

東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

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

T: +852 2695 8318 F: +852 2695 3944 E: etl@ets-testconsult.com W: www.ets-testconsult.com

TEST REPORT



China Harbour Engineering Co Ltd

Contract No.: CV/2021/09 Handling of Surplus Public Fill (2022-2023)

TSEUNG KWAN O AREA 137 FILL BANK
MONTHLY EM&A REPORT NO.17

(MAY 2023)

Prepared by:

LAU, Wing Sum

Assistant Environmental Officer

Checked by:

LAU, Chi Leung

Environmental Team Leader

Issue Date: 08 June 2023

Report No.: ENA33524

This report shall not be reproduced unless with prior written approval from this laboratory.





Our Ref: PL-202306024

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

Attention: Mr. C. L. Lau

16 June 2023

Dear Mr. Lau,

RE: Contract No. CV/2021/09

Handling of Surplus Public Fill (2022-2023)

Monthly EM&A Report (No. 17) for May 2023 for the Tseung Kwan O Area 137 Fill Bank

Reference is made to your submission of the Monthly EM&A Report for May 2023 for the TKO Area 137 Fill Bank, we are pleased to inform you that we have no adverse comment on the report.

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

Yours faithfully,

Tour Fandeng

F. C. Tsang

Independent Environmental Checker

CEDD - Mr. P. C. LEUNG cc.



ENA33524 Monthly EM&A Report No.17

TABLE O	F CONTENTS	Page	
EXECUTI	VE SUMMARY		
1.0	INTRODUCTION	1	
2.0	PROJECT INFORMATION		
	2.1 Scope of the Project	1	
	2.2 Site Description	1	
	2.3 Work Programme	2	
	2.4 Project Organization and Management Structure	2	
	2.5 Contact Details of Key Personnel	2	
3.0	WORK PROGRESS IN THIS REPORTING PERIOD	2	
4.0	AIR QUALITY MONITORING		
	4.1 Monitoring Requirement	2	
	4.2 Monitoring Equipment	2	
	4.3 Monitoring Parameters, Frequency and Duration	2	
	4.4 Monitoring Locations and Schedule	3	
	4.5 Monitoring Methodology	3	
	4.6 Action and Limit levels	3-4	
	4.7 Event-Action Plans	4	
	4.8 Results and Observation	4	
5.0	NOISE MONITORING		
	5.1 Monitoring Requirements	4	
	5.2 Monitoring Equipment	4	
	5.3 Monitoring Parameters, Duration and Frequency	4-5	
	5.4 Monitoring Locations	5	
	5.5 Monitoring Procedures and Calibration Details	5	
	5.6 Action and Limit levels 5.7 Event-Action Plans	5 5	
	5.8 Results and Observation	5 5-6	
6.0		5-6	
0.0	MARINE WATER QUALITY MONITORING 6.1 Manitoring Requirements	6	
	6.1 Monitoring Requirements	6 6	
	6.2 Monitoring Locations 6.3 Monitoring Parameters	6 6-7	
	6.4 Monitoring Frequency	7	
	6.5 Monitoring Methodology and Equipment Used	7 7 - 8	
	6.6 Action and Limit Level	9	
	6.7 Event and Action Plan	9	
	6.8 Monitoring Duration in this reporting period	9	
	6.9 Marine Water Monitoring Results	10	
7.0	ENVIRONMENTAL AUDIT		
	7.1 Weekly ET Site Inspections and EPD's Site Inspection	10-11	
	7.2 Review of Environmental Monitoring Procedures	11	
	7.3 Assessment of Environmental Monitoring Results	11	
	7.4 Advice on the Solid and Liquid Waste Management Status	11 -12	
8.0	STATUS OF ENVIRONMENTAL LICENSING AND PERMITTING	12-13	
9.0	ENVIRONMENATL NON-CONFORMANCE		
	9.1 Summary of air quality, noise and marine water quality	13	
	9.2 Summary of Environmental Complaints	13	
	9.3 Summary of Notification of Summons and Prosecution	13	
10.0	IMPLEMENTATION STATUS		
	10.1 Implementation Status of Environmental Mitigation Measures	13	
	10.2 Implementation Status of Event and Action Plan	13	
	10.3 Implementation Status of Environmental Complaint, Notifications of Summons and	13	
	Successful Prosecutions Handling		
11.0	CONCLUSION AND RECOMMENTATIONS	13-14	
12.0	FUTURE KEY ISSUE		
	12.1 Work Programme for the Coming Month	15	
	12.2 Key Issues for the Coming Month	15-16	
	12.3 Monitoring Schedule for the Coming Month	16	
	er de france de la france de l'estimation de l	-	



ENA33524 Monthly EM&A Report No.17

APPENDIX

Α	Organization Chart and Lines of Communication
B1	Calibration Certificates for Impact Air Quality Monitoring Equipment
B2	Impact Air Quality Monitoring Results
B3	Graphical Plots of Impact Air Quality Monitoring Data
C1	Calibration Certificates for Impact Noise Monitoring Equipment
C2	Impact Noise Monitoring Results
C3	Graphical Plots of Impact Noise Monitoring Data
D1	Calibration Certificates for Impact Marine Water Quality Monitoring Equipment
D2	Impact Marine Water Quality Monitoring Results
D3	Graphical Plots of Impact Marine Water Quality Monitoring Data
D4	Impact Marine Water Quality Monitoring Results (3RS project)
D5	Graphical Plots of Impact Marine Water Quality Monitoring Data (3RS project)
E	Weather Condition
F	Event-Action Plans
G	Work Programme
Н	Weekly ET's Site Inspection Record
I	Implementation Schedule of Mitigation Measures
J	Site General Layout Plan
K	Monthly Summary Waste Flow Table
L	Monitoring Schedule for the Coming Month
M	Reporting Month Monitoring Schedule
N	Complaint Log

FIGURES

Figure 1	Locations of Water Quality Monitoring Stations – Tseung Kwan O Area 137 Fill Bank
Figure 2	Location of Noise Monitoring Station – Tseung Kwan O Area 137 Fill Bank
Figure 3	Locations of Air Quality Monitoring Stations – Tseung Kwan O Area 137 Fill Bank
Figure 4	Locations of Water Quality Monitoring Stations (3RS project) – Tseung Kwan O Area 137 Fill

TABLES

IABLLO	
2.1	Contact Details of Key Personnel
4.1	Air Quality Monitoring Equipment
4.2	Monitoring parameters, duration and frequency of air quality monitoring
4.3	Air Quality Monitoring Locations
4.4	Action and Limit levels for 24-hr TSP and 1-hr TSP
5.1	Noise Monitoring Equipment
5.2	Duration, Frequency and Parameters of noise monitoring
5.3	Noise Monitoring Location
5.4	Action and Limit levels for noise monitoring
6.1	Locations of Marine Water Monitoring Stations
6.2	Locations of Additional Marine Water Monitoring Stations (3RS project)
6.3	Marine Water Quality Monitoring Parameters
6.4	Monitoring frequency of the marine water
6.5	Summary of testing procedures
6.6	Details of Marine Water Quality Monitoring Equipment (In-site measurement)
6.7	Water Quality Action and Limit Levels
6.8	Water Quality Action and Limit Levels (3RS project)
6.9	Time Schedule of Impact Marine Water Quality Monitoring
6.10	Summary of Impact Marine Water Quality Exceedances
6.11	Summary of Impact Marine Water Quality Exceedances (3RS project)
7.1	Key Findings of Weekly ET Site Audits in this reporting period
7.2	Actual amounts of Waste generated in this reporting period
8.1	Summary of environmental licensing and permit status
10.1	Summary of Environmental Complaints and Prosecutions



ENA33524 Monthly EM&A Report No.17

EXECUTIVE SUMMARY

This monthly Environmental Monitoring and Audit (EM&A) report No.17 was prepared by ETS-Testconsult Ltd (ET) for "Contract No: CV/2021/09 – Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O (TKO) Area 137 Fill Bank" (The Project).

This report documented the findings of EM&A Works conducted during the operation phase of Fill Bank at TKO Area 137 in May 2023.

Site Activities

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

- 1. Operation of the Public Fill Reception Facilities at Tseung Kwan O Fill Bank (TKOFB):
- 2. Operation of dewatering plant at TKOFB;
- 3. Operation and Maintenance of crushing plants at TKOFB;
- 4. Operation and Maintenance of Artificial Intelligent System for Crushing Plant at TKOFB;
- 5. Operation of the Integrated Public Fill Reception at TKOFB;
- 6. Operation and Maintenance of the Wash House at TKOFB;
- 7. Personnel Position Tracking and Proximity Detection System of Moving Plant at TKOFB;
- 8. Operation and Maintenance a Digital Works Supervision System (DWSS) for TKOFB;
- 9. Operation and maintenance of Wheel Washing Bays and Facilities at TKOFB;
- 10. Maintenance of the Drainage Systems at TKOFB;
- 11. Delivery of Public Fill to Taishan at TKOFB;
- 12. Construction of Gabion Wall at TKOFB;
- 13. Replacement of concrete pavement at TKOFB
- 14. Implementation of C Easy system at TKOFB (Phase 1)
- 15. Carry out GCO Probe test and SRT
- 16. Trial Delivery of Excavated Materials (T2 Materials) from TKOFB to Sha Chau Dumping Site at TKOFB

Environmental Monitoring Progress

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

- Noise Monitoring (Day-time): 1 Occasion at 1 designated location
- 24-hour TSP Monitoring: 5 Occasions at 2 designated locations
- 1-hour TSP Monitoring: 17 Occasions at 2 designated locations
- Marine Water Quality Monitoring: 14 Occasions at 2 designated locations
- Weekly-site inspection: 5 Occasions

Noise Monitoring

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

Air Monitoring

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

Marine Water Quality Monitoring

According to the summary of marine water monitoring results, no exceedance of Action and Limit levels was recorded in this reporting period.

Weekly Site Inspections

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

Environmental Complaints, Notification of summons and successful prosecutions

No complaint, notification of summons or successful prosecutions with respect to environmental issues was received in this reporting period.



ENA33524 Monthly EM&A Report No.17

Future Key Issues

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

- Noise and air quality impact due to site works;
- Maintain wheel washing facilities properly;
- Maintain all drainage and desilting facilities properly;
- Use and maintain silt curtain properly;
- Clean up the fill material on concrete pavement along the BHA frequently;
- Sufficient drip trays for all oil drums / chemical containers;
- Implement all necessary preventive measures to avoid oil leakage. In the event an oil leakage happens, the
 Contractor should properly remove the leaked oil and handle the contaminated soil and all materials using for this
 cleaning works as chemical waste;
- Maintain good site practice and waste management to minimize environmental impacts at the site; and
- Follow-up improvements on waste management issues.

FNA33524

Contract No.: CV/2021/09

Handling of Surplus Public Fill (2022-2023) - Tseung Kwan O Area 137 Fill Bank Monthly EM&A Report No.17

1.0 INTRODUCTION

China Harbour Engineering Co Ltd (CHEC) appointed Environmental Team (ET) of ETS-Testconsult Limited (ETL) to undertake the Environmental Monitoring and Audit (EM&A) for the "Contract No: CV/2021/09 -Handling of Surplus Public Fill (2022-2023) - Tseung Kwan O (TKO) Area 137 Fill Bank" (The Project).

In accordance with the Environmental Permit (No.: EP-134/2002/P) (the EP), an EM&A programme should be implemented in accordance with the procedures and requirements in the EM&A Manual of the approved EIA report (Registration No. AEIAR-060/2002). The EM&A programme for this study as stated in Section 2.3.1 of the EM&A Manual covers the following environmental aspects during the establishment, operation and removal phases of the Fill Bank at Tseung Kwan O Area 137:

- Fuaitive Dust:
- Noise generation from onsite activities:
- Water Quality; and
- Landscape and Visual.

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

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

Baseline monitoring was completed in August and October 2002 by MateriaLab. Action and Limit Levels were established for air and water quality parameters based on the baseline monitoring results.

This report documented the findings of EM&A Works conducted during the operation phase of Fill Bank at Tseung Kwan O Area 137 in May 2023.

2.0 PROJECT INFORMATION

2.1 Scope of the Project

The scale and scope of the Project as stated in the EP include:

- Site clearance:
- Construction of a temporary storm water system;
- Stockpiling of 6 million m³ of public fill;
- Setting up two barging points: one at the TKO Basin and one at the Construction and Demolition Material Sorting Facility (C&DMSF) for transporting the stockpiled public fill by barges;
- Setting up a temporary barging point at the existing Explosive Off-loading Barging Point located in the south-eastern part of Area 137 for the month of May 2004 to December 2004 for transporting the stockpiled public fill by barge;
- Construction and operation of a Construction and Demolition Material Sorting Facility (C&DMSF);
- Setting up a Construction and Demolition Material Crushing Facility at the TKO Basin; and
- Remove the temporary fill bank.

2.2 **Site Description**

TKO Area 137 Fill Bank is located at the southern end of Wan Po Road. In the vicinity of the site are other industrial uses such as SENT landfill, TKO Industrial Estate, etc. Both Island Resort and Fullview Garden are also situated at more than 1.8km from the site. Other existing Air Sensitive Receivers (ASRs) and Noise Sensitive Receivers (NSRs), including resident developments and schools, are located at a further distance away from TKO Area 137.

May 2023 Page 1 of 16

Monthly EM&A Report No.17

FNA33524

2.3 Work Programme

Details of work programme are shown in Appendix G.

2.4 Project Organization and Management Structure

The project organization chart is shown in Appendix A.

2.5 Contact Details of Key Personnel

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

Table 2.1 Contact Details of Key Personnel

Organization	Name of Key Staff	Project Role	Tel. No.	Fax No.
CEDD	Mr. C W Au Yeung, Andrew Cheung	Engineer's Representative	2623 9267 / 2762 5588	2714 0113
IEC (Acuity)	Mr. F C Tsang	IEC	2698 9097	2333 1316
Contractor (CHZH-JV)	Zhou Chang Ying	Senior Project Manager	9626 6299	2247 4108
ET (ETL)	C. L. Lau	ET Leader	2946 7791	2695 3944

3.0 WORK PROGRESS IN THIS REPORTING PERIOD

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

- 1. Operation of the Public Fill Reception Facilities at Tseung Kwan O Fill Bank (TKOFB);
- Operation of dewatering plant at TKOFB;
- 3. Operation and Maintenance of crushing plants at TKOFB;
- 4. Operation and Maintenance of Artificial Intelligent System for Crushing Plant at TKOFB:
- 5. Operation of the Integrated Public Fill Reception at TKOFB;
- 6. Operation and Maintenance of the Wash House at TKOFB;
- 7. Personnel Position Tracking and Proximity Detection System of Moving Plant at TKOFB;
- 8. Operation and Maintenance a Digital Works Supervision System (DWSS) for TKOFB;
- 9. Operation and maintenance of Wheel Washing Bays and Facilities at TKOFB;
- 10. Maintenance of the Drainage Systems at TKOFB;
- 11. Delivery of Public Fill to Taishan at TKOFB;
- 12. Construction of Gabion Wall at TKOFB;
- 13. Replacement of concrete pavement at TKOFB
- 14. Implementation of C Easy system at TKOFB (Phase 1)
- 15. Carry out GCO Probe test and SRT
- 16. Trial Delivery of Excavated Materials (T2 Materials) from TKOFB to Sha Chau Dumping Site at TKOFB

4.0 AIR QUALITY MONITORING

4.1 Monitoring Requirement

TSP levels were monitored in the reporting period in accordance with the EM&A Manual. Table 4.4 shows the Action and Limit Levels for the environmental monitoring works.

4.2 Monitoring Equipment

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

Table 4.1 Air Quality Monitoring Equipment

The examination of the example of th		
Equipment	Model and Make	
HVS	Graseby 105, Andersen G1051	
Calibrator	Tisch TE-5025A	

May 2023 Page 2 of 16

FNA33524

Contract No.: CV/2021/09

Handling of Surplus Public Fill (2022-2023) - Tseung Kwan O Area 137 Fill Bank Monthly EM&A Report No.17

4.3 Monitoring Parameters, Frequency and Duration

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

Table 4.2 Monitoring parameters, duration, frequency of air quality monitoring

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

4.4 **Monitoring Locations**

Table 4.3 tabulates the air quality monitoring locations of this project.

Table 4.3 Air quality monitoring locations

Monitoring station	Location
TKO-A1	Site Egress
TKO-A2a	CREO

4.5 **Monitoring Methodology**

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

Instrumentation

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

Installation

The installation of HVS refers to the requirement stated in EM&A Manual.

Operation/Analytical Procedures

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

- Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 0.6m³/min and 1.7m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50. The flow rate was indicated on the flow rate chart.
- For TSP sampling, fiberglass filters (Whatman G653) were used.
- The power supply was checked to ensure the sampler worked properly.
- On sampling, the sampler was operated 5 minutes to establish thermal equilibrium before placing any filter media at designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an air-tight seal on the outer edges of the filter. Then the filter holder frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- The programmable timer will be set for a sampling month of 1 hour or 24 hours. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number.).
- After sampling, the filter was transferred from the filter holder of the HVS to a sealed plastic bag and sent to the laboratory for weighting. The elapsed time was also recoded.
- Before weighting, all filters were equilibrated in a desiccator for 24 hour with the temperature of 25°C + 3°C and the relative humidity (RH) <50% +5%.
- All measurement procedures in Section 2.3 of the EM&A Manual were followed during the reporting period.

May 2023 Page 3 of 16

Monthly EM&A Report No.17

FNA33524

Maintenance & Calibration

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

Wind Data Monitoring

Wind data (wind speed and wind direction) were directly extracted from Tseung Kwan O Station of Hong Kong Observatory. All wind data during this reporting period are shown in Appendix E.

4.6 Action and Limit Levels

Table 4.4 shows the Action and Limit levels for 24-hr TSP and 1-hr TSP monitoring.

Table 4.4 Action and Limit Levels for 24-hr TSP and 1-hr TSP

Manitaring Location 24-hi		P (mg/m³)	1-hr TSP (mg/m³)	
Monitoring Location	Action Level	Limit Level	Action Level	Limit Level
TKO-A1	210	260	376	500
TKO-A2a *	210	260	376	500

Remark (*): Since dust monitoring stations TKO-A2 and TKO-A2a are located close to the major dust emission sources and also close to the same sensitive receptor and no significant difference between them on the prevailing meteorological conditions, the baseline data from TKO-A2 (August and September 2002 by MateriaLab) can also be valid in the case of TKO-A2a.

4.7 Event-Action Plans

Please refer to Appendix F for details.

4.8 Results and Observation

4.8.1 1-hour and 24-hour TSP Monitoring results

Monitoring data of both 1-hour and 24-hour TSP monitoring carried out in this reporting period are summarized in Appendix B2. Graphical presentation of 1-hour and 24-hour TSP monitoring results for the reporting period is shown in Appendix B3. Wind data included wind speed and wind direction was extracted from Tseung Kwan O Station of Hong Kong Observatory during this reporting period and is presented in Appendix E.

No exceedance of Action and Limit Level of 1-hr TSP and 24-hour TSP monitoring results was recorded during the reporting period.

4.8.2 Observation

Generally, the Contractor implemented sufficient dust mitigation measures, including operation of the mist spraying systems at the CEDD Combined Reception Office and crushing plants. And the site egress area provided wheel washing facilities; Road dampening, water bowsers and automatic water sprinklers on the main haul roads. Other dust sources near TKO Area 137 also included operation of the temporary Construction Waste Sorting Facilities (CWSF) and dumping activities at the SENT Landfill.

5.0 Noise Monitoring

5.1 Monitoring Requirements

Noise monitoring was conducted at 1 monitoring station as specified in the approved EM&A Monitoring Proposal for good site practice. The equipment, parameter, frequency, duration, methodology, calibration details, results and observations of the noise monitoring for the reporting period are presented in this section.

5.2 Monitoring Equipment

An Integrating Sound Level Meter was used for noise monitoring. It was a Type 1 sound level meter capable of giving a continuous readout of the noise level reading including equivalent continuous

May 2023 Page 4 of 16



Contract No.: CV/2021/09 ENA33524
Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O Area 137 Fill Bank Monthly EM&A Report No.17

sound pressure level (L_{eq}) and percentile sound pressure level (Lx). It complies with International Electro Technical Commission Publications IEC 61672 Type 1 specification, and speed in m/s was used to monitor the wind speed.

Table 5.1 summarizes noise monitoring equipment model being used. A copy of the calibration certificate for noise meter and calibrator are attached in Appendix C1

Table 5.1 Noise Monitoring Equipment

Equipment	Model
Sound Level Meter	Rion NL-52
Sound Level Calibrator	Rion NC-73

5.3 Monitoring Parameters, Duration and Frequency

Duration, frequencies and parameters of noise measurement are presented in Table 5.2.

Table 5.2 Duration, Frequencies and Parameters of Noise Monitoring

Time	Duration/min	Parameters	Frequency
Day-time: 0700-1900 hrs on normal weekday	30	Leq, L ₁₀ , L ₉₀	Once per month

5.4 Monitoring Locations

One Noise monitoring was conducted at the noise monitoring location, TKO-N1 as shown in Figure 2 during the reporting period. Table 5.3 describes the location of the monitoring station.

Table 5.3 Noise Monitoring Location

Monitoring station	Location	Type of Measurement
TKO-N1	Outside site Egress along Wan Po Road	Free Field

5.5 Monitoring Procedures and Calibration Details

Operation/Analysis Procedures

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

Frequency weighting: A
 Time weighting: Fast
 Time measurement: 30 mins

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

Maintenance and Calibration

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

5.6 Action and Limit Levels

May 2023 Page 5 of 16

Monthly EM&A Report No.17

FNA33524

Contract No.: CV/2021/09 Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O Area 137 Fill Bank

The Action and Limit levels for noise levels derived as illustrated in Table 5.4.

Table 5.4 Action and Limit Levels for noise monitoring

Time Period	Action	Limit
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A)

5.7 Event-Action Plans

Please refer to the Appendix F for details.

5.8 Results and Observation

5.8.1 Results

Only Day-time noise monitoring was carried out at monitoring station TKO-N1 in this reporting period. The detail of the noise monitoring is provided in Appendix C2. Graphical presentation of the monitoring result for the reporting period is shown in Appendix C3. Since no documented complaints on noise issue were received in this reporting period, no Action Level exceedance was recorded. Besides, no exceedance in Limit Level was recorded according to the result from Day-time monitoring.

5.8.2 Observation

The major noise source during the monitoring event was the dump truck traffic and crushing plant.

6.0 MARINE WATER QUALITY MONITORING

6.1 Monitoring Requirements

In accordance with the EM&A Manual, impact marine water quality monitoring was conducted three days per week. Measurements were taken at both mid-flood and mid-ebb tides at three depths (i.e. 1m below surface, mid depth and 1m from seabed) at Control Station, C1 and Monitoring Station, M4.

6.2 Monitoring Locations

For the Reclamation Project, there were 4 Designated Monitoring Stations and 2 Designated Control Stations specified in the EM&A Manual. Upon the completion of the monitoring programme under Stage 2 reclamation works, the ET started monitoring events at the impact station M4 and the control station C1 from 18 May 2004 onwards.

Figure 1 shows the location of the marine water quality monitoring stations. Table 6.1 describes the locations of the monitoring stations in the reporting period.

Table 6.1 Locations of Marine Water Monitoring Stations

Station Description	Code	HK Metric Grid E	HK Metric Grid N
Control Station (Ebb tide)	TKO-C1	844 740.208	815 371.502
Monitoring Station, Tung Lung Chau Fish Culture Zone	TKO-M4	847 741.029	812 977.878

According to Environmental Permit (Permit no.:EP-134/2002/N) Condition 3.2, water quality survey/monitoring shall be conducted at control station C1a, monitoring stations M4a and M5 for the period from two weeks before commencement of operation of the additional 5 barging points to 4 weeks after cessation of their operation. The water quality survey/monitoring frequency and parameters at stations C1a, M4a and M5 shall be same as the requirements set out in the EM&A Manual and the monitoring results shall be incorporated in the monthly EM&A reports.

Due to "Hong Kong International Airport, Three Runway System Project Contract 3206 – Main Reclamation Works "(3RS project) operation of the additional barging point at TKO Area 137, the ET started monitoring events at the impact station M4a, M5 and the control station C1a from 14 May 2018 onwards.

May 2023 Page 6 of 16

FNA33524 Monthly EM&A Report No.17

Figure 4 shows the location of water control station C1a and water monitoring station M4a and M5.

Table 6.2 describes the locations of the additional marine water monitoring stations

Table 6.2 Locations of Additional Marine Water Monitoring Stations (3RS project)

Station Description	Code	HK Metric Grid E	HK Metric Grid N
Control Station (Ebb tide)	C1a	845647	814146
Immo of Ma wife view Of a figur	M4a	845922	813973
Impact Monitoring Station	M5	847005	813678

6.3 **Monitoring Parameters**

Monitoring of the marine water quality parameters are listed in Table 6.3.

Table 6.3 Marine Water Quality Monitoring Parameters

In-situ measurement	Laboratory analysis
Depth (m)	Suspended solids (mg/L)
Temperature (°C)	
Dissolved Oxygen (mg/L and % saturation)	
Turbidity (NTU)	
Salinity (ppt)	

6.4 **Monitoring Frequency**

The monitoring frequency of the marine water monitoring is summarized in Table 6.4.

Table 6.4 Monitoring frequency of the marine water

Parameter	Frequency	No. of Location	No. of Depths	
Temperature		2		
Salinity		(TKO-C1 and TKO-	3	
Dissolved Oxygen (DO)	3 days/week,	M4)	(Surface, mid-depth	
Turbidity	2 tides/day	and 3	& bottom)	
Suspended solids (SS)		(C1a, M4a and M5)		

6.5 **Monitoring Methodology and Equipment Used**

For Location of the monitoring stations

Global Positing System (GPS)

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

For Water Depth measurement

Echo Sounder

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

For In-situ Water Quality Measurement

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

Dissolved Oxygen, Salinity, Turbidity and Temperature Measuring Equipment

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

May 2023 Page 7 of 16

Monthly EM&A Report No.17

FNA33524

temperature:

- a dissolved oxygen level in the range of 0 to 50 mg/L and 0-500 % saturation;
- a turbidity in range 0-4000 NTU;
- a salinity in range 0-70 ppt;
- a temperature of -5-70 degree Celsius

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

For Water Sampling and Sample Analysis

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

Water Sampler

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

Water Container

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

The summary of testing method of testing parameter as recommended by EIA or required by EPD, with the QA/QC results in accordance with the requirement of HOKLAS or international accredited scheme is shown in Table 6.5.

Table 6.5 Summary of testing procedures

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

In-situ measurement

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

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

Table 6.6 shows the equipment used for in-situ monitoring of water quality. The calibration certificates are attached in Appendix D1.

May 2023 Page 8 of 16

ET/EW/002/08

Contract No.: CV/2021/09

Speedtech SM-5

ENA33524 Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O Area 137 Fill Bank Monthly EM&A Report No.17

Table 6.6	De	etails of Marine Water Quality	Monitoring Equip	oment (In-site	measurement)
Paramete	er	Model	Date of Calibration	Due Date	Equipment No.
Coordinate Monitoring stations		Garmin eTrex 10			ET/EW/005/09
Oxygen (Saturation			20/04/23	19/07/23	ET/EW/008/011*

Remark: (*) indicates the instrument should be calibrated on use.

6.6 **Action and Limit Level**

Water Depth

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

Table 6.7 Water Quality Action and Limit Levels

1 4510 0.7	Water Quality / totion and Elimit Ecvels			
Parameter	Action Level	Limit Level		
DO (mg/L)	Surface & Middle <5.45 mg/L (5%-ile of baseline data) Bottom <4.72 mg/L (5%-ile of baseline data)	Surface & Middle <5.10 mg/L (1%-ile of baseline data) Bottom <2.00 mg/L		
SS (mg/L) (Depth- averaged)	>6.74 mg/L (95%-ile of baseline data) or >120% of the upstream control station's SS at the same tide on the same day	>7.67 mg/L (99%-ile of baseline data) or >130% of the upstream control station's SS at the same tide on the same day		
Turbidity (NTU) (Depth- averaged)	>4.28 NTU (95%-ile of baseline data) or >120% of the upstream control station's turbidity at the same tide on the same day	>4.58 NTU (99%-ile of baseline data) or >130% of the upstream control station's turbidity at the same tide on the same day		

The water quality Action and Limit Levels (3RS project) are presented in the table below.

Water Quality Action and Limit Levels (3RS project) Table 6.8

	Trater Quality / teller and Elimit Ecocle (orto project)				
Parameter	Action Level	Limit Level			
DO (mg/L)	Surface & Middle <5.5 mg/L Bottom <5.2 mg/L	Surface & Middle <4.00 mg/L (1%-ile of baseline data) Bottom <2.00 mg/L			
SS (mg/L) (Depth- averaged)	>4.9 mg/L or >120% of the upstream control station's SS at the same tide on the same day	>5.2 mg/L or >130% of the upstream control station's SS at the same tide on the same day			
Turbidity (NTU) (Depth- averaged)	>3.9NTU or >120% of the upstream control station's turbidity at the same tide on the same day	>4.2 NTU or >130% of the upstream control station's turbidity at the same tide on the same day			

6.7 **Event and Action Plan**

Please refer to the Appendix F for details.

6.8 Monitoring Duration in this reporting period

Below is the time schedule for the marine water quality monitoring events that were conducted in this reporting period:

May 2023 Page 9 of 16

ENA33524 Monthly EM&A Report No.17

Table 6.9 Time Schedule of Impact Marine Water Quality Monitoring

May 2023								
Sunday	Monday	Tuesday	Wednesday	/ Thursday	Friday	Saturday		
	1	2	▼ 3	4	5 ▼	6		
7	8	9	10	▼ 11	12	1 3 ▼		
14	15	▼ 16	17	▼ 18	19	₹ 20		
21	22	23 ▼	24	25	26	27		
28	29	▼ 30	31	▼				

Remark: (▼) = Marine water quality monitoring carried out by ET.

6.9 Marine Water Quality Monitoring Results

The impact water quality measurement results are detailed in Appendix D2. Appendix D3 presents the water quality monitoring data and graphical presentations of monitoring results. The summary of marine water quality exceedances is shown in Table 6.10.

Table 6.10 Summary of Impact Marine Water Quality Exceedances

Station	Exceedance	eedance DO		Turbidity		SS		Total	
Station	Level	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb
TKO-M4	Action	0	0	0	0	0	0	0	0
TKO-IVI4	Limit	0	0	0	0	0	0	0	0

The impact water quality measurement results (3RS project) are detailed in Appendix D4. Appendix D5 presents the water quality monitoring data and graphical presentations of monitoring results. The summary of marine water quality exceedances (3RS project) is shown in Table 6.11.

Table 6.11 Summary of Impact Marine Water Quality Exceedances (3RS project)

1 4510 0111	Garrinary	or impace		. 4.0. 44	anty Exces	0441.000	(O. (O. P.O)	001)	
Station	Exceedance	DO		Turbidity		SS		Total	
Station	Level	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb
M4a	Action	0	0	0	0	o	0	0	o
IVI4a	Limit	0	0	0	0	0	0	0	0
145	Action	0	0	0	0	0	0	0	0
<i>M</i> 5	Limit	0	0	0	0	0	0	0	0

According to the summary of marine water monitoring results, no exceedance of Action and limit levels was recorded for this reporting period.

7.0 ENVIRONMENTAL AUDIT

7.1 Weekly ET Site Inspections and EPD's Site Inspection

7.1.1 Weekly ET Site Inspections

Weekly ET site inspections were carried out by ET to monitor the timely implementation of proper environmental pollution control and mitigation measures for the Project. In this reporting period, five weekly site inspections were conducted (03, 10, 17, 24 and 30 May 2023). Table 7.1 presents the key findings of weekly ET site inspection in this reporting period.

May 2023 Page 10 of 16

Monthly EM&A Report No.17

FNA33524

Follow-up

Contract No.: CV/2021/09 Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O Area 137 Fill Bank

> Table 7.1 Key Findings of Weekly ET Site Audits in this reporting period Action(s) Taken by the Action(s) Taken Rectification Date **Key Findings** Contractor during the recommended by ET Status by ET ET weekly site audit 03 No defective work or observation was recorded during the weekly ET site inspection May 2023 May No defective work or observation was recorded during the weekly ET site inspection 2023 17 No defective work or observation was recorded during the weekly ET site inspection May 2023 24

> > No defective work or observation was recorded during the weekly ET site inspection

To clean the stagnant

water properly

7.1.2 EPD's Site Inspection

May 2023 30

May

2023

EPD's site inspection was carried out on 30 May 2023 in this reporting period.

7.2 Review of Environmental Monitoring Procedures

Stagnant water was

observed near the generator

at the fixed rigid platform

The monitoring works conducted by the Environmental Team were inspected regularly. The observations for the monitoring works were recorded and summarized as follows:

Air Quality Monitoring

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

Noise Monitoring

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

Water Quality Monitoring

 The monitoring team recorded the observations around the monitoring stations, which might affect the results.

7.3 Assessment of Environmental Monitoring Results

All monitoring results were audited against the Action and Limit levels and any exceedance would be validated.

No exceedance was recorded in water quality, air quality and noise monitoring in this reporting period.

The monitoring results in this reporting period were comparable with those of baseline month. Detailed discussions were given in Section 4, 5 and 6 of this Report.

7.4 Advice on the Solid and Liquid Waste Management Status

The Contractor usually disposed of non-inert waste, including general refuse and materials segregated from the existing stockpiles, to SENT landfill. Table 7.2 summarizes data on offsite waste disposal in this reporting period and the Monthly Summary Waste Flow Table is shown in Appendix K.

May 2023 Page 11 of 16

Monthly EM&A Report No.17

FNA33524

Contract No.: CV/2021/09 Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O Area 137 Fill Bank

Table 7.2 Actual amounts of Waste generated in this reporting period

dolo 112 1 totali di il ori 11 dolo gonorato in tino reperting period									
Waste Type	Actual Amount	Disposal Locations							
Public Fill ('000m³)	0	TKO 137 Fill Bank							
C&D Waste ('000kg)	63.83	SENT Landfill / Refuse Collection Point							
Chemical Waste (kg/L)	0 (L)	Collected by licensed collector							

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

Concrete bunding has erected outside the CEDD combined reception office and near the automatic wheel washing facilities for storing generator sets and oil drums. The drain outlet of all the bunded areas should be plugged properly. Besides, pre-cast drip trays were provided for oil drums at several areas, such as workshop and chemical storage area. The Contractor should collect and dispose of any stagnant water accumulated in the concrete bunding and drip trays and handle them as chemical waste.

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

The Contractor was reminded to increase the frequency of inspection and cleaning of the site drainage system, including permanent desilting chambers, desilting facilities, oil interceptor bypass tank, DP3 and DP4 and all the trapezoidal channels. Moreover, the Contractor should apply approved pesticides in the stagnant water ponds.

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

8.0 Status of Environmental Licensing and Permitting

All permits/licenses valid in this reporting period are summarized in Table 8.1.

Table 8.1 Summary of environmental licensing and permit status

I able 6.1	Carrinary C	CITVITOTIII	icittai iloci		g and pennit status
Description	Permit No.	Valid	Period		Section
		From	То		
Environmental	EP-	14/02/23	01/01/20	•	Site clearance
Permit	134/2002/P		27	•	Construction of a temporary storm water system
				•	Stockpiling of 6 million m3 of public fill
				•	Setting up two barging points for transporting the
					stockpiled public fill by barges
				•	Setting up a temporary barging point at the
					existing Explosive Off-loading Barging Point for
					the month of May 2004 to December 2004 for
					transporting the stockpiled public fill by barge
				•	Construction of operation of a construction and
					Demolition Material Sorting Facility (C&DMSF)
				•	Setting up a Construction and Demolition
					Material Crushing Facility at the TKO Basin
				•	Remove the temporary fill bank
Chemical	5213-839-	19/04/17		•	Spent battery cell containing heavy metals and
Waste	C3750-04				spent lubricating oil
Registration					
Effluent	WT000411	06/06/22	30/06/27	•	Effluent, Surface Run-off, and all other
Discharge	69-2022				wastewater discharges from screen and
License					sedimentation tank
Marine	EP/MD/23-	04/04/23	30/04/23	•	Approval for dumping 499,999 tons
Dumping	120				(approximately equal to 277,777 cu.m. bulked
Permit					quantity) of Public Fill (Reclamation Materials)
					from Tseung Kwan O Area 137 Fill Bank and
					Tuen Mun Area 38 Fill Bank to designated
					dumping area at Guanghaiwan of Taishan

May 2023 Page 12 of 16

FNA33524

Contract No.: CV/2021/09

Handling of Surplus Public Fill (2022-2023) - Tseung Kwan O Area 137 Fill Bank Monthly EM&A Report No.17

Billing	7042821	22/05/17	End of	
Account for			project	
Waste				
Disposal				
Notification	475209	12/04/17	End of	
Pursuant to			project	
Section 3(3)				
of the Air				
Pollution				
Control				
(Construction				
Dust)				

9.0 **ENVIRONMENTAL NON-CONFORMANCE**

9.1 Summary of air quality, noise and marine water quality

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

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

According to the summary of marine water monitoring results, no exceedance of Action and Limit levels was recorded for this reporting period.

9.2 **Summary of Environmental Complaints**

No complaint was received in this reporting period.

9.3 Summary of Notification of Summons and successful Prosecution

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

10.0 **IMPLEMENTATION STATUS**

10.1 **Implementation Status of Environmental Mitigation Measures**

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

10.2 Implementation Status of Event and Action Plan

Since no exceedance of Action and Limit level of air quality, noise and marine water monitoring results was recorded for this reporting period, no further action was required.

10.3 Implementation Status of Environmental Complaint, Notifications of Summons and Successful Prosecutions Handling

A summary of environmental complaints, notifications of summons and successful prosecutions was given in Table 10.1 and further details of the complaint could be found in the Complaint Log (Appendix N).

Table 10.1 Summary of Environmental Complaints and Prosecutions

Complaints	logged	Summons	served	Successful prosecution received			
May 2023	Cumulative	May 2023	Cumulative	May 2023	Cumulative		
0	18	0	0	0	0		

May 2023 Page 13 of 16

ENA33524 Monthly EM&A Report No.17

11.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Impact monitoring of air quality, noise and water quality were carried out at designated locations in accordance with the EM&A Manual in this reporting period.

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

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

According to the summary of marine water monitoring results, no exceedance of Action and Limit levels was recorded for this reporting period.

No complaint, prosecutions and notifications of summons were received in this reporting period.

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

Recommendations

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

Air Quality

- Ensure the frequency of water spraying on haul roads, crushing plant, unloading areas and stockpiles to be sufficient to suppress the dust sources;
- Provide proper maintenance for the powered mechanical equipment and barges to avoid emission of dark smoke;
- Provide water spraying onto the truckloads during inspection of fill material;
- Provide continuously water spraying system for crushing plant including receiving point and unloading point;
- Provide enclosed conveyor belt for transporting the crushed material directly to the unloading point
- Provide dust screen fenced for crushing plant, and the receiving point of crushing facility would be situated inside an enclosure with one side opening for vehicular access;
- Conduct road sweeping on all paved haul roads and public roads especially outside and near the site egress by the road sweeper. Undertake water spraying on stockpiling area by water bowser;
- Erect adequate speed limit signs to advise the truck drivers of the speed limit;
- Operate mist spraying systems and automatic water sprinklers in the Fill Bank;
- Implement the dust mitigation measures for the site activities;
- Designate proper haul roads to ensure effective water spraying; and
- Ensure all vehicles to be washed before leaving the site egress by provision, operation and maintenance of automatic wheel washing facilities.

Noise

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

Water Quality

- Maintain the drainage system, including the trapezoidal channels, permanent desilting chambers, regularly;
- Operate and maintain the silt curtains regularly:
- Operate the cleaning vessel within the TKO Basin regularly;
- Clean up the fill material on the concrete pavement at BHA frequently; and
- Remove the stagnant water or provide approved pesticides for the stagnant water in the permanent desilting chambers, if any.

Landscape and Visual

Provide hydroseeding on the exposed slopes, on which the final profile has been formed;

May 2023 Page 14 of 16



Contract No.: CV/2021/09 ENA33524
Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O Area 137 Fill Bank Monthly EM&A Report No.17

- Erect all the site hoarding/chaining fences in accordance with agreed design at proper location;
- Maintain the hydroseeded slopes in accordance with the Landscape Plan.

Chemical and Waste Management

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

12.0 FUTURE KEY ISSUES

12.1 Work Programme for the Coming Month

- 1. Operation of the Public Fill Reception Facilities at Tseung Kwan O Fill Bank (TKOFB);
- 2. Operation of dewatering plant at TKOFB;
- 3. Operation and Maintenance of crushing plants at TKOFB;
- 4. Operation and Maintenance of Artificial Intelligent System for Crushing Plant at TKOFB;
- 5. Operation of the Integrated Public Fill Reception at TKOFB;
- 6. Operation and Maintenance of the Wash House at TKOFB;
- 7. Personnel Position Tracking and Proximity Detection System of Moving Plant at TKOFB;
- 8. Modification and Operation a Digital Works Supervision System (DWSS) for TKOFB;
- 9. Operation and maintenance of Wheel Washing Bays and Facilities at TKOFB;
- 10. Maintenance of the Drainage Systems at TKOFB;
- 11. Construction of Gabion Wall at TKOFB:
- 12. Upgrade of Integrated Public Fill Reception Platform at TKOFB
- 13. Trial Production of Blanket Layer Material Recycled from Public Fill at TKOFB
- 14. Replacement of concrete pavement at TKOFB
- 15. Implementation of C Easy system at TKOFB (Phase 1)

12.2 Key Issues for the Coming Month

Key issues to be considered in the coming month include:

- Chemical and waste management;
- Treatment of runoff and wastewater prior to discharge;
- Dust generated from loading and unloading activities;
- Dust generated from dump trucks traffic;
- Regular checking of the drainage system;
- Flood prevention; and
- Noise from operation of the crushing plant.

Mitigation measures to be required in the coming month:

Air Quality Impact

- To provide adequate water spraying on haul roads and working platform;
- To operate and maintain automatic wheel washing facilities properly;
- To dampen the fill material prior to unloading or movement;
- To provide road sweeping on haul road near site egress and public roads outside site egress;
- To ensure implementation of the dust mitigation measures for the site activities;
- To maintain proper operation of the mist spraying system;
- To provide proper maintenance for vehicles and machines on site; and
- To investigate any other dust sources around the air sensitive receivers

Noise

- To switch off equipment if not in use;
- To operate silent equipment;
- To identify the noise sources inside and outside of the site;
- To follow up any exceedance caused by the Fill Bank operation; and

May 2023 Page 15 of 16



Contract No.: CV/2021/09 ENA33524
Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O Area 137 Fill Bank Monthly EM&A Report No.17

To re-schedule the work activities in the event of valid noise exceedance.

Water Quality Impact

- To maintain the drainage system in the Fill Bank;
- To ensure the cleanliness of oil interceptor bypass tanks and all the drainage channels;
- To maintain the existing silt trap to ensure good efficiency of wheel wash facilities;
- To repair, inspect and maintain the silt curtains regularly;
- To provide covers for the drip trays to avoid stagnant water pond due to rainfall;
- To deploy a cleaning vessel to remove floating rubbish in the TKO Basin;
- To clean up the concrete paved area at Portion I every night to avoid fill materials from being washed into the sea;
- To avoid any stagnant water or provide insecticide to avoid mosquito breeding in the Fill Bank.
- To prevent untreated wastewater directly discharge into nullahs; and
- To provide desilting facilities such as granular rock filter and geotextile filter at nullah.

Chemical and Waste Management

- To remove waste from the site regularly;
- To properly store and handle chemical wastes on site;
- To implement trip ticket system for all the imported public fill and general refuse disposal;
- To provide and manage sufficiently sized drip trays for diesel drums or chemical containers;
- To remove existing unwanted material in the stockpiles and avoid improper disposal at the Fill Bank through inspection of imported truckloads;
- To maintain proper housekeeping at the workshop area;
- To remove the oil stains in the event of leakage and handle all materials using for this cleaning works as chemical waste;
- To maintain mesh screen on top of the additional drainage, DP3 opening to avoid improper dumping of rubbish into this channel; and
- To identify C&D material by packaging, labeling, storage, transportation and disposal in accordance with statutory regulations.

12.3 Monitoring Schedule for the Coming Month

The proposed EM&A program of the coming month and predicted tide schedule from the Hong Kong Observatory are attached in Appendix L.

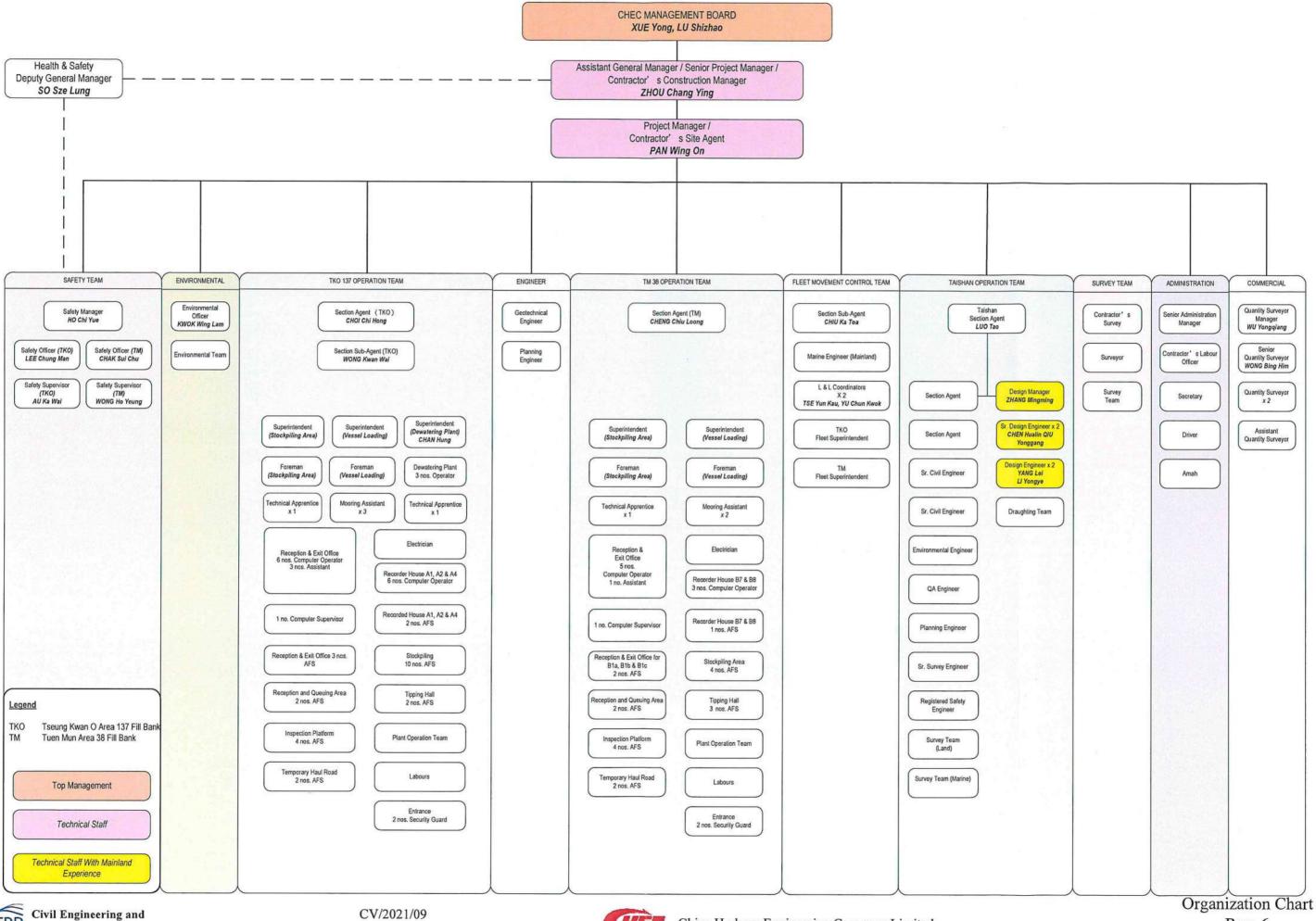
- END OF REPORT -

May 2023 Page 16 of 16



Appendix A

Project Organization Chart







Handling of Surplus Public Fill



Appendix B1

Calibration Certificates for Impact Air Quality Monitoring Equipment





RECALIBRATION DUE DATE:

January 17, 2024

Certificate of Calibration

Calibration Certification Information

Cal. Date: January 17, 2023

Rootsmeter S/N: 438320

Ta: 294 Pa: 741.4 °K

Operator: J

Calibration Model #:

Jim Tisch

TE-5025A

Calibrator S/N: 4128

mm Hg

Vol. Init Run (m3)		Maria de la companya del companya de la companya de la companya del companya de la companya de l		ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4370	3.2	2.00
2	3	4	1	1.0170	6.4	4.00
3	5	6	1	0.9140	8.0	5.00
4	7	8	1	0.8640	8.8	5.50
5	9	10	1	0.7170	12.8	8.00

		Data Tabulat	ion		
Vstd	Qstd	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$		Qa	√∆H(Ta/Pa)
(m3)	(x-axis)	(y-axis)	Va	(x-axis)	(y-axis)
0.9846	0.6852	1,4063	0.9957	0.6929	0.8905
0.9803	0.9639	1.9888	0.9914	0.9748	1.2594
0.9782	1.0702	2.2235	0.9892	1.0823	1.4081
0.9771	1,1309	2.3321	0.9881	1.1437	1.4768
0.9718	1.3553	2.8126	0.9827	1.3706	1.7811
	m=	2.09676		m=	1.31296
QSTD	b=	-0.03027	QA	b=	-0.01 9 17
~	r=	0.99991	-4.	r=	0.99991

	Calculatio	ns			
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)		
Qstd=	Vstd/∆Time	Qa= Va/ΔTime			
	For subsequent flow ra	ite calculatio	ns:		
Qstd=	$1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$	Qa=	$1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$		

	Standard Conditions
Tstd:	298.15 °K
Pstd:	760 mm Hg
	Key
ΔH: calibrator	manometer reading (in H2O)
ΔP: rootsmete	er manometer reading (mm Hg)
Ta: actual abs	olute temperature (°K)
Pa: actual bar	ometric pressure (mm Hg)
b: intercept	
m: slope	

RECALIBRATION

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

Tisch Environmental, Inc. 145 South Miami Avenue Village of Cleves, OH 45002 www.tisch-env.com

TOLL FREE: (877)263-7610 FAX: (513)467-9009



東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

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

T: +852 2695 8318 F: +852 2695 3944 E: ett@ets-testconsult.com W: www.ets-testconsult.com

TEST REPORT

Calibration Report

of

High Volume Air Sampler

Manufacturer

Graseby 105

Date of Calibration

26 April 2023

Serial No.

9795 (ET/EA/003/18)

Calibration Due Date

25 June 2023

Method

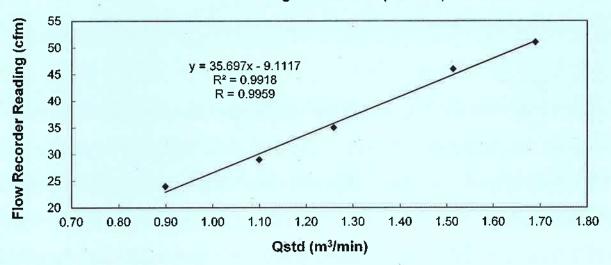
Five-point calibration by using standard calibration kit Tisch TE-5025A refer to the

Operations Manual

Results

Flow recorder reading (cfm)	51	46	35	29	24
Qstd (Actual flow rate, m³/min)	1.69	1.51	1.26	1.10	0.90
Pressure : 761.01 mm Hg		Temp.:	295	К	87.35

Sampler 9795 Calibration Curve Site: Tseung Kwan O 137 (TKO-A1)



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

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

Calibrated by :

MAK, Kei Wai

(Assistant Supervisor)

Checked by 3

LĂU, Chi Leung

(Environmental Team Leader)

- END OF REPORT -



東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

Veristrong Industrial Centre, Fo Tan, Hong Kong

T: +852 2695 8318 F: +852 2695 3944 E; etl@ets-testconsult.com W: www.ets-testconsult.com

TEST REPORT

Calibration Report

of

High Volume Air Sampler

Manufacturer

Andersen G1051

Date of Calibration

26 April 2023

Serial No.

1176 (ET/EA/003/05)

Calibration Due Date

25 June 2023

Method

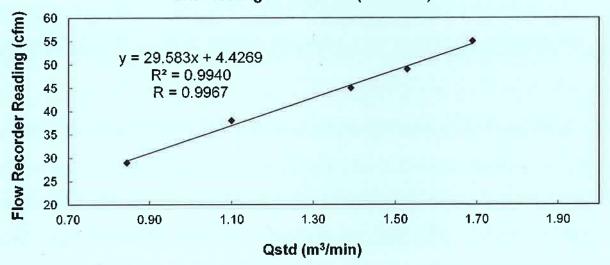
Based on Operations Manual for the 5-point calibration using standard calibration kit

manufactured by Tisch TE-5025 A

Results

Flow recorder read	ing (cfm)		55	49	45	38	29
Qstd (Actual flow ra	ate, m³/min)	1.69	1.53	1.39	1.10	0.84	
Pressure :	761.01	mm Hg		Temp.:	295	K	

Sampler 1176 Calibration Curve Site: Tseung Kwan O 137 (TKO-A2a)



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

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

Calibrated by

(Assistant Supervisor)

Checked by

LAU, Chi Leung

(Environmental Team Leader)

END OF REPORT -



Appendix B2

Impact Air Quality Monitoring Results

Summary of 24-hr TSP Monitoring Results



Monitoring Station : TKO-A1

Location : Site Egress

Sta	art	Fin	ish	Elapse	e Time	Sampling	Flow Rate	e (m³/min.)	Average	Filter W	eight (g)	2 (3)
Date	Time	Date	Time	Initial	Final	Time (hrs)	Initial	Final	(m³/min.)	Initial	Final	Conc. (μg/m ³)
5/5/2023	13:00	6/5/2023	13:00	26942.74	26966.74	24.00	1.1797	1.1797	1.1797	3.2141	3.4723	152
11/5/2023	09:30	12/5/2023	9:30	26969.74	26993.74	24.00	1.2077	1.2077	1.2077	3.2126	3.4648	145
17/5/2023	09:30	18/5/2023	9:30	26996.74	27020.74	24.00	1.2077	1.2077	1.2077	3.2113	3.4443	134
23/5/2023	09:30	24/5/2023	9:30	27023.74	27047.74	24.00	1.2077	1.2077	1.2077	3.1676	3.4128	141
29/5/2023	14:00	30/5/2023	14:00	27050.74	27074.74	24.00	1.1797	1.1797	1.1797	3.1192	3.3808	154

Monitoring Station : TKO-A2a

Location : CREO

Sta	art	Fin	ish	Elapse	e Time	Sampling Time (hrs)	Sampling	Flow Rate	e (m³/min.)	Average	Filter W	eight (g)	
Date	Time	Date	Time	Initial	Final		Initial	Final	(m ³ /min.)	Initial	Final	Conc. (μg/m³)	
5/5/2023	13:10	6/5/2023	13:10	28946.71	28970.71	24.00	0.9321	0.9321	0.9321	3.2439	3.4533	156	
11/5/2023	09:40	12/5/2023	9:40	28973.71	28997.71	24.00	0.9659	0.9659	0.9659	3.2225	3.4311	150	
17/5/2023	09:40	18/5/2023	9:40	29000.71	29024.71	24.00	0.9659	0.9659	0.9659	3.1072	3.2964	136	
23/5/2023	09:40	24/5/2023	9:40	29027.71	29051.71	24.00	0.9659	0.9659	0.9659	3.2179	3.4168	143	
29/5/2023	14:10	30/5/2023	14:10	29054.71	29078.71	24.00	0.9321	0.9321	0.9321	3.1282	3.3403	158	

Summary of 1-hr TSP Monitoring Results

東業德勤測試顧問有限公司 ETS-TESTCONSULT LIMITED

Monitoring Station: TKO-A1

Location : Site Egress Site Egress

Start		Finish		Elapse Time		Sampling	Flow Rate (m³/min.)		Average	Filter Weight (g)		Conc. (μg/m³)
Date	Time	Date	Time	Initial	Final	Time (hrs)	Initial	Final	(m ³ /min.)	Initial	Final	(μg/iii)
3/5/2023	09:00	3/5/2023	10:00	26939.74	26940.74	1.00	1.1797	1.1797	1.1797	3.0472	3.0653	256
3/5/2023	10:05	3/5/2023	11:05	26940.74	26941.74	1.00	1.1797	1.1797	1.1797	3.1467	3.1646	253
3/5/2023	13:00	3/5/2023	14:00	26941.74	26942.74	1.00	1.1797	1.1797	1.1797	3.1864	3.2046	257
8/5/2023	11:00	8/5/2023	12:00	26966.14	26967.14	1.00	1.2077	1.2077	1.2077	3.1759	3.1926	231
8/5/2023	13:00	8/5/2023	14:00	26967.14	26968.14	1.00	1.2077	1.2077	1.2077	3.1847	3.2017	234
10/5/2023	09:30	10/5/2023	10:30	26968.14	26969.14	1.00	1.2077	1.2077	1.2077	3.1739	3.1915	243
12/5/2023	09:15	12/5/2023	10:15	26993.74	26994.74	1.00	1.2077	1.2077	1.2077	3.2940	3.3112	238
12/5/2023	10:30	12/5/2023	11:30	26994.74	26995.74	1.00	1.2077	1.2077	1.2077	3.1289	3.1464	242
15/5/2023	13:00	15/5/2023	14:00	26995.74	26996.74	1.00	1.2077	1.2077	1.2077	3.2488	3.2671	252
19/5/2023	13:00	19/5/2023	14:00	27020.74	27021.74	1.00	1.2077	1.2077	1.2077	3.2417	3.2603	256
19/5/2023	14:00	19/5/2023	15:00	27021.74	27022.74	1.00	1.2077	1.2077	1.2077	3.1079	3.1262	253
22/5/2023	09:30	22/5/2023	10:30	27022.74	27023.74	1.00	1.2077	1.2077	1.2077	3.0402	3.0579	244
24/5/2023	08:30	24/5/2023	9:30	27047.74	27048.74	1.00	1.2077	1.2077	1.2077	3.0765	3.0940	242
27/5/2023	11:00	27/5/2023	12:00	27048.74	27049.74	1.00	1.1797	1.1797	1.1797	3.2547	3.2725	251
27/5/2023	13:00	27/5/2023	14:00	27049.74	27050.74	1.00	1.1797	1.1797	1.1797	3.2327	3.2503	248
31/5/2023	11:00	31/5/2023	12:00	27074.74	27075.74	1.00	1.1797	1.1797	1.1797	3.1743	3.1925	257
31/5/2023	13:00	31/5/2023	14:00	27075.74	27076.74	1.00	1.1797	1.1797	1.1797	3.2564	3.2747	258

Monitoring Station: TKO-A2a

Location : CREO



Start		Finish		Elapse Time		Sampling	Flow Rate (m³/min.)		Average	Filter Weight (g)		0 (3)
Date	Time	Date	Time	Initial	Final	Time (hrs)	Initial	Final	(m ³ /min.)	Initial	Final	Conc. (μg/m³)
3/5/2023	09:10	3/5/2023	10:10	28943.71	28944.71	1.00	0.9321	0.9321	0.9321	3.1308	3.1453	259
3/5/2023	10:15	3/5/2023	11:15	28944.71	28945.71	1.00	0.9321	0.9321	0.9321	3.2495	3.2638	255
3/5/2023	13:10	3/5/2023	14:10	28945.71	28946.71	1.00	0.9321	0.9321	0.9321	3.1649	3.1794	260
8/5/2023	11:10	8/5/2023	12:10	28970.71	28971.71	1.00	0.9659	0.9659	0.9659	3.0553	3.0689	234
8/5/2023	13:10	8/5/2023	14:10	28971.71	28972.71	1.00	0.9659	0.9659	0.9659	3.0653	3.0790	236
10/5/2023	09:40	10/5/2023	10:40	28972.71	28973.71	1.00	0.9659	0.9659	0.9659	3.0729	3.0872	247
12/5/2023	09:20	12/5/2023	10:20	28997.71	28998.71	1.00	0.9659	0.9659	0.9659	3.0733	3.0874	243
12/5/2023	10:40	12/5/2023	11:40	28998.71	28999.71	1.00	0.9659	0.9659	0.9659	3.3724	3.3867	247
15/5/2023	13:10	15/5/2023	14:10	28999.71	29000.71	1.00	0.9659	0.9659	0.9659	3.2319	3.2468	257
19/5/2023	13:10	19/5/2023	14:10	29024.71	29025.71	1.00	0.9659	0.9659	0.9659	3.0416	3.0566	259
19/5/2023	14:10	19/5/2023	15:10	29025.71	29026.71	1.00	0.9659	0.9659	0.9659	3.1316	3.1464	256
22/5/2023	09:40	22/5/2023	10:40	29026.71	29027.71	1.00	0.9659	0.9659	0.9659	3.1269	3.1413	248
24/5/2023	08:35	24/5/2023	9:35	29051.71	29052.71	1.00	0.9659	0.9659	0.9659	3.1229	3.1372	247
27/5/2023	11:10	27/5/2023	12:10	29052.71	29053.71	1.00	0.9321	0.9321	0.9321	3.2391	3.2532	253
27/5/2023	13:10	27/5/2023	14:10	29053.71	29054.71	1.00	0.9321	0.9321	0.9321	3.0681	3.0822	253
31/5/2023	11:10	31/5/2023	12:10	29078.71	29079.71	1.00	0.9321	0.9321	0.9321	3.0864	3.1009	259
31/5/2023	13:10	31/5/2023	14:10	29079.71	29080.71	1.00	0.9321	0.9321	0.9321	3.3819	3.3964	260

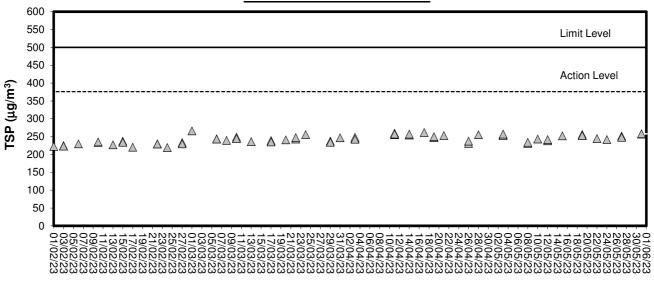


Appendix B3

Graphical Plots of Impact Air Quality Monitoring Data

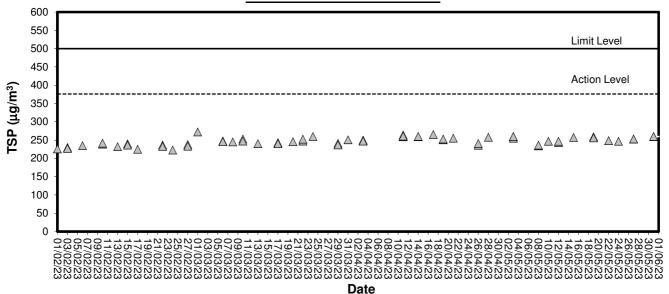


1-hour TSP level at TKO-A1



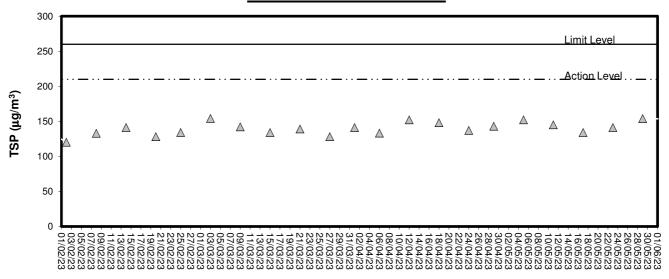
Date

1-hour TSP level at TKO-A2a



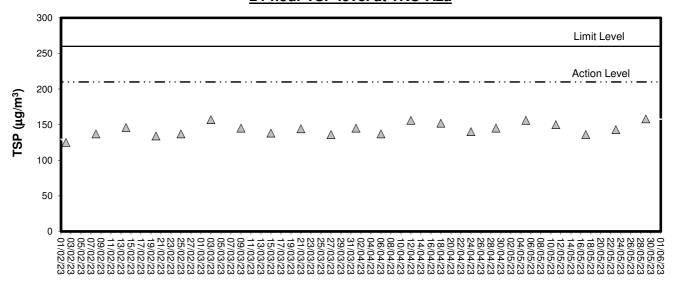


24-hour TSP level at TKO-A1



Date

24-hour TSP level at TKO-A2a



Date



Appendix C1

Calibration Certificates for Impact Noise Monitoring Equipment



東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

8/F Block B. Veristrong Industrial Centre, 34-36 An Pui Wan Street. Fo Tan, Hong Kong

T: +852 2695 6318 F: +852 2695 3944 E: etl@ets-testconsult.com W: www.ets-testconsult.com



Form Q/AS/C/02 Issue 1(1/4) [02/22]

Calibration Certificate

Certificate No.

CSA27669

Page

of

2

Information Provided by Customer

Customer

: ETS - Testconsult Limited

Address

8/F., Block B, Veristrong Industrial Centre, 34 - 36 Au Pui Wan Street, Fotan, Shatin, Hong Kong

Information of Unit-under-test (UUT)

Description

Sound Level Calibrator

Manufacturer

RION

Equipment I.D.

ET/EN/002/01

Type

NC-73

Serial No.

10196943

Laboratory Information

Lab. Ref. No.

Date of Issue

Q/CAL/22/9442/I

Procedure

© CQS/002/A

Date of Calibration

7-Nov-2022 10-Nov-2022 Date of Receipt

1-Nov-2022

Calibration Location

Calibration Laboratory

Calibration Condition

Ambient Temperature : (20±3) °C

Relative Humidity

: (50±20) %

Stabilizing Time

: 30 minutes

Sampling

: As received

Ambient Pressure

: (1000±5) hPa

Reference equipment

- Multi-function sound calibrator, ET/2801/01
- Measuring Amplifier, ET/2702/01/01
- Signal generator, ET/2503/01
- Reference Oscilloscope, ET/2502/01

Calibration specification

To perform the calibration of sound level calibrator.

Calibration result

- The results are detailed on the subsequent pages.

Remarks

- The calibration results apply to the particular unit-under-test only.

- The values given in this calibration certificate only to the values measureed at the time of test & any underlainties quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement

Calibrated By:

Tommy TAM & Tony MA (Technician)

Approved By:

CHAN Chi Wai



東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

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

T: +852 2695 8318 F: +852 2695 3944 E: etl@ets-testconsult.com W: www.ets-testconsult.com



Calibration Certificate

Certificate No. : CSA27669

Page 2 of 2

Calibration Result:

1. Measured Sound Pressure Level:

Nominal Frequency (Hz)	Nominal Output Sound Pressure (dB)	Measured Output (dB)	Expanded Uncertatiny (dB)	Coverage Factor
1000	94.0	94.0	0,13	2.0

2. Actual Output Frequency:

Nominal Frequency	Nominal Oulput	Measured Output (Hz)	Expanded	Coverage
(Hz)	Sound Pressure (dB)		Uncertatiny (Hz)	Factor
1000	94.0	981.906	0.13	2.0

Remark:

- The uncertainty quoted is based on 95 % confidence level.
- Measured output are mean of three measurements.

End of certificate



東業德勤測試顧問有限公司

ETS-TESTCONSULT LTD.

8/F Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street,

T: +852 2695 8318 F: +852 2695 3944 E: etl@ets-testconsult.com W: www.ets-testconsult.com



Form Q/AS/C/01 Issue 1(1/7) [09/21]

Calibration Certificate

Certificate No.

: CSA23783

: 1 of

Information Provided by Customer

Customer

ETS - TESTCONSULT LIMITED

Address

: 8/F., Block B, Veristrong Industrial Centre, 34 - 36 Au Pui Wan Street, Fotan, Shatin, Hong Kong

Information of Unit-under-test (UUT)

	Sound Level Meter	Microphone	Pre-amplifier
Manufacturer	RION	RION	RION
Туре	NL-52	UC-59	NH-25
Equipment I.D. no.	ET/EN/003/17		
Serial No.	00264519	03558	64644
Adaptors used	-		
Resolution	0.1 dB		

Laboratory Information

Lab. Ref. No.

: Q/CAL/22/4437/I

Procedure

: CQS/001/A

Date of Calibration

22-Jun-2022

Date of Receipt

: 8-Jun-2022

Date of Issue

23-Jun-2022

Calibration Location

: Calibration Laboratory

Calibration Condition

Ambient Temperature : (20±3) °C

Relative Humidity

: (50±20) %

Stabilizing Time

: 30 minutes

Reference equipment

- Multi-function sound calibrator, ET/2801/01
- Signal generator, ET/2503/01

Calibration specification

- To perform the calibration of linearity and frequenny response by multi-function sound calibrator.

Calibration result

- The results are detailed on the subsequent pages.

Remarks

- The calibration results apply to the particular unit-under-test only.
- The values given in this calibration certificate only to the values measureed at the time of test & any uncertaintles quoted will not include allowance for the equipment long term drift, varifications with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement

Calibrated By:

Tommy TAM (Technician) Approved By:

CHAN Chi Wai



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

T: +852 2695 8318 F: +852 2695 3944 E: etl@ets-testconsult.com W: www.ets-testconsult.com



Calibration Certificate

Certificate No. : CSA23783

Page: 2 of 3

Calibration Result:

1 Reference Sound Pressure Level : (Unit in: dB)

Ra	nge / Mode		Reference Level	REF Frequency (kHz)	UUT Reading	Deviation	Expanded Uncertatiny	Coverage Factor
	Self-cal	1	94.0		94.0	0.0	0.13	2.0
	Range	30-130	104.0	1	104.1	0.1	0.13	2.0
A Maighting	Mode	Fast	114.0		114.1	0.1	0.13	2.0
A-Weighting	Self-cal		94.0	TESTEVIEW.	94.0	0.0	0.13	2.0
	Range	30-130	104.0	1	104.1	0.1	0.13	2.0
	Mode	Slow	114.0		114.1	0.1	0.13	2.0
No the st	Self-cal		94.0	1	94.0	0.0	0.13	2.0
	Range	30-130	104.0		104.1	0.1	0.13	2.0
C Mainhting	Mode	Fast	114.0		114.0	0.0	0.13	2.0
C-Weighting	Self-cal	1. E 1. Y	94.0	1	94.0	0.0	0.13	2.0
	Range	30-130	104.0		104.1	0.1	0.13	2.0
	Mode	Slow	114.0		114.0	0.0	0.13	2.0
	Self-cal	1 -	94.0	FOX. TO	94.0	0.0	0.13	2.0
	Range	30-130	104.0	1	104.1	0.1	0.13	2.0
7 Malahtir -	Mode	Fast	114.0		114.0	0.0	0.13	2.0
Z-Weighting	Self-cal	-	94.0		94.0	0.0	0.13	2.0
	Range	30-130	104.0	1	104.1	0.1	0.13	2.0
	Mode	Slow	114.0		114.0	0.0	0.13	2.0

Remark:

- The uncertainty quoted is based on 95 % confidence level.
- UUT reading are mean of three measurements.
- Deviation = UUT Reading Reference Level

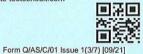
**



東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

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

T: +852 2695 8318 F: +852 2695 3944 E: etl@ets-testconsult.com W: www.ets-testconsult.com



Calibration Certificate

Certificate No.

CSA23783

Page

3 of 3

Calibration Result:

Acoustic Sensitivity and Frequency Response:

3 Frequency Response A-Weighting (Unit in: dB)

Range	Mode	Applied Level	Frequency (Hz)	Reference Level	UUT Reading	Deviation	Expanded Uncertainty	Coverage Factor
		WAYS THE	31.5	54.6	45.6	-9.0	0.15	2.0
			63	67.8	62.3	-5.5	0.13	2.0
			125	77.9	76.5	-1.4	0.13	2.0
			250	85.4	86.4	1.0	0.12	2.0
			500	90.8	92.1	1.3	0.12	2.0
30-130	Fast	94	1000 (Ref.)	94.0	94.0	0.0	0.13	2.0
			2000	95.1	93.4	-1.7	0.13	2.0
			4000	94.9	91.3	-3.6	0.13	2.0
			8000	92.9	84.6	-8.3	0.14	2.0
			12500	89.7	78.0	-11.7	0.14	2.0
			16000	87.5	72.4	-15.1	0.14	2.0

Frequency Response C-Weighting (Unit in: dB)

Range	Mode	Applied Level	Frequency (Hz)	Reference Level	UUT Reading	Deviation	Expanded Uncertainty	Coverage Factor
TIME S		PANNE S	31.5	91.0	80.2	-10.8	0.22	2.3
			63	93.2	87.6	-5.6	0.13	2.0
			125	93.8	92.4	-1.4	0.13	2.0
			250	94.0	95.0	1.0	0.12	2.0
			500	94.0	95.3	1.3	0.12	2.0
30-130	Fast	94	1000 (Ref.)	94.0	94.0	0.0	0.13	2.0
and value			2000	93.7	92.0	-1.7	0.13	2.0
			4000	93.1	89.6	-3.5	0.13	2.0
			8000	91.0	82.7	-8.3	0.14	2.0
			12500	87.8	76.2	-11.6	0.14	2.0
			16000	85.6	70.6	-15.0	0.14	2.0

Frequency Response Z-Weighting (Unit in: dB)

Range	Mode	Applied Level	Frequency (Hz)	Reference Level	UUT Reading	Deviation	Expanded Uncertainty	Coverage Factor
w, co 2 9 14	Marianton .		31.5	94.0	83.2	-10.8	0.14	2.0
LV III			63	94.0	88.5	-5.5	0.29	2.6
		Section 1	125	94.0	92.6	-1.4	0.15	2.0
			250	94.0	95.0	1.0	0.12	2.0
19.20		Market St.	500	94.0	95.3	1.3	0.12	2.0
30-130	Fast	94	1000 (Ref.)	94.0	94.0	0.0	0.13	2.0
		The leaving	2000	94.0	92.2	-1.8	0.13	2.0
		100	4000	94.0	90.3	-3.7	0.13	2.0
01941			8000	94.0	85.6	-8.4	0.14	2.0
4-1-0			12500	94.0	82.7	-11.3	0.14	2.0
342			16000	94.0	80.2	-13.8	0.14	2.0

Remark:

- Signal level at 1000 Hz is set as indication of reference sound pressure level.
- The uncertainty quoted is based on 95 % confidence level with coverage factor k=2.0.
- UUT reading are mean of three measurements.
- Deviation = UUT Reading Reference Level



Appendix C2

Impact Noise Monitoring Results



Day-time Noise Monitoring

Monitoring Location: TKO-N1 (Site Egress)

Data	Start Sampling Time	Nois	Noise Level dB (A)			Weather	Major Noise
Date	(hh:mm)	(hh:mm)		Speed (m/s)	Condition	Śource	
08/05/2023	13:00	64.8	66.5	60.8	0.2	Fine	General site work

Remark: 3dB(A) correction was added to the results during the free-field noise measurements



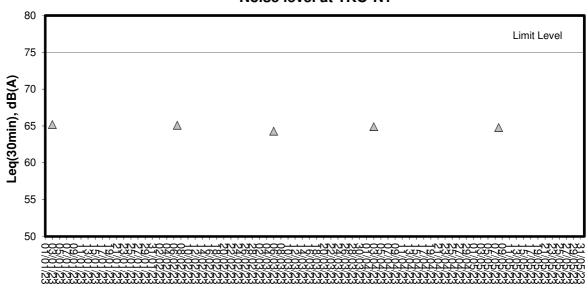
Appendix C3

Graphical Plots of Impact Noise Monitoring Data



Noise Monitoring (Day-time)

Noise level at TKO-N1



Date



Appendix D1

Calibration Certificates for Impact Marine Water Quality Monitoring Equipments



Performance Check / Calibration of Multiparameter Water Quality Meter

Equipment Ref. No. : ET/EW/008/011 Manufacturer : YSI

Model No. Pro DSS Serial No. : 18M101760

Date of Calibration : 20/4/2023 Calibration Due Date : 19/7/2023

Results

1. Temperature

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

Working Thermometer Calibration Procedure)

Reading of Reference Thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)
19.7	19.6	-0.1
25.0	25.2	+0.2
27.4	27.3	-0.1

Tolerance Limit (°C): ±2.0

2. pH

(Method Reference: APHA 19ed 4500-H B)

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)

Tolerance Limit (pH unit): ± 0.10

3. Conductivity

(Method Reference: APHA 19ed 2510 B)

Expected Reading (µS/cm)	Displayed Reading (μS/cm)	Tolerance (%)	
146.9	156.6	+6.6	
1412	1473	+4.3	
12890	13627	+5.7	
58760	62743	+6.7	

Tolerance Limit (μS/cm): ± 10.0%

4. Salinity

(Method Reference: APHA 19ed 2520 B)

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)
10.0	10.17	+1.7
20.0	19.42	-2.9
30.0	31.48	+4.9

Tolerance Limit (g/L): ± 10.0%



Equipment Ref. No. 🗧 🔟	ET/EW/008/011	Manufactu	rer	YSI
Model No.	Pro DSS	Serial No.		18M101760
	20/4/2023	Calibration	Due Date	19/7/2023
5. Dissolved Oxygen Method Reference: APHA Expected Reading (1.50 4.76 6.61 Folerance Limit (mg/L): ±	(mg/L) Di	1.57 4.62 6.76	To	olerance (mg/L) +0.07 -0.14 +0.15
6. Turbidity Method Reference: APHA		I D C OTTO		T. I. (00)
Expected Reading ((NTU) Di	splayed Reading (NTU) 10.6	-	Folerance (%) +6.0
40		42.2		+5.5
100		105.4		+5.4
400		427.1		+6.8
The equipment complies * /	/ does not comply # with the	e specified requirements and is	deemed acceptab	e [#] / unacceptable - [#] for us



Appendix D2

Impact Marine Water Quality Monitoring Results



Monitoring	Station :	TKO-C1												_				
		Ambient Temp	Monitoria	ng Depth	Temp	Salinit	ty (ppt)	Dissolv	red Oxygen	(mg/L)		d Oxygen tion (%)	Τι	ırbidity (NT	·U)	Susper	nded Solids	(mg/L)
Date	Time	(°C) / Weather Condition		n)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	23.9	35.4	35.4	6.96	6.96	average	101.1	101.0	1.59	1.59	average	2.7	3.9	average
		25				35.4 35.4		6.95 6.61		6.78	100.9 95.8		1.59 1.73			5.1 3.8		ł
2/5/2023	15:00:35		Middle	11.9	23.8	35.4	35.4	6.58	6.60		95.4	95.6	1.73	1.73	1.67	5.6	4.7	4.6
		/ Fine	Bottom	23.9	23.8	35.4 35.4	35.4	6.48	6.48	6.48	94.0 93.8	93.9	1.71	1.70		5.5 4.7	5.1	
			Surface	1.0	23.8	35.5	35.5	6.94	6.93		100.7	100.6	2.27	2.30		3.9	3.1	
		25	Surface	1.0	23.0	35.5 35.6	33.3	6.92 6.77	0.33	6.85	100.4 98.2	100.0	2.32 2.39	2.30		2.3	3.1	1
4/5/2023	15:01:15		Middle	11.9	23.7	35.6	35.6	6.77	6.77		98.1	98.2	2.45	2.42	2.44	4.3 3.3	3.8	3.2
		/ Fine	Bottom	23.8	23.7	35.6 35.6	35.6	6.72 6.72	6.72	6.72	97.4 97.4	97.4	2.61 2.60	2.61		2.0 3.4	2.7	
			Surface	1.0	24.3	35.4	35.4	6.54	6.54		95.6	95.6	0.38	0.39		1.0	1.1	
		25	Odridoc	1.0	24.0	35.4 35.4	00.4	6.54 6.53	0.04	6.54	95.6 95.5	33.0	0.39	0.00		1.2 5.6	1	}
6/5/2023	16:33:52		Middle	10.4	24.3	35.4	35.4	6.53	6.53		95.5	95.5	0.42	0.42	0.56	3.7	4.7	2.6
		/ Fine	Bottom	20.7	24.2	35.6 35.6	35.6	6.51 6.51	6.51	6.51	95.1 95.1	95.1	0.89	0.88		1.8	2.1	
			Surface	1.0	24.4	34.9	34.9	6.03	6.03		88.1	88.1	1.00	0.99		2.9	2.5	
		25				34.9 35.2		6.03 6.04		6.04	88.0 88.2		0.98 1.29			2.0		ł
8/5/2023	17:42:18		Middle	10.0	24.3	35.3	35.2	6.06	6.05		88.4	88.3	1.33	1.31	1.23	1.7	2.0	2.1
		/ Fine	Bottom	20.0	24.0	35.8 35.8	35.8	6.33	6.33	6.33	92.3 92.3	92.3	1.37	1.38		2.6 1.0	1.8	
			Surface	1.0	24.1	35.4	35.4	6.57	6.57		95.8	95.8	0.68	0.69		4.0	3.4	
		25	Curiaco			35.4 35.5		6.57 6.66	0.07	6.62	95.8 97.1	00.0	0.70 0.66	0.00		2.7 3.1	0	+
10/5/2023	9:03:45		Middle	9.4	24.1	35.5	35.5	6.66	6.66		97.1	97.1	0.65	0.66	0.67	2.4	2.8	3.1
		/ Fine	Bottom	18.7	24.1	35.5 35.5	35.5	6.67 6.67	6.67	6.67	97.3 97.3	97.3	0.65 0.66	0.66		2.1 4.2	3.2	
			Surface	1.0	24.1	35.5	35.5	6.65	6.65		96.9	96.9	0.49	0.49		2.4	3.7	
		25	Odridoc	1.0	2-1.1	35.5 35.5	00.0	6.65 6.63	0.00	6.64	96.9 96.5	50.5	0.49 0.54	0.40		4.9 1.8	0.7	}
12/5/2023	9:00:15		Middle	10.5	24.0	35.5	35.5	6.63	6.63		96.5	96.5	0.52	0.53	0.65	2.1	2.0	3.1
		/ Fine	Bottom	21.0	24.0	35.5 35.6	35.5	6.62 6.61	6.62	6.62	96.4 96.3	96.4	0.95 0.93	0.94		3.3 4.3	3.8	
			Surface	1.0	24.1	35.1	35.1	6.08	6.09		88.5	88.6	1.14	1.13		4.5	5.3	
		25				35.2 35.3		6.10 6.18		6.14	88.8 89.9		1.12			6.0 3.6		}
15/5/2023	13:33:20		Middle	11.2	24.0	35.3	35.3	6.18	6.18		89.9	89.9	1.13	1.11	1.09	4.2	3.9	4.2
		/ Fine	Bottom	22.5	24.0	35.6 35.6	35.6	6.34	6.34	6.34	92.4 92.2	92.3	1.00	1.02		3.8 2.8	3.3	
		0.5	Surface	1.0	24.3	35.2	35.2	6.05	6.05		88.4	88.4	1.72	1.70		5.5	4.3	
17/E/0000	14,40,10	25	Middle	10 F	04.0	35.2 35.3	25.0	6.05 6.03	6.04	6.05	88.4 88.1	00.0	1.68 1.86	1.00	1.00	3.1 4.1	0.1	4.1
17/5/2023	14:42:12	/ Fine	Middle	10.5	24.3	35.3	35.3	6.05	6.04		88.3	88.2	1.89	1.88	1.82	2.1	3.1	4.1
		/ Fine	Bottom	21.1	24.3	35.4 35.4	35.4	6.13	6.14	6.14	89.6 89.7	89.7	1.89	1.89		5.1 4.4	4.8	
		26	Surface	1.0	25.0	34.6 34.7	34.7	6.19 6.15	6.17		91.2 90.5	90.9	0.83 0.87	0.85		1.9	1.9	
19/5/2023	16:01:12	20	Middle	11.4	24.6	35.2	35.2	6.08	6.10	6.13	89.2	89.5	1.11	1.12	1.14	1.0	1.3	1.6
19/5/2025	10.01.12	/ Fine	ivildale	11.4	24.0	35.2 35.4	33.2	6.11	0.10		89.7	03.5	1.12	1.12	1.14	1.6	1.5	1.0
		/ Fille	Bottom	22.8	24.5	35.4	35.4	6.23	6.24	6.24	91.4 91.5	91.5	1.45	1.46		1.9	1.6	
		26	Surface	1.0	25.6	34.5 34.5	34.5	6.78	6.78		100.8	100.8	0.35	0.33		2.1	1.6	
22/5/2023	7:41:27	20	Middle	10.4	25.1	35.0	35.0	6.78 6.44	6.42	6.60	100.8 95.2	94.9	0.31 0.51	0.52	0.48	1.1	1.5	1.5
22/3/2023	7.41.27	/ Fine	Ivildale	10.4	23.1	35.1 35.1	33.0	6.40 6.24	0.42		94.6 92.2	34.3	0.53 0.60	0.32	0.40	1.5	1.5	1.5
		711110	Bottom	20.8	25.0	35.1	35.1	6.24	6.24	6.24	92.1	92.2	0.58	0.59		1.7	1.5	
		27	Surface	1.0	25.6	34.4 34.4	34.4	7.22 7.23	7.23		107.5 107.6	107.6	0.03	0.04		1.1	1.1	
24/5/2023	8:11:17		Middle	10.5	25.6	34.4	34.4	7.22	7.22	7.22	107.4	107.4	0.06	0.06	0.30	1.5	1.3	1.3
		/ Fine				34.4 34.8		7.22 6.78			107.4 100.6		0.06 0.77			1.1		1
			Bottom	21.0	25.3	34.8	34.8	6.78	6.78	6.78	100.5	100.6	0.82	0.80		1.6	1.5	<u> </u>
		27	Surface	1.0	26.1	34.0 34.2	34.1	6.72 6.68	6.70		100.5 99.8	100.2	0.24	0.27		1.3	1.6	
27/5/2023	9:01:24		Middle	11.1	25.4	34.9	34.9	6.13	6.12	6.41	91.1	90.9	0.70	0.71	0.58	1.8	1.8	1.6
		/ Fine				34.9 35.2		6.10 5.99		F 0-	90.6 89.0		0.72 0.78			1.8		ł
			Bottom	22.1	25.3	35.2	35.2	5.99	5.99	5.99	88.9	89.0	0.76	0.77		1.0	1.5	
		27	Surface	1.0	26.6	33.3 33.4	33.3	8.23 8.25	8.24	7.00	123.6 124.0	123.8	0.92	0.92		3.1 1.9	2.5	1
29/5/2023	13:36:48		Middle	11.3	26.1	34.3	34.3	6.55	6.54	7.39	98.2	98.0	1.28	1.29	1.65	3.1	2.2	2.7
		/ Fine	Bottom	22.6	25.2	34.3 35.4	35.4	6.53 5.86	5.85	5.85	97.9 87.0	86.8	1.29 2.75	2.76		2.6	3.3	İ
			DOMOTH	۷۵.0	20.2	35.4	30.4	5.83 6.74	3.00	3.03	86.6 102.2	00.0	2.76 2.93	2.10		4.0	٥.٥	
		27	Surface	1.0	27.0	33.5 33.5	33.5	6.74	6.79	6.18	102.2	102.8	2.93	2.90		1.3 2.0	1.7	1
31/5/2023	14:01:12		Middle	11.1	25.3	35.3 35.3	35.3	5.60 5.55	5.58	5.10	83.3 82.6	83.0	1.72 1.68	1.70	2.42	2.0	1.8	1.7
		/ Fine	Bottom	22.2	25.1	35.5	35.5	5.31	5.30	5.30	78.8	78.7	2.65	2.66		1.5	1.8	t
			DOMOITI	۷.۷	20.1	35.5	33.3	5.29	5.50	0.00	78.5	10.1	2.66	2.00		2.0	1.0	<u> </u>

Monitoring Station: TKO-M4



Monitoring	Station :	TKO-M4																
Date	Time	Ambient Temp		ng Depth	Temp	Salinit	ty (ppt)	Dissolv	ed Oxygen			d Oxygen tion (%)	Tu	rbidity (NT		Susper	nded Solids	
Dato		Condition	(r	n)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	23.8	35.4	35.4	6.83	6.83		99.0	99.0	1.57	1.57		6.5	6.6	
		25				35.4 35.4		6.83 6.78		6.80	99.0 98.3		1.56 1.78		1	6.6		_
2/5/2023	16:02:31		Middle	4.5	23.8	35.4	35.4	6.75	6.77		97.9	98.1	1.79	1.79	1.66	3.0 4.8	3.9	4.6
		/ Fine	Bottom	9.0	23.7	35.4	35.4	6.64	6.63	6.63	96.1	96.0	1.64	1.63		2.9	3.2	
						35.4 35.5		6.62 6.95			95.8 101.1		1.62 2.21			3.5 2.4		
		25	Surface	1.0	23.9	35.5	35.5	6.94	6.95	0.00	100.8	101.0	2.25	2.23		4.3	3.4	
4/5/2023	16:18:13		Middle	4.5	23.7	35.6	35.6	6.84	6.84	6.89	99.2	99.1	2.24	2.25	2.23	4.2	4.6	3.6
		/ Fine				35.6 35.6		6.83 6.78			99.0 98.3		2.26 2.19			5.0 3.3		-
		71110	Bottom	9.0	23.7	35.6	35.6	6.78	6.78	6.78	98.2	98.3	2.13	2.20		2.5	2.9	
		0.5	Surface	1.0	24.3	35.4	35.4	6.54	6.54		95.6	95.6	0.37	0.39		2.4	1.8	
		25				35.4 35.4		6.54 6.54		6.54	95.6 95.6		0.40			1.1 3.4		1
6/5/2023	17:45:33		Middle	5.8	24.3	35.5	35.4	6.54	6.54		95.6	95.6	0.48	0.47	0.46	4.9	4.2	3.0
		/ Fine	Bottom	11.7	24.2	35.5	35.5	6.54	6.54	6.54	95.6	95.6	0.54	0.54		3.7	3.0	
						35.5 34.9		6.54 6.05			95.6 88.3		0.53 1.00			2.3		-
		25	Surface	1.0	24.4	34.9	34.9	6.05	6.05	6.05	88.3	88.3	0.98	0.99		2.9	2.7	
8/5/2023	18:42:09		Middle	4.9	24.3	35.1	35.1	6.05	6.05	0.05	88.3	88.4	1.13	1.14	1.11	4.3	4.4	3.5
		/ Fine				35.1 35.2		6.05 6.07			88.4 88.7		1.14			4.5 2.6		
		,	Bottom	9.8	24.3	35.2	35.2	6.08	6.08	6.08	88.8	88.8	1.19	1.19		4.3	3.5	
		0.5	Surface	1.0	24.1	35.3	35.3	6.54	6.54		95.2	95.2	0.60	0.62		1.0	1.7	
		25				35.3 35.4		6.54 6.54		6.54	95.2 95.4		0.63 0.65		 	1.1		-
10/5/2023	9:52:30		Middle	4.8	24.1	35.4	35.4	6.54	6.54		95.4	95.4	0.67	0.66	0.66	1.6	1.4	2.6
		/ Fine	Bottom	9.5	24.1	35.4	35.4	6.57	6.57	6.57	95.7	95.7	0.68	0.70		3.8	4.7	
						35.4 35.4		6.57 6.54			95.7 95.3		0.71 0.54			5.6 2.8		
		25	Surface	1.0	24.1	35.4	35.4	6.54	6.54	6.54	95.3	95.3	0.54	0.54		2.3	2.6	
12/5/2023	10:03:11		Middle	5.0	24.1	35.4	35.4	6.54	6.54	6.34	95.3	95.3	0.53	0.55	0.55	2.3	2.8	3.1
		/ Fine				35.5 35.5		6.54 6.56			95.3 95.6		0.56 0.56			3.2 4.4		-
		/ I IIIe	Bottom	9.9	24.0	35.5	35.5	6.57	6.57	6.57	95.6	95.6	0.56	0.56		3.4	3.9	
			Surface	1.0	24.1	35.2	35.2	6.16	6.16		89.7	89.6	1.15	1.13		3.2	4.1	
		25	Curiaco			35.2	00.2	6.15	00	6.15	89.5	00.0	1.11	0	Ť	5.0		-
15/5/2023	14:45:33		Middle	4.7	24.1	35.2 35.2	35.2	6.15 6.14	6.15		89.5 89.4	89.5	1.03	1.02	1.05	3.9	3.8	3.5
		/ Fine	Bottom	9.3	24.0	35.3	35.3	6.18	6.18	6.18	89.9	89.9	0.98	0.99		2.7	2.7	1
			Bottom	0.0	20	35.3	00.0	6.18	00	0.10	89.9	00.0	0.99	0.00		2.7		
		25	Surface	1.0	24.3	35.1 35.1	35.1	5.98 5.98	5.98		87.3 87.3	87.3	1.65 1.60	1.63		3.7 2.7	3.2	
17/5/2023	15:46:19		Middle	5.0	24.3	35.3	35.3	6.03	6.04	6.01	88.1	88.3	1.71	1.72	1.71	3.2	4.2	3.6
1770/2020	10.10.10	/ Fine	···idaio	0.0	20	35.3	00.0	6.05 6.07	0.01		88.4 88.8	00.0	1.72 1.79			5.1		- 0.0
		/ Fille	Bottom	10.0	24.3	35.3 35.3	35.3	6.08	6.08	6.08	88.8	88.8	1.79	1.79		3.4	3.5	
			Surface	1.0	24.9	34.7	34.7	6.11	6.10		90.0	89.8	0.69	0.70		1.8	2.6	
		26				34.8	•	6.09		6.04	89.5		0.71	****	Ť	3.3		-
19/5/2023	17:16:20		Middle	5.0	24.8	34.9 34.9	34.9	6.00 5.96	5.98		88.1 87.5	87.8	0.98	0.97	0.95	1.7	1.5	1.8
		/ Fine	Bottom	9.9	24.6	35.3	35.3	6.06	6.09	6.09	89.0	89.4	1.18	1.18		1.0	1.2	1
			Bottom	0.0	20	35.3	00.0	6.12	0.00	0.00	89.8		1.17	0		1.4		<u> </u>
		26	Surface	1.0	25.5	34.5 34.5	34.5	6.70 6.71	6.71		99.5 99.7	99.6	0.38	0.38		1.0	1.0	
22/5/2023	8:42:07		Middle	5.1	25.2	34.8	34.8	6.57	6.55	6.63	97.3	97.0	0.47	0.46	0.42	1.0	1.0	1.0
		/ Fine				34.9		6.53			96.6 05.1		0.45	****	***	1.0		-
		/ Fille	Bottom	10.2	25.1	34.9 34.9	34.9	6.43	6.42	6.42	95.1 94.8	95.0	0.43	0.42		1.0	1.0	
			Surface	1.0	25.6	34.4	34.4	7.26	7.26		108.0	108.0	0.02	0.03		1.2	1.3	
		27	Curiaco		20.0	34.4	0	7.26	7.20	7.25	108.0	100.0	0.03	0.00	<u> </u>	1.3		-
24/5/2023	9:12:09		Middle	5.1	25.6	34.4 34.4	34.4	7.24 7.24	7.24		107.7 107.6	107.7	0.15 0.14	0.15	0.15	1.3	1.5	1.4
		/ Fine	Bottom	10.1	25.5	34.5	34.5	7.14	7.13	7.13	106.1	105.9	0.26	0.29		1.5	1.6	1
			Dottom	10.1	20.0	34.5	04.0	7.11	7.10	7.10	105.6	100.0	0.31	0.20		1.6	1.0	
		27	Surface	1.0	26.0	34.1 34.1	34.1	6.70 6.70	6.70		100.1	100.1	0.01	0.02		1.3	1.3	
27/5/2023	10:21:09		Middle	5.0	26.0	34.1	34.1	6.67	6.67	6.68	99.6	99.6	0.21	0.23	0.35	1.0	1.1	1.2
21/5/2023	10.21.09	, F:	ivildale	5.0	20.0	34.1	34.1	6.66	0.07		99.5	99.0	0.24	0.23	0.33	1.2	1.1	1.2
		/ Fine	Bottom	9.9	25.8	34.3 34.4	34.3	6.29	6.28	6.28	93.8 93.5	93.7	0.82	0.82		1.1	1.2	
			Surface	1.0	26.5	33.7	33.7	8.07	8.08		121.3	121.4	0.80	0.80		2.6	1.8	†
		27	Julidüe	1.0	20.0	33.7	33.1	8.09	0.00	7.70	121.6	161.4	0.79	0.00	ļ	1.0	1.0	-
29/5/2023	14:55:40		Middle	5.5	26.4	33.9 33.9	33.9	7.35 7.30	7.33		110.5 109.7	110.1	0.79	0.80	0.94	4.6	4.7	2.8
		/ Fine	D-#-	44.0	05.0	34.6	04.0	6.36	0.05	0.05	95.1	04.0	1.21	4.00		1.2	0.0	1
			Bottom	11.0	25.9	34.6	34.6	6.33	6.35	6.35	94.7	94.9	1.22	1.22		2.8	2.0	<u> </u>
		27	Surface	1.0	27.2	33.5 33.6	33.5	6.77 6.78	6.78		102.9	102.9	1.36 1.35	1.36		3.6 2.7	3.2	
21/5/0000	15:40:44		Misser -	4.7	06.5	33.6	04.0	6.40	6.40	6.59	96.5	00.0	0.47	0.50	4 44	1.2	4.7	0.4
31/5/2023	15:16:14		Middle	4.7	26.5	34.3	34.2	6.39	6.40		96.1	96.3	0.52	0.50	1.11	1.5	1.4	2.1
		/ Fine	Bottom	9.3	25.5	35.1	35.2	5.69	5.68	5.68	84.8	84.5	1.50	1.49		2.6	1.9	
		L			<u> </u>	35.3	<u> </u>	5.66	<u> </u>	<u> </u>	84.2	<u> </u>	1.48		l	1.2		<u> </u>

Monitoring Station: TKO-C1



Mathematical part	otor.iiig	Station :	Ambient Temp				Salinit	ty (ppt)	Dissolv	red Oxygen	(ma/L)		d Oxygen	Tı	urbidity (NT	u)	Suspen	ided Solids	(mg/L)
140 140	Date	Time	(°C) / Weather			Temp (°C)					Depth-					Depth-			Depth-
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			25	Surface	1.0	23.9		35.4		6.84	average		99.3			average		3.1	average
1 日	2/5/2023	9:03:43	25	Middle	10.4	23.8	35.4	35.4	6.68	6.67	6.75	96.9	96.6	1.44	1.45	1.52	4.5	4.2	3.4
100 100			/ Fine	Bottom	20.8	23.7	35.5	35.5	6.59	6.58	6.58	95.4	95.3	1.63	1.65		2.3	2.9	
1											0.00								
1 1 1 1 1 1 1 1 1 1	1/5/0000	40.45.07	25								6.78								
1	4/5/2023	10:15:07	/ Fine													2./5			3.1
				Bottom	20.8	23.7	35.6	35.6	6.72	6.72	6.72	97.4	97.4	2.82	2.84		5.2	4.2	
1.10 1.10			25	Surface	1.0	24.3	35.4	35.4	6.55	6.55	6.55	95.8	95.8	0.39	0.39		4.5	3.4	
100,0000 100,00000 100,00000 100,00000 100,00000 100,00000 100,00000 100,00000 100,00000 100,00000 100,00000 100,000000 100,000000 100,000000 100,0000000 100,0000000 100,00000000 100,0000000000	6/5/2023	11:33:13	/ Fin-	Middle	10.3	24.3	35.5	35.4	6.55	6.55		95.8	95.8	0.45	0.44	0.52	2.4	2.3	2.6
Marchan Marc			/ Fine	Bottom	20.6	24.2	35.6	35.6	6.56	6.56	6.56	95.7	95.7	0.75	0.73		2.1	2.1	
14 15 15 15 15 15 15 15			25	Surface	1.0	24.4		35.0		6.06	6.11		88.5		1.07			5.2	
1400 1400	8/5/2023	13:12:31		Middle	9.8	24.2		35.4		6.17	0.11		90.0		1.60	1.42		6.4	4.3
14350 1435			/ Fine	Bottom	19.6	24.2		35.5		6.21	6.21		90.6		1.59			1.4	
14358 1435			25	Surface	1.0	24.1		35.3		6.53			95.0		1.01			2.5	
	10/5/2023	14:33:56		Middle	10.4	24.1	35.2	35.3	6.48	6.48	6.50	94.3	94.3	1.02	1.04	1.03	2.7	2.5	2.6
1262023 153030 26 26 26 26 26 26 26 2			/ Fine	Bottom	20.8	24.1	35.4	35.4	6.50	6.50	6.50	94.7	94.7	1.06	1.06		2.8	2.9	
159,0023 159,003 159,004 159,005 159			05	Surface	1.0	24.1	35.4	35.4	6.55	6.55		95.4	95.4	0.56	0.55		1.2	1.6	
Free Bottom 21.0 24.0 35.5 35.5 6.54 6.55 6.55 6.52 6.55	12/5/2023	15:30:30	25	Middle	10.5	24.1	35.4	35.5	6.54	6.54	6.55	95.3	95.3	0.50	0.50	0.70	6.9	7.2	4.1
1562023 93054			/ Fine	Bottom	21.0	24.0	35.5				6.55		95.3	1.06	1 07			3.6	
15/52023 93054											0.00								
1762023 93.04	45/5/0000	0.00.54	25								6.22					0.05			
Solition 21.3 24.0 35.5 35.5 6.32 6.3	15/5/2023	9:30:54	/ Fine													0.85	3.0		2.8
17/5/2023 9:11:17 17/5/2023 9:11:17 17/5/2023 9:11:17 17/5/2023 9:11:17 17/5/2023 11:01:27 11:01:27 17/5/2023 11:01:27 17/5/2023 11:01:27 17/5/2023 11:01:27 17/5/2023 11:01:27 17/5/2023 11:01:27 17/5/2023 11:01:27 17/5/2023 11:01:27 17/5/2023 11:01:27 11			,,,,,,	Bottom	21.3	24.0	35.5	35.5	6.32	6.32	6.32	92.0	92.0	1.03	1.04		1.5	2.0	
17/5/2023 9/11/7 1/5/10e Bottom 20.1 24.3 35.4 35			25	Surface	1.0	24.3	35.2	35.2	6.05	6.05	6.10	88.3	88.4	1.51	1.52		5.4	5.2	
Surface 1.0 24.3 35.4 35.4 6.18 6.18 6.18 90.3 90.3 181 180 2.8 2.7	17/5/2023	9:11:17	/ Fin-	Middle	10.0	24.3	35.4	35.3	6.15	6.15		89.8	89.8	1.69	1.69	1.67	4.3	3.3	3.7
195/2023 11.01.27 Middle 10.6 24.6 35.2 35.2 35.1 35.4 34.8			/ Fine	Bottom	20.1	24.3	35.4	35.4	6.18	6.18	6.18	90.3	90.3	1.81	1.80		2.8	2.7	
110127			26	Surface	1.0	24.8	34.8	34.8		6.44	6.28	94.2	94.6	0.79	0.80			1.7	
22/5/2023 13:11:23 26 Surface 1.0 25.5 34.6 34.6 6.73	19/5/2023	11:01:27		Middle	10.6	24.6		35.2		6.12	-		89.9		1.16	1.30		1.3	1.5
26 Surface 1.0 25.5 34.6 34.9 6.73 6.73 6.64 99.9 10.0 0.34 0.34 0.34 1.1 1.3 1.3 1.3 1.1 1.2 1.2 1.2 1.3 1.3 1.1 1.2 1.2 1.2 1.3 1.3 1.4 1.1 1.3 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.3 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4			/ Fine	Bottom	21.2	24.5		35.4		6.22	6.22		91.2		1.96			1.7	
22/5/2023 13:11:23			26	Surface	1.0	25.5		34.6		6.73	0.04		100.0		0.34			1.3	
Fine Bottom 20.0 25.0 35.2 35.2 35.2 6.30 6.28 6.29 92.7 92.7 92.9 0.53 0.52 1.5 1.5 1.3	22/5/2023	13:11:23		Middle	10.0	25.2		34.9		6.49	6.61		96.0		0.47	0.44		1.2	1.3
26 Surface 1.0 25.6 34.4 34.4 7.26 7.26 7.26 108.0 108.0 0.05 0.07 1.8 1.8 1.8 1.8 2.4 245/2023 13:41:17 Fine Bottom 19.8 25.2 35.0 35.0 35.0 6.79 6.78 6.78 100.7 100.6 0.22 0.20 0.20 0.33 3.5 0.20 0.2			/ Fine	Bottom	20.0	25.0	35.2	35.2	6.30	6.29	6.29	93.0	92.9	0.53	0.52		1.1	1.3	
24/5/2023 13:41:17			26	Surface	1.0	25.6	34.4	34.4	7.26	7.26		108.0	108.0	0.08	0.07		1.8	1.8	
Fine Bottom 19.8 25.2 35.0 35.0 35.0 6.79 6.78 6.78 100.7 100.6 0.18 0.22 0.20 3.3 3.5 3.5 3.6 3.5	24/5/2023	13:41:17	20	Middle	9.9	25.5	34.5	34.5	7.17	7.15	7.20	106.6	106.2	0.29	0.33	0.20	1.2	1.8	2.4
27/5/2023 15:01:19 27 Surface 1.0 25.9 34.2 34.2 6.70 6.68 6.68 6.43 99.9 99.6 1.01 1.00 1.10 1.11 1.1			/ Fine	Bottom			35.0		6.79		6.78	100.7		0.18			3.3		ļ
27/5/2023 15:01:19							34.2		6.70			99.9		1.01			1.1		1
Fine Bottom 21.8 25.3 35.2 35.2 35.2 5.99 5.99 5.99 5.99 88.9 0.86 0.86 0.86 2.6 2.0	27/5/2022	15:01:10	27								6.43					<u></u> Ω Ω 1			1 6
21.8 25.3 35.2 35.2 5.99 5.99 88.9 89.0 0.86 0.86 1.3 2.0 22.6 33.6 33.6 33.6 8.17 8.19 122.6 123.0 1.15 1.14 2.6 2.1 23.5 25.5 35.4 35.4 35.4 35.8 35	£11012023	13.01.19	/ Fine								F 00					0.01			1.0
27 Surface 1.0 26.4 33.6 33.5 8.21 8.19 7.32 123.4 123.0 1.12 1.14 1.6 2.1 1.6 1.6 2.1 1.6 1.6 2.1 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1											5.99						1.3		
830:27 Middle 10.8 25.9 34.6 6.44 6.45 96.3 96.5 1.63 1.63 3.4 3.2 2.8 3.4 3.5 3.4 3.5 3.4 3.5			27				33.6		8.21		7.32	123.4		1.12			1.6		
8ottom 21.6 25.2 35.4 5.80 5.82 5.82 86.1 86.4 2.71 2.72 2.72 2.4 3.1 2.4 3.1 2.72 2.72 2.4 3.1 2.4 3.1 2.72 2.72 2.4 3.1 2.4 3.1 2.72 2.72 2.4 3.1 2.4 3.1 2.72 2.72 2.4 3.1 2.4 3.1 2.72 2.72 2.4 3.1 2.4 3.	29/5/2023	8:30:27	/ Fine	Middle	10.8	25.9	34.6	34.6	6.44	6.45		96.3	96.5	1.63	1.63	1.83	3.4	3.2	2.8
27 Surface 1.0 27.1 33.6 33.5 6.97 6.99 105.6 105.9 0.27 0.27 1.9 1.6 31/5/2023 9:02:21 Middle 10.7 25.2 35.4 35.4 5.56 5.55 82.6 82.5 1.85 1.90 1.56 2.0 2.3			/ Fine	Bottom	21.6	25.2	35.4	35.4	5.80	5.82	5.82	86.1	86.4	2.71	2.72		2.4	3.1	-
31/5/2023 9:02:21 Middle 10.7 25.2 35.4 35.4 5.56 5.55 82.6 82.5 1.85 1.90 1.56 1.4 2.0 2.3			27	Surface	1.0	27.1	33.6	33.5	6.97	6.99	6.27	105.6	105.9	0.27	0.27		1.9	1.6	
	31/5/2023	9:02:21		Middle	10.7	25.2	35.4	35.4	5.54	5.55			82.5	1.95	1.90	1.56	2.6	2.0	2.2
Fine Bottom 21.4 25.1 35.5 35.5 5.26 5.26 5.26 78.0 78.0 2.47 2.50 2.9 2.9 2.9			/ Fine	Bottom	21.4	25.1		35.5		5.26	5.26		78.0		2.50			2.9	

Monitoring Station: TKO-M4



Monitoring	Station :	TKO-M4													1			
Date	Time	Ambient Temp (°C) / Weather	Monitoring I	Depth (m)	Temp (°C)	Salinit	ty (ppt)	Dissolv	ved Oxyger	n (mg/L)	Dissolve Satural	d Oxygen tion (%)	Τι	urbidity (NT	U)	Susper	nded Solids	mg/L)
		Condition	0.1			Value 35.4	Average	Value 6.91	Average	average	Value 100.4	Average	Value 1.37	Average	average	Value 2.1	Average	average
2/5/2023	10:00:27	25	Surface	1.0	23.9	35.4 35.4	35.4	6.91 6.85	6.91	6.87	100.4 99.3	100.4 99.1	1.37 1.47	1.37	1.46	1.2	2.8	2.9
2/5/2023	10.00.27	/ Fine	Bottom	8.7	23.8	35.4 35.4	35.4	6.82 6.71	6.69	6.69	98.9 97.3	97.0	1.49 1.51	1.48	1.46	3.6 3.4	4.4	2.9
			Surface	1.0	23.8	35.4 35.6	35.5	6.67 6.88	6.89	0.00	96.7 99.9	100.1	1.52 1.96	1.98		5.4 3.4	3.7	
4/5/2023	11:25:00	25	Middle	4.3	23.7	35.5 35.6 35.6	35.6	6.90 6.77 6.76	6.77	6.83	98.1 98.1	98.1	1.99 2.03 2.05	2.04	2.09	3.9 5.5	4.5	3.5
		/ Fine	Bottom	8.6	23.7	35.6 35.6	35.6	6.75 6.75	6.75	6.75	97.9 97.8	97.9	2.30	2.25		3.4 3.2 1.8	2.5	
		25	Surface	1.0	24.3	35.4 35.5	35.5	6.56 6.56	6.56	6.56	95.8 95.8	95.8	0.48 0.52	0.50		2.6	2.9	
6/5/2023	12:44:42		Middle	4.1	24.3	35.4 35.4	35.4	6.56 6.56	6.56	0.50	95.9 95.9	95.9	0.40 0.44	0.42	0.45	1.9 1.2	1.6	2.2
		/ Fine	Bottom	8.2	24.3	35.4 35.4	35.4	6.54 6.54	6.54	6.54	95.7 95.7	95.7	0.42 0.43	0.43		1.5 3.1	2.3	
		25	Surface	1.0	24.4	34.9 34.9	34.9	6.04	6.04	6.04	88.2 88.2	88.2	1.03	1.02		6.3	5.2	
8/5/2023	14:13:07	/ Fine	Middle	4.8	24.4	35.0 35.0 35.2	35.0	6.04 6.04 6.06	6.04		88.1 88.2 88.4	88.2	1.07 1.04 1.26	1.06	1.12	1.5 1.3 2.1	1.4	2.8
		,,,,,,	Bottom	9.5	24.3	35.2 35.3	35.2	6.07	6.07	6.07	88.6 94.7	88.5	1.29	1.28		1.6	1.9	
10/5/2023	15:36:46	25	Surface Middle	1.0 5.3	24.1	35.3 35.3	35.3	6.51 6.51	6.51	6.51	94.7 94.7	94.7	1.05 1.09	1.05	1.07	3.3	3.1	2.9
10/3/2023	13.30.40	/ Fine	Bottom	10.5	24.1	35.3 35.3	35.3	6.51 6.50	6.50	6.50	94.7 94.7	94.7	1.09	1.08	1.07	3.7 1.8	2.6	2.5
		25	Surface	1.0	24.1	35.3 35.4 35.4	35.4	6.50 6.53 6.53	6.53		94.7 95.2 95.2	95.2	1.08 0.60 0.53	0.57		2.1	2.7	
12/5/2023	16:39:29	25	Middle	4.6	24.1	35.5 35.5	35.5	6.52 6.52	6.52	6.53	95.2 95.0 95.0	95.0	0.56 0.53	0.55	0.54	3.2 2.4 2.5	2.5	3.0
		/ Fine	Bottom	9.2	24.1	35.5 35.5	35.5	6.53 6.53	6.53	6.53	95.1 95.1	95.1	0.50 0.49	0.50		2.3	3.9	
		25	Surface	1.0	24.1	35.2 35.2	35.2	6.17 6.18	6.18	6.18	89.8 90.0	89.9	0.75 0.76	0.76		1.1 2.2	1.7	
15/5/2023	10:45:26	/ Fine	Middle	4.5	24.1	35.2 35.2 35.3	35.2	6.18	6.18		90.0	90.0	0.74	0.74	0.79	2.1	1.7	1.6
		/ Tille	Bottom	9.0	24.0	35.3 35.2	35.3	6.20 6.20 6.01	6.20	6.20	90.1 90.1 87.8	90.1	0.88 0.85 1.59	0.87		1.5 1.7 4.9	1.6	
17/5/2023	10:14:12	25	Surface Middle	1.0 4.6	24.3	35.2 35.2	35.2 35.2	6.01 6.03	6.01	6.02	87.9 88.1	87.9 88.1	1.60 1.79	1.60	1.70	6.3	5.6 3.6	3.8
1773/2020	10.14.12	/ Fine	Bottom	9.2	24.3	35.2 35.2	35.3	6.03 6.04	6.05	6.05	88.1 88.3	88.4	1.77 1.73	1.72	1.70	3.4 1.7	2.1	0.0
		26	Surface	1.0	24.9	35.3 34.8 34.9	34.8	6.05 6.12 6.10	6.11		90.0 89.7	89.9	1.70 0.63 0.67	0.65		2.5 1.5 1.8	1.7	
19/5/2023	12:11:12		Middle	4.3	24.7	34.9 34.9	34.9	6.04	6.03	6.07	88.7 88.4	88.6	0.90	0.91	0.82	1.8	1.9	1.6
		/ Fine	Bottom	8.6	24.7	35.0 35.0	35.0	6.00 6.01	6.01	6.01	88.2 88.2	88.2	0.89	0.89		1.4	1.4	
		26	Surface	1.0	25.5	34.5 34.5	34.5	6.70 6.70	6.70	6.65	99.5 99.5	99.5	0.34 0.35	0.35		1.5	1.3	-
22/5/2023	14:12:10	/ Fine	Middle	4.6	25.3	34.7 34.7 34.8	34.7	6.61 6.58 6.52	6.60		97.9 97.4 96.6	97.7	0.42 0.44 0.43	0.43	0.40	1.6 1.4 1.3	1.5	1.4
		76	Bottom	9.1	25.3	34.8 34.4	34.8	6.50 7.25	6.51	6.51	96.3 107.8	96.5	0.43	0.43		1.5	1.4	
24/5/2023	14:42:11	27	Surface Middle	1.0 4.5	25.6 25.6	34.4 34.4	34.4	7.25 7.24	7.25	7.25	107.8 107.7	107.8	0.08	0.09	0.10	1.8	1.9	1.8
24/3/2020	14.42.11	/ Fine	Bottom	9.0	25.6	34.4 34.4	34.4	7.24 7.24	7.24	7.24	107.7 107.6	107.7	0.09 0.15	0.14	0.10	2.6 1.9	1.6	1.0
		27	Surface	1.0	26.0	34.4 33.9 33.9	33.9	7.24 6.77 6.78	6.78		107.6 100.9 101.2	101.1	0.12 1.06 1.08	1.07		1.2 1.0 2.0	1.5	
27/5/2023	16:21:19		Middle	4.3	26.0	34.1 34.1	34.1	6.68	6.67	6.72	99.8	99.6	0.11	0.10	0.46	1.3	1.2	1.3
		/ Fine	Bottom	8.5	25.9	34.1 34.2	34.2	6.60 6.55	6.58	6.58	98.4 97.6	98.0	0.19	0.21		1.7	1.4	
		27	Surface	1.0	26.5	33.6 33.6	33.6	8.12 8.14	8.13	7.90	122.0 122.3	122.2	1.08 1.06	1.07		1.1 2.0	1.6	
29/5/2023	9:45:42	/Fin-	Middle	4.4	26.4	33.9 33.9	33.9	7.69 7.66	7.68		115.5	115.3	0.88	0.89	1.00	1.7 3.0	2.4	1.9
		/ Fine	Bottom	8.7	26.1	34.4 34.4 33.4	34.4	6.82 6.80 6.94	6.81	6.81	102.2 102.0 105.2	102.1	1.04 1.04 0.27	1.04		1.7 1.7 1.0	1.7	
04 /5/05	40.44.1-	27	Surface	1.0	27.1	33.4 34.1	33.4	6.94 6.96 6.26	6.95	6.59	105.2 105.5 94.3	105.4	0.27 0.28 1.68	0.28		1.5	1.3	
31/5/2023	10:11:10	/ Fine	Middle Bottom	4.2 8.5	26.5 25.6	34.5 35.1	34.3	6.18 5.65	6.22 5.63	5.63	92.8 84.3	93.6	1.71 2.11	1.70 2.14	1.37	2.3 3.4	3.7	2.2
			DOLLOM	6.5	∠5.6	35.2	33.1	5.61	5.03	5.03	83.5	03.9	2.17	2.14		3.9	3./	

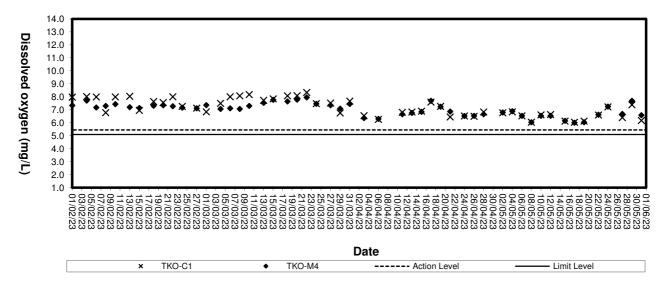


Appendix D3

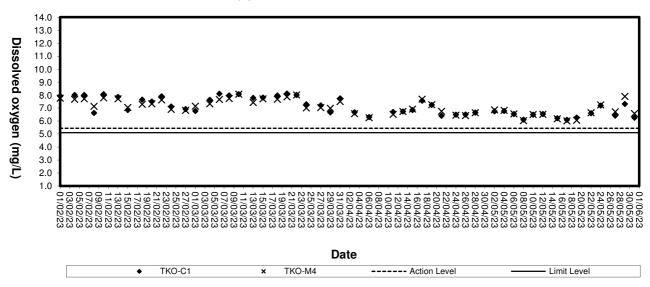
Graphical Plots of Impact Marine Water Quality Monitoring Data



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

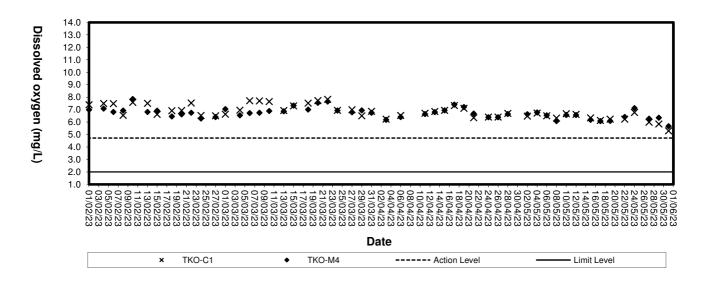


Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide

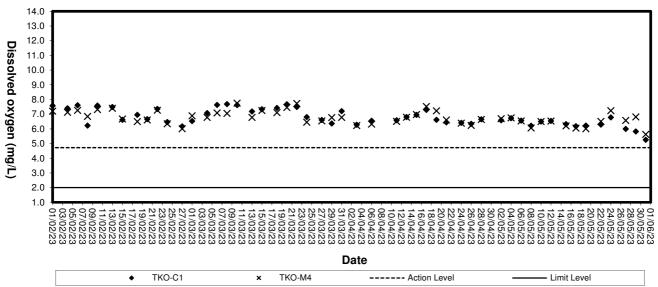




Dissolved Oxygen (Bottom) at Mid-Flood Tide

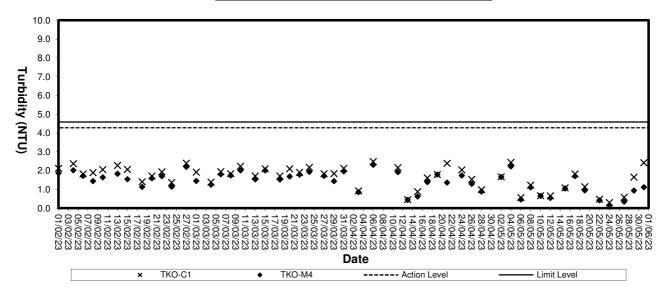


Dissolved Oxygen (Bottom) at Mid-Ebb Tide

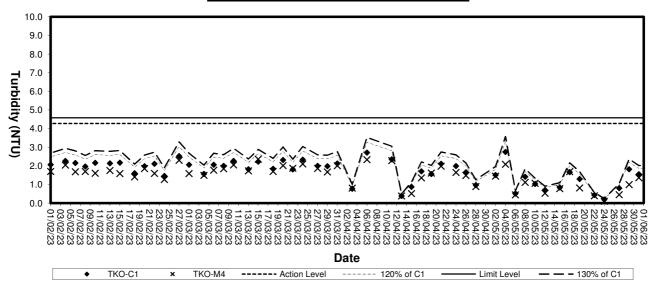




Turbidity (Depth-average) at Mid-Flood Tide

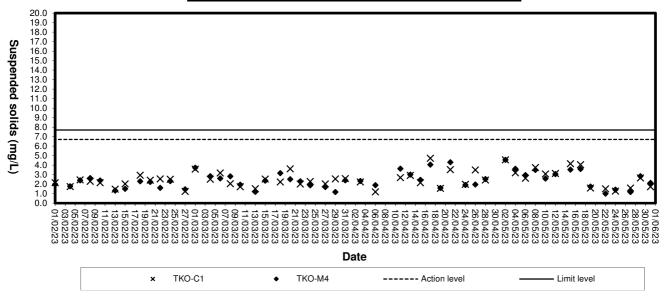


Turbidity(Depth-average) at Mid-Ebb Tide

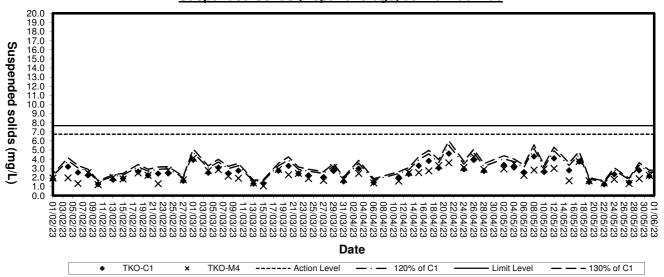




Suspended solids (Depth-average) at Mid-Flood Tide



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





Appendix D4

Impact Marine Water Quality Monitoring Results (3RS Project)



wonitoring	Station :	TKO-C1a																
		Ambient Temp	Monitoria	ng Depth	Temp	Salinit	ty (ppt)	Dissolv	red Oxygen	(mg/L)	Dissolve Saturat	d Oxygen	Τι	ırbidity (NT	·U)	Susper	nded Solids	(mg/L)
Date	Time	(°C) / Weather Condition	(n		(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
		0.5	Surface	1.0	23.9	35.4	35.4	6.98	6.98		101.4	101.4	1.67	1.68		2.8	2.9	
0/5/0000	151110	25		40.5		35.4 35.4	05.4	6.98 6.67		6.82	101.4 96.7		1.68 1.82	4.00		3.0		
2/5/2023	15:14:40		Middle	10.5	23.8	35.4	35.4	6.64	6.66		96.3	96.5	1.83	1.83	1.76	4.5	3.8	3.4
		/ Fine	Bottom	20.9	23.8	35.4 35.4	35.4	6.43	6.42	6.42	93.2 92.8	93.0	1.78	1.79		4.3 2.8	3.6	
			Surface	1.0	24.1	35.3	35.4	6.93	6.93		100.9	100.8	1.98	1.95		3.2	4.0	
		25				35.4 35.6		6.92 6.77		6.85	100.6 98.1		1.92 2.18			4.8 2.3		•
4/5/2023	15:21:14		Middle	10.5	23.7	35.6	35.6	6.76	6.77		98.0	98.1	2.19	2.19	2.15	3.4	2.9	3.8
		/ Fine	Bottom	20.9	23.7	35.6 35.6	35.6	6.72	6.72	6.72	97.5 97.4	97.5	2.28	2.31		4.7	4.6	
			Surface	1.0	24.3	35.4	35.4	6.55	6.55		95.7	95.7	0.42	0.44		2.1	2.0	
0/5/0000	40.50.57	25	NA: -I -II -	0.7	04.0	35.4 35.4	05.4	6.55 6.54	0.54	6.55	95.7 95.6	05.0	0.45 0.42	0.44	0.55	1.8 4.6	0.7	
6/5/2023	16:52:57	/ Ein-	Middle	9.7	24.3	35.4	35.4	6.54	6.54		95.6	95.6	0.40	0.41	0.55	2.7	3.7	3.0
		/ Fine	Bottom	19.3	24.2	35.6 35.6	35.6	6.52 6.52	6.52	6.52	95.2 95.2	95.2	0.79 0.81	0.80		4.7 2.2	3.5	
		OF.	Surface	1.0	24.4	34.9	34.9	6.04	6.04		88.3	88.3	1.03	1.03		2.9	3.4	
8/5/2023	17:55:07	25	Middle	9.6	24.3	34.9 35.1	35.2	6.04 6.04	6.05	6.04	88.3 88.2	88.3	1.02 1.31	1.34	1.43	3.8 5.4	4.9	3.7
6/3/2023	17.55.07	/ Eino	ivildule	9.0	24.3	35.2	35.2	6.05	0.03		88.4	00.3	1.36	1.34	1.43	4.4	4.5	3.7
		/ Fine	Bottom	19.3	24.1	35.6 35.6	35.6	6.17	6.18	6.18	90.0	90.2	1.92	1.93		3.0 2.9	3.0	
		25	Surface	1.0	24.1	35.4	35.4	6.69	6.69		97.6	97.6	0.70	0.72		1.6	1.8	
10/5/2023	9:11:44	25	Middle	10.9	24.1	35.4 35.4	35.4	6.69 6.66	6.66	6.68	97.5 97.1	97.1	0.73 0.72	0.73	0.73	1.9 2.1	2.7	2.0
10/5/2023	9:11:44	/ Fine	ivildale	10.9	24.1	35.4	35.4	6.66	6.66		97.1	97.1	0.73	0.73	0.73	3.3	2.7	2.0
		/ Fine	Bottom	21.8	24.1	35.5 35.5	35.5	6.65 6.65	6.65	6.65	97.0 97.0	97.0	0.73 0.75	0.74		1.1	1.4	
		25	Surface	1.0	24.1	35.4 35.4	35.4	6.56 6.56	6.56		95.6 95.5	95.6	0.59 0.56	0.58		4.3	4.1	
12/5/2023	9:16:04	25	Middle	9.6	24.0	35.5	35.5	6.57	6.57	6.57	95.7	95.8	0.52	0.51	0.61	3.9 5.5	4.7	3.8
12/3/2023	3.10.04	/ Fine	ivildale	3.0	24.0	35.5 35.5	33.3	6.57 6.58	0.57		95.8 95.8	95.0	0.50 0.76	0.51	0.01	3.9	4.7	3.0
		, T IIIC	Bottom	19.1	24.0	35.5	35.5	6.57	6.58	6.58	95.7	95.8	0.74	0.75		3.0	2.6	
		25	Surface	1.0	24.1	35.2 35.2	35.2	6.21	6.21		90.4	90.3	1.13	1.13		1.9 2.0	2.0	
15/5/2023	13:56:42		Middle	10.3	24.0	35.3	35.3	6.19	6.19	6.20	90.0	89.9	1.01	1.01	1.03	3.3	3.3	3.1
		/ Fine				35.3 35.5		6.18 6.26			89.9 91.1		1.01 0.92			3.2		
			Bottom	20.7	24.0	35.6	35.5	6.28	6.27	6.27	91.4	91.3	0.97	0.95		4.5	4.0	
		25	Surface	1.0	24.3	35.2 35.2	35.2	6.00	6.00	6.01	87.7 87.7	87.7	1.75 1.78	1.77		2.0 3.1	2.6	
17/5/2023	14:57:11		Middle	9.5	24.3	35.2 35.3	35.3	6.01 6.03	6.02	6.01	87.8 88.1	88.0	1.72 1.74	1.73	1.77	4.7	4.8	3.0
		/ Fine	Bottom	19.1	24.3	35.3	35.3	6.12	6.13	6.13	89.4	89.5	1.80	1.80		1.9	1.6	
			Bottom			35.4 34.7	00.0	6.13 6.18	0.10	0.10	89.5 91.1		1.80 1.04	1.00		1.3	1.0	
		26	Surface	1.0	25.0	34.7	34.7	6.13	6.16	6.10	90.2	90.7	1.01	1.03		1.2	1.2	
19/5/2023	16:21:10		Middle	10.6	24.7	35.1 35.1	35.1	6.04	6.05		88.7 88.9	88.8	0.89	0.88	1.30	1.4	1.4	1.3
		/ Fine	Bottom	21.3	24.5	35.4	35.4	6.22	6.23	6.23	91.2	91.3	2.01	2.01		1.2	1.4	
						35.4 34.5		6.23 6.74			91.3 100.2		2.01 0.33			1.5 1.6		
		26	Surface	1.0	25.6	34.5	34.5	6.75	6.75	6.58	100.3	100.3	0.36	0.35		1.4	1.5	•
22/5/2023	7:55:10		Middle	9.5	25.3	34.8 34.9	34.8	6.42	6.42		95.2 94.9	95.1	0.42	0.42	0.45	1.0	1.0	1.2
		/ Fine	Bottom	19.0	24.9	35.2	35.2	6.25	6.25	6.25	92.2	92.2	0.57	0.59		1.0	1.0	
			Surface	1.0	25.6	35.2 34.4	34.4	6.24 7.24	7.24		92.1 107.6	107.6	0.60	0.08		1.0 1.1	1.7	
		27	Surface	1.0	25.0	34.4	34.4	7.24	7.24	7.23	107.6	107.0	0.08	0.06		2.2	1.7	i T
24/5/2023	8:25:21		Middle	9.5	25.6	34.4 34.4	34.4	7.23 7.22	7.23		107.5 107.5	107.5	0.05 0.05	0.05	0.25	1.8	1.6	2.1
		/ Fine	Bottom	19.0	25.3	34.8 34.8	34.8	6.81 6.81	6.81	6.81	101.0 100.9	101.0	0.61 0.62	0.62		3.0 2.8	2.9	
			Surface	1.0	25.9	34.1	34.1	6.76	6.74		100.8	100.6	1.36	1.35		2.6	2.1	
		27				34.1 34.5		6.72 6.23		6.48	100.3 92.7		1.33 0.43			1.6		
27/5/2023	9:18:17		Middle	10.7	25.6	34.6	34.6	6.20	6.22		92.2	92.5	0.49	0.46	0.84	2.2	2.0	1.9
		/ Fine	Bottom	21.4	25.3	35.1 35.2	35.1	6.01	6.01	6.01	89.3 89.2	89.3	0.71 0.70	0.71		1.6	1.6	
			Surface	1.0	26.5	33.6	33.6	7.99	8.02		120.0	120.4	0.86	0.86		1.4	1.3	
20/5/0000	10.55.00	27				33.6 34.2		8.04 6.78		7.39	120.8 101.6		0.85 1.18		4 44	1.1 2.7		10
29/5/2023	13:55:32	/ Fine	Middle	11.0	26.1	34.2	34.2	6.76	6.77		101.3	101.4	1.21	1.20	1.41	2.3	2.5	1.9
		/ Fine	Bottom	22.1	25.3	35.3 35.3	35.3	6.06	6.06	6.06	90.1	90.0	2.16 2.18	2.17		2.9 1.2	2.1	
		27	Surface	1.0	27.0	33.5 33.6	33.6	6.78 6.79	6.79		102.7 102.8	102.8	0.49 0.42	0.46		1.8 2.5	2.2	
31/5/2023	14:20:47		Middle	10.5	25.2	35.4	35.4	5.60	5.58	6.18	83.2	82.9	1.61	1.63	1.54	2.1	2.3	2.1
2.75,2020		/ Fine				35.4 35.5		5.55 5.34			82.5 79.1		1.64 2.52			2.4		
			Bottom	21.1	25.1	35.5	35.5	5.31	5.33	5.33	78.8	79.0	2.56	2.54		2.0	2.0	

Monitoring Station: TKO-M4a



Monitoring	Station :	TKO-M4a																
Date	Time	Ambient Temp (°C) / Weather	Monitorii (r		Temp (°C)		ty (ppt)		red Oxygen	(mg/L)	Saturat			ırbidity (NT	U) Depth-		nded Solids	(mg/L)
		Condition		· 		Value 35.4	Average	Value 6.87	Average	average	Value 99.6	Average	Value 1.68	Average	average	Value 2.1	Average	average
		25	Surface	1.0	23.8	35.4	35.4	6.86	6.87	6.69	99.5	99.5	1.65	1.67		1.8	2.0	
2/5/2023	15:32:31		Middle	9.0	23.8	35.4	35.4	6.51	6.51	0.03	94.4	94.3	1.75	1.76	1.72	2.8	3.2	3.2
		/ Fine				35.4 35.4		6.50 6.43			94.2 93.2		1.76			3.6		
		, , , , , ,	Bottom	17.9	23.8	35.4	35.4	6.41	6.42	6.42	92.8	93.0	1.77	1.75		5.2	4.5	
		0.5	Surface	1.0	24.0	35.3	35.3	6.93	6.92		100.7	100.6	2.02	2.04		3.7	3.4	
		25				35.4 35.6		6.91 6.76		6.84	100.4 98.1		2.06		<u> </u>	3.0		
4/5/2023	15:40:16		Middle	8.9	23.7	35.6	35.6	6.76	6.76		98.0	98.1	2.19	2.19	2.21	3.5	3.5	3.4
		/ Fine	Bottom	17.9	23.7	35.6	35.6	6.73	6.73	6.73	97.5	97.5	2.39	2.40		3.8	3.2	
						35.6 35.4		6.73 6.54			97.5 95.6		2.41 0.34			2.6		
		25	Surface	1.0	24.3	35.4	35.4	6.54	6.54	0.54	95.6	95.6	0.36	0.35		3.3	2.9	
6/5/2023	17:06:48		Middle	8.9	24.3	35.5	35.5	6.54	6.54	6.54	95.5	95.5	0.47	0.48	0.52	2.9	2.8	2.7
		/ Fine				35.5 35.6		6.54 6.50			95.5 95.0		0.48			2.7 3.9		ŀ
		/ Fille	Bottom	17.8	24.2	35.6	35.6	6.50	6.50	6.50	95.0	95.0	0.74	0.74		1.1	2.5	
			Surface	1.0	24.4	34.9	34.9	6.06	6.06		88.5	88.5	1.04	1.04		3.5	4.2	
		25				34.9		6.06		6.06	88.4		1.03		ļ	4.9		
8/5/2023	18:06:08		Middle	7.4	24.3	35.1 35.1	35.1	6.05	6.05		88.3 88.4	88.4	1.26	1.27	1.25	3.5 2.5	3.0	3.9
		/ Fine	Bottom	14.8	24.2	35.5	35.5	6.17	6.18	6.18	90.0	90.1	1.44	1.46		4.6	4.4	
			Dottom	14.0	27.2	35.5	00.0	6.18	0.10	0.10	90.2	30.1	1.47	1.40		4.1	7.7	
		25	Surface	1.0	24.1	35.4 35.4	35.4	6.66	6.66		97.1 97.1	97.1	0.68	0.68		1.7	1.5	
10/5/2023	9:32:34		Middle	10.0	24.1	35.4	35.4	6.65	6.65	6.66	97.0	97.0	0.72	0.73	0.70	2.3	1.8	1.8
10/3/2023	3.02.04	/ Fine	Wildale	10.0	24.1	35.4	33.4	6.65	0.03		97.0	37.0	0.74	0.75	0.70	1.3	1.0	1.0
		/ Fine	Bottom	20.0	24.1	35.4 35.4	35.4	6.64	6.64	6.64	96.8 96.8	96.8	0.70	0.70		1.7 2.7	2.2	
			Surface	1.0	24.1	35.4	35.4	6.55	6.55		95.4	95.4	0.56	0.57		2.1	3.2	
		25	Surface	1.0	24.1	35.4	33.4	6.55	0.55	6.55	95.4	95.4	0.57	0.57	ļ	4.3	3.2	
12/5/2023	9:33:10		Middle	7.6	24.1	35.5 35.5	35.5	6.55 6.56	6.56		95.5 95.5	95.5	0.52	0.52	0.56	4.6 2.3	3.5	3.4
		/ Fine	Pottom	15.2	24.0	35.5	25.5	6.57	6.57	6.57	95.7	95.8	0.58	0.59		2.4	3.6	
			Bottom	15.2	24.0	35.5	35.5	6.57	6.57	0.57	95.8	95.6	0.59	0.59		4.7	3.0	
		25	Surface	1.0	24.1	35.2 35.2	35.2	6.18	6.18		90.0 89.8	89.9	1.14	1.16		2.1	2.4	
45/5/0000	44.40.00	20	NAC-JUIL-	40.7	04.4	35.2	05.0	6.17	0.47	6.17	89.8	00.0	1.02	4.00	4.04	3.1	0.0	0.0
15/5/2023	14:10:09		Middle	10.7	24.1	35.2	35.2	6.17	6.17		89.8	89.8	1.03	1.03	1.04	3.2	3.2	2.9
		/ Fine	Bottom	21.3	24.0	35.5 35.5	35.5	6.23 6.22	6.23	6.23	90.7 90.5	90.6	0.93	0.94		3.0	3.3	
			Ofo. o o	4.0	04.0	35.1	05.4	5.96	F 00		87.1	07.4	1.78	4.75		3.0	0.7	
		25	Surface	1.0	24.3	35.1	35.1	5.96	5.96	5.97	87.1	87.1	1.71	1.75		4.4	3.7	
17/5/2023	15:08:29		Middle	7.3	24.3	35.2 35.2	35.2	5.97 5.98	5.98		87.2 87.4	87.3	1.69	1.72	1.74	1.8	2.1	2.7
		/ Fine	D-#	44.0	04.0	35.3	05.0	6.07	0.00	0.00	88.6	00.0	1.73	4.75		2.8	0.4	
			Bottom	14.6	24.3	35.3	35.3	6.09	6.08	6.08	89.0	88.8	1.77	1.75		2.0	2.4	
		26	Surface	1.0	24.8	34.7 34.7	34.7	6.02	6.01		88.4 88.1	88.3	1.01 0.97	0.99		1.7	1.6	
40/5/0000	40.07.47	20		40.4	24.0	35.2	25.0	6.00		6.02	88.1	00.4	0.99		4.00	1.5		
19/5/2023	16:37:17		Middle	10.1	24.6	35.2	35.2	6.04	6.02		88.6	88.4	1.01	1.00	1.26	1.1	1.1	1.4
		/ Fine	Bottom	20.1	24.5	35.3	35.3	6.15	6.16	6.16	90.2	90.3	1.77	1.79		1.7	1.5	
						35.3 34.3		6.16 6.74			90.4 100.3		1.81 0.27			1.3		
		26	Surface	1.0	25.7	34.3	34.3	6.74	6.74	6.65	100.3	100.3	0.27	0.27		1.0	1.0	
22/5/2023	8:06:08		Middle	7.4	25.3	34.8	34.8	6.58	6.56	0.00	97.4	97.0	0.44	0.45	0.41	1.0	1.0	1.0
		/ Fine				34.9 35.0		6.53 6.40			96.6 94.7		0.45			1.0		
			Bottom	14.9	25.1	35.0	35.0	6.37	6.39	6.39	94.2	94.5	0.52	0.52		1.0	1.0	
		27	Surface	1.0	25.6	34.4	34.4	7.24	7.24		107.7	107.7	0.07	0.07		1.2	1.3	
		27				34.4 34.4		7.24 7.24		7.24	107.7 107.7		0.07			1.3		
24/5/2023	8:36:10		Middle	7.5	25.6	34.4	34.4	7.24	7.24		107.6	107.7	0.06	0.06	0.17	1.0	1.5	1.3
		/ Fine	Bottom	14.9	25.4	34.7	34.7	6.81	6.80	6.80	101.1	100.9	0.38	0.37		1.0	1.1	
						34.8 34.1		6.78 6.78			100.6 101.5		0.36 1.17			1.2 2.8		
		27	Surface	1.0	26.1	34.1	34.1	6.77	6.78	6.52	101.3	101.4	1.18	1.18]	3.5	3.2	1
27/5/2023	9:36:18		Middle	10.1	25.8	34.4	34.5	6.27	6.27	3.02	93.5	93.4	0.31	0.34	0.76	1.2	1.1	1.9
		/ Fine				34.5 35.0		6.26 6.05			93.2 89.8		0.37			1.0		1
			Bottom	20.3	25.3	35.1	35.1	6.02	6.04	6.04	89.4	89.6	0.74	0.78		1.3	1.4	L
			Surface	1.0	26.5	33.7	33.6	7.98	8.00		119.9	120.2	0.87	0.87		2.5	2.2	
		27				33.6		8.02 6.49		7.24	120.5 97.1		0.86		-	1.8	ļ <u>-</u>	1
29/5/2023	14:08:34		Middle	9.9	26.0	34.3 34.3	34.3	6.49	6.49		97.1	97.0	1.19	1.20	1.40	2.7	2.8	2.4
		/ Fine	Bottom	19.7	25.3	35.3	35.3	6.09	6.08	6.08	90.5	90.3	2.13	2.14		2.0	2.3	1
			DOMOTT	10.1	20.0	35.3	55.5	6.06	3.00	5.00	90.1	30.3	2.15	2.14		2.5	د.ی	<u> </u>
		27	Surface	1.0	27.1	33.4	33.4	6.93	6.94		105.2 105.4	105.3	0.22	0.24		2.5 1.8	2.2	1
31/5/2023	14:37:09		Middle	10.3	25.2	35.2	35.3	5.80	5.75	6.34	86.1	85.3	1.29	1.27	1.34	2.2	2.3	2.2
01/3/2023	14.07.03	/Fin-	whodie	10.3	20.2	35.3	33.3	5.69	3.73		84.5	55.5	1.25	1.61	1.04	2.3	د.ن	۷.۷
		/ Fine	Bottom	20.7	25.1	35.5 35.5	35.5	5.43 5.38	5.41	5.41	80.5 79.8	80.2	2.50	2.53		1.9	2.3	1
	l .	I	1	l	l	55.5	1	3.30	<u> </u>		, 5.0		2.00	l	<u> </u>	1.0	l	

Monitoring Station: TKO-M5



Monitoring	Otation .	TKO-M5													\	•		
		Ambient Temp			T	Salinit	ty (ppt)	Dissolv	ed Oxygen	(mg/L)		d Oxygen tion (%)	Τι	urbidity (NT	U)	Susper	nded Solids	s (mg/L)
Date	Time	(°C) / Weather Condition	Monitorin (n		Temp (°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
			Surface	1.0	23.8	35.4	35.4	6.83	6.83		99.0	98.9	1.69	1.70		3.0	3.8	
		25				35.4 35.4		6.82 6.68		6.75	98.9 96.9		1.71			4.5 1.9		-
2/5/2023	15:45:34		Middle	7.6	23.8	35.4	35.4	6.65	6.67		96.4	96.6	1.77	1.76	1.75	2.3	2.1	3.0
		/ Fine	Bottom	15.2	23.8	35.4	35.4	6.44	6.43	6.43	93.4	93.2	1.79	1.78		3.2	3.0	
						35.4 35.4		6.42 6.95			93.1 101.0		1.77 2.12			2.8		
		25	Surface	1.0	23.9	35.4	35.4	6.94	6.95	6.88	100.8	100.9	2.15	2.14		2.4	2.6	
4/5/2023	16:00:17		Middle	7.6	23.7	35.6	35.6	6.82	6.81	0.00	98.8	98.7	2.24	2.24	2.29	2.7	2.4	2.4
		/ Fine				35.6 35.6		6.79 6.76			98.5 98.0		2.23			2.1 3.0		-
			Bottom	15.2	23.7	35.6	35.6	6.76	6.76	6.76	98.0	98.0	2.52	2.49		1.2	2.1	
		25	Surface	1.0	24.3	35.4 35.4	35.4	6.54 6.54	6.54		95.6	95.6	0.41	0.44		3.3	3.4	
0.15.100.00		25			0.1.0	35.5	05.5	6.54	0.54	6.54	95.6 95.6	05.0	0.47			3.5 2.0		
6/5/2023	17:22:23		Middle	7.9	24.2	35.5	35.5	6.54	6.54		95.6	95.6	0.45	0.45	0.53	3.1	2.6	2.6
		/ Fine	Bottom	15.9	24.2	35.5 35.5	35.5	6.54 6.54	6.54	6.54	95.5 95.5	95.5	0.70 0.72	0.71		1.4 2.2	1.8	
			Surface	1.0	24.4	34.9	34.9	6.04	6.04		88.2	88.2	1.06	1.08		4.2	4.6	
		25	Surface	1.0	24.4	34.9	34.8	6.04	0.04	6.04	88.2	00.2	1.10	1.00		5.0	4.0	_
8/5/2023	18:24:14		Middle	7.6	24.3	35.0 35.1	35.1	6.04	6.04		88.2 88.3	88.3	1.17	1.19	1.31	5.4 2.5	4.0	4.2
		/ Fine	Bottom	15.3	24.2	35.5	35.5	6.13	6.14	6.14	89.4	89.6	1.62	1.66		3.5	3.9	-
			Dottom	10.0	27.2	35.5	00.0	6.15	0.14	0.17	89.7	00.0	1.69	1.00		4.3	0.0	
		25	Surface	1.0	24.1	35.4 35.4	35.4	6.61 6.61	6.61	0.50	96.4 96.4	96.4	0.66	0.68		2.1	2.3	
10/5/2023	09:42:34		Middle	7.9	24.1	35.3	35.3	6.57	6.57	6.59	95.7	95.7	0.72	0.74	0.73	3.3	3.2	3.0
10/0/2020	00.12.01	/ Fine	············	7.0		35.4 35.4	00.0	6.57 6.56	0.07		95.7 95.6	00.7	0.75 0.78	0.7 1	0.70	3.1	0.2	- 0.0
		/ Fille	Bottom	15.8	24.1	35.4	35.4	6.56	6.56	6.56	95.6	95.6	0.78	0.78		3.7	3.5	
			Surface	1.0	24.1	35.4	35.4	6.55	6.55		95.4	95.4	0.58	0.59		2.3	3.3	
		25				35.4 35.5		6.55 6.54		6.55	95.4 95.3		0.59 0.59			4.3		-
12/5/2023	09:47:06		Middle	7.3	24.1	35.5	35.5	6.55	6.55		95.4	95.4	0.57	0.58	0.57	5.4	4.7	4.1
		/ Fine	Bottom	14.6	24.0	35.5	35.5	6.56	6.56	6.56	95.6	95.6	0.53	0.54		3.5	4.4	
						35.5 35.0		6.56 6.13			95.6 89.2		0.55 0.83			5.2 2.9		
		25	Surface	1.0	24.1	35.1	35.0	6.12	6.13	6.12	89.0	89.1	0.86	0.85		2.4	2.7	
15/5/2023	14:22:25		Middle	8.2	24.1	35.1	35.1	6.11 6.11	6.11	0.12	88.9	88.9	0.88	0.90	0.89	2.0	2.7	2.8
		/ Fine	- ·			35.2 35.4	05.5	6.19			88.9 90.1		0.91			3.3		-
			Bottom	16.4	24.0	35.5	35.5	6.25	6.22	6.22	91.0	90.5	0.91	0.92		2.7	3.1	
		25	Surface	1.0	24.3	35.2 35.2	35.2	6.05	6.05		88.4 88.4	88.4	1.59	1.59		1.7	1.8	
17/5/2023	15:28:34	25	Middle	7.4	24.3	35.3	25.2	6.05	6.06	6.06	88.5	00.6	1.70	1 70	1.74	2.1	3.3	2.3
17/5/2023	15:26:34	/ Elec	Middle	7.4	24.3	35.3	35.3	6.07	6.06		88.7	88.6	1.85	1.78	1.74	4.5	3.3	2.3
		/ Fine	Bottom	14.7	24.3	35.4 35.4	35.4	6.12 6.14	6.13	6.13	89.5 89.7	89.6	1.83	1.86		1.3 2.5	1.9	
			Surface	1.0	25.0	34.6	34.7	6.14	6.13		90.5	90.2	0.74	0.75		1.3	1.2	
		26	-			34.7 34.8	•	6.11 6.00		6.06	89.9 88.2		0.76 0.95	****		1.1		-
19/5/2023	16:56:16		Middle	8.0	24.8	34.9	34.9	5.99	6.00		87.9	88.1	0.92	0.94	1.01	1.3	1.2	1.3
		/ Fine	Bottom	16.0	24.6	35.1	35.1	6.03	6.04	6.04	88.5	88.7	1.35	1.35		1.3	1.4	
						35.2 34.5		6.05 6.71			88.8 99.7		1.35 0.35			1.5 1.1		
		26	Surface	1.0	25.5	34.5	34.5	6.71	6.71	6.63	99.8	99.8	0.34	0.35		1.3	1.2	
22/5/2023	08:24:09		Middle	7.6	25.2	34.8 34.9	34.8	6.58 6.53	6.56	0.00	97.4 96.7	97.1	0.47 0.46	0.47	0.44	1.7	2.0	1.4
		/ Fine	D-#	45.0	05.4	35.0	05.0	6.39	0.07	0.07	94.4	04.0	0.50	0.54		2.3 1.0	4.0	-
			Bottom	15.2	25.1	35.1	35.0	6.35	6.37	6.37	93.9	94.2	0.51	0.51		1.0	1.0	
		27	Surface	1.0	25.6	34.4 34.4	34.4	7.23 7.24	7.24		107.6 107.6	107.6	0.11	0.12		1.0 2.5	1.8	
24/5/2022	00-54-06	2,	Middle	7.4	25.6	34.4	24.4	7.24	7.04	7.24	107.6	107.6	0.04	0.05	0.17	1.2	11	1 5
24/5/2023	08:54:06	/5:	Middle	7.4	25.6	34.4	34.4	7.23	7.24		107.6	107.6	0.06	0.05	0.17	1.0	1.1	1.5
		/ Fine	Bottom	14.9	25.5	34.6 34.6	34.6	6.92 6.90	6.91	6.91	102.8 102.5	102.7	0.31	0.34		1.9	1.6	
			Surface	1.0	26.1	34.0	34.0	6.59	6.60		98.6	98.7	0.84	0.85		1.2	2.1	1
		27	Junace	1.0	20.1	34.0	54.0	6.61	0.00	6.47	98.8	30.7	0.86	0.00		2.9	٤.١	-
27/5/2023	10:01:46		Middle	7.5	25.9	34.3 34.3	34.3	6.35 6.32	6.34		94.8 94.3	94.6	0.21	0.23	0.57	2.5 3.8	3.2	2.4
		/ Fine	Bottom	15.1	25.4	34.8	34.9	6.15	6.12	6.12	91.4	90.9	0.60	0.64	1	1.4	2.0	
			2			34.9 33.6		6.09 8.04			90.4 120.8		0.68			2.5 1.2		1
		27	Surface	1.0	26.5	33.6	33.6	8.04	8.04	7.00	120.8	120.8	0.89	0.91		2.3	1.8	
29/5/2023	14:33:08		Middle	7.6	26.0	34.4	34.4	6.58	6.57	7.30	98.5	98.3	1.08	1.09	1.28	3.2	3.0	2.2
		/ Fine				34.4 35.1		6.55 5.99			98.0 89.1		1.10			2.8 1.6		1
	<u> </u>		Bottom	15.3	25.4	35.1	35.1	5.97	5.98	5.98	88.8	89.0	1.84	1.83		1.9	1.8	
		07	Surface	1.0	27.0	33.5	33.6	6.82	6.82		103.4	103.3	0.33	0.34		2.3	2.1	
		27	-			33.6 35.0		6.81 6.17		6.46	103.1 91.6		0.34 1.07			1.9	_	-
31/5/2023	14:56:08		Middle	7.6	25.4	35.1	35.1	6.02	6.10		89.4	90.5	1.03	1.05	1.21	2.5	2.3	2.1
		/ Fine	Bottom	15.2	25.2	35.5 35.5	35.5	5.32 5.31	5.32	5.32	79.0 78.8	78.9	2.27	2.24		2.0 1.9	2.0	
		Ī	1			55.5	1	0.01	1		70.0	l	۱ ۲.۵	<u> </u>	L	1.9	l	1

Monitoring Station: TKO-C1a



Monitoring	Station :	TKO-C1a													-			
Date	Time	Ambient Temp (°C) / Weather	Monitorir (n		Temp (°C)	Salinit	ty (ppt)	Dissolv	ved Oxygen			d Oxygen tion (%)	Τι	urbidity (NT		Susper	nded Solids	
		Condition	(11	')	(0)	Value 35.4	Average	Value 6.97	Average	Depth- average	Value 101.2	Average	Value 1.35	Average	Depth- average	Value 3.5	Average	Depth- average
		25	Surface	1.0	23.9	35.4 35.4	35.4	6.95 6.76	6.96	6.86	100.9	101.1	1.38	1.37		2.8	3.2	
2/5/2023	9:17:21	/ Fine	Middle	10.5	23.8	35.4 35.4	35.4	6.74	6.75		97.7 96.1	97.9	1.47	1.47	1.45	3.4	3.8	3.9
			Bottom	21.0	23.8	35.5 35.5	35.4	6.63	6.63	6.63	96.2	96.2	1.51	1.51		3.6 5.1	4.6	
		25	Surface	1.0	23.9	35.4 35.6	35.5	6.95 6.76	6.94	6.85	101.0	100.8	2.35	2.29		3.3	4.2	
4/5/2023	10:32:00	/ Fine	Middle	10.5	23.8	35.6 35.6	35.6	6.76 6.73	6.76		98.0 97.5	98.1	2.26	2.24	2.33	3.5	3.3	3.3
		7.1	Bottom	21.0	23.7	35.6 35.4	35.6	6.73 6.55	6.73	6.73	97.5 95.8	97.5	2.46	2.47		2.9	2.5	
		25	Surface	1.0	24.3	35.4 35.4	35.4	6.55 6.55	6.55	6.55	95.8 95.8	95.8	0.52 0.44	0.51		2.3	3.1	
6/5/2023	11:52:36	/ Fine	Middle	10.5	24.3	35.4 35.5	35.4	6.55 6.54	6.55		95.8 95.5	95.8	0.47	0.46	0.53	6.0	5.8	4.1
			Bottom	21.0	24.2	35.5 35.0	35.5	6.54	6.54	6.54	95.5 88.7	95.5	0.62	0.63		2.6	3.4	
		25	Surface	1.0	24.4	35.0 35.3	35.0	6.07	6.07	6.08	88.6 88.8	88.7	1.07	1.08		4.2	4.8	
8/5/2023	13:25:11	/ Fine	Middle	9.0	24.3	35.3 35.5	35.3	6.10 6.16	6.09		89.0 90.0	88.9	1.56	1.53	1.43	3.0	3.4	4.3
		71110	Bottom	18.0	24.2	35.5 35.3	35.5	6.17	6.17	6.17	90.1	90.1	1.65	1.67		4.4	4.9	
		25	Surface	1.0	24.1	35.3 35.3	35.3	6.50 6.48	6.50	6.49	94.7	94.7	1.13	1.12		2.7	2.5	İ
10/5/2023	14:52:29	/ Fine	Middle	10.6	24.1	35.3 35.4	35.3	6.48	6.48		94.4 94.5	94.4	1.22	1.22	1.13	3.1	2.7	2.6
		71110	Bottom	21.3	24.1	35.4 35.4	35.4	6.49 6.54	6.49	6.49	94.5 95.3	94.5	1.04	1.05		2.8	2.6	1
		25	Surface	1.0	24.1	35.4 35.4	35.4	6.54 6.54	6.54	6.54	95.3 95.3	95.3	0.52	0.53		6.0	4.6	
12/5/2023	15:48:29	/ Fine	Middle	9.6	24.1	35.5 35.5	35.5	6.54 6.54	6.54		95.3 95.2	95.3	0.54	0.55	0.73	1.4	1.7	3.1
		715	Bottom	19.1	24.0	35.5 35.2	35.5	6.53	6.54	6.54	95.1 90.3	95.2	1.11	1.12		3.9	3.1	
		25	Surface	1.0	24.0	35.2 35.3	35.2	6.21	6.21	6.21	90.3	90.3	0.83	0.84		2.3	2.6	
15/5/2023	9:52:37	/ Fine	Middle	10.4	24.0	35.3 35.5	35.3	6.21	6.21		90.3	90.3	0.88	0.88	0.92	3.4	3.9	2.9
		, , , , , ,	Bottom	20.7	24.0	35.5 35.1	35.5	6.30 5.98	6.30	6.30	91.7	91.7	1.06	1.05		2.4	2.3	
		25	Surface	1.0	24.4	35.1 35.2	35.1	5.98 6.01	5.98	6.00	87.5 87.8	87.5	1.56	1.56		5.5	4.8	
17/5/2023	9:27:15	/ Fine	Middle	9.1	24.3	35.3 35.4	35.2	6.02 6.13	6.02		88.0 89.6	87.9	1.89	1.88	1.76	4.5	3.4	3.4
			Bottom	18.2	24.3	35.4 34.7	35.4	6.14 6.12	6.14	6.14	89.7 90.1	89.7	1.82 0.93	1.85		1.8	2.2	
10/5/0000	11,01,14	26	Surface Middle	1.0	24.9	34.8 35.0	34.7	6.10 5.98	6.11	6.05	89.7 87.8	89.9 88.0	0.89	0.91	1.30	1.0	1.0	1.0
19/5/2023	11:21:14	/ Fine				35.1 35.4		6.01 6.18	6.00	0.40	88.2 90.6		0.95 2.04		1.30	1.0	1.0	1.0
			Bottom	19.9	24.5	35.4 34.4	35.4	6.19 6.75	6.19	6.19	90.8 100.3	90.7	2.08 0.36	2.06		1.0 2.5	1.0	
00/5/0000	10.05.00	26	Surface	1.0	25.6	34.4 34.8	34.4	6.76 6.57	6.76	6.65	100.5 97.3	100.4	0.37 0.40	0.37		1.9 1.4	2.2	4.0
22/5/2023	13:25:08	/ Fine	Middle	8.9	25.2	34.9 35.2	34.8	6.52 6.24	6.55	0.04	96.4 92.2	96.9	0.41 0.54	0.41	0.44	2.0	1.7	1.8
			Bottom	17.8	25.0	35.1 34.4	35.1	6.24 7.24	6.24	6.24	92.1 107.8	92.2	0.54	0.54		1.6	1.4	
24/5/2023	10.55.10	27	Surface Middle	1.0	25.6 25.6	34.4 34.4	34.4	7.25 7.22	7.25	7.23	107.8 107.3	107.8	0.05 0.12	0.07	0.10	1.8 2.4	1.8	2.0
24/5/2023	13:55:10	/ Fine		9.1	25.4	34.5 34.7	34.4	7.19 6.99	7.21	6.96	106.9 103.8	107.1	0.16 0.27	0.14	0.16	3.4 1.4	1.4	2.0
			Bottom	1.0	26.0	34.8 34.1	34.1	6.93 6.73	6.72	0.90	102.9 100.5	100.3	0.29 1.14	1.14		1.4 2.6	3.3	
27/5/2023	15:16:18	27	Middle	10.1	25.5	34.1 34.6	34.6	6.70 6.20	6.19	6.45	100.0 92.3	92.1	1.13 0.57	0.57	0.80	4.0 2.3	2.2	2.5
21/3/2023	13.10.10	/ Fine				34.6 35.1		6.18 6.02		6.02	91.9 89.4		0.57 0.70		0.00	2.1		2.5
			Bottom Surface	1.0	25.3 26.6	35.1 33.3	35.1	6.01 8.28	6.02 8.29	6.02	89.2 124.4	89.3 124.5	0.68 1.04	1.03		2.0 2.4	3.4	
29/5/2023	8:49:44	27	Middle	10.4	26.0	33.4 34.3	34.3	8.29 6.64	6.63	7.46	124.6 99.3	99.2	1.02	1.44	1.59	4.3 2.4	3.4	3.0
LU/J/LULJ	0.40.44	/ Fine	Bottom	20.8	25.3	34.3 35.2	35.2	6.62 6.19	6.18	6.18	99.0 92.0	91.8	1.45 2.30	2.31	1.08	3.5 1.8	2.6	3.0
			Surface	1.0	27.2	35.3 33.3	33.3	6.16 7.00	7.01	5.10	91.6 106.3	106.5	2.31 0.96	0.98		3.3 1.9	2.4	
31/5/2023	9:21:14	27	Middle	10.2	25.3	33.3 35.3	35.3	7.02 5.66	5.65	6.33	106.6 84.2	84.0	0.99 1.71	1.77	1.76	2.8	2.4	2.3
31/3/2023	3.21.14	/ Fine	Bottom	20.4	25.3	35.3 35.5	35.3	5.63 5.38	5.65	5.37	83.7 79.9	79.7	1.83 2.50	2.55	1./0	2.0	2.1	۷.۵
	İ		DOUGHI	20.4	20.1	35.5	33.5	5.35	0.07	3.37	79.4	13.1	2.59	2.00		2.4	2.4	<u> </u>

Monitoring Station: TKO-M4a



Monitoring	Station:	TKO-M4a														18-16810		
Date	Time	Ambient Temp	Monitoring [Depth (m)	Temp	Salinit	y (ppt)	Dissolv	ed Oxygen	(mg/L)		d Oxygen tion (%)	Τι	ırbidity (NT	U)	Susper	nded Solids	(mg/L)
	111110	Condition	om.om.g	э ор ан (ні)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth- average	Value	Average	Depth- average
		25	Surface	1.0	23.9	35.4 35.4	35.4	6.88	6.88		99.9 99.8	99.8	1.35	1.37		4.8 3.5	4.2	
2/5/2023	9:30:22		Middle	9.4	23.8	35.4	35.4	6.69	6.67	6.77	97.0	96.7	1.45	1.44	1.43	4.7	4.4	4.0
		/ Fine				35.4 35.5		6.65 6.45			96.4 93.4		1.43			4.1 3.3		1
			Bottom	18.7	23.7	35.5	35.5	6.44	6.45	6.45	93.3	93.3	1.49	1.48		3.5	3.4	
		25	Surface	1.0	23.7	35.6 35.6	35.6	6.80	6.80		98.6 98.5	98.6	2.17	2.17		3.2 1.6	2.4	
4/5/2023	10:48:13		Middle	9.4	23.7	35.6	35.6	6.75	6.75	6.77	97.9	97.9	2.20	2.18	2.18	5.3	5.6	3.7
		/ Fine	_			35.6 35.6		6.75 6.73			97.8 97.6		2.15			5.9 2.6		
			Bottom	18.7	23.7	35.6	35.6	6.73	6.73	6.73	97.5	97.6	2.18	2.19		3.5	3.1	
		25	Surface	1.0	24.3	35.4 35.4	35.4	6.55 6.55	6.55		95.7 95.7	95.7	0.37	0.37		2.1	2.3	
6/5/2023	12:02:42		Middle	10.1	24.3	35.4	35.4	6.54	6.54	6.55	95.7	95.7	0.40	0.42	0.48	3.5	2.9	2.9
		/ Fine		22.2	04.0	35.5 35.5	05.5	6.54 6.54	0.54	0.54	95.7 95.5	05.5	0.43			2.2 4.0		1
			Bottom	20.2	24.2	35.5	35.5	6.54	6.54	6.54	95.5	95.5	0.68	0.66		2.9	3.5	
		25	Surface	1.0	24.4	35.0 35.0	35.0	6.06	6.06		88.5 88.5	88.5	1.03	1.06		5.0 5.1	5.1	
8/5/2023	13:36:12		Middle	7.0	24.3	35.1	35.1	6.06	6.06	6.06	88.4	88.5	1.32	1.33	1.27	2.8	4.0	4.1
		/ Fine		40.0	0.4.0	35.1 35.3	05.4	6.06 6.10	0.44	0.44	88.5 89.1		1.33	4.40		5.1 2.6		•
			Bottom	13.9	24.2	35.4	35.4	6.12	6.11	6.11	89.3	89.2	1.43	1.43		4.1	3.4	
		25	Surface	1.0	24.1	35.3 35.3	35.3	6.55 6.55	6.55	0.54	95.4 95.4	95.4	0.74 0.75	0.75		3.1	3.1	
10/5/2023	15:02:26		Middle	10.3	24.1	35.3	35.3	6.52	6.52	6.54	94.9	94.9	0.80	0.82	0.87	3.3	2.9	2.9
		/ Fine		22.2	04.4	35.3 35.3	25.0	6.52 6.50	0.50	0.50	94.9 94.7	24.0	0.84 1.03	4.05		2.4		ŀ
			Bottom	20.6	24.1	35.3	35.3	6.49	6.50	6.50	94.5	94.6	1.06	1.05		3.2	2.9	
		25	Surface	1.0	24.1	35.4 35.4	35.4	6.54 6.54	6.54		95.3 95.3	95.3	0.55 0.57	0.56		1.9	1.6	
12/5/2023	16:04:07		Middle	7.7	24.1	35.4	35.4	6.54	6.54	6.54	95.3	95.3	0.56	0.55	0.66	2.7	2.8	2.1
		/ Fine				35.5 35.5		6.54 6.53			95.3 95.1		0.53			2.8 1.4		•
			Bottom	15.3	24.0	35.5	35.5	6.53	6.53	6.53	95.1	95.1	0.90	0.87		2.5	2.0	
		25	Surface	1.0	24.1	35.2 35.3	35.3	6.18 6.18	6.18		90.0	90.0	0.81	0.82		2.9	2.8	
15/5/2023	10:02:29		Middle	10.2	24.0	35.2	35.2	6.19	6.20	6.19	90.0	90.0	0.93	0.95	0.90	4.0	3.5	2.9
		/ Fine				35.3 35.4		6.20 6.22			90.1 90.5		0.96 0.92			2.9		1
			Bottom	20.3	24.0	35.4	35.4	6.22	6.22	6.22	90.5	90.5	0.94	0.93		2.8	2.4	
		25	Surface	1.0	24.4	35.1 35.1	35.1	5.96 5.96	5.96		87.1 87.1	87.1	1.58	1.59		1.5	1.7	
17/5/2023	9:38:29		Middle	7.2	24.3	35.3	35.3	6.04	6.06	6.01	88.3	88.5	1.63	1.63	1.72	5.1	5.2	3.0
		/ Fine	D-#	44.4	04.0	35.3 35.4	05.4	6.07 6.16	0.47	0.47	88.7 90.0	00.0	1.62	4.04		5.3 2.3	0.0	1
			Bottom	14.4	24.2	35.4	35.4	6.18	6.17	6.17	90.3	90.2	1.90	1.94		1.7	2.0	
		26	Surface	1.0	24.8	34.8 34.8	34.8	6.06 6.04	6.05	0.00	89.1 88.8	89.0	0.92	0.95		1.0	1.0	
19/5/2023	11:36:16		Middle	9.6	24.7	35.0	35.0	5.98	6.00	6.02	87.9	88.1	0.94	0.95	1.22	1.0	1.0	1.0
		/ Fine	Pottom	19.1	24.5	35.1 35.3	35.4	6.01 6.13	6.14	6.14	88.2 89.9	90.1	0.95 1.72	1.75		1.0	1.0	
			Bottom	19.1	24.5	35.4	35.4	6.15	0.14	0.14	90.2	90.1	1.78	1.75		1.0	1.0	
		26	Surface	1.0	25.5	34.5 34.5	34.5	6.71 6.71	6.71	6.64	99.6 99.6	99.6	0.32	0.33		2.2	2.2	
22/5/2023	13:36:07		Middle	7.0	25.3	34.8	34.8	6.58	6.56	0.04	97.5	97.2	0.43	0.45	0.43	2.3	2.2	1.9
		/ Fine	Bottom	14.1	25.1	34.8 35.0	35.0	6.54 6.35	6.34	6.34	96.8 93.8	93.7	0.46 0.53	0.53		1.3	1.5	İ
			Bollom	14.1	25.1	35.0	35.0	6.33	0.34	0.34	93.5 108.0	93.7	0.52 0.04	0.55		1.6	1.5	
		27	Surface	1.0	25.7	34.4	34.4	7.26 7.26	7.26	7.25	108.0	108.0	0.04	0.05		2.6 1.9	2.3	
24/5/2023	14:06:08		Middle	7.1	25.6	34.4 34.4	34.4	7.23 7.23	7.23	7.25	107.6 107.5	107.6	0.15 0.12	0.14	0.15	1.0	1.5	1.9
		/ Fine	Bottom	14.2	25.6	34.4	34.5	7.23	7.14	7.14	107.5	106.1	0.12	0.26		1.9 2.6	2.1	
			Bollom	14.2	25.0	34.5	34.5	7.12	7.14	7.14	105.8	100.1	0.24	0.20		1.5	2.1	
		27	Surface	1.0	26.0	34.1 34.1	34.1	6.79 6.78	6.79	6.53	101.5 101.4	101.5	1.26	1.25		1.7	1.7	
27/5/2023	15:37:08		Middle	9.8	25.7	34.5	34.5	6.28	6.27	0.55	93.5	93.4	0.35	0.38	0.76	1.6	1.6	2.1
		/ Fine	Dettern	10.0	0F 4	34.6 34.9	24.0	6.26 6.09	6.07	6.07	93.2 90.5	00.0	0.41	0.04		1.6	2.0	
			Bottom	19.6	25.4	35.0	34.9	6.05	6.07	6.07	89.9	90.2	0.68	0.64		4.6	3.0	<u> </u>
		27	Surface	1.0	26.7	33.0 33.1	33.1	8.31 8.36	8.34	7.40	124.9 125.5	125.2	0.91	0.94		3.8 4.3	4.1]
29/5/2023	9:05:35		Middle	9.7	25.8	34.6	34.6	6.53	6.52	7.43	97.5	97.4	1.38	1.39	1.60	2.3	2.3	2.8
		/ Fine				34.7 35.3		6.51 5.96		F 0 :	97.2 88.6		1.40 2.45			1.5	0.0	1
			Bottom	19.3	25.3	35.3	35.3	5.91	5.94	5.94	87.9	88.2	2.47	2.46		2.5	2.0	<u> </u>
		27	Surface	1.0	27.2	33.3 33.3	33.3	7.04 7.04	7.04	6.05	106.9 106.8	106.9	1.06	1.05		3.1 2.4	2.8	
31/5/2023	9:36:16		Middle	9.6	25.3	35.3	35.3	5.67	5.66	6.35	84.4	84.1	1.55	1.60	1.66	1.8	1.8	2.2
		/ Fine	Do#a	10.0	05.0	35.3 35.5	05.5	5.64 5.37	F 00	F 00	83.8 79.7	70.5	1.64 2.29	0.04		1.8	0.0	1
			Bottom	19.2	25.2	35.5	35.5	5.34	5.36	5.36	79.3	79.5	2.38	2.34		1.6	2.0	



Monitoring	Station :	TKO-M5													-	15-1E510	CONSULT	LIMITED
		Ambient Temp			Temp	Salinit	ty (ppt)	Dissolv	ed Oxygen	(mg/L)	Dissolve Satural	d Oxygen	Τι	urbidity (NT	Ū)	Suspe	nded Solids	(mg/L)
Date	Time	(°C) / Weather Condition	Monitoring I	Depth (m)	(°C)	Value	Average	Value	Average	Depth- average	Value	Average	Value	Average	Depth-	Value	Average	Depth-
			Surface	1.0	23.9	35.4	35.4	6.87	6.87	average	99.8	99.8	1.45	1.45	average	2.9	3.6	average
		25	Surface	1.0	23.9	35.4	33.4	6.87	0.07	6.81	99.8	99.0	1.45	1.40		4.3	3.0	
2/5/2023	9:44:28		Middle	4.2	23.8	35.4 35.4	35.4	6.75	6.74		97.9 97.6	97.7	1.46	1.47	1.49	2.9 4.5	3.7	3.7
		/ Fine	Bottom	8.4	23.8	35.4	35.4	6.60	6.60	6.60	95.7	95.6	1.55	1.54		3.9	3.7	
			0.1			35.4 35.5	05.5	6.59 6.95			95.6 101.0	400.0	1.53 2.20	0.40		3.5		
		25	Surface	1.0	23.9	35.5	35.5	6.93	6.94	6.85	100.7	100.9	2.16	2.18		4.3	3.7	
4/5/2023	11:08:15		Middle	4.2	23.7	35.6 35.6	35.6	6.75 6.75	6.75		97.8 97.8	97.8	2.19	2.19	2.16	2.7 4.7	3.7	3.6
		/ Fine	Bottom	8.4	23.7	35.6	35.6	6.78	6.78	6.78	98.3	98.3	2.11	2.11		3.8	3.4	
						35.6 35.5		6.78 6.57			98.3 96.0		2.10 0.49			2.9		
		25	Surface	1.0	24.2	35.5	35.5	6.57	6.57	6.57	96.0	96.0	0.52	0.51		3.8	3.1	
6/5/2023	12:21:59		Middle	10.0	24.3	35.4 35.4	35.4	6.56 6.56	6.56		95.9 95.9	95.9	0.41	0.43	0.53	2.8 4.6	3.7	3.6
		/ Fine	Bottom	20.0	24.2	35.6	35.6	6.56	6.56	6.56	95.8	95.8	0.64	0.66		5.1	4.1	1
						35.6 35.0		6.56 6.06			95.8 88.5		0.67 1.04			3.0		
		25	Surface	1.0	24.4	35.0	35.0	6.06	6.06	6.07	88.5	88.5	1.07	1.06		2.5	3.0	
8/5/2023	13:54:16		Middle	7.1	24.3	35.2 35.3	35.3	6.07	6.08		88.7 88.8	88.8	1.36 1.36	1.36	1.31	2.8 5.3	4.1	3.2
		/ Fine	Bottom	14.2	24.2	35.4	35.4	6.14	6.14	6.14	89.6	89.7	1.51	1.51		2.0	2.5	
						35.4 35.3		6.14 6.53	••••	••••	89.7 95.0		1.51 0.80			3.0 2.5		
		25	Surface	1.0	24.1	35.3	35.3	6.53	6.53	6.53	95.0	95.0	0.81	0.81		2.7	2.6	
10/5/2023	15:21:19		Middle	7.6	24.1	35.3 35.3	35.3	6.52 6.52	6.52	0.00	95.0 95.0	95.0	0.82	0.82	0.83	3.3	3.3	3.0
		/ Fine	Bottom	15.1	24.1	35.3	35.3	6.51	6.51	6.51	94.8	94.8	0.85	0.86		3.1	3.1	
						35.3 35.4		6.51 6.55		0.01	94.8 95.4		0.87 0.56			3.1 2.9	0	
		25	Surface	1.0	24.1	35.4	35.4	6.54	6.55	6.54	95.3	95.4	0.56	0.56		1.7	2.3	
12/5/2023	16:22:32		Middle	7.5	24.1	35.5 35.5	35.5	6.53 6.53	6.53	0.01	95.2 95.2	95.2	0.53 0.50	0.52	0.69	4.1 5.3	4.7	3.5
		/ Fine	Bottom	15.0	24.0	35.5	35.5	6.52	6.52	6.52	95.0	95.0	0.98	0.99		2.9	3.5	
			Bottom	10.0	24.0	35.5 35.2	00.0	6.51 6.21	0.02	0.02	94.9 90.3	30.0	1.00 0.97	0.55		4.1 2.4	0.0	
		25	Surface	1.0	24.0	35.2	35.2	6.21	6.21	6.21	90.3	90.3	1.01	0.99		2.9	2.7	
15/5/2023	10:20:14		Middle	6.9	24.0	35.3 35.3	35.3	6.21	6.21	0.21	90.3	90.3	0.84	0.86	0.91	3.6	3.5	3.1
		/ Fine	Bottom	13.8	24.0	35.4	35.4	6.22	6.22	6.22	90.5	90.5	0.87	0.88		3.0	3.3	1
						35.4 35.1		6.22 5.99			90.5 87.6		0.88 1.58			3.6 2.2		
		25	Surface	1.0	24.3	35.1	35.1	5.99	5.99	6.02	87.5	87.6	1.59	1.59		1.7	2.0	
17/5/2023	9:56:09		Middle	7.2	24.3	35.3 35.3	35.3	6.04	6.05		88.2 88.5	88.4	1.82 1.78	1.80	1.74	1.5 2.7	2.1	2.8
		/ Fine	Bottom	14.4	24.3	35.3 35.3	35.3	6.13 6.13	6.13	6.13	89.5 89.6	89.6	1.85 1.81	1.83		3.7 4.7	4.2	
			Surface	1.0	25.0	34.6	34.7	6.12	6.11		90.1	89.9	0.89	0.89		1.0	1.0	
		26	Surface	1.0	25.0	34.7	34.7	6.09	0.11	6.05	89.6	69.9	0.88	0.09		1.0	1.0	
19/5/2023	11:54:20		Middle	7.3	24.7	35.0 35.0	35.0	5.98 6.01	6.00		87.8 88.2	88.0	0.83	0.82	1.15	1.0	1.0	1.0
		/ Fine	Bottom	14.5	24.5	35.3 35.3	35.3	6.13 6.20	6.17	6.17	89.9 91.0	90.5	1.75 1.76	1.76		1.0	1.0	
			Surface	1.0	25.5	34.5	34.5	6.74	6.74		100.0	100.0	0.33	0.32		1.0 1.6	1.0	
		26	Surface	1.0	25.5	34.5	34.5	6.73	0.74	6.69	100.0	100.0	0.30	0.32		1.0	1.3	
22/5/2023	13:54:19		Middle	6.9	25.4	34.7 34.7	34.7	6.67	6.65		98.9 98.2	98.6	0.39	0.40	0.39	1.9	1.8	1.5
		/ Fine	Bottom	13.9	25.2	34.8 34.8	34.8	6.50 6.47	6.49	6.49	96.2 95.7	96.0	0.44	0.46		1.3	1.4	
			Surface	1.0	25.6	34.4	34.4	7.25	7.26		107.9	107.9	0.08	0.07		1.4	1.7	
		27	Carrace	1.0	20.0	34.4 34.4	04.4	7.26 7.25	7.20	7.25	107.9 107.9	107.5	0.06	0.07		1.9	1,	
24/5/2023	14:24:10		Middle	7.0	25.6	34.4	34.4	7.25	7.25		107.8	107.9	0.04	0.04	0.13	1.4	1.2	1.5
		/ Fine	Bottom	14.0	25.6	34.5 34.5	34.5	7.16 7.13	7.15	7.15	106.4 105.9	106.2	0.25 0.28	0.27		1.9	1.6	
			Surface	1.0	26.0	34.1	34.1	6.65	6.66		99.4	99.5	1.02	1.03		3.2	3.9	
		27				34.1 34.2		6.66 6.61		6.57	99.5 98.7		1.03 0.16			4.6 1.3		
27/5/2023	16:01:10		Middle	7.4	25.9	34.3	34.2	6.37	6.49		95.0	96.9	0.15	0.16	0.58	2.8	2.1	2.5
		/ Fine	Bottom	14.8	25.6	34.6 34.7	34.7	6.05	6.04	6.04	90.0 89.7	89.9	0.54 0.56	0.55		1.4	1.5	
			Surface	1.0	26.5	33.5	33.5	8.07	8.10		121.2	121.7	0.93	0.94		4.9	4.9	
00/5/0	0.00	27				33.5 34.1		8.13 7.15		7.62	122.3 107.2		0.94 1.06			4.8 1.1		1
29/5/2023	9:22:33	/5:-	Middle	7.2	26.2	34.1	34.1	7.12	7.14		106.7	106.9	1.09	1.08	1.35	1.6	1.4	2.8
		/ Fine	Bottom	14.5	25.4	35.1 35.1	35.1	6.19	6.19	6.19	92.1 91.9	92.0	2.02	2.04		2.4	2.3	
		27	Surface	1.0	26.9	33.7	33.6	6.64	6.67		100.5	100.9	0.85	0.85		2.3	2.0	
31/5/2023	9:54:27		Middle	7.3	25.3	33.6 35.2	35.2	6.69 5.72	5.67	6.17	101.2 85.0	84.3	0.84 1.38	1.40	1.44	1.7 2.6	2.5	2.4
01/0/2020	0.04.21	/ Fine	Middle			35.3 35.4	55.2	5.62 5.42			83.6 80.5		1.41 2.06		1	2.3 3.2		∠.→
		/ T IIIG	Bottom	14.5	25.2	35.4	35.4	5.42	5.40	5.40	79.7	80.1	2.06	2.07		2.0	2.6	

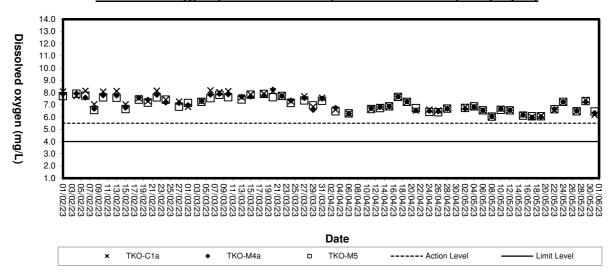


Appendix D5

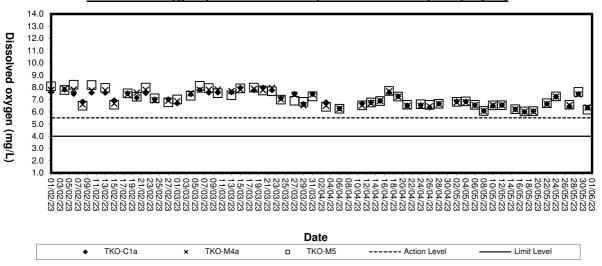
Graphical Plots of Impact Marine Water Quality Monitoring Data (3RS Project)



Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide (3RS project)

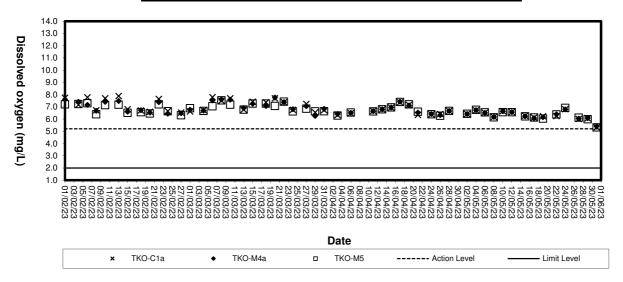


Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide (3RS project)

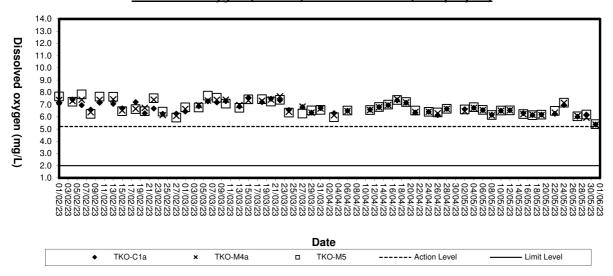




Dissolved Oxygen (Bottom) at Mid-Flood Tide (3RS project)

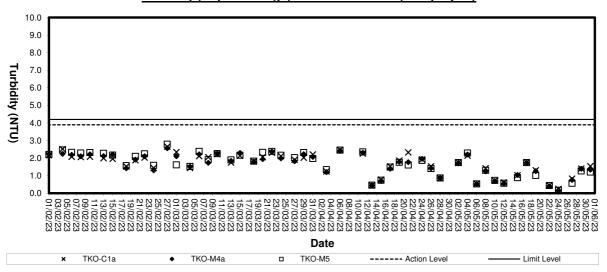


Dissolved Oxygen (Bottom) at Mid-Ebb Tide (3RS project)

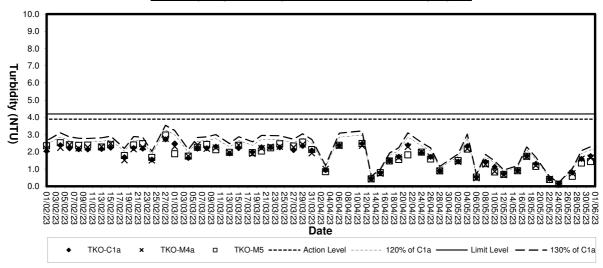




Turbidity (Depth-average) at Mid-Flood Tide (3RS project)

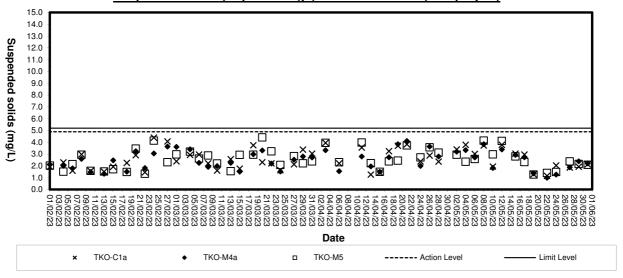


Turbidity(Depth-average) at Mid-Ebb Tide (3RS project)

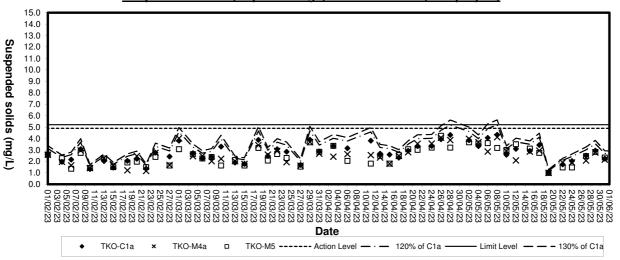




Suspended solids (Depth-average) at Mid-Flood Tide (3RS project)



Suspended Solids (Depth-average) at Mid-Ebb Tide (3RS project)





Appendix E

Weather Condition

Daily Extract of Meteorological Observations , May 2023 - Tseung Kwan O

	Mean				Mean	Mean	Total	Prevailing	Mean
	Pressure	Ai	r Temperatu	ıre	Dew	Relative	Rainfall	Wind	Wind
	(hPa)				Point	Humidity	(mm)	Direction	Speed
Day	(III a)		3.5				(IIIII)		
		Absolute	Mean	Absolute	(deg. C)	(%)		(degrees)	(km/h)
		Daily	(deg.C)	Daily					
		Max		Min					
		(deg. C)		(deg. C)					
1	1014.2	26.1	24.1	23	19.9	78	0.3	90	31.8
2	1015.2	26.9	24.1	22.7	19.1	74	-	70	28.9
3	1013.4	29.1	25.4	23.6	22.5	84	0.1	70	16.3
4	1008.8	31	27	25.4	23.9	84	-	110	14.8
5	1005.8	30.2	27.5	25.5	23.7	80	-	140	11.5
6	1004.4	29.7	28.2	26.9	24.8	82	-	170	16.8
7	1006	30.3	26.6	23.4	24	86	35.5	170	11.5
8	1011	24.8	23.2	21.9	21.1	88	39.2	10	27.4
9	1013.2	26.5	23.8	22.3	19.7	78	0.1	80	41.2
10	1013.7	25.3	23.9	23	18.1	70	-	80	36.1
11	1014.7	25.8	23.9	22.2	19.2	76	0.5	70	28.6
12	1014.8	25.7	24.4	23.8	20	77	Trace	50	20.3
13	1013.8	25.3	23.5	22.3	20.8	85	9.5	20	9
14	1011.6	23.1	21.3	20.2	20.2	93	39.9	20	18.6
15	1010.4	27.1	24.3	21.9	21.4	84	0.1	70	11.6
16	1009.6	27.3	25.2	23.1	22.9	87	0.4	110	7.1
17	1007.9	28.9	26.9	23.7	24.9	89	32.7	200	17.5
18	1006.9	31.4	28.9	27.5	25.7	83	-	230	18.2
19	1007.7	31.3	29.1	27.4	25.6	82	-	140	6.7
20	1008.5	32.7	29.7	28	25.9	80	Trace	140	14.2
21	1009	32.2	29.7	28	25.6	79	1.5	200	22
22	1008.1	33	30	28.1	25.2	76	-	230	22.5
23	1009.1	29.2	26.9	24.4	24.7	88	8.3	80	29.2
24	1010.5	28.2	24.9	23.3	22.7	88	14.5	80	33.4
25	1012	26.9	26.1	24.9	24	89	Trace	80	26.6
26	1011.9	30.9	27.8	26.4	25.3	87	0.2	80	19.9
27	1010.4	32.3	28.8	26.7	25.1	81	-	80	19.1
28	1009.8	32.5	28.7	27	23.7	75	Trace	90	13.9
29	1008	32.3	28.9	26.3	23.5	73	-	270	15.5
30	1004	34.6	31.2	28	25.9	74	-	270	15.3
31	1002.1	34.7	31.4	29.6	26.8	77	Trace	100	9.7

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



Appendix F

Event-Action Plans

		٠٠,٠٠٠	_			T	
	Contractor		Rectify any imaggentable		actions to IC(E) within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate		1. Take Immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate.
	-	-	-	-		-	
ITY EXCEEDANCE	QU		A STATE OF THE PROPERTY OF	. Notiny Contractor	1. Confirm receipt of notinication of failure in writing 2. Notify the Contractor 3. Ensure remedial measures property implemented		Confirm receipt of notification of faiture in writing Notify the Contractor Ensure remedial measures properly implemented
UAL	ŀ	\dashv		.	H 90		E E
EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE	ACTION	IQ(E)	ACTION LEVEL	Check monitoring data submitted by the El	Check monitoring data submitted by the ET Leader Check the Contractor's working method Discuss with ET and Contractor on possible remedial measures Advise the ER on the effectiveness of the proposed remedial measures Supervise implementation of remedial measures	LIMIT LEVEL	Check monitoring data submitted by the ET Leader Check Contractor's working method Discuss with ET and Contractor on possible remedial measures Advise the ER on the effectiveness of the proposed remedial measures Supervise implementation of remedial measures
盃	ļ	\Box		- ' ' ' '	+ 52 % 4 · R.	'	— . બાબ, 4, π ે
		ET Leader		Identify source, investigate the causes of exceedance and propose remedial measures. Inform ER, IC(E) and Contractor. Repeat measurement to confirm finding. Increase monitoring frequency to daily	1. Identify source, investigate the causes of exceedance and propose remedial measures. 2. Inform IC(E) and Contractor. 3. Repeat measurements to confirm finding. 4. Increase monitoring frequency to daily increase with IC(E) and Contractor on remedial actions. 6. If exceedance continues, arrange meeting with IC(E) and ER. 7. If exceedance stops, cease additional monitoring.		1. Identify source, investigate the causes of exceedance and propose remedial measures. 2. Inform ER, Contractor and EPD 3. Repeat measurement to confirm finding. 4. Increase monitoring frequency to daily horease the effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results.
-				+ 9.0, 4		-	
EVENT				1. Exceedance for one sample	2. Exceedance for two or more consecutive samples		1. Exceedance for one sample
			<u>1</u>	<u> </u>	<u> </u>	_	<u> </u>

EVENT		EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE	ALITY EXCEEDANCE	
		ACTION		
	ET Leader	(C(E)	ER	Contractor
2. Exceedance	1. Identify source, investigate the causes	s 1. Discuss amongst ER, ET and Contractor on	1. Confirm receipt of notification	 Take Immediate action to
for two or	of exceedance and propose remedial		of fallure in writing	avoid further exceedances
толе	measures	2. Review Contractor's remedial actions	2. Notify Contractor	2. Submit proposals for remedial
consecutive	2. Notify IC(E), ER, EPD and Contractor		3. In consultation with the IC(E),	actions to IC(E) within 3
selumes	3. Repeat measurement to confirm	effectiveness and advise the ER accordingly	agree with the Contractor on	working days of notification
	finding	3. Supervise the implementation of remedial	the remedial measures to be	Implement the agreed
	4. Increase monitoring frequency to daily		implemented	proposals
 .	_		4. Ensure remedial measures	 Resubmit proposals if
	5		are property implemented	problem still not under control
	possible mitigation to be implemented		5. If exceedances continues,	Stop the relevant activity of
	6. Arrange meeting with IC(E) and ER to		consider what portion of the	works as determined by the
	_		work is responsible and	ER until the exceedance is
	taken		instruct the Contractor to stop	abated
	7. Assess effectiveness of Contractor's		that portion of work until the	•
	remedial actions and keep IC(E), EPD	· ·	exceedance is abated	
· .	and ER informed of the results			
•	8. If exceedance stops, cease additional			
	monitoring			

	_			EVENT/ACTION PLAN FOR NOISE EXCEEDANCE	N N	OISE EXCEEDANCE			
EVENT				ACTION	Z				
		ET Leader		IC(E)		ER		Contractor	~
Action Level	<u>+,4,6,</u>	Notify the Carry ou Report the Report the IC(E) Discuss formulate Increase check mi	÷ 2 €	Review the analysed results submitted by the ET. Review the proposed remedial measures by the Contractor and advise the ER accordingly. Supervise the implementation of remedial measures.	ન બલ 4	Confirm receipt of notification of failure in writing. Notify the Contractor. Require the Contractor to propose remedial measures for the analysed noise problem. Ensure remedial measures are properly implemented.	- 5	Submit noise mitigation proposals to IC(E). Implement noise mitigation proposals.	
Limit	<u> -</u>	Notify the IC(E), the ER, the EPD	~ -	Discuss amongst the ER, the ET	-	Confirm receipt of notification of	÷	Take immediate action to avoid	
Leve	•	and the Contractor.		Leader and the Contractor on the notential remedial actions.	~	Notify the Contractor.	2	Submit proposals for remedial	_
	4 0		٠	Review the Contractor's remedial	ď	Require the Contractor to propose	İ	actions to IC(E) within 3	
·	<u>.</u>		į	soften alternative possessor to	;	remodel mesetres for the		working days of notification	
·						confederation and the	ŗ	Implement the person	
	4.			assure meir ellectiveness and	•	analysed Hoise problem.	i	implement are agreed	
	က်		٠	advise the ER accordingly.	4.	Ensure remedial measures are	_	proposals. Desirbmit proposals if problem	
	-	working procedures to determine	<u>ئ</u>		ц	property implementations programmed.	j.	etill not under control	
ر مارستان		possible mitigation to be		remedial measures.	.i	is exceptances continue, consider what activity of the work is	ur.	Stop the relevant activity of	
	C	_ :				mesocoolide and instruct the	Š	works as determined by the FR	
	٥	EDO the course P extens taken for				Contractor to stop that activity of		until the exceedances is	
*****		the purpodentials and lot				work until the exceedances is		ahaled	_
···	۸.	Assess effectiveness of				abated.			
	:	Contractor's remedial actions and							
		keep the IC(E), the EPD and the			<u>.</u>			-	
		ER informed of the results							
	ω	If exceedance due to the			···				-
		construction works stops, cease							
		additional monitoring			_[7

Event		EVEN	TA	EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE	ATI	ER QUALITY EXCEEDANC	Щ	
				ACTION	z			
		ET Leader		Contractor		ER		EC
Action level	-	Identify source(s) of impact:	-	Notify the ER and IEC in writing	1,	Notify EPD and other relevant	 :	Check monitoring data
heing exceeded	~	Repeat in-situ measurement to		within 24 hours of identification of		governmental agencies in writing		submitted by ET
hy one	i	confirm findings:		exceedance	_	within 24 hours of the	2.	Confirm ET assessment if
sampling day	۲.		2	Rectify unacceptable practice;		identification of the exceedance		exceedance is due / not due
for Rundings	5		e,	Check all plant and equipment;	7	Discuss with IEC, ET and		to the works
		exceedance	4	Submit investigation report to IEC		Contractor on the proposed	က်	Discuss with ET, ER and
	4			and ER within 3 working days of		mitigation measures;		Contractor on the mitigation
	:			the identification of an	د .	Require contractor to propose		measures
		working methods:		exceedance		remedial measures for the	4	Review contractor's
	LC.		ហ៍	Consider changes of working		analysed problem if related to the		mitigation measures
	œ			method if exceedance is due to		construction works		whenever necessary to
	<u> </u>	_		the construction works	4	Ensure remedial measures are		ensure their effectiveness
		days of identification of	မှ	Discuss with ET, IEC and ER and		property implemented		and advise the ER
		exceedance and advise			က်	Assess the effectiveness of the		
		contractor if exceedance is due to		IEC and ER if exceedance is due		mitigation measure	ശ്	
		contractor's construction works		to the construction works within 4				implementation of mitigation
	۲.			working days of identification of	_			measures ·
دو		Contractor if exceedance is due	_	an exceedance				
		to the construction works within 4	۲.	Implement the agreed mitigation				
		working days		measures within reasonable time				
	ထ	Repeat measurement on next day		scale				
		of exceedance if exceedance is					_	
		due to the construction works	_		_			

Event			Ш	EVENT AND ACTION PLAN FOR WATER QUALITY	6	R WATER QUALITY		
				ACTION	×			
		ET Leader		Contractor		ER		SEC
Action level	÷	Identify source(s) of impact;	1.	Notify IEC and ER in writing	÷	Notify EPD and other relevant	- -	Check monitoring data
being	٦i	Repeat in-situ measurement		within 24 hours of		governmental agencies in		
exceeded by		to confirm findings		identification of exceedance		writing within 24 hours of the	તં	-
more than one	က်	Notify Contractor in writing	2	Rectify unacceptable practice;		identification of the		if exceedance is due /
consecutive		within 24 hours of	က	Check all plant and		exceedance		not due to the works
sampling days		identification		equipment;	7	Discuss with IEC, ET and	<i>ω</i>	
	4.	Check monitoring data, all	4	Consider changes of working		Contractor on the proposed		Contractor on the
		plant, equipment and		methods;		mitigation measures;		mitigation measures.
		Contractor's working methods;	က်	Submit the results of the	က	Require contractor to propose	4	Review contractor's
	ĸ	Carry out investigation		investigation to IEC and ER		remedial measures for the	_	mitigation measures
	6	Report the results of		within 3 working days of the		analysed problem if related to		whenever necessary to
		investigation to the Contractor		Identification of an		the construction works		ensure their
		within 3 working days of		exceedance	4.	Ensure remedial measures		effectiveness and advise
		identification of exceedance	9	Discuss with ET, IEC and ER		are properly implemented		
		and advise contractor if		and propose mitigation	က်	Assess the effectiveness of	က်	
		exceedance is due to		measures to IEC and ER		the mitigation measure		of the implemented
		contractor's construction		within 4 working days of				mitigation measures.
		works		identification of an				
<u> </u>	۲.	Discuss mitigation measures		exceedance				
		with IEC and Contractor within	۲.	Implement the agreed				
		4 working of identification of		mitigation measures within				
••••		an exceedance		reasonable time scale				
-	တ်	Ensure mitigation measures						
		are implemented;						
··	တ်	Prepare to increase the						
		monitoring frequency to daily;						
	<u>ö</u>							
	_	day of exceedance.	_		_			

Event		EVENT AND	±		'ATE	ACTION PLAN FOR WATER QUALITY EXCEEDANCE	щ		
	_			ACTION	Z				T
···		ET Leader	_	Contractor		ER		IEC	T
Limit level	-	Repeat in-situ measurement	<u> -</u>	Notify IEC and ER in writing;	<u></u>	Notify EPD and other relevant	↩	Check monitoring data	
heind		to confirm findings:		within 24 hours of the		governmental agencies in		submitted by ET	
exceeded by	7	_		identification of the	_	writing within 24 hours of	2	Confirm ET assessment	
one sampling	٣.			exceedance		identification of exceedance		if exceedance is due /	
Sunday Neb	<u> </u>	_	7		%	Discuss with IEC, ET and		not due to the works	
6		identification of the	က			Contractor on the proposed	က်	Discuss with ET, ER and	
		exceedance		equipment;		mitigation measures;		Contractor on the	
	4	_	4	Consider changes of working	က်	Request Contractor to critically		mitigation measures.	
		_		methods;		review the working methods;	4	Review proposals on	
		Contractor's working methods:	ις	-	4	Ensure remedial measures		mitigation measures	_
	ις	_		investigation to IEC and ER		are properly implemented		submitted by Contractor	
	<u> </u>	_		within 3 working days of the	က်	Assess the effectiveness of	_	and advise the ER	
	<u> </u>			identification of an		the implemented mitigation			
		within 3 working days of		exceedance		measures.	ശ്		,c
		identification of exceedance	ဖ်					of the implemented	
		and advise contractor if		and propose mitigation				mitigation measures	
		exceedance is due to		measures to IEC and ER					
		contractor's construction		within 4 working days of the					
. **		-		identification of an					
	۲.			exceedance			_		
		with IEC, ER and Contractor	<u>~</u>	Implement the agreed					
		within 4 working of		mitigation measures within					
		identification of an		reasonable time scale					
		exceedance							
	<u>∞</u>	. Ensure mitigation measures							
		are implemented;							
	ക്								
		frequency to daily until no							
	_	exceedance of Limit Level.			_[7

:

Event		EVEN	¥	EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE	'ATE	R QUALITY EXCEEDANCE	ш	
				ACTION	Ž			
-12		ET Leader		Contractor		ER		EC
Limit Level	F	Repeat in-situ measurement	<u> </u> -	Notify ER and IEC in writing	<u>-</u>	Notify EPD and other relevant	<u>-</u>	Check monitoring data
peind		to confirm findings;		within 24 hours of the		governmental agencies in	_	submitted by ET
exceeded by	2			Identification of the		writing within 24 hours of	ત્યં	Confirm ET assessment
more than one	က			exceedance and		identification of exceedance		if exceedance is due /
consecutive	_	within 24 hours of	Ŋ	Rectify unacceptable practice;	۲i	Discuss with IEC, ET and	_	not due to the works
sampling days		identification of the	က	Check all plant and		Contractor on the proposed	က်	Discuss with ER, ET and
		exceedance		equipment;		mitigation measures;		Confractor on the
	4	Check monitoring data, all	4	Consider changes of working	ઌ૽	Request Confractor to critically		mitigation measures.
_		plant, equipment and		methods;		review the working methods;	4	Review proposals on
	_	Contractor's working methods;	8	Submit the results of the	ဖ	Ensure remedial measures		mitigation measures
	<u>۔۔۔</u> پی	_		investigation to IEC and ER		are properly implemented		submitted by Contractor
	Ó			within 3 working days of the	4.	Assess the effectiveness of		and advise the ER
		investigation to the Contractor		identification of an		the implemented mitigation	١	accordingly.
		within 3 working days of		exceedance		measures;	က်	Assess the effectiveness
		identification of exceedance	က်	Discuss with ET, IEC and ER	က်	Consider and instruct, if		of the implemented
*****		and advise contractor if		and propose mitigation		necessary, the Contractor to		mitigation measures.
		exceedance is due to		measures to IEC and ER		slow down or to stop all or part		
		contractor's construction		within 4 working days;		of the marine work until no		
OK-1984		works	ဖ်	Implement the agreed		exceedance of Limit Level.		
	۲.	Discuss mitigation measures		mitigation measures within				
		with IEC, ER and Contractor;		reasonable time scale				
-	ထ		~	As directed by the Engineer,				
		are implemented;		to slow down or to stop all or				
	တ်			part of the marine work or				
		frequency to daily until no		construction actives.				
		exceedance of Limit Level for						
		two consecutive days.	_[_			



Appendix G

Works Programme

Contract date, (assumed) Starting Date of Starting Date of Starting Date of Starting Date of Starting Date of Completion Date Completion Date Completion Date Completion Date Planned compet Recess Date of Portion A2, A3a (within 60 days a dayance notice and a are arilier date days' advance notice and a are arilier date of a section 1 of the Bank 24 Portion A1, A7b notified by the Partion B6c (or a Manager with 30 are and a section 1 of the Bank 25 Section 1 of the Bank 26 Taking over the Site and Coperation and the Tseung Kwans and Coperation and Tseung Kwans and Coperation and Chai Wan	e of Section 1 of the Works e of Section 2 of the Works e of Section 3 of the Works mpletion of the Works Date of Section 1 of the Works Date of Section 2 of the Works Date of Section 3 of the Works mpletion dates mpetion date of Section 1 mpetion date of Section 2 mpetion date of Section 3	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sat 1/1/22	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22	Mon 20/12/21 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sun 31/12/2 Sun 31/12/2	Mon 20/12/21 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22	0 days 0 days 0 days 0 days		74	lays 2 days 9 days	NA I	NA NA	0%	20 2	/ 3 10 17 24 /4/23	1 8 15 22	2 29 5 12 19 26 3
Contract date, (assumed) Starting Date of Starting Date of Starting Date of Starting Date of Date for Completion Date Completion Date Completion Date Completion Date Completion Date Planned compet Planned compet Planned compet Planned compet Starting Date of Planned compet Completion Date Planned compet Recess Date of Portion A2, A3a (within 60 days a dayance notice a dayance	te of the Works e of Section 1 of the Works e of Section 2 of the Works e of Section 3 of the Works mpletion of the Works Date of Section 1 of the Works Date of Section 2 of the Works Date of Section 3 of the Works Date of Section 3 of the Works mpletion dates mpetion date of Section 1 mpetion date of Section 2 mpetion date of Section 3 e of the Site A3a, A3b, A3c, A4, A5a, A5b, A7c2, A10 mays after starting date) B3a, B6a, B6b and B7 (within 60 days after A7a, A7b, A7c1, A9, A9a and B6c (7 days	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sat 1/1/22	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	20/12/21 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sun 31/12/2 Sun 31/12/2 Sun 31/12/2	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 3 Sun 31/12/23	0 days 0 days 0 days 0 days		74	2 days		NA	0%				
Starting Date of Starting Date of Starting Date of Starting Date of Starting Date of The star	e of Section 1 of the Works e of Section 2 of the Works e of Section 3 of the Works mpletion of the Works Date of Section 1 of the Works Date of Section 2 of the Works Date of Section 3 of the Works mpletion dates mpetion date of Section 1 mpetion date of Section 2 mpetion date of Section 3 e of the Site A3a, A3b, A3c, A4, A5a, A5b, A7c2, A1c mays after starting date) B3a, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 days	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sun 31/12/23 Sun 31/12/23	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22	0 days 0 days 0 days			9 days			1				
Starting Date of Starting Date of Starting Date of Date for Complete Starting Date of Date for Complete Starting Date of Completion Date Completion Date Completion Date Date for Complete Starting Date of Date for Complete Starting Date of Date for Complete Starting Date of Date for Complete Starting Date of Date for Complete Starting Date of Date of Completion Date Starting Date of Date of Completion Date Starting Date of Date of Completion Date Starting Date of Date of Completion Date Starting Date of Date of Completion Date Starting Date of Date of Completion Date Section A2, A3a (within 60 days a day and an earlier date of days advance notice and a	e of Section 1 of the Works e of Section 2 of the Works e of Section 3 of the Works mpletion of the Works Date of Section 1 of the Works Date of Section 2 of the Works Date of Section 3 of the Works mpletion dates mpetion date of Section 1 mpetion date of Section 2 mpetion date of Section 3 e of the Site A3a, A3b, A3c, A4, A5a, A5b, A7c2, A1c mays after starting date) B3a, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 days	Sat 1/1/22 Sat 1/1/22 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sun 31/12/2 Sun 31/12/2 Sun 31/12/2	Sat 1/1/22 Sat 1/1/22 Sat 1/1/22 Sat 1/1/22	0 days 0 days 0 days			,	NA I	NA	0%				
Starting Date of Starting Date of Date for Complete Starting Date of Date for Complete Starting Date of Date for Complete Starting Date of Date for Complete Starting Date of Completion Date Completion Date Completion Date Date Description Date	e of Section 2 of the Works e of Section 3 of the Works mpletion of the Works Date of Section 1 of the Works Date of Section 2 of the Works Date of Section 3 of the Works Date of Section 3 of the Works mpletion dates mpetion date of Section 1 mpetion date of Section 2 mpetion date of Section 3 e of the Site A3a, A3b, A3c, A4, A5a, A5b, A7c2, A10 mys after starting date) B3a, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 days	Sat 1/1/22 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	Sat 1/1/22 3 Sun 31/12/23 5 Sun 31/12/23 5 Sun 31/12/23 5 Sun 31/12/23 5 Sun 31/12/23	Sat 1/1/22 Sun 31/12/23 Sun 31/12/23	Sat 1/1/22 3 Sun 31/12/23	0 days 0 days			lays		NA	0%				
Starting Date of Date for Complete Completion Date Completion Date Completion Date Completion Date Completion Date Planned complet Planned compet Planned compet Recess Date of Portion A2, A3a (within 60 days a dayance notice a dayanc	e of Section 3 of the Works mpletion of the Works Date of Section 1 of the Works Date of Section 2 of the Works Date of Section 3 of the Works mpletion dates mpetion date of Section 1 mpetion date of Section 2 mpetion date of Section 3 e of the Site A3a, A3b, A3c, A4, A5a, A5b, A7c2, A1c mays after starting date) B3a, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 days	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	3 Sun 31/12/23				lays	NA I	NA	0%				
7 Date for Completion Date 9 Completion Date 10 Completion Date 11 Planned complet 12 Planned compet 13 Planned compet 14 Planned compet 15 Access Date of 16 Portion A2, A3a (within 60 days a 17 Portion B1, B3, date) 18 Portion B6c (7 days) 20 Hand back of the 21 Portion A2, A3a at an earlier date days' advance in 22 Portion A1, A7b notified by the P 23 Portion B6c (or a Manager with 30 days) 24 Portion B6c (or a Manager with 30 days) 25 Section 1 of the Bank 26 Taking over the Area 137 Fill 27 Operation on within Portion 28 Portion A of the Bank 30 Provision, operation and the Tseung Manager with 30 days and an and a fill 31 Operation and the Tseung Manager with 30 days and and and a fill 31 Operation and Tseung Kwais Steue. 32 Collection and Chai Wan and Chai	Date of Section 1 of the Works Date of Section 2 of the Works Date of Section 3 of the Works Impletion dates Impetion date of Section 1 Impetion date of Section 2 Impetion date of Section 3 Impetion date of Sec	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	Sun 31/12/23 Sun 31/12/23		0 4		0 0	lays	NA I	NA	0%				
8 Completion Date 9 Completion Date 10 Completion Date 11 Planned complet 12 Planned compet 13 Planned compet 14 Planned compet 15 Access Date of 16 Portion A2, A3a (within 60 days a date) 17 Portion B1, B3, date) 18 Portion A1. A7a advance notice a days' advance not 20 Hand back of the 21 Portion A2, A3a at an earlier date days' advance not 22 Portion A1, A7b notified by the P 23 Portion B6 (or a Manager with 30 25 Section 1 of the Bank 26 Taking over the Area 137 Fill 27 Operation an within Portion 28 Portion A of the Site 30 Provision, op Plant at the D Portion A of the Site 31 Operation an Tseung K Tseu	Date of Section 1 of the Works Date of Section 2 of the Works Date of Section 3 of the Works Impletion dates Impetion date of Section 1 Impetion date of Section 2 Impetion date of Section 3 Impetion date of Sec	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sat 1/1/22	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23	Sun 31/12/23	3 Sun 31/12/23	0 days		1 0	lay	NA I	NA	0%				
9	Date of Section 3 of the Works mpletion dates npetion date of Section 1 npetion date of Section 2 npetion date of Section 3 e of the Site A3a, A3b, A3c, A4, A5a, A5b, A7c2, A1c nys after starting date) B3a, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 days)	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sat 1/1/22	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23			0 days		0 0	lays	NA I	NA	0%				
11 Planned complet 12 Planned compet 13 Planned compet 14 Planned compet 15 Access Date of 16 Portion A2, A3a (within 60 days a date) 17 Portion B1, B3, date) 18 Portion B6c (7 d 20 Hand back of tl 21 Portion A2, A3a at an earlier date days' advance n 22 Portion A1, A7b notified by the P 23 Portion B6c (or a Manager with 30 25 Section 1 of the Bank 26 Taking over t Area 137 Fill 27 Operation an within Portion 28 Portion A Operation an the Tseung k the Site 30 Provision, op Plant at the D Portion A of the Site 31 Operation an Tseung K Tse	mpletion dates Inpetion date of Section 1 Inpetion date of Section 2 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 3 Inpetion date of Section 2 Inpetion date of Section 1 Inpetion date of Section 1 Inpetion date of Section 1 Inpetion date of Section 1 Inpetion date of Section 2 Inpetion date of Section 2 Inpetion date of Section 2 Inpetion date of Section 2 Inpetion date of Section 3 Inpet	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sat 1/1/22	Sun 31/12/23 Sun 31/12/23	Sun 31/12/23	3 Sun 31/12/23	0 days		0 0	lays	NA I	NA	0%				
Planned competed 13 Planned competed 14 Planned competed 15 Access Date of 16 Portion A2, A3a (within 60 days a date) Portion B1, B3, date) Portion B6c (7 days a day a day a day and a days a day and a da	npetion date of Section 1 npetion date of Section 2 npetion date of Section 3 e of the Site A3a, A3b, A3c, A4, A5a, A5b, A7c2, A10 nys after starting date) B3, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 days	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23 Sat 1/1/22	Sun 31/12/23		3 Sun 31/12/23	0 days		0 0	lays	NA I	NA	0%				
Planned competed 13 Planned competed 14 Planned competed 15 Access Date of 16 Portion A2, A3a (within 60 days a date) 17 Portion B1, B3, date) 18 Portion B1, B3, date) 19 Portion B6c (7 days a dayance notice	npetion date of Section 2 npetion date of Section 3 e of the Site A3a, A3b, A3c, A4, A5a, A5b, A7c2, A1c ays after starting date) B3, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 days	Sun 31/12/23 Sun 31/12/23 Sat 1/1/22		Sun 31/12/2	3 Sun 31/12/23	0 days		0 0	lays	NA I	NA	0%				
Planned competed Access Date of Portion A2, A3a (within 60 days a date) Portion B1, B3, date) Portion B6c (7 days advance notice advance no	npetion date of Section 3 e of the Site A3a, A3b, A3c, A4, A5a, A5b, A7c2, A1c ays after starting date) B33, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 days)	Sun 31/12/23 Sat 1/1/22	Sun 31/12/23	Sun 31/12/23	3 Sun 31/12/23	0 days		0 0	lays	NA I	NA	0%				
Planned competed Access Date of Portion A2, A3a (within 60 days a date) Portion B1, B3, date) Portion B6c (7 days advance notice advance no	e of the Site A3a, A3b, A3c, A4, A5a, A5b, A7c2, A10 ays after starting date) B3, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 day	Sat 1/1/22		Sun 31/12/23	3 Sun 31/12/23	0 days		0 0	lays	NA I	NA	0%				
Portion A2, A3a (within 60 days a late) Portion B1, B3, date) Portion B6c (7 days a advance notice and adv	A3a, A3b, A3c, A4, A5a, A5b, A7c2, A1d ays after starting date) 33, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 day		Sun 31/12/23	Sun 31/12/23	3 Sun 31/12/23	0 days		0 0	lays	NA I	NA	0%				
Portion A2, A3a (within 60 days a date) 17 Portion B1, B3, date) 18 Portion A1. A7a advance notice and adv	ays after starting date) 33, B6a, B6b and B7 (within 60 days aft A7a, A7b, A7c1, A9, A9a and B6c (7 day	A10 and A11 Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	0 days		72	9 days	NA I	NA	0%				
Portion A1. A7a advance notice at advance notice at advance notice at a protion B6c (7 d) Portion B6c (7 d) Portion A2, A3a at an earlier date days' advance in the protion B1, B3, notified by the Protion B6c (or a Manager with 30 d) Section 1 of the Bank Taking over a Area 137 Fill Poperation of within Portion B6c (or a Manager with 30 d) Poperation and within Portion B6c (or a Manager with 30 d) Poperation and within Portion B6c (or a Manager with 30 d) Poperation and within Portion B6c (or a Manager with 30 d) Poperation and within Portion B6c (or a Manager with 30 d) Operation and within Portion A of a site Site Operation and the Site B1 d) Operation and Tseung Kwan Site. Collection and Chai Wan	A7a, A7b, A7c1, A9, A9a and B6c (7 da		Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	0 days		0 0	lays	Sat 1/1/22	Sat 1/1/22	100%				
20 Hand back of the Portion A1, A7b notified by the Portion B6c (or a Manager with 30 Section 1 of the Bank 26 Taking over the Area 137 Fill 27 Operation of within Portion 29 Poperation and the Site 30 Provision, operation A of the Site 31 Operation and the Site 32 Collection and Chair Wan	A7a, A7b, A7c1, A9, A9a and B6c (7 dagice after starting date)	after starting Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	0 days		0 0	lays	Sat 1/1/22	Sat 1/1/22	100%				
Hand back of the Portion A2, A3a at an earlier date days' advance in Portion A1, A7b notified by the Portion B1, B3, notified by the Portion B6c (or a Manager with 30 Section 1 of the Bank Taking over the Area 137 Fill Operation of within Portion A of the Site Provision, op Plant at the Terror A of the Site Portion A of the Site Collection and Tseung Kwan Site. Collection and Chair Wan		day's Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	0 days		0 0	lays	Sat 1/1/22	Sat 1/1/22	100%				
Portion A2, A3a at an earlier date days' advance in notified by the P Portion B6c (or a Manager with 30 Section 1 of the Bank 26	(7 day's advance notice after starting day	g date) Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	0 days		0 0	lays	Sat 1/1/22	Sat 1/1/22	100%				
at an earlier date days' advance in 22 Portion A1, A7b notified by the P 23 Portion B6c (or a Manager with 30 Section 1 of the Bank 26 Section 1 of the Bank 27 Operation of within Portion 28 Operation an the Tseung Manager with 30 Operation and the Tseung Manager with 31 Operation and Tseung Manager with 31 Operation and Tseung Kwanger Steel			Sun 31/12/23	Sun 31/12/2	3 Sun 31/12/23	0 days		0 0	lays	NA I	NA	0%				
Portion B1, B3, notified by the P Portion B1, B3, notified by the P Portion B6c (or a Manager with 30 Portion 1 of the Bank Z6 Section 1 of the Bank Z7 Departion of within Portion Z8 Operation an within Portion Departion an the Tseung & the Site 30 Provision, op Plant at the Theorem A of the Site 31 Operation an Tseung Kwars Site. Collection an Chai Wan An Chai Wan An Ch	A3a, A3b, A3c, A4, A5a, A7c2, A10 and date notified by the Project Manager witce notice)	and A11 (or Sun 31/12/23 with 30	Sun 31/12/23	Sun 31/12/23	Sun 31/12/23	0 days		0 0	lays	NA I	NA	0%				
Portion B6c (or Manager with 30 Section 1 of the Bank 26 Taking over the Area 137 Fill 27 Operation of within Portion 28 Operation and within Portion 29 Operation and the Tseung Mathe Site 30 Provision, operation A of the Site 31 Operation and Tseung Kwan Slte. 32 Collection and Chai Wan and Chai	A7b, A7c1, A9 and A9a (or at an earlier ne Project Manager with 30 days' advanger	ier date as //ance notice) Sun 31/12/23	Sun 31/12/23	Sun 31/12/23	Sun 31/12/23	0 days		0 0	lays	NA I	NA	0%				
25 Section 1 of the Bank 26 Taking over the Area 137 Fill 27 Operation of within Portion 28 Operation and within Portion 29 Operation and the Tseung Matter Site 30 Provision, operation A of the Tseung Kward Site 31 Operation and Tseung Kward Site. 32 Collection and Chair Wan	33, B6a, B6b and B7 (or at an earlier da ne Project Manager with 30 days' advan		Sun 31/12/23	Sun 31/12/23	Sun 31/12/23	0 days		0 0	lays	NA I	NA	0%				
Bank 26	(or at an earlier date as notified by the F h 30 days' advance notice)			31/12/23	Sun 31/12/23			0 0	lays		NA	0%				
Area 137 Fill Operation of within Portion Operation an within Portion Operation an the Tseung & the Site Provision, op Plant at the Portion A of the Tseung Kwar Site. Operation an Tseung Kwar Site. Collection an Chai Wan an	f the Works - Tseung Kwan O Area 13	a 137 Fill Sat 1/1/22	Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days	4SS	0 0	lays	Sat 1/1/22	NA	47%				
within Portion 28	ver the existing facilities at the Tseung K Fill Bank within Portion A of the Site	ng Kwan O Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	Sat 1/1/22	1 day	4SS	0 0 0	lays	Sat 1/1/22	Sat 1/1/22	100%				
within Portion 29 Operation an the Tseung k the Site Provision, op Plant at the 1 Portion A of the Portion A of the Site. 30 Operation an Tseung Kwar Site. Collection an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wan an Chai Wa	n of the the Tseung Kwan O Area 137 F rtion A of the Site					730 days			lays	Sat 1/1/22		49%				
the Iseung R the Site Provision, op Plant at the I Portion A of the I Operation an Tseung Kwan Site. Collection an Chai Wan an	n and maintenance of the surveillance s rtion A of the Site	•				730 days			lays	Sat 1/1/22		49%				
Plant at the Territor A of the Portion A of the Portion A of the Portion And Tseung Kwar Site. 32 Collection and Chai Wan	n and maintenance of the existing tipping ng Kwan O Area 137 Fill Bank within Po	ping halls at Portion A of	Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days	26SS	0 0 0	lays	Sat 1/1/22	NA	49%				
31 Operation an Tseung Kwar Site. 32 Collection an Chai Wan an	, operation and maintenance of the Cru he Tseung Kwan O Area 137 Fill Bank v of the Site		Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days	26SS	0 0 0	lays	Sat 1/1/22	NA	49%				
32 Collection an Chai Wan an	n and maintenance of the dewatering pla	plant at the tion A of the	Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days	26SS	0 00	lays	Sat 1/1/22	NA	49%				
.or i iii Bailii	(wan O Area 137 Fill Bank within portion	s from the TKO Area	Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days	26SS	0 0 0	lays	Sat 1/1/22	NA	49%				
1	wan O Area 137 Fill Bank within portion and delivery of Public Fill by barges from and Mui Wo Barging Points to the TKC ank within Portion A of the Site	Task			Evitors al Taral	•				ration as to			-	eternal Tasles		
	(wan O Area 137 Fill Bank within portion n and delivery of Public Fill by barges fron n and Mui Wo Barging Points to the TKO	Task			External Tasks					uration-only				ternal Tasks	♦	
Project: 3 month rolling areas	(wan O Area 137 Fill Bank within portion n and delivery of Public Fill by barges fron n and Mui Wo Barging Points to the TKO				External Miles	stone	♦		M	anual Summa	ry Rollup		Ex	ternal Milestone		
Project: 3 month rolling programi Date: [30/12/2022]	Kwan O Area 137 Fill Bank within portion and delivery of Public Fill by barges from and Mui Wo Barging Points to the TKC tank within Portion A of the Site	Split	•		Inactive Miles	stone			Ma	anual Summa	ry	•	Pı	ogress		
-	(wan O Area 137 Fill Bank within portion n and delivery of Public Fill by barges fron n and Mui Wo Barging Points to the TKO		_		Inactive Sumr	mary			Sta	art-only			D	eadline	$\hat{\Gamma}$	
	Kwan O Area 137 Fill Bank within portion and delivery of Public Fill by barges from and Mui Wo Barging Points to the TKC tank within Portion A of the Site	Split Milestone			Manual Task	,				nish-only	-			ack	_	
	Kwan O Area 137 Fill Bank within portion and delivery of Public Fill by barges from and Mui Wo Barging Points to the TKC tank within Portion A of the Site	Split			iviaiiuai TaSK		~		LII	iisii-Oiliy			▼ 31	ack		

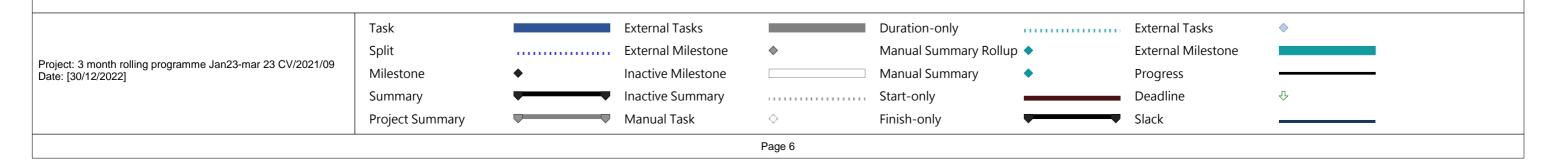
ID		Т	Fask Name			Baseline Finish	Start	Finish	Duration			Total Slack	Actual Start	Actual Finish	% Complete	ar '23	Apr '23	May '23	Jun '23 Ju
	0																	1 8 15 2	2 29 5 12 19 26 3 10
33	<u></u>		Construction of Gabion wall			NA		Sun 31/12/23	681 days			0 days	Sat 19/2/22		14%		1/4/23		30/6/23
34	~		Preparing and submitting a method statemen approval	nt for	Sat 19/2/22	Fri 4/3/22	Sat 19/2/22	Wed 2/3/22	12 days		2	0 days	Sat 19/2/22	Wed 2/3/22	100%				
35	V		Preparing and submitting the material submis	ssion	Sat 5/3/22	Fri 18/3/22	Sat 19/2/22	Wed 2/3/22	12 days		2	0 days	Sat 19/2/22	Wed 2/3/22	100%				
36	✓		Obtaining approval from the Project Manager	r :	Sat 19/3/22	Fri 1/4/22	Tue 26/4/22	Tue 26/4/22	1 day	35,34	2	0 days	Tue 26/4/22	Tue 26/4/22	100%				
37	蠘		Construction of Gabion wall	,	Sat 2/4/22	Sun 31/12/23	Mon 4/7/22	Sun 31/12/23	546 days		7	0 days	Mon 4/7/22	NA	10%				
38	✓		Re-surfacing of the access road at A11 TKOF	B I	NA	NA	Mon 21/3/22	Fri 22/4/22	33 days			0 days	Mon 21/3/22	Fri 22/4/22	100%				
39	~		Submission of method statement of re-surface access road		NA	NA	Mon 21/3/22	Fri 25/3/22	5 days		0	0 days	Mon 21/3/22	Fri 25/3/22	100%				
40	V		Obtaining approval from the Project Manager		NA	NA	Thu 7/4/22		•	39	2	0 days	Thu 7/4/22						
41	~	1	Milling off the existing pavement, overlaying r pavement on the access road	new I	NA	NA	Fri 15/4/22	Fri 22/4/22	8 days	40	1	0 days	Fri 15/4/22	Fri 22/4/22	100%				
42	/		PMI no.3 Trial Production of blanket layer ma recycled from public fill	aterial -	Tue 28/6/22	Wed 24/8/22	Tue 28/6/22	Wed 30/11/22	156 days			0 days	Tue 28/6/22	Wed 30/11/22	100%				
43	✓		Submission of method statement	•	Tue 28/6/22	Fri 29/7/22	Tue 28/6/22	Fri 29/7/22	32 days		1	0 days	Tue 28/6/22	Fri 29/7/22	100%				
44	✓		Obtaining approval from the Project Manager			Sat 20/8/22	Wed 17/8/22		1 day			0 days	Wed 17/8/22						
45	✓		Manufacturing and delivery of screening mach				Fri 22/7/22		21 days		2	0 days	Fri 22/7/22						
46	V		Trial Production of blanket layer material	I	Mon 22/8/22	Wed 24/8/22	Mon 17/10/22	Wed 30/11/22	45 days		1	0 days	Mon 17/10/22	Wed 30/11/22	100%				
47		T	PMI no.24 Implementation of C easy system a	at TKOFB	Mon 22/8/22	Tue 27/12/22	Tue 30/8/22	Mon 23/1/23	147 days			8 days	Tue 30/8/22	NA	70%				
48	V		Submission of method statement for approva	al I	Mon 22/8/22	Sun 28/8/22	Tue 30/8/22	Tue 30/8/22	1 day			0 days	Tue 30/8/22	Tue 30/8/22	100%				
49	✓		Obtaining approval from the Project Manager	r I	Mon 29/8/22	Sun 18/9/22	Wed 31/8/22	Wed 31/8/22	1 day	48	2	0 days	Wed 31/8/22	Wed 31/8/2	2 100%				
50	✓		Ordering and delivery of C easy system hards site	ware to	Mon 19/9/22	Wed 2/11/22	Thu 1/9/22	Thu 8/9/22	8 days	49	3	0 days	Thu 1/9/22	Thu 8/9/22	100%				
51	✓		Installation of the C Easy system		Thu 3/11/22	Wed 16/11/22	Fri 9/9/22	Tue 27/9/22	19 days	50	2	0 days	Fri 9/9/22	Tue 27/9/22	100%				
52	✓		Trail run of the system					Wed 30/11/22	,			0 days	Tue 22/11/22						
	瞾		Parallel run with the old system			Mon 26/12/22			53 days			8 days	Thu 1/12/22		50%				
54	<u> </u>		Operation with C easy system individually			Tue 27/12/22			,			8 days	NA	NA	0%				
55 56	=		Handing over the facilities at the Tseung Kwan C Fill Bank within Portion A of the Site to the Emplo Planned Completion Date (Section 1)	loyer		Sun 31/12/23 Sun 31/12/23	31/12/23	Sun 31/12/23	0 days	8SS		0 days 1 day	NA NA	NA NA	0%				
			Section 2 of the Works - Tuen Mun Area 38 Fill E						730 days			0 days		NA	51%				
58			Taking over the existing facilities at the Tuen Mu				Sat 1/1/22					0 days	Sat 1/1/22		100%				
	S		Fill Bank within Portion B of the Site Operation of the Tuen Mun Area 38 Fill Bank with			Sun 31/12/23			730 days			0 days	Sat 1/1/22		49%				
			B of the Site						,			-							
	1		Operation and maintenance of the surveillance s within Portion B of the Site	,				Sun 31/12/23	_			0 days	Sat 1/1/22		49%				
61	鷝		Operation and maintenance of the existing tippin the Tuen Mun Area 38 Fill Bank within Portion B		oat 1/1/22	oun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days	555	0	0 days	Sat 1/1/22	INA	49%				
62	噩		Operation and Maintenance of the Crushing Plar Tuen Mun Area 38 Fill Bank within Portion B of the		Sat 1/1/22	Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days	5SS	0	0 days	Sat 1/1/22	NA	49%				
63			Operation and maintemnance of glass cullet stor compartment at the Tuen Mun Area 38 Fill Bank Portion B of the Site		Sat 1/1/22	Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days	5SS	0	0 days	Sat 1/1/22	NA	49%				
64	✓		PMI no.05 Construction of vehicle washing he facilities	ouse \	Wed 6/4/22	Fri 2/9/22	Wed 6/4/22	Sun 2/10/22	180 days			0 days	Wed 6/4/22	Sun 2/10/22	2 100%				
65	~		Submission of method statement of vehicle vehicle vehicles	washing \	Wed 6/4/22	Wed 6/4/22	Wed 6/4/22	Wed 6/4/22	1 day		1	0 days	Wed 6/4/22	Wed 6/4/22	100%				
				Task				External Tasks	s				Duration-only				External Tasks	♦	,
				Split				External Miles	stone	\Diamond			Manual Summ	ary Rollun	•		External Milestone		
			rolling programme Jan23-mar 23 CV/2021/09	Mileston	10	A		Inactive Miles					Manual Summ		•		Progress		
Date: [3	50/12	72022	² I											ui y	•		· ·		_
				Summar	,			Inactive Sumr	mary				Start-only				Deadline	<₽	
				Project S	Summary			Manual Task		\Diamond			Finish-only				Slack		
			1							Page 2									

ID		Task Name	Baseline Start	Baseline Finish	Start	Finish	Duration	Predece		Total Slack	Actual Start	Actual Finish	% Complete							
	0								allowa				1	r '23	Apr '2		May '23	22 20	Jun '23	Jul
	<u>y</u>	Obtaning approval from the Project Manager	Mon 25/4/22	Mon 25/4/22	Mon 25/4/22	Mon 25/4/22	1 day	65	2	0 days	Mon 25/4/22	Mon 25/4/22		L3 20	1/4/23	17 24	1 8 15	<u> 22 29 </u>	5 12 19 26 30/6/23	57
67	V	Fabrication and delivery of the vehicle washin facilities materials on site			Fri 10/6/22		70 days			0 days		Thu 18/8/22								_
68	J	Installation of the vehicle washing house facil	ities Tue 9/8/22	Thu 1/9/22	Tue 13/9/22	Thu 29/9/22	17 days	67	2	0 days	Tue 13/9/22	Thu 29/9/22	100%							
69	/ =	Trial run of vehicle washing house facilities	Fri 2/9/22	Fri 2/9/22	Sun 2/10/22	Sun 2/10/22	1 day	68	0	0 days	Sun 2/10/22	Sun 2/10/22	100%							
70		PMI no.20 Implementation of C easy system a	at TMFB Mon 22/8/22	Tue 27/12/22	Wed 31/8/22	Mon 23/1/23	146 days			8 days	Wed 31/8/22	NA	68%							
71	J	Submission of method statement for approva	Mon 22/8/22	Sun 28/8/22	Wed 31/8/22	Wed 31/8/22	1 day		1	0 days	Wed 31/8/22	Wed 31/8/22	100%							
72	7	Obtaining approval from the Project Manager	Mon 29/8/22	Sun 18/9/22	Thu 1/9/22	Thu 1/9/22	1 day	71	2	0 days	Thu 1/9/22	Thu 1/9/22	100%							
73	V	Ordering and delivery of C easy system hards site	ware to Mon 19/9/22	Wed 2/11/22	Sat 17/9/22	Wed 21/9/22	5 days	72	3	0 days	Sat 17/9/22	Wed 21/9/22	100%							
74	✓	Installation of the C Easy system	Thu 3/11/22	Wed 16/11/22	Thu 22/9/22	Sun 9/10/22	18 days	73	2	0 days	Thu 22/9/22	Sun 9/10/22	100%							
75	V	Trail run of the system	Thu 17/11/22	Wed 30/11/22	Thu 24/11/22	Thu 1/12/22	8 days	74	2	0 days	Thu 24/11/22	Thu 1/12/22	100%							
76	5	Parallel run with the old system	Thu 1/12/22	Mon 26/12/22	Thu 1/12/22	Sun 22/1/23	53 days	75	2	8 days	Thu 1/12/22	NA	50%							
77		Operation with C easy system individually	Tue 27/12/22	Tue 27/12/22	Mon 23/1/23	Mon 23/1/23	1 day	76	0	8 days	NA	NA	0%							
78	III	Handing over the facilities at the Tuen Mun Area Bank within Portion B of the Site to the Employe		Sun 31/12/23	Sun 31/12/23	Sun 31/12/23	1 day	9SS	0	0 days	NA	NA	0%							
79		Planned Completion Date (Section 2)	Sun 31/12/23	Sun 31/12/23	Sun 31/12/23	Sun 31/12/23	0 days			0 days	NA	NA	0%							ļ
80		Section 3 of the Works - Designated Reclamation the Mainland								0 days	Tue 7/12/21	NA	6%							
81		Collection and delivery of 2 million tonnes of Fill by vessels from Tseung Kwan O Area 137 and the Tuen Mun Area 38 Fill Bank to the De Reclamation Sites in the Mainland	Fill Bank	Sun 31/12/23	Tue 7/12/21	Wed 20/12/23	744 days			11 days	Tue 7/12/21	NA	10%							
82	J	1st and 2nd quarter of first year	Mon 20/12/21	Thu 31/3/22	Tue 7/12/21	Tue 14/6/22	190 days			0 days	Tue 7/12/21	Tue 14/6/22	100%							
83	<u> </u>	Installing Front End Mobile Unit (FEMU) or	nto the Mon 20/12/21	Sun 26/12/21	Fri 20/5/22	Fri 20/5/22	1 day		2	0 days	Fri 20/5/22	Fri 20/5/22	100%							
84	V	proposed vessels Submitting application documents to EPD application of dumping permits	for Mon 20/12/21	Mon 20/12/21	Tue 28/12/21	Tue 28/12/21	1 day		0	0 days	Tue 28/12/21	Tue 28/12/21	100%							
85	7	Obtaining the dumping permit from EPD	Tue 21/12/21	Fri 31/12/21	Wed 25/5/22	Wed 25/5/22	1 day	84	2	0 days	Wed 25/5/22	Wed 25/5/22	100%							
86	V	Submitting Application documents to the E for the application of the dumping permit of the sea		Mon 20/12/21	Tue 7/12/21	Tue 7/12/21	1 day			0 days	Tue 7/12/21	Tue 7/12/21	100%							
87	V	Obtaining the dumping permits from Mini Ecology and environment of the People's lof China through the Employer	istry of Tue 21/12/21 Republic	Fri 31/12/21	Tue 26/4/22	Tue 26/4/22	1 day		14	0 days	Tue 26/4/22	Tue 26/4/22	100%							
88	V	Obtaining all necessary permits, licenses, and concents					1 day		14	0 days		Wed 25/5/22								
89	✓	Collection and delivery of 166666 tonnes of	of Public Fil Sat 1/1/22	Thu 31/3/22	Wed 25/5/22	Tue 14/6/22	21 days		10	0 days	Wed 25/5/22	Tue 14/6/22	100%							
90	V	3rd quarter of first year	Fri 20/5/22	Fri 30/9/22		Mon 13/6/22	168 days			0 days		Mon 13/6/22								
91	√	Submitting application documents to EPD application of dumping permits Obtaining the dumping permit from EPD	for Fri 17/6/22 Sat 18/6/22	Fri 17/6/22 Thu 30/6/22		Tue 28/12/21 Wed 25/5/22	1 day			0 days		Tue 28/12/21 Wed 25/5/22								
93		Submitting Application documents to the E		Fri 20/5/22	Fri 8/4/22		1 day			0 days		Fri 8/4/22								
94	·	for the application of the dumping permit of the sea Obtaining the dumping permits from Mini	of waste at stry of Sat 21/5/22	Thu 30/6/22			1 day	93		0 days		Tue 26/4/22								
		Ecology and environment of the People's lof China through the Employer Obtaining all necessary permits, licenses,	Republic	Thu 30/6/22	Wed 25/5/22	Wed 25/5/22	1 day		0	0 days	Wed 25/5/22	Wed 25/5/22	100%							
95	~	and concents	αρριοναίδ ΤΠ 17/0/22	111d 30/0/22	vveu 25/5/22	vveu 25/5/22	1 day		J	0 days	vveu 25/5/22	weu 25/5/22	10076							
96	✓	Collection and delivery of 499998 tonnes of	of Public Fil Fri 1/7/22	Fri 30/9/22	Mon 13/6/22	Mon 13/6/22	1 day	95,92,94	14	0 days	Mon 13/6/22	Mon 13/6/22	100%							
97	✓	4th quarter of first year	Sat 20/8/22	Sat 31/12/22	Fri 22/7/22	Fri 30/9/22	71 days			0 days	Fri 22/7/22	Fri 30/9/22	100%							
			Task			External Task	ις.				Duration-only				External Tasks	5	♦			
			Split			External Mile	stone	♦			Manual Summ	arv Rollun			External Miles	stone				
		h rolling programme Jan23-mar 23 CV/2021/09	•	A				•												
Date: [30)/12/20	122]	Milestone	_		Inactive Mile					Manual Summ	ary			Progress		_			
			Summary			Inactive Sum	mary				Start-only	•			Deadline		$\hat{\mathbb{T}}$			
			Project Summary			Manual Task		\Diamond			Finish-only	•			Slack					
		1						Page 3												

ID		Task Name	Baseline	Baseline	Start	Finish	Duratio	Predec		Total		Actual	%							
			Start	Finish						Slack	Start	Finish	Complet		I		I		l	. 1
	A								allowa					lar '23		Apr '23		y '23 15 22 3	Jun '23	
98	~	Submitting application documents to EPD application of dumping permits	for Sat 17/9/22	Sat 17/9/22	Fri 22/7/22	Thu 4/8/22	14 days		0	0 days	Fri 22/7/22	Thu 4/8/22	100%	13 20	1/4/23	10 17 24	4 1 8	15 22 2	29 5 12 1 	30/6/23
99	✓	Obtaining the dumping permit from EPD on 30/9/22)	(assumed Sun 18/9/22	Fri 30/9/22	Thu 1/9/22	Mon 5/9/22	5 days	98	2	0 days	Thu 1/9/22	Mon 5/9/22	100%							
100	~	Submiting Application documents to the E for the application of the dumping permit of the sea		Sat 20/8/22	Wed 10/8/22	2 Wed 10/8/22	1 day		0	0 days	Wed 10/8/22	Wed 10/8/22	2 100%							
101	V	Obtaining the dumping permits from Min Ecology and environment of the People's of China through the Employer (assumed	Republic	Fri 30/9/22	Mon 5/9/22	Mon 5/9/22	1 day	100	14	0 days	Mon 5/9/22	Mon 5/9/22	100%							
102	✓	Obtaining all necessary permits, licenses, and concents		Fri 30/9/22	Mon 5/9/22	Fri 30/9/22	1 day		2	0 days	Mon 5/9/22	Fri 30/9/22	100%							
103	✓	Collection and delivery of 333332 tonnes	of Public Fil Sat 1/10/22	Sat 31/12/22	Mon 5/9/22	Mon 19/9/22	15 days	96,102,1	14	0 days	Mon 5/9/22	Mon 19/9/22	100%							
104		1st quarter of second year	Sun 20/11/2	2 Fri 31/3/23	Sun 20/11/2	2 Fri 31/3/23	132 days			12 days	NA	NA	0%	-	_					
105	III	Submitting application documents to EPD application of dumping permits	for Sun 18/12/22	Sun 18/12/22	Sun 18/12/22	Sun 18/12/22	1 day		0	12 days	NA	NA	0%							
106		Obtaining the dumping permit from EPD on 31/12/22)			19/12/22	Sat 31/12/22		105	2	12 days	NA	NA	0%							
107		Submiting Application documents to the E for the application of the dumping permit of the sea		Sun 20/11/22	Sun 20/11/22	Sun 20/11/22	1 day		0	12 days	NA	NA	0%							
108		Obtaining the dumping permits from Min Ecology and environment of the People's of China through the Employer		2 Sat 31/12/22	Mon 21/11/22	Sat 31/12/22	41 days	107	14	12 days	NA	NA	0%							
109	=	Obtaining all necessary permits, licenses, and concents		Sat 31/12/22	18/12/22	Sat 31/12/22	14 days		2	12 days	NA	NA	0%							
110		Collection and delivery of 250000 tonnes	of Public F Sun 1/1/23	Fri 31/3/23	Sun 1/1/23	Fri 31/3/23	90 days	103,109	, 14	12 days	NA	NA	0%							
111		2nd quarter of second year	Sat 18/2/23	Fri 30/6/23	Sat 18/2/23	Fri 30/6/23	133 days			12 days	NA	NA	0%							
112		Submitting application documents to EPD application of dumping permits		Sat 18/3/23	Sat 18/3/23		1 day		0	12 days	NA	NA	0%	1						
113		Obtaining the dumping permit from EPD on 31/3/23)			Sun 19/3/23			112	2	12 days	NA	NA	0%							
114		Submiting Application documents to the E for the application of the dumping permit of the sea	of waste at		Sat 18/2/23	Sat 18/2/23	1 day		0	12 days	NA	NA	0%							
115		Obtaining the dumping permits from Min Ecology and environment of the People's of China through the Employer (assumed	Republic	Fri 31/3/23	Sun 19/2/23	Fri 31/3/23	41 days	114	14	12 days	NA	NA	0%							
116	=	Obtaining all necessary permits, licenses, and concents			Sat 18/3/23		14 days		2	12 days	NA	NA	0%							
117		Collection and delivery of 250000 tonnes		Fri 30/6/23		Fri 30/6/23	91 days			12 days	NA	NA	0%							
118		3rd quarter of second year	Sat 20/5/23	Sat 30/9/23	Sat 20/5/23		134 days	i		12 days		NA	0%							
119		Submitting application documents to EPD application of dumping permits		Sat 17/6/23	Sat 17/6/23		1 day	110		12 days	NA	NA	0%						\	
120		Obtaining the dumping permit from EPD on 30/6/23)	(assumed Sun 18/6/23	FII 30/6/23	Sun 18/6/23	FII 30/6/23	13 days	119	14	12 days	NA	NA	0%							
121		Submiting Application documents to the E for the application of the dumping permit the sea		Sat 20/5/23	Sat 20/5/23	Sat 20/5/23	1 day		0	12 days	NA	NA	0%							
122		Obtaining the dumping permits from Min Ecology and environment of the People's of China through the Employer (assumed	Republic	Fri 30/6/23	Sun 21/5/23	Fri 30/6/23	41 days	121	14	12 days	NA	NA	0%	-				<u> </u>		
123		Obtaining all necessary permits, licenses, and concents		Fri 30/6/23	Sat 17/6/23	Fri 30/6/23	14 days		2	12 days	NA	NA	0%	1						
124	-	Collection and delivery of 250000 tonnes	of Public F Sat 1/7/23	Sat 30/9/23	Sat 1/7/23	Sat 30/9/23	92 days	117,123,	, 14	12 days	NA	NA	0%	1						
125		4th quarter of second year	Sun 20/8/23	Sun 31/12/23	Sun 20/8/23	Wed 20/12/23	123 days			11 days	NA	NA	0%	1						
126	III	Submitting application documents to EPD application of dumping permits	for Sun 17/9/23	Sun 17/9/23	Sun 17/9/23	Sun 17/9/23	1 day		0	12 days	NA	NA	0%	-						
127		Obtaining the dumping permit from EPD on 30/9/23)	(assumed Mon 18/9/23	Sat 30/9/23	Mon 18/9/23	Sat 30/9/23	13 days	126	2	12 days	NA	NA	0%							
			Task			External Task	(S			D	uration-only				External	Tasks	♦			
			Split			External Mile		♦			anual Summ					Milestone				
Project: Date: [3		n rolling programme Jan23-mar 23 CV/2021/09 22]	Milestone	•		Inactive Mile					anual Summ		•		Progress				_	
Ĺ		-	Summary	_		Inactive Sum	marv				art-only	-			Deadline		Û			
			Project Summary	·		Manual Task	,	\Diamond			nish-only				Slack	-			_	
			· · · · · · · · · · · · · · · · · · ·								,									

ID		Task Name			Baseline Finish	Start	Finish	Duration		risk	Total Slack	Actual Start	Actual Finish	% Complete		1			
	A									allowa					ar '23 13 20	Apr '2 27 3 10		May '23	Jun '23 Ji 29 5 12 19 26 3 1
128	<u> </u>	Submiting Application documents to the E for the application of the dumping permit of the sea		un 20/8/23	Sun 20/8/23	Sun 20/8/23	Sun 20/8/23	1 day		0	12 days	NA	NA	0%	10 20	1/4/23		1 0 13 22	30/6/23
129		Obtaining the dumping permits from Min Ecology and environment of the People's of China through the Employer(assumed of	Republic	lon 21/8/23	Sat 30/9/23	Mon 21/8/23	Sat 30/9/23	41 days	128	14	12 days	NA	NA	0%					
130		Obtaining all necessary permits, licenses, and concents	approvals	un 17/9/23	Sat 30/9/23	Sun 17/9/23	Sat 30/9/23	14 days		0	12 days	NA	NA	0%					
131		Collection and delivery of 250000 tonnes	of Public F St	un 1/10/23	Sun 31/12/23	Mon 2/10/23	Wed 20/12/23	80 days	124,130,	14	11 days	NA	NA	0%					
132		Removal, excavation and deposition of stock and/or deposited Public Fill within the Design Reclamation Sites in the Mainland		at 1/1/22	Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days	6SS		0 days	NA	NA	0%					
133		Removal, excavation and deposition of stock and/or deposited public fill	piled Sa	at 1/1/22	Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days		14	0 days	NA	NA	0%					
134		Operation and maintenance of the existing nachannel and turning basins in association will existing berthing facilituy at Zone E of the De Reclamation Sites in the Mainland	ith the	at 1/1/22	Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days	6SS		0 days	Sat 1/1/22	NA	20%					
135	1	Operation and maintenance of the existing na channel and turning basins	avigation Sa	at 1/1/22	Sun 31/12/23	Sat 1/1/22	Sun 31/12/23	730 days		14	0 days	Sat 1/1/22	NA	20%					
136		Design, construction, operation and mainten the new navigation channel and turning basis association with the new berthing facility at 2 the Designated Reclamation Sites in the Main (subject to Project's Manager's instruction)	ns in Zone B of	at 12/12/09	Sat 12/12/09	Thu 16/6/22	Sun 31/12/23	564 days			0 days	NA	NA	0%					
137		Obtaining the dumping permits from Ministry Ecology and environment of the People's Rep China through the Employer for Zone A & B on 31/12/21)	public of	ri 31/12/21	Mon 31/1/22	Thu 16/6/22	Thu 16/6/22	1 day		0	2 days	NA	NA	0%					
138		Preparation of design submission				Fri 17/6/22		30 days			2 days	NA	NA	0%					
		Obtaining all necessary design approvals and					Mon 15/8/22	30 days			2 days	NA	NA	0%					
140		Construction of the new navigation channel a basins	and turning W	/ed 2/3/22	Fri 29/7/22	Tue 16/8/22	Thu 12/1/23	150 days	139	14	2 days	NA	NA	0%					
141		Obtaining the construction completion certific	cate Sa	at 30/7/22	Sun 28/8/22	Fri 13/1/23	Sat 11/2/23	30 days	140	7	2 days	NA	NA	0%					
142	-	Operation and maintenance of navigation ch turning basins	nannel and M	lon 29/8/22	Sun 31/12/23	Tue 14/2/23	Sun 31/12/23	321 days	141	14	0 days	NA	NA	0%					
143		Design, construction, operation and mainten new berthing facilities at Zone B of the Desig Reclamation Sites in the Mainland (subject to Manager's instruction)	nated	ri 31/12/21	Sun 31/12/23	Thu 16/6/22	Sun 31/12/23	564 days			0 days	NA	NA	0%					
144		Obtaining the dumping permits from Ministry Ecology and environment of the People's Rep China through the Employer for Zone A & B on 31/12/21)	public of	ri 31/12/21	Fri 31/12/21	Thu 16/6/22	Thu 16/6/22	1 day			0 days	NA	NA	0%					
145		Preparation of design submission	Sa	at 1/1/22	Sun 30/1/22	Fri 17/6/22	Sat 16/7/22	30 days	144	7	0 days	NA	NA	0%					
		Obtaining all necessary design approvals and					Mon 15/8/22	30 days			0 days	NA	NA	0%					
	III	Construction of the berthing facilities				Tue 16/8/22		180 days		14	0 days	NA	NA	0%					
148		Obtaining the construction completion certific					Mon 13/3/23	30 days		7	0 days	NA	NA	0%					
149		Operation and maintenance of new berthing to			Sun 31/12/23			293 days			0 days	NA	NA	0%					
150	***	Design and construction of seawalls (approx 200m) in association with new berthing facili B of the Designated Reclamation Sites in the	ty at Zone	ri 10/6/22	Sat 4/2/23	Sun 1/1/23	Fri 30/6/23	181 days			184 days	NA	NA	0%					
151		Obtaining the dumping permits from Ministry Ecology and environment of the People's Rep China through the Employer for Zone A & B		at 1/1/22	Sat 1/1/22	Sun 1/1/23	Sun 1/1/23	1 day		0	184 days	NA	NA	0%					
152		Preparation of design submission (PMI no18	S) Si	un 2/1/22	Mon 31/1/22	Mon 2/1/23	Tue 31/1/23	30 days	151	7	184 days	NA	NA	0%					
			Task				External Task	S			D	uration-only	,			External Tasks	5	♦	
			Split				External Miles		•			lanual Summ				External Miles			
Project: 3	3 montl	h rolling programme Jan23-mar 23 CV/2021/09	•		A				•					•			, corre		
Date: [30	0/12/20:	22]	Milestone		~		Inactive Miles					lanual Summ	ıdıy	▼		Progress		_	
			Summary	,			Inactive Sum	mary			S:	tart-only				Deadline		$\hat{\Phi}$	
			Project Su	ımmary			Manual Task		\Diamond		Fi	nish-only				Slack			
									Page 5										

ID		Task Name	Baseline Start	Baseline Finish	Start	Finish	Duration	Prede		Total Slack	Actual Start	Actual Finish	% Comple	:(
	0								allowa					lar '23	 27 3	Apr '23 10 17 2	24 1	May '23 8 15 22	 2 29 5	Jun '23	 26 3
53	III	Obtaining all necessary design approvals and concents	Tue 1/2/22	Wed 2/3/22	Wed 1/2/23	Thu 2/3/23	30 days	152	7	184 days	NA	NA	0%		1/4/23						0/6/23
.54	***	Construction of seawalls (subject to Project's Manager's instruction)	Thu 3/3/22	Tue 31/5/22	Fri 3/3/23	Wed 31/5/23	90 days	153	14	184 days	NA	NA	0%								
.55	-	Obtaining the construction completion certificate (subject to Project's Manager's instruction)	Wed 1/6/22	Thu 30/6/22	Thu 1/6/23	Fri 30/6/23	30 days	154	7	184 days	NA	NA	0%								
.56	***	Planned Completion Date (Section 3)	Sun 31/12/23	Sun 31/12/23	Sun 31/12/23	Sun 31/12/23	0 days			1 day	NA	NA	0%								





Appendix H

Weekly ET's Site Inspection Record



Inspection Date : 3 - 44 - 23

Time : (4:30)

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

Wind Calm / Light / Breeze / Strong

Temperature : > 7

Humidity : High / Moderate / Lov

Inspected by	CEDD	Contractor / Sub-Contactor	ET
Signature:	M	حات	A-w
Name:	H.L. Mole	KWOK WING LAM	Chan Hon lan
Title	120W/P3	E0	Technicion



Environmental Checklist			ation	Remark
Lital Office Ital		Stages No		
Fugitive Dust Emission				
Dust control / mitigation measures shall be provided to prevent dust nuisance.	V			
A buffer zone of at least 100m shall be maintained between the edge of the stockpiling area and the nearest ASRs at the TKO Industrial Estate. Within the buffer zone, no dusty material shall be stockpiled and no loading / unloading and similar activities should be allowed.	4			
 Water sprays shall be provided and used to dampen materials. 	4			
 Regular cleaning and watering the site shall be provided to minimize the fugitive dust emissions. 	1			
All vehicles shall be restrict to a maximum speed of 10 km per hour.	1			
Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	1			
The designated site main haul road shall be paved or regular watering.	1			
 Frequent watering of work site shall be at least three times per day. 	1			
 Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site. 	1			
 Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank. 	4			
 All plant and equipment should be well maintained e.g. without black smoke emission. 	4			
Open burning should be prohibited.	4			
 The temporary stope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD. 	4			
 Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shot concrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD. 	4			
 When fill material is transfer by belt conveyor systems, the conveyors shall be enclosed on top and 2 sides. 	1			
 The belt scraper shall be equipped with bottom plates or other similar means to prevent falling of material from the return belt. 	√			
The level of stockpiling belt conveyor shall be adjustable such that the vertical distance between the belt conveyor and the material landing point is maintained at no more than 1m.	4			
 Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and non-road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APCO Cap.311). 	1			
Noise Impact				
 The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted. 	4			
Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	1			
Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	V			
Air compressors and hand held breakers should have noise labels.	1			
 Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. 	1	-		
Noisy equipment and mobile plant shall always be site away from NSRs.	V			
Noisy equipment and mobile plant shall always be site away from Norts.		1		



Environmental Checklist		Implementation Stages*			Remark	
	3			N/A		
Water Quality		40.00				
 Drainage system should be adequate and well maintained to prevent flooding and overflow, especially after rain storms. 	100	V V	BALFER HILL			
 The permanent drainage channels should have sediment basin, traps and baffles and maintain properly. 		V				
Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Ear and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	rth bunds	1				
Manholes should be covered and sealed.		1				
 Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding. 		V				
 A buffer distance of at least 100m shall be maintained between the boundary of the public fill stockpiling area and the sea front. 		V				
 A buffer distance of at least 20m shall be maintained between the boundary of the C&DMSF and the seafront. 		1				
 The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge. 		V				
 The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed wor protected by other method approved by CEDD. 	vith water	V				
 Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, viplanting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD. 		1				
 Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the cities and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these are functioning properly at all times. 	deposited facilities	1				
 A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being disinto storm drains. 	-	1				
 The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous ma hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains. 		4				
 Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided. The chemical toilets (if use) shall be by a licensed contractor, who will be responsible for disposal and maintenance of these facilities. 	provided	1				
Oil intercept in addition of sand / silt removal facilities shall be provided at the car parking areas.		V				
Oil interceptor shall be provided at work shop.		1				
Tipping halls enclosed with top and 3-side to prevent spillage of material into marine water.		1				
The barges shall be in right size such that adequate clearance in maintained between the vessels and the seabed at all states of the ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.		V				
All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of materi transport.	- 1	1				
Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the trans	fer.	1			×	
 Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be collected and treated before disposal. 	properly	1				
The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the wavicinity of the barging facilities.		4				
Existing silt curtain at the outward side of the basin near the Barging Handling Area (BHA) throughout the period shall be repair, and service when there is public fill intake by barges to the Fill Bank in accordance with PS Clause 1.68. The total length of the silt shall not be less than 160m, and a gap of about 80m shall be left open for access of barges. The silt curtain shall be properly masuch that it can also serve the function of refuse containment boom to confine floating refuse.	t curtains	1				
A waste collection vessel shall be deployed to remove floating debris.		1				





Environmental Checklist		emen Stage:		Remark	
	Yes	No	N/A		
Landscape and Visual					
 The design of the fill bank and platform heights adopted should allow the fill bank to fit into the general topography of the surrounding land. Straight edged slopes should be avoided. 	4				
 The maximum stockpiling height at the fill bank shall be limited to a maximum of +35.2mPD. 	1				
 Surface of outer slopes of the fill bank shall preferably be hydroseeded or covered with geo-textile matting of appropriate colour (e.g. dark green / brown) once completed. 	4				
 The barging point and the C&DMSF at the fill bank shall not be in operation from 07:00 pm to 08:00 am daily to avoid potential visual impact from glare. 	4				
Other Environmental Factors					
 C&D waste sorted from mixed C&D material shall be removed from the temporary buffer storage area on a daily basis and transfer to SENT landfill for disposal. 	1				
 Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 	4				
 Any unused materials or those with remaining functional capacity should be recycled and stored property. 	1				
All generators, fuel and oil storage are within bundle areas.	1				
Oil leakage from machinery, vehicle and plant is prevented.	1				
The Environmental Permit should be displaced conspicuously on site.	1				
Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	1				
To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.	1				



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

Remark	

Name	Title	Signature	Date
June Lau	ET Representative		03 May 2023
) January A

Temperature



Inspection Date $\frac{1}{2}$ / $\frac{1}{2}$ / $\frac{1}{2}$ $\frac{3}{2}$ Time $\frac{1}{2}$ / $\frac{1}{2}$ $\frac{3}{2}$ $\frac{3}{2}$

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

Calm / Light / Breeze / Strong Wind

Humidity

Inspected by	CEDD	Contractor / Sub-Contactor	ET
Signature:	Jamos		Zi
Name:	Trank YAN WINT	KWOK WING LAM	Chan Houlen
Title	Alow B	E0	Toch n'ician





	Environmental Checklist Stages*		ages*		
				N/A	
Fugit	ive Dust Emission				
•	Dust control / mitigation measures shall be provided to prevent dust nuisance.	4			
	A buffer zone of at least 100m shall be maintained between the edge of the stockpiling area and the nearest ASRs at the TKO Industrial Estate. Within the buffer zone, no dusty material shall be stockpiled and no loading / unloading and similar activities should be allowed.	Ą			
	Water sprays shall be provided and used to dampen materials.	4			
	Regular cleaning and watering the site shall be provided to minimize the fugitive dust emissions.	V			
•	All vehicles shall be restrict to a maximum speed of 10 km per hour.	1			
1 11	Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	1			
1	The designated site main haul road shall be paved or regular watering.	1			
	Frequent watering of work site shall be at least three times per day.	1			
5 ,	Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	√			
0)	Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	1			
1	All plant and equipment should be well maintained e.g. without black smoke emission.	V			
	Open burning should be prohibited.	1			
•	The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD.	4			
•	Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shot concrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	4			
	When fill material is transfer by belt conveyor systems, the conveyors shall be enclosed on top and 2 sides.	4			
•	The belt scraper shall be equipped with bottom plates or other similar means to prevent falling of material from the return belt.	1			
•	The level of stockpiling belt conveyor shall be adjustable such that the vertical distance between the belt conveyor and the material landing point is maintained at no more than 1m.	4			
	Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and non-road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APCO Cap.311).	1			
Nois	e Impact				
.	The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	1			
	Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	1			
	Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	4			
ő	Air compressors and hand held breakers should have noise labels.	4			
	Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	1			
<u> </u>	Noisy equipment and mobile plant shall always be site away from NSRs.	1			



	Environmental Checklist			tation s*	Remark	
				N/A		
Water Q	uality			HILLS		
 Drai 	nage system should be adequate and well maintained to prevent flooding and overflow, especially after rain storms.	V				
 The 	permanent drainage channels should have sediment basin, traps and baffles and maintain properly.	1				
 Tem and 	porary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	1				
 Man 	holes should be covered and sealed.	1				
	ecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.	1				
 A but 	iffer distance of at least 100m shall be maintained between the boundary of the public fill stockpiling area and the sea front.	1				
	iffer distance of at least 20m shall be maintained between the boundary of the C&DMSF and the seafront.	1				
 The 	stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	1				
Theor pr	temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water otected by other method approved by CEDD.	4				
 Fina plan 	I slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation ting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	1				
 Exist silt a 	ting and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities functioning properly at all times.	1				
 A when into: 	neel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged storm drains.	1				
nard	section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or cores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	1				
 Sew by a 	age from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided. The chemical toilets (if use) shall be provided licensed contractor, who will be responsible for disposal and maintenance of these facilities.	1				
	ntercept in addition of sand / silt removal facilities shall be provided at the car parking areas.	V				
	nterceptor shall be provided at work shop.	1				
	ing halls enclosed with top and 3-side to prevent spillage of material into marine water.	1				
ensu	barges shall be in right size such that adequate clearance in maintained between the vessels and the seabed at all states of the tide to tree the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	1				
 All ve trans 	essels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during sport.	1				
 Adec 	quate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.	1				
 Barg colle 	es shall not be filled to a level which may cause the overflow of material during loading or transportation, Barge effluents shall be properly cted and treated before disposal.	1				
The vicin	work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the ity of the barging facilities.	4				
 Exist and shall 	ting silt curtain at the outward side of the basin near the Barging Handling Area (BHA) throughout the period shall be repair, maintain service when there is public fill intake by barges to the Fill Bank in accordance with PS Clause 1.68. The total length of the silt curtains not be less than 160m, and a gap of about 80m shall be left open for access of barges. The silt curtain shall be properly maintained that it can also serve the function of refuse containment boom to confine floating refuse.	1				
	ste collection vessel shall be deployed to remove floating debris.	1				





	Environmental Checklist			tation	Remark
		Yes	No	N/A	
La	ndscape and Visual				
77.00	The design of the fill bank and platform heights adopted should allow the fill bank to fit into the general topography of the surrounding land. Straight edged slopes should be avoided.	4			
2	The maximum stockpiling height at the fill bank shall be limited to a maximum of +35.2mPD.	4			
•	Surface of outer slopes of the fill bank shall preferably be hydroseeded or covered with geo-textile matting of appropriate colour (e.g. dark green / brown) once completed.	4			
•	The barging point and the C&DMSF at the fill bank shall not be in operation from 07:00 pm to 08:00 am daily to avoid potential visual impact from glare.	4			
01	ther Environmental Factors				
•	C&D waste sorted from mixed C&D material shall be removed from the temporary buffer storage area on a daily basis and transfer to SENY landfill for disposal.	4			
•	Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	1			
	Any unused materials or those with remaining functional capacity should be recycled and stored properly.	1			
•	All generators, fuel and oil storage are within bundle areas.	1			
•	Oil leakage from machinery, vehicle and plant is prevented.	4			
	The Environmental Permit should be displaced conspicuously on site.	4			
•	Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	4			
	To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.	1			



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

Remark		
Zeman		

I		

	Name	Title	Signature	Date
Checked by	June Lau	ET Representative	1/10	10 May 2023



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

: Calm / Light / Breeze / Strong Wind

Temperature

Humidity

Inspected by	CEDD	Contractor / Sub-Contactor	ET
Signature:			
	12	An	Tus
Name:	H.L. Male	An Kanay	clan Hon Can
Title	ALOW CPS	A Se	Technician



Ugitive Dust Emission Dust control / mitigation measures shall be provided to prevent dust nuisance.		Stage: No	N/A	
Dust control / mitigation measures shall be provided to prevent dust nuisance.				
		Salinté		
	1			
A buffer zone of at least 100m shall be maintained between the edge of the stockpiling area and the nearest ASRs at the TKO Industrial Estate. Within the buffer zone, no dusty material shall be stockpiled and no loading / unloading and similar activities should be allowed.	1			
Water sprays shall be provided and used to dampen materials.	7			
Regular cleaning and watering the site shall be provided to minimize the fugitive dust emissions.	4			
All vehicles shall be restrict to a maximum speed of 10 km per hour.	4			
Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	1			
The designated site main haul road shall be paved or regular watering.	1			
Frequent watering of work site shall be at least three times per day.	4			
Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	4			
Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	1			
All plant and equipment should be well maintained e.g. without black smoke emission.	4			
Open burning should be prohibited.	4			
The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD.	1			
Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shot concrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	4			
When fill material is transfer by belt conveyor systems, the conveyors shall be enclosed on top and 2 sides.	1			
The belt scraper shall be equipped with bottom plates or other similar means to prevent falling of material from the return belt.	1			
The level of stockpiling belt conveyor shall be adjustable such that the vertical distance between the belt conveyor and the material landing point is maintained at no more than 1m.	1			
Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and non-road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APCO Cap.311).	1			
oise Impact				
The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	4			
Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	1			
Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	1			
Air compressors and hand held breakers should have noise labels.	1			
Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	1			
Noisy equipment and mobile plant shall always be site away from NSRs.	1			



Environmental Checklist				Remark
		Stages'		
Water Quality				
 Drainage system should be adequate and well maintained to prevent flooding and overflow, especially after rain storms. 	1		Managemy L	
The permanent drainage channels should have sediment basin, traps and baffles and maintain properly.	1		-	
Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	1			
Manholes should be covered and sealed.	4			
Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.	1			
A buffer distance of at least 100m shall be maintained between the boundary of the public fill stockpiling area and the sea front.	1			
A buffer distance of at least 20m shall be maintained between the boundary of the C&DMSF and the seafront.	V			
The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	1			
The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD.	1			
 Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD. 	4			
Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	4			
A wheet washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.	1			
The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	1			
Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided. The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.	4			
Oil intercept in addition of sand / silt removal facilities shall be provided at the car parking areas.	1			
Oil interceptor shall be provided at work shop.	4			
Tipping halls enclosed with top and 3-side to prevent spillage of material into marine water.	1			
The barges shall be in right size such that adequate clearance in maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	1			
All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.	4			
Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.	V			
Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.	1			
The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.	1			·
Existing silt curtain at the outward side of the basin near the Barging Handling Area (BHA) throughout the period shall be repair, maintain and service when there is public fill intake by barges to the Fill Bank in accordance with PS Clause 1.68. The total length of the silt curtains shall not be less than 160m, and a gap of about 80m shall be left open for access of barges. The silt curtain shall be properly maintained such that it can also serve the function of refuse containment boom to confine floating refuse.	4			
A waste collection vessel shall be deployed to remove floating debris.	V			





Environmental Checklist		Implementation Stages*		Remark
			N/A	
Landscape and Visual				
 The design of the fill bank and platform heights adopted should allow the fill bank to fit into the general topography of the surrounding land. Straight edged slopes should be avoided. 	4			
 The maximum stockpilling height at the fill bank shall be limited to a maximum of +35.2mPD. 	4			
 Surface of outer slopes of the fill bank shall preferably be hydroseeded or covered with geo-textile matting of appropriate colour (e.g. dark green / brown) once completed. 	4			
 The barging point and the C&DMSF at the fill bank shall not be in operation from 07:00 pm to 08:00 am daily to avoid potential visual impact from glare. 	4			
Other Environmental Factors				
 C&D waste sorted from mixed C&D material shall be removed from the temporary buffer storage area on a daily basis and transfer to SENT landfill for disposal. 	4			
 Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 	4			
 Any unused materials or those with remaining functional capacity should be recycled and stored properly. 	1			
All generators, fuel and oil storage are within bundle areas.	4			
Oil leakage from machinery, vehicle and plant is prevented.	1			
The Environmental Permit should be displaced conspicuously on site.	4			
 Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment. 	V			
 To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce. 	4			



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

Remark			
0.5350			

	Name	Title	Signature	Date
Checked by	June Lau	ET Representative	Lu	17 May 2023



Inspection Date 24/5/23

Time

14:00

Weather

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

Wind

: Calm / Light Breeze / Strong

Temperature

26°(

Humidity

High / Moderate / Low

Inspected by	CEDD	Contractor / Sub-Contactor	ET
Signature:	J810-107	4	Nak
Name:	7812 you part of the	Knok wing LAM	Mak Kei Wan
Title	Deon/Rt	E0	ET



Environmental Checklist			tation s*	Remark
		No		
ugitive Dust Emission				
Dust control / mitigation measures shall be provided to prevent dust nuisance.	V			
A buffer zone of at least 100m shall be maintained between the edge of the stockpiling area and the nearest ASRs at the TKO Industrial Estate. Within the buffer zone, no dusty material shall be stockpiled and no loading / unloading and similar activities should be allowed.	4			
Water sprays shall be provided and used to dampen materials.	1			
Regular cleaning and watering the site shall be provided to minimize the fugitive dust emissions.	1			
All vehicles shall be restrict to a maximum speed of 10 km per hour.	1			
Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	4			
The designated site main haul road shall be paved or regular watering.	V			
Frequent watering of work site shall be at least three times per day.	1			
Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	1			
Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	1			
All plant and equipment should be well maintained e.g. without black smoke emission.	1			
Open burning should be prohibited.	1			
The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD.	1			
Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shot concrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	1			
When fill material is transfer by belt conveyor systems, the conveyors shall be enclosed on top and 2 sides.	V			
The belt scraper shall be equipped with bottom plates or other similar means to prevent falling of material from the return belt.	1			
The level of stockpiling belt conveyor shall be adjustable such that the vertical distance between the belt conveyor and the material landing point is maintained at no more than 1m.	1			
Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and non-road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APCO Cap.311).	1			
Noise Impact				
The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	1			D 2007 (T) 200 (T) 200 (T) 200 (T) 200 (T) 200 (T) 200 (T) 200 (T) 200 (T) 200 (T) 200 (T) 200 (T)
Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	1			
Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	1			
Air compressors and hand held breakers should have noise labels.	1			
 Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. 	1			
Noisy equipment and mobile plant shall always be site away from NSRs.	1			



Environmental Checklist		Implementation Stages*			Remark
			No		
Water Quality				##	
 Drain 	age system should be adequate and well maintained to prevent flooding and overflow, especially after rain storms.	7			
	permanent drainage channels should have sediment basin, traps and baffles and maintain properly.	1			
 Temp 	porary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	1			
 Manh 	oles should be covered and sealed.	V			
 Unne 	cessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.	1			
 A buff 	fer distance of at least 100m shall be maintained between the boundary of the public fill stockpiling area and the sea front.	1			
 A buff 	fer distance of at least 20m shall be maintained between the boundary of the C&DMSF and the seafront.	V			
The s	stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	1			
 The tension pro 	emporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water of other method approved by CEDD.	4			
plantii	slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation ng or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	1			
 Existing silt an 	ng and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities unctioning properly at all times.	1			
into st	pel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged torm drains.	4			
hardc	section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or cores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	4			
by a li	ge from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided. The chemical toilets (if use) shall be provided icensed contractor, who will be responsible for disposal and maintenance of these facilities.	4			
	ercept in addition of sand / silt removal facilities shall be provided at the car parking areas.	1			
101.00	erceptor shall be provided at work shop.	1			
	ng halls enclosed with top and 3-side to prevent spillage of material into marine water.	4			
ensur	larges shall be in right size such that adequate clearance in maintained between the vessels and the seabed at all states of the tide to be the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	4			
 All vestransp 	ssels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during port.	V			
	uate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.	4			
collec	es shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly ted and treated before disposal.	4			
 The w vicinity 	vork activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the y of the barging facilities.	4			
and se shall r	ng silt curtain at the outward side of the basin near the Barging Handling Area (BHA) throughout the period shall be repair, maintain ervice when there is public fill intake by barges to the Fill Bank in accordance with PS Clause 1.68. The total length of the silt curtains not be less than 160m, and a gap of about 80m shall be left open for access of barges. The silt curtain shall be properly maintained that it can also serve the function of refuse containment boom to contine floating refuse.	1			
	ste collection vessel shall be deployed to remove floating debris.	V			





Environmental Checklist		Implementation Stages*		Remark	
		No	N/A		
Landscape and Visual					
 The design of the fill bank and platform heights adopted should allow the fill bank to fit into the general topography of the surrounding land. Straight edged slopes should be avoided. 	4				
The maximum stockpiling height at the fill bank shall be limited to a maximum of +35.2mPD.	1				
 Surface of outer slopes of the fill bank shall preferably be hydroseeded or covered with geo-textile matting of appropriate colour (e.g. dark green / brown) once completed. 	4				
 The barging point and the C&DMSF at the fill bank shall not be in operation from 07:00 pm to 08:00 am daily to avoid potential visual impact from glare. 	V				
Other Environmental Factors					
 C&D waste sorted from mixed C&D material shall be removed from the temporary buffer storage area on a daily basis and transfer to SENT landfill for disposal. 	4				
 Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 	4				
 Any unused materials or those with remaining functional capacity should be recycled and stored properly. 	4				
All generators, fuel and oil storage are within bundle areas.	4				
Oil leakage from machinery, vehicle and plant is prevented.	4				
The Environmental Permit should be displaced conspicuously on site.	1				
 Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment. 	1				
 To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce. 	1				



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

Remark	

	Name	Title	Signature	Date
Checked by	June Lau	ET Representative		24 May 2023



Inspection Date : 30 - 1 - 1 3

Time : 14:30

Weather

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

Wind

: Calm / Light / Breeze / Strong

Temperature

Humidity

: High / Moderate / Low

Inspected by	CEDD	Contractor / Sub-Contactor	ET
Signature:	A		
Name:	Ymon	Kuok WING LAM	char Hon Lan
Title	fren.	EO	Technicion





Environmental Checklist		ement	tation s*	Remark
	N/A			
Fugitive Dust Emission				
Dust control / mitigation measures shall be provided to prevent dust nuisance.	1			
A buffer zone of at least 100m shall be maintained between the edge of the stockpiling area and the nearest ASRs at the TKO Industrial Estate. Within the buffer zone, no dusty material shall be stockpiled and no loading / unloading and similar activities should be allowed.	1			
Water sprays shall be provided and used to dampen materials.	1			(2)
 Regular cleaning and watering the site shall be provided to minimize the fugitive dust emissions. 	V			
All vehicles shall be restrict to a maximum speed of 10 km per hour.	√			
Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	4			•
The designated site main haul road shall be paved or regular watering.	1			
Frequent watering of work site shall be at least three times per day.	V			
Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	1			
 Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank. 	1			
All plant and equipment should be well maintained e.g. without black smoke emission.	4			
Open burning should be prohibited.	4			
 The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD. 	4			
 Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shot concrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD. 	1			
 When fill material is transfer by belt conveyor systems, the conveyors shall be enclosed on top and 2 sides. 	4			
 The belt scraper shall be equipped with bottom plates or other similar means to prevent falling of material from the return belt. 	V			
 The level of stockpiling belt conveyor shall be adjustable such that the vertical distance between the belt conveyor and the material landing point is maintained at no more than 1m. 	1			
 Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and non-road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APCO Cap.311). 	1			
Noise Impact				
 The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted. 	1			
 Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works. 	1			
Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	1			
Air compressors and hand held breakers should have noise labels.	1			
 Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. 	1			
Noisy equipment and mobile plant shall always be site away from NSRs.	V			
140109 equipment and intolice plant ones aways be see away wom 14010s.	1 -	1		



Environmental Checklist		ementation Remark tages*	
		N/A	
Water Quality		122	
 Drainage system should be adequate and well maintained to prevent flooding and overflow, especially after rain storms. 	V		
The permanent drainage channels should have sediment basin, traps and baffles and maintain properly.	V		
Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	V		
Manholes should be covered and sealed.	√		
 Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding. 		1	Item 1
A buffer distance of at least 100m shall be maintained between the boundary of the public fill stockpiling area and the sea front.	√		
 A buffer distance of at least 20m shall be maintained between the boundary of the C&DMSF and the seafront. 	√		
The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	V		
The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD.	V		
Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	V		
Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	1		
A wheel washing bay shall be provided at the site exit and wash-water shall have sand and sift settled out or removed before being discharged into storm drains.	1		
The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	٧		
Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided. The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.	1		
Oil intercept in addition of sand / silt removal facilities shall be provided at the car parking areas.	V		
Oil interceptor shall be provided at work shop.	V		
Tipping halls enclosed with top and 3-side to prevent spillage of material into marine water.	V		
The barges shall be in right size such that adequate clearance in maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	٧		
All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.	1		
Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.	V		
Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.	V		
The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.	1		
Existing silt curtain at the outward side of the basin near the Barging Handling Area (BHA) throughout the period shall be repair, maintain and service when there is public fill intake by barges to the Fill Bank in accordance with PS Clause 1,68. The total length of the silt curtains shall not be less than 160m, and a gap of about 80m shall be left open for access of barges. The silt curtain shall be properly maintained such that it can also serve the function of refuse containment boom to confine floating refuse.	٧		
A waste collection vessel shall be deployed to remove floating debris.	√		





Environmental Checklist	100	emen Stages		Remark
	Yes	No	N/A	
Landscape and Visual				
 The design of the fill bank and platform heights adopted should allow the fill bank to fit into the general topography of the surrounding land. Straight edged slopes should be avoided. 	4			
 The maximum stockpiling height at the fill bank shall be limited to a maximum of +35.2mPD. 	1			
 Surface of outer slopes of the fill bank shall preferably be hydroseeded or covered with geo-textile matting of appropriate colour (e.g. dark green / brown) once completed. 	4			
 The barging point and the C&DMSF at the fill bank shall not be in operation from 07:00 pm to 08:00 am daily to avoid potential visual impact from glare. 	4			
Other Environmental Factors				
 C&D waste sorted from mixed C&D material shall be removed from the temporary buffer storage area on a daily basis and transfer to SENT landfill for disposal. 	4			
 Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 	4			
 Any unused materials or those with remaining functional capacity should be recycled and stored property. 	1			
All generators, fuel and oil storage are within bundle areas.	1			
Oil leakage from machinery, vehicle and plant is prevented.	1			
The Environmental Permit should be displaced conspicuously on site.	1			
 Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment. 	1			
 To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce. 	1			



Summary of the Weekly Site Inspection:

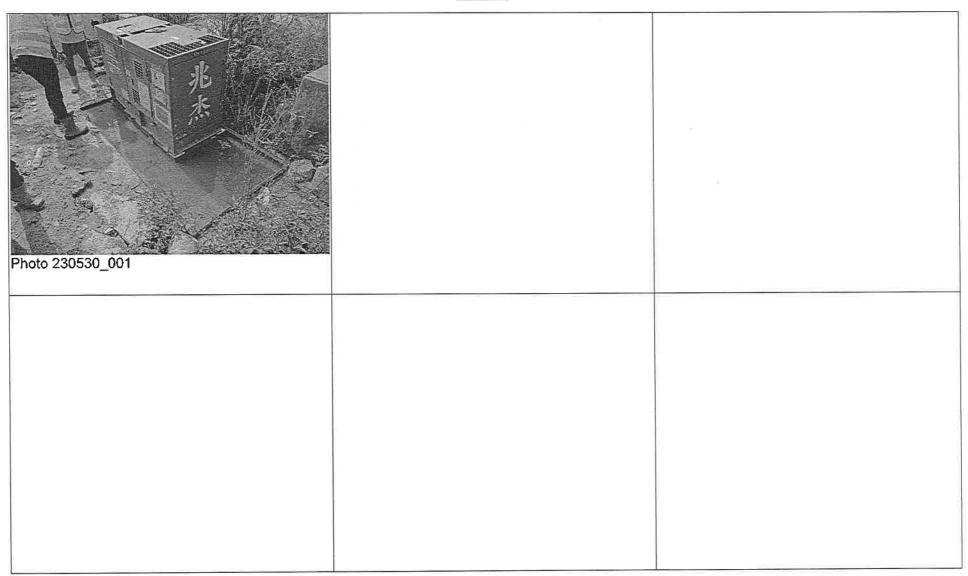
Item	Details of defective works or observations	Proposed Follow Up Action	Photo Ref.	Further Action Required (Yes/No)	Follow up Date
1	Stagnant water was observed near the generator at the Fixed Rigid Platform.	To clean the stagnant water properly	230530_001	Yes	2023-06-07

Remark		
ena.		

Name	Title	Signature	Date
June Lau	ET Representative		30 May 2023
	Name June Lau		



Photo Photo





Appendix I

Implementation Schedule of Mitigation Measures



Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O Area 137 Fill Bank Contract No.: CV/2021/09

Environmental Mitigation Implementation Schedule

			Implementati	on Status	
Environmental Protection Measures	Location	Implemented	Partially implemented	Not implemented	Not Applicable
Air Quality					
Dust control / mitigation measures shall be provided to prevent dust nuisance.	All areas		V		
 A buffer zone of at least 100m shall be maintained between the edge of the stockpiling area and the nearest ASRs at the TKO Industrial Estate. Within the buffer zone, no dusty material shall be stockpiled and no loading / unloading and similar activities should be allowed. 	Northern Site Boundary	V			
 Water sprays shall be provided and used to dampen materials. 	All areas	$\sqrt{}$			
Regular cleaning and watering the site shall be provided to minimize the fugitive dust emissions.	All areas	\checkmark			
 All vehicles shall be restrict to a maximum speed of 10 km per hour. 	All areas	\checkmark			
Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	Site Egress	V			
The designated site main haul rout shall be paved or regular watering.	All haul roads	$\sqrt{}$			
Frequent watering of work site shall be at least three times per day.	All areas	\checkmark			
 Wheel washing facilities including high pressure water jet shall be provided at the entrance of work site. 	Site Egress	$\sqrt{}$			
 Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank. 	Site Egress	$\sqrt{}$			
The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD.	All areas	V			
 Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD. 	All areas	$\sqrt{}$			
When fill material is transfer by belt conveyor systems, the conveyors shall be enclosed on top and 2 sides.	C&DMSF	\checkmark			
The belt scraper shall be equipped with bottom plates or other similar means to prevent falling of material from the return belt.	C&DMFS	$\sqrt{}$			
The level of stockpiling belt conveyor shall be adjustable such that the vertical distance between the belt conveyor and the material landing point is maintained at no more than 1m.	C&DMFS	V			
All plant and equipment should be well maintained e.g. without black smoke emission.	All areas	\checkmark			
Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and non-road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APCO Cap.311).	All areas		√		
Noise Impact					
 Approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted. 	All areas	V			
Only well maintained plant should be operated on-site and plant should be serviced regularly during the site works.	All areas	√			
Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	All areas	$\sqrt{}$			
Air compressors and hand held breakers should have noise labels.	All areas	$\sqrt{}$			
 Machines and plants that may be in intermittent use should be shut down between work months or should be throttled down to a minimum. 	All areas	V			
Noisy equipment and mobile plant shall always be site away from NSRs.	All areas	V			



Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O Area 137 Fill Bank Contract No.: CV/2021/09

		Implementation Status				
Environmental Protection Measures	Location	Implemented	Partially	Not	Not	
W . O W		p.ccca	implemented	implemented	Applicable	
Water Quality		1				
Drainage system should be adequate and well maintained to prevent flooding and overflow, especially after rain storms.	All areas	V				
The permanent drainage channels should have sediment basin, traps and baffles and maintain properly.	All areas	V				
 Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels. 	All areas	V				
Manholes should be covered and sealed.	All areas	$\sqrt{}$				
 Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding. 	All areas		V			
A buffer distance of at least 100m shall be maintained between the boundary of the public fill stockpiling area and the sea front.	Public fill stockpiling area	V				
 A buffer distance of at least 20m shall be maintained between the boundary of the C&DMSF and the seafront. 	C&DMFS	$\sqrt{}$				
The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	All areas	\checkmark				
The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD.	Temporary Slopes	V				
Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	Temporary Slopes	√				
 Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. 	All areas	V				
 A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains. 	Wheel Washing facility	V				
The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	Wheel Washing facility	√				
 Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided. The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities. 	All areas	V				
Oil intercept in addition of sand / silt removal facilities shall be provided at the car parking areas and work shop.	All areas	\checkmark				
Tipping halls enclosed with top and 3-side to prevent spillage of material into marine water.	Barge Handling Area (BHA)	√				
The barges shall be in right size such that adequate clearance in maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	Barge Handling Area (BHA)	√				
 All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport. 	Barge Handling Area (BHA)	V				
 Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer. 	Along the seafront	V				
 Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal. 	Barge Handling Area (BHA)	V				
The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.	Along the seafront	V				
Existing silt curtain at the outward side of the basin near the Barging Handling Area throughout the period shall be repair, maintain and service when there is public fill intake by barges to the Fill Bank in accordance with PS Clause 1.68. The total length of the silt curtains shall not be less than 160m, and a gap of about 80m shall be left open for access of barges. The silt curtain shall be properly maintained such that it can also serve the function of refuse containment boom to confine floating refuse.	Along the seafront	V				
A waste collection vessel shall be deployed to remove floating debris.	Along the seafront	$\sqrt{}$				



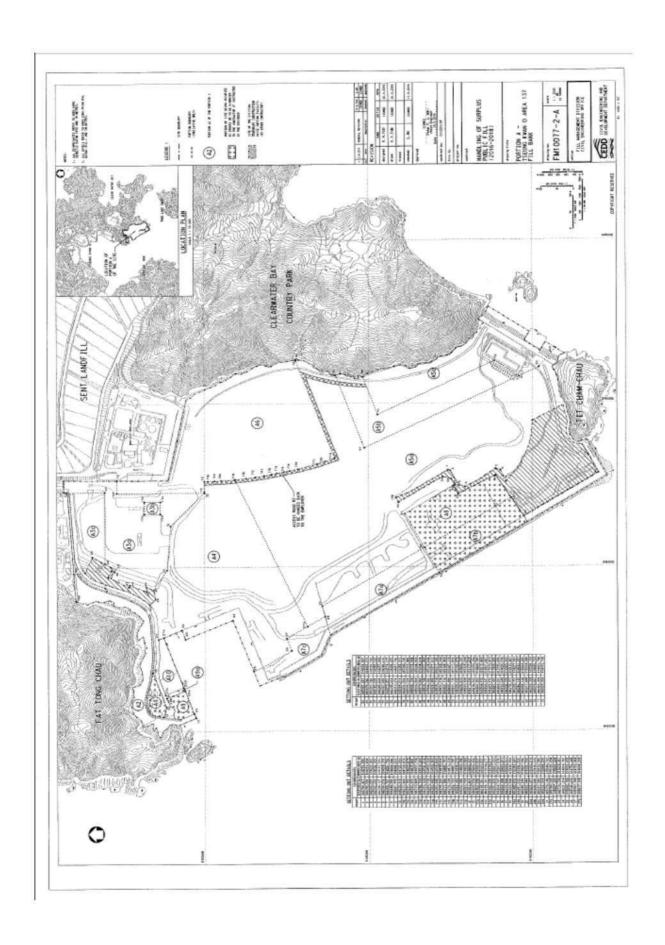
Handling of Surplus Public Fill (2022-2023) – Tseung Kwan O Area 137 Fill Bank Contract No.: CV/2021/09

			Implementation Status					
	Environmental Protection Measures	Location	Implemented	Partially implemented	Not implemented	Not Applicable		
L	andscape and Visual							
•	The design of the fill bank and platform heights adopted should allow the fill bank to fit into the general topography of the surrounding land. Straight edged slopes should be avoided.	All areas	√					
•	The maximum stockpiling height at the fill bank shall be limited to a maximum of +35.2mPD.	Completed slopes	$\sqrt{}$					
•	Surface of outer slopes of the fill bank shall preferably be hydroseeded or covered with geo-textile matting of appropriate colour (e.g. dark green / brown) once completed.	Site boundary	\checkmark					
•	The barging point and the C&DMSF at the fill bank shall not be in operation from 07:00 pm to 08:00 am daily to avoid potential visual impact from glare.	All areas	\checkmark					
0	ther Environmental Factors							
•	C&D waste sorted from mixed C&D material shall be transfer to SENT landfill for disposal.	All areas	$\sqrt{}$					
•	Plan and stock construction materials carefully to minimise generation of waste.	All areas	$\sqrt{}$					
•	Any unused materials or those with remaining functional capacity should be recycled.	All areas	$\sqrt{}$					
•	All generators, fuel and oil storage are within bunded areas.	All areas	√					
•	Oil leakage from machinery, vehicle and plant is prevented.	All areas		√				
•	The Environmental Permit should be displaced conspicuously on site.	All areas	√					
•	Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	All areas	√					
•	To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.	All areas	√ √					



Appendix J

Site General Layout plan





Appendix K

Monthly Summary Waste Flow Table

Monthly Summary Waste Flow Table for 2023

Appendix C

		Actual Quantitie	es of Inert C&I	Materials Gene	erated Monthly			Actual Quantitie	es of C&D Was	stes Generated Mo	nthly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)
Jan	0	0	0	0	0	0	158.46	0	0	0.071	100.72
Feb	0	0	0	0	0	0	267.41	0	0	0	470.82
Mar	0	0	0	0	0	0	264.10	0	0	0	1339.48
Apr	0	0	0	0	0	0	140.31	0	0	0	89.08
May	0	0	0	0	0	0	153.19	0	0	0	87.17
Jun											
Sub-total											
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total											

Notes:

- (1) The performance targets are given in **PS Clause 1.108(14)**.
- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- (4) The *Contractor* shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the *works*, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the *works* is equal to or exceeding 50,000 m³.



Appendix L

Monitoring Schedule for the Coming Month



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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28-May	29-May	30-May	31-May	y 1-Jun	2-Jun	3-Jı
	24 hr TSP 24-hr RSP		1-hr TSP x 2 Weekly SI (am)		1-hr TSP x 1 Set 24 hr (3/6)	24 hr TSP 24-hr RSP
	Mid-ebb (08:00-10:00) Mid-flood (13:30-15:00)		Mid-ebb (09:00-11:00) Mid-flood (14:00-16:00)		Mid-ebb (09:00-11:00) Mid-flood (15:30-17:30)	
4-Jun	(13.30-13.00) 5-Jur	6-Jun	(14.00-10.00) 7-Jur	n 8-Jun	(13.30-17.30) 9-Jun	10-J
	1-hr TSP x 2		1-hr TSP x 1 Weekly SI (am)		24 hr TSP 24-hr RSP	
	Mid-ebb (13:00-15:00) Mid-flood (17:30-19:30)		Mid-flood (08:00-10:00) Mid-ebb (13:00-15:00)		Mid-flood (09:00-11:00) Mid-ebb (15:00-17:00)	
11-Jun	12-Jur	13-Jun	14-Jur	n 15-Jun	16-Jun	17-Jı
	1-hr TSP x 2		1-hr TSP x 1 Set 24 hr (15/6) Weekly SI (am)	24 hr TSP 24-hr RSP	1-hr TSP x 2	
	Mid-flood (11:00-13:00) Mid-ebb (17:30-19:30)		Mid-ebb (09:00-11:00) Mid-flood (15:00-17:00)		Mid-ebb (10:00-12:00) Mid-flood (16:00-18:00)	
18-Jun	19-Jur	20-Jun	21-Jur	n 22-Jun	23-Jun	24-J
	1-hr TSP x 1		24 hr TSP 24-hr RSP Weekly SI (am)		1-hr TSP x 2	
	Mid-ebb (13:00-15:00) Mid-flood (17:30-19:30)		Mid-flood (07:30-09:30) Mid-ebb (13:00-15:00)		Mid-flood (08:00-10:00) Mid-ebb (14:00-16:00)	
25-Jun	26-Jur	27-Jun	28-Jur	n 29-Jun	30-Jun	1-0
	1-hr TSP x 1 Set 24 hr (27/6)	24 hr TSP 24-hr RSP	1-hr TSP x 2 Weekly SI (am)		1-hr TSP x 1	
	Mid-flood (09:00-11:00) Mid-ebb (15:00-17:00)		Mid-ebb (08:00-10:00) Mid-flood (13:00-15:00)		Mid-ebb (10:00-12:00) Mid-flood (15:00-17:00)	

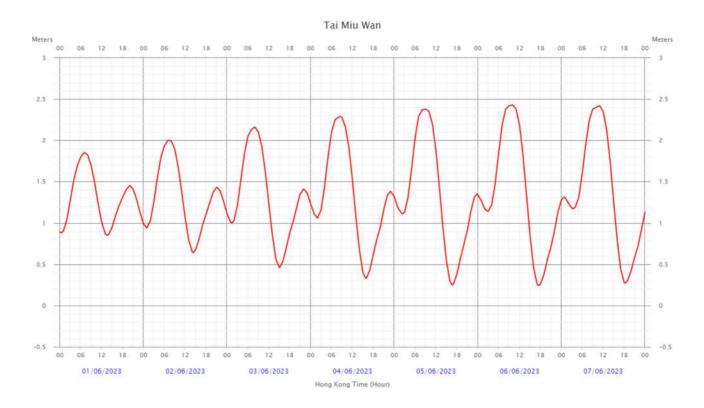
| (15:00-17:00) | (13:00-15:00) | Remark: 1. RSP measurement is not required in the EM&A manual and RSP would not presented in EM&A report.

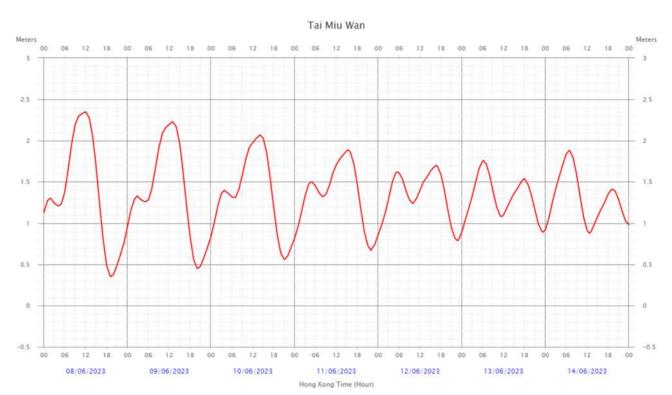
2. TKO 137 Fill Bank is closed on General Holidays.



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

June 2023

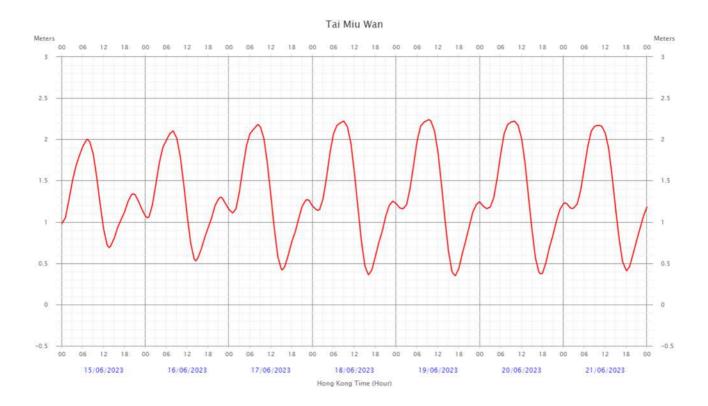


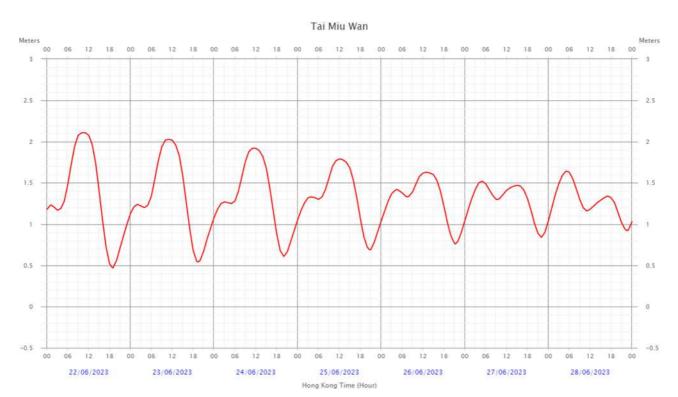




Predicted tide schedule from the Hong Kong Observatory for Impact Water Quality Monitoring (WQM)

June 2023

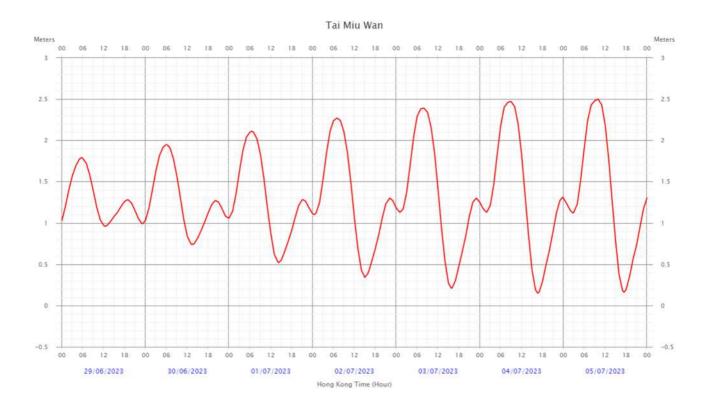






Predicted tide schedule from the Hong Kong Observatory for Impact Water Quality Monitoring (WQM)

June 2023





Appendix M

Reporting Month Monitoring Schedule



Time Schedule for Impact Water Quality Monitoring (WQM), Impact Air Monitoring (1-hrTSP, 24-hr TSP and 24-hr RSP), Weekly Site Inspection (Weekly SI) and Impact Noise Monitoring May 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30-Apr	1-May	2-May	3-May	4-May	5-May	6-May
			1-hr TSP x 3		24 hr TSP	
			Weekly SI (pm)		24-hr RSP	
			, ,			
		Mid-ebb (09:00-11:00)		Mid-ebb (10:00-12:00)		Mid-ebb (11:00-13:00)
		Mid-flood		Mid-flood		Mid-flood
		(15:00-17:00)		(15:00-17:00)		(16:30-18:30)
7-May	8-May		10-May	(13.00 17.00)	12-May	13-May
ĺ	·	ĺ	Í	ŕ	Í	ŕ
	1-hr TSP x 2		1-hr TSP x 1	24 hr TSP	1-hr TSP x 2	
	NM		Set 24 hr (11/05)	24-hr RSP		
			Weekly SI (pm)			
	Mid-ebb		Mid-flood		Mid-flood	
	(13:00-15:00)		(08:00-10:00)		(09:00-11:00)	
	Mid-flood		Mid-ebb		Mid-ebb	
	(17:30-19:30)		(14:30-16:30)		(15:30-17:30)	
14-May	15-May	16-May	17-May	18-May	19-May	20-May
	1-hr TSP x 1		24 hr TSP		1-hr TSP x 2	
			24-hr RSP		·	
			Weekly SI (pm)			
	N.C. L. a. L. L.		N.C. L. a. L. L.		N.C. J. J. L.	
	Mid-ebb (09:00-11:00)		Mid-ebb (09:00-11:00)		Mid-ebb (11:00-13:00)	
	Mid-flood		Mid-flood		Mid-flood	
	(13:00-15:00)		(14:30-16:30)		(16:00-18:00)	
21-May	22-May	23-May	24-May	25-May	26-May	27-May
	1-hr TSP x 1	24 hr TSP	1-hr TSP x 1			1-hr TSP x 2
	·	24-hr RSP	Weekly SI (pm)			
			, , ,			
	Mid-flood (07:30-9:30)		Mid-flood (08:00-10:00)			Mid-flood (09:00-11:00)
	(07.30-9.30) Mid-ebb		Mid-ebb			Mid-ebb
	(13:00-15:00)		(13:30-15:30)			(15:00-17:00)
28-May	29-May	30-May	31-May	1-Jun	2-Jun	3-Jun
	24 hr TSP	Weekly SI (pm)	1-hr TSP x 2		1-hr TSP x 1	24 hr TSP
	24-hr RSP	Weekly Si (pili)	1 III 101 X 2		Set 24 hr (3/6)	24-hr RSP
	****				, ,	
			L			
	Mid-ebb		Mid-ebb		Mid-ebb	
	(08:00-10:00) Mid-flood		(09:00-11:00) Mid-flood		(09:00-11:00) Mid-flood	
Pomark: 1 PSD mas	(13:00-15:00)	<u> </u>	(14:00-16:00)	l	(15:30-17:30)	

Remark: 1. RSP measurement is not required in the EM&A manual and RSP would not presented in EM&A report.

2. TKO 137 Fill Bank is closed on General Holidays.



Appendix N

Complaint Log



Complaint Logs

Log Ref.	Location	Received Date	Details of Complaint	Investigation / Mitigation Action	Status
001	Barge handling area (BHA) at Tseung Kwan O 137	15 May 2017	One complaint received on 15 May 2017, which was forwarded to ET on 11 August 2017, from CEDD (Complaint NCF-N08/RE/00014875-17 Sent By CSO[RN]3 [CASE#2-3943858817 Int.Comm. – WS170513A57354] against illegal dumping at sea without permit in TKO137 fill bank.	Refer to the ET site investigation on 14 August 2017, the contractor clarified that the contractor conducted vessel loading test at Tseung Kwan O 137 Fill bank on 13 May 2017 and the material was then unloaded from the vessels. Follow up action to complaint by ET and contractor: Contractor under the valid dumping permit to dump fill materials and the site works shall be complied with the relevant environmental protection and pollution control ordinances. ET reminded contractor that the dump fill material under the valid dumping permit should be checked and confirmed. In addition, record should be kept for ET reference. Details of Action(s) Taken by the Contactor: The contractor started to dump fill materials from 19 May 2017 after receiving the valid dumping permit. The contractor dump fill materials were followed by the valid dumping permit and the permit was kept apply every three month The contractor kept the permit for ET reference.	Closed
002	Tseung Kwan O 137 Fill Bank	12 Oct 2017	One complaint received on 12 October 2017, which was forwarded to ET on 18 October 2017, from public against dust emission at the fill bank and discharge of muddy water to the seafront.	 Refer to the ET weekly site inspection on 18 October 2017, no defective observation related to dust emission and discharge of water was recorded during the investigation. Details of Action(s) Taken by the Contactor: Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Mist spraying systems at the site entrance are operated properly; Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; All dusty material is sprayed with water prior to loading, unloading or transfer so as to maintain the material wet; Site vehicle for transporting materials are covered properly by using clean tarpaulin sheets; Regular cleaning at the site haul road is provided to minimize the fugitive dust emission; Silt curtains are provided at the outward side of the basin near the Fill Bank; Drainage systems are adequate and maintained to prevent flooding and overflow; Catchpits, sand and silt removal facilities and intercepting channels are maintained and functioning properly. 	Closed



003	Tseung Kwan O 137 Fill Bank	09 April 2018	One complaint received on 09 April 2018, which was forwarded to ET on 18 April 2018, from public against the rocks and debris deposited on the road surface along Wan Po Road near TKO137 Fill Bank. The complainant complained that waste generated caused an environmental nuisance.	Refer to the ET site investigation on 20 April 2018, the condition of Wan Po Road near TKO137 Fill Bank was found satisfactory. (Photos on ET follow-up investigation at TKO137 Fill Bank on 20 April 2018). Details of Action(s) Taken by the Contactor: Regular cleaning on Wan Po Road and the access road at the site exit by haul road cleaning team to remove mud and gravel is arranged eight times per month; Regular water spraying by water lorries is provided for road cleaning at Wan Po Road; Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; Site vehicles for transporting materials are covered properly by using clean tarpaulin sheets; Regular cleaning at the site haul road is provided.	Closed
004	Tseung Kwan O 137 Fill Bank	13 January 2019	One complaint received on 13 January 2019, which was forwarded to ET on 16 January 2019, from EPD (NCF-N08/RE/00001348-19) against 將軍澳 137 堆填區內,紅車池污水,不經處理,直接排到河道,河道係直接流出大海,極度嚴重影響周遭環境生態,污染程度極為嚴重,促請政府有關部門嚴正跟進!	After received the details of the complaint from the Contractor on 16 January 2019, ET have performed a site investigation on 21 January 2019 to investigate this event. During the site inspection, no muddy water was observed discharged from the Fill Bank to nearby environment. Besides, refer to the marine water monitoring results during that period, no exceedance was recorded on Turbidity and Suspended Solids. This reflects that this occurrence did not affect the condition of marine water near the TKO137Fill Bank. Details of Action(s) Taken by the Contactor: Drainage system were adequate and well maintained to prevent flooding and overflow; Sand and silt removal facilities, e.g. silting screen, were provided before the discharge point; Temporary intercepting drains were used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers were used to assist the diversion of polluted stormwater to the intercepting channels; Catchpits and intercepting channels were maintained, and the deposited silt and grit were removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times;	Closed



				1	
005	Tseung Kwan O 137 Fill Bank	14 May 2019	One complaint received on 14 May 2019, which was forwarded to ET on 14 May 2019, from public against 投訴將軍澳第 137 區填料庫,有車出入沒有灑水傳出大量沙塵,破壞環境,帶出大量沙泥到馬路,造成污染及嚴重滋擾,要求跟進。 要求改善,停止滋擾	Refer to the ET site investigation on 15 May 2019, the condition of Wan Po Road near TKO137 Fill Bank was found satisfactory. (Photos on ET follow-up investigation at TKO137 Fill Bank on 15 May 2019). Details of Action(s) Taken by the Contactor: Regular cleaning on Wan Po Road and the access road at the site exit by haul road cleaning team to remove mud and gravel is arranged eight times per month; Regular water spraying by water lorries is provided for road cleaning at Wan Po Road; Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; Site vehicles for transporting materials are covered properly by using clean tarpaulin sheets; Regular cleaning at the site haul road is provided.	Closed
006	Tseung Kwan O 137 Fill Bank	11 June 2019	One complaint received on 04 June 2019, which was forwarded to ET on 11 June 2019, from public regarding the muddy water problem at 137 fill bank.	After received the details of the complaint from the Contractor on 11 June 2019, ET have performed a site investigation on 14 June 2019 to investigate this event. During the site inspection, no muddy water was observed discharged from the Fill Bank to nearby environment. Besides, refer to the marine water monitoring results during that period, no exceedance was recorded on Turbidity and Suspended Solids during the concerning period. This reflects that this occurrence did not affect the condition of marine water near the TKO137Filll Bank. Details of Action(s) Taken by the Contactor: Drainage system were adequate and well maintained to prevent flooding and overflow; Sand and silt removal facilities, e.g. silting screen, were provided before the discharge point; Temporary intercepting drains were used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers were used to assist the diversion of polluted stormwater to the intercepting channels were maintained, and the deposited silt and grit were removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times;	Closed



				1	
007	Tseung Kwan O 137 Fill Bank	27 June 2019	One complaint received on 27 June 2019, which was forwarded to ET on 28 June 2019, from public against dust emission at the fill bank. The complainant complained that the dust caused an environmental nuisance.	Refer to the ET site investigation on 02 July 2019, no defective observation related to dust emission was recorded during the investigation. No impact air quality monitoring result of 1-hr TSP and 24-hr TSP was exceeded Action and Limit Level at all monitoring stations from 24 to 28 June 2019. Details of Action(s) Taken by the Contactor: Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Mist spraying systems at the site entrance are operated properly; Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; All dusty material is sprayed with water prior to loading, unloading or transfer so as to maintain the material wet; Truck speed within the site is limited within 10 km/h; Regular cleaning at the site haul road is provided to minimize the fugitive dust emission;	Closed
008	Tseung Kwan O 137 Fill Bank	17 July 2019	One complaint received on 17 July 2019, which was forwarded to ET on 17 July 2019, from public against 投訴將軍澳堆填 137 區及收 泥頭區,於運作時產生大量 沙塵,嚴重污染周圍環境及 影響行人,情況已持續發生 了幾日	Refer to the ET site investigation on 19 July 2019, no defective observation related to dust emission was recorded during the investigation. No impact air quality monitoring result of 1-hr TSP and 24-hr TSP was exceeded Action and Limit Level at all monitoring stations from 2 to 17 July 2019. Details of Action(s) Taken by the Contactor: Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Mist spraying systems at the site entrance are operated properly; Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; All dusty material is sprayed with water prior to loading, unloading or transfer so as to maintain the material wet; Truck speed within the site is limited within 10 km/h; Regular cleaning at the site haul road is provided to minimize the fugitive dust emission;	Closed



009	Tseung Kwan O 137 Fill Bank	26 July 2019	One complaint received on 26 July 2019, which was forwarded to ET on 26 July 2019, from public against 投訴將軍澳第 137 區填料庫,大風吹起引致塵埃飛揚,更吹到 TVB,造成嚴重滋擾,要求跟進及回覆。	Refer to the ET site investigation on 29 July 2019, no defective observation related to dust emission was recorded during the investigation. No impact air quality monitoring result of 1-hr TSP and 24-hr TSP was exceeded Action and Limit Level at all monitoring stations from 23 to 29 July 2019. Details of Action(s) Taken by the Contactor: Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Mist spraying systems at the site entrance are operated properly; Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; All dusty material is sprayed with water prior to loading, unloading or transfer so as to maintain the material wet; Truck speed within the site is limited within 10 km/h; Regular cleaning at the site haul road is provided to minimize the fugitive dust emission;	Closed
010	Tseung Kwan O 137 Fill Bank	09 September 2019	One complaint received on 09 September 2019, which was forwarded to ET on 09 September 2019, from public against 投訴將軍澳第 137 區填料庫,大風吹起引致塵埃飛揚,更吹到日出康城,造成嚴重滋擾,要求跟進及回覆。	Refer to the ET site investigation on 11 September 2019, no defective observation related to dust emission was recorded during the investigation. No impact air quality monitoring result of 1-hr TSP and 24-hr TSP was exceeded Action and Limit Level at all monitoring stations from 1 to 13 September 2019. Details of Action(s) Taken by the Contactor: Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Mist spraying systems at the site entrance are operated properly; Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; All dusty material is sprayed with water prior to loading, unloading or transfer so as to maintain the material wet; Truck speed within the site is limited within 10 km/h; Regular cleaning at the site haul road is provided to minimize the fugitive dust emission;	Closed



011	Tseung Kwan O 137 Fill Bank	10 September 2019	One complaint received on 10 September 2019, which was forwarded to ET on 10 September 2019, from public against 投訴將軍澳137 區經常於處理建築廢料時沒有灑水,導致沙塵滾滾,嚴重污染環境,要求環保署跟進及回覆。	Refer to the ET site investigation on 11 September 2019, no defective observation related to dust emission was recorded during the investigation. No impact air quality monitoring result of 1-hr TSP and 24-hr TSP was exceeded Action and Limit Level at all monitoring stations from 1 to 13 September 2019. Details of Action(s) Taken by the Contactor: Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Mist spraying systems at the site entrance are operated properly; Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; All dusty material is sprayed with water prior to loading, unloading or transfer so as to maintain the material wet; Truck speed within the site is limited within 10 km/h; Regular cleaning at the site haul road is provided to minimize the fugitive dust emission;	Closed
012	Tseung Kwan O 137 Fill Bank	24 August 2021	One complaint received on 24 August 2021, which was forwarded to ET on 30 August 2021, from public against 投訴將軍澳第 137 區公眾填料庫,灑水不足,泥頭車引起大量塵埃。	Refer to the ET site investigation on 30 August 2021, no defective observation related to dust emission was recorded during the investigation. No impact air quality monitoring result of 1-hr TSP and 24-hr TSP was exceeded Action and Limit Level at all monitoring stations from 20 August 2021 to 30 August 2021. Details of Action(s) Taken by the Contactor: Repairing work on water truck was conducted. Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Mist spraying systems at the site entrance are operated properly; Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; All dusty material is sprayed with water prior to loading, unloading or transfer so as to maintain the material wet; Truck speed within the site is limited within 10 km/h; Regular cleaning at the site haul road is provided to minimize the fugitive dust emission;	Closed



01	Tseung Kwan O 137 Fill Bank	25 November 2021	A complaint was received on 25 November 2021, which was forwarded to ET by email on 26 November 2021, from public against 投訴將軍澳 137 公眾填料庫 地盤灑水不足,大量塵埃,吹到 TVB 電視城一帶,問題一直無改善,要求環保署跟進及電郵回覆	Refer to the ET site investigation on 29 November 2021, no defective observation related to dust emission was recorded during the investigation. No impact air quality monitoring result of 1-hr TSP and 24-hr TSP was exceeded Action and Limit Level at all monitoring stations from 24 November 2021 to 29 November 2021. Details of Action(s) Taken by the Contactor: Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Mist spraying systems at the site area are operated properly; Regular cleaning at the site haul road is provided to minimize the dust emission	Closed
01	Tseung Kwan O 137 Fill Bank	18 July 2022	A complaint was received on 18 July 2022, which was forwarded to ET by email on 18 July 2022, from public against "投訴將軍澳第 137 區填料庫的塵埃很大,吹向四周,影響附近工作的人,要求跟進及回覆"	Refer to the ET site investigation on 20 July 2022, no defective observation related to dust emission was recorded during the investigation. No impact air quality monitoring result of 1-hr TSP and 24-hr TSP was exceeded Action and Limit Level at all monitoring stations from 15 July 2022 to 20 July 2022. Details of Action(s) Taken by the Contactor: Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Mist spraying systems at the site area are operated properly; Regular cleaning at the site haul road is provided to minimize the dust emission	Closed



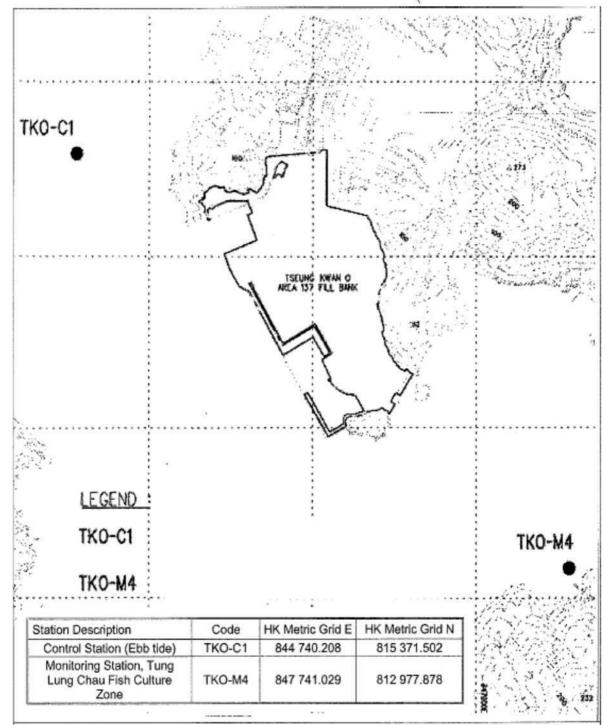
				1	
015	Tseung Kwan O 137 Fill Bank	08 August 2022	A complaint was received on 08 August 2022, which was forwarded to ET by email on 08 August 2022, from public regarding muddy discharge near the Area 137 Fill Bank and Sorting Facility.	Refer to the EPD inspection on 09 August 2022, a large area of exposed soil was observed next to the surface channel connecting to the outfall. Soil may be washed down the surface channel and causes muddy discharge. Refer to the ET site investigation on 12 August 2022, no defective observation related to muddy discharge was recorded during investigation. Details of Action(s) Taken by the Contactor: Filers or baffles were added to the outfall to intercept soil and other pollutants in the water before discharge. Regular cleaning, especially the drainage system, was provided to prevent the runoff of muddy water.	Closed
016	Tseung Kwan O 137 Fill Bank	12 August 2022	A complaint was received on 12 August 2022, which was forwarded to ET by email on 15 August 2022, from public against "I recently observed yellowish water flowing out to the sea, near the shore of the Tseung Kwan O Area 137 Fill Bank after rain in this week. Looking from outside the Area 137, there are a lot of soil exposed at the site. Could that be the source of soil being washed off to the sea?"	Refer to the EPD inspection on 09 August 2022, a large area of exposed soil was observed next to the surface channel connecting to the outfall. Soil may be washed down the surface channel and causes muddy discharge. Refer to the ET site investigation on 12 and 17 August 2022, no defective observation related to muddy discharge was recorded during investigation. Details of Action(s) Taken by the Contactor: Filers or baffles were added to the outfall to intercept soil and other pollutants in the water before discharge. Regular cleaning, especially the drainage system, was provided to prevent the runoff of muddy water.	Closed



017	Tseung Kwan O 137 Fill Bank	25 October 2022	A complaint was received on 25 October 2022, which was forwarded to ET by email on 25 October 2022, from public against "投訴將軍澳 137區填料庫今日早上出現小龍捲風將泥塵吹向小西灣一帶"	Refer to the ET site investigation on 26 October 2022, no defective observation related to dust emission was recorded during the investigation. Details of Action(s) Taken by the Contactor: Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Regular cleaning at the site haul road is provided to minimize the dust emission	Closed
018	Tseung Kwan O 137 Fill Bank	14 November 2022	A complaint was received on 14 November 2022, which was forwarded to ET by email on 14 November 2022, from public against "complained the dust nuisance (the dark dust blowing around the sky and high PM 2.5) at Tseung Kwan O Area 137 Fill Bank, this has been going for a while ."	Refer to the ET site investigation on 14 November 2022, no defective observation related to dust emission was recorded during the investigation. Details of Action(s) Taken by the Contactor: Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; Regular cleaning at the site haul road is provided to minimize the dust emission	Closed



Figures



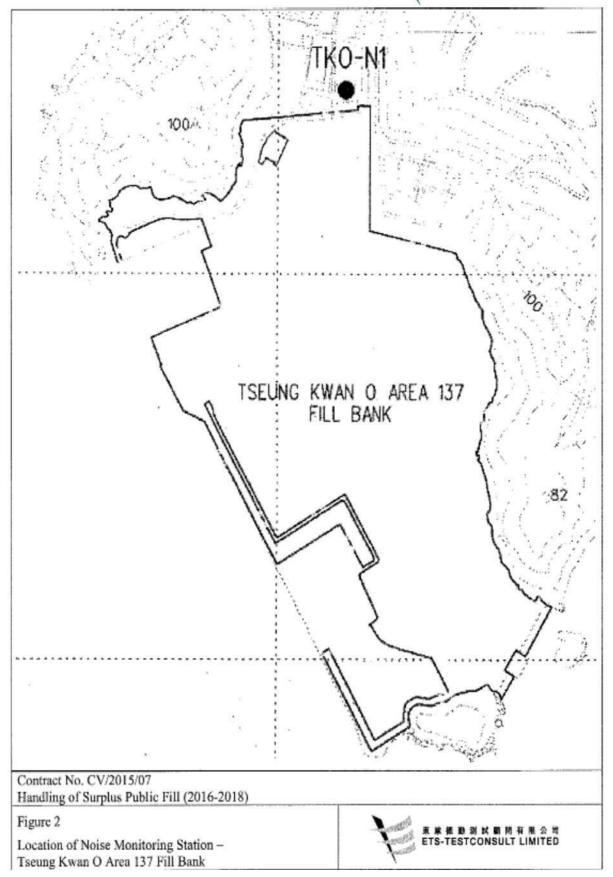
Contract No. CV/2015/07

Handling of Surplus Public Fill (2016-2018)

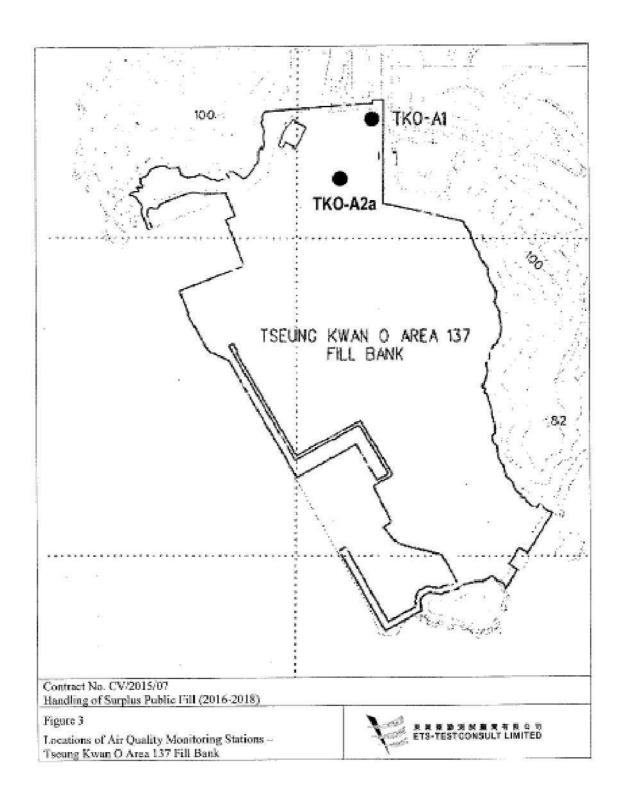
Figure 1

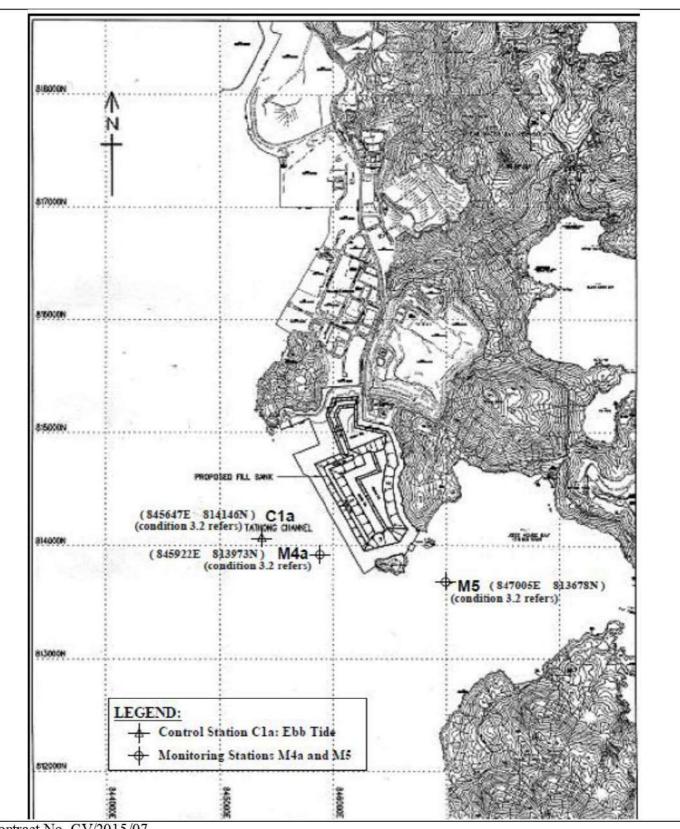
Locations of Water Quality Monitoring Stations -Tseung Kwan O Area 137 Fill Bank











Contract No. CV/2015/07

Handling of Surplus Public Fill(2016-2018)

Figure 4 Locations of Additional Water Quality Monitoring Stations (3RS project)

Tseung Kwan O Area 137 Fill Bank

