 days	Tue 22/9/26	Fri 16/10/26	Tue 22/9/26	Fri 16/10/26	198 days	124
130	**Noise barrier (Bay 6)**	**308 days**	**Wed 7/1/26**	**Tue 10/11/26**	**Wed 7/1/26**	**Tue 10/11/26**	**224 days**	
131	Excavation & ELS Bay6	33 days	Wed 7/1/26	Sun 8/2/26	Wed 7/1/26	Sun 8/2/26	224 days	126
132	Construction footing	33 days	Mon 9/2/26	Fri 13/3/26	Mon 9/2/26	Fri 13/3/26	958 days	131
133	Construction Wall Stem	33 days	Sat 14/3/26	Wed 15/4/26	Sat 14/3/26	Wed 15/4/26	958 days	132
134	installation of noise barrier panel	25 days	Sat 17/10/26	Tue 10/11/26	Sat 17/10/26	Tue 10/11/26	198 days	129
135	**Noise barrier (Bay 7)**	**300 days**	**Mon 9/2/26**	**Sat 5/12/26**	**Mon 9/2/26**	**Sat 5/12/26**	**224 days**	
136	Excavation & ELS Bay7	33 days	Mon 9/2/26	Fri 13/3/26	Mon 9/2/26	Fri 13/3/26	224 days	131
137	Construction footing	33 days	Sat 14/3/26	Wed 15/4/26	Sat 14/3/26	Wed 15/4/26	925 days	136
138	Construction Wall Stem	33 days	Thu 16/4/26	Mon 18/5/26	Thu 16/4/26	Mon 18/5/26	925 days	137
139	installation of noise barrier panel	25 days	Wed 11/11/26	Sat 5/12/26	Wed 11/11/26	Sat 5/12/26	198 days	134
140	**Noise barrier (Bay 8)**	**292 days**	**Sat 14/3/26**	**Wed 30/12/26**	**Sat 14/3/26**	**Wed 30/12/26**	**224 days**	
141	Excavation & ELS Bay8	33 days	Sat 14/3/26	Wed 15/4/26	Sat 14/3/26	Wed 15/4/26	224 days	136
142	Construction footing	33 days	Thu 16/4/26	Mon 18/5/26	Thu 16/4/26	Mon 18/5/26	224 days	141
143	Construction Wall Stem	33 days	Tue 19/5/26	Sat 20/6/26	Tue 19/5/26	Sat 20/6/26	224 days	142
144	installation of noise barrier panel	25 days	Sun 6/12/26	Wed 30/12/26	Sun 6/12/26	Wed 30/12/26	198 days	139
145	**Noise barrier (Bay 9)**	**284 days**	**Thu 16/4/26**	**Sun 24/1/27**	**Thu 16/4/26**	**Sun 24/1/27**	**457 days**	
146	Excavation & ELS Bay9	33 days	Thu 16/4/26	Mon 18/5/26	Thu 16/4/26	Mon 18/5/26	793 days	141
147	Construction footing	33 days	Tue 19/5/26	Sat 20/6/26	Tue 19/5/26	Sat 20/6/26	859 days	146
148	Construction Wall Stem	33 days	Sun 21/6/26	Thu 23/7/26	Sun 21/6/26	Thu 23/7/26	859 days	147
149	installation of noise barrier panel	25 days	Thu 31/12/26	Sun 24/1/27	Thu 31/12/26	Sun 24/1/27	198 days	144
150	**Noise barrier (Bay 10)**	**276 days**	**Tue 19/5/26**	**Thu 18/2/27**	**Tue 19/5/26**	**Thu 18/2/27**	**449 days**	
151	Excavation & ELS Bay10	33 days	Tue 19/5/26	Sat 20/6/26	Tue 19/5/26	Sat 20/6/26	793 days	146
152	Construction footing	33 days	Sun 21/6/26	Thu 23/7/26	Sun 21/6/26	Thu 23/7/26	826 days	151
153	Construction Wall Stem	33 days	Fri 24/7/26	Tue 25/8/26	Fri 24/7/26	Tue 25/8/26	826 days	152
154	installation of noise barrier panel	25 days	Mon 25/1/27	Thu 18/2/27	Mon 25/1/27	Thu 18/2/27	198 days	149
155	**Noise barrier (Bay 11)**	**268 days**	**Sun 21/6/26**	**Mon 15/3/27**	**Sun 21/6/26**	**Mon 15/3/27**	**441 days**	
156	Excavation & ELS Bay11	33 days	Sun 21/6/26	Thu 23/7/26	Sun 21/6/26	Thu 23/7/26	793 days	151
157	Construction footing	33 days	Fri 24/7/26	Tue 25/8/26	Fri 24/7/26	Tue 25/8/26	793 days	156
158	Construction Wall Stem	33 days	Wed 26/8/26	Sun 27/9/26	Wed 26/8/26	Sun 27/9/26	793 days	157
159	installation of noise barrier panel	25 days	Fri 19/2/27	Mon 15/3/27	Fri 19/2/27	Mon 15/3/27	198 days	154
160	modification of gantry support	270 days	Sat 21/2/26	Tue 17/11/26	Sat 21/2/26	Tue 17/11/26	742 days	
161	Reinstatement to Hung Tin Road	60 days	Tue 16/3/27	Fri 14/5/27	Tue 16/3/27	Fri 14/5/27	198 days	159
162	**Demolition of existing box culvert / retaining wall**	**142 days**	**Sat 17/1/26**	**Sun 7/6/26**	**Sat 17/1/26**	**Sun 7/6/26**	**45 days**	
163	construction of end wall in box culvert near existing Flap Valve Chamber (dry season)	45 days	Sat 17/1/26	Mon 2/3/26	Sat 17/1/26	Mon 2/3/26	636 days	101FF
164	demolition of existing box culvert (approx. 280m) - 2 workfronts (KD1)	97 days	Tue 3/3/26	Sun 7/6/26	Tue 3/3/26	Sun 7/6/26	0 days	101,99
165	demolition of existing retaining walls	60 days	Tue 3/3/26	Fri 1/5/26	Tue 3/3/26	Fri 1/5/26	72 days	104,164SS
166	**Site formation work**	**177 days**	**Mon 13/7/26**	**Tue 5/1/27**	**Mon 13/7/26**	**Tue 5/1/27**	**0 days**	
167	completion of formation for bridge FB13 (KD2)	177 days	Mon 13/7/26	Tue 5/1/27	Mon 13/7/26	Tue 5/1/27	0 days	
168	backfilling - 1.5m ~ 2m, 6 layers x 300mm (KD2)	177 days	Mon 13/7/26	Tue 5/1/27	Mon 13/7/26	Tue 5/1/27	0 days	175,164,165,184
169	**Ground improvement work**	**150 days**	**Wed 6/1/27**	**Fri 4/6/27**	**Wed 6/1/27**	**Fri 4/6/27**	**177 days**	**168,84**
170	**Construction of DCS cooling main**	**350 days**	**Fri 26/9/25**	**Thu 10/9/26**	**Fri 26/9/25**	**Thu 10/9/26**	**1 day**	
171	construction of 1200mm DCS pipes along Road L - around 470m x 3 nos. chilled water pipes - 3 work fronts (30m x 5 stages, 75D x 5 stages)	350 days	Fri 26/9/25	Thu 10/9/26	Fri 26/9/25	Thu 10/9/26	1 day	86,78
172	**Drainage works and Road works**	**794 days**	**Fri 26/9/25**	**Sun 28/11/27**	**Fri 26/9/25**	**Sun 28/11/27**	**0 days**	
173	**Road L7**	**670 days**	**Fri 26/9/25**	**Tue 27/7/27**	**Fri 26/9/25**	**Tue 27/7/27**	**0 days**	
174	Storm Drainage along Road L7 and outfall (KD1)	255 days	Fri 26/9/25	Sun 7/6/26	Fri 26/9/25	Sun 7/6/26	-1 day	86,78
175	Sewage and watermain	210 days	Tue 25/11/25	Mon 22/6/26	Tue 25/11/25	Mon 22/6/26	0 days	174SS+60 days
176	Gullies and road drainage	120 days	Tue 23/6/26	Tue 20/10/26	Tue 23/6/26	Tue 20/10/26	110 days	175
177	Kerb and pavement	100 days	Mon 21/9/26	Tue 29/12/26	Mon 21/9/26	Tue 29/12/26	110 days	176SS+90 days
178	Street lighting and UU	120 days	Wed 30/12/26	Wed 28/4/27	Wed 30/12/26	Wed 28/4/27	110 days	177
179	Footpath paving	90 days	Thu 29/4/27	Tue 27/7/27	Thu 29/4/27	Tue 27/7/27	110 days	178
180	Traffic furniture, signs and road marking	90 days	Thu 29/4/27	Tue 27/7/27	Thu 29/4/27	Tue 27/7/27	110 days	178
181	**Road L6 and L8**	**734 days**	**Tue 25/11/25**	**Sun 28/11/27**	**Tue 25/11/25**	**Sun 28/11/27**	**0 days**	
182	Sewage drainage pipe	150 days	Tue 25/11/25	Thu 23/4/26	Tue 25/11/25	Thu 23/4/26	0 days	175SS
183	Storm drainage pipe	120 days	Sat 24/1/26	Sat 23/5/26	Sat 24/1/26	Sat 23/5/26	0 days	182SS+60 days
184	Watermain	110 days	Wed 25/3/26	Sun 12/7/26	Wed 25/3/26	Sun 12/7/26	0 days	183SS+60 days
185	Gullies and road drainage	135 days	Fri 11/9/26	Sat 23/1/27	Fri 11/9/26	Sat 23/1/27	1 day	184,171



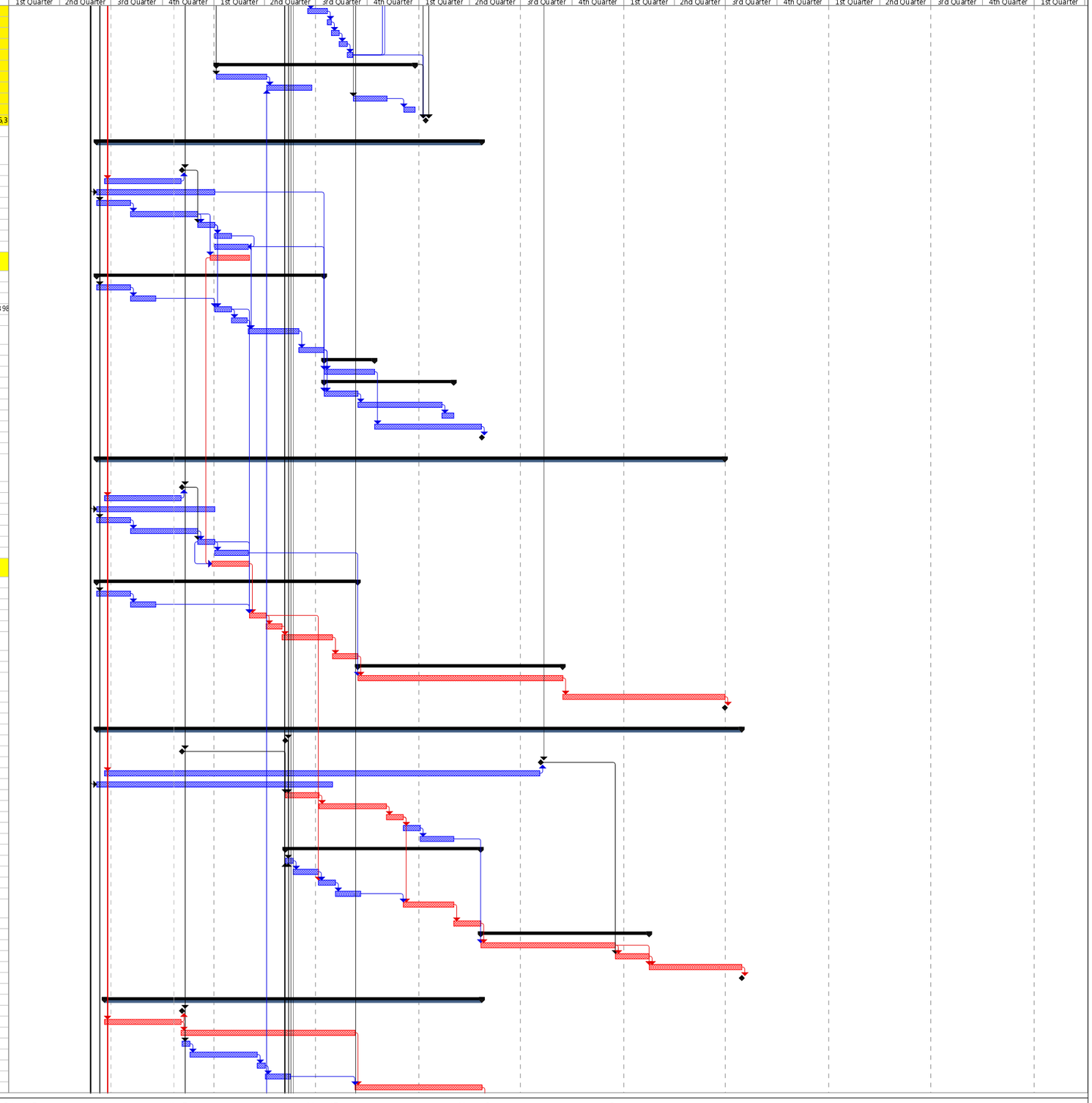
ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Float	Predecessors
186	Kerb and pavement	120 days	Thu 10/12/26	Thu 8/4/27	Thu 10/12/26	Thu 8/4/27	1 day	185SS+90 days
187	Street lighting and UU	110 days	Fri 9/4/27	Tue 27/7/27	Fri 9/4/27	Tue 27/7/27	1 day	186
188	Footpath paving	110 days	Wed 28/7/27	Sun 14/11/27	Wed 28/7/27	Sun 14/11/27	14 days	187
189	Traffic furniture, signs and road marking	110 days	Wed 28/7/27	Sun 14/11/27	Wed 28/7/27	Sun 14/11/27	1 day	187
190	Final cleaning and handover	14 days	Mon 15/11/27	Sun 28/11/27	Mon 15/11/27	Sun 28/11/27	0 days	187,179,180,189FS-
191	**Completion of Section 1 of the works**	**0 days**	**Sun 28/11/27**	**Sun 28/11/27**	**Sun 28/11/27**	**Sun 28/11/27**	**0 days**	**161,172,166,169,1**
192								
193	4. Section 2 of the works (part B of the Site and complete the drainage diversion for demolition of existing BC within part B of the Site) - 610D	932 days	Thu 20/6/24	Thu 7/1/27	Thu 20/6/24	Thu 7/1/27	1 day	
194	Site possession	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16
195	Coordination/Liaison with nearby stakeholders by caring team visit	321 days	Thu 20/6/24	Tue 6/5/25	Thu 20/6/24	Tue 6/5/25	1 day	66
196	Interface and utilities undertaker liaison	210 days	Fri 19/7/24	Thu 13/2/25	Fri 19/7/24	Thu 13/2/25	1385 days	67
197	Tree survey and submission	21 days	Thu 8/5/25	Wed 28/5/25	Thu 8/5/25	Wed 28/5/25	0 days	194,195SS,16,53
198	Submission of TPRP and approval	90 days	Thu 29/5/25	Tue 26/8/25	Thu 29/5/25	Tue 26/8/25	0 days	197
199	Tree felling	21 days	Wed 27/8/25	Tue 16/9/25	Wed 27/8/25	Tue 16/9/25	0 days	198,227,257
200	Erection of hoarding / fencing	30 days	Wed 7/5/25	Thu 5/6/25	Wed 7/5/25	Thu 5/6/25	2 days	195,224,254
201	Construction of temporary site entrance	7 days	Fri 6/6/25	Thu 12/6/25	Fri 6/6/25	Thu 12/6/25	2 days	200
202	Decommissioning of utility i.e. power supply / water supply	14 days	Fri 13/6/25	Thu 26/6/25	Fri 13/6/25	Thu 26/6/25	2 days	201
203	General site clearance / demoltion work	81 days	Sat 28/6/25	Tue 16/9/25	Sat 28/6/25	Tue 16/9/25	0 days	202,199FF
204	**Ground Investigation (11 nos. BH) and Lab. Testing/reporting - KD 3**	**95 days**	**Thu 5/6/25**	**Sun 7/9/25**	**Thu 5/6/25**	**Sun 7/9/25**	**0 days**	**83SS+14 days,195**
205	Ground Investigation by Housing	90 days	Wed 17/9/25	Mon 15/12/25	Wed 17/9/25	Mon 15/12/25	0 days	203,204
206	**Land Contamination Assessment / Treatment**	**252 days**	**Thu 8/5/25**	**Wed 14/1/26**	**Thu 8/5/25**	**Wed 14/1/26**	**15 days**	
207	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	16 days	194SS,223SS,253SS
208	submission / approval	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	16 days	207
209	site investigation / testing	30 days	Sun 6/7/25	Mon 4/8/25	Sun 6/7/25	Mon 4/8/25	16 days	208
210	preparation / submission / approval of CAR	28 days	Tue 5/8/25	Mon 1/9/25	Tue 5/8/25	Mon 1/9/25	16 days	209
211	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Tue 2/9/25	Sun 30/11/25	Tue 2/9/25	Sun 30/11/25	16 days	203SS+15 days,210
212	submission of remediation report	45 days	Mon 1/12/25	Wed 14/1/26	Mon 1/12/25	Wed 14/1/26	1050 days	211
213	**Site formation work**	**85 days**	**Tue 16/12/25**	**Tue 10/3/26**	**Tue 16/12/25**	**Tue 10/3/26**	**0 days**	
214	backfilling - 1.5m ~ 2m, 6 layers x 300mm (2 weeks per layer)	85 days	Tue 16/12/25	Tue 10/3/26	Tue 16/12/25	Tue 10/3/26	0 days	205,211
215	**Ground improvement work**	**282 days**	**Wed 11/3/26**	**Thu 17/12/26**	**Wed 11/3/26**	**Thu 17/12/26**	**0 days**	
216	surcharge filling - 4m height	90 days	Wed 11/3/26	Mon 8/6/26	Wed 11/3/26	Mon 8/6/26	0 days	214
217	ground improvement work	150 days	Tue 9/6/26	Thu 5/11/26	Tue 9/6/26	Thu 5/11/26	0 days	216
218	removal of surcharge	42 days	Fri 6/11/26	Thu 17/12/26	Fri 6/11/26	Thu 17/12/26	0 days	217
219	Removal of hoarding and erection of fencing for site handover	22 days	Thu 17/12/26	Thu 7/1/27	Thu 17/12/26	Thu 7/1/27	0 days	218FS-1 day
220	**Completion of Section 2 of the works**	**0 days**	**Thu 7/1/27**	**Thu 7/1/27**	**Thu 7/1/27**	**Thu 7/1/27**	**0 days**	**219**
221								
222	5. Section 3 of the works (part C of the Site) - 610D	932 days	Thu 20/6/24	Thu 7/1/27	Thu 20/6/24	Thu 7/1/27	1 day	
223	Site possession	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16
224	Coordination/Liaison with nearby stakeholders by caring team visit	321 days	Thu 20/6/24	Tue 6/5/25	Thu 20/6/24	Tue 6/5/25	1 day	66
225	Interface and utilities undertaker liaison	210 days	Fri 19/7/24	Thu 13/2/25	Fri 19/7/24	Thu 13/2/25	1385 days	67
226	Tree survey and submission	21 days	Thu 8/5/25	Wed 28/5/25	Thu 8/5/25	Wed 28/5/25	0 days	223,224SS,16,53
227	Submission of TPRP and approval	90 days	Thu 29/5/25	Tue 26/8/25	Thu 29/5/25	Tue 26/8/25	0 days	226
228	Tree felling	30 days	Wed 27/8/25	Thu 25/9/25	Wed 27/8/25	Thu 25/9/25	6 days	227,257
229	Erection of hoarding / fencing	30 days	Thu 8/5/25	Fri 6/6/25	Thu 8/5/25	Fri 6/6/25	51 days	223,253
230	Construction of temporary site entrance	7 days	Sat 7/6/25	Fri 13/6/25	Sat 7/6/25	Fri 13/6/25	51 days	229
231	Decommissioning of utility i.e. power supply / water supply	14 days	Sat 14/6/25	Fri 27/6/25	Sat 14/6/25	Fri 27/6/25	51 days	230
232	General site clearance / demoltion work	45 days	Tue 12/8/25	Thu 25/9/25	Tue 12/8/25	Thu 25/9/25	6 days	231,228FF
233	**Ground Investigation (11 nos. BH & 1 no. TP) and Lab. Testing/reporting - KD 3**	**81 days**	**Thu 19/6/25**	**Sun 7/9/25**	**Thu 19/6/25**	**Sun 7/9/25**	**0 days**	**204SS+14 days,224,254**
234	Ground Investigation by Housing	90 days	Fri 26/9/25	Wed 24/12/25	Fri 26/9/25	Wed 24/12/25	21 days	232,233
235	**Land Contamination Assessment / Treatment**	**252 days**	**Thu 8/5/25**	**Wed 14/1/26**	**Thu 8/5/25**	**Wed 14/1/26**	**0 days**	
236	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	0 days	223,253
237	submission / approval	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	0 days	236
238	site investigation / testing	30 days	Sun 6/7/25	Mon 4/8/25	Sun 6/7/25	Mon 4/8/25	0 days	237,226,256
239	preparation / submission / approval of CAR	28 days	Tue 5/8/25	Mon 1/9/25	Tue 5/8/25	Mon 1/9/25	0 days	238
240	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Tue 2/9/25	Sun 30/11/25	Tue 2/9/25	Sun 30/11/25	0 days	232SS+15 days,239
241	submission of remediation report	45 days	Mon 1/12/25	Wed 14/1/26	Mon 1/12/25	Wed 14/1/26	0 days	240
242	**Site formation work - 1.5~2m, 6 layers x 300mm**	**330 days**	**Thu 15/1/26**	**Thu 10/12/26**	**Thu 15/1/26**	**Thu 10/12/26**	**0 days**	
243	backfilling - upper north portion (2 weeks per layer)	45 days	Thu 15/1/26	Sat 28/2/26	Thu 15/1/26	Sat 28/2/26	0 days	234,241,232
244	backfilling - lower south portion (2 weeks per layer)	45 days	Tue 27/10/26	Thu 10/12/26	Tue 27/10/26	Thu 10/12/26	0 days	243,247
245	**Ground improvement work**	**261 days**	**Sun 1/3/26**	**Mon 16/11/26**	**Sun 1/3/26**	**Mon 16/11/26**	**0 days**	
246	surcharge filling - 4m height	90 days	Sun 1/3/26	Fri 29/5/26	Sun 1/3/26	Fri 29/5/26	0 days	243
247	ground improvement work	150 days	Sat 30/5/26	Mon 26/10/26	Sat 30/5/26	Mon 26/10/26	0 days	246
248	removal of surcharge	21 days	Tue 27/10/26	Mon 16/11/26	Tue 27/10/26	Mon 16/11/26	24 days	247
249	Removal of hoarding and erection of fencing for site handover	28 days	Fri 11/12/26	Thu 7/1/27	Fri 11/12/26	Thu 7/1/27	0 days	248,244
250	**Completion of Section 3 of the works**	**0 days**	**Thu 7/1/27**	**Thu 7/1/27**	**Thu 7/1/27**	**Thu 7/1/27**	**0 days**	**249**
251								
252	6. Section 4 of the works (part D of the Site) - 610D	932 days	Thu 20/6/24	Thu 7/1/27	Thu 20/6/24	Thu 7/1/27	1 day	
253	Site possession	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16
254	Coordination/Liaison with nearby stakeholders by caring team visit	321 days	Thu 20/6/24	Tue 6/5/25	Thu 20/6/24	Tue 6/5/25	1 day	66
255	Interface and utilities undertaker liaison	210 days	Fri 19/7/24	Thu 13/2/25	Fri 19/7/24	Thu 13/2/25	1385 days	67
256	Tree survey and submission	21 days	Thu 8/5/25	Wed 28/5/25	Thu 8/5/25	Wed 28/5/25	0 days	253,254SS,16,53
257	Submission of TPRP and approval	90 days	Thu 29/5/25	Tue 26/8/25	Thu 29/5/25	Tue 26/8/25	0 days	256
258	Tree felling	30 days	Wed 27/8/25	Thu 25/9/25	Wed 27/8/25	Thu 25/9/25	1161 days	257
259	Erection of hoarding / fencing	30 days	Thu 8/5/25	Fri 6/6/25	Thu 8/5/25	Fri 6/6/25	51 days	253
260	Construction of temporary site entrance	7 days	Sat 7/6/25	Fri 13/6/25	Sat 7/6/25	Fri 13/6/25	51 days	259
261	Decommissioning of utility i.e. power supply / water supply	14 days	Sat 14/6/25	Fri 27/6/25	Sat 14/6/25	Fri 27/6/25	51 days	260
262	General site clearance / demoltion work	45 days	Sat 28/6/25	Mon 11/8/25	Sat 28/6/25	Mon 11/8/25	51 days	261
263	**Ground Investigation (6 nos. BH) and Lab. Testing/reporting - KD 3**	**67 days**	**Thu 3/7/25**	**Sun 7/9/25**	**Thu 3/7/25**	**Sun 7/9/25**	**0 days**	**233SS+14 days**
264	Ground Investigation by Housing	90 days	Mon 8/9/25	Sat 6/12/25	Mon 8/9/25	Sat 6/12/25	39 days	262,263
265	**Land Contamination Assessment / Treatment**	**252 days**	**Thu 8/5/25**	**Wed 14/1/26**	**Thu 8/5/25**	**Wed 14/1/26**	**0 days**	
266	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	0 days	253
267	submission / approval	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	0 days	266
268	site investigation / testing	30 days	Sun 6/7/25	Mon 4/8/25	Sun 6/7/25	Mon 4/8/25	0 days	267
269	preparation / submission / approval of CAR	28 days	Tue 5/8/25	Mon 1/9/25	Tue 5/8/25	Mon 1/9/25	0 days	268
270	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Tue 2/9/25	Sun 30/11/25	Tue 2/9/25	Sun 30/11/25	0 days	262SS+15 days,269
271	submission of remediation report	45 days	Mon 1/12/25	Wed 14/1/26	Mon 1/12/25	Wed 14/1/26	0 days	270
272	**Site formation work - 1.5~2m, 6 layers x 300mm**	**330 days**	**Thu 15/1/26**	**Thu 10/12/26**	**Thu 15/1/26**	**Thu 10/12/26**	**0 days**	
273	backfilling - left west portion (2 weeks per layer)	45 days	Thu 15/1/26	Sat 28/2/26	Thu 15/1/26	Sat 28/2/26	0 days	264,271
274	backfilling - right east portion (2 weeks per layer)	45 days	Tue 27/10/26	Thu 10/12/26	Tue 27/10/26	Thu 10/12/26	0 days	273,277
275	**Ground improvement work**	**261 days**	**Sun 1/3/26**	**Mon 16/11/26**	**Sun 1/3/26**	**Mon 16/11/26**	**0 days**	
276	surcharge filling - 4m height	90 days	Sun 1/3/26	Fri 29/5/26	Sun 1/3/26	Fri 29/5/26	0 days	273
277	ground improvement work	150 days	Sat 30/5/26	Mon 26/10/26	Sat 30/5/26	Mon 26/10/26	0 days	276
278	removal of surcharge	21 days	Tue 27/10/26	Mon 16/11/26	Tue 27/10/26	Mon 16/11/26	24 days	277
279	Removal of hoarding and erection of fencing for site handover	28 days	Fri 11/12/26	Thu 7/1/27	Fri 11/12/26	Thu 7/1/27	0 days	274,278
280	**Completion of Section 4 of the works**	**0 days**	**Thu 7/1/27**	**Thu 7/1/27**	**Thu 7/1/27**	**Thu 7/1/27**	**0 days**	**279**
281								



ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Float	Predecessors
282	**7. Section 5 of the works (part E1, E2A, E2B, E3, E4 and F of the Site and complete the relocation of existing CLC) - 585D**	**586 days**	**Thu 6/6/24**	**Mon 12/1/26**	**Thu 6/6/24**	**Mon 12/1/26**	**0 days**	
283	Site possession (Part E2A, E3, E4 and Part F)	0 days	Thu 6/6/24	Thu 6/6/24	Thu 6/6/24	Thu 6/6/24	0 days	18
284	Site possession (Part E1)	0 days	Tue 5/11/24	Tue 5/11/24	Tue 5/11/24	Tue 5/11/24	203 days	18FS+153 days
285	Site possession (Part E2B)	0 days	Wed 6/8/25	Wed 6/8/25	Wed 6/8/25	Wed 6/8/25	19 days	18FS+427 days
286	Coordination/Liaison with nearby stakeholders by caring team visit	136 days	Thu 20/6/24	Sat 2/11/24	Thu 20/6/24	Sat 2/11/24	186 days	66,283
287	Interface and utilities undertaker liason	150 days	Fri 19/7/24	Sun 15/12/24	Fri 19/7/24	Sun 15/12/24	1445 days	67
288	Tree survey and submission	60 days	Thu 6/6/24	Sun 4/8/24	Thu 6/6/24	Sun 4/8/24	166 days	283
289	Submission of TPRP and approval	150 days	Mon 5/8/24	Wed 1/1/25	Mon 5/8/24	Wed 1/1/25	166 days	288
290	Tree felling	30 days	Thu 2/1/25	Fri 31/1/25	Thu 2/1/25	Fri 31/1/25	166 days	289
291	General site clearance / demolition work	60 days	Sat 1/2/25	Tue 1/4/25	Sat 1/2/25	Tue 1/4/25	166 days	290,286
292	Application of excavation permit	180 days	Thu 6/6/24	Mon 2/12/24	Thu 6/6/24	Mon 2/12/24	0 days	283
293	Preparation / Submission / approval of TTA	240 days	Sun 21/7/24	Mon 17/3/25	Sun 21/7/24	Mon 17/3/25	75 days	52
294	Application of Road Works Advice	14 days	Tue 3/12/24	Mon 16/12/24	Tue 3/12/24	Mon 16/12/24	0 days	293SS+60 days,292
295	Implementation of TTA	7 days	Tue 17/12/24	Mon 23/12/24	Tue 17/12/24	Mon 23/12/24	0 days	294,292
296	Watermain Works	385 days	Tue 24/12/24	Mon 12/1/26	Tue 24/12/24	Mon 12/1/26	0 days	
297	Hung Ping Road (NS315 and NS180, approx.. 100m)	129 days	Tue 24/12/24	Thu 1/5/25	Tue 24/12/24	Thu 1/5/25	0 days	
298	1st Stage TTA (From Hung Nga Road)	45 days	Tue 24/12/24	Thu 6/2/25	Tue 24/12/24	Thu 6/2/25	0 days	295
299	Excavation and ELS installation	21 days	Tue 24/12/24	Mon 13/1/25	Tue 24/12/24	Mon 13/1/25	0 days	
300	Pipe installation and bend block construction	10 days	Tue 14/1/25	Thu 23/1/25	Tue 14/1/25	Thu 23/1/25	0 days	299
301	Backfilling and SRT test	7 days	Fri 24/1/25	Thu 30/1/25	Fri 24/1/25	Thu 30/1/25	0 days	300
302	Reinstatement	7 days	Fri 31/1/25	Thu 6/2/25	Fri 31/1/25	Thu 6/2/25	0 days	301
303	2nd Stage TTA (Middle of Hung Ping Road)	42 days	Fri 7/2/25	Thu 20/3/25	Fri 7/2/25	Thu 20/3/25	0 days	
304	Excavation and ELS installation	21 days	Fri 7/2/25	Thu 27/2/25	Fri 7/2/25	Thu 27/2/25	0 days	302
305	Pipe installation and bend block construction	7 days	Fri 28/2/25	Thu 6/3/25	Fri 28/2/25	Thu 6/3/25	0 days	304
306	Backfilling and SRT test	7 days	Fri 7/3/25	Thu 13/3/25	Fri 7/3/25	Thu 13/3/25	0 days	305
307	Reinstatement	7 days	Fri 14/3/25	Thu 20/3/25	Fri 14/3/25	Thu 20/3/25	0 days	306
308	3rd Stage TTA (Junction with Hung Yuen Road)	42 days	Fri 21/3/25	Thu 1/5/25	Fri 21/3/25	Thu 1/5/25	0 days	
309	Excavation and ELS installation	21 days	Fri 21/3/25	Thu 10/4/25	Fri 21/3/25	Thu 10/4/25	0 days	307
310	Pipe installation and bend block construction	7 days	Fri 11/4/25	Thu 17/4/25	Fri 11/4/25	Thu 17/4/25	0 days	309
311	Backfilling and SRT test	7 days	Fri 18/4/25	Thu 24/4/25	Fri 18/4/25	Thu 24/4/25	0 days	310
312	Reinstatement	7 days	Fri 25/4/25	Thu 1/5/25	Fri 25/4/25	Thu 1/5/25	0 days	311
313	Hung Nga Road (NS315 and NS180 and branch pipes, approx.. 100m)	138 days	Fri 21/3/25	Tue 5/8/25	Fri 21/3/25	Tue 5/8/25	139 days	
314	1st Stage TTA (From Hung Ping Road)	42 days	Fri 21/3/25	Thu 1/5/25	Fri 21/3/25	Thu 1/5/25	139 days	
315	Excavation and ELS installation	21 days	Fri 21/3/25	Thu 10/4/25	Fri 21/3/25	Thu 10/4/25	139 days	307
316	Pipe installation and bend block construction	7 days	Fri 11/4/25	Thu 17/4/25	Fri 11/4/25	Thu 17/4/25	139 days	315
317	Backfilling and SRT test	7 days	Fri 18/4/25	Thu 24/4/25	Fri 18/4/25	Thu 24/4/25	139 days	316
318	Reinstatement	7 days	Fri 25/4/25	Thu 1/5/25	Fri 25/4/25	Thu 1/5/25	139 days	317
319	2nd Stage TTA (Middle of Hung Nga Road)	42 days	Fri 2/5/25	Thu 12/6/25	Fri 2/5/25	Thu 12/6/25	139 days	
320	Excavation and ELS installation	21 days	Fri 2/5/25	Thu 22/5/25	Fri 2/5/25	Thu 22/5/25	139 days	318
321	Pipe installation and bend block construction	7 days	Fri 23/5/25	Thu 29/5/25	Fri 23/5/25	Thu 29/5/25	139 days	320
322	Backfilling and SRT test	7 days	Fri 30/5/25	Thu 5/6/25	Fri 30/5/25	Thu 5/6/25	139 days	321
323	Reinstatement	7 days	Fri 6/6/25	Thu 12/6/25	Fri 6/6/25	Thu 12/6/25	139 days	322
324	3rd Stage TTA (To Portion E2)	54 days	Fri 13/6/25	Tue 5/8/25	Fri 13/6/25	Tue 5/8/25	139 days	
325	Excavation and ELS installation	28 days	Fri 13/6/25	Thu 10/7/25	Fri 13/6/25	Thu 10/7/25	139 days	323
326	Pipe installation and bend block construction	12 days	Fri 11/7/25	Tue 22/7/25	Fri 11/7/25	Tue 22/7/25	139 days	325
327	Backfilling and SRT test	7 days	Wed 23/7/25	Tue 29/7/25	Wed 23/7/25	Tue 29/7/25	139 days	326
328	Reinstatement	7 days	Wed 30/7/25	Tue 5/8/25	Wed 30/7/25	Tue 5/8/25	139 days	327
329	Hung Yuen Road (DN600 and MS1200 with branch pipes, approx.. 100m)	235 days	Fri 2/5/25	Mon 22/12/25	Fri 2/5/25	Mon 22/12/25	0 days	
330	1st Stage TTA (Junction with Hung Ping Road-Phase 1)	65 days	Fri 2/5/25	Sat 5/7/25	Fri 2/5/25	Sat 5/7/25	0 days	312
331	Excavation and ELS installation	35 days	Fri 2/5/25	Thu 5/6/25	Fri 2/5/25	Thu 5/6/25	0 days	
332	Pipe installation and bend block construction	14 days	Fri 6/6/25	Thu 19/6/25	Fri 6/6/25	Thu 19/6/25	0 days	331
333	Backfilling and SRT test	9 days	Fri 20/6/25	Sat 28/6/25	Fri 20/6/25	Sat 28/6/25	0 days	332
334	Reinstatement	7 days	Sun 29/6/25	Sat 5/7/25	Sun 29/6/25	Sat 5/7/25	0 days	333
335	2nd Stage TTA (Northern end of Hung Yuen Road)	56 days	Sun 6/7/25	Sat 30/8/25	Sun 6/7/25	Sat 30/8/25	0 days	334
336	Excavation and ELS installation	28 days	Sun 6/7/25	Sat 2/8/25	Sun 6/7/25	Sat 2/8/25	0 days	
337	Pipe installation and bend block construction	12 days	Sun 3/8/25	Thu 14/8/25	Sun 3/8/25	Thu 14/8/25	0 days	336
338	Backfilling and SRT test	9 days	Fri 15/8/25	Sat 23/8/25	Fri 15/8/25	Sat 23/8/25	0 days	337
339	Reinstatement	7 days	Sun 24/8/25	Sat 30/8/25	Sun 24/8/25	Sat 30/8/25	0 days	338
340	3rd Stage TTA (Middle of Hung Yuen Road)	58 days	Sun 31/8/25	Mon 27/10/25	Sun 31/8/25	Mon 27/10/25	0 days	339
341	Excavation and ELS installation	28 days	Sun 31/8/25	Sat 27/9/25	Sun 31/8/25	Sat 27/9/25	0 days	
342	Pipe installation and bend block construction	14 days	Sun 28/9/25	Sat 11/10/25	Sun 28/9/25	Sat 11/10/25	0 days	341
343	Backfilling and SRT test	9 days	Sun 12/10/25	Mon 20/10/25	Sun 12/10/25	Mon 20/10/25	0 days	342
344	Reinstatement	7 days	Tue 21/10/25	Mon 27/10/25	Tue 21/10/25	Mon 27/10/25	0 days	343
345	4th Stage TTA (South end of Hung Yuen Road)	56 days	Tue 28/10/25	Mon 22/12/25	Tue 28/10/25	Mon 22/12/25	0 days	339,344
346	Excavation and ELS installation	28 days	Tue 28/10/25	Mon 24/11/25	Tue 28/10/25	Mon 24/11/25	0 days	
347	Pipe installation and bend block construction	12 days	Tue 25/11/25	Sat 6/12/25	Tue 25/11/25	Sat 6/12/25	0 days	346
348	Backfilling and SRT test	9 days	Sun 7/12/25	Mon 15/12/25	Sun 7/12/25	Mon 15/12/25	0 days	347
349	Reinstatement	7 days	Tue 16/12/25	Mon 22/12/25	Tue 16/12/25	Mon 22/12/25	0 days	348
350	Final connection to existing pipe	21 days	Tue 23/12/25	Mon 12/1/26	Tue 23/12/25	Mon 12/1/26	0 days	349,328
351	Land Contamination Assessment / Treatment (part E1)	420 days	Thu 6/6/24	Wed 30/7/25	Thu 6/6/24	Wed 30/7/25	349 days	
352	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 6/6/24	Wed 19/6/24	Thu 6/6/24	Wed 19/6/24	349 days	288SS
353	submission / approval	45 days	Thu 20/6/24	Sat 3/8/24	Thu 20/6/24	Sat 3/8/24	349 days	352
354	site investigation / testing	30 days	Sat 1/2/25	Sun 2/3/25	Sat 1/2/25	Sun 2/3/25	168 days	290,353
355	preparation / submission / approval of CAR	28 days	Mon 3/3/25	Sun 30/3/25	Mon 3/3/25	Sun 30/3/25	168 days	354
356	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Wed 2/4/25	Mon 30/6/25	Wed 2/4/25	Mon 30/6/25	166 days	291,355
357	submission of remediation report	30 days	Tue 1/7/25	Wed 30/7/25	Tue 1/7/25	Wed 30/7/25	166 days	356
358	Drainage and Sewer Work at Part F	541 days	Sun 21/7/24	Mon 12/1/26	Sun 21/7/24	Mon 12/1/26	57 days	
359	XP application	210 days	Sun 21/7/24	Sat 15/2/25	Sun 21/7/24	Sat 15/2/25	57 days	18,52
360	TDPM submission to DSD / approval	90 days	Sun 16/2/25	Fri 16/5/25	Sun 16/2/25	Fri 16/5/25	237 days	359
361	TTA submission/ approval	120 days	Sat 16/11/24	Sat 15/3/25	Sat 16/11/24	Sat 15/3/25	57 days	359FF +28 days
362	Works for drainage and outfall	303 days	Sun 16/3/25	Mon 12/1/26	Sun 16/3/25	Mon 12/1/26	57 days	
363	Works inside nullah	77 days	Tue 28/10/25	Mon 12/1/26	Tue 28/10/25	Mon 12/1/26	4 days	
364	Implementation of TTA	4 days	Tue 28/10/25	Sat 1/11/25	Tue 28/10/25	Sat 1/11/25	73 days	360,365SF,384
365	Preventive measure for working area inside nullah	7 days	Sat 1/11/25	Fri 7/11/25	Sat 1/11/25	Fri 7/11/25	0 days	384
366	Excavation and ELS installation	21 days	Sat 8/11/25	Fri 28/11/25	Sat 8/11/25	Fri 28/11/25	0 days	365
367	Outfall contraction	14 days	Sat 29/11/25	Fri 12/12/25	Sat 29/11/25	Fri 12/12/25	0 days	366
368	Pipe installation (750mm pipes)	14 days	Sat 13/12/25	Fri 26/12/25	Sat 13/12/25	Fri 26/12/25	0 days	367
369	Backfilling and SRT Test	10 days	Sat 27/12/25	Mon 5/1/26	Sat 27/12/25	Mon 5/1/26	0 days	368
370	Reinstatement	7 days	Tue 6/1/26	Mon 12/1/26	Tue 6/1/26	Mon 12/1/26	0 days	369
371	Stage 1 (DN 450/DN750 drain at Cycle track)	90 days	Sun 16/3/25	Fri 13/6/25	Sun 16/3/25	Fri 13/6/25	57 days	
372	Implementation of TTA	3 days	Sun 16/3/25	Tue 18/3/25	Sun 16/3/25	Tue 18/3/25	57 days	359,361
373	Excavation and ELS installation	28 days	Wed 19/3/25	Tue 15/4/25	Wed 19/3/25	Tue 15/4/25	57 days	372
374	Manhole construction	14 days	Wed 16/4/25	Tue 29/4/25	Wed 16/4/25	Tue 29/4/25	57 days	373
375	Pipe installation (450mm and 750mm pipes)	21 days	Wed 30/4/25	Tue 20/5/25	Wed 30/4/25	Tue 20/5/25	57 days	374
376	Backfilling and SRT Test	14 days	Wed 21/5/25	Tue 3/6/25	Wed 21/5/25	Tue 3/6/25	57 days	375
377	Reinstatement	10 days	Wed 4/6/25	Fri 13/6/25	Wed 4/6/25	Fri 13/6/25	57 days	376
378	Stage 2 (NS525 Sewer)	83 days	Sat 14/6/25	Thu 4/9/25	Sat 14/6/25	Thu 4/9/25	57 days	
379	Implementation of TTA	3 days	Sat 14/6/25	Mon 16/6/25	Sat 14/6/25	Mon 16/6/25	57 days	377



ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Float	Predecessors
380	Excavation and ELS installation	35 days	Tue 17/6/25	Mon 21/7/25	Tue 17/6/25	Mon 21/7/25	57 days	379
381	Pipe installation (525mm sewer pipes)	7 days	Tue 22/7/25	Mon 28/7/25	Tue 22/7/25	Mon 28/7/25	57 days	380
382	Connection existing manhole	14 days	Tue 29/7/25	Mon 11/8/25	Tue 29/7/25	Mon 11/8/25	57 days	381
383	Backfilling and SRT Test	14 days	Tue 12/8/25	Mon 25/8/25	Tue 12/8/25	Mon 25/8/25	57 days	382
384	Reinstatement	10 days	Tue 26/8/25	Thu 4/9/25	Tue 26/8/25	Thu 4/9/25	57 days	383
385	Surface channel and site formation work (part E1, E2A, E2B, E3, E4)	354 days	Sun 5/1/25	Wed 24/12/25	Sun 5/1/25	Wed 24/12/25	203 days	
386	Part E3 (App. 210m)	90 days	Sun 5/1/25	Fri 4/4/25	Sun 5/1/25	Fri 4/4/25	203 days	284FS+60 days
387	Part E1 and E2A (App. 160m)	80 days	Sat 5/4/25	Mon 23/6/25	Sat 5/4/25	Mon 23/6/25	203 days	386,743
388	Part E2B (App. 120m)	60 days	Sat 6/9/25	Tue 4/11/25	Sat 6/9/25	Tue 4/11/25	19 days	285FS+30 days
389	Remaining part (Site access area)	20 days	Fri 5/12/25	Wed 24/12/25	Fri 5/12/25	Wed 24/12/25	19 days	388FS+30 days
390	Completion of Section 5 of the works	0 days	Mon 12/1/26	Mon 12/1/26	Mon 12/1/26	Mon 12/1/26	0 days	385,358,351,296,3
391								
392	8. Section 6 of the works (part G1A of the Site and complete the drainage diversion for the backfilling of existing channel / stream within G1A of the Site) - 534D	686 days	Thu 6/6/24	Wed 22/4/26	Thu 6/6/24	Wed 22/4/26	1 day	
393	Site possession	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	29 days	17,394
394	Coordination/Liaison with nearby stakeholders by caring team visit	136 days	Thu 20/6/24	Sat 2/11/24	Thu 20/6/24	Sat 2/11/24	31 days	66
395	Interface and utilities undertaker liaison	210 days	Thu 6/6/24	Wed 1/1/25	Thu 6/6/24	Wed 1/1/25	1197 days	4SS
396	Tree survey and submission	60 days	Thu 6/6/24	Sun 4/8/24	Thu 6/6/24	Sun 4/8/24	1 day	18
397	Submission of TPRP and approval	120 days	Mon 5/8/24	Mon 2/12/24	Mon 5/8/24	Mon 2/12/24	1 day	396
398	Tree felling	30 days	Tue 3/12/24	Wed 1/1/25	Tue 3/12/24	Wed 1/1/25	1 day	397,393
399	decommissioning of existing services	30 days	Thu 2/1/25	Fri 31/1/25	Thu 2/1/25	Fri 31/1/25	1 day	398
400	General site clearance / demoltion work	60 days	Thu 2/1/25	Sun 2/3/25	Thu 2/1/25	Sun 2/3/25	1 day	399FF+30 days
401	ground investigation (6 nos. BH and 1 no. T/P) and Lab. Testing/reporting - KD4	70 days	Wed 25/12/24	Tue 4/3/25	Wed 25/12/24	Tue 4/3/25	0 days	397
402	Land Contamination Assessment / Treatment	405 days	Thu 6/6/24	Tue 15/7/25	Thu 6/6/24	Tue 15/7/25	78 days	
403	site appraisal and prepare Contamination Assessment Plan	60 days	Thu 6/6/24	Sun 4/8/24	Thu 6/6/24	Sun 4/8/24	78 days	18
404	submission / approval	45 days	Mon 5/8/24	Wed 18/9/24	Mon 5/8/24	Wed 18/9/24	78 days	403
405	site investigation / testing	30 days	Thu 2/1/25	Fri 31/1/25	Thu 2/1/25	Fri 31/1/25	3 days	404FS+30 days,398
406	preparation / submission / approval of CAR	28 days	Sat 1/2/25	Fri 28/2/25	Sat 1/2/25	Fri 28/2/25	3 days	405
407	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Mon 3/3/25	Sat 31/5/25	Mon 3/3/25	Sat 31/5/25	1 day	406,400
408	submission of remediation report	45 days	Sun 1/6/25	Tue 15/7/25	Sun 1/6/25	Tue 15/7/25	1 day	407
409	Drainage diversion work	90 days	Wed 16/7/25	Mon 13/10/25	Wed 16/7/25	Mon 13/10/25	1 day	
410	drain diversion for backfilling to existing stream	90 days	Wed 16/7/25	Mon 13/10/25	Wed 16/7/25	Mon 13/10/25	1 day	408,400
411	Ground improvement work	231 days	Wed 16/7/25	Tue 3/3/26	Wed 16/7/25	Tue 3/3/26	1002 days	
412	surcharge filling - 3m height	60 days	Wed 16/7/25	Sat 13/9/25	Wed 16/7/25	Sat 13/9/25	1002 days	408,395
413	ground improvement work	150 days	Sun 14/9/25	Tue 10/2/26	Sun 14/9/25	Tue 10/2/26	1002 days	412
414	removal surcharge	21 days	Wed 11/2/26	Tue 3/3/26	Wed 11/2/26	Tue 3/3/26	1002 days	413
415	surface channel and site formation work	190 days	Tue 14/10/25	Tue 21/4/26	Tue 14/10/25	Tue 21/4/26	1 day	410
416	Completion of Section 6 of the works	0 days	Wed 22/4/26	Wed 22/4/26	Wed 22/4/26	Wed 22/4/26	0 days	415
417								
418	9. Section 7 of the works (part G1B and G1C of the Site and complete the drainage diversion for the backfilling of existing channel / stream within G1B and G1C of the Site) - 967D	1119 days	Thu 6/6/24	Tue 29/6/27	Thu 6/6/24	Tue 29/6/27	18 days	
419	Site possession	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	46 days	17,420
420	Coordination/Liaison with nearby stakeholders by caring team visit	136 days	Thu 20/6/24	Sat 2/11/24	Thu 20/6/24	Sat 2/11/24	48 days	66
421	Interface and utilities undertaker liaison	210 days	Thu 6/6/24	Wed 1/1/25	Thu 6/6/24	Wed 1/1/25	1428 days	4SS
422	Tree survey and submission	60 days	Thu 6/6/24	Sun 4/8/24	Thu 6/6/24	Sun 4/8/24	18 days	18
423	Submission of TPRP and approval	120 days	Mon 5/8/24	Mon 2/12/24	Mon 5/8/24	Mon 2/12/24	18 days	422
424	Tree felling	30 days	Tue 3/12/24	Wed 1/1/25	Tue 3/12/24	Wed 1/1/25	18 days	423,419
425	General site clearance / demoltion work	60 days	Thu 2/1/25	Sun 2/3/25	Thu 2/1/25	Sun 2/3/25	244 days	424
426	ground investigation in part G1B (1 no. BH and 1 no. T/P) and Lab. Testing/reporting - KD4	67 days	Sat 28/12/24	Tue 4/3/25	Sat 28/12/24	Tue 4/3/25	0 days	401SS+3 days,424SS+7
427	Land Contamination Assessment / Treatment	465 days	Thu 6/6/24	Sat 13/9/25	Thu 6/6/24	Sat 13/9/25	167 days	
428	site appraisal and prepare Contamination Assessment Plan	60 days	Thu 6/6/24	Sun 4/8/24	Thu 6/6/24	Sun 4/8/24	216 days	18
429	submission / approval	45 days	Mon 5/8/24	Wed 18/9/24	Mon 5/8/24	Wed 18/9/24	216 days	428
430	site investigation / testing	30 days	Wed 5/3/25	Thu 3/4/25	Wed 5/3/25	Thu 3/4/25	0 days	429,405,426,424
431	preparation / submission / approval of CAR	28 days	Fri 4/4/25	Thu 1/5/25	Fri 4/4/25	Thu 1/5/25	0 days	430
432	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Fri 2/5/25	Wed 30/7/25	Fri 2/5/25	Wed 30/7/25	0 days	431
433	submission of remediation report	45 days	Thu 31/7/25	Sat 13/9/25	Thu 31/7/25	Sat 13/9/25	0 days	432
434	Drainage diversion work	365 days	Sun 14/9/25	Sun 13/9/26	Sun 14/9/25	Sun 13/9/26	0 days	
435	Construction of DN1500 diversion pipe (240m) for backfilling to existing stream	365 days	Sun 14/9/25	Sun 13/9/26	Sun 14/9/25	Sun 13/9/26	0 days	433,425
436	surface channel and site formation work	289 days	Mon 14/9/26	Tue 29/6/27	Mon 14/9/26	Tue 29/6/27	0 days	435
437	Completion of Section 7 of the works	0 days	Tue 29/6/27	Tue 29/6/27	Tue 29/6/27	Tue 29/6/27	0 days	436
438								
439	10. Section 8 of the works (part G2, G3 and G5 of the Site) - 813D	1149 days	Thu 6/6/24	Thu 29/7/27	Thu 6/6/24	Thu 29/7/27	149 days	
440	Site possession of Part G2	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16
441	Site possession of Part G3	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	277 days	17
442	Site possession of Part G5	0 days	Wed 5/8/26	Wed 5/8/26	Wed 5/8/26	Wed 5/8/26	223 days	20,443
443	Coordination/Liaison with nearby stakeholders by caring team visit	775 days	Thu 20/6/24	Mon 3/8/26	Thu 20/6/24	Mon 3/8/26	225 days	66
444	Interface and utilities undertaker liaison	420 days	Thu 6/6/24	Wed 30/7/25	Thu 6/6/24	Wed 30/7/25	1218 days	4SS
445	Tree survey and submission (No tree for Part G5)	60 days	Thu 8/5/25	Sun 6/7/25	Thu 8/5/25	Sun 6/7/25	0 days	440,441
446	Submission of TPRP and approval	120 days	Mon 7/7/25	Mon 3/11/25	Mon 7/7/25	Mon 3/11/25	0 days	445
447	Tree felling	30 days	Tue 4/11/25	Wed 3/12/25	Tue 4/11/25	Wed 3/12/25	0 days	446
448	decommissioning of existing services	30 days	Thu 4/12/25	Fri 2/1/26	Thu 4/12/25	Fri 2/1/26	138 days	447
449	General site clearance / demolition work	60 days	Sat 3/1/26	Tue 3/3/26	Sat 3/1/26	Tue 3/3/26	138 days	448
450	Land Contamination Assessment / Treatment	348 days	Thu 8/5/25	Mon 20/4/26	Thu 8/5/25	Mon 20/4/26	76 days	
451	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	169 days	440,475,476
452	submission / approval	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	169 days	451
453	site investigation / testing	30 days	Sun 6/7/25	Mon 4/8/25	Sun 6/7/25	Mon 4/8/25	169 days	452,430
454	preparation / submission / approval of CAR	45 days	Tue 5/8/25	Thu 18/9/25	Tue 5/8/25	Thu 18/9/25	169 days	453
455	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Thu 4/12/25	Tue 3/3/26	Thu 4/12/25	Tue 3/3/26	0 days	454,447
456	submission of remediation report	48 days	Wed 4/3/26	Mon 20/4/26	Wed 4/3/26	Mon 20/4/26	0 days	455
457	Drainage work	300 days	Tue 21/4/26	Sun 14/2/27	Tue 21/4/26	Sun 14/2/27	0 days	
458	construction of drainage work in part G2 and G3 inlet structures	240 days	Tue 21/4/26	Wed 16/12/26	Tue 21/4/26	Wed 16/12/26	0 days	456,449
459	construction of drainage work in part G5 and inlet structure	60 days	Thu 17/12/26	Sun 14/2/27	Thu 17/12/26	Sun 14/2/27	0 days	458,442
460	surface channel and site formation work	165 days	Mon 15/2/27	Thu 29/7/27	Mon 15/2/27	Thu 29/7/27	0 days	459,458
461	Completion of Section 8 of the works	0 days	Thu 29/7/27	Thu 29/7/27	Thu 29/7/27	Thu 29/7/27	0 days	460
462								
463	11. Section 9 of the works (part G4 of the Site) - 534D	672 days	Thu 20/6/24	Wed 22/4/26	Thu 20/6/24	Wed 22/4/26	0 days	
464	Site possession	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	245 days	17,465
465	Coordination/Liaison with nearby stakeholders by caring team visit	136 days	Thu 20/6/24	Sat 2/11/24	Thu 20/6/24	Sat 2/11/24	0 days	66
466	Interface and utilities undertaker liaison	310 days	Sun 3/11/24	Mon 8/9/25	Sun 3/11/24	Mon 8/9/25	0 days	465
467	Tree survey and submission	14 days	Tue 5/11/24	Mon 18/11/24	Tue 5/11/24	Mon 18/11/24	245 days	464
468	Submission of TPRP and approval	120 days	Tue 19/11/24	Tue 18/3/25	Tue 19/11/24	Tue 18/3/25	245 days	467
469	Tree felling	14 days	Wed 19/3/25	Tue 1/4/25	Wed 19/3/25	Tue 1/4/25	245 days	468
470	General site clearance / demolition work	45 days	Wed 2/4/25	Fri 16/5/25	Wed 2/4/25	Fri 16/5/25	115 days	469
471	surface channel and site formation work	226 days	Tue 9/9/25	Wed 22/4/26	Tue 9/9/25	Wed 22/4/26	0 days	470,466



Contract No. YL/2023/01

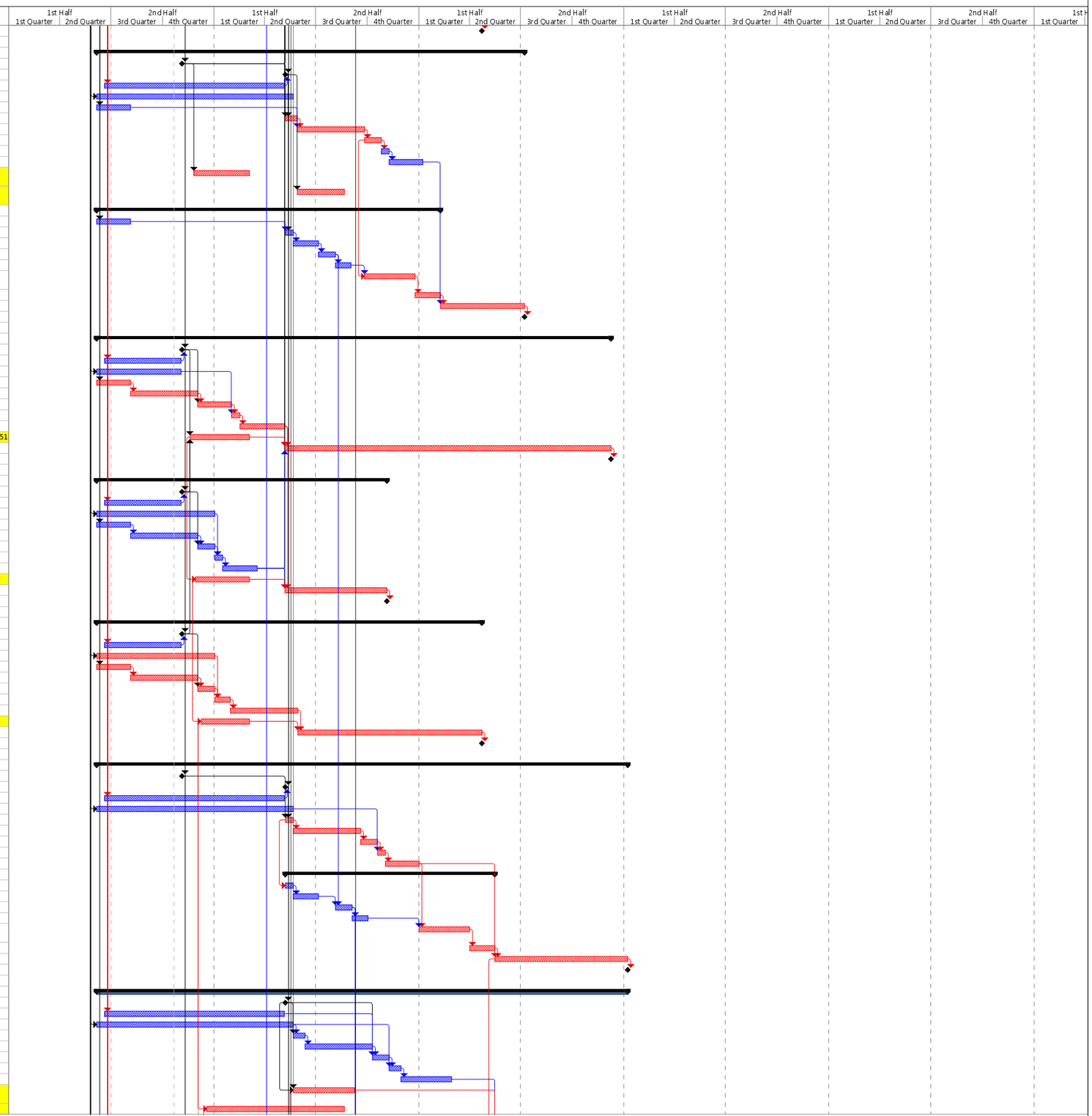
Sang Hing - Kuly Joint Venture

Hung Shui Kiu / Ha Tsuen New Development Area

Second Phase Development - Contract 1 - Site Formation and Engineering Infrastructure Works

Programme for the Works (Data Date : 05 Oct 2024)

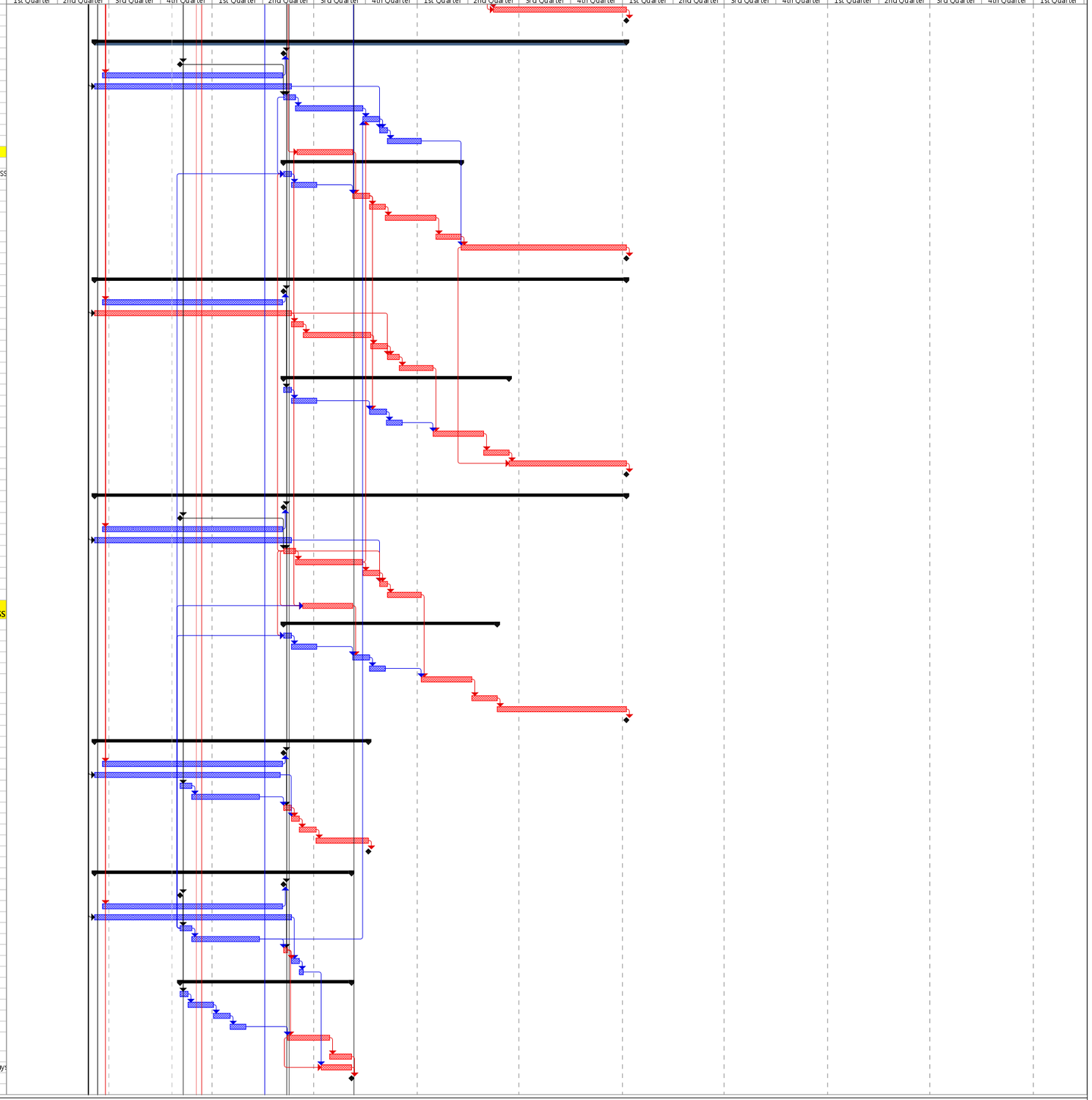
ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Float	Predecessors
472	Completion of Section 9 of the works	0 days	Wed 22/4/26	Wed 22/4/26	Wed 22/4/26	Wed 22/4/26	0 days	471
473								
474	12. Section 10 of the works (part H1 and H2 of the Site) - 610D	762 days	Thu 6/6/24	Tue 7/7/26	Thu 6/6/24	Tue 7/7/26	16 days	
475	Site possession of Part H1	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	0 days	17
476	Site possession of Part H2	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16,477
477	Coordination/Liaison with nearby stakeholders by caring team visit	320 days	Thu 20/6/24	Mon 5/5/25	Thu 20/6/24	Mon 5/5/25	2 days	66
478	Interface and utilities undertaker liaison	350 days	Thu 6/6/24	Wed 21/5/25	Thu 6/6/24	Wed 21/5/25	1287 days	4SS
479	Tree survey and submission (For Part H1)	60 days	Thu 6/6/24	Sun 4/8/24	Thu 6/6/24	Sun 4/8/24	297 days	18
480	Tree survey and submission (For Part H2)	21 days	Thu 8/5/25	Wed 28/5/25	Thu 8/5/25	Wed 28/5/25	0 days	475,476
481	Submission of TPRP and approval	120 days	Thu 29/5/25	Thu 25/9/25	Thu 29/5/25	Thu 25/9/25	0 days	479,480
482	Tree felling	30 days	Fri 26/9/25	Sat 25/10/25	Fri 26/9/25	Sat 25/10/25	0 days	481
483	decommissioning of existing services	14 days	Sun 26/10/25	Sat 8/11/25	Sun 26/10/25	Sat 8/11/25	31 days	482
484	General site clearance / demolition work	60 days	Sun 9/11/25	Wed 7/1/26	Sun 9/11/25	Wed 7/1/26	31 days	483
485	ground investigation (4 nos. of BH) and Lab. Testing/reporting - KD6 (part H1)	99 days	Tue 26/11/24	Tue 4/3/25	Tue 26/11/24	Tue 4/3/25	0 days	475FS+21 days
486	ground investigation (7 nos. of BH) and Lab. Testing/reporting - KD5 (part H2)	84 days	Thu 29/5/25	Wed 20/8/25	Thu 29/5/25	Wed 20/8/25	0 days	476FS+21 days
487	Land Contamination Assessment / Treatment	612 days	Thu 6/6/24	Sat 7/2/26	Thu 6/6/24	Sat 7/2/26	280 days	
488	site appraisal (For part H1)	60 days	Thu 6/6/24	Sun 4/8/24	Thu 6/6/24	Sun 4/8/24	300 days	18
489	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	24 days	476,488
490	submission / approval	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	24 days	489
491	site investigation / testing	30 days	Sun 6/7/25	Mon 4/8/25	Sun 6/7/25	Mon 4/8/25	24 days	490
492	preparation / submission / approval of CAR	28 days	Tue 5/8/25	Mon 1/9/25	Tue 5/8/25	Mon 1/9/25	24 days	491
493	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Fri 26/9/25	Wed 24/12/25	Fri 26/9/25	Wed 24/12/25	0 days	492,482SS
494	submission of remediation report	45 days	Thu 25/12/25	Sat 7/2/26	Thu 25/12/25	Sat 7/2/26	0 days	493
495	surface channel and site formation work	150 days	Sun 8/2/26	Tue 7/7/26	Sun 8/2/26	Tue 7/7/26	0 days	494,484
496	Completion of Section 10 of the works	0 days	Tue 7/7/26	Tue 7/7/26	Tue 7/7/26	Tue 7/7/26	0 days	495
497								
498	13. Section 11 of the works (part J of the Site) - 764D	916 days	Thu 6/6/24	Tue 8/12/26	Thu 6/6/24	Tue 8/12/26	0 days	
499	Site possession	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	0 days	17,500
500	Coordination/Liaison with nearby stakeholders by caring team visit	136 days	Thu 20/6/24	Sat 2/11/24	Thu 20/6/24	Sat 2/11/24	2 days	66
501	Interface and utilities undertaker liaison	150 days	Thu 6/6/24	Sat 2/11/24	Thu 6/6/24	Sat 2/11/24	90 days	4SS
502	Tree survey and submission	60 days	Thu 6/6/24	Sun 4/8/24	Thu 6/6/24	Sun 4/8/24	0 days	18
503	Submission of TPRP and approval	120 days	Mon 5/8/24	Mon 2/12/24	Mon 5/8/24	Mon 2/12/24	0 days	502
504	Tree felling	60 days	Tue 3/12/24	Fri 31/1/25	Tue 3/12/24	Fri 31/1/25	0 days	503,499
505	Decommissioning of existing services	15 days	Sat 1/2/25	Sat 15/2/25	Sat 1/2/25	Sat 15/2/25	0 days	504,501
506	General site clearance / demolition work	80 days	Sun 16/2/25	Tue 6/5/25	Sun 16/2/25	Tue 6/5/25	0 days	505
507	ground investigation (3 nos.) and Lab. Testing/reporting - KD4	106 days	Tue 19/11/24	Tue 4/3/25	Tue 19/11/24	Tue 4/3/25	0 days	499FS+14 days,51
508	surface channel and site formation work	581 days	Wed 7/5/25	Tue 8/12/26	Wed 7/5/25	Tue 8/12/26	0 days	17,507,506,519
509	Completion of Section 11 of the works	0 days	Tue 8/12/26	Tue 8/12/26	Tue 8/12/26	Tue 8/12/26	0 days	508
510								
511	14. Section 12 of the works (part K1 of the Site) - 365D	517 days	Thu 6/6/24	Tue 4/11/25	Thu 6/6/24	Tue 4/11/25	16 days	
512	Site possession	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	0 days	17,513
513	Coordination/Liaison with nearby stakeholders by caring team visit	136 days	Thu 20/6/24	Sat 2/11/24	Thu 20/6/24	Sat 2/11/24	2 days	66
514	Interface and utilities undertaker liaison	210 days	Thu 6/6/24	Wed 1/1/25	Thu 6/6/24	Wed 1/1/25	49 days	4SS
515	Tree survey and submission	60 days	Thu 6/6/24	Sun 4/8/24	Thu 6/6/24	Sun 4/8/24	49 days	18
516	Submission of TPRP and approval	120 days	Mon 5/8/24	Mon 2/12/24	Mon 5/8/24	Mon 2/12/24	49 days	515
517	Tree felling	30 days	Tue 3/12/24	Wed 1/1/25	Tue 3/12/24	Wed 1/1/25	49 days	512,516
518	Decommissioning of existing services	14 days	Thu 2/1/25	Wed 15/1/25	Thu 2/1/25	Wed 15/1/25	49 days	517,514
519	General site clearance / demolition work	62 days	Thu 16/1/25	Tue 18/3/25	Thu 16/1/25	Tue 18/3/25	49 days	518
520	ground investigation (2 nos.) and Lab. Testing/reporting - KD4	96 days	Fri 29/11/24	Tue 4/3/25	Fri 29/11/24	Tue 4/3/25	0 days	507SS+10 days
521	surface channel and site formation work	182 days	Wed 7/5/25	Tue 4/11/25	Wed 7/5/25	Tue 4/11/25	0 days	17,506,520,519
522	Completion of Section 12 of the works	0 days	Tue 4/11/25	Tue 4/11/25	Tue 4/11/25	Tue 4/11/25	0 days	521
523								
524	15. Section 13 of the works (part L1 of the Site) - 534D	686 days	Thu 6/6/24	Wed 22/4/26	Thu 6/6/24	Wed 22/4/26	0 days	
525	Site possession	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	0 days	17,526
526	Coordination/Liaison with nearby stakeholders by caring team visit	136 days	Thu 20/6/24	Sat 2/11/24	Thu 20/6/24	Sat 2/11/24	2 days	66
527	Interface and utilities undertaker liaison	210 days	Thu 6/6/24	Wed 1/1/25	Thu 6/6/24	Wed 1/1/25	0 days	4SS
528	Tree survey and submission	60 days	Thu 6/6/24	Sun 4/8/24	Thu 6/6/24	Sun 4/8/24	0 days	18
529	Submission of TPRP and approval	120 days	Mon 5/8/24	Mon 2/12/24	Mon 5/8/24	Mon 2/12/24	0 days	528
530	Tree felling	30 days	Tue 3/12/24	Wed 1/1/25	Tue 3/12/24	Wed 1/1/25	0 days	525,529
531	Decommissioning of existing services	28 days	Thu 2/1/25	Wed 29/1/25	Thu 2/1/25	Wed 29/1/25	0 days	530,527
532	General site clearance / demolition work	120 days	Thu 30/1/25	Thu 29/5/25	Thu 30/1/25	Thu 29/5/25	0 days	531
533	Ground Investigation (1 no. T/P) and Lab. Testing/reporting - KD4	86 days	Mon 9/12/24	Tue 4/3/25	Mon 9/12/24	Tue 4/3/25	0 days	520SS+10 days
534	surface channel and site formation work	328 days	Fri 30/5/25	Wed 22/4/26	Fri 30/5/25	Wed 22/4/26	0 days	533,532
535	Completion of Section 13 of the works	0 days	Wed 22/4/26	Wed 22/4/26	Wed 22/4/26	Wed 22/4/26	0 days	534
536								
537	16. Section 14 of the works (part M and R2 of the Site) - 610D	946 days	Thu 6/6/24	Thu 7/1/27	Thu 6/6/24	Thu 7/1/27	16 days	
538	Site possession of Part R2	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	184 days	17
539	Site possession of Part M	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16,540
540	Coordination/Liaison with nearby stakeholders by caring team visit	320 days	Thu 20/6/24	Mon 5/5/25	Thu 20/6/24	Mon 5/5/25	2 days	66
541	Interface and utilities undertaker liaison	350 days	Thu 6/6/24	Wed 21/5/25	Thu 6/6/24	Wed 21/5/25	150 days	4SS
542	Tree survey and submission	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	0 days	538,539
543	Submission of TPRP and approval	120 days	Thu 22/5/25	Thu 18/9/25	Thu 22/5/25	Thu 18/9/25	0 days	542
544	Tree felling	30 days	Fri 19/9/25	Sat 18/10/25	Fri 19/9/25	Sat 18/10/25	0 days	543
545	decommissioning existing services	14 days	Sun 19/10/25	Sat 1/11/25	Sun 19/10/25	Sat 1/11/25	0 days	544,541
546	General site clearance / demolition work	60 days	Sun 2/11/25	Wed 31/12/25	Sun 2/11/25	Wed 31/12/25	0 days	545
547	Land Contamination Assessment / Treatment	373 days	Thu 8/5/25	Fri 15/5/26	Thu 8/5/25	Fri 15/5/26	34 days	
548	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	88 days	542SS
549	submission / approval	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	88 days	548
550	site investigation / testing	30 days	Tue 5/8/25	Wed 3/9/25	Tue 5/8/25	Wed 3/9/25	58 days	549,491
551	preparation / submission / approval of CAR	28 days	Thu 4/9/25	Wed 1/10/25	Thu 4/9/25	Wed 1/10/25	91 days	550
552	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Thu 1/1/26	Tue 31/3/26	Thu 1/1/26	Tue 31/3/26	0 days	551,546
553	submission of remediation report	45 days	Wed 1/4/26	Fri 15/5/26	Wed 1/4/26	Fri 15/5/26	0 days	552
554	surface channel and site formation work	237 days	Sat 16/5/26	Thu 7/1/27	Sat 16/5/26	Thu 7/1/27	0 days	553,546
555	Completion of Section 14 of the works	0 days	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	0 days	554
556								
557	17. Section 15 of the works (part N of the Site) - 610D	946 days	Thu 6/6/24	Thu 7/1/27	Thu 6/6/24	Thu 7/1/27	77 days	
558	Site possession	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16
559	Coordination/Liaison with nearby stakeholders by caring team visit	320 days	Thu 20/6/24	Mon 5/5/25	Thu 20/6/24	Mon 5/5/25	291 days	66
560	Interface and utilities undertaker liaison	350 days	Thu 6/6/24	Wed 21/5/25	Thu 6/6/24	Wed 21/5/25	134 days	4SS
561	Tree survey and submission	21 days	Thu 22/5/25	Wed 11/6/25	Thu 22/5/25	Wed 11/6/25	134 days	560,558
562	Submission of TPRP and approval	120 days	Thu 12/6/25	Thu 9/10/25	Thu 12/6/25	Thu 9/10/25	134 days	561
563	Tree felling	30 days	Fri 10/10/25	Sat 8/11/25	Fri 10/10/25	Sat 8/11/25	134 days	562,558,559
564	decommissioning existing services	21 days	Sun 9/11/25	Sat 29/11/25	Sun 9/11/25	Sat 29/11/25	134 days	563,560
565	General site clearance / demolition work	90 days	Sun 30/11/25	Fri 27/2/26	Sun 30/11/25	Fri 27/2/26	134 days	564
566	Ground Investigation (1 no. BH and 1 no. T/P) and Lab. Testing/reporting - KD3	109 days	Thu 22/5/25	Sun 7/9/25	Thu 22/5/25	Sun 7/9/25	0 days	16,558SS+14 days
567	Ground Investigation (2 nos. BH) and Lab. Testing/reporting - KD5	245 days	Thu 19/12/24	Wed 20/8/25	Thu 19/12/24	Wed 20/8/25	0 days	533SS+10 days



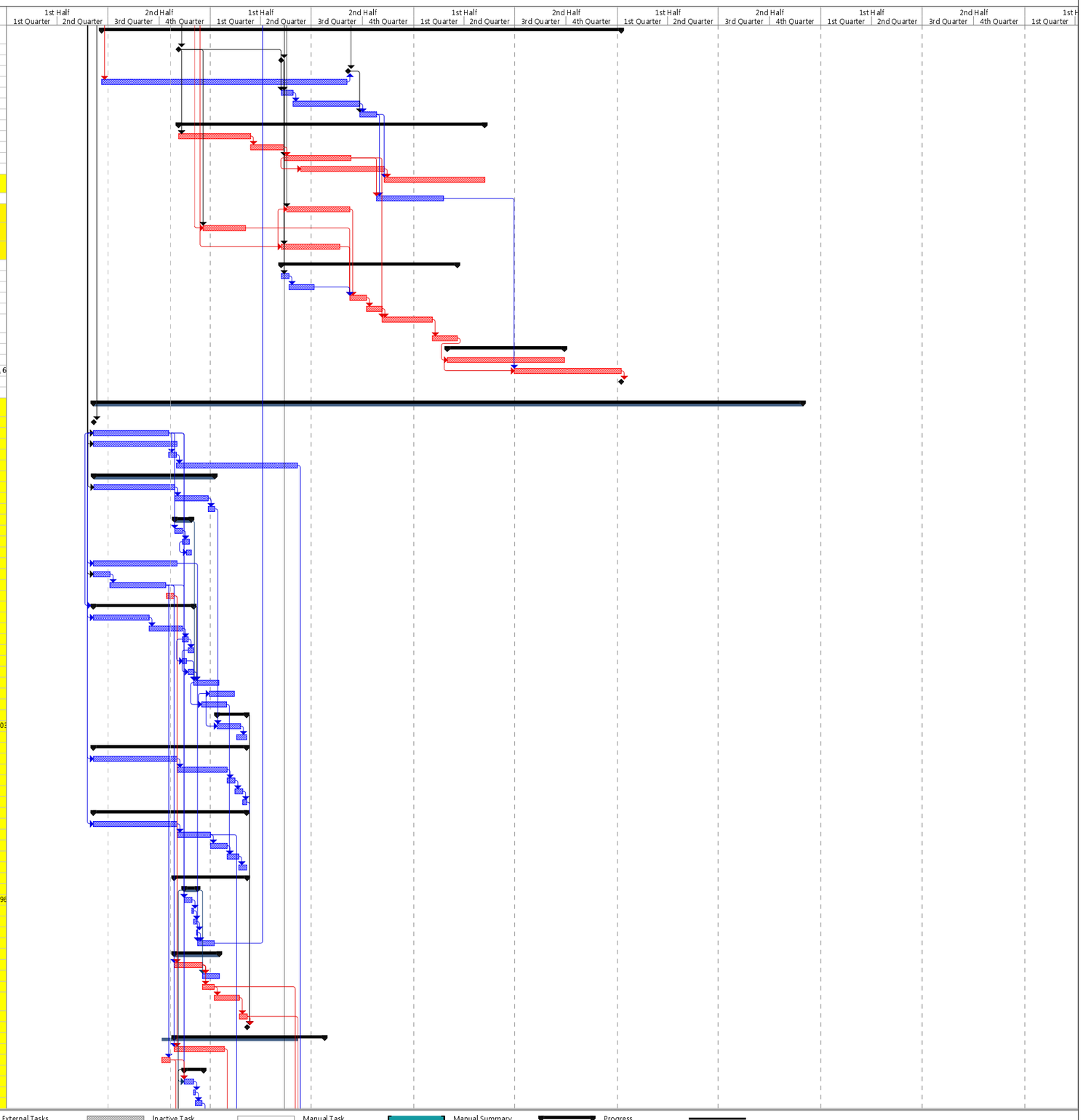
Project : YL/2023/01
Data Date : 05 Oct 2024 (Rev. 4)

Task | Summary | Rolled Up Milestone | External Tasks | Inactive Task | Manual Task | Manual Summary | Progress
Critical Task | Rolled Up Task | Rolled Up Progress | Project Summary | Inactive Milestone | Duration-only | Start-only | Deadline
Milestone | Rolled Up Critical Task | Split | Group By Summary | Inactive Summary | Manual Summary Rollup | Finish-only

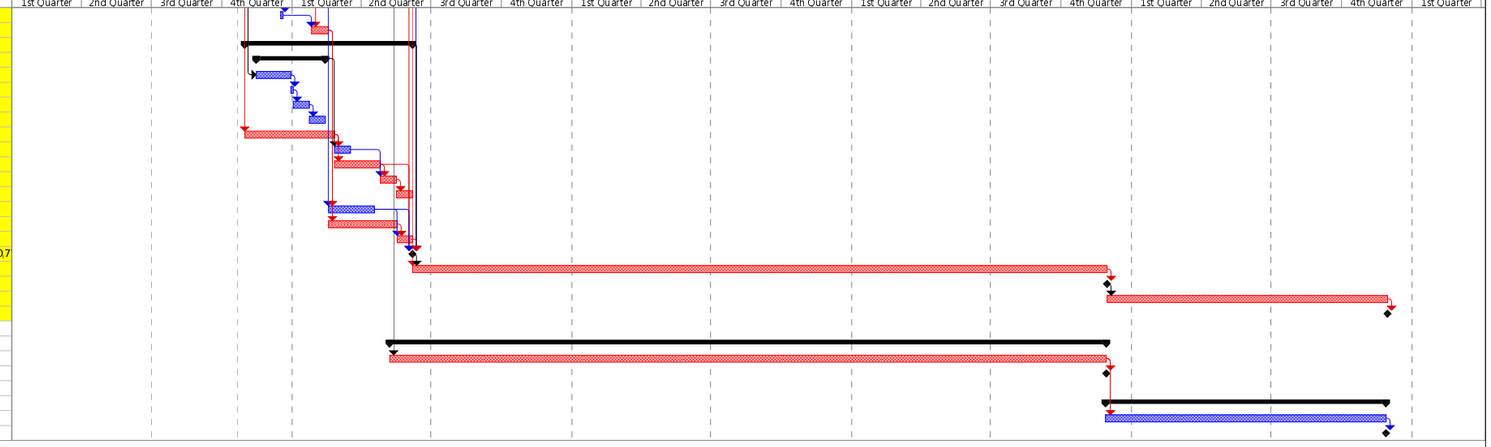
ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Float	Predecessors
568	surface channel and site formation work	237 days	Sat 16/5/26	Thu 7/1/27	Sat 16/5/26	Thu 7/1/27	0 days	554SS,566,565
569	**Completion of Section 15 of the works**	0 days	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	0 days	568
570								
571	**18. Section 16 of the works (part O and R3 of the Site) - 610D**	**946 days**	**Thu 6/6/24**	**Thu 7/1/27**	**Thu 6/6/24**	**Thu 7/1/27**	**80 days**	
572	Site possession of Part O	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	118 days	16,574
573	Site possession of Part R3	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	302 days	17
574	Coordination/Liaison with nearby stakeholders by caring team visit	320 days	Thu 20/6/24	Mon 5/5/25	Thu 20/6/24	Mon 5/5/25	120 days	66
575	Interface and utilities undertaker liaison	350 days	Thu 6/6/24	Wed 21/5/25	Thu 6/6/24	Wed 21/5/25	282 days	4SS
576	Tree survey and submission	21 days	Thu 8/5/25	Wed 28/5/25	Thu 8/5/25	Wed 28/5/25	118 days	572,573
577	Submission of TPRP and approval	120 days	Thu 29/5/25	Thu 25/9/25	Thu 29/5/25	Thu 25/9/25	125 days	576
578	Tree felling	30 days	Fri 26/9/25	Sat 25/10/25	Fri 26/9/25	Sat 25/10/25	125 days	577,617,650
579	decommissioning existing services	14 days	Sun 26/10/25	Sat 8/11/25	Sun 26/10/25	Sat 8/11/25	125 days	578,575
580	General site clearance / demolition work	60 days	Sun 9/11/25	Wed 7/1/26	Sun 9/11/25	Wed 7/1/26	125 days	579
581	**Ground Investigation (1 no. T/P) and Lab. Testing/reporting - KD3**	**99 days**	**Sun 1/6/25**	**Sun 7/9/25**	**Sun 1/6/25**	**Sun 7/9/25**	**0 days**	**566SS+10 days**
582	**Land Contamination Assessment / Treatment**	**316 days**	**Thu 8/5/25**	**Thu 19/3/26**	**Thu 8/5/25**	**Thu 19/3/26**	**64 days**	
583	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	118 days	576SS,616SS,649SS
584	submission / approval	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	118 days	583
585	site investigation / testing	30 days	Mon 8/9/25	Tue 7/10/25	Mon 8/9/25	Tue 7/10/25	0 days	584,550,581
586	preparation / submission / approval of CAR	28 days	Wed 8/10/25	Tue 4/11/25	Wed 8/10/25	Tue 4/11/25	0 days	585
587	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Wed 5/11/25	Mon 2/2/26	Wed 5/11/25	Mon 2/2/26	0 days	586
588	submission of remediation report	45 days	Tue 3/2/26	Thu 19/3/26	Tue 3/2/26	Thu 19/3/26	0 days	587
589	surface channel and site formation work	294 days	Fri 20/3/26	Thu 7/1/27	Fri 20/3/26	Thu 7/1/27	0 days	588,580
590	**Completion of Section 16 of the works**	0 days	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	0 days	589
591								
592	**19. Section 17 of the works (part P of the Site) - 610D**	**946 days**	**Thu 6/6/24**	**Thu 7/1/27**	**Thu 6/6/24**	**Thu 7/1/27**	**0 days**	
593	Site possession	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	149 days	16,594
594	Coordination/Liaison with nearby stakeholders by caring team visit	320 days	Thu 20/6/24	Mon 5/5/25	Thu 20/6/24	Mon 5/5/25	151 days	66
595	Interface and utilities undertaker liaison	350 days	Thu 6/6/24	Wed 21/5/25	Thu 6/6/24	Wed 21/5/25	0 days	4SS
596	Tree survey and submission	21 days	Thu 22/5/25	Wed 11/6/25	Thu 22/5/25	Wed 11/6/25	0 days	595
597	Submission of TPRP and approval	120 days	Thu 12/6/25	Thu 9/10/25	Thu 12/6/25	Thu 9/10/25	0 days	596
598	Tree felling	30 days	Fri 10/10/25	Sat 8/11/25	Fri 10/10/25	Sat 8/11/25	0 days	597
599	decommissioning existing services	21 days	Sun 9/11/25	Sat 29/11/25	Sun 9/11/25	Sat 29/11/25	0 days	598,595
600	General site clearance / demolition work	60 days	Sun 30/11/25	Wed 28/1/26	Sun 30/11/25	Wed 28/1/26	0 days	599
601	**Land Contamination Assessment / Treatment**	**401 days**	**Thu 8/5/25**	**Fri 12/6/26**	**Thu 8/5/25**	**Fri 12/6/26**	**149 days**	
602	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	149 days	593
603	submission / approval	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	149 days	602
604	site investigation / testing	30 days	Wed 8/10/25	Thu 6/11/25	Wed 8/10/25	Thu 6/11/25	55 days	603,585
605	preparation / submission / approval of CAR	28 days	Fri 7/11/25	Thu 4/12/25	Fri 7/11/25	Thu 4/12/25	55 days	604
606	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Thu 29/1/26	Tue 28/4/26	Thu 29/1/26	Tue 28/4/26	0 days	605,600
607	submission of remediation report	45 days	Wed 29/4/26	Fri 12/6/26	Wed 29/4/26	Fri 12/6/26	0 days	606
608	surface channel and site formation work	209 days	Sat 13/6/26	Thu 7/1/27	Sat 13/6/26	Thu 7/1/27	0 days	607,589SS
609	**Completion of Section 17 of the works**	0 days	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	0 days	608
610								
611	**20. Section 18 of the works (part Q and L4 of the Site) - 610D**	**946 days**	**Thu 6/6/24**	**Thu 7/1/27**	**Thu 6/6/24**	**Thu 7/1/27**	**16 days**	
612	Site possession of Part Q	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16,614
613	Site possession of Part L4	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	184 days	17
614	Coordination/Liaison with nearby stakeholders by caring team visit	320 days	Thu 20/6/24	Mon 5/5/25	Thu 20/6/24	Mon 5/5/25	2 days	66
615	Interface and utilities undertaker liaison	350 days	Thu 6/6/24	Wed 21/5/25	Thu 6/6/24	Wed 21/5/25	157 days	4SS
616	Tree survey and submission	21 days	Thu 8/5/25	Wed 28/5/25	Thu 8/5/25	Wed 28/5/25	0 days	612,613
617	Submission of TPRP and approval	120 days	Thu 29/5/25	Thu 25/9/25	Thu 29/5/25	Thu 25/9/25	0 days	616
618	Tree felling	30 days	Fri 26/9/25	Sat 25/10/25	Fri 26/9/25	Sat 25/10/25	0 days	617
619	decommissioning existing services	14 days	Sun 26/10/25	Sat 8/11/25	Sun 26/10/25	Sat 8/11/25	0 days	618,616,615
620	General site clearance / demolition work	60 days	Sun 9/11/25	Wed 7/1/26	Sun 9/11/25	Wed 7/1/26	0 days	619
621	**Ground Investigation (1 no. BH and 1 no. T/P) and Lab. Testing/reporting - KD3**	**89 days**	**Wed 11/6/25**	**Sun 7/9/25**	**Wed 11/6/25**	**Sun 7/9/25**	**0 days**	**581SS+10 days,616SS,649SS**
622	**Land Contamination Assessment / Treatment**	**380 days**	**Thu 8/5/25**	**Fri 22/5/26**	**Thu 8/5/25**	**Fri 22/5/26**	**128 days**	
623	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	128 days	616SS,649SS
624	submission / approval	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	128 days	623
625	site investigation / testing	30 days	Mon 8/9/25	Tue 7/10/25	Mon 8/9/25	Tue 7/10/25	64 days	624,621
626	preparation / submission / approval of CAR	28 days	Wed 8/10/25	Tue 4/11/25	Wed 8/10/25	Tue 4/11/25	64 days	625
627	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Thu 8/1/26	Tue 7/4/26	Thu 8/1/26	Tue 7/4/26	0 days	626,620
628	submission of remediation report	45 days	Wed 8/4/26	Fri 22/5/26	Wed 8/4/26	Fri 22/5/26	0 days	627
629	surface channel and site formation work	230 days	Sat 23/5/26	Thu 7/1/27	Sat 23/5/26	Thu 7/1/27	0 days	628
630	**Completion of Section 18 of the works**	0 days	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	0 days	629
631								
632	**21. Section 19 of the works (part S3 of the Site) - 151D**	**487 days**	**Thu 6/6/24**	**Sun 5/10/25**	**Thu 6/6/24**	**Sun 5/10/25**	**16 days**	
633	Site possession	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16,634
634	Coordination/Liaison with nearby stakeholders by caring team visit	320 days	Thu 20/6/24	Mon 5/5/25	Thu 20/6/24	Mon 5/5/25	2 days	66
635	Interface and utilities undertaker liaison	330 days	Thu 6/6/24	Thu 1/5/25	Thu 6/6/24	Thu 1/5/25	20 days	4SS
636	Tree survey and submission	21 days	Tue 5/11/24	Mon 25/11/24	Tue 5/11/24	Mon 25/11/24	43 days	17
637	Submission of TPRP and approval	120 days	Tue 26/11/24	Tue 25/3/25	Tue 26/11/24	Tue 25/3/25	43 days	636
638	Tree felling	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	0 days	637,633
639	decommissioning existing services	14 days	Thu 22/5/25	Wed 4/6/25	Thu 22/5/25	Wed 4/6/25	0 days	638,635
640	General site clearance / demolition work	30 days	Thu 5/6/25	Fri 4/7/25	Thu 5/6/25	Fri 4/7/25	0 days	639
641	surface channel and site formation work	93 days	Sat 5/7/25	Sun 5/10/25	Sat 5/7/25	Sun 5/10/25	0 days	640
642	**Completion of Section 19 of the works**	0 days	Sun 5/10/25	Sun 5/10/25	Sun 5/10/25	Sun 5/10/25	0 days	641
643								
644	**22. Section 20 of the works (part L5 and S4 of the Site) - 305D**	**457 days**	**Thu 6/6/24**	**Fri 5/9/25**	**Thu 6/6/24**	**Fri 5/9/25**	**16 days**	
645	Site possession of Part S4	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16,647
646	Site possession of Part L5	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	43 days	17
647	Coordination/Liaison with nearby stakeholders by caring team visit	320 days	Thu 20/6/24	Mon 5/5/25	Thu 20/6/24	Mon 5/5/25	2 days	66
648	Interface and utilities undertaker liaison	350 days	Thu 6/6/24	Wed 21/5/25	Thu 6/6/24	Wed 21/5/25	32 days	4SS
649	Tree survey and submission	21 days	Tue 5/11/24	Mon 25/11/24	Tue 5/11/24	Mon 25/11/24	43 days	646
650	Submission of TPRP and approval	120 days	Tue 26/11/24	Tue 25/3/25	Tue 26/11/24	Tue 25/3/25	43 days	649
651	Tree felling	7 days	Thu 8/5/25	Wed 14/5/25	Thu 8/5/25	Wed 14/5/25	0 days	650,645
652	decommissioning existing services	14 days	Thu 22/5/25	Wed 4/6/25	Thu 22/5/25	Wed 4/6/25	32 days	651,648
653	General site clearance / demolition work	7 days	Thu 5/6/25	Wed 11/6/25	Thu 5/6/25	Wed 11/6/25	32 days	652
654	**Land Contamination Assessment / Treatment**	**305 days**	**Tue 5/11/24**	**Fri 5/9/25**	**Tue 5/11/24**	**Fri 5/9/25**	**74 days**	
655	site appraisal and prepare Contamination Assessment Plan	14 days	Tue 5/11/24	Mon 18/11/24	Tue 5/11/24	Mon 18/11/24	74 days	646
656	submission / approval	45 days	Tue 19/11/24	Thu 2/1/25	Tue 19/11/24	Thu 2/1/25	74 days	655
657	site investigation / testing	30 days	Fri 3/1/25	Sat 1/2/25	Fri 3/1/25	Sat 1/2/25	74 days	656
658	preparation / submission / approval of CAR	28 days	Sun 2/2/25	Sat 1/3/25	Sun 2/2/25	Sat 1/3/25	74 days	657
659	remedial works (cement stabilization / Biopile) (2 months for Biopile and 2 weeks for CSS)	75 days	Thu 15/5/25	Mon 28/7/25	Thu 15/5/25	Mon 28/7/25	0 days	658,651
660	submission of remediation report	39 days	Tue 29/7/25	Fri 5/9/25	Tue 29/7/25	Fri 5/9/25	0 days	659
661	surface channel and site formation work	54 days	Mon 14/7/25	Fri 5/9/25	Mon 14/7/25	Fri 5/9/25	0 days	653,659SS+60 days
662	**Completion of Section 20 of the works**	0 days	Fri 5/9/25	Fri 5/9/25	Fri 5/9/25	Fri 5/9/25	0 days	661,660
663								



ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Float	Predecessors
664	23. Section 21 of the works (part H3, R1, K2, L2, L3, S1, S2 and S5 of the Site) - 610D	932 days	Thu 20/6/24	Thu 7/1/27	Thu 20/6/24	Thu 7/1/27	37 days	
665	Site possession of Part H3, K2, L3 & R1	0 days	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	Mon 4/11/24	0 days	17
666	Site possession of Part L2, S1 & S2	0 days	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	Wed 7/5/25	0 days	16
667	Site possession of Part S5	0 days	Thu 4/9/25	Thu 4/9/25	Thu 4/9/25	Thu 4/9/25	35 days	21,668
668	Coordination/Liaison with nearby stakeholders by caring team visit	440 days	Thu 20/6/24	Tue 2/9/25	Thu 20/6/24	Tue 2/9/25	37 days	66
669	Tree survey and submission	21 days	Thu 8/5/25	Wed 28/5/25	Thu 8/5/25	Wed 28/5/25	14 days	665,666
670	Submission of TPRP and approval	120 days	Thu 29/5/25	Thu 25/9/25	Thu 29/5/25	Thu 25/9/25	14 days	669
671	Tree felling	30 days	Fri 26/9/25	Sat 25/10/25	Fri 26/9/25	Sat 25/10/25	14 days	670,667
672	decommissioning existing services	549 days	Tue 5/11/24	Thu 7/5/26	Tue 5/11/24	Thu 7/5/26	0 days	
673	coordination with utilities undertakers	129 days	Tue 5/11/24	Thu 13/3/25	Tue 5/11/24	Thu 13/3/25	0 days	665
674	identification of the existing utilities	60 days	Fri 14/3/25	Mon 12/5/25	Fri 14/3/25	Mon 12/5/25	0 days	673
675	Facilitation works for removal / diversion of the existing utilities	120 days	Tue 13/5/25	Tue 9/9/25	Tue 13/5/25	Tue 9/9/25	0 days	674,666
676	Removal / diversion of the existing utilities by UU	150 days	Thu 12/6/25	Sat 8/11/25	Thu 12/6/25	Sat 8/11/25	0 days	675SS+30 days
677	Construction and complete new UU ducting laying works along Advance Utility Laying Works Corridor in Part S1 - KD8	180 days	Sun 9/11/25	Thu 7/5/26	Sun 9/11/25	Thu 7/5/26	0 days	671,676
678	General site clearance / demoltion work	120 days	Sun 26/10/25	Sun 22/2/26	Sun 26/10/25	Sun 22/2/26	127 days	675,671
679	Ground Investigation (22 nos. BH and 1 no. T/P) and Lab. Testing/reporting - KD3 in part S1	113 days	Sun 18/5/25	Sun 7/9/25	Sun 18/5/25	Sun 7/9/25	0 days	16,681SS+10 days
680	Ground Investigation (3 nos. BH) and Lab. Testing/reporting - KD4 in part L3	76 days	Thu 19/12/24	Tue 4/3/25	Thu 19/12/24	Tue 4/3/25	0 days	665,533SS+10 days
681	Ground Investigation (2 nos. BH) and Lab. Testing/reporting - KD5 in part S1	105 days	Thu 8/5/25	Wed 20/8/25	Thu 8/5/25	Wed 20/8/25	0 days	567SS+10 days,666
682	Land Contamination Assessment / Treatment	316 days	Thu 8/5/25	Thu 19/3/26	Thu 8/5/25	Thu 19/3/26	64 days	
683	site appraisal and prepare Contamination Assessment Plan	14 days	Thu 8/5/25	Wed 21/5/25	Thu 8/5/25	Wed 21/5/25	64 days	666
684	submission / approval	45 days	Thu 22/5/25	Sat 5/7/25	Thu 22/5/25	Sat 5/7/25	64 days	683
685	site investigation / testing	30 days	Mon 8/9/25	Tue 7/10/25	Mon 8/9/25	Tue 7/10/25	0 days	684,679,680,681
686	preparation / submission / approval of CAR	28 days	Wed 8/10/25	Tue 4/11/25	Wed 8/10/25	Tue 4/11/25	0 days	685
687	remedial works (cement stabilization / Biopile) (2 months for Biopile and 1 month for CSS)	90 days	Wed 5/11/25	Mon 2/2/26	Wed 5/11/25	Mon 2/2/26	0 days	686,675
688	submission of remediation report	45 days	Tue 3/2/26	Thu 19/3/26	Tue 3/2/26	Thu 19/3/26	0 days	687
689	Drainage work	210 days	Mon 2/3/26	Sun 27/9/26	Mon 2/3/26	Sun 27/9/26	0 days	
690	drainage work	210 days	Mon 2/3/26	Sun 27/9/26	Mon 2/3/26	Sun 27/9/26	0 days	688FS-18 days
691	surface channel and site formation work	192 days	Tue 30/6/26	Thu 7/1/27	Tue 30/6/26	Thu 7/1/27	0 days	690SS+120 days,6
692	Completion of Section 21 of the works	0 days	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	Thu 7/1/27	0 days	691
693								
694	24. Section 22 of the works (related to the CLC within part T of the Site) - 1271D	1273 days	Wed 5/6/24	Mon 29/11/27	Wed 5/6/24	Mon 29/11/27	1 day	
695	Site possession	0 days	Thu 6/6/24	Thu 6/6/24	Thu 6/6/24	Thu 6/6/24	1638 days	18
696	application for MTRC consent	135 days	Wed 5/6/24	Thu 17/10/24	Wed 5/6/24	Thu 17/10/24	1 day	18SS-1 day
697	Material Submission/Approval	150 days	Wed 5/6/24	Fri 1/11/24	Wed 5/6/24	Fri 1/11/24	1489 days	18SS-1 day
698	Instruments installation	14 days	Fri 18/10/24	Thu 31/10/24	Fri 18/10/24	Thu 31/10/24	1 day	696
699	Instrument monitoring	217 days	Fri 1/11/24	Thu 5/6/25	Fri 1/11/24	Thu 5/6/25	1 day	698
700	Overhead Gantry Removal	217 days	Thu 6/6/24	Wed 8/1/25	Thu 6/6/24	Wed 8/1/25	5 days	
701	Submit method statement	145 days	Thu 6/6/24	Mon 28/10/24	Thu 6/6/24	Mon 28/10/24	5 days	18SS-1 day
702	Approval from MTRC and relevant parties	60 days	Tue 29/10/24	Fri 27/12/24	Tue 29/10/24	Fri 27/12/24	5 days	701
703	Site works	12 days	Sat 28/12/24	Wed 8/1/25	Sat 28/12/24	Wed 8/1/25	5 days	702
704	Erection of site hoarding	30 days	Tue 29/10/24	Wed 27/11/24	Tue 29/10/24	Wed 27/11/24	5 days	
705	Excavation and footing construction	14 days	Tue 29/10/24	Mon 11/11/24	Tue 29/10/24	Mon 11/11/24	5 days	696
706	Erection of posts and sub frame	12 days	Tue 12/11/24	Sat 23/11/24	Tue 12/11/24	Sat 23/11/24	5 days	705
707	Installation of corrugated sheet	9 days	Tue 19/11/24	Wed 27/11/24	Tue 19/11/24	Wed 27/11/24	5 days	706SS+7 days
708	coordination with Contract YL/2020/03 for relocation of CLC building	150 days	Wed 5/6/24	Fri 1/11/24	Wed 5/6/24	Fri 1/11/24	327 days	696SS
709	engagement of MiC designer	30 days	Wed 5/6/24	Thu 4/7/24	Wed 5/6/24	Thu 4/7/24	1 day	18SS-1 day
710	design submission / approval	100 days	Fri 5/7/24	Sat 12/10/24	Fri 5/7/24	Sat 12/10/24	1 day	709
711	engagement of MiC proprietor	14 days	Mon 14/10/24	Sun 27/10/24	Mon 14/10/24	Sun 27/10/24	0 days	
712	Application of excavation permit for drainages and watermain	180 days	Wed 5/6/24	Sun 1/12/24	Wed 5/6/24	Sun 1/12/24	1 day	696SS
713	Submission and approval of PPA	100 days	Wed 5/6/24	Thu 12/9/24	Wed 5/6/24	Thu 12/9/24	1 day	696SS
714	Submission and approval of TTM from TD/RMO	60 days	Fri 13/9/24	Mon 11/11/24	Fri 13/9/24	Mon 11/11/24	1 day	713
715	Permit application and issuance	10 days	Tue 12/11/24	Thu 21/11/24	Tue 12/11/24	Thu 21/11/24	1 day	714
716	Application and approval of Roadwork Advise	10 days	Fri 22/11/24	Sun 1/12/24	Fri 22/11/24	Sun 1/12/24	1 day	715
717	Notice to SHK for blockage of Eastern Access	7 days	Tue 12/11/24	Mon 18/11/24	Tue 12/11/24	Mon 18/11/24	14 days	715SS
718	Mobilization of Plant	10 days	Fri 22/11/24	Sun 1/12/24	Fri 22/11/24	Sun 1/12/24	1 day	716SS
719	Construction sewage drainage (Approx. 150m)	45 days	Mon 2/12/24	Wed 15/1/25	Mon 2/12/24	Wed 15/1/25	1 day	704,718,712,717
720	Construction of storm water drainage (Approx. 120m)	45 days	Mon 30/12/24	Wed 12/2/25	Mon 30/12/24	Wed 12/2/25	1 day	721SS+14 days
721	Construction of watermain (2 x NS 180; 1 x NS 125; approx. @150m)	45 days	Mon 16/12/24	Wed 29/1/25	Mon 16/12/24	Wed 29/1/25	1 day	719SS+14 days
722	EVA construction	53 days	Mon 13/1/25	Thu 6/3/25	Mon 13/1/25	Thu 6/3/25	1 day	
723	Pavement construction (5 bays x 7days)	42 days	Mon 13/1/25	Sun 23/2/25	Mon 13/1/25	Sun 23/2/25	1 day	720SS+14 days,70
724	Car park construction	18 days	Mon 17/2/25	Thu 6/3/25	Mon 17/2/25	Thu 6/3/25	1 day	723FS-7 days
725	Electric cable laying and utilities ductings	275 days	Wed 5/6/24	Thu 6/3/25	Wed 5/6/24	Thu 6/3/25	1 day	
726	Application of power supply/broadband	150 days	Wed 5/6/24	Fri 1/11/24	Wed 5/6/24	Fri 1/11/24	1 day	696SS
727	Post transformer erection	90 days	Sat 2/11/24	Thu 30/1/25	Sat 2/11/24	Thu 30/1/25	1 day	726
728	Ducting / Cable laying	14 days	Fri 31/1/25	Thu 13/2/25	Fri 31/1/25	Thu 13/2/25	1 day	727
729	Meter Box and Main Switch installation	14 days	Fri 14/2/25	Thu 27/2/25	Fri 14/2/25	Thu 27/2/25	1 day	728
730	Power connection and energizing by CLP	7 days	Fri 28/2/25	Thu 6/3/25	Fri 28/2/25	Thu 6/3/25	1 day	729
731	Water supply	275 days	Wed 5/6/24	Thu 6/3/25	Wed 5/6/24	Thu 6/3/25	1 day	
732	Application of water supply from WA	150 days	Wed 5/6/24	Fri 1/11/24	Wed 5/6/24	Fri 1/11/24	1 day	696SS
733	Approval of water supply	60 days	Sat 2/11/24	Tue 31/12/24	Sat 2/11/24	Tue 31/12/24	1 day	732
734	Installation of water meter cabinet	30 days	Wed 1/1/25	Thu 30/1/25	Wed 1/1/25	Thu 30/1/25	1 day	733
735	Complete documentation (Form WWO46 Submission)	21 days	Fri 31/1/25	Thu 20/2/25	Fri 31/1/25	Thu 20/2/25	1 day	721,734
736	Installation of water meter (By WA)	14 days	Fri 21/2/25	Thu 6/3/25	Fri 21/2/25	Thu 6/3/25	1 day	735
737	Relocation of CLC building	131 days	Mon 28/10/24	Fri 7/3/25	Mon 28/10/24	Fri 7/3/25	0 days	
738	construction of footing	24 days	Fri 15/11/24	Sun 8/12/24	Fri 15/11/24	Sun 8/12/24	290 days	
739	Excavation and ELS installation	14 days	Fri 15/11/24	Thu 28/11/24	Fri 15/11/24	Thu 28/11/24	290 days	710FS+15 days,696
740	Blinding Layer	3 days	Fri 29/11/24	Sun 1/12/24	Fri 29/11/24	Sun 1/12/24	290 days	739
741	Formwork erection, steel fixing and concreting	5 days	Mon 2/12/24	Fri 6/12/24	Mon 2/12/24	Fri 6/12/24	290 days	740
742	Dismantle formworks	2 days	Sat 7/12/24	Sun 8/12/24	Sat 7/12/24	Sun 8/12/24	290 days	741
743	relocation of CLC building	30 days	Mon 9/12/24	Tue 7/1/25	Mon 9/12/24	Tue 7/1/25	290 days	742,708
744	Retrofitting part of CLC	81 days	Mon 28/10/24	Thu 16/1/25	Mon 28/10/24	Thu 16/1/25	0 days	
745	Fabrication off-site	51 days	Mon 28/10/24	Tue 17/12/24	Mon 28/10/24	Tue 17/12/24	0 days	710,711
746	On-site erection	30 days	Wed 18/12/24	Thu 16/1/25	Wed 18/12/24	Thu 16/1/25	1412 days	745,738
747	erection of connection corridor	21 days	Wed 18/12/24	Tue 7/1/25	Wed 18/12/24	Tue 7/1/25	0 days	745
748	installation of utilities / E&M work / internal & external finishing, connection corridor	45 days	Wed 8/1/25	Fri 21/2/25	Wed 8/1/25	Fri 21/2/25	0 days	747
749	Testing and commissioning	14 days	Sat 22/2/25	Fri 7/3/25	Sat 22/2/25	Fri 7/3/25	0 days	748
750	Complete and commissioning of relocated CLC Building - KD7	0 days	Fri 7/3/25	Fri 7/3/25	Fri 7/3/25	Fri 7/3/25	0 days	749,722,731,730
751	Construction of new CLC building	270 days	Mon 28/10/24	Thu 24/7/25	Mon 28/10/24	Thu 24/7/25	0 days	
752	Off-site fabrication for MIC units	90 days	Mon 28/10/24	Sat 25/1/25	Mon 28/10/24	Sat 25/1/25	0 days	710,711
753	Method Statement and Material Submission / Approval	15 days	Sun 6/10/24	Sun 20/10/24	Sun 6/10/24	Sun 20/10/24	0 days	710FS-8 days
754	construction of footing	35 days	Fri 15/11/24	Thu 19/12/24	Fri 15/11/24	Thu 19/12/24	37 days	
755	Excavation and ELS installation	17 days	Fri 15/11/24	Sun 1/12/24	Fri 15/11/24	Sun 1/12/24	37 days	696,738SS,753
756	Blinding Layer	3 days	Mon 2/12/24	Wed 4/12/24	Mon 2/12/24	Wed 4/12/24	37 days	755
757	Formwork erection, steel fixing and concreting	12 days	Thu 5/12/24	Mon 16/12/24	Thu 5/12/24	Mon 16/12/24	37 days	756



ID	Task Name	Duration	Start	Finish	Early Start	Early Finish	Float	Predecessors
758	Dismantle formworks	3 days	Tue 17/12/24	Thu 19/12/24	Tue 17/12/24	Thu 19/12/24	37 days	757
759	erection of MiC units	22 days	Sun 26/1/25	Sun 16/2/25	Sun 26/1/25	Sun 16/2/25	0 days	752,758
760	Construction of Internal Lift	219 days	Thu 31/10/24	Fri 6/6/25	Thu 31/10/24	Fri 6/6/25	0 days	
761	Civil works for lift shaft and pump sump	90 days	Fri 15/11/24	Wed 12/2/25	Fri 15/11/24	Wed 12/2/25	51 days	
762	Excavation and ELS installation	45 days	Fri 15/11/24	Sun 29/12/24	Fri 15/11/24	Sun 29/12/24	51 days	754SS
763	Blinding	3 days	Mon 30/12/24	Wed 1/1/25	Mon 30/12/24	Wed 1/1/25	51 days	762
764	Formwork, steel fixing and concreting (Base slab)	21 days	Thu 2/1/25	Wed 22/1/25	Thu 2/1/25	Wed 22/1/25	51 days	763
765	Formwork, steel fixing and concreting (Shaft wall stem)	21 days	Thu 23/1/25	Wed 12/2/25	Thu 23/1/25	Wed 12/2/25	51 days	764
766	Fabrication off-site	117 days	Thu 31/10/24	Mon 24/2/25	Thu 31/10/24	Mon 24/2/25	0 days	753FS+10 days
767	E&Mworks for lift installation	21 days	Tue 25/2/25	Mon 17/3/25	Tue 25/2/25	Mon 17/3/25	39 days	766,761
768	Lift installation	60 days	Tue 25/2/25	Fri 25/4/25	Tue 25/2/25	Fri 25/4/25	0 days	766
769	Testing and commissioning	21 days	Sat 26/4/25	Fri 16/5/25	Sat 26/4/25	Fri 16/5/25	0 days	767,768
770	EMSD Form LE5 inspection/ permit insurance	21 days	Sat 17/5/25	Fri 6/6/25	Sat 17/5/25	Fri 6/6/25	0 days	769
771	In house plumbing works	60 days	Mon 17/2/25	Thu 17/4/25	Mon 17/2/25	Thu 17/4/25	30 days	733,759
772	installation of utilities / E&M work / internal & external finishing	90 days	Mon 17/2/25	Sat 17/5/25	Mon 17/2/25	Sat 17/5/25	0 days	759
773	testing and commissioning	20 days	Sun 18/5/25	Fri 6/6/25	Sun 18/5/25	Fri 6/6/25	0 days	772,771
774	Complete and commissioning of remaining CLC compound - KD7A	0 days	Fri 6/6/25	Fri 6/6/25	Fri 6/6/25	Fri 6/6/25	0 days	773,768,747,760,7
775	Maintenance	906 days	Sat 7/6/25	Mon 29/11/27	Sat 7/6/25	Mon 29/11/27	0 days	749,774
776	Completion of Section 22 of the works	0 days	Mon 29/11/27	Mon 29/11/27	Mon 29/11/27	Mon 29/11/27	0 days	775
777	Maintenance during DLP	366 days	Tue 30/11/27	Wed 29/11/28	Tue 30/11/27	Wed 29/11/28	0 days	776
778	Completion of Defect Liability Period od Section 22 of the Works	0 days	Wed 29/11/28	Wed 29/11/28	Wed 29/11/28	Wed 29/11/28	0 days	777
779								
780	25. Section 23 of the works (all landscape softworks) - 935D	935 days	Thu 8/5/25	Sun 28/11/27	Thu 8/5/25	Sun 28/11/27	0 days	
781	Landscaping softworks	935 days	Thu 8/5/25	Sun 28/11/27	Thu 8/5/25	Sun 28/11/27	0 days	16
782	Completion of Section 23 of the works	0 days	Sun 28/11/27	Sun 28/11/27	Sun 28/11/27	Sun 28/11/27	0 days	781
783								
784	26. Section 24 of the works (establishment works) - 365D	366 days	Sun 28/11/27	Mon 27/11/28	Sun 28/11/27	Mon 27/11/28	2 days	
785	Establishment Works for landscaping softworks	366 days	Sun 28/11/27	Mon 27/11/28	Sun 28/11/27	Mon 27/11/28	2 days	781FS-1 day
786	Completion of Section 23 of the works	0 days	Mon 27/11/28	Mon 27/11/28	Mon 27/11/28	Mon 27/11/28	2 days	785



Construction Programme for Contract 2

ARUP

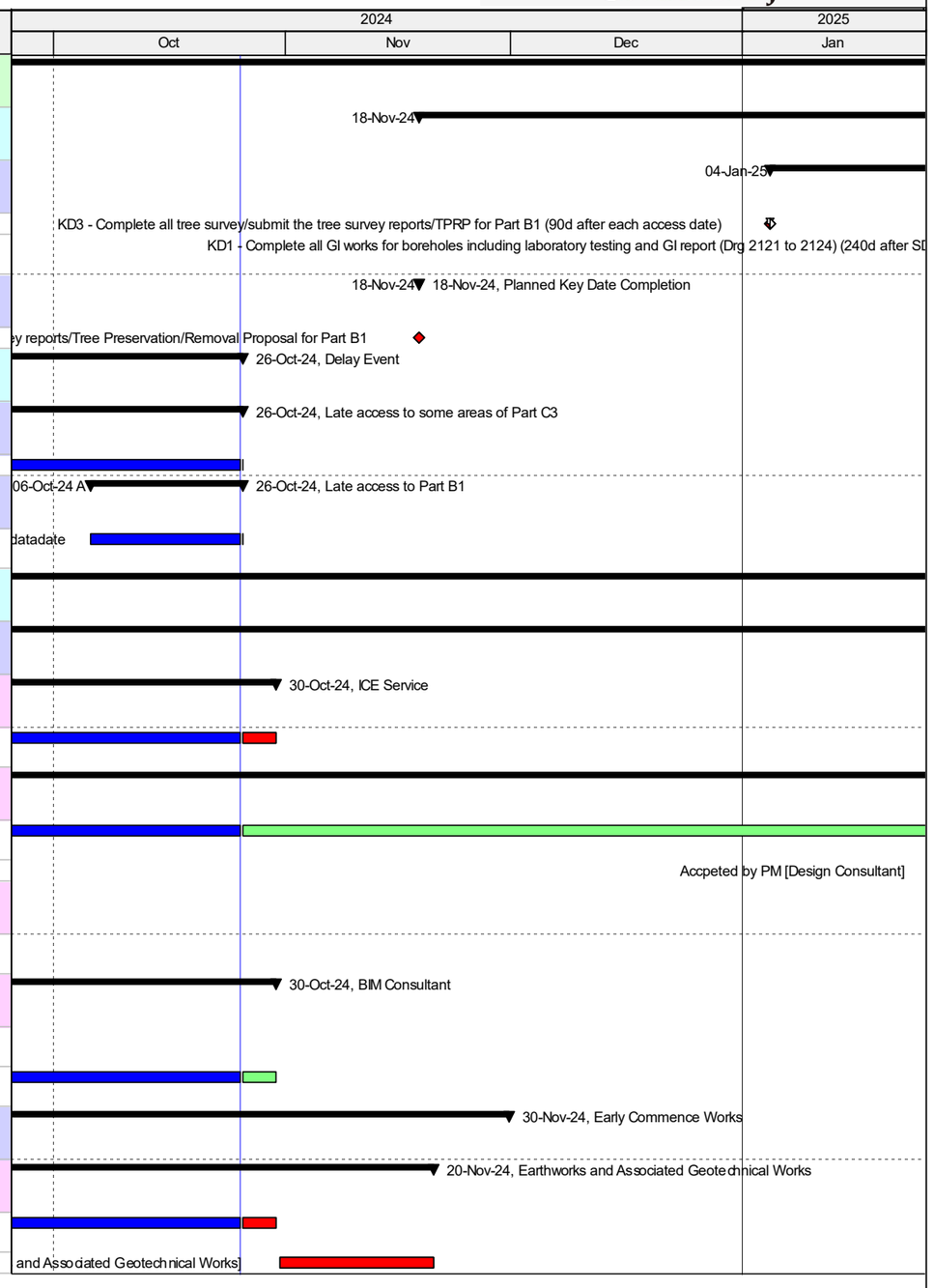
CEDD 土木工程拓展署 Civil Engineering and Development Department

Contract No. YL/2023/02

Hung Shui Kiu/ Ha Tsuen New Development Area Second Phase Development - Contract 2 - Fresh Waster Services Reservoir and Associated Mainlaying Works

CWBKYH JV

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
YL/2023/02 Monthly Programme for Oct 2024		469	03-Jun-24 A	23-Feb-26	1198
Contract Date		76	18-Nov-24	02-Feb-25	0
Contract Key Date Completion		29	04-Jan-25	02-Feb-25	0
KD-030	KD3 - Complete all tree survey/submit the tree survey reports/TPRP for Part B1 (90d after each access date)	0		04-Jan-25*	0
KD-010	KD1 - Complete all GI works for boreholes including laboratory testing and GI report (Drg 2121 to 2124) (240d after SD)	0		02-Feb-25*	0
Planned Key Date Completion		0	18-Nov-24	18-Nov-24	47
KD-035	KD3 - Complete all tree survey/submit the tree survey reports/Tree Preservation/Removal Proposal for Part B1	0		18-Nov-24	47
Delay Event		92	07-Jun-24 A	26-Oct-24	158
Late access to some areas of Part C3		15	07-Jun-24 A	26-Oct-24	158
DE01-100	Late access to some areas of Part C3 (Lam Hau Tsuen) up to this datadate	15	07-Jun-24 A	26-Oct-24	158
Late access to Part B1		0	06-Oct-24 A	26-Oct-24	-17
DE04-100	Late access to Part B1 up to this datadate	0	06-Oct-24 A	26-Oct-24	-17
Subletting		253	24-Jun-24 A	22-Feb-25	1272
Consultancy		253	24-Jun-24 A	15-Feb-25	556
ICE Service		21	25-Sep-24 A	30-Oct-24	50
S-260	Accpeted by PM [ICE]	21	25-Sep-24 A	30-Oct-24	50
Design Consultant		205	24-Jun-24 A	15-Feb-25	556
S-250	Preparation, tender out and tender opening [Design Consultant]	39	24-Jun-24 A	25-Jan-25	556
S-270	Accpeted by PM [Design Consultant]	21	26-Jan-25	15-Feb-25	556
Traffic Consultant		21	19-Jul-24 A	30-Jul-24 A	
S-290	Accpeted by PM [Traffic Consultant]	21	19-Jul-24 A	30-Jul-24 A	
BIM Consultant		183	22-Jul-24 A	30-Oct-24	240
S-300	Preparation, tender out and tender opening [BIM Consultant]	120	22-Jul-24 A	05-Sep-24 A	
S-310	Accpeted by PM [BIM Consultant]	21	06-Sep-24 A	30-Oct-24	240
Early Commence Works		128	24-Jun-24 A	30-Nov-24	1356
Earthworks and Associated Geotechnical Works		118	24-Jun-24 A	20-Nov-24	54
S-320	Preparation, tender out and tender opening [Earthworks and Associated Geotechnical Works]	54	24-Jun-24 A	30-Oct-24	54
S-330	Accpeted by PM [Earthworks and Associated Geotechnical Works]	21	31-Oct-24	20-Nov-24	54



Summary | Actual LOE | Remaining LOE | Actual Work | Remaining Work | Critical Remaining Work | Milestone | Crit Milestone | Actual Milestone | Start Constraint | Finish Co... | No Pred... | No Succ...

Project ID: MPU20241025

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CEDD 土木工程拓展署 Civil Engineering and Development Department

Contract No. YL/2023/02

Hung Shui Kiu/ Ha Tsuen New Development Area Second Phase Development - Contract 2 - Fresh Waster Services Reservoir and Associated Mainlaying Works

CWBKYH JV

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Hoarding/Fencing/Gates and Project Signboard		21	17-Sep-24 A	14-Nov-24	1372
S-350	Accpeted by PM [Hoarding/Fencing]	21	17-Sep-24 A	14-Nov-24	1372
Road, Open Trench Pipe Works and associated TTA implementation		128	22-Jul-24 A	30-Nov-24	40
S-420	Preparation, tender out and tender opening [Road and Open Trench Pipe Works]	90	22-Jul-24 A	09-Nov-24	40
S-430	Accpeted by PM [Road and Open Trench Pipe Works]	21	10-Nov-24	30-Nov-24	40
PM's and Contractor's site office works		26	23-Sep-24 A	20-Nov-24	1302
S-440	Preparation, tender out and tender opening [PM's and Contractor's site office works]	11	23-Sep-24 A	30-Oct-24	1302
S-450	Accpeted by PM [PM's and Contractor's site office works] [Assume delink to MS approval from MTR and TPRP issue]	21	31-Oct-24	20-Nov-24	1302
Major Works		118	10-Sep-24 A	22-Feb-25	34
RW Construction		21	02-Feb-25	22-Feb-25	34
S-500	Accpeted by PM [RW Construction]	21	02-Feb-25	22-Feb-25	34
Site Formation at Part A (Partial) and Part B2 of Site		21	10-Sep-24 A	30-Sep-24 A	
S-540	Accpeted by PM [Site Formation at Part A (Partial) and Part B2 of Site]	21	10-Sep-24 A	30-Sep-24 A	
Piling Works		66	28-Oct-24	01-Jan-25	46
S-150	Preparation, tender out and tender opening [Piling Works]	45	28-Oct-24	11-Dec-24	46
S-480	Accpeted by PM [Piling Works]	21	12-Dec-24	01-Jan-25	46
Major Submission / Statutory Approval		188	03-Jun-24 A	09-Feb-25	1855
SP-160	Request UU drawings	120	03-Jun-24 A	30-Nov-24	54
SP-130	Coordination with MTRC regarding construction works within MTR's protection zone (Castle Peak Road)	180	12-Jul-24 A	07-Jan-25	1888
SP-100	Discharge License	30	05-Aug-24 A	25-Nov-24	59
SP-110	Application of XP	180	09-Aug-24 A	09-Feb-25	33
SP-120	Submission and Approval of TTA scheme/ assume during 2 TMLG (monthly interval) engage RMO/TD within XP period	60	31-Oct-24*	29-Dec-24	0
SP-150	Submission and Approval of Construction Noise Permit (CNP)	60	01-Dec-24	29-Jan-25	175
Baseline Monitoring by ET		28	11-Oct-24 A	19-Nov-24	50
SP-100b120	Laboratory tests and report submission by ET	14	11-Oct-24 A	22-Oct-24 A	
SP-100b130	EPD's approval for the report	28	23-Oct-24 A	19-Nov-24	50
Site Appraisal		30	08-Oct-24 A	06-Nov-24	42
SP-100a30	Site appraisal report submission and approval	30	08-Oct-24 A	06-Nov-24	42
Major Contractor's Design		171	07-Oct-24 A	19-Apr-25	40
D-160	Submit & Approve - Design mixes of all concrete to be used for the contract	90	07-Oct-24 A	09-Jan-25	50
D-120	Submit & Approve - Water Intelligent Network (WIN) system for the water trunk main (PS 22.112)	140	01-Dec-24	19-Apr-25	40
D-130	Submit & Approve - Cathodic Protection System for the water trunk main (PS 22.108/ 22.109/ 22.110)	90	20-Jan-25	19-Apr-25	40
Method Statement		153	02-Aug-24 A	22-Feb-25	1272

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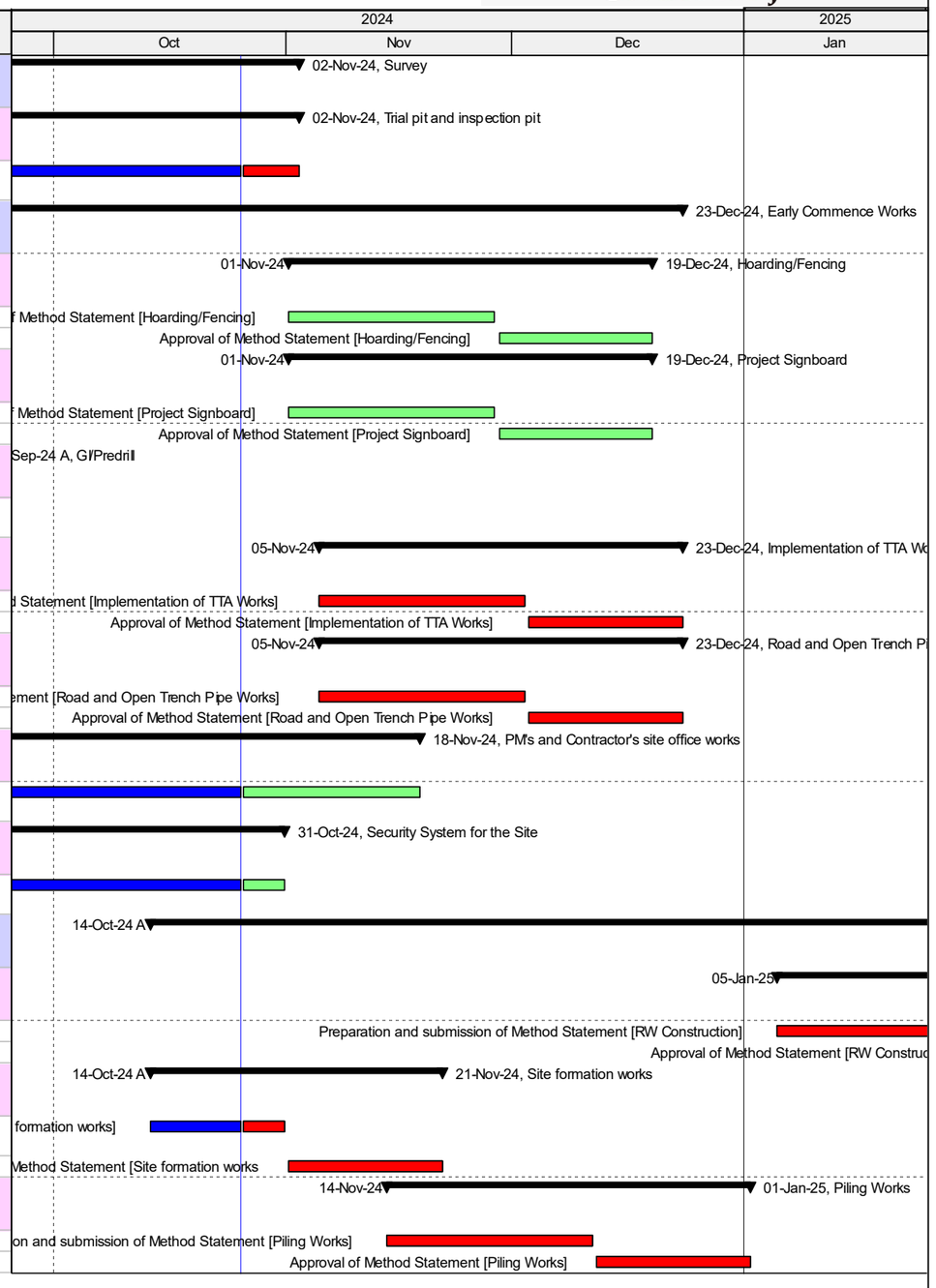
Contract No. YL/2023/02

Hung Shui Kiu/ Ha Tsuen New Development Area Second Phase Development - Contract 2 - Fresh Waster Services Reservoir and Associated Mainlaying Works

Build King YEE HOP

CWBKYH JV

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Survey		21	28-Aug-24 A	02-Nov-24	-3
Trial pit and inspection pit		21	28-Aug-24 A	02-Nov-24	-3
MST-200	Approval of Method Statement [Trial pit and inspection pit]	21	28-Aug-24 A	02-Nov-24	-3
Early Commence Works		92	02-Aug-24 A	23-Dec-24	1333
Hoarding/Fencing		49	01-Nov-24	19-Dec-24	1337
MST-320	Preparation and submission of Method Statement [Hoarding/Fencing]	28	01-Nov-24	28-Nov-24	1337
MST-330	Approval of Method Statement [Hoarding/Fencing]	21	29-Nov-24	19-Dec-24	1337
Project Signboard		49	01-Nov-24	19-Dec-24	1337
MST-340	Preparation and submission of Method Statement [Project Signboard]	28	01-Nov-24	28-Nov-24	1337
MST-350	Approval of Method Statement [Project Signboard]	21	29-Nov-24	19-Dec-24	1337
GI/Predrill		21	31-Aug-24 A	21-Sep-24 A	
MST-370	Approval of Method Statement [GI/Predrill]	21	31-Aug-24 A	21-Sep-24 A	
Implementation of TTA Works		49	05-Nov-24	23-Dec-24	61
MST-380	Preparation and submission of Method Statement [Implementation of TTA Works]	28	05-Nov-24	02-Dec-24	61
MST-590	Approval of Method Statement [Implementation of TTA Works]	21	03-Dec-24	23-Dec-24	61
Road and Open Trench Pipe Works		49	05-Nov-24	23-Dec-24	61
MST-390	Preparation and submission of Method Statement [Road and Open Trench Pipe Works]	28	05-Nov-24	02-Dec-24	61
MST-400	Approval of Method Statement [Road and Open Trench Pipe Works]	21	03-Dec-24	23-Dec-24	61
PM's and Contractor's site office works		60	20-Sep-24 A	18-Nov-24	1368
MST-630	Approval of Method Statement [both RSS and MTRC]	60	20-Sep-24 A	18-Nov-24	1368
Security System for the Site		21	02-Aug-24 A	31-Oct-24	1386
MST-440	Approval of Method Statement [Site Security Service]	21	02-Aug-24 A	31-Oct-24	1386
Major Works		114	14-Oct-24 A	22-Feb-25	34
RW Construction		49	05-Jan-25	22-Feb-25	34
MST-460	Preparation and submission of Method Statement [RW Construction]	28	05-Jan-25	01-Feb-25	34
MST-470	Approval of Method Statement [RW Construction]	21	02-Feb-25	22-Feb-25	34
Site formation works		32	14-Oct-24 A	21-Nov-24	58
MST-500	Preparation and submission of Method Statement [Site formation works]	28	14-Oct-24 A	31-Oct-24	58
MST-510	Approval of Method Statement [Site formation works	21	01-Nov-24	21-Nov-24	58
Piling Works		49	14-Nov-24	01-Jan-25	46
MST-120	Preparation and submission of Method Statement [Piling Works]	28	14-Nov-24	11-Dec-24	46
MST-450	Approval of Method Statement [Piling Works]	21	12-Dec-24	01-Jan-25	46



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Contract No. YL/2023/02

Hung Shui Kiu/ Ha Tsuen New Development Area Second Phase Development - Contract 2 - Fresh Waster Services Reservoir and Associated Mainlaying Works

CWBKYH JV

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Pipe Jacking		49	15-Dec-24	01-Feb-25	40
MST-130	Preparation and submission of Method Statement [Pipe Jacking]	28	15-Dec-24	11-Jan-25	40
MST-580	Approval of Method Statement [[Pipe Jacking]	21	12-Jan-25	01-Feb-25	40
Major Material Procurement and Plant & Equipment Fabrication and Delivery		450	01-Dec-24	23-Feb-26	54
PRO-110	Watermains Material, Valves Fittings (7M for Steel pipe, 18M for valve and fittings)	450	01-Dec-24	23-Feb-26	54
PRO-100	Pipe Jacking Equipment and Plant Design	75	27-Jan-25	11-Apr-25	39
Site Works		243	13-Aug-24 A	22-May-25	1028
Preliminary Works for Fresh Water Service Reservoir (within Part A, B1, B2)		193	13-Aug-24 A	18-Mar-25	-26
Ground Investigation Works (under KD1)		121	20-Sep-24 A	22-Feb-25	-6
Part B2		109	20-Sep-24 A	08-Feb-25	6
S0-300a	Provision of haul road for GI rigs (Area: B2)	24	20-Sep-24 A	06-Nov-24	-27
S0-310	Inspection pit, GI works, Field tests, Sampling & Backfill (Area: B2) (6no.) (PR=4d/no,1rig) +6d relocate, 3d prep work	33	07-Nov-24	14-Dec-24	-6
S0-320	Installation of standpipe/ Piezometer, response test (Area: Part B2)	12	16-Dec-24	31-Dec-24	36
S0-330	Laboratory test and preliminary report (Area: Part B2) (FF+12d)	30	16-Dec-24	22-Jan-25	-6
S0-340	Submission of Final GI Report and Laboratory test Report (Area: Part B2) (FF+12d)	12	23-Jan-25	08-Feb-25	-6
Part A		54	16-Dec-24	22-Feb-25	-60
S0-100a	Provision of haul road for GI rigs (Area: A)	21	16-Dec-24	11-Jan-25	-60
S0-110	Inspection pit, GI works, Field tests, Sampling & Backfill (Area: A) (18no.) (PR=4d/no,4rig) +12d relocate, 3d prep work	33	13-Jan-25	22-Feb-25	-60
Tree Survey and Report (under KD2) Part A and B2		120	17-Aug-24 A	15-Dec-24	-71
S0-430	Approval process for submission of TPRP/ supplementary TPRP within Part A & B2 of the Site	120	17-Aug-24 A	14-Dec-24	-71
S0-440	Allow to commene tree pruing/ removal/ transplanting and site formations works in Part A & B2	0	15-Dec-24		-71
Tree Survey and Report (under KD3) Part B1		236	13-Aug-24 A	18-Mar-25	-161
S0-500	Tree Survey and submit survey record to PM (incl. TG1A & TG1B in Part B1 of the Site)	30	13-Aug-24 A	04-Nov-24	-161
S0-510	Prepare & submit TPRP for tree group [TG 1A & 1B]/ supplementary TPRP for additional trees not covered (for Part B1)	14	05-Nov-24	18-Nov-24	-161
S0-520	Approval process for submission of TPRP/ supplementary TPRP within Part B1 of the Site	120	19-Nov-24	18-Mar-25	-161
Construction Works under Section 1 - All works within Part A (Soil= 75,437m3; Rock=189,258m3)		75	07-Nov-24	08-Feb-25	105
S1-100	Tree Felling, Protection to preserved trees, Survey - non tree group surveyed area	60	07-Nov-24	05-Jan-25	140
S1-100b	Site Clearance	42	21-Nov-24	01-Jan-25	144
S1-110	Formation of haul road connecting Part B2 and A to a +59mPD platform	21	13-Jan-25	08-Feb-25	105
Construction Works under Section 2 - All works within Part B1 and B2		167	20-Sep-24 A	26-Apr-25	115
Site Formation Works in Part B2 (Soil=25,511m3; Rock=2,293m3; Soil Fill for Temp Road=4,900m3)		167	20-Sep-24 A	26-Apr-25	79
East Side of Part B2 (A2 Road: From 1100 to 1250)		167	20-Sep-24 A	26-Apr-25	79
S2-1-100	Tree felling and site clearance along haul road	60	20-Sep-24 A	27-Nov-24	54

Summary | Actual LOE | Remaining LOE | Actual Work | Remaining Work | Critical Remaining Work | Milestone | Crit Milestone | Actual Milestone | Start Constraint | Finish Co... | No Pred... | No Succ...

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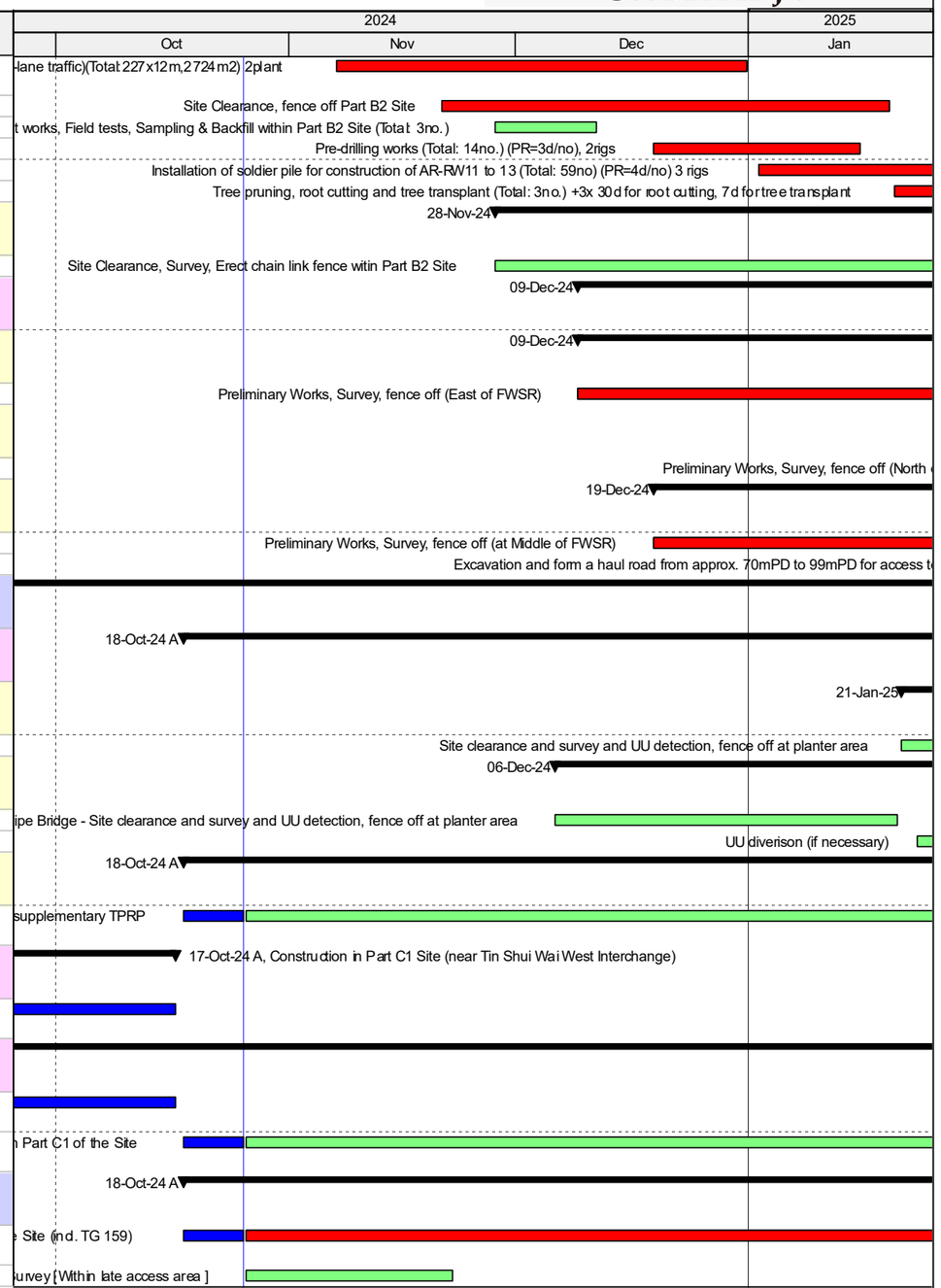
Contract No. YL/2023/02

Hung Shui Kiu/ Ha Tsuen New Development Area Second Phase Development - Contract 2 - Fresh Waster Services Reservoir and Associated Mainlaying Works

CWBKYH JV

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
S2-1-110	Formation of haul road and soil platform for piling works (Total:4,900m3)(one-lane traffic)(Total:227x12m,2724m2) 2plant	45	07-Nov-24	31-Dec-24	36
S2-1-100a	Site Clearance, fence off Part B2 Site	60	21-Nov-24	19-Jan-25	54
S2-1-120	Trial Pit works, Field tests, Sampling & Backfill within Part B2 Site (Total: 3no.)	12	28-Nov-24	11-Dec-24	186
S2-1-130	Pre-drilling works (Total: 14no.) (PR=3d/no), 2rigs	21	19-Dec-24	15-Jan-25	36
S2-1-140	Installation of soldier pile for construction of AR-RW11 to 13 (Total: 59no) (PR=4d/no) 3 rigs	80	02-Jan-25	09-Apr-25	36
S2-1-220	Tree pruning, root cutting and tree transplant (Total: 3no.) +3x 30d for root cutting, 7d for tree transplant	97	20-Jan-25	26-Apr-25	54
West & North Side of Part B2 - (W)A2 Road: from 1000 to 1100 & (N) A1 Road: from 1250 to 1310		60	28-Nov-24	12-Feb-25	80
S2-1-600	Site Clearance, Survey, Erect chain link fence witin Part B2 Site	60	28-Nov-24	12-Feb-25	80
Site Formation Works in Part B1		96	09-Dec-24	07-Apr-25	129
Access Road to Frech Water Service Reservoir and Slopeworks at East (Soil=67,950m3; Rock=2,205m3)		60	09-Dec-24	06-Feb-25	31
S2-2-R100	Preliminary Works, Survey, fence off (East of FWSR)	60	09-Dec-24	06-Feb-25	31
Compartment 1 (North) / North Section of Fresh Water SR (Soil=76,212m3; Rock=39,674m3)		60	07-Feb-25	07-Apr-25	158
S2-2-300	Preliminary Works, Survey, fence off (North of FWSR)	60	07-Feb-25	07-Apr-25	158
Compartment 2 (Middle) / Middle Section of Fresh Water SR (Soil=194,896m3; Rock=85,365m3)		57	19-Dec-24	01-Mar-25	27
S2-2-500	Preliminary Works, Survey, fence off (at Middle of FWSR)	60	19-Dec-24	16-Feb-25	31
S2-2-520	Excavation and form a haul road from approx. 70mPD to 99mPD for access to middle FWSR [** 2]	12	17-Feb-25	01-Mar-25	27
Construction Works under Section 3 - All works within Part C1 and C2		167	04-Sep-24 A	22-May-25	408
Construction in Part C1 Site (near Wo Ping San Tsuen)		154	18-Oct-24 A	22-May-25	408
Mainlaying Works along Village Road (FWDM-F, FLWDM-F), F: FW CH0 - CH52/ FLW CH0 - CH51		36	21-Jan-25	06-Mar-25	364
S3-2-100	Site clearance and survey and UU detection, fence off at planter area	36	21-Jan-25	06-Mar-25	364
Mainlaying Works across Nullah (FWDM-F, FLWDM-F), F: FW CH52 - CH112/ FLW CH51 - CH110		132	06-Dec-24	22-May-25	364
S3-2-200	Pipe Bridge - Site clearance and survey and UU detection, fence off at planter area	36	06-Dec-24	20-Jan-25	361
S3-2-210	UU diverison (if necessary)	120	23-Jan-25	22-May-25	446
Mainlaying Works along Tat Fuk Street (FWDM-F, FLWDM-F), F: FW CH112 - 290/ FLW CH110 - 289		120	18-Oct-24 A	14-Feb-25	597
S3-2-400b	Approval process for submission of TPRP/ supplementary TPRP	120	18-Oct-24 A	14-Feb-25	597
Construction in Part C1 Site (near Tin Shui Wai West Interchange)		18	04-Sep-24 A	17-Oct-24 A	
S3-3-110	Tree Survey and submit survey record to PM and submission TPRP/ supplementary TPRP	18	04-Sep-24 A	17-Oct-24 A	
Construction in Part C1 Site (near Shek Po Tsuen)		97	04-Sep-24 A	14-Feb-25	482
S3-4-110	Tree Survey and submit survey record to PM and submission TPRP/ supplementary TPRP	18	04-Sep-24 A	17-Oct-24 A	
S3-4-120	Approval process for submission of TPRP/ supplementary TPRP within Part C1 of the Site	120	18-Oct-24 A	14-Feb-25	592
Construction Works under Section 4 - All works within Part C3		149	18-Oct-24 A	29-Apr-25	321
S4-120	Approval process for submission of TPRP/ supplementary TPRP within Part C3 of the Site (ind. TG 159)	120	18-Oct-24 A	14-Feb-25	42
S4-130	Re-mobilization of Tree Survey [Within late access area]	24	26-Oct-24	22-Nov-24	321



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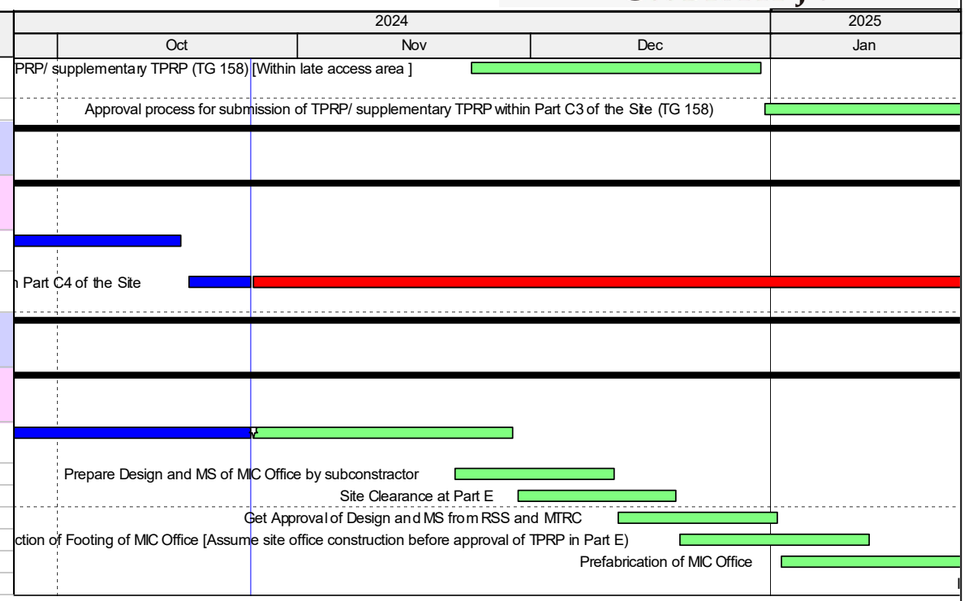
Hung Shui Kiu/ Ha Tsuen New Development Area Second Phase Development - Contract 2 - Fresh Waster Services Reservoir and Associated Mainlaying Works

CWBKYH JV

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
S4-140	Tree Survey and submit survey record to PM and submission TPRP/ supplementary TPRP (TG 158) [Within late access area]	30	23-Nov-24	30-Dec-24	321
S4-150	Approval process for submission of TPRP/ supplementary TPRP within Part C3 of the Site (TG 158)	120	31-Dec-24	29-Apr-25	395
Construction Works under Section 5 - All works within Part C4		107	04-Sep-24 A	14-Feb-25	32
Mainlaying Works along Hung Yuen Road (FWDM-D & FLWDM-D), D: CH0 - CH260		107	04-Sep-24 A	14-Feb-25	32
S5-110	Tree Survey and submit survey record to PM and submission TPRP/ supplementary TPRP	18	04-Sep-24 A	17-Oct-24 A	
S5-120	Approval process for submission of TPRP/ supplementary TPRP within Part C4 of the Site	120	18-Oct-24 A	14-Feb-25	38
Construction Works under Section 7 / 8 / 9		163	13-Sep-24 A	14-Apr-25	1056
Section 7 - MiC Site office		163	13-Sep-24 A	14-Apr-25	1056
S7-090	Get Approval of MS of Site Clearance at Part E from RSS and MTRC	39	13-Sep-24 A	28-Nov-24	1082
S7-100c	Prepare Design and MS of MIC Office by subconstractor	18	21-Nov-24	11-Dec-24	1053
S7-095	Site Clearance at Part E	18	29-Nov-24	19-Dec-24	1082
S7-100d	Get Approval of Design and MS from RSS and MTRC	21	12-Dec-24	01-Jan-25	1303
S7-100e	Construction of Footing of MIC Office [Assume site office construction before approval of TPRP in Part E)	18	20-Dec-24	13-Jan-25	1082
S7-100f	Prefabrication of MIC Office	36	02-Jan-25	15-Feb-25	1056
S7-100g	Installation of MIC Office	48	17-Feb-25	14-Apr-25	1056



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Remaining LOE
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Crit Milestone
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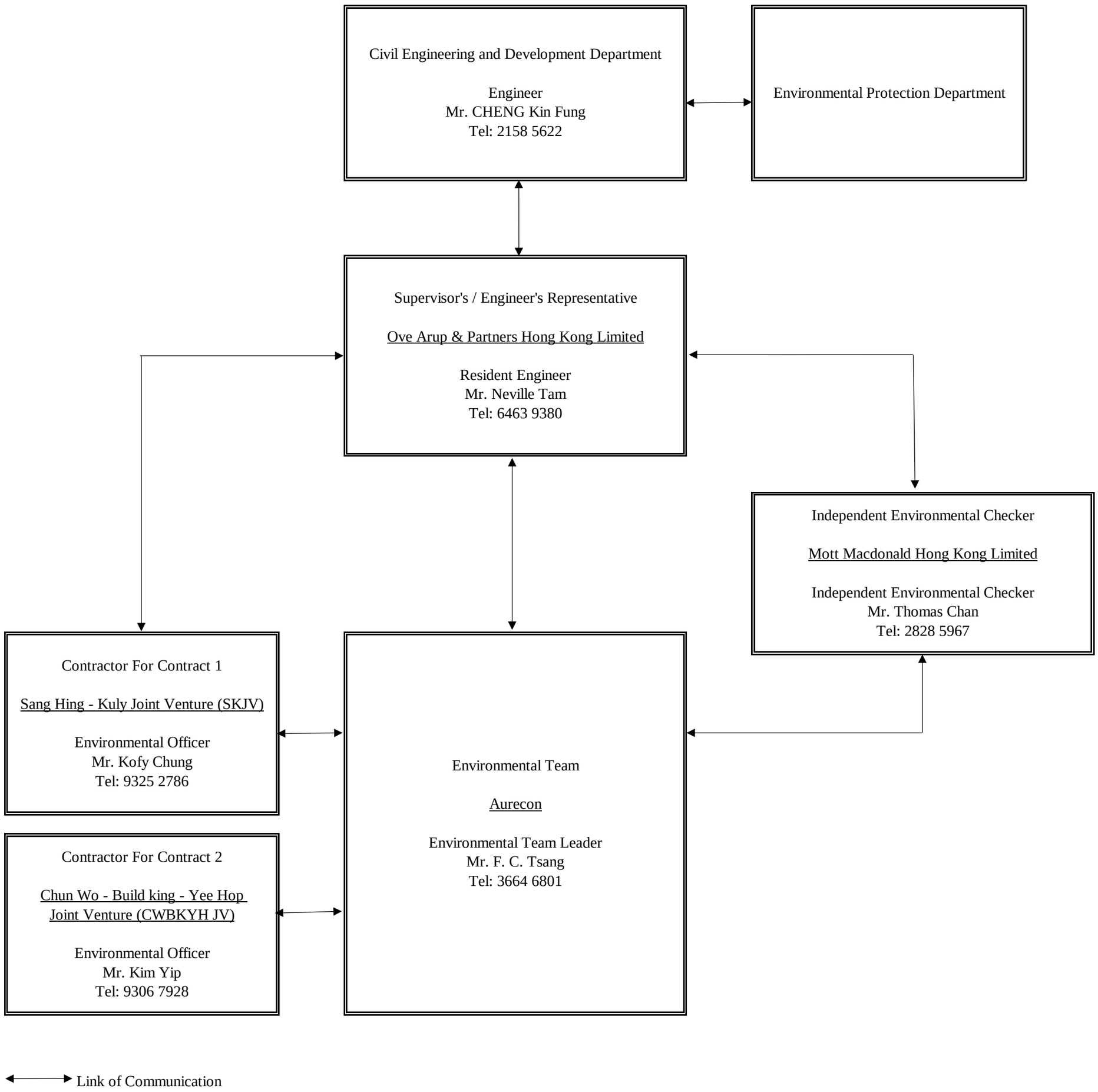
Appendix 1.2 Project Organization Chart

Project Organization Chart



Appendix 1.3 Implementation Status of Environmental Mitigation Measure

Environmental Mitigation Implementation Schedule (EMIS) under Contract 1.

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
Air Quality						
S4.10	Watering once per hour on active works areas, exposed areas and unpaved haul roads to reduce dust emission	To minimize the dust impact	Contractor	Construction Phase	• Air Pollution Control Ordinance (APCO) • To control the dust impact to meet HKAQO and TM-EIAO criteria	N/A
	The active construction works area should be reduced to one-third of monthly average work of the respective Work Contract so as to alleviate adverse dust impact.					N/A
	When there are open excavation and spoil handling works, hoarding of 3m high should be provided along the construction site boundary adjacent to the non-construction areas such as residential, educational institutes or recreation area in use so as to minimize the dust impact.					N/A
	Dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation and good site practices: • Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. • Use of frequent watering for particularly dusty construction areas and areas close to Air Sensitive Receivers (ASRs). • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines. • Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. • Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading area of barging point, and use of water sprinklers at the loading				• Air Pollution Control (Construction Dust) Ordinance (APCO) • To control the dust impact to meet HKAQO and TM-EIAO criteria	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. • Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period. • Imposition of speed controls for vehicles on site haul roads. • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs. • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.					
Construction Noise						
S5.13	Use of quiet plant which should be made reference to the Powered Mechanical Equipment (PME) listed in the Technical Memorandum or the Quality Powered Mechanical Equipment (QPME) / other commonly used PME listed in Environmental Protection Department (EPD) web pages as far as possible which includes the Sound Power Level (SWLs) for specific quiet PME.	Reduce the noise levels of plant items	Contractor	Construction Phase	EIAO-TM	N/A
S5.13	Install movable noise barrier and enclosures. The movable noise barrier can provide 5 dB(A) noise reduction for mobile plant and 10 dB(A) noise reduction for static plant. The barrier material shall have a surface mass of not less than 14 kg/m2. The enclosures can provide 15 dB(A) noise reduction.	Screen the noisy plant items to be used at all construction sites				N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S5.13	Proper workfront management and proper grouping of PME during construction activities operated at the critical work areas.	Reduce the construction noise impact				N/A
S5.13	Maintain the recommended minimum separation between the schools and the critical works areas during examination periods.					N/A
S5.13	<u>Good Site Management Practices</u> • 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 and 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; and • material stockpiles, site offices and other structures should be effectively utilized, where practicable, to screen noise from on-site construction activities.	Control construction airborne noise				• Well-maintained plant has been operated on-site, and plant has been serviced regularly during the construction programme. • N/A for other mitigation measures mentioned under this item.
S5.13	Liaison with the school representative(s) to obtain the examination schedule so as to avoid noisy construction activities during school examination period.					N/A
S5.13	Set up a liaison group among CEDD, relevant government departments, contractors of the Works contracts, etc. during construction phase of the Project to ensure proper implementation of mitigation measures.					N/A
Water Quality						

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	Surface run-off from construction sites should be discharged into stormwater drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels/earth bunds/sandbag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels should be provided on site boundaries where necessary to intercept stormwater run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	To minimise impact from construction site run-off	Contractor	Construction Phase	• Water Pollution Control Ordinance (WPCO), Technical Memorandum on EIA Ordinance (EIAO-TM), ProPECC PN 1/94, • Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS)	N/A
S6.11	Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re-alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains.					N/A
S6.11	Construction works should be programmed to minimise soil excavation works in rainy seasons (April to September). If excavation in soil cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g., along the crest / edge of excavation) to prevent stormwater run-off from washing across exposed soil surfaces. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm.					N/A
S6.11	Earthworks final surfaces should be well compacted, and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.					N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into stormwater drains via silt removal facilities.					N/A
S6.11	Open stockpiles of construction materials (e.g., aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms.					N/A
S6.11	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent stormwater run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.					N/A
S6.11	Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis.					N/A
S6.11	Water used in ground boring and drilling for site investigation or rock / soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into stormwater drains via silt removal facilities.	To minimise impact from boring and drilling water				N/A
S6.11	All vehicles and plants should be cleaned before they leave a construction site to minimise the deposition of earth, mud, debris on roads. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into stormwater drains. The section of construction road between the wheel washing bay and the public road should be paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	To minimise impact from wheel washing water				N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralised to within the pH range of 6 to 10 before discharging into foul sewers.	To minimise impact from acidic wastewater				N/A
S6.11	There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the run-off and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS.	To minimise impact from effluent discharges				N/A
S6.11	Beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence.	To minimise impact from effluent discharges				N/A
S6.11	To minimise the potential water quality impacts from the construction works located near any inland watercourses, the practices outlined in ETWB TC (Works) No. 5/2005 “Protection of natural streams/rivers from adverse impacts arising from construction works” should be adopted where applicable: • Impermeable sheet piles and cofferdams should be used as required to divert water flow from the construction works area so that all the construction works would be undertaken within a dry zone and physically separated from the watercourses.	To minimise impact from construction works near watercourses			• WPCO, EIAO-TM, ETWB TC9Works) No. 5/2005	• Mitigation measures to control site run-off from entering the nearby water environment have been implemented to minimise water quality impacts. Surface

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	• The proposed works should preferably be carried out within the dry season where the flow in the stormwater culvert/water channel/stream is low. • The use of less or smaller construction plants may be specified in works areas close to the inland water bodies. • Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any watercourses during carrying out of the construction works. • Stockpiling of construction materials and dusty materials should be covered and located away from any watercourses. • Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby water receivers. • Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the watercourses, where practicable. • Mitigation measures to control site run-off from entering the nearby water environment should be implemented to minimise water quality impacts. Surface channels should be provided along the edge of the waterfront within the work sites to intercept the run-off. • Construction effluent, site run-off and sewage should be properly collected and/or treated. • Any temporary works site inside the stormwater watercourses should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the stormwater quality. • Proper shoring may need to be erected in order to prevent soil/mud from slipping into the inland water bodies.					channels should be provided along the edge of the waterfront within the work sites to intercept the run-off. after reminder was made. • N/A for other mitigation measures mentioned under this item.

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	The key water quality measure for protection of the revitalised drainage channel water is to avoid polluted site run-off from reaching the revitalised drainage channel water. Relevant mitigation measures should follow the practices outlined in ETWB TC (Works) No. 5/2005 "Protection of natural streams / rivers from adverse impacts arising from construction works" as listed below: • Impermeable sheet piles and cofferdams should be used as required to divert water flow from the construction works area so that all the construction works would be undertaken within a dry zone and physically separated from the revitalised drainage channel water. • The proposed works should preferably be carried out within the dry season where the flow in the revitalised drainage channel is low. • The use of less or smaller construction plants may be specified in works areas close to the revitalised drainage channel. • Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from the revitalised drainage channel during carrying out of the construction works. • Stockpiling of construction materials and dusty materials should be covered and located away from the revitalised drainage channel water. • Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby revitalised drainage channel. • Construction activities, which generate large amount of wastewater, should be carried out a distance away from the revitalised drainage channel, where practicable. • Mitigation measures to control site run-off from entering the nearby revitalised drainage channel should be implemented to minimise water quality impacts. Surface channels should be provided along the edge of the	To minimise impact from revitalisation and greening of Drainage Channel Banks				• Mitigation measures to control site run-off from entering the nearby water environment have been implemented to minimise water quality impacts. Surface channels should be provided along the edge of the waterfront within the work sites to intercept the run-off. after reminder was made. • N/A for other mitigation measures mentioned under this item.

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	revitalised drainage channel within the work sites to intercept the run-off. • Construction effluent, site run-off and sewage should be properly collected and/or treated. • Any temporary works site inside the revitalised drainage channel should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the revitalised drainage channel water. Proper shoring may need to be erected in order to prevent soil / mud from slipping into the revitalised drainage channel.					
S6.11	The construction method and sequence of the proposed construction in watercourses / concrete flood storage pond for works sites of DP12 should be carefully designed so that all the construction works including any excavation and pilling operations would be undertaken within a dry zone and physically separated from the watercourses downstream.	To minimise impact from construction in watercourses / concrete flood storage pond			WPCO, EIAO-TM	N/A
S6.11	Impermeable sheet pile walls or cofferdam walls or steel casing should be installed to fully enclose the construction works area (including all the excavation and piling works) in the watercourse / pond prior to the commencement of any works in watercourse / pond. Dewatering of the construction works area or diversion of water flow should be undertaken before the construction works to avoid water flow in the construction works area. Silt removal facilities should be used to clarify the effluent generated from the dewatering operation before discharging back to the watercourse / drainage system.	To minimise impact from construction in watercourses / concrete flood storage pond			WPCO, EIAO-TM, TM-DSS	N/A
S6.11	Any construction works including excavation and pilling activities should be undertaken in a dry zone surrounded by the impermeable sheet pile walls or cofferdam walls or steel casing. Silt curtains should also be deployed around the construction works area inside the watercourse, where practicable, as a second layer of protection to further minimise sediment and contaminant release. All wastewater generated from the pilling activities should be regarded as	To minimise impact from construction in watercourses / concrete flood storage pond			WPCO, EIAO-TM	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	part of the construction site effluent, which should be properly collected and treated as appropriate to meet the standards stipulated in the TM-DSS before disposal. It is recommended that the construction works in watercourses / pond should be undertaken in dry seasons, where practicable, when the water flow is low.					
S6.11	Construction works for removal and diversion of watercourses should be undertaken within a dry zone. Where necessary, cofferdams or similar impermeable sheet pile walls should be used to isolate the works areas from the neighbouring waters.	To minimise impact from removal and diversion of watercourse			WPCO, EIAO-TM	N/A
S6.11	Construction works at watercourse should be undertaken only after flow diversion or dewatering operation is fully completed to avoid water flow in the works area. Dewatering of watercourse should be performed by diverting the water flow to new or temporary drainage. Where necessary, cofferdams or similar impermeable sheet pile walls should be used to isolate the works areas from neighbouring waters. The permanent or temporary drainage for carrying the diverted flow from existing watercourse to be removed should be constructed and completed before dewatering of that existing watercourse. Construction of all the proposed permanent and temporary drainage should be undertaken in a dry zone prior to receiving any water flow.				WPCO, EIAO-TM, TM-DSS	N/A
S6.11	The Contractor should provide a dry zone for all the construction works to be undertaken in watercourses and stormwater drainage following the tentative works sequence as described above or using other approved methods as appropriate to suit the works condition. The flow diversion works should be conducted in dry season, where possible, when the flow in the watercourse is low. The wastewater and ingress water from the site should be properly treated to comply with the WPCO and the TM-DSS before discharge.				WPCO, EIAO-TM, TM-DSS	N/A
S6.11	The site practices outlined in the ProPECC PN 1/94 “Construction Site Drainage” and ETWB TC (Works) No. 5/2005 “Protection of natural streams/rivers from adverse impacts arising from construction works” should be adopted				WPCO, EIAO-TM, ProPECC PN 1/94,	Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	for the proposed demolition or diversion of watercourses where applicable.				ETWB TC (Works) No. 5/2005	
S6.11	Construction works at the existing ponds / wet areas should be conducted only after dewatering of these ponds / wet areas is fully completed. The drained water generated from the dewatering of these ponds / wet areas to be removed should be temporarily stored in appropriate storage tanks or containers for reuse on-site as far as possible. Any surplus drained water should be tankered away for proper disposal at STW in a controlled manner.	To minimise impact from removal of ponds / wet areas			WPCO, EIAO-TM	N/A
S6.11	It is recommended to drain only one pond at a time to minimise the potential water quality impact. Dewatering works at ponds / wet areas should be conducted within dry season to minimise the quantity of drained water. No direct discharge of drained water to the stormwater drainage system or marine water should be allowed.					N/A
S6.11	Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied with for control of chemical wastes.	To minimise impact from accidental spillage			WPCO, Waste Disposal Ordinance (WDO), Waste Disposal (Chemical Waste) (General) Regulation, EIAO-TM	N/A
S6.11	Any service workshop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.				WPCO, WDO, Waste Disposal (Chemical Waste) (General) Regulation, EIAO-TM	N/A
S6.11	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal					N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: • Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. • Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. • Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.					
S6.11	No discharge of sewage to the stormwater system and marine water will be allowed. Adequate and sufficient portable chemical toilets should be provided in the works areas to handle sewage from construction workforce. A licensed waste collector should be employed to clean and maintain the chemical toilets on a regular basis.	To minimise impact from workforce sewage effluent			WPCO, EIAO-TM, TM-DSS	N/A
S6.11	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment. Regular environmental audit of the construction site should be conducted to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site.				WPCO, EIAO-TM	N/A
S6.11	Any excavated contaminated material and exposed contaminated surface should be properly housed and covered to avoid generation of contaminated run-off. Open stockpiling of contaminated materials should not be allowed. Any contaminated run-off or wastewater generated from the land decontamination processes should be properly collected and diverted to wastewater treatment facilities (WTF). The WTF shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment system shall meet the requirements as stated in	To minimise impact from contaminated site run-off and wastewater from land decontamination			WPCO, EIAO-TM, TM-DSS	Implemented after reminder is made.

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal.					
S6.11	No direct discharge of groundwater from contaminated areas should be adopted. Prior to any excavation works within the potentially contaminated areas, the baseline groundwater quality in these areas should be reviewed based on the past relevant site investigation data and any additional groundwater quality measurements to be performed with reference to Guidance Note for Contaminated Land Assessment and Remediation and the review results should be submitted to EPD for examination. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, this contaminated groundwater should be either properly treated or properly recharged into the ground in compliance with the requirements of the TM-DSS. If wastewater treatment is to be deployed for treating the contaminated groundwater, the wastewater treatment unit shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment plant shall meet the requirements as stated in the TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal.	To minimise impact from groundwater from contaminated areas			WPCO, TM-DSS, Guidance Note for Contaminated Land Assessment and Remediation	N/A
S6.11	If deployment of wastewater treatment is not feasible for handling the contaminated groundwater, groundwater recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in section 2.3 of the TM-DSS. The baseline groundwater quality should be determined prior to the selection of the recharge wells and submit a working plan to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of	To minimise impact from groundwater from contaminated areas			WPCO, EIAO-TM, TM-DSS	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	ambient groundwater at the recharge well. Groundwater monitoring wells should be installed near the recharge points to monitor the effectiveness of the recharge wells and to ensure that no likelihood of increase of groundwater level and transfer of pollutants beyond the site boundary. Prior to recharge, free products should be removed as necessary by installing the petrol interceptor. The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater.					
S6.11	The following measures should be implemented by the Contractors to minimise the chance of emergency construction site discharge (due to failure of treatment facilities such as sand traps, silt traps, sedimentation basins, oil interceptors etc.): • Provide spare or standby treatment facilities of suitable capacities for emergency replacement in case damage or defect or malfunctioning of the duty treatment facilities is observed. • Conduct daily integrity checking of the construction site drainage and treatment facilities to inspect malfunctions, in particular before, during and after a storm event. • Carry out regular maintenance or desilting works to maintain effectiveness of the construction site drainage and treatment facilities in particular before, during and after a storm event.	To minimise impact from construction site discharges			WPCO, EIAO-TM, TM-DSS	N/A
S6.11	An Emergency Response Plan (ERP) should be developed to minimise the potential impact from construction site discharges under failure of treatment facilities during emergency situations or inclement weather. The ERP should give the emergency contacts to mobilise retention facilities and stakeholders to be notified as well as the details of the proposed construction site drainage system and the design and operation of duty and standby treatment facilities. The ERP should also provide the procedures and guidelines for routine integrity checking and maintenance of the drainage	To minimise impact from construction site discharges				N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	system and treatment facilities as well as the emergency response and rectification procedures to restore normal operation of the treatment facilities in case of treatment failure during emergency situation or inclement weather. The Best Management Practices (BMPs) in controlling water pollution arising from the construction activities and an event and action plan with action and limit levels for water quality monitoring should be included in the ERP. The ERP should be submitted to the EPD for approval before commencement of the construction works.					
S6.11	Construction of the Project would involve diversion of the existing twin 800 mm diameter rising mains along Tin Ying Road. New sewerage facilities for receiving the diverted sewage flow from the existing rising mains should be constructed prior to the commencement of any demolition and construction works at the existing rising mains. All sewage flow running in the existing rising mains along Tin Ying Road should be diverted to the new sewerage system prior to any demolition and construction works at the existing rising mains. No discharge of sewage flow to the environment should be allowed during the sewerage diversion works.	To minimise impact from sewerage diversion works			WPCO, EIAO-TM	N/A
S6.11	All excavated materials generated from removal and diversion of watercourses, removal and construction works in ponds and wet areas as well as the proposed bridge pier construction works in watercourses should be collected and handled in compliance with the Waste Disposal Ordinance. Excavated sediment, if any, generated from the excavation activities in watercourses, ponds and wet areas should be tested and classified in accordance with the ETWB TCW No. 34/2002 for determining the disposal arrangement for the sediment. No direct disposal of the construction wastes or excavated materials into the stormwater drainage system and marine water should be allowed.	To manage the disposal of sediment			Waste Disposal Ordinance, ETWB TCW No. 34/2002	N/A
Waste Management						

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S8.2	<u>Good Site Practice</u> The following good site practices are recommended during the construction phase: • Nomination of an approved person, such as a site manager, to be responsible for the implementation of good site practices, • Training of site personnel in proper waste management and chemical handling procedures. • Provision of sufficient waste disposal points and regular collection of waste. • Appropriate measures to minimize windblown litter and dust during handing, transportation and disposal of waste; and • Preparation of a WMP in accordance with the ETWB TCW No. 19/2005 Environmental Management on Construction Sites and submitted it to the Engineer for approval.	Minimise waste generation during construction	Contractor	Construction Phase	Waste Disposal Ordinance, Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK)	N/A
S8.2	<u>Waste Reduction Measures</u> Waste reduction is best achieved by proper planning and design at the planning and design phases, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve waste reduction: • Segregation and storage of different types of waste in different containers or skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. • Adopt proper storage and site practices to minimize the potential for damage to, and contamination of, construction materials; • Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated; • Sort out demolition debris and excavated materials from demolition works to recover reusable / recyclable portions (i.e. soil, rock, broken concrete, etc.); • Maximize the use of reusable steel formwork to reduce the amount of C&D materials;				Waste Disposal Ordinance	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	• Minimize over ordering concrete, mortars and cement grout by doing careful check before ordering; and • Adopt pre-cast construction method instead of cast-in-situ method for construction of concrete structures as far as possible.					
S8.2	<u>Storage of Waste</u> Storage of materials on site may induce adverse environmental impacts if not properly managed. The following recommendations should be implemented to minimise the impacts: • Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimising the potential of pollution; • Maintain and clean storage areas routinely; • Stockpiling area should be provided with covers and water spraying system to prevent materials from being wind-blown or washed away; and • Different locations should be designated to stockpile each material to enhance reuse.	Minimise waste impacts during storage of waste			Waste Disposal Ordinance	N/A
S8.2	<u>Collection and Transportation of Waste</u> Waste hauler with appropriate permits should be employed by the Contractor for the collection and transportation of waste from works areas to respective disposal outlets. The following recommendation should be implemented to minimise the impacts: • Remove waste in timely manner; • Employ the trucks with cover or enclosed containers for waste transportation; • Obtain relevant waste disposal permits from the appropriate authorities; and • Dispose of waste at licensed waste disposal facilities.	Minimise waste impacts during collection and transportation of waste			Waste Disposal Ordinance	N/A
S8.2	<u>Construction and Demolition (C&D) Materials</u> Wherever practicable, C&D materials should be segregated from other waste to avoid contamination and ensure acceptability at the public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the C&D materials:	Minimise waste impacts from C&D materials			Waste Disposal Ordinance, Land (Miscellaneous Provisions) Ordinance, Waste Disposal (Charges	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	• Adopt "selective demolition" technique to demolish the existing structure and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; • Maintain the stockpile areas and reuse excavated fill material for backfilling; • Carry out on-site sorting to recover the inert C&D materials and reusable and recyclable materials prior to disposal off-site; • Make provisions in the contract documents to allow and promote the use of recycled aggregates where appropriate; and • Implement a trip-ticket system for each works contract in accordance with DEVB TC(W) No. 6/2010 Trip-ticket System for Disposal of Construction and Demolition Material to ensure that the disposal of C&D materials are properly documented and verified. The Contractor should be responsible for devising a system to work for on-site sorting of C&D materials. It is recommended that the system should include the identification of the source of generation, estimated quantity of waste generated, arrangement for on-site sorting and/or collection, designated stockpiling areas, frequency of collection by recycling contractors and frequency of removal off-site.				for Disposal of Construction Waste) Regulation (Cap. 354N)	
S8.2	<u>Asbestos Containing Materials</u> Due to the potential large amount of asbestos containing materials during the site clearance stage, asbestos investigation is required. However, as asbestos investigation will involve a large number of buildings and most premises will involve private access, which cannot be obtained at this stage, it is considered that an asbestos specialist shall be employed by the responsible parties during the construction stage to investigate this issue. Sufficient and reasonable lead time shall be allowed for preparation, vetting and implementation of Asbestos Investigation Report and Asbestos Abatement Plan in	Control the asbestos containing materials and ensure proper storage, handling and disposal			Code of Practice on Handling, Transportation and Disposal of Asbestos Waste ProPECC PN 2/97 Handling of Asbestos Containing Materials in Buildings	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	accordance with Air Pollution Control Ordinance before commencement of any demolition or site clearance work. Some key precautionary measures related to the handling and disposal of asbestos are listed as following: • Adoption of protection, such as full containment, mini containment, or segregation of work area; • Provision of decontamination facilities for cleaning of workings, equipment and bagged waste before leaving the work area; • Adoption of engineering control techniques to prevent fibre release from work area, such as use of negative pressure equipment with high efficiency particulate air (HEPA) filters to control air flow between the work area and the outside environment; • Wetting of asbestos containing materials before and during disturbance, minimising the breakage and dropping of asbestos containing materials, and packing of debris and waste immediately after it is produced; • Cleaning of work area by wet wiping and vacuuming with HEPA-filtered vacuum cleaner; • Coating on any surfaces previously in contact with or contained by asbestos with a sealant; • Proper bagging, safe storage and disposal of asbestos and asbestos-contaminated waste; • Pre-treatment of all effluent from the work area before discharged; and • Air monitoring strategy to check the leakage and clearance of the work area during and after the asbestos work.					
S8.2	<u>Chemical Waste</u> For those processes which generated chemical waste, it may be possible to find alternatives to eliminate the use of chemicals, to reduce the generation quantities or to select a chemical type of less impact on environment, health and safety as far as possible. If chemical waste is produced at the construction site, the Contractor will be required to register with the EPD as a	Control the chemical waste and ensure proper storage, handling and disposal.			Waste Disposal (Chemical Waste) General) Regulation, Code of Practice on the Packaging, Labelling and	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	chemical waste producer. Chemical waste should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical waste (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while chemical waste that cannot be recycled should be disposed of at either the CWTC, or another licensed facility.				Storage of Chemical Waste	
S8.2	General Refuse General refuse should be stored in enclosed bins separately from construction and chemical waste. Recycling bins should also be placed to encourage recycling. Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. A reputable waste collector should be employed to remove general refuse on a daily basis. It is expected that such arrangements would minimise potential environmental impacts.	Minimise production of general refuse and avoid odour, pest and litter impacts			Waste Disposal Ordinance	Implemented
	Excavated Sediment Since the amount of excavated sediment generated from the inland water removal / diversion works is expected to be small, all excavated sediment will be treated and reused on-site as backfilling materials for the Project. This approach avoids the need for off-site disposal that may result in impacts on the marine environment. In addition, all construction works near the watercourses should be undertaken within a dry zone and during dry season to avoid adverse impacts to the environment. The excavated sediment, if stockpiled on site, should be stored in enclosed containers and transported to the on-site treatment facilities as soon as practicable to minimise any potential odour impacts.	Proper handling of excavated sediment			Waste Disposal Ordinance	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Contaminated Soil It is considered unlikely that contaminated land issues, if any subject to site investigation, would be a concern during either the construction or the operational of the proposed development as remediation on contaminated area would be carried out prior to construction. However, as a precaution, it is recommended that standard good site practices should be implemented during the construction phase to minimise any potential exposure to contaminated soils or groundwater.	Proper handling of contaminated soil			Practice Guide for Investigation and Remediation of Contaminated Land	N/A
Land Contamination						
-	Identified Potentially Contaminated Sites Prior to development of these sites, the Project Proponent should appoint a consultant to re-appraise these sites to update the corresponding findings and sampling and testing requirements presented in the Contamination Assessment Plan (CAP). Supplementary CAP(s), incorporating the findings of the site re-appraisal and the updated sampling and testing strategy, should be prepared and submitted to EPD for approval prior to conducting any site investigation (SI) works. SI works should then be carried out according to the supplementary CAP(s). Contamination Assessment Report (CAR(s)) and, if contaminated soil and/or groundwater identified, Remediation Action Plan (RAP(s)) should be prepared and submitted to EPD for approval.	Identify the presence, nature and extent of contamination and formulate the necessary remedial actions	CEDD/ Detailed Design Consultant / Contractor	After the land is resumed and handed over to the Project Proponent and prior to commencement of any remediation / construction works.	EIAO-TM, Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management, Guidance Notes for Contaminated Land Assessment and Remediation; and Practice Guide for Investigation and Remediation of Contaminated Land	N/A
-	Remaining Non-Contaminated Sites After the sites are handed over to the Project Proponent for development, the Project Proponent should appoint a consultant to revisit these sites to assess the latest land uses and site conditions. If any of these sites are found to have potential land contamination issues, the Project Proponents					N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	appointed consultant should prepare and submit supplementary CAP(s) to EPD for approval prior to conducting any SI works. SI works should then be carried out according to the supplementary CAP(s). CAR(s) and, if contaminated soil and/or groundwater identified, RAP(s) should be prepared and submitted to EPD for approval					
-	Any contaminated soil and groundwater should be treated according to EPD's approved RAP(s) and RR(s) should be submitted to EPD for agreement after completion of the remediation works.	Remediate any contaminated soil and groundwater and demonstrate that the remediation works are adequate and is carried out in accordance with EPD's approved RAP(s).	Contractor	After the land is resumed and handed over to the PP and prior to commencement of any construction works.		N/A
Ecology						
S10.2.4	Scheduling the site formation and construction works at Sites 3-32, 3-33, 3-37, 3-39 and 3-40 outside the breeding season of ardeids	Minimise disturbance impacts to breeding ardeids in San Sang San Tsuen egretry	CEDD / Contractor	Construction phase	TM-EIAO	N/A
S10.2.5	Provision of screening (e.g., hoarding) at adjacent habitats within CA at northwest of San Sang San Tsuen.	Disturbance impacts (e.g. noise/vibration, visual) to adjacent habitats within the CA				N/A
S10.2.6	Hoarding around "Green Belt" zoning to mitigate construction disturbance impacts to the Crested Serpent Eagle habitat.	Minimise construction disturbance impacts to the Crested Serpent Eagle habitat				N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S10.2.7	Carefully design the construction methods and sequence of the proposed pier in the watercourses so that all piling and excavation works would be done within dry zone and physically separated from the watercourse downstream	Minimise potential water quality impacts to the habitats of the main channel and waterbird species				N/A
S10.2.8	An ecologist with relevant experience should be consulted before the clearance of any bat roost.	Ensure no bat roost would be damaged due to the proposed development				N/A
S10.2.10	Provision of hoarding for proper delineation of works boundary.	Minimise construction disturbance impacts to existing mitigation ponds				N/A
S10.2.11	General dust and noise control measures.	Mitigate disturbance impacts to the surrounding habitats and associated wildlife				N/A
S10.2.12	Night-time lighting control.	Minimise glare disturbance to wildlife				N/A
S10.2.13 – S10.2.15	Good site practices during the construction phase to avoid any pollution entering any nearby watercourses.	Minimise water quality impacts to nearby water bodies				N/A
Fisheries						

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S.13.4.8	Follow the mitigation measures proposed in the water quality assessment for construction and operational phase.	To protect fisheries resources from potential indirect impacts arising from deterioration of water quality	Contractor	Construction phase	EIA, contractual requirements	N/A
Landscape and Visual						
CM1	<u>Minimised construction area and contractor's temporary works areas</u> The construction area and contractor's temporary works areas should be minimised. General Good Practice Measures - For areas unavoidably disturbed by the Project on a short-term basis e.g., works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to	Minimise impacts on adjacent landscape	Government/ Developer/ Detailed Design Consultant/ Contractor	Prior to construction, construction stages. This should be implemented as soon as the areas become available, to achieve early establishment	-	N/A
CM2	<u>Stripping and storing of topsoil</u> Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical. The Contract Specification shall include storage and reuse of topsoil as appropriate. On potentially contaminated sites (as per Section 8) where investigation results indicate soil contamination is present, the use of contaminated soils for planting is to be avoided where appropriate.	Minimise the loss of existing topsoil and reduce the need to provide imported material		Detailed design, construction stages	-	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
CM3	Protection of existing trees Tree Protection & Preservation – Exiting trees to be retained within the Project site should be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees			ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A
CM4	Transplantation of existing trees where practical Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the Project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation		Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A
CM5	Control of night-time lighting Control of night-time lighting and glare by hooding all lights.	Minimise impact of night-time lighting and glare	Government/ Developer/ Contractor	Construction stage	-	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Construction day and night-time lighting should be controlled to minimise glare impact to adjacent VSRs during the construction phase.					
CM6	Construction of decorative hoarding around construction works Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publicly accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.	To screen undesirable views of the works site.	Contractor	Construction stage	-	N/A
CM7	Reduction of construction period to practical minimum Reduction of construction period to practical minimum	Minimise length of exposure to construction works	Government/ Developer/ Detailed Design Consultant/ Contractor	Construction stage	-	N/A
CM8	Prevention of run-off Limitation of / Ensuring no run-off into surrounding landscape and prohibit run-off from entering adjacent water bodies and waterways.	Minimise / limit impacts on surrounding landscape and adjacent water sea areas		Construction stage	Guidelines for this include ETWB Technical Circular (Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works; Building Department (BD) Practice Note for Authorized Persons and Registered Structural Engineers 295: Protection of natural	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
					streams/rivers from adverse impacts arising from construction works	
CM9	Phasing of construction stage Phasing of the construction stage to reduce visual impacts.	Minimise visual impacts during the construction phase		Construction stage	-	N/A
CM10	Advance screen planting Advance screen planting of fast-growing tree and shrub species to noise barriers and hoardings. Trees shall be capable of reaching a height >10m within 10 years.	Minimise length of exposure without long term mitigation measures		Detailed design, construction stages	ETWB TCW 3/2006 and 2/2004	N/A
CM11	Minimise disturbance footprints To minimise landscape and visual impacts, the footprint and elevation of such elements should be optimised to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimise landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption		Detailed design, construction stages	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A
CM12	Protection of existing water courses For all the natural rivers and streams inside the development area, consideration of protection measures should be made to minimise any impacts from the construction works. Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimise any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed.	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	Detailed design, construction stages	Guidelines for this include ETWB Technical Circular (Works) No. 5/2005 Protection of natural streams/rivers from adverse	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Bridges and box culverts should also be used to minimise the necessity of watercourse modification and protect the watercourses where necessary.				impacts arising from construction works; Building Department (BD) Practice Note for Authorized Persons and Registered Structural Engineers 295: Protection of natural streams/rivers from adverse impacts arising from construction works	
CM13	Hydroseeding on modified slopes Hydroseeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government/ Developer/ Detailed Design Consultant/ Contractor	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A
CM14	Integrate Open Space Network with existing nullah conditions For watercourses affected during construction, measures should be sought to minimise the impact with respect to the existing nullah conditions, existing shrubs and trees along the banks.	Minimise / limit impacts on surrounding landscape and			ETWB TCW No. 5/2005 – Protection of natural streams/rivers	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Where natural streams are unavoidably affected along some of their length, they can be diverted to avoid the proposed new developments and retain the integrity of the whole stream. Detailed design of any stream diversion should follow the Guidelines in ETWB Technical Circular (Works) No. 5/2005 (Protection of natural streams/rivers from adverse impacts arising from construction works) and appropriate construction methods should be used.	adjacent water sea areas			from adverse impacts arising from construction works; DSD Practice Note No.1/2005, Guidelines on Environmental Considerations for River Channel Design	
Cultural Heritage Impact						
S13.1.1	The archaeological impact arising from the construction works should be assessed when the detailed design of the works is available. Preservation in situ is the top priority to safeguard the archaeological remains in the impacted area by amending the layout plans of the construction works. However, if the works cannot avoid disturbance to the archaeological deposit, depending on degree of direct impact, the following mitigation measures should be considered, such as archaeological surveys, archaeological watching brief, preservation by record and relocation of archaeological remains. The scope and programme of the archaeological fieldwork would be agreed with AMO.	Minimise impact to archaeology in SAIs	Contractor	Prior to construction phase commencement	Environmental Impact Assessment Ordinance EIAO (Cap.499) and Technical Memorandum (EIAO-TM) Guidance Note on Assessment of Impact on Sites of Culture Heritage in Environmental Impact Assessment Studies (GCH-EIA) Antiquities and Monuments Ordinance (A&MO) Hong Kong Planning Standards and	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
					Guidelines (HKPSG) Guidelines for Cultural Heritage Impact Assessment (GCHIA)	
S13.1.2	Further archaeological survey is required to be conducted at APA 1 and APA 2 to ascertain the extent of any archaeological remains within the APAs if any construction works will be carried out. Based on the findings of the survey, mitigation measures could be proposed, such as preservation in situ, preservation by record, or relocation of archaeological remains, in prior agreement with the AMO. Direct impact arising from the proposed development within APA 3 should be avoided as far as possible.	Minimise impact to archaeology in APAs.			EIAO-TM GCH-EIA A&MO HKPSG GCHIA	N/A
S13.1.5	Preservation by record (including cartographic and photographic record) prior to any construction works would be required for the directly impacted built heritage.	Minimise impact to built heritage			EIAO-TM GCH-EIA HKPSG GCHIA	N/A
-	A Conservation Management Plan should be proposed to implement future maintenance and management of the cultural heritage.	Maximise the public education, heritage and cultural tourism related opportunities in this area as heritage attractions.	CEDD		EIAO-TM GCH-EIA A&MO HKPSG GCHIA	N/A

Environmental Mitigation Implementation Schedule (EMIS) under Contract 2

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
Air Quality						
S4.10	Watering once per hour on active works areas, exposed areas and unpaved haul roads to reduce dust emission	To minimize the dust impact	Contractor	Construction Phase	• Air Pollution Control Ordinance (APCO) • To control the dust impact to meet HKAQO and TM-EIAO criteria	Implemented after reminder was made.
	The active construction works area should be reduced to one-third of monthly average work of the respective Work Contract so as to alleviate adverse dust impact.					N/A
	When there are open excavation and spoil handling works, hoarding of 3m high should be provided along the construction site boundary adjacent to the non-construction areas such as residential, educational institutes or recreation area in use so as to minimize the dust impact.					N/A
	Dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation and good site practices: • Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. • Use of frequent watering for particularly dusty construction areas and areas close to Air Sensitive Receivers (ASRs). • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines. • Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. • Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading area of barging point, and use of water sprinklers at the loading				• Air Pollution Control (Construction Dust) Ordinance (APCO) • To control the dust impact to meet HKAQO and TM-EIAO criteria	• Open stockpiles have been avoided or covered and prevented placing dusty material storage piles near ASRs. • Site Vehicles have used the wheel washing facilities at every site exits. • Site vehicles has been travelling

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. • Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period. • Imposition of speed controls for vehicles on site haul roads. • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs. • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.					within limit 10 km/hr. • N/A for other mitigation measures mentioned under this item.
Construction Noise						
S5.13	Use of quiet plant which should be made reference to the Powered Mechanical Equipment (PME) listed in the Technical Memorandum or the Quality Powered Mechanical Equipment (QPME) / other commonly used PME listed in Environmental Protection Department (EPD) web pages as far as possible which includes the Sound Power Level (SWLs) for specific quiet PME.	Reduce the noise levels of plant items	Contractor	Construction Phase	EIAO-TM	Implemented
S5.13	Install movable noise barrier and enclosures. The movable noise barrier can provide 5 dB(A) noise reduction for mobile plant and 10 dB(A) noise reduction for static plant. The barrier material shall have a surface mass of not less than 14 kg/m2. The enclosures can provide 15 dB(A) noise reduction.	Screen the noisy plant items to be used at all construction sites				N/A
S5.13	Proper workfront management and proper grouping of PME during construction activities operated at the critical work areas.					N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S5.13	Maintain the recommended minimum separation between the schools and the critical works areas during examination periods.	Reduce the construction noise impact				N/A
S5.13	<u>Good Site Management Practices</u> • 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 and 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; and • material stockpiles, site offices and other structures should be effectively utilized, where practicable, to screen noise from on-site construction activities.	Control construction airborne noise				N/A
S5.13	Liaison with the school representative(s) to obtain the examination schedule so as to avoid noisy construction activities during school examination period.					N/A
S5.13	Set up a liaison group among CEDD, relevant government departments, contractors of the Works contracts, etc. during construction phase of the Project to ensure proper implementation of mitigation measures.					N/A
Water Quality						
S6.11	Surface run-off from construction sites should be discharged into stormwater drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels/earth bunds/sandbag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels should be provided on	To minimise impact from construction site run-off	Contractor	Construction Phase	• Water Pollution Control Ordinance (WPCO), Technical Memorandum on	Implemented after reminder was made.

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	site boundaries where necessary to intercept stormwater run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.				EIA Ordinance (EIAO-TM), ProPECC PN 1/94, • Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS)	
S6.11	Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re-alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains.					N/A
S6.11	Construction works should be programmed to minimise soil excavation works in rainy seasons (April to September). If excavation in soil cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g., along the crest / edge of excavation) to prevent stormwater run-off from washing across exposed soil surfaces. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm.					Implemented after reminder was made.
S6.11	Earthworks final surfaces should be well compacted, and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.					N/A
S6.11	Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into stormwater drains via silt removal facilities.					N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	Open stockpiles of construction materials (e.g., aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms.					N/A
S6.11	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent stormwater run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.					N/A
S6.11	Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis.					N/A
S6.11	Water used in ground boring and drilling for site investigation or rock / soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into stormwater drains via silt removal facilities.	To minimise impact from boring and drilling water				N/A
S6.11	All vehicles and plants should be cleaned before they leave a construction site to minimise the deposition of earth, mud, debris on roads. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into stormwater drains. The section of construction road between the wheel washing bay and the public road should be paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	To minimise impact from wheel washing water				Implemented
S6.11	Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralised to within the pH range of 6 to 10 before discharging into foul sewers.	To minimise impact from acidic wastewater				N/A
S6.11	There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the run-off and	To minimise impact from effluent discharges				N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS.					
S6.11	Beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence.	To minimise impact from effluent discharges				N/A
S6.11	To minimise the potential water quality impacts from the construction works located near any inland watercourses, the practices outlined in ETWB TC (Works) No. 5/2005 “Protection of natural streams/rivers from adverse impacts arising from construction works” should be adopted where applicable: • Impermeable sheet piles and cofferdams should be used as required to divert water flow from the construction works area so that all the construction works would be undertaken within a dry zone and physically separated from the watercourses. • The proposed works should preferably be carried out within the dry season where the flow in the stormwater culvert/water channel/stream is low. • The use of less or smaller construction plants may be specified in works areas close to the inland water bodies. • Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from	To minimise impact from construction works near watercourses			• WPCO, EIAO-TM, ETWB TC9Works) No. 5/2005	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	any watercourses during carrying out of the construction works. • Stockpiling of construction materials and dusty materials should be covered and located away from any watercourses. • Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby water receivers. • Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the watercourses, where practicable. • Mitigation measures to control site run-off from entering the nearby water environment should be implemented to minimise water quality impacts. Surface channels should be provided along the edge of the waterfront within the work sites to intercept the run-off. • Construction effluent, site run-off and sewage should be properly collected and/or treated. • Any temporary works site inside the stormwater watercourses should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the stormwater quality. • Proper shoring may need to be erected in order to prevent soil/mud from slipping into the inland water bodies.					
S6.11	The key water quality measure for protection of the revitalised drainage channel water is to avoid polluted site run-off from reaching the revitalised drainage channel water. Relevant mitigation measures should follow the practices outlined in ETWB TC (Works) No. 5/2005 “Protection of natural streams / rivers from adverse impacts arising from construction works” as listed below: • Impermeable sheet piles and cofferdams should be used as required to divert water flow from the construction works area so that all the construction works would be undertaken within a dry zone and physically separated from the revitalised drainage channel water.	To minimise impact from revitalisation and greening of Drainage Channel Banks				N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	• The proposed works should preferably be carried out within the dry season where the flow in the revitalised drainage channel is low. • The use of less or smaller construction plants may be specified in works areas close to the revitalised drainage channel. • Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from the revitalised drainage channel during carrying out of the construction works. • Stockpiling of construction materials and dusty materials should be covered and located away from the revitalised drainage channel water. • Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby revitalised drainage channel. • Construction activities, which generate large amount of wastewater, should be carried out a distance away from the revitalised drainage channel, where practicable. • Mitigation measures to control site run-off from entering the nearby revitalised drainage channel should be implemented to minimise water quality impacts. Surface channels should be provided along the edge of the revitalised drainage channel within the work sites to intercept the run-off. • Construction effluent, site run-off and sewage should be properly collected and/or treated. • Any temporary works site inside the revitalised drainage channel should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the revitalised drainage channel water. Proper shoring may need to be erected in order to prevent soil / mud from slipping into the revitalised drainage channel.					

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	The construction method and sequence of the proposed construction in watercourses / concrete flood storage pond for works sites of DP12 should be carefully designed so that all the construction works including any excavation and pilling operations would be undertaken within a dry zone and physically separated from the watercourses downstream.	To minimise impact from construction in watercourses / concrete flood storage pond			WPCO, EIAO-TM	N/A
S6.11	Impermeable sheet pile walls or cofferdam walls or steel casing should be installed to fully enclose the construction works area (including all the excavation and piling works) in the watercourse / pond prior to the commencement of any works in watercourse / pond. Dewatering of the construction works area or diversion of water flow should be undertaken before the construction works to avoid water flow in the construction works area. Silt removal facilities should be used to clarify the effluent generated from the dewatering operation before discharging back to the watercourse / drainage system.	To minimise impact from construction in watercourses / concrete flood storage pond			WPCO, EIAO-TM, TM-DSS	N/A
S6.11	Any construction works including excavation and pilling activities should be undertaken in a dry zone surrounded by the impermeable sheet pile walls or cofferdam walls or steel casing. Silt curtains should also be deployed around the construction works area inside the watercourse, where practicable, as a second layer of protection to further minimise sediment and contaminant release. All wastewater generated from the pilling activities should be regarded as part of the construction site effluent, which should be properly collected and treated as appropriate to meet the standards stipulated in the TM-DSS before disposal. It is recommended that the construction works in watercourses / pond should be undertaken in dry seasons, where practicable, when the water flow is low.	To minimise impact from construction in watercourses / concrete flood storage pond			WPCO, EIAO-TM	N/A
S6.11	Construction works for removal and diversion of watercourses should be undertaken within a dry zone. Where necessary, cofferdams or similar impermeable sheet pile walls should be used to isolate the works areas from the neighbouring waters.	To minimise impact from removal and diversion of watercourse			WPCO, EIAO-TM	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	Construction works at watercourse should be undertaken only after flow diversion or dewatering operation is fully completed to avoid water flow in the works area. Dewatering of watercourse should be performed by diverting the water flow to new or temporary drainage. Where necessary, cofferdams or similar impermeable sheet pile walls should be used to isolate the works areas from neighbouring waters. The permanent or temporary drainage for carrying the diverted flow from existing watercourse to be removed should be constructed and completed before dewatering of that existing watercourse. Construction of all the proposed permanent and temporary drainage should be undertaken in a dry zone prior to receiving any water flow.				WPCO, EIAO-TM, TM-DSS	N/A
S6.11	The Contractor should provide a dry zone for all the construction works to be undertaken in watercourses and stormwater drainage following the tentative works sequence as described above or using other approved methods as appropriate to suit the works condition. The flow diversion works should be conducted in dry season, where possible, when the flow in the watercourse is low. The wastewater and ingress water from the site should be properly treated to comply with the WPCO and the TM-DSS before discharge.				WPCO, EIAO-TM, TM-DSS	N/A
S6.11	The site practices outlined in the ProPECC PN 1/94 “Construction Site Drainage” and ETWB TC (Works) No. 5/2005 “Protection of natural streams/rivers from adverse impacts arising from construction works” should be adopted for the proposed demolition or diversion of watercourses where applicable.				WPCO, EIAO-TM, ProPECC PN 1/94, ETWB TC (Works) No. 5/2005	N/A
S6.11	Construction works at the existing ponds / wet areas should be conducted only after dewatering of these ponds / wet areas is fully completed. The drained water generated from the dewatering of these ponds / wet areas to be removed should be temporarily stored in appropriate storage tanks or containers for reuse on-site as far as possible. Any surplus drained water should be tankered away for proper disposal at STW in a controlled manner.	To minimise impact from removal of ponds / wet areas			WPCO, EIAO-TM	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	It is recommended to drain only one pond at a time to minimise the potential water quality impact. Dewatering works at ponds / wet areas should be conducted within dry season to minimise the quantity of drained water. No direct discharge of drained water to the stormwater drainage system or marine water should be allowed.					N/A
S6.11	Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied with for control of chemical wastes.	To minimise impact from accidental spillage			WPCO, Waste Disposal Ordinance (WDO), Waste Disposal (Chemical Waste) (General) Regulation, EIAO-TM	N/A
S6.11	Any service workshop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.				WPCO, WDO, Waste Disposal (Chemical Waste) (General) Regulation, EIAO-TM	N/A
S6.11	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: • Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. • Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. • Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.					N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	No discharge of sewage to the stormwater system and marine water will be allowed. Adequate and sufficient portable chemical toilets should be provided in the works areas to handle sewage from construction workforce. A licensed waste collector should be employed to clean and maintain the chemical toilets on a regular basis.	To minimise impact from workforce sewage effluent			WPCO, EIAO-TM, TM-DSS	Implemented
S6.11	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment. Regular environmental audit of the construction site should be conducted to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site.				WPCO, EIAO-TM	N/A
S6.11	Any excavated contaminated material and exposed contaminated surface should be properly housed and covered to avoid generation of contaminated run-off. Open stockpiling of contaminated materials should not be allowed. Any contaminated run-off or wastewater generated from the land decontamination processes should be properly collected and diverted to wastewater treatment facilities (WTF). The WTF shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment system shall meet the requirements as stated in TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal.	To minimise impact from contaminated site run-off and wastewater from land decontamination			WPCO, EIAO-TM, TM-DSS	N/A
S6.11	No direct discharge of groundwater from contaminated areas should be adopted. Prior to any excavation works within the potentially contaminated areas, the baseline groundwater quality in these areas should be reviewed based on the past relevant site investigation data and any additional groundwater quality measurements to be performed with reference to Guidance Note for Contaminated Land Assessment and Remediation and the review results should be submitted to EPD for examination. If the review results indicated that the groundwater to be generated from the excavation works would	To minimise impact from groundwater from contaminated areas			WPCO, TM-DSS, Guidance Note for Contaminated Land Assessment and Remediation	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	be contaminated, this contaminated groundwater should be either properly treated or properly recharged into the ground in compliance with the requirements of the TM-DSS. If wastewater treatment is to be deployed for treating the contaminated groundwater, the wastewater treatment unit shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment plant shall meet the requirements as stated in the TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal.					
S6.11	If deployment of wastewater treatment is not feasible for handling the contaminated groundwater, groundwater recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in section 2.3 of the TM-DSS. The baseline groundwater quality should be determined prior to the selection of the recharge wells and submit a working plan to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Groundwater monitoring wells should be installed near the recharge points to monitor the effectiveness of the recharge wells and to ensure that no likelihood of increase of groundwater level and transfer of pollutants beyond the site boundary. Prior to recharge, free products should be removed as necessary by installing the petrol interceptor. The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater.	To minimise impact from groundwater from contaminated areas			WPCO, EIAO-TM, TM-DSS	N/A
S6.11	The following measures should be implemented by the Contractors to minimise the chance of emergency construction site discharge (due to failure of treatment facilities such as sand traps, silt traps, sedimentation basins, oil interceptors etc.):	To minimise impact from construction site discharges			WPCO, EIAO-TM, TM-DSS	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	• Provide spare or standby treatment facilities of suitable capacities for emergency replacement in case damage or defect or malfunctioning of the duty treatment facilities is observed. • Conduct daily integrity checking of the construction site drainage and treatment facilities to inspect malfunctions, in particular before, during and after a storm event. • Carry out regular maintenance or desilting works to maintain effectiveness of the construction site drainage and treatment facilities in particular before, during and after a storm event.					
S6.11	An Emergency Response Plan (ERP) should be developed to minimise the potential impact from construction site discharges under failure of treatment facilities during emergency situations or inclement weather. The ERP should give the emergency contacts to mobilise retention facilities and stakeholders to be notified as well as the details of the proposed construction site drainage system and the design and operation of duty and standby treatment facilities. The ERP should also provide the procedures and guidelines for routine integrity checking and maintenance of the drainage system and treatment facilities as well as the emergency response and rectification procedures to restore normal operation of the treatment facilities in case of treatment failure during emergency situation or inclement weather. The Best Management Practices (BMPs) in controlling water pollution arising from the construction activities and an event and action plan with action and limit levels for water quality monitoring should be included in the ERP. The ERP should be submitted to the EPD for approval before commencement of the construction works.	To minimise impact from construction site discharges				N/A
S6.11	Construction of the Project would involve diversion of the existing twin 800 mm diameter rising mains along Tin Ying Road. New sewerage facilities for receiving the diverted sewage flow from the existing rising mains should be constructed prior to the commencement of any demolition and construction works at the existing rising mains. All sewage flow running in the existing rising mains along Tin Ying Road should	To minimise impact from sewerage diversion works			WPCO, EIAO-TM	N/A

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	be diverted to the new sewerage system prior to any demolition and construction works at the existing rising mains. No discharge of sewage flow to the environment should be allowed during the sewerage diversion works.					
S6.11	All excavated materials generated from removal and diversion of watercourses, removal and construction works in ponds and wet areas as well as the proposed bridge pier construction works in watercourses should be collected and handled in compliance with the Waste Disposal Ordinance. Excavated sediment, if any, generated from the excavation activities in watercourses, ponds and wet areas should be tested and classified in accordance with the ETWB TCW No. 34/2002 for determining the disposal arrangement for the sediment. No direct disposal of the construction wastes or excavated materials into the stormwater drainage system and marine water should be allowed.	To manage the disposal of sediment			Waste Disposal Ordinance, ETWB TCW No. 34/2002	N/A
Waste Management						
S8.2	Good Site Practice The following good site practices are recommended during the construction phase: • Nomination of an approved person, such as a site manager, to be responsible for the implementation of good site practices, • Training of site personnel in proper waste management and chemical handling procedures. • Provision of sufficient waste disposal points and regular collection of waste. • Appropriate measures to minimize windblown litter and dust during handing, transportation and disposal of waste; and • Preparation of a WMP in accordance with the ETWB TCW No. 19/2005 Environmental Management on Construction Sites and submitted it to the Engineer for approval.	Minimise waste generation during construction	Contractor	Construction Phase	Waste Disposal Ordinance, Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK)	N/A
S8.2	Waste Reduction Measures Waste reduction is best achieved by proper planning and design at the planning and design phases, as well as by				Waste Disposal Ordinance	• Segregation and storage of different

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	ensuring the implementation of good site practices. The following recommendations are proposed to achieve waste reduction: • Segregation and storage of different types of waste in different containers or skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. • Adopt proper storage and site practices to minimize the potential for damage to, and contamination of, construction materials; • Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated; • Sort out demolition debris and excavated materials from demolition works to recover reusable / recyclable portions (i.e. soil, rock, broken concrete, etc.); • Maximize the use of reusable steel formwork to reduce the amount of C&D materials; • Minimize over ordering concrete, mortars and cement grout by doing careful check before ordering; and • Adopt pre-cast construction method instead of cast-in-situ method for construction of concrete structures as far as possible.					types of waste in different containers or skips or stockpiles is implemented to enhance reuse or recycling of materials and their proper disposal. • N/A for other mitigation measures mentioned under this item.
S8.2	<u>Storage of Waste</u> Storage of materials on site may induce adverse environmental impacts if not properly managed. The following recommendations should be implemented to minimise the impacts: • Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimising the potential of pollution; • Maintain and clean storage areas routinely; • Stockpiling area should be provided with covers and water spraying system to prevent materials from being wind-blown or washed away; and • Different locations should be designated to stockpile each material to enhance reuse.	Minimise waste impacts during storage of waste			Waste Disposal Ordinance	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S8.2	<u>Collection and Transportation of Waste</u> Waste hauler with appropriate permits should be employed by the Contractor for the collection and transportation of waste from works areas to respective disposal outlets. The following recommendation should be implemented to minimise the impacts: • Remove waste in timely manner; • Employ the trucks with cover or enclosed containers for waste transportation; • Obtain relevant waste disposal permits from the appropriate authorities; and • Dispose of waste at licensed waste disposal facilities.	Minimise waste impacts during collection and transportation of waste			Waste Disposal Ordinance	N/A
S8.2	<u>Construction and Demolition (C&D) Materials</u> Wherever practicable, C&D materials should be segregated from other waste to avoid contamination and ensure acceptability at the public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the C&D materials: • Adopt “selective demolition” technique to demolish the existing structure and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; • Maintain the stockpile areas and reuse excavated fill material for backfilling; • Carry out on-site sorting to recover the inert C&D materials and reusable and recyclable materials prior to disposal off-site; • Make provisions in the contract documents to allow and promote the use of recycled aggregates where appropriate; and • Implement a trip-ticket system for each works contract in accordance with DEVB TC(W) No. 6/2010 Trip-ticket System for Disposal of Construction and Demolition Material to ensure that the disposal of C&D materials are properly documented and verified. The Contractor should be responsible for devising a system to work for on-site sorting of C&D materials. It is recommended	Minimise waste impacts from C&D materials			Waste Disposal Ordinance, Land (Miscellaneous Provisions) Ordinance, Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)	N/A

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	that the system should include the identification of the source of generation, estimated quantity of waste generated, arrangement for on-site sorting and/or collection, designated stockpiling areas, frequency of collection by recycling contractors and frequency of removal off-site.					
S8.2	Asbestos Containing Materials Due to the potential large amount of asbestos containing materials during the site clearance stage, asbestos investigation is required. However, as asbestos investigation will involve a large number of buildings and most premises will involve private access, which cannot be obtained at this stage, it is considered that an asbestos specialist shall be employed by the responsible parties during the construction stage to investigate this issue. Sufficient and reasonable lead time shall be allowed for preparation, vetting and implementation of Asbestos Investigation Report and Asbestos Abatement Plan in accordance with Air Pollution Control Ordinance before commencement of any demolition or site clearance work. Some key precautionary measures related to the handling and disposal of asbestos are listed as following: • Adoption of protection, such as full containment, mini containment, or segregation of work area; • Provision of decontamination facilities for cleaning of workings, equipment and bagged waste before leaving the work area; • Adoption of engineering control techniques to prevent fibre release from work area, such as use of negative pressure equipment with high efficiency particulate air (HEPA) filters to control air flow between the work area and the outside environment; • Wetting of asbestos containing materials before and during disturbance, minimising the breakage and dropping of asbestos containing materials, and packing of debris and waste immediately after it is produced; • Cleaning of work area by wet wiping and vacuuming with HEPA-filtered vacuum cleaner;	Control the asbestos containing materials and ensure proper storage, handling and disposal			Code of Practice on Handling, Transportation and Disposal of Asbestos Waste ProPECC PN 2/97 Handling of Asbestos Containing Materials in Buildings	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	• Coating on any surfaces previously in contact with or contained by asbestos with a sealant; • Proper bagging, safe storage and disposal of asbestos and asbestos-contaminated waste; • Pre-treatment of all effluent from the work area before discharged; and • Air monitoring strategy to check the leakage and clearance of the work area during and after the asbestos work.					
S8.2	Chemical Waste For those processes which generated chemical waste, it may be possible to find alternatives to eliminate the use of chemicals, to reduce the generation quantities or to select a chemical type of less impact on environment, health and safety as far as possible. If chemical waste is produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer. Chemical waste should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical waste (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while chemical waste that cannot be recycled should be disposed of at either the CWTC, or another licensed facility.	Control the chemical waste and ensure proper storage, handling and disposal.			Waste Disposal (Chemical Waste) General) Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	N/A
S8.2	General Refuse General refuse should be stored in enclosed bins separately from construction and chemical waste. Recycling bins should also be placed to encourage recycling. Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. A reputable waste collector should be employed to remove general refuse on a daily basis. It is expected that such arrangements would minimise potential environmental impacts.	Minimise production of general refuse and avoid odour, pest and litter impacts			Waste Disposal Ordinance	Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Excavated Sediment Since the amount of excavated sediment generated from the inland water removal / diversion works is expected to be small, all excavated sediment will be treated and reused on-site as backfilling materials for the Project. This approach avoids the need for off-site disposal that may result in impacts on the marine environment. In addition, all construction works near the watercourses should be undertaken within a dry zone and during dry season to avoid adverse impacts to the environment. The excavated sediment, if stockpiled on site, should be stored in enclosed containers and transported to the on-site treatment facilities as soon as practicable to minimise any potential odour impacts.	Proper handling of excavated sediment			Waste Disposal Ordinance	N/A
	Contaminated Soil It is considered unlikely that contaminated land issues, if any subject to site investigation, would be a concern during either the construction or the operational of the proposed development as remediation on contaminated area would be carried out prior to construction. However, as a precaution, it is recommended that standard good site practices should be implemented during the construction phase to minimise any potential exposure to contaminated soils or groundwater.	Proper handling of contaminated soil			Practice Guide for Investigation and Remediation of Contaminated Land	N/A
Land Contamination						
-	Identified Potentially Contaminated Sites Prior to development of these sites, the Project Proponent should appoint a consultant to re-appraise these sites to update the corresponding findings and sampling and testing requirements presented in the Contamination Assessment Plan (CAP). Supplementary CAP(s), incorporating the findings of the site re-appraisal and the updated sampling and testing strategy, should be prepared and submitted to EPD for approval prior to conducting any site investigation (SI) works.	Identify the presence, nature and extent of contamination and formulate the necessary remedial actions	CEDD/ Detailed Design Consultant / Contractor	After the land is resumed and handed over to the Project Proponent and prior to commencement of any remediation / construction works.	EIAO-TM, Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management, Guidance Notes for Contaminated Land Assessment and Remediation; and	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status	
	SI works should then be carried out according to the supplementary CAP(s). Contamination Assessment Report (CAR(s)) and, if contaminated soil and/or groundwater identified, Remediation Action Plan (RAP(s)) should be prepared and submitted to EPD for approval.				Practice Guide for Investigation and Remediation of Contaminated Land		
-	<u>Remaining Non-Contaminated Sites</u> After the sites are handed over to the Project Proponent for development, the Project Proponent should appoint a consultant to revisit these sites to assess the latest land uses and site conditions. If any of these sites are found to have potential land contamination issues, the Project Proponents appointed consultant should prepare and submit supplementary CAP(s) to EPD for approval prior to conducting any SI works. SI works should then be carried out according to the supplementary CAP(s). CAR(s) and, if contaminated soil and/or groundwater identified, RAP(s) should be prepared and submitted to EPD for approval					N/A	
-	Any contaminated soil and groundwater should be treated according to EPD's approved RAP(s) and RR(s) should be submitted to EPD for agreement after completion of the remediation works.	Remediate any contaminated soil and groundwater and demonstrate that the remediation works are adequate and is carried out in accordance with EPD's approved RAP(s).	Contractor	After the land is resumed and handed over to the PP and prior to commencement of any construction works.		N/A	
Ecology							

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S10.2.4	Scheduling the site formation and construction works at Sites 3-32, 3-33, 3-37, 3-39 and 3-40 outside the breeding season of ardeids	Minimise disturbance impacts to breeding ardeids in San Sang San Tsuen egretry	CEDD / Contractor	Construction phase	TM-EIAO	N/A
S10.2.5	Provision of screening (e.g., hoarding) at adjacent habitats within CA at northwest of San Sang San Tsuen.	Disturbance impacts (e.g. noise/vibration, visual) to adjacent habitats within the CA				N/A
S10.2.6	Hoarding around “Green Belt” zoning to mitigate construction disturbance impacts to the Crested Serpent Eagle habitat.	Minimise construction disturbance impacts to the Crested Serpent Eagle habitat				N/A
S10.2.7	Carefully design the construction methods and sequence of the proposed pier in the watercourses so that all piling and excavation works would be done within dry zone and physically separated from the watercourse downstream	Minimise potential water quality impacts to the habitats of the main channel and waterbird species				N/A
S10.2.8	An ecologist with relevant experience should be consulted before the clearance of any bat roost.	Ensure no bat roost would be damaged due to the proposed development				N/A
S10.2.10	Provision of hoarding for proper delineation of works boundary.	Minimise construction disturbance impacts to existing mitigation ponds				N/A
S10.2.11	General dust and noise control measures.	Mitigate disturbance impacts to the surrounding habitats and associated wildlife				N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S10.2.12	Night-time lighting control.	Minimise glare disturbance to wildlife				N/A
S10.2.13 – S10.2.15	Good site practices during the construction phase to avoid any pollution entering any nearby watercourses.	Minimise water quality impacts to nearby water bodies				N/A
Fisheries						
S.13.4.8	Follow the mitigation measures proposed in the water quality assessment for construction and operational phase.	To protect fisheries resources from potential indirect impacts arising from deterioration of water quality	Contractor	Construction phase	EIA, contractual requirements	N/A
Landscape and Visual						
CM1	<u>Minimised construction area and contractor's temporary works areas</u> The construction area and contractor's temporary works areas should be minimised. General Good Practice Measures - For areas unavoidably disturbed by the Project on a short-term basis e.g., works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to	Minimise impacts on adjacent landscape	Government/ Developer/ Detailed Design Consultant/ Contractor	Prior to construction, construction stages. This should be implemented as soon as the areas become available, to achieve early establishment	-	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
CM2	Stripping and storing of topsoil Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical. The Contract Specification shall include storage and reuse of topsoil as appropriate. On potentially contaminated sites (as per Section 8) where investigation results indicate soil contamination is present, the use of contaminated soils for planting is to be avoided where appropriate.	Minimise the loss of existing topsoil and reduce the need to provide imported material		Detailed design, construction stages	-	N/A
CM3	Protection of existing trees Tree Protection & Preservation – Exiting trees to be retained within the Project site should be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees			ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	N/A
CM4	Transplantation of existing trees where practical Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the Project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with	Transplant Trees where suitable for transplantation		Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.					
CM5	Control of night-time lighting Control of night-time lighting and glare by hooding all lights. Construction day and night-time lighting should be controlled to minimise glare impact to adjacent VSRs during the construction phase.	Minimise impact of night-time lighting and glare	Government/ Developer/ Contractor	Construction stage	-	N/A
CM6	Construction of decorative hoarding around construction works Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publicly accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.	To screen undesirable views of the works site.	Contractor	Construction stage	-	N/A
CM7	Reduction of construction period to practical minimum Reduction of construction period to practical minimum	Minimise length of exposure to construction works	Government/ Developer/ Detailed Design Consultant/ Contractor	Construction stage	-	N/A
CM8	Prevention of run-off Limitation of / Ensuring no run-off into surrounding landscape and prohibit run-off from entering adjacent water bodies and waterways.	Minimise / limit impacts on surrounding landscape and adjacent water sea areas		Construction stage	Guidelines for this include ETWB Technical Circular (Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works; Building Department (BD)	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
					Practice Note for Authorized Persons and Registered Structural Engineers 295: Protection of natural streams/rivers from adverse impacts arising from construction works	
CM9	Phasing of construction stage Phasing of the construction stage to reduce visual impacts.	Minimise visual impacts during the construction phase		Construction stage	-	N/A
CM10	Advance screen planting Advance screen planting of fast-growing tree and shrub species to noise barriers and hoardings. Trees shall be capable of reaching a height >10m within 10 years.	Minimise length of exposure without long term mitigation measures		Detailed design, construction stages	ETWB TCW 3/2006 and 2/2004	N/A
CM11	Minimise disturbance footprints To minimise landscape and visual impacts, the footprint and elevation of such elements should be optimised to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimise landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption		Detailed design, construction stages	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A
CM12	Protection of existing water courses	Avoid direct impacts to watercourses	Detailed Design	Detailed design, construction stages	Guidelines for this include ETWB Technical Circular	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	For all the natural rivers and streams inside the development area, consideration of protection measures should be made to minimise any impacts from the construction works. Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimise any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed. Bridges and box culverts should also be used to minimise the necessity of watercourse modification and protect the watercourses where necessary.		Consultant/ Contractor		(Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works; Building Department (BD) Practice Note for Authorized Persons and Registered Structural Engineers 295: Protection of natural streams/rivers from adverse impacts arising from construction works	
CM13	<u>Hydroseeding on modified slopes</u> Hydroseeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government/ Developer/ Detailed Design Consultant/ Contractor	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A
CM14	<u>Integrate Open Space Network with existing nullah conditions</u> For watercourses affected during construction, measures should be sought to minimise the impact with respect to the	Minimise / limit impacts on surrounding			ETWB TCW No. 5/2005 – Protection of natural	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	existing nullah conditions, existing shrubs and trees along the banks. Where natural streams are unavoidably affected along some of their length, they can be diverted to avoid the proposed new developments and retain the integrity of the whole stream. Detailed design of any stream diversion should follow the Guidelines in ETWB Technical Circular (Works) No. 5/2005 (Protection of natural streams/rivers from adverse impacts arising from construction works) and appropriate construction methods should be used.	landscape and adjacent water sea areas			streams/rivers from adverse impacts arising from construction works; DSD Practice Note No.1/2005, Guidelines on Environmental Considerations for River Channel Design	
Cultural Heritage Impact						
S13.1.1	The archaeological impact arising from the construction works should be assessed when the detailed design of the works is available. Preservation in situ is the top priority to safeguard the archaeological remains in the impacted area by amending the layout plans of the construction works. However, if the works cannot avoid disturbance to the archaeological deposit, depending on degree of direct impact, the following mitigation measures should be considered, such as archaeological surveys, archaeological watching brief, preservation by record and relocation of archaeological remains. The scope and programme of the archaeological fieldwork would be agreed with AMO.	Minimise impact to archaeology in SAIs	Contractor	Prior to construction phase commencement	Environmental Impact Assessment Ordinance EIAO (Cap.499) and Technical Memorandum (EIAO-TM) Guidance Note on Assessment of Impact on Sites of Culture Heritage in Environmental Impact Assessment Studies (GCH-EIA) Antiquities and Monuments Ordinance (A&MO) Hong Kong Planning Standards and Guidelines (HKPSG) Guidelines for Cultural Heritage	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
					Impact Assessment (GCHIA)	
S13.1.2	Further archaeological survey is required to be conducted at APA 1 and APA 2 to ascertain the extent of any archaeological remains within the APAs if any construction works will be carried out. Based on the findings of the survey, mitigation measures could be proposed, such as preservation in situ, preservation by record, or relocation of archaeological remains, in prior agreement with the AMO. Direct impact arising from the proposed development within APA 3 should be avoided as far as possible.	Minimise impact to archaeology in APAs.			EIAO-TM GCH-EIA A&MO HKPSG GCHIA	N/A
S13.1.5	Preservation by record (including cartographic and photographic record) prior to any construction works would be required for the directly impacted built heritage.	Minimise impact to built heritage			EIAO-TM GCH-EIA HKPSG GCHIA	N/A
-	A Conservation Management Plan should be proposed to implement future maintenance and management of the cultural heritage.	Maximise the public education, heritage and cultural tourism related opportunities in this area as heritage attractions.	CEDD		EIAO-TM GCH-EIA A&MO HKPSG GCHIA	N/A

Appendix 1.4 Impact Monitoring Schedule of the Reporting Month

Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team (Version 2.1)						
November 2024						
Sun	**Mon**	**Tue**	**Wed**	**Thur**	**Fri**	**Sat**
					1 Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**2** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20 Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6
3	**4** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**5** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20 Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**6** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**7** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**8** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**9**
10	**11** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**12** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**13** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**14**	**15** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**16** Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14. Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20.
17	**18** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**19** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**20** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**21** Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**22** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**23** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6
24	**25** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**26** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**27** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**28**	**29** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**30**

Remarks:
1. The schedule may be changed due to unforeseen circumstances (e.g. adverse weather, etc.).
2. Impact air quality monitoring at AM22, AM24 and AM25a will be carried out when the planned sensitive receivers are commissioned.
3. Impact noise monitoring at CM28, CM29, CM31 and CM32 will be carried out when the planned sensitive receivers are commissioned.
4. Impact water quality monitoring at U2 and HT will be carried out by the Environmental Team appointed under Hung Shui Kiu/Ha Tsuen New Development Area Stage 1 Works, and the corresponding water quality monitoring data at these stations will be shared with this Project (i.e. Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development).
5. The impact noise monitring on 14 November 2024 has been rescheduled to 16 November 2024 due to inclement weather.

Contract	Water Quality Monitoring Station *																					
	U1	U2	U3a	U4a	U5a	U6a	TS1	TS2a	TSR1a	STa	SW	HT	LUTa	D2a	LFS	D1	D3	TKW	TKW1	D4a	U7	D5a	D6a
Contract 1		✓			✓	✓	✓	✓	✓			✓	✓	✓			✓						
Contract 2						✓			✓					✓			✓					✓	✓
Contract 3			✓	✓	✓	✓	✓	✓	✓	✓				✓			✓						
Contract 4			✓	✓	✓		✓	✓	✓	✓				✓									
Contract 5	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Contract 6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓				
Contract 7	TO BE CONFIRMED																						
* Monitoring stations at which inland waters runs into the major water systems, including their tributaries, passing through the site boundary of works contract(s), potentially causing water quality impacts as a result of water bodies contamination, will be considered being the representative monitoring stations for the corresponding works contract(s) as the rationale for determination of contract involvement in terms of environmental monitoring.																							

Contract	Air Quality Monitoring Station *																					
	AM1	AM2	AM3	AM4	AM5	AM6	AM7	AM8a	AM9	AM10	AM11	AM12	AM13	AM14	AM15	AM16	AM17	AM21	AM22	AM23	AM24	AM25a
Contract 1	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓					✓		✓	✓
Contract 2	✓		✓	✓	✓	✓	✓				✓								✓			
Contract 3	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓				✓			✓			
Contract 4		✓	✓	✓	✓	✓													✓			
Contract 5		✓											✓	✓	✓		✓	✓	✓	✓	✓	✓
Contract 6					✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓
Contract 7	TO BE CONFIRMED																					
* Monitoring stations that are specifically within the 500m buffer area projected from the site boundary of works contract(s) will be considered being the representative monitoring stations for the corresponding works contract(s) as the rationale for determination of contract involvement in terms of environmental monitoring.																						

Contract	Construction Noise Monitoring Station *																											
	CM1	CM2	CM3	CM4a	CM9	CM10	CM11	CM12	CM13	CM14	CM15a	CM16	CM17a	CM18	CM19	CM20	CM21	CM22	CM23a	CM24	CM25	CM26	CM27a	CM28	CM29	CM30	CM31	CM32
Contract 1	✓	✓	✓	✓		✓			✓	✓	✓	✓		✓		✓								✓	✓		✓	✓
Contract 2		✓	✓	✓					✓	✓	✓	✓		✓											✓		✓	✓
Contract 3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓							✓	✓	✓		✓	✓
Contract 4								✓							✓								✓	✓				
Contract 5	✓																			✓	✓	✓	✓	✓	✓	✓		
Contract 6														✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓
Contract 7	TO BE CONFIRMED																											
* Monitoring stations that are specifically within the 300m buffer area projected from the site boundary of works contract(s) will be considered being the representative monitoring stations for the corresponding works contract(s) as the rationale for determination of contract involvement in terms of environmental monitoring.																												

Appendix 2.1 Calibration Certificates of Impact Air Quality Monitoring Equipment

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

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467356				
Our Report Refrence No.:	RPT-24-HVS-0080				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

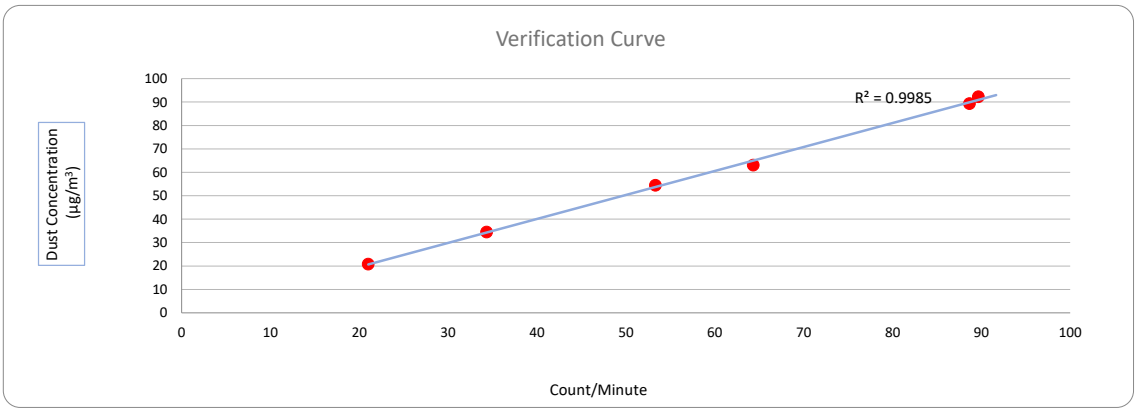
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	16140	90	92
2	17/08/2024	11835.91	11838.91	180.00	9600	53	54
3	17/08/2024	11838.91	11841.91	180.00	15960	89	89
4	18/07/2024	11841.94	11844.94	180.00	6180	34	34
5	18/07/2024	11844.94	11847.94	180.00	3780	21	21
6	18/07/2024	11847.94	11850.94	180.00	11580	64	63

Linear Regression of y on x

Slope, K factor:	**1.0232**	Intercept:	**-0.8300**	*Correlation Coefficient,R:	**0.9992**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Project Technician, Environmental — Date: 23-08-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 23-08-2024

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

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467357				
Our Report Refrence No.:	RPT-24-HVS-0081				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

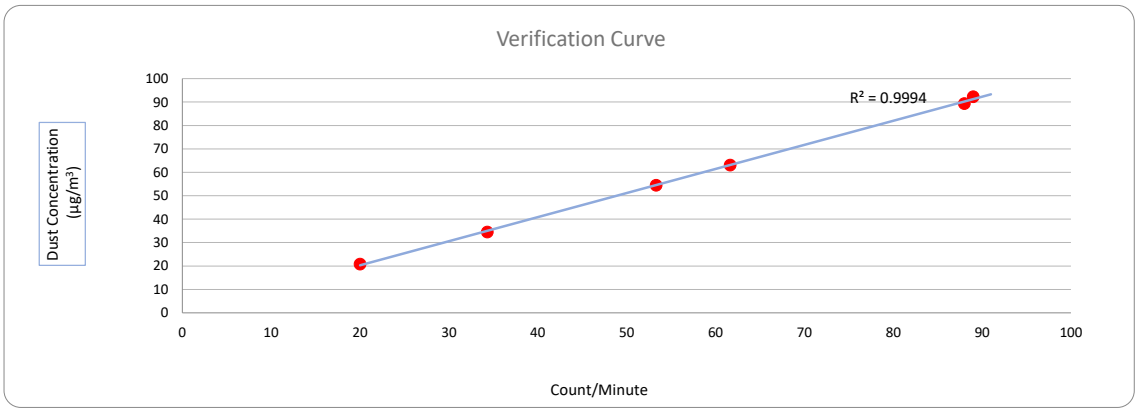
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	16020	89	92
2	17/08/2024	11835.91	11838.91	180.00	9600	53	54
3	17/08/2024	11838.91	11841.91	180.00	15840	88	89
4	18/07/2024	11841.94	11844.94	180.00	6180	34	34
5	18/07/2024	11844.94	11847.94	180.00	3600	20	21
6	18/07/2024	11847.94	11850.94	180.00	11100	62	63

Linear Regression of y on x

Slope, K factor:	**1.0280**	Intercept:	**-0.2511**	*Correlation Coefficient,R:	**0.9997**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Project Technician, Environmental — Date: 23-08-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 23-08-2024

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

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467358				
Our Report Refrence No.:	RPT-24-HVS-0082				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

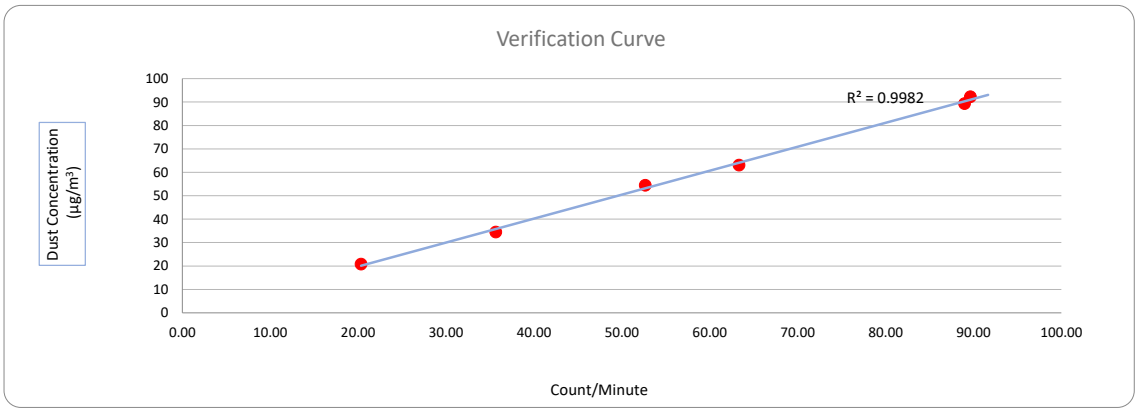
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	16140	89.67	92
2	17/08/2024	11835.91	11838.91	180.00	9480	52.67	54
3	17/08/2024	11838.91	11841.91	180.00	16020	89.00	89
4	18/07/2024	11841.94	11844.94	180.00	6420	35.67	34
5	18/07/2024	11844.94	11847.94	180.00	3660	20.33	21
6	18/07/2024	11847.94	11850.94	180.00	11400	63.33	63

Linear Regression of y on x

Slope, K factor:	**1.0225**	Intercept:	**-0.6726**	*Correlation Coefficient,R:	**0.9991**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Project Technician, Environmental — Date: 23-08-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 23-08-2024

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

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467359				
Our Report Refrence No.:	RPT-24-HVS-0083				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

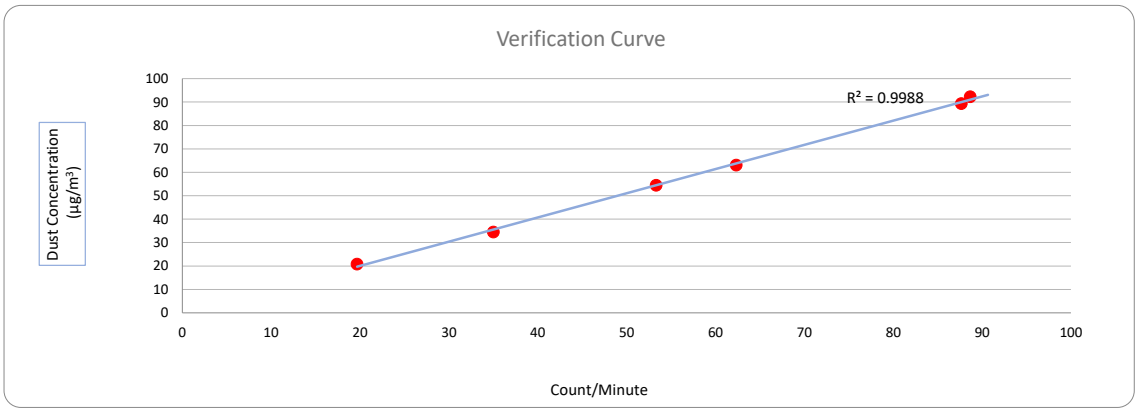
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	15960	89	92
2	17/08/2024	11835.91	11838.91	180.00	9600	53	54
3	17/08/2024	11838.91	11841.91	180.00	15780	88	89
4	18/07/2024	11841.94	11844.94	180.00	6300	35	34
5	18/07/2024	11844.94	11847.94	180.00	3540	20	21
6	18/07/2024	11847.94	11850.94	180.00	11220	62	63

Linear Regression of y on x

Slope, K factor:	**1.0331**	Intercept:	**-0.6022**	*Correlation Coefficient,R:	**0.9994**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Project Technician, Environmental — Date: 23-08-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 23-08-2024

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

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467360				
Our Report Refrence No.:	RPT-24-HVS-0084				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

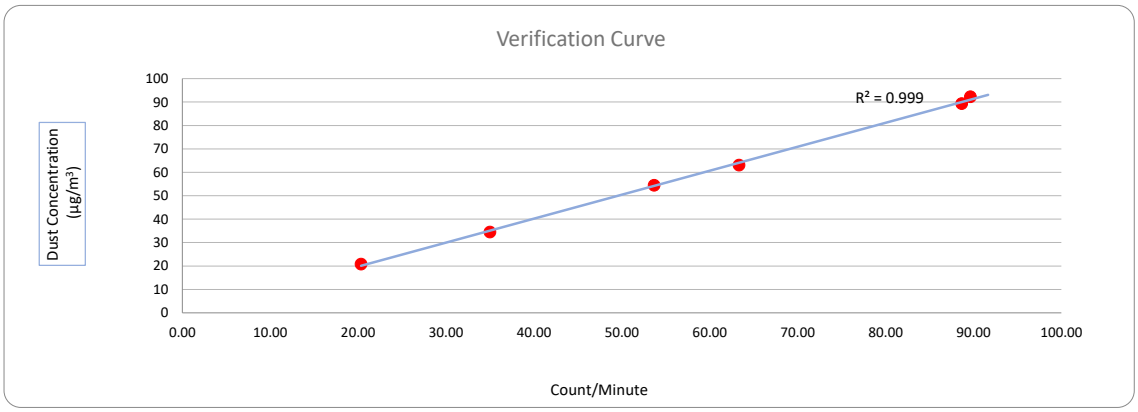
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	16140	89.67	92
2	17/08/2024	11835.91	11838.91	180.00	9660	53.67	54
3	17/08/2024	11838.91	11841.91	180.00	15960	88.67	89
4	18/07/2024	11841.94	11844.94	180.00	6300	35.00	34
5	18/07/2024	11844.94	11847.94	180.00	3660	20.33	21
6	18/07/2024	11847.94	11850.94	180.00	11400	63.33	63

Linear Regression of y on x

Slope, K factor:	**1.0229**	Intercept:	**-0.6982**	*Correlation Coefficient,R:	**0.9995**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Date: 23-08-2024
Project Technician, Environmental

Checked By: Tandy Tse — Date: 23-08-2024
Senior Consultant, Environmental

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

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467361				
Our Report Refrence No.:	RPT-24-HVS-0085				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

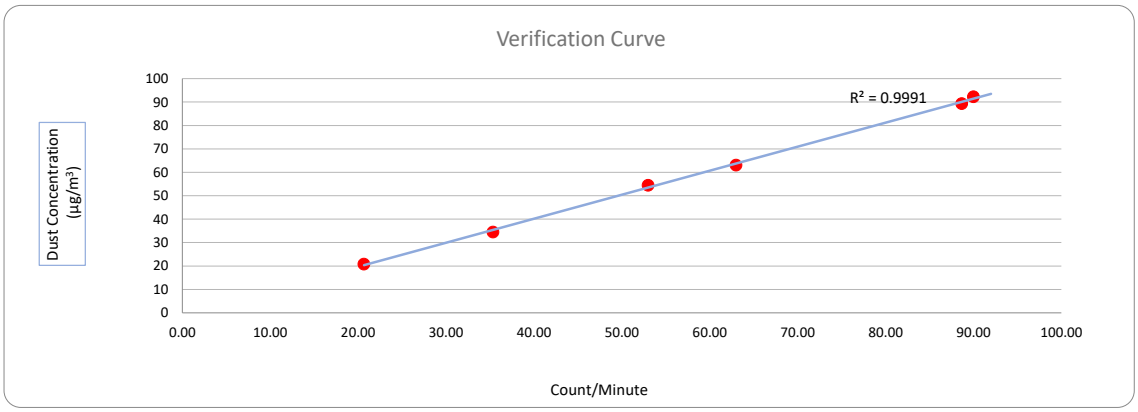
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	16200	90.00	92
2	17/08/2024	11835.91	11838.91	180.00	9540	53.00	54
3	17/08/2024	11838.91	11841.91	180.00	15960	88.67	89
4	18/07/2024	11841.94	11844.94	180.00	6360	35.33	34
5	18/07/2024	11844.94	11847.94	180.00	3720	20.67	21
6	18/07/2024	11847.94	11850.94	180.00	11340	63.00	63

Linear Regression of y on x

Slope, K factor:	**1.0251**	Intercept:	**-0.8237**	*Correlation Coefficient,R:	**0.9996**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Project Technician, Environmental — Date: 23-08-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 23-08-2024

Appendix 2.2 Impact Air Quality Monitoring Data

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM1

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
02/11/2024	Fine	10:44	11:44	12:44	24	16	22	21
07/11/2024	Cloudy	11:04	12:04	13:04	16	24	22	21
12/11/2024	Fine	11:20	12:20	13:20	43	33	32	36
18/11/2024	Cloudy	10:47	11:47	12:47	32	26	28	29
23/11/2024	Cloudy	10:20	11:20	12:20	33	35	43	37
29/11/2024	Fine	16:00	17:00	18:00	20	25	32	26

TSP-1hr		
Average	Max.	Min.
28	43	16

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM2

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
02/11/2024	Fine	10:55	11:55	12:55	23	18	18	20
07/11/2024	Cloudy	11:19	12:19	13:19	26	20	21	22
12/11/2024	Fine	11:06	12:06	13:06	28	26	27	27
18/11/2024	Cloudy	10:39	11:39	12:39	24	22	22	23
23/11/2024	Cloudy	10:57	11:57	12:57	39	43	40	41
29/11/2024	Fine	16:22	17:22	18:22	22	33	36	30

TSP-1hr		
Average	Max.	Min.
27	43	18

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM3

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
02/11/2024	Fine	10:37	11:37	12:37	33	12	20	22
07/11/2024	Cloudy	10:52	11:52	12:52	25	20	29	25
12/11/2024	Fine	10:49	11:49	12:49	22	22	21	22
18/11/2024	Cloudy	10:54	11:54	12:54	21	20	19	20
23/11/2024	Cloudy	11:22	12:22	13:22	41	42	39	41
29/11/2024	Fine	16:34	17:34	18:34	19	33	33	28

TSP-1hr		
Average	Max.	Min.
26	42	12

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM4

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
02/11/2024	Fine	10:08	11:08	12:08	16	24	30	23
07/11/2024	Cloudy	10:20	11:20	12:20	18	21	26	22
12/11/2024	Fine	10:33	11:33	12:33	27	27	28	27
18/11/2024	Cloudy	10:22	11:22	12:22	24	22	20	22
23/11/2024	Cloudy	11:38	12:38	13:38	29	25	30	28
29/11/2024	Fine	15:40	16:40	17:40	25	33	36	31

TSP-1hr		
Average	Max.	Min.
26	36	16

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM5

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
02/11/2024	Fine	10:15	11:15	12:15	42	33	22	32
07/11/2024	Cloudy	10:33	11:33	12:33	28	26	31	28
12/11/2024	Fine	10:25	11:25	12:25	26	27	25	26
18/11/2024	Cloudy	10:17	11:17	12:17	28	24	24	25
23/11/2024	Cloudy	10:45	11:45	12:45	37	36	37	37
29/11/2024	Fine	15:23	16:23	17:23	36	36	37	36

TSP-1hr		
Average	Max.	Min.
31	42	22

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM6

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
02/11/2024	Fine	10:23	11:23	12:23	30	20	24	25
07/11/2024	Cloudy	10:40	11:40	12:40	29	32	33	31
12/11/2024	Fine	10:11	11:11	12:11	32	36	34	34
18/11/2024	Cloudy	10:10	11:10	12:10	22	19	19	20
23/11/2024	Cloudy	10:10	11:10	12:10	30	33	38	34
29/11/2024	Fine	15:02	16:02	17:02	19	19	20	19

TSP-1hr		
Average	Max.	Min.
27	38	19

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM7

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/11/2024	Fine	13:45	14:45	15:45	20	19	18	19
05/11/2024	Cloudy	10:46	11:46	12:46	21	17	17	18
11/11/2024	Cloudy	14:59	15:59	16:59	30	25	25	27
16/11/2024	Cloudy	11:28	12:28	13:28	23	16	29	23
21/11/2024	Cloudy	10:21	11:21	12:21	19	19	20	19
27/11/2024	Fine	15:12	16:12	17:12	21	21	22	21

TSP-1hr		
Average	Max.	Min.
21	30	16

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM8a

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/11/2024	Fine	13:59	14:59	15:59	22	22	29	24
05/11/2024	Cloudy	10:36	11:36	12:36	21	18	17	19
11/11/2024	Cloudy	14:46	15:46	16:46	33	28	27	29
16/11/2024	Cloudy	12:00	13:00	14:00	23	14	20	19
21/11/2024	Cloudy	10:33	11:33	12:33	70	23	21	38
27/11/2024	Fine	15:33	16:33	17:33	22	21	23	22

TSP-1hr		
Average	Max.	Min.
25	70	14

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM10

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/11/2024	Fine	14:11	15:11	16:11	26	28	31	28
05/11/2024	Cloudy	10:23	11:23	12:23	23	23	20	22
11/11/2024	Cloudy	14:39	15:39	16:39	32	30	30	31
16/11/2024	Cloudy	11:20	12:20	13:20	28	20	20	23
21/11/2024	Cloudy	10:12	11:12	12:12	21	21	20	21
27/11/2024	Fine	16:10	17:10	18:10	23	21	22	22

TSP-1hr		
Average	Max.	Min.
24	32	20

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM11

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/11/2024	Fine	14:26	15:26	16:26	22	26	20	23
05/11/2024	Cloudy	10:59	11:59	12:59	21	15	15	17
11/11/2024	Cloudy	15:17	16:17	17:17	25	23	24	24
16/11/2024	Cloudy	11:07	12:07	13:07	18	18	12	16
21/11/2024	Cloudy	10:41	11:41	12:41	24	18	17	20
27/11/2024	Fine	15:44	16:44	17:44	22	22	23	22

TSP-1hr		
Average	Max.	Min.
20	26	12

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM12

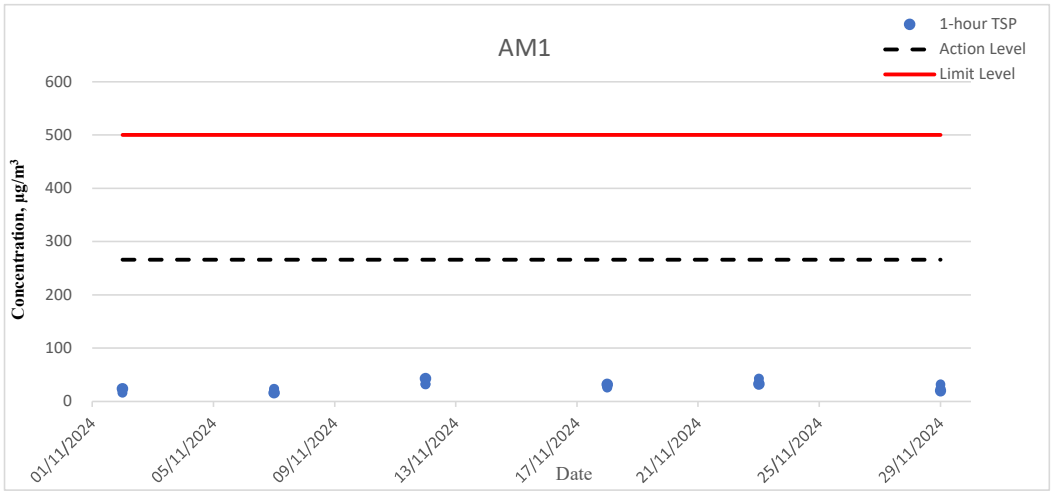
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/11/2024	Fine	14:37	15:37	16:37	19	19	28	22
05/11/2024	Cloudy	11:15	12:15	13:15	24	26	22	24
11/11/2024	Cloudy	15:31	16:31	17:31	34	28	33	32
16/11/2024	Cloudy	10:50	11:50	12:50	23	24	20	22
21/11/2024	Cloudy	10:55	11:55	12:55	21	16	15	17
27/11/2024	Fine	16:22	17:22	18:22	24	27	26	26

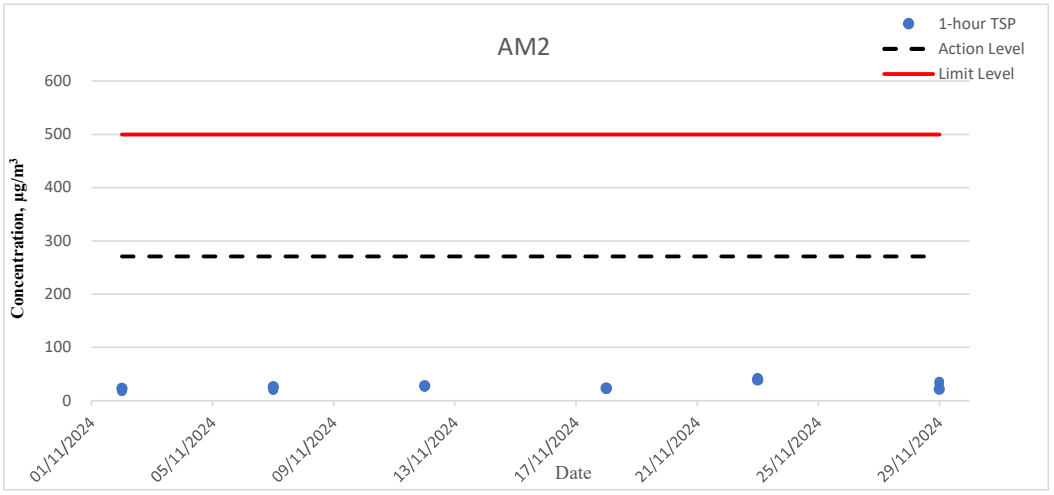
TSP-1hr		
Average	Max.	Min.
24	34	15

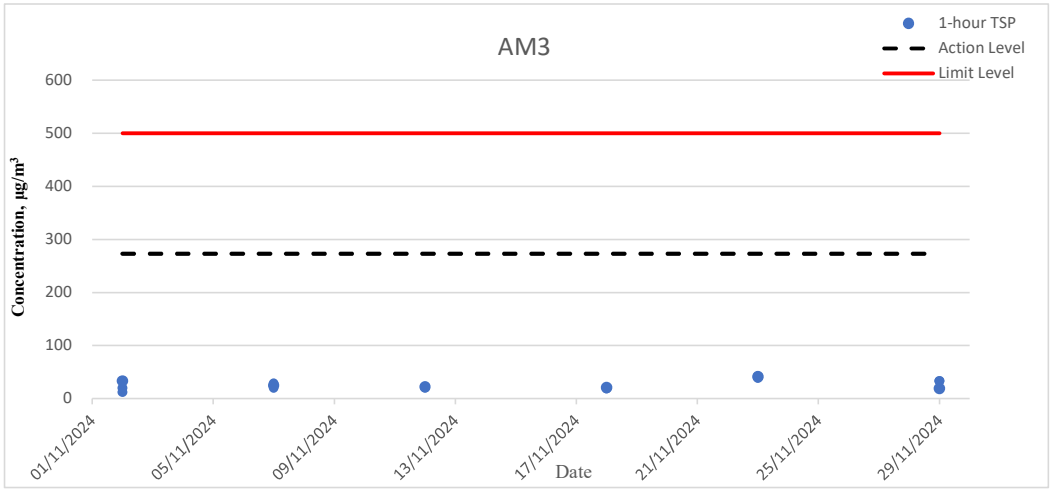
Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM14

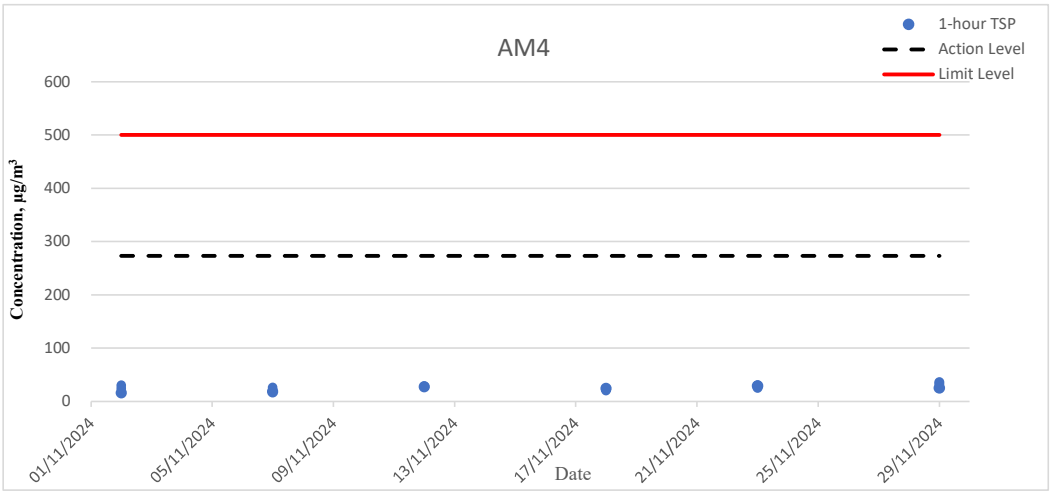
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/11/2024	Fine	14:58	15:58	16:58	20	16	11	16
05/11/2024	Cloudy	10:17	11:17	12:17	20	20	26	22
11/11/2024	Cloudy	15:40	16:40	17:40	30	30	29	30
16/11/2024	Cloudy	11:14	12:14	13:14	26	28	25	26
21/11/2024	Cloudy	11:07	12:07	13:07	24	21	19	21
27/11/2024	Fine	16:41	17:41	18:41	22	24	23	23

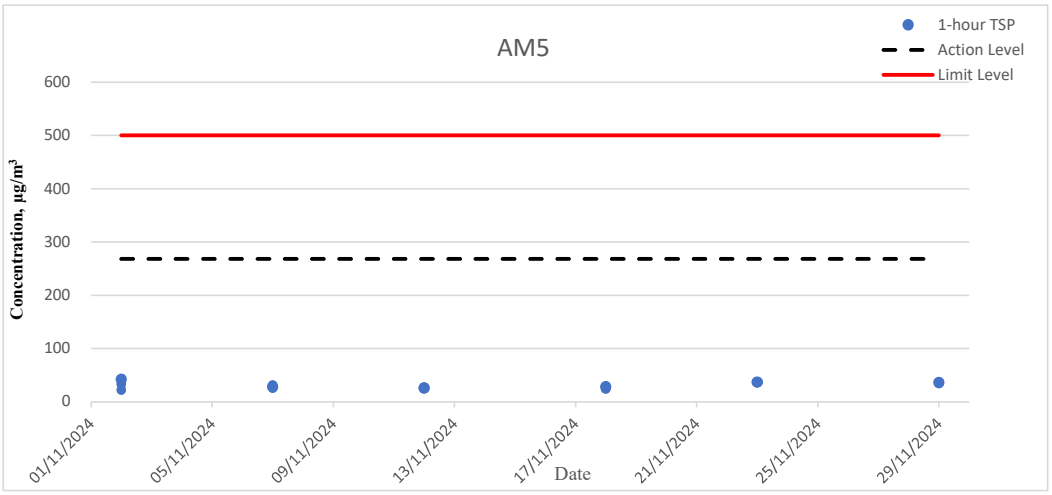
TSP-1hr		
Average	Max.	Min.
23	30	11

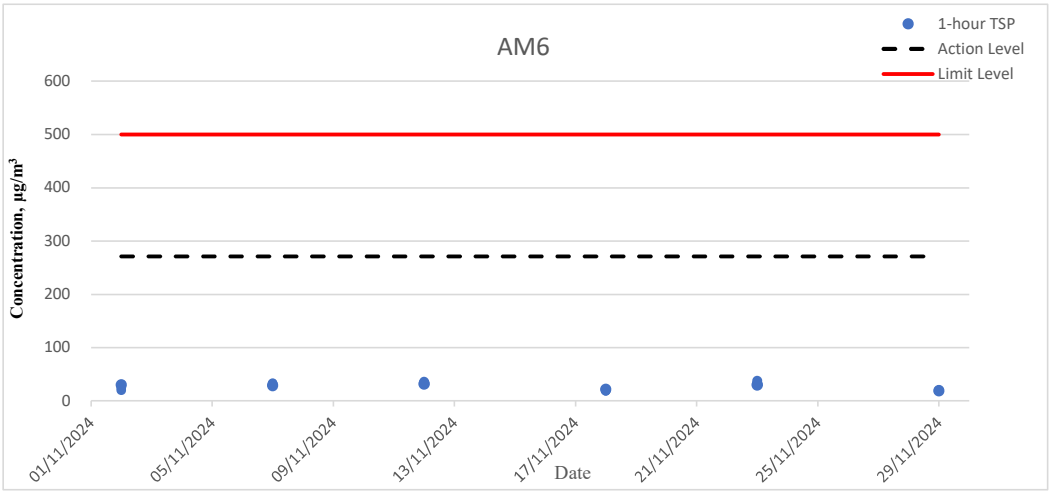

AM1
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date

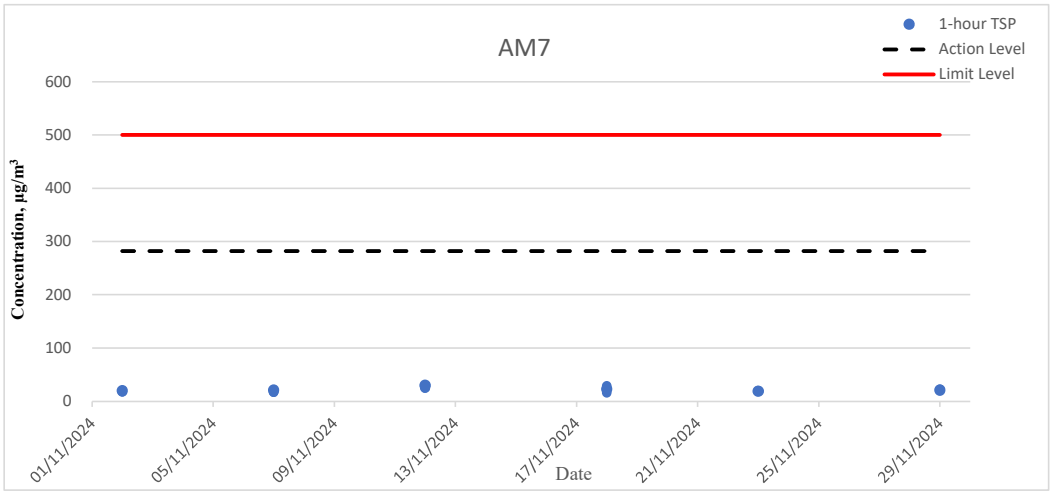

AM2
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date


AM3
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date


AM4
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date


AM5
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date


AM6
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date


AM7
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
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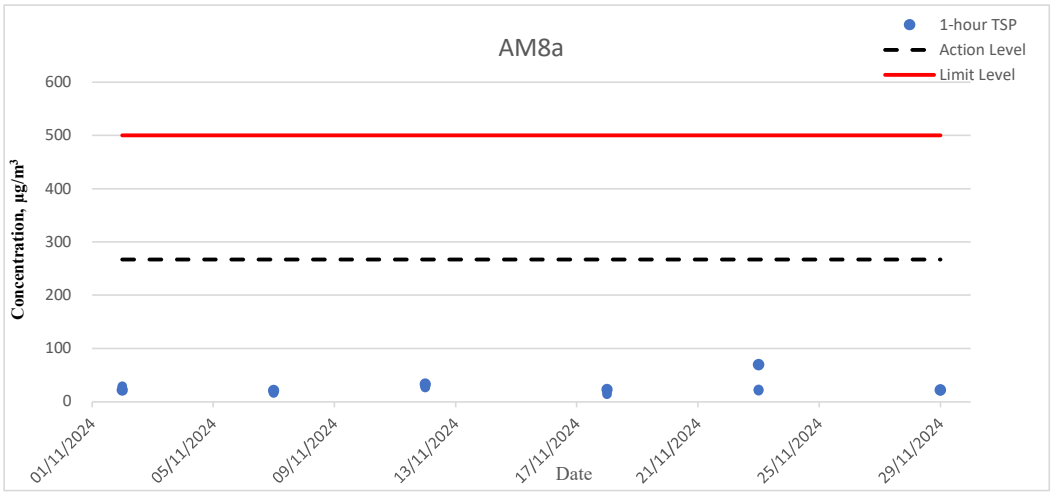
500
400
300
200
100
0
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date


AM8a
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
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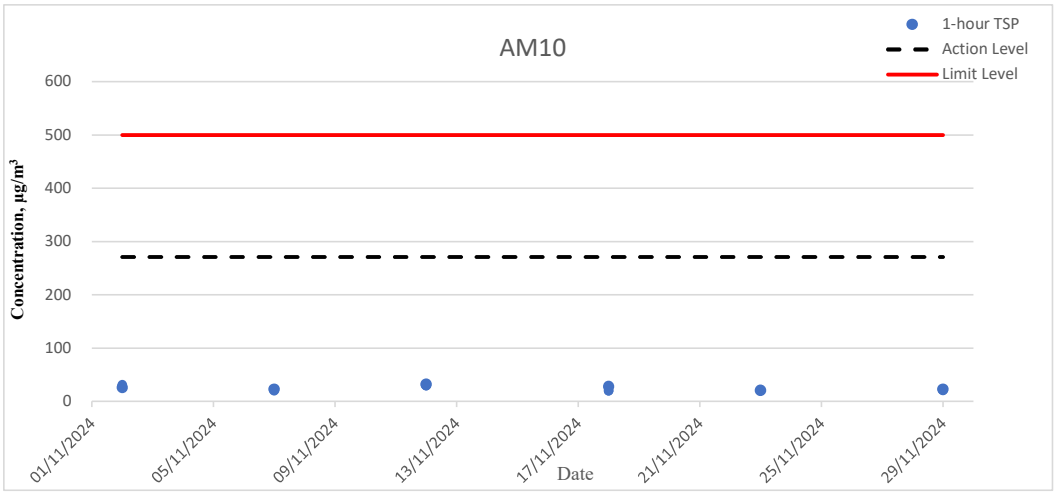
500
400
300
200
100
0
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date


AM10
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
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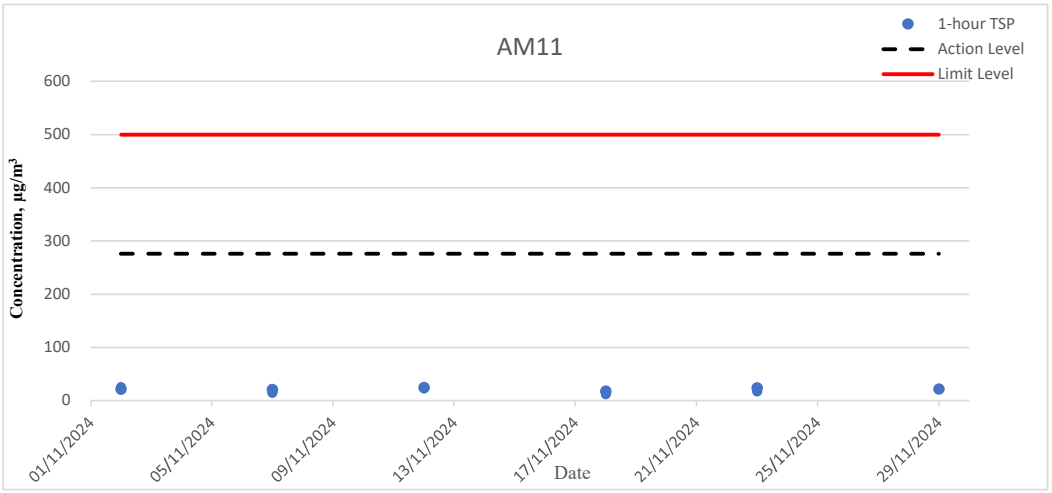
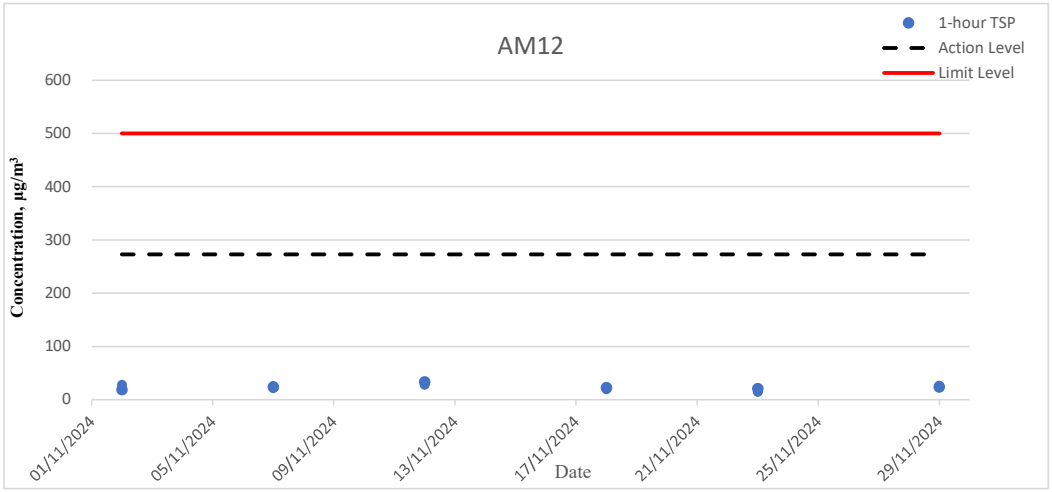
500
400
300
200
100
0
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date


AM11
1-hour TSP
Action Level
Limit Level
600
500
400
300
200
100
0
Concentration, µg/m³
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date


AM12
1-hour TSP
Action Level
Limit Level
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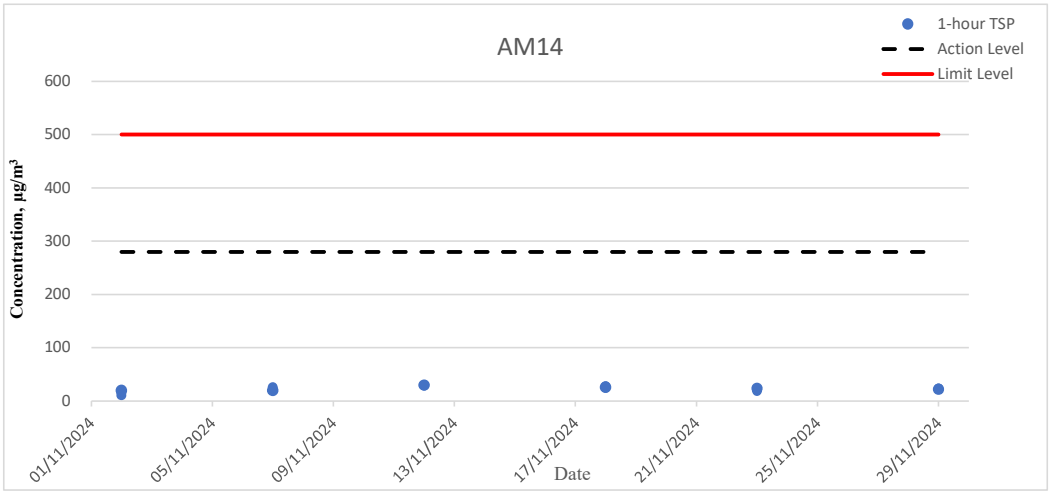
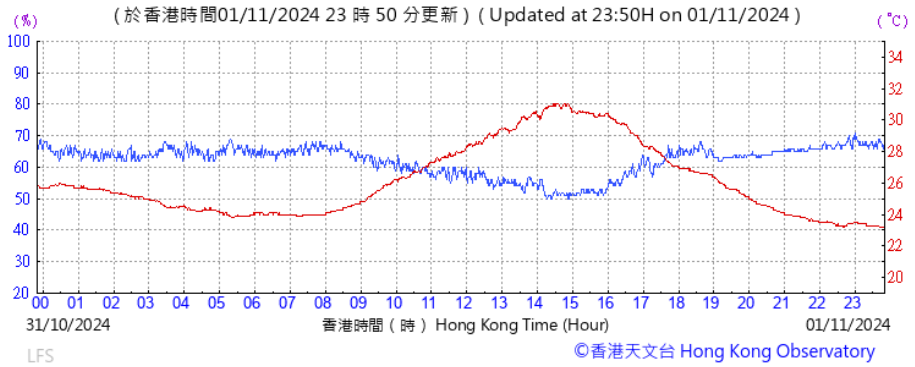
500
400
300
200
100
0
Concentration, µg/m³
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date


AM14
1-hour TSP
Action Level
Limit Level
600
500
400
300
200
100
0
Concentration, µg/m³
01/11/2024
05/11/2024
09/11/2024
13/11/2024
17/11/2024
21/11/2024
25/11/2024
29/11/2024
Date

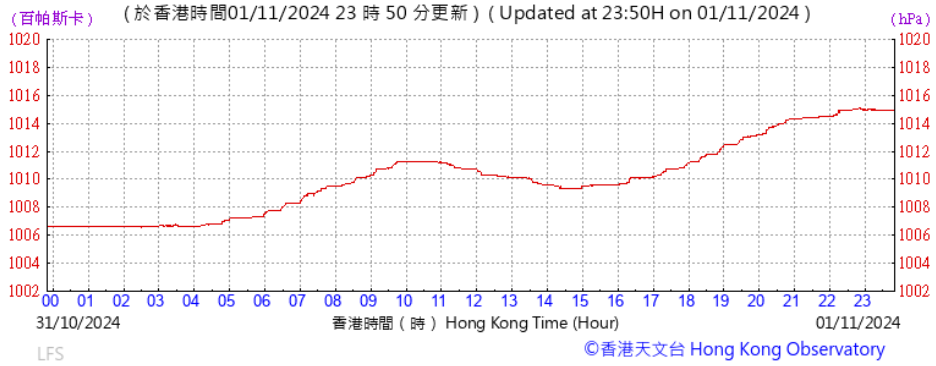
Appendix 2.3 Weather Information during the Reporting Period

01 November 2024

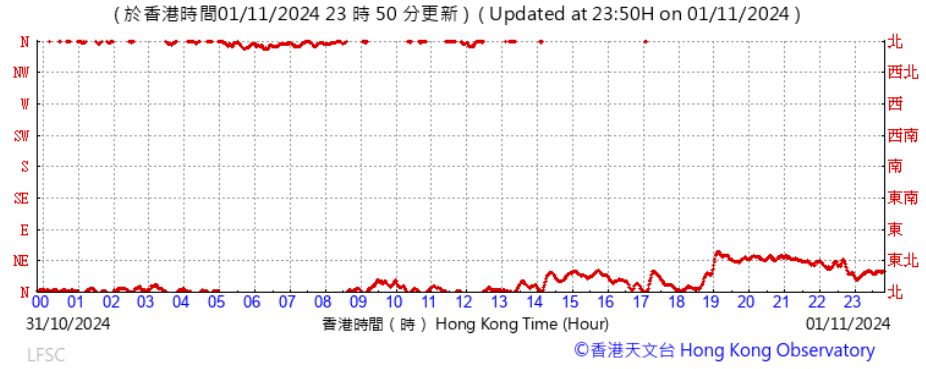
Temperature/humidity:



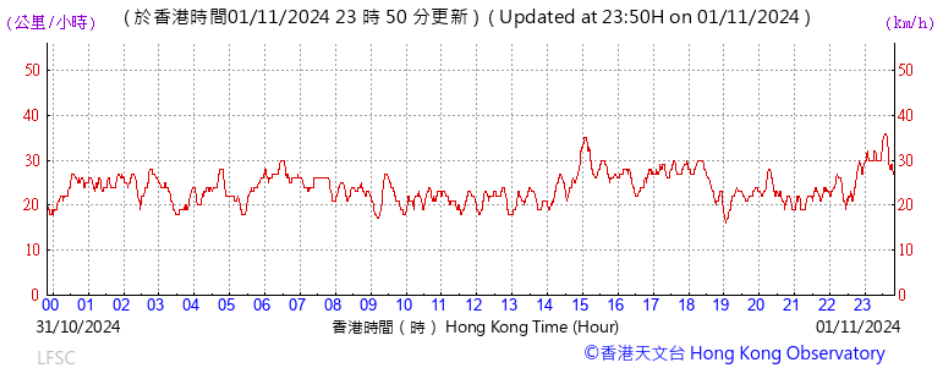
Pressure:



Wind Direction:

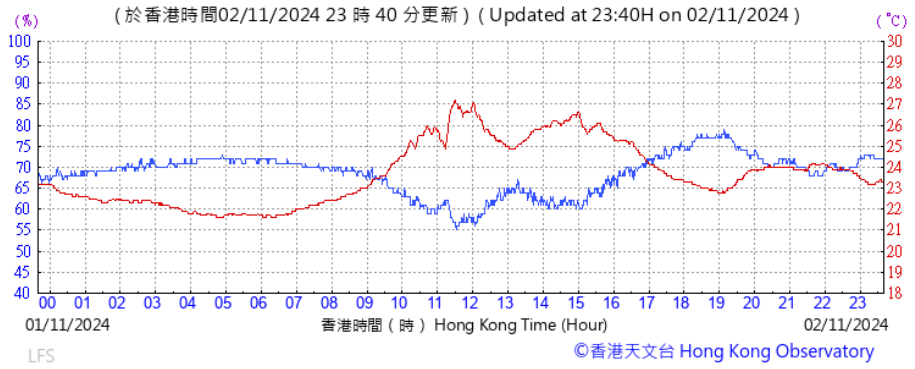


Wind Speed：

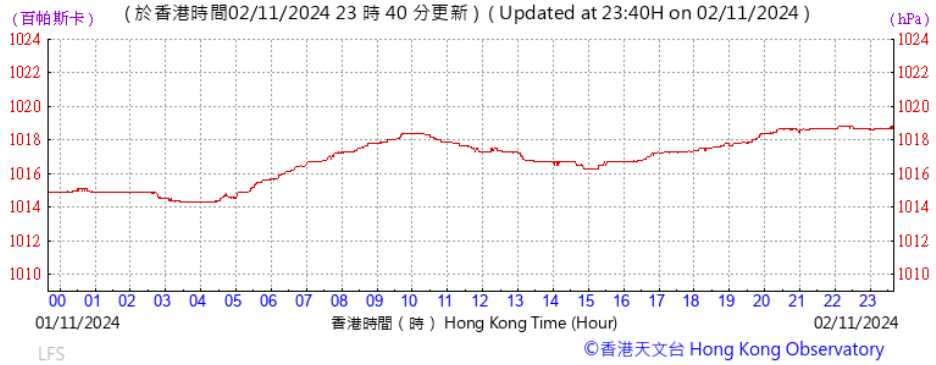


02 November 2024

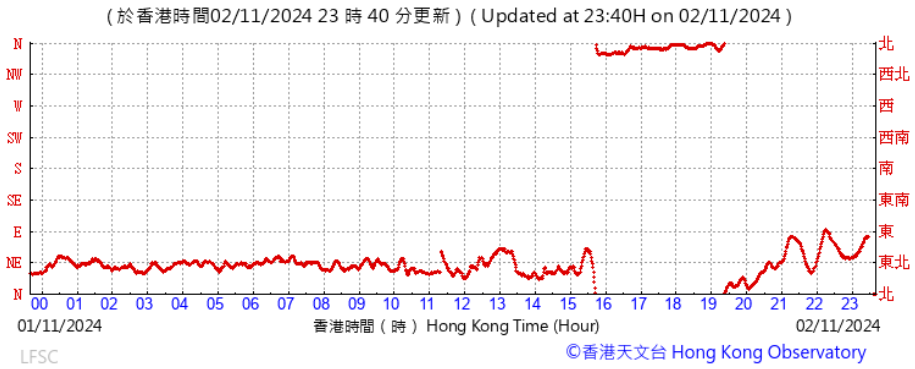
Temperature/humidity:



Pressure:



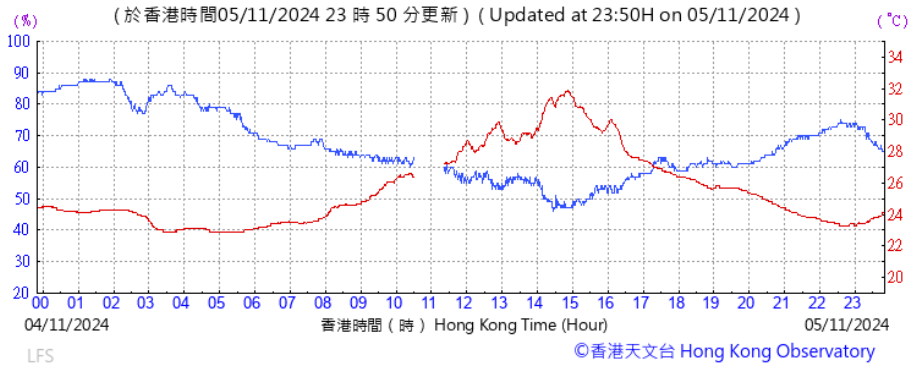
Wind Direction:



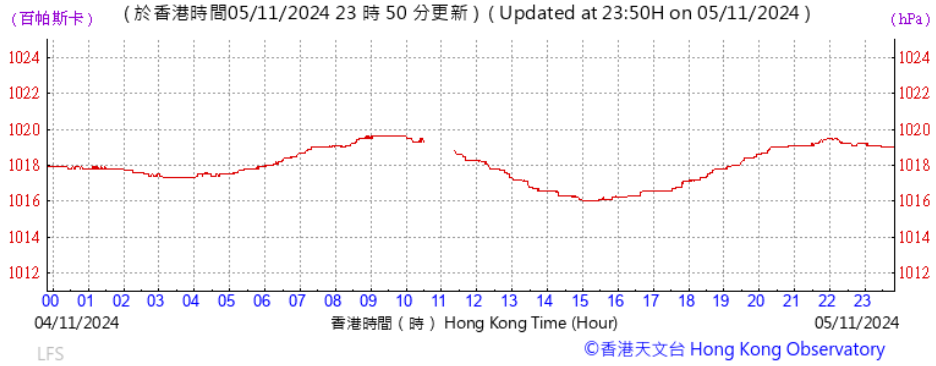
Wind Speed：

05 November 2024

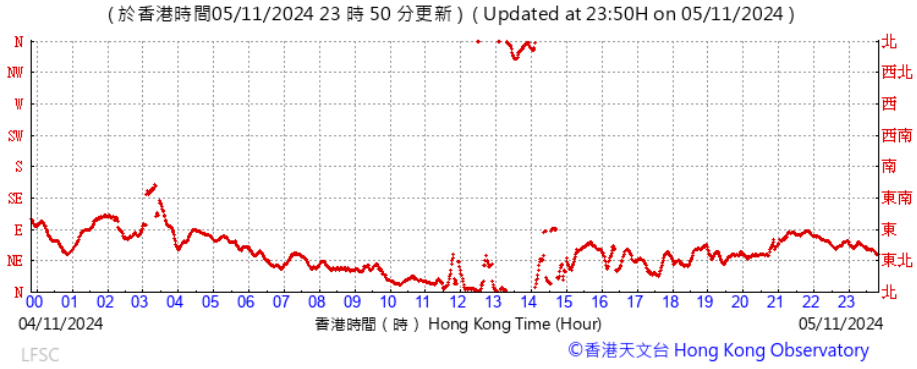
Temperature/humidity:



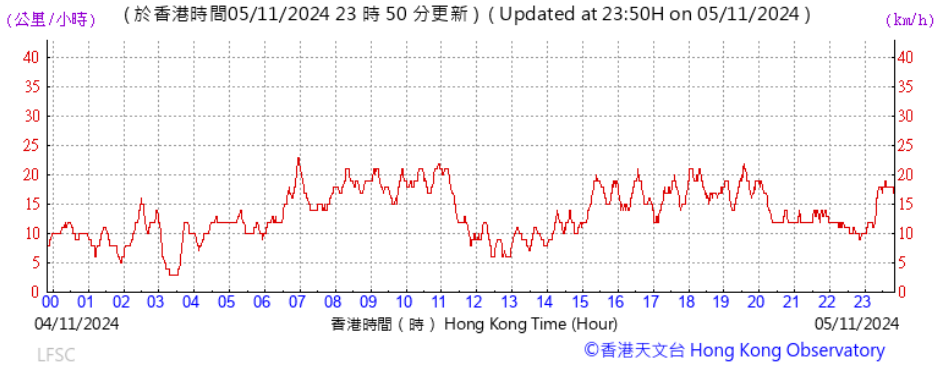
Pressure:



Wind Direction:

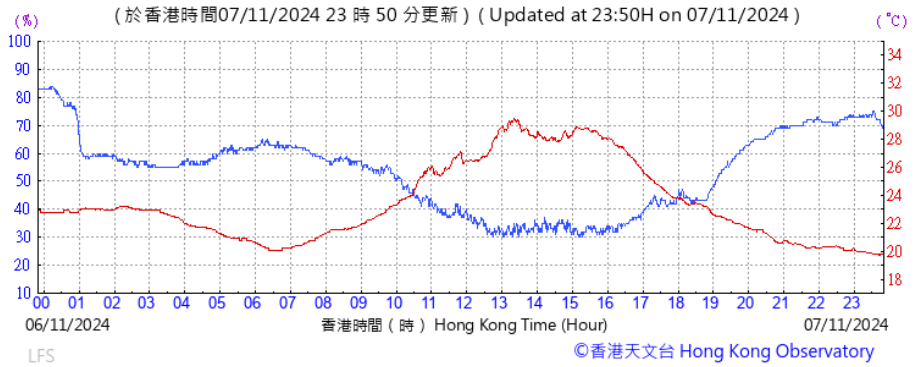


Wind Speed：

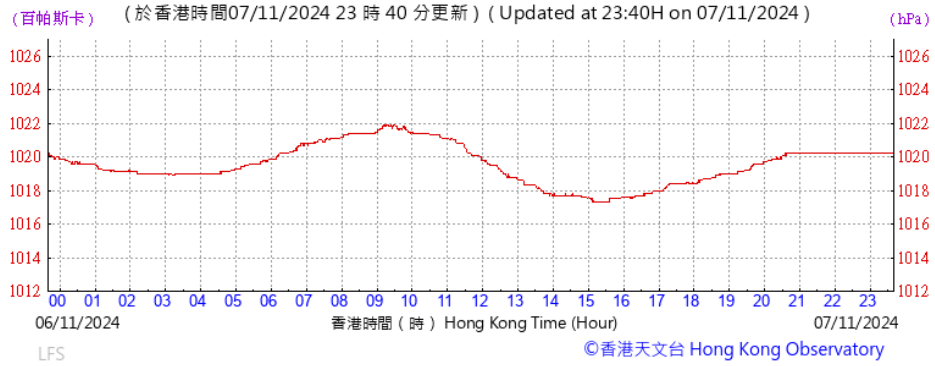


07 November 2024

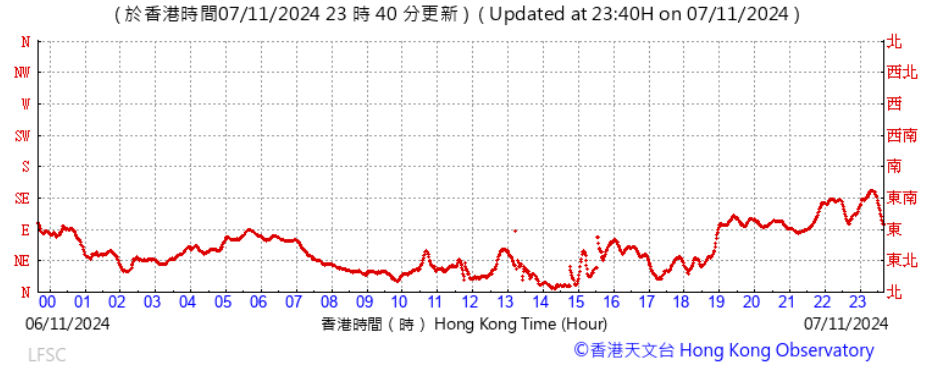
Temperature/humidity:



Pressure:



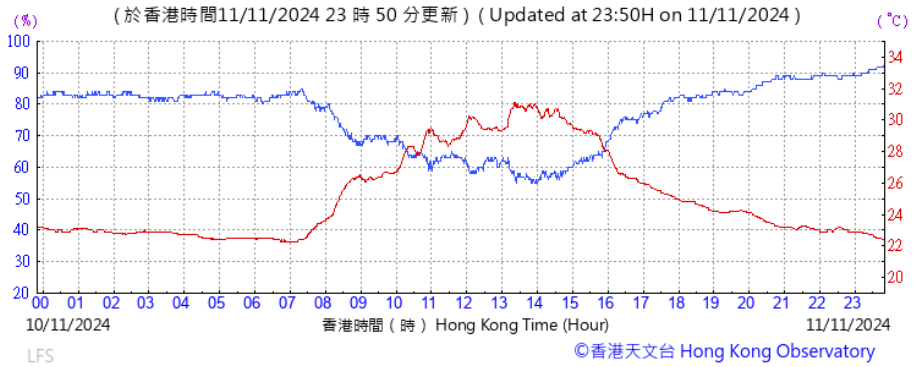
Wind Direction:



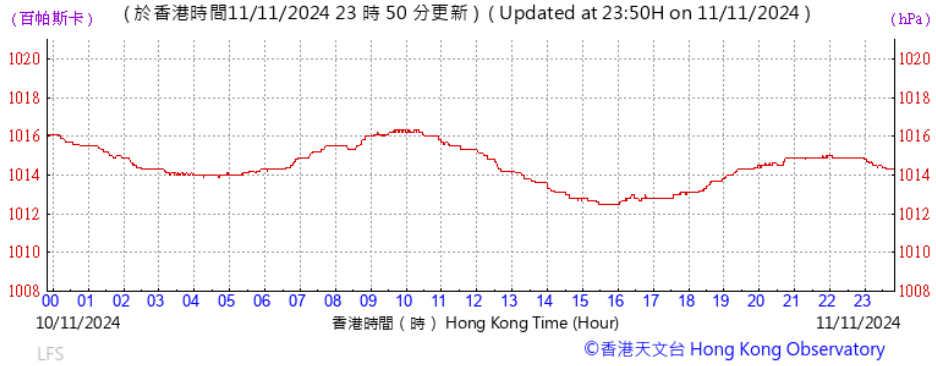
Wind Speed：

11 November 2024

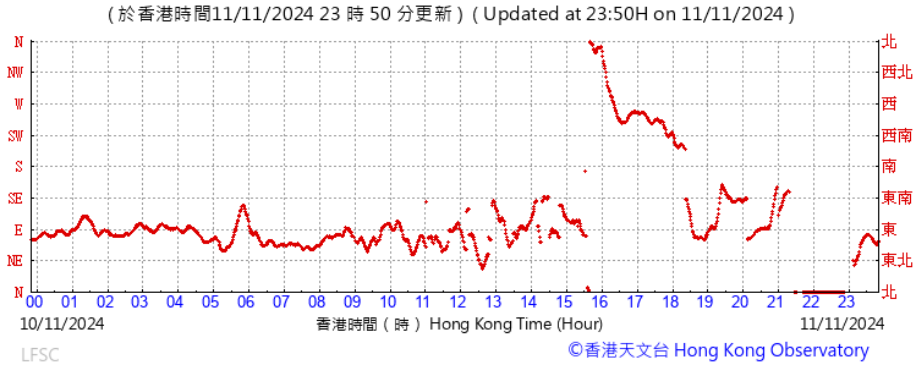
Temperature/humidity:



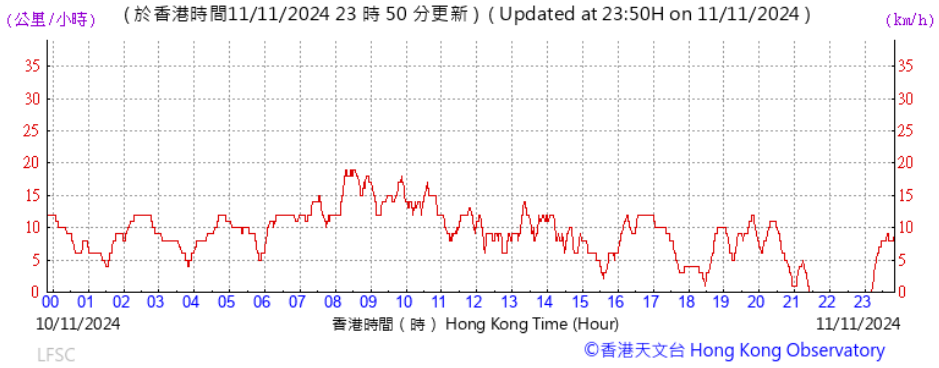
Pressure:



Wind Direction:

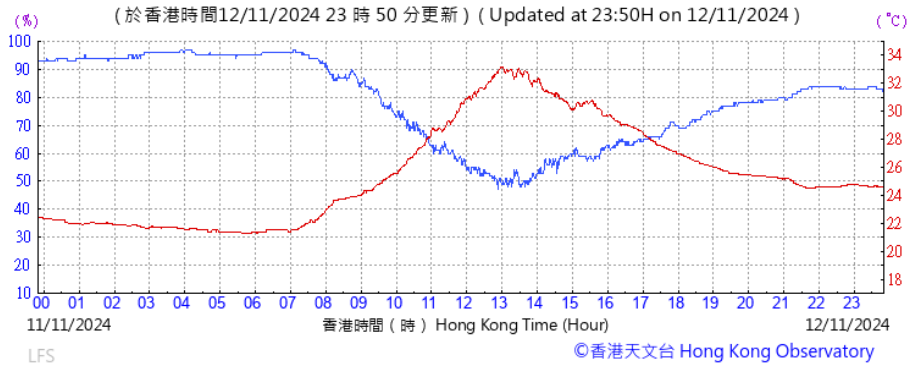


Wind Speed：

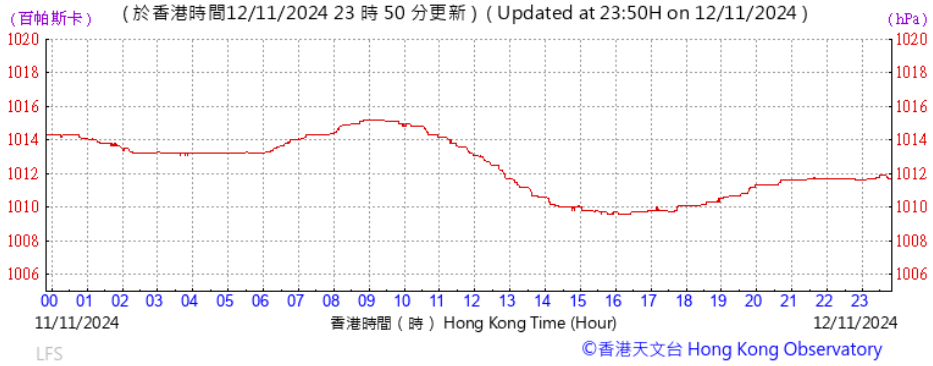


12 November 2024

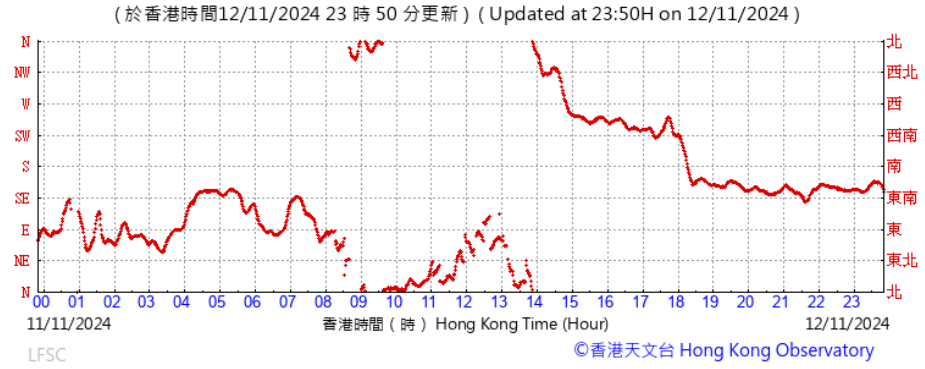
Temperature/humidity:



Pressure:



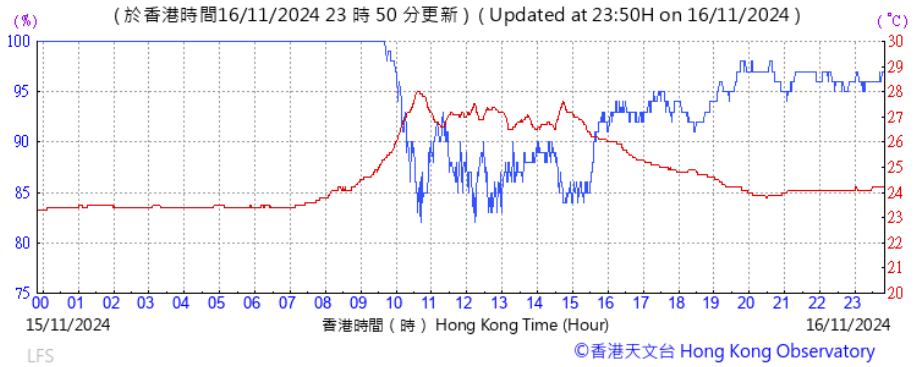
Wind Direction:



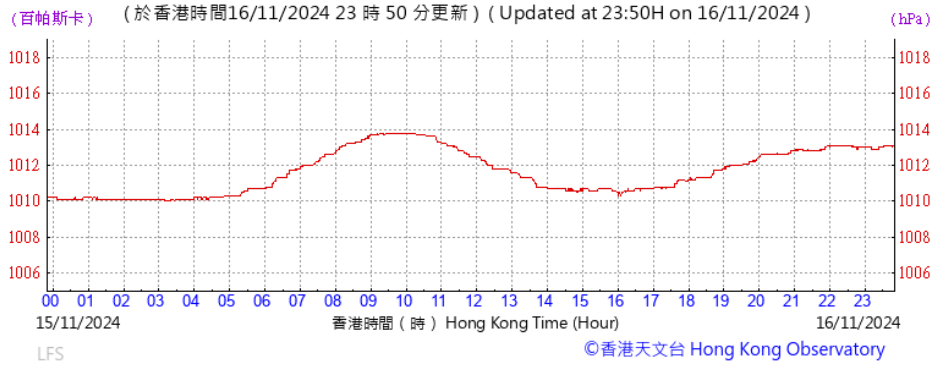
Wind Speed：

16 November 2024

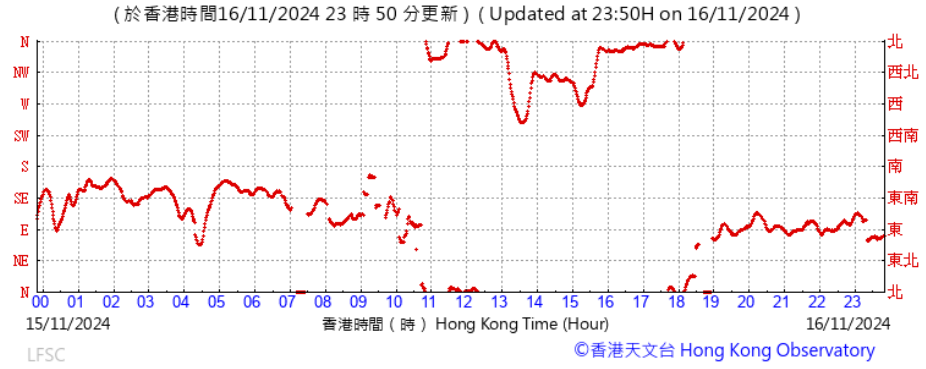
Temperature/humidity:



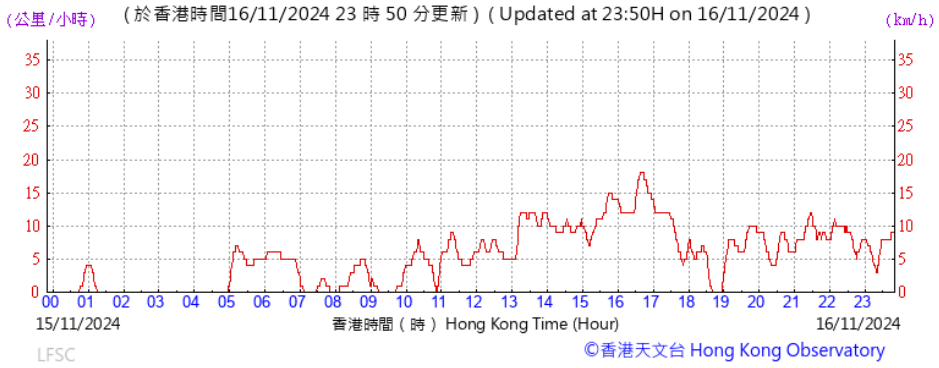
Pressure:



Wind Direction:

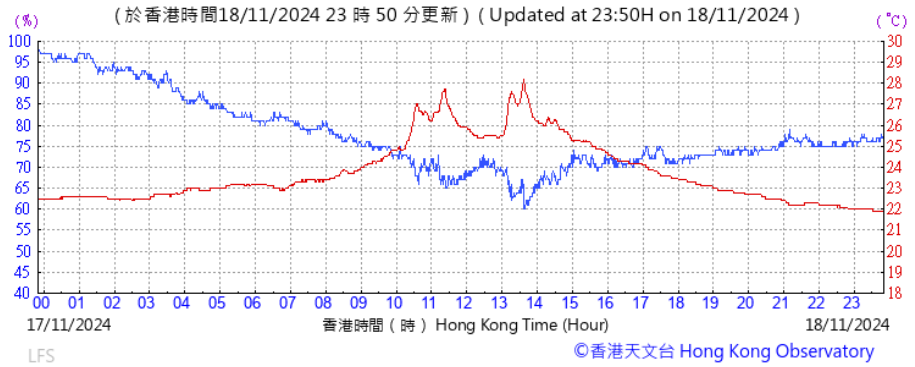


Wind Speed：

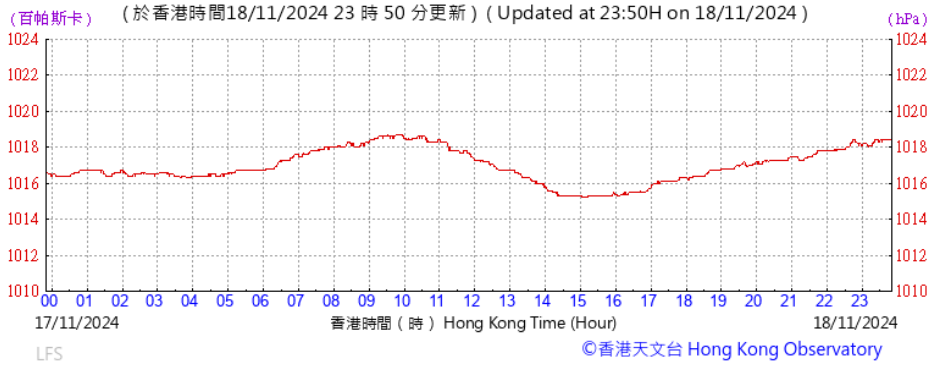


18 November 2024

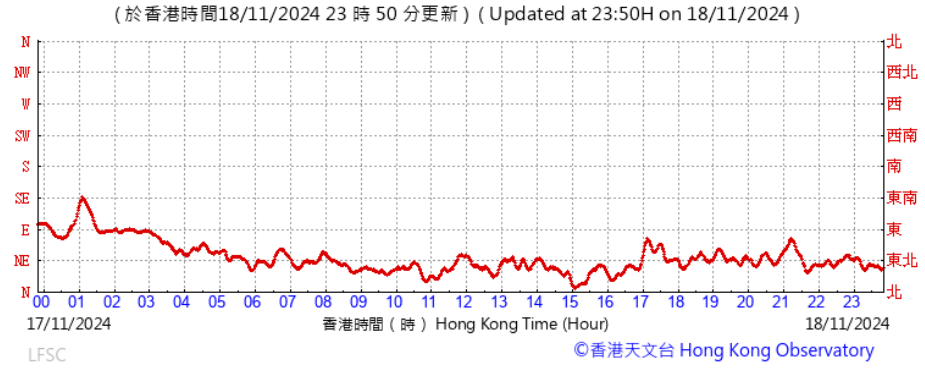
Temperature/humidity:



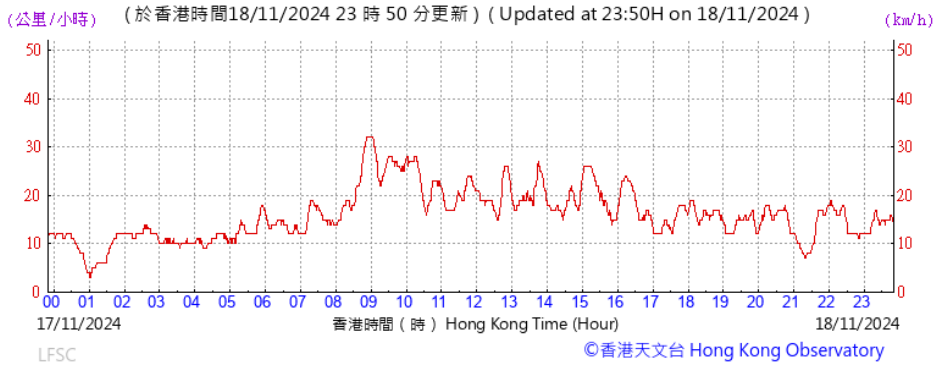
Pressure:



Wind Direction:

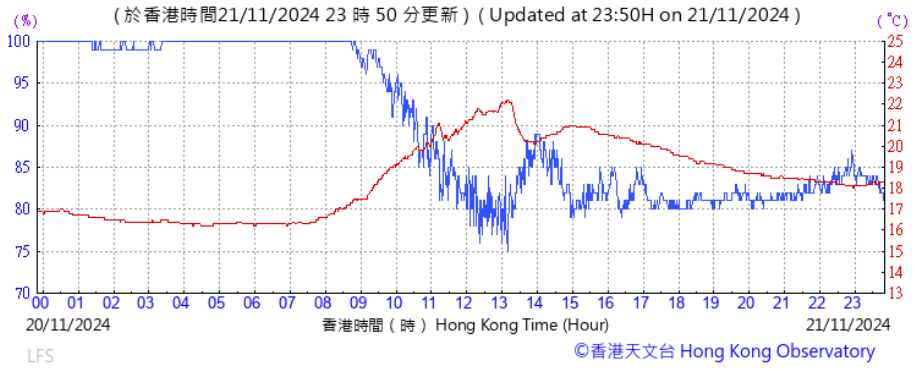


Wind Speed：

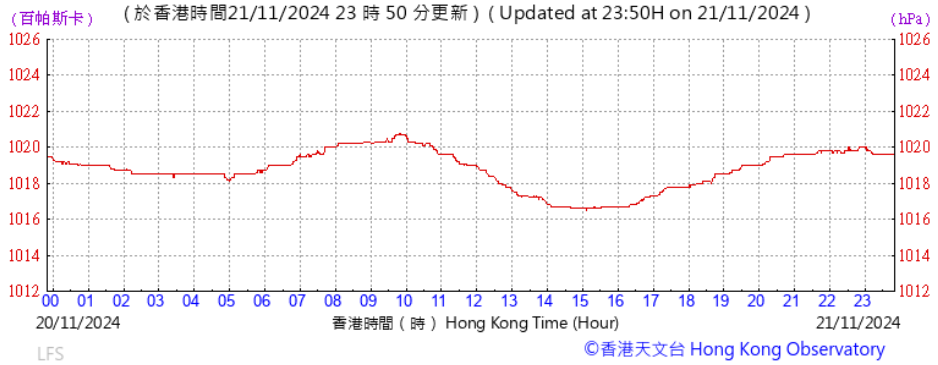


21 November 2024

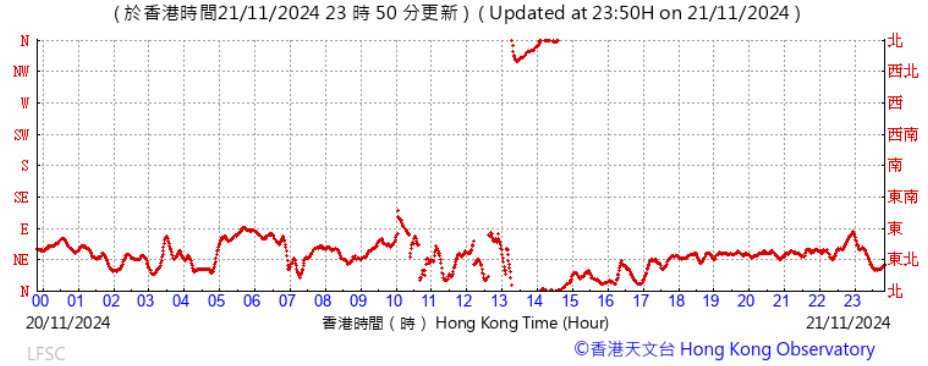
Temperature/humidity:



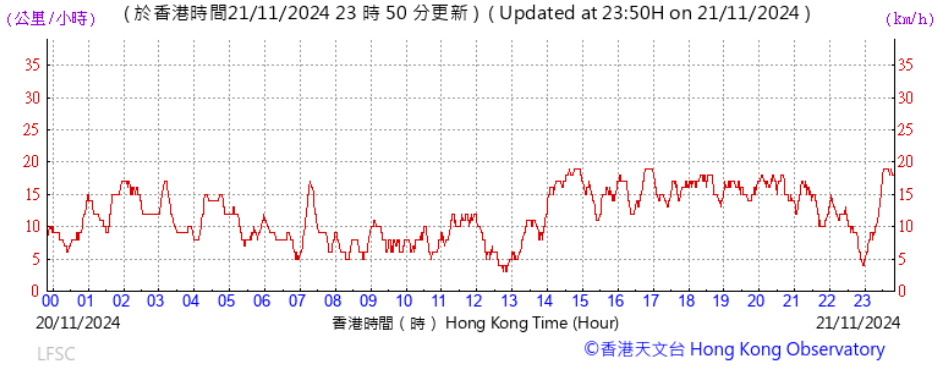
Pressure:



Wind Direction:

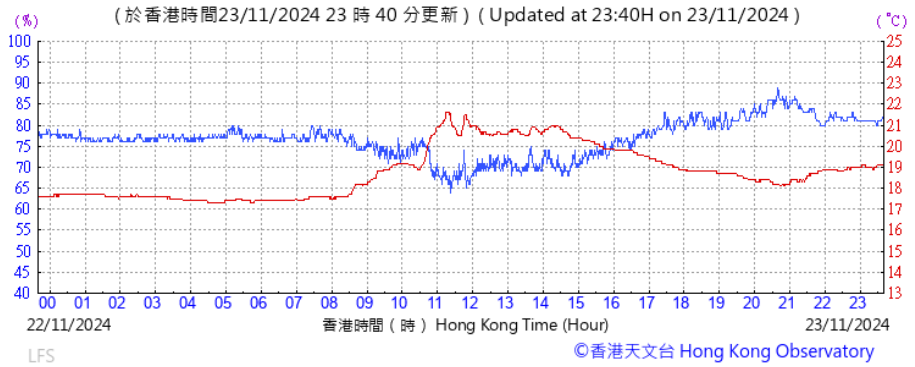


Wind Speed：

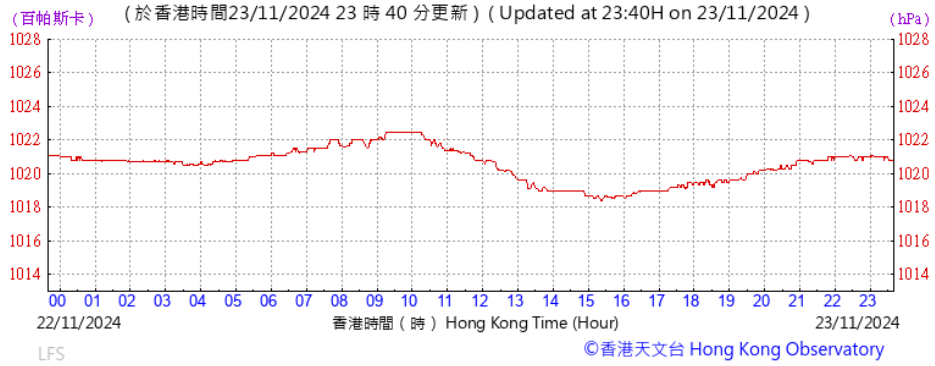


23 November 2024

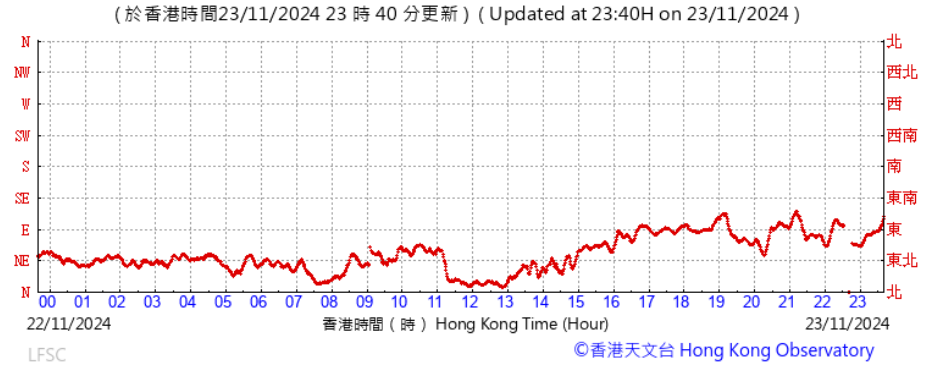
Temperature/humidity:



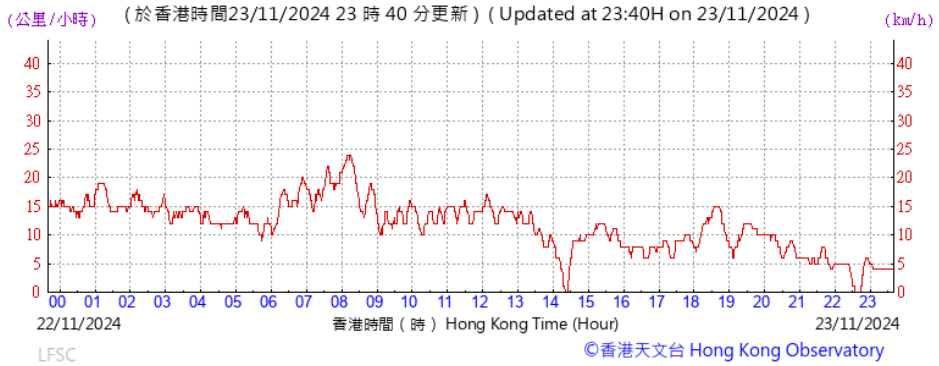
Pressure:



Wind Direction:

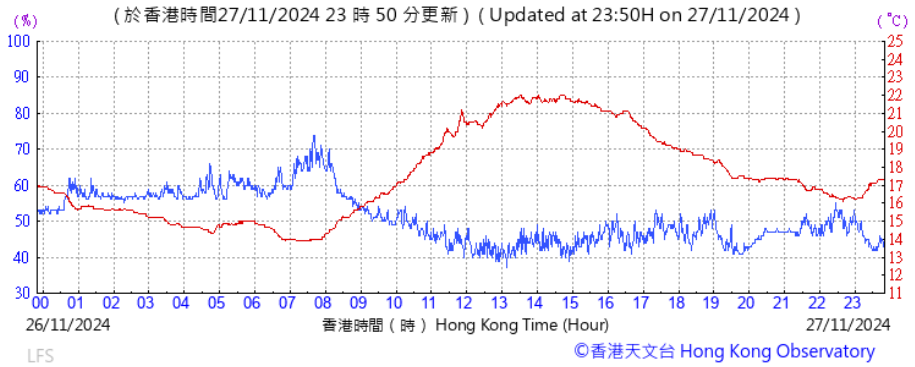


Wind Speed：

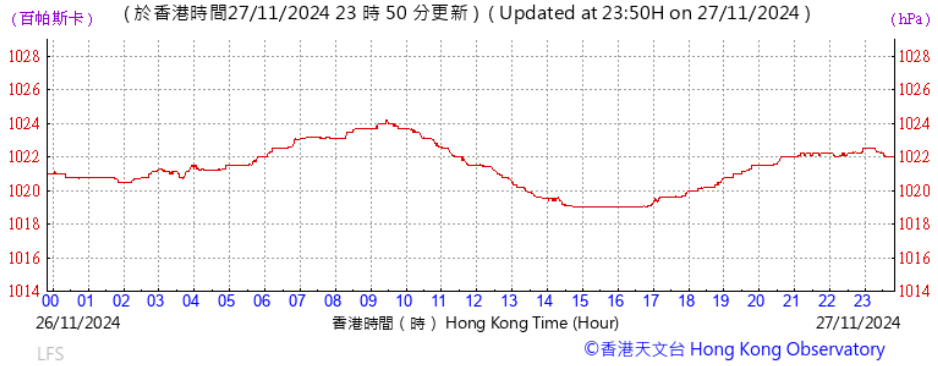


27 November 2024

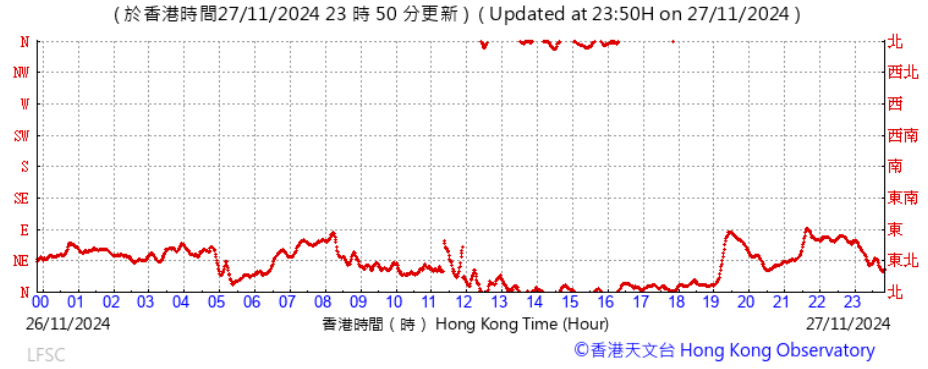
Temperature/humidity:



Pressure:



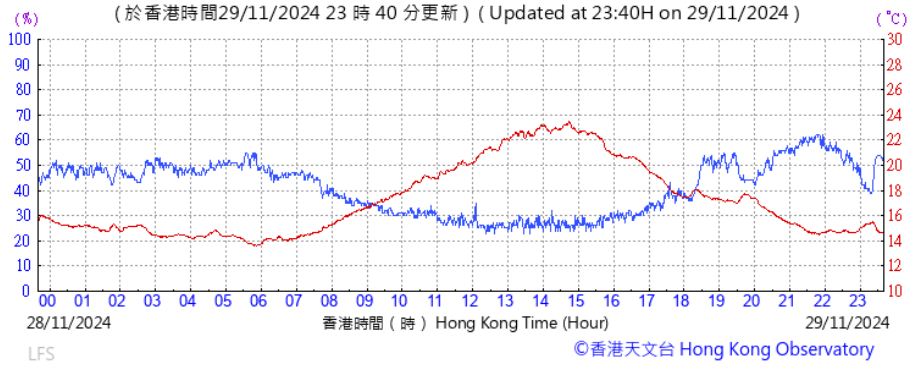
Wind Direction:



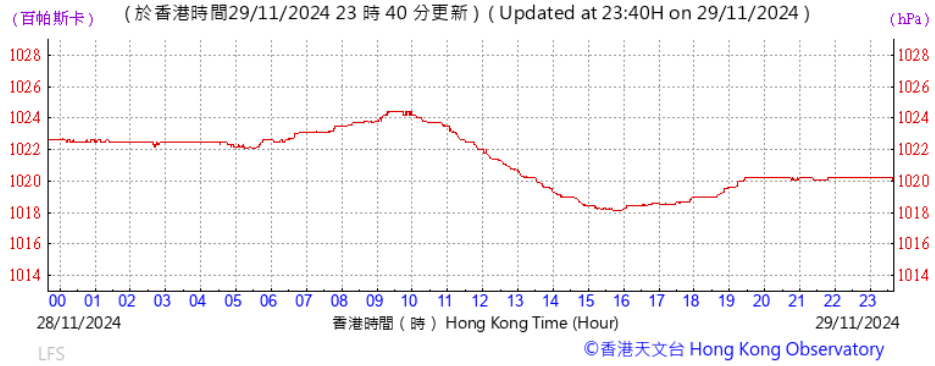
Wind Speed：

29 November 2024

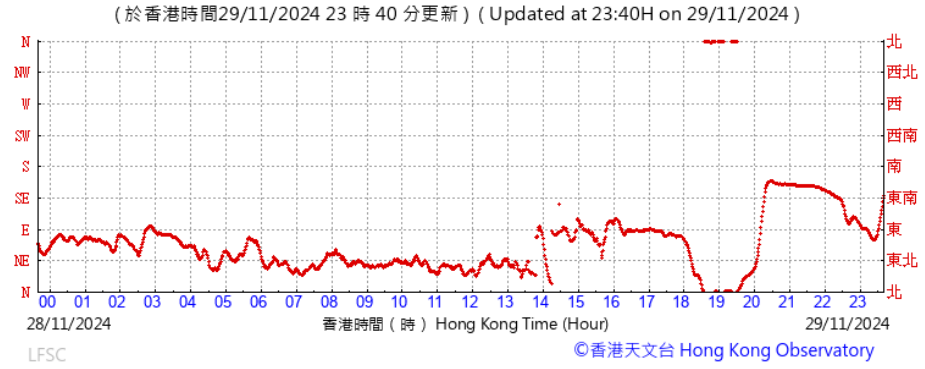
Temperature/humidity:



Pressure:



Wind Direction:



Wind Speed：

Appendix 2.4 Event and Action Plan for Air Quality

Event and Action Plan for Air Quality

Event	Action			
	ET	IEC	ER	Contractor
Action level being exceeded by one sampling	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform Contractor, IEC and ER; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	1. Identify source(s), investigate the causes of exceedance and propose remedial measures; 2. Implement remedial measures; and 3. Amend working methods agreed with the ER as appropriate.
Action level being exceeded by two or more consecutive sampling	1. Identify source; 2. Inform Contractor, IEC and ER; 3. Advise the Contractor and ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with Contractor, IEC and ER; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented by the Contractor; and 4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source and investigate the causes of exceedance; 2. Submit proposals for remedial measures to the ER with a copy to ET and IEC within three working days of notification; 3. Implement the agreed proposals; and 4. Amend proposal as appropriate.

Limit level being exceeded by one sampling	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; and 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; and 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to ER with a copy to ET and IEC within three working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.

Limit level being exceeded by two or more consecutive sampling	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET; 2. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 3. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 4. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise the implementation of remedial measures; and 4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER with a copy to the IEC and ET within three working days of notification; 4. Implement the agreed proposals; 5. Revise and resubmit proposals if problem still not under control; and 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Appendix 3.1 Calibration Certificates of Impact Noise Monitoring Equipment

Certificate of Calibration

for

Description:	***Sound Level Calibrator***
Manufacturer:	***RION***
Type No.:	***NC-75***
Serial No.:	***34724244***

Submitted by:

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

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

☑ **Within**
☐ **Outside**

the allowable tolerance.

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

Date of receipt: 22 July 2024

Date of calibration: 24 July 2024

Date of NEXT calibration: 23 July 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: **24 July 2024**

Certificate No.: APJ23-154-CC002

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

1. *Calibration Precautions:*

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

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

2. *Calibration Specifications:*

Calibration check

3. *Calibration Conditions:*

Air Temperature:	23.4 °C
Air Pressure:	1005 hPa
Relative Humidity:	56.7 %

4. *Calibration Equipment:*

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV230128	HOKLAS

5. *Calibration Results*

5.1 Sound Pressure Level

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	93.9

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

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

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

Certificate of Calibration

for

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

Submitted by:

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

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

☑ **Within**
☐ **Outside**

the allowable tolerance.

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

Date of receipt: 22 July 2024

Date of calibration: 24 July 2024

Date of NEXT calibration: 23 July 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: **24 July 2024**

Certificate No.: APJ23-154-CC003

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

1. *Calibration Precautions:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Specifications:*

Calibration check

3. *Calibration Conditions:*

Air Temperature:	23.4 °C
Air Pressure:	1005 hPa
Relative Humidity:	56.7 %

4. *Calibration Equipment:*

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV230128	HOKLAS

5. *Calibration Results*

5.1 Sound Pressure Level

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

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

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

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

Manufacturer Calibration Certificate

The sound level meter submitted for testing successfully completed the periodic tests of IEC 61672-3. All tests are traceable in accordance with ISO/IEC 17025.

No pattern approval is available for this sound level meter configuration.

Sound Level Meter

Manufacturer	NTi Audio		
Type	XL3	S/N	A3A-01229-F0
Firmware	V1.36		
Microphone Model	M2340		
Preamplifier	MA230	S/N	1794
Microphone Capsule	MC230A	S/N	A28290
Performance class			
Customer Inventory Nr.			

Customer

Date 25 July 2024

Certificate FL-24-115

Results **PASSED**
(for detailed report see next pages)

Operator

Markus Frick

NTi Audio AG • Im alten Riet 102, 9494 Schaan • Liechtenstein
info@nti-audio.com • www.nti-audio.com

Measurement equipment

Test System

Model	NTi Audio FX100, S/No. 11094
Last Calibration	02 July 2024
Cal Certificate	NTI Cal #3393
Next Calibration	02 July 2025

Reference Microphone

Model	MTG MV203 S/N #2435, Mic Capsule MK202 S/No. #7313
Last Calibration	18 November 2022
Cal Certificate	DAkkS-000875
Next Calibration	17 November 2024

Sound Calibrator

Model	Norsonic 1251 S/No. #30930
Reference Level	114 dB
Calibration Frequency	1000 Hz
Last Calibration	08 December 2022
Cal Certificate	METAS #259-19602
Next Calibration	07 December 2024

Environmental conditions

Temperature	25.2 °C
Humidity	48 %
Pressure	965 hPa

Notes

- This calibration certificate documents the traceability to national standards, which realize the units of measurement according to the international Systems of Units (SI).
- The user is obliged to have the object recalibrated at appropriate intervals.
- This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration certificates without signature are not valid.
- All limits listed in this report are acceptance limits in accordance with IEC61672.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with the regulations of the GUM.

NTi AUDIO

1. Indication at the calibration check frequency

The indication of the sound level meter at the calibration check frequency is checked by application of the sound calibrator and adjusted, if necessary, to indicate the required sound level for the environmental conditions under which the tests are performed. All levels in [dB].

Sensitivity before calibration	Sensitivity after calibration	Meas level	Limit -	Limit +	Uncert.	Status
42.9 mV/Pa	44.4 mV/Pa	114	113	115	0.2	Passed

2. Self-generated noise

2.1 Microphone cartridge installed

The self-generated noise is measured in the most-sensitive level range as a time-averaged sound pressure level with frequency-weighting A and an averaging time of 30 seconds. All levels in [dB].

Weight-ing	Meas level	Limit +	Uncert.	Status
A	16.0	19.0	0.1	Passed

2.2 Microphone cartridge replaced by the capsule replacement NTI-K65-15

The self-generated noise is measured in the most-sensitive level range as a time-averaged sound pressure level for all frequency-weightings and an averaging time of 30 seconds. All levels in [dB] referenced to S = 42 mV/Pa.

Weight-ing	Meas level	Limit +	Uncert.	Status
A	10.7	13.0	0.1	Passed
C	12.8	16.0	0.1	Passed
Z	18.6	24.0	0.1	Passed

3. Acoustic signal tests of a frequency weighting

The frequency weighting is tested for frequency-weighting A, using an acoustic test facility. The sound level meter is set to a fast time-weighted sound level in the reference level range. All levels in [dB].

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
125	70.0	69.6	-0.4	-1.0	1.0	0.4	Passed
250	77.1	77.0	-0.1	-1.0	1.0	0.4	Passed
500	82.7	82.7	0.0	-1.0	1.0	0.4	Passed
1000	86.0	86.1	0.1	-0.7	0.7	0.4	Passed
2000	87.2	87.4	0.2	-1.0	1.0	0.4	Passed
4000	87.0	87.1	0.1	-1.0	1.0	0.4	Passed
8000	84.8	84.9	0.1	-2.5	1.5	0.4	Passed

4. Electric signal tests of frequency weightings

Frequency weightings are determined relative to the response at 1 kHz using steady sinusoidal electrical input signals. The sound level meter is set to display F-time-weighted sound level in the reference level range. All available frequency weightings provided in the sound level meter are verified. All levels in [dB].

4.1 A-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	106.2	80.0	0.0	-1.0	1.0	0.1	Passed
125	96.1	79.9	-0.1	-1.0	1.0	0.1	Passed
250	88.6	79.9	-0.1	-1.0	1.0	0.1	Passed
500	83.2	79.9	-0.1	-1.0	1.0	0.1	Passed
2000	78.8	80.0	0.0	-1.0	1.0	0.1	Passed
4000	79.0	79.9	-0.1	-1.0	1.0	0.1	Passed
8000	81.1	79.6	-0.4	-2.5	1.5	0.1	Passed
12500	84.3	79.3	-0.7	-2.5	1.5	0.1	Passed
16000	86.6	78.6	-1.4	-2.5	1.5	0.1	Passed

4.2 C-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	80.8	80.0	0.0	-1.0	1.0	0.1	Passed
125	80.2	80.0	0.0	-1.0	1.0	0.1	Passed
250	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
500	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
2000	80.2	80.0	0.0	-1.0	1.0	0.1	Passed
4000	80.8	79.9	-0.1	-1.0	1.0	0.1	Passed
8000	83.0	79.6	-0.4	-2.5	1.5	0.1	Passed
12500	86.2	79.3	-0.7	-2.5	1.5	0.1	Passed
16000	88.5	78.6	-1.4	-2.5	1.5	0.1	Passed

4.3 Z-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	80.0	79.9	-0.1	-1.0	1.0	0.1	Passed
125	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
250	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
500	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
2000	80.0	79.9	-0.1	-1.0	1.0	0.1	Passed
4000	80.0	79.9	-0.1	-1.0	1.0	0.1	Passed
8000	80.0	79.8	-0.2	-2.5	1.5	0.1	Passed
12500	80.0	79.8	-0.2	-2.5	1.5	0.1	Passed
16000	80.0	79.8	-0.2	-2.5	1.5	0.1	Passed

NTi AUDIO

5. Frequency and time weightings at 1kHz

While injecting a constant steady signal at the reference frequency of 1 kHz the F-time-weighted sound level, S-time-weighted sound level and time-averaged sound level are verified with frequency weighting A. Additionally the F-time-weighted sound level for frequency weightings C and Z is measured. The first measurement serves as reference and differences in the reading with respect to this first one are determined. All levels in [dB].

Level	Exp level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
LAF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LAS	114.0	113.8	-0.2	-0.7	0.7	0.1	Passed
LAeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LCF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LCeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LZF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LZeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed

6. Level linearity on the reference level range

The level linearity on the reference level range is determined by applying steady sinusoidal electrical signals at a frequency of 8 kHz with the sound level meter set for frequency-weighting A and fast time-weighting. All levels in [dB].

Exp abs level	Meas. level	Abs dev	Abs Limit -	Abs Limit +	Exp rel level	Rel dev	Rel Limit -	Rel Limit +	Uncert.	Status
114.0	114.0	0.0	-0.8	0.8	0.0	0.0	-0.3	0.3	0.1	Passed
119.0	119.0	0.0	-0.8	0.8	119.0	0.0	-0.3	0.3	0.1	Passed
124.0	124.0	0.0	-0.8	0.8	124.0	0.0	-0.3	0.3	0.1	Passed
129.0	129.0	0.0	-0.8	0.8	129.0	0.0	-0.3	0.3	0.1	Passed
134.0	134.1	0.1	-0.8	0.8	134.0	0.1	-0.3	0.3	0.1	Passed
135.0	135.1	0.1	-0.8	0.8	135.1	0.0	-0.3	0.3	0.1	Passed
136.0	136.1	0.1	-0.8	0.8	136.1	0.0	-0.3	0.3	0.1	Passed
114.0	114.0	0.0	-0.8	0.8	0.0	0.0	-0.3	0.3	0.1	Passed
109.0	109.0	0.0	-0.8	0.8	109.0	0.0	-0.3	0.3	0.1	Passed
104.0	104.0	0.0	-0.8	0.8	104.0	0.0	-0.3	0.3	0.1	Passed
99.0	99.0	0.0	-0.8	0.8	99.0	0.0	-0.3	0.3	0.1	Passed
94.0	94.0	0.0	-0.8	0.8	94.0	0.0	-0.3	0.3	0.1	Passed
89.0	89.0	0.0	-0.8	0.8	89.0	0.0	-0.3	0.3	0.1	Passed
84.0	84.0	0.0	-0.8	0.8	84.0	0.0	-0.3	0.3	0.1	Passed
79.0	79.0	0.0	-0.8	0.8	79.0	0.0	-0.3	0.3	0.1	Passed
74.0	74.0	0.0	-0.8	0.8	74.0	0.0	-0.3	0.3	0.1	Passed
69.0	69.0	0.0	-0.8	0.8	69.0	0.0	-0.3	0.3	0.1	Passed
64.0	64.0	0.0	-0.8	0.8	64.0	0.0	-0.3	0.3	0.1	Passed
59.0	59.0	0.0	-0.8	0.8	59.0	0.0	-0.3	0.3	0.1	Passed
54.0	54.0	0.0	-0.8	0.8	54.0	0.0	-0.3	0.3	0.1	Passed
49.0	49.0	0.0	-0.8	0.8	49.0	0.0	-0.3	0.3	0.1	Passed
44.0	44.0	0.0	-0.8	0.8	44.0	0.0	-0.3	0.3	0.1	Passed
39.0	39.0	0.0	-0.8	0.8	39.0	0.0	-0.3	0.3	0.1	Passed
34.0	34.0	0.0	-0.8	0.8	34.0	0.0	-0.3	0.3	0.1	Passed
29.0	29.0	0.0	-0.8	0.8	29.0	0.0	-0.3	0.3	0.1	Passed
28.0	28.0	0.0	-0.8	0.8	28.0	0.0	-0.3	0.3	0.1	Passed
27.0	27.1	0.1	-0.8	0.8	27.0	0.1	-0.3	0.3	0.1	Passed
26.0	26.1	0.1	-0.8	0.8	26.1	0.0	-0.3	0.3	0.1	Passed
25.0	25.1	0.1	-0.8	0.8	25.1	0.0	-0.3	0.3	0.1	Passed

7. Level linearity including the level range control

This test is not applicable for a single-range sound level meter.

8. Toneburst response

The response of the sound level meter to short-duration signals is tested on the reference level range with 4 kHz tonebursts that start and stop at zero crossings and are extracted from steady 4 kHz sinusoidal electrical input signals. The sound level meter is set for frequency weighting A. All levels in [dB].

The continuous signal level is 123 dB.

Burst signal	Burst duration [ms]	Exp level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
LAF	200	122.0	121.9	-0.1	-0.5	0.5	0.2	Passed
LAF	2	105.0	104.7	-0.3	-1.5	1.0	0.2	Passed
LAF	0.25	96.0	95.6	-0.4	-3.0	1.0	0.2	Passed
LAS	200	115.6	115.5	-0.1	-0.5	0.5	0.2	Passed
LAS	2	96.0	95.9	-0.1	-3.0	1.0	0.2	Passed
LAeq10s	200	106.0	105.9	-0.1	-0.5	0.5	0.2	Passed
LAeq10s	2	86.0	85.9	-0.1	-0.5	0.5	0.2	Passed
LAeq10s	0.25	77.0	76.6	-0.4	-0.5	0.5	0.2	Passed

9. C-weighted peak sound level

The sound level meter is tested on the least-sensitive level range with fast time weighting and C frequency weighting. The test signals are a single complete cycle of an 8 kHz sinusoid starting and stopping at zero crossings and positive and negative half cycles of a 500 Hz sinusoid that also start and stop at zero crossings. All levels in [dB].

Burst signal	Source level	Exp LCp-LCF	Meas LCp-LCF	Dev	Limit -	Limit +	Uncert.	Status
8kHz	114.0	3.4	3.3	-0.1	-2.0	2.0	0.2	Passed
500Hz +	132.0	2.4	2.2	-0.2	-1.0	1.0	0.2	Passed
500Hz -	132.0	2.4	2.2	-0.2	-1.0	1.0	0.2	Passed

10. Overload Indication

Overload indication is tested on the least-sensitive level range with the sound level meter set to A-weighted, time-averaged sound level. Positive and negative one-half-cycle sinusoidal electrical signals at a frequency of 4 kHz are used. All levels in [dB].

Start level	OV +	OV -	Dev	Limit -	Limit +	Uncert.	Status
136.5	139.1	139.1	0.0	-1.5	1.5	0.3	Passed

Manufacturer Calibration Certificate

The sound level meter submitted for testing successfully completed the periodic tests of IEC 61672-3. All tests are traceable in accordance with ISO/IEC 17025.

No pattern approval is available for this sound level meter configuration.

Sound Level Meter

Manufacturer	NTi Audio		
Type	XL3	S/N	A3A-01230-F0
Firmware	V1.36		
Microphone Model	M2340		
Preamplifier	MA230	S/N	1797
Microphone Capsule	MC230A	S/N	A28287
Performance class			
Customer Inventory Nr.			

Customer

Date 25 July 2024

Certificate FL-24-114

Results **PASSED**
(for detailed report see next pages)

Operator

Markus Frick

NTi Audio AG • Im alten Riet 102, 9494 Schaan • Liechtenstein
info@nti-audio.com • www.nti-audio.com

Measurement equipment

Test System

Model	NTi Audio FX100, S/No. 11094
Last Calibration	02 July 2024
Cal Certificate	NTI Cal #3393
Next Calibration	02 July 2025

Reference Microphone

Model	MTG MV203 S/N #2435, Mic Capsule MK202 S/No. #7313
Last Calibration	18 November 2022
Cal Certificate	DAkkS-000875
Next Calibration	17 November 2024

Sound Calibrator

Model	Norsonic 1251 S/No. #30930
Reference Level	114 dB
Calibration Frequency	1000 Hz
Last Calibration	08 December 2022
Cal Certificate	METAS #259-19602
Next Calibration	07 December 2024

Environmental conditions

Temperature	23.6 °C
Humidity	53 %
Pressure	965 hPa

Notes

- This calibration certificate documents the traceability to national standards, which realize the units of measurement according to the international Systems of Units (SI).
- The user is obliged to have the object recalibrated at appropriate intervals.
- This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration certificates without signature are not valid.
- All limits listed in this report are acceptance limits in accordance with IEC61672.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with the regulations of the GUM.

NTi AUDIO

1. Indication at the calibration check frequency

The indication of the sound level meter at the calibration check frequency is checked by application of the sound calibrator and adjusted, if necessary, to indicate the required sound level for the environmental conditions under which the tests are performed. All levels in [dB].

Sensitivity before calibration	Sensitivity after calibration	Meas level	Limit -	Limit +	Uncert.	Status
42.8 mV/Pa	42.9 mV/Pa	114	113	115	0.2	Passed

2. Self-generated noise

2.1 Microphone cartridge installed

The self-generated noise is measured in the most-sensitive level range as a time-averaged sound pressure level with frequency-weighting A and an averaging time of 30 seconds. All levels in [dB].

Weighting	Meas level	Limit +	Uncert.	Status
A	16.2	19.0	0.1	Passed

2.2 Microphone cartridge replaced by the capsule replacement NTI-K65-15

The self-generated noise is measured in the most-sensitive level range as a time-averaged sound pressure level for all frequency-weightings and an averaging time of 30 seconds. All levels in [dB] referenced to S = 42 mV/Pa.

Weighting	Meas level	Limit +	Uncert.	Status
A	10.7	13.0	0.1	Passed
C	12.7	16.0	0.1	Passed
Z	18.7	24.0	0.1	Passed

3. Acoustic signal tests of a frequency weighting

The frequency weighting is tested for frequency-weighting A, using an acoustic test facility. The sound level meter is set to a fast time-weighted sound level in the reference level range. All levels in [dB].

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
125	70.0	69.6	-0.4	-1.0	1.0	0.4	Passed
250	77.1	76.9	-0.2	-1.0	1.0	0.4	Passed
500	82.7	82.9	0.2	-1.0	1.0	0.4	Passed
1000	86.0	86.2	0.2	-0.7	0.7	0.4	Passed
2000	87.2	87.5	0.3	-1.0	1.0	0.4	Passed
4000	87.0	87.2	0.2	-1.0	1.0	0.4	Passed
8000	84.8	85.0	0.2	-2.5	1.5	0.4	Passed

4. Electric signal tests of frequency weightings

Frequency weightings are determined relative to the response at 1 kHz using steady sinusoidal electrical input signals. The sound level meter is set to display F-time-weighted sound level in the reference level range. All available frequency weightings provided in the sound level meter are verified. All levels in [dB].

4.1 A-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	106.2	80.0	0.0	-1.0	1.0	0.1	Passed
125	96.1	79.9	-0.1	-1.0	1.0	0.1	Passed
250	88.6	79.9	-0.1	-1.0	1.0	0.1	Passed
500	83.2	79.9	-0.1	-1.0	1.0	0.1	Passed
2000	78.8	80.0	0.0	-1.0	1.0	0.1	Passed
4000	79.0	79.9	-0.1	-1.0	1.0	0.1	Passed
8000	81.1	79.6	-0.4	-2.5	1.5	0.1	Passed
12500	84.3	79.3	-0.7	-2.5	1.5	0.1	Passed
16000	86.6	78.6	-1.4	-2.5	1.5	0.1	Passed

4.2 C-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	80.8	80.0	0.0	-1.0	1.0	0.1	Passed
125	80.2	80.0	0.0	-1.0	1.0	0.1	Passed
250	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
500	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
2000	80.2	80.0	0.0	-1.0	1.0	0.1	Passed
4000	80.8	79.9	-0.1	-1.0	1.0	0.1	Passed
8000	83.0	79.6	-0.4	-2.5	1.5	0.1	Passed
12500	86.2	79.3	-0.7	-2.5	1.5	0.1	Passed
16000	88.5	78.6	-1.4	-2.5	1.5	0.1	Passed

4.3 Z-Weighting

Freq. [Hz]	Gen. level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
1000	80.0	80.0	0.0	-0.7	0.7	0.1	Passed
63	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
125	80.0	80.1	0.1	-1.0	1.0	0.1	Passed
250	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
500	80.0	80.1	0.1	-1.0	1.0	0.1	Passed
2000	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
4000	80.0	80.0	0.0	-1.0	1.0	0.1	Passed
8000	80.0	79.9	-0.1	-2.5	1.5	0.1	Passed
12500	80.0	79.9	-0.1	-2.5	1.5	0.1	Passed
16000	80.0	79.9	-0.1	-2.5	1.5	0.1	Passed

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5. Frequency and time weightings at 1kHz

While injecting a constant steady signal at the reference frequency of 1 kHz the F-time-weighted sound level, S-time-weighted sound level and time-averaged sound level are verified with frequency weighting A. Additionally the F-time-weighted sound level for frequency weightings C and Z is measured. The first measurement serves as reference and differences in the reading with respect to this first one are determined. All levels in [dB].

Level	Exp level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
LAF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LAS	114.0	113.8	-0.2	-0.7	0.7	0.1	Passed
LAeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LCF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LCeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LZF	114.0	114.0	0.0	-0.7	0.7	0.1	Passed
LZeq	114.0	114.0	0.0	-0.7	0.7	0.1	Passed

6. Level linearity on the reference level range

The level linearity on the reference level range is determined by applying steady sinusoidal electrical signals at a frequency of 8 kHz with the sound level meter set for frequency-weighting A and fast time-weighting. All levels in [dB].

Exp abs level	Meas. level	Abs dev	Abs Limit -	Abs Limit +	Exp rel level	Rel dev	Rel Limit -	Rel Limit +	Uncert.	Status
114.0	114.0	0.0	-0.8	0.8	0.0	0.0	-0.3	0.3	0.1	Passed
119.0	119.0	0.0	-0.8	0.8	119.0	0.0	-0.3	0.3	0.1	Passed
124.0	124.0	0.0	-0.8	0.8	124.0	0.0	-0.3	0.3	0.1	Passed
129.0	129.0	0.0	-0.8	0.8	129.0	0.0	-0.3	0.3	0.1	Passed
134.0	134.0	0.0	-0.8	0.8	134.0	0.0	-0.3	0.3	0.1	Passed
135.0	135.0	0.0	-0.8	0.8	135.0	0.0	-0.3	0.3	0.1	Passed
136.0	136.0	0.0	-0.8	0.8	136.0	0.0	-0.3	0.3	0.1	Passed
114.0	114.0	0.0	-0.8	0.8	0.0	0.0	-0.3	0.3	0.1	Passed
109.0	109.0	0.0	-0.8	0.8	109.0	0.0	-0.3	0.3	0.1	Passed
104.0	104.0	0.0	-0.8	0.8	104.0	0.0	-0.3	0.3	0.1	Passed
99.0	99.0	0.0	-0.8	0.8	99.0	0.0	-0.3	0.3	0.1	Passed
94.0	94.0	0.0	-0.8	0.8	94.0	0.0	-0.3	0.3	0.1	Passed
89.0	89.0	0.0	-0.8	0.8	89.0	0.0	-0.3	0.3	0.1	Passed
84.0	84.0	0.0	-0.8	0.8	84.0	0.0	-0.3	0.3	0.1	Passed
79.0	79.0	0.0	-0.8	0.8	79.0	0.0	-0.3	0.3	0.1	Passed
74.0	74.0	0.0	-0.8	0.8	74.0	0.0	-0.3	0.3	0.1	Passed
69.0	69.0	0.0	-0.8	0.8	69.0	0.0	-0.3	0.3	0.1	Passed
64.0	64.0	0.0	-0.8	0.8	64.0	0.0	-0.3	0.3	0.1	Passed
59.0	59.0	0.0	-0.8	0.8	59.0	0.0	-0.3	0.3	0.1	Passed
54.0	54.0	0.0	-0.8	0.8	54.0	0.0	-0.3	0.3	0.1	Passed
49.0	49.0	0.0	-0.8	0.8	49.0	0.0	-0.3	0.3	0.1	Passed
44.0	44.0	0.0	-0.8	0.8	44.0	0.0	-0.3	0.3	0.1	Passed
39.0	39.0	0.0	-0.8	0.8	39.0	0.0	-0.3	0.3	0.1	Passed
34.0	34.0	0.0	-0.8	0.8	34.0	0.0	-0.3	0.3	0.1	Passed
29.0	29.1	0.1	-0.8	0.8	29.0	0.1	-0.3	0.3	0.1	Passed
28.0	28.0	0.0	-0.8	0.8	28.1	-0.1	-0.3	0.3	0.1	Passed
27.0	27.1	0.1	-0.8	0.8	27.0	0.1	-0.3	0.3	0.1	Passed
26.0	26.1	0.1	-0.8	0.8	26.1	0.0	-0.3	0.3	0.1	Passed
25.0	25.1	0.1	-0.8	0.8	25.1	0.0	-0.3	0.3	0.1	Passed

7. Level linearity including the level range control

This test is not applicable for a single-range sound level meter.

8. Toneburst response

The response of the sound level meter to short-duration signals is tested on the reference level range with 4 kHz tonebursts that start and stop at zero crossings and are extracted from steady 4 kHz sinusoidal electrical input signals. The sound level meter is set for frequency weighting A. All levels in [dB].

The continuous signal level is 123 dB.

Burst signal	Burst duration [ms]	Exp level	Meas level	Dev	Limit -	Limit +	Uncert.	Status
LAF	200	122.0	121.9	-0.1	-0.5	0.5	0.2	Passed
LAF	2	105.0	104.8	-0.2	-1.5	1.0	0.2	Passed
LAF	0.25	96.0	95.6	-0.4	-3.0	1.0	0.2	Passed
LAS	200	115.6	115.5	-0.1	-0.5	0.5	0.2	Passed
LAS	2	96.0	95.9	-0.1	-3.0	1.0	0.2	Passed
LAeq10s	200	106.0	105.8	-0.2	-0.5	0.5	0.2	Passed
LAeq10s	2	86.0	85.9	-0.1	-0.5	0.5	0.2	Passed
LAeq10s	0.25	77.0	76.8	-0.2	-0.5	0.5	0.2	Passed

9. C-weighted peak sound level

The sound level meter is tested on the least-sensitive level range with fast time weighting and C frequency weighting. The test signals are a single complete cycle of an 8 kHz sinusoid starting and stopping at zero crossings and positive and negative half cycles of a 500 Hz sinusoid that also start and stop at zero crossings. All levels in [dB].

Burst signal	Source level	Exp LCp-LCF	Meas LCp-LCF	Dev	Limit -	Limit +	Uncert.	Status
8kHz	114.0	3.4	3.2	-0.2	-2.0	2.0	0.2	Passed
500Hz +	132.0	2.4	2.2	-0.2	-1.0	1.0	0.2	Passed
500Hz -	132.0	2.4	2.2	-0.2	-1.0	1.0	0.2	Passed

10. Overload Indication

Overload indication is tested on the least-sensitive level range with the sound level meter set to A-weighted, time-averaged sound level. Positive and negative one-half-cycle sinusoidal electrical signals at a frequency of 4 kHz are used. All levels in [dB].

Start level	OV +	OV -	Dev	Limit -	Limit +	Uncert.	Status
136.8	139.4	139.5	0.1	-1.5	1.5	0.3	Passed

Appendix 3.2 Impact Noise Monitoring Data

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Noise Monitoring Result

Noise Level Results at CM1

Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	12:00	-	12:30	Fine	53.6	56.6	58.7	measured level ≤ baseline level	55.1	50.6
05/11/2024	11:26	-	11:56	Cloudy	57.1	60.1	58.7	54.7	59.3	52.6
16/11/2024	11:33	-	12:03	Cloudy	54.6	57.6	58.7	measured level ≤ baseline level	57.9	53.4
19/11/2024	10:00	-	10:30	Cloudy	55.0	58.0	58.7	measured level ≤ baseline level	56.2	53.2
26/11/2024	13:59	-	14:29	Fine	57.0	60.0	58.7	54.3	59.6	54.3
							Average Construction Noise Level	56.2		

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
60.1	56.6

Noise Level Results at CM2

Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	12:00	-	12:30	Fine	62.9	65.9	64.2	61.0	65.2	60.3
05/11/2024	12:52	-	13:22	Cloudy	70.2	73.2	64.2	72.7	71.6	68.9
16/11/2024	12:52	-	13:22	Cloudy	71.1	74.1	64.2	73.6	73.2	67.3
19/11/2024	11:12	-	11:42	Cloudy	71.2	74.2	64.2	73.7	72.3	67.2
26/11/2024	12:19	-	12:49	Fine	71.6	74.6	64.2	74.2	73.1	67.6
							Average Construction Noise Level	71.0		

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
74.6	65.9

Noise Level Results at CM3

Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	13:20	-	13:50	Fine	69.6	72.6	71.5	66.0	73.1	66.2
05/11/2024	12:15	-	12:45	Cloudy	64.5	67.5	71.5	measured level ≤ baseline level	68.1	62.1
16/11/2024	12:20	-	12:50	Cloudy	65.2	68.2	71.5	measured level ≤ baseline level	68.9	64.8
19/11/2024	10:47	-	11:17	Cloudy	66.4	69.4	71.5	measured level ≤ baseline level	70.6	63.7
26/11/2024	11:26	-	11:56	Fine	67.3	70.3	71.5	measured level ≤ baseline level	71.4	65.7
							Average Construction Noise Level	68.3		

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
72.6	67.5

Noise Level Results at CM4a

Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	12:40	-	13:10	Fine	60.9	63.9	75.0	measured level ≤ baseline level	65.2	57.8
05/11/2024	13:42	-	14:12	Cloudy	65.7	68.7	75.0	measured level ≤ baseline level	67.8	62.3
16/11/2024	13:36	-	14:06	Cloudy	66.4	69.4	75.0	measured level ≤ baseline level	69.1	64.5
19/11/2024	11:46	-	12:16	Cloudy	61.5	64.5	75.0	measured level ≤ baseline level	63.5	59.8
26/11/2024	13:00	-	13:30	Fine	71.8	74.8	75.0	measured level ≤ baseline level	73.5	70.6
							Average Construction Noise Level	68.3		

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
74.8	63.9

Noise Level Results at CM10

Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	14:20	-	14:50	Fine	56.0	-	60.9	measured level ≤ baseline level	58.6	55.0
05/11/2024	11:19	-	11:49	Cloudy	58.6	-	60.9	measured level ≤ baseline level	61.2	56.1
16/11/2024	10:41	-	11:11	Cloudy	61.1	-	60.9	48.3	63.5	57.4
19/11/2024	10:15	-	10:45	Cloudy	61.7	-	60.9	54.0	64.1	58.1
26/11/2024	10:23	-	10:53	Fine	61.2	-	60.9	48.7	64.0	59.0
							Average Construction Noise Level	53.1		

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
61.7	56.0

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Noise Monitoring Result

Noise Level Results at CM13

Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	13:50	-	14:20	Fine	49.7	-	54.4	measured level ≤ baseline level	52.6	44.6
05/11/2024	14:58	-	15:28	Cloudy	62.9	-	54.4	62.2	64.3	58.7
16/11/2024	11:26	-	11:56	Cloudy	51.3	-	54.4	measured level ≤ baseline level	52.6	48.1
19/11/2024	10:59	-	11:29	Cloudy	51.8	-	54.4	measured level ≤ baseline level	54.6	47.9
26/11/2024	11:05	-	11:35	Fine	52.2	-	54.4	measured level ≤ baseline level	54.6	48.6
							Average Construction Noise Level	53.5		

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
62.9	49.7

Noise Level Results at CM14

Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	15:10	-	15:40	Fine	57.2	60.2	47.4	60.0	59.3	55.6
05/11/2024	15:04	-	15:34	Cloudy	53.1	56.1	47.4	55.4	56.2	52.7
16/11/2024	12:35	-	13:05	Cloudy	54.1	57.1	47.4	56.6	57.9	52.9
19/11/2024	11:53	-	12:23	Cloudy	57.1	60.1	47.4	59.9	59.5	55.8
26/11/2024	11:40	-	12:10	Fine	55.3	58.3	47.4	57.9	57.2	53.6
							Average Construction Noise Level	57.9		

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
60.2	56.1

Noise Level Results at CM15a

Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	16:00	-	16:30	Fine	66.7	69.7	64.7	68.0	70.6	56.2
05/11/2024	14:30	-	15:00	Cloudy	66.5	69.5	64.7	67.8	70.9	57.2
16/11/2024	13:18	-	13:48	Cloudy	67.1	70.1	64.7	68.6	72.1	55.9
19/11/2024	12:33	-	13:03	Cloudy	67.8	70.8	64.7	69.6	73.4	56.2
26/11/2024	12:33	-	13:03	Fine	67.8	70.8	64.7	69.5	72.8	54.8
							Average Construction Noise Level	68.7		

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
70.8	69.5

Noise Level Results at CM16

Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	14:30	-	15:00	Fine	62.1	-	71.9	measured level ≤ baseline level	64.2	60.2
05/11/2024	13:37	-	14:07	Cloudy	63.7	-	71.9	measured level ≤ baseline level	65.3	60.8
16/11/2024	14:36	-	15:06	Cloudy	62.3	-	71.9	measured level ≤ baseline level	64.8	59.7
19/11/2024	12:25	-	12:55	Cloudy	62.0	-	71.9	measured level ≤ baseline level	64.5	59.1
26/11/2024	13:57	-	14:27	Fine	61.9	-	71.9	measured level ≤ baseline level	62.9	58.7
							Average Construction Noise Level	62.4		

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
63.7	61.9

Noise Level Results at CM18

Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	15:30	-	16:00	Fine	66.1	69.1	56.6	68.8	68.2	64.5
05/11/2024	12:49	-	13:19	Cloudy	55.5	58.5	56.6	53.9	58.1	53.7
16/11/2024	13:50	-	14:20	Cloudy	56.3	59.3	56.6	55.9	58.9	54.3
19/11/2024	13:04	-	13:34	Cloudy	58.3	61.3	56.6	59.5	60.5	55.9
26/11/2024	13:23	-	13:53	Fine	61.1	64.1	56.6	63.2	62.9	59.8
							Average Construction Noise Level	60.3		

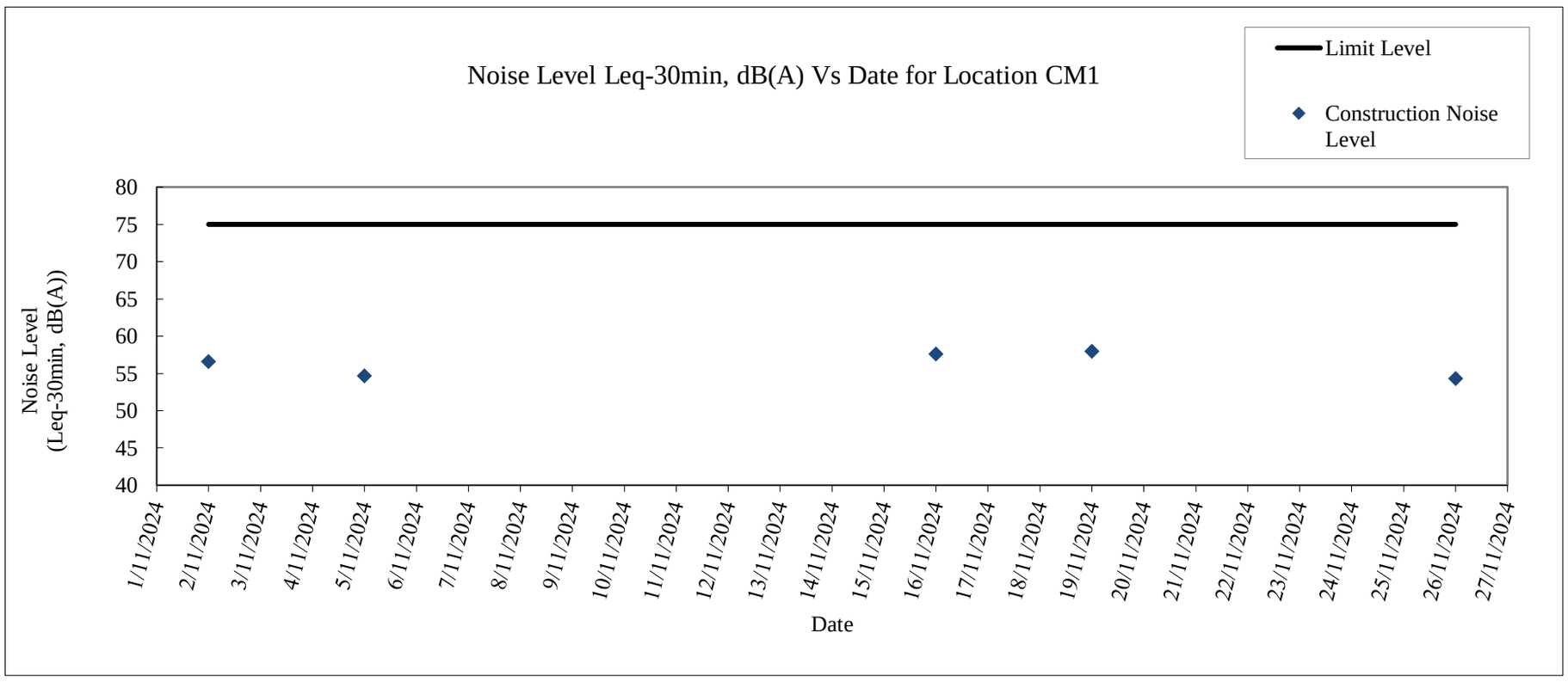
Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
69.1	58.5

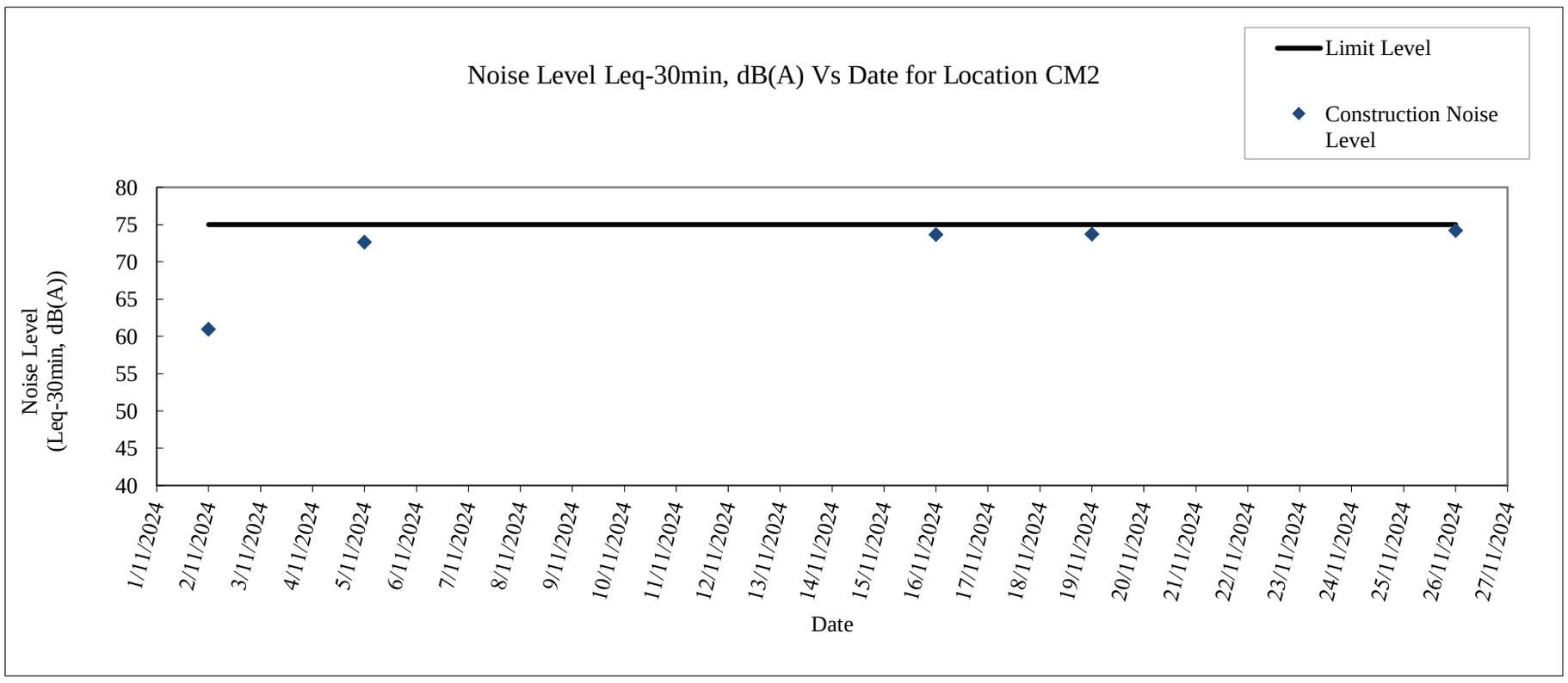
Noise Level Results at CM20

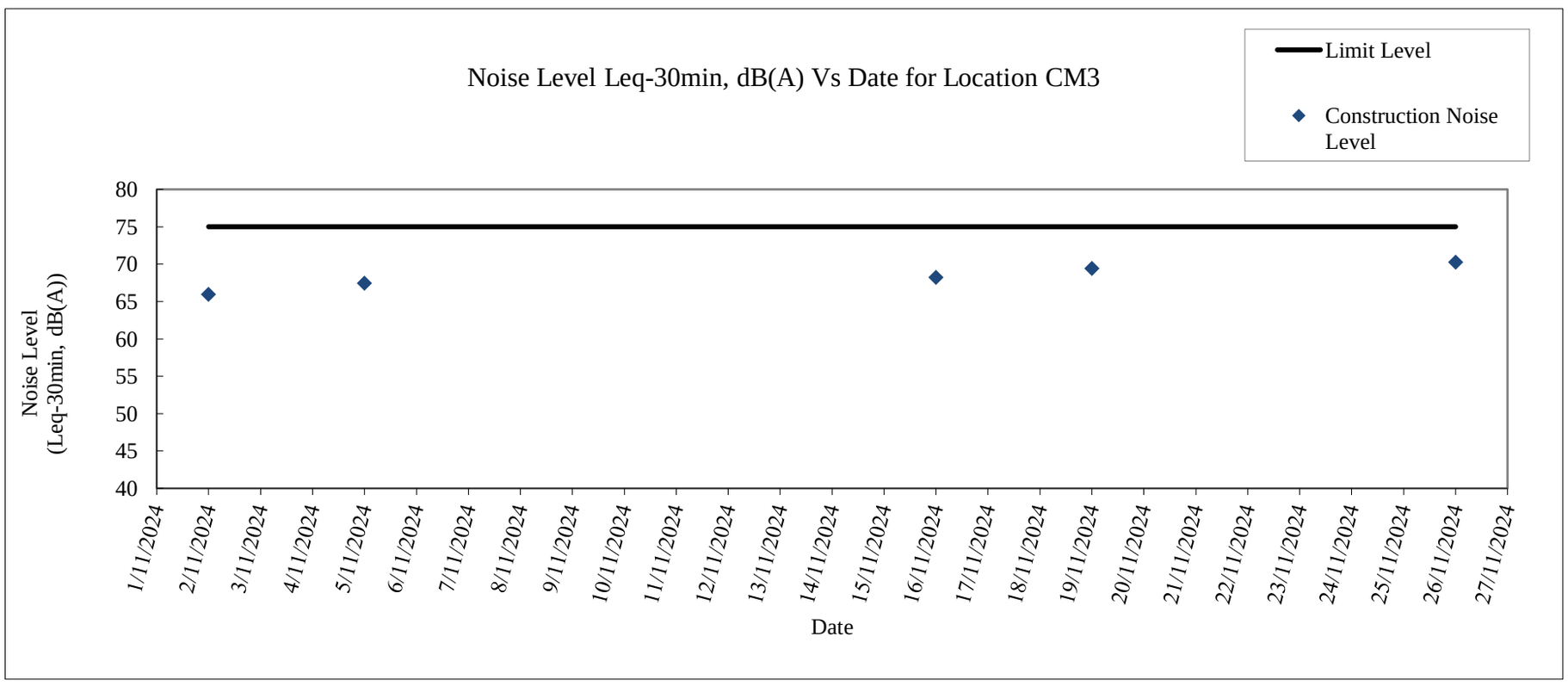
Date	Time			Weather	Leq-30min, dB(A)	Leq-30min with façade correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)	L10, dB(A)	L90, dB(A)
02/11/2024	12:40	-	13:10	Fine	53.4	56.4	57.8	measured level ≤ baseline level	55.9	50.8
05/11/2024	12:04	-	12:34	Cloudy	49.8	52.8	57.8	measured level ≤ baseline level	52.2	47.3
16/11/2024	14:47	-	15:17	Cloudy	50.3	53.3	57.8	measured level ≤ baseline level	53.6	48.6
19/11/2024	13:48	-	14:18	Cloudy	51.3	54.3	57.8	measured level ≤ baseline level	53.5	48.6
26/11/2024	13:59	-	14:29	Fine	51.5	54.5	57.8	measured level ≤ baseline level	53.5	47.6
							Average Construction Noise Level	54.3		

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
56.4	52.8

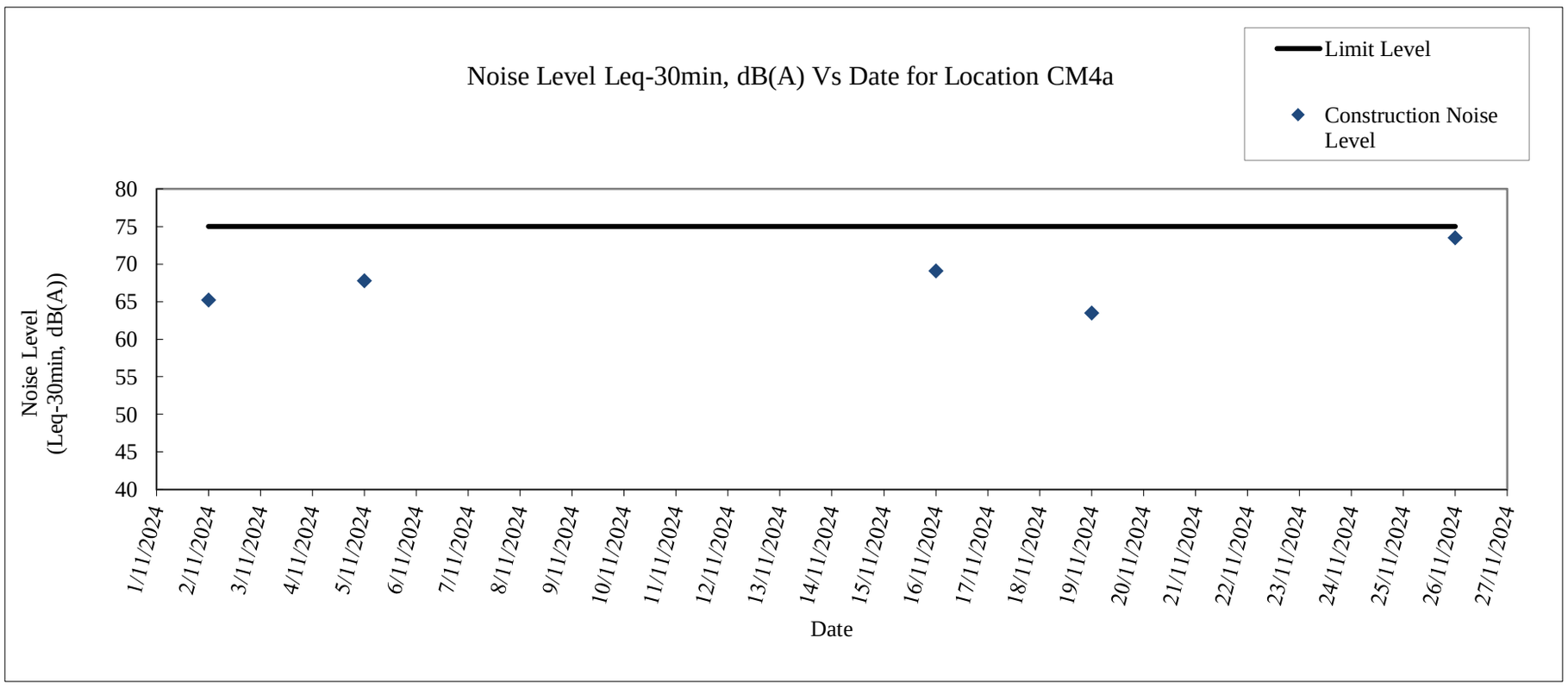
Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Noise Monitoring Result

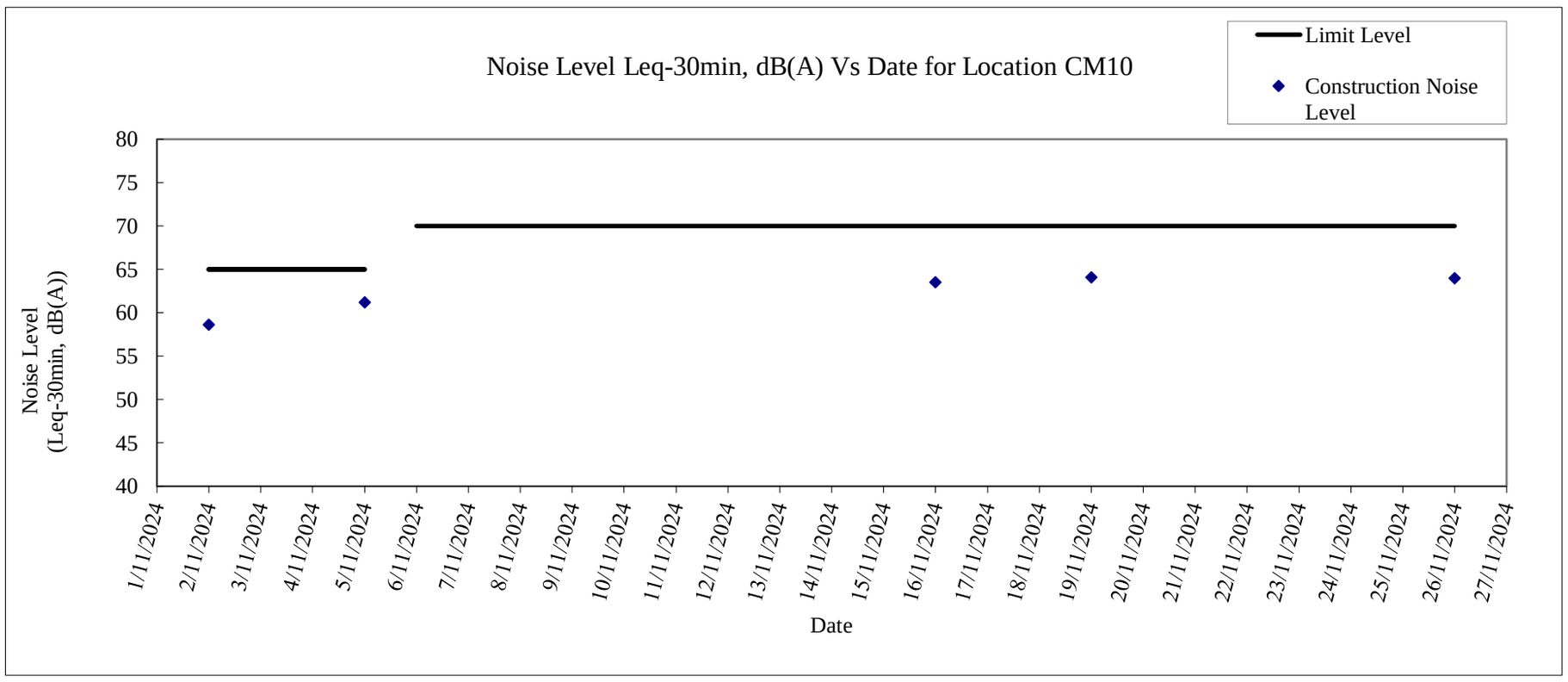






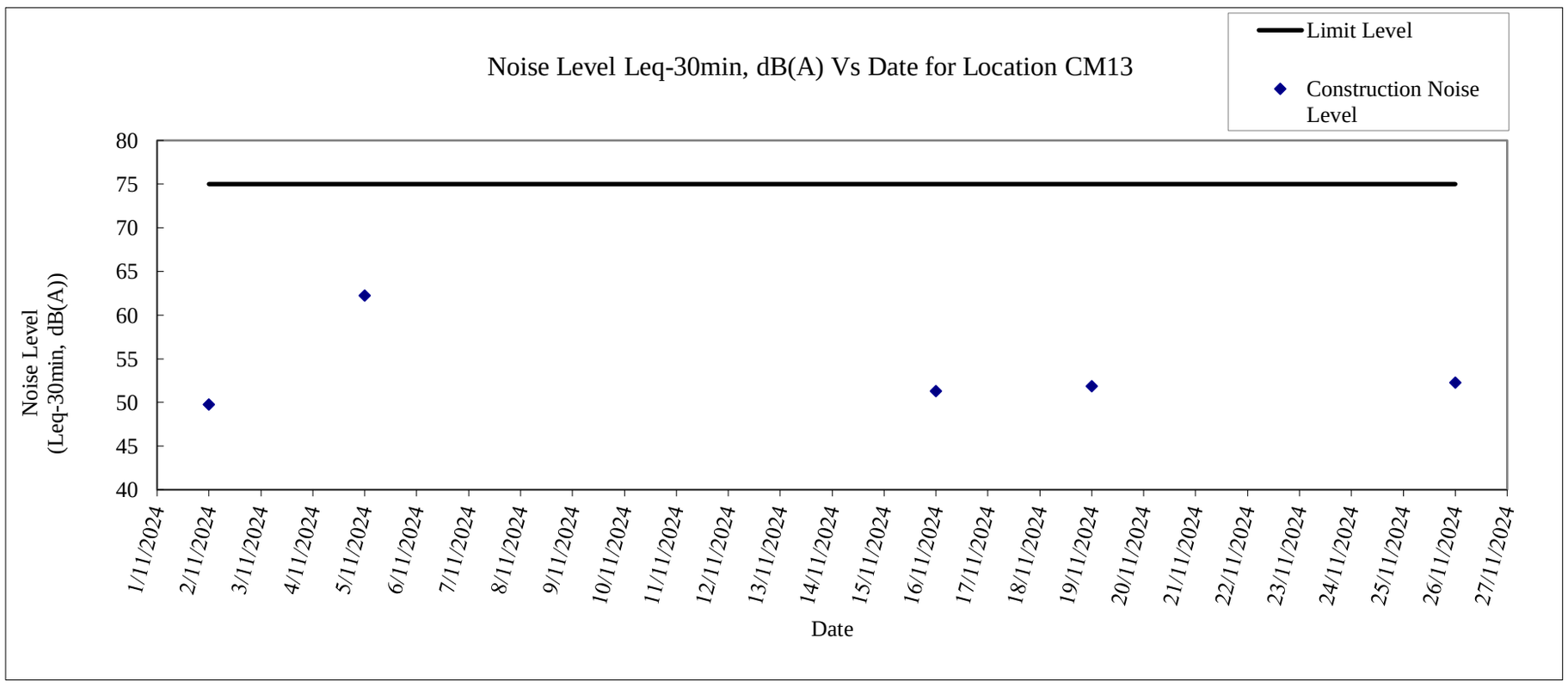
Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Noise Monitoring Result



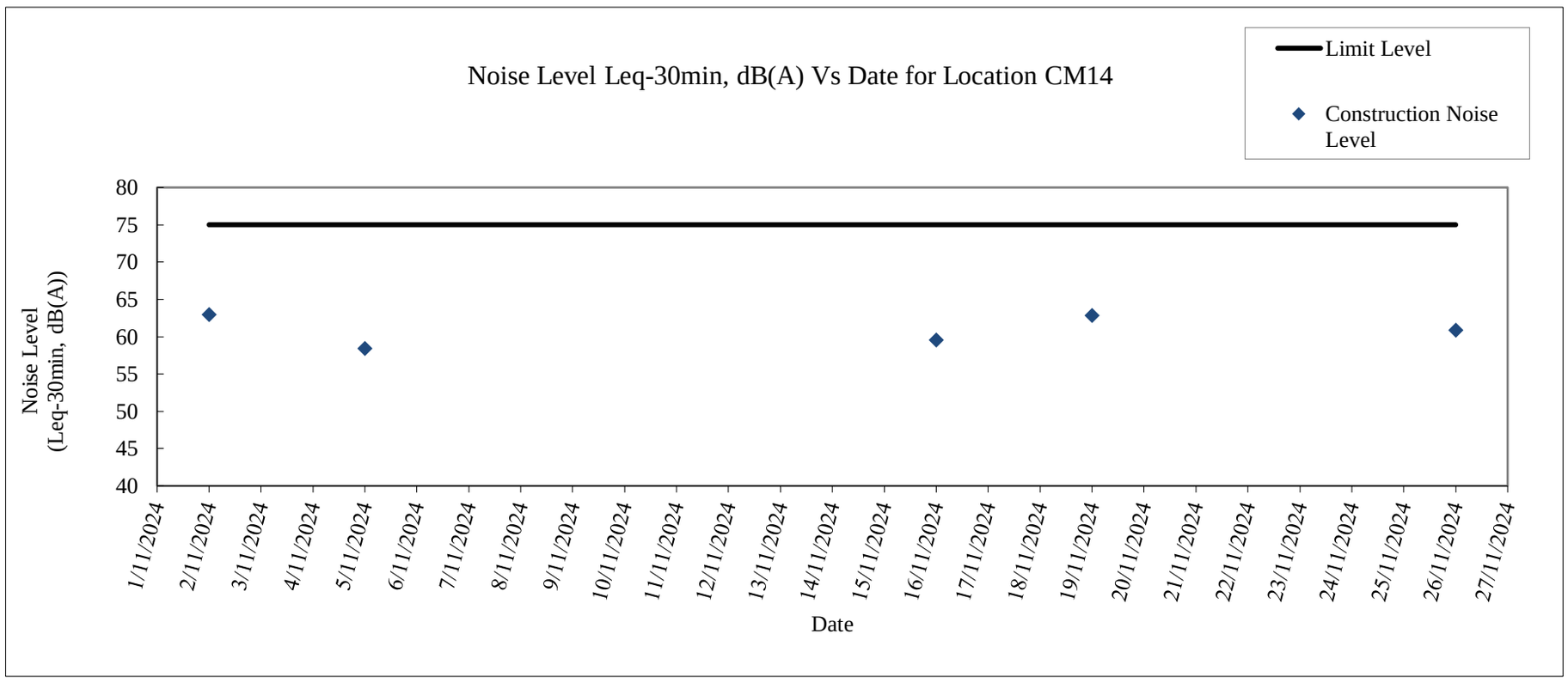


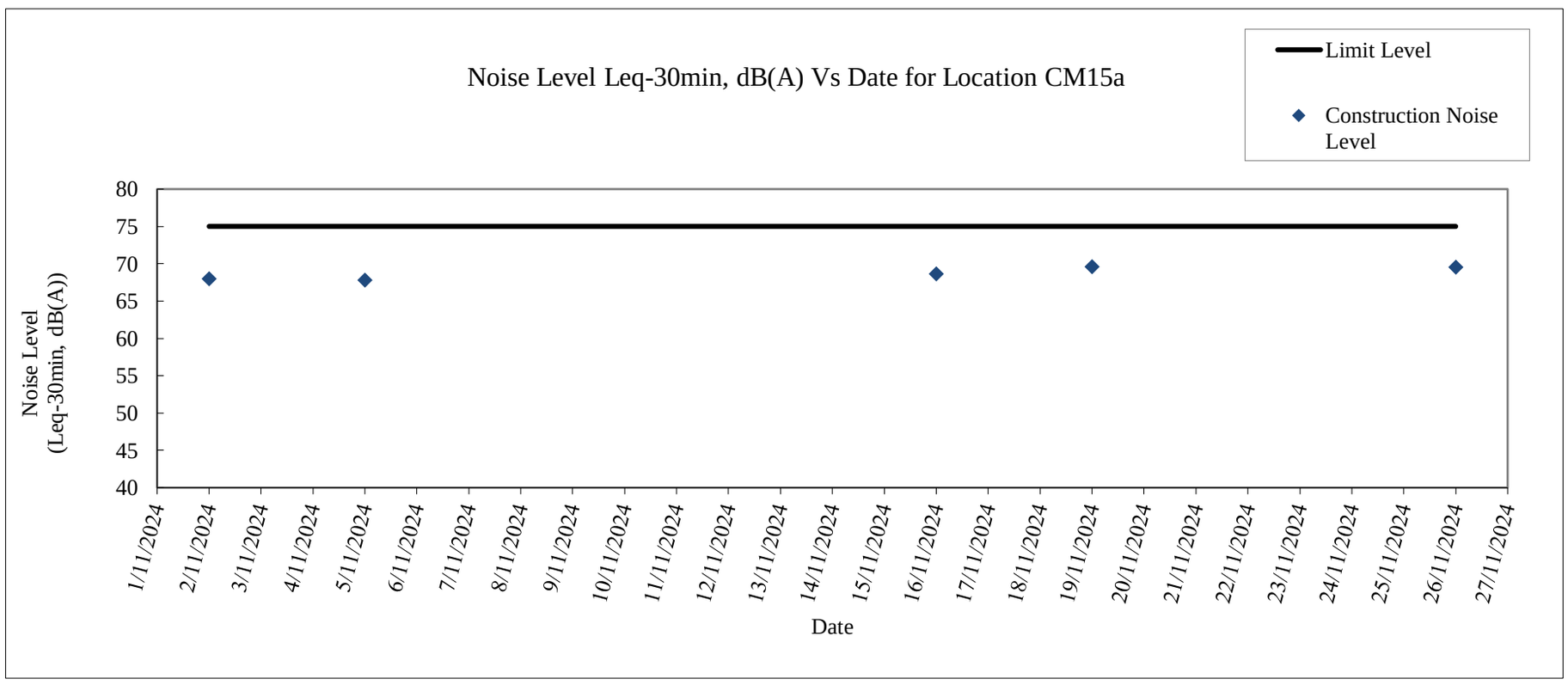
Note:

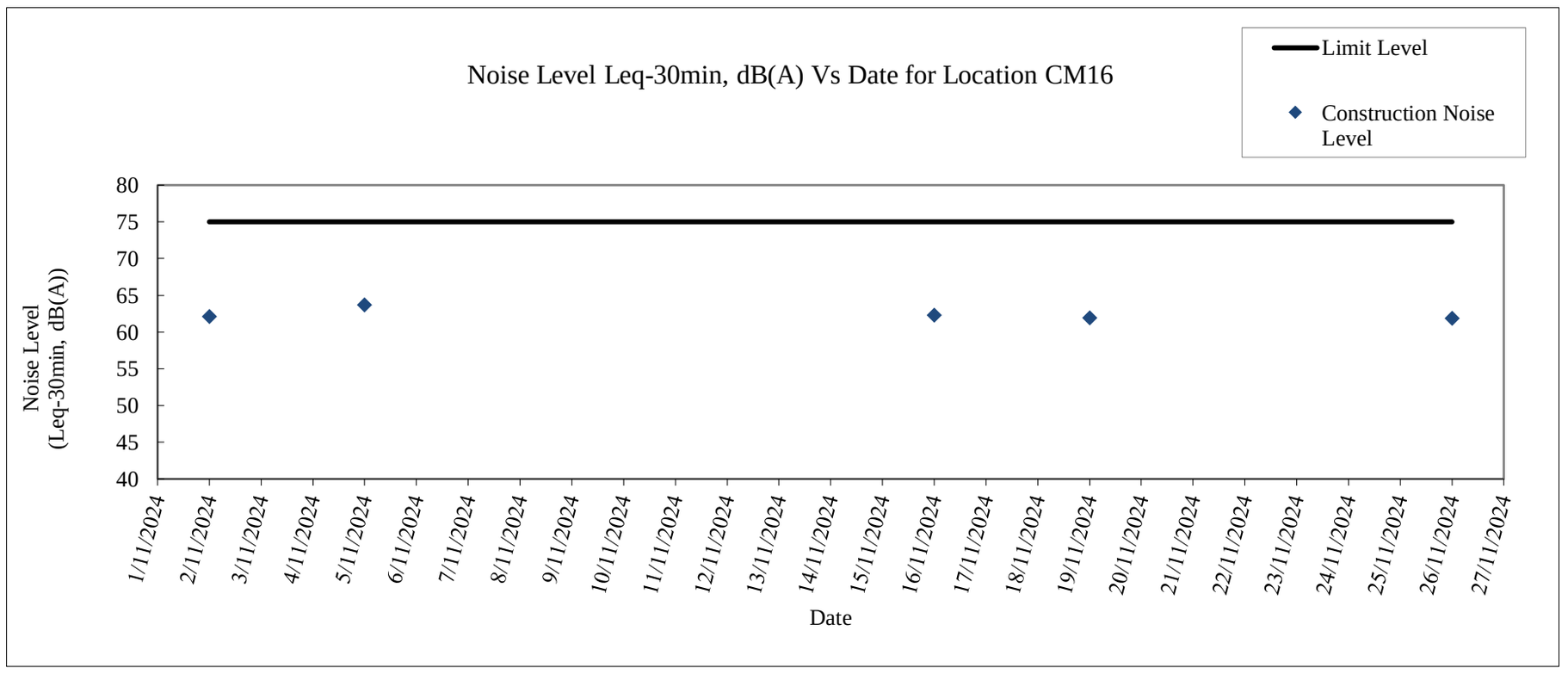
As two of the monitoring dates (2 November 2024 and 5 Novemer 2024) fell within the exam period of the school, the limit level of noise monitoring of these two monitoring dates was set to be 65 dB(A), while the limit level of noise monitoring of the other monitoirng dates were remained as 75 dB(A).



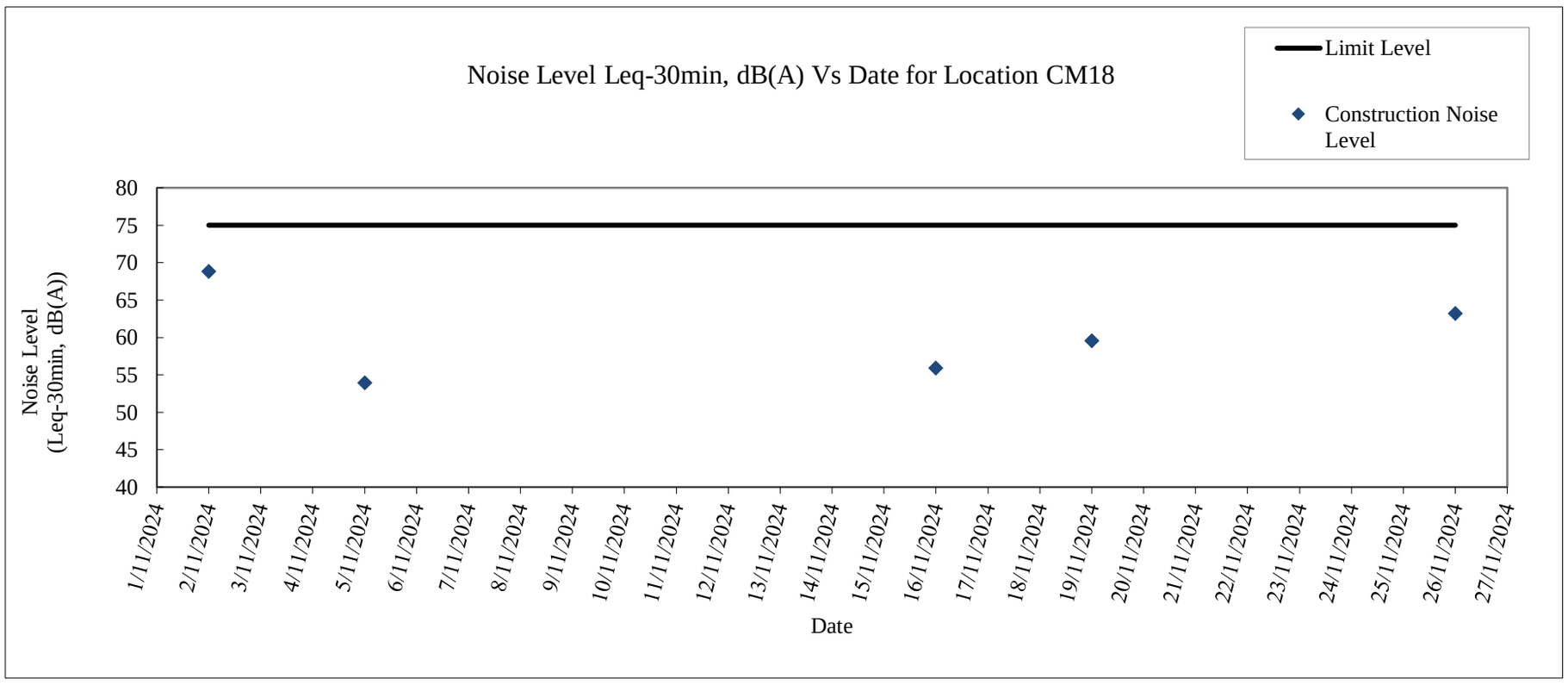
Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Noise Monitoring Result

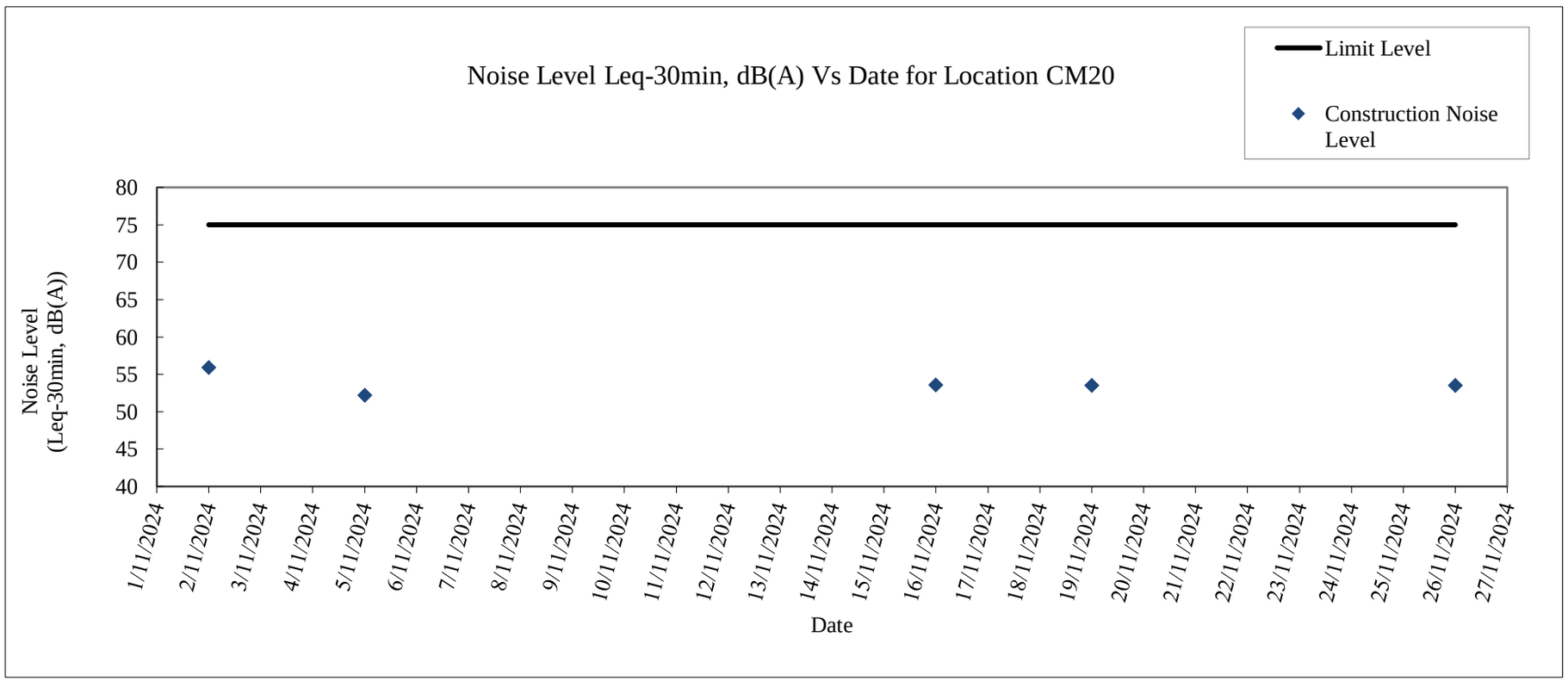






Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Noise Monitoring Result





Appendix 3.3 Event and Action Plan for Noise

Event and Action Plan for Noise

Action Level	1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; and 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; and 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC ; and 2. Implement noise mitigation proposals.
Limit Level	1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit further proposal if problem still not under control; and 5. Stop the relevant portion of works as determined by ER, until the exceedance is abated.

Appendix 4.1 Calibration Certificates of Impact Water Quality Monitoring Equipment

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QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 5/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
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Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BD100073
Date of Issue : 21 October 2024

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
Serial Number :	15M101091
Date of Received :	16 October 2024
Date of Calibration :	21 October 2024
Date of Next Calibration :	20 January 2025
Request No. :	D-BD100073

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500-H^+ B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 23e 4500-O G (Membrane Electrode Method)
Turbidity	APHA 21e 2130 B (Nephelometric Method)

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.01	0.01	Satisfactory
7.42	7.43	0.01	Satisfactory
10.01	10.14	0.13	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
16.0	16.1	0.1	Satisfactory
25.5	25.2	-0.3	Satisfactory
40.0	39.6	-0.4	Satisfactory

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

(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.71	-2.9	Satisfactory
20	19.84	-0.8	Satisfactory
30	30.42	1.4	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BD100073
Date of Issue : 21 October 2024

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.41	7.77	0.36	Satisfactory
5.61	5.22	-0.39	Satisfactory
3.49	3.56	0.07	Satisfactory
0.56	0.29	-0.27	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance [a] (%)	Result
0	0.02	--	Satisfactory
10	10.11	1.1	Satisfactory
20	19.85	-0.7	Satisfactory
100	103.25	3.3	Satisfactory
800	822.19	2.8	Satisfactory

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

[a] For 0 NTU, Display Reading should be less than 1 NTU

Remark(s)

·The "Date of Next Calibration" is recommended according to best practice 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 ---

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BD090078
Date of Issue : 02 October 2024

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
Serial Number :	22C106561
Date of Received :	26 September 2024
Date of Calibration :	27 September 2024
Date of Next Calibration :	26 December 2024
Request No. :	D-BD090078

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500-H^+ B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 23e 4500-O G (Membrane Electrode Method)
Turbidity	APHA 21e 2130 B (Nephelometric Method)

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.03	0.03	Satisfactory
7.42	7.49	0.07	Satisfactory
10.01	10.07	0.06	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
17.0	15.6	-1.4	Satisfactory
28.0	26.2	-1.8	Satisfactory
32.5	30.7	-1.8	Satisfactory

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

(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.11	1.10	Satisfactory
20	20.59	2.95	Satisfactory
30	31.25	4.17	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BD090078
Date of Issue : 02 October 2024

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.37	7.35	-0.02	Satisfactory
5.56	5.49	-0.07	Satisfactory
2.30	2.58	0.28	Satisfactory
0.20	0.39	0.19	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result [a]
0	0.75	--	Satisfactory
10	10.92	9.2	Satisfactory
20	21.08	5.4	Satisfactory
100	102.32	2.3	Satisfactory
800	786.90	-1.6	Satisfactory

[a] For 0 NTU, Display Reading should be less than 1 NTU

Remark(s)

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--- END OF REPORT ---

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BD100074
Date of Issue : 21 October 2024

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
Serial Number :	22D100436
Date of Received :	17 October 2024
Date of Calibration :	21 October 2024
Date of Next Calibration :	20 January 2025
Request No. :	D-BD100074

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500-H^+ B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 23e 4500-O G (Membrane Electrode Method)
Turbidity	APHA 21e 2130 B (Nephelometric Method)

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.02	0.02	Satisfactory
7.42	7.59	0.17	Satisfactory
10.01	10.19	0.18	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
16.0	16.1	0.1	Satisfactory
25.5	25.0	-0.5	Satisfactory
40.0	39.6	-0.4	Satisfactory

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

(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.59	-4.1	Satisfactory
20	19.72	-1.4	Satisfactory
30	30.22	0.7	Satisfactory

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BD100074
Date of Issue : 21 October 2024

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.41	7.78	0.37	Satisfactory
5.61	5.21	-0.40	Satisfactory
3.49	3.54	0.05	Satisfactory
0.56	0.11	-0.45	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance [a] (%)	Result
0	0.54	--	Satisfactory
10	9.68	-3.2	Satisfactory
20	18.75	-6.3	Satisfactory
100	91.88	-8.1	Satisfactory
800	736.64	-7.9	Satisfactory

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

[a] For 0 NTU, Display Reading should be less than 1 NTU

Remark(s)

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BD080044
Date of Issue : 16 August 2024

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
Serial Number :	24G101659
Date of Received :	15 August 2024
Date of Calibration :	16 August 2024
Date of Next Calibration :	16 November 2024
Request No. :	D-BD080044

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500-H^+ B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 23e 4500-O G (Membrane Electrode Method)
Oxidation-Reduction Potential	APHA 22e 2580 B
Turbidity	APHA 21e 2130 B (Nephelometric Method)

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	3.96	-0.04	Satisfactory
7.42	7.32	-0.10	Satisfactory
10.01	9.95	-0.06	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
18.0	17.8	-0.2	Satisfactory
26.0	25.2	-0.8	Satisfactory
32.0	31.0	-1.0	Satisfactory

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

(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.75	-2.50	Satisfactory
20	19.76	-1.20	Satisfactory
30	29.92	-0.27	Satisfactory

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BD080044
Date of Issue : 16 August 2024

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
8.09	8.17	0.08	Satisfactory
7.53	7.97	0.44	Satisfactory
6.52	6.55	0.03	Satisfactory
0.72	1.05	0.33	Satisfactory

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

(5) Oxidation-Reduction Potential

Expected Reading	Display Reading	Tolerance	Result
229	225.4	-3.6	Satisfactory

Tolerance of Oxidation-Reduction Potential should be less than ± 10.0 (mV)

(6) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance [a] (%)	Result
0	0.40	--	--
10	9.24	-7.6	Satisfactory
20	19.63	-1.9	Satisfactory
100	94.80	-5.2	Satisfactory
800	738.22	-7.7	Satisfactory

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

[a] For 0 NTU, Display Reading should be less than 1 NTU

Remark(s)

·The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.
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·The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
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--- END OF REPORT ---

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BD080045
Date of Issue : 16 August 2024
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
Serial Number :	24G101660
Date of Received :	15 August 2024
Date of Calibration :	16 August 2024
Date of Next Calibration :	16 November 2024
Request No. :	D-BD080045

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500-H^+ B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 23e 4500-O G (Membrane Electrode Method)
Oxidation-Reduction Potential	APHA 22e 2580 B
Turbidity	APHA 21e 2130 B (Nephelometric Method)

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.05	0.05	Satisfactory
7.42	7.41	-0.01	Satisfactory
10.01	10.00	-0.01	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
18.0	17.3	-0.7	Satisfactory
26.0	24.5	-1.5	Satisfactory
32.0	31.6	-0.4	Satisfactory

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

(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.73	7.30	Satisfactory
20	21.86	9.30	Satisfactory
30	32.09	6.97	Satisfactory

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

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AUTHORIZED SIGNATORY:

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BD080045
Date of Issue : 16 August 2024

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
8.09	8.18	0.09	Satisfactory
7.53	7.89	0.36	Satisfactory
6.52	6.27	-0.25	Satisfactory
1.92	1.57	-0.35	Satisfactory

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

(5) Oxidation-Reduction Potential

Expected Reading	Display Reading	Tolerance	Result
229	224.5	-4.5	Satisfactory

Tolerance of Oxidation-Reduction Potential should be less than ± 10.0 (mV)

(6) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance [a] (%)	Result
0	0.59	--	--
10	10.27	2.7	Satisfactory
20	19.59	-2.1	Satisfactory
100	93.87	-6.1	Satisfactory
800	723.00	-9.6	Satisfactory

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

[a] For 0 NTU, Display Reading should be less than 1 NTU

Remark(s)

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

·The results relate only to the calibrated equipment as received

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

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

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

--- END OF REPORT ---

Appendix 4.2 Impact Water Quality Monitoring Data

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Water Quality Monitoring Location : U2

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	08:45	Cloudy	Middle	0.03	27.6	27.6	6.9	6.9	6.2	6.2	78.9	78.9	18.3	18.3	25.0	20.2
					27.6		6.9		6.2		78.9		18.3		15.3	
04 November 2024	15:39	Cloudy	Middle	0.02	25.1	25.1	7.8	7.8	8.2	8.2	99.9	99.8	4.1	4.2	16.2	15.1
					25.1		7.8		8.2		99.6		4.2		14.0	
06 November 2024	10:23	Cloudy	Middle	0.03	24.8	24.8	7.3	7.3	8.0	8.0	96.5	96.5	9.3	9.3	19.2	18.2
					24.8		7.3		8.0		96.4		9.2		17.2	
08 November 2024	11:13	Cloudy	Middle	0.03	21.6	21.7	7.0	7.0	4.5	4.5	51.0	51.6	7.6	7.6	3.1	3.0
					21.7		7.0		4.6		52.1		7.6		2.8	
11 November 2024	10:41	Sunny	Middle	0.03	24.9	24.9	7.8	7.8	8.3	8.3	100.1	100.1	7.0	7.0	1.9	1.9
					24.9		7.8		8.3		100.1		6.9		1.8	
13 November 2024	15:39	Sunny	Middle	0.03	25.1	25.1	7.8	7.8	8.2	8.2	99.9	99.8	4.1	4.2	16.2	15.1
					25.1		7.8		8.2		99.6		4.2		14.0	
15 November 2024	11:12	Sunny	Middle	0.05	24.7	24.7	7.3	7.3	6.8	6.9	82.3	82.5	4.0	3.9	<1.0	<1.0
					24.7		7.3		6.9		82.7		3.8		<1.0	
18 November 2024	10:21	Sunny	Middle	0.04	24.2	24.2	6.9	6.9	3.8	3.8	45.1	44.9	4.4	4.4	1.1	1.1
					24.2		6.9		3.7		44.6		4.4		1.0	
20 November 2024	10:19	Cloudy	Middle	0.05	21.1	21.1	7.4	7.4	8.9	8.9	99.6	99.6	10.4	10.4	6.4	6.9
					21.1		7.4		8.9		99.6		10.4		7.3	
22 November 2024	10:29	Cloudy	Middle	0.04	20.1	20.1	7.1	7.1	6.6	6.5	72.2	71.9	4.3	4.3	4.0	3.6
					20.1		7.1		6.5		71.6		4.3		3.1	
25 November 2024	11:32	Cloudy	Middle	0.03	24.6	24.6	7.2	7.2	8.1	8.1	97.7	97.7	2.2	2.2	3.8	4.0
					24.6		7.2		8.1		97.7		2.2		4.1	
27 November 2024	10:45	Cloudy	Middle	0.03	18.4	18.4	7.1	7.1	6.5	6.6	96.6	83.9	6.3	6.2	1.2	1.2
					18.4		7.2		6.7		71.1		6.2		1.1	
29 November 2024	17:03	Cloudy	Middle	0.05	18.4	18.4	7.1	7.2	6.5	6.6	96.6	83.9	6.3	6.3	1.2	1.2
					18.4		7.2		6.7		71.1		6.2		1.1	

Water Quality Monitoring Location : U5a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	10:00	Cloudy	Middle	0.02	26.4	26.4	8.9	8.9	7.9	7.9	98.1	98.0	6.4	6.3	3.4	4.1
					26.4		8.9		7.9		97.8		6.3		4.7	
04 November 2024	17:02	Cloudy	Middle	0.02	25.0	25.0	8.6	8.6	8.2	8.2	98.7	98.7	3.4	3.4	3.1	3.3
					25.0		8.6		8.2		98.7		3.4		3.5	
06 November 2024	16:30	Cloudy	Middle	0.02	25.3	25.3	8.5	8.5	8.2	8.2	100.0	100.0	4.2	4.2	1.8	2.0
					25.3		8.5		8.2		99.9		4.2		2.1	
08 November 2024	13:17	Cloudy	Middle	0.02	22.9	22.9	9.2	9.2	8.5	8.5	98.4	98.4	11.1	11.0	2.4	2.8
					22.8		9.2		8.5		98.4		11.0		3.1	
11 November 2024	11:23	Sunny	Middle	0.02	24.2	24.2	9.6	9.6	8.2	8.2	98.1	98.1	20.8	20.7	4.2	4.3
					24.2		9.6		8.2		98.1		20.7		4.4	
13 November 2024	15:13	Sunny	Middle	0.02	24.3	24.3	10.2	10.2	8.2	8.2	98.1	98.1	51.1	51.1	13.4	14.5
					24.3		10.2		8.2		98.1		51.1		15.6	
15 November 2024	15:01	Sunny	Middle	0.03	24.3	24.3	10.3	10.3	8.2	8.2	97.7	98.2	53.2	53.2	12.5	13.3
					24.3		10.3		8.3		98.6		53.2		14.0	
18 November 2024	14:49	Sunny	Middle	0.02	24.9	24.9	9.3	9.3	8.3	8.3	100.8	100.8	52.3	52.3	21.0	18.5
					24.9		9.3		8.3		100.8		52.3		16.0	
20 November 2024	13:05	Cloudy	Middle	0.04	20.0	20.1	11.6	11.6	8.8	8.8	97.7	97.5	25.4	25.4	31.0	29.0
					20.1		11.6		8.8		97.3		25.4		27.0	
22 November 2024	14:46	Cloudy	Middle	0.03	21.2	21.2	9.9	9.9	8.6	8.6	97.0	97.0	45.7	45.6	11.0	11.5
					21.2		9.9		8.6		97.0		45.6		12.0	
25 November 2024	17:25	Cloudy	Middle	0.02	21.6	21.6	9.6	9.6	8.8	8.8	99.6	99.6	29.5	29.5	4.0	3.4
					21.6		9.6		8.8		99.5		29.5		2.7	
27 November 2024	14:32	Cloudy	Middle	0.03	21.8	21.8	11.6	11.6	8.8	8.8	100.6	100.6	45.0	45.1	66.0	60.5
					21.8		11.6		8.8		100.5		45.1		55.0	
29 November 2024	11:24	Cloudy	Middle	0.03	18.4	18.4	11.7	11.7	8.9	9.0	95.6	96.1	17.1	17.1	66.0	60.5
					18.4		11.7		9.0		96.5		17.1		55.0	

Water Quality Monitoring Location : U6a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	13:05	Cloudy	Middle	0.21	25.0	25.0	7.3	7.3	5.6	5.7	68.3	68.6	12.2	12.2	3.3	2.8
					24.9		7.3		5.7		68.8		12.2		2.3	
04 November 2024	17:15	Cloudy	Middle	0.20	25.1	25.1	7.9	7.9	8.0	8.0	96.4	96.5	4.3	4.3	1.8	1.6
					25.1		7.9		8.0		96.5		4.3		1.3	
06 November 2024	16:43	Cloudy	Middle	0.22	25.3	25.3	7.8	7.8	8.1	8.1	98.7	98.7	1.4	1.4	1.0	1.0
					25.3		7.8		8.1		98.6		1.4		1.0	
08 November 2024	13:03	Cloudy	Middle	0.20	26.3	26.3	8.0	8.0	8.3	8.3	103.1	103.1	2.7	2.7	5.0	5.5
					26.3		8.1		8.3		103.1		2.8		5.9	
11 November 2024	11:30	Sunny	Middle	0.06	24.5	24.5	7.6	7.6	8.0	8.0	95.9	95.9	23.1	23.1	12.0	10.5
					24.5		7.6		8.0		95.9		23.1		9.0	
13 November 2024	15:30	Sunny	Middle	0.04	22.2	22.2	7.3	7.3	8.2	4.2	93.9	93.9	30.1	30.1	7.1	6.5
					22.2		7.3		0.2		93.9		30.1		5.8	
15 November 2024	14:03	Sunny	Middle	0.05	24.9	24.9	7.3	7.3	7.8	7.8	94.7	94.7	30.7	30.7	13.7	12.9
					24.9		7.3		7.8		94.7		30.7		12.1	
18 November 2024	13:57	Sunny	Middle	0.05	25.6	25.6	7.4	7.4	7.8	7.7	94.9	94.8	7.4	7.4	4.5	4.2
					25.6		7.5		7.7		94.6		7.4		3.8	
20 November 2024	13:34	Cloudy	Middle	0.24	22.9	22.9	7.9	7.9	8.6	8.6	100.3	100.3	38.1	38.1	12.0	12.0
					22.9		7.9		8.6		100.3		38.1		12.0	
22 November 2024	14:21	Cloudy	Middle	0.07	21.3	21.3	7.5	7.5	7.7	7.7	87.1	86.8	8.1	8.2	25.0	22.5
					21.3		7.5		7.7		86.5		8.2		20.0	
25 November 2024	16:25	Cloudy	Middle	0.00	23.4	23.4	7.3	7.3	8.4	8.4	98.5	98.5	25.4	25.4	2.9	3.5
					23.4		7.3		8.4		98.5		25.4		4.1	
27 November 2024	13:31	Cloudy	Middle	0.06	22.8	22.8	7.2	7.2	8.1	8.1	94.4	94.4	69.6	68.6	7.1	6.4
					22.8		7.2		8.1		94.3		67.5		5.7	
29 November 2024	10:10	Cloudy	Middle	0.05	20.6	20.6	7.4	7.4	8.9	8.9	99.2	99.2	12.2	12.2	7.1	6.4
					20.6		7.4		8.9		99.1		12.2		5.7	

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Water Quality Monitoring Location : TS1

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	10:15	Cloudy	Middle	0.02	25.1	25.1	7.7	7.7	6.7	6.7	80.9	81.0	15.8	15.9	4.8	5.2
					25.1		7.7		6.7		81.0		15.9		5.5	
04 November 2024	13:27	Cloudy	Middle	0.02	24.5	24.5	7.4	7.4	7.9	7.9	95.2	95.2	17.4	17.4	12.0	11.5
					24.5		7.4		7.9		95.1		17.4		11.0	
06 November 2024	17:38	Cloudy	Middle	0.02	24.9	24.9	8.0	8.0	7.6	7.7	92.5	92.7	30.3	30.3	13.0	10.2
					24.9		8.0		7.7		92.8		30.2		7.3	
08 November 2024	15:00	Cloudy	Middle	0.02	24.8	24.8	7.6	7.6	7.5	7.5	91.1	91.1	17.3	17.3	77.0	61.4
					24.8		7.6		7.5		91.1		17.2		45.8	
11 November 2024	14:02	Sunny	Middle	0.01	24.8	24.8	8.0	8.0	8.1	8.1	97.6	97.6	8.1	8.0	64.0	62.5
					24.8		8.0		8.1		97.6		8.0		61.0	
13 November 2024	17:00	Sunny	Middle	0.01	23.8	23.8	8.0	8.0	8.0	8.0	94.2	94.1	12.1	12.1	2.6	3.0
					23.7		8.0		8.0		94.0		12.1		3.3	
15 November 2024	14:40	Sunny	Middle	0.02	24.8	24.8	8.0	8.0	7.8	7.8	94.1	94.1	22.7	22.6	16.6	14.6
					24.8		8.0		7.8		94.0		22.6		12.5	
18 November 2024	15:00	Sunny	Middle	0.02	24.3	24.3	8.9	8.9	8.1	8.1	96.9	96.9	7.1	7.1	13.0	13.0
					24.3		8.9		8.1		96.9		7.1		13.0	
20 November 2024	15:05	Cloudy	Middle	0.02	20.6	20.6	8.3	8.2	8.4	8.4	93.7	93.6	20.3	20.4	8.7	8.1
					20.6		8.2		8.4		93.4		20.4		7.4	
22 November 2024	14:45	Cloudy	Middle	0.03	21.2	21.2	8.5	8.5	8.4	8.4	95.1	95.1	4.0	4.0	37.0	28.0
					21.2		8.5		8.4		95.1		4.0		19.0	
25 November 2024	11:45	Cloudy	Middle	0.02	21.9	21.9	9.5	9.5	8.8	8.8	100.3	100.3	31.2	31.1	16.0	16.0
					21.9		9.5		8.8		100.3		31.1		16.0	
27 November 2024	15:10	Cloudy	Middle	0.02	20.7	20.7	10.6	10.6	8.6	8.6	96.5	96.5	12.6	12.2	16.0	12.9
					20.7		10.6		8.6		96.5		11.8		9.8	
29 November 2024	11:56	Cloudy	Middle	0.01	18.3	18.3	10.2	10.2	8.9	8.9	95.0	95.0	10.9	10.9	16.0	12.9
					18.3		10.2		8.9		95.0		10.8		9.8	

Water Quality Monitoring Location : TS2a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	11:12	Cloudy	Middle	0.12	26.7	26.7	7.4	7.4	5.4	5.4	67.2	67.5	12.3	12.4	5.8	4.5
					26.7		7.4		5.4		67.8		12.4		3.2	
04 November 2024	17:37	Cloudy	Middle	0.12	25.4	25.4	7.6	7.6	7.5	7.5	91.5	91.5	18.6	18.7	13.0	14.5
					25.4		7.6		7.5		91.4		18.7		16.0	
06 November 2024	16:56	Cloudy	Middle	0.12	25.7	25.7	7.5	7.5	7.4	7.4	91.0	91.1	19.4	19.4	9.7	9.0
					25.7		7.5		7.4		91.1		19.5		8.2	
08 November 2024	16:56	Cloudy	Middle	0.12	25.7	25.7	7.5	7.5	7.4	7.4	91.1	91.1	19.5	19.4	8.1	8.4
					25.7		7.5		7.4		91.0		19.4		8.6	
11 November 2024	11:45	Sunny	Middle	0.02	24.3	24.3	7.6	7.6	7.8	7.8	93.3	93.3	16.5	16.5	19.0	17.5
					24.3		7.6		7.8		93.2		16.5		16.0	
13 November 2024	15:45	Sunny	Middle	0.04	23.5	23.5	7.5	7.5	8.0	8.0	94.5	94.5	8.6	8.6	18.1	18.3
					23.5		7.5		8.0		94.4		8.6		18.5	
15 November 2024	12:38	Sunny	Middle	0.05	25.9	25.9	7.5	7.5	7.2	7.2	88.7	88.7	24.3	24.2	13.6	13.4
					25.9		7.5		7.2		88.6		24.2		13.1	
18 November 2024	11:32	Sunny	Middle	0.02	26.1	26.1	7.6	7.6	7.8	7.8	96.1	96.2	47.1	47.1	38.0	31.5
					26.1		7.6		7.8		96.3		47.1		25.0	
20 November 2024	13:50	Cloudy	Middle	0.11	21.2	21.2	7.6	7.6	7.5	7.5	84.4	84.6	14.1	14.1	4.9	4.6
					21.2		7.6		7.5		84.8		14.1		4.2	
22 November 2024	13:05	Cloudy	Middle	0.08	21.2	21.2	7.8	7.8	8.9	8.9	99.8	99.9	20.0	20.1	1.7	2.4
					21.2		7.8		8.9		99.9		20.1		3.1	
25 November 2024	14:15	Cloudy	Middle	0.02	24.9	24.9	7.6	7.6	8.3	8.3	99.7	99.7	31.1	31.1	11.0	13.5
					24.9		7.6		8.3		99.7		31.0		16.0	
27 November 2024	16:46	Cloudy	Middle	0.02	21.0	21.0	7.7	7.7	8.0	8.0	90.2	90.2	15.6	15.7	16.0	14.5
					21.0		7.7		8.0		90.1		15.7		13.0	
29 November 2024	14:40	Cloudy	Middle	0.02	21.1	21.1	7.7	7.7	8.5	8.5	95.0	95.0	61.1	61.1	16.0	14.5
					21.1		7.7		8.5		95.0		61.1		13.0	

Water Quality Monitoring Location : TSR1a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	11:09	Cloudy	Middle	0.85	26.4	26.4	7.3	7.3	6.4	6.4	79.4	79.5	5.1	5.1	5.7	5.5
					26.4		7.3		6.4		79.5		5.1		5.2	
04 November 2024	17:36	Cloudy	Middle	0.75	24.5	24.5	7.2	7.2	8.0	8.0	96.3	96.4	3.8	3.8	1.6	1.8
					24.5		7.2		8.0		96.4		3.9		2.0	
06 November 2024	17:01	Cloudy	Middle	0.70	25.7	25.7	7.5	7.5	7.3	7.3	89.6	89.6	18.7	18.4	2.2	2.0
					25.7		7.5		7.3		89.5		18.1		1.7	
08 November 2024	12:17	Cloudy	Middle	0.70	24.3	24.3	7.2	7.1	5.8	5.7	69.4	68.9	5.3	5.4	2.7	2.8
					24.3		7.1		5.7		68.4		5.4		2.9	
11 November 2024	12:30	Sunny	Middle	0.65	24.2	24.2	7.2	7.2	7.2	7.2	85.3	85.3	32.5	32.5	2.4	2.3
					24.2		7.2		7.2		85.2		32.5		2.1	
13 November 2024	16:21	Sunny	Middle	0.55	23.5	23.5	7.5	7.5	7.3	7.3	85.9	86.0	11.5	11.5	3.8	3.5
					23.5		7.5		7.3		86.1		11.5		3.1	
15 November 2024	12:53	Sunny	Middle	0.50	26.0	26.0	7.3	7.3	5.8	5.8	71.9	71.8	40.2	40.2	11.6	10.6
					26.0		7.3		5.8		71.7		40.1		9.5	
18 November 2024	11:44	Sunny	Middle	0.70	25.7	25.7	7.0	7.0	3.2	3.2	39.5	39.6	6.8	6.8	2.6	2.4
					25.7		7.0		3.2		39.7		6.8		2.1	
20 November 2024	14:20	Cloudy	Middle	1.00	21.6	21.6	7.5	7.5	8.0	8.0	91.2	91.2	47.2	47.2	9.3	10.2
					21.6		7.5		8.0		91.2		47.2		11.0	
22 November 2024	13:29	Cloudy	Middle	0.50	21.2	21.2	7.3	7.3	8.3	8.3	93.3	93.5	12.0	12.0	2.6	2.5
					21.2		7.4		8.3		93.6		12.0		2.3	
25 November 2024	14:49	Cloudy	Middle	0.65	23.5	23.5	7.2	7.2	7.2	6.6	71.5	71.5	13.0	13.0	14.0	8.7
					23.5		7.2		6.1		71.4		13.0		3.4	
27 November 2024	17:06	Cloudy	Middle	0.55	22.6	22.6	7.3	7.3	6.7	6.7	78.1	77.4	10.3	10.4	2.7	2.8
					22.6		7.3		6.6		76.7		10.5		2.9	
29 November 2024	15:10	Cloudy	Middle	0.50	21.4	21.4	7.3	7.3	7.4	7.3	83.6	83.4	10.4	10.4	2.7	2.8
					21.4		7.3		7.3		83.1		10.4		2.9	

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Water Quality Monitoring Location : HT

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	09:36	Cloudy	Middle	0.04	27.4	27.4	7.0	7.0	4.3	4.3	54.2	54.5	0.9	0.8	<1.0	<1.0
					27.4		7.0		4.3		54.8		0.8		<1.0	
04 November 2024	16:23	Cloudy	Middle	0.03	25.1	25.1	7.6	7.6	7.9	7.9	96.3	96.2	2.3	2.3	<1.0	<1.0
					25.1		7.6		7.9		96.0		2.3		<1.0	
06 November 2024	10:59	Cloudy	Middle	0.04	25.0	25.0	7.7	7.7	8.0	8.0	97.3	97.3	7.0	7.0	<1.0	<1.0
					25.0		7.7		8.0		97.3		7.1		<1.0	
08 November 2024	11:58	Cloudy	Middle	0.04	22.7	22.7	7.5	7.5	6.7	6.7	78.0	78.0	1.5	1.5	<1.0	<1.0
					22.6		7.5		6.7		78.0		1.5		<1.0	
11 November 2024	10:04	Sunny	Middle	0.03	24.8	24.8	7.3	7.3	6.5	6.5	78.5	78.1	8.5	8.5	<1.0	<1.0
					24.8		7.3		6.4		77.7		8.5		<1.0	
13 November 2024	16:23	Sunny	Middle	0.03	25.1	25.1	7.6	7.6	7.9	7.9	96.3	96.2	2.3	2.3	<1.0	<1.0
					25.1		7.6		7.9		96.0		2.3		<1.0	
15 November 2024	10:24	Sunny	Middle	0.05	25.4	25.4	7.4	7.4	6.3	6.4	77.4	77.7	10.6	10.6	5.6	5.9
					25.4		7.4		6.4		77.9		10.7		6.2	
18 November 2024	11:10	Sunny	Middle	0.03	25.0	25.0	7.3	7.3	5.6	5.5	67.7	67.1	1.1	1.0	1.2	1.3
					25.0		7.3		5.5		66.5		1.0		1.3	
20 November 2024	11:20	Cloudy	Middle	0.10	21.6	21.6	7.7	7.7	8.6	8.6	97.1	97.1	9.5	9.6	7.0	7.1
					21.5		7.7		8.6		97.0		9.6		7.1	
22 November 2024	11:58	Cloudy	Middle	0.07	21.4	21.4	7.6	7.5	7.4	7.4	84.2	84.0	1.4	1.4	7.3	5.8
					21.4		7.5		7.4		83.8		1.4		4.3	
25 November 2024	14:19	Cloudy	Middle	0.08	24.8	24.8	7.5	7.5	8.2	8.2	99.0	99.0	11.6	11.6	3.2	3.1
					24.8		7.5		8.2		99.0		11.6		2.9	
27 November 2024	12:01	Cloudy	Middle	0.03	19.7	19.7	7.8	7.8	3.9	3.9	42.5	42.8	15.6	15.7	1.8	2.0
					19.7		7.8		3.9		43.0		15.7		2.2	
29 November 2024	16:32	Cloudy	Middle	0.03	19.7	19.7	7.8	7.8	3.9	3.9	42.5	42.8	15.6	15.7	1.8	2.0
					19.7		7.8		3.9		43.0		15.7		2.2	

Water Quality Monitoring Location : LUTa

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	10:45	Cloudy	Middle	0.80	27.2	27.2	7.0	7.0	4.2	4.2	54.0	54.1	2.5	2.4	3.4	3.6
					27.2		7.0		4.2		54.1		2.4		3.8	
04 November 2024	13:25	Cloudy	Middle	0.70	25.2	25.2	7.6	7.6	7.5	7.5	90.8	90.9	2.8	2.8	13.0	12.5
					25.2		7.6		7.5		90.9		2.8		12.0	
06 November 2024	17:36	Cloudy	Middle	0.65	25.4	25.4	7.6	7.6	7.4	7.4	90.8	90.8	3.1	3.1	7.1	7.0
					25.4		7.6		7.4		90.8		3.0		6.8	
08 November 2024	14:39	Cloudy	Middle	0.70	25.5	25.5	7.7	7.7	7.3	7.3	89.3	89.4	3.5	3.5	1.5	1.6
					25.5		7.7		7.3		89.4		3.5		1.6	
11 November 2024	13:00	Sunny	Middle	0.90	24.1	24.1	7.3	7.3	7.2	7.2	85.9	86.0	31.5	31.5	5.8	5.5
					24.1		7.3		7.2		86.1		31.5		5.1	
13 November 2024	15:59	Sunny	Middle	0.90	23.4	23.4	7.3	7.3	6.9	6.9	80.7	80.7	17.5	17.5	3.0	3.3
					23.4		7.3		6.9		80.7		17.4		3.5	
15 November 2024	14:25	Sunny	Middle	0.60	24.9	24.9	7.2	7.2	7.3	7.3	87.9	88.2	7.6	7.6	6.4	6.2
					24.9		7.2		7.3		88.4		7.5		5.9	
18 November 2024	13:28	Sunny	Middle	0.75	26.2	26.2	7.3	7.3	2.1	2.1	25.9	25.8	5.2	5.2	4.8	5.4
					26.2		7.3		2.1		25.6		5.2		5.9	
20 November 2024	14:45	Cloudy	Middle	0.90	20.7	20.7	7.6	7.6	7.6	7.6	84.9	85.0	16.8	16.8	4.7	4.6
					20.7		7.6		7.6		85.1		16.8		4.5	
22 November 2024	13:56	Cloudy	Middle	0.60	21.2	21.2	7.3	7.3	4.3	4.4	49.0	49.6	12.0	11.9	15.0	15.0
					21.2		7.3		4.5		50.2		11.9		15.0	
25 November 2024	15:49	Cloudy	Middle	0.60	23.0	23.0	7.3	7.3	4.8	4.8	56.0	55.9	24.1	24.1	3.4	3.2
					23.0		7.3		4.8		55.7		24.0		2.9	
27 November 2024	17:45	Cloudy	Middle	0.65	21.7	21.7	7.3	7.3	3.0	3.0	34.6	34.1	9.9	9.9	5.2	4.6
					21.7		7.3		3.0		33.6		9.9		4.0	
29 November 2024	17:31	Cloudy	Middle	0.60	19.3	19.3	7.5	7.5	3.4	3.4	37.2	36.7	15.4	15.3	5.2	4.6
					19.3		7.5		3.3		36.1		15.3		4.0	

Water Quality Monitoring Location : D2a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	09:48	Cloudy	Middle	0.50	27.1	27.1	6.8	6.8	6.0	5.9	77.5	76.8	1.0	1.0	19.3	14.7
					27.1		6.8		5.9		76.0		1.0		10.0	
04 November 2024	17:49	Cloudy	Middle	0.60	25.3	25.3	7.2	7.2	7.8	7.8	94.7	94.7	1.4	1.4	1.8	1.9
					25.3		7.2		7.8		94.7		1.4		1.9	
06 November 2024	17:37	Cloudy	Middle	0.50	25.5	25.5	7.3	7.3	7.8	7.8	96.9	96.9	2.1	2.1	7.0	6.3
					25.5		7.3		7.8		96.9		2.1		5.5	
08 November 2024	14:29	Cloudy	Middle	0.50	25.4	25.4	7.4	7.4	7.7	7.7	95.2	95.5	3.0	2.9	5.3	5.7
					25.4		7.5		7.7		95.7		2.9		6.1	
11 November 2024	13:23	Sunny	Middle	0.10	24.0	24.0	7.6	7.6	8.1	8.1	96.7	96.7	2.4	2.4	2.6	2.6
					24.0		7.6		8.1		96.7		2.4		2.6	
13 November 2024	16:37	Sunny	Middle	0.10	23.5	23.5	7.6	7.6	8.2	8.2	96.4	96.4	1.2	1.2	5.0	5.0
					23.5		7.6		8.2		96.4		1.2		4.9	
15 November 2024	13:34	Sunny	Middle	0.05	25.7	25.7	7.5	7.5	7.6	7.6	92.8	92.9	8.6	8.6	3.8	3.1
					25.7		7.5		7.6		92.9		8.6		2.3	
18 November 2024	13:55	Sunny	Middle	0.95	26.1	26.1	7.0	7.0	5.1	5.0	64.4	63.8	4.9	4.9	5.1	5.0
					26.1		7.0		5.0		63.1		4.8		4.9	
20 November 2024	16:17	Cloudy	Middle	0.90	20.9	20.9	7.8	7.8	7.1	7.1	79.7	79.3	4.6	4.6	7.7	7.3
					20.9		7.8		7.0		78.9		4.6		6.8	
22 November 2024	15:46	Cloudy	Middle	0.07	21.1	21.1	7.3	7.3	7.2	7.2	81.8	81.6	7.4	7.3	7.7	7.3
					21.1		7.3		7.2		81.3		7.3		6.8	
25 November 2024	15:20	Cloudy	Middle	0.10	23.8	23.8	7.4	7.4	8.5	8.5	100.5	100.5	7.6	7.6	3.2	3.0
					23.8		7.4		8.5		100.5		7.6		2.7	
27 November 2024	17:29	Cloudy	Middle	0.50	22.9	22.9	7.4	7.4	7.0	7.0	82.5	82.4	9.4	9.4	8.8	8.4
					22.9		7.4		7.0		82.2		9.4		7.9	
29 November 2024	17:14	Cloudy	Middle	0.50	20.9	20.9	7.3	7.3	4.9	4.9	55.8	55.8	11.4	11.4	8.8	8.4
					20.9		7.3		4.9		55.7		11.4		7.9	

Remark: The above highlighted measured values were determined as the Action or Limit Level exceedance recorded during the reporting period.

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Water Quality Monitoring Location : D3

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	12:40	Cloudy	Middle	0.09	25.0	25.0	7.5	7.3	6.3	6.7	75.7	75.6	7.5	7.4	23.8	19.2
					25.0		7.2		7.2		75.4		7.2		14.6	
04 November 2024	10:06	Cloudy	Middle	0.10	24.9	24.9	7.6	7.5	5.8	5.7	70.1	69.3	5.5	5.5	12.0	9.7
					24.9		7.5		5.7		68.5		5.4		7.3	
06 November 2024	12:52	Cloudy	Middle	0.09	24.5	24.5	7.4	7.4	6.2	6.1	74.1	73.5	7.7	7.6	27.4	37.5
					24.5		7.4		6.1		72.9		7.6		47.5	
08 November 2024	11:55	Cloudy	Middle	0.10	21.3	21.4	6.2	6.2	7.6	6.9	70.4	70.3	25.6	25.8	13.2	11.8
					21.4		6.2		6.2		70.1		26.0		10.4	
11 November 2024	12:02	Sunny	Middle	0.03	25.1	25.1	7.1	7.1	5.1	5.1	62.3	62.2	21.8	21.9	60.0	58.5
					25.1		7.1		5.1		62.0		22.0		57.0	
13 November 2024	10:43	Sunny	Middle	0.02	23.9	23.9	7.6	7.6	5.0	5.0	59.0	59.0	9.9	9.9	40.2	37.8
					23.9		7.6		5.0		59.0		9.9		35.4	
15 November 2024	16:02	Sunny	Middle	0.03	24.8	24.8	7.5	7.5	6.7	6.7	80.9	80.9	1.5	1.5	3.6	3.6
					24.8		7.5		6.7		80.8		1.5		3.6	
18 November 2024	14:16	Sunny	Middle	0.03	25.0	25.0	7.5	7.5	6.0	6.0	72.9	73.2	4.8	4.8	4.0	3.5
					25.0		7.5		6.1		73.5		4.8		2.9	
20 November 2024	16:18	Cloudy	Middle	0.09	22.2	22.2	7.5	7.5	8.3	8.3	95.0	95.0	9.1	9.1	6.4	7.8
					22.2		7.5		8.3		94.9		9.1		9.2	
22 November 2024	15:22	Cloudy	Middle	0.05	21.1	21.1	7.4	7.4	8.5	8.5	95.4	95.6	1.8	1.7	6.4	7.8
					21.1		7.4		8.5		95.7		1.7		9.2	
25 November 2024	16:59	Cloudy	Middle	0.02	24.1	24.1	7.3	7.3	7.8	7.8	93.1	93.1	10.4	10.4	3.6	2.9
					24.1		7.3		7.8		93.1		10.4		2.1	
27 November 2024	13:59	Cloudy	Middle	0.02	20.2	20.2	7.4	7.4	6.3	6.3	69.7	69.3	2.9	2.8	1.7	1.6
					20.2		7.4		6.2		68.8		2.8		1.4	
29 November 2024	10:49	Cloudy	Middle	0.02	18.4	18.4	7.5	7.4	7.0	7.0	74.8	74.6	2.6	2.6	1.7	1.6
					18.4		7.4		7.0		74.4		2.6		1.4	

Remark: The above highlighted measured values were determined as the Action or Limit Level exceedance recorded during the reporting period.

Water Quality Monitoring Location : D5a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	12:02	Cloudy	Middle	0.03	23.6	23.6	7.4	7.4	7.6	7.6	89.7	89.6	18.2	18.3	11.0	9.1
					23.6		7.4		7.6		89.5		18.4		7.1	
04 November 2024	11:26	Cloudy	Middle	0.03	25.0	25.0	9.4	9.4	6.8	6.7	81.8	81.7	55.1	55.1	41.0	39.0
					25.0		9.4		6.7		81.5		55.1		37.0	
06 November 2024	11:59	Cloudy	Middle	0.03	24.4	24.4	11.0	11.0	7.0	7.4	94.3	94.2	46.9	46.8	27.1	24.3
					24.4		11.0		7.9		94.1		46.8		21.4	
08 November 2024	12:19	Cloudy	Middle	0.03	21.5	21.5	11.2	11.2	8.2	8.2	93.0	93.0	61.0	60.9	63.2	65.3
					21.5		11.2		8.2		92.9		60.9		67.4	
11 November 2024	12:35	Sunny	Middle	0.02	23.3	23.3	6.4	6.4	8.8	8.8	102.9	103.1	14.5	14.4	6.8	6.4
					23.3		6.4		8.8		103.3		14.3		5.9	
13 November 2024	11:05	Sunny	Middle	0.02	23.8	23.8	9.5	9.5	6.9	6.9	82.1	82.1	19.8	19.8	35.4	49.4
					23.8		9.5		6.9		82.1		19.8		63.4	
15 November 2024	16:39	Sunny	Middle	0.02	22.9	23.1	8.3	8.3	8.4	8.3	97.6	97.2	7.4	7.3	11.5	11.4
					23.3		8.3		8.2		96.8		7.3		11.2	
18 November 2024	17:40	Sunny	Middle	0.02	25.1	25.1	7.5	7.5	8.1	8.1	98.3	98.4	2.3	2.3	2.2	1.9
					25.0		7.5		8.1		98.4		2.3		1.5	
20 November 2024	15:43	Cloudy	Middle	0.04	22.1	22.1	7.5	7.5	8.1	8.1	93.1	93.1	10.7	10.7	3.9	4.1
					22.1		7.5		8.1		93.1		10.8		4.3	
22 November 2024	16:40	Cloudy	Middle	0.05	21.0	21.0	7.5	7.0	9.0	9.0	101.3	101.3	2.3	2.3	3.9	4.1
					21.0		6.5		9.0		101.3		2.3		4.3	
25 November 2024	12:20	Cloudy	Middle	0.02	24.0	24.0	7.6	7.6	8.5	8.5	101.0	101.0	6.2	6.2	41.0	34.0
					24.0		7.6		8.5		101.0		6.2		27.0	
27 November 2024	16:00	Cloudy	Middle	0.02	20.6	20.6	7.2	7.2	8.7	8.7	96.7	96.7	6.5	6.5	7.7	6.4
					20.6		7.2		8.7		96.6		6.4		5.1	
29 November 2024	13:51	Cloudy	Middle	0.02	20.8	20.8	8.2	8.2	9.0	9.0	100.4	100.5	16.5	16.4	7.7	6.4
					20.8		8.2		9.0		100.5		16.4		5.1	

Remark: The above highlighted measured values were determined as the Action or Limit Level exceedance recorded during the reporting period.

Water Quality Monitoring Location : D6a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 November 2024	12:20	Cloudy	Middle	0.20	23.6	23.6	7.5	7.5	7.7	7.7	90.6	90.5	17.8	17.8	5.9	5.2
					23.6		7.5		7.7		90.4		17.8		4.4	
04 November 2024	11:36	Cloudy	Middle	0.20	23.4	23.4	7.8	7.8	7.5	7.4	87.5	87.3	17.2	17.2	2.6	3.2
					23.4		7.7		7.4		87.1		17.2		3.8	
06 November 2024	12:52	Cloudy	Middle	0.19	24.5	24.5	7.5	7.4	6.3	6.2	75.0	74.9	7.3	7.3	5.1	4.7
					24.5		7.4		6.2		74.7		7.4		4.3	
08 November 2024	12:28	Cloudy	Middle	0.19	21.3	21.3	9.1	8.9	8.5	8.5	96.0	95.8	17.4	17.5	4.2	4.9
					21.3		8.8		8.5		95.6		17.5		5.5	
11 November 2024	12:45	Sunny	Middle	0.19	23.6	23.6	6.9	6.9	8.8	8.8	103.2	103.2	13.2	13.1	7.2	8.4
					23.6		6.9		8.8		103.1		13.1		9.5	
13 November 2024	11:14	Sunny	Middle	0.17	22.2	22.2	8.0	8.0	8.1	8.1	92.7	92.7	15.8	15.8	4.9	4.7
					22.2		8.0		8.1		92.6		15.8		4.4	
15 November 2024	17:00	Sunny	Middle	0.16	23.2	23.2	6.9	6.9	8.5	8.4	98.9	98.8	11.3	11.2	3.4	3.1
					23.1		6.9		8.4		98.6		11.2		2.8	
18 November 2024	15:23	Sunny	Middle	0.14	23.5	23.5	7.1	7.1	7.9	7.9	93.3	93.3	12.2	12.2	3.4	3.1
					23.5		7.1		7.9		93.2		12.3		2.8	
20 November 2024	16:14	Cloudy	Middle	0.19	22.8	22.8	7.5	7.5	8.7	8.7	99.4	99.4	12.9	13.0	5.7	7.1
					22.8		7.5		8.7		99.4		13.0		8.4	
22 November 2024	17:10	Cloudy	Middle	0.14	20.7	20.7	7.5	7.5	9.1	9.1	101.0	101.0	2.6	2.6	5.7	7.1
					20.7		7.5		9.1		101.0		2.6		8.4	
25 November 2024	12:15	Cloudy	Middle	0.12	21.0	21.0	7.3	7.3	8.7	8.6	97.1	97.1	7.9	7.8	10.0	8.6
					21.0		7.3		8.6		97.0		7.8		7.1	
27 November 2024	15:43	Cloudy	Middle	0.12	19.2	19.2	7.8	7.7	8.9	8.9	96.7	96.7	8.2	8.2	4.0	3.8
					19.2		7.7		8.9		96.6		8.2		3.5	
29 November 2024	12:29	Cloudy	Middle	0.11	20.8	20.8	6.9	6.9	8.8	8.8	98.7	98.7	4.0	4.0	4.0	3.8
					20.8		6.9		8.8		98.7		4.1		3.5	

Remark: The above highlighted measured values were determined as the Action or Limit Level exceedance recorded during the reporting period.

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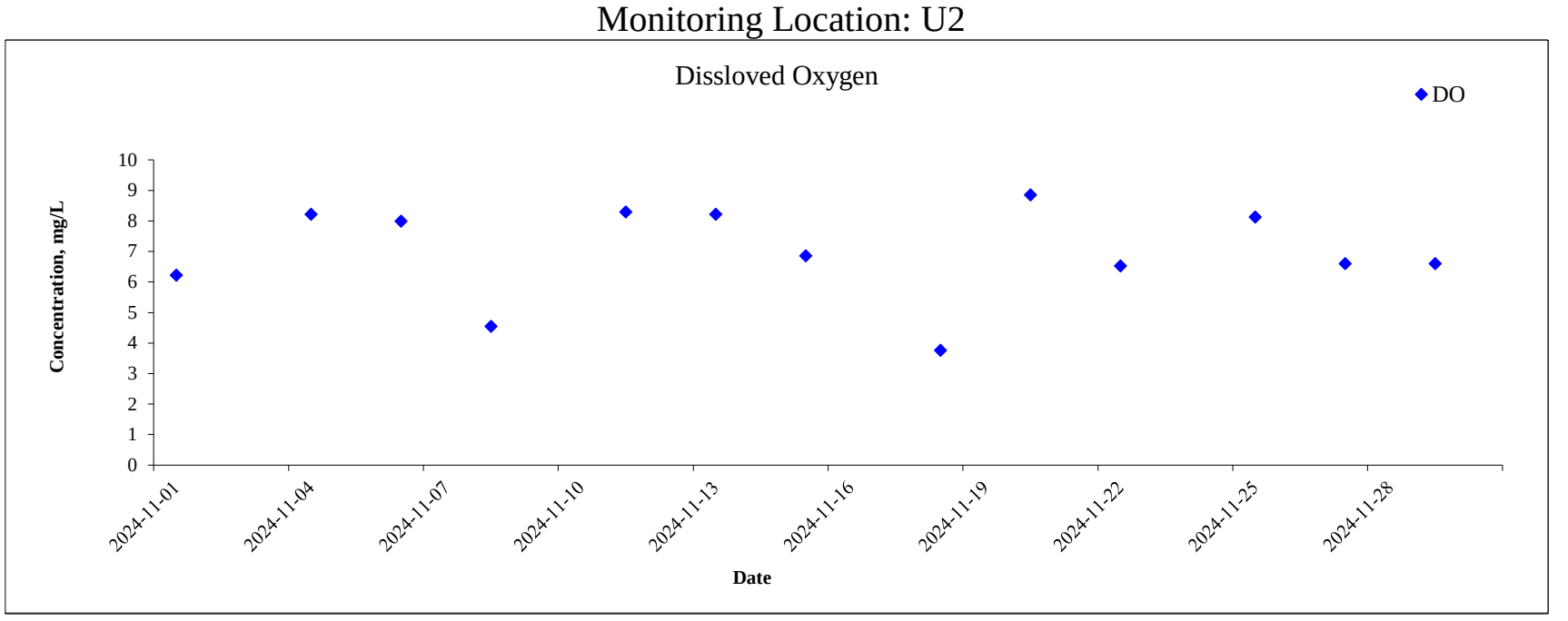
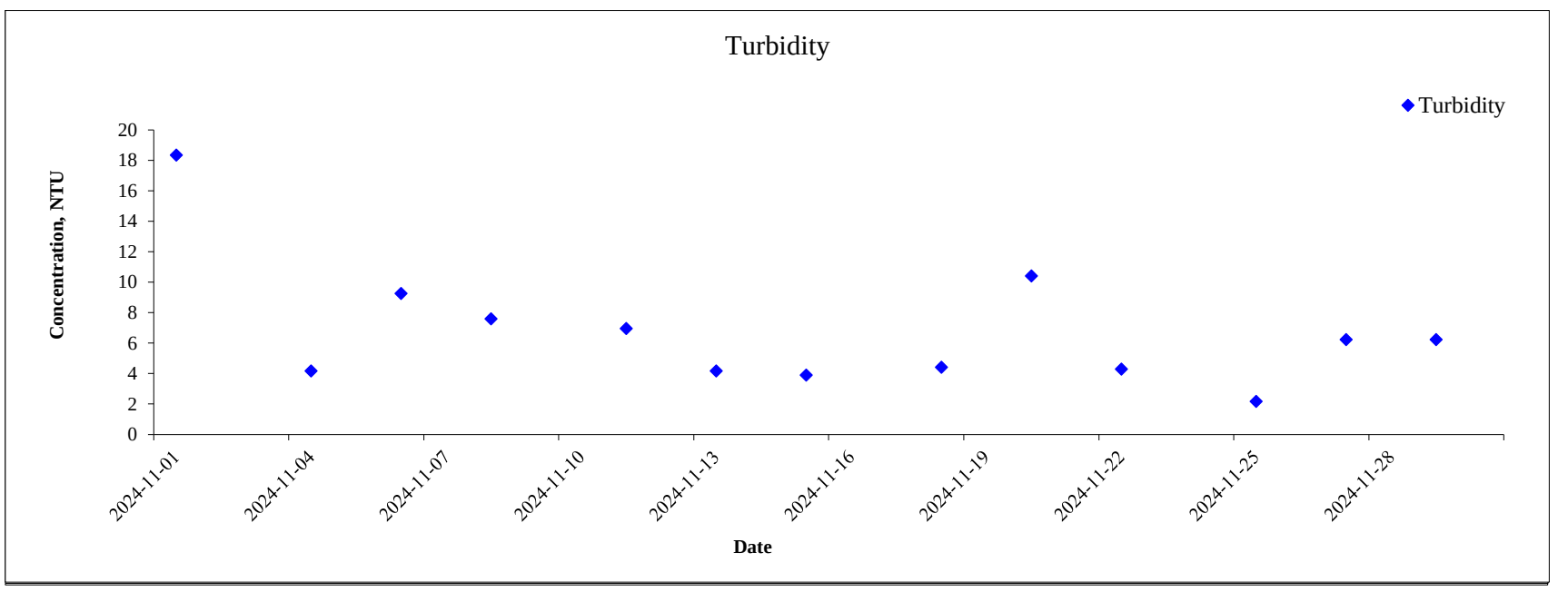
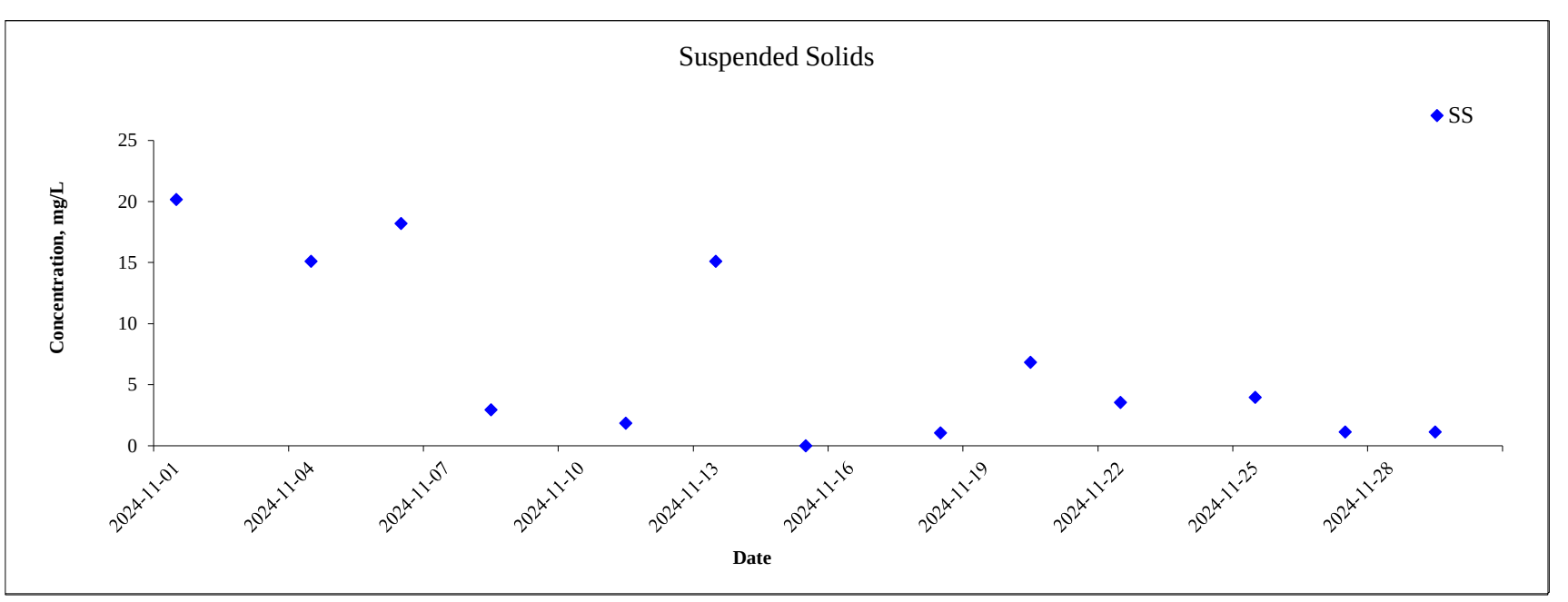
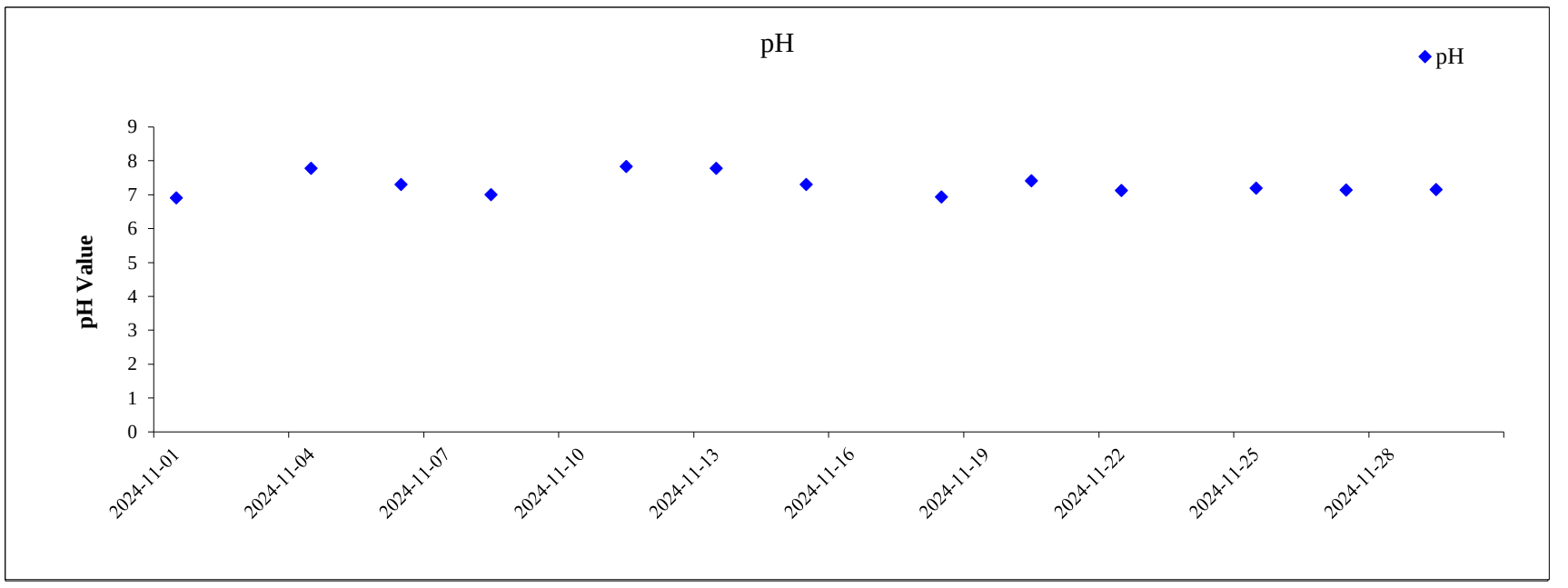
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location: U2









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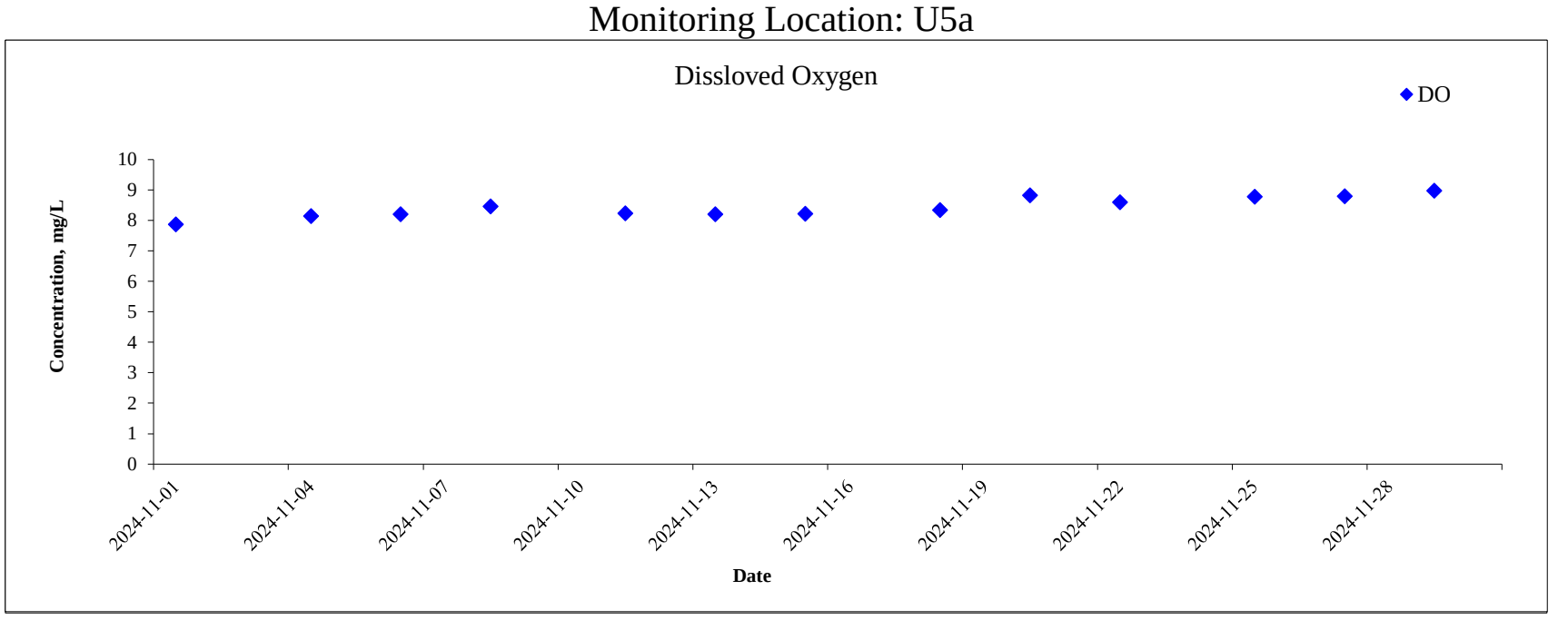
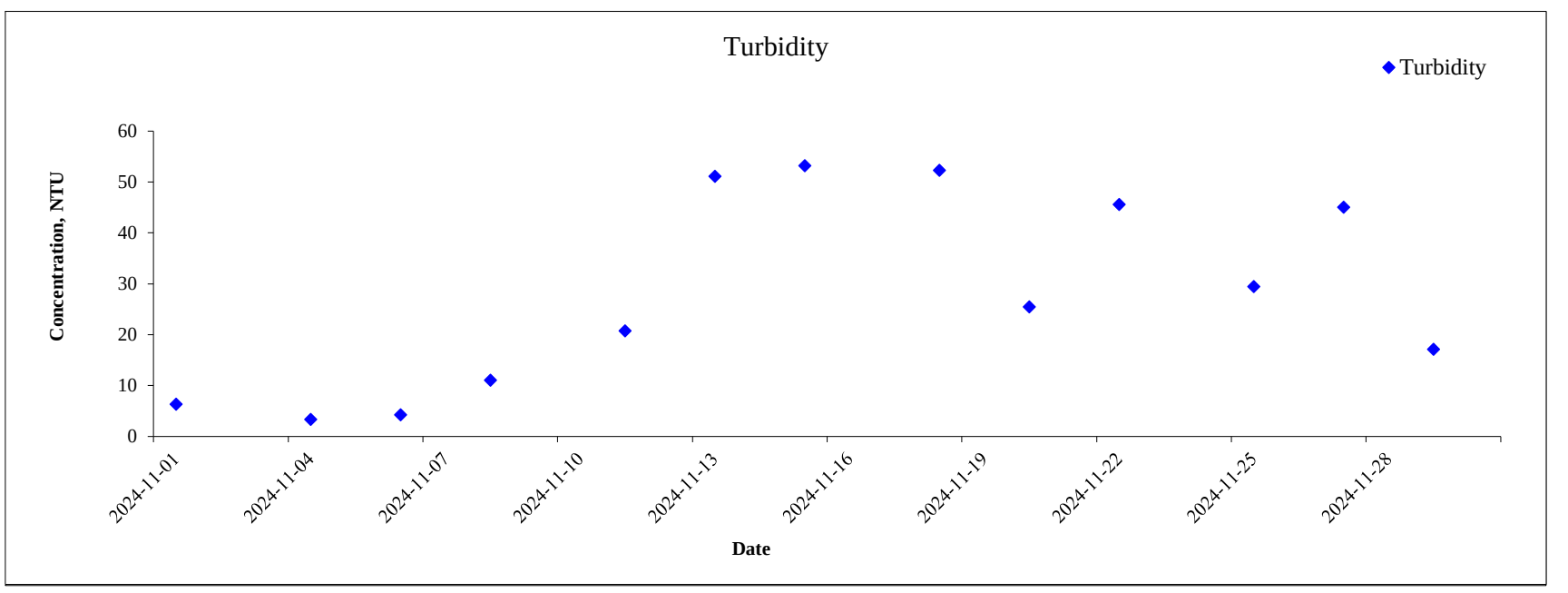
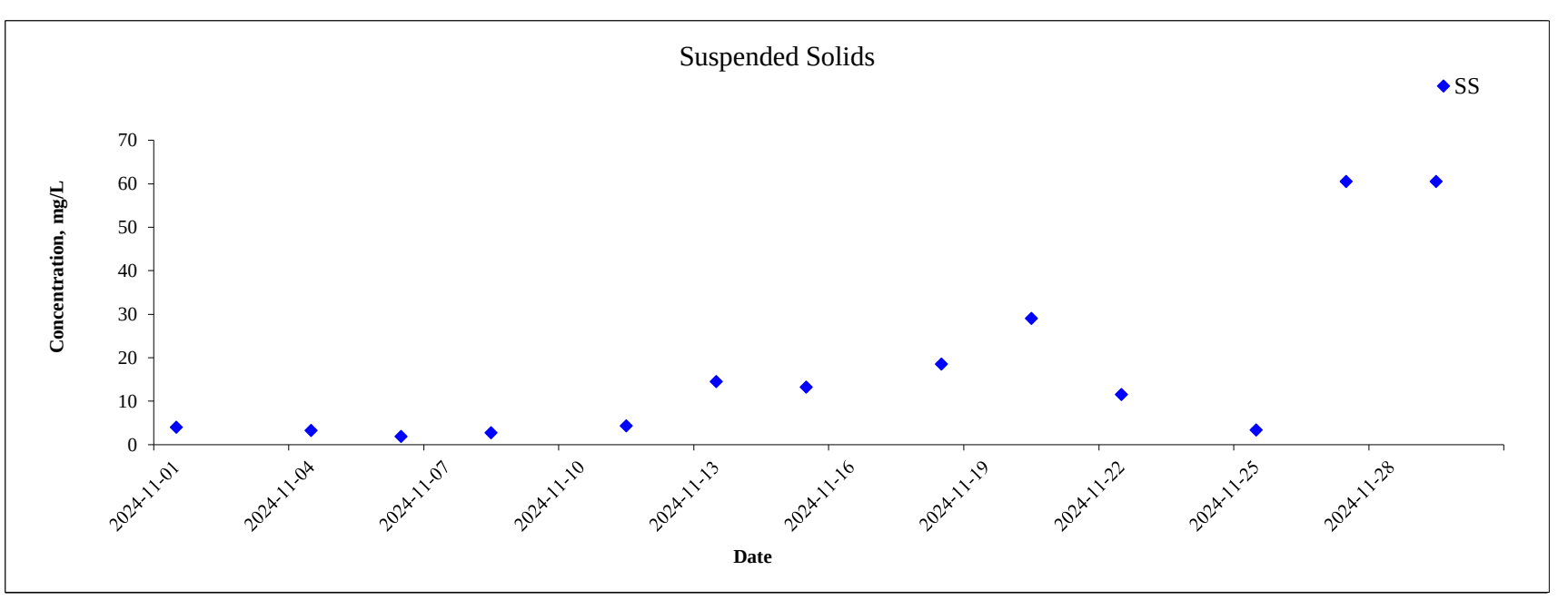
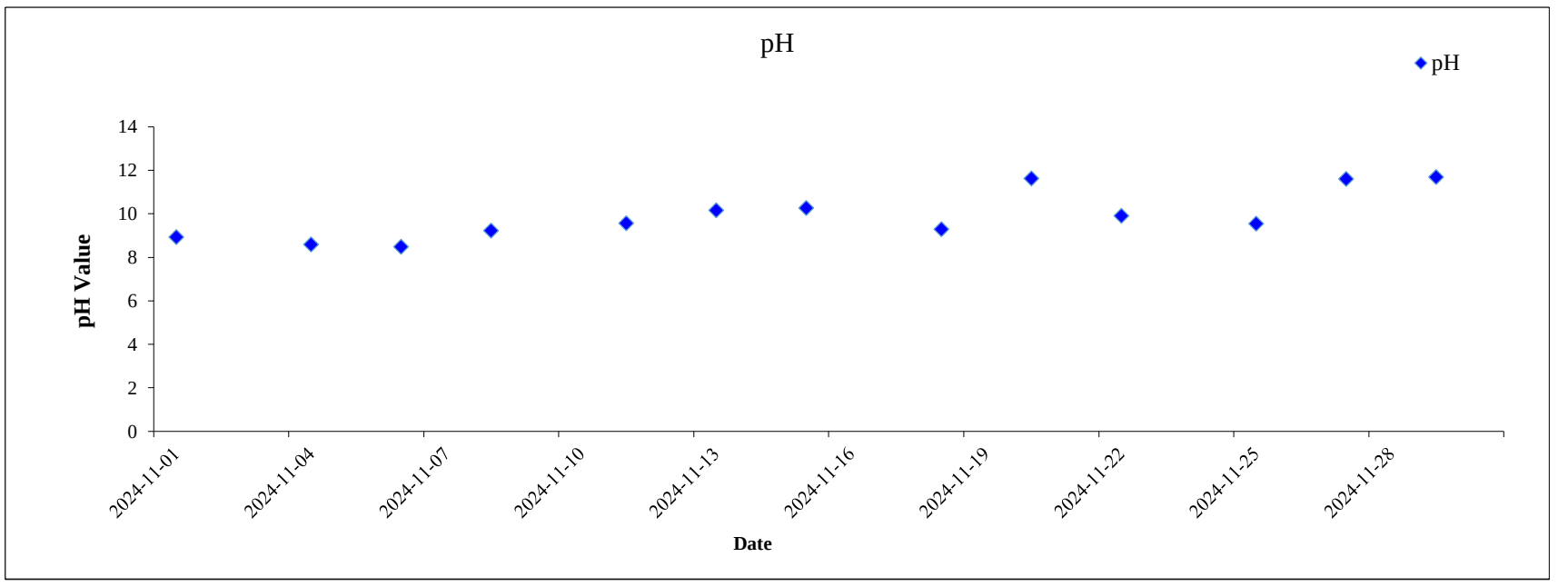
Monitoring Location: U5a









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Hung Shui Kiu/Ha Tsuen New Development Area
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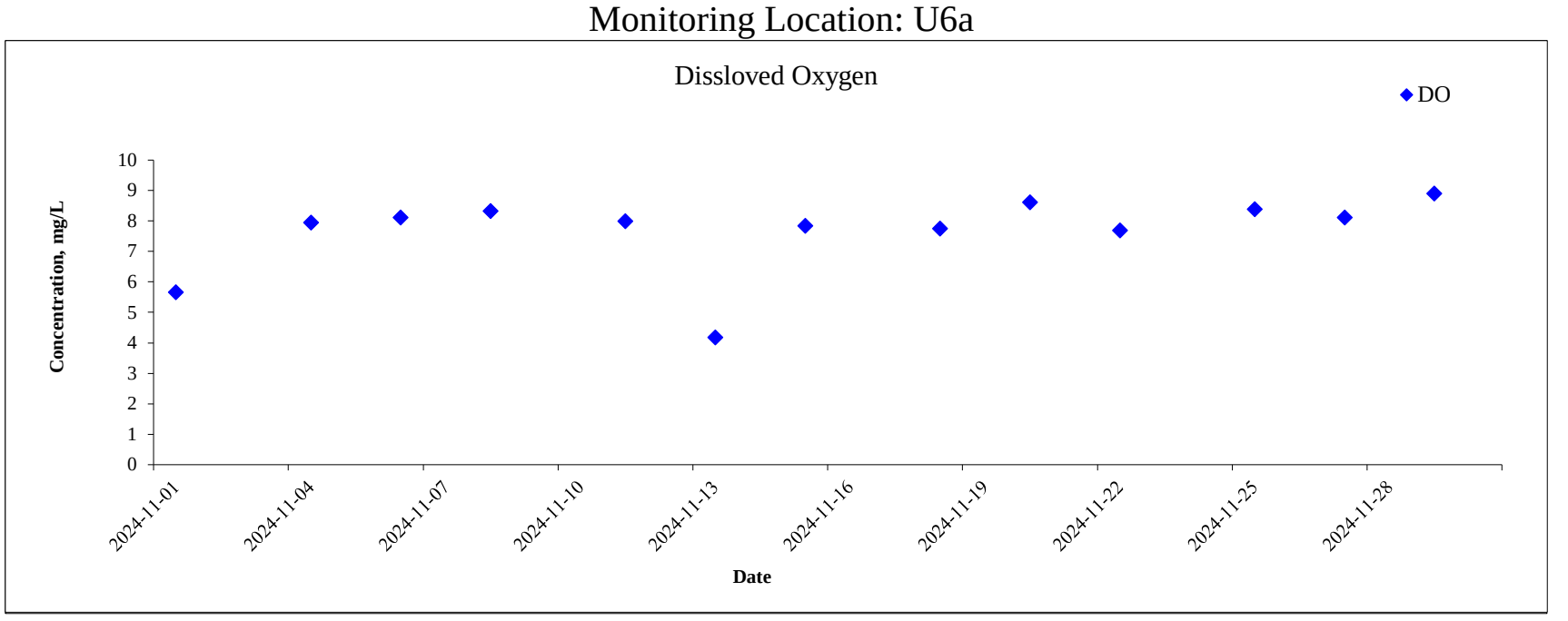
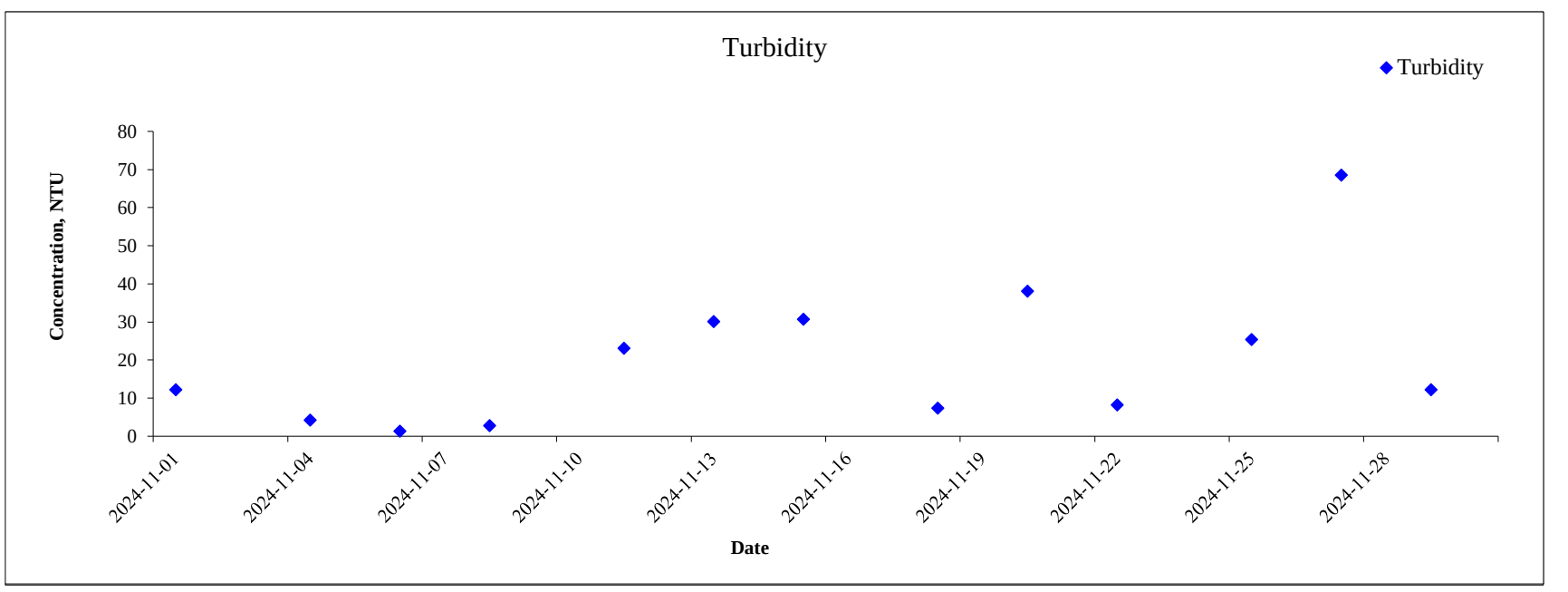
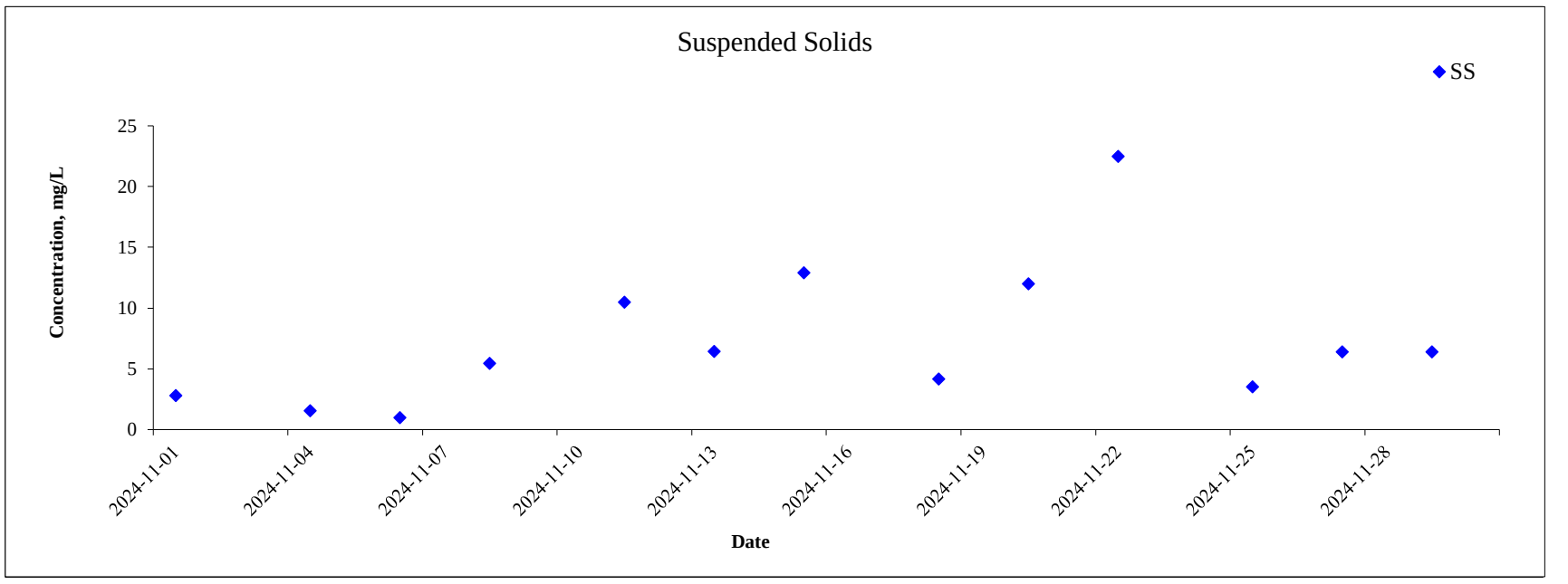
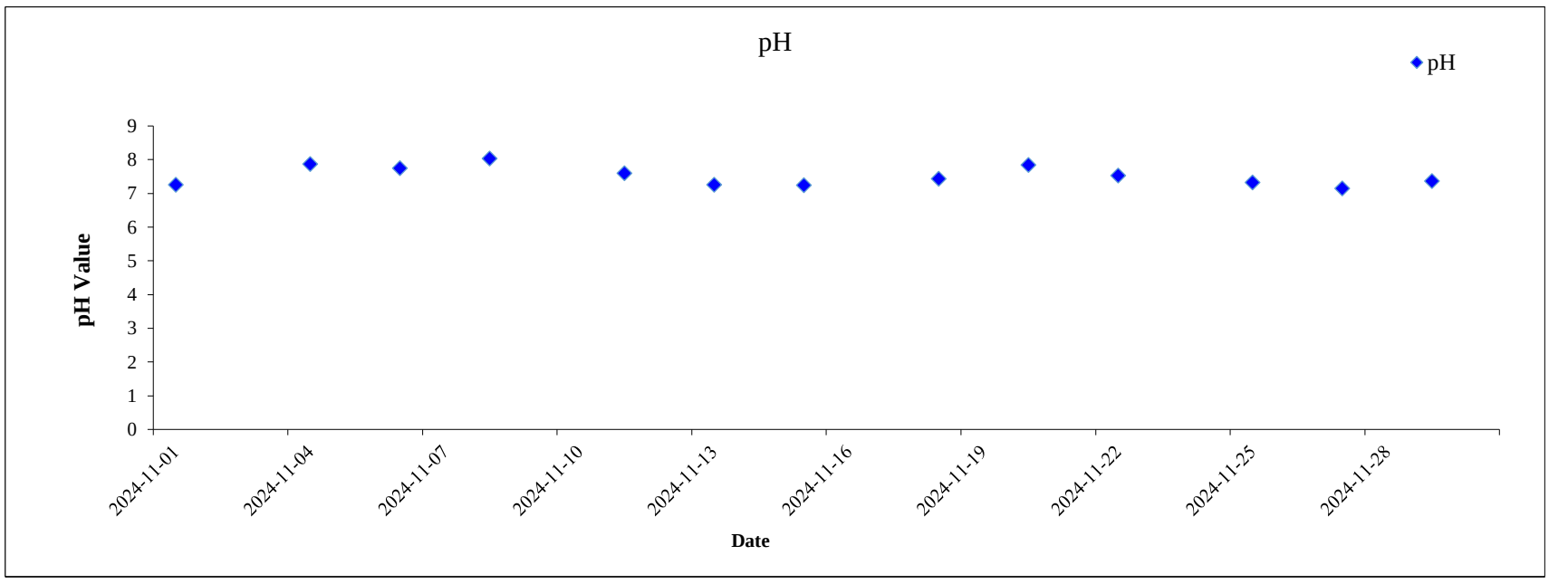
Water Quality Monitoring Result

Monitoring Location: U6a









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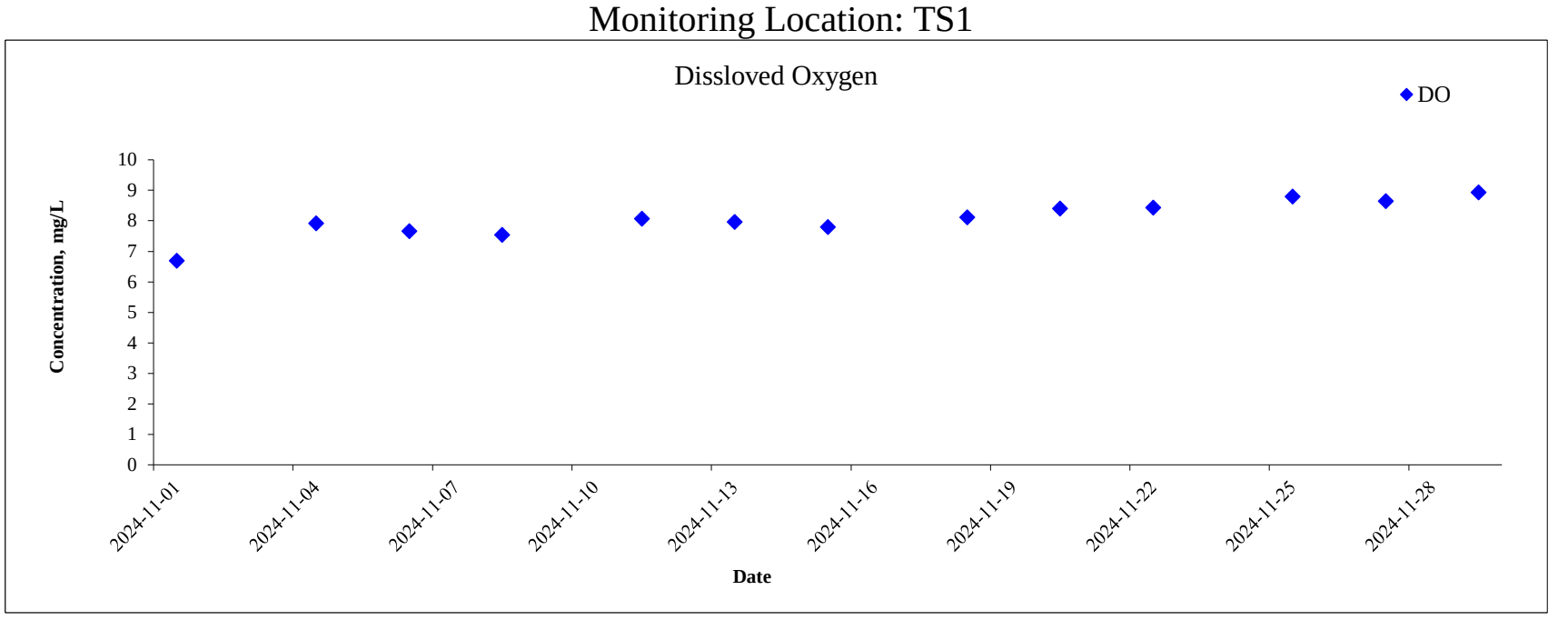
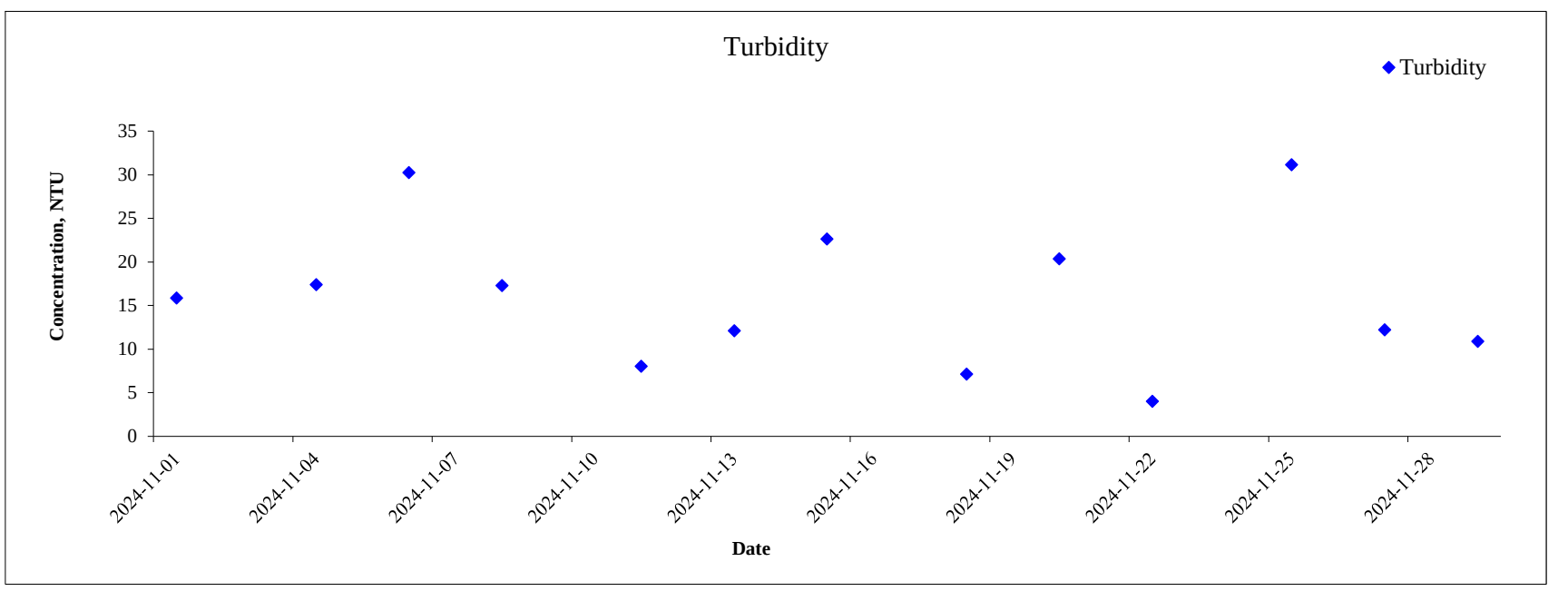
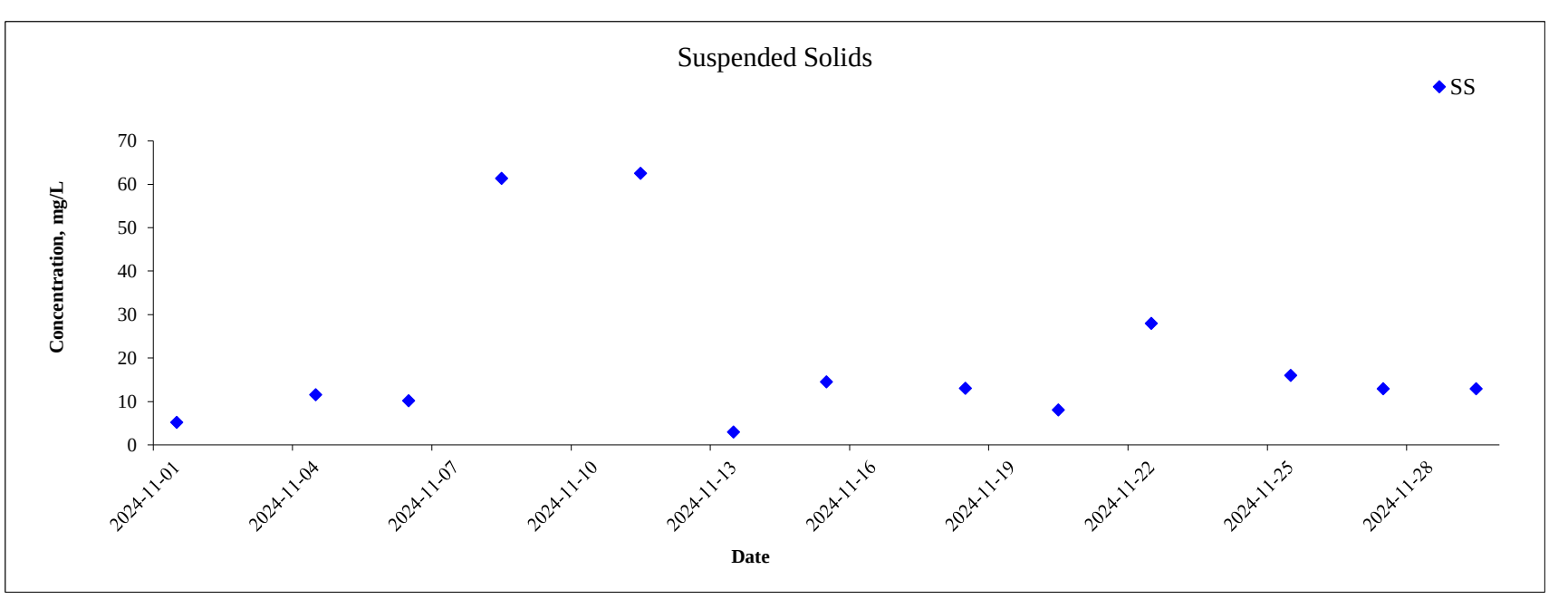
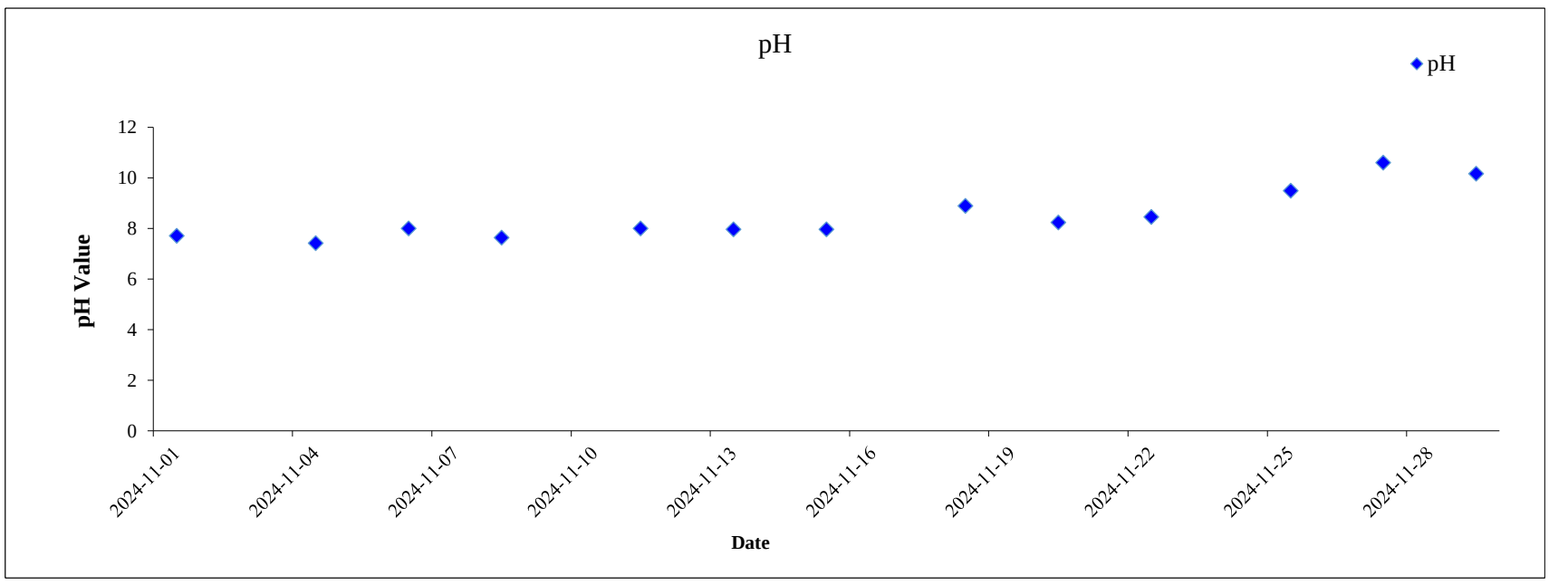
Monitoring Location: TS1









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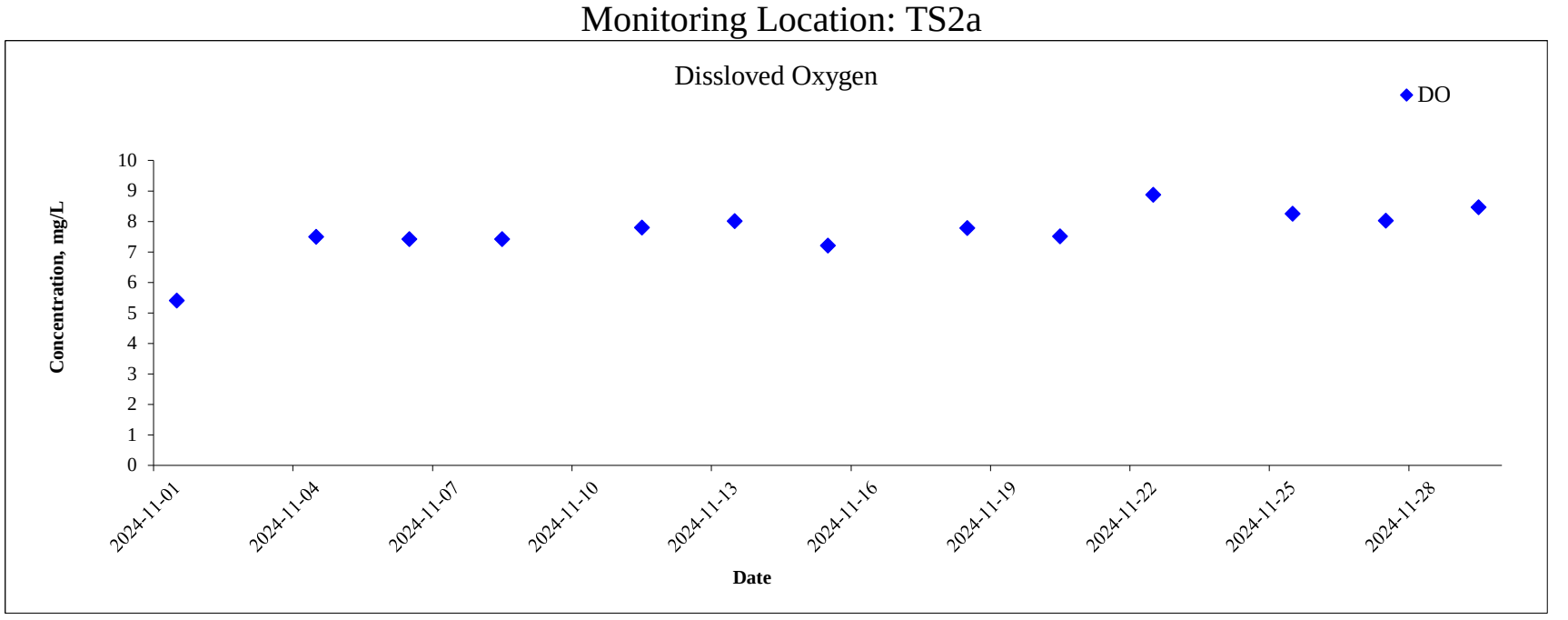
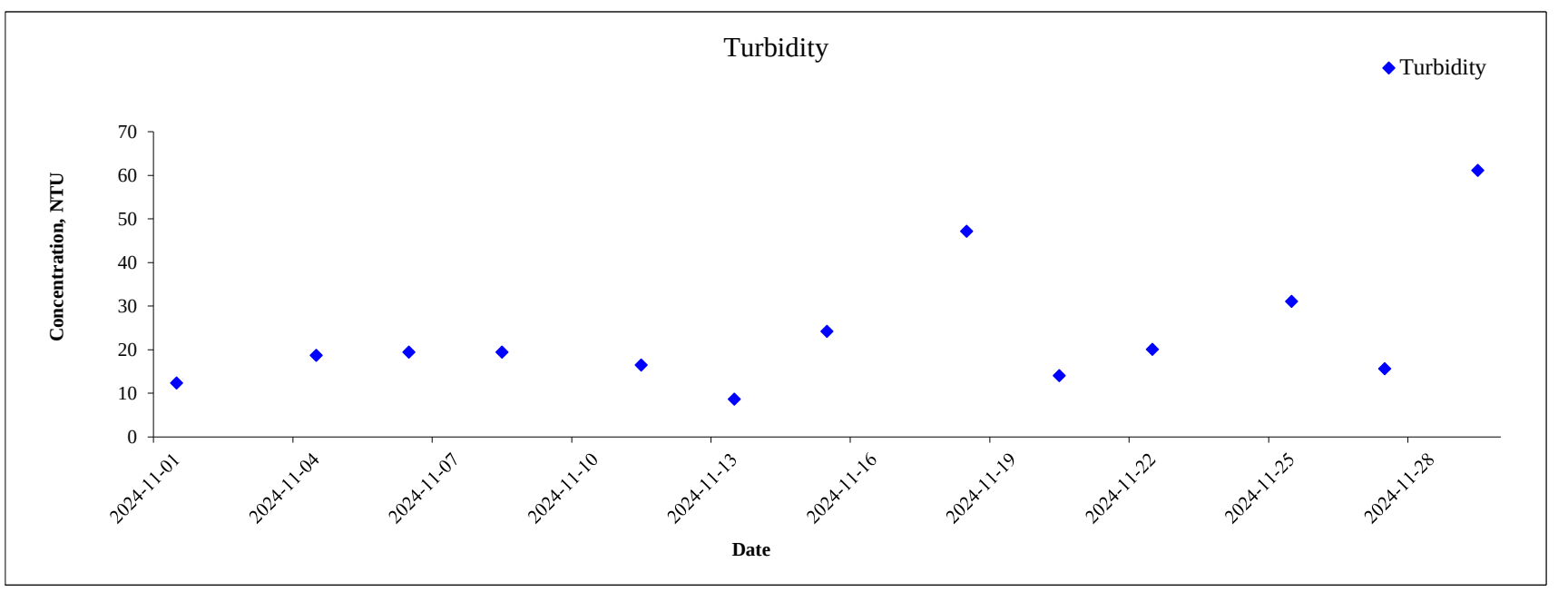
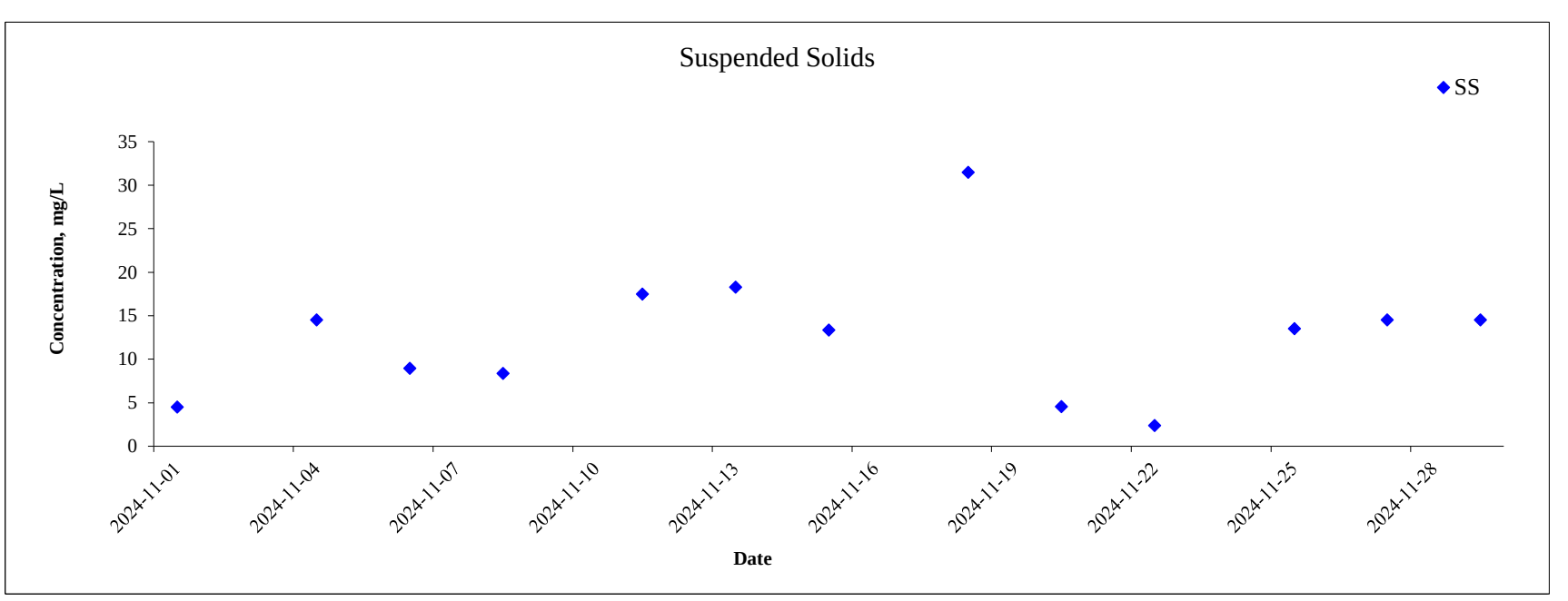
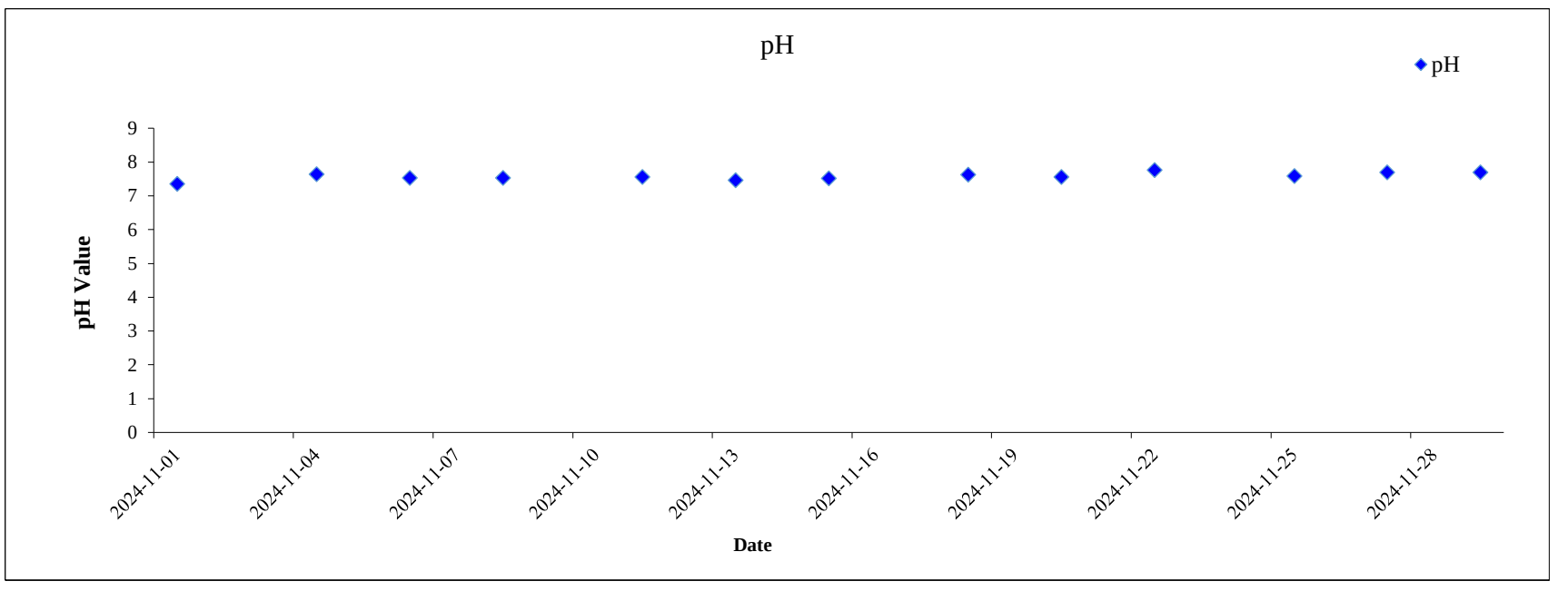
Water Quality Monitoring Result

Monitoring Location: TS2a









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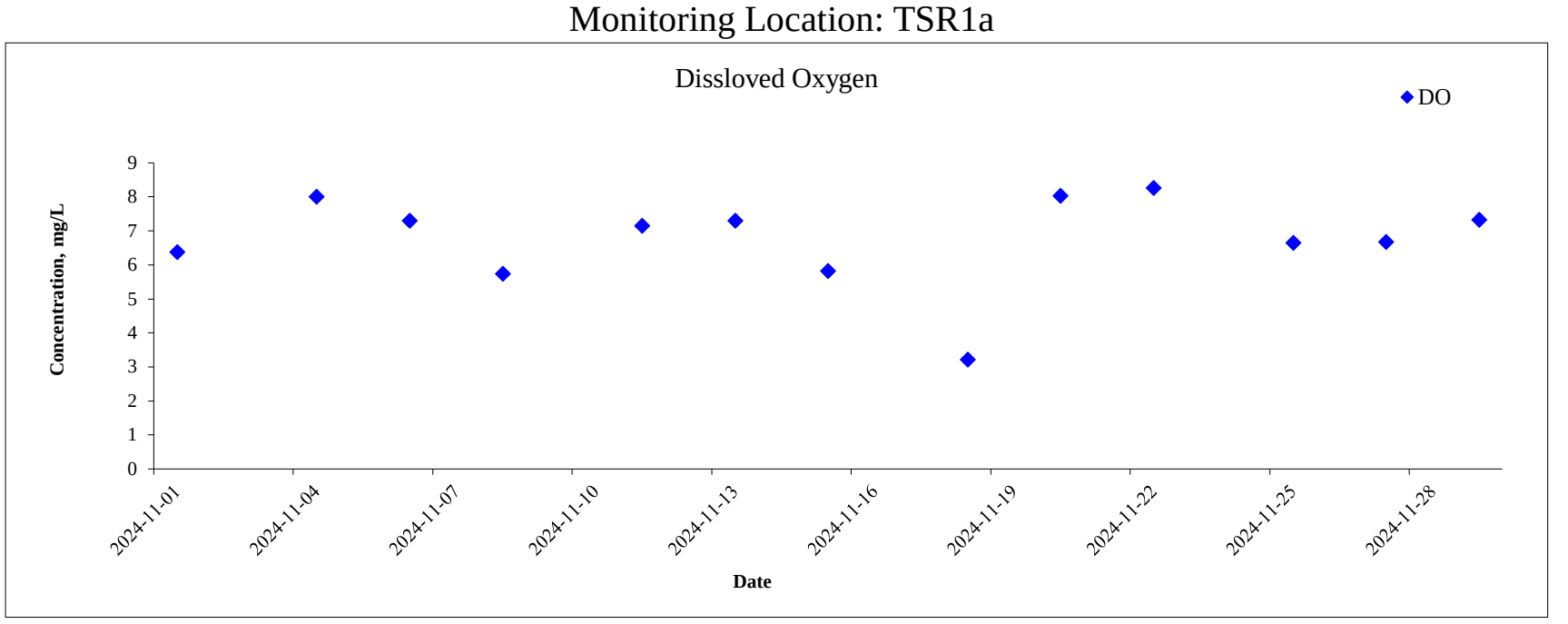
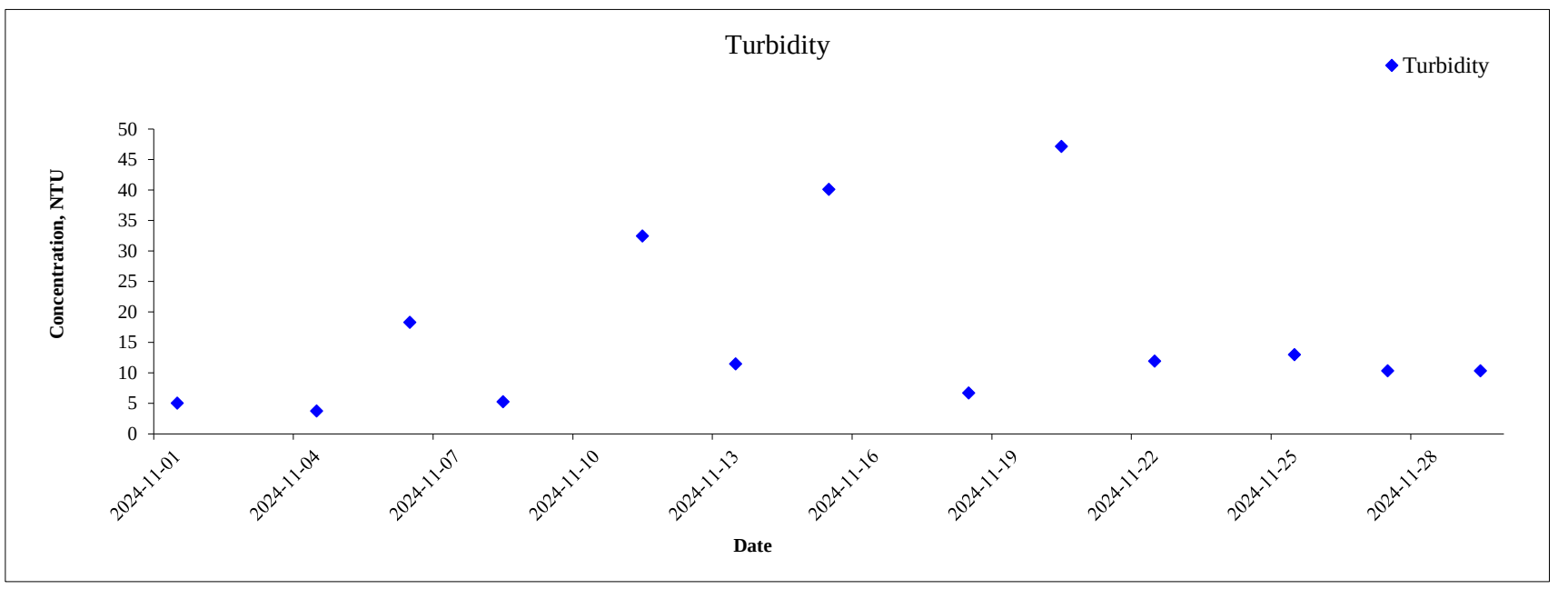
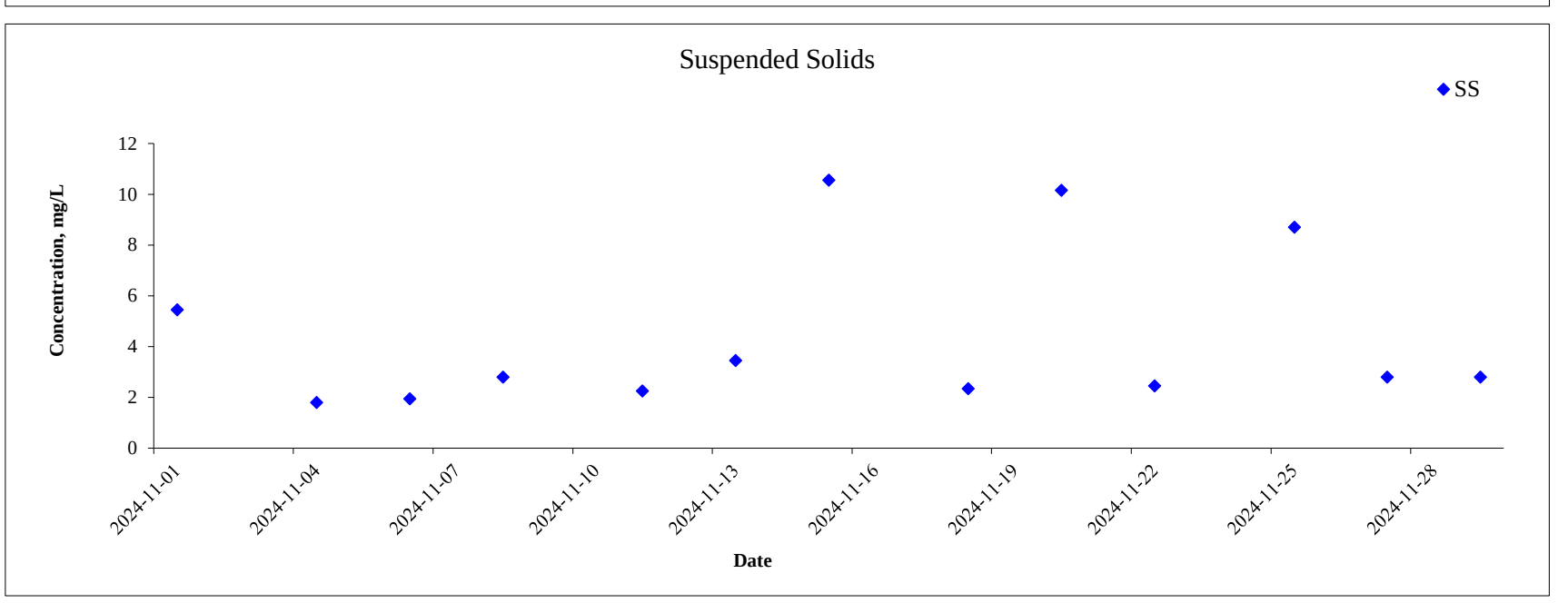
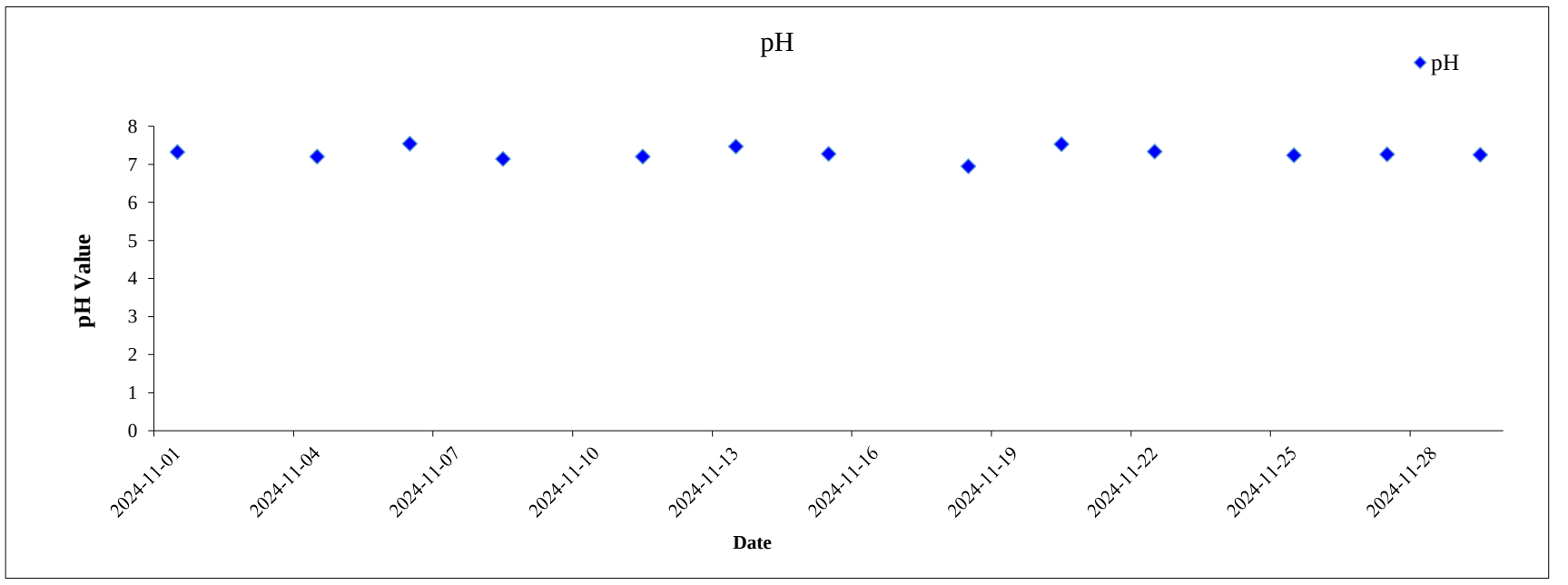
Water Quality Monitoring Result

Monitoring Location: TSR1a









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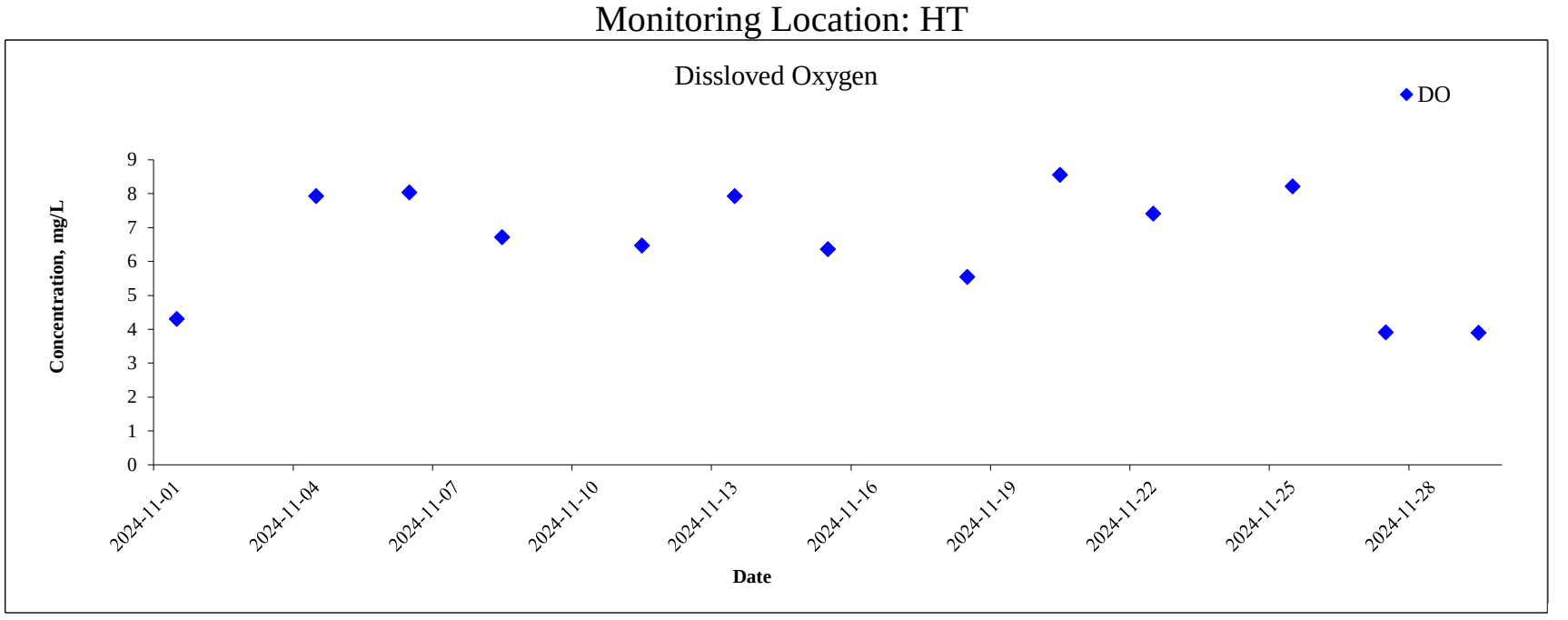
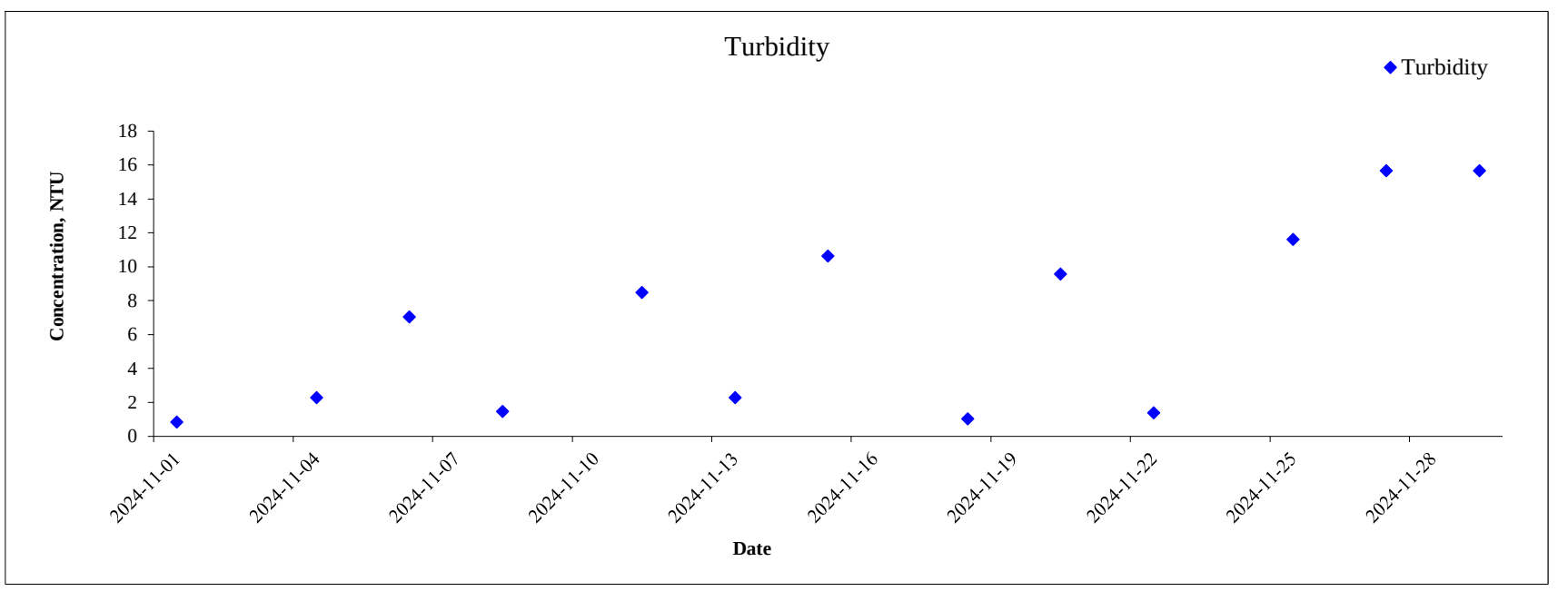
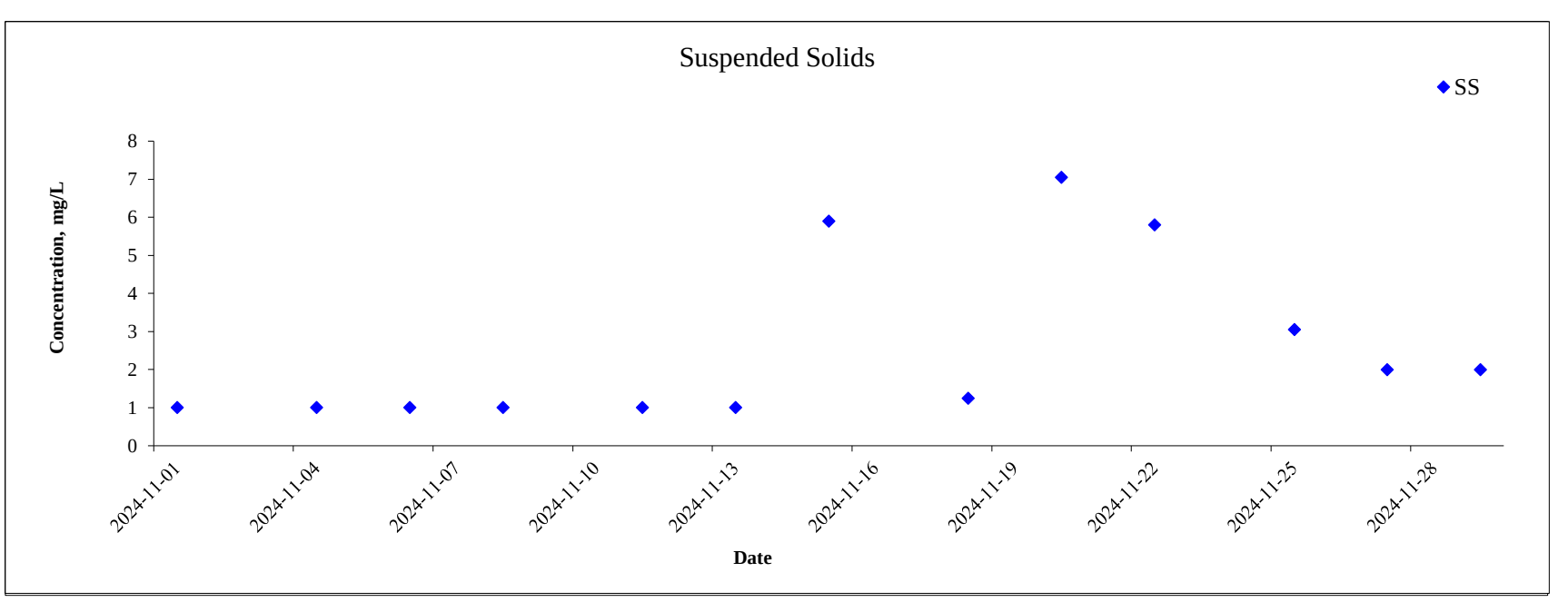
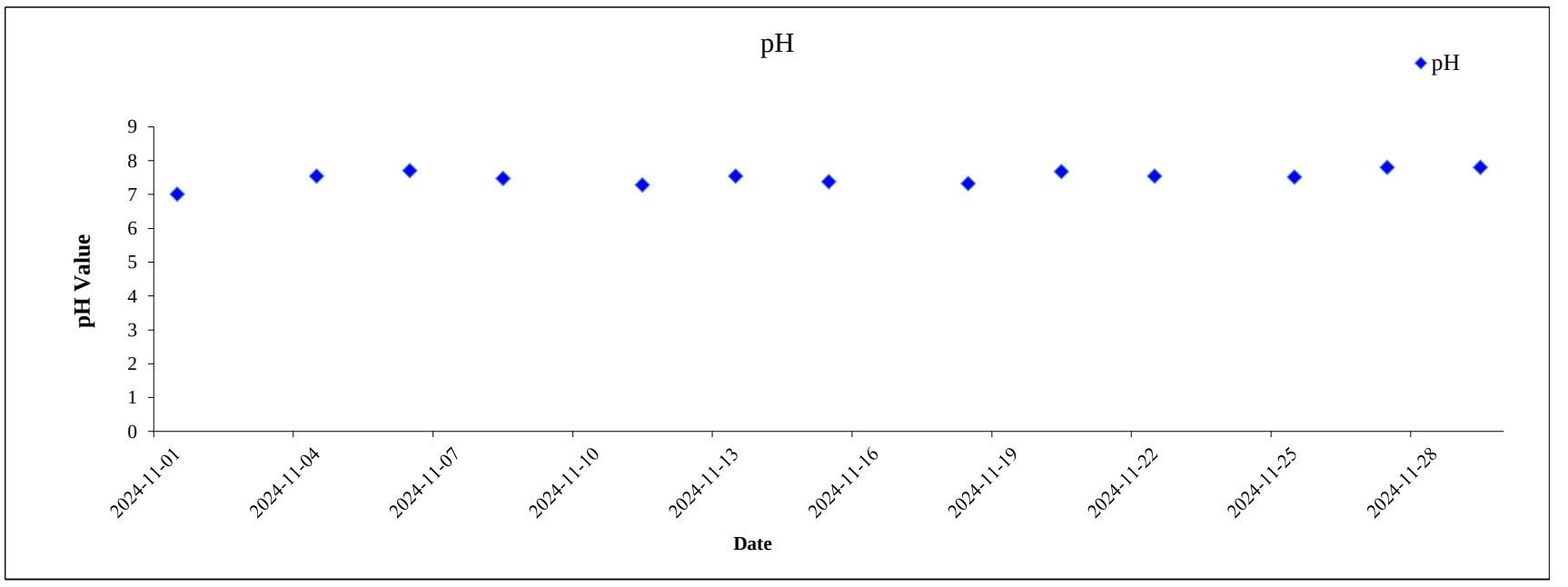
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location: HT









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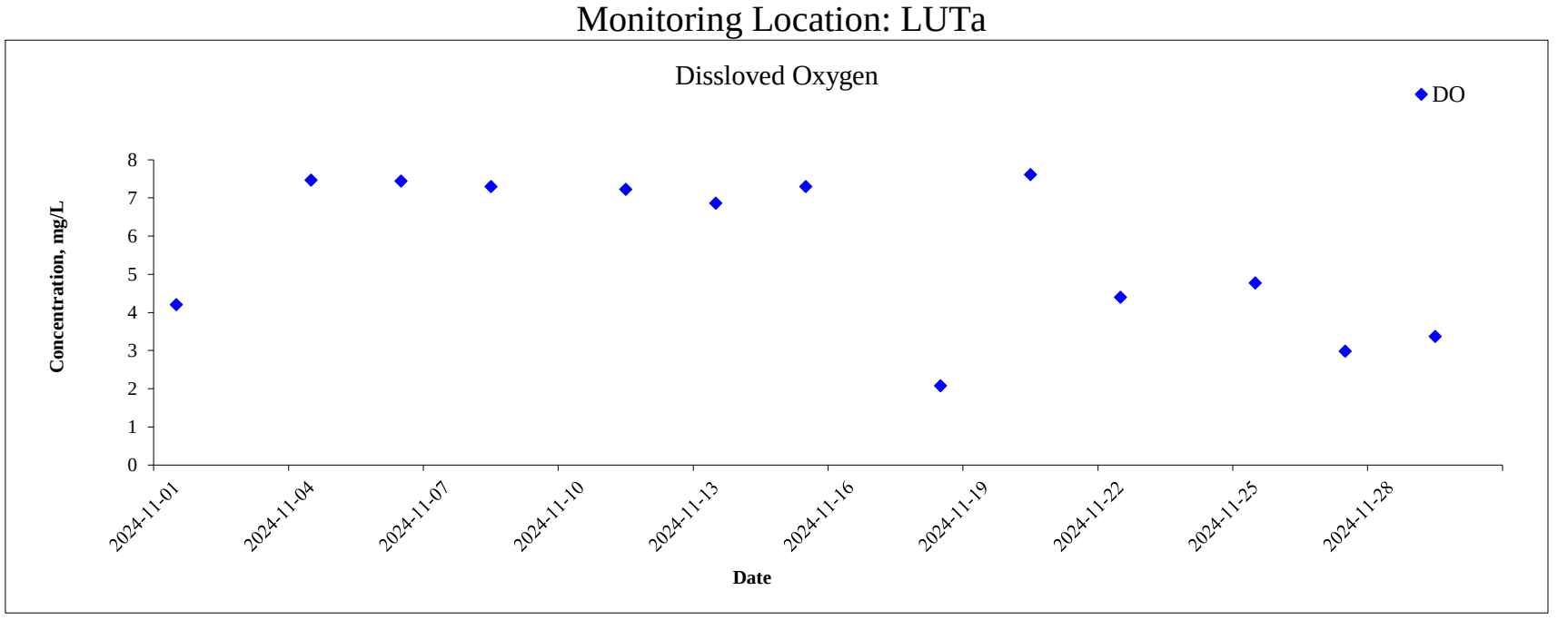
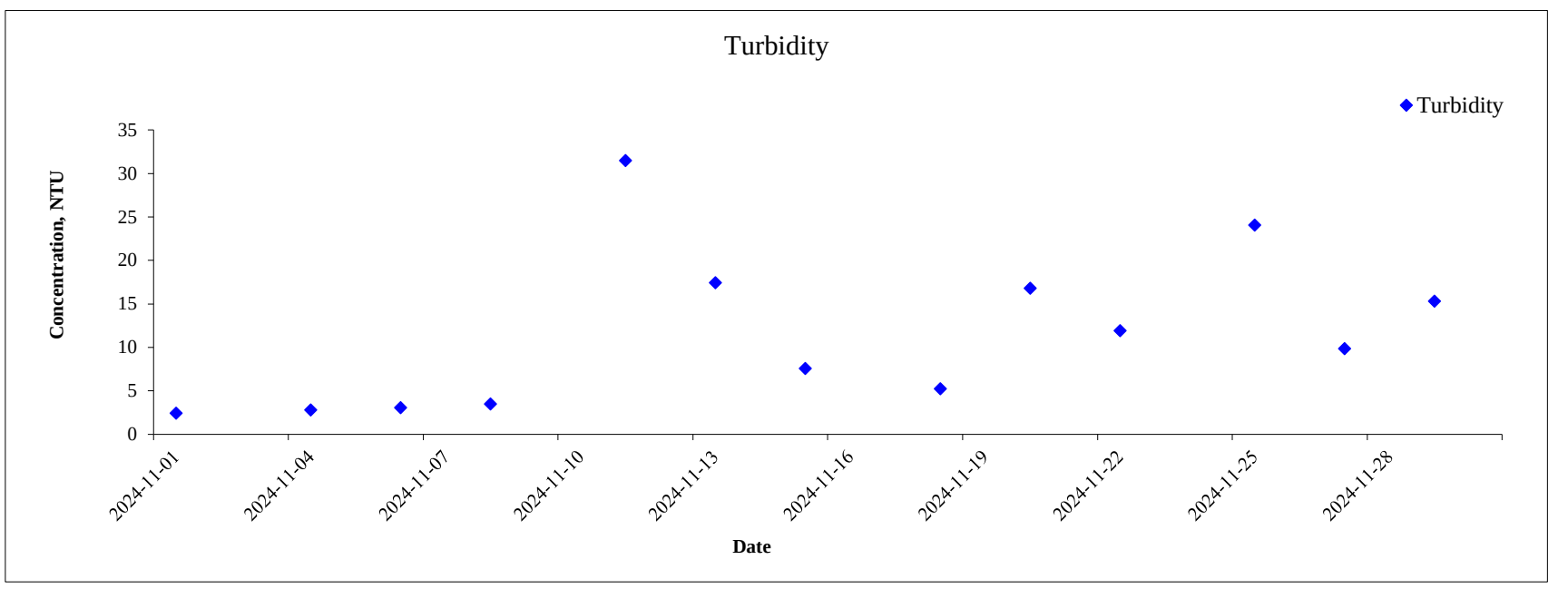
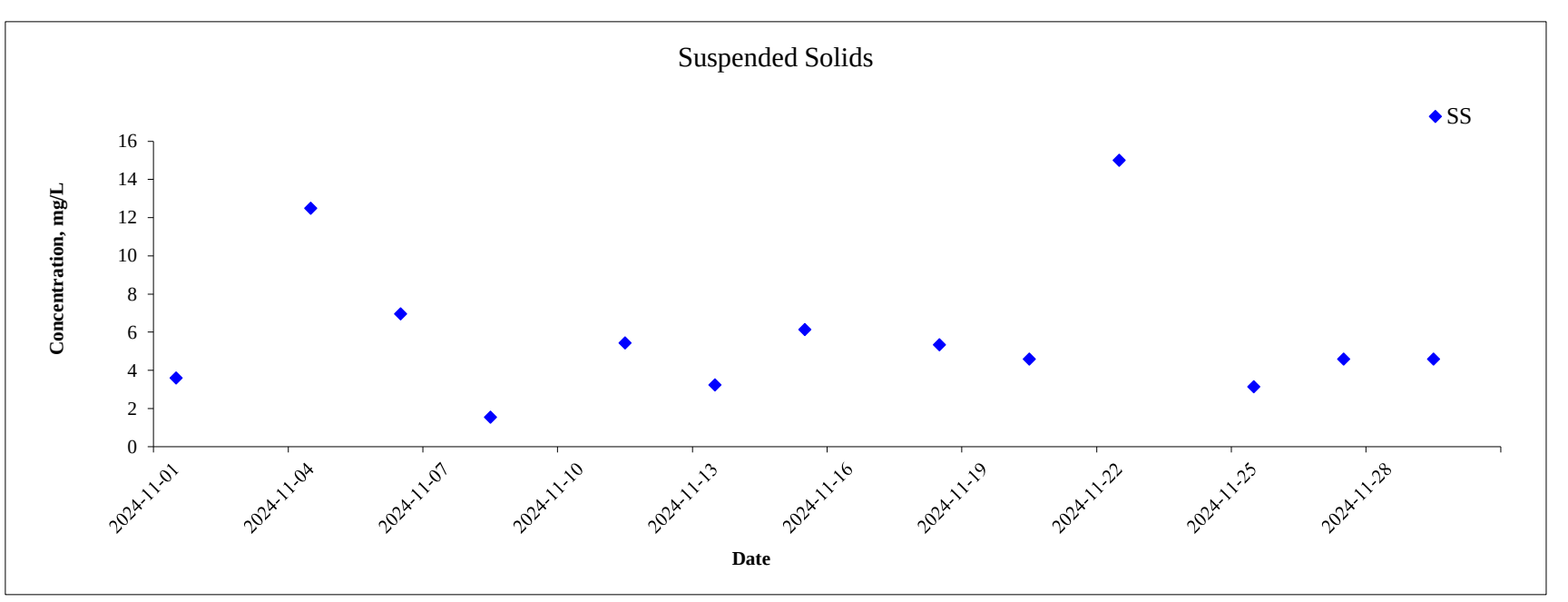
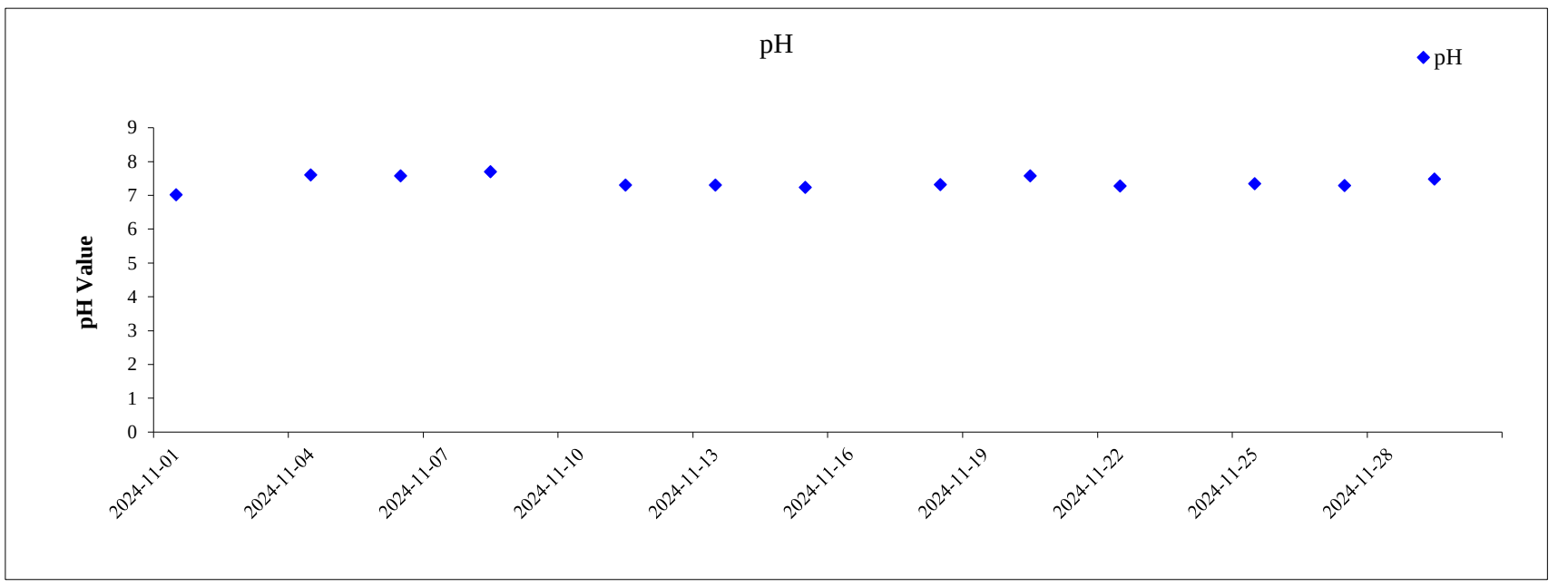
Water Quality Monitoring Result

Monitoring Location: LUTa









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Hung Shui Kiu/Ha Tsuen New Development Area
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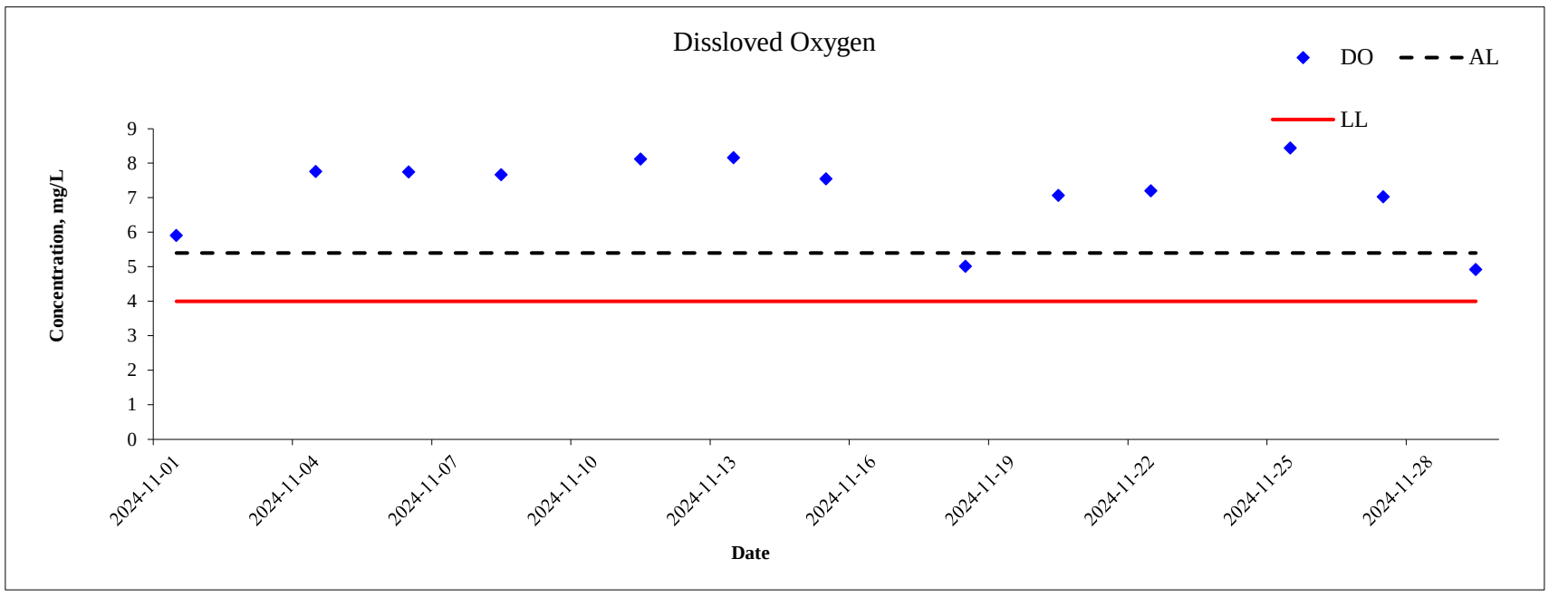
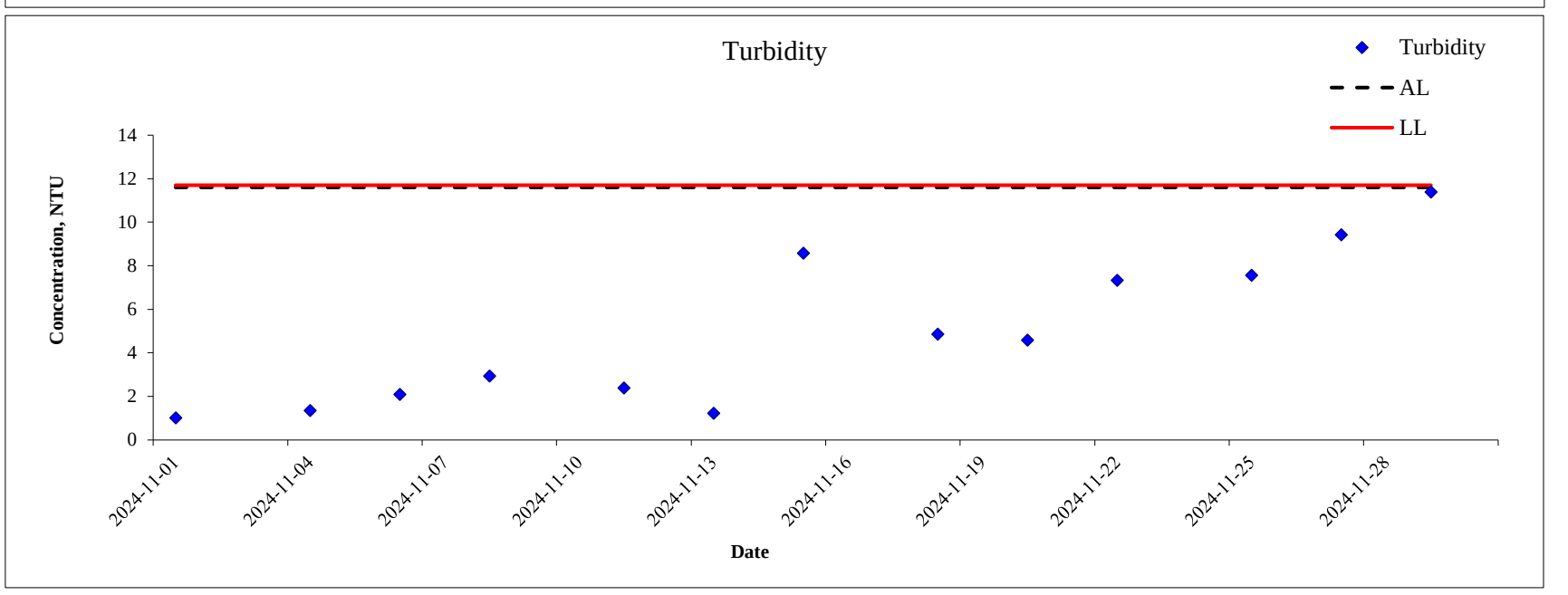
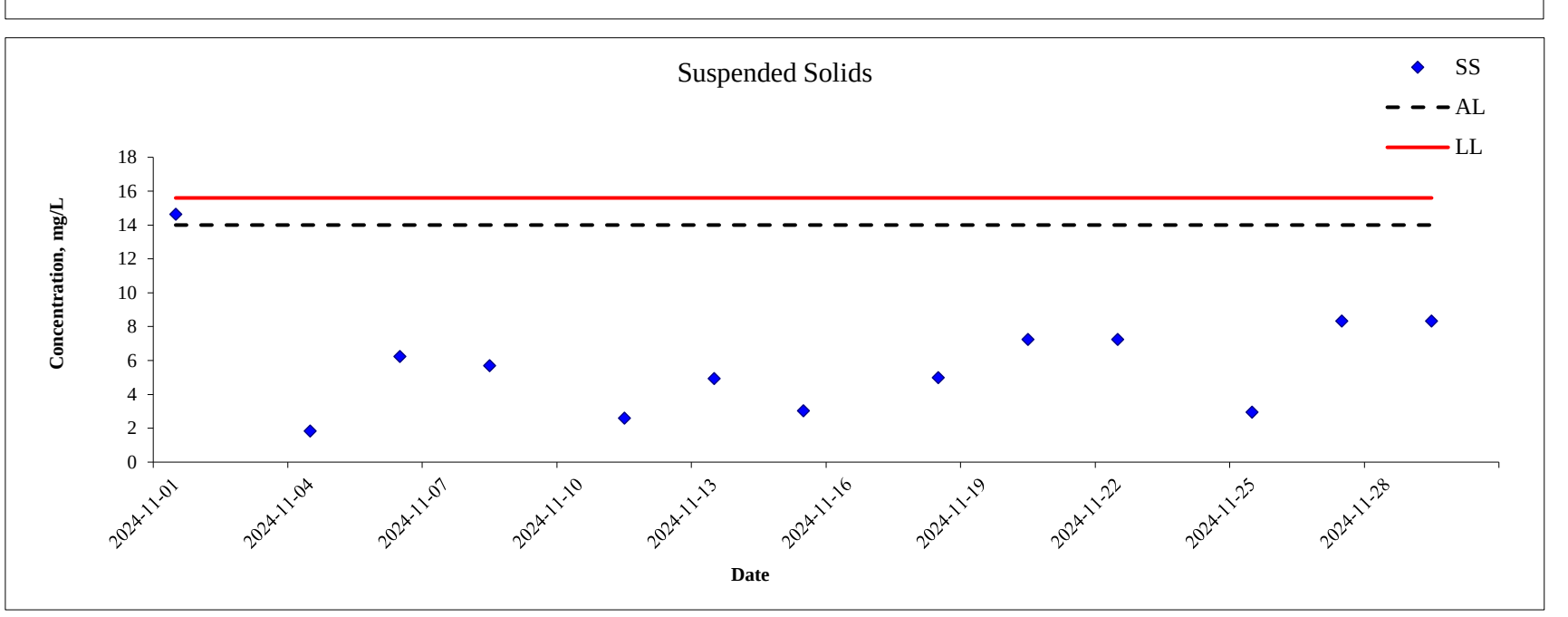
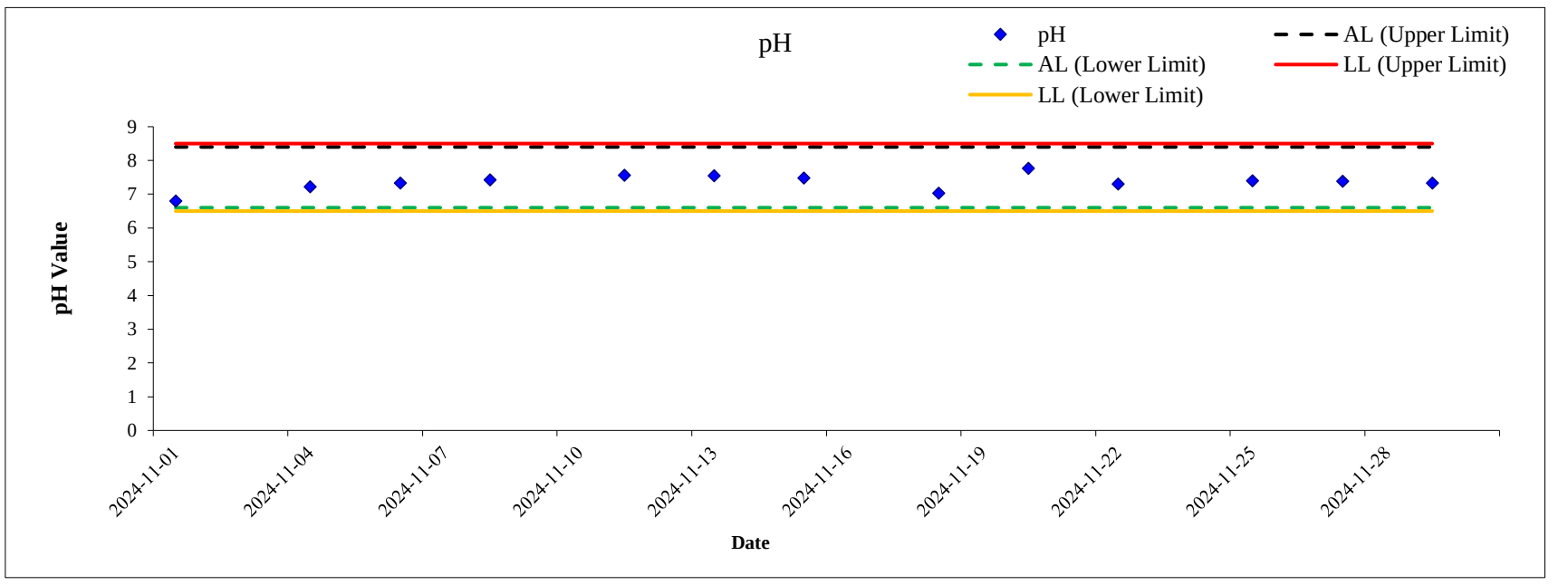
Water Quality Monitoring Result

Monitoring Location: D2a









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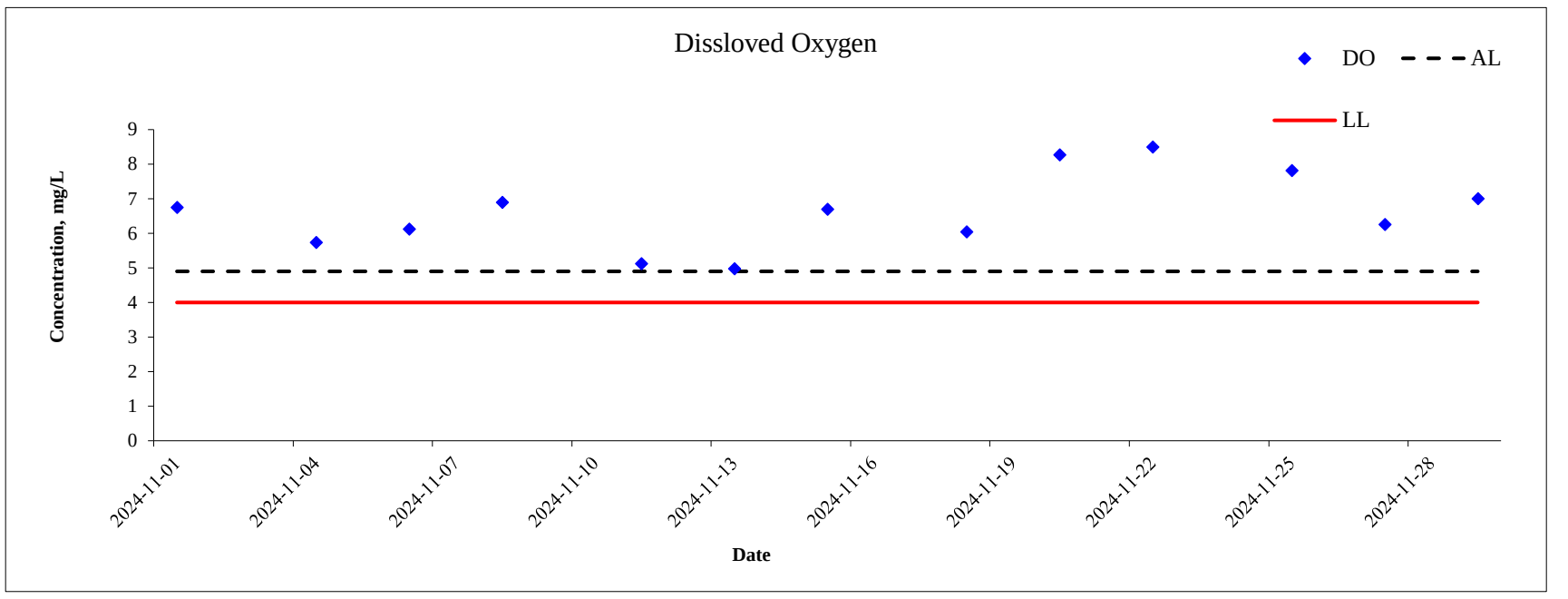
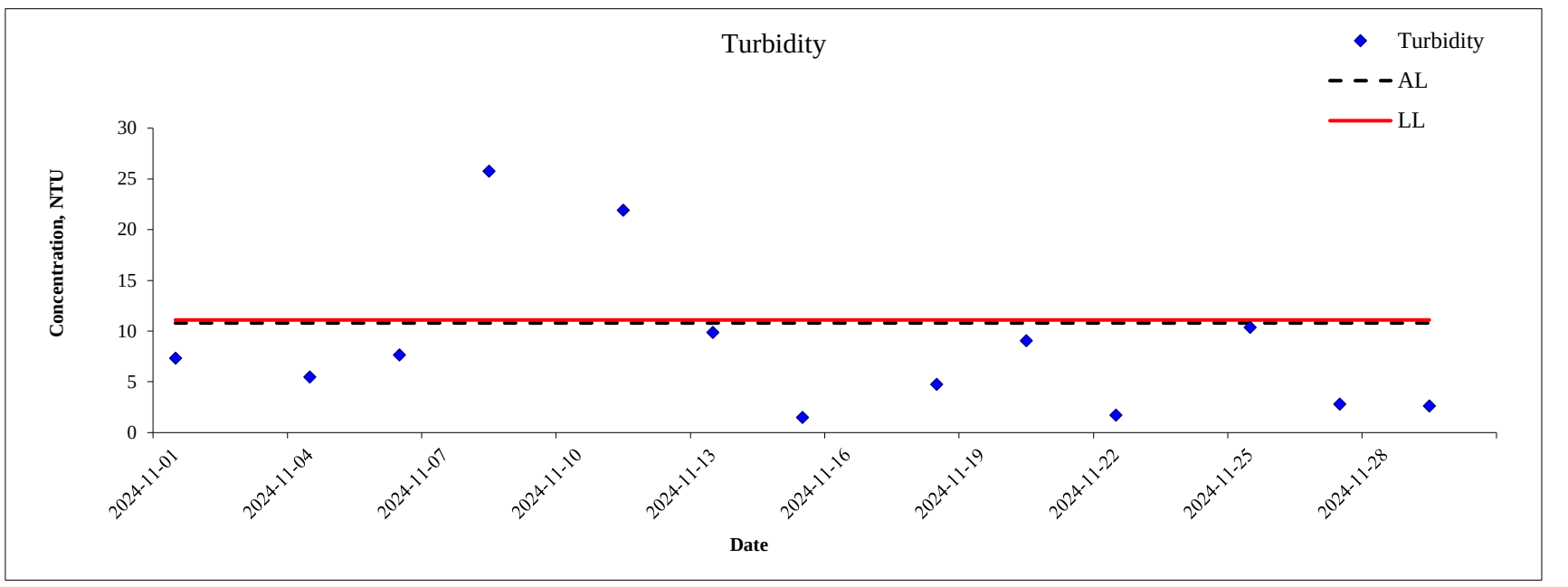
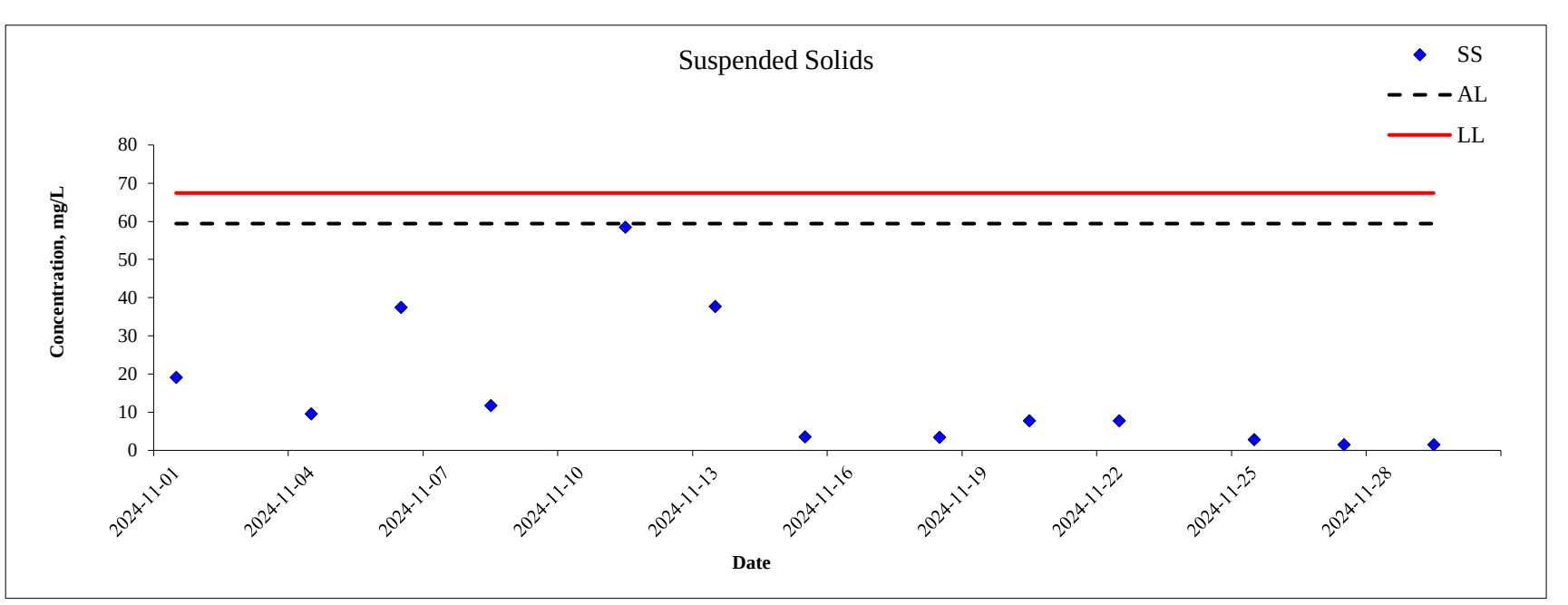
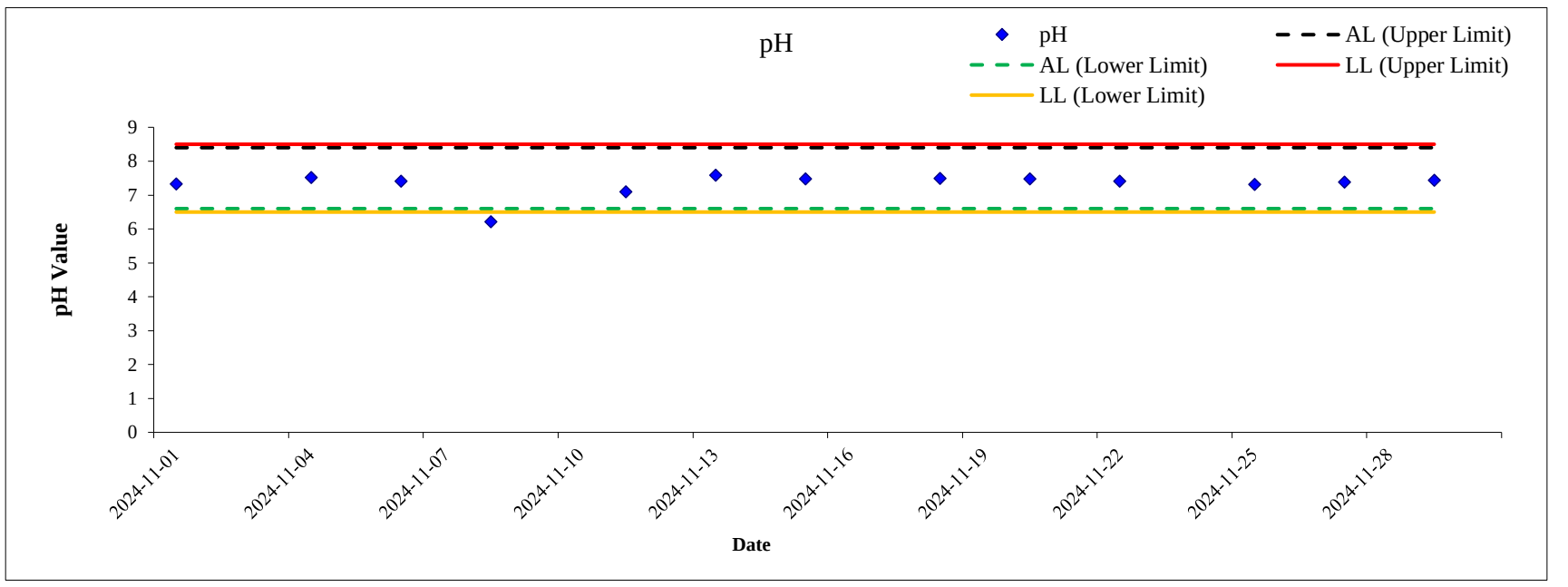
Water Quality Monitoring Result

Monitoring Location: D3









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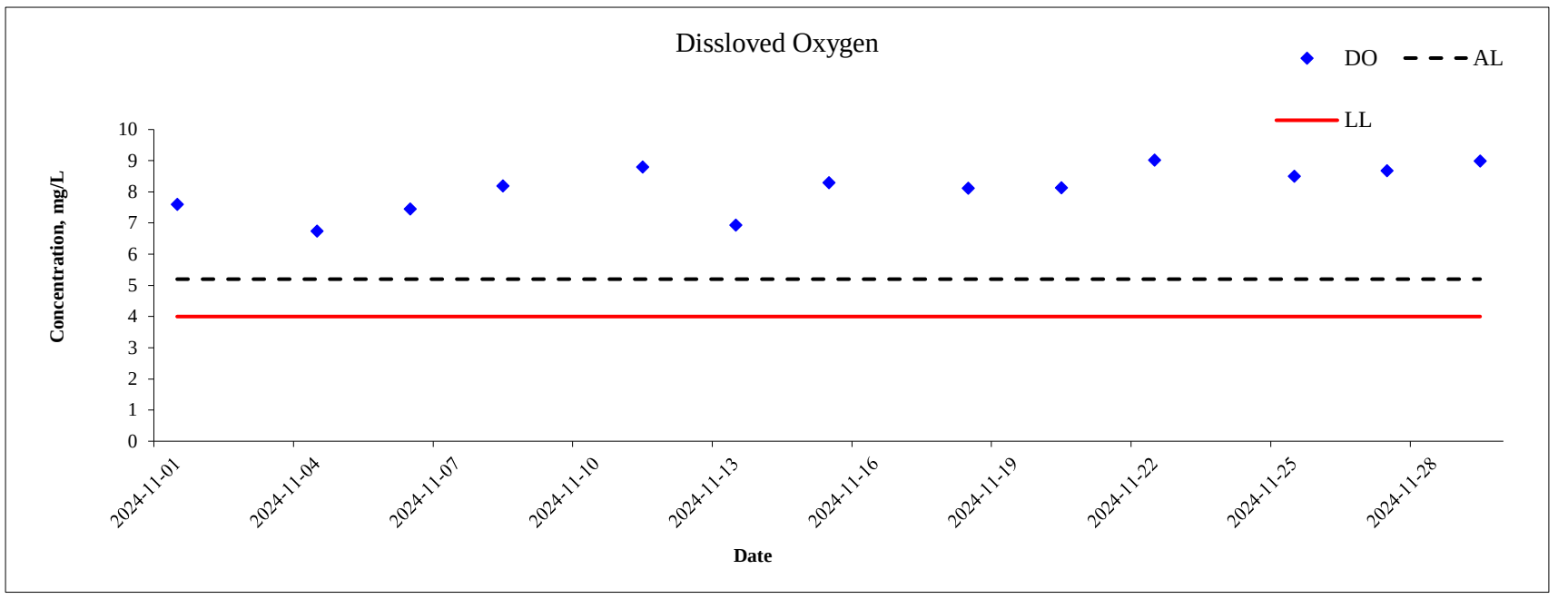
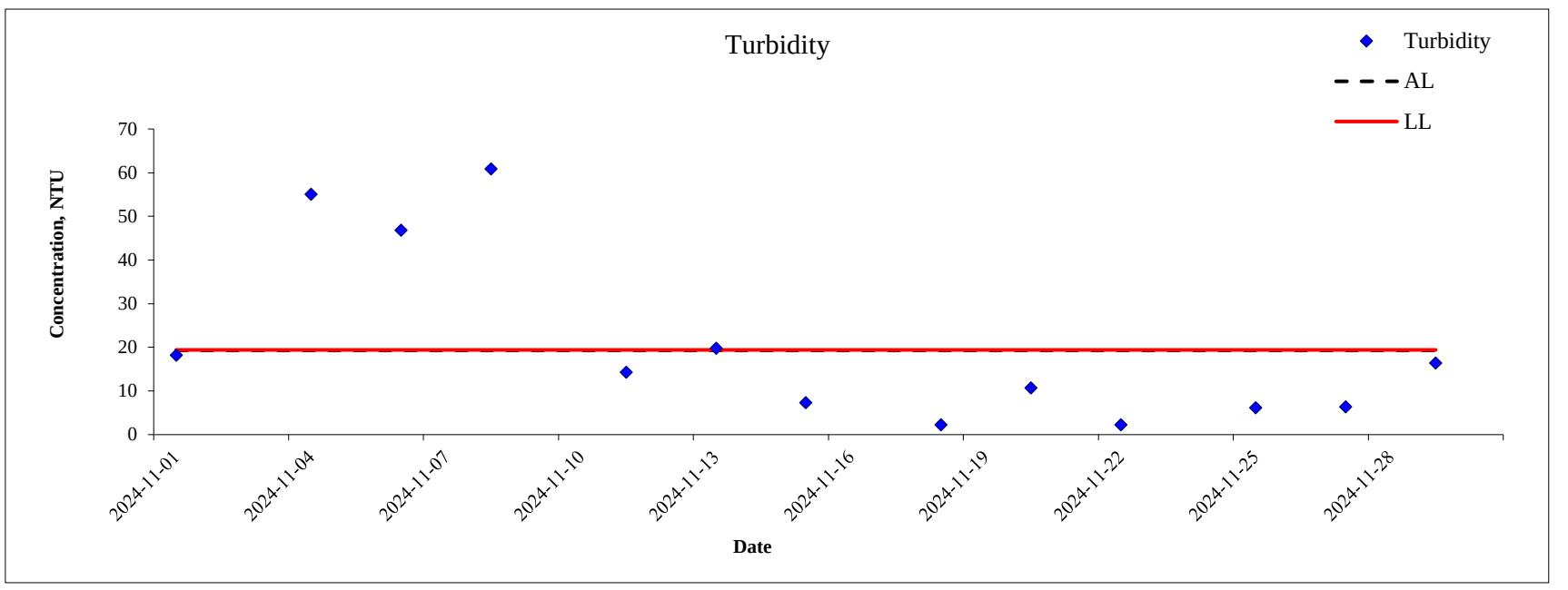
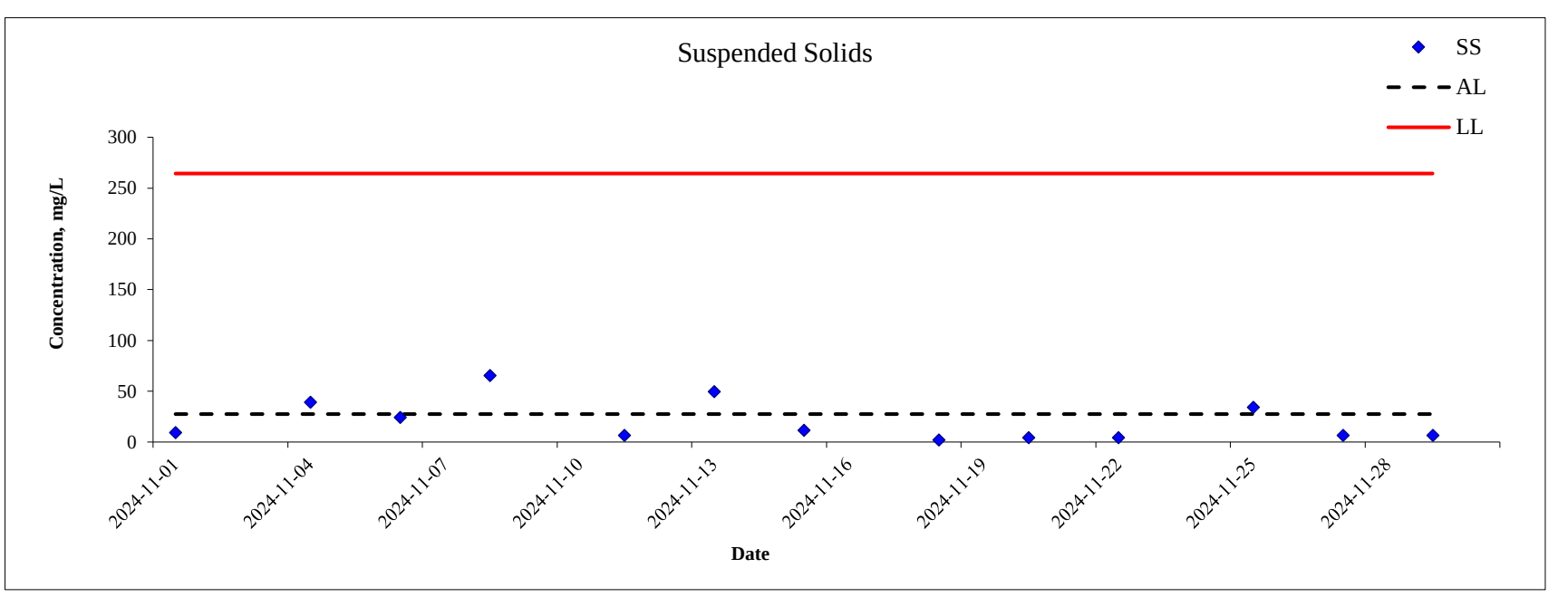
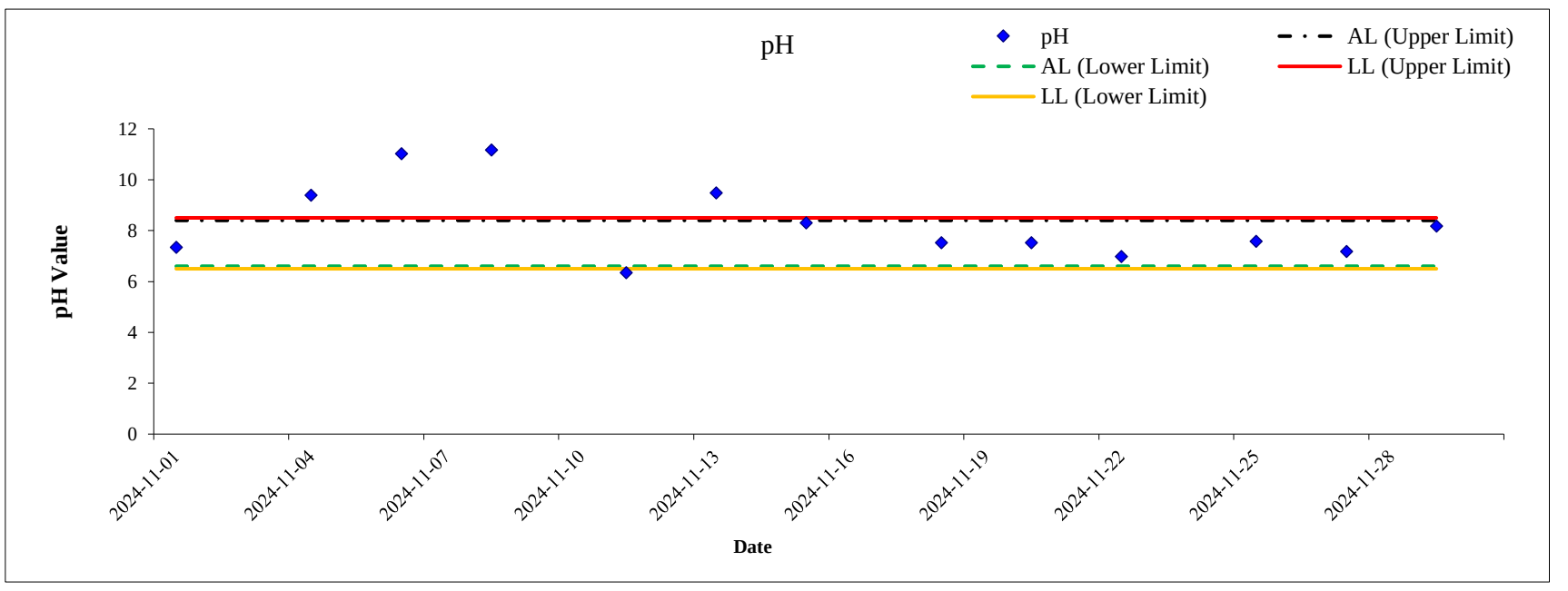
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location:D5a









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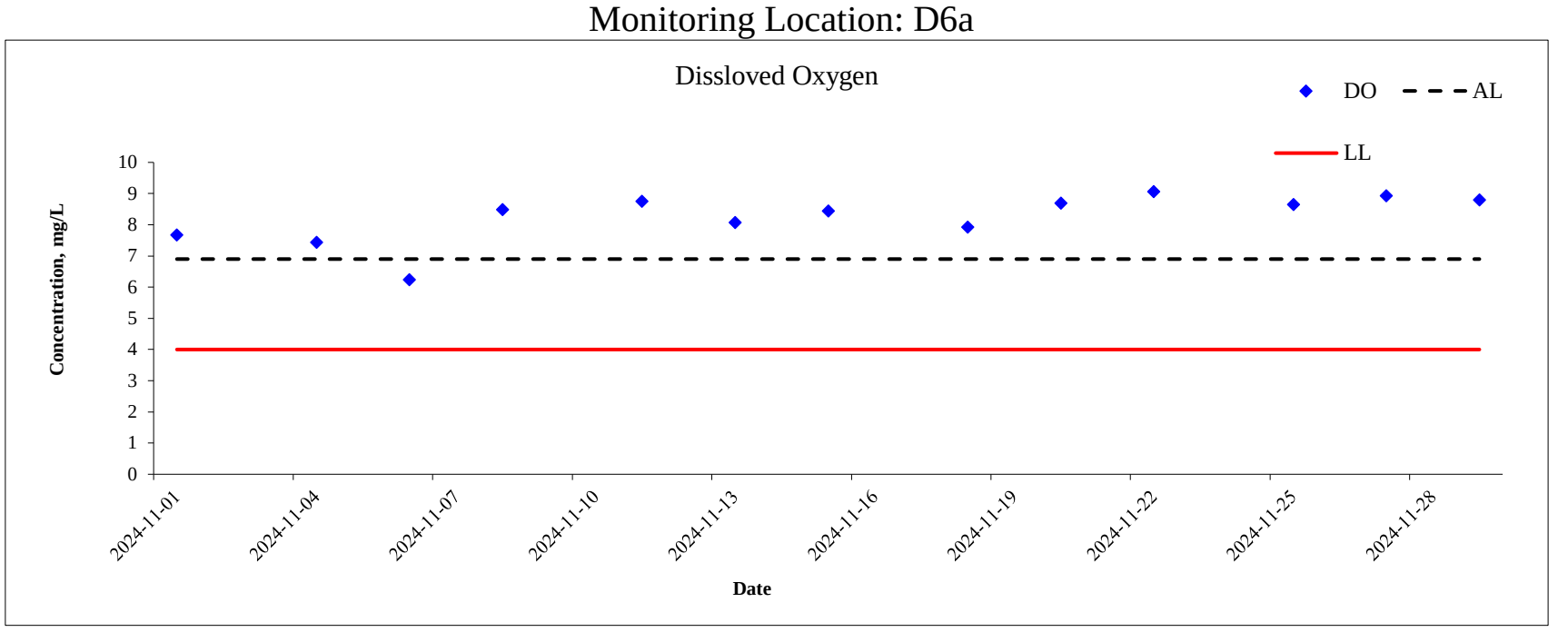
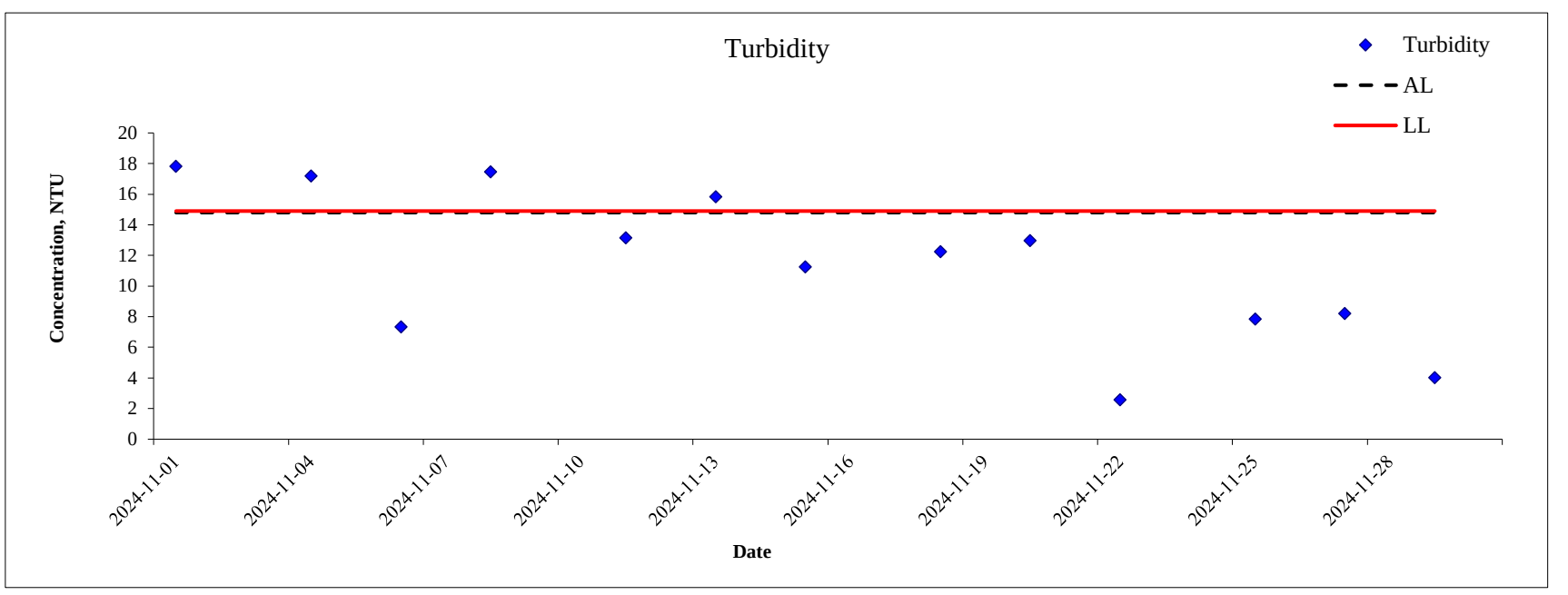
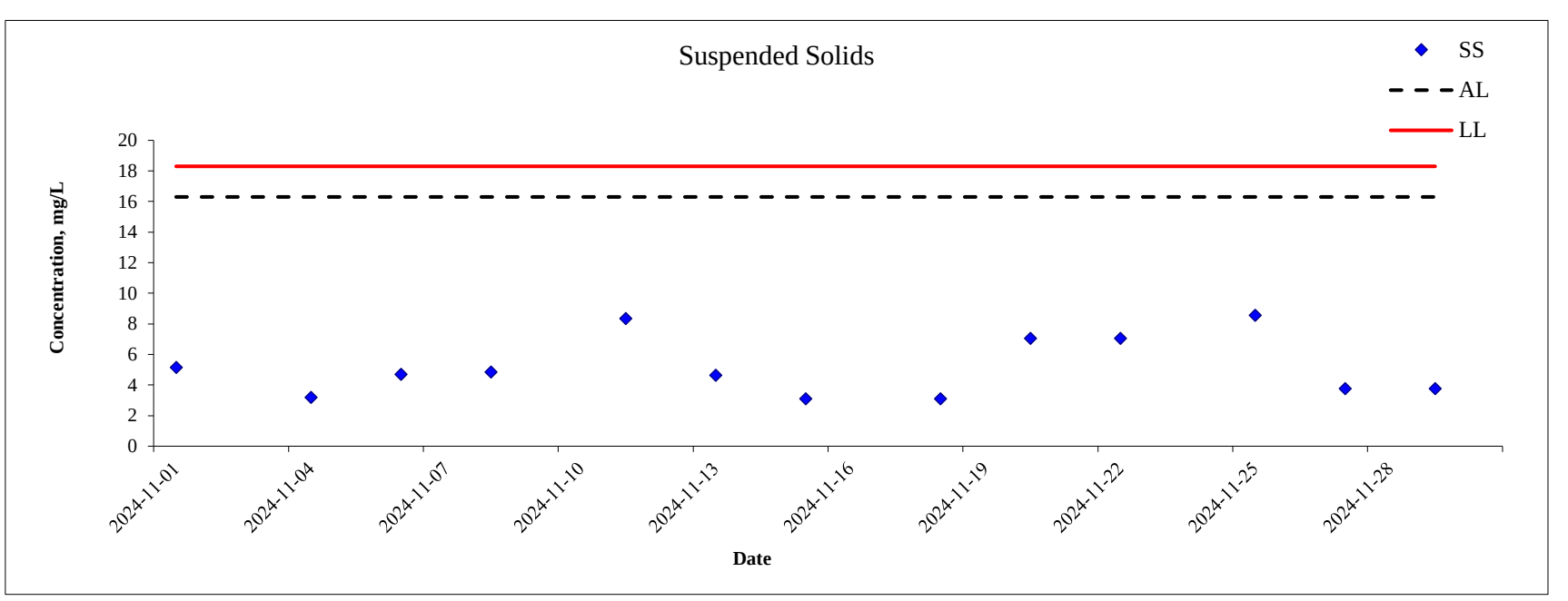
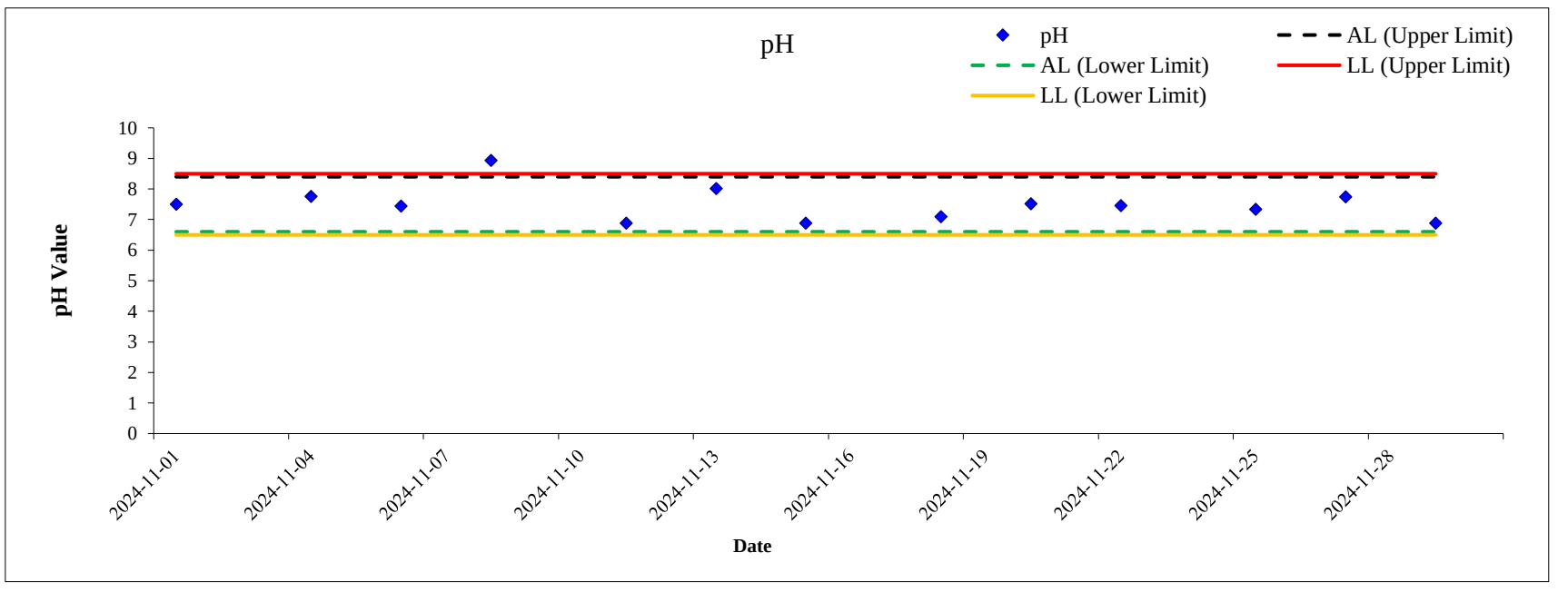
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location: D6a









Appendix 4.3 Quality Control Report for Suspended Solids

Acumen Laboratory and Testing Limited
Workshop 04, 7/F, The Whitney, No. 183 Wai Yip Street, Kwun Tong, Kowloon
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Appendix - Quality Control Summary Table

Project Name: Hung Shui Kiu/Ha Tsuen New Development Area Stage 1 Works

		Method Blank Report		Duplicate Report			Sample Spike Report		Pass / Fail
		MDL	Result	Original Result	Duplicate Result	RPD	Spike concentration	Spike Recovery	
Sampling Date	Unit / Job No.	mg/L	mg/L	mg/L	mg/L	%	mg/L	%	/
01/11/2024	R242363	0.22	0.11	3.12	3.02	3.16	10	94.3	Pass
04/11/2024	R242364	0.22	0.09	4.68	4.54	3.04	10	92.3	Pass
06/11/2024	R242383	0.22	0.07	5.26	5.01	4.87	10	93.8	Pass
08/11/2024	R242398	0.22	0.08	4.83	4.64	4.01	10	92.6	Pass
11/11/2024	R242417	0.22	0.10	3.80	3.97	-4.38	10	93.5	Pass
13/11/2024	R242439	0.22	0.10	5.06	4.82	4.86	10	93.1	Pass
15/11/2024	R242463	0.22	0.08	4.01	3.91	2.53	10	92.3	Pass
18/11/2024	R242478	0.22	0.07	5.00	4.80	4.08	10	93.1	Pass
20/11/2024	R242505	0.22	0.08	3.31	3.20	3.38	10	94.7	Pass
22/11/2024	R242506	0.22	0.07	3.68	3.80	-3.21	10	93.5	Pass
25/11/2024	R242531	0.22	0.08	3.00	3.09	-2.96	10	94.0	Pass
27/11/2024	R242538	0.22	0.08	4.70	4.53	3.68	10	93.9	Pass
29/11/2024	R242588	0.22	0.08	4.44	4.24	4.61	10	93.6	Pass

Acumen Laboratory and Testing Limited
Flat/Rm D, 12/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Appendix - Quality Control Summary Table

Project Name: Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team

		Method Blank Report		Duplicate Report			Sample Spike Report		Pass / Fail
		MDL	Result	Original Result	Duplicate Result	RPD	Spike concentration	Spike Recovery	
Sampling Date	Job No. / Unit	mg/L	mg/L	mg/L	mg/L	%	mg/L	%	/
01/11/2024	R242365	0.22	0.08	4.68	4.87	-3.96	10	92.1	Pass
04/11/2024	R242366	0.22	0.09	5.06	4.88	3.62	10	93.9	Pass
06/11/2024	R242386	0.22	0.11	4.96	5.17	-4.15	10	93.7	Pass
08/11/2024	R242403	0.22	0.09	4.78	4.57	4.48	10	93.5	Pass
11/11/2024	R242415	0.22	0.11	4.80	4.95	-3.08	10	95.5	Pass
13/11/2024	R242438	0.22	0.10	5.22	5.42	-3.76	10	93.3	Pass
15/11/2024	R242464	0.22	0.11	3.58	3.47	3.12	10	93.6	Pass
18/11/2024	R242479	0.22	0.08	5.05	5.24	-3.69	10	92.6	Pass
20/11/2024	R242487	0.22	0.09	4.37	4.57	-4.47	10	92.4	Pass
22/11/2024	R242504	0.22	0.11	3.14	3.03	3.57	10	92.3	Pass
25/11/2024	R242533	0.22	0.07	4.81	4.64	3.60	10	94.0	Pass
27/11/2024	R242541	0.22	0.07	3.82	3.96	-3.60	10	92.6	Pass
29/11/2024	R242580	0.22	0.08	3.30	3.23	2.14	10	94.3	Pass

Appendix 4.4 Event and Action Plan for Air Quality

Event and Action Plan for Water Quality

Event	Action			
	ET Leader	IEC	ER	Contractor
Action Level				
Action level being exceeded by one sampling day	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Repeat measurement on next day of exceedance.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER; 6. Implement the agreed mitigation measures.
Action Level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Ensure mitigation measures are implemented; 7. Prepare to increase the monitoring frequency to daily; 8. Repeat measurement on next day of exceedance.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; 3. Assess the effectiveness of the implemented mitigation measures	1. Inform the Engineer and confirm notification of the noncompliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures.

Limit Level				
Limit level being exceeded by one sampling day	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures.
Limit level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures. 5. Consider and instruct, if necessary the Contractor to slow down or to stop all or part of the marine work until no exceedance if Limit Level.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures. 7. As directed by the ER, to slow down or to stop all or part of the marine work or construction activities.

Appendix 5.1 Summary of Monthly Waste Flow Table

Monthly Summary Waste Flow Table for Contract 1

Monthly Summary Waste Flow Table for 2024

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Materials Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastic	Chemical Waste	Others, e.g. General Refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.30
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec											
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**9.30**

Monthly Summary Waste Flow Table for Contract 2

CWBKYH JV

Contract No.: YL/2023/02

Monthly Summary Waste Flow Table for 2024 (Year)

Month	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-Inert C&D Wastes Generated Monthly					
		Hard Rock and Large Broken Concrete (a)	Reused in the Contract (b)	Reused in other Projects (c)	Disposed as Public Fill (d)	Imported Fill (e)	Metals (f)	Paper/ cardboard packaging (g)	Plastics (h)	Glass (i)	Chemical Waste (j)	Others, e.g. general refuse (k)
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)
Jan												
Feb												
Mar												
Apr												
May												
June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sept	21.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.46
Oct	90.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.39
Nov	59.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.21
Dec												
Sub-total	171.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	171.05
Total	171.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	171.05

Notes:

(1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
(2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
(3) Broken concrete for recycling into aggregates.
(4) Total quantity generated = a+b+c+d+e+f+g+h+i+j
(5) Assume the density of fill material is 2 tonne/m3.

Appendix 7.1 Event and Action Plan for Landscape and Visual

Event/Action Plan for Landscape and Visual

Event	Action			
	ET	IEC	ER	Contractor
Design Check	1. Check final design conforms to the requirements of EP and prepare report.	1. Check report. 2. Recommend remedial design if necessary.	1. Undertake remedial design if necessary.	-
Nonconformity on one occasion	1. Inform the IEC, ER and the Contractor 2. Discuss remedial actions with IEC, ER and Contractor 3. Monitor remedial actions until rectification has been completed	1. Check inspection report. 2. Check Contractor's working method 3. Discuss with ET, ER and Contractor on possible remedial measures. 4. Advise ER on effective of proposed remedial measures. 5. Check implementation of remedial measures	1. Confirm receipt of notification of nonconformity in writing 2. Review and agree on the remedial measures proposed by the Contractor 3. Ensure remedial measures are properly implemented	1. Identify source and investigate the nonconformity 2. Amend working methods agreed with ER as appropriate 3. Rectify damage and undertake any necessary replacement.
Repeated nonconformity	1. Identify sources 2. Inform the Contractor, IEC and ER 3. Discuss inspection frequency 4. Discuss remedial actions with IEC, ER and Contractor 5. Monitor remedial actions until rectification has been completed 6. If nonconformity stops, cease additional monitoring	1. Check inspection report 2. Check Contractor's working method 3. Discuss with ET, ER and Contractor on possible remedial measures 4. Advise ER on effectiveness of proposed remedial measures	1. Notify the Contractor 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented 3. Supervise implementation of remedial measures	1. Identify source and investigate the nonconformity 2. Amend working methods agreed with ER as appropriate 3. Rectify damage and undertake any necessary replacement. 4. Stop relevant portion of works as determined by ER until the nonconformity is abated.

Appendix 9.1 Complaint Log

Statistical Summary of Environmental Complaints for Contract 1

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 30 November 2024	0	0	N/A

Statistical Summary of Environmental Summons for Contract 1

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 – 30 November 2024	0	0	N/A

Statistical Summary of Environmental Prosecution for Contract 1

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 – 30 November 2024	0	0	N/A

Statistical Summary of Environmental Complaints for Contract 2

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 30 November 2024	0	0	N/A

Statistical Summary of Environmental Summons for Contract 2

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 – 30 November 2024	0	0	N/A

Statistical Summary of Environmental Prosecution for Contract 2

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 – 30 November 2024	0	0	N/A

Appendix 10.1 Impact Monitoring Schedule of Next Reporting Month

Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team (Version 1.0)						
December 2024						
Sun	**Mon**	**Tue**	**Wed**	**Thur**	**Fri**	**Sat**
1	**2** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**3** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20 Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**4** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**5** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**6** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**7**
8	**9** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**10** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**11** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**12** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**13** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**14** Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14.
15	**16** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**17** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**18** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**19** Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**20** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**21** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6
22	**23** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**24** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20 Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**25**	**26**	**27** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**28**
29	**30** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**31** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20				

Remarks:
1. The schedule may be changed due to unforeseen circumstances (e.g. adverse weather, etc.).
2. Impact air quality monitoring at AM22, AM24 and AM25a will be carried out when the planned sensitive receivers are commissioned.
3. Impact noise monitoring at CM28, CM29, CM31 and CM32 will be carried out when the planned sensitive receivers are commissioned.
4. Impact water quality monitoring at U2 and HT will be carried out by the Environmental Team appointed under Hung Shui Kiu/Ha Tsuen New Development Area Stage 1 Works, and the corresponding water quality monitoring data at these stations will be shared with this Project (i.e. Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development).

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