



Water Supplies Department  
New Works Branch  
Construction Division  
11 Tai Yip Lane  
Kowloon Bay  
Kowloon  
Hong Kong

Your reference:

Our reference: HKWSD201/50/107965

Date: 25 April 2022

Attention: Mr Y M Chan

**BY POST**

Dear Sirs

Quotation No.: WQ/17/A071  
Independent Environmental Checker for Water Supplies Department  
– Proposed Desalination Plant in TKO Area 137 for Contract No. 13/WSD/16  
Verification of Monthly EM&A Report No.44

We refer to emails of 11 and 22 April 2022 attaching Monthly EM&A Report No.44 for the captioned project prepared by the ET.

We have no further comment and hereby verify the captioned report in accordance with Clause 3.5 of the Environmental Permit no. EP-503/2015/A.

Should you have any queries regarding the above, please do not hesitate to contact the undersigned or our Mr Louis Kwan 2618 2831.

Yours faithfully  
ANewR CONSULTING LIMITED

James Choi  
Independent Environmental Checker

CPSJ/KSYL/lsm



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水務署

Water Supplies Department



**Contract No. 13/WSD/16**

Mainlaying in Tseung Kwan O

**Monthly EM&A Report No. 44**  
**(Period from 1 to 31 March 2022)**

April 2022

(Rev. 0)

	<b>Prepared by:</b>	<b>Reviewed and Certified by:</b>
<b>Name</b>	Howard Chan	Jacky Leung
<b>Position</b>	Environmental Team	Environmental Team Leader
<b>Signature</b>		
<b>Date:</b>	22 April 2022	22 April 2022

### **Revision History**

<b>0</b>	1 <sup>st</sup> Submission	11 Apr 2022
<b>1</b>	2 <sup>nd</sup> submission	22 Apr 2022
<b>Rev.</b>	<b>DESCRIPTION OF MODIFICATION</b>	<b>DATE</b>

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## **EXECUTIVE SUMMARY**

### **Introduction**

- A1. Penta-Ocean - Concentric Joint Venture (POCJV) is contracted to carry out the Mainlaying in Tseung Kwan O under Contract No. 13/WSD/16 (hereinafter known as “the Project”).
- A2. In accordance with the Environmental Monitoring and Audit (EM&A) Manual for the Project, EM&A works should be carried out by Environmental Team (ET), Acuity Sustainability Consulting Limited (ASCL), during the construction phase of the Project.
- A3. This is the 44<sup>th</sup> Monthly EM&A Report, prepared by ASCL, for the Project summarizing the monitoring results and audit findings of the EM&A programme at and around Tseung Kwan O (TKO) during the reporting period from 1 March to 31 March 2022.
- A4. The EM&A programme for this contract has covered environmental monitoring on construction noise level at selected NSRs and Contractor’s environmental performance auditing in the aspects of construction dust, construction noise, water quality, waste management, landscape and visual and ecology.

### **Summary of Main Works Undertaken & Key Mitigation Measures Implemented**

- A5. Key works carried out in this reporting period for the Project included the followings:

<b>Location</b>	<b>Location</b>	<b>Forecast Works in Next Reporting Month</b>
Portion H of the Project Site	TKO 137 Pit A	<ul style="list-style-type: none"> <li>• Pipe installation works inside sleeve pipe between Pit 137A to Pit 137C</li> </ul>
	TKO 137 Pit B	
	TKO 137 Pit C	
Portion J of the Project Site	Wan Po Rd – Workfront 1	<ul style="list-style-type: none"> <li>• Excavation and ELS works for jacking pit 1</li> </ul>
	Wan Po Rd – Workfront 2	<ul style="list-style-type: none"> <li>• Setup for MTBM pipe jacking</li> </ul>
	Wan Po Rd – Workfront 3	<ul style="list-style-type: none"> <li>• Pipe trench excavation and pipe laying</li> </ul>
	Wan Po Rd – Workfront 4	<ul style="list-style-type: none"> <li>• Pipe trench excavation and pipe laying</li> </ul>
	Wan Po Rd – Workfront 5	<ul style="list-style-type: none"> <li>• Pipe trench excavation and pipe laying</li> </ul>
	Wan Po Rd – Pit A	<ul style="list-style-type: none"> <li>• Setup and commence for MTBM pipe jacking</li> </ul>
	Wan Po Rd – Pit B	<ul style="list-style-type: none"> <li>• MTBM pipe jacking</li> </ul>
	Shek Kok Road – Pit D	<ul style="list-style-type: none"> <li>• MTBM pipe jacking</li> </ul>
	Shek Kok Road – Hand-shield	<ul style="list-style-type: none"> <li>• Construction of wing wall</li> </ul>
	Landfill Stage 1 – Area A	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Pet Garden’s Road	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Pung Loi Road – Pit WPR1	<ul style="list-style-type: none"> <li>• Set up for MTBM pipe jacking</li> </ul>
	Creative school	<ul style="list-style-type: none"> <li>• Construction of flood protection wall and re-construction of u-channel</li> </ul>
Roundabout – Pit G1A	<ul style="list-style-type: none"> <li>• Pipe laying inside sleeve pipe</li> </ul>	
Roundabout – Pit J1A	<ul style="list-style-type: none"> <li>• Pipe laying inside sleeve pipe</li> </ul>	

	Velodrome – Pit K	<ul style="list-style-type: none"> <li>• Grouting for sleeve pipe between Pit K to Pit L</li> </ul>
	Velodrome – Pit O to Pit N	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Velodrome – Pit O to Pit P	<ul style="list-style-type: none"> <li>• Site setup works for trenchless works</li> </ul>
	Abandoned Road near Mau Wu Tsai WF-1	<ul style="list-style-type: none"> <li>• Gate valve chamber construction</li> <li>• Trench reinstatement</li> </ul>
	Po Lam Road South	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying works</li> </ul>
	Po Lam Road (D2)	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying works</li> </ul>
	Po Lam Road (C2)	<ul style="list-style-type: none"> <li>• Pipe piling of pipe bridge at Location A Westside slop</li> </ul>
	Po Lam Road (B4)	<ul style="list-style-type: none"> <li>• Trench rock breaking</li> <li>• Trench excavation and pipe laying</li> </ul>
	Tsui Lam Road	<ul style="list-style-type: none"> <li>• Predrilling for mini pile</li> </ul>
	TKO Primary Service Reservoir	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>

- A6. The major environmental impacts brought by the above construction works include:
- Construction dust and noise generation from mainlaying of pipes, TBM break through and excavation;
  - Waste generation from the construction activities; and
  - Impact on water quality from construction activities
- A7. The key environmental mitigation measures implemented for the Project in this reporting period associated with the above construction works include:
- Reduction of construction dust generation from mainlaying of pipes, TBM break through and excavation;
  - Reduction of noise from equipment and machinery on-site;
  - Sorting and storage of general refuse and construction waste; and
  - Treatment of wastewater through water treatment facilities before discharge

#### **Summary of Exceedance & Investigation & Follow-up**

- A8. Noise monitoring was scheduled in the reporting month for NSR4 Creative Secondary School on 2, 10, 18, 24 and 30 March 2022 as construction works were conducted within 300m to the noise sensitive receiver. No project-related exceedance of the Action and Limit Level was recorded during the reporting period.
- A9. No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

#### **Complaint Handling and Prosecution**

- A10. No environmental complaint was received in the reporting month.
- A11. Neither notifications of summons nor prosecution was received for the Project in the reporting month.

**Reporting Change**

A12. There were no changes reported that may affect the on-going EM&A programme.

**Summary of Upcoming Key Issues and Key Mitigation Measures**

A13. Key works in the next reporting month for the Project will include the followings:

<b>Location</b>	<b>Location</b>	<b>Forecast Works in Next Reporting Month</b>
Portion H of the Project Site	TKO 137 Pit A	<ul style="list-style-type: none"> <li>• Pipe installation works inside sleeve pipe between Pit 137A to Pit 137C will be conducted.</li> </ul>
	TKO 137 Pit B	
	TKO 137 Pit C	
Portion J of the Project Site	Wan Po Rd – Workfront 1	<ul style="list-style-type: none"> <li>• Excavation and ELS works for jacking Pit 1</li> </ul>
	Wan Po Rd – Workfront 2	<ul style="list-style-type: none"> <li>• Setup for MTMB pipe jacking</li> </ul>
	Wan Po Rd – Workfront 3	<ul style="list-style-type: none"> <li>• Pipe trench excavation and pipe laying</li> </ul>
	Wan Po Rd – Workfront 4	<ul style="list-style-type: none"> <li>• Pipe trench excavation and pipe laying</li> <li>• Pipe installation inside sleeve pipe between WF4 &amp; WF4B</li> </ul>
	Wan Po Rd – Pit A	<ul style="list-style-type: none"> <li>• Commence MTMB pipe jacking</li> </ul>
	Wan Po Rd – Pit B	<ul style="list-style-type: none"> <li>• MTBM pipe jacking</li> </ul>
	Wan Po Rd – Pit D	<ul style="list-style-type: none"> <li>• MTBM pipe jacking</li> </ul>
	Shek Kok Road – Pit D	<ul style="list-style-type: none"> <li>• MTBM pipe jacking</li> </ul>
	Shek Kok Road – Hand-shield	<ul style="list-style-type: none"> <li>• Construction of wing wall</li> <li>• Setup for hand shield pipe jacking</li> </ul>
	Landfill Stage 1 – Area A	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Landfill Stage 1 – Area B	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Pet Garden’s Road	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Creative school	<ul style="list-style-type: none"> <li>• Construction of flood protection well and re-construction of u-channel</li> </ul>
	Pung Loi Road – Pit WPR1	<ul style="list-style-type: none"> <li>• Setup for MTMB pipe jacking</li> </ul>
	Roundabout – Pit G1A	<ul style="list-style-type: none"> <li>• Pipe laying inside sleeve pipe</li> </ul>
	Roundabout – Pit J1A	
	Velodrome – Pit K	<ul style="list-style-type: none"> <li>• Grouting for sleeve pipe between Pit K to Pit L</li> </ul>
	Velodrome – Pit O to Pit N	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying.</li> </ul>
	Velodrome – Pit O to Pit P	<ul style="list-style-type: none"> <li>• Site setup for trenchless works.</li> </ul>
	Abandoned Road near Mau Wu Tsai – Workfront 1	<ul style="list-style-type: none"> <li>• Gate valve chamber construction</li> <li>• Trench reinstatement</li> </ul>
	Po Lam Road South	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Po Lam Road (C2)	<ul style="list-style-type: none"> <li>• Pipe piling of pipe bridge at Location A Westside slope.</li> </ul>
Po Lam Road (D2)	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>	
Po Lam Road (B4)	<ul style="list-style-type: none"> <li>• Trench rock breaking</li> <li>• Trench excavation and pipe laying</li> </ul>	

Location	Location	Forecast Works in Next Reporting Month
	Tsui Lam Road	• Predrilling for mini pile
	TKO Primary Service Reservoir	• Trench excavation and pipe laying

A14. The major environmental impacts brought by the above construction works will include:

- Construction dust and noise generation of mainlaying of pipes, TBM break through, and excavation works;
- Waste generation from construction activities; and
- Impact on water quality from construction activities.

A15. The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:

- Reduction of construction dust generation of mainlaying of pipes, TBM break through and excavation works by regular water spraying and covering of dusty materials with screenings;
- Reduction of noise from equipment and machinery on-site;
- Sorting and storage of general refuse and construction waste; and
- Treatment of wastewater through water treatment facilities before discharge.



## **1. BASIC PROJECT INFORMATION**

### **1.1 Background**

The proposed Desalination Plant at Tseung Kwan O (DPTKO) will produce potable water with an initial capacity of 135 million liters per day (MLD), expandable to an ultimate capacity of 270 MLD in the future to provide a secure and alternative fresh water resource complying with the World Health Organization (WHO) standards. The plant will adopt the Seawater Reverse Osmosis (SWRO) technology, which dominates the market due to its reliability and progressive reduction in cost as the technology advances.

Pursuant to the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection granted the Variation of Environmental Permit (No. EP-503/2015/A) to Water Supplies Department (WSD) for the Project on 26 January 2018.

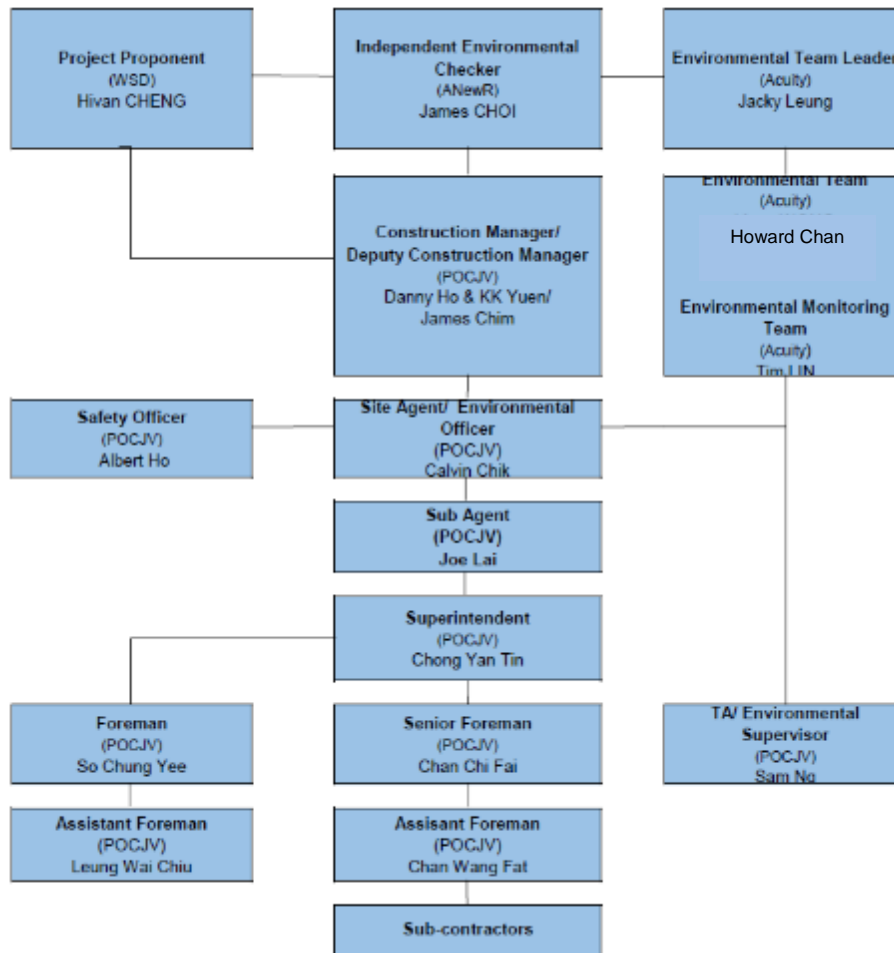
The scope of the Contract may be considered in brief, to consist of the laying of about 10 km long 1200 mm diameter fresh water mains and the associated works along the alignment of the Project as shown with the overall view in **Appendix B**.

### **1.2 The Reporting Scope**

This is the 44<sup>th</sup> Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 March to 31 March 2022.

### **1.3 Project Organization**

The Project Organization structure for Construction Phase is presented in **Figure 1.1**.



**Figure 1.1 Project Organization Chart**

Contact details of the key personnel are presented in **Table 1.1** below:

**Table 1.1 Contact details of the key personnel**

<b>Party</b>	<b>Position</b>	<b>Name</b>	<b>Telephone no.</b>
Penta-Ocean - Concentric Joint Venture	Environmental Officer	Calvin Chik	9863 5630
Acuity Sustainability Consulting Limited	Environmental Team Leader	Jacky Leung	2698 6833
ANewR Consulting Limited	Independent Environmental Checker	James Choi	2618 2831

#### **1.4 Summary of Construction Works**

Details of the major construction works undertaken in this reporting period are shown in **Table 1.2** and the construction works locations are shown in **Appendix B**. The construction programme is presented in **Appendix A**.

**Table 1.2 Summary of the Construction Works Undertaken during the Reporting Month**

Location	Location	Forecast Works in Next Reporting Month
Portion H of the Project Site	TKO 137 Pit A	<ul style="list-style-type: none"> <li>• Pipe installation works inside sleeve pipe between Pit 137A to Pit 137C</li> </ul>
	TKO 137 Pit B	
	TKO 137 Pit C	
Portion J of the Project Site	Wan Po Rd – Workfront 1	<ul style="list-style-type: none"> <li>• Excavation and ELS works for jacking pit 1</li> </ul>
	Wan Po Rd – Workfront 2	<ul style="list-style-type: none"> <li>• Setup for MTBM pipe jacking</li> </ul>
	Wan Po Rd – Workfront 3	<ul style="list-style-type: none"> <li>• Pipe trench excavation and pipe laying</li> </ul>
	Wan Po Rd – Workfront 4	<ul style="list-style-type: none"> <li>• Pipe trench excavation and pipe laying</li> </ul>
	Wan Po Rd – Workfront 5	<ul style="list-style-type: none"> <li>• Pipe trench excavation and pipe laying</li> </ul>
	Wan Po Rd – Pit A	<ul style="list-style-type: none"> <li>• Setup and commence for MTBM pipe jacking</li> </ul>
	Wan Po Rd – Pit B	<ul style="list-style-type: none"> <li>• MTBM pipe jacking</li> </ul>
	Shek Kok Road – Pit D	<ul style="list-style-type: none"> <li>• MTBM pipe jacking</li> </ul>
	Shek Kok Road – Hand-shield	<ul style="list-style-type: none"> <li>• Construction of wing wall</li> </ul>
	Landfill Stage 1 – Area A	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Pet Garden’s Road	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Pung Loi Road – Pit WPR1	<ul style="list-style-type: none"> <li>• Set up for MTBM pipe jacking</li> </ul>
	Creative school	<ul style="list-style-type: none"> <li>• Construction of flood protection wall and reconstruction of u-channel</li> </ul>
	Roundabout – Pit G1A	<ul style="list-style-type: none"> <li>• Pipe laying inside sleeve pipe</li> </ul>
	Roundabout – Pit J1A	<ul style="list-style-type: none"> <li>• Pipe laying inside sleeve pipe</li> </ul>
	Velodrome – Pit K	<ul style="list-style-type: none"> <li>• Grouting for sleeve pipe between Pit K to Pit L</li> </ul>
	Velodrome – Pit O to Pit N	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Velodrome – Pit O to Pit P	<ul style="list-style-type: none"> <li>• Site setup works for trenchless works</li> </ul>
	Abandoned Road near Mau Wu Tsai WF-1	<ul style="list-style-type: none"> <li>• Gate valve chamber construction</li> <li>• Trench reinstatement</li> </ul>
	Po Lam Road South	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying works</li> </ul>
	Po Lam Road (D2)	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying works</li> </ul>
	Po Lam Road (C2)	<ul style="list-style-type: none"> <li>• Pipe piling of pipe bridge at Location A Westside slop</li> </ul>
	Po Lam Road (B4)	<ul style="list-style-type: none"> <li>• Trench rock breaking</li> <li>• Trench excavation and pipe laying</li> </ul>
Tsui Lam Road	<ul style="list-style-type: none"> <li>• Predrilling for mini pile</li> </ul>	
TKO Primary Service Reservoir	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>	

A summary of the valid permits, licences, and or notifications on environmental protection for this Project is presented in **Table 1.3**.

**Table 1.3 Summary of the Status of Valid Environmental Licence, Notification, Permit and Documentations**

Permit/ Licences/ Notification	Reference	Validity Period
Variation of Environmental Permit	EP no.: EP-503/2015/A	Throughout the Contract
Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation (Form NA)	Ref no.: 423775	Throughout the Contract
Chemical Waste Producer Registration	WPN: 5213-839-P3287-01	Throughout the Contract
Billing Account for Disposal of Construction Waste	A/C no.: 7029491	Throughout the Contract
Water Discharge Licence	WT00032336-2018	Until 31 Dec 2023
Construction Noise Permit (Hong Kong Velodrome)	GW-RE1219-21	Until 01 April 2022
Construction Noise Permit (Wan Po Road near Wan O Road and Chun Yat Street, Tseung Kwan O, N.T.)	GW-RE1211-21	Until 01 April 2022
Construction Noise Permit (Shek Kok Road near Shrewsbury International School Hong Kong, Tseung Kwan O, N.T.)	GW-RE1224-21	Until 01 April 2022

The status for all environmental aspects is presented **Table 1.4**.

**Table 1.4 Summary of Status for Key Environmental Aspects under the EM&A Manual**

Parameters	Status
Noise	
Baseline Monitoring	The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under VEP Condition 3.4.
Impact Monitoring	On-going
Waste Management	
Mitigation Measures in Waste Management Plan	On-going
Landfill Gas	
Impact Monitoring	On-going
Environmental Audit	
Site Inspection	On-going

Other than the EM&A works by ET, regular environmental management meetings were conducted in order to enhance environmental awareness and closely monitor the environmental performance of the contractors.

The EM&A programme has been implemented in accordance with the recommendations presented in the approved EIA Report and the EM&A Manual. A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix C**.

## 2. NOISE MONITORING

### 2.1 Monitoring Requirements

To ensure no adverse noise impact, noise monitoring is recommended to be carried out within 300m radius from the nearby noise sensitive receivers (NSRs), during construction phase. The NSRs selected as monitoring station are (i) NSR4 – Creative Secondary School, (ii) NSR24 – PLK Laws Foundation College, and (iii) NSR31 – School of Continuing and Professional Studies – CUHK respectively.

In accordance with the EM&A Manual, baseline noise level at the noise monitoring stations were established as presented in the Baseline Monitoring Report. Impact noise monitoring will be conducted once per week in the form of 30-minute measurements  $L_{eq}$ ,  $L_{10}$  and  $L_{90}$  levels recorded at each monitoring station between 0700 and 1900 on normal weekdays.

Referring to EM&A Manual Section 4.1.2, the impact noise monitoring should be carried out at all the designated monitoring stations when there are project-related construction activities undertaken within a radius of 300m from the monitoring stations.

Impact monitoring for noise impact was conducted in the reporting month for NSR4 – Creative Secondary School on 2, 10, 18, 24 and 30 March 2022 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.

No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

### 2.2 Noise Monitoring Parameters, Time, Frequency

Impact noise monitoring was conducted weekly in the reporting period between 0700-1900 on normal weekdays. Construction works would follow the requirements as stipulated in the valid CNPs if works have to be conducted during 1900-0700 in all days or any time on Sundays or general holidays.

Construction noise level was measured in terms of the A-weighted equivalent continuous sound pressure level ( $L_{Aeq}$ ).  $L_{eq\ 30min}$  was used as the monitoring parameter for the time period between 0700 and 1900 on normal weekdays. **Table 2.1** summarizes the monitoring parameters, frequency and duration of the impact noise monitoring. The monitoring schedule is provided in **Appendix D**.

**Table 2.1 Noise Monitoring Parameters, Time, Frequency and Duration**

Time	Frequency	Duration	Parameters
Daytime: 0700-1900	Once per week	Continuously in $L_{eq\ 5min}/L_{eq\ 30min}$ (average of 6 consecutive $L_{eq\ 5min}$ )	$L_{eq}$ , $L_{10}$ & $L_{90}$

### 2.3 Noise Monitoring Locations

The monitoring locations should normally be made at a point 1m from the exterior of the NSRs building façade and be at a position 1.2m above the ground. A correction of +3dB(A) should be made to the free-field measurements.

According to the environmental findings detailed in the EIA report and Baseline Monitoring Report, the designated locations for the construction noise monitoring are listed in **Table 2.2** below.

**Table 2.2 Noise Monitoring Location**

NSR ID	Noise Sensitive Receivers	Monitoring Location	Position
NSR 4	Creative Secondary School	Roof Floor	1 m from facade
NSR 24	PLK Laws Foundation College	Pedestrian Road on Ground Floor	Free-field
NSR 31	School of Continuing and Professional Studies - CUHK	Roof Floor	1 m from facade

Three noise monitoring locations for impact monitoring at the nearby sensitive receivers are shown in **Figure 2.1-2.3**.

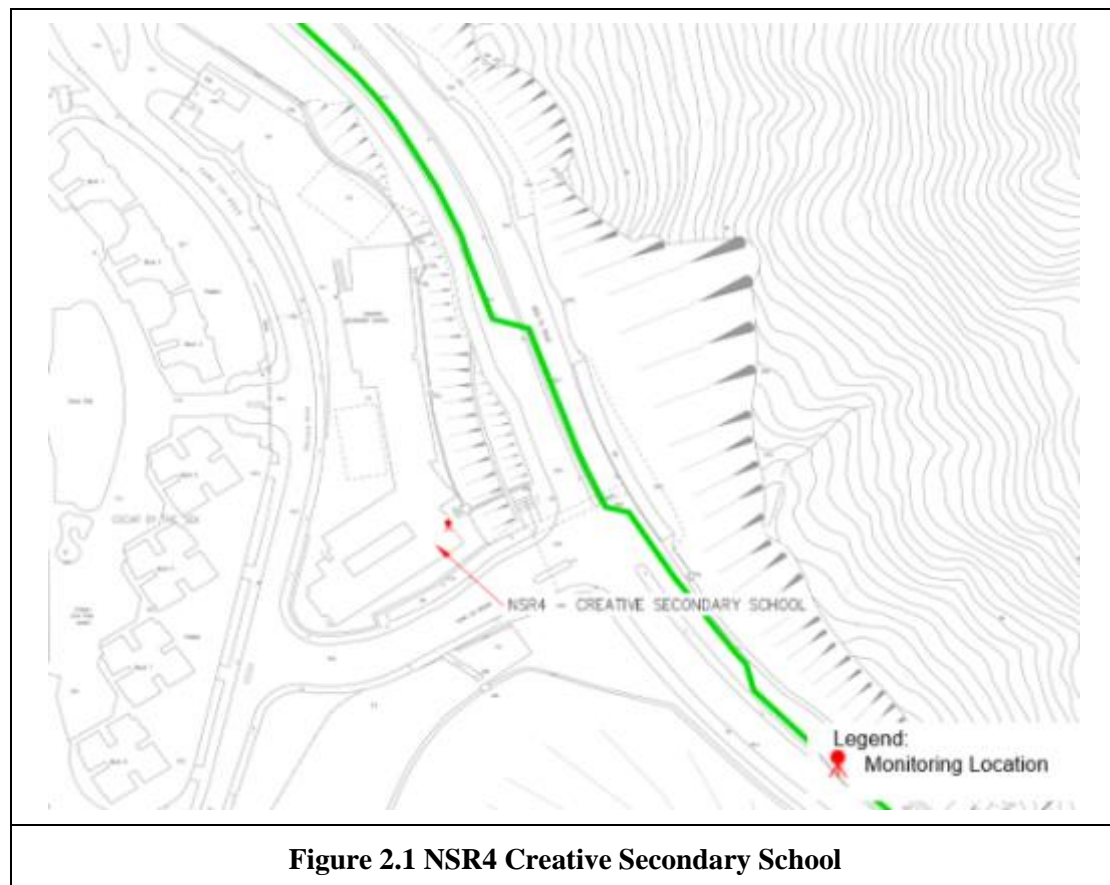




Figure 2.2 NSR24 PLK Laws Foundation College



Figure 2.3 NSR31 School of Continuing and Professional Studies - CUHK

## 2.4 Impact Monitoring Methodology

Integrated sound level meters were used for the noise monitoring. The meters were in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications. Immediately prior to and following each noise measurement the accuracy of the sound level meters was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level before and after the noise measurements agree to within 1.0 dB(A).

Calibration certificates of the instruments used are presented in **Appendix E**. Noise measurements were not made in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed would be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

**Table 2.3 Impact Noise Monitoring Equipment**

Equipment	Brand and Model	Serial Number	Date of Calibration	Calibration Certificate Expiry Date	Detection Limit
Sound Level Meter	Svantek 971	96062	05/07/2021	04/07/2022	15-140 dB(A)
Sound Level Meter Calibrator	Pulsar 105	63705	07/08/2021	06/08/2022	Nil
Pocket Wind Meter Anemometer	Kestrel 1000 Wind Meter	Nil	Nil	Nil	Nil

## 2.5 Action and Limit Levels

The Action/Limit Levels are in line with the criteria of Practice Note for Professional Persons (ProPECC PN 2/93) “Noise from Construction Activities – Non-statutory Controls” and Technical Memorandum on Environmental Impact Assessment Process issued by HKSAR Environmental Protection Department [“EPD”] under the Environmental Impact Assessment Ordinance, Cap 499, S.16 are presented in **Table 2.4**.

**Table 2.4 Action and Limit Levels for Noise**

Time Period	Action Level	Limit Level (dB(A))
0700-1900 on normal weekdays	When one documented complaint is received from any one of the noise sensitive receivers	<ul style="list-style-type: none"> <li>• 70 dB(A) for school and</li> <li>• 65 dB(A) during examination period</li> </ul>
Notes: (a) Limits specified in the GW-TM and IND-TM for construction and operation noise, respectively.		

If exceedances are found during noise monitoring, the actions in accordance with the Event and Action Plan will be carried out according to **Appendix F**.



## **2.6 Monitoring Results and Observations**

Referring to EM&A Manual Section 4.1.2, impact monitoring for noise impact was scheduled weekly in the reporting month for NSR4 – Creative Secondary School on 2, 10, 18, 24 and 30 March 2022 Detailed monitoring results are presented in **Appendix G**.

No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

No construction works were conducted within 300m radius of NSR24 and NSR31. Thus, no construction noise monitoring works was carried at these two locations in the reporting month.

### 3. WASTE MANAGEMENT

The waste generated from this Project includes inert construction and demolition (C&D) materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes and recyclable wastes such as plastics and paper/cardboard packaging waste. Steel materials generated from the project are also grouped into non-inert C&D materials as these materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in **Table 3.1**. Details of cumulative waste management data are presented as a waste flow table in **Appendix H**.

**Table 3.1 Quantities of waste generated from the Project**

Reporting period	Quantity					
	Inert C&D Materials (in '000m3)	Chemical Waste (in '000kg)	Non-inert C&D Materials			
			Others, e.g. General Refuse disposed at Landfill (in '000m3)	Recycled materials		
				Paper/card board (in '000kg)	Plastics (in '000kg)	Metals (in '000kg)
March 2022	2.144	0.000	0.002	0.054	0.000	0.000

## **4. LANDFILL GAS MONITORING**

### **4.1 Monitoring Requirement**

In accordance with Section 11 of the EM&A Manual, monitoring of landfill gas is required for construction works within the 250m Consultation Zone. Part of the desalination plant and the indicative area of natural slope mitigation works fall within the SENT Landfill Extension Consultation Zone; and part of the 1,200 mm diameter fresh water mains along Wan Po Road falls within the SENT Landfill and SENT Landfill Extension Consultation Zones, TKO Stage II/III Restored Landfill and TKO Stage I Restored Landfill Consultation Zones.

### **4.2 Monitoring Location**

Monitoring of oxygen, methane, carbon dioxide and barometric pressure was performed for excavations at 1m depth or more within the Consultation Zone. In this reporting period, 550 times of monitoring was recorded.

During construction of works within the consultation zones, excavations of 1m depth or more was monitored:

- At the ground surface before excavation commences;
- Immediately before any worker enters the excavation;
- At the beginning of each working day for the entire period when the excavation remains open; and
- Periodically through the working day whilst workers are in the excavation.

For excavations between 300mm and 1m deep, measurements should be carried out:

- Directly after the excavation has been completed; and
- Periodically whilst the excavation remains open.

The area required to be monitored for landfill gas in the reporting period are shown in **Figure 4.1** to **Figure 4.20**.

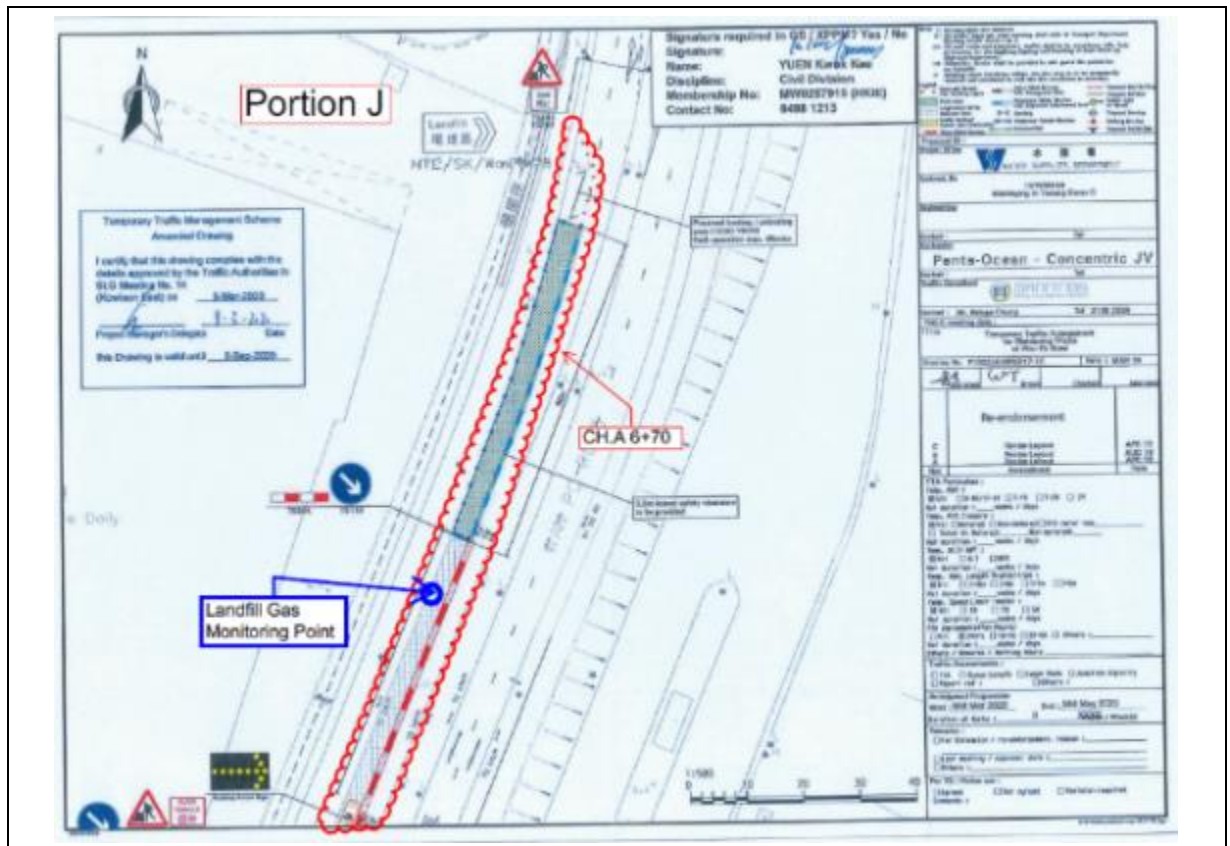


Figure 4.1 Monitoring Location - CHA 6+70

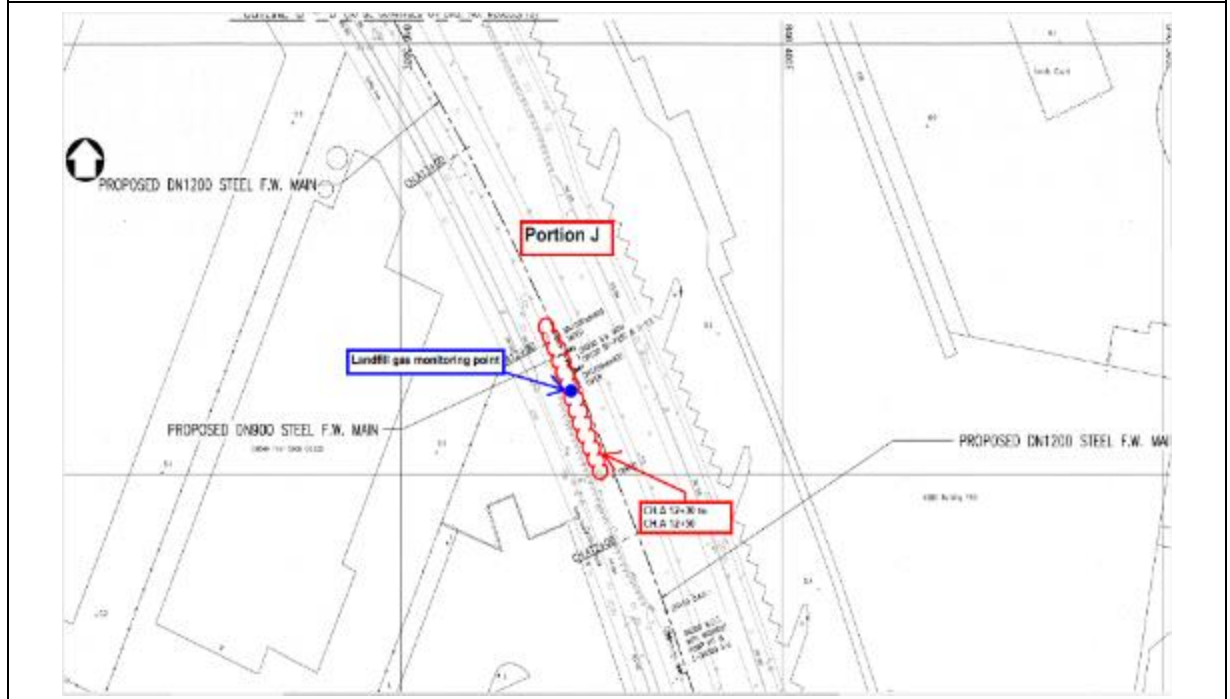


Figure 4.2 Monitoring Location – CHA 12+30 ~ 12+50

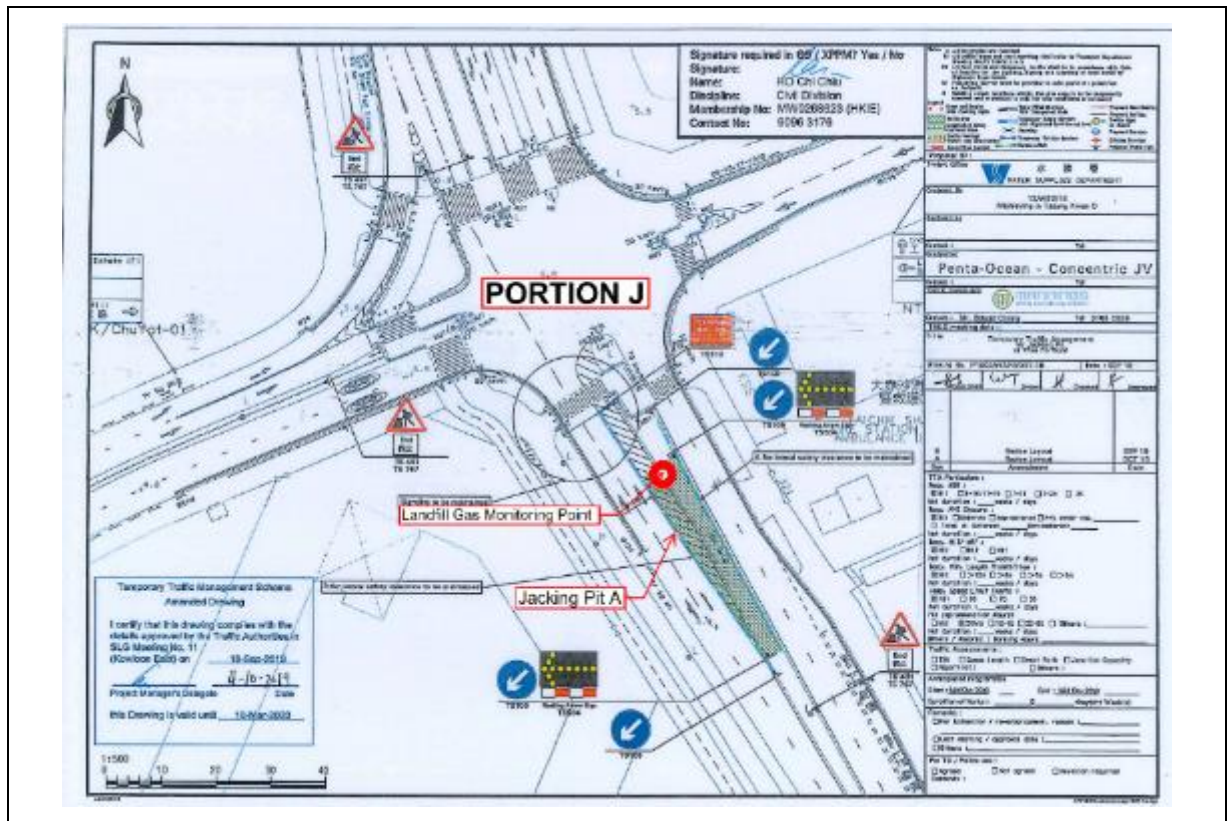


Figure 4.3 Monitoring Location – CH.A 13+50 ~ 14+00 (Pit A)

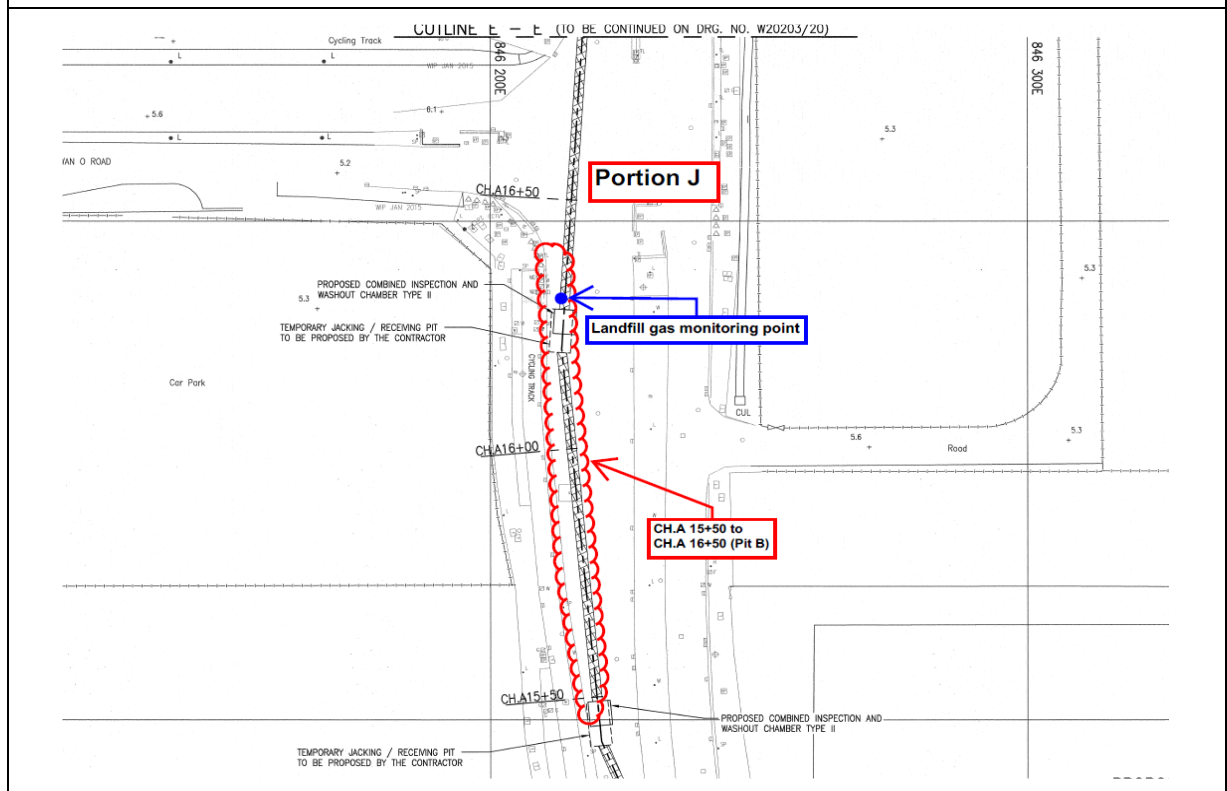


Figure 4.4 Monitoring Location – CH.A 15+50 ~16+50 (Jacking Pit B)

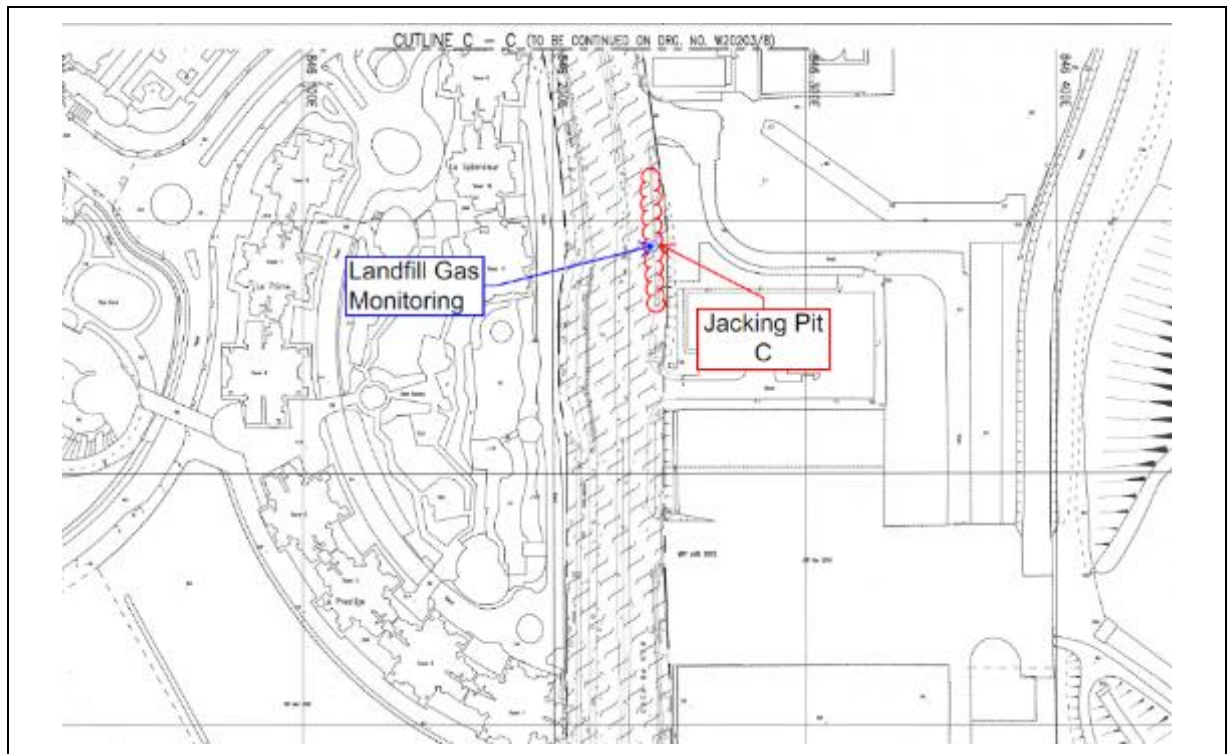


Figure 4.5 Monitoring Location – CH.A 19+15 ~19+50 (Pit C)

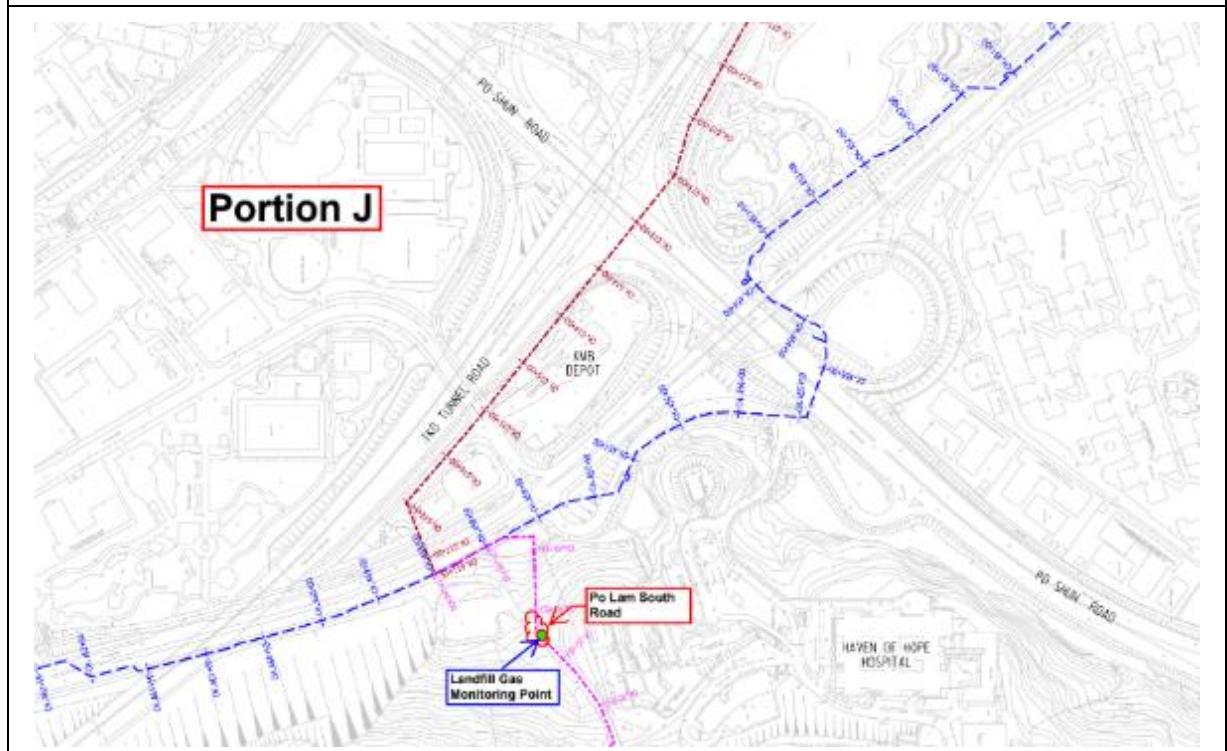


Figure 4.6a Monitoring Location – Mau Wu Tsai 1

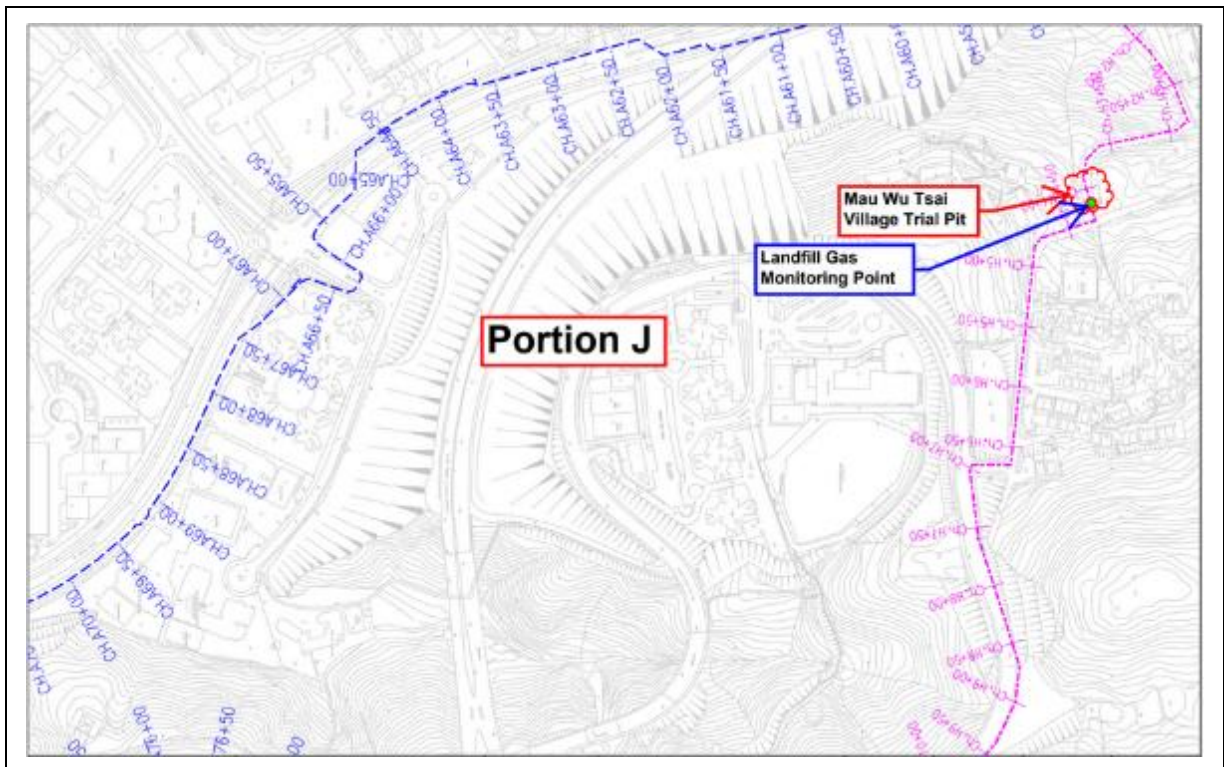


Figure 4.6b Monitoring Location – Mau Wu Tsai 2

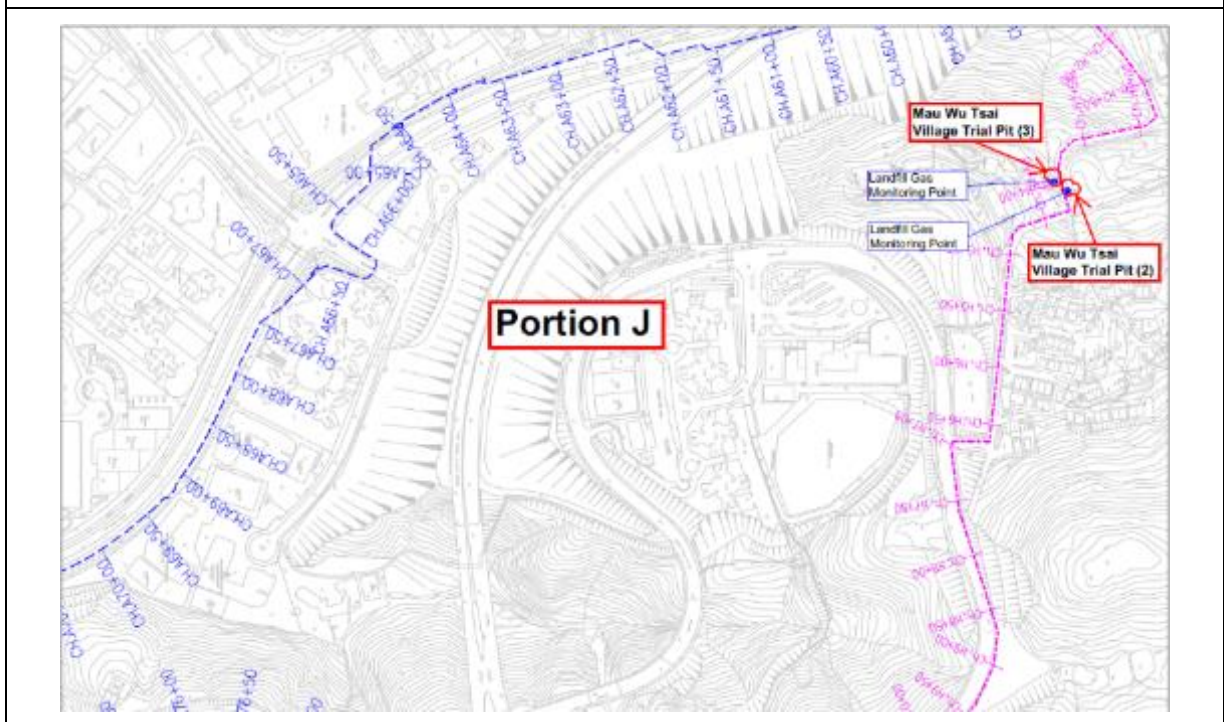


Figure 4.6c Monitoring Location – Mau Wu Tsai 3

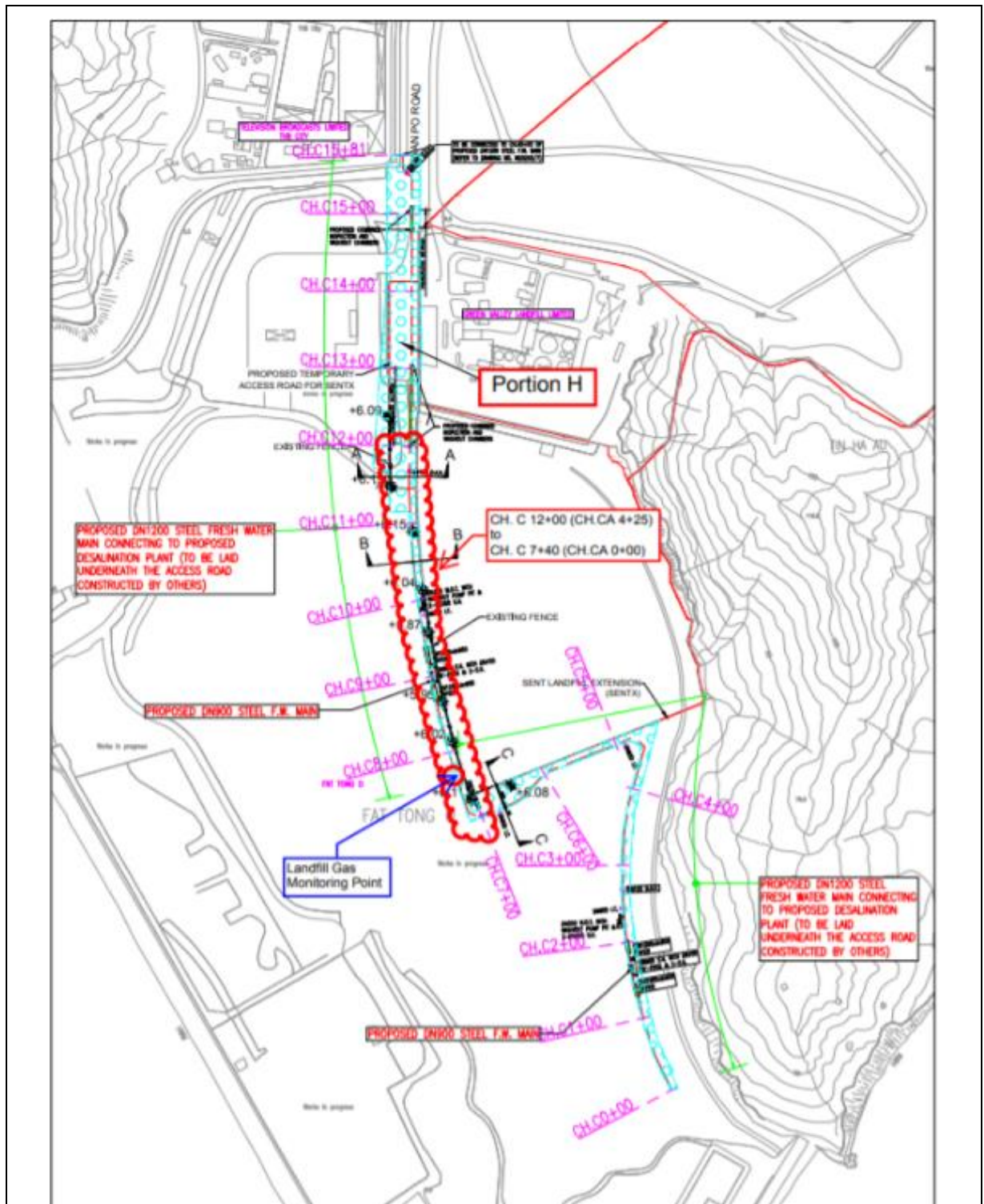


Figure 4.7 Monitoring Location –CH.CA 0+00 to CH.CA 04+25 (CH.C 7+40 ~ 12+00)



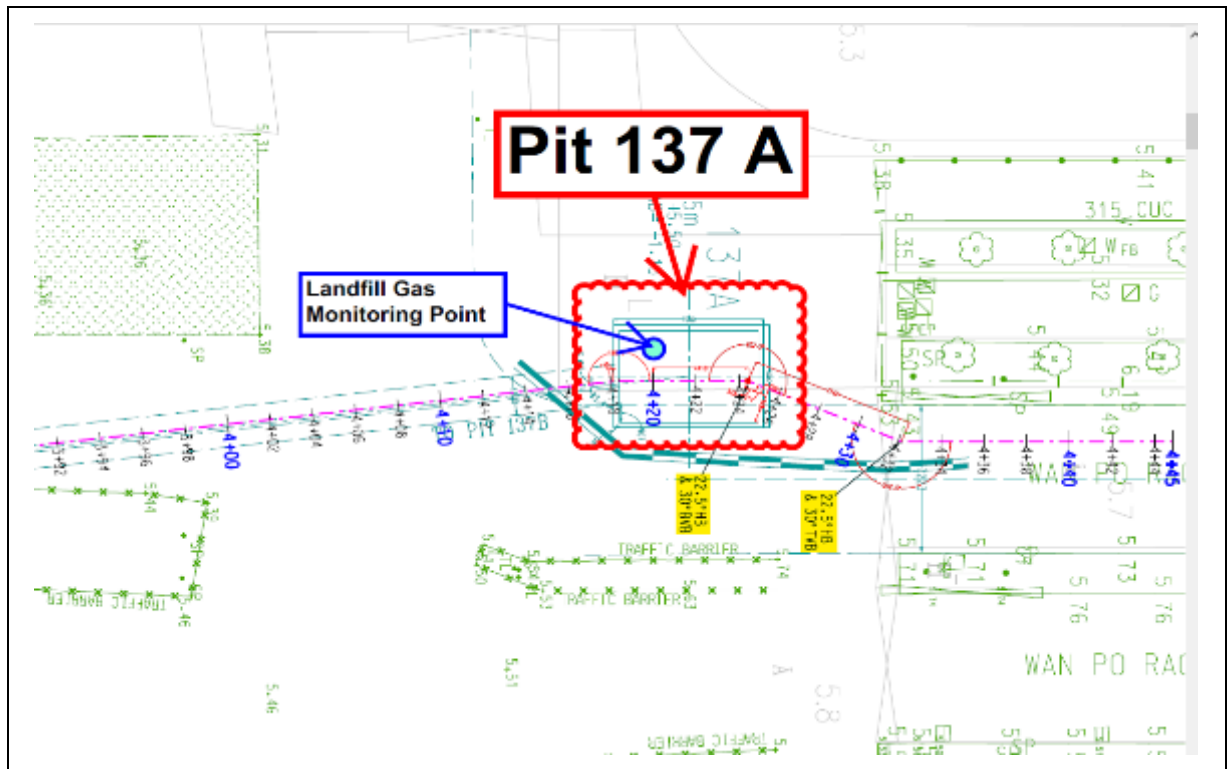


Figure 4.8a Monitoring Location – Pit 137A (137 Pit A)

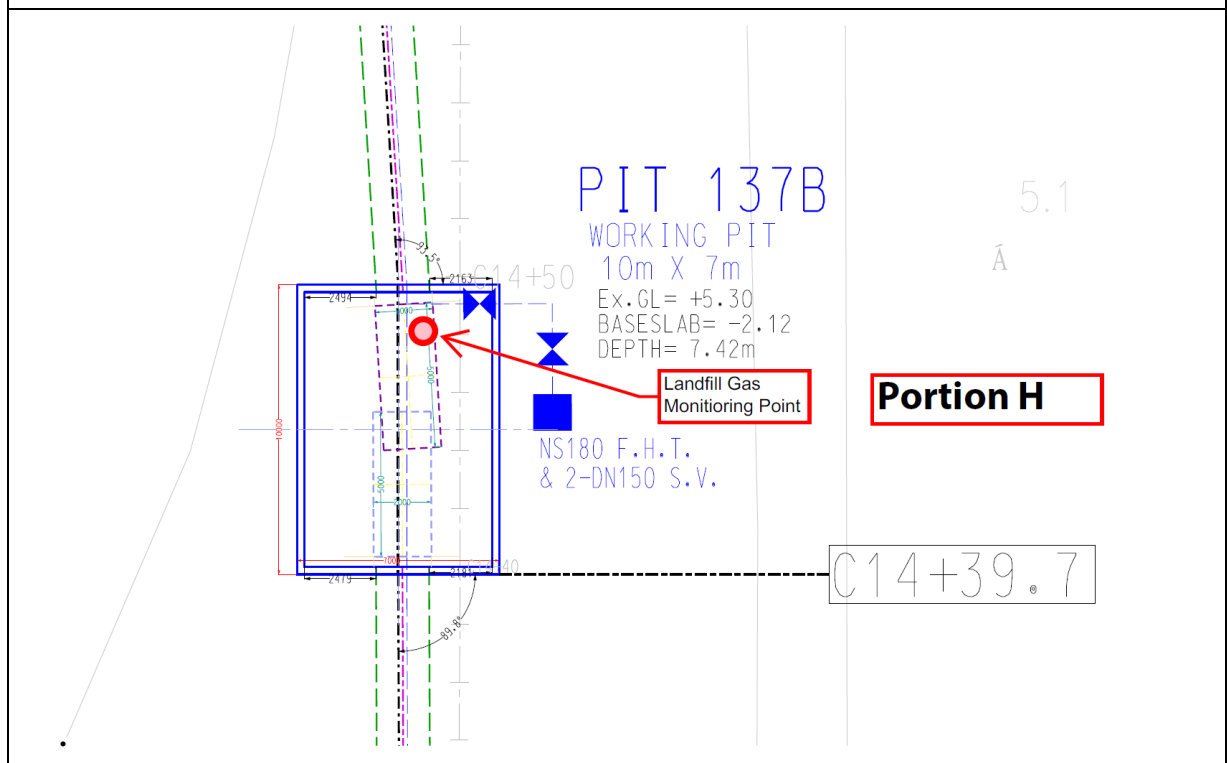


Figure 4.8b Monitoring Location – Pit 137B (137 Pit B)

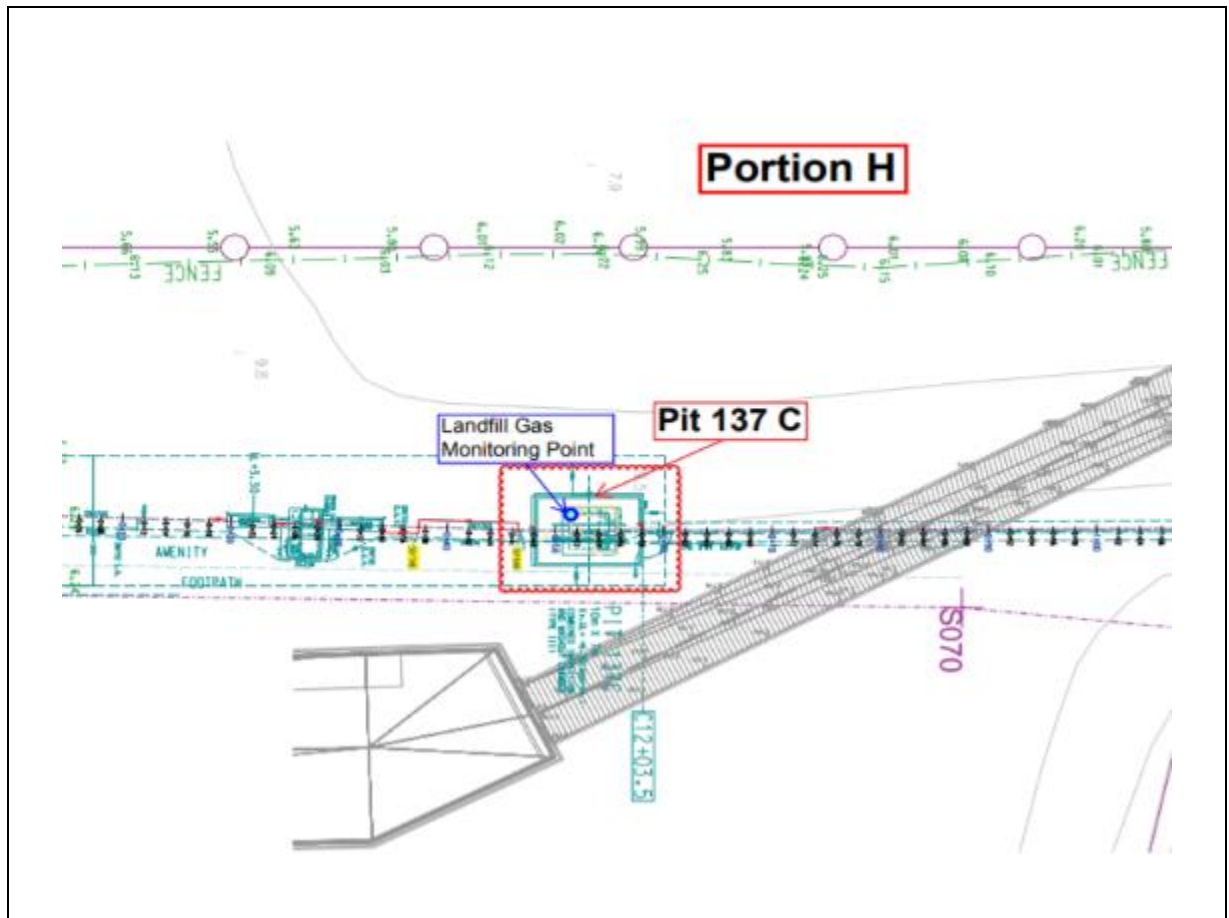


Figure 4.8c Monitoring Location – Pit 137C (137 Pit C)



Figure 4.9 Monitoring Location – Jacking Pit F

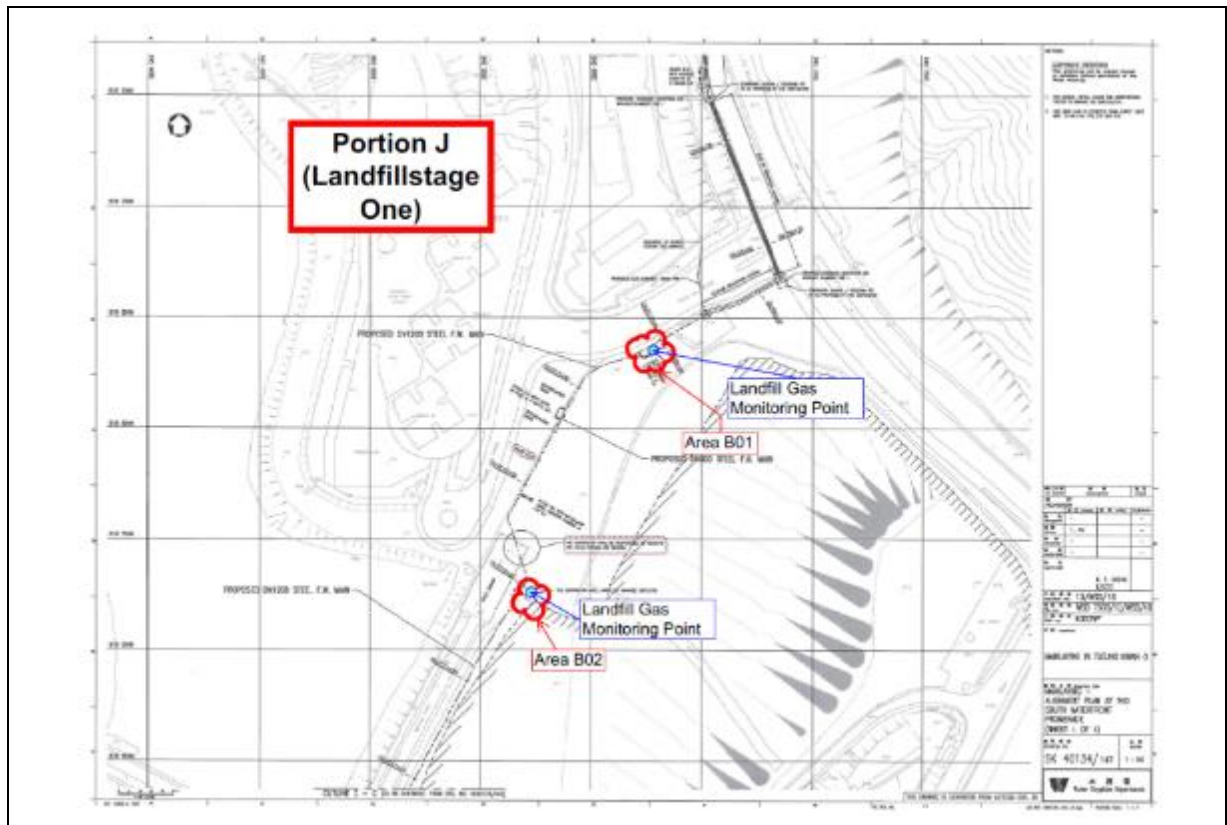


Figure 4.10a Monitoring Location – Landfill Stage 1 (Area B01-B02)

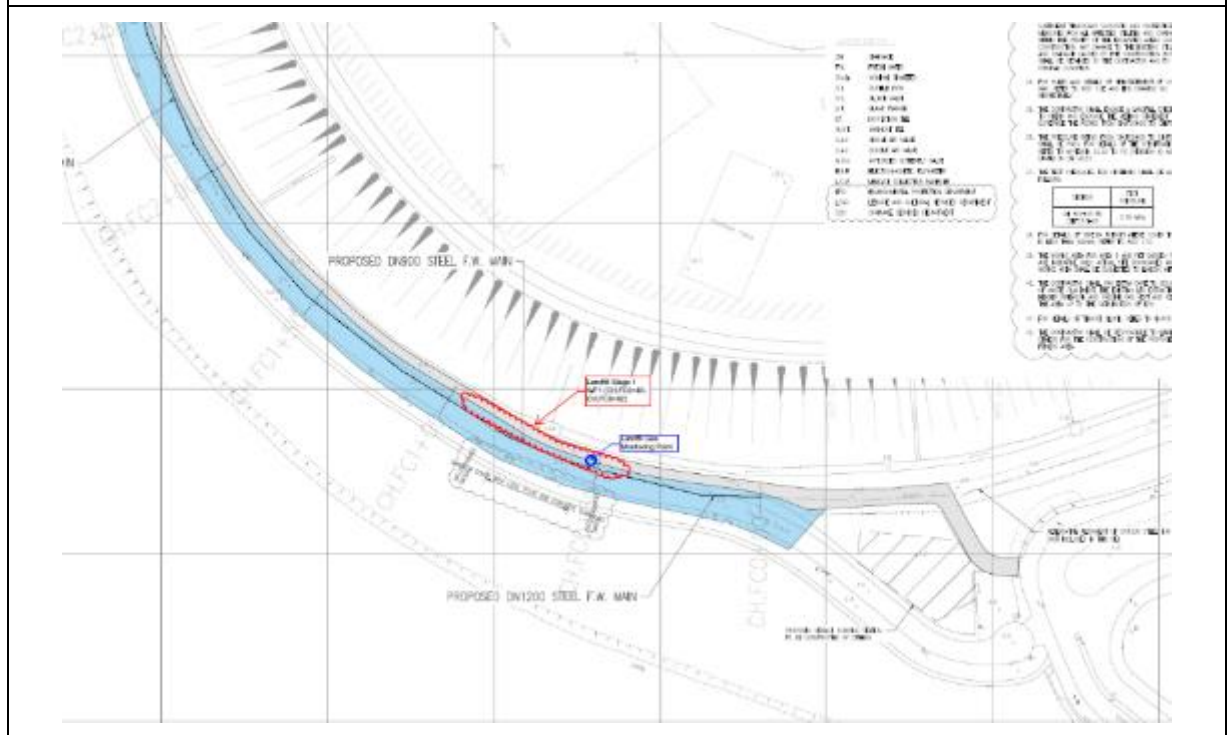


Figure 4.10b Monitoring Location – Landfill Stage 1 (FC0+64-FC0+92)



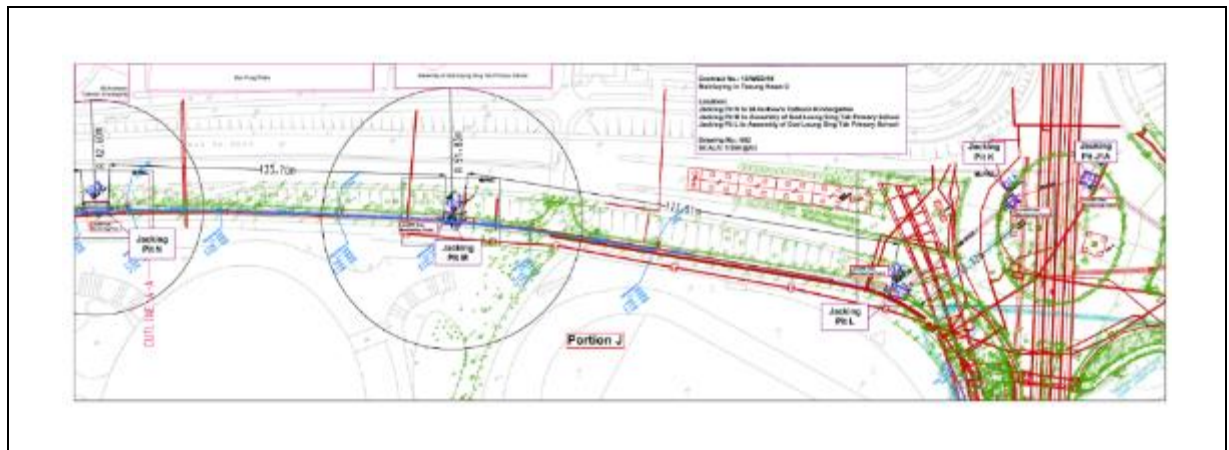


Figure 4.11a Monitoring Location – Pit L-M-N, J1A, K

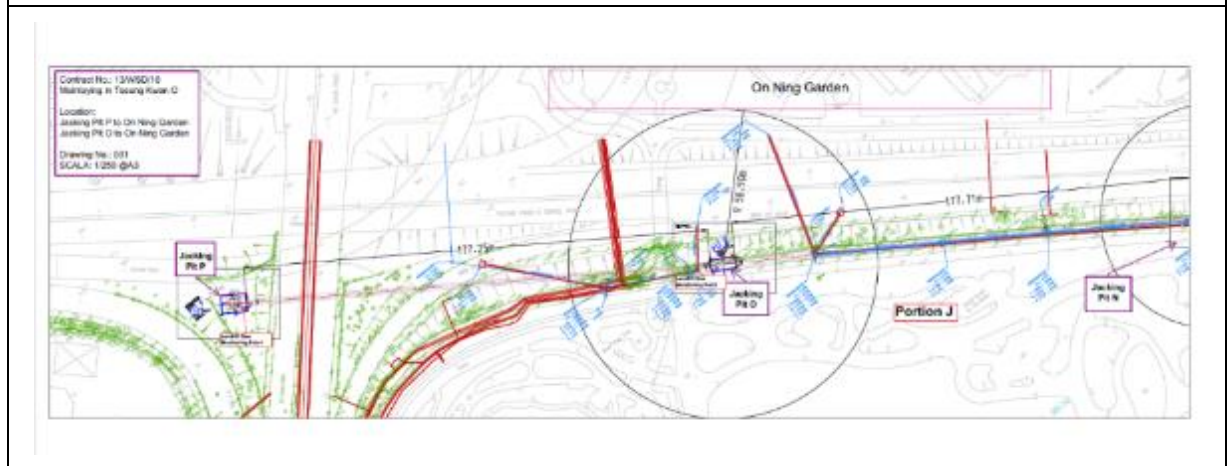


Figure 4.11b Monitoring Location – Pit N-O-P

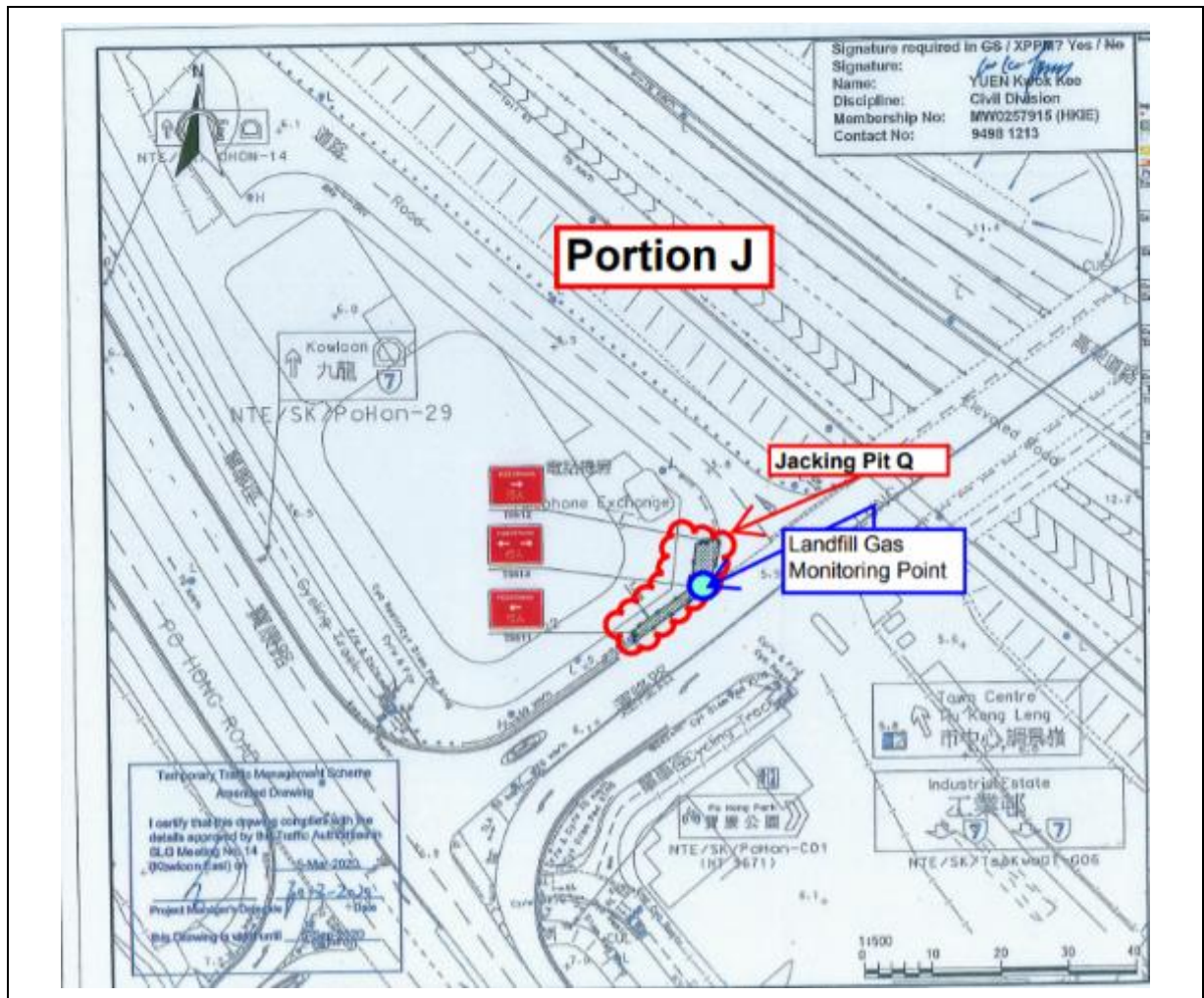


Figure 4.11c Monitoring Location – Pit Q



Figure 4.12 Po Lam South Road

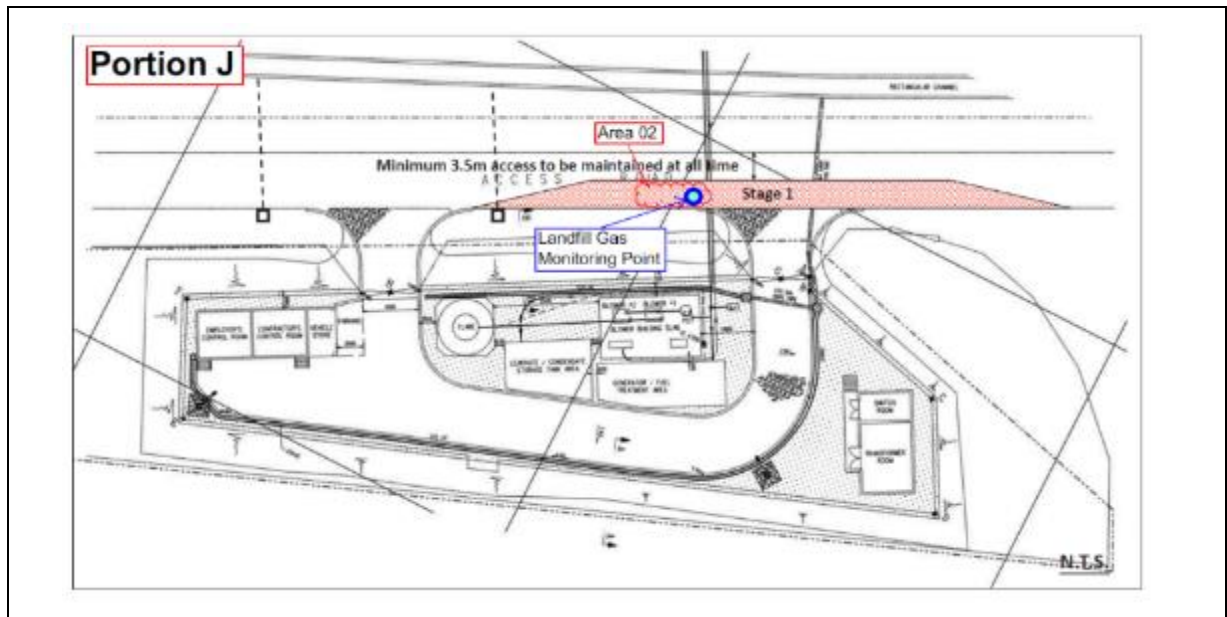


Figure 4.13 Monitoring Location – Area A02

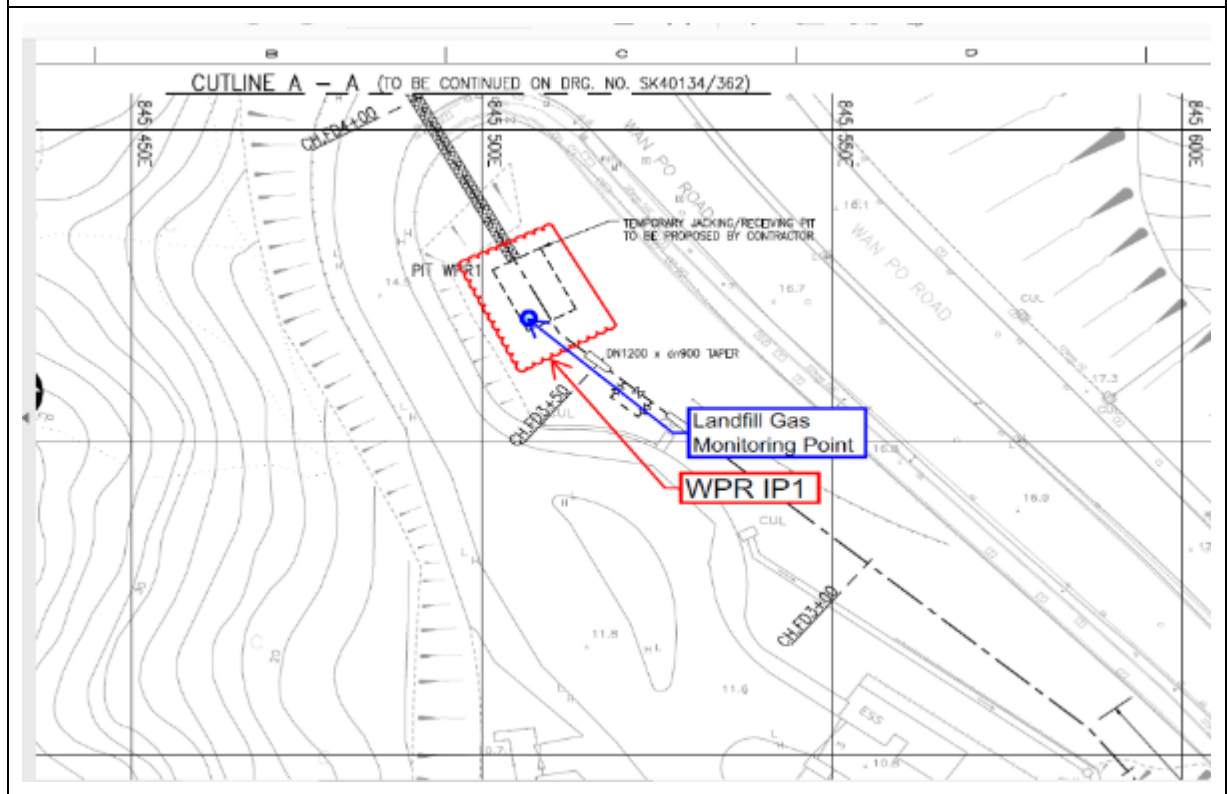


Figure 4.14 Monitoring Location – WPR IP1





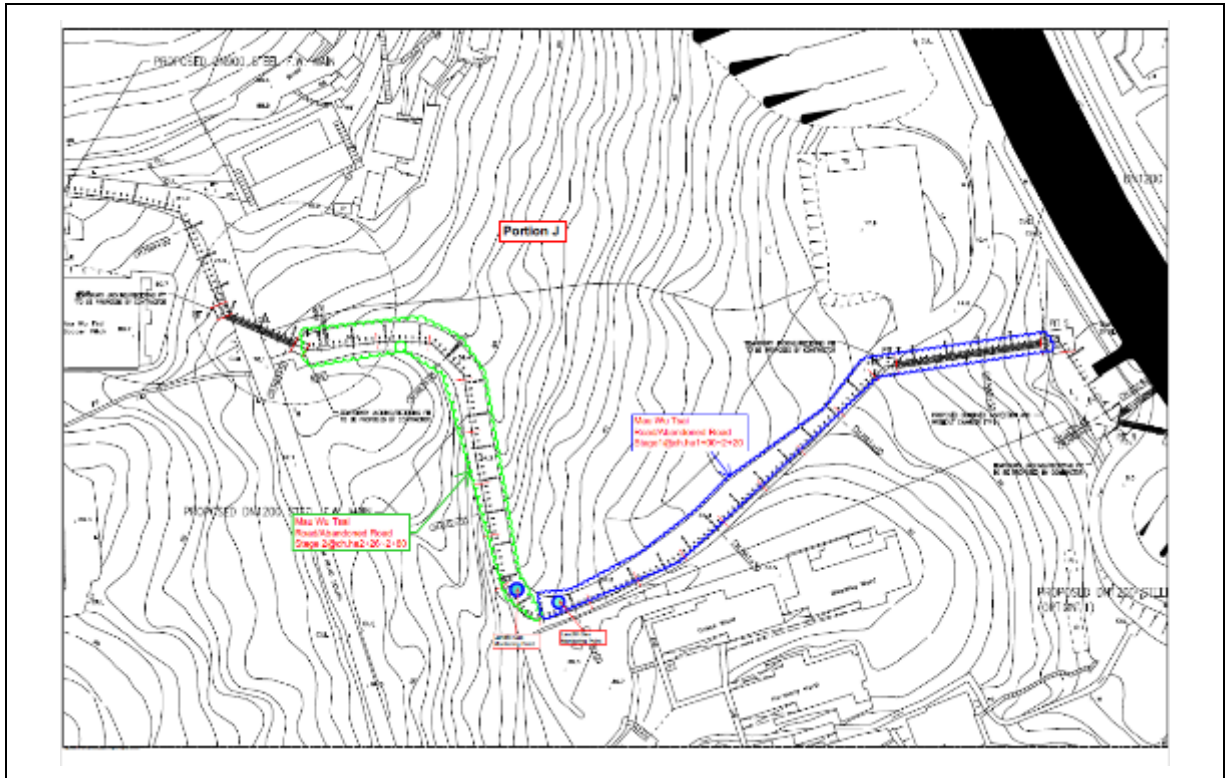


Figure 4.17 Monitoring Location – Mau Wu Tsai Abandoned Road

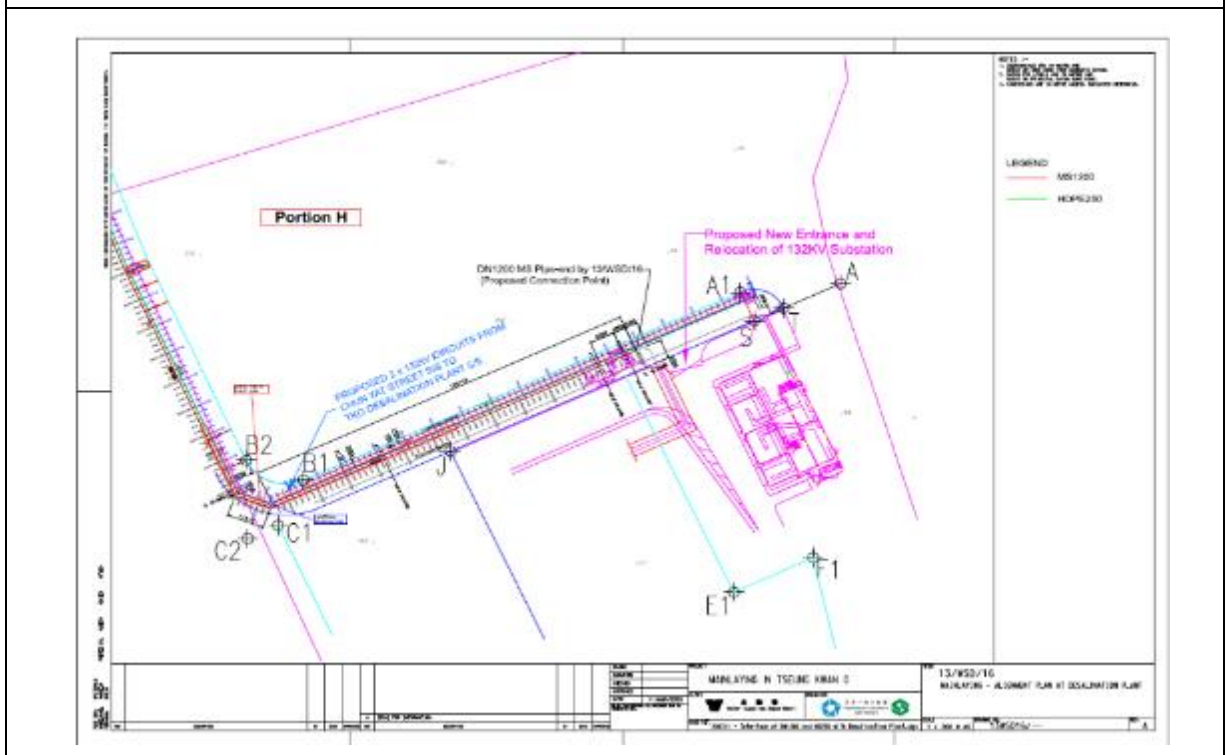


Figure 4.18a Monitoring Location - CH.CT 0+07 ~ 2+58

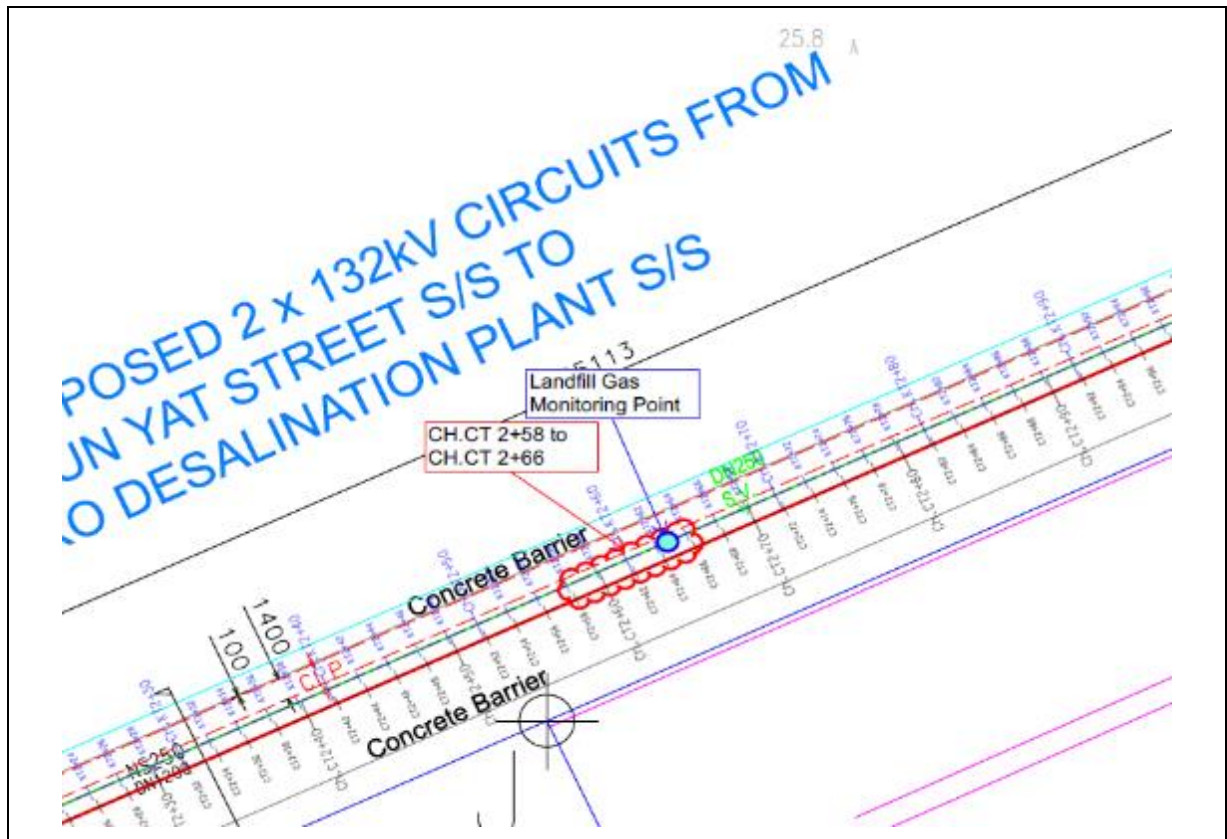


Figure 4.18b Monitoring Location - CH.CT 2+58 ~ 2+66

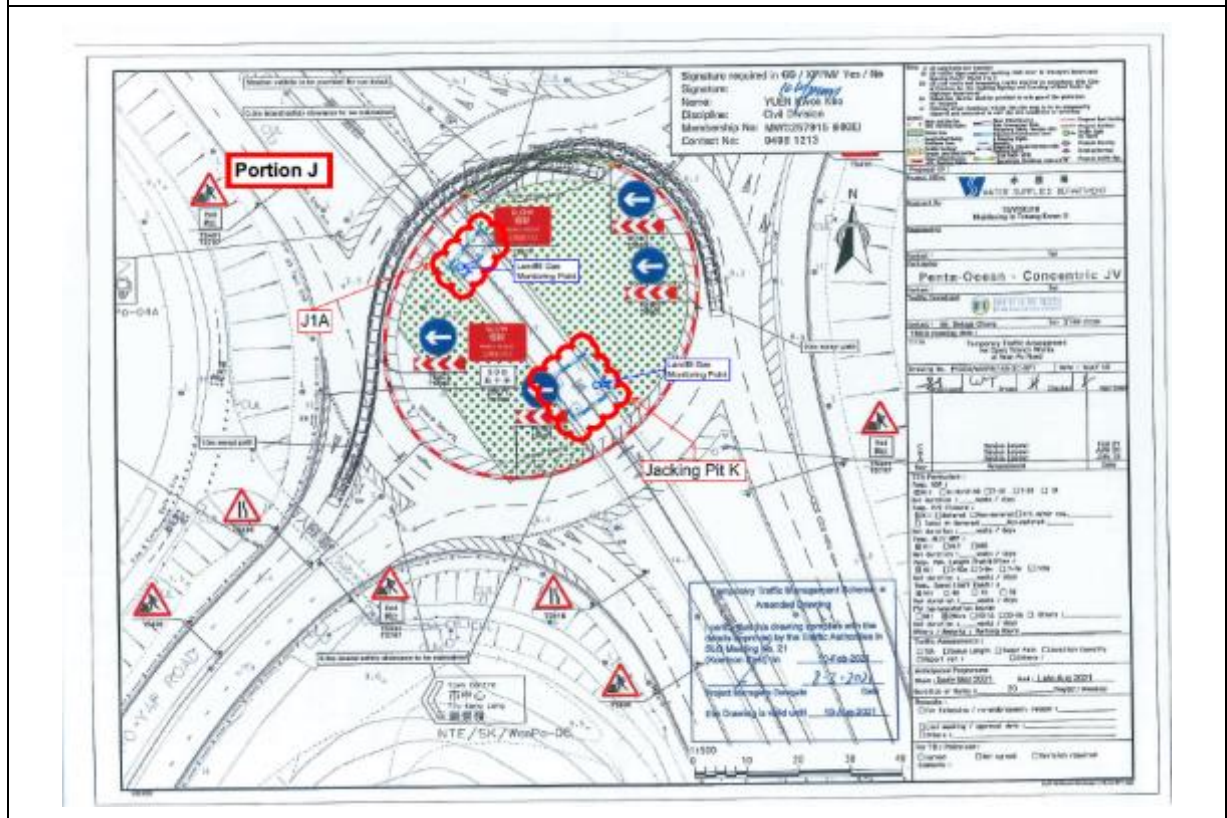


Figure 4.19 Monitoring Location – Pit K

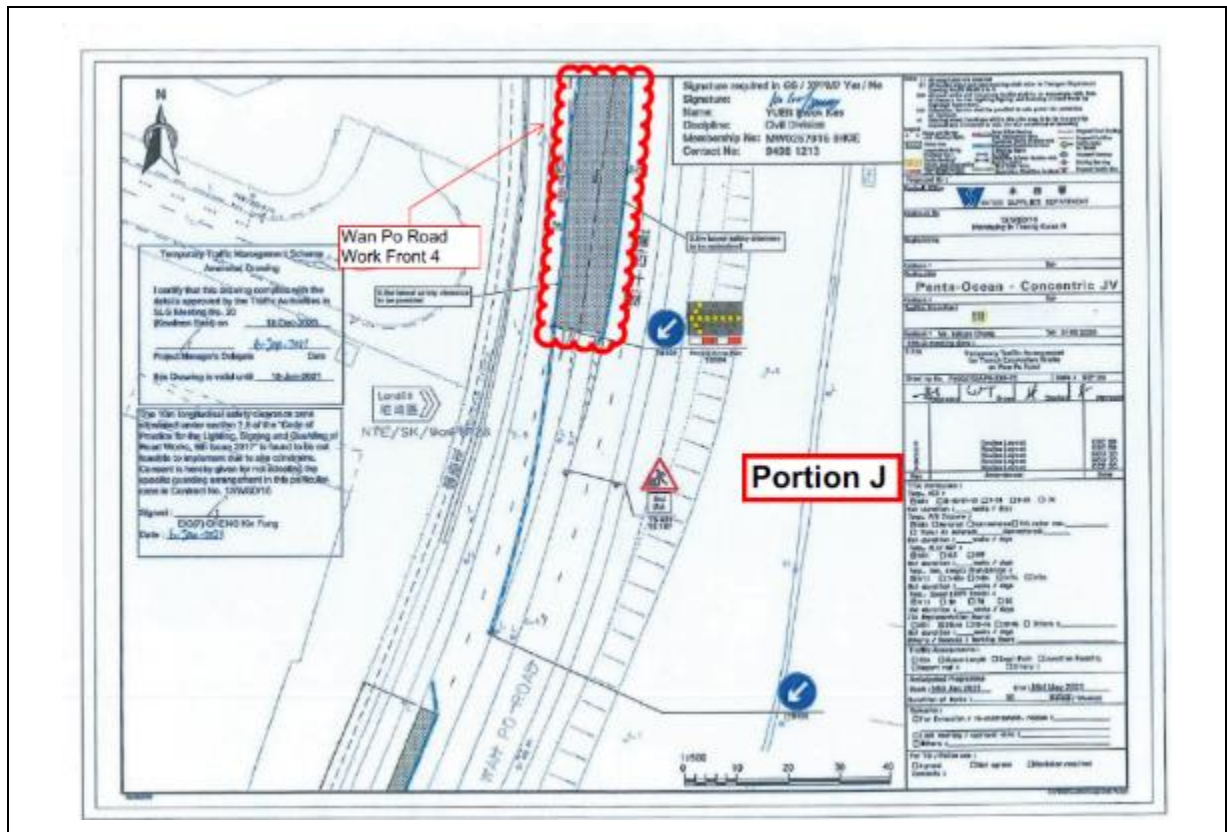


Figure 4.20a Monitoring Location – Wan Po Road 4

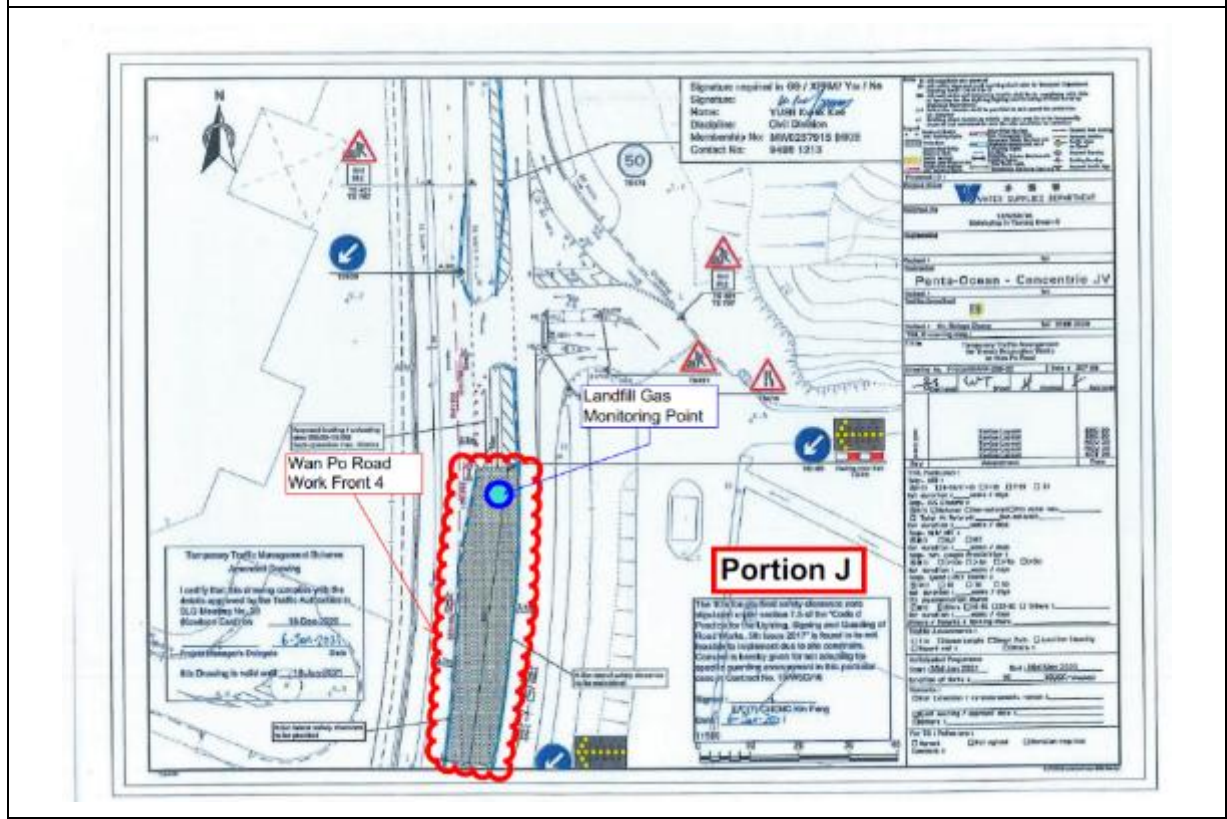


Figure 4.20b Monitoring Location – Wan Po Road 4

### 4.3 Monitoring Parameters

Landfill Gas monitoring was carried out to identify any migration between the landfill and the Project and to ensure the safety of the construction, operation and maintenance personnel working on-site, visitors and any other person within the Project area.

The following parameters were monitored:

- Methane.
- Oxygen.
- Carbon Dioxide.
- Barometric Pressure.

### 4.4 Action and Limit Level

Action and Limit Level are provided in **Table 4.1**.

**Table 4.1 Action and Limit Level for Landfill Gas Monitoring Equipment**

Parameters	Action Level	Limit Level
Oxygen (O <sub>2</sub> )	<19% O <sub>2</sub>	<19% O <sub>2</sub>
Methane (CH <sub>4</sub> )	>10% LEL	>20% LEL
Carbon Dioxide (CO <sub>2</sub> )	>0.5% CO <sub>2</sub>	>1.5% CO <sub>2</sub>

### 4.5 Monitoring Equipment

Landfill Gas monitoring was carried out using intrinsically-safe, portable multi-gas monitoring instruments. The gas monitoring equipment is:

- Complying with the Landfill Gas Hazard Assessment Guidance Note as intrinsically safe;
- Capable of continuous barometric pressure and gas pressure measurements;
- Normally operated in diffusion mode unless required for spot sampling, when it should be capable of operating by means of an aspirator or pump;
- Having low battery, fault and over range indication incorporated;
- Capable of storing monitoring data, and shall be capable of being down-loaded directly;
- Measure in the following ranges:

methane	0-100% Lower Explosion Limit (LEL) and 0-100% v/v;
oxygen	0-25% v/v;
carbon dioxide	0-5% v/v; and
barometric pressure	mBar (absolute)

alarm (both audibly and visually) in the event that the concentrations of the following are exceeded:

methane	>10% LEL;
oxygen	<19% by volume; and
carbon dioxide	>0.5% by volume
barometric pressure	mBar (absolute)

Monitoring Equipment used in the reporting period are summarised in **Table 4.2**. The Landfill Gas monitoring equipment calibration certificate is presented in **Appendix I**.

**Table 4.2 Landfill Gas Monitoring Equipment**

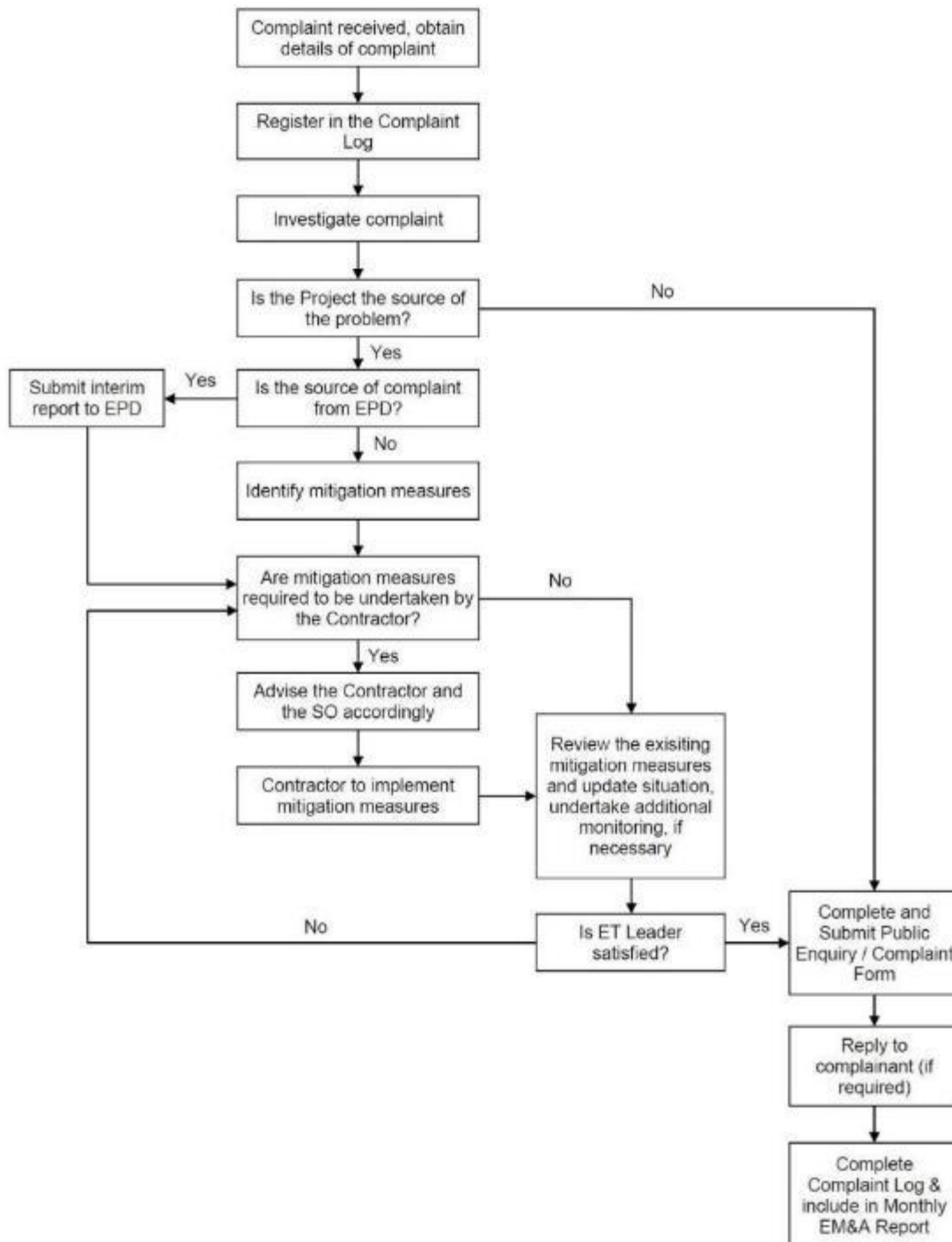
<b>Equipment</b>	<b>Brand and Model</b>	<b>Calibration Expiry Date</b>
Portable Gas Detector	QRAE III	27 July 2022
MultiRAE Lite	PGM-6208	06 April 2022
Portable Gas Detector	XT-XWHM-Y-OR	08 June 2022

#### **4.6 Monitoring Results**

In the reporting period, construction works within the consultation zones, excavations of 1m depth or more was monitored. Landfill gas monitoring was carried out by the Registered Safety Officer of the Contractor at the excavation locations for 550 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.

## 5. SUMMARY OF MONITORING EXCEEDANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

The Environmental Complaint Handling Procedure is shown in below **Figure 5.1**:



**Figure 5.1 Environmental Complaint Handling Procedure**

Impact monitoring for noise impact was scheduled in the reporting month for NSR4 – Creative Secondary School on 2, 10, 18, 24 and 30 March 2022 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.

No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

Landfill gas monitoring was carried out by the Registered Safety Officer of the Contractor at the excavation locations and within the consultation zones for 550 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.

No exceedance of the Action and Limit Level was recorded during the reporting period.

No environmental complaint was received in the reporting period.

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

Statistics on complaints and regulatory compliance are summarized in **Appendix K**.

## 6. EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections were carried out on 3, 11, 18, 24 and 30 March 2022 at the site portions list in **Table 6.1** below.

**Table 6.1 Site Inspection Record**

<b>Date</b>	<b>Inspected Site Portion</b>	<b>Time</b>
3 March 2022	Portion J	09:30am – 10:00am
11 March 2022	Portion J	09:30am – 11:30am
18 March 2022	Portion J	09:30am – 11:30am
24 March 2022	Portion J	09:30am – 10:15am
30 March 2022	Portion J	09:30am – 11:15am

One joint site inspection with IEC was carried out on 24 March 2022.

Minor deficiencies were observed during weekly site inspections. Key observations during the site inspections are summarized in **Table 6.2**.

**Table 6.2 Site Observations**

<b>Date</b>	<b>Environmental Observations</b>	<b>Follow-up Status</b>
3 March 2022	1. Clear the oil stain on ground and avoid oil leakage from excavator. (Po Lam South Road)	1. The oil stain on ground was cleaned.
11 March 2022	1. Drip tray should be provided for chemical storage. (Wan Po Road Workfount 4) 2. Stockpile of dusty materials should be covered properly with impervious materials at Area A.	1. Chemical was removed. 2. Dusty materials was covered properly.
18 March 2022	1. Drip tray should be provided for chemical storage (Pit P and Velodrome O). 2. Adequate capacity of sedimentation tank should be provided to prevent overflow of untreated muddy water at Velodrome L.	1. Drip tray was provided for chemical storage. 2. Sedimentation tank was cleaned.
24 March 2022	1. Chemical waste should be stored at a designated area before disposal. (Creative School) 2. Excavated materials/ rubbish should be disposed of properly and prevent soil entering the stream. (Creative School)	1. Chemical waste was cleaned. 2. Excavated materials/ rubbish was cleaned.



**Contract No. 13/WSD/16**  
**Mainlaying in Tseung Kwan O**  
**Monthly EM&A Report No.44**



<b>Date</b>	<b>Environmental Observations</b>	<b>Follow-up Status</b>
30 March 2022	<ol style="list-style-type: none"><li>1. Drip tray should be provided for chemical storage (Velodrome L, N, O)</li><li>2. To clear the stagnant water in drip tray. (Velodrome L, N, M)</li></ol>	<ol style="list-style-type: none"><li>1. Drip tray was provided for chemical storage.</li><li>2. Stagnant water in drip tray was cleared.</li></ol>

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

Site inspection proforma of the reporting period is provided in **Appendix L**.

## 7. FUTURE KEY ISSUES

Key works that will be anticipated in the next reporting period for the Project are shown in **Table 7.1.**

**Table 7.1. Key works for the next reporting month**

Location	Location	Forecast Works in Next Reporting Month
Portion H of the Project Site	TKO 137 Pit A	<ul style="list-style-type: none"> <li>• Pipe installation works inside sleeve pipe between Pit 137A to Pit 137C will be conducted.</li> </ul>
	TKO 137 Pit B	
	TKO 137 Pit C	
Portion J of the Project Site	Wan Po Rd – Workfront 1	<ul style="list-style-type: none"> <li>• Excavation and ELS works for jacking Pit 1</li> </ul>
	Wan Po Rd – Workfront 2	<ul style="list-style-type: none"> <li>• Setup for MTMB pipe jacking</li> </ul>
	Wan Po Rd – Workfront 3	<ul style="list-style-type: none"> <li>• Pipe trench excavation and pipe laying</li> </ul>
	Wan Po Rd – Workfront 4	<ul style="list-style-type: none"> <li>• Pipe trench excavation and pipe laying</li> <li>• Pipe installation inside sleeve pipe between WF4 &amp; WF4B</li> </ul>
	Wan Po Rd – Pit A	<ul style="list-style-type: none"> <li>• Commence MTMB pipe jacking</li> </ul>
	Wan Po Rd – Pit B	<ul style="list-style-type: none"> <li>• MTBM pipe jacking</li> </ul>
	Wan Po Rd – Pit D	<ul style="list-style-type: none"> <li>• MTBM pipe jacking</li> </ul>
	Shek Kok Road – Pit D	<ul style="list-style-type: none"> <li>• MTBM pipe jacking</li> </ul>
	Shek Kok Road – Hand-shield	<ul style="list-style-type: none"> <li>• Construction of wing wall</li> <li>• Setup for hand shield pipe jacking</li> </ul>
	Landfill Stage 1 – Area A	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Landfill Stage 1 – Area B	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Pet Garden’s Road	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Creative school	<ul style="list-style-type: none"> <li>• Construction of flood protection well and re-construction of u-channel</li> </ul>
	Pung Loi Road – Pit WPR1	<ul style="list-style-type: none"> <li>• Setup for MTMB pipe jacking</li> </ul>
	Roundabout – Pit G1A	<ul style="list-style-type: none"> <li>• Pipe laying inside sleeve pipe</li> </ul>
	Roundabout – Pit J1A	
	Velodrome – Pit K	<ul style="list-style-type: none"> <li>• Grouting for sleeve pipe between Pit K to Pit L</li> </ul>
	Velodrome – Pit O to Pit N	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying.</li> </ul>
	Velodrome – Pit O to Pit P	<ul style="list-style-type: none"> <li>• Site setup for trenchless works.</li> </ul>
	Abandoned Road near Mau Wu Tsai – Workfront 1	<ul style="list-style-type: none"> <li>• Gate valve chamber construction</li> <li>• Trench reinstatement</li> </ul>
	Po Lam Road South	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
	Po Lam Road (C2)	<ul style="list-style-type: none"> <li>• Pipe piling of pipe bridge at Location A Westside slope.</li> </ul>
	Po Lam Road (D2)	<ul style="list-style-type: none"> <li>• Trench excavation and pipe laying</li> </ul>
Po Lam Road (B4)	<ul style="list-style-type: none"> <li>• Trench rock breaking</li> <li>• Trench excavation and pipe laying</li> </ul>	

Location	Location	Forecast Works in Next Reporting Month
	Tsui Lam Road	• Predrilling for mini pile
	TKO Primary Service Reservoir	• Trench excavation and pipe laying

The major environmental impacts brought by the above construction works will include:

- Construction dust and noise generation of mainlaying of pipes, TBM break through, and excavation works;
- Waste generation from construction activities; and
- Impact on water quality from construction activities.

The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:

- Dust suppression by regular wetting and water spraying for excavation works, mainlaying of pipes and TBM break through works;
- Reduction of noise from equipment and machinery on-site;
- Sorting and storage of general refuse and construction waste; and
- Treatment of wastewater with water treatment facilities before discharge.

The proactive environmental protection proforma for the next reporting month is listed in **Appendix M**.

Referring to EM&A Manual Section 4.1.2, the impact noise monitoring should be carried out at all the designated monitoring stations when there are project-related construction activities undertaken within a radius of 300m from the monitoring stations.

The tentative impact monitoring schedule for the next reporting month is attached in **Appendix N**.

## **8. CONCLUSION AND RECOMMENDATIONS**

This is the 44<sup>th</sup> monthly Environmental Monitoring and Audit (EM&A) Report presenting the EM&A works undertaken during the period from 1 March to 31 March 2022, in accordance with the EM&A Manual and the requirement under EP-503/2015/A.

Impact monitoring for noise impact was scheduled in the reporting month for NSR4 – Creative Secondary School on 2, 10, 18, 24 and 30 March 2022 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.

No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

Landfill gas monitoring was carried out by the Registered Safety Officer of the Contractor at the excavation locations and within the consultation zones for 550 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.

No exceedance of the Action and Limit Level was recorded during the reporting period.

Weekly environmental site inspections were conducted during the reporting month. Minor deficiencies were observed during site inspection and were rectified. The environmental performance of the project was therefore considered satisfactory.

According to the environmental site inspections performed in the reporting month, the contractor is reminded to pay attention on maintaining site tidiness, water treatment facilities, dust suppression mitigations and proper materials storage.

No environmental complaint was received in the reporting month.

No notification of summons or prosecution was received since the commencement of the Contract.

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

# Appendix A

## Construction Programme



ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	Timeline																																									
											4. 2017	2018	2019	2020	2021	2022	2023	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
534	Water Main Structure and Associated Pipe Support from Po Lam Road to Tsui Lam Road (CH. HD0+00 ~ CH. HD1+01)	702 days	16 Jun '20	27 Oct '22	HK Working Day		643	13%	16 Jun '20	NA	Timeline bar spanning from 16 Jun '20 to 27 Oct '22, with a red vertical line at approximately Oct 2021.																																									
555	From Tsui Lam Road to TKO Freshwater PSR (CH. HE.0+00 ~ CH. HE2+00) & (CH. J0+00 CH. J0+57)	677 days	3 Aug '20	12 Nov '22	HK Working Day		643	0%	NA	NA	Timeline bar spanning from 3 Aug '20 to 12 Nov '22.																																									
571	Final Connection to TKO Fresh Water Service Reservoir	30 days	22 Apr '22	28 May '22	HK Working Day			0%	NA	NA	Timeline bar spanning from 22 Apr '22 to 28 May '22.																																									
574	Mainlaying in Tseung Kwan O Area 137 (Portion H)	1051 days	11 Dec '18	4 Jul '22	HK Working Day			59%	11 Dec '18	NA	Timeline bar spanning from 11 Dec '18 to 4 Jul '22.																																									
635	DN1200 MS Pipe Static Pressure Test, Pipeline Cleaning, CCTV Inspection, Sterilization and Water Sampling	2048 days	7 Nov '17	16 Jun '23	Calendar Day			0%	NA	NA	Timeline bar spanning from 7 Nov '17 to 16 Jun '23.																																									
636	Static Pressure Test	838 days	1 Nov '20	16 Feb '23	Calendar Day			0%	NA	NA	Timeline bar spanning from 1 Nov '20 to 16 Feb '23.																																									
644	Pipeline Cleaning and CCTV Inspection	2018 days	7 Nov '17	17 May '23	Calendar Day		653FF+30	0%	NA	NA	Timeline bar spanning from 7 Nov '17 to 17 May '23.																																									
652	Sterilization and Water Sampling	150 days	18 Jan '23	16 Jun '23	Calendar Day			0%	NA	NA	Timeline bar spanning from 18 Jan '23 to 16 Jun '23.																																									
654	DN800 MS Pipe Static Pressure Test, Pipeline Cleaning, CCTV Inspection, Sterilization and Water Sampling	35 days	18 Mar '22	21 Apr '22	Calendar Day		572,573	0%	NA	NA	Timeline bar spanning from 18 Mar '22 to 21 Apr '22.																																									
658	NS250 HDPE Pipe Static Pressure, Pipelng Cleaning, CCTV Inspection, Sterilization and Water Sampling	30 days	11 May '22	9 Jun '22	Calendar Day			0%	NA	NA	Timeline bar spanning from 11 May '22 to 9 Jun '22.																																									
660	Handover Portion I and Portion H to WSD Region	379 days	10 Jun '22	23 Jun '23	Calendar Day			0%	NA	NA	Timeline bar spanning from 10 Jun '22 to 23 Jun '23.																																									
663	Water Supply to Tseung Kwan O Desalination Plant at Fill Bank of Tseung Kwan O Area 137 (Portion J)	141 days	16 Nov '18	11 May '19	HK Working Day			100%	16 Nov '18	11 May '19	Timeline bar spanning from 16 Nov '18 to 11 May '19.																																									

**Working Programme No. 11**  
Data Date : 15 Nov 2020

- Task Split
- Milestone Summary
- Project Summary
- Inactive Task
- Inactive Milestone
- Inactive Summary
- Manual Task
- Manual Summary Rollup
- Manual Summary
- Manual Task
- Start-only
- Finish-only
- External Tasks
- External Milestone
- Deadline
- Critical
- Critical Split
- Progress
- Manual Progress

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	Timeline																																															
											4. 2017 Nov/Dec	2018 Qtr 1, 2018 Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	2019 Qtr 1, 2019 Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	2020 Qtr 1, 2020 Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	2021 Qtr 1, 2021 Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	2022 Qtr 1, 2022 Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	2023 Qtr 1, 2023 Jan, Feb, Mar, Apr, May, Jun, Jul, Aug																																									
57	Site Establishment	220 days	2 Jan '18	9 Aug '18	Calendar Day			100%	2 Jan '18	9 Aug '18	[Gantt bar from 2 Jan '18 to 9 Aug '18]																																															
60	Procurement of Major Material	1104 days	7 Apr '18	14 Apr '21	Calendar Day			54%	7 Apr '18	NA	[Gantt bar from 7 Apr '18 to 14 Apr '21]																																															
70	Mainlaying From Boundary of Tseung Kwan O Area 137 to TKO Fresh Water Service Reservoir (Portion I)	1491 days	7 Nov '17	18 Nov '22	HK Working Day			26%	7 Nov '17	NA	[Gantt bar from 7 Nov '17 to 18 Nov '22]																																															
71	Open Cut Excavation, Pipe Laying and Reinstatement at Wan Po Road	1198 days	30 Aug '18	15 Sep '22	HK Working Day		638	52%	30 Aug '18	NA	[Gantt bar from 30 Aug '18 to 15 Sep '22]																																															
72	Open Cut CH.A0+00 to CH.A3+62 (Pit 1)	992 days	10 Sep '18	14 Jan '22	HK Working Day			66%	10 Sep '18	NA	[Gantt bar from 10 Sep '18 to 14 Jan '22]																																															
83	Trenchless Works (Pit 1 to Pit 2)	317 days	22 Jan '21	18 Feb '22	HK Working Day			0%	NA	NA	[Gantt bar from 22 Jan '21 to 18 Feb '22]																																															
84	Construction of Jacking / Receiving Pits	100 days	22 Jan '21	28 May '21	HK Working Day			0%	NA	NA	[Gantt bar from 22 Jan '21 to 28 May '21]																																															
87	TMB Pipe Jacking Pit 1- Pit 2	217 days	29 May '21	18 Feb '22	HK Working Day		99	0%	NA	NA	[Gantt bar from 29 May '21 to 18 Feb '22]																																															
98	Open Cut CH.A5+29.5 (Pit 2) to CH.A7+12	1088 days	30 Aug '18	5 May '22	HK Working Day			73%	30 Aug '18	NA	[Gantt bar from 30 Aug '18 to 5 May '22]																																															
108	Open Cut CH.A7+12 to CH.A13+79.5	1181 days	19 Sep '18	15 Sep '22	HK Working Day			47%	19 Sep '18	NA	[Gantt bar from 19 Sep '18 to 15 Sep '22]																																															
132	Trenchless Work at Wan Po Road From Pit A to Pit F	1443 days	7 Nov '17	21 Sep '22	HK Working Day		639	24%	7 Nov '17	NA	[Gantt bar from 7 Nov '17 to 21 Sep '22]																																															
133	Trenchless Works (Pit A to Pit C)	867 days	12 Aug '19	16 Jul '22	HK Working Day			17%	12 Aug '19	NA	[Gantt bar from 12 Aug '19 to 16 Jul '22]																																															
164	Crossing Wan Po Road and Lohas Park Road	1780 days	7 Nov '17	21 Sep '22	Calendar Day			7%	7 Nov '17	NA	[Gantt bar from 7 Nov '17 to 21 Sep '22]																																															
227	Miscellaneous	594 days	25 Jan '18	10 Sep '19	Calendar Day			80%	25 Jan '18	NA	[Gantt bar from 25 Jan '18 to 10 Sep '19]																																															
230	Open Cut Excavation, Pipe Laying and Reinstatement at TKO Landfill Stage 1 and TKO South Waterfront Promenade	1283 days	7 Nov '17	8 Mar '22	HK Working Day		640	54%	7 Nov '17	NA	[Gantt bar from 7 Nov '17 to 8 Mar '22]																																															
289	Burned Pipe, Exposed Pipe, Trenchless Works From Loi Avenue to Po Yap Road Roundabout	768 days	20 Apr '20	18 Nov '22	HK Working Day		641	7%	20 Apr '20	NA	[Gantt bar from 20 Apr '20 to 18 Nov '22]																																															
347	Trenchless Work from Po Yap Road Roundabout to KMB Depot (Pit K to Pit P)	590 days	18 Nov '19	13 Nov '21	HK Working Day		642	37%	18 Nov '19	NA	[Gantt bar from 18 Nov '19 to 13 Nov '21]																																															
428	Trenchless Work from KMB Depot to Po Hong Road (Pit P to Pit R)	515 days	3 Aug '20	29 Apr '22	HK Working Day		642	25%	3 Aug '20	NA	[Gantt bar from 3 Aug '20 to 29 Apr '22]																																															
452	Open Trench from Pit R to Pit S & Trenchless Works from Pit S to Pit T	524 days	3 Aug '20	12 May '22	HK Working Day		642	1%	3 Aug '20	NA	[Gantt bar from 3 Aug '20 to 12 May '22]																																															
471	Open Cut Excavation, Pipe Laying and Reinstatement at Abandoned Road / Mau Wu Tsai Village / Po Lam Road North	1486 days	7 Nov '17	12 Nov '22	HK Working Day			6%	7 Nov '17	NA	[Gantt bar from 7 Nov '17 to 12 Nov '22]																																															
472	Open Trench Pipelaying at Abandoned Road & Mau Wu Tsai Village	513 days	30 Nov '20	25 Aug '22	HK Working Day		642	0%	NA	NA	[Gantt bar from 30 Nov '20 to 25 Aug '22]																																															
475	Trenchless Work at Mau Wu Tsai Village	412 days	16 Dec '20	13 May '22	HK Working Day		642	0%	NA	NA	[Gantt bar from 16 Dec '20 to 13 May '22]																																															
476	Inspection Pit Excavation	16 days	16 Dec '20	6 Jan '21	HK Working Day			0%	NA	NA	[Gantt bar from 16 Dec '20 to 6 Jan '21]																																															
481	Construction of Jacking / Receiving Pits	62 days	5 Jan '21	20 Mar '21	HK Working Day			0%	NA	NA	[Gantt bar from 5 Jan '21 to 20 Mar '21]																																															
486	Hand Shield Pipe Jacking from Pit U to Pit V (~30m)	241 days	19 Mar '21	10 Jan '22	HK Working Day			0%	NA	NA	[Gantt bar from 19 Mar '21 to 10 Jan '22]																																															
498	Hand Shield Pipe Jacking from Pit W to Pit X (~85m)	336 days	22 Mar '21	13 May '22	HK Working Day			0%	NA	NA	[Gantt bar from 22 Mar '21 to 13 May '22]																																															
510	Open Trench Pipe Laying at Po Lam Road North	1314 days	7 Nov '17	14 Apr '22	HK Working Day		643	0%	NA	NA	[Gantt bar from 7 Nov '17 to 14 Apr '22]																																															
513	Water Main Structure and Associated Pipe Support across the Natural Stream Course (CH.HB0+00 ~ CH.HB0+94)	653 days	5 May '20	16 Jul '22	HK Working Day		643	19%	5 May '20	NA	[Gantt bar from 5 May '20 to 16 Jul '22]																																															

Working Programme No. 11  
Data Date : 15 Nov 2020

Task Split

Milestone Summary

Project Summary

Inactive Milestone

Inactive Summary

Manual Task

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Critical

Critical Split

Manual Progress



ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	Timeline																																																																										
											2018												2019												2020												2021												2022																										
												Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	<b>Key Dates</b>	2420 days	7 Nov '17	22 Jun '24	Calendar Day			0%	7 Nov '17	NA																																																																											
2	Contract Date	0 days	7 Nov '17	7 Nov '17	Calendar Day		36,28,29F!	100%	7 Nov '17	7 Nov '17																																																																											
3	Starting Date	0 days	16 Nov '17	16 Nov '17	Calendar Day			100%	16 Nov '17	16 Nov '17																																																																											
4	Access Date of Portion A, B, C, D, E, F and G	0 days	16 Nov '17	16 Nov '17	Calendar Day		59,32,40,4	100%	16 Nov '17	16 Nov '17																																																																											
5	Access Date of Portion H	0 days	10 Aug '19	10 Aug '19	Calendar Day		582	100%	10 Aug '19	10 Aug '19																																																																											
6	Completion Date (Contract)	0 days	18 May '21	18 May '21	Calendar Day			100%	18 May '21	18 May '21																																																																											
7	Revised Completion Date (Including EOT - CE01 & CE23)	0 days	11 Feb '22	11 Feb '22	Calendar Day			100%	11 Feb '22	11 Feb '22																																																																											
8	Planned Completion	0 days	23 Jun '23	23 Jun '23	Calendar Day	10		0%	NA	NA																																																																											
9	Defect Date	0 days	22 Jun '24	22 Jun '24	Calendar Day	10F5+365 days		0%	NA	NA																																																																											
10	<b>Mainlaying In Tseung Kwan O</b>	2055 days	7 Nov '17	23 Jun '23	Calendar Day		9F5+365 d	35%	7 Nov '17	NA																																																																											
11	Issue CE No. 01 - Change In Pressure Rating of Watermain, Valves and Fittings from PN16 to PN25	0 days	12 Jul '18	12 Jul '18	Calendar Day		37	100%	12 Jul '18	12 Jul '18																																																																											
12	Issue CE No. 04 - Feasibility Study of Realignment of Pipeline between Po Hung Road and TKO Freshwater PSR	0 days	23 Aug '18	23 Aug '18	Calendar Day			100%	23 Aug '18	23 Aug '18																																																																											
13	Issue CE No. 05 - Feasibility Study of Realignment of Pipeline at Tseung Kwan O Stage 1 Landfill	0 days	23 Aug '18	23 Aug '18	Calendar Day			100%	23 Aug '18	23 Aug '18																																																																											
14	Issue CE No. 10 - Contractor Design of The Realignment	0 days	28 Feb '19	28 Feb '19	Calendar Day			100%	28 Feb '19	28 Feb '19																																																																											
15	Issue CE No. 20 - Traffic Count and Preliminary Traffic Analysis in Po Lam Road and Tsui Lam Road	0 days	19 Jun '19	19 Jun '19	Calendar Day			100%	19 Jun '19	19 Jun '19																																																																											
16	Issue CE No. 27 - Underground Utilities Detection Survey for Working Pit D (CH. A22+75)	0 days	2 Aug '19	2 Aug '19	Calendar Day			100%	2 Aug '19	2 Aug '19																																																																											
17	Issue CE No. 21 - Temporary Diversion of Uncharted Underground Utilities near Wan O Road at CH. A16+00 (Pit B)	0 days	8 Aug '19	8 Aug '19	Calendar Day			100%	8 Aug '19	8 Aug '19																																																																											
18	Issue CE No. 26 - Change in Cathodic Protection System for Mild Steel Pipes	0 days	16 Aug '19	16 Aug '19	Calendar Day		54	100%	16 Aug '19	16 Aug '19																																																																											
19	Issue CE No. 35 - Feasibility Study on the Alternative Alignment by Trenchless Method in the Wan Po Road J/O Lohas Park Road	0 days	31 Dec '19	31 Dec '19	Calendar Day			100%	31 Dec '19	31 Dec '19																																																																											
20	Issue CE No. 55 - Design of the Water Mains Structure and Associated Pipe Support across the Natural Stream Course for Alternative Alignment in Tsui Lam	0 days	5 May '20	5 May '20	Calendar Day			100%	5 May '20	5 May '20																																																																											
21	Issue CE No. 56 - Excavation of Inspection Pits for the Alternative Alignment (Batch No. 2)	0 days	22 May '20	22 May '20	Calendar Day			100%	22 May '20	22 May '20																																																																											
22	Issue CE No. 64 - Tree Survey at Tsui Lam (Location A and Location B)	0 days	9 Jun '20	9 Jun '20	Calendar Day			100%	9 Jun '20	9 Jun '20																																																																											
23	Issue CE No. 62 - Design of Pipe Support in Tsui Lam (Location 0 days B)	0 days	16 Jun '20	16 Jun '20	Calendar Day			100%	16 Jun '20	16 Jun '20																																																																											
24	Issue CE No. 66 - Excavation of Inspection Pits for the Alternative Alignment (Batch No. 3)	0 days	21 Aug '20	21 Aug '20	Calendar Day			100%	21 Aug '20	21 Aug '20																																																																											
25	<b>Preliminaries</b>	1255 days	7 Nov '17	14 Apr '21	Calendar Day			80%	7 Nov '17	NA																																																																											
26	<b>Submission and Permit Application</b>	322 days	7 Nov '17	24 Sep '18	Calendar Day			100%	7 Nov '17	24 Sep '18																																																																											
27	Submission of Safety Plan	35 days	7 Nov '17	11 Dec '17	Calendar Day	2		100%	7 Nov '17	11 Dec '17																																																																											
28	Submission of Site Management Plan and Trip Ticket	45 days	7 Nov '17	21 Dec '17	Calendar Day	2		100%	7 Nov '17	21 Dec '17																																																																											
29	Submission of Key People	14 days	4 Dec '17	17 Dec '17	Calendar Day	2F5+27 days		100%	4 Dec '17	17 Dec '17																																																																											
30	Submission of Subcontractor Management Plan	30 days	7 Nov '17	6 Dec '17	Calendar Day	2		100%	7 Nov '17	6 Dec '17																																																																											
31	Submission of First Programme	7 days	7 Nov '17	13 Nov '17	Calendar Day	2		100%	7 Nov '17	13 Nov '17																																																																											
32	Submission of Pipe Material (PN16)	54 days	1 Feb '18	27 Mar '18	Calendar Day	4	33	100%	1 Feb '18	27 Mar '18																																																																											
33	Approval of Pipe material submission (PN16)	137 days	28 Mar '18	11 Aug '18	Calendar Day	32	61SS+7 da	100%	28 Mar '18	11 Aug '18																																																																											
34	Appointment of Environmental Team	10 days	9 May '18	18 May '18	Calendar Day	50	35	100%	9 May '18	18 May '18																																																																											
35	Environmental Baseline Monitoring	17 days	29 May '18	14 Jun '18	Calendar Day	34		100%	29 May '18	14 Jun '18																																																																											
36	Submission of Environmental Management Plan	45 days	7 Nov '17	21 Dec '17	Calendar Day	2		100%	7 Nov '17	21 Dec '17																																																																											
37	Submission & Approval of CE01 Pipe Material PN25	75 days	12 Jul '18	24 Sep '18	Calendar Day	11	65	100%	12 Jul '18	24 Sep '18																																																																											
38	<b>Subcontracting</b>	1122 days	16 Nov '17	11 Dec '20	Calendar Day			97%	16 Nov '17	NA																																																																											
39	<b>Submission and Approval</b>	122 days	16 Nov '17	17 Mar '18	Calendar Day			100%	16 Nov '17	17 Mar '18																																																																											
40	Submission of sub-contractor selection procedure	24 days	16 Nov '17	9 Dec '17	Calendar Day	4	41	100%	16 Nov '17	9 Dec '17																																																																											
41	Approval of sub-contractor selection procedure	42 days	10 Dec '17	20 Jan '18	Calendar Day	40	56,51,52F!	100%	10 Dec '17	20 Jan '18																																																																											
42	Submission of Sub-contractor Condition	14 days	21 Jan '18	3 Feb '18	Calendar Day	4	43	100%	21 Jan '18	3 Feb '18																																																																											
43	Approval of Sub-contractor Condition	42 days	4 Feb '18	17 Mar '18	Calendar Day	42	56,51,52F!	100%	4 Feb '18	17 Mar '18																																																																											
44	Submission of Supplier Selection Procedure	75 days	16 Nov '17	29 Jan '18	Calendar Day	4	45	100%	16 Nov '17	29 Jan '18																																																																											
45	Approval of Supplier Selection Procedure	42 days	30 Jan '18	12 Mar '18	Calendar Day	44	61	100%	30 Jan '18	12 Mar '18																																																																											
46	<b>Subcontractor Selection and Subcontracting</b>	1115 days	23 Nov '17	11 Dec '20	Calendar Day			97%	23 Nov '17	NA																																																																											
47	Traffic Consultant for Investigation Works	30 days	23 Nov '17	22 Dec '17	Calendar Day	4		100%	23 Nov '17	22 Dec '17																																																																											
48	Consultancy: Landscape for Investigation works	30 days	5 Jan '18	3 Feb '18	Calendar Day	4	228	100%	5 Jan '18	3 Feb '18																																																																											
49	Consultancy: Traffic consultant	55 days	21 Feb '18	16 Apr '18	Calendar Day			100%	21 Feb '18	16 Apr '18																																																																											
50	Environmental Team	9 days	16 Apr '18	24 Apr '18	Calendar Day		34	100%	16 Apr '18	24 Apr '18																																																																											
51	Temporary site office, hoarding & project sign board	75 days	22 Mar '18	4 Jun '18	Calendar Day	43,41	58F5+13 d	100%	22 Mar '18	4 Jun '18																																																																											
52	Consultancy: Independent Checking Engineer	12 days	14 May '18	25 May '18	Calendar Day	41F5+10 days,43		100%	14 May '18	25 May '18																																																																											
53	Survey Services	23 days	26 Sep '18	18 Oct '18	Calendar Day			100%	26 Sep '18	18 Oct '18																																																																											

Working Programme No. 11  
 Data Date: 15 Nov 2020

Legend: 
 

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

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	Gantt Chart																																															
											2017	2018	2019	2020	2021	2022	2023	2024	2025																																							
54	Sacrificial Anode Cathodic Protection (SACP)	82 days	30 May '19	19 Aug '19	Calendar Day	18	68	100%	30 May '19	19 Aug '19	[Gantt bar from 30 May '19 to 19 Aug '19]																																															
55	Landscaping Works	42 days	6 Sep '18	17 Oct '18	Calendar Day	41,43		100%	6 Sep '18	17 Oct '18	[Gantt bar from 6 Sep '18 to 17 Oct '18]																																															
56	Miscellaneous	1000 days	18 Mar '18	11 Dec '20	Calendar Day	43,41		96%	18 Mar '18	NA	[Gantt bar from 18 Mar '18 to 11 Dec '20]																																															
57	Site Establishment	220 days	2 Jan '18	9 Aug '18	Calendar Day			100%	2 Jan '18	9 Aug '18	[Gantt bar from 2 Jan '18 to 9 Aug '18]																																															
58	Setting up PM's and Contractor Accommodation	90 days	12 May '18	9 Aug '18	Calendar Day	51F5+13 days		100%	12 May '18	9 Aug '18	[Gantt bar from 12 May '18 to 9 Aug '18]																																															
59	Initial Survey of the Site	60 days	2 Jan '18	2 Mar '18	Calendar Day	4		100%	2 Jan '18	2 Mar '18	[Gantt bar from 2 Jan '18 to 2 Mar '18]																																															
60	Procurement of Major Material	1104 days	7 Apr '18	14 Apr '21	Calendar Day			54%	7 Apr '18	NA	[Gantt bar from 7 Apr '18 to 14 Apr '21]																																															
61	Preparation of Purchase Order	7 days	7 Apr '18	13 Apr '18	Calendar Day	3355+7 days,45	62	100%	7 Apr '18	13 Apr '18	[Gantt bar from 7 Apr '18 to 13 Apr '18]																																															
62	1st Batch of Material Delivery	65 days	14 Apr '18	17 Jun '18	Calendar Day	61	63	100%	14 Apr '18	17 Jun '18	[Gantt bar from 14 Apr '18 to 17 Jun '18]																																															
63	1st Batch of Material Delivery on site	0 days	29 Jun '18	29 Jun '18	Calendar Day	62	64	100%	29 Jun '18	29 Jun '18	[Gantt bar from 29 Jun '18 to 29 Jun '18]																																															
64	Material Delivery by Batches	1020 days	30 Jun '18	14 Apr '21	Calendar Day	63		30%	30 Jun '18	NA	[Gantt bar from 30 Jun '18 to 14 Apr '21]																																															
65	Preparation of CE01 Purchase Order	7 days	25 Sep '18	1 Oct '18	Calendar Day	37	66	100%	25 Sep '18	1 Oct '18	[Gantt bar from 25 Sep '18 to 1 Oct '18]																																															
66	1st Batch of CE01 Material Delivery	90 days	2 Oct '18	30 Dec '18	Calendar Day	65	67	100%	2 Oct '18	30 Dec '18	[Gantt bar from 2 Oct '18 to 30 Dec '18]																																															
67	1st Batch of CE01 Material Delivery on site	1 day	22 Jan '19	22 Jan '19	Calendar Day	66		100%	22 Jan '19	22 Jan '19	[Gantt bar from 22 Jan '19 to 22 Jan '19]																																															
68	SCAP Material Submission and Approval	261 days	20 Aug '19	6 May '20	Calendar Day	54	69	100%	20 Aug '19	6 May '20	[Gantt bar from 20 Aug '19 to 6 May '20]																																															
69	SCAP Purchase Order & Material Delivery	115 days	22 Jun '20	14 Oct '20	Calendar Day	68		100%	22 Jun '20	14 Oct '20	[Gantt bar from 22 Jun '20 to 14 Oct '20]																																															
70	Mainlaying From Boundary of Tseung Kwan O Area 137 to TKO Fresh Water Service Reservoir (Portion 1)	1491 days	7 Nov '17	18 Nov '22	HK Working Day			26%	7 Nov '17	NA	[Gantt bar from 7 Nov '17 to 18 Nov '22]																																															
71	Open Cut Excavation, Pipe Laying and Reinstatement at Wan Po Road	1198 days	30 Aug '18	15 Sep '22	HK Working Day		638	52%	30 Aug '18	NA	[Gantt bar from 30 Aug '18 to 15 Sep '22]																																															
72	Open Cut CH.A0+00 to CH.A3+62 (Pit 1)	992 days	10 Sep '18	14 Jan '22	HK Working Day			66%	10 Sep '18	NA	[Gantt bar from 10 Sep '18 to 14 Jan '22]																																															
73	CH. A0+00 - 0+14 OC	45 days	20 Nov '21	14 Jan '22	HK Working Day	609		0%	NA	NA	[Gantt bar from 20 Nov '21 to 14 Jan '22]																																															
74	CH. A0+14 - 0+50 OC	156 days	23 May '19	26 Nov '19	HK Working Day			100%	23 May '19	26 Nov '19	[Gantt bar from 23 May '19 to 26 Nov '19]																																															
75	CH. A0+50 - 1+50 OC	42 days	10 Sep '18	31 Oct '18	HK Working Day			100%	10 Sep '18	31 Oct '18	[Gantt bar from 10 Sep '18 to 31 Oct '18]																																															
76	CH. A1+50 - 1+60 OC	53 days	1 Nov '18	4 Jan '19	HK Working Day			100%	1 Nov '18	4 Jan '19	[Gantt bar from 1 Nov '18 to 4 Jan '19]																																															
77	CH. A1+60 - 2+14 OC	107 days	5 Jan '19	20 May '19	HK Working Day			100%	5 Jan '19	20 May '19	[Gantt bar from 5 Jan '19 to 20 May '19]																																															
78	CH. A2+14 - 2+30 OC	40 days	1 Sep '20	19 Oct '20	HK Working Day			90%	1 Sep '20	NA	[Gantt bar from 1 Sep '20 to 19 Oct '20]																																															
79	CH. A2+30 - 2+46 OC	30 days	27 Oct '20	30 Nov '20	HK Working Day			90%	27 Oct '20	NA	[Gantt bar from 27 Oct '20 to 30 Nov '20]																																															
80	CH. A2+46 - 2+62 OC	30 days	10 Nov '20	14 Dec '20	HK Working Day		81	5%	10 Nov '20	NA	[Gantt bar from 10 Nov '20 to 14 Dec '20]																																															
81	CH. A2+62 - 2+98 OC	30 days	15 Dec '20	21 Jan '21	HK Working Day	80	82	0%	NA	NA	[Gantt bar from 15 Dec '20 to 21 Jan '21]																																															
82	CH. A2+98 - 3+62 OC with DN150 DAV	110 days	22 Jan '21	9 Jun '21	HK Working Day	81	8555	0%	NA	NA	[Gantt bar from 22 Jan '21 to 9 Jun '21]																																															
83	Trenchless Works (Pit 1 to Pit 2)	317 days	22 Jan '21	18 Feb '22	HK Working Day			0%	NA	NA	[Gantt bar from 22 Jan '21 to 18 Feb '22]																																															
84	Construction of Jacking / Receiving Pits	100 days	22 Jan '21	28 May '21	HK Working Day			0%	NA	NA	[Gantt bar from 22 Jan '21 to 28 May '21]																																															
85	CH. A3+62 - Pit 1	50 days	22 Jan '21	24 Mar '21	HK Working Day	8255	88,86	0%	NA	NA	[Gantt bar from 22 Jan '21 to 24 Mar '21]																																															
86	CH. A5+29.5 - Pit 2	50 days	25 Mar '21	28 May '21	HK Working Day	85	88	0%	NA	NA	[Gantt bar from 25 Mar '21 to 28 May '21]																																															
87	TBM Pipe Jacking Pit 1- Pit 2	217 days	29 May '21	18 Feb '22	HK Working Day		99	0%	NA	NA	[Gantt bar from 29 May '21 to 18 Feb '22]																																															
88	TBM Establishment	24 days	29 May '21	26 Jun '21	HK Working Day	85,86	89	0%	NA	NA	[Gantt bar from 29 May '21 to 26 Jun '21]																																															
89	TBM Jacking Sleeve Pipe (L=180m, 4.5m/day)	40 days	28 Jun '21	13 Aug '21	HK Working Day	88	90	0%	NA	NA	[Gantt bar from 28 Jun '21 to 13 Aug '21]																																															
90	Remove Setup including Thrust Wall	6 days	14 Aug '21	20 Aug '21	HK Working Day	89	91	0%	NA	NA	[Gantt bar from 14 Aug '21 to 20 Aug '21]																																															
91	Setup Guard Rail	6 days	21 Aug '21	27 Aug '21	HK Working Day	90	92	0%	NA	NA	[Gantt bar from 21 Aug '21 to 27 Aug '21]																																															
92	Pipe Laying inside Sleeve Pipe (8m pipe, 3 days per .69 days)	28 days	28 Aug '21	19 Nov '21	HK Working Day	91	93	0%	NA	NA	[Gantt bar from 28 Aug '21 to 19 Nov '21]																																															
93	Formwork & Setup for Grouting the Gap between Pipe and Sleeve	3 days	20 Nov '21	23 Nov '21	HK Working Day	92	94	0%	NA	NA	[Gantt bar from 20 Nov '21 to 23 Nov '21]																																															
94	Grouting Works (30m/day)	6 days	24 Nov '21	30 Nov '21	HK Working Day	93	95,96	0%	NA	NA	[Gantt bar from 24 Nov '21 to 30 Nov '21]																																															
95	Construction of Combined Inspection and Washout Chamber Type I at Pit 1	45 days	1 Dec '21	25 Jan '22	HK Working Day	94	97	0%	NA	NA	[Gantt bar from 1 Dec '21 to 25 Jan '22]																																															
96	Construction of Combined Inspection and Washout Chamber Type I at Pit 2	45 days	1 Dec '21	25 Jan '22	HK Working Day	94	97	0%	NA	NA	[Gantt bar from 1 Dec '21 to 25 Jan '22]																																															
97	Backfill, Remove ELS and Road Reinstatement at Pit 1 & pit 2	18 days	26 Jan '22	18 Feb '22	HK Working Day	95,96		0%	NA	NA	[Gantt bar from 26 Jan '22 to 18 Feb '22]																																															
98	Open Cut CH.A5+29.5 (Pit 2) to CH.A7+12	1088 days	30 Aug '18	5 May '22	HK Working Day			73%	30 Aug '18	NA	[Gantt bar from 30 Aug '18 to 5 May '22]																																															
99	CH. A5+29.5 - 5+88 OC	60 days	19 Feb '22	5 May '22	HK Working Day	100,87		0%	NA	NA	[Gantt bar from 19 Feb '22 to 5 May '22]																																															
100	CH. A5+88 - 6+12 OC + DN300 Washout Pump Pit	115 days	9 Dec '20	4 May '21	HK Working Day	101	99	0%	NA	NA	[Gantt bar from 9 Dec '20 to 4 May '21]																																															
101	CH. A6+12 - 6+20 OC	30 days	4 Nov '20	8 Dec '20	HK Working Day		100,116	10%	4 Nov '20	NA	[Gantt bar from 4 Nov '20 to 8 Dec '20]																																															
102	CH. A6+20 - 6+54 OC	191 days	22 Apr '20	8 Dec '20	HK Working Day	103	116	80%	22 Apr '20	NA	[Gantt bar from 22 Apr '20 to 8 Dec '20]																																															
103	CH. A6+54 - 6+70 OC + Handshield	378 days	14 Jan '19	26 Apr '20	HK Working Day		102	100%	14 Jan '19	26 Apr '20	[Gantt bar from 14 Jan '19 to 26 Apr '20]																																															
104	Issue CE No. 22 - Instruction to Change in Mainlaying Method t Wan Po Road between CH.6+54 and A6+61	0 days	20 Jan '20	20 Jan '20	Calendar Day			100%	20 Jan '20	20 Jan '20	[Gantt bar from 20 Jan '20 to 20 Jan '20]																																															
105	Issue CE No. 25 - Unforeseen Underground Conditions during Trench Excavation at Wan Po Road between CH. A6+68 and CH. A6+88	0 days	29 Jun '20	29 Jun '20	Calendar Day			100%	29 Jun '20	29 Jun '20	[Gantt bar from 29 Jun '20 to 29 Jun '20]																																															
106	EWN No. 14 (covered by CNE No. 8 & CE No.06) - Unforeseen Underground Condition During Trench Excavation for Mainlaying at Wan Po Road Between CH.A6+90 and CH.A7+10	0 days	18 Sep '18	18 Sep '18	Calendar Day			100%	18 Sep '18	18 Sep '18	[Gantt bar from 18 Sep '18 to 18 Sep '18]																																															
107	CH. A6+70 - 7+12 OC	111 days	30 Aug '18	12 Jan '19	HK Working Day			100%	30 Aug '18	12 Jan '19	[Gantt bar from 30 Aug '18 to 12 Jan '19]																																															

Working Programme No. 11  
 Date Date : 15 Nov 2020

Task Split

Milestone Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Manual Summary

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Critical

Critical Split

Progress

Manual Progress

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	Gantt Chart (Q1 2017 - Q2 2021)																																															
108	Open Cut CH.A7+12 to CH.A13+79.5	1181 days	19 Sep '18	15 Sep '22	HK Working Day			47%	19 Sep '18	NA	[Gantt Chart Bar]																																															
109	EWN No. 108 - TTA Implementation outside the entrance gate of Green Valley Landfill	0 days	25 Feb '20	25 Feb '20	Calendar Day			100%	25 Feb '20	25 Feb '20	[Gantt Chart Bar]																																															
110	EWN No. 108 - TTA Implementation outside the entrance gate of Green Valley Landfill	0 days	9 Apr '20	9 Apr '20	Calendar Day			100%	9 Apr '20	9 Apr '20	[Gantt Chart Bar]																																															
111	EWN No. 159 - Confirmation of Revised Pipe Alignment outside the Entrance Gate of Green Valley Landfill	0 days	20 May '20	20 May '20	Calendar Day			100%	20 May '20	20 May '20	[Gantt Chart Bar]																																															
112	EWN No. 173 - Additional Inspection Pit at Wan Po Road Northbound outside the Entrance Gate of Green Valley Landfill	1 day	11 Jun '20	11 Jun '20	Calendar Day			100%	11 Jun '20	11 Jun '20	[Gantt Chart Bar]																																															
113	Batch No. 3 - Inspection Pit Excavation at the footpath of Wan Po Road near Green Valley Landfill Entrance	4 days	23 Jul '20	27 Jul '20	HK Working Day			100%	23 Jul '20	27 Jul '20	[Gantt Chart Bar]																																															
114	EWN No. 189 - Inspection Pit on Footpath at Wan Po Road Northbound outside the Entrance Gate of Green Valley Landfill	0 days	29 Jul '20	29 Jul '20	Calendar Day		115	100%	29 Jul '20	29 Jul '20	[Gantt Chart Bar]																																															
115	Expected CE No XX - Change to Trenchless Method near the entrance of Green Valley Landfill	0 days	30 Nov '20	30 Nov '20	Calendar Day	114		0%	NA	NA	[Gantt Chart Bar]																																															
116	CH. A7+12 - 7+64 OC with DN600 IT & DN900 Valve Chamber	90 days	9 Dec '20	30 Mar '21	HK Working Day	102,101	118,117,11	0%	NA	NA	[Gantt Chart Bar]																																															
117	CH. A7+64 - 8+28 Trenchless (Handshield)	105 days	31 Mar '21	9 Aug '21	HK Working Day	116		0%	NA	NA	[Gantt Chart Bar]																																															
118	CH. A8+28 - 8+60 OC with DN150 DAV	64 days	31 Mar '21	21 Jun '21	HK Working Day	116	119	0%	NA	NA	[Gantt Chart Bar]																																															
119	CH. A8+60 - 9+24 OC	64 days	22 Jun '21	4 Sep '21	HK Working Day	118	120	0%	NA	NA	[Gantt Chart Bar]																																															
120	CH. A9+24 - 9+88 OC	64 days	6 Sep '21	22 Nov '21	HK Working Day	119		0%	NA	NA	[Gantt Chart Bar]																																															
121	CH. A9+88 - 10+52 OC with DN600 IT	95 days	31 Mar '21	28 Jul '21	HK Working Day	116	122	0%	NA	NA	[Gantt Chart Bar]																																															
122	CH. A10+52 - 11+16 OC	64 days	29 Jul '21	13 Oct '21	HK Working Day	121		0%	NA	NA	[Gantt Chart Bar]																																															
123	CH. A11+16 - 11+80 OC with DN300 Washout Pump Pit & DN150 DAV	95 days	18 Nov '20	15 Mar '21	HK Working Day	124		0%	NA	NA	[Gantt Chart Bar]																																															
124	CH. A11+80 - 12+12 OC with DN600 IT	64 days	1 Sep '20	17 Nov '20	HK Working Day	125	123	20%	1 Sep '20	NA	[Gantt Chart Bar]																																															
125	CH. A12+12 - 12+50 OC with DN900 Valve Chamber	451 days	23 Feb '19	31 Aug '20	HK Working Day	124		100%	23 Feb '19	31 Aug '20	[Gantt Chart Bar]																																															
126	Issue CE No. 19 - Change in Design of Gate Valve Chamber at Wan Po Road near CH. A12+40	0 days	22 Aug '19	22 Aug '19	Calendar Day			100%	22 Aug '19	22 Aug '19	[Gantt Chart Bar]																																															
127	EWN No.23 (Covered by CNE No.16 & CE No. 18) - Unforeseen Ground Conditions at Open Trench of Mainlaying at Wan Po Road between CH.A12+89 and CH.A13+04	0 days	4 Dec '18	4 Dec '18	Calendar Day			100%	4 Dec '18	4 Dec '18	[Gantt Chart Bar]																																															
128	CH. A12+50 - 12+95 OC	125 days	19 Sep '18	21 Feb '19	HK Working Day		130	100%	19 Sep '18	21 Feb '19	[Gantt Chart Bar]																																															
129	CH. A12+95 - 13+13 OC	84 days	9 Nov '18	21 Feb '19	HK Working Day		130	100%	9 Nov '18	21 Feb '19	[Gantt Chart Bar]																																															
130	CH. A13+13 - 13+40 OC + DN150 DAV	60 days	7 Jul '22	15 Sep '22	HK Working Day	131,129		0%	NA	NA	[Gantt Chart Bar]																																															
131	CH. A13+40 - 13+60 OC & Connection from Open Cut Trench to Jacking Pit A	14 days	20 Jun '22	6 Jul '22	HK Working Day	151	130	0%	NA	NA	[Gantt Chart Bar]																																															
132	Trenchless Work at Wan Po Road From Pit A to Pit F	1443 days	7 Nov '17	21 Sep '22	HK Working Day		639	24%	7 Nov '17	NA	[Gantt Chart Bar]																																															
133	Trenchless Works (Pit A to Pit C)	867 days	12 Aug '19	16 Jul '22	HK Working Day			17%	12 Aug '19	NA	[Gantt Chart Bar]																																															
134	Expected CE No. 52 - Relocation of Working pits for Trenchless Works in Wan Po Road (Pit A to Pit C)	0 days	30 Nov '20	30 Nov '20	Calendar Day			0%	NA	NA	[Gantt Chart Bar]																																															
135	Construction of Jacking / Receiving Pits	445 days	12 Aug '19	6 Feb '21	HK Working Day			32%	12 Aug '19	NA	[Gantt Chart Bar]																																															
136	Removal of Existing Planter for Jacking Pit A	6 days	15 Jun '20	20 Jun '20	HK Working Day	137	137	100%	15 Jun '20	20 Jun '20	[Gantt Chart Bar]																																															
137	Jacking Pit A	139 days	17 Jul '20	31 Dec '20	HK Working Day	136		14%	17 Jul '20	NA	[Gantt Chart Bar]																																															
138	Issue CE No. 32 - Additional Ground Treatment Works in Pit B in Wan Po Road near Wan O Road	0 days	31 Aug '20	31 Aug '20	Calendar Day			100%	31 Aug '20	31 Aug '20	[Gantt Chart Bar]																																															
139	Jacking / Receiving Pit B with additional ground grouting works	445 days	12 Aug '19	6 Feb '21	HK Working Day		154	21%	12 Aug '19	NA	[Gantt Chart Bar]																																															
140	Receiving Pit C	298 days	29 Nov '19	30 Nov '20	HK Working Day			54%	29 Nov '19	NA	[Gantt Chart Bar]																																															
141	TBM Pipe Jacking (Pit A to Pit B)	293 days	15 Jul '21	11 Jul '22	HK Working Day			0%	NA	NA	[Gantt Chart Bar]																																															
142	Establishment at Pit A	24 days	15 Jul '21	11 Aug '21	HK Working Day	156	143,150	0%	NA	NA	[Gantt Chart Bar]																																															
143	Jacking DN1600 Precast Concrete Sleeve Pipe (Pit A 54 days - Pit B) (L=240m; 4.5m/day)	54 days	12 Aug '21	16 Oct '21	HK Working Day	142,156	144,145	0%	NA	NA	[Gantt Chart Bar]																																															
144	Remove setup including thrust wall at Pit A	6 days	18 Oct '21	23 Oct '21	HK Working Day	143		0%	NA	NA	[Gantt Chart Bar]																																															
145	Setup for Pipe Laying inside jacking Pit B	6 days	18 Oct '21	23 Oct '21	HK Working Day	143	146	0%	NA	NA	[Gantt Chart Bar]																																															
146	DN1200 MS Pipe Laying inside jacking pipe (240m) (2 days per 4m)(Only Internat Coating)	120 days	25 Oct '21	19 Mar '22	HK Working Day	145	147	0%	NA	NA	[Gantt Chart Bar]																																															
147	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	21 Mar '22	23 Mar '22	HK Working Day	146	148	0%	NA	NA	[Gantt Chart Bar]																																															
148	Grouting Works (30 meter/day)	8 days	24 Mar '22	1 Apr '22	HK Working Day	147	162,149	0%	NA	NA	[Gantt Chart Bar]																																															
149	Pipe Laying bends and thrust block construction inside Jacking Pit A	30 days	2 Apr '22	13 May '22	HK Working Day	148	151	0%	NA	NA	[Gantt Chart Bar]																																															
150	Expected CE No. XX - Special Type of Chamber for Interface between Trenchless Works and Open Cut Work near Jacking Pit A	0 days	11 Aug '21	11 Aug '21	Calendar Day	142	151	0%	NA	NA	[Gantt Chart Bar]																																															

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	Gantt Chart																																															
											2017	2018	2019	2020	2021	2022	2023	2024																																								
151	Construction of Thrust Block between Trenchless Works and Open Cut Work near Jacking Pit A	30 days	14 May '22	18 Jun '22	HK Working Day	149,150	152,131	0%	NA	NA																																																
152	Remove ELS and Reinstatement of Road works and planter	18 days	20 Jun '22	11 Jul '22	HK Working Day	151		0%	NA	NA																																																
153	TBM Pipe Jacking (Pit B to Pit C)	422 days	8 Feb '21	16 Jul '22	HK Working Day			0%	NA	NA																																																
154	Establishment at Pit B	24 days	8 Feb '21	10 Mar '21	HK Working Day	139	155,161	0%	NA	NA																																																
155	Jacking DN1600 Precast Concrete Sleeve Pipe From Pit B to Pit C (L=326m; 3.5m/day)	94 days	11 Mar '21	7 Jul '21	HK Working Day	154	156	0%	NA	NA																																																
156	Remove setup Including Thrust Wall at Pit B	6 days	8 Jul '21	14 Jul '21	HK Working Day	155	143,157,1	0%	NA	NA																																																
157	Setup for Pipe Laying inside jacking Pit B	6 days	15 Jul '21	21 Jul '21	HK Working Day	156	158	0%	NA	NA																																																
158	DN1200 MS Pipe Laying inside jacking pipe (326m) (2 days per 4m)(Only Internal Coating)	200 days	22 Jul '21	22 Mar '22	HK Working Day	157	159	0%	NA	NA																																																
159	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	23 Mar '22	25 Mar '22	HK Working Day	158	160	0%	NA	NA																																																
160	Grouting Works (30 meter/day)	11 days	26 Mar '22	8 Apr '22	HK Working Day	159	162,191	0%	NA	NA																																																
161	Expected CE No. XX - Special Type of Chamber for interface between Trenchless Works and Open Cut Work near Jacking/Receiving Pit B	0 days	10 Mar '21	10 Mar '21	Calendar Day	154	162	0%	NA	NA																																																
162	Construction of Special Chamber at Jacking / Receiving Pit B	60 days	9 Apr '22	24 Jun '22	HK Working Day	148,160,161,185	163	0%	NA	NA																																																
163	Remove ELS including extracting sheet piles at Pit B 18 days & Reinstatement of Road works and planter	18 days	25 Jun '22	16 Jul '22	HK Working Day	162		0%	NA	NA																																																
164	Crossing Wan Po Road and Lohas Park Road	1780 days	7 Nov '17	21 Sep '22	Calendar Day		7%	7 Nov '17	NA	NA																																																
165	Issue CE No. 24 - Ground Investigation for Working Pit 0 E, F and Trenchless Works across MT Tunnel	0 days	27 Sep '19	27 Sep '19	Calendar Day	166	166	100%	27 Sep '19	27 Sep '19																																																
166	Tender & Subletting	71 days	27 Sep '19	6 Dec '19	Calendar Day	165		100%	27 Sep '19	6 Dec '19																																																
167	Mobilization and Establishment of GI equipment	7 days	17 Feb '20	24 Feb '20	HK Working Day	167	168	100%	17 Feb '20	24 Feb '20																																																
168	Ground Investigation GI No. 3	33 days	25 Feb '20	2 Apr '20	HK Working Day	167		100%	25 Feb '20	2 Apr '20																																																
169	Obtain MTR's approval on the alignment and construction method about MTR's tunnels	0 days	31 Dec '20	31 Dec '20	Calendar Day			0%	NA	NA																																																
170	TTA submission and Approval, Suspension of Parking Meters and TTA Implement for Jacking Pit D	114 days	12 Aug '20	3 Dec '20	Calendar Day		172,171	27%	12 Aug '20	NA																																																
171	Inspection Pits for Lohas Park Road Footpath in frontal of Viaduct Utilities Trough	30 days	4 Dec '20	11 Jan '21	HK Working Day	170	179	0%	NA	NA																																																
172	Inspection Pits & GI Works for Jacking Pit D	30 days	4 Dec '20	11 Jan '21	HK Working Day	170	179,173	0%	NA	NA																																																
173	Design of Jacking D	30 days	12 Jan '21	18 Feb '21	HK Working Day	172	174	0%	NA	NA																																																
174	Jacking Pit D at Car Park	150 days	19 Feb '21	21 Aug '21	HK Working Day	173	182	0%	NA	NA																																																
175	Issue CE Bo. 77 - Design of Water Main Structure and Modification Works to the Affected Geotechnical Features in Wan Po Road and Lohas Park Road	0 days	21 Oct '20	21 Oct '20	Calendar Day		176	100%	21 Oct '20	21 Oct '20																																																
176	Submission for CE77	60 days	21 Oct '20	19 Dec '20	Calendar Day	175	177	0%	NA	NA																																																
177	Approval of CE77	30 days	20 Dec '20	18 Jan '21	Calendar Day	176	179	0%	NA	NA																																																
178	TPRP Approval for Tree at Slope Feature 12SW-A/FR102	0 days	18 Jan '21	18 Jan '21	Calendar Day		195	0%	NA	NA																																																
179	Expected CE No. XX - Relocation of Working pits for Trenchless Works in Wan Po Road junction with Lohas Park Road	0 days	18 Jan '21	18 Jan '21	Calendar Day	172,171,177	180	0%	NA	NA																																																
180	Subletting works for CE No. XX	60 days	19 Jan '21	19 Mar '21	Calendar Day	179	196,210,2	0%	NA	NA																																																
181	TBM Pipe Jacking (Pit D to Pit C)	321 days	23 Aug '21	21 Sep '22	HK Working Day			0%	NA	NA																																																
182	Establishment at Pit D	24 days	23 Aug '21	18 Sep '21	HK Working Day	174	183,189,1	0%	NA	NA																																																
183	DN1600 Precast Concrete Sleeve Pipe (Pit D - Pit C) (CH.A19+26 to CH.A22+80) in Soil (354m; 3.5m/day)	102 days	20 Sep '21	22 Jan '22	HK Working Day	182	184	0%	NA	NA																																																
184	Remove setup Including Thrust Wall at Pit D	6 days	24 Jan '22	29 Jan '22	HK Working Day	183	185	0%	NA	NA																																																
185	Setup for Pipe Laying inside jacking Pit D	6 days	31 Jan '22	9 Feb '22	HK Working Day	184	186	0%	NA	NA																																																
186	DN1200 MS Pipe Laying inside jacking pipe (354m) (say 2 days per 8m)(only Internal Coating)	90 days	10 Feb '22	1 Jun '22	HK Working Day	185	187	0%	NA	NA																																																
187	Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	2 Jun '22	6 Jun '22	HK Working Day	186	188	0%	NA	NA																																																
188	Grouting Works (30 meter/day)	12 days	7 Jun '22	20 Jun '22	HK Working Day	187	191,192	0%	NA	NA																																																
189	Issue CE No. XX - Special Type of Chamber for interface between Trenchless Works and Open Cut Work near Receiving Pit C	0 days	18 Sep '21	18 Sep '21	Calendar Day	182	162,191	0%	NA	NA																																																

Working Programme No. 11  
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■ Task Split  
▬ Milestone Summary  
◆ Project Summary  
▬ Inactive Task  
▬ Inactive Milestone Summary  
▬ Manual Task  
▬ Manual Summary Rollup  
▬ Manual Summary  
▬ Start-only  
▬ Finish-only  
▬ External Task  
▬ External Milestone  
◆ Deadline  
◆ Critical  
◆ Critical Split  
▬ Manual Progress  
▬ Progress













ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	Gantt Chart																																															
											2017	2018	2019	2020	2021	2022	2023	2024																																								
430	Issue WSD Letter Ref.: (4) in WSD/M/7503/13/WSD/16/M15/300/51 for additional works to CE No. 51	0 days	3 Sep '20	3 Sep '20	Calendar Day		558	100%	3 Sep '20	3 Sep '20	[Gantt Chart: Task 430 is a single point at 3 Sep '20]																																															
431	Tendering Process, Tender Award for CE No. 51 (Batch No. 1)	82 days	3 Aug '20	23 Oct '20	Calendar Day	429	438,453,4	100%	3 Aug '20	23 Oct '20	[Gantt Chart: Task 431 bar from 3 Aug '20 to 23 Oct '20]																																															
432	Tendering Process, Tender Award for CE No. 51 (Batch No. 2)	102 days	3 Aug '20	12 Nov '20	Calendar Day	429	454	100%	3 Aug '20	12 Nov '20	[Gantt Chart: Task 432 bar from 3 Aug '20 to 12 Nov '20]																																															
433	Tendering Process, Tender Award for CE No. 51 (Batch No. 3)	90 days	3 Aug '20	31 Oct '20	Calendar Day	429	437,556	5%	3 Aug '20	NA	[Gantt Chart: Task 433 bar from 3 Aug '20 to 31 Oct '20]																																															
434	Tendering Process, Tender Award for CE No. 51 (Location A Mini-pile Works)	90 days	26 Aug '20	23 Nov '20	Calendar Day		435	50%	26 Aug '20	NA	[Gantt Chart: Task 434 bar from 26 Aug '20 to 23 Nov '20]																																															
435	Tendering Process, Tender Award for CE No. 51 (Location B Mini-pile Works)	60 days	24 Nov '20	22 Jan '21	Calendar Day	434		0%	NA	NA	[Gantt Chart: Task 435 bar from 24 Nov '20 to 22 Jan '21]																																															
436	TTA preparation, SLG meetings, obtain RA and implement Advanced Works	100 days	3 Aug '20	10 Nov '20	Calendar Day	429	438	50%	3 Aug '20	NA	[Gantt Chart: Task 436 bar from 3 Aug '20 to 10 Nov '20]																																															
437	Material Submission, Procurement of top coat of aliphatic polyurethane for exposed pipes	120 days	1 Nov '20	28 Feb '21	Calendar Day	433		0%	NA	NA	[Gantt Chart: Task 437 bar from 1 Nov '20 to 28 Feb '21]																																															
438	Forming New Vehicle Access at Po Hung Road for Construction of Pit R & Pit S and Trenchless Works	128 days	11 Nov '20	20 Apr '21	HK Working Day	436,431		0%	NA	NA	[Gantt Chart: Task 438 bar from 11 Nov '20 to 20 Apr '21]																																															
439	Inspection Pit Excavation at Pit R	14 days	15 Dec '20	2 Jan '21	HK Working Day		441	0%	NA	NA	[Gantt Chart: Task 439 bar from 15 Dec '20 to 2 Jan '21]																																															
440	Construction of Receiving Pit R	90 days	4 Jan '21	26 Apr '21	HK Working Day			0%	NA	NA	[Gantt Chart: Task 440 bar from 4 Jan '21 to 26 Apr '21]																																															
441	Construction of Receiving Pit R	90 days	4 Jan '21	26 Apr '21	HK Working Day	439	443	0%	NA	NA	[Gantt Chart: Task 441 bar from 4 Jan '21 to 26 Apr '21]																																															
442	TBM Pipe Jacking (Pit P to Pit R) acrossing KMB Depot & Po Hung Road	230 days	9 Jul '21	29 Apr '22	HK Working Day			0%	NA	NA	[Gantt Chart: Task 442 bar from 9 Jul '21 to 29 Apr '22]																																															
443	Establishment at Pit P	15 days	9 Jul '21	26 Jul '21	HK Working Day	441,377	444	0%	NA	NA	[Gantt Chart: Task 443 bar from 9 Jul '21 to 26 Jul '21]																																															
444	DN1600 Precast Concrete Sleeve Pipe (Pit P - Pit R) (say 248m) in Soil (4m/day)	62 days	27 Jul '21	8 Oct '21	HK Working Day	443	445	0%	NA	NA	[Gantt Chart: Task 444 bar from 27 Jul '21 to 8 Oct '21]																																															
445	Remove setup including thrust wall at Pit P	6 days	9 Oct '21	16 Oct '21	HK Working Day	444	446	0%	NA	NA	[Gantt Chart: Task 445 bar from 9 Oct '21 to 16 Oct '21]																																															
446	Setup for Pipe Laying inside jacking Pit Q	6 days	18 Oct '21	23 Oct '21	HK Working Day	445	447	0%	NA	NA	[Gantt Chart: Task 446 bar from 18 Oct '21 to 23 Oct '21]																																															
447	DN1200 MS Pipe Laying inside jacking pipe (248m) (2 70 days days per 8m)(Only Internal Coating)	70 days	25 Oct '21	17 Jan '22	HK Working Day	446	448	0%	NA	NA	[Gantt Chart: Task 447 bar from 25 Oct '21 to 17 Jan '22]																																															
448	Formwork & Setup for Grouting the gap between pipe and sleeve	3 days	18 Jan '22	20 Jan '22	HK Working Day	447	449	0%	NA	NA	[Gantt Chart: Task 448 bar from 18 Jan '22 to 20 Jan '22]																																															
449	Grouting Works (30 meter/day)	9 days	21 Jan '22	31 Jan '22	HK Working Day	448	450	0%	NA	NA	[Gantt Chart: Task 449 bar from 21 Jan '22 to 31 Jan '22]																																															
450	Pipe connection inside Pit P	9 days	4 Feb '22	14 Feb '22	HK Working Day	449	451	0%	NA	NA	[Gantt Chart: Task 450 bar from 4 Feb '22 to 14 Feb '22]																																															
451	Construction of Combined Inspection and Washout Chamber Type II at Pit P	60 days	15 Feb '22	29 Apr '22	HK Working Day	450		0%	NA	NA	[Gantt Chart: Task 451 bar from 15 Feb '22 to 29 Apr '22]																																															
452	Open Trench from Pit R to Pit S & Trenchless Works from Pit S to Pit T	524 days	3 Aug '20	12 May '22	HK Working Day		642	1%	3 Aug '20	NA	[Gantt Chart: Task 452 bar from 3 Aug '20 to 12 May '22]																																															
453	Batch No 1 - Temporary Works Design and Preliminary Works	30 days	24 Oct '20	28 Nov '20	HK Working Day	431	456,473	0%	NA	NA	[Gantt Chart: Task 453 bar from 24 Oct '20 to 28 Nov '20]																																															
454	Batch No 2 - Temporary Works Design and Preliminary Works	30 days	13 Nov '20	17 Dec '20	HK Working Day	432	474,479,4	0%	NA	NA	[Gantt Chart: Task 454 bar from 13 Nov '20 to 17 Dec '20]																																															
455	Material Procurement for the issued CE	90 days	3 Aug '20	12 Jan '21	Calendar Day	431		10%	3 Aug '20	NA	[Gantt Chart: Task 455 bar from 3 Aug '20 to 12 Jan '21]																																															
456	Inspection Pit Excavation at Pit S & Pit T	14 days	30 Nov '20	15 Dec '20	HK Working Day	453	458,459,4	0%	NA	NA	[Gantt Chart: Task 456 bar from 30 Nov '20 to 15 Dec '20]																																															
457	Construction of Jacking Pits	60 days	16 Dec '20	2 Mar '21	HK Working Day			0%	NA	NA	[Gantt Chart: Task 457 bar from 16 Dec '20 to 2 Mar '21]																																															
458	Pit S at CH,HA0+30	60 days	16 Dec '20	2 Mar '21	HK Working Day	456	461	0%	NA	NA	[Gantt Chart: Task 458 bar from 16 Dec '20 to 2 Mar '21]																																															
459	Pit T at CH,HA0+80	60 days	16 Dec '20	2 Mar '21	HK Working Day	456	461	0%	NA	NA	[Gantt Chart: Task 459 bar from 16 Dec '20 to 2 Mar '21]																																															
460	Hand shield Pipe Jacking (Pit S to Pit T)	351 days	3 Mar '21	12 May '22	HK Working Day			0%	NA	NA	[Gantt Chart: Task 460 bar from 3 Mar '21 to 12 May '22]																																															
461	Establishment at Pit S	14 days	3 Mar '21	18 Mar '21	HK Working Day	458,459	462	0%	NA	NA	[Gantt Chart: Task 461 bar from 3 Mar '21 to 18 Mar '21]																																															
462	Mild Steel Sleeve Pipe in Mix of Soil & Rock (0.2m / day; two teams)	125 days	19 Mar '21	20 Aug '21	HK Working Day	461	463	0%	NA	NA	[Gantt Chart: Task 462 bar from 19 Mar '21 to 20 Aug '21]																																															
463	Remove Setup including Thrust Wall at Pit S	6 days	21 Aug '21	27 Aug '21	HK Working Day	462	464	0%	NA	NA	[Gantt Chart: Task 463 bar from 21 Aug '21 to 27 Aug '21]																																															
464	Setup for Pipe Laying inside Jacking Pit S	6 days	28 Aug '21	3 Sep '21	HK Working Day	463	465	0%	NA	NA	[Gantt Chart: Task 464 bar from 28 Aug '21 to 3 Sep '21]																																															
465	DN1200 MS Pipe Laying inside Jacking Pipe (2 days per 4m pipe)(Only Internal Coating)	30 days	4 Sep '21	11 Oct '21	HK Working Day	464	466	0%	NA	NA	[Gantt Chart: Task 465 bar from 4 Sep '21 to 11 Oct '21]																																															
466	Formwork & Setup for Grouting the gap between pipe and sleeve	3 days	12 Oct '21	15 Oct '21	HK Working Day	465	467	0%	NA	NA	[Gantt Chart: Task 466 bar from 12 Oct '21 to 15 Oct '21]																																															
467	Grouting Works (30m per day)	2 days	16 Oct '21	18 Oct '21	HK Working Day	466	468,469	0%	NA	NA	[Gantt Chart: Task 467 bar from 16 Oct '21 to 18 Oct '21]																																															
468	Construction of Combined Inspection and Washout Chamber Type I at Pit S	60 days	19 Oct '21	29 Dec '21	HK Working Day	467	470	0%	NA	NA	[Gantt Chart: Task 468 bar from 19 Oct '21 to 29 Dec '21]																																															
469	Install Inspection Tree at Pit T and Construction of Chamber	45 days	19 Oct '21	9 Dec '21	HK Working Day	467		0%	NA	NA	[Gantt Chart: Task 469 bar from 19 Oct '21 to 9 Dec '21]																																															
470	Open Cut, between Pit R and Pit S with inspection Tee 105 days and Washout Chamber at Pit R	105 days	30 Dec '21	12 May '22	HK Working Day	468		0%	NA	NA	[Gantt Chart: Task 470 bar from 30 Dec '21 to 12 May '22]																																															

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Task Split, Milestone Summary, Project Summary, Inactive Milestone, Manual Task, Manual Summary Rollup, External Tasks, Define Critical, Critical Split, Manual Progress



ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	Gantt Chart																																															
											2017	2018	2019	2020	2021	2022	2023	2024																																								
515	WSD & GEO Review and Approve	121 days	17 Jun '20	15 Oct '20	Calendar Day	514	517,518	100%	17 Jun '20	15 Oct '20	[Gantt bars for tasks 515-562]																																															
516	Issue CE No. xx - Mini-pile Support and Pipework across the Natural Stream Course	0 days	30 Nov '20	30 Nov '20	Calendar Day		519	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
517	TTA preparation, SLG meetings, obtain RA	45 days	16 Oct '20	29 Nov '20	Calendar Day	515		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
518	Tender and Subletting	90 days	16 Oct '20	13 Jan '21	Calendar Day	515	521,522	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
519	Material procurement for the issued CE	90 days	30 Nov '20	27 Feb '21	Calendar Day	516	524	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
520	Tree survey, TPRP approval and site clearance works	90 days	31 Aug '20	16 Dec '20	HK Working Day			50%	31 Aug '20	NA	[Gantt bars for tasks 515-562]																																															
521	Advanced Works	30 days	14 Jan '21	20 Feb '21	HK Working Day	518	523	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
522	Design and Construction Working Platform on Slope for Piling Works	90 days	14 Jan '21	7 May '21	HK Working Day	518		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
523	Pre-drilling works & confirmation of rock head and depth of mini-pile	30 days	22 Feb '21	27 Mar '21	HK Working Day	521	524	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
524	Mini-pile Construction (2 Workfront)	120 days	29 Mar '21	24 Aug '21	HK Working Day	519,523	525	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
525	Loading Test (One Tensile & One Compression)	45 days	25 Aug '21	19 Oct '21	HK Working Day	524	526	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
526	Construction Pile Caps and Piers	60 days	20 Oct '21	30 Dec '21	HK Working Day	525	527	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
527	Temporary Working Platform for Pipe Installation	14 days	31 Dec '21	17 Jan '22	HK Working Day	526	528	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
528	Pipe Installation / Welding / Testing / Painting (~115m)	45 days	18 Jan '22	14 Mar '22	HK Working Day	527	529	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
529	Concrete Hunching	30 days	15 Mar '22	22 Apr '22	HK Working Day	528	530	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
530	Apply top coating of aliphatic polyurethane on site	6 days	23 Apr '22	29 Apr '22	HK Working Day	529	531	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
531	Remove Temporary Working Platform	3 days	30 Apr '22	4 May '22	HK Working Day	530	532,533	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
532	Open Cut, Connection to CH.HA7+50	60 days	5 May '22	16 Jul '22	HK Working Day	531		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
533	Open Cut, Connection to CH.HC0+00	60 days	5 May '22	16 Jul '22	HK Working Day	531		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
534	Water Main Structure and Associated Pipe Support from Po Lam Road to Tsui Lam Road (CH.HD0+00 ~ CH.HD1+01)	702 days	18 Jun '20	27 Oct '22	HK Working Day		643	13%	16 Jun '20	NA	[Gantt bars for tasks 515-562]																																															
535	Design Submission (CE No. 62) for Water Main Structure and Associated at Tsui Lam (Location B)	139 days	16 Jun '20	30 Nov '20	HK Working Day		536,538	81%	16 Jun '20	NA	[Gantt bars for tasks 515-562]																																															
536	WSD & GEO Review and Approve	61 days	1 Dec '20	30 Jan '21	Calendar Day	535	537,539	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
537	Expected CE No. XX - Mini-pile support and pipework at Tsui Lam (Location B)	0 days	30 Jan '21	30 Jan '21	Calendar Day	536	540	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
538	TTA preparation, SLG meetings, obtain RA	60 days	1 Dec '20	29 Jan '21	Calendar Day	535		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
539	Tender and Subletting	90 days	31 Jan '21	30 Apr '21	Calendar Day	536	543	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
540	Material procurement for the issued CE	90 days	31 Jan '21	30 Apr '21	Calendar Day	537		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
541	Tree survey, TPRP approval and Tree Removal Works	150 days	21 Aug '20	22 Feb '21	HK Working Day		542	18%	21 Aug '20	NA	[Gantt bars for tasks 515-562]																																															
542	Tree Removal Works & Site Clearance	14 days	23 Feb '21	10 Mar '21	HK Working Day	541		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
543	Design and Construction Working Platform on Slope for Piling Works	90 days	3 May '21	18 Aug '21	HK Working Day	539	544	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
544	Pre-drilling works & confirmation of rock head and depth of mini-pile	30 days	19 Aug '21	23 Sep '21	HK Working Day	543	545	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
545	Mini-pile Construction (2 Workfront)	60 days	24 Sep '21	4 Dec '21	HK Working Day	544	546	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
546	Loading Test (One Tensile & One Compression)	45 days	6 Dec '21	29 Jan '22	HK Working Day	545	547	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
547	Construction Pile Caps and Piers	60 days	31 Jan '22	14 Apr '22	HK Working Day	546	548	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
548	Temporary Working Platform for Pipe Installation	14 days	19 Apr '22	5 May '22	HK Working Day	547	549	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
549	Pipe Installation / Welding / Testing / Painting (~115m)	45 days	6 May '22	29 Jun '22	HK Working Day	548	550	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
550	Concrete Hunching	30 days	30 Jun '22	4 Aug '22	HK Working Day	549	551	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
551	Apply top coating of aliphatic polyurethane on site	6 days	5 Aug '22	11 Aug '22	HK Working Day	550	552	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
552	Remove Temporary Working Platform	3 days	12 Aug '22	15 Aug '22	HK Working Day	551	553,554	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
553	Open Cut, Connection to CH.HC3+17 with DAV Chamber	60 days	16 Aug '22	27 Oct '22	HK Working Day	552		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
554	Open Cut, Connection to CH.HE0+15	60 days	16 Aug '22	27 Oct '22	HK Working Day	552		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
555	From Tsui Lam Road to TKO Freshwater PSR (CH.HE0+00 ~ CH.HE2+00) & (CH.HD+00 CH.HD+57)	677 days	3 Aug '20	12 Nov '22	HK Working Day		643	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
556	Batch No 3 - Temporary Works Design and Preliminary Works	30 days	2 Nov '20	5 Dec '20	HK Working Day	433	558,560	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
557	TTA preparation, SLG meetings, obtain RA	45 days	3 Aug '20	16 Sep '20	Calendar Day	429		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
558	Material procurement (DN800 MS PIPE & Butterfly Valve) for the issued CE	300 days	6 Dec '20	1 Oct '21	Calendar Day	430,556		0%	NA	NA	[Gantt bars for tasks 515-562]																																															
559	Inspection Pit Excavation	77 days	7 Dec '20	12 Mar '21	None			0%	NA	NA	[Gantt bars for tasks 515-562]																																															
560	Inspection Pit Excavation at both side footpath of Tsui Lam Road	14 days	7 Dec '20	22 Dec '20	HK Working Day	556	565,561	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
561	Inspection Pit Excavation for DN800 Connection at CH.HE2+06	21 days	23 Dec '20	19 Jan '21	HK Working Day	560	562	0%	NA	NA	[Gantt bars for tasks 515-562]																																															
562	Inspection Pit Excavation for DN800 EMF & BV at CH.HE1+90	21 days	20 Jan '21	16 Feb '21	HK Working Day	561	563,568	0%	NA	NA	[Gantt bars for tasks 515-562]																																															

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Legend:  
 Task Split: [Symbol]  
 Milestone Summary: [Symbol]  
 Project Summary: [Symbol]  
 Inactive Milestone: [Symbol]  
 Manual Task: [Symbol]  
 Manual Summary: [Symbol]  
 External Tasks: [Symbol]  
 External Milestone: [Symbol]  
 Deadline Critical: [Symbol]  
 Critical Split Progress: [Symbol]  
 Manual Progress: [Symbol]

ID	Task Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	Gantt Chart																																															
											2017	2018	2019	2020	2021	2022	2023	2024																																								
563	Inspection Pit Excavation for DN800 EMF & BV at CH.HE1+70	21 days	17 Feb '21	12 Mar '21	HK Working Day	562	568	0%	NA	NA																																																
564	Excavation, Pipelaying & Reinstatement	558 days	23 Dec '20	12 Nov '22	None			0%	NA	NA																																																
565	Open Cut across Tsui Lam Road (CH. HE0+00 to 0+15) (Two Stages)	100 days	23 Dec '20	29 Apr '21	HK Working Day	560		0%	NA	NA																																																
566	Open Cut, CH. HE0+15 ~ CH.HE1+55) with DAV Chamber	165 days	27 Apr '22	12 Nov '22	HK Working Day	569		0%	NA	NA																																																
567	Open Cut, DN800 (CH.HE1+55 ~ CH.HE1+80) with DN800 EMF & BV	120 days	10 Aug '21	3 Jan '22	HK Working Day	568	570,655,51	0%	NA	NA																																																
568	Open Cut, DN800 (CH.HE1+80 ~ CH.HE2+00) with DN800 EMF & BV	120 days	13 Mar '21	9 Aug '21	HK Working Day	562,563	567,655,51	0%	NA	NA																																																
569	Construction of flowmeter kiosks and GI cable ducts	90 days	4 Jan '22	26 Apr '22	HK Working Day	568,567	566	0%	NA	NA																																																
570	Pipelaying, DN800 (CH. J0+00 ~ J0+057)	60 days	4 Jan '22	17 Mar '22	HK Working Day	567	655	0%	NA	NA																																																
571	Final Connection to TKO Fresh Water Service Reservoir	30 days	22 Apr '22	28 May '22	HK Working Day			0%	NA	NA																																																
572	Final Connection of DN800 (CH.HE2+00 ~ HE.2_06)	30 days	22 Apr '22	28 May '22	HK Working Day	654		0%	NA	NA																																																
573	Final Connection of DN800 (CH.J0+57 ~ Reservoir)	30 days	22 Apr '22	28 May '22	HK Working Day	654		0%	NA	NA																																																
574	Mainlaying in Tseung Kwan O Area 137 (Portion H)	1051 days	11 Dec '18	4 Jul '22	HK Working Day			59%	11 Dec '18	NA																																																
575	Issue Date of CE07 -Water Supply to TKO Desalination Plant at Portion H (NS250 HDPE Pipe)	0 days	22 Jan '19	22 Jan '19	Calendar Day	576		100%	22 Jan '19	22 Jan '19																																																
576	Material Procurement and Delivery in Batches	330 days	11 Dec '18	5 Nov '19	Calendar Day	575		100%	11 Dec '18	5 Nov '19																																																
577	Open Cut Excavation, Pipe Laying and Reinstatement at TKO Area 137	311 days	10 Aug '19	26 Aug '20	HK Working Day			98%	10 Aug '19	NA																																																
578	DN1200 MS PIPE + NS250 HDPE PIPE - Open Cut	299 days	10 Aug '19	12 Aug '20	HK Working Day			98%	10 Aug '19	NA																																																
579	CH. CT1+51 - 265 DN1200 MS Pipe OC	82 days	16 Apr '20	24 Jul '20	None			100%	16 Apr '20	24 Jul '20																																																
580	CH. CT0+51 - 1+51 DN1200 MS Pipe OC	44 days	10 Feb '20	31 Mar '20	HK Working Day			100%	10 Feb '20	31 Mar '20																																																
581	CH. CT0+00 - 0+51 DN1200 MS Pipe OC	74 days	2 Jan '20	31 Mar '20	HK Working Day			100%	2 Jan '20	31 Mar '20																																																
582	CH. CA0+00 - 4+00 DN1200 MS Pipe OC	192 days	10 Aug '19	31 Mar '20	HK Working Day	5		100%	10 Aug '19	31 Mar '20																																																
583	CH. KT2+80 - 3+60 NS250 HDPE Pipe OC with additional Tees and fire Hydrant	14 days	28 Jul '20	12 Aug '20	HK Working Day			0%	NA	NA																																																
584	CH. KT2+23 - 2+80 NS250 HDPE Pipe OC	29 days	20 Jun '20	25 Jul '20	HK Working Day			100%	20 Jun '20	25 Jul '20																																																
585	CH. KT1+51 - 2+23 NS250 HDPE Pipe OC	31 days	16 May '20	20 Jun '20	HK Working Day			100%	16 May '20	20 Jun '20																																																
586	CH. KT0+51 - 1+51 NS250 HDPE Pipe OC	19 days	10 Mar '20	31 Mar '20	HK Working Day			100%	10 Mar '20	31 Mar '20																																																
587	CH. KT0+00 - 0+51 NS250 HDPE Pipe OC	50 days	2 Feb '20	31 Mar '20	HK Working Day			100%	2 Feb '20	31 Mar '20																																																
588	CH. KA0+00 - 4+00 NS250 HDPE Pipe OC	143 days	10 Oct '19	31 Mar '20	HK Working Day			100%	10 Oct '19	31 Mar '20																																																
589	Construction of Chambers	99 days	29 Apr '20	26 Aug '20	HK Working Day			97%	29 Apr '20	NA																																																
590	Combined DAV & IT Chamber for DN1200 MS pipe at CH. CT2+47	60 days	5 May '20	15 Jul '20	HK Working Day			100%	5 May '20	15 Jul '20																																																
591	Combined Washout Pump Pit for DN1200 MS pipe and NS250 HDPE pipe at CH.CT2+43	71 days	3 Jun '20	26 Aug '20	HK Working Day			100%	3 Jun '20	26 Aug '20																																																
592	DN900 Valve Chamber with by-pass pipes at CH.CA4+;	60 days	29 Apr '20	11 Jul '20	HK Working Day			90%	29 Apr '20	NA																																																
593	Trenchless Works (DN1200 MS PIPE + NS250 HDPE PIPE) at TKO Area 137	793 days	2 Sep '19	10 May '22	HK Working Day		638,659	16%	2 Sep '19	NA																																																
594	Issue CE No. 17 - Realignment of Water Main by Trenchless Method in TKO Area 137	0 days	1 Jan '20	1 Jan '20	Calendar Day			100%	1 Jan '20	1 Jan '20																																																
595	Expected Issue CE No. 57 - Realignment of Water Main by Trenchless Method in SENTX	0 days	30 Dec '20	30 Dec '20	Calendar Day		599	0%	NA	NA																																																
596	Tendering & Approval	21 days	6 Jan '20	26 Jan '20	Calendar Day			100%	6 Jan '20	26 Jan '20																																																
597	WSD instructed to retender	0 days	3 Apr '20	3 Apr '20	Calendar Day		598	100%	3 Apr '20	3 Apr '20																																																
598	Retendering, Review & Approval	43 days	18 May '20	29 Jun '20	Calendar Day	597	599	100%	18 May '20	29 Jun '20																																																
599	Issue LOA	1 day	3 Sep '20	3 Sep '20	Calendar Day	598,595	605	100%	3 Sep '20	3 Sep '20																																																
600	Trial Pit Excavation for Trenchless Works at TKO Area 137	156 days	2 Sep '19	11 Mar '20	HK Working Day			100%	2 Sep '19	11 Mar '20																																																
601	Pit 137A	35 days	2 Sep '19	15 Oct '19	HK Working Day			100%	2 Sep '19	15 Oct '19																																																
602	Pit 137B	57 days	28 Oct '19	4 Jan '20	HK Working Day			100%	28 Oct '19	4 Jan '20																																																
603	Pit 137C	14 days	25 Feb '20	11 Mar '20	HK Working Day			100%	25 Feb '20	11 Mar '20																																																
604	Construction of Jacking / Receiving Pits	172 days	4 Sep '20	7 Apr '21	HK Working Day			0%	NA	NA																																																
605	Mobilization and Setup & Preliminary Works	15 days	4 Sep '20	18 Sep '20	Calendar Day	599	606,607,61	0%	NA	NA																																																
606	Receiving Pit 137A (Renopipe)	125 days	19 Sep '20	22 Feb '21	HK Working Day	605		0%	NA	NA																																																
607	Jacking / Receiving Pit 137B (Renopipe)	115 days	19 Sep '20	6 Feb '21	HK Working Day	605	610	0%	NA	NA																																																
608	Jacking Pit 137C (renopipe)	159 days	19 Sep '20	7 Apr '21	HK Working Day	605	622	0%	NA	NA																																																
609	TBM Pipe Jacking From Pit 137B to Pit 137A	231 days	8 Feb '21	19 Nov '21	HK Working Day		73	0%	NA	NA																																																
610	Establishment at Pit 137B	14 days	8 Feb '21	26 Feb '21	HK Working Day	607	611	0%	NA	NA																																																
611	OD1920 Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) (CH.CC0+10 to CH.CC.1+24) in Soil (114m; 5m/day)	23 days	27 Feb '21	25 Mar '21	HK Working Day	610	612	0%	NA	NA																																																
612	Remove setup at Pit 137B	6 days	26 Mar '21	1 Apr '21	HK Working Day	611	613,622	0%	NA	NA																																																

Working Programme No. 11  
Data Date : 15 Nov 2020

Task Split

Milestone Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Task

External Milestone

Devolve

Critical

Critical Split

Progress

Manual Progress





# Appendix B

## Overview of Mainlaying in Tseung Kwan O



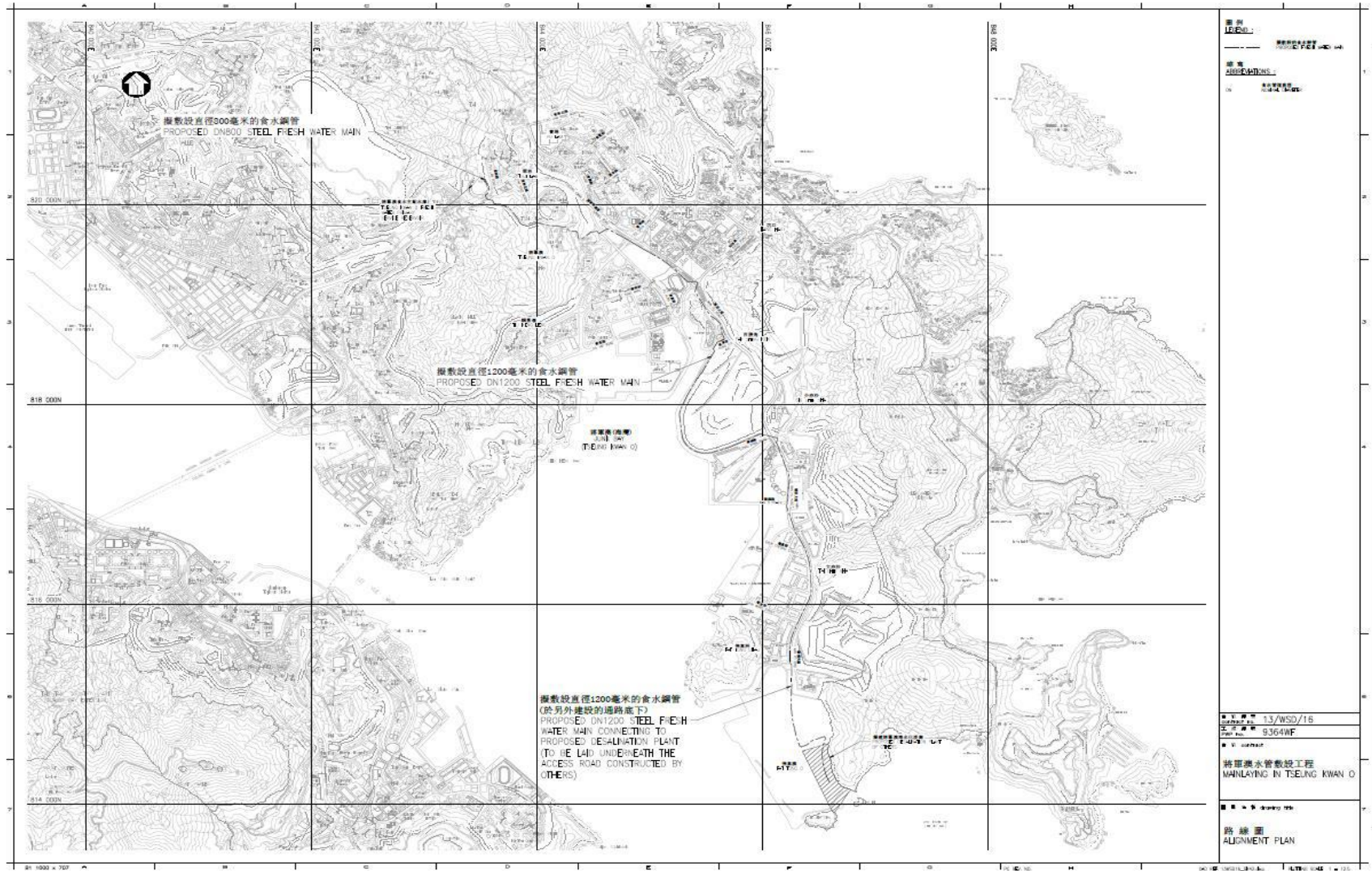


Figure B1. Overview of Mainlaying in TKO

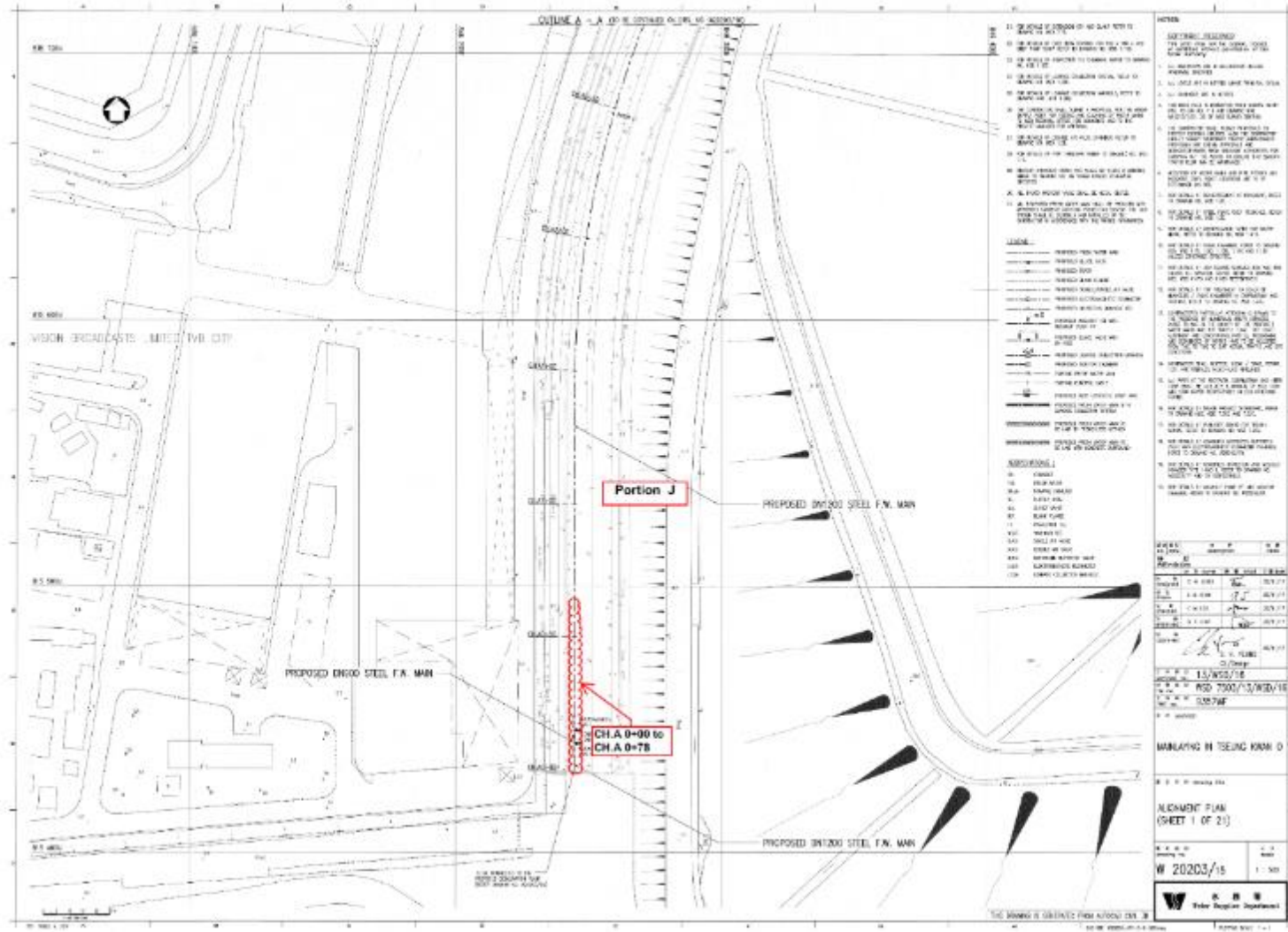


Figure B2. Location Plan for Portion J - CH.A 0+00 to CH.A 0+78

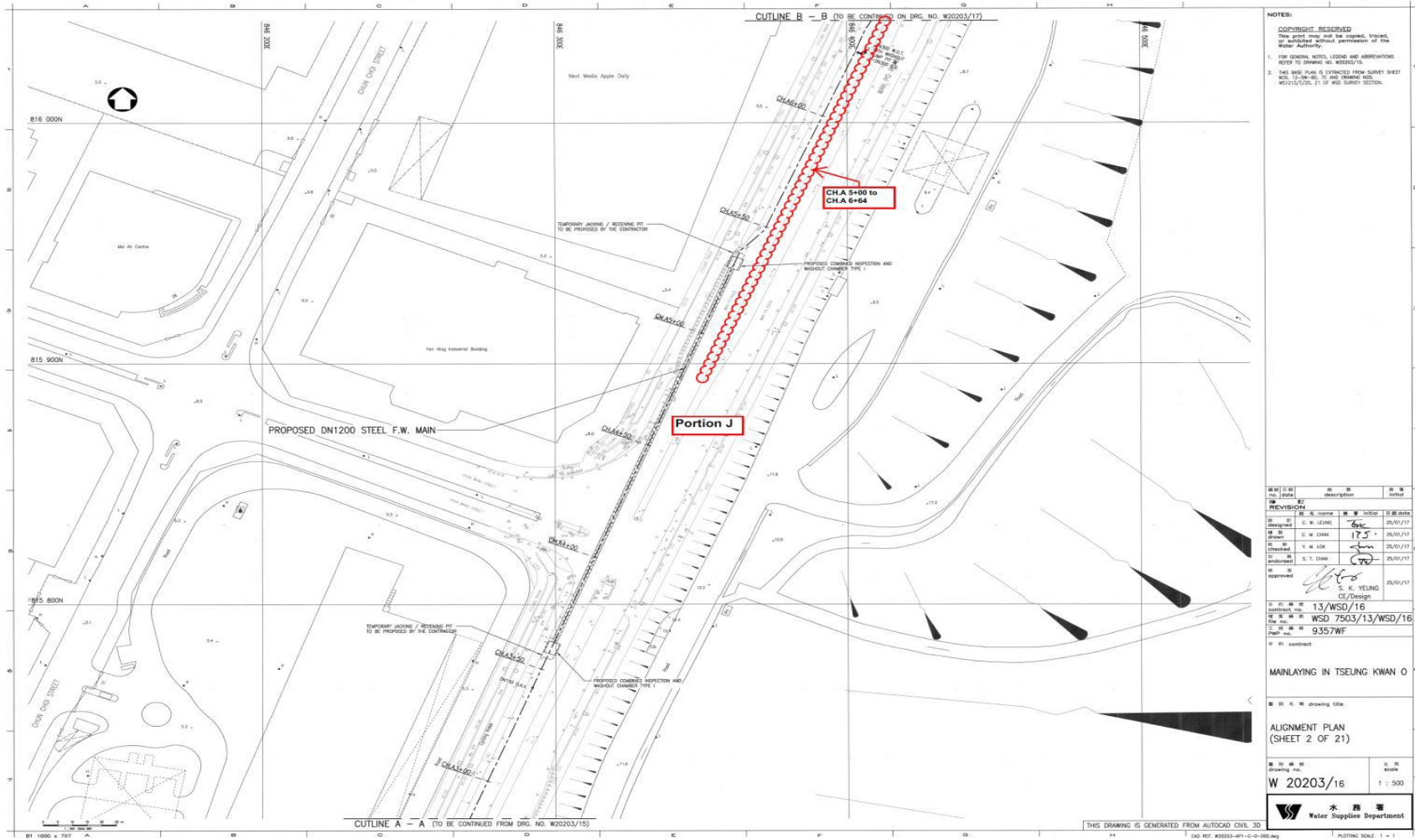


Figure B3a. Location Plan for Portion J - CH.A 5+00 to CH.A 6+64

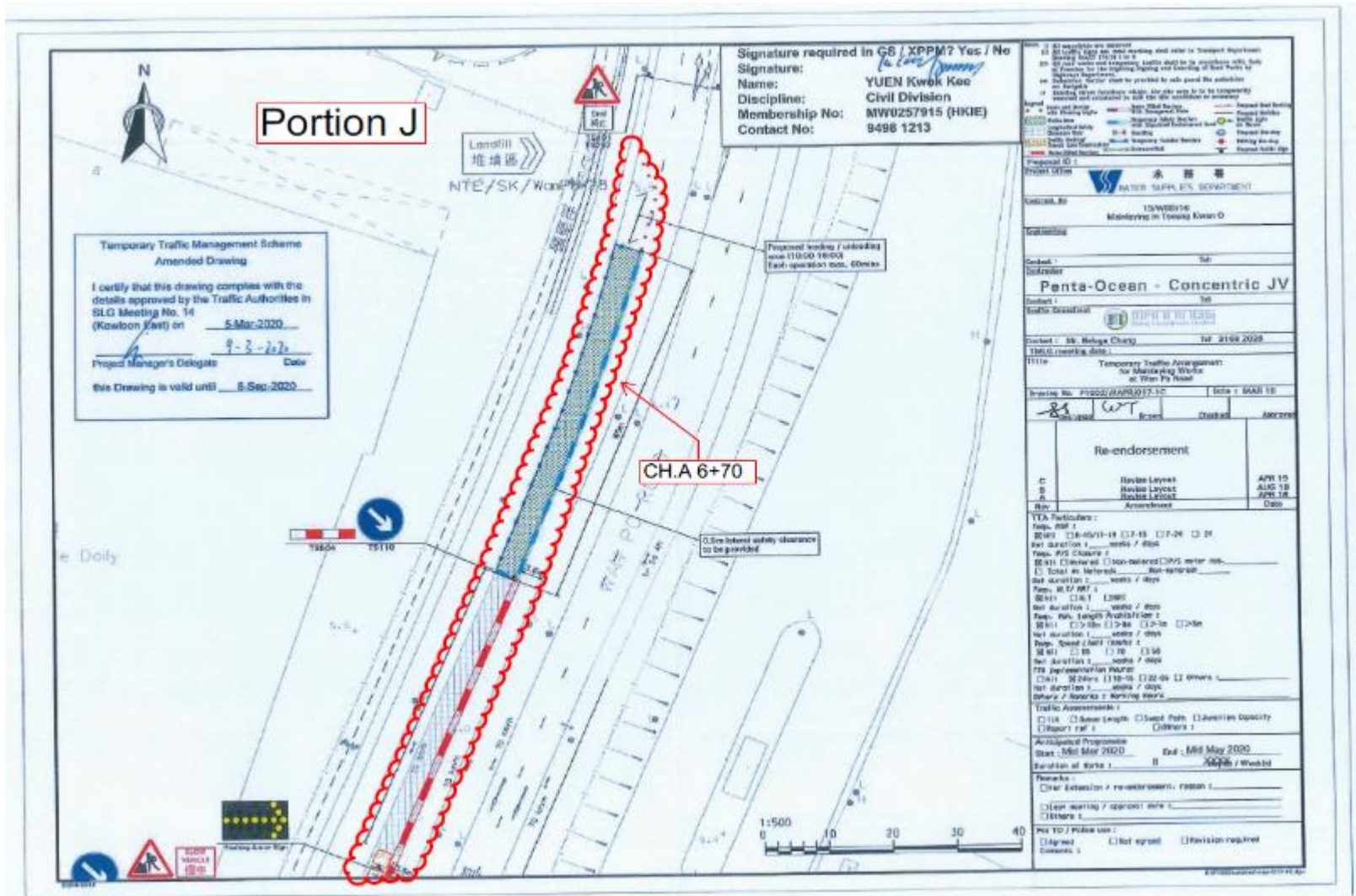


Figure B3b(i). Location Plan for Portion J - CH.A 6+70

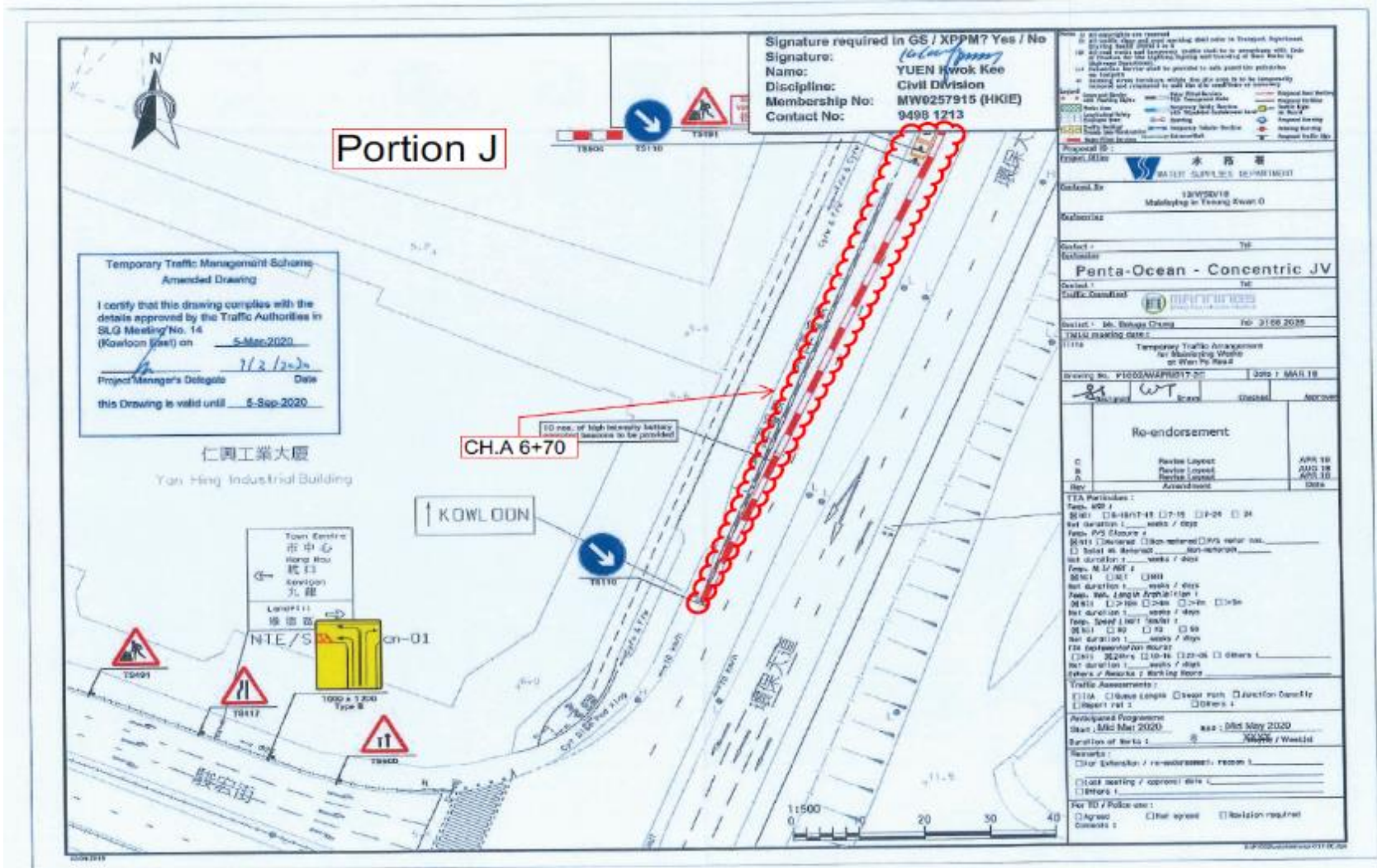


Figure B3b(ii). Location Plan for Portion J - CH.A 6+70

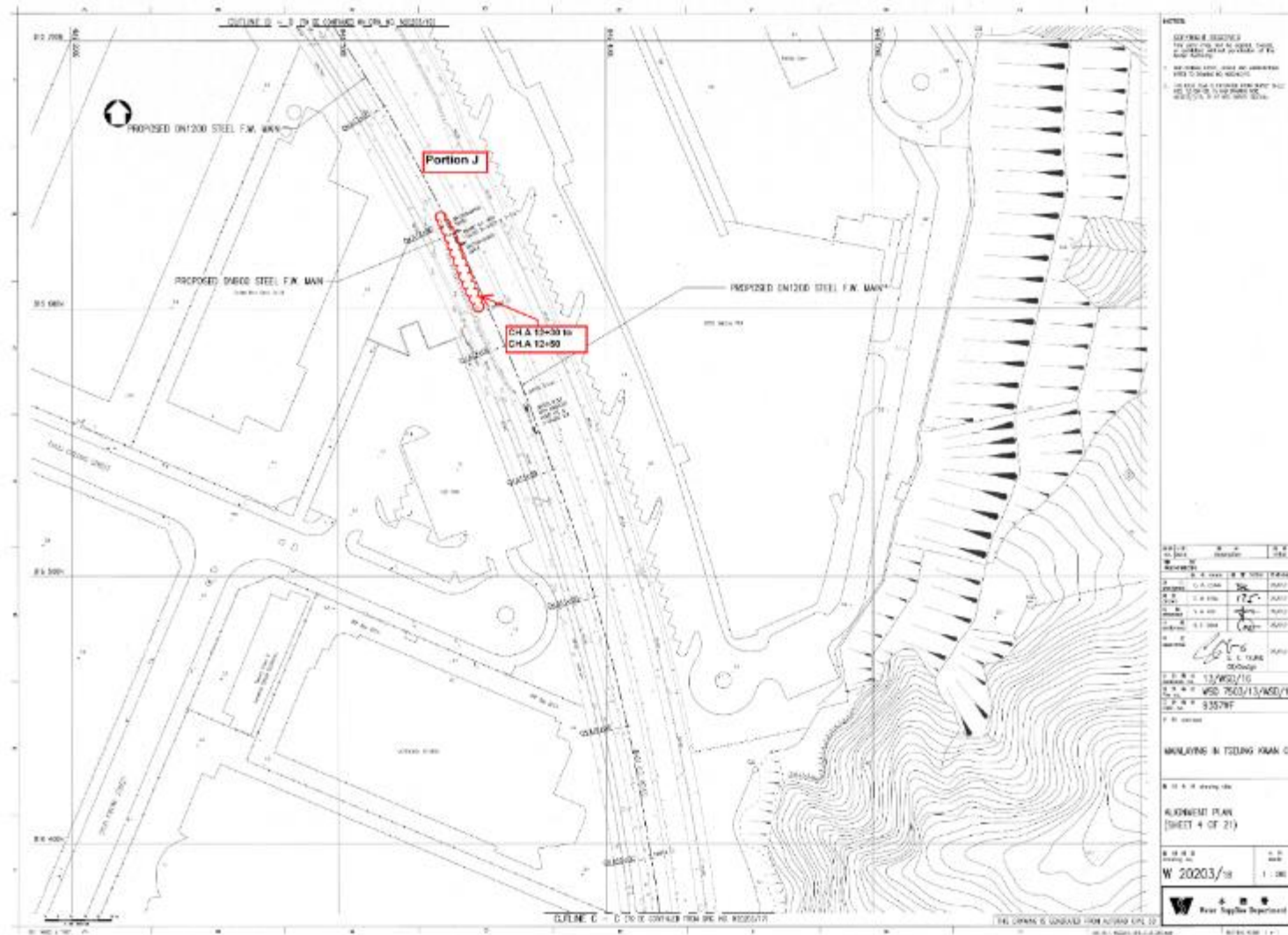


Figure B4. Location Plan for Portion J - CH.A 12+30 to CH.A 12+50

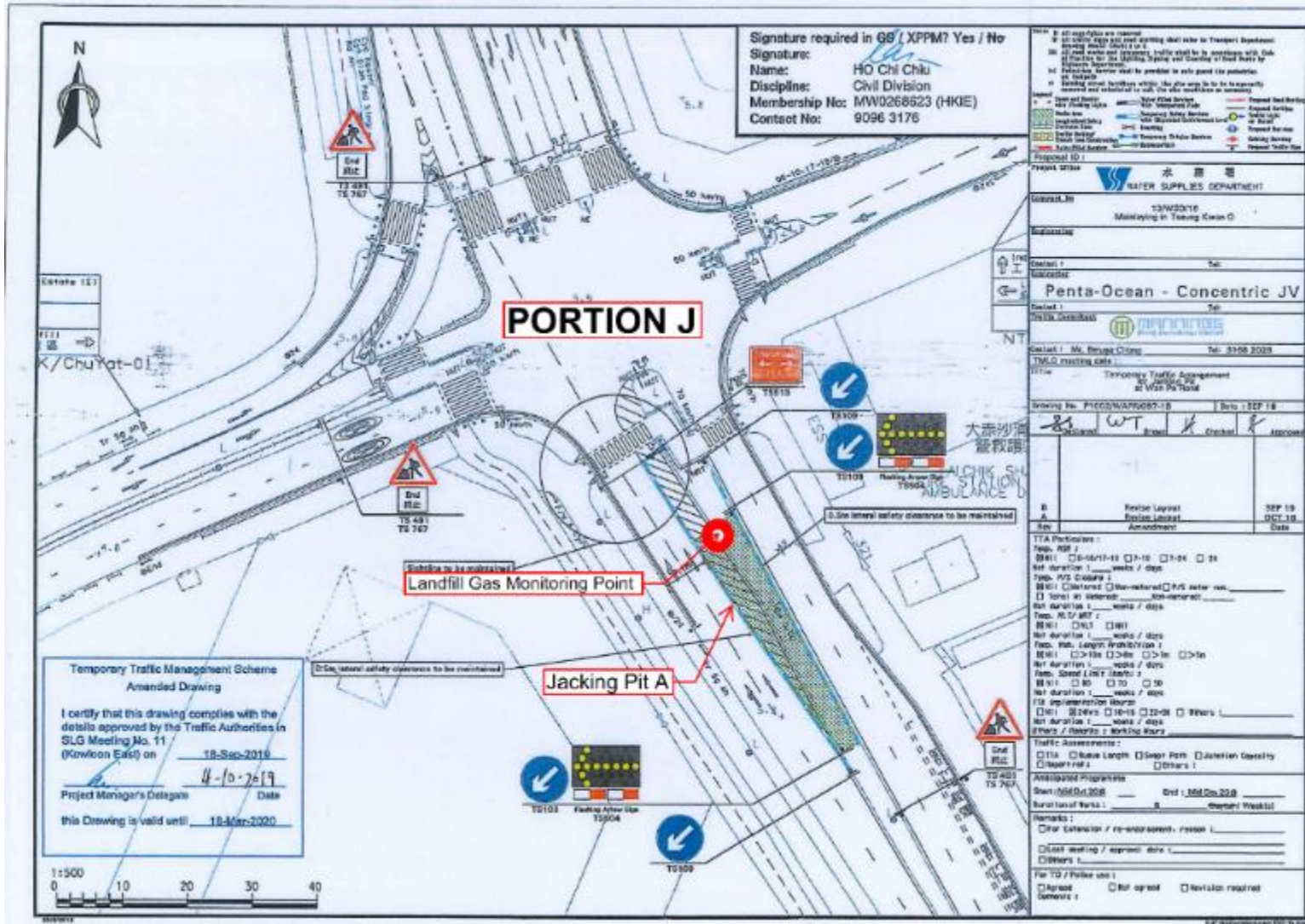


Figure B5. Location Plan for Portion J – CH. A13+50 to CH.A 14+00 (Pit A)

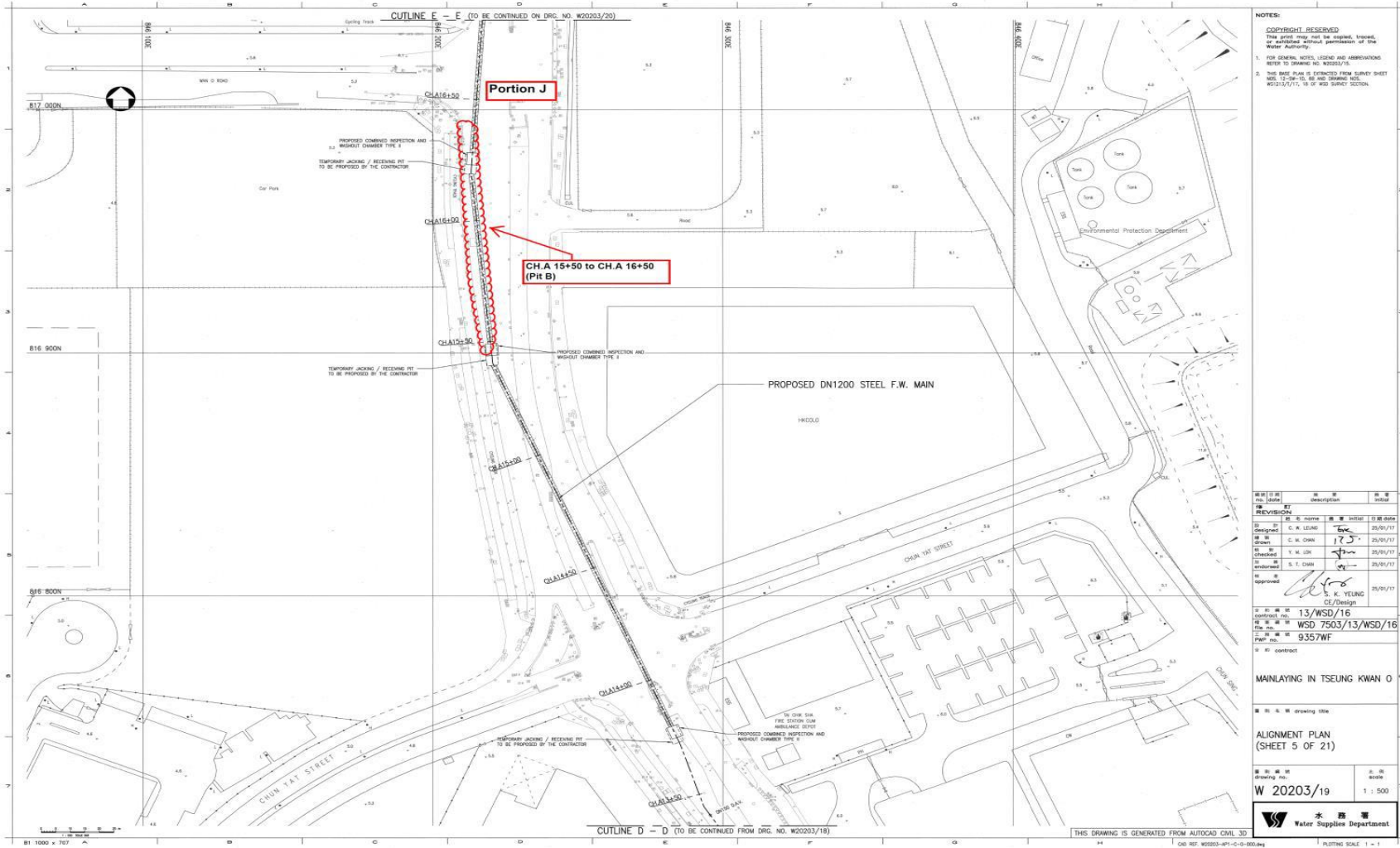


Figure B6. Location Plan for Portion J – CH. A15+50 to CH.A 16+50 (Pit B)



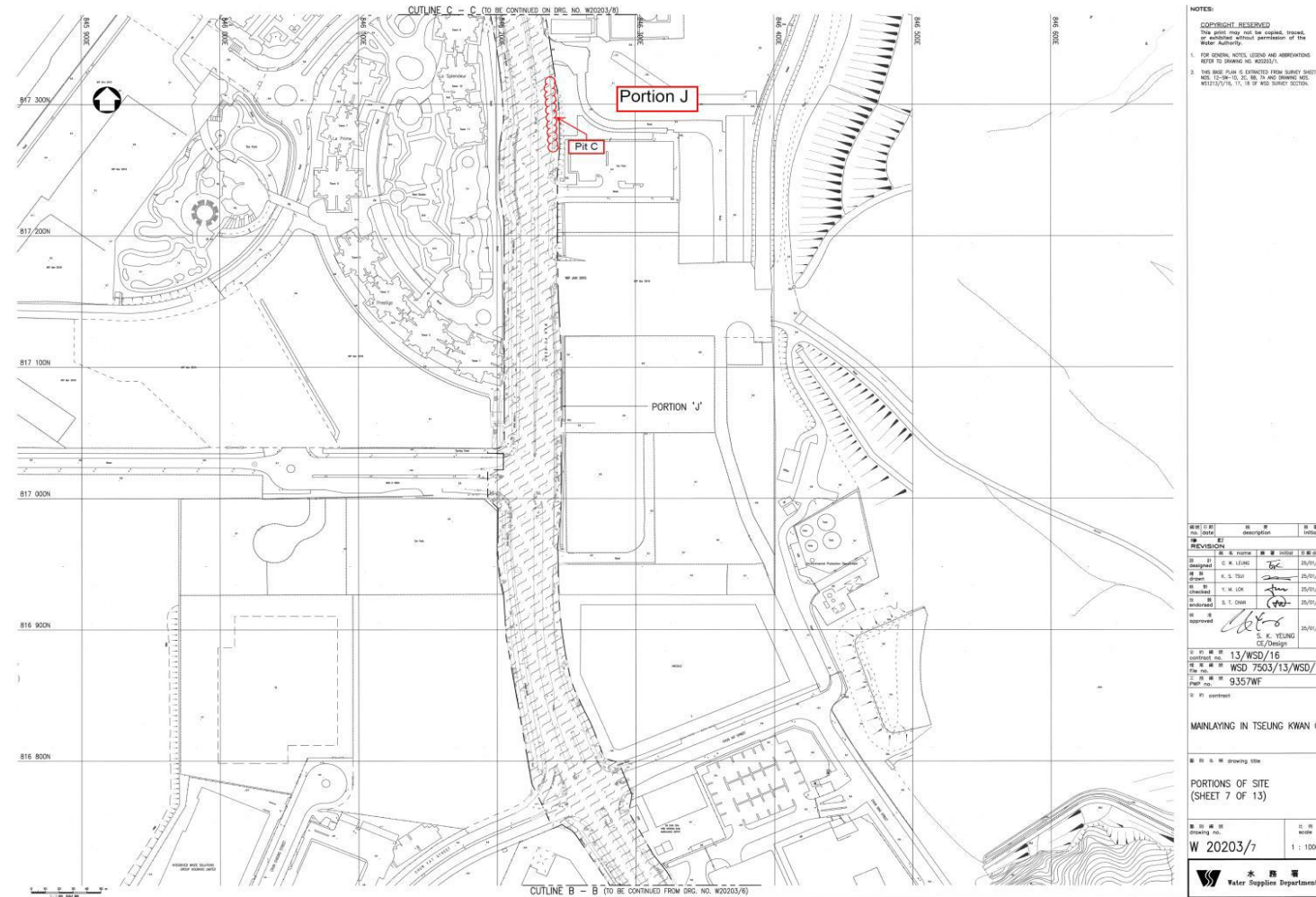


Figure B7. Location Plan for Portion J – CH.A 19+15 to CH.A 19+50 (Pit C)

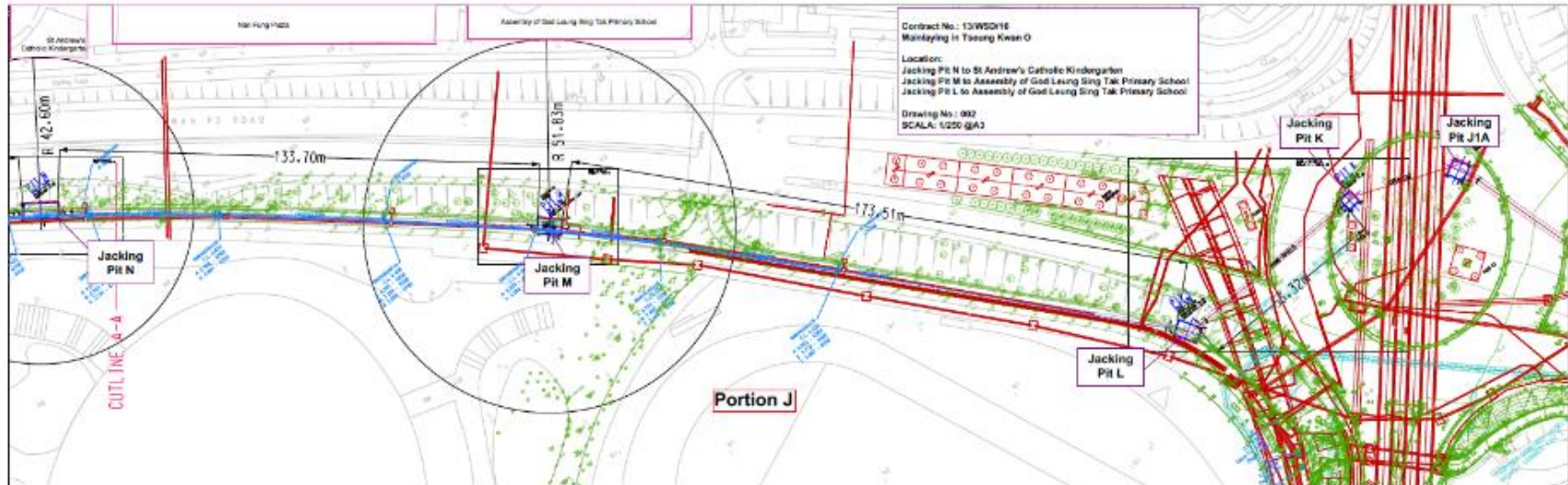


Figure B8a. Location Plan for Portion J – Pit L-M-N, K, J1A

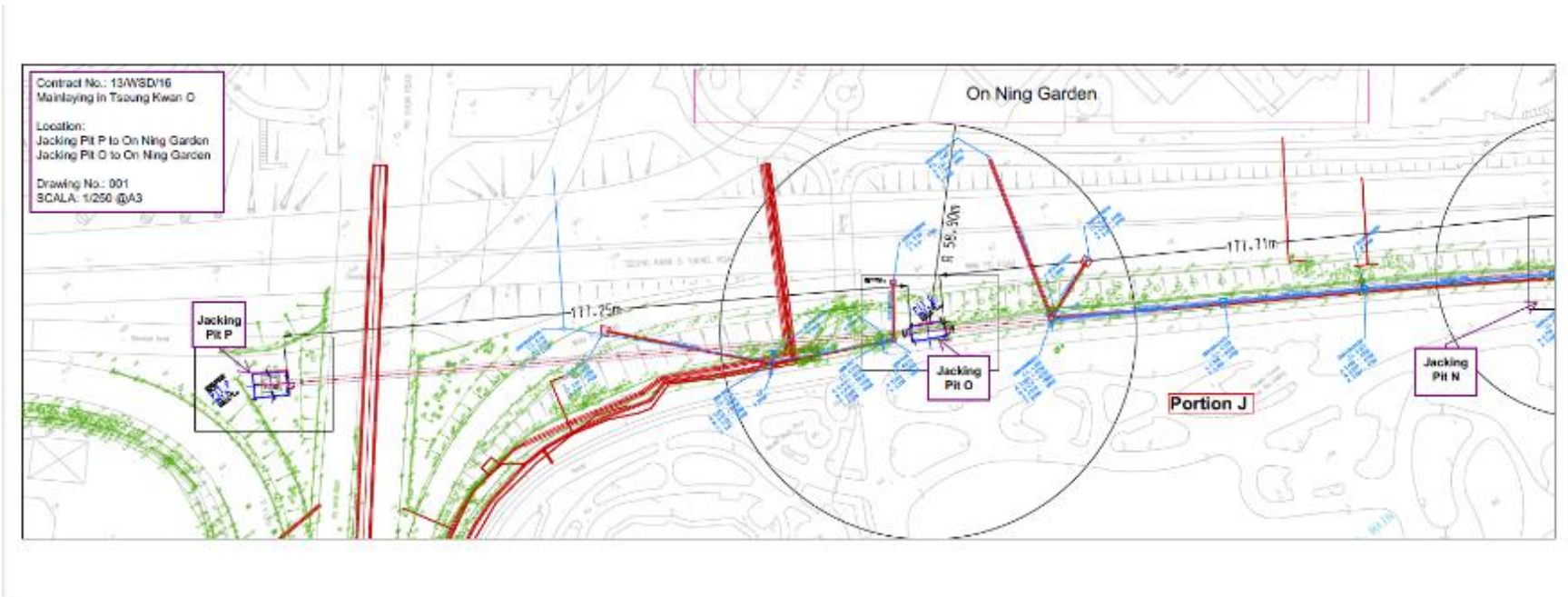


Figure B8b. Location Plan for Portion J – Pit N-O-P

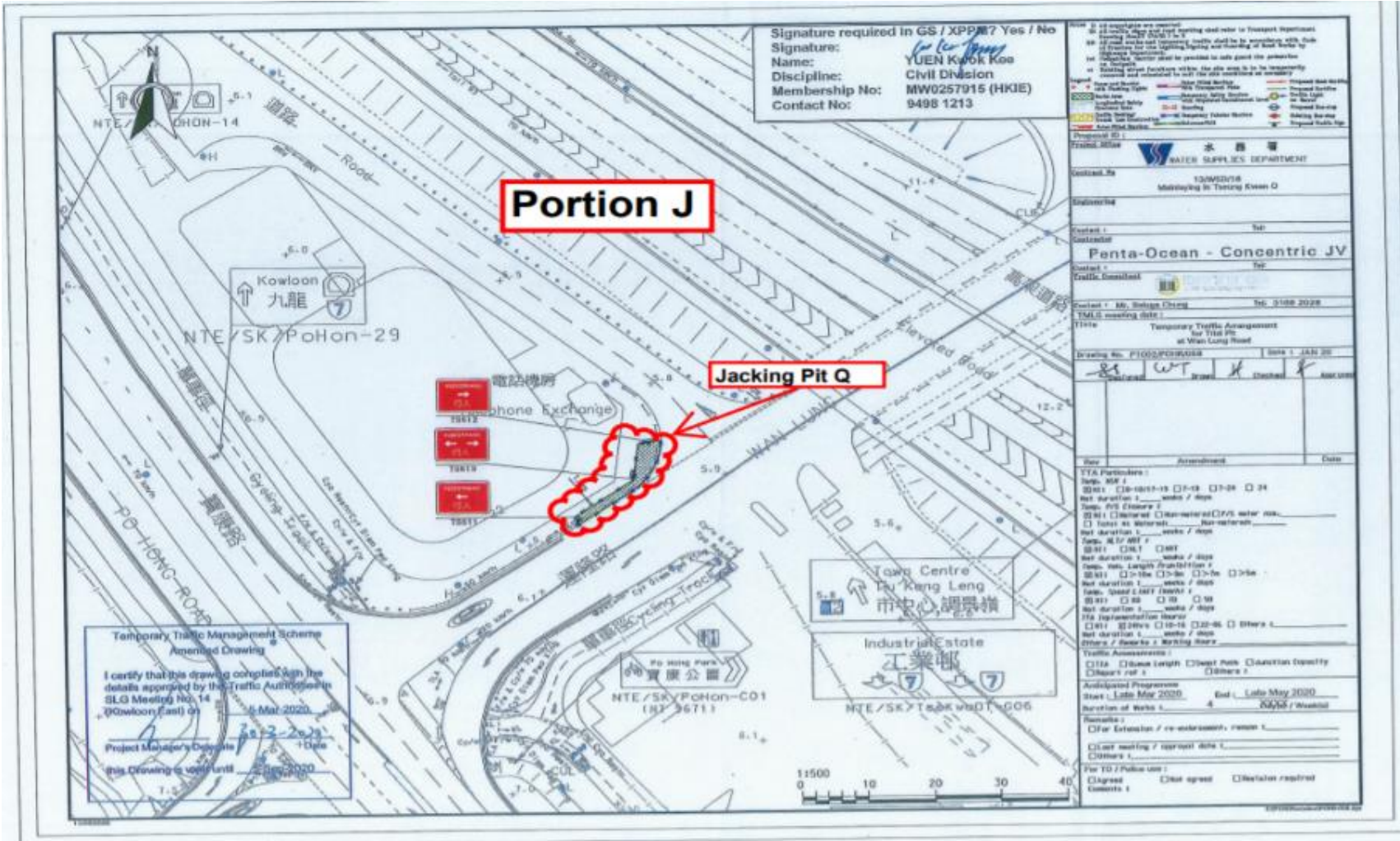


Figure B8c. Location Plan for Portion J – Pit Q

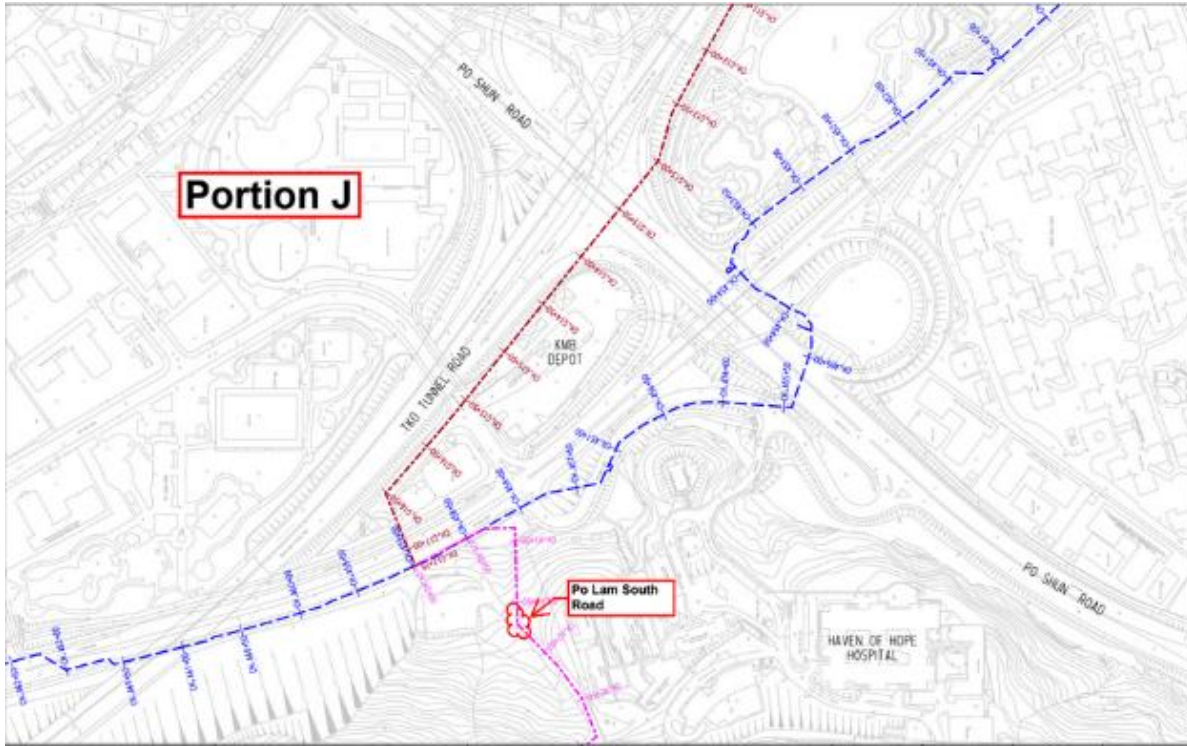


Figure B9a. Location Plan for Mau Wu Tsai 1

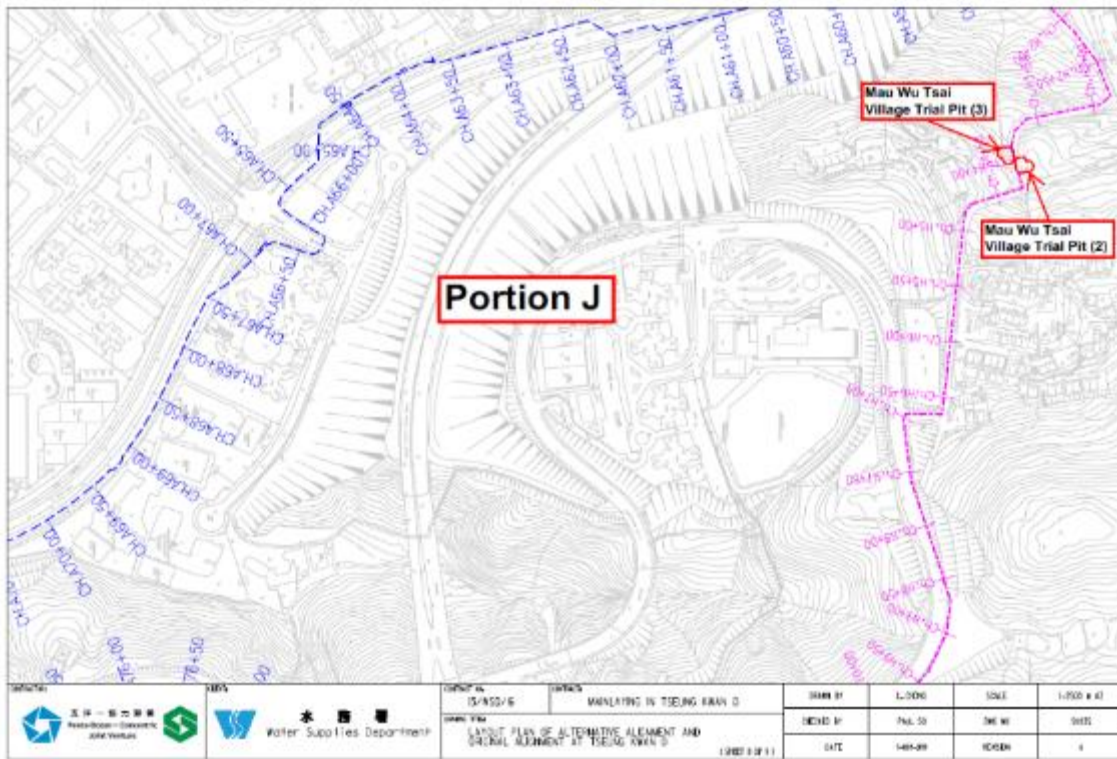


Figure B9b. Location Plan for Mau Wu Tsai 2 & 3

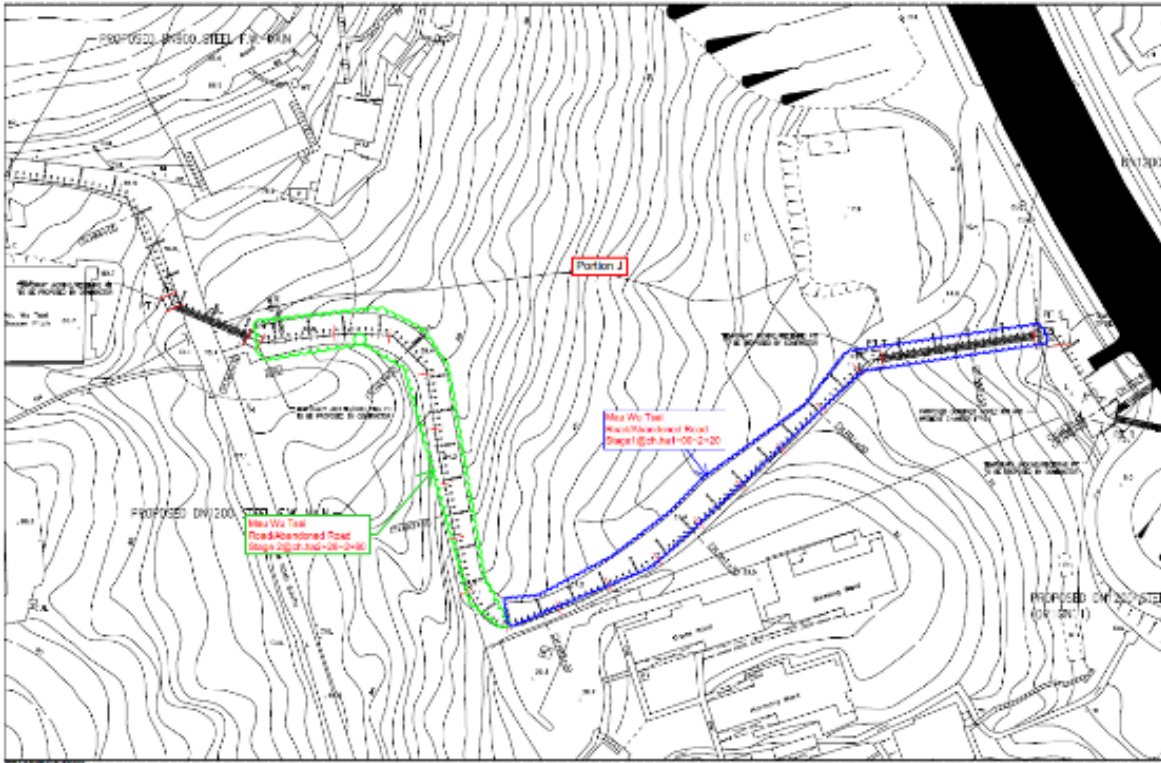


Figure B9c. Abandoned Mau Wu Tsai Road



Figure B10. Location Plan for Jacking Pit F

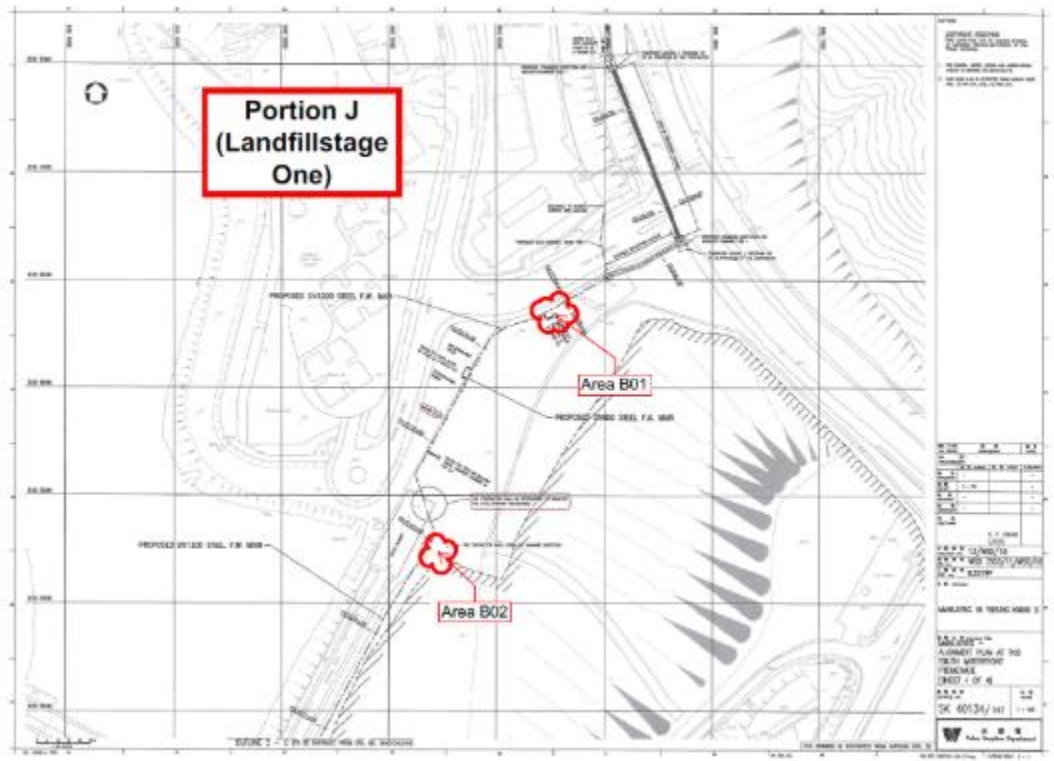


Figure B11a. Location Plan – Landfill Stage 1 (Area B01-B02)

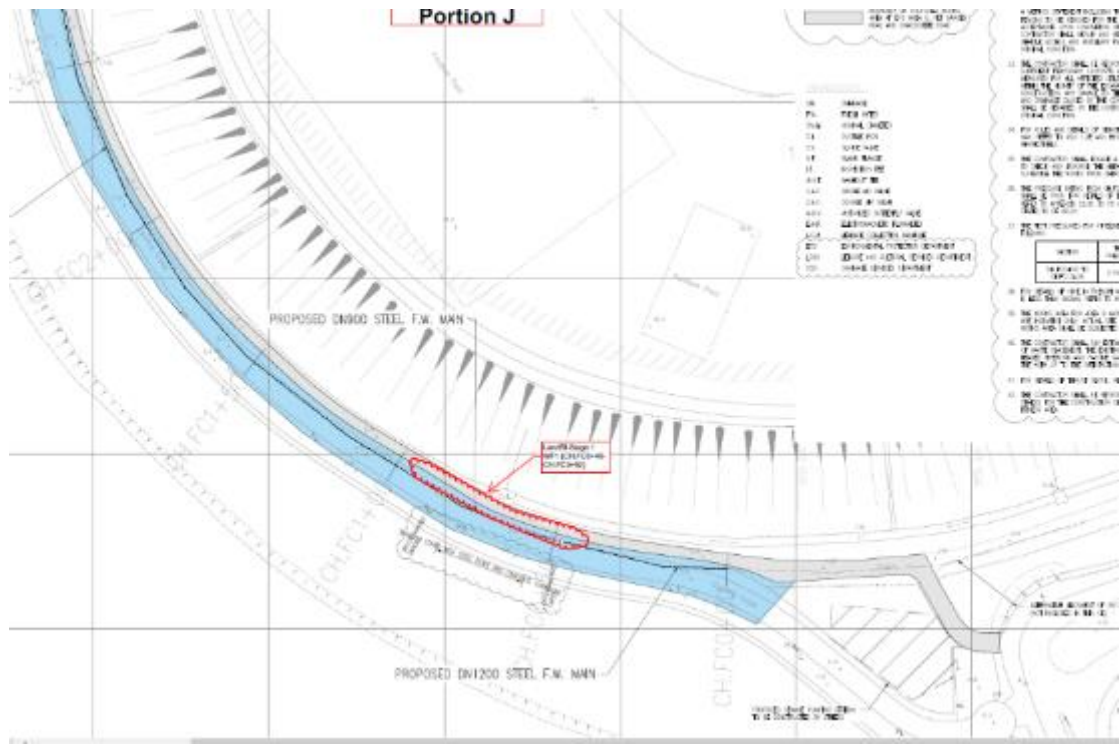


Figure B11b. Location Plan – Landfill Stage 1 (Area FC0+42 -FC0+92)

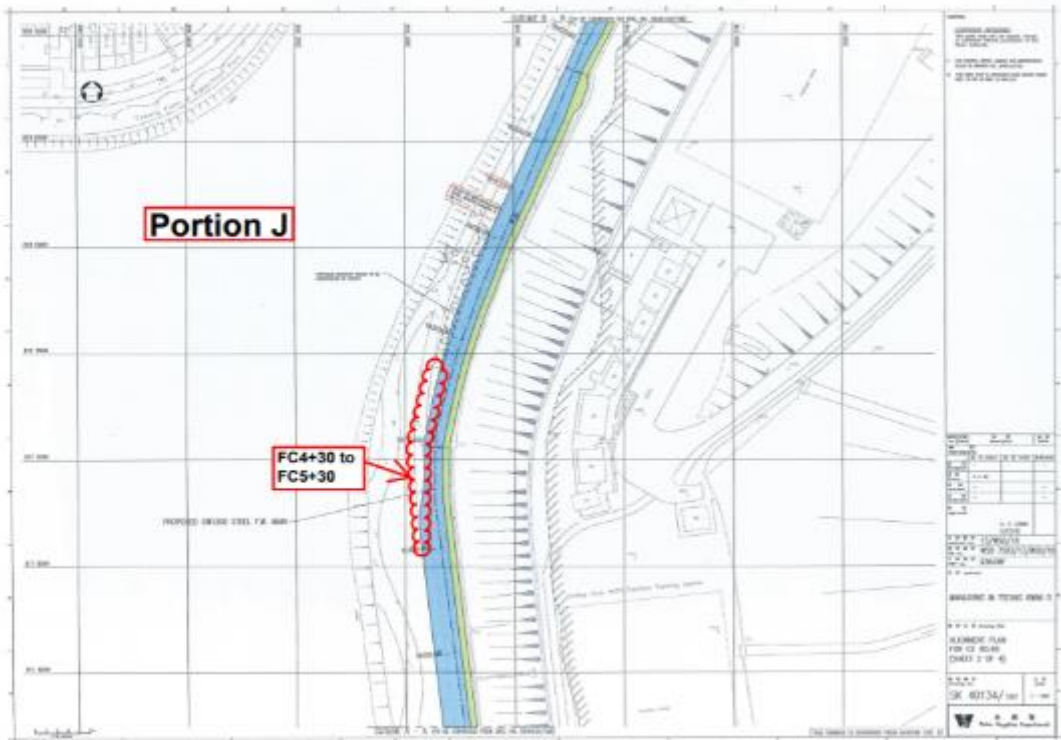


Figure B11c. Location Plan – Landfill Stage 1 (Area FC4+30 -FC5+30)

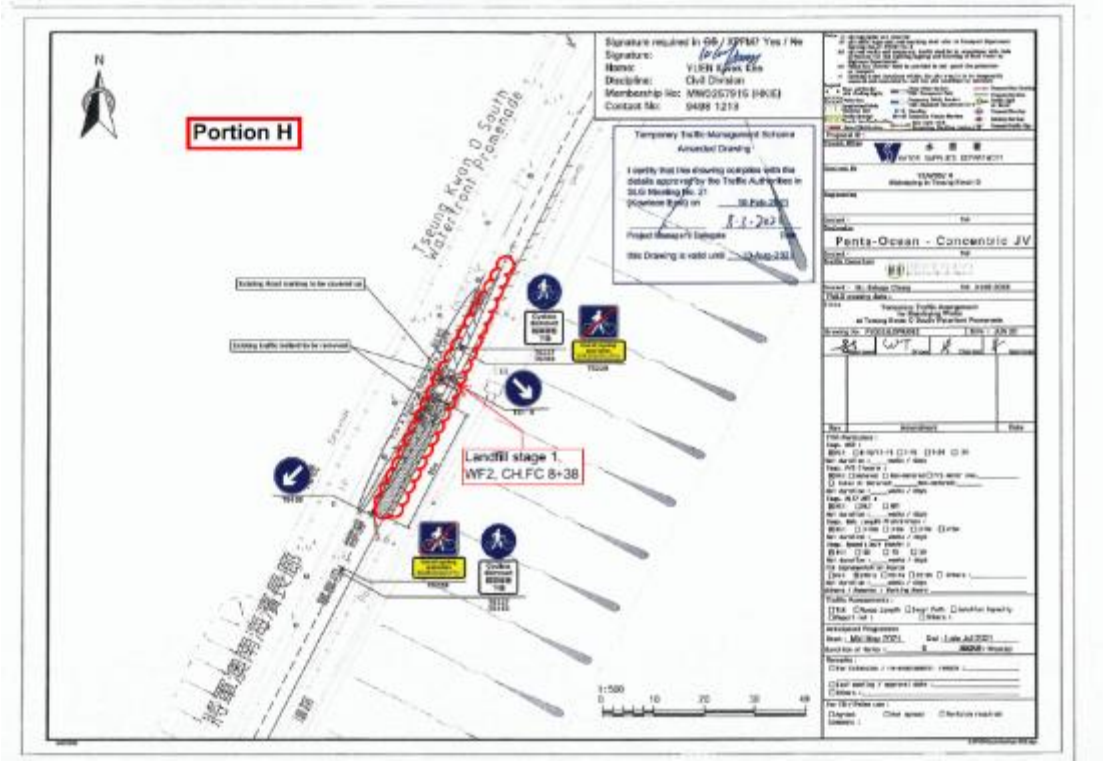


Figure B11d. Location Plan – Landfill Stage 1 (Area FC8+38)





Figure B12. Monitoring Location – Po Lam South Road

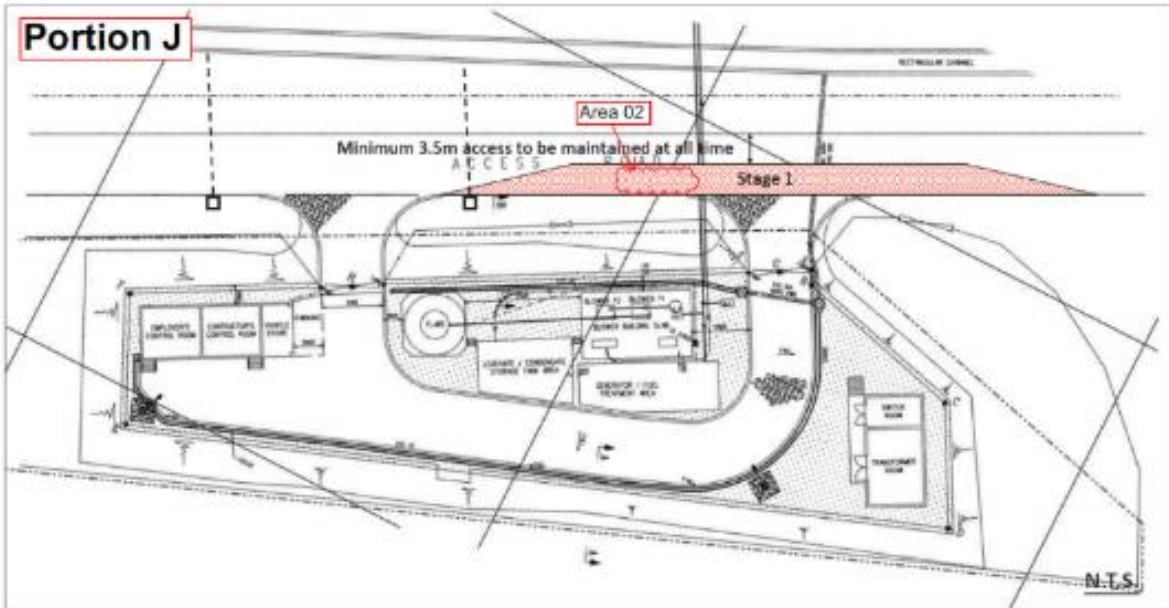


Figure B13. Monitoring Location – Area A02

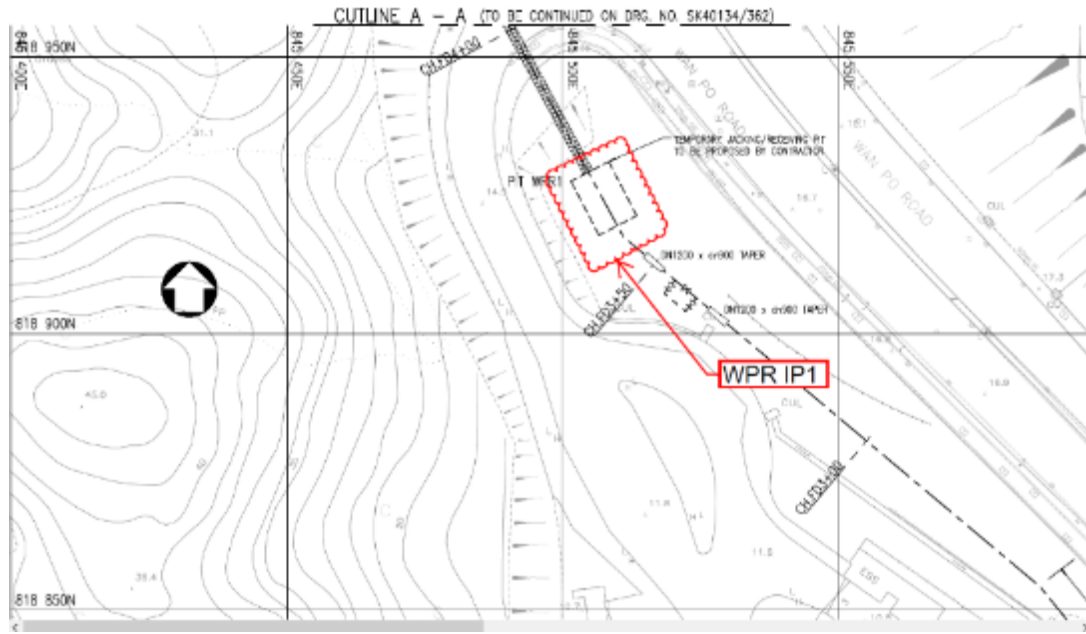


Figure B14. Location Plan for WPR IP1

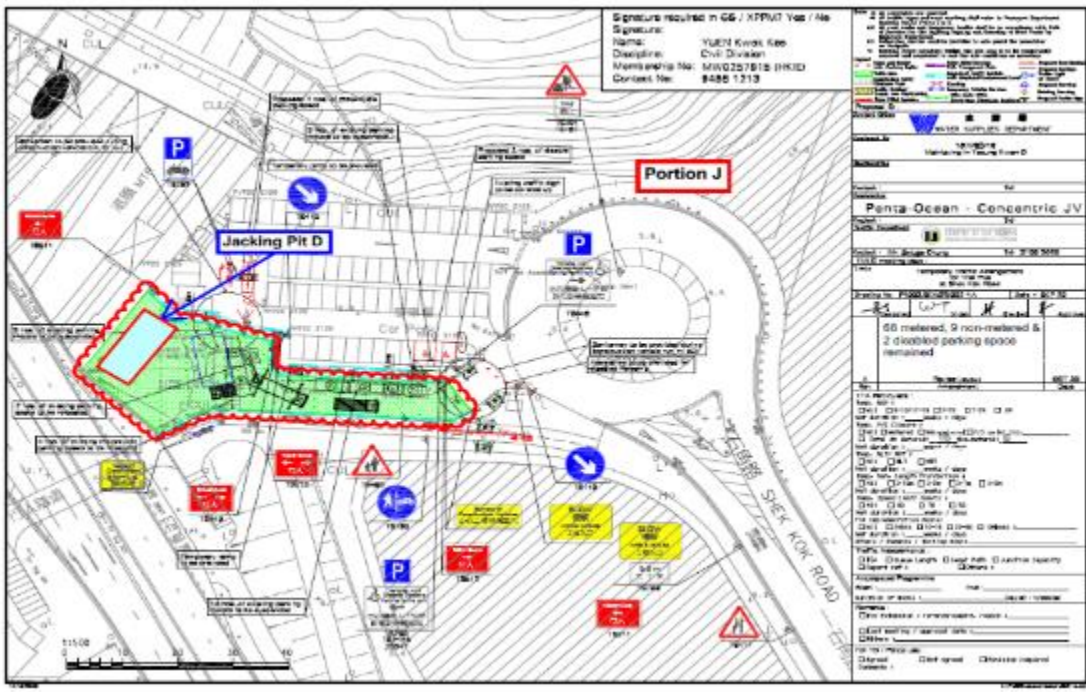


Figure B15. Location Plan for Jacking Pit D

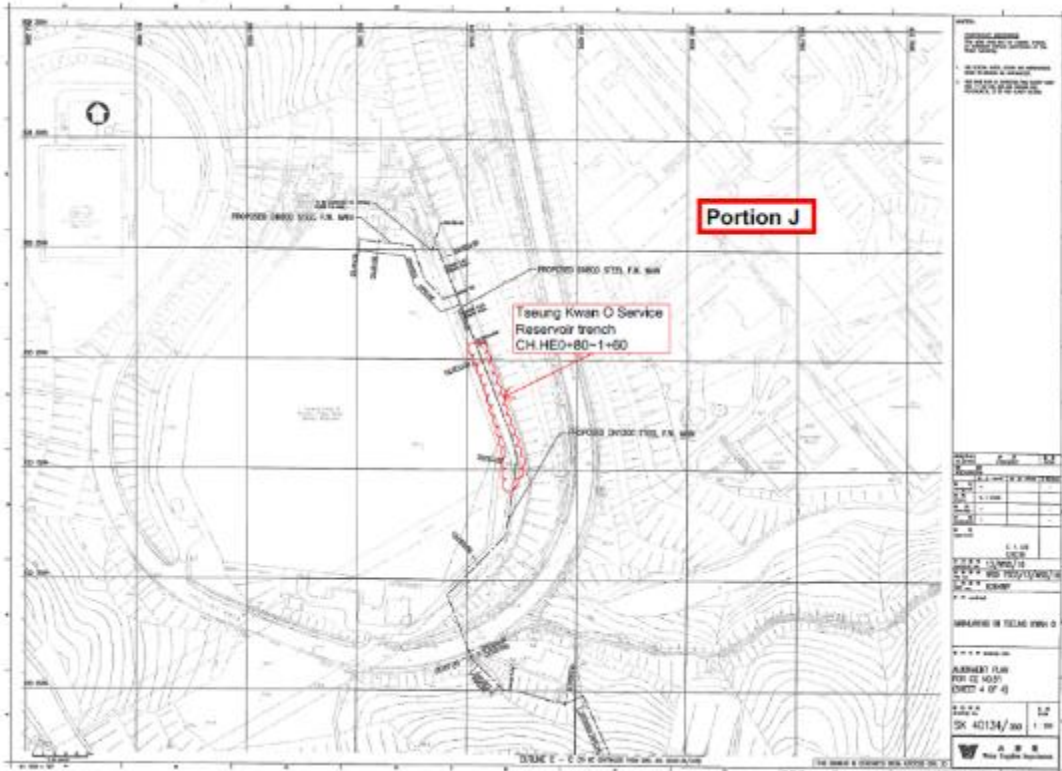


Figure B16. Location Plan for CH.HE0+80-1+60

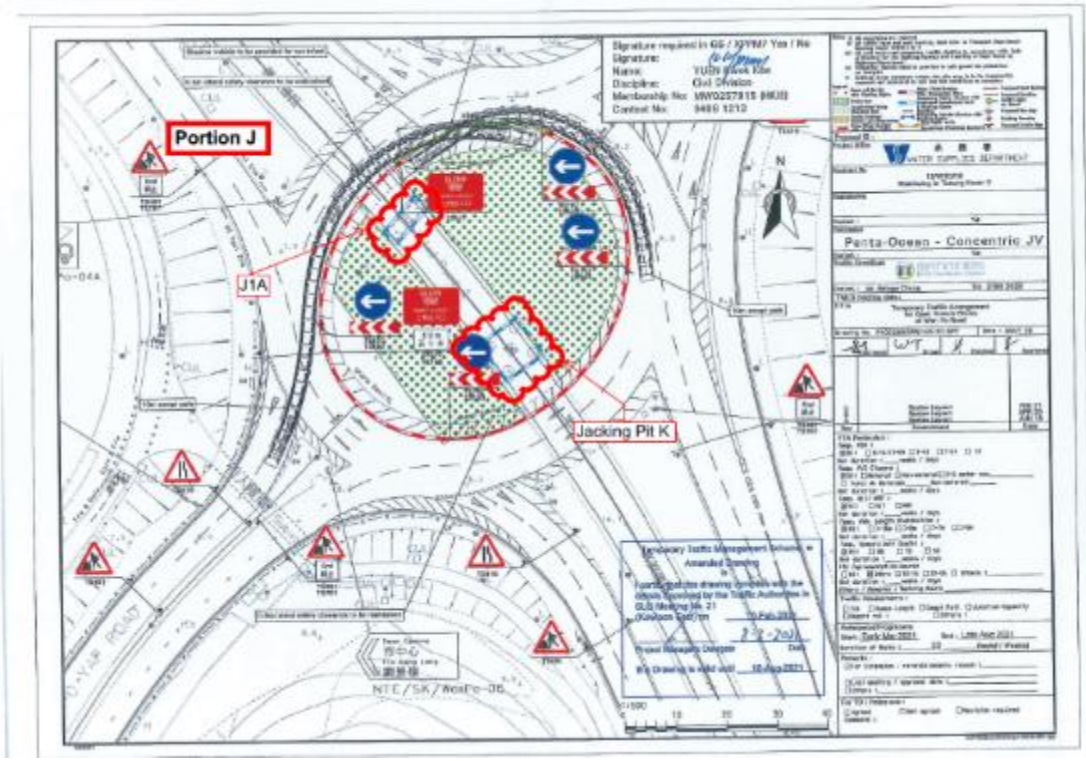


Figure B17. Location Plan for Pit K

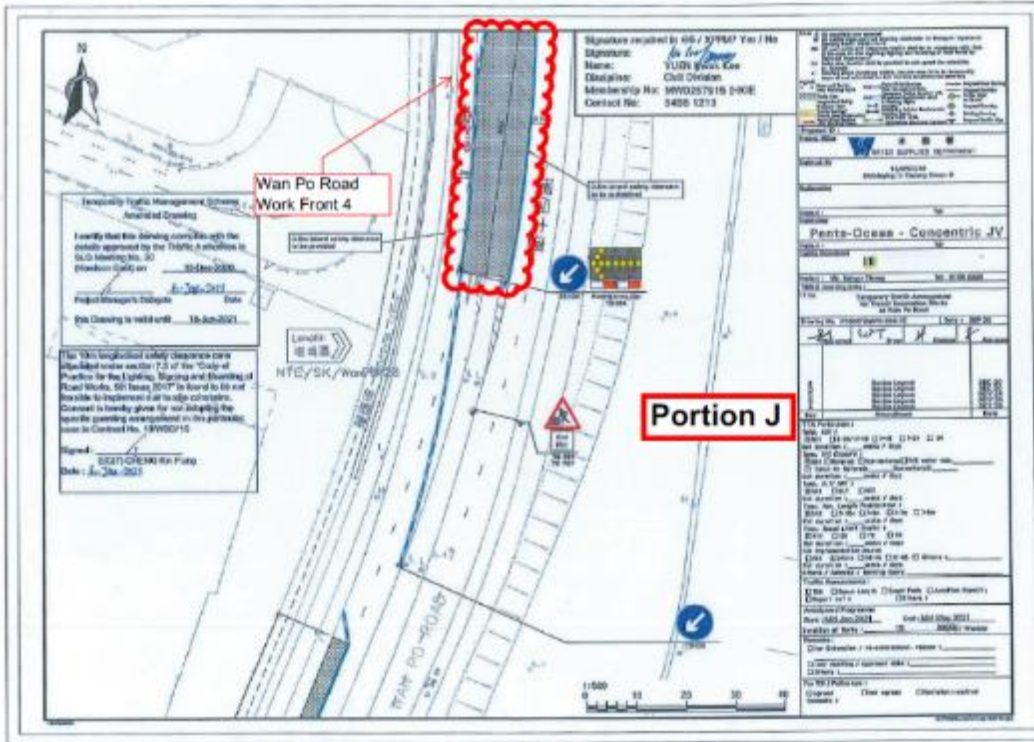


Figure B18a. Location Plan for Wan Po Road 4

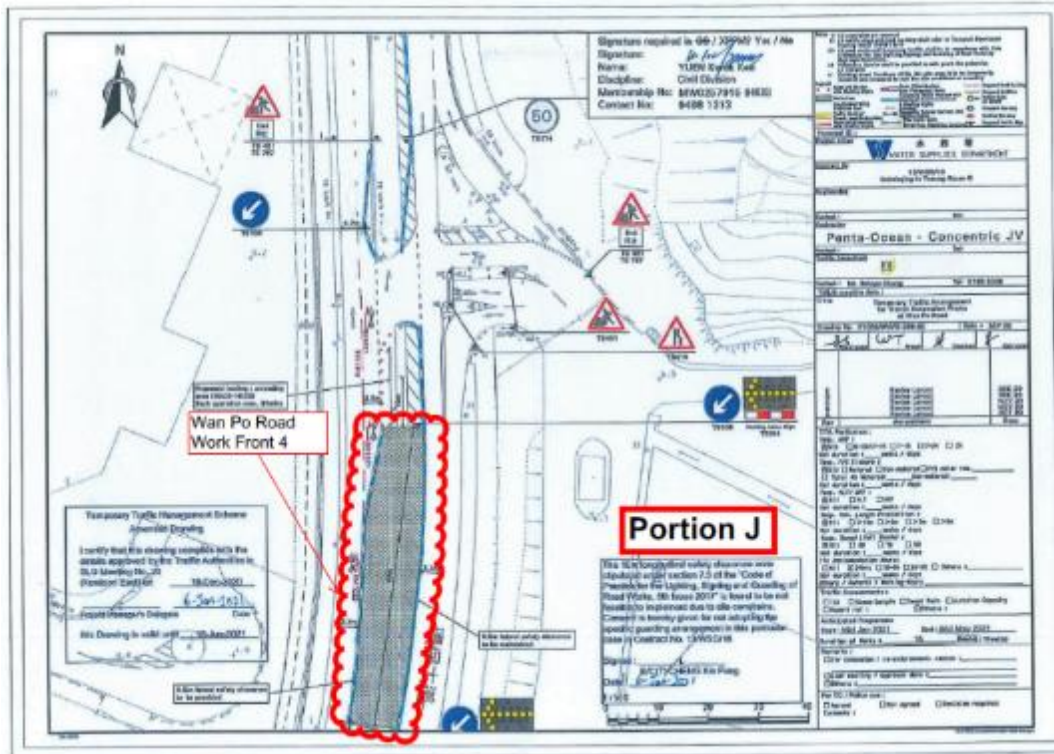


Figure B18b. Location Plan for Wan Po Road 4

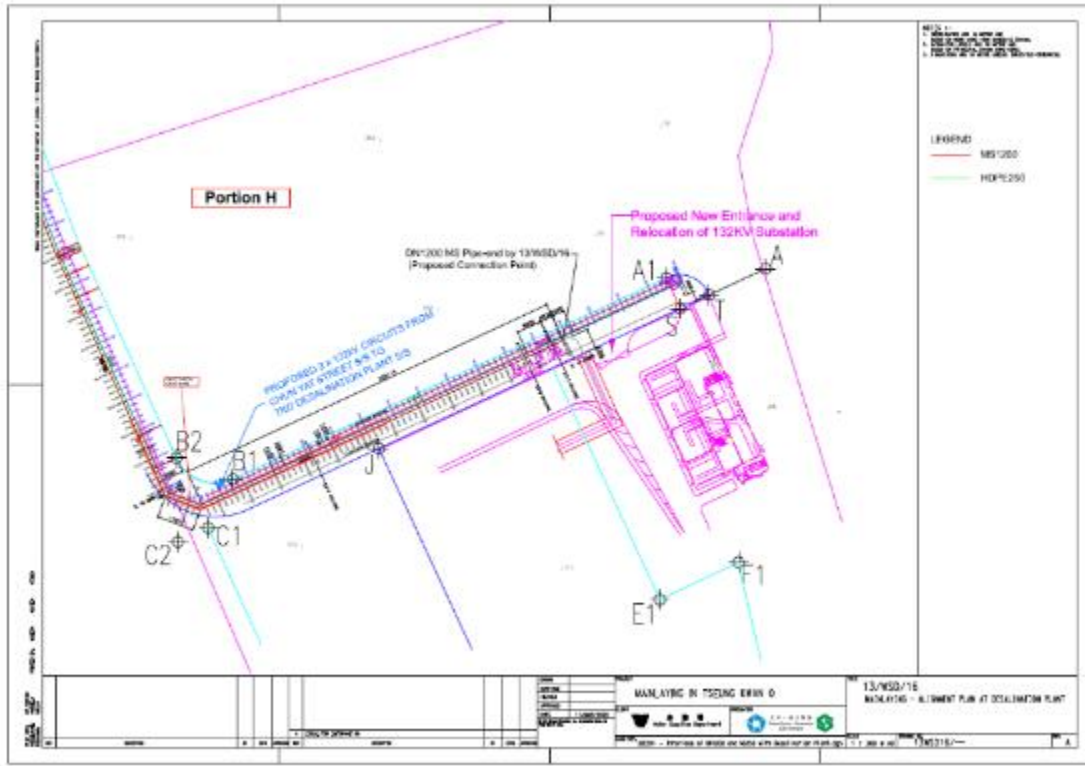


Figure B19a. Location Plan for CH.CT 0+07 – 2+58



Figure B19b. Location Plan for CH.CT 2+58 – 2+66

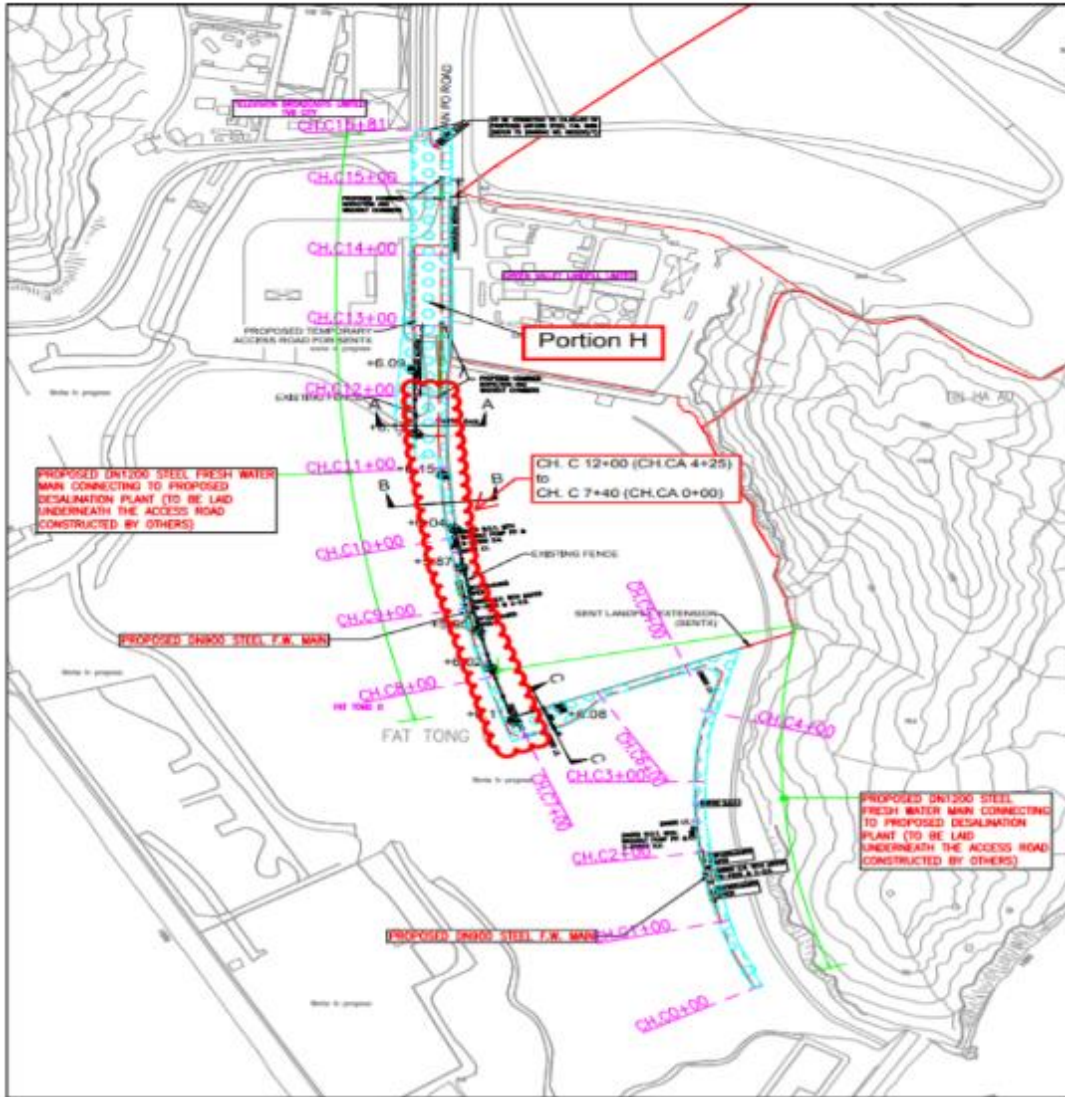


Figure B20. Location Plan for Portion H- CH.C 7+40~CH.C 12+00 (CH.CA 0+00 ~ CH.CA4+25)

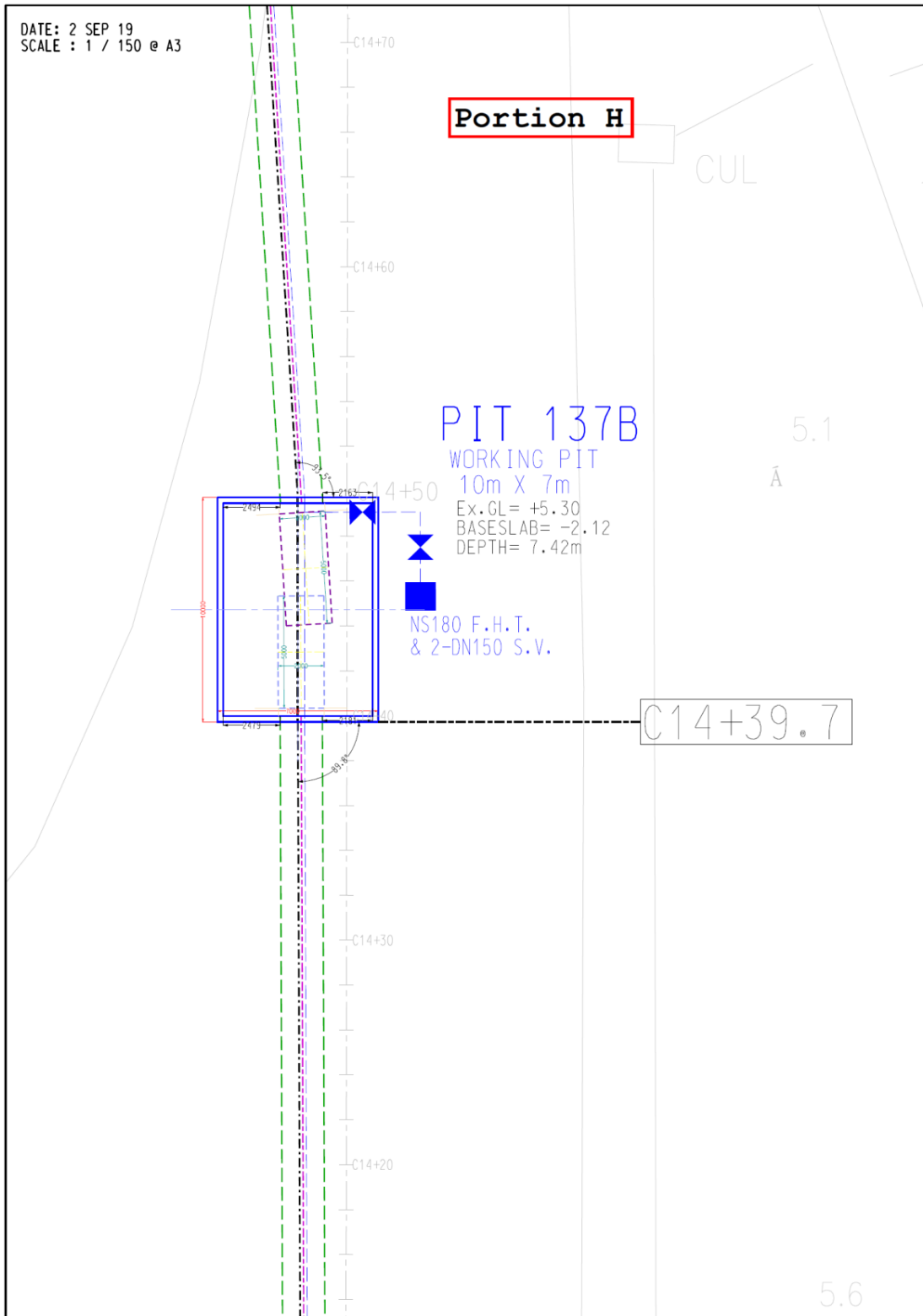


Figure B21a. Location Plan for Portion H- Pit 137B

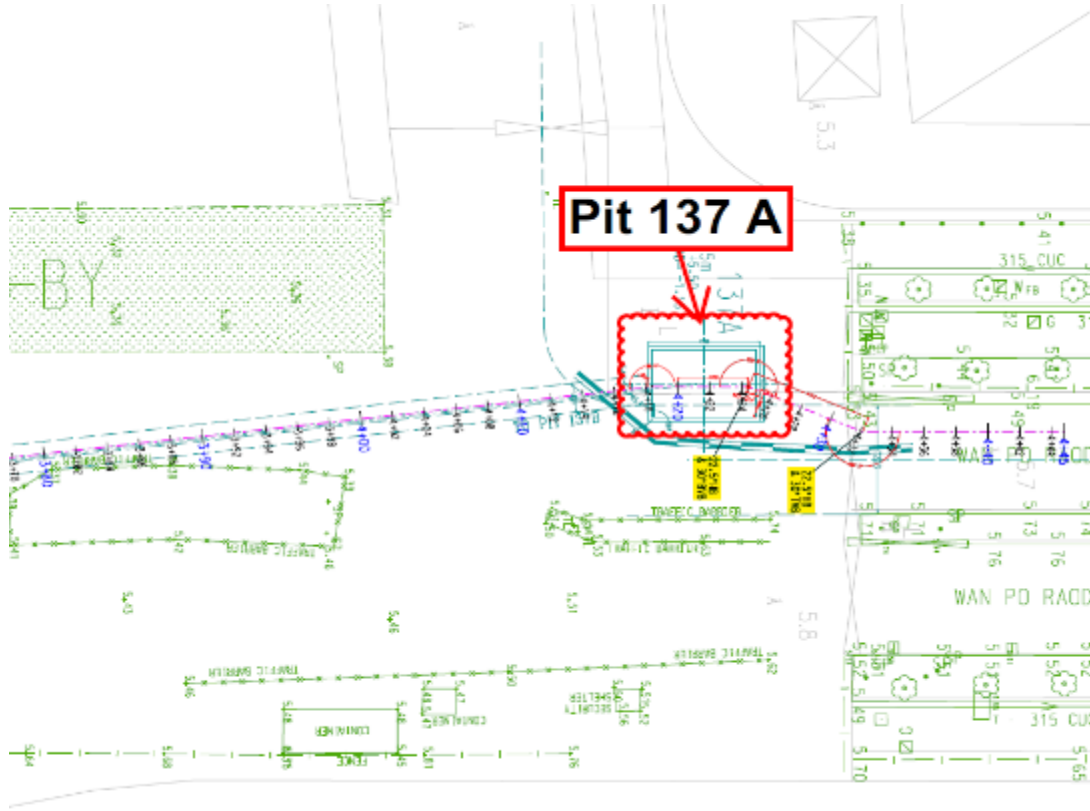


Figure B21b. Location Plan for Portion H- Pit 137A

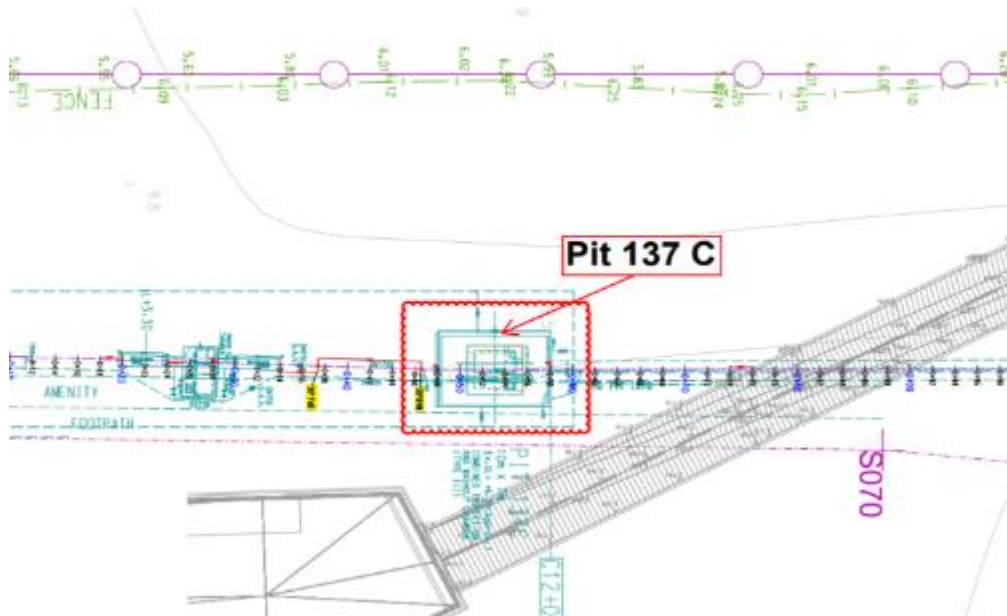


Figure B21c. Location Plan for Portion H- Pit 137C



# Appendix C

## Summary of Implementation Status of Environmental Mitigation

**Contract No. 13/WSD/16**  
**Mainlaying in Tseung Kwan O**  
**Monthly EM&A Report**



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
<b>Air Quality</b>								
S4.8.1	Impervious dust screen or sheeting will be provided to enclose scaffolding from the ground floor level of building for construction of superstructure of the new buildings.	Land site/ During Construction	Contractor(s)		✓		N/A	Air Pollution Control (Construction Dust)
S4.8.1	Impervious sheet will be provided for skip hoist for material transport.	Land site/ During Construction, particularly dry season	Contractor(s)		✓		N/A	
S4.8.1	The area where dusty work takes place should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after dusty activities as far as practicable.	Land site/ During Construction	Contractor(s)		✓		Implemented	
S4.8.1	All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation.	Land site/ During Construction	Contractor(s)		✓		Implemented	
S4.8.1	Dropping heights for excavated materials should be controlled to a practical height to minimize the fugitive dust arising from unloading.	Land site/ During Construction	Contractor(s)		✓		Implemented	
S4.8.1	During transportation by truck, materials should not be loaded to a level higher than the side and tail boards, and should be dampened or covered before transport.	Land site/ During Construction	Contractor(s)		✓		Implemented	
S4.8.1	Wheel washing device should be provided at the exits of the work sites. Immediately before leaving a construction site, every vehicle shall be washed to remove any dusty material from its body and wheels as far as practicable.	Land site/ During Construction	Contractor(s)		✓		N/A	
S4.8.1	Road sections between vehicle-wash areas and vehicular entrance will be paved.	Land site/ During Construction	Contractor(s)		✓		N/A	
S4.8.1	Hoarding of not less than 2.4m high from ground level will be provided along the length of the Project Site boundary.	Land site/ During construction	Contractor(s)	✓	✓		N/A	
S4.8.1	Haul roads will be kept clear of dusty materials and will be sprayed with water so as to maintain the entire road surface wet at all times.	Land site/ During construction	Contractor(s)		✓		Implemented	

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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
S4.8.1	Temporary stockpiles of dusty materials will be either covered entirely by impervious sheets or sprayed with water to maintain the entire surface wet all the time.	Land site/ During construction	Contractor(s)		✓		Reminder issued	
S4.8.1	Stockpiles of more than 20 bags of cement, dry pulverised fuel ash and dusty construction materials will be covered entirely by impervious sheeting sheltered on top and 3-sides.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	All exposed areas will be kept wet always to minimise dust emission.	Land site/ During construction	Contractor(s)		✓		Reminder issued	
S4.8.1	Ultra-low-sulphur diesel (ULSD) will be used for all construction plant on-site, as defined as diesel fuel containing not more than 0.005% sulphur by weight) as stipulated in Environment, Transport and Works Bureau Technical Circular (ETWB-TC(W)) No 19/2005 on Environmental Management on Construction Sites.	Land site/ During construction/ During Operation	Contractor(s)		✓	✓	Implemented	Environment, Transport and Works Bureau Technical Circular (ETWB- TC(W)) No 19/2005 on Environmental Management on Construction Sites
S4.8.1	The engine of the construction equipment during idling will be switched off.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	Concrete batching plant will be required on site. control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented. The control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented.	Land site/ During construction	Contractor(s)		✓		N/A	Guidance Note on a Best
S4.8.1	Regular maintenance of construction equipment deployed on-site will be conducted to prevent black smoke emission.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.10	To ensure proper implementation of the recommended dust mitigation measures and good construction site practices during the construction phase, environmental site audits on weekly basis is recommended throughout the construction period.	Land site/ During construction	Contractor(s)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		✓		Implemented	

Note: D – Design stage C – Construction O – Operation

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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
<b>Noise</b>								
S5.7	Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase.	All area/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Mobile plant, if any, will be sited as far away from NSRs as possible.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Plants known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Use of Quite Powered Mechanical Equipment (QPME).	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Movable noise barriers of 3m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. The noise barrier material should have a superficial surface density of at least 7 kg m <sup>-2</sup> and have no openings or gaps.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Construction activities (e.g. excavation/shoring, reinstatement (asphalt), and pipe jacking) will be planned and carried out in sequence, such that items of PME proposed for these activities will not be operated simultaneously.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works

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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
S5.7	PMEs will not be used at the works areas near educational institutions with residual impact (i.e. the “influence area” within a radius of 40m) during school hours in order to reduce impact to the educational institutions.	Noise control / During construction	Contractor(s)		✓		Implemented	
S5.7	Noise enclosures or acoustic sheds would be used to cover stationary PME such as generators. Portable/Movable noise enclosure made of material with superficial surface density of at least 7 kg m <sup>-2</sup> may be used for screening the noise from operation of the saw/groover, concrete.	Noise control/ Pre-construction/ During construction	Contractor(s)	✓	✓		N/A	
S5.9	Sawcutting pavement, breaking up of pavement, excavation /shoring, pipe laying, backfilling, reinstatement (concrete) and pipe jacking shall be scheduled outside the examination period.	Noise control/ Pre-construction/ During construction	Contractor(s)	✓	✓		Implemented	
S5.9	In view the duration of noise exceedance at Creative Secondary School, PLK Laws Foundation College, TKO Kei Tak Primary School and School of Continuing and Professional Studies-CUHK is limited to 8 weeks, the construction work in the influence areas near the four schools shall be scheduled during long school holidays (e.g. summer holiday, Easter holiday or Christmas holiday, etc.) as far as practicable. Scheduling the construction work for the four schools.	Noise control/ Pre-construction/ During construction	Contractor(s)	✓	✓		Implemented	
S5.10	A noise monitoring programme shall be implemented for the construction phase.	Designated monitoring stations as defined in EM&A Manual/ During construction phase	Environmental Team (ET)		✓		Implemented	
S5.10	The effectiveness of on-site control measures could also be evaluated through the regular site audits.	All facilities/ During construction	Contractor(s)/ ET & IEC		✓		Implemented	

Note: D – Design stage C – Construction O – Operation

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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
				D	C	O		
<b>Water Quality</b>								
S6.9	Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from runoff to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected on a regular basis and maintained to confirm proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit will be removed regularly.	Land site & drainage/ During construction	Contractor(s)		✓		Observation and reminder issued. Rectified after observation.	ProPECC PN 1/94 TM Standard under the WPCO
S6.9	Earthworks to form the final surfaces will be followed up with surface protection and drainage works to prevent erosion caused by rainstorms.	Land site & drainage/ During construction	Contractor(s)		✓		Implemented	-
S6.9	Appropriate surface drainage will be designed and provided where necessary.	Land site & drainage/ During construction	Contractor(s)		✓		Implemented	-
S6.9	The precautions to be taken at any time of year when rainstorms are likely together with the actions to be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94.	Land site & drainage/ During construction	Contractor(s)		✓		Observation issued. Rectified after observation.	ProPECC PN 1/94
S6.9	Oil interceptors will be provided in the drainage system where necessary and regularly emptied to prevent the release of oil and grease into the storm water drainage system after accidental spillages.	Land site & drainage/ During construction	Contractor(s)		✓		N/A	-
S6.9	Temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge, if any, will be adequately designed for the controlled release of storm flows.	Land site & drainage/ During construction	Contractor(s)		✓		N/A	-
S6.9	The temporary diverted drainage, if any, will be reinstated to the original condition when the construction work has finished or when the temporary diversion is no longer required.	Land site & drainage/ During construction	Contractor(s)		✓		N/A	-

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				D	C	O		
S6.9	Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers over the construction site to prevent direct disposal of sewage into the water environment.	Land site & drainage/ During construction	Contractor(s)		✓		Implemented	-
S6.9 and S6.12	The sterilization water should be dechlorinated with total residual chlorine (TRC) level below 1 mg/L before discharge to public sewer. In situ testing of TRC should also be conducted for the discharge of chlorinated water for pipeline disinfection to ensure sufficient dechlorination before discharge to public sewer.	Sterilization of water mains prior to commissioning	Contractor(s)		✓	✓	N/A	Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems Inland and Coastal Waters
S6.9	The cleaning and flushing water should also be treated and desilted to the relevant discharge requirement stipulated in TM-DSS before discharging.	Sterilization of water mains prior to commissioning	Contractor(s)		✓	✓	N/A	Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems Inland and Coastal Waters
S6.9	Site drainage should be well maintained and good construction practices should be observed to ensure that oil, fuels, solvents and other chemicals are managed, stored and handled properly and do not enter the nearby water streams.	Land site & drainage/ During construction/ During operation	Contractor(s)		✓	✓	Observation and reminder issued. Rectified after observation.	-
S6.12	Regular site inspections will be carried out in order to confirm that regulatory requirements are being met and that contractors are implementing the standard site practice and mitigation measures as proposed to reduce potential impacts to water quality.	During construction	Contractor(s)/ ET & IEC		✓		Observation and reminder issued. Rectified after observation.	-

Note: D – Design stage C – Construction O – Operation

**Contract No. 13/WSD/16**  
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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
<b>Waste Management</b>								
S8.5	Nomination of approved personnel to be responsible for standard site practices, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site.	Contract mobilization/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Training of site personnel in proper waste management and chemical handling procedures. Training will be provided to workers on the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling at the beginning of the construction works.	Contract mobilization/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Provision of sufficient waste disposal points and regular collection for disposal.	All area/ During construction/ During operation	Contractor(s)		✓	✓	Implemented	DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	Appropriate measures to reduce windblown litter and dust transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	All area/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	A waste management plan (WMP) as stated in the "ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites" for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established and implemented during the construction phase as part of the Environmental Management Plan (EMP). The Contractor will be required to prepare the EMP and submits it to the Architect/ Engineer under the Contract for approval prior to implementation.	All area/ During construction	Contractor(s)		✓		Implemented	ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites
S8.5	Separation of chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Centre at Tsing Yi.	All area/ During construction	Contractor(s)		✓		N/A.	Chapters 2 & 3 Code of Practice on the Packaging, Labelling & Storage of Chemical Wastes published under the Waste Disposal Ordinance (Cap 354), Section 35
S8.5	Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.	Land site/ During construction	Contractor(s)		✓		Reminder issued	Waste Disposal Ordinance (Cap 354)



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				D	C	O		
S8.5	A recording system for the amount of wastes generated/ recycled and disposal sites. The trip- ticket system will be included as one of the contractual requirements and implemented by the contractor(s).	Land site/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of material and their proper disposal.	Land site/ During construction/ During operation	Contractor(s)		✓		Implemented	WBTC 32/92, The Use of Tropical Hard Wood on Construction Site
S8.5	Encourage collection of aluminium cans and waste paper by individual collectors during construction with separate labelled bins provided to segregate these wastes from other general refuse by the workforce.	Land site/ During construction	Contractor(s)		✓		Implemented	ETWB TCW No. 33/2002, Management of Construction and Demolition Material Including Rock
S8.5	Any unused chemicals and those with remaining functional capacity will be recycled as far as possible.	Land site/ During construction	Contractor(s)		✓		N/A	-
S8.5	Use of reusable non-timber formwork to reduce the amount of C&D materials.	All areas/ During construction	Contractor(s)		✓		N/A	WBTC 32/92, The Use of Tropical Hard Wood on Construction Site
S8.5	Prior to disposal of construction waste, wood, steel and other metals will be separated to the extent practical, for re-use and/or recycling to reduce the quantity of waste to be disposed of to landfill.	All areas/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	Proper storage and site practices to reduce the potential for damage or contamination of construction materials.	All areas/ During construction	Contractor(s)		✓		Reminder issued	-
S8.5	Plan and stock construction materials carefully to reduce amount of waste generated and avoid unnecessary generation of waste.	All areas/ During construction	Contractor(s)		✓		Implemented	-
S8.5	A Sediment Quality Report (SQR) for sampling and chemical testing of the sediment will be prepared and submitted to the EPD for approval. The approved detailed sampling and chemical testing will be carried out prior to the commencement of the dredging activities to confirm the sediment disposal method.	Marine works/ During construction	Contractor(s)		✓		N/A	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)
S8.5	The management of dredged/ excavated sediment management requirement from <i>ETWB TC(W) No. 34/2002</i> will be incorporated in the Specification of the Contract Documents.	Marine works/ During construction	WSD/ Contractor(s)		✓		Implemented	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)

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				D	C	O		
S8.5	The contractor will open a billing account with EPD in accordance with the Waste Disposal (Charges for Disposal of Construction Waste) Regulation for the payment of disposal charges.	Contract mobilisation/ During construction	Contractor(s)		✓		Implemented	Cap 354N Waste Disposal (Charges for Disposal of Construction Waste) Regulation
S8.5	A trip-ticket system will be established in accordance with DEVB TC(W) No. 6/2010 to monitor the reuse of surplus excavated materials off-site and disposal of construction waste and general refuse at transfer facilities/ landfills, and to control fly-tipping.	Contract mobilisation/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	The project proponent will also conduct regular inspection of the waste management measures implemented on site as described in the Waste Management Plan.	All area/ During construction	Contractor(s)/ ET & IEC		✓		Implemented	ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites
S8.5	A recording system (similar to summary table as shown in Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005) for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established during the construction phase.	All area/ During construction	Contractor(s)		✓		Implemented	Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005
S8.5	Inert C&D materials (public fill) will be reused within the Project as far as practicable.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Public fill and construction waste shall be segregated and stored in different containers or skips to facilitate reuse or recycling of materials and their proper disposal.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	To reduce the potential dust and water quality impacts of site formation works, C&D materials will be wetted as quickly as possible to the extent practice after filling.	All area/ During construction	Contractor(s)		✓		Implemented	Air Pollution Control (Construction Dust) Regulation (Cap 311R); WPCO (Cap 358)

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				D	C	O		
S8.5	Open stockpiles of excavated/ fill materials or construction wastes on-site should be covered with tarpaulin or similar fabric.	Land site/ During Construction, particularly dry season	Contractor(s)		✓		Reminder issued	Air Pollution Control (Construction Dust) Regulation (Cap 311R)
S8.5	Chemical waste container shall be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Chemical waste container shall have a capacity of less than 450 L unless the specifications have been approved by the EPD.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	A label in English and Chinese shall be displayed on the chemical container in accordance with instructions prescribed in Schedule 2 of the Regulations.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall be enclosed on at least 3 sides.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes

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				D	C	O		
S8.5	Storage areas for chemical waste shall have adequate ventilation.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary).	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall be arranged so that incompatible materials are appropriately separated.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	General refuse will be stored in enclosed bins or compaction units separately from construction and chemical wastes.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Reminder issued	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Adequate number of waste containers will be provided to avoid over-spillage of waste.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	DEVB TC(W) No. 8/2010 Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	A reputable waste collector will be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimise odour, pest and litter impacts.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	-

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				D	C	O		
S8.5	Recycling bins will be provided at strategic locations within the Site to facilitate recovery of recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles) from the Site. Materials recovered will be sold for recycling.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	-
S8.5	To avoid any odour and litter impact, accurate number of portable toilets will be provided for workers on-site.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	The burning of refuse on construction sites is prohibited by law.	All area/ During construction	Contractor(s)		✓		Implemented	Air Pollution Control Ordinance (Cap 311)
S8.7	To facilitate monitoring and control over the contractors' performance on waste management, a waste inspection and audit programme will be implemented throughout the construction phase.	All facilities/ During construction	ET/ IEC		✓		Implemented	-

Note: D – Design stage C – Construction O – Operation

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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
<b>Ecology</b>								
S9.7	For slope mitigation works within the Clear Water Bay Country Park, to avoid tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and rock dowels can be adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical. A detailed specification describing the exact locations of the flexible barrier foundation plates, soil nails and rock dowels will be prepared to illustrate how the setback distance from existing trees would be implemented for tree avoidance.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	✓	✓		N/A	-
S9.7	Pruning of tree canopies along the alignment of the flexible barriers shall be limited to a minimum.	Slope mitigation works area/ During construction	Contractor(s)		✓		Implemented	
S9.7	The alignment of flexible barriers shall be optimized to preserve all species of conservation interest and minimize the impact to the existing vegetation as far as practicable. All individuals of <i>Marsdenia lachnostoma</i> within the slope mitigation areas shall be retained <i>in-situ</i> , by positioning the alignment of flexible barrier at a minimum 1.5m in a radius away from these individuals.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	✓	✓		N/A	-
S9.7 and 9.10	At the detailed design stage prior to the commencement of the slope mitigation works, a vegetation survey shall be carried out at the slope mitigation areas within the Clear Water Bay Country Park to assess the condition and identify the location of each individual of <i>Marsdenia lachnostoma</i> and other flora species of conservation interest that may be directly affected by the construction works.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	✓	✓		N/A	-
S9.7	Temporary fencing will be installed to fence off the concerned species either in groups of individually within the works area and in the close proximity to prevent from being damaged and disturbed during construction. A sign identifying the site shall be attached to the fence and flagging tape shall be attached to the individuals to visualize their locations.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
S9.7 and S9.10	A specification for fencing and demarcating individuals of <i>Marsdenia lachnostoma</i> (or other flora species of conservation interest, if found) adjacent to the proposed alignment of the flexible barriers will be prepared to protect the species.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-

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				D	C	O		
S9.7	Induction training shall also be provided to all site personnel in order to brief them on this flora of conservation interest including the locations and their importance.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
S9.7	The resident site supervisory staff will closely monitor the conditions of concerned individuals during construction of flexible barriers in the close proximity.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
S9.7	Erect fences along the boundary of the works area before the commencement of works to prevent vehicle movements and encroachment of personnel onto adjacent areas.	All area/ During construction	Contractor(s)		✓		Implemented	-
S9.7	Regularly check the work site boundaries to ensure that they are not breached and that damage does not occur to surrounding areas.	All area/ During construction	Contractor(s)/ Environmental Team (ET)		✓		Implemented	-
S9.7	Avoid any damage and disturbance, particularly those caused by filling and illegal dumping, to the surrounding habitats through proper management of waste disposal.	All area/ During construction	Contractor(s)		✓		Implemented	-
S9.7	Reinstate temporarily affected areas, particularly the habitats of plantation and shrubland-grassland immediately after completion of construction works, through on-site tree/shrub planting. The tree/shrub species will be chosen with reference to those in the surrounding area.	All area/ During construction	Contractor(s)		✓		N/A	-
S9.7	Affected habitats within the Clear Water Bay Country Bay shall be reinstated by hydro-seeding and planting of climbers and native shrub seedlings where practical upon completion of the slope mitigation works.	All area/ During construction	Contractor(s)		✓		N/A	-

Note: D – Design stage C – Construction O – Operation

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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
<b>Landscape &amp; Visual</b>								
S11.10 & 11.11	The construction area and area allowed for temporary structures, such as the contractor's office, will be minimized to a practical minimum. (MM1)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	-
S11.10 & 11.11	At the detailed design stage, the design team will seek to minimize the landscape footprint of the Project and above ground facilities, while satisfying all other requirements. (MM2)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	-
S11.10 & 11.11	Design principles will be adopted to take into account the surrounding area, particularly Clear Water Bay Country Park behind and the nearby waterfront, with due consideration given to: - green roofs where practical (ie without equipment on the roof); - roadside planting; - aesthetic treatment of all structures; - vertical greening; - screen planting along application site; and - landscape enhancement with amenity planting where practical including planting along the edge (site boundary) fence with native shrubs where feasible to reduce their visual impact and blend them into the surrounding landscape.(MM3)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	-
S11.10 & 11.11	All trees within the Project Site or the potential slope mitigation works area will be carefully protected during construction according to DEVB TCW No. 10/2013 – Tree Preservation (MM4)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Observation and reminder issued. Rectified after observation.	ETWB TCW No. 3/2006 - Tree Preservation.



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S11.10 & 11.11	No tree within the Country Park will be felled. Trees within the Site unavoidably affected by the works will be transplanted where necessary and practical. For trees that need to be felled, compensatory planting will be provided to the satisfaction of relevant Government departments. A compensatory tree planting proposal including locations of tree compensation will be submitted to seek relevant government department's approval, in accordance with DEVB TC(W) No. 10/2013. (MM5)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	DEVB TC(W) No. 10/2013
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Note: D – Design stage C – Construction O – Operation

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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
				D	C	O		
<b>Landfill Gas Hazard</b>								
S12.7	During all works, safety procedures should be implemented to minimise the risks of fires and explosions, asphyxiation of workers and toxicity effects resulting from contact with contaminated soil and groundwater.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	-
S12.7	During trenching and excavation as well as creation of confined spaces at near to or below ground level, precautions should be clearly laid down and rigidly Gas detection equipment and appropriate breathing apparatus should be available and used when entering confined spaces or trenches deeper than 1 metre.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	The Contractor should make the workers are aware of potential hazards of working in confined spaces (any chamber, manhole or culvert which is large enough to permit access to personnel). Such work in confined spaces is controlled by the Factories and Industrial Undertakings (Confined Spaces) Regulations of the Factories and Industrial Undertakings Ordinance. Following the Safety Guide to Working in Confined Spaces ensures compliance with the above regulations.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Safety officers, specifically trained with regard to landfill gas and leachate related hazards and the appropriate actions to take in adverse circumstances, should be present on the site throughout the works, in particular, when works are undertaken below grade.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	All personnel who work on site and all visitors to the site should be made aware of the possibility of ignition of gas in the vicinity of the works, the possible presence of contaminated water and the need to avoid physical contact with it.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Monitoring for landfill gas should be undertaken in all excavations, manholes, chambers (particularly during pipe jacking) and any confined spaces through the use of an intrinsically safe portable instrument, appropriately calibrated and capable of measuring the concentrations of methane, carbon dioxide and	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	

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	oxygen.							
S12.7	Monitoring frequency and areas to be monitored should be specified prior to commencement of groundwork, either by the Safety Officer, or by an appropriately qualified person. All measurements should be recorded and documented.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Proceed drilling with adequate care and precautions against the potential hazards which may be encountered.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Prior to the commencement of the site works, the drilling contractor should devise a 'method-of-working' statement covering all normal and emergency procedures (including but not limited to number of operatives, experience and special skills of operatives, normal method of operations, emergency procedures, supervisors' responsibilities, storage and use of safety equipment, safety procedures and signs, barriers and guarding). The site supervisor and all operatives must be familiar with this statement.	All area/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	
S12.7	Where below ground service entries are necessary to the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II), the entry point should be sealed to prevent gas entry. In addition, any below grade cable trenches entering the Incoming Switchgear Room and 132 kV Substation can become the pathway for landfill gas and hence gridded metal covers should be used.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	N/A	
S12.7	It is recommended regular landfill gas monitoring should be carried out at the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II). The monitoring frequency will be monthly for the first year of operation. If the monitoring results show no sign of landfill gas migration, reduce the monitoring frequency to once every six months.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	N/A	
S12.7	The manholes and utility pits within the Project Site and along the fresh water mains. Each manhole/ utility pit should be monitored with two measurements (at mid depth and base). Each measurement should be monitored for a minimum of	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	

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	10 minutes. A steady reading and peak reading should be recorded at each manhole/ utility pit and for each measurement. The need for venting the manhole/ utility pit and further monitoring will be reviewed after the initial monitoring.							
S12.7	All construction, operation and maintenance personnel working on-site as well as visitors should be made aware of the hazards of landfill gas and its possible presence on-site. This should be achieved through a combination of posting warning signs in prominent places and also by access to detailed information on landfill gas hazards and the designs and procedural means by which these hazards are being minimized on-site.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	

# Appendix D

## Impact Monitoring Schedule of the Reporting Month

Contract No. 13/WSD/16  
Mainlaying in Tseung Kwon O  
Environmental Monitoring Schedule

Mar-22						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 <div style="background-color: yellow; text-align: center; padding: 5px;">Noise Impact Monitoring</div>	3	4	5
6	7	8	9	10 <div style="background-color: yellow; text-align: center; padding: 5px;">Noise Impact Monitoring</div>	11	12
13	14	15	16	17	18 <div style="background-color: yellow; text-align: center; padding: 5px;">Noise Impact Monitoring</div>	19
20	21	22	23	24 <div style="background-color: yellow; text-align: center; padding: 5px;">Noise Impact Monitoring</div>	25	26
27	28	29	30 <div style="background-color: yellow; text-align: center; padding: 5px;">Noise Impact Monitoring</div>	31		

The schedule may be changed due to unforeseen circumstances (adverse weather, etc.)

# Appendix E

Noise Monitoring  
Calibration Certificate

Equipment

# Certificate of Calibration

for

**Description:** *Sound Level Meter*  
**Manufacturer:** *SVANTEK*  
**Type No.:** *971 (Serial No.: 96062)*  
**Microphone:** *ACO 7052 E (Serial No.:78090)*  
**Preamplifier:** *SVANTEK SV 18 (Serial No.:103808)*

**Submitted by:**

**Customer:** *Acuity Sustainability Consulting Limited*  
**Address:** *Unit 1908, Nos. 301-305 Castle Peak Road,  
Kwai Chung, N.T.*

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

- Within (31.5 Hz to 4k Hz)**  
 **Outside**

the allowable tolerance.

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

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

**Date of receipt:** 2 July 2021

**Date of calibration:** 5 July 2021

Calibrated by: \_\_\_\_\_  
*Calibration Technician*

Certified by: \_\_\_\_\_  
*Mr. Ng Yan Wa*  
*Laboratory Manager*

**Date of issue:** 5 July 2021

Certificate No.: APJ21-029-CC001



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**1. Calibration Precaution:**

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

**2. Calibration Conditions:**

Air Temperature: 24.2 °C  
 Air Pressure: 1004 hPa  
 Relative Humidity: 60.8 %

**3. Calibration Equipment:**

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

**4. Calibration Results**

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)				Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting		Time Weighting	Level, dB	Frequency, Hz		
20-140	dBA	SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)				Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting		Time Weighting	Level, dB	Frequency, Hz		
20-140	dBA	SPL	Fast	94	1000	94.0	Ref
				104		104.0	±0.3
				114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)				Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting		Time Weighting	Level, dB	Frequency, Hz		
20-140	dBA	SPL	Fast	94	1000	94.0	Ref
			Slow			94.0	±0.3

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Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB	
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz			
20-140	dB	SPL	94	Fast	31.5	94.1	±2.0
					63	94.1	±1.5
					125	94.1	±1.5
					250	94.1	±1.4
					500	94.1	±1.4
					1000	94.0	Ref
					2000	93.8	±1.6
					4000	93.3	±1.6

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB	
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz			
20-140	dBA	SPL	94	Fast	31.5	54.9	-39.4±2.0
					63	68.0	-26.2±1.5
					125	78.0	-16.1±1.5
					250	85.4	-8.6±1.4
					500	90.8	-3.2±1.4
					1000	94.0	Ref
					2000	95.0	+1.2±1.6
					4000	94.3	+1.0±1.6

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB	
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz			
20-140	dBC	SPL	94	Fast	31.5	91.1	-3.0±2.0
					63	93.3	-0.8±1.5
					125	93.9	-0.2±1.5
					250	94.1	-0.0±1.4
					500	94.1	-0.0±1.4
					1000	94.0	Ref
					2000	93.6	-0.2±1.6
					4000	92.5	-0.8±1.6

### 5. Calibration Results Applied

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

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.15
	63 Hz	± 0.10
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
104 dB	4000 Hz	± 0.05
	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.


**Note:**

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)\*L shall not be liable for any loss or damage resulting from the use of the equipment.



# MAXLAB

## CALIBRATION CERTIFICATE

<i>Certificate Information</i>			
Date of Issue	7-Aug-2021	Certificate Number	MLCN212053S
<i>Customer Information</i>			
Company Name	Acuity Sustainability Consulting Limited		
Address	Unit C, 11/F., Ford Glory Plaza, Nos. 37-39 Wing Hing Street, Cheung Sha Wan, Kowloon, HK		
<i>Equipment-under-Test (EUT)</i>			
Description	Acoustic Calibrator		
Manufacturer	Pulsar		
Model Number	105		
Serial Number	63705		
Equipment Number	--		
<i>Calibration Particular</i>			
Date of Calibration	7-Aug-2021		
Calibration Equipment	4231(MLTE008) / AV200063 / 23-Jun-23 1357(MLTE190) / MLEC21/05/02 / 26-May-22		
Calibration Procedure	MLCG00, MLCG15		
Calibration Conditions	Laboratory	Temperature	23 °C ± 5 °C
		Relative Humidity	55% ± 25%
	EUT	Stabilizing Time	Over 3 hours
		Warm-up Time	Not applicable
		Power Supply	Internal battery
Calibration Results	Calibration data were detailed in the continuation pages. All calibration results were within EUT specification.		
<i>Approved By &amp; Date</i>			
		K.O. Lo	7-Aug-2021
<i>Statements</i>			
<ul style="list-style-type: none"><li>* Calibration equipment used for this calibration are traceable to national / international standards.</li><li>* The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the EUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.</li><li>* MaxLab Calibration Centre Limited shall not be liable for any loss or damage resulting from the use of the EUT.</li><li>* The copy of this Certificate is owned by MaxLab Calibration Centre Limited. No part of this Certificate may be reproduced without the prior written approval of MaxLab Calibration Centre Limited.</li></ul>			



# MAXLAB

Certificate No.

MLCN212053S

<i>Calibration Data</i>				
EUT Setting	Standard Reading	EUT Error from Setting	Calibration Uncertainty	EUT Specification
94 dB	93.9 dB	-0.1 dB	0.20 dB	± 0.2 dB

- END -

Calibrated By : Keneth  
Date : 7-Aug-21

Checked By : K.O. Lo  
Date : 7-Aug-21

Page 2 of 2



## Certificate of Conformity

This instrument was produced under rigorous factory production control and documented standard procedures. It was individually inspected and leak tested and the functioning of the display, backlight, buttons and firmware was verified. The accuracy of each of its primary measurements was individually calibrated and/or validated against standards traceable to the National Institute of Standards and Technology (“NIST”) or other calibrated standards in accordance with the documented standard test methods detailed below. This instrument is warranted to perform in compliance with the published specifications for the specific measurements and features of its model number including specified typical drift since its date of manufacture. (See *Kestrel Limited Warranty for full warranty terms.*)

### Standards Used in Testing Wind Speed:

The Kestrel Weather & Environmental Meter impeller installed in this unit was individually tested in a subsonic wind tunnel operating at approximately 300 fpm (1.5 m/s) and 1200 fpm (6.1 m/s) monitored by a Gill Instruments Model 1350 ultrasonic time-of-flight anemometer. The Gill 1350 is calibrated regularly and is traceable to NIST with a maximum combined uncertainty of  $\pm 1.04\%$  within the airspeed range 711.4 to 3930 fpm (3.61 to 19.96 m/s), and  $\pm 1.66\%$  within the airspeed range 170 to 711.4 fpm (0.86 to 3.61 m/s).

### Temperature:

Temperature response is verified in comparison with an Ametek DTI-050 Digital Temperature Indicator and STS Reference Sensor. The DTI-050 is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of  $\pm 0.04\text{C}$ .

### Relative Humidity:

Relative humidity is verified in comparison with an Edgetech HT120 Humidity Transmitter. The HT120 is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of  $\pm 1.0\%RH$ .

### Barometric Pressure:

Pressure response is verified against a Vaisala PTB210A Digital Barometer. The Vaisala Barometer is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of  $\pm 0.3hPa$ .

Approved By:

Michael Naughton  
Chief Product Officer, Nielsen-Kellerman

# Product Specifications for Kestrel Weather Meters, Model Numbers 1000-3500

## SENSORS

SENSOR	ACCURACY (+/-)	RESOLUTION	SPECIFICATION RANGE	NOTES
Wind Speed   Air Speed	Larger of 3% of reading, least significant digit or 20 ft/min	0.1 m/s 1 ft/min 0.1 km/h 0.1 mph 0.1 knots 1 B	0.6 to 40.0 m/s 118 to 7,874 ft/min 2.2 to 144.0 km/h 1.3 to 89.5 mph 1.2 to 77.8 knots 0 to 12 B	1 inch 25 mm diameter impeller with precision axle and low-friction Zytel® bearings. Startup speed stated as lower limit, readings may be taken down to 0.4 m/s [79 ft min] 1.5 km/h  .9 mph  .8 kt after impeller startup. Off-axis accuracy -1% @ 5° off axis; -2% @ 10°; -3% @ 15°. Calibration drift < 1% after 100 hours use at 16 MPH [7 m/s. Replacement impeller (NK PN-0801) field installs without tools (US Patent 5,783,753). Wind speed calibration and testing should be done with triangle on impeller located at the top front face of the Kestrel. Measuring wind speeds above 60 m/s / 134.2 mph can damage the impeller.
Ambient Temperature	0.9 °F 0.5 °C	0.1 °F 0.1 °C	-20.0 to 158.0 °F -29.0 to 70.0 °C	Airflow of 2.2 mph 1 m/s or greater provides fastest response and reduction of insulation effect. For greatest accuracy, avoid direct sunlight on the temperature sensor and prolonged sunlight exposure to the unit in low airflow conditions. Calibration drift is negligible for the life of the product. For further details, see Display & Battery Operational Temperature Limits.
Relative Humidity	3%RH	0.1 %RH	5 to 95% 25°C non-condensing	To achieve stated accuracy, unit must be permitted to equilibrate to external temperature when exposed to large, rapid temperature changes and be kept out of direct sunlight. Calibration drift is typically less than ±0.25% per year.
Pressure	1.5 hPa mbar 0.044 inHg 0.022 PSI	0.1 hPa mbar 0.01 inHg 0.01 PSI	25°C/77°F 750-1100 hPa mbar 22.15-32.48 inHg 10.88-15.95 PSI	Monolithic silicon piezo-resistive pressure sensor with second-order temperature correction. Between 1100-1600 mbar, unit will operate with reduced accuracy. Sensor may not operate above 1600 mbar and can be damaged above 6,000 mbar or below 10 mbar. Calibration drift is negligible for the life of the product.

## CALCULATED MEASUREMENTS

MEASUREMENT	ACCURACY (+/-)	RESOLUTION	SENSORS EMPLOYED
Altitude	typical: 23.6 ft/7.2 m from 750 to 1100 mBar max: 48.2 ft/14.7 m from 300 to 750 mBar	1 ft 1 m	Pressure, User Input (Reference Pressure)
Barometric Pressure	0.07 inHg 2.4 hPa mbar 0.03 PSI	0.01 inHg 0.1 hPa mbar 0.01 PSI	Pressure, User Input (Reference Altitude)
Delta T	3.2 °F 1.8 °C	0.1 °F 0.1 °C	Temperature, Relative Humidity, Pressure
Dew Point	3.4 °F 1.9 °C 15-95% RH. Refer to Range for Temperature Sensor	0.1 °F 0.1 °C	Temperature, Relative Humidity
Heat Index	7.1°F 4.0°C	0.1 °F 0.1 °C	Temperature, Relative Humidity
Wet Bulb Temperature - Psychrometric	3.2 °F 1.8 °C	0.1 °F 0.1 °C	Temperature, Relative Humidity, Pressure
Wind Chill	1.6 °F 0.9 °C	0.1 °F 0.1 °C	Wind Speed, Temperature

## ADDITIONAL PRODUCT INFO

Display	Reflective LCD
Backlight	Standard or dim red (NV models only) backlight. Manual activation with auto-off.
Response Time & Display Update	Display updates every 1 second. After exposure to large environmental changes, all sensors require an equilibration period to reach stated accuracy. Measurements employing RH may require longer periods particularly after prolonged exposure to very high or very low humidity.
Auto Shutdown	After 45 minutes with no key presses.
Clock	Real Time Hour:Minute Display
Certifications	CE certified, RoHS and WEEE compliant. Individually tested to NIST-traceable standards.
Origin	Designed and manufactured in the USA from US and imported components. Complies with Regional Value Content and Tariff Code Transformation requirements for NAFTA Preference Criterion B.
Bluetooth® Data Connect	Wireless range up to 100ft. Employs Kestrel Link protocol for data transmission with Kestrel Link Ballistics App. (iOS/Android)
Battery	Requires one CR2032 battery, included. Up to 300 hours of use, reduced by backlight or Bluetooth use.
Shock Resistance	MIL-STD-810g, Transit Shock, Method 516.7 Procedure IV; unit only; impact may damage replaceable impeller.
Sealing	Waterproof (IP67 and NEMA-6)
Display & Battery Operational Temperature Limits	14° F to 131° F   -10 °C to 55 °C Measurements may be taken beyond the limits of the operational temperature range of the display and batteries by maintaining the unit within the operational range and then exposing it to the more extreme environment for the minimum time necessary to take reading.
Storage Temperature	-22.0 °F to 140.0 °F   -30.0 °C to 60.0 °C.
Size & Weight	4.8 x 1.9 x 1.1 in   12.2 x 4.8 x 2.8 cm, 3.6 oz   102 g (Including slip-on cover).

\*Note: Accuracy calculated as uncertainty of the measurement derived from statistical analysis considering the combined effects from primary sensor specifications, circuit conversions, and all other sources of error using a coverage factor of k=2, or two standard deviations (2σ)

\*\*Note: For Kestrel 1000, 2000, 2500, 3000, 3500 series these specifications are valid for units with a serial number higher than 2262687. If your product has a lower serial number, please reference the K4000 specifications 329011.

# Appendix F

## Event/Action Plan for Noise Exceedance



**Event and Action Plan for Construction Noise Monitoring**

Event	Action			
	ET	IEC	ER	Contractor
Action Level	<ol style="list-style-type: none"> <li>Carry out investigation to identify the source and cause of the complaint/ exceedance(s)</li> <li>Notify IEC, ER, and Contractor and report the results of investigation to the Contractor, ER and the IEC</li> <li>Discuss with the Contractor and IEC for remedial measures required</li> <li>If the complaint is related to the Project, conduct additional monitoring for checking mitigation effectiveness and report the findings and results to the IEC, ER and the Contractor</li> </ol>	<ol style="list-style-type: none"> <li>Review the analyzed results submitted by the ET</li> <li>Review the proposed remedial measures by the Contractor and advise the ER accordingly</li> <li>Supervise the implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of Notification of Exceedance in writing</li> <li>Require Contractor to propose remedial measures for the analysed noise problem</li> <li>Ensure remedial measures are properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>Submit noise mitigation proposals, If required, to the IEC and ER</li> <li>Implement noise mitigation proposals.</li> </ol>

Limit Level	<ol style="list-style-type: none"> <li>Notify IEC, ER, EPD and Contractor</li> <li>Identify the source(s) of impact by reviewing all the relevant monitoring data and the corresponding construction activities. Exceedances should also be confirmed by immediate verification in the field as far as practical.</li> <li>Repeat measurement to confirm findings</li> <li>Increase monitoring frequency</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented.</li> <li>inform IEC, ER and EPD the cause &amp; actions taken for the exceedances</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>Discuss amongst ER, ET, and Contractor on the potential remedial actions</li> <li>Review Contractor's remedial actions to assure their effectiveness and advise the ER &amp;ET accordingly</li> <li>Supervise the implementation of the remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of notification of exceedance in writing</li> <li>Notify Contractor</li> <li>Require Contractor to propose remedial measures for the analyzed noise problem</li> <li>Ensure remedial measures are properly implemented</li> <li>If exceedance continuous, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is aborted</li> </ol>	<ol style="list-style-type: none"> <li>Take immediate action to avoid further exceedance</li> <li>Identify practicable measures to minimize the noise impact. Submit proposals for remedial actions to ER within three working days of notification</li> <li>Implement the agreed proposals</li> <li>Resubmit proposal if problem still not under control</li> <li>Stop the relevant portion of works as determined by the ER until the exceedance is abated</li> </ol>
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# Appendix G

## Noise Monitoring Data

**Table G 1 Summary of Noise Monitoring Result**

Date	Time	Weather	L <sub>eq-5min</sub> , dB(A)						L <sub>eq-30min</sub> , dB(A)	L <sub>1030min</sub> , dB(A)	L <sub>9030min</sub> , dB(A)	Limit Level, dB(A)*	Noise Meter
			Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)					
02/03/2022	10:49 - 11:19	Sunny	67.2	67.3	66.8	69.7	65.8	68.1	67.7	70.5	59.6	70.0	Svantek 971
10/03/2022	11:04 - 11:34	Sunny	69.0	69.5	66.9	65.6	67.3	69.5	68.2	71.5	61.0	70.0	Svantek 971
18/03/2022	10:40 - 11:10	Fine	69.6	68.6	68.7	66.0	69.0	66.9	68.3	71.3	60.6	70.0	Svantek 971
24/03/3022	10:59 - 11:29	Cloudy	67.2	68.7	68.9	67.0	68.9	64.0	67.7	71.0	62.9	70.0	Svantek 971

Remarks:

\*No examinations were scheduled for NSR4 Creative Secondary School in the reporting month. Academic School Calendar can be found in **Appendix O**.

# Appendix H

## Waste Flow Table



## Appendix F - Monthly Summary Waste Flow Table for 1 March 2022 to 31 March 2022

### APPENDIX 25.2 to GS

Name of Department: ~~ArchSD/CEDD/DSD/EMSD/HyD~~ WSD

Contract No.: 13/WSD/16

### Monthly Summary Waste Flow Table for 1 March 2022 to 31 March 2022

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan 21	2.342	0.145	--	--	2.014	0.328	--	0.065	--	--	0.006
Feb 21	2.184	0.240	--	--	1.855	0.329	--	0.058	--	--	0.001
Mar 21	2.144	0.028	0.096	--	1.188	0.860	--	0.054	--	--	0.002
Apr 21				--			--		--	--	
May 21				--			--		--	--	
Jun 21				--			--		--	--	
<b>Sub-total</b>	<b>6.670</b>	<b>0.413</b>	<b>0.096</b>	<b>--</b>	<b>5.057</b>	<b>1.517</b>	<b>--</b>	<b>0.177</b>	<b>--</b>	<b>--</b>	<b>0.009</b>
Jul 21				--			--		--	--	
Aug 21				--			--		--	--	
Sep 21				--			--		--	--	
Oct 21				--			--		--	--	
Nov 21				--			--		--	--	
Dec 21				--			--		--	--	
<b>Total</b>	<b>6.670</b>	<b>0.413</b>	<b>0.096</b>	<b>--</b>	<b>5.057</b>	<b>1.517</b>	<b>--</b>	<b>0.177</b>	<b>--</b>	<b>--</b>	<b>0.009</b>

#### Notes:

- (1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.
- (3) Broken concrete for recycling into aggregate.
- (4) Sources and types of Imported Fill in the reporting period
  - (i) K. Wah Quarry Company Limited
    - i. Soil: 860 m<sup>3</sup> (1720 tonnes / 32 cars)
    - ii. Subbase: 0 m<sup>3</sup> (0 tonnes / 0 cars)
- (5) Total quantity Generated only refers to the actual Quantitates of inert C&D materials generated monthly excluding those that will be recycled (Hard rock & large broken concrete, reused in contract and reused in another contract). Imported fill will not be included in total quantity generated as those C&D materials are not generated from this project.

# Appendix I

## Landfill Gas Monitoring Equipment Calibration Certificate



# 路達國際有限公司

ROTTER INTERNATIONAL LIMITED

香港新界葵涌葵昌路58-70號永祥工業大廈10樓B室

Unit B, 10/F., Wing Cheung Industrial Building, 58-70 Kwai Cheong Road, Kwai Chung, New Territories, HK.

Tel: (852) 2751 7770 Fax: (852) 2756 2051 E-mail: rotter@rotter.com.hk

## Calibration Report - Gas Detector

PGM-2500 (QRAE III) --- LEL/O2/CO/H2S

### UNIT INFORMATION :

Customer:	Penta Ocean Construction Co Ltd	Serial #:	M02A001708	Model:	QRAE III
		Firmware:	V2.12	Sensor:	LEL/O2/CO/H2S
		Cal date:	28-Jul-2021	Inspected:	Teddy

### SENSOR DATA :

	LEL sensor (ME)	O2 sensor	CO sensor (Tox1)	H2S sensor (Tox2)
Calibration dates:	28-Jul-2021	28-Jul-2021	28-Jul-2021	28-Jul-2021
After Calibration levels	50%	17.90%	50 ppm	10.1 ppm
Alarm levels (Low):	10.00%	19.50%	35 ppm	10 ppm
Alarm levels (High):	20.00%	23.50%	200 ppm	20 ppm
TWA Level:	--	--	35 ppm	10 ppm
STEL Level:	--	--	100 ppm	15 ppm

### Status:

Pump Speed	Low	Back Light	Manual
Clock	Yes	Measure	Average

### LEL Gas Selection

LEL Calibration Gas	Methane	LEL measurement Gas	Methane
LEL Custom Gas	LEL_custom_gas	LEL Custom Factor	1.0

Gas types used : 4-Gas Mix: (18% O2, 50ppm CO, 10ppm H2S, 50% LEL CH4, BAL N2) Gas lot #1412983 Cyl# 15

\*\*\* Fresh Air Calibration is highly recommended to proceed prior for measurement each time.

Replaced Parts:

### Notes:

The unit was calibrated and checked under good working condition

\*\*Next calibration due on or before 27 July 2022

Serviced by  Teddy Wong  
Rotter International Ltd

**Calibration and Test Certificate**

**Product Name:** MultiRAE Lite  
**Model Number:** PGM-6208  
**Serial Number:** M01C031772  
**Calibration/Inspection Date:** 6/4/2021

**Calibration Gases:**

#	Gas	Concentration	Balance	Lot#
1	Hydrogen Sulfide( H <sub>2</sub> S )	10ppm	Nitrogen( N <sub>2</sub> )	20210508
2	Carbon Monoxide( CO )	50ppm		
3	Oxygen( O <sub>2</sub> )	18%		
4	Methane( CH <sub>4</sub> )	50%LEL	Nitrogen( N <sub>2</sub> )	20210114
5	Sulfur Dioxide( SO <sub>2</sub> )	5ppm		
6	Carbon Dioxide( CO <sub>2</sub> )	5000ppm	Nitrogen( N <sub>2</sub> )	20201203

**Test Results:**

#	Sensor	Span	UOM
1	LEL	51	%LEL
2	SO <sub>2</sub>	5.2	ppm
3	COSH (H <sub>2</sub> S / CO)	10.1 / 51	ppm
4	Pb O <sub>2</sub>	17.8	%
5	CO <sub>2</sub>	4900	ppm

*This instrument has been calibrated using valid calibration gases and instrument manual operation procedures. Test and calibration data is on file with the manufacturer, RAE Systems.*

**Approved By:**

*Tran Hany*  
86-05-51832593



# Calibration Certificate

GDJ7

Cert. Ref. No.: BW/XT/4TH/16428

Date: 2021 06 08

EXP= 08/06/2022

Customer: Victory Trenchless Engineering Co., Ltd.

Purchase Order No.: P-17-0486

Lot 1477B,

Date: 2017 11 09 INVOICE NO: AP

77 Ping Che,

Email: emily@vtechk.com

Fanling, N.T.

Attn: Ms Emily Fung

Tel: 3525 8826

Fax: 3525 1088

Mobile Phone

User Details:

Gas Detector Model: XT-XWHM-Y-OR

Serial No.: MA217-022158

Pump S/N: 56310

Calibration Record:

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

Type of Sensor	Expiry Date
Oxygen Sensor	
CO & H2S Sensor	
Combustible(LEL) Sensor	

Type of calibration	Date of calibration	H2S (ppm)	CO (ppm)	O2 (%)	LEL (%)
4th Calibration	2021 06 08	25	100	18	50
Result of Calibration		OK	OK	OK	OK

Calibration Cost: (As per attached invoice) F.O.C

Calibration remarks: Oxygen sensor replaced by new one  
Warranty: Oxygen Sensor 1 years warranty

Next calibration date of this instrument will be : 2022 06 08

## IMPORTANT NOTES TO BW GAS DETECTOR USERS

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

All gas detection instrumentation on the market requires periodic calibration to accurately measure gas. Calibration is only as accurate as the test gas used. BW Technologies quality test gases are made to the highest accuracy and trace-ability to N. I.S.T. Standards.



Calibrated By: Sara Tse Service Hotline: 2592 2120 Ms. Tse - Service Dept.

**Asia Pacific Industrial Safety Equipment**

Unit B, 1/F., Hing Yip Centre, 31 Hing Yip Street,  
Kwun Tong, Kowloon, Hong Kong  
Tel: 2592 2100 Fax: 3165 8960

*Asia Technologies*

亞洲科技

# Appendix J

## Landfill Gas Monitoring Data

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	1/3/2022	0830	Fine / Rain	0	0	0	20.9	20/10/11	5.5
	"	1330	Fine / Rain	0	0	0	20.9	22/10/12	5.5
	"	1700	Fine / Rain	0	0	0	20.9	22/10/12	5.5
Area B	1/3/2022	0845	Fine / Rain	0	0	0	20.9	21/10/10	2.5
	"	1345	Fine / Rain	0	0	0	20.9	22/10/11	2.5
	"	1645	Fine / Rain	0	0	0	20.9	27/10/11	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

11/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	11/3/2022	0830	Fine / Rain	0	0	0	20.9	21/1008	4.3
	"	1345	Fine / Rain	0	0	0	20.9	23/1010	4.3
	"	1645	Fine / Rain	0	0	0	20.9	23/1008	4.3
WPRTTA 4	11/3/2022	0845	Fine / Rain	0	0	0	20.9	22/1009	4
	"	1345	Fine / Rain	0	0	0	20.9	23/1010	4
	"	1645	Fine / Rain	0	0	0	20.9	23/1010	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

11/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	21/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1011	5.5
		1330	Fine / <del>Rain</del>	0	0	0	20.9	21/1012	5.5
		1700	Fine / <del>Rain</del>	0	0	0	20.9	22/1012	5.5
Area B	21/3/2022	0845	Fine / <del>Rain</del>	0	0	0	20.9	21/1011	2.5
		1345	Fine / <del>Rain</del>	0	0	0	20.9	22/1012	2.5
		1645	Fine / <del>Rain</del>	0	0	0	20.9	22/1012	2.5

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

21/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	2/3/2022	0830	Fine / Rain	0	0	0	20.9	20/1008	4.3
	"	1345	Fine / Rain	0	0	0	20.9	21/1009	4.3
	"	1645	Fine / Rain	0	0	0	20.9	21/1009	4.3
WPRTTA 4	2/3/2022	0845	Fine / Rain	0	0	0	20.9	21/1009	4
	"	1345	Fine / Rain	0	0	0	20.9	22/1010	4
	"	1645	Fine / Rain	0	0	0	20.9	22/1010	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



2/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	3/3/2022	0830	Fine / Rain	0	0	0	20.9	18/10/10	5.5
	-	1330	Fine / Rain	0	0	0	20.9	20/10/11	5.5
	-	1700	Fine / Rain	0	0	0	20.9	20/10/11	5.5
Area B	3/3/2022	0845	Fine / Rain	0	0	0	20.9	19/10/11	2.5
	-	1345	Fine / Rain	0	0	0	20.9	20/10/12	2.5
	-	1645	Fine / Rain	0	0	0	20.9	20/10/12	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



3/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	3/31/2022	0830	Fine / Rain	0	0	0	20.9	19/1009	4.3
	-	1345	Fine / Rain	0	0	0	20.9	20/1010	4.3
	-	1645	Fine / Rain	0	0	0	20.9	20/1010	4.3
WPRTTA 4	3/31/2022	0845	Fine / Rain	0	0	0	20.9	20/1010	4
	-	1345	Fine / Rain	0	0	0	20.9	20/1009	4
	-	1645	Fine / Rain	0	0	0	20.9	20/1009	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

3/3/2022

Laboratory Staff:

Checked by:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	3/3/2022	0830	Fine / Rain	0	0	0	20.9	18/1011	8.4
		1330	Fine / Rain	0	0	0	20.9	19/1011	8.4
		1700	Fine / Rain	0	0	0	20.9	20/1012	8.4
Area 137 Pit B		0830	Fine / Rain	0	0	0	20.9	19/1010	8.6
		1330	Fine / Rain	0	0	0	20.9	20/1011	8.6
		1700	Fine / Rain	0	0	0	20.9	20/1011	8.6
Area 137 Pit C		0830	Fine / Rain	0	0	0	20.9	19/1009	10
		1330	Fine / Rain	0	0	0	20.9	21/1010	10
		1700	Fine / Rain	0	0	0	20.9	20/1010	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

3/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	4/3/2022	0830	Fine / Rain	0	0	0	20.9	20/1011	5.5
	✓	1330	Fine / Rain	0	0	0	20.9	21/1012	5.5
	✓	1700	Fine / Rain	0	0	0	20.9	21/1012	5.5
Area B	4/3/2022	0845	Fine / Rain	0	0	0	20.9	22/1011	2.5
	✓	1345	Fine / Rain	0	0	0	20.9	23/1012	2.5
	✓	1645	Fine / Rain	0	0	0	20.9	23/1012	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

✓

4/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	4/3/2022	0830	Fine / Rain	0	0	0	20.9	19/1009	4.3
	"	1345	Fine / Rain	0	0	0	20.9	21/1010	4.3
	"	1645	Fine / Rain	0	0	0	20.9	21/1010	4.3
WPRTTA 4	4/3/2022	0845	Fine / Rain	0	0	0	20.9	20/1008	4
	"	1345	Fine / Rain	0	0	0	20.9	21/1010	4
	"	1645	Fine / Rain	0	0	0	20.9	21/1009	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



4/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	4/31/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1009	8.4
	-	1330	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	8.4
	-	1700	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	8.4
Area 137 Pit B	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1011	8.6
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	8.6
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	8.6
Area 137 Pit C	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1009	10
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	10
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

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4/31/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	5/3/2022	0830	Fine / Rain	0	0	0	20.9	18/10/1	5.5
	"	1330	Fine / Rain	0	0	0	20.9	20/10/2	5.5
	"	1700	Fine / Rain	0	0	0	20.9	22/10/3	5.5
Area B	5/3/2022	0845	Fine / Rain	0	0	0	20.9	19/10/1	2.5
	"	1345	Fine / Rain	0	0	0	20.9	20/10/2	2.5
	"	1645	Fine / Rain	0	0	0	20.9	21/10/2	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



5/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	5/31/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	19/1009	4.3
		1345	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	4.3
		1645	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	4.3
WPRTTA 4		0845	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	4
		1345	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	4
		1645	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



5/31/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	5/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	19/1011	8.4
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	20/1012	8.4
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	20/1012	8.4
Area 137 Pit B	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1011	8.6
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	21/1012	8.6
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	8.6
Area 137 Pit C	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1011	10
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	10
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



5/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	7/31/2022	0830	Fine / Rain	0	0	0	20.9	18/10/11	5.5
	"	1330	Fine / Rain	0	0	0	20.9	20/10/12	5.5
	"	1700	Fine / Rain	0	0	0	20.9	20/10/12	5.5
Area B	7/31/2022	0845	Fine / Rain	0	0	0	20.9	20/10/11	2.5
	"	1345	Fine / Rain	0	0	0	20.9	22/10/11	2.5
	"	1645	Fine / Rain	0	0	0	20.9	21/10/10	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



7/31/2022

Laboratory Staff:

Checked by:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	7/3/2022	0830	Fine / Rain	0	0	0	20.9	18/1009	4.3
	-	1345	Fine / Rain	0	0	0	20.9	20/1010	4.3
	-	1645	Fine / Rain	0	0	0	20.9	20/1010	4.3
WPRTTA 4	-	0845	Fine / Rain	0	0	0	20.9	18/1010	4
	-	1345	Fine / Rain	0	0	0	20.9	21/1009	4
	-	1645	Fine / Rain	0	0	0	20.9	20/1009	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

7/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	7/31/2022	0830	Fine / Rain	0	0	0	20.9	18/1009	8.4
	-	1330	Fine / Rain	0	0	0	20.9	20/1011	8.4
	-	1700	Fine / Rain	0	0	0	20.9	20/1011	8.4
Area 137 Pit B	-	0830	Fine / Rain	0	0	0	20.9	19/1010	8.6
	-	1330	Fine / Rain	0	0	0	20.9	21/1011	8.6
	-	1700	Fine / Rain	0	0	0	20.9	21/1010	8.6
Area 137 Pit C	-	0830	Fine / Rain	0	0	0	20.9	20/1010	10
	-	1330	Fine / Rain	0	0	0	20.9	22/1011	10
	-	1700	Fine / Rain	0	0	0	20.9	22/1011	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

7/31/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	8/3/2022	0830	Fine / Rain	0	0	0	20.9	16/1010	5.5
	-	1330	Fine / Rain	0	0	0	20.9	17/1011	5.5
	-	1700	Fine / Rain	0	0	0	20.9	17/1011	5.5
Area B	8/3/2022	0845	Fine / Rain	0	0	0	20.9	17/1012	2.5
	-	1345	Fine / Rain	0	0	0	20.9	18/1011	2.5
	-	1645	Fine / Rain	0	0	0	20.9	18/1011	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



8/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	8/31/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	16/1009	4.3
	✓	1345	Fine / <del>Rain</del>	0	0	0	20.9	18/1010	4.3
	✓	1645	Fine / <del>Rain</del>	0	0	0	20.9	17/1009	4.3
WPRTTA 4	✓	0845	Fine / <del>Rain</del>	0	0	0	20.9	17/1010	4
	✓	1345	Fine / <del>Rain</del>	0	0	0	20.9	18/1009	4
	✓	1645	Fine / <del>Rain</del>	0	0	0	20.9	18/1009	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



8/31/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	8/31/2022	0830	Fine / Rain	0	0	0	20.9	17/10/0	8.4
		1330	Fine / Rain	0	0	0	20.9	18/10/11	8.4
		1700	Fine / Rain	0	0	0	20.9	19/10/11	8.4
Area 137 Pit B		0830	Fine / Rain	0	0	0	20.9	18/10/09	8.6
		1330	Fine / Rain	0	0	0	20.9	20/10/0	8.6
		1700	Fine / Rain	0	0	0	20.9	20/10/0	8.6
Area 137 Pit C		0830	Fine / Rain	0	0	0	20.9	18/10/0	10
		1330	Fine / Rain	0	0	0	20.9	19/10/11	10
		1700	Fine / Rain	0	0	0	20.9	19/10/11	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

~~28/7/2021~~  
8/31/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	9/31/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	17/1011	5.5
		1330	Fine / <del>Rain</del>	0	0	0	20.9	19/1012	5.5
		1700	Fine / <del>Rain</del>	0	0	0	20.9	19/1012	5.5
Area B	9/31/2022	0845	Fine / <del>Rain</del>	0	0	0	20.9	19/1010	2.5
		1345	Fine / <del>Rain</del>	0	0	0	20.9	19/1011	2.5
		1645	Fine / <del>Rain</del>	0	0	0	20.9	19/1011	2.5

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

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9/31/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	9/3/2022	0830	Fine / Rain	0	0	0	20.9	19/1009	4.3
	✓	1345	Fine / Rain	0	0	0	20.9	19/1010	4.3
	✓	1645	Fine / Rain	0	0	0	20.9	20/1010	4.3
WPRTTA 4	✓	0845	Fine / Rain	0	0	0	20.9	19/1010	4
	✓	1345	Fine / Rain	0	0	0	20.9	20/1011	4
	✓	1645	Fine / Rain	0	0	0	20.9	20/1011	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



9/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	9/31/2022	0830	Fine / Rain	0	0	0	20.9	19/1009	8.4
		1330	Fine / Rain	0	0	0	20.9	21/1010	8.4
		1700	Fine / Rain	0	0	0	20.9	21/1010	8.4
Area 137 Pit B		0830	Fine / Rain	0	0	0	20.9	20/1010	8.6
		1330	Fine / Rain	0	0	0	20.9	21/1011	8.6
		1700	Fine / Rain	0	0	0	20.9	22/1012	8.6
Area 137 Pit C		0830	Fine / Rain	0	0	0	20.9	21/1011	10
		1330	Fine / Rain	0	0	0	20.9	22/1012	10
		1700	Fine / Rain	0	0	0	20.9	21/1011	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



9/31/2022

Laboratory Staff:

Checked by:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	10/3/2022	0830	Fine / Rain	0	0	0	20.9	18/10/10	5.5
	"	1330	Fine / Rain	0	0	0	20.9	20/10/11	5.5
	"	1700	Fine / Rain	0	0	0	20.9	21/10/11	5.5
Area B	10/3/2022	0845	Fine / Rain	0	0	0	20.9	20/10/11	2.5
	"	1345	Fine / Rain	0	0	0	20.9	22/10/10	2.5
	"	1645	Fine / Rain	0	0	0	20.9	21/10/11	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



10/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	10/31/2022	0830	Fine / Rain	0	0	0	20.9	19/1009	4.3
		1345	Fine / Rain	0	0	0	20.9	21/1010	4.3
		1645	Fine / Rain	0	0	0	20.9	20/1010	4.3
WPRTTA 4		0845	Fine / Rain	0	0	0	20.9	19/1010	4
		1345	Fine / Rain	0	0	0	20.9	22/1011	4
		1645	Fine / Rain	0	0	0	20.9	22/1011	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



10/31/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	10/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1011	8.4
		1330	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	8.4
		1700	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	8.4
Area 137 Pit B		0830	Fine / <del>Rain</del>	0	0	0	20.9	19/1010	8.6
		1330	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	8.6
		1700	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	8.6
Area 137 Pit C		0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	10
		1330	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	10
		1700	Fine / <del>Rain</del>	0	0	0	20.9	20/1011	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

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10/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	11/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/10/10	5.5
	--	1330	Fine / <del>Rain</del>	0	0	0	20.9	22/10/11	5.5
	--	1700	Fine / <del>Rain</del>	0	0	0	20.9	22/10/11	5.5
Area B	11/3/2022	0845	Fine / <del>Rain</del>	0	0	0	20.9	21/10/10	2.5
	--	1345	Fine / <del>Rain</del>	0	0	0	20.9	23/10/11	2.5
	--	1645	Fine / <del>Rain</del>	0	0	0	20.9	23/10/11	2.5

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



11/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	11/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1009	4.3
	-	1345	Fine / <del>Rain</del>	0	0	0	20.9	22/1010	4.3
	-	1645	Fine / <del>Rain</del>	0	0	0	20.9	22/1010	4.3
WPRTTA 4	-	0845	Fine / <del>Rain</del>	0	0	0	20.9	19/1010	4
	-	1345	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	4
	-	1645	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	4

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



11/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	11/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1011	8.4
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	8.4
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	8.4
Area 137 Pit B	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	8.6
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	8.6
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	8.6
Area 137 Pit C	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1009	10
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	10
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



11/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	12/3/2022	0830	Fine / Rain	0	0	0	20.9	22/1011	5.5
		1330	Fine / Rain	0	0	0	20.9	23/1012	5.5
		1700	Fine / Rain	0	0	0	20.9	23/1012	5.5
Area B	12/3/2022	0845	Fine / Rain	0	0	0	20.9	23/1011	2.5
		1345	Fine / Rain	0	0	0	20.9	24/1011	2.5
		1645	Fine / Rain	0	0	0	20.9	23/1012	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

12/3/2022

Laboratory Staff:

Checked by:


Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	12/13/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1009	4.3
	"	1345	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	4.3
	"	1645	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	4.3
WPRTTA 4	"	0845	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	4
	"	1345	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	4
	"	1645	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	4

	<u>Name &amp; Designation</u>	<u>Signature</u>	<u>Date</u>
Field Operator:	Jock Lee (Competent Person [CO-310218])		12/13/2022
Laboratory Staff:			
Checked by:			



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	12/31/2022	0830	Fine / Rain	0	0	0	20.9	21/1011	8.4
	~	1330	Fine / Rain	0	0	0	20.9	23/1012	8.4
	~	1700	Fine / Rain	0	0	0	20.9	22/1012	8.4
Area 137 Pit B	~	0830	Fine / Rain	0	0	0	20.9	20/1010	8.6
	~	1330	Fine / Rain	0	0	0	20.9	22/1011	8.6
	~	1700	Fine / Rain	0	0	0	20.9	22/1011	8.6
Area 137 Pit C	~	0830	Fine / Rain	0	0	0	20.9	21/1011	10
	~	1330	Fine / Rain	0	0	0	20.9	22/1010	10
	~	1700	Fine / Rain	0	0	0	20.9	22/1010	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



12/31/2022

Laboratory Staff:


Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture  
**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	14/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	5.5
		1330	Fine / <del>Rain</del>	0	0	0	20.9	24/1012	5.5
		1700	Fine / <del>Rain</del>	0	0	0	20.9	24/1012	5.5
Area B	14/3/2022	0845	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	2.5
		1345	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	2.5
		1645	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	2.5

	<u>Name &amp; Designation</u>	<u>Signature</u>	<u>Date</u>
Field Operator:	Jock Lee (Competent Person [CO-310218])		21/4/3/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	14/3/2022	0830	Fine / Rain	0	0	0	20.9	23/1008	4.3
		1345	Fine / Rain	0	0	0	20.9	24/1008	4.3
		1645	Fine / Rain	0	0	0	20.9	25/1008	4.3
WPRTTA 4		0845	Fine / Rain	0	0	0	20.9	24/1010	4
		1345	Fine / Rain	0	0	0	20.9	25/1011	4
		1645	Fine / Rain	0	0	0	20.9	25/1010	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

14/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	14/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	8.4
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	8.4
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	8.4
Area 137 Pit B	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	8.6
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	25/1011	8.6
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	24/1010	8.6
Area 137 Pit C	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	22/1007	10
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	24/1010	10
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	24/1010	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



14/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	15/3/2022	0830	Fine / Rain	0	0	0	20.9	23/1011	5.5
		1330	Fine / Rain	0	0	0	20.9	24/1012	5.5
		1700	Fine / Rain	0	0	0	20.9	25/1012	5.5
Area B	15/3/2022	0845	Fine / Rain	0	0	0	20.9	24/1010	2.5
		1345	Fine / Rain	0	0	0	20.9	28/1011	2.5
		1645	Fine / Rain	0	0	0	20.9	25/1011	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



15/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	15/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	24/1009	4.3
	"	1345	Fine / <del>Rain</del>	0	0	0	20.9	25/1010	4.3
	"	1645	Fine / <del>Rain</del>	0	0	0	20.9	25/1010	4.3
WPRTTA 4	"	0845	Fine / <del>Rain</del>	0	0	0	20.9	23/1008	4
	"	1345	Fine / <del>Rain</del>	0	0	0	20.9	25/1011	4
	"	1645	Fine / <del>Rain</del>	0	0	0	20.9	25/1011	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



15/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	15/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	8.4
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	8.4
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	8.4
Area 137 Pit B	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	24/1009	8.6
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	25/1011	8.6
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	25/1010	8.6
Area 137 Pit C	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	10
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	10
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



15/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	16/3/2022	0830	Fine / Rain	0	0	0	20.9	22/1010	5.5
	"	1330	Fine / Rain	0	0	0	20.9	23/1011	5.5
	"	1700	Fine / Rain	0	0	0	20.9	23/1011	5.5
Area B	16/3/2022	0845	Fine / Rain	0	0	0	20.9	22/1009	2.5
	"	1345	Fine / Rain	0	0	0	20.9	23/1010	2.5
	"	1645	Fine / Rain	0	0	0	20.9	23/1010	2.5

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



16/3/2022

Laboratory Staff:

Checked by:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	16/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	22/1009	4.3
	✓	1345	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	4.3
	✓	1645	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	4.3
WPRTTA 4	✓	0845	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	4
	✓	1345	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	4
	✓	1645	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



16/3/2022

Laboratory Staff:

Checked by:


Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	16/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	22/1010	8.4
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	8.4
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	8.4
Area 137 Pit B	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/1009	8.6
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	8.6
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	22/1009	8.6
Area 137 Pit C	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	10
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	10
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	10

	<u>Name &amp; Designation</u>	<u>Signature</u>	<u>Date</u>
Field Operator:	Jock Lee (Competent Person [CO-310218])		16/3/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	17/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/1008	5.5
		1330	Fine / <del>Rain</del>	0	0	0	20.9	24/1010	5.5
		1700	Fine / <del>Rain</del>	0	0	0	20.9	24/1010	5.5
Area B	17/3/2022	0845	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	2.5
		1345	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	2.5
		1645	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

17/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	17/3/2022	0830	Fine / Rain	0	0	0	20.9	24/1009	4.3
	✓	1345	Fine / Rain	0	0	0	20.9	26/1010	4.3
	✓	1645	Fine / Rain	0	0	0	20.9	25/1010	4.3
WPRTTA 4	✓	0845	Fine / Rain	0	0	0	20.9	23/1010	4
	✓	1345	Fine / Rain	0	0	0	20.9	25/1011	4
	✓	1645	Fine / Rain	0	0	0	20.9	25/1011	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



17/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	17/3/2022	0830	Fine / Rain	0	0	0	20.9	23/1010	8.4
	"	1330	Fine / Rain	0	0	0	20.9	24/1011	8.4
	"	1700	Fine / Rain	0	0	0	20.9	24/1011	8.4
Area 137 Pit B	"	0830	Fine / Rain	0	0	0	20.9	24/1011	8.6
	"	1330	Fine / Rain	0	0	0	20.9	25/1012	8.6
	"	1700	Fine / Rain	0	0	0	20.9	25/1012	8.6
Area 137 Pit C	"	0830	Fine / Rain	0	0	0	20.9	24/1010	10
	"	1330	Fine / Rain	0	0	0	20.9	25/1011	10
	"	1700	Fine / Rain	0	0	0	20.9	25/1011	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



17/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture  
**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	18/3/2022	0830	Fine / Rain	0	0	0	20.9	23/1008	5.5
		1330	Fine / Rain	0	0	0	20.9	24/1010	5.5
		1700	Fine / Rain	0	0	0	20.9	24/1011	5.5
Area B	18/3/2022	0845	Fine / Rain	0	0	0	20.9	24/1010	2.5
		1345	Fine / Rain	0	0	0	20.9	25/1011	2.5
		1645	Fine / Rain	0	0	0	20.9	28/1011	2.5

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

*J*

18/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	18/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/1002	4.3
		1345	Fine / <del>Rain</del>	0	0	0	20.9	25/1010	4.3
		1645	Fine / <del>Rain</del>	0	0	0	20.9	25/1010	4.3
WPRTTA 4		0845	Fine / <del>Rain</del>	0	0	0	20.9	24/1008	4
		1345	Fine / <del>Rain</del>	0	0	0	20.9	26/1010	4
		1645	Fine / <del>Rain</del>	0	0	0	20.9	26/1010	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



18/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	18/3/2022	0830	Fine / Rain	0	0	0	20.9	23/10/11	8.4
	✓	1330	Fine / Rain	0	0	0	20.9	25/10/12	8.4
	✓	1700	Fine / Rain	0	0	0	20.9	25/10/12	8.4
Area 137 Pit B	✓	0830	Fine / Rain	0	0	0	20.9	24/10/10	8.6
	✓	1330	Fine / Rain	0	0	0	20.9	25/10/11	8.6
	✓	1700	Fine / Rain	0	0	0	20.9	25/10/11	8.6
Area 137 Pit C	✓	0830	Fine / Rain	0	0	0	20.9	22/10/10	10
	✓	1330	Fine / Rain	0	0	0	20.9	24/10/11	10
	✓	1700	Fine / Rain	0	0	0	20.9	23/10/10	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

18/3/2022

Laboratory Staff:

Checked by:



Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture  
**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	19/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/10/11	5.5
	-	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/10/11	5.5
	-	1700	Fine / <del>Rain</del>	0	0	0	20.9	24/10/12	5.5
Area B	19/3/2022	0845	Fine / <del>Rain</del>	0	0	0	20.9	22/10/10	2.5
	-	1345	Fine / <del>Rain</del>	0	0	0	20.9	23/10/11	2.5
	-	1645	Fine / <del>Rain</del>	0	0	0	20.9	23/10/11	2.5

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



19/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	19/13/2022	0830	Fine / Rain	0	0	0	20.9	23/1009	4.3
	"	1345	Fine / Rain	0	0	0	20.9	24/1010	4.3
	"	1645	Fine / Rain	0	0	0	20.9	24/1010	4.3
WPRTTA 4	"	0845	Fine / Rain	0	0	0	20.9	23/1008	4
	"	1345	Fine / Rain	0	0	0	20.9	24/1009	4
	"	1645	Fine / Rain	0	0	0	20.9	23/1008	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

~~28~~ 19/13/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	19/3/2022	0830	Fine / Rain	0	0	0	20.9	24/1011	8.4
	"	1330	Fine / Rain	0	0	0	20.9	25/1012	8.4
	"	1700	Fine / Rain	0	0	0	20.9	25/1012	8.4
Area 137 Pit B	"	0830	Fine / Rain	0	0	0	20.9	23/1010	8.6
	"	1330	Fine / Rain	0	0	0	20.9	25/1011	8.6
	"	1700	Fine / Rain	0	0	0	20.9	25/1010	8.6
Area 137 Pit C	"	0830	Fine / Rain	0	0	0	20.9	24/1010	10
	"	1330	Fine / Rain	0	0	0	20.9	25/1011	10
	"	1700	Fine / Rain	0	0	0	20.9	26/1011	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



19/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	21/3/2022	0830	Fine / Rain	0	0	0	20.9	21/1009	5.5
	"	1330	Fine / Rain	0	0	0	20.9	22/1010	5.5
	"	1700	Fine / Rain	0	0	0	20.9	22/1010	5.5
Area B	"	0845	Fine / Rain	0	0	0	20.9	22/1010	2.5
	"	1345	Fine / Rain	0	0	0	20.9	22/1009	2.5
	"	1645	Fine / Rain	0	0	0	20.9	23/1010	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



21/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	21/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1008	4.3
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	22/1009	4.3
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	22/1009	4.3
WPRTTA 4	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	22/1009	4
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1009	4
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	22/1009	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



21/3/2022.

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	21/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	8.4
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	22/1009	8.4
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	22/1010	8.4
Area 137 Pit B	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1011	8.6
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	22/1012	8.6
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	22/1012	8.6
Area 137 Pit C	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1011	10
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	10
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



21/3/2022.

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	22/3/22	0830	Fine / <del>Rain</del>	0	0	0	20.9	22/1009	5.5
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	5.5
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	5.5
Area B	✓	0845	Fine / <del>Rain</del>	0	0	0	20.9	23/1010	2.5
	✓	1345	Fine / <del>Rain</del>	0	0	0	20.9	24/1010	2.5
	✓	1645	Fine / <del>Rain</del>	0	0	0	20.9	24/1009	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



22/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture


**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	22/3/2022	0830	Fine / Rain	0	0	0	20.9	22/1009	4.3
		1330	Fine / Rain	0	0	0	20.9	23/1010	4.3
		1700	Fine / Rain	0	0	0	20.9	23/1010	4.3
WPRTTA 4		0830	Fine / Rain	0	0	0	20.9	23/1010	4
		1330	Fine / Rain	0	0	0	20.9	24/1009	4
		1700	Fine / Rain	0	0	0	20.9	24/1009	4

	<u>Name &amp; Designation</u>	<u>Signature</u>	<u>Date</u>
Field Operator:	Jock Lee (Competent Person [CO-310218])		22/3/2022
Laboratory Staff:			
Checked by:			



Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	22/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	22/1010	8.4
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	8.4
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	8.4
Area 137 Pit B	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	8.6
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	25/1012	8.6
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	8.6
Area 137 Pit C	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	10
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	24/1012	10
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	24/1012	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



22/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	23/3/2022	0830	Fine / Rain	0	0	0	20.9	17/10/11	5.5
		1330	Fine / Rain	0	0	0	20.9	18/10/12	5.5
		1700	Fine / Rain	0	0	0	20.9	18/10/12	5.5
Area B		0845	Fine / Rain	0	0	0	20.9	16/10/11	2.5
		1345	Fine / Rain	0	0	0	20.9	17/10/12	2.5
		1645	Fine / Rain	0	0	0	20.9	17/10/12	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



23/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture


**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	23/2/2022	0830	Fine / Rain	0	0	0	20.9	17/1009	4.3
	..	1330	Fine / Rain	0	0	0	20.9	19/1010	4.3
	..	1700	Fine / Rain	0	0	0	20.9	19/1010	4.3
WPRTTA 4	..	0830	Fine / Rain	0	0	0	20.9	18/1010	4
	..	1330	Fine / Rain	0	0	0	20.9	20/1011	4
	..	1700	Fine / Rain	0	0	0	20.9	20/1011	4

Field Operator: Jock Lee (Competent Person [CO-310218])      Signature:       Date: 23/3/2022.

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	23/3/2022	0830	<del>Fine / Rain</del>	0	0	0	20.9	17/10/11	8.4
	..	1330	<del>Fine / Rain</del>	0	0	0	20.9	18/10/12	8.4
	..	1700	<del>Fine / Rain</del>	0	0	0	20.9	18/10/12	8.4
Area 137 Pit B	..	0830	<del>Fine / Rain</del>	0	0	0	20.9	18/10/10	8.6
	..	1330	<del>Fine / Rain</del>	0	0	0	20.9	19/10/11	8.6
	..	1700	<del>Fine / Rain</del>	0	0	0	20.9	18/10/10	8.6
Area 137 Pit C	..	0830	<del>Fine / Rain</del>	0	0	0	20.9	17/10/09	10
	..	1330	<del>Fine / Rain</del>	0	0	0	20.9	18/10/10	10
	..	1700	<del>Fine / Rain</del>	0	0	0	20.9	18/10/10	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

Y

23/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture  
**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	24/3/2022	0830	Fine / Rain	0	0	0	20.9	17/1010	5.5
		1330	Fine / Rain	0	0	0	20.9	18/1011	5.5
		1700	Fine / Rain	0	0	0	20.9	18/1011	5.5
Area B		0845	Fine / Rain	0	0	0	20.9	16/1009	2.5
		1345	Fine / Rain	0	0	0	20.9	17/1010	2.5
		1645	Fine / Rain	0	0	0	20.9	17/1010	2.5

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

Y

24/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture


**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	24/3/2022	0830	<del>Fine</del> / Rain	0	0	0	20.9	16/1008	4.3
	-	1330	Fine / <del>Rain</del>	0	0	0	20.9	17/1010	4.3
	-	1700	Fine / <del>Rain</del>	0	0	0	20.9	17/1010	4.3
WPRTTA 4	21	0830	<del>Fine</del> / Rain	0	0	0	20.9	16/1008	4
	21	1330	Fine / <del>Rain</del>	0	0	0	20.9	18/1010	4
	21	1700	Fine / <del>Rain</del>	0	0	0	20.9	17/1009	4

	<u>Name &amp; Designation</u>	<u>Signature</u>	<u>Date</u>
Field Operator:	Jock Lee (Competent Person [CO-310218])		24/3/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	24/3/2022	0830	<del>Fine / Rain</del>	0	0	0	20.9	16/1009	8.4
	-	1330	<del>Fine / Rain</del>	0	0	0	20.9	17/1010	8.4
	-	1700	<del>Fine / Rain</del>	0	0	0	20.9	17/1010	8.4
Area 137 Pit B	-	0830	<del>Fine / Rain</del>	0	0	0	20.9	16/1010	8.6
	-	1330	<del>Fine / Rain</del>	0	0	0	20.9	17/1009	8.6
	-	1700	<del>Fine / Rain</del>	0	0	0	20.9	17/1010	8.6
Area 137 Pit C	-	0830	<del>Fine / Rain</del>	0	0	0	20.9	16/1010	10
	-	1330	<del>Fine / Rain</del>	0	0	0	20.9	18/1011	10
	-	1700	<del>Fine / Rain</del>	0	0	0	20.9	17/1010	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

Y

24/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	25/3/2022	0830	Fine / Rain	0	0	0	20.9	19/1010	5.5
		1330	Fine / Rain	0	0	0	20.9	21/1011	5.5
		1700	Fine / Rain	0	0	0	20.9	21/1011	5.5
Area B		0845	Fine / Rain	0	0	0	20.9	20/1009	2.5
		1345	Fine / Rain	0	0	0	20.9	22/1010	2.5
		1645	Fine / Rain	0	0	0	20.9	22/1010	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



25/3/2022

Laboratory Staff:

Checked by:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture


**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	25/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1009	4.3
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	4.3
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	4.3
WPRTTA 4	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	4
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	4
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	4

Field Operator: Jock Lee (Competent Person [CO-310218])      Signature:       Date: 25/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16  
 Mainlaying in Tseung Kwan O  
 Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O  
 Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	25/3/2022	0830	<del>Fine</del> / Rain	0	0	0	20.9	19/1009	8.4
		1330	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	8.4
		1700	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	8.4
Area 137 Pit B		0830	<del>Fine</del> / Rain	0	0	0	20.9	20/1011	8.6
		1330	Fine / <del>Rain</del>	0	0	0	20.9	21/1012	8.6
		1700	Fine / <del>Rain</del>	0	0	0	20.9	21/1012	8.6
Area 137 Pit C		0830	<del>Fine</del> / Rain	0	0	0	20.9	20/1010	10
		1330	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	10
		1700	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



25/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	26/3/2022	0830	Fine / Rain	0	0	0	20.9	25/1010	5.5
	✓	1330	Fine / Rain	0	0	0	20.9	27/1011	5.5
	✓	1700	Fine / Rain	0	0	0	20.9	27/1011	5.5
Area B	✓	0845	Fine / Rain	0	0	0	20.9	25/1011	2.5
	✓	1345	Fine / Rain	0	0	0	20.9	26/1010	2.5
	✓	1645	Fine / Rain	0	0	0	20.9	26/1010	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

26/3

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture


**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	26/3/2022	0830	Fine / Rain	0	0	0	20.9	25/1009	4.3
	✓	1330	Fine / Rain	0	0	0	20.9	26/1010	4.3
	✓	1700	Fine / Rain	0	0	0	20.9	26/1010	4.3
WPRTTA 4	✓	0830	Fine / Rain	0	0	0	20.9	25/1010	4
	✓	1330	Fine / Rain	0	0	0	20.9	26/1009	4
	✓	1700	Fine / Rain	0	0	0	20.9	25/1009	4

Field Operator: Jock Lee (Competent Person [CO-310218])      Signature:       Date: 26/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	26/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	25/10/10	8.4
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	26/10/11	8.4
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	26/10/11	8.4
Area 137 Pit B	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	25/10/09	8.6
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	27/10/10	8.6
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	27/10/10	8.6
Area 137 Pit C	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	26/10/10	10
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	27/10/11	10
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	27/10/11	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



26/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	28/3/2022	0830	Fine / Rain	0	0	0	20.9	17/1011	5.5
		1330	Fine / Rain	0	0	0	20.9	18/1011	5.5
		1700	Fine / Rain	0	0	0	20.9	18/1011	5.5
Area B		0845	Fine / Rain	0	0	0	20.9	17/1010	2.5
		1345	Fine / Rain	0	0	0	20.9	18/1010	2.5
		1645	Fine / Rain	0	0	0	20.9	17/1009	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



28/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	28/3/2022	0830	<del>Fine</del> / Rain	0	0	0	20.9	17/1009	4.3
		1330	Fine / <del>Rain</del>	0	0	0	20.9	18/1009	4.3
		1700	Fine / <del>Rain</del>	0	0	0	20.9	17/1010	4.3
WPRTTA 4		0830	<del>Fine</del> / Rain	0	0	0	20.9	17/1010	4
		1330	Fine / <del>Rain</del>	0	0	0	20.9	17/1010	4
		1700	Fine / <del>Rain</del>	0	0	0	20.9	18/1009	4

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

28/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	28/3/2022	0830	Fine / Rain	0	0	0	20.9	17/1011	8.4
	✓	1330	Fine / Rain	0	0	0	20.9	18/1012	8.4
	✓	1700	Fine / Rain	0	0	0	20.9	18/1012	8.4
Area 137 Pit B	✓	0830	Fine / Rain	0	0	0	20.9	17/1011	8.6
	✓	1330	Fine / Rain	0	0	0	20.9	17/1011	8.6
	✓	1700	Fine / Rain	0	0	0	20.9	18/1012	8.6
Area 137 Pit C	✓	0830	Fine / Rain	0	0	0	20.9	18/1010	10
	✓	1330	Fine / Rain	0	0	0	20.9	17/1011	10
	✓	1700	Fine / Rain	0	0	0	20.9	18/1011	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

28/3/2022

Laboratory Staff:

Checked by:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	28/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	18/1010	5.5
		1330	Fine / <del>Rain</del>	0	0	0	20.9	19/1011	5.5
		1700	Fine / <del>Rain</del>	0	0	0	20.9	19/1011	5.5
Area B		0845	Fine / <del>Rain</del>	0	0	0	20.9	19/1010	2.5
		1345	Fine / <del>Rain</del>	0	0	0	20.9	19/1010	2.5
		1645	Fine / <del>Rain</del>	0	0	0	20.9	18/1009	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



28/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture


**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	29/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	18/1009	4.3
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	4.3
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	4.3
WPRTTA 4	"	0830	Fine / <del>Rain</del>	0	0	0	20.9	19/1010	4
	"	1330	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	4
	"	1700	Fine / <del>Rain</del>	0	0	0	20.9	20/1009	4

	<u>Name &amp; Designation</u>	<u>Signature</u>	<u>Date</u>
Field Operator:	Jock Lee (Competent Person [CO-310218])		29/3/2022
Laboratory Staff:			
Checked by:			

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	28/3/2022	0830	Fine / Rain	0	0	0	20.9	18/10/10	8.4
	"	1330	Fine / Rain	0	0	0	20.9	19/10/11	8.4
	"	1700	Fine / Rain	0	0	0	20.9	19/10/11	8.4
Area 137 Pit B	"	0830	Fine / Rain	0	0	0	20.9	19/10/10	8.6
	"	1330	Fine / Rain	0	0	0	20.9	19/10/10	8.6
	"	1700	Fine / Rain	0	0	0	20.9	20/10/11	8.6
Area 137 Pit C	"	0830	Fine / Rain	0	0	0	20.9	18/10/10	10
	"	1330	Fine / Rain	0	0	0	20.9	18/10/10	10
	"	1700	Fine / Rain	0	0	0	20.9	19/10/11	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

28/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	30/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/011	5.5
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	22/1012	5.5
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	22/1012	5.5
Area B	✓	0845	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	2.5
	✓	1345	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	2.5
	✓	1645	Fine / <del>Rain</del>	0	0	0	20.9	22/1010	2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

30/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture


**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	30/3/2022	0830	Fine / Rain	0	0	0	20.9	21/1009	4.3
	✓	1330	Fine / Rain	0	0	0	20.9	23/1010	4.3
	✓	1700	Fine / Rain	0	0	0	20.9	23/1010	4.3
WPRTTA 4	✓	0830	Fine / Rain	0	0	0	20.9	22/1010	4
	✓	1330	Fine / Rain	0	0	0	20.9	23/1009	4
	✓	1700	Fine / Rain	0	0	0	20.9	22/1010	4

Field Operator: Jock Lee (Competent Person [CO-310218])      Signature:       Date: 30/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	30/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1011	8.4
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	8.4
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	8.4
Area 137 Pit B	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1012	8.6
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	8.6
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	8.6
Area 137 Pit C	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	22/1012	10
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	10
	✓	1700	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])



30/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	31/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	5.5
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	5.5
	✓	1700	Fine / Rain	0	0	0	20.9		5.5
Area B	✓	0845	Fine / <del>Rain</del>	0	0	0	20.9	22/1010	2.5
	✓	1345	Fine / <del>Rain</del>	0	0	0	20.9	23/1012	2.5
	✓	1645	Fine / Rain	0	0	0	20.9		2.5

Name & Designation

Signature

Date

Field Operator:

Jock Lee (Competent Person [CO-310218])



31/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture


**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide (%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 3	31/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	22/1009	4.3
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	25/1010	4.3
	✓	1700	Fine / Rain	0	0	0	20.9		4.3
WPRTTA 4	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	22/1010	4
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	24/1011	4
	✓	1700	Fine / Rain	0	0	0	20.9		4

Field Operator: Jock Lee (Competent Person [CO-310218])      Signature:       Date: 31/3/2022

Laboratory Staff:

Checked by:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Wan Po Road Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	31/3/2022	0830	Fine / <del>Rain</del>	0	0	0	20.9	22/1011	8.4
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	25/1012	8.4
	✓	1700	Fine / Rain	0	0	0	20.9		8.4
Area 137 Pit B	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	21/1010	8.6
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	24/1012	8.6
	✓	1700	Fine / Rain	0	0	0	20.9		8.6
Area 137 Pit C	✓	0830	Fine / <del>Rain</del>	0	0	0	20.9	20/1010	10
	✓	1330	Fine / <del>Rain</del>	0	0	0	20.9	23/1011	10
	✓	1700	Fine / Rain	0	0	0	20.9		10

Name & Designation

Signature

Date

Field Operator: Jock Lee (Competent Person [CO-310218])

31/3/2022

Laboratory Staff:

Checked by:

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	1/3/2022	8:30	0.0413	
		13:30	0.0416	
		15:30	0.0413	
Area B	1/3/2022	8:45	0.0419	
		13:45	0.042	
		15:45	0.0416	
137 Pit C	1/3/2022	9:15		
		14:15		
		16:15		
137 Pit B	1/3/2022	9:00		
		14:00		
		16:00		
137 Pit A	1/3/2022	9:20		
		14:20		
		16:20		
WPR WF3	1/3/2022	9:45	0.0416	
		14:45	0.0412	
		16:45	0.042	

Name & Designation

Signature

Date

Field Operator:  
Laboratory Staff:  
Checked by:

1/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	1/3/2022	9:30	0.0418	
		14:30	0.0415	
		16:30	0.041	
Pit A	1/3/2022	10:00		
		15:00		
		17:00		
Pit B	1/3/2022	10:15		
		15:15		
		17:15		
Pit D	1/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

1/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	2/3/2022	8:30	0.042	
		13:30	0.0417	
		15:30	0.0414	
Area B	2/3/2022	8:45	0.0418	
		13:45	0.0415	
		15:45	0.0419	
137 Pit C	2/3/2022	9:15		
		14:15		
		16:15		
137 Pit B	2/3/2022	9:00		
		14:00		
		16:00		
137 Pit A	2/3/2022	9:20		
		14:20		
		16:20		
WPR WF3	2/3/2022	9:45	0.0416	
		14:45	0.0415	
		16:45	0.041	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

2/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	2/3/2022	9:30	0.041	
		14:30	0.042	
		16:30	0.0418	
Pit A	2/3/2022	10:00		
		15:00		
		17:00		
Pit B	2/3/2022	10:15		
		15:15		
		17:15		
Pit D	2/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

2/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	3/3/2022	8:30	0.041	
		13:30	0.0413	
		15:30	0.0418	
Area B	3/3/2022	8:45	0.0411	
		13:45	0.0414	
		15:45	0.0416	
137 Pit C	3/3/2022	9:15	0.0414	
		14:15	0.0414	
		16:15	0.0419	
137 Pit B	3/3/2022	9:00	0.0411	
		14:00	0.0412	
		16:00	0.0418	
137 Pit A	3/3/2022	9:20	0.0412	
		14:20	0.0411	
		16:20	0.0419	
WPR WF3	3/3/2022	9:45	0.0418	
		14:45	0.0414	
		16:45	0.0415	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

3/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	3/3/2022	9:30	0.0417	
		14:30	0.0413	
		16:30	0.0418	
Pit A	3/3/2022	10:00		
		15:00		
		17:00		
Pit B	3/3/2022	10:15		
		15:15		
		17:15		
Pit D	3/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

3/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	4/3/2022	8:30	0.0416	
		13:30	0.0419	
		15:30	0.0417	
Area B	4/3/2022	8:45	0.0411	
		13:45	0.0418	
		15:45	0.0413	
137 Pit C	4/3/2022	9:15	0.0418	
		14:15	0.0413	
		16:15	0.041	
137 Pit B	4/3/2022	9:00	0.0418	
		14:00	0.0412	
		16:00	0.0418	
137 Pit A	4/3/2022	9:20	0.0415	
		14:20	0.0419	
		16:20	0.0418	
WPR WF3	4/3/2022	9:45	0.042	
		14:45	0.0415	
		16:45	0.0417	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

4/3/2022



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	4/3/2022	9:30	0.0416	
		14:30	0.0416	
		16:30	0.0418	
Pit A	4/3/2022	10:00		
		15:00		
		17:00		
Pit B	4/3/2022	10:15		
		15:15		
		17:15		
Pit D	4/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

4/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	5/3/2022	8:30	0.0411	
		13:30	0.0419	
		15:30	0.0413	
Area B	5/3/2022	8:45	0.0413	
		13:45	0.042	
		15:45	0.0419	
137 Pit C	5/3/2022	9:15	0.0416	
		14:15	0.0415	
		16:15	0.0412	
137 Pit B	5/3/2022	9:00	0.0413	
		14:00	0.0414	
		16:00	0.0415	
137 Pit A	5/3/2022	9:20	0.0416	
		14:20	0.0419	
		16:20	0.0418	
WPR WF3	5/3/2022	9:45	0.0412	
		14:45	0.0412	
		16:45	0.0418	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

5/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	5/3/2022	9:30	0.041	
		14:30	0.0411	
		16:30	0.041	
Pit A	5/3/2022	10:00		
		15:00		
		17:00		
Pit B	5/3/2022	10:15		
		15:15		
		17:15		
Pit D	5/3/2022	10:15		
		15:15		
		17:15		

Field Operator: \_\_\_\_\_ Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_ Date 5/3/2022  
Laboratory Staff: \_\_\_\_\_  
Checked by: \_\_\_\_\_

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	7/3/2022	8:30	0.0419	
		13:30	0.0417	
		15:30	0.0414	
Area B	7/3/2022	8:45	0.0412	
		13:45	0.0415	
		15:45	0.0415	
137 Pit C	7/3/2022	9:15	0.0419	
		14:15	0.042	
		16:15	0.041	
137 Pit B	7/3/2022	9:00	0.0416	
		14:00	0.0418	
		16:00	0.0414	
137 Pit A	7/3/2022	9:20	0.0415	
		14:20	0.0411	
		16:20	0.0413	
WPR WF3	7/3/2022	9:45	0.041	
		14:45	0.0413	
		16:45	0.0412	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

7/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	7/3/2022	9:30	0.042	
		14:30	0.0411	
		16:30	0.0416	
Pit A	7/3/2022	10:00		
		15:00		
		17:00		
Pit B	7/3/2022	10:15		
		15:15		
		17:15		
Pit D	7/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:  
Laboratory Staff:  
Checked by:

7/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	8/3/2022	8:30	0.0414	
		13:30	0.041	
		15:30	0.0411	
Area B	8/3/2022	8:45	0.0415	
		13:45	0.0417	
		15:45	0.0419	
137 Pit C	8/3/2022	9:15	0.041	
		14:15	0.041	
		16:15	0.0416	
137 Pit B	8/3/2022	9:00	0.0414	
		14:00	0.0413	
		16:00	0.0418	
137 Pit A	8/3/2022	9:20	0.042	
		14:20	0.0416	
		16:20	0.0417	
WPR WF3	8/3/2022	9:45	0.0415	
		14:45	0.0416	
		16:45	0.0414	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

8/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	8/3/2022	9:30	0.0415	
		14:30	0.0418	
		16:30	0.0414	
Pit A	8/3/2022	10:00		
		15:00		
		17:00		
Pit B	8/3/2022	10:15		
		15:15		
		17:15		
Pit D	8/3/2022	10:15		
		15:15		
		17:15		

Field Operator: \_\_\_\_\_ Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_ Date 8/3/2022  
Laboratory Staff: \_\_\_\_\_  
Checked by: \_\_\_\_\_

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	9/3/2022	8:30	0.041	
		13:30	0.0414	
		15:30	0.0417	
Area B	9/3/2022	8:45	0.0413	
		13:45	0.0415	
		15:45	0.0418	
137 Pit C	9/3/2022	9:15	0.0416	
		14:15	0.0418	
		16:15	0.0411	
137 Pit B	9/3/2022	9:00	0.0419	
		14:00	0.041	
		16:00	0.0411	
137 Pit A	9/3/2022	9:20	0.0419	
		14:20	0.0419	
		16:20	0.0412	
WPR WF3	9/3/2022	9:45	0.041	
		14:45	0.0418	
		16:45	0.0414	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

9/3/2022



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	9/3/2022	9:30	0.0414	
		14:30	0.0415	
		16:30	0.0412	
Pit A	9/3/2022	10:00		
		15:00		
		17:00		
Pit B	9/3/2022	10:15		
		15:15		
		17:15		
Pit D	9/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

9/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	10/3/2022	8:30	0.041	
		13:30	0.0415	
		15:30	0.0414	
Area B	10/3/2022	8:45	0.0416	
		13:45	0.0411	
		15:45	0.0419	
137 Pit C	10/3/2022	9:15	0.0417	
		14:15	0.041	
		16:15	0.0416	
137 Pit B	10/3/2022	9:00	0.0411	
		14:00	0.0415	
		16:00	0.0411	
137 Pit A	10/3/2022	9:20	0.041	
		14:20	0.042	
		16:20	0.0415	
WPR WF3	10/3/2022	9:45	0.0413	
		14:45	0.0418	
		16:45	0.041	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

10/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	10/3/2022	9:30	0.0415	
		14:30	0.0411	
		16:30	0.0415	
Pit A	10/3/2022	10:00		
		15:00		
		17:00		
Pit B	10/3/2022	10:15		
		15:15		
		17:15		
Pit D	10/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

10/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiraE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	11/3/2022	8:30	0.0413	
		13:30	0.0418	
		15:30	0.042	
Area B	11/3/2022	8:45	0.041	
		13:45	0.0412	
		15:45	0.0414	
137 Pit C	11/3/2022	9:15	0.0417	
		14:15	0.0415	
		16:15	0.0412	
137 Pit B	11/3/2022	9:00	0.0418	
		14:00	0.0419	
		16:00	0.0411	
137 Pit A	11/3/2022	9:20	0.0419	
		14:20	0.042	
		16:20	0.0418	
WPR WF3	11/3/2022	9:45	0.0414	
		14:45	0.0418	
		16:45	0.0415	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

11/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	11/3/2022	9:30	0.042	
		14:30	0.0412	
		16:30	0.0416	
Pit A	11/3/2022	10:00		
		15:00		
		17:00		
Pit B	11/3/2022	10:15		
		15:15		
		17:15		
Pit D	11/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

11/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	12/3/2022	8:30	0.0418	
		13:30	0.0411	
		15:30	0.0412	
Area B	12/3/2022	8:45	0.0414	
		13:45	0.0418	
		15:45	0.0414	
137 Pit C	12/3/2022	9:15	0.0416	
		14:15	0.0417	
		16:15	0.0413	
137 Pit B	12/3/2022	9:00	0.0412	
		14:00	0.0411	
		16:00	0.0412	
137 Pit A	12/3/2022	9:20	0.0411	
		14:20	0.041	
		16:20	0.0413	
WPR WF3	12/3/2022	9:45	0.041	
		14:45	0.0416	
		16:45	0.042	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

12/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	12/3/2022	9:30	0.041	
		14:30	0.0415	
		16:30	0.0417	
Pit A	12/3/2022	10:00		
		15:00		
		17:00		
Pit B	12/3/2022	10:15		
		15:15		
		17:15		
Pit D	12/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

12/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultirAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	14/3/2022	8:30	0.0419	
		13:30	0.0418	
		15:30	0.0413	
Area B	14/3/2022	8:45	0.0416	
		13:45	0.0412	
		15:45	0.042	
137 Pit C	14/3/2022	9:15	0.0416	
		14:15	0.0413	
		16:15	0.0413	
137 Pit B	14/3/2022	9:00	0.0412	
		14:00	0.0414	
		16:00	0.0415	
137 Pit A	14/3/2022	9:20	0.0414	
		14:20	0.042	
		16:20	0.0411	
WPR WF3	14/3/2022	9:45	0.0418	
		14:45	0.0419	
		16:45	0.0419	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

14/3/2022



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	14/3/2022	9:30	0.041	
		14:30	0.041	
		16:30	0.0413	
Pit A	14/3/2022	10:00		
		15:00		
		17:00		
Pit B	14/3/2022	10:15		
		15:15		
		17:15		
Pit D	14/3/2022	10:15		
		15:15		
		17:15		

Field Operator: \_\_\_\_\_ Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_ Date 14/3/2022  
Laboratory Staff: \_\_\_\_\_  
Checked by: \_\_\_\_\_

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiraE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	15/3/2022	8:30	0.0412	
		13:30	0.0413	
		15:30	0.0419	
Area B	15/3/2022	8:45	0.0417	
		13:45	0.0418	
		15:45	0.0417	
137 Pit C	15/3/2022	9:15	0.042	
		14:15	0.0418	
		16:15	0.0411	
137 Pit B	15/3/2022	9:00	0.0416	
		14:00	0.0411	
		16:00	0.0415	
137 Pit A	15/3/2022	9:20	0.041	
		14:20	0.0415	
		16:20	0.0415	
WPR WF3	15/3/2022	9:45	0.0415	
		14:45	0.0415	
		16:45	0.0412	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

15/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	15/3/2022	9:30	0.0417	
		14:30	0.041	
		16:30	0.041	
Pit A	15/3/2022	10:00		
		15:00		
		17:00		
Pit B	15/3/2022	10:15		
		15:15		
		17:15		
Pit D	15/3/2022	10:15		
		15:15		
		17:15		

Field Operator: \_\_\_\_\_ Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_ Date 15/3/2022  
Laboratory Staff: \_\_\_\_\_  
Checked by: \_\_\_\_\_

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiraE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	16/3/2022	8:30	0.0417	
		13:30	0.0411	
		15:30	0.0416	
Area B	16/3/2022	8:45	0.042	
		13:45	0.0415	
		15:45	0.0413	
137 Pit C	16/3/2022	9:15	0.041	
		14:15	0.0418	
		16:15	0.042	
137 Pit B	16/3/2022	9:00	0.042	
		14:00	0.0414	
		16:00	0.0418	
137 Pit A	16/3/2022	9:20	0.0412	
		14:20	0.042	
		16:20	0.0411	
WPR WF3	16/3/2022	9:45	0.0413	
		14:45	0.0414	
		16:45	0.041	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

16/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	16/3/2022	9:30	0.0415	
		14:30	0.041	
		16:30	0.0417	
Pit A	16/3/2022	10:00		
		15:00		
		17:00		
Pit B	16/3/2022	10:15		
		15:15		
		17:15		
Pit D	16/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

16/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	17/3/2022	8:30	0.0414	
		13:30	0.041	
		15:30	0.0417	
Area B	17/3/2022	8:45	0.0412	
		13:45	0.0411	
		15:45	0.041	
137 Pit C	17/3/2022	9:15	0.042	
		14:15	0.0414	
		16:15	0.0418	
137 Pit B	17/3/2022	9:00	0.042	
		14:00	0.0418	
		16:00	0.041	
137 Pit A	17/3/2022	9:20	0.0414	
		14:20	0.042	
		16:20	0.042	
WPR WF3	17/3/2022	9:45	0.0418	
		14:45	0.0416	
		16:45	0.041	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

17/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	17/3/2022	9:30	0.042	
		14:30	0.0413	
		16:30	0.0417	
Pit A	17/3/2022	10:00		
		15:00		
		17:00		
Pit B	17/3/2022	10:15		
		15:15		
		17:15		
Pit D	17/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

17/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	18/3/2022	8:30	0.0411	
		13:30	0.0419	
		15:30	0.0415	
Area B	18/3/2022	8:45	0.0416	
		13:45	0.0413	
		15:45	0.0415	
137 Pit C	18/3/2022	9:15	0.0412	
		14:15	0.041	
		16:15	0.0412	
137 Pit B	18/3/2022	9:00	0.0419	
		14:00	0.041	
		16:00	0.0414	
137 Pit A	18/3/2022	9:20	0.0419	
		14:20	0.0412	
		16:20	0.0415	
WPR WF3	18/3/2022	9:45	0.0416	
		14:45	0.0417	
		16:45	0.0411	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

18/3/2022



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	18/3/2022	9:30	0.0416	
		14:30	0.0419	
		16:30	0.0419	
Pit A	18/3/2022	10:00		
		15:00		
		17:00		
Pit B	18/3/2022	10:15		
		15:15		
		17:15		
Pit D	18/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

18/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	19/3/2022	8:30	0.0415	
		13:30	0.0414	
		15:30	0.0412	
Area B	19/3/2022	8:45	0.041	
		13:45	0.0419	
		15:45	0.0415	
137 Pit C	19/3/2022	9:15	0.0415	
		14:15	0.041	
		16:15	0.042	
137 Pit B	19/3/2022	9:00	0.0413	
		14:00	0.042	
		16:00	0.0412	
137 Pit A	19/3/2022	9:20	0.0416	
		14:20	0.0416	
		16:20	0.0416	
WPR WF3	19/3/2022	9:45	0.0411	
		14:45	0.0411	
		16:45	0.0414	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

19/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	19/3/2022	9:30	0.0411	
		14:30	0.0414	
		16:30	0.0411	
Pit A	19/3/2022	10:00		
		15:00		
		17:00		
Pit B	19/3/2022	10:15		
		15:15		
		17:15		
Pit D	19/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

19/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	21/3/2022	8:30	0.0414	
		13:30	0.0417	
		15:30	0.0418	
Area B	21/3/2022	8:45	0.0414	
		13:45	0.041	
		15:45	0.0412	
137 Pit C	21/3/2022	9:15	0.0419	
		14:15	0.0414	
		16:15	0.0414	
137 Pit B	21/3/2022	9:00	0.0419	
		14:00	0.042	
		16:00	0.0417	
137 Pit A	21/3/2022	9:20	0.0414	
		14:20	0.0411	
		16:20	0.0416	
WPR WF3	21/3/2022	9:45	0.0416	
		14:45	0.0419	
		16:45	0.0411	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

21/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	21/3/2022	9:30	0.0414	
		14:30	0.042	
		16:30	0.0417	
Pit A	21/3/2022	10:00		
		15:00		
		17:00		
Pit B	21/3/2022	10:15		
		15:15		
		17:15		
Pit D	21/3/2022	10:15		
		15:15		
		17:15		

Field Operator: \_\_\_\_\_ Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_ Date 21/3/2022  
Laboratory Staff: \_\_\_\_\_  
Checked by: \_\_\_\_\_

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	22/3/2022	8:30	0.0419	
		13:30	0.0411	
		15:30	0.0414	
Area B	22/3/2022	8:45	0.0419	
		13:45	0.041	
		15:45	0.0412	
137 Pit C	22/3/2022	9:15	0.042	
		14:15	0.0415	
		16:15	0.0417	
137 Pit B	22/3/2022	9:00	0.0412	
		14:00	0.0417	
		16:00	0.0414	
137 Pit A	22/3/2022	9:20	0.0412	
		14:20	0.0414	
		16:20	0.0417	
WPR WF3	22/3/2022	9:45	0.0415	
		14:45	0.0417	
		16:45	0.0415	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

22/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	22/3/2022	9:30	0.0418	
		14:30	0.0417	
		16:30	0.0417	
Pit A	22/3/2022	10:00		
		15:00		
		17:00		
Pit B	22/3/2022	10:15		
		15:15		
		17:15		
Pit D	22/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

22/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	23/3/2022	8:30	0.0414	
		13:30	0.0418	
		15:30	0.0411	
Area B	23/3/2022	8:45	0.0412	
		13:45	0.0411	
		15:45	0.0412	
137 Pit C	23/3/2022	9:15	0.0414	
		14:15	0.0413	
		16:15	0.0414	
137 Pit B	23/3/2022	9:00	0.042	
		14:00	0.0412	
		16:00	0.0413	
137 Pit A	23/3/2022	9:20	0.0418	
		14:20	0.0415	
		16:20	0.0417	
WPR WF3	23/3/2022	9:45	0.0413	
		14:45	0.0416	
		16:45	0.0413	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

23/3/2022



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	23/3/2022	9:30	0.0419	
		14:30	0.0413	
		16:30	0.0413	
Pit A	23/3/2022	10:00		
		15:00		
		17:00		
Pit B	23/3/2022	10:15		
		15:15		
		17:15		
Pit D	23/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

23/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	24/3/2022	8:30	0.042	
		13:30	0.0415	
		15:30	0.0415	
Area B	24/3/2022	8:45	0.0412	
		13:45	0.0419	
		15:45	0.0414	
137 Pit C	24/3/2022	9:15	0.0417	
		14:15	0.0417	
		16:15	0.042	
137 Pit B	24/3/2022	9:00	0.0411	
		14:00	0.0412	
		16:00	0.0414	
137 Pit A	24/3/2022	9:20	0.0411	
		14:20	0.0416	
		16:20	0.0417	
WPR WF3	24/3/2022	9:45	0.0415	
		14:45	0.0418	
		16:45	0.0415	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

24/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	24/3/2022	9:30	0.0413	
		14:30	0.0419	
		16:30	0.0413	
Pit A	24/3/2022	10:00		
		15:00		
		17:00		
Pit B	24/3/2022	10:15		
		15:15		
		17:15		
Pit D	24/3/2022	10:15		
		15:15		
		17:15		

Field Operator: \_\_\_\_\_ Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_ Date 24/3/2022  
Laboratory Staff: \_\_\_\_\_  
Checked by: \_\_\_\_\_

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	25/3/2022	8:30	0.0417	
		13:30	0.042	
		15:30	0.0411	
Area B	25/3/2022	8:45	0.042	
		13:45	0.0417	
		15:45	0.0411	
137 Pit C	25/3/2022	9:15	0.0417	
		14:15	0.0418	
		16:15	0.0414	
137 Pit B	25/3/2022	9:00	0.0419	
		14:00	0.0418	
		16:00	0.0417	
137 Pit A	25/3/2022	9:20	0.0411	
		14:20	0.0419	
		16:20	0.0414	
WPR WF3	25/3/2022	9:45	0.0419	
		14:45	0.0416	
		16:45	0.0413	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

25/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	25/3/2022	9:30	0.0414	
		14:30	0.0419	
		16:30	0.0416	
Pit A	25/3/2022	10:00		
		15:00		
		17:00		
Pit B	25/3/2022	10:15		
		15:15		
		17:15		
Pit D	25/3/2022	10:15		
		15:15		
		17:15		

Field Operator: \_\_\_\_\_ Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_ Date 25/3/2022  
Laboratory Staff: \_\_\_\_\_  
Checked by: \_\_\_\_\_

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	26/3/2022	8:30	0.0413	
		13:30	0.041	
		15:30	0.042	
Area B	26/3/2022	8:45	0.0417	
		13:45	0.042	
		15:45	0.0416	
137 Pit C	26/3/2022	9:15	0.0417	
		14:15	0.0414	
		16:15	0.0411	
137 Pit B	26/3/2022	9:00	0.0416	
		14:00	0.0415	
		16:00	0.0411	
137 Pit A	26/3/2022	9:20	0.0415	
		14:20	0.0415	
		16:20	0.0413	
WPR WF3	26/3/2022	9:45	0.0413	
		14:45	0.042	
		16:45	0.041	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

26/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	26/3/2022	9:30	0.0416	
		14:30	0.0416	
		16:30	0.041	
Pit A	26/3/2022	10:00		
		15:00		
		17:00		
Pit B	26/3/2022	10:15		
		15:15		
		17:15		
Pit D	26/3/2022	10:15		
		15:15		
		17:15		

Field Operator: \_\_\_\_\_ Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_ Date 26/3/2022  
Laboratory Staff: \_\_\_\_\_  
Checked by: \_\_\_\_\_

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	28/3/2022	8:30	0.0411	
		13:30	0.042	
		15:30	0.041	
Area B	28/3/2022	8:45	0.0414	
		13:45	0.0412	
		15:45	0.042	
137 Pit C	28/3/2022	9:15	0.0417	
		14:15	0.0413	
		16:15	0.0411	
137 Pit B	28/3/2022	9:00	0.0414	
		14:00	0.0416	
		16:00	0.0418	
137 Pit A	28/3/2022	9:20	0.0416	
		14:20	0.0413	
		16:20	0.0412	
WPR WF3	28/3/2022	9:45	0.0413	
		14:45	0.0419	
		16:45	0.0412	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

28/3/2022



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	28/3/2022	9:30	0.0417	
		14:30	0.041	
		16:30	0.041	
Pit A	28/3/2022	10:00		
		15:00		
		17:00		
Pit B	28/3/2022	10:15		
		15:15		
		17:15		
Pit D	28/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

28/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	29/3/2022	8:30	0.0418	
		13:30	0.0414	
		15:30	0.0419	
Area B	29/3/2022	8:45	0.0414	
		13:45	0.0416	
		15:45	0.0412	
137 Pit C	29/3/2022	9:15	0.0419	
		14:15	0.0417	
		16:15	0.0412	
137 Pit B	29/3/2022	9:00	0.0412	
		14:00	0.0417	
		16:00	0.0417	
137 Pit A	29/3/2022	9:20	0.0417	
		14:20	0.0418	
		16:20	0.041	
WPR WF3	29/3/2022	9:45	0.0412	
		14:45	0.0414	
		16:45	0.0411	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

29/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	29/3/2022	9:30	0.0417	
		14:30	0.042	
		16:30	0.0413	
Pit A	29/3/2022	10:00		
		15:00		
		17:00		
Pit B	29/3/2022	10:15		
		15:15		
		17:15		
Pit D	29/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

29/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultIRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	30/3/2022	8:30	0.041	
		13:30	0.0413	
		15:30	0.041	
Area B	30/3/2022	8:45	0.0415	
		13:45	0.042	
		15:45	0.042	
137 Pit C	30/3/2022	9:15	0.0419	
		14:15	0.0414	
		16:15	0.0413	
137 Pit B	30/3/2022	9:00	0.0413	
		14:00	0.041	
		16:00	0.041	
137 Pit A	30/3/2022	9:20	0.0416	
		14:20	0.0419	
		16:20	0.0411	
WPR WF3	30/3/2022	9:45	0.0416	
		14:45	0.0412	
		16:45	0.042	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

30/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	30/3/2022	9:30	0.042	
		14:30	0.0416	
		16:30	0.0411	
Pit A	30/3/2022	10:00		
		15:00		
		17:00		
Pit B	30/3/2022	10:15		
		15:15		
		17:15		
Pit D	30/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

30/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
Area A	31/3/2022	8:30	0.0419	
		13:30	0.0416	
		15:30	0.0418	
Area B	31/3/2022	8:45	0.0419	
		13:45	0.0415	
		15:45	0.0417	
137 Pit C	31/3/2022	9:15	0.0414	
		14:15	0.0411	
		16:15	0.0418	
137 Pit B	31/3/2022	9:00	0.0416	
		14:00	0.0413	
		16:00	0.0418	
137 Pit A	31/3/2022	9:20	0.0415	
		14:20	0.0419	
		16:20	0.0415	
WPR WF3	31/3/2022	9:45	0.041	
		14:45	0.042	
		16:45	0.0414	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

31/3/2022

Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

**Landfill Gas Monitoring - Field Measurement Recording Sheet**

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission	Remark
			Carbon Dioxide (%)	
WRP WF4	31/3/2022	9:30	0.041	
		14:30	0.0412	
		16:30	0.042	
Pit A	31/3/2022	10:00		
		15:00		
		17:00		
Pit B	31/3/2022	10:15		
		15:15		
		17:15		
Pit D	31/3/2022	10:15		
		15:15		
		17:15		

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

31/3/2022

# Appendix K

## Complaint Log and Regulatory Compliance Proforma



**Table K-1 Statistical Summary of Environmental Complaints**

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 31 March 2022	0	3	N/A

**Table K-2 Statistical Summary of Environmental Summons**

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 – 31 March 2022	0	0	N/A

**Table K-3 Statistical Summary of Environmental Prosecution**

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 – 31 March 2022	0	0	N/A

# Appendix L

## Site Inspection Proforma



**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

**WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST**

Inspection Date: 3/3/2022  
 Inspection Time: 09:30 - 11:00

Inspected by: ET: Howard Chan WSD: Mr. Eric Tse  
 Contractor: Mr. Sam Ng IEC: \_\_\_\_\_

Weather							
Condition	<input checked="" type="checkbox"/> Sunny	<input type="checkbox"/> Fine	<input type="checkbox"/> Overcast	<input type="checkbox"/> Drizzle	<input type="checkbox"/> Rain	<input type="checkbox"/> Storm	<input type="checkbox"/> Hazy
Temperature	<input type="text" value="20"/> C		Humidity	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Moderate	<input type="checkbox"/> Low	
Wind	<input type="checkbox"/> Calm	<input checked="" type="checkbox"/> Light	<input type="checkbox"/> Breeze	<input type="checkbox"/> Strong			

		N/A	Yes	No	Photo/Remarks
<b>0.00</b>	<b>General</b>				
0.01	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
0.02	Is ET Leader's log-book kept readily available for inspections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
<b>1.00</b>	<b>Construction Dust</b>				
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.05	Is wheel-washing provided to all vehicles leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.06	Are road section near the site exit free from dusty material?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.11	Is exposed earth properly treated within six months after the last construction activity on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.12	Does the operation of plants on site free form dark smoke emission?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.14	Are stock of more than 20 bags of cement or dry PFA covered or sheltered on top and 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.15	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.17	Is open burning prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
<b>2.00</b>	<b>Construction Noise (Airborne)</b>				
2.01	Are quiet plants adopted on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.03	Are plants throttled down or turned off when not in use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.06	Are silencers, mufflers and enclosures provided to plants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.12	Are all construction noise permit(s) applied for percussive piling work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
<b>3.00</b>	<b>Water Quality</b>				
3.01	Is effluent discharge license obtained for wastewater discharge from site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.02	Is effluent discharged according to the effluent discharge license?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
3.03	Is wastewater discharge from site properly treated prior to discharge?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____



**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.06	Is surface runoff diverted to sedimentation facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.07	Is the drainage system properly maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 2
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.10	Are temporary access roads protected by crushed gravel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.11	Are exposed slope surface properly protected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 1
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.14	Is runoff from wheel-washing facilities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.15	Is oil leakage or spillage prevented?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	obs 1
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.17	Are the oil interceptors/ grease traps properly maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.23	Is concrete washing water properly collected and treated prior to discharge?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>4.00</b>	<b>Waste Management</b>				
4.01	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.03	Is the Contractor registered as a chemical waste producer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.05	Are trip tickets for chemical waste disposal available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.06	Is chemical waste reused and recycled on site as far as practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.07	Are all containers for chemical waste properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.09	Are incompatible chemical wastes stored in different areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.11	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Reminder</i>
4.13	Are sufficient general refuse disposal/collection points provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.14	Is general refuse disposed of properly and regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Reminder</i>
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.17	Are C&D wastes sorted on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.18	Are C&D waste disposed of properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.22	Is a dumping license obtained to deliver public fill to public filling areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	



**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
<b>5.00</b>	<b>Landscape and Visual</b>				
5.01	Are Is site boardng provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5.03	Is construction light oriented away from the sensitive receivers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.05	Are damages to trees outside site boundary due construction works avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5.08	Are surgery works carried out for damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>6.00</b>	<b>Ecology</b>				
6.01	Is site runoff properly treated to prevent any silly runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6.02	Are silt trap installed and well-maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6.03	Are stockpiles properly covered to avoid generating silty runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6.04	Are construction works restricted to works area which are clearly defined?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
<b>7.00</b>	<b>Overall</b>				
7.01	Is the EM&A properly implemented in general?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Reminder:


1. Proper maintain the impervious materials at: slop surface to reduce dust ~~generation~~ <sup>and</sup> generation. (Pit X)
2. House keeping should be improved on site (Po Lam road location A)
3. Storm drainage near the excavation area should be covered properly (Po Lam south road)

Observation:


1. Clear the oil stain on ground, and avoid oil leakage from excavator. (Po Lam south road)

**Signatures:**


ET  
Representative

  
(Name: Howard Chan)

Contractor's  
Representative

  
(Name: Sam Ng )

WSD's  
Representative

  
(Name: Eric Lee )

IEC's  
Representative

\_\_\_\_\_  
(Name: )



Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 11/3/2022 Inspected by: ET: Howard Chen WSD: Mr. Eric Lee  
 Inspection Time: 09:30-11:30 Contractor: Mr. Sam Ng IEC: \_\_\_\_\_

Weather							
Condition	<input checked="" type="checkbox"/> Sunny	<input type="checkbox"/> Fine	<input type="checkbox"/> Overcast	<input type="checkbox"/> Drizzle	<input type="checkbox"/> Rain	<input type="checkbox"/> Storm	<input type="checkbox"/> Hazy
Temperature	<input type="checkbox"/> 28	C	Humidity	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Moderate	<input type="checkbox"/> Low	
Wind	<input checked="" type="checkbox"/> Calm	<input type="checkbox"/> Light	<input type="checkbox"/> Breeze	<input type="checkbox"/> Strong			

		N/A	Yes	No	Photo/Remarks
<b>0.00</b>	<b>General</b>				
0.01	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
0.02	Is ET Leader's log-book kept readily available for inspections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>1.00</b>	<b>Construction Dust</b>				
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>obs 2</u>
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.05	Is wheel-washing provided to all vehicles leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.06	Are road section near the site exit free from dusty material?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.11	Is exposed earth properly treated within six months after the last construction activity on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.12	Does the operation of plants on site free form dark smoke emission?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

## Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.17	Is open burning prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>2.00</b>	<b>Construction Noise (Airborne)</b>				
2.01	Are quiet plants adopted on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Reminder 1</i>
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.03	Are plants throttled down or turned off when not in use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.06	Are silencers, mufflers and enclosures provided to plants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.12	Are all construction noise permit(s) applied for percussive piling work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>3.00</b>	<b>Water Quality</b>				
3.01	Is effluent discharge license obtained for wastewater discharge from site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.02	Is effluent discharged according to the effluent discharge license?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.03	Is wastewater discharge from site properly treated prior to discharge?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.06	Is surface runoff diverted to sedimentation facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.07	Is the drainage system properly maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.10	Are temporary access roads protected by crushed gravel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.11	Are exposed slope surface properly protected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.14	Is runoff from wheel-washing facilities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.15	Is oil leakage or spillage prevented?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	abs l
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.17	Are the oil interceptors/ grease traps properly maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.23	Is concrete washing water properly collected and treated prior to discharge?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>4.00</b>	<b>Waste Management</b>				
4.01	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.03	Is the Contractor registered as a chemical waste producer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.05	Are trip tickets for chemical waste disposal available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.06	Is chemical waste reused and recycled on site as far as practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.07	Are all containers for chemical waste properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.09	Are incompatible chemical wastes stored in different areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.11	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.13	Are sufficient general refuse disposal/collection points provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.14	Is general refuse disposed of properly and regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.17	Are C&D wastes sorted on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.18	Are C&D waste disposed of properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.22	Is a dumping license obtained to deliver public fill to public filling areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
<b>5.00</b>	<b>Landscape and Visual</b>				
5.01	Are Is site hoarding provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.03	Is construction light oriented away from the sensitive receivers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.05	Are damages to trees outside site boundary due construction works avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 2
5.08	Are surgery works carried out for damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>6.00</b>	<b>Ecology</b>				
6.01	Is site runoff properly treated to prevent any silty runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.02	Are silt trap installed and well-maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.03	Are stockpiles properly covered to avoid generating silty runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.04	Are construction works restricted to works area which are clearly defined?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>7.00</b>	<b>Overall</b>				
7.01	Is the EM&A properly implemented in general?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	



Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

RED  
1  
WSD W4  
1  
Area A  
1  
Velodrome M

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Observation:

1. Drip tray should be provided for chemical storage (Wan Po road workfront 4)
2. Stockpile of dusty materials should be covered properly with improvius materials at Area A.

Reminder:

1. NRM label was observed faded. Contractor was reminded to replace ~~at~~ ~~the~~ the NRM label.
2. To avoid stockpile of construction ~~mat~~ materials inside the tree protection zone at Velodrome M.

Signatures:

ET Representative

(Name: Howard Chan)

Contractor's Representative

(Name: Sam Ng)

WSD's Representative

(Name: )

IEC's Representative

(Name: )

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 18/3/2022 Inspected by: ET: Hawgood Chan WSD: \_\_\_\_\_  
 Contractor: Mr Sun Ng IEC: \_\_\_\_\_  
 Inspection Time: 9:30 - 11:30

Weather							
Condition	<input checked="" type="checkbox"/> Sunny	<input type="checkbox"/> Fine	<input type="checkbox"/> Overcast	<input type="checkbox"/> Drizzle	<input type="checkbox"/> Rain	<input type="checkbox"/> Storm	<input type="checkbox"/> Hazy
Temperature	<input type="checkbox"/> 25	C	Humidity	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Moderate	<input type="checkbox"/> Low	
Wind	<input type="checkbox"/> Calm	<input checked="" type="checkbox"/> Light	<input type="checkbox"/> Breeze	<input type="checkbox"/> Strong			

		N/A	Yes	No	Photo/Remarks
<b>0.00</b>	<b>General</b>				
0.01	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
0.02	Is ET Leader's log-book kept readily available for inspections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>1.00</b>	<b>Construction Dust</b>				
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.05	Is wheel-washing provided to all vehicles leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.06	Are road section near the site exit free from dusty material?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.11	Is exposed earth properly treated within six months after the last construction activity on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.12	Does the operation of plants on site free form dark smoke emission?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

## Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.17	Is open burning prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>2.00</b>	<b>Construction Noise (Airborne)</b>				
2.01	Are quiet plants adopted on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.03	Are plants throttled down or turned off when not in use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.06	Are silencers, mufflers and enclosures provided to plants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.12	Are all construction noise permit(s) applied for percussive piling work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>3.00</b>	<b>Water Quality</b>				
3.01	Is effluent discharge license obtained for wastewater discharge from site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.02	Is effluent discharged according to the effluent discharge license?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	absent
3.03	Is wastewater discharge from site properly treated prior to discharge?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	absent



**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.06	Is surface runoff diverted to sedimentation facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.07	Is the drainage system properly maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.10	Are temporary access roads protected by crushed gravel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.11	Are exposed slope surface properly protected?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.14	Is runoff from wheel-washing facilities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.15	Is oil leakage or spillage prevented?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	obs 1
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.17	Are the oil interceptors/ grease traps properly maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 3
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.23	Is concrete washing water properly collected and treated prior to discharge?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>4.00</b>	<b>Waste Management</b>				
4.01	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.03	Is the Contractor registered as a chemical waste producer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.05	Are trip tickets for chemical waste disposal available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.06	Is chemical waste reused and recycled on site as far as practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.07	Are all containers for chemical waste properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.09	Are incompatible chemical wastes stored in different areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.11	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 3
4.13	Are sufficient general refuse disposal/collection points provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.14	Is general refuse disposed of properly and regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 2
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.17	Are C&D wastes sorted on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.18	Are C&D waste disposed of properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.22	Is a dumping license obtained to deliver public fill to public filling areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
<b>5.00</b>	<b>Landscape and Visual</b>				
5.01	Are Is site hoarding provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.03	Is construction light oriented away from the sensitive receivers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.05	Are damages to trees outside site boundary due construction works avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 2/1
5.08	Are surgery works carried out for damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>6.00</b>	<b>Ecology</b>				
6.01	Is site runoff properly treated to prevent any silly runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.02	Are silt trap installed and well-maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.03	Are stockpiles properly covered to avoid generating silty runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.04	Are construction works restricted to works area which are clearly defined?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>7.00</b>	<b>Overall</b>				
7.01	Is the EM&A properly implemented in general?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	





Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 24/3/2022  
 Inspection Time: 9:45-10:15

Inspected by: ET: Howard Chan  
 Contractor: Mr Sam Ng

WSD: Mr K.C. Tee  
 IEC: Mr Javis Kwan

Weather							
Condition	<input type="checkbox"/> Sunny	<input type="checkbox"/> Fine	<input type="checkbox"/> Overcast	<input type="checkbox"/> Drizzle	<input checked="" type="checkbox"/> Rain	<input type="checkbox"/> Storm	<input type="checkbox"/> Hazy
Temperature	<u>20</u> C	Humidity	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Moderate	<input type="checkbox"/> Low		
Wind	<input checked="" type="checkbox"/> Calm	<input type="checkbox"/> Light	<input type="checkbox"/> Breeze	<input type="checkbox"/> Strong			

		N/A	Yes	No	Photo/Remarks
<b>0.00</b>	<b>General</b>				
0.01	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
0.02	Is ET Leader's log-book kept readily available for inspections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>1.00</b>	<b>Construction Dust</b>				
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.05	Is wheel-washing provided to all vehicles leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.06	Are road section near the site exit free from dusty material?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.11	Is exposed earth properly treated within six months after the last construction activity on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.12	Does the operation of plants on site free form dark smoke emission?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	



**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.14	Are stock of more than 20 bags of cement or dry PFA covered or sheltered on top and 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.17	Is open burning prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>2.00</b>	<b>Construction Noise (Airborne)</b>				
2.01	Are quiet plants adopted on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder!
2.03	Are plants throttled down or turned off when not in use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.06	Are silencers, mufflers and enclosures provided to plants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.12	Are all construction noise permit(s) applied for percussive piling work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>3.00</b>	<b>Water Quality</b>				
3.01	Is effluent discharge license obtained for wastewater discharge from site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.02	Is effluent discharged according to the effluent discharge license?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.03	Is wastewater discharge from site properly treated prior to discharge?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	



**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.06	Is surface runoff diverted to sedimentation facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.07	Is the drainage system properly maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	obs 2
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.10	Are temporary access roads protected by crushed gravel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.11	Are exposed slope surface properly protected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.14	Is runoff from wheel-washing facilities avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.15	Is oil leakage or spillage prevented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.17	Are the oil interceptors/ grease traps properly maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	obs 2
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.23	Is concrete washing water properly collected and treated prior to discharge?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>4.00</b>	<b>Waste Management</b>				
4.01	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

## Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

		N/A	Yes	No	Photo/Remarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.03	Is the Contractor registered as a chemical waste producer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.05	Are trip tickets for chemical waste disposal available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.06	Is chemical waste reused and recycled on site as far as practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.07	Are all containers for chemical waste properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.09	Are incompatible chemical wastes stored in different areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	obs 1
4.11	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	obs 2
4.13	Are sufficient general refuse disposal/collection points provided on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.14	Is general refuse disposed of properly and regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder <sup>W</sup>
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.17	Are C&D wastes sorted on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.18	Are C&D waste disposed of properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.22	Is a dumping license obtained to deliver public fill to public filling areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	





**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
<b>5.00</b>	<b>Landscape and Visual</b>				
5.01	Are Is site hoarding provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5.03	Is construction light oriented away from the sensitive receivers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.05	Are damages to trees outside site boundary due construction works avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
5.08	Are surgery works carried out for damaged trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<b>6.00</b>	<b>Ecology</b>				
6.01	Is site runoff properly treated to prevent any silty runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6.02	Are silt trap installed and well-maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6.03	Are stockpiles properly covered to avoid generating silty runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
6.04	Are construction works restricted to works area which are clearly defined?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
<b>7.00</b>	<b>Overall</b>				
7.01	Is the EM&A properly implemented in general?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____



**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Observation:


1. Chemical waste should be stored at a designated area before disposal (Creative school)
2. Excavated material (rubbish) should be disposed properly and preventing any soil entering the stream. (Creative school)

Reminder:


1. To replace the faded NRM99 Label. (Creative school) p.e. WPR1
2. General refuse should be disposed of properly. (~~Creative school~~)
3. Contractor was reminded to clear the stagnant water in drip tray after raining. (Creative school)

**Signatures:**


ET Representative

  
(Name: Howard Chan)


Contractor's Representative

  
(Name: Sam Ng)

WSD's Representative

  
(Name: Le Ka Chun)  
AWZ (C.I.)

IEC's Representative

  
(Name: Louis Kwam)



**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

**WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST**

Inspection Date: 30/8/2022 Inspected by: ET: Hawood Chen WSD: Mr. K.C. Tse  
 Inspection Time: 09:30 - 11:15 Contractor: Mr. Sam Ng IEC: \_\_\_\_\_

Weather							
Condition	<input checked="" type="checkbox"/> Sunny	<input type="checkbox"/> Fine	<input type="checkbox"/> Overcast	<input type="checkbox"/> Drizzle	<input type="checkbox"/> Rain	<input type="checkbox"/> Storm	<input type="checkbox"/> Hazy
Temperature	<input type="checkbox"/> _____ C	Humidity	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Moderate	<input type="checkbox"/> Low		
Wind	<input checked="" type="checkbox"/> Calm	<input type="checkbox"/> Light	<input type="checkbox"/> Breeze	<input type="checkbox"/> Strong			

		N/A	Yes	No	Photo/Remarks
<b>0.00</b>	<b>General</b>				
0.01	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
0.02	Is ET Leader's log-book kept readily available for inspections?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
<b>1.00</b>	<b>Construction Dust</b>				
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.05	Is wheel-washing provided to all vehicles leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.06	Are road section near the site exit free from dusty material?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.11	Is exposed earth properly treated within six months after the last construction activity on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
1.12	Does the operation of plants on site free form dark smoke emission?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.15	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.17	Is open burning prohibited?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>2.00</b>	<b>Construction Noise (Airborne)</b>				
2.01	Are quiet plants adopted on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.02	Are the PME's operating on site well-maintained to minimize the generation of excessive noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.03	Are plants throttled down or turned off when not in use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.06	Are silencers, mufflers and enclosures provided to plants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.07	Are the hoods, cover panels and inspection hatches of PME's closed during operation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.12	Are all construction noise permit(s) applied for percussive piling work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>3.00</b>	<b>Water Quality</b>				
3.01	Is effluent discharge license obtained for wastewater discharge from site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.02	Is effluent discharged according to the effluent discharge license?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.03	Is wastewater discharge from site properly treated prior to discharge?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.06	Is surface runoff diverted to sedimentation facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.07	Is the drainage system properly maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 4
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.10	Are temporary access roads protected by crushed gravel?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.11	Are exposed slope surface properly protected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.14	Is runoff from wheel-washing facilities avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.15	Is oil leakage or spillage prevented?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	obs 1
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.17	Are the oil interceptors/ grease traps properly maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 4
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.23	Is concrete washing water properly collected and treated prior to discharge?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>4.00</b>	<b>Waste Management</b>				
4.01	Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.03	Is the Contractor registered as a chemical waste producer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.05	Are trip tickets for chemical waste disposal available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.06	Is chemical waste reused and recycled on site as far as practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.07	Are all containers for chemical waste properly labelled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.09	Are incompatible chemical wastes stored in different areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.11	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	obs 2, remediate
4.13	Are sufficient general refuse disposal/collection points provided on site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.14	Is general refuse disposed of properly and regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 1
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.17	Are C&D wastes sorted on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.18	Are C&D waste disposed of properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 2
4.22	Is a dumping license obtained to deliver public fill to public filling areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O**

		N/A	Yes	No	Photo/Remarks
<b>5.00</b>	<b>Landscape and Visual</b>				
5.01	Are Is site hoarding provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 3
5.03	Is construction light oriented away from the sensitive receivers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.05	Are damages to trees outside site boundary due construction works avoided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reminder 3
5.08	Are surgery works carried out for damaged trees?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>6.00</b>	<b>Ecology</b>				
6.01	Is site runoff properly treated to prevent any silty runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.02	Are silt trap installed and well-maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.03	Are stockpiles properly covered to avoid generating silty runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.04	Are construction works restricted to works area which are clearly defined?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>7.00</b>	<b>Overall</b>				
7.01	Is the EM&A properly implemented in general?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:

Observation:


1. Drip tray should be provided for chemical storage. (Velodrome)
2. To clear the stagnant water in drip tray. (Velodrome L, M, N)

Reminder:

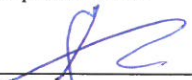
1. General refuse should be disposed of regular and properly. (Velodrome)
2. Housekeeping should be improved on site. (Velodrome L, M, N)
3. To ~~establish~~ establish tree protection zone and avoid stockpile of construction materials inside the tree protection zone (Velodrome L)
4. Storm drain and channels should be cleaned regularly. (Velodrome L, M)

Signatures:


ET  
Representative

  
(Name: )

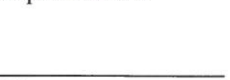
Contractor's  
Representative

  
(Name: Sam Ng.)

WSD's  
Representative

  
(Name: TSE KA CHUN)

IEC's  
Representative

  
(Name: )



# Appendix M

Proactive Environmental Protection  
Proforma

**Proactive Environmental Protection for the Next Reporting Month**

Reporting Period	Activity	Major Environmental Impact	Environmental Mitigation Measure
1 – 30 April 2022	<ul style="list-style-type: none"> <li>- Excavation of trench</li> <li>- Mainlaying of pipe</li> <li>- Backfilling of the trench</li> <li>- Work fronts for open trench</li> <li>- Work fronts for pipe jacking</li> </ul>	Construction dust and noise generation; construction wastes; impact of water quality	<ul style="list-style-type: none"> <li>- Dust suppression by regular wetting and water spraying</li> <li>- Reduction of noise from equipment and machinery on-site</li> <li>- Sorting and storage of general refuse and construction waste</li> <li>- Treatment of water with water treatment facilities before discharge</li> </ul>

# Appendix N

## Impact Monitoring Schedule of Next Reporting Month (Tentative)

Contract No. 13/WSD/16  
Mainlaying in Tseung Kwon O  
Tentative Environmental Monitoring Schedule

Apr-22						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	Noise Impact Monitoring		1	2
3	4	5		7	Noise Impact Monitoring	9
10	11	12	Noise Impact Monitoring	14	15	16
17	18	19		Noise Impact Monitoring	22	23
24	25	26			Noise Impact Monitoring	

The schedule may be changed due to unforeseen circumstances (adverse weather, etc.)

# Appendix O

## Academic Calendar(s)

## CREATIVE SECONDARY SCHOOL CALENDAR 2021-2022

		Su	Mo	Tu	We	Th	Fr	Sa	
August		15	16	17	18	19	20	21	19-20 Orientation Day
		22	23	24	25	26	27	28	23/08 First School Day
		29	30	31					
September					1	2	3	4	
		5	6	7	8	9	10	11	
		12	13	14	15	16	17	18	17/9 Swimming Gala
		19	20	21	22	23	24	25	22/9 The following Day of Mid-Autumn Festival
		26	27	28	29	30			25/9 School Open Day    30/9 1st PD day
October							1	2	1/10 National Day of the People's Republic of China
		3	4	5	6	7	8	9	
		10	11	12	13	14	15	16	14/10 Chung Yeung Festival
		17	18	19	20	21	22	23	15-23/10 Term break
		24	25	26	27	28	29	30	
		31							
November			1	2	3	4	5	6	4/11 University Fair
		7	8	9	10	11	12	13	
		14	15	16	17	18	19	20	15/11 2nd PD Day, 19/11 Sports Day
		21	22	23	24	25	26	27	
		28	29	30					
December					1	2	3	4	
		5	6	7	8	9	10	11	11/12 Musical Performance
		12	13	14	15	16	17	18	17/12 Creative Christmas Festival
		19	20	21	22	23	24	25	25/12 Christmas Holiday. 20/12-3/1 Christmas & New Year Holiday
		26	27	28	29	30	31		27/12 The first weekday after Christmas Day
January								1	1/1 New Year's Day
		2	3	4	5	6	7	8	
		9	10	11	12	13	14	15	
		16	17	18	19	20	21	22	
		23	24	25	26	27	28	29	28/1 Creative Chinese Festival
		30	31						
February				1	2	3	4	5	1-3/2 Chinese Lunar New Year
		6	7	8	9	10	11	12	31/1-9/2 Chinese Lunar New Year Holiday
		13	14	15	16	17	18	19	
		20	21	22	23	24	25	26	
		27	28						
March				1	2	3	4	5	
		6	7	8	9	10	11	12	
		13	14	15	16	17	18	19	12-19/3 Creative Week
		20	21	22	23	24	25	26	
		27	28	29	30	31			
April							1	2	
		3	4	5	6	7	8	9	5/4 Ching Ming Festival
		10	11	12	13	14	15	16	15/4 Good Friday. 16/4 Holy Saturday
		17	18	19	20	21	22	23	18/4 Easter Monday. 15/4-22/4 Easter Holiday.
		24	25	26	27	28	29	30	25/4-03/05 HKDSE Core subjects Exam
May		1	2	3	4	5	6	7	2/5 Labour Day
		8	9	10	11	12	13	14	9/5 Buddha's Birthday
		15	16	17	18	19	20	21	
		22	23	24	25	26	27	28	25/5 School Self-Evaluation Day.
		29	30	31					
				1	2	3	4	5	3/6 Tuen Ng Festival. 2/6 Graduation
June		5	6	7	8	9	10	11	
		12	13	14	15	16	17	18	
		19	20	21	22	23	24	25	
		26	27	28	29	30			30/6 Achievement Celebration
						1	2		01/07 HKSAR Establishment Day
July		3	4	5	6	7	8	9	4/7-14/8 Summer Holiday
		10	11	12	13	14	15	16	
		17	18	19	20	21	22	23	
		24	25	26	27	28	29	30	
		31							
August			1	2	3	4	5	6	
		7	8	9	10	11	12	13	12/08 New Staff Meeting
		14	15	16	17	18	19	20	16-17/08 Staff Meeting
		21	22	23	24	25	26	27	
		28	29	30	31				

School Holiday   
  Public Holiday  
 Staff Development Day