MOTT MACDONALD

Environmental Team Services for Tuen Mun Area 54 Sewage Pumping Station

Operation Phase Fourth Odour Impact Monitoring Report

September 2020

This Fourth Operation Phase Odour Impact Monitoring Report for Tuen Mun Area 54 Sewage Pumping Station has been reviewed, certified by the Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

Certified by:

Ir Thomas CHAN
Environmental Team Leader (ETL)
Mott MacDonald Hong Kong Limited

Date: 6 October 2020

Verified by:

Wai Kwan CHIU
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Date: 6 Oct 2020

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Drainage Services Department

Environmental Team Services for Tuen Mun Area 54 Sewage Pumping Station

Operation Phase Fourth Odour Impact Monitoring Report

September 2020

Mott MacDonald Hong Kong Limited
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Contents

Tables

Figures

Appendices

Executive summary

In November 2018, Mott MacDonald Hong Kong Limited (MMHK) was commissioned by the Drainage Services Department (DSD) under Quotation Ref. DEMP/2018/04 to undertake the duties of Environmental Team (ET) as specified in the Environmental Monitoring and Audit (EM&A) Manual and the EP in relation to the odour impact monitoring for the 12-month operation Tuen Mun Area 54 Sewage Pumping Station (TM54SPS). The Further Environmental Permit (Further Environmental Permit (FEP) No. FEP-01/381/2009) was granted by the Environmental Protection Department (EPD) on 20 February 2018.

The Operation Phase Fourth Odour Impact Monitoring Report presents the results of the 4th impact odour monitoring event for operation phase. With reference to Section 3.2.2 of the First Impact Monitoring Report (i.e. reporting of the first impact odour monitoring event from 26 to 27 November 2019), Single-Tiered Conservative Approach is adopted for interpretation of the impact monitoring results. The 24-hour average H_2S concentration is 2.4 ppb at monitoring station A2, exceeding the Action Level which is 2.3 ppb but complying with the Limit Level which is 2.5 ppb. Exceedance of Action and Limit Level were observed at monitoring station A5. Based on the monitoring data review and site observation during monitoring period, it is considered that the exceedances at A2 and A5 are not project related.

1 Introduction

1.1 Background

In November 2018, Mott MacDonald Hong Kong Limited (MMHK) was commissioned by the Drainage Services Department (DSD) under Quotation Ref. DEMP/2018/04 to undertake the duties of Environmental Team (ET) as specified in the Environmental Monitoring and Audit (EM&A) Manual and the EP in relation to the odour impact monitoring for the 12-month operation Tuen Mun Area 54 Sewage Pumping Station (TM54SPS).

A layout plan of the Project is provided in **Figure 1.1**.

1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix A**.

1.3 Purpose of the Report

The Fourth Odour Impact Monitoring Report (hereinafter as the "this Report") presents the methodology and results of the operation phase 4th impact odour monitoring. The measured impact odour levels are benchmarked with the Action and Limit Level for assessing the impact during operation of the Project.

1.4 Structure of the Report

The structure of this Report is as follows:

- Section 1: Introduction, background, purpose and the structure of the report
- Section 2: Impact odour monitoring requirements and methodology
- Section 3: Impact odour monitoring results and the event and action plan for operation phase
- Section 4: Summary of complaints
- Section 5: Conclusions and recommendations

2 Impact Odour Monitoring Requirements and Methodology

2.1 Introduction

H_2S is one of the main components of odour emissions, which can serve as a surrogate indicator for sewage odour. During operation of TM54SPS, measurements of H_2S concentrations at source and at the selected Air Sensitive Receivers (ASRs) are required. This is to indicate whether the odour concentration would be higher or lower than the baseline condition. The odour level at sources and meteorological data shall be obtained as reference information for the analysis of the exceedance event.

With reference to the EM&A Manual, an impact monitoring of H_2S measurements shall be conducted in the first year of operation upon commissioning of TM54SPS (i.e. construction of TM54SPS was substantially completed in March 2018). As discussed between DSD and EPD, a new arrangement for the odour monitoring locations and level of measurement for the impact odour monitoring had been established. As it was necessary to deal with some of the major technical issues (e.g. review of H_2S measurement method, monitoring locations and level of measurement, etc.) for the impact monitoring, the commencement of the monitoring exercise would be deferred from March 2018 to November 2019. The monitoring location, equipment, methodology and schedule will be discussed in the latter part of this report.

2.2 Monitoring Requirements

In accordance with the EM&A Manual, an operation phase impact odour monitoring programme including odour monitoring stations and methodology was established by ET and agreed with Independent Environmental Checker (IEC) and EPD before commencement of monitoring, which is included in the Method Statement of Odour Impact Monitoring submitted to EPD in November 2019, which is presented in **Appendix B**.

The Event and Action Plan for Air Quality Monitoring (odour) of operational phase stipulated in the EM&A Manual is extracted and presented in **Appendix C**.

2.3 Monitoring Locations

H_2S measurements were taken at the Source and outside the premises of the identified monitoring stations A1, A2 and A5 as shown in **Table 2.1** and **Figure 2.1**.

Table 2.1: Monitoring Locations

Monitoring Station	Monitoring Location	Description of Monitoring Station
A1	Planned Secondary School	ASR
A2	Planned Primary School	ASR
A5	Road Connecting to TMS54SPS*	ASR
SPS	Exhausted Vent Pipe of TMA54SPS	Source

*Alternative monitoring location agreed by DSD, IEC and EPD as presented in the Method Statement of Odour Impact Monitoring submitted to EPD in November 2019.

2.4 Monitoring Equipment

H_2S concentrations were measured using a Jerome 631-X type H_2S analyser. Grab air sample is drawn by built-in suction pump of the analyser and passed through a gold film sensor. The electrical resistance of the gold film changes according to the change in mass of hydrogen sulphide in the gas sample.

Table 2.2 summarizes the equipment used in the impact odour monitoring. Copies of the calibration certificates for the portable H_2S analyser are presented in the technical reports in **Appendix D.**

Table 2.2: Odour Monitoring Equipment

Equipment	Model
Portable H_2S analyser	Jerome X631 0003 (Serial no. 2966)

2.5 Monitoring Methodology

A 15-min H_2S concentration was measured every 3 hours for duration of 24 hours at each of the monitoring locations. According to Section 2.35 of the EM&A Manual, impact odour monitoring was taken at a height of predicted worst level of the receivers in the EIA (i.e. 10m above ground level).

During each odour monitoring event, meteorological data including temperature, relative humidity and wind speed was obtained from the nearest Hong Kong Observatory's Tuen Mun Weather Station.

2.6 Monitoring Schedule

As specified in Section 2.53 of the EM&A Manual, impact odour monitoring shall be conducted every three months of the first year of operation for TM54SPS. The first impact odour monitoring event was conducted from 26 to 27 November 2019, the second impact odour monitoring event was conducted from 18 to 19 February 2020, the third impact odour monitoring event was conducted from 27 to 28 May 2020.

The fourth impact odour monitoring event was originally scheduled to be conducted from 18 to 19 August 2020 but it was cancelled due to adverse weather. In addition, due to the adverse weather predicted for the remaining calendar days of August 2020 and the shortage of time in applying access to TM54SPS, there were no other alternatives available but to postpone the monitoring event. IEC and EPD were being informed for the postpone of the monitoring event. Eventually, the fourth impact odour monitoring was conducted from 2 to 3 September 2020. IEC and EPD are informed for the above arrangement and the email correspondences are provided in **Appendix E**. The monitoring schedule of the impact monitoring events are presented in **Table 2.3**.

Table 2.3: Schedule of Impact Odour Monitoring Events

Event	Scheduled Date
1st Impact Odour Monitoring Event	26 – 27 November 2019 (Completed)
2nd Impact Odour Monitoring Event	18 – 19 February 2020 (Completed)
3rd Impact Odour Monitoring Event	27 – 28 May 2020 (Completed)
4th Impact Odour Monitoring Event	2 – 3 September 2020 (Completed)

3 Impact Monitoring Results and Analysis

3.1 Monitoring Results

The H_2S concentrations, as well as the meteorological data during the fourth impact monitoring event have been presented in the technical report given in **Appendix D**.

Detailed results for the odour monitoring event are presented in the technical reports in **Appendix D**.

3.2 Monitoring Results Analysis

With reference to Section 3.2.2 of the First Impact Monitoring Report (Reporting of the first impact odour monitoring event from 26 to 27 November 2019), Single-Tiered Conservative Approach is adopted for interpretation of the impact monitoring results.

The impact monitoring results are presented in **Table 3.1.**

Table 3.1: Summary of Impact Odour Monitoring Results and Comparison with Action/ Limit Levels

Monitoring Station	Description	24-hour Average H_2S Concentration (ppb)			Exceedance	
		Impact Monitoring Level	Action Level	Limit Level	Action Level	Limit Level
A1	Planned Secondary School	**2.4**	2.5	2.5	No	No
A2	Planned Primary School	**2.4**	2.3	2.5	**Yes**	No
A5	Road connecting to TMA54SPS	**2.8**	2.5	2.5	**Yes**	**Yes**
SPS	Exhausted Vent Pipe of TMA54SPS	2.7	-	-	-	-

The 24-hour average H_2S concentration is 2.4 ppb at monitoring station A2, exceeding the Action Level which is 2.3 ppb but complying with the Limit Level which is 2.5 ppb. Exceedance of Action and Limit Level were observed at monitoring station A5.

3.3 Exceedance Investigation

Regarding the exceedance of Action and Limit Level observed at monitoring station A5 and the exceedance of Action Level at monitoring station A2, a review of monitoring data has been undertaken and our observations are as follows:

<u>Monitoring Station A2</u>

1. At A2, it is observed that 2 out of the 8 sampling events throughout the 24-hours monitoring period, the H_2S concentration at A2 is higher than at Source (SPS);
2. Also, at Sample 2 and 3, the H_2S concentration at A2 is 14-17% higher than at Source (SPS);

3. Under the above observations, it is considered that the Source (SPS) is not the major contributor to H_2S concentration at A2 during Sample 2 and 3, and thus the exceedance at A2 is not project related.
4. Refer to the site observation at A2 during the monitoring period, no significant H_2S source was identified.

Monitoring Station A5

1. At A5, it is observed that 2 of the sampling events throughout the 24-hours monitoring period, the H_2S concentration at A5 is higher than at Source (SPS);
2. Also, at Sample 2 and 3, the H_2S concentration at A5 is 17-57% higher than at Source (SPS);
3. Under the above observations, it is considered that the Source (SPS) is not the major contributor to H_2S concentration at A5 during Sample 2 and 3, and thus the exceedance at A5 is not project related.
4. Refer to the site observation at A5 during the monitoring period, no significant H_2S source was identified.

In addition, a review of site observation throughout the whole monitoring period have been undertaken. As reported by the monitoring personnel, no significant odour was recorded at Source (SPS). Therefore, through the result of monitoring data review together with the site observation, it is considered that the exceedances at A2 and A5 are not project related.

Since the exceedance at A2 and A5 are not project related, therefore, no remedial actions have been recommended. Still, the Incident Report on Action Level or Limit Level Exceedance is prepared and provided in **Appendix F**.

3.3.1 Weather Condition during Impact Monitoring

The weather condition during the impact odour monitoring event was mainly sunny and wind was mainly mild to moderate.

4 Summary of Complaints

4.1 Summary of Complaints

There was no complaint received by ET in relation to the environmental impact received from TMA54SPS operation commencement to end of the 4th impact monitoring event.

5 Conclusions and Recommendations

5.1 Conclusion and Recommendations

The 4th impact odour monitoring was originally scheduled to be carried out on 18 – 19 August 2020 but was cancelled due to the adverse weather. In addition, due to the adverse weather predicted for the remaining calendar days of August 2020 and the shortage of time in applying access to TM54SPS, there were no other alternatives available but to postpone the monitoring event. The 4th impact monitoring was eventually carried out on 2 – 3 September 2020.

Odour monitoring was conducted at three monitoring stations and the Source. A 15-minute H_2S concentration was measured every 3 hours for a duration of 24 hours. All monitoring equipment used were properly calibrated and have valid calibration certificates.

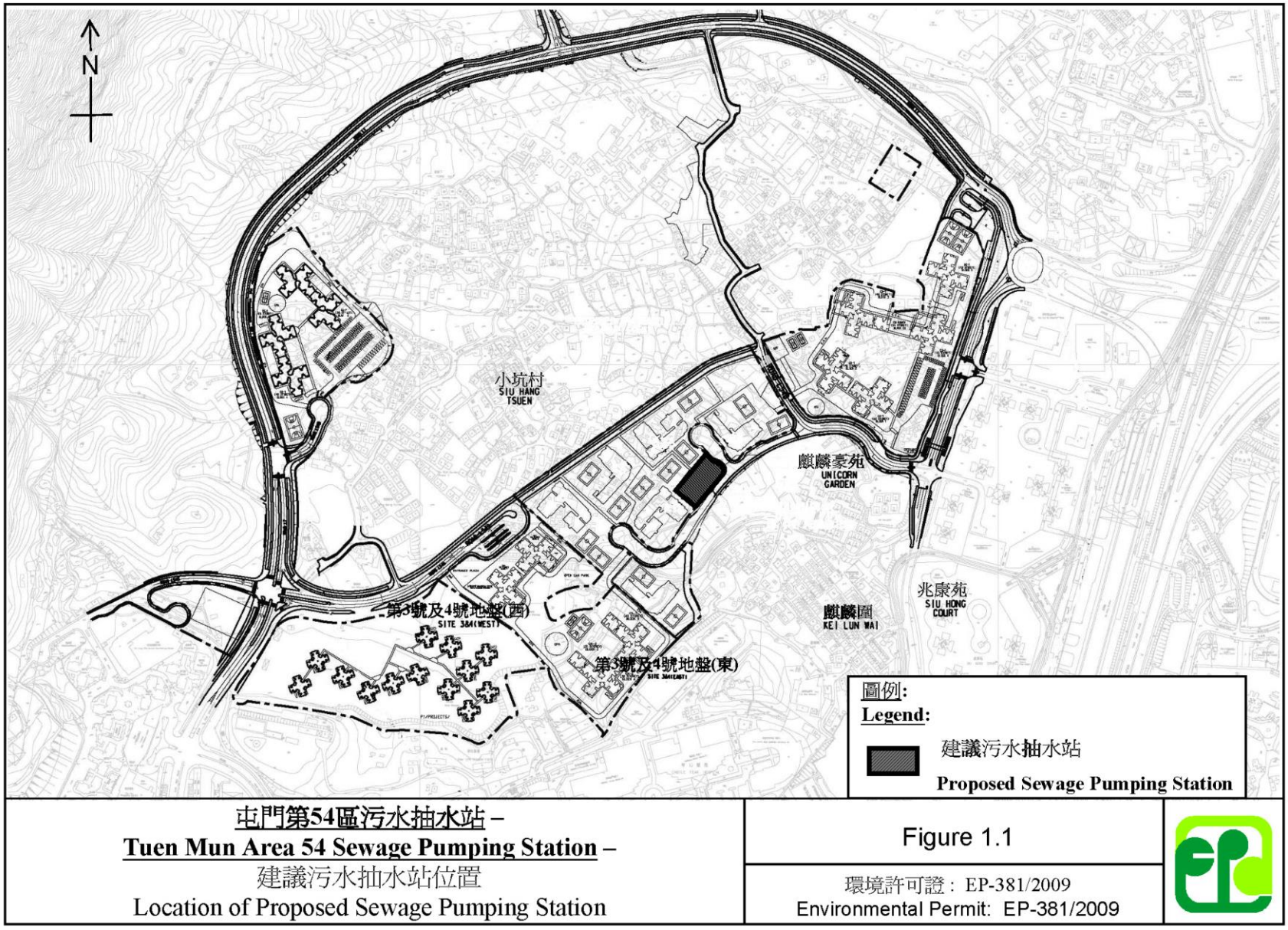
With reference to Section 3.2.2 of the First Impact Monitoring Report (Reporting of the first impact odour monitoring event from 26 to 27 November 2019), Single-Tiered Conservative Approach is adopted for interpretation of the impact monitoring results. The 24-hour average H_2S concentration is 2.4 ppb at monitoring station A2, exceeding the Action Level which is 2.3 ppb but complying with the Limit Level which is 2.5 ppb. Exceedance of Action and Limit Level were observed at monitoring station A5. Based on the monitoring data review and site observation during monitoring period, it is considered that the exceedance at A2 and A5 are not project related. The weather during the 4th impact monitoring was generally sunny and wind was mild to moderate.

No complaints were received by ET in relation to the environmental impact received from TMA54SPS operation commencement to end of the 4th impact monitoring event.

Figures

Figures

Figure1.1: Layout Plan



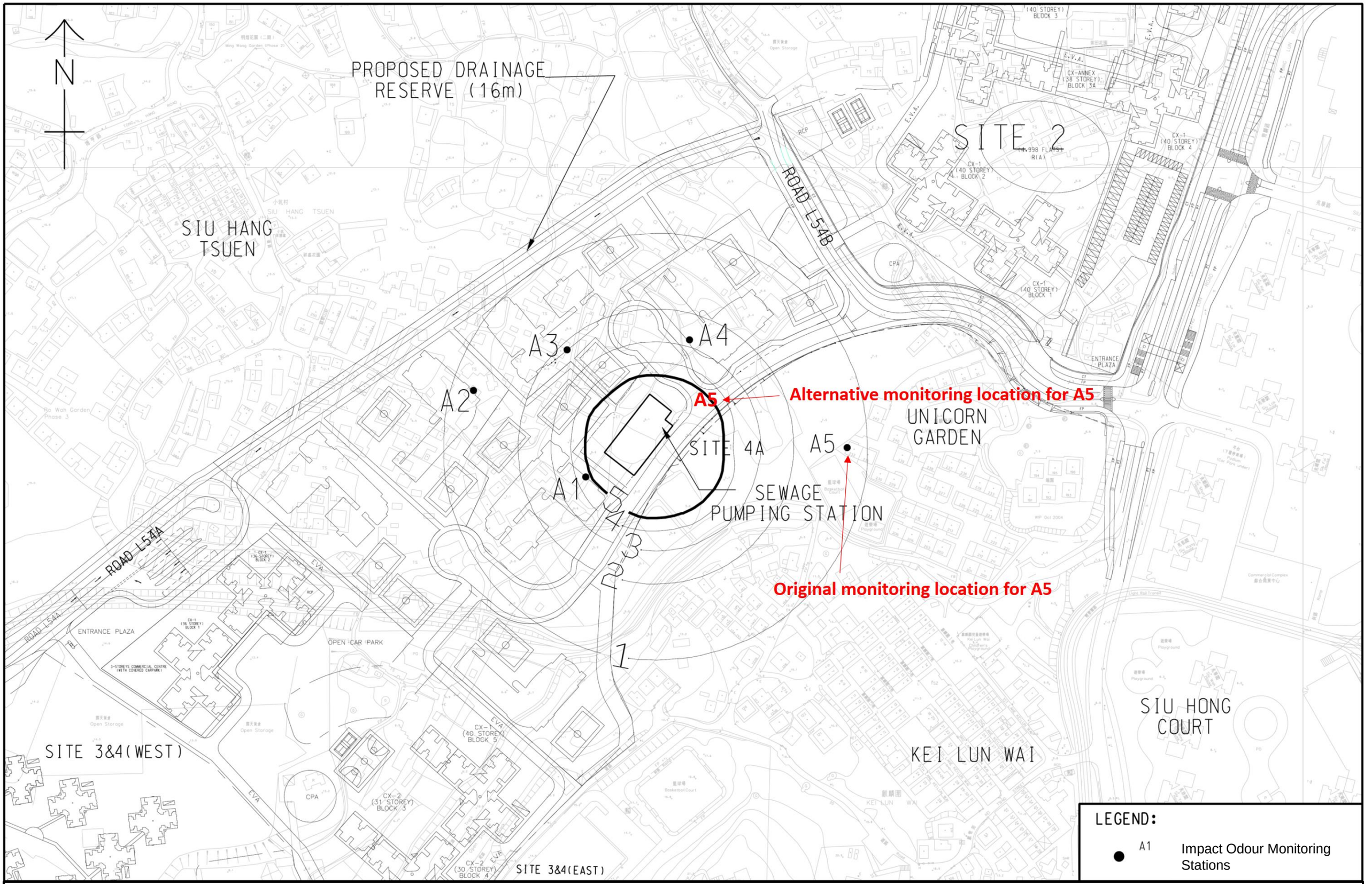


Figure 2.1 Locations of Impact Odour Monitoring Stations

Appendices

A. Project Organisation

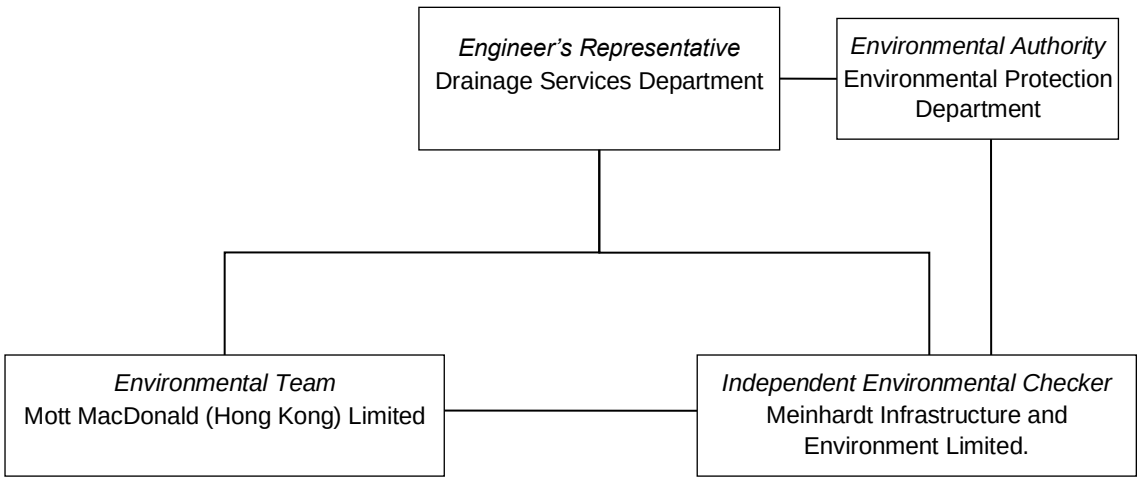


Table A.1: Contact Information

Company / Department	Position	Name	Telephone / Mobile
Drainage Services Department	Engineer's Representative	Mr. Lui Chun-lung, Sam	2594 7306
Meinhardt Infrastructure and Environment Limited	Independent Environmental Checker	Mr. Chiu Wai Kwan	2859 5881
Mott MacDonald (Hong Kong) Ltd.	Environmental Team Leader	Ir Thomas Chan	2828 5967

B. Method Statement of Odour Impact Monitoring

MOTT MACDONALD

Provision of Environmental Team (ET) Services for Tuen Mun Area 54 Sewage Pumping Station

Method Statement of Odour Impact Monitoring

September 2019

Drainage Services Department

This Method Statement of Odour Impact Monitoring for Tuen Mun Area 54 Sewage Pumping Station has been reviewed, certified by the Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

Certified by:

Ir Thomas Chan
Environmental Team Leader (ETL)
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Date: 30 October 2019

Verified by:

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Drainage Services Department

Provision of Environmental Team (ET) Services for Tuen Mun Area 54 Sewage Pumping Station

Method Statement of Odour Impact Monitoring

September 2019

Contents

1 Introduction

1.1 Background

In November 2018, Mott MacDonald Hong Kong Limited (MMHK) was commissioned by the Drainage Services Department (DSD) under Quotation Ref. DEMP/2018/04 to undertake the duties of Environmental Team (ET) as specified in the Environmental Monitoring and Audit (EM&A) Manual and the EP in relation to the odour impact monitoring for the 12-month operation Tuen Mun Area 54 Sewage Pumping Station (TMA54SPS).

1.2 Purpose of the Method Statement

With reference to Section 2.53 of the EM&A Manual (AEIAR-122/2008), Hydrogen Sulphide (H_2S) monitoring programme shall be conducted in the first year upon commissioning of TMA54SPS. This method statement presents the methodology and monitoring requirements for the odour impact monitoring according to the EM&A Manual (AEIAR-122/2008).

1.3 Structure of the Method Statement

The structure of the method statement is as follows:

- Section 1 - Background, purpose and the structure of the proposal;
- Section 2 - Monitoring requirements of odour impact monitoring; and
- Section 3 - Conclusion.

1.4 Abbreviation

The following abbreviations are used in this method statement:

ASRs	Air Sensitive Receivers
DSD	Drainage Services Department
LandsD	Lands Department
ET	Environmental Team
IEC	Independent Environmental Checker
EM&A	Environmental Monitoring and Audit
H_2S	Hydrogen Sulphide
MMHK	Mott MacDonald Hong Kong Limited
TMA54SPS	Tuen Mun Area 54 Sewage Pumping Station

2 Monitoring Requirements

2.1 Background

H_2S is one of the main components of odour emissions, which can serve as a surrogate indicator for sewage odours. During commissioning of TMA54SPS, measurements of H_2S concentrations at source and at the selected ASRs are required. This is to indicate whether the odour concentration would be higher or lower than the baseline condition. The odour level at sources and meteorological data shall be obtained as reference information for the analysis of the exceedance event.

The site measurements of the baseline odour monitoring have been conducted in December 2016, March 2017, August 2017 and February 2018. Taking into account the locations of potential representative sensitive receivers in the vicinity of TMA54SPS during its first year of commissioning, the ET proposed and the IEC agreed to adopt alternative odour monitoring stations (A1 to A4) for the baseline odour monitoring, while the monitoring station of A5 remained unchanged. The measurements were taken from a height of 2m above ground level. The Baseline Odour Monitoring Report has been prepared to present the methodology and the measurement results of the baseline odour monitoring. It also established the Action Levels for the operational phase odour impact monitoring in accordance with Table 2.4 of the Final EM&A Manual of the approved EIA of "Tuen Mun Area 54 Sewage Pumping Station" (TMA54SPS) (hereafter known as EM&A Manual). The Report, with IEC's verification, was submitted to EPD for agreement on 9 April 2018. EPD expressed no objection to the Baseline Odour Monitoring Report on 16 May 2018.

With reference to the EM&A Manual, an impact monitoring of H_2S measurements shall be conducted in the first year of operation upon commissioning of TMA54SPS (i.e. construction of TMA54SPS was substantially completed in March 2018). The monitoring measurement shall be conducted by the ET at the same monitoring stations and levels as in the baseline period (as presented in Table 3-1 of the Baseline Odour Monitoring Report). Further to discussions between DSD and EPD in the past few months, a new arrangement for odour monitoring locations and level of measurement for the impact odour monitoring has been established. As it was necessary to deal with some of the major technical issues (e.g. review of H_2S measurement method, monitoring locations and level of measurement, etc) for the impact odour monitoring, the commencement of the monitoring exercise would be deferred from March 2018 to October 2019. The scheduling of the monitoring programme as well as the new locations of monitoring stations and level of measurement would be discussed in the latter part of this method statement.

2.2 Monitoring Equipment

2.2.1 Monitoring Equipment

Portable H_2S analyser, type Jerome 631-X H_2S, or equivalent will be used for H_2S sampling. The analyser fulfils the following requirements:

- able to measure H_2S concentration in the range of 1ppb to 50ppm, with resolution of 1ppb;
- operates within a temperature range of 0 to 40^{o}C, at an air flow rate of 0.15 L/min; and
- with built-in suction pump to draw air sample and passed through a gold film sensor.

The H_2S concentration is measured by the analyser through drawing a grab air sample by built-in suction pump of a portable H_2S analyser and passed across a gold film sensor.

2.2.2 Conservative Approach on Reading Interpretation

According to the analyser technical specifications as attached in **Appendix A**, it is noticed that the equipment sensitivity is 0.003ppm H_2S, while the detection range is 3 ppb (0.003ppm) – 50 ppm in four graduated ranges. To cope with the uncertainty of reading below 3ppb, a conservative approach on reading interpretation will be adopted.

During the odour impact monitoring, for readings below 3ppb, it will be recorded as in **Table 2.1**.

Table 2.1: Conservative Approach on Reading Interpretation for Readings Below 3ppb

Reading Shown on Analyser	Reading to be Recorded
0 ppb	0.5 ppb
1 ppb	1.5 ppb
2 ppb	2.5 ppb

2.3 Monitoring Parameters, Frequency and Duration

A 15-min H_2S concentration will be measured every 3 hours for duration of 24 hours at the agreed monitoring locations and level of measurement, including at the exhausted vent pipe from deodorizing unit. Monitoring will not be conducted on rainy days.

Besides, hourly meteorological data including temperature, wind speed and direction during the sampling period will be obtained from the nearest Hong Kong Observatory's Tuen Mun Weather Station.

Appendix B shows a sample of Air Quality (H_2S) Monitoring Data Record Sheet.

2.4 Impact Odour Monitoring

In accordance with Section 2.34 of the EM&A Manual, H_2S measurements will be taken at source and outside the premises of the identified ASRs for the impact odour monitoring. As discussed between DSD and EPD, new arrangements for odour monitoring locations and level of measurement for the impact odour monitoring have been established.

Monitoring locations for ASRs and the source are presented in the following paragraphs.

2.4.1 Monitoring Locations for ASRs

For the baseline odour monitoring, it was conducted at the original monitoring location for A5 as given in the EM&A Manual, and the alternative monitoring locations for A1 to A4 which were agreed with the IEC and CEDD and approved by EPD. The measurements were taken from a height of 2m above ground level at the agreed monitoring locations. A plan showing the odour monitoring locations for the baseline odour monitoring is given in **Appendix C.**

However, EPD raised that the odour monitoring stations and level of measurement for the impact odour monitoring should be further reviewed based on the latest site development and locations of potential representative sensitive receivers in the vicinity of TMA54SPS. Having reviewed, the odour measurement for the impact odour monitoring would be taken at a height of 10m above ground level, which is the predicted worst level of the receivers as stated in the EM&A Manual. A truck mounted working platform would be employed for the odour measurement at a height of 10m above ground level. As regards the locations of odour monitoring stations, it is noticed that there are 3 odour monitoring stations selected in the EM&A Manual (i.e. A3-A5) are currently

located in private lots which are not accessible for the ET to conduct the impact odour monitoring at a height of 10m above ground level, while the remaining 2 stations (i.e. A1 and A2) fall within CEDD's construction sites (i.e. Government land). As advised by LandsD (attached in **Appendix D**), the private land resumption (for A3 and A4) are planned to be made in July 2020, while the private land (for A5) will not be resumed. As the monitoring station "A5" which falls within the boundary of private open car park, DSD approached the car park company staff in person in March 2019 to see whether they could give permission for the ET to conduct the odour monitoring at 10m high by using a truck-mounted lifting platform in their car park. However, they turned down our request with a verbal response that any activities other than car parking were not allowed in the car park. As such, the alternative location of odour monitoring station for A5 should be proposed. It is noted that the sites on both sides of the road connecting to TMA54SPS are all private land lots, expect that TMA54SPS and the road itself are on government land. The odour monitoring station “A5” should be relocated to somewhere on the road connecting to TMA54SPS. In addition, according to the contours of odour concentrations at 10m above ground, the original location of A5 is within 1 OU zone which is the furthest measurement point from TMA54SPS. As a prudent approach in determine the alternative location of odour monitoring station for A5, we propose that a new A5 is situated on the road connecting to TMA54SPS at a location within 4 OU zone which is close to TMA54SPS. In view of the land resumption programme, the impact odour monitoring will be spilt into two phases. The 1st phase will include the odour monitoring at the locations A1, A2 and new A5, while A3 and A4 will be included in the 2nd phase after the completion of private land resumption in July 2020. A plan showing the proposed locations of odour monitoring stations for the impact odour monitoring is attached in **Appendix E**.

2.4.2 Monitoring at Source

H_2S measurements will be taken at the exhaust vent pipe from the deodourizing unit to obtain H_2S concentrations at source. The selected location is shown in **Appendix F.**

2.5 Monitoring Programme

As stipulated in Section 2.53 of the EM&A Manual, the H_2S monitoring will be conducted every three months for the first year of operation for TM54SPS. However, due to some major technical issues (e.g. review of H_2S measurement method, monitoring locations and level of measurement, etc), the commencement of the impact odour monitoring was deferred from March 2018 to October 2019. In addition, as discussed between DSD and EPD, measurement results from the impact odour monitoring will be directly compared with that obtained in the baseline odour monitoring without any adjustments/ air modelling applied. If all monitoring results are below the limit levels, the impact monitoring will be ceased. If the monitoring results of detected odour monitoring concentration at any ASR is higher than the limit levels due to operation of the TM54SPS, the odour monitoring will be extended until the odour concentration at the ASR in consecutive 2 times are below the limit levels (once for 3 months). Action and Limit Levels for Air Quality in operation phase are given in **Table 2.2**.

Regarding the above requirements, a tentative monitoring programme is shown in **Table 2.3**.

Table 2.2: Action and Limit Levels for Air Quality (Operation Phase)

Parameter	ASR	Action Level (ppb)	Limit Level (ppb)
H_2S	A1	2.5	2.5
	A2	2.3	2.5
	A3	2.5	2.5
	A4	2.5	2.5
	A5	2.5	2.5
Incidents of odour complaints	-	Any incidence of odour complaint received through the Odour Complaint Register	Two or more complaints through the Odour Complaint Register within three months

Note: (1) Odour complaints are to be handled in accordance with the complaint registration system as mentioned in Section 2.26-2.29 of the EM&A Manual

Table 2.3: Tentative Monitoring Programme

For 1st phase impact odour monitoring at A1, A2 and new A5:

	1st Monitoring Event	2nd Monitoring Event	3rd Monitoring Event	4th Monitoring Event
Monitoring Dates	November 2019	February 2020	May 2020	August 2020

For 2nd phase impact odour monitoring at A3 and A4:

	1st Monitoring Event	2nd Monitoring Event	3rd Monitoring Event	4th Monitoring Event
Monitoring Dates	August 2020	November 2020	February 2021	May 2021

3 Conclusion

Overall, the impact odour monitoring will be implemented in accordance with the recommendations of the approved EIA report (AEIAR-122/2008). The impact odour monitoring will be split into 2 phases. The first monitoring events under the 1st phase and 2nd phase are tentatively scheduled for November 2019 and August 2020, respectively. If all monitoring results are below the limit levels, the impact monitoring will be ceased. If the monitoring results of detected odour monitoring concentration at any ASR is higher than the limit levels due to operation of the TMA54SPS, the odour monitoring will be extended until the odour concentration at the ASR in consecutive 2 times are below the limit levels (once for 3 months).

Appendices

Appendix A Technical Specification of Jerome X631 0003 H2S Analyzer

Jerome X631 0003 Gold Film Hydrogen Sulphide Analyzer
Technical Specifications

Resolution:	0.001 ppm
Detection Range:	3 ppb (0.003 ppm) – 50 ppm in four graduated ranges
Sensitivity:	0.003ppm H_2S
Precision:	5% relative standard deviation
Accuracy:	Range 0: ± 0.003ppm at 0.050ppm H2S Range 1: ± 0.03ppm at 0.50ppm H2S Range 2: ± 0.3ppm at 5.0ppm H2S Range 3: ± 2ppm at 25ppm H2S
Operating Environment:	0 – 40°C Non-Condensing, Non-Explosive
Response Time-Sample Mode:	10 to 50 ppm (Range 3): 13 seconds 1.0 to 10.0 ppm (Range 2): 16 seconds 0.10 to 1.00 ppm (Range 1): 25 seconds 0.001 to 0.100 ppm (Range 0): 30 seconds
Response Time-Survey Mode:	10 to 50 ppm (Range 3): 3 seconds 1.0 to 9.9 ppm (Range 2): 6 seconds 0.10 to 0.99 ppm (Range 1): 15 seconds 0.001 to 0.099 ppm (Range 0): 20 seconds
Flow Rate:	150 ± 10 ml/min (0.15 ± litres/min)
Power Requirements:	100-120 V~, 50/60 Hz, 1 A or 220-240 V~, 50/60 Hz, 1 A
Fuse:	F1A 250V, 5mm X 20mm
Internal Battery Pack:	Rechargeable nickel cadmium
Case Construction:	Aluminium alloy
Dimensions:	33 cm L x 15 cm W x 10 cm H (13" L x 6" W x 4" H)
Weight:	3.18 kilos (7 pounds)
Digital Meter Display:	Liquid crystal display (LCD)
Data Output:	1. RS-232 Serial, Baud Rate 1200 for use with data logger, and/or Jerome® communication program. 2. RS-232 Serial data format with 0 & 20mA current logic levels; Baud Rate 1200 (special industrial applications) and Analog 20 mA output.

Appendix B Sample of Air Quality (H_2S) Monitoring Data Record Sheet

APPENDIX B Air Quality (H_2S) Monitoring Data Record Sheet

General Information					
Monitoring Location					
Date					
Weather					
Monitoring Results					
Sample No.	**Time**	**Wind Speed**	**Wind Direction**	**Temperature**	***Level (ppb)***
Sample 1	Start:				
	Stop:				
Sample 2	Start:				
	Stop:				
Sample 3	Start:				
	Stop:				
Sample 4	Start:				
	Stop:				
Sample 5	Start:				
	Stop:				
Sample 6	Start:				
	Stop:				
Sample 7	Start:				
	Stop:				
Sample 8	Start:				
	Stop:				
Other Observations					

Name & Designation Signature Date

Recorded by:

Checked by:

Appendix C Plan Showing the Odour Monitoring Locations for the Baseline Odour Monitoring

APPENDIX C: PLAN SHOWING THE ODOUR MONITORING LOCATIONS FOR THE BASELINE ODOUR MONITORING

Appendix D Advice on the Programme of Private Land Resumption from Lands Department

☐ Urgent ☐ Return receipt ☐ Sign ☐ Encrypt ☐ Mark Subject Restricted ☐ Expand personal&public groups

Re: Equiry on Land Use Status (Nearby Tuen Mun Area 54 Sewage Pumping Station)

12/07/2019 10:17

From: TW CHOI/LAO/LANDSD/HKSARG@LANDSD
To: Chun Lung LUI/E&MP/DSD/HKSARG@DSD
Serial No.:

Dear Sam,

Please be advised that for Land Nos.1, 2 and 4 as shown at our LSP, the tentative land reversion date is 4/2020 and land clearance date (site handover to CEDD) is 7/2020.

Thank you.

Best Regards,
Jessica T.W. CHOI
LE/SD, DLO/TM
Tel: 2451 3310

Chun Lung LUI	Dear Jessica, We spoke. Grateful for your a...	2019/07/12 上午 10:03:49

From: Chun Lung LUI/E&MP/DSD/HKSARG@DSD
To: TW CHOI/LAO/LANDSD/HKSARG@LANDSD,
Date: 2019/07/12 上午 10:03
Subject: Re: Equiry on Land Use Status (Nearby Tuen Mun Area 54 Sewage Pumping Station)

Dear Jessica,

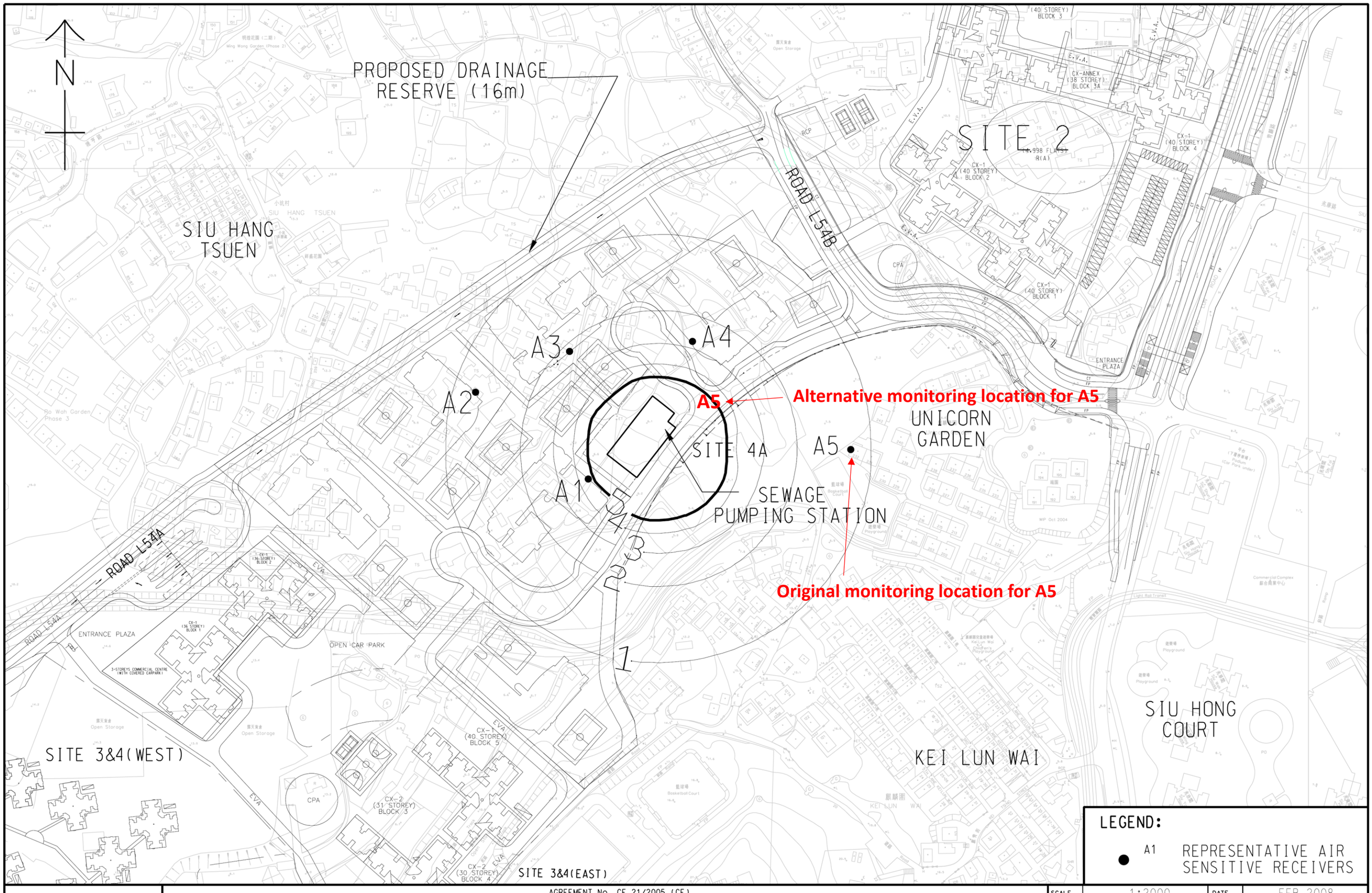
We spoke. Grateful for your advice on the tentative land resumption schedule for Land No. 1, No. 2 and No. 4 as indicated in the attached LSP. Many thanks.

Best Regards,

LUI Chun-lung, Sam
EME/P1/2, E&MP, DSD
Office: 2594 7306
Mobile: 6070 0441

TW CHOI	Dear Sam, Preceding email refers.	04/06/2019 15:38:51
Chun Lung LUI	Dear Ms. CHOI, We spoke. Grateful if you c...	2019/06/04 上午 11:03:45

Appendix E Plan Showing the Proposed Locations of Odour Monitoring Stations for the Impact Odour Monitoring



LEGEND:

● A1 REPRESENTATIVE AIR SENSITIVE RECEIVERS

MAUNSELL | AECOM

Maunsell Consultants Asia Ltd

AGREEMENT No. CE 21/2005 (CE)
FORMATION, ROADS AND DRAINS IN AREA 54, TUEN MUN - PHASES 1 AND 2 -
ENVIRONMENTAL, TRAFFIC AND DRAINAGE IMPACT ASSESSMENT REVIEW - INVESTIGATION
ADDITIONAL SERVICE No.2 - ENVIRONMENTAL IMPACT ASSESSMENT FOR TUEN MUN AREA 54 SEWAGE PUMPING STATION

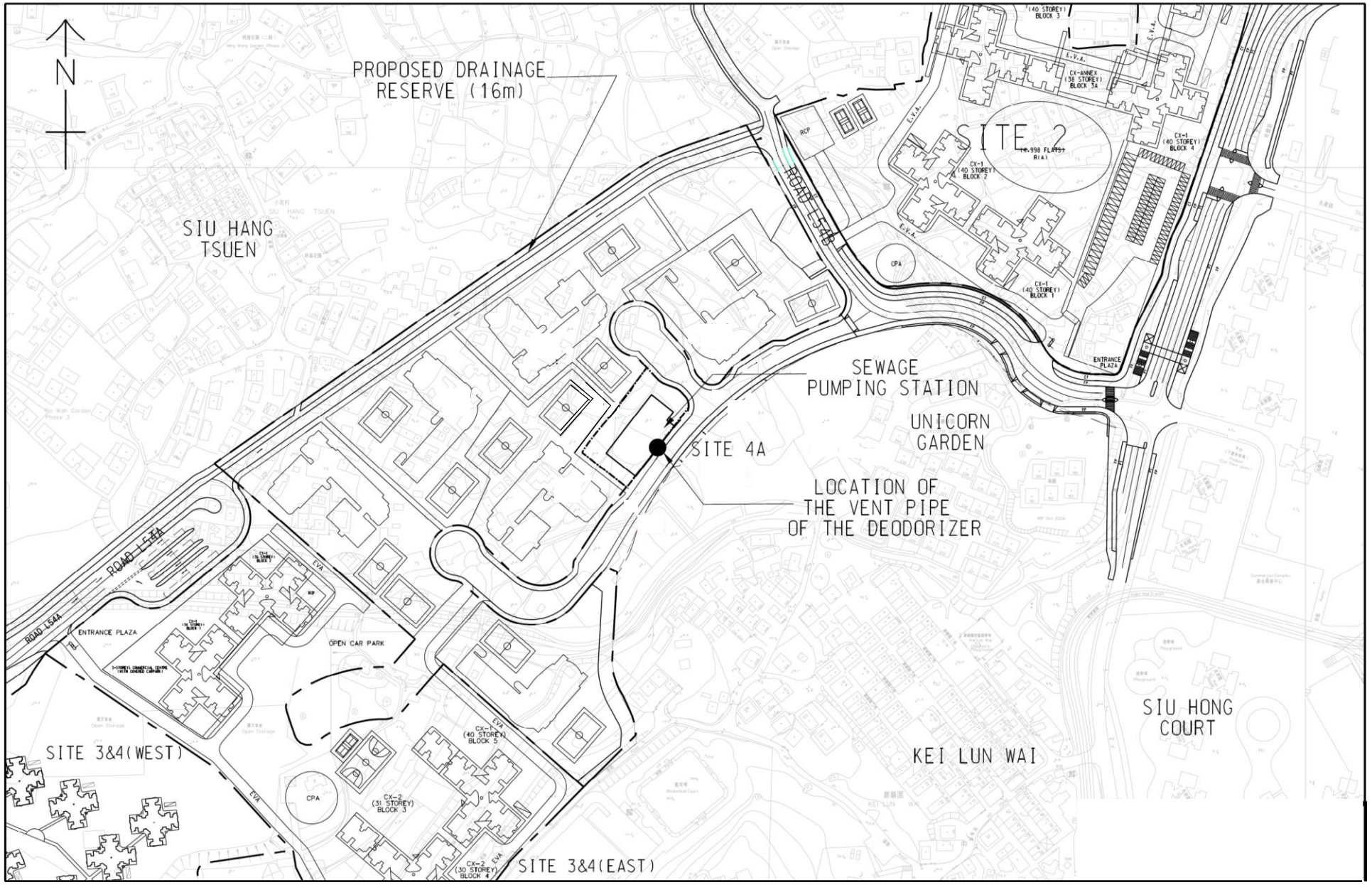
CONTOURS OF ODOUR CONCENTRATION (OU/5-sec avg) AT 10m ABOVE GROUND - MITIGATED SCENARIO

SCALE	1:2000	DATE	FEB 2008
CHECK		DRAWN	SWKY
JOB No.	60021938	DRAWING No.	3.3
		REV	-


Unicorn Garden
A1
A5
Tuen Mun Area 54 SPS
A2
A4
A3
Road L54B
Road L54A

Appendix F Monitoring Location for Exhaust Vent Pipe from the Deodourizing Unit

APPENDIX F: MONITORING LOCATION FOR EXHAUST VENT PIPE FROM THE DEODOURIZING UNIT



mottmac.hk

C. Event and Action Plan for Air Quality (Odour)

Table C.1: Event/Action Plan for Air Quality Monitoring (Operational Phase)

EVENT	ACTION		
	ET	IEC	ER (DSD)
Exceedance of Action level	1. Identify source/ reason of exceedance; 2. Inform IEC and ER(DSD); 3. Carry out investigation to identify the source/reason of exceedance or complaints. Investigation shall be completed within 1 week and advise the findings to IEC and DSD; 4. Repeat measurement to confirm finding after rectification work.	1. Check with ET and ER(DSD) on the operating activities and implementation of odour mitigation measures; 2. Discuss with ER(DSD) on the possible remedial actions; 3. Advise the ER(DSD) on the effectiveness of the proposed remedial measures; 4. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Rectify any unacceptable practice; 3. Amend working methods as required; 4. Implement amended working methods.
Exceedance of Limit level	1. Notify IEC, ER(DSD) and EPD; 2. Identify source of odour; 3. Increase monitoring frequency; 4. Carry out investigation to identify the source/reason of exceedance. Investigation shall be completed within 1 week and advise the findings to IEC and ER(DSD); 5. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 6. Assess effectiveness of the remedial actions and keep IEC, EPD and ER(DSD) informed of the results.	1. Check with ET and ER(DSD) on the operating activities and implementation of odour mitigation measures; 2. Review the proposed remedial actions whenever necessary to assure their effectiveness and advise the ER(DSD) accordingly; 3. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Rectify any unacceptable practice and amend working methods as required; 3. Formulate remedial actions and inform ET and IEC; 4. Ensure amended working methods and remedial actions properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and stop that portion of work until the exceedance is abated.

D. Technical Reports for the 4th Impact Odour Monitoring

Fourth Operation Phase Odour Impact Monitoring Report

Impact Odour Monitoring - H_2S Measurement for Tuen Mun Area 54 Sewage Pumping Station | Hong Kong

0118/19/ED/0442 01 | 11 September 2020

For review

Mott Macdonald Hong Kong Limited

Document Control

Document Information

Project Title	Impact Odour Monitoring - Hydrogen Sulphide Measurement for Tuen Mun Area 54 Sewage Pumping Station
Document Title	Fourth Operation Phase Odour Impact Monitoring Report
Fugro Project No.	0118/19
Fugro Document No.	0118/19/ED/0442
Issue Number	01
Issue Status	For review
Fugro Legal Entity	Fugro Technical Services Limited
Issuing Office Address	Room 723-726, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, Hong Kong

Client Information

Client	Mott Macdonald Hong Kong Limited
Client Address	3/F, Mapletree Bay Point, 348 Kwun Tong Road, Kowloon, Hong Kong
Client Contact	2828 5697
Client Facsimile	2827 1823

Revision History

Issue	Date	Status	Comments on Content	Prepared By	Checked By	Approved By
01	04 September 2020	For Review	Awaiting client comments	VL	LMK	AC

Project Team

Initials	Name	Role
AC	Arthur Cheng	Project Manager
LMK	Lui Mang Kwok	Senior Environmental Consultant
VL	Vincent Lu	Environmental Consultant

Executive Summary

Fugro Technical Services Limited (FTS) has been appointed by Mott MacDonald Hong Kong Limited, the Project Environmental Team (ET) of Tuen Mun Area 54 Sewage Pumping Station (TMA54SPS) to undertake the operation phase impact odour monitoring for the project.

This is the fourth monitoring report for the Odour Impact Monitoring of TMA54SPS, prepared by Fugro Technical Services Limited for submission to Mott MacDonald Hong Kong Limited.

This report presents the results obtained from the fourth operation phase impact odour monitoring carried out from 02 September 2020 to 03 September 2020 during the operation of TMA54SPS.

Exceedance of Action and Limit level at A5 were recorded. Exceedance of Action level at A2 was recorded.

In this reporting period, there were no records of odour complaint received.

Contents

Appendices

Tables in the Main Text

Abbreviations

ASRs	Air Sensitive Receivers
DSD	Drainage Services Department
LandsD	Lands Department
ET	Environmental Team
EM&A	Environmental Monitoring and Audit
H_2S	Hydrogen Sulphide
MMHK	Mott MacDonald Hong Kong Limited
FTS	Fugro Technical Services Limited
TMA54SPS	Tuen Mun Area 54 Sewage Pumping Station
OU	Odour Unit

1. Introduction

1.1 Background

To cope with a shortfall in flat supply and a rise in housing demand, Tuen Mun Area 54 was identified by the Government as one of the areas having the potential for housing development. Thus, the New Territories West Development Office of Territory Development Department completed the "Planning and Development Study of Potential Housing Site in Area 54, Tuen Mun" in 1999. The Study put forward proposals on housing types, development parameters and planning layouts and assessed the development impacts on transport network, infrastructural capacities and environmental quality.

According to the Review of Tuen Mun and Tsing Yi Sewerage Master Plans, a new sewage pumping station is needed to convey sewage collected from Tuen Mun Area 54 to existing trunk sewers at Ming Kum Road. Other than Tuen Mun Area 54, TMA54SPS will also collect sewage from four recognized villages within Area 54 including Tsz Tin Tsuen, Po Tong Ha, Kei Lun Wai and Siu Hang Tsuen, and the proposed Tuen Mun North Sewage Pumping Station in Area 52. TMA54SPS has a capacity of about 90,000m^3 per day; the design average dry weather flow is approximately 0.32m^3/s.

TMA54SPS is located in the central part of Site 4A of Tuen Mun Area 54, north of Kei Lun Wai, south of Tsz Tin Tsuen and west of Site 2 of Tuen Mun Area 54. Site 4A is zoned "Government, Institution or Community" on the Tuen Mun Outline Zoning Plan No. S/TM/22 and is reserved for school development. **Appendix A** shows the location of TMA54SPS. Construction work for TMA54SPS is substantially completed and commissioning is anticipated in February 2018.

TMA54SPS is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 449). A study of Environmental Impact Assessment (EIA) has been carried out to evaluate the environmental impacts associated with the project. An EIA Report and an Environmental Monitoring and Audit (EM&A) Manual were approved by the Environmental Protection Department (EPD) on 12 November 2008. An Environmental Permit (EP) No. EP-381/2009 was issued on 4 January 2010 for TMA54SPS to the Civil Engineering and Development Department as the Permit Holder. The EP stipulates that an EM&A programme is required to ensure mitigation measures recommended in the EIA Report and the EM&A Manual are implemented during the construction and operation of TMA54SPS.

1.2 Project Description

FTS was commissioned to carry out operation phase odour impact monitoring for Mott MacDonald Hong Kong Limited for the project of TMA54SPS.

The EIA study of TMA54SPS has identified odour emissions from the sewage pumping station as the main potential air quality impact. To reduce odour emissions from the operation of TMA54SPS, it is recommended in the EIA Report that wet wells and screen chambers, the main

sources of odour, should be enclosed in a building structure. A deodorizing unit should also be installed; in order to treat vented air before it would be discharged into the atmosphere.

Furthermore, odour monitoring is required as per the EM&A Manual prior to and during the initial operation of TMA54SPS. The purpose of the odour impact monitoring is to indicate whether the odour concentration would be higher or lower than the baseline condition.

1.3 Monitoring Arrangement

According to the EM&A Manual, gaseous hydrogen sulphide (H_2S) is one of the main components of odour emissions. Ambient H_2S concentration can serve as a surrogate indicator for sewage odours as it can be readily monitored at the Air Sensitive Receivers (ASRs).

The odour impact monitoring shall be conducted in the first year upon commissioning of TMA54SPS. Odour Impact Monitoring would be conducted every three months for the first year of operation for TMA54SPS. However, due to some major technical issues (e.g. review of H_2S measurement method, monitoring locations and level of measurement, etc), the commencement of the impact odour monitoring was deferred from March 2018 to October 2019. In addition, as discussed between DSD and EPD, measurement results from the impact odour monitoring will be directly compared with that obtained in the baseline odour monitoring without any adjustments / air modelling applied. If all monitoring results are below the limit levels, the impact monitoring will be ceased. If the monitoring results of detected odour monitoring concentration at any ASR is higher than the limit levels due to operation of the TMA54SPS, the odour monitoring will be extended until the odour concentration at the ASR in consecutive 2 times are below the limit levels (once for 3 months). Action and Limit Levels for Air Quality in operation phase are given in **Table 1.1**.

As regards the locations of odour monitoring stations, it is noticed that there are 3 odour monitoring stations selected in the EM&A Manual (i.e. A3-A5) are currently located in private lots which are not accessible for the ET to conduct the impact odour monitoring at a height of 10m above ground level, while the remaining 2 stations (i.e. A1 and A2) fall within CEDD's construction sites (i.e. Government land). As the monitoring station "A5" which falls within the boundary of private open car park, alternative location of odour monitoring station for A5 was proposed. It is noted that the sites on both sides of the road connecting to TMA54SPS are all private land lots, expect that TMA54SPS and the road itself are on government land. The odour monitoring station "A5" should be relocated to somewhere on the road connecting to TMA54SPS. In addition, according to the contours of odour concentrations at 10m above ground, the original location of A5 is within 1 OU zone which is the furthest measurement point from TMA54SPS. As a prudent approach in determine the alternative location of odour monitoring station for A5, the new A5 is situated on the road connecting to TMA54SPS at a location within 4 OU zone which is close to TMA54SPS. In view of the land resumption programme, the impact odour monitoring will be spilt into two phases. The 1st phase will include the odour monitoring at the locations A1, A2 and new A5.

Regarding the above requirements, a monitoring programme is shown in **Table 1.2**.

Table 1.1 Action and Limit Levels for Air Quality (Operation Phase)

Parameter	ASR	Action Level (ppb)	Limit Level (ppb)
H_2S	A1	2.5	2.5
	A2	2.3	2.5
	A5	2.5	2.5
Incidents of odour complaints	-	Any incidence of odour complaint received through the Odour Complaint Register	Two or more complaints through the Odour Complaint Register within three months

Note: Odour complaints are to be handled in accordance with the complaint registration system as mentioned in Section 2.26-2.29 of the EM&A Manual

Table 1.2 Monitoring Programme

For 1st phase impact odour monitoring at A1, A2 and new A5:

	1st Monitoring Event	2nd Monitoring Event	3rd Monitoring Event	4th Monitoring Event
Monitoring Dates	November 2019	February 2020	May 2020	September 2020*

Note: The fourth monitoring event was postponed to September 2020 due to the adverse weather.

2. Odour Impact Monitoring

2.1 Methodology

The H_2S analyzer, type Jerome 631-X, was used for the impact monitoring. Grab air sample was drawn by built-in suction pump of the analyzer and passed through a gold film sensor. The electrical resistance of the gold film changes according to the change in mass of hydrogen sulphide in the gas sample.

The details of the equipment used for odour impact monitoring is presented in **Table 2.1**

Table 2.1 Equipment for Impact Odour Monitoring

Equipment	Manufacturer / Model	Serial Number	Sensor Number	Calibration Date	Next Calibration Date
Gold Film Hydrogen Sulphide Analyzer	JEROME X631 0003	2966	19-8-23-S4AS	17 October 2019	16 October 2020

2.2 Sampling Duration

A 15-min integrated gaseous H_2S sample was collected every 3 hours for a period of 24 hours at monitoring locations, in which five readings were recorded at every monitoring station during each 3-hour session. Maximum and minimum H_2S levels for each monitoring station were recorded.

2.3 Monitoring Locations

H_2S measurements was taken at the sources and outside the premises of the identified ASRs as shown in **Table 2.2** and **Appendix A** show the descriptions and locations of the H_2S monitoring stations.

Table 2.2 Monitoring Locations

Monitoring Station	Monitoring Location	Description
A1[1]	Planned Secondary School	ASR
A2[1]	Planned Primary School	ASR
A5[1]	Road connecting to TMA54SPS	ASR
SPS[1]	Exhausted vent pipe of TMA54SP	Source

Note: [1] 1st phase odour impact monitoring.

According to the EM&A Manual, the monitoring was taken at a height of predicted worst level of the receivers in the EIA (10 m ground level). Photos showing the monitoring setup are included in **Appendix B**.

2.4 Quality Assurance / Quality Control

In order to ensure the analyzer is functioning properly, manual sensor regeneration and zero adjustment were performed before each set of odour monitoring.

Calibration of the analyzer is conducted every year at the laboratory of the manufacturer. The calibration certificates for the analyzers are shown in **Appendix F**.

3. Monitoring Results

3.1 Weather Conditions and Other Factors

The fourth monitoring event for the odour impact monitoring for TMA54SPS was conducted from 02 September 2020 (approx. 11:00 am) to 03 September 2020 (approx. 10:59 am).

The weather was mainly fine and wind was mainly mild during the monitoring event. An anemometer was used for measuring wind speed and wind direction presented in the site record in **Appendix D**. Meteorological conditions of 02 September 2020 and 03 September 2020 obtained from the nearest Hong Kong Observatory's Tuen Mun Weather Station are shown in **Appendix G**. Meteorological data was obtained as reference information for the analysis of the exceedance event.

No significant odour sources from the project site were observed during the impact monitoring period.

3.2 Monitoring Results

The monitoring results are summarised in **Table 3.1**. Details of monitoring data are shown in **Appendix C** (24-hour average, maximum and minimum H_2S concentration), **Appendix D** (site record) and **Appendix E** (data logger record).

Table 3.1 Summary of Monitoring Results

Monitoring Station	Monitoring Location	24-hour Average H_2S Concentration (ppb)
A1[1]	Planned Secondary School	2.4
A2[1]	Planned Primary School	2.4
A5[1]	Road connecting to TMA54SPS	2.8
SPS	Exhausted vent pipe of TMA54SP	2.7

Note: [1] Air Sensitive Receiver.

4. Odour Complaint

There were no complaints received in relation to the environmental impact during the reporting period.

5. Conclusion and Recommendations

The fourth monitoring event for the odour impact monitoring was carried out from 02 September 2020 to 03 September 2020.

Odour impact monitoring of hydrogen sulphide (H_2S) was conducted at four monitoring stations including three Air Sensitive Receivers around TMA54SPS and at source. Exceedance of Action and Limit level at A5 were recorded. Exceedance of Action level at A2 was recorded.

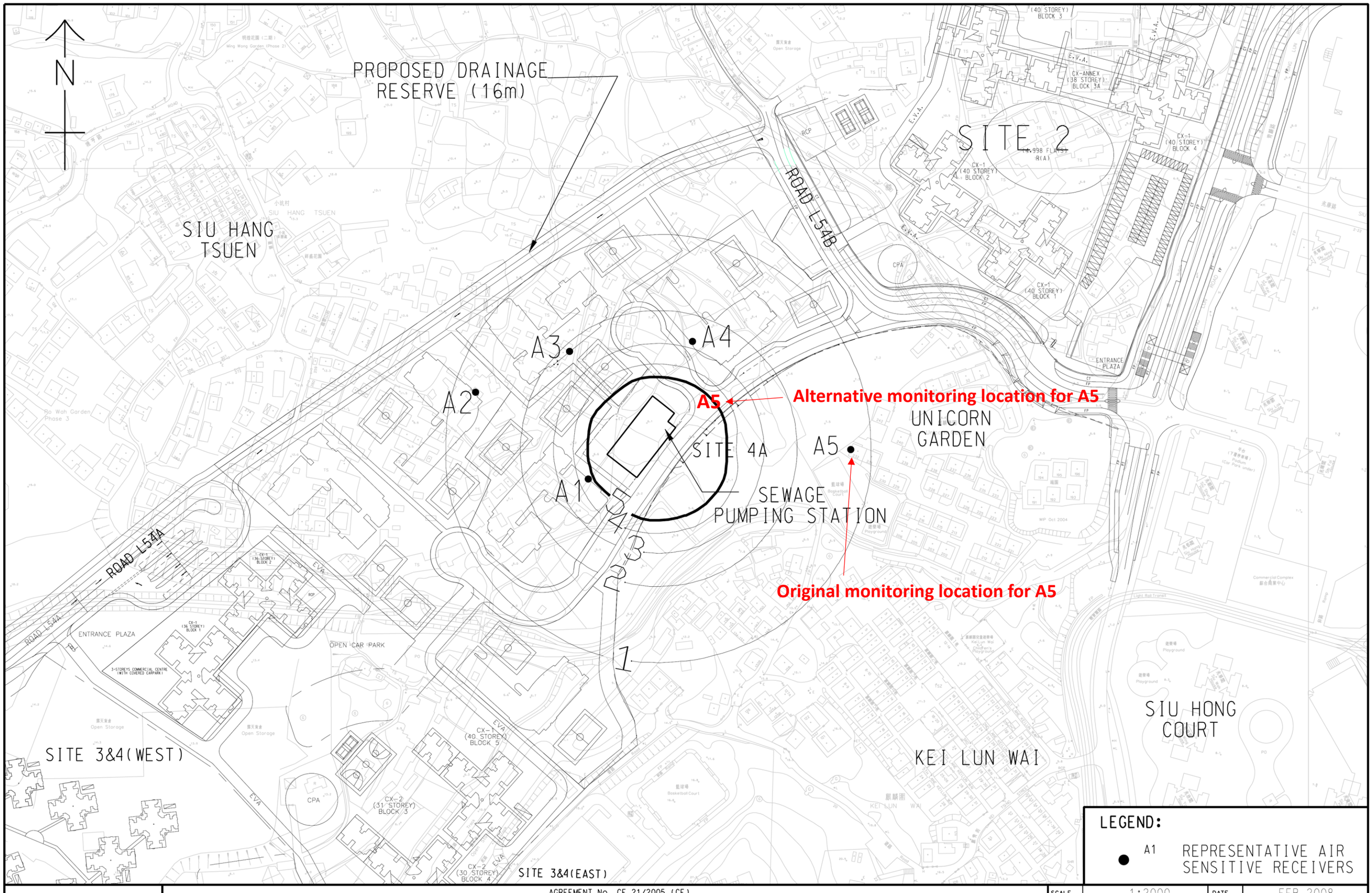
At A2, it is observed that 2 out of the 8 sampling events throughout the 24-hours monitoring period, the H_2S concentration at A2 is higher than at source. At Sample 2 and 3, the H_2S concentration at A2 is 14 – 17% higher than at source. Under the above observations, it is

considered that the source is not the major contributor to H_2S concentration at A2 during sample 2 and 3, and thus the exceedance at A2 is not project related.

At A5, it is observed that 2 out of the 8 sampling events throughout the 24-hours monitoring period, the H_2S concentration at A5 is higher than at source. At Sample 2 and 3, the H_2S concentration at A5 is 17-57% higher than at source. Under the above observations, it is considered that the source is not the major contributor to H_2S concentration at A5 during Sample 2 and 3, and thus the exceedance at A5 is not project related.

Appendix A

Monitoring Station



LEGEND:

● A1 REPRESENTATIVE AIR SENSITIVE RECEIVERS

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Maunsell Consultants Asia Ltd

AGREEMENT No. CE 21/2005 (CE)
FORMATION, ROADS AND DRAINS IN AREA 54, TUEN MUN - PHASES 1 AND 2 -
ENVIRONMENTAL, TRAFFIC AND DRAINAGE IMPACT ASSESSMENT REVIEW - INVESTIGATION
ADDITIONAL SERVICE No.2 - ENVIRONMENTAL IMPACT ASSESSMENT FOR TUEN MUN AREA 54 SEWAGE PUMPING STATION

CONTOURS OF ODOUR CONCENTRATION (OU/5-sec avg) AT 10m ABOVE GROUND - MITIGATED SCENARIO

SCALE	1:2000	DATE	FEB 2008
CHECK		DRAWN	SWKY
JOB No.	60021938	DRAWING No.	3.3
		REV	-


Unicorn Garden
Source
A1
A5
Tuen Mun Area 54 SPS
A2
A4
A3
Road L54B
Road L54A

Appendix B

Photographs of Monitoring Stations

A1

A2

A5

Source

Appendix C

Monitoring Results

Monitoring Station	Time Interval	24-hour Average H_2S Concentration (ppb) 4th Event for Phase One Odour Impact Monitoring (02 – 03 September 2020)							
		15-minute integrated average	24-hour average	Maximum	Minimum	Action Level	Exceedance	Limit Level	Exceedance
A1	1100-1400	3.4	2.4	3.4	1.4	2.5	N	2.5	N
	1400-1700	2.6							
	1700-2000	3.4							
	2000-2300	2.0							
	2300-0200	2.4							
	0200-0500	2.2							
	0500-0800	1.4							
	0800-1100	1.4							
A2	1100-1400	2.2	2.4	2.8	2.0	2.3	Y	2.5	N
	1400-1700	2.8							
	1700-2000	2.4							
	2000-2300	2.0							
	2300-0200	2.2							
	0200-0500	2.4							
	0500-0800	2.4							
	0800-1100	2.6							
A5	1100-1400	2.8	2.8	5.6	1.6	2.5	Y	2.5	Y
	1400-1700	5.6							
	1700-2000	2.4							
	2000-2300	2.6							
	2300-0200	2.4							
	0200-0500	2.4							
	0500-0800	1.6							
	0800-1100	2.4							
SPS	1100-1400	2.8	2.7	3.4	2.0	N/A	N/A	N/A	N/A
	1400-1700	2.4							
	1700-2000	2.0							
	2000-2300	2.8							
	2300-0200	2.4							
	0200-0500	2.4							
	0500-0800	3.0							
	0800-1100	3.4							

Appendix D

Site Record

Air Quality (H_2S) Monitoring Data Record Sheet

General Information	
Monitoring Station	A1
Date	2/9/2020
Weather	Fine

Monitoring Results

Sample No	Time	Wind Speed	Wind Direction	Level(ppm)
Sample 1	Start: 1200	/	/	0.004, 0.004, 0.004
	Stop: 1215			0.003, 0.002
Sample 2	Start: 1430	0.4	NW	0.003, 0.003, 0.003
	Stop: 1445	~~0.4~~		0.002, 0.002
Sample 3	Start: 1735	0.2	NW	0.003, 0.002, 0.004
	Stop: 1750			0.004, 0.004
Sample 4	Start: 2040	/	/	0.002, 0.002, 0.002
	Stop: 2055			0.002, 0.002
Sample 5	Start: 2330	/	/	0.003, 0.003, 0.002
	Stop: 2345			0.002, 0.002
Sample 6	Start: 0230	/	/	0.002, 0.003, 0.002
	Stop: 0245			0.002, 0.002
Sample 7	Start: 0530	/	/	0.002, 0.002, 0.001
	Stop: 0545			0.001 0.001
Sample 8	Start: 0830	/	/	0.002, 0.002
	Stop: 0845			0.001, 0.001, 0.001

Other Observations

	Name & Designation	Signature	Date
Recorded by:	Tony (T.O)		2/9/2020
Checked by:	Vincent Lu EC		4/9/2020

FUGRO

Air Quality (H_2S) Monitoring Data Record Sheet

General Information	
Monitoring Station	A2
Date	2/9/2020
Weather	Fine

Monitoring Results

Sample No	Time	Wind Speed	Wind Direction	Level(ppm)
Sample 1	Start: 1130	0	0	0.002, 0.002, 0.003, 0.002, 0.002
	Stop: 1145			
Sample 2	Start: 1400	0	0	0.004, 0.003, 0.003, 0.002, 0.002
	Stop: 1415			
Sample 3	Start: 1700	/	/	0.003, 0.003, 0.002, 0.002, 0.002
	Stop: 1715			
Sample 4	Start: 2000	/	/	0.002, 0.002, 0.002, 0.002, 0.002
	Stop: 2015			
Sample 5	Start: 2300	/	/	0.002, 0.002, 0.002, 0.002, 0.003
	Stop: 2315			
Sample 6	Start: 0200	/	/	0.002, 0.002, 0.003, 0.003, 0.002
	Stop: 0215			
Sample 7	Start: 0500	/	/	0.002, 0.002, 0.002, 0.003, 0.002
	Stop: 0515			
Sample 8	Start: 0800	/	/	0.002, 0.002, 0.003, 0.003, 0.003
	Stop: 0815			

Other Observations

N.I

	Name & Designation	Signature	Date
Recorded by:	Ting (TO)		2/9/2020
Checked by:	Virena Lu EC		4/4/2020

FUGRO

Air Quality (H_2S) Monitoring Data Record Sheet

General Information	
Monitoring Station	AS
Date	2/4/2020
Weather	Fine

Monitoring Results

Sample No	Time	Wind Speed	Wind Direction	Level(ppm)
Sample 1	Start: 1230	0.6	NW	0.004, 0.002, 0.002
	Stop: 1245			0.004, 0.002
Sample 2	Start: 1455	/	/	0.005, 0.005, 0.006
	Stop: 1510			0.005, 0.007
Sample 3	Start: 1755	/	/	0.003, 0.003, 0.002
	Stop: 1810			0.002, 0.002
Sample 4	Start: 2105	/	/	0.002, 0.002, 0.003
	Stop: 2120			0.005, 0.007
Sample 5	Start: 2355	/	/	0.002, 0.002, 0.002
	Stop: 0010			0.003, 0.003
Sample 6	Start: 0300	/	/	0.002, 0.002, 0.002
	Stop: 0315			0.003, 0.003
Sample 7	Start: 0555	/	/	0.002, 0.002, 0.002
	Stop: 0610			0.001, 0.001
Sample 8	Start: 0850	/	/	0.003, 0.001, 0.002
	Stop: 0905			0.003, 0.003
Other Observations				

	Name & Designation	Signature	Date
Recorded by:	Ivy (G)		2/9/2020
Checked by:	Vincent Lu EC		4/4/2020

FUGRO

Air Quality (H_2S) Monitoring Data Record Sheet

General Information	
Monitoring Station	S
Date	21/9/2020
Weather	Fine

Monitoring Results

Sample No	Time	Wind Speed	Wind Direction	Level(ppm)
Sample 1	Start: 1250	/	/	0.003, 0.003, 0.002 0.003, 0.003
	Stop: 1305			
Sample 2	Start: 1520	/	/	0.003, 0.003, 0.002 0.002, 0.002
	Stop: 1535			
Sample 3	Start: 1820	/	/	0.002, 0.002, 0.002 0.002, 0.002
	Stop: 1835			
Sample 4	Start: 2130	/	/	0.002, 0.004, 0.002 0.003, 0.003
	Stop: 2145			
Sample 5	Start: 0020	/	/	0.002, 0.002, 0.002 0.003, 0.003
	Stop: 0035			
Sample 6	Start: 0325	/	/	0.003, 0.003, 0.002 0.002, 0.002
	Stop: 0340			
Sample 7	Start: 0620	/	/	0.003, 0.003 0.003, 0.003, 0.003
	Stop: 0635			
Sample 8	Start: 0910	/	/	0.005, 0.004, 0.004 0.002, 0.002
	Stop: 0925			

Other Observations

	Name & Designation	Signature	Date
Recorded by:	Ling (To)		21/9/2020
Checked by:	Vincent Lu EC		4/9/2020

FUGRO

Appendix E

Data Logger Record

Site Name: Tuen Mun Area 54 SPS
Address: Tuen Mun Area 54 SPS

Sample Location: Inlet
Technician:
Instrument: 631-1, 631-X, SN 2966
Comment:
Date/Time: 九月-04-2020 11:50am
Alarm Setpoint: **0 (ppm)**

	DATE/TIME		RESULT (ppm)		
1	九月-02-2020	11:30:21am	0.002		
2	九月-02-2020	11:33:21am	0.002		
3	九月-02-2020	11:36:21am	0.003	A2	
4	九月-02-2020	11:39:21am	0.002		
5	九月-02-2020	11:42:21am	0.002		
6	九月-02-2020	12:00:17pm	/III		End Of Session
7	九月-02-2020	12:00:17pm	0.004		
8	九月-02-2020	12:03:17pm	0.004		
9	九月-02-2020	12:06:17pm	0.004	A1	
10	九月-02-2020	12:09:17pm	0.003		
11	九月-02-2020	12:12:17pm	0.002		
12	九月-02-2020	12:30:04pm	/III		End Of Session
13	九月-02-2020	12:30:04pm	0.004		
14	九月-02-2020	12:33:04pm	0.002		
15	九月-02-2020	12:36:04pm	0.002	A5	
16	九月-02-2020	12:39:04pm	0.004		
17	九月-02-2020	12:42:04pm	0.002		
18	九月-02-2020	12:50:31pm	/III		End Of Session
19	九月-02-2020	12:50:31pm	0.003		
20	九月-02-2020	12:53:31pm	0.003		
21	九月-02-2020	12:56:31pm	0.002	Source	
22	九月-02-2020	12:59:31pm	0.003		
23	九月-02-2020	01:02:31pm	0.003		
24	九月-02-2020	02:00:51pm	/III		End Of Session
25	九月-02-2020	02:00:51pm	0.004		
24	九月-02-2020	02:03:51pm	0.003		
25	九月-02-2020	02:06:51pm	0.003	A2	
28	九月-02-2020	02:09:51pm	0.002		
29	九月-02-2020	02:12:51pm	0.002		
30	九月-02-2020	02:30:55pm	/III		End Of Session
31	九月-02-2020	02:30:55pm	0.003		
32	九月-02-2020	02:33:55pm	0.003		
33	九月-02-2020	02:36:55pm	0.003	A1	
34	九月-02-2020	02:39:55pm	0.002		
35	九月-02-2020	02:42:55pm	0.002		
36	九月-02-2020	02:55:26pm	/III		End Of Session

Site Name: Tuen Mun Area 54 SPS
Address: Tuen Mun Area 54 SPS

Sample Location: Inlet
Technician:
Instrument: 631-1, 631-X, SN 2966
Comment:
Date/Time: 九月-04-2020 11:50am
Alarm Setpoint: **0 (ppm)**

	DATE/TIME		RESULT (ppm)		
37	九月-02-2020	02:55:26pm	0.005		
38	九月-02-2020	02:58:26pm	0.005		
39	九月-02-2020	03:01:26pm	0.006	A5	
40	九月-02-2020	03:04:26pm	0.005		
41	九月-02-2020	03:07:26pm	0.007		
42	九月-02-2020	03:20:47pm	/III		End Of Session
43	九月-02-2020	03:20:47pm	0.003		
44	九月-02-2020	03:23:47pm	0.003		
45	九月-02-2020	03:26:47pm	0.002	Source	
46	九月-02-2020	03:29:47pm	0.002		
47	九月-02-2020	03:32:47pm	0.002		
48	九月-02-2020	05:00:33pm	/III		End Of Session
49	九月-02-2020	05:00:33pm	0.003		
50	九月-02-2020	05:03:33pm	0.003		
51	九月-02-2020	05:06:33pm	0.002	A2	
52	九月-02-2020	05:09:33pm	0.002		
53	九月-02-2020	05:12:33pm	0.002		
54	九月-02-2020	05:35:16pm	/III		End Of Session
55	九月-02-2020	05:35:16pm	0.003		
56	九月-02-2020	05:38:16pm	0.002		
57	九月-02-2020	05:41:16pm	0.004	A1	
58	九月-02-2020	05:44:16pm	0.004		
59	九月-02-2020	05:47:16pm	0.004		
60	九月-02-2020	05:55:46pm	/III		End Of Session
61	九月-02-2020	05:55:46pm	0.003		
62	九月-02-2020	05:58:46pm	0.003		
63	九月-02-2020	06:01:46pm	0.002	A5	
64	九月-02-2020	06:04:46pm	0.002		
65	九月-02-2020	06:07:46pm	0.002		
66	九月-02-2020	06:20:45pm	/III		End Of Session
67	九月-02-2020	06:20:45pm	0.002		
68	九月-02-2020	06:23:45pm	0.002		
69	九月-02-2020	06:26:45pm	0.002	Source	
70	九月-02-2020	06:29:45pm	0.002		
71	九月-02-2020	06:32:45pm	0.002		
72	九月-02-2020	08:00:13pm	/III		End Of Session

Site Name: Tuen Mun Area 54 SPS
Address: Tuen Mun Area 54 SPS

Sample Location: Inlet
Technician:
Instrument: 631-1, 631-X, SN 2966
Comment:
Date/Time: 九月-04-2020 11:50am
Alarm Setpoint: **0 (ppm)**

	DATE/TIME		RESULT (ppm)		
73	九月-02-2020	08:00:13pm	0.002		
74	九月-02-2020	08:03:13pm	0.002		
75	九月-02-2020	08:06:13pm	0.002	A2	
76	九月-02-2020	08:09:13pm	0.002		
77	九月-02-2020	08:12:13pm	0.002		
78	九月-02-2020	08:40:07pm	/III		End Of Session
79	九月-02-2020	08:40:07pm	0.002		
80	九月-02-2020	08:43:07pm	0.002		
81	九月-02-2020	08:46:07pm	0.002	A1	
82	九月-02-2020	08:49:07pm	0.002		
83	九月-02-2020	08:52:07pm	0.002		
84	九月-02-2020	09:05:11pm	/III		End Of Session
85	九月-02-2020	09:05:11pm	0.002		
86	九月-02-2020	09:08:11pm	0.002		
87	九月-02-2020	09:11:11pm	0.003	A5	
88	九月-02-2020	09:14:11pm	0.003		
89	九月-02-2020	09:17:11pm	0.003		
90	九月-02-2020	09:30:04pm	/III		End Of Session
91	九月-02-2020	09:30:04pm	0.002		
92	九月-02-2020	09:33:04pm	0.004		
93	九月-02-2020	09:36:04pm	0.002	Source	
94	九月-02-2020	09:39:04pm	0.003		
95	九月-02-2020	09:42:04pm	0.003		
96	九月-02-2020	11:00:06pm	/III		End Of Session
97	九月-02-2020	11:00:06pm	0.002		
98	九月-02-2020	11:03:06pm	0.002		
99	九月-02-2020	11:06:06pm	0.002	A2	
100	九月-02-2020	11:09:06pm	0.002		
101	九月-02-2020	11:12:06pm	0.003		
102	九月-02-2020	11:30:29pm	/III		End Of Session
103	九月-02-2020	11:30:29pm	0.003		
104	九月-02-2020	11:33:29pm	0.003		
105	九月-02-2020	11:36:29pm	0.002	A1	
106	九月-02-2020	11:39:29pm	0.002		
107	九月-02-2020	11:42:29pm	0.002		
108	九月-02-2020	11:55:25pm	/III		End Of Session

Site Name: Tuen Mun Area 54 SPS
Address: Tuen Mun Area 54 SPS

Sample Location: Inlet
Technician:
Instrument: 631-1, 631-X, SN 2966
Comment:
Date/Time: 九月-04-2020 11:50am
Alarm Setpoint: **0 (ppm)**

	DATE/TIME		RESULT (ppm)		
109	九月-02-2020	11:55:25pm	0.002		
110	九月-02-2020	11:58:25pm	0.002		
111	九月-03-2020	00:01:25am	0.002	A5	
112	九月-03-2020	00:04:25am	0.003		
113	九月-03-2020	00:07:25am	0.003		
114	九月-03-2020	00:20:31am	/III		End Of Session
115	九月-03-2020	00:20:31am	0.002		
116	九月-03-2020	00:23:31am	0.002		
117	九月-03-2020	00:26:31am	0.002	Source	
118	九月-03-2020	00:29:31am	0.003		
119	九月-03-2020	00:32:31am	0.003		
120	九月-03-2020	02:00:11am	/III		End Of Session
121	九月-03-2020	02:00:11am	0.002		
122	九月-03-2020	02:03:11am	0.002		
123	九月-03-2020	02:06:11am	0.003	A2	
124	九月-03-2020	02:09:11am	0.003		
125	九月-03-2020	02:12:11am	0.002		
126	九月-03-2020	02:30:39am	/III		End Of Session
127	九月-03-2020	02:30:39am	0.002		
128	九月-03-2020	02:33:39am	0.003		
129	九月-03-2020	02:36:39am	0.002	A1	
130	九月-03-2020	02:39:39am	0.002		
131	九月-03-2020	02:42:39am	0.002		
132	九月-03-2020	03:00:44am	/III		End Of Session
133	九月-03-2020	03:00:44am	0.002		
134	九月-03-2020	03:03:44am	0.002		
135	九月-03-2020	03:06:44am	0.002	A5	
136	九月-03-2020	03:09:44am	0.003		
137	九月-03-2020	03:12:44am	0.003		
138	九月-03-2020	03:25:27am	/III		End Of Session
139	九月-03-2020	03:25:27am	0.003		
140	九月-03-2020	03:28:27am	0.003		
141	九月-03-2020	03:31:27am	0.002	Source	
142	九月-03-2020	03:34:27am	0.002		
143	九月-03-2020	03:37:27am	0.002		
144	九月-03-2020	05:00:35am	/III		End Of Session

Site Name: Tuen Mun Area 54 SPS
Address: Tuen Mun Area 54 SPS

Sample Location: Inlet
Technician:
Instrument: 631-1, 631-X, SN 2966
Comment:
Date/Time: 九月-04-2020 11:50am
Alarm Setpoint: **0 (ppm)**

	DATE/TIME		RESULT (ppm)		
145	九月-03-2020	05:00:35am	0.002		
146	九月-03-2020	05:03:35am	0.002		
147	九月-03-2020	05:06:35am	0.002	A2	
148	九月-03-2020	05:09:35am	0.003		
149	九月-03-2020	05:12:35am	0.003		
150	九月-03-2020	05:30:03am	/III		End Of Session
151	九月-03-2020	05:30:03am	0.002		
152	九月-03-2020	05:33:03am	0.002		
153	九月-03-2020	05:36:03am	0.001	A1	
154	九月-03-2020	05:39:03am	0.001		
155	九月-03-2020	05:42:03am	0.001		
156	九月-03-2020	05:55:23am	/III		End Of Session
157	九月-03-2020	05:55:23am	0.002		
158	九月-03-2020	05:58:23am	0.002		
159	九月-03-2020	06:01:23am	0.002	A5	
160	九月-03-2020	06:04:23am	0.001		
161	九月-03-2020	06:07:23am	0.001		
162	九月-03-2020	06:20:09am	/III		End Of Session
163	九月-03-2020	06:20:09am	0.003		
164	九月-03-2020	06:23:09am	0.003		
165	九月-03-2020	06:26:09am	0.003	Source	
166	九月-03-2020	06:29:09am	0.003		
167	九月-03-2020	06:32:09am	0.003		
168	九月-03-2020	08:00:26am	/III		End Of Session
169	九月-03-2020	08:00:26am	0.002		
170	九月-03-2020	08:03:26am	0.002		
171	九月-03-2020	08:06:26am	0.003	A2	
172	九月-03-2020	08:09:26am	0.003		
173	九月-03-2020	08:12:26am	0.003		
174	九月-03-2020	08:30:38am	/III		End Of Session
175	九月-03-2020	08:30:38am	0.002		
176	九月-03-2020	08:33:38am	0.002		
177	九月-03-2020	08:36:38am	0.001	A1	
178	九月-03-2020	08:39:38am	0.001		
179	九月-03-2020	08:42:38am	0.001		
180	九月-03-2020	08:50:11am	/III		End Of Session

Site Name: Tuen Mun Area 54 SPS
Address: Tuen Mun Area 54 SPS

Sample Location: Inlet
Technician:
Instrument: 631-1, 631-X, SN 2966
Comment:
Date/Time: 九月-04-2020 11:50am
Alarm Setpoint: **0 (ppm)**

	DATE/TIME		RESULT (ppm)		
181	九月-03-2020	08:50:11am	0.003		
182	九月-03-2020	08:53:11am	0.001		
183	九月-03-2020	08:56:11am	0.002	A5	
184	九月-03-2020	08:59:11am	0.003		
185	九月-03-2020	09:02:11am	0.003		
186	九月-03-2020	09:10:26am	/III		End Of Session
187	九月-03-2020	09:10:26am	0.005		
188	九月-03-2020	09:13:26am	0.004		
189	九月-03-2020	09:16:26am	0.004	Source	
190	九月-03-2020	09:19:26am	0.002		
191	九月-03-2020	09:22:26am	0.002		

Readings:	160
Minimum:	0.001
Maximum:	0.007
Average:	0.00254
SD:	0.00093

Appendix F

Calibration Certificates

3375 N. Delaware Street, Chandler, AZ 85225
800.528.7411 | (f) 602.281.1745 | azic.com

Certification of Instrument Calibration

Guyline (Asia) Ltd
Rm 1611, Eastern Harbour Centre
Quarry Bay,

RMA # 2694299

This is to certify that the Jerome **X631 0003** Gold Film Hydrogen Sulfide Analyzer, Serial Number **2966**, with Sensor Number **19-8-23-S4AS**, was calibrated with standard units traceable to NIST.

Calibration Status as Received: **Out of Calibration**

		Actual		Calibration Gas		Allowable Range
Incoming:	Range 1	0.094	ppm H2S	0.500	ppm H2S	+/- 6%
	RSD %	11.33				<5%
Outgoing:	Range 1	0.518	ppm H2S	0.500	ppm H2S	+/- 6%
	RSD %	2.11				<5%

Calibration Status as Left: **In Calibration**

Estimated Uncertainty of Calibration System: 2.8%

Calibration Date: 17-Oct-2019 Recalibration Date: 16-Oct-2020

Temperature °F: 70.60 % Relative Humidity: 32.90

Approved By: Jackie Kreitlow Date Approved: 18-Oct-2019
Title: Jackie Kreitlow - Quality Control

Equipment Used:

H2S Calibration Standard: CC-75664 **NIST#:** 1467976
Calibration Date: 25-Sep-2018 **Calibration Date Due:** 25-Sep-2021

Mass Flow Controller B: 124604 **NIST#:** 215457
Calibration Date: 13-Dec-2018 **Calibration Date Due:** 13-Dec-2019

Mass Flow Controller D: 124602 **NIST#:** 215454
Calibration Date: 13-Dec-2018 **Calibration Date Due:** 13-Dec-2019

Digital Multimeter: 74620505 **NIST#:** 7003079
Calibration Date: 05-Apr-2019 **Calibration Date Due:** 05-Apr-2020

Flowmeter: US04I26032 **NIST#:** 1813; 1817; 1796
Calibration Date: 12-Aug-2019 **Calibration Date Due:** 12-Aug-2020

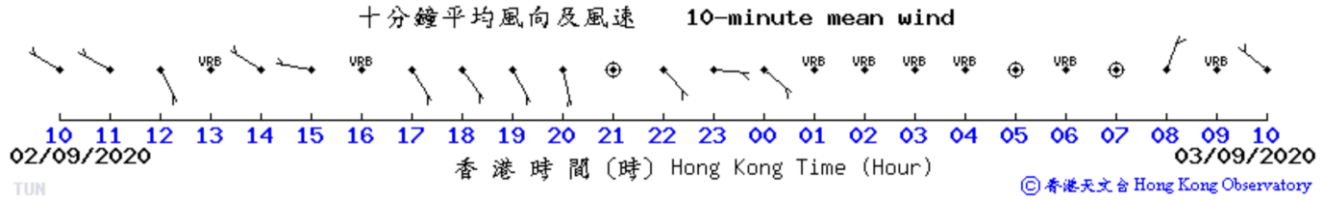
Calibration Procedure Used: 730-0032

AMETEK Brookfield certifies that the above listed instrument meets or exceeds all published specifications and has been calibrated using standards whose accuracy are traceable to the NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY within the limitations of the Institute's calibration services, or have been derived from accepted values of natural physical constants, or have been derived by the ratio type of self-calibration techniques.
Disclaimer: Any unauthorized adjustments, removal or breaking of QC seals, or other customer modifications on your Jerome Analyzer WILL VOID this factory calibration. Because any of the above acts could affect the calibration and readings of the instrument, their certification will no longer be valid and, further, AMETEK Brookfield WILL NOT be responsible for any liabilities created as a result of using the instrument after such adjustments, seal removal, or modifications.
As long as a functional test is within range, according to the procedure outlined in the Operator's Manual, the instrument is performing correctly.

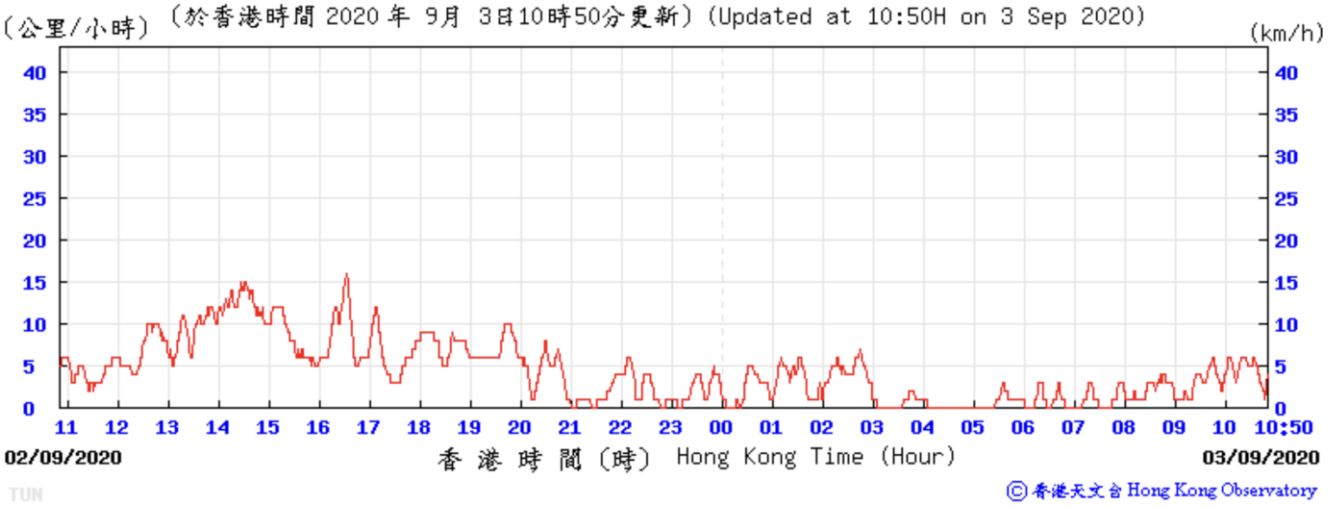
Appendix G

Meteorological Conditions

10-Minute Mean Wind Direction at the nearest Hong Kong Observatory's Tuen Mun Weather Station:



10-Minute Mean Wind Speed at the nearest Hong Kong Observatory's Tuen Mun Weather Station:



Meteorological conditions during the fourth operation phase odour impact monitoring

Date	Time	Weather Parameters		
		Temperature	Wind Direction	Wind Speed (km/hour)
02 September 2020	1100	33	NW	6.0
	1200	34	SE	6.0
	1300	33	--	6.0
	1400	34	NW	12.0
	1500	33	NW	10.0
	1600	32	--	6.0
	1700	30	SE	8.0
	1800	30	SE	8.0
	1900	29	SE	6.0
	2000	29	SE	6.0
	2100	29	--	0.0
	2200	28	SE	4.0
	2300	28	SE	1.0
	2400	28	SE	1.0
03 September 2020	0100	28	--	1.0
	0200	28	--	1.0
	0300	28	--	1.0
	0400	27	--	1.0
	0500	27	--	0.0
	0600	27	--	1.0
	0700	28	--	0.0
	0800	29	NE	2.0
	0900	31	--	1.0
	1000	33	NW	4.0

PRESS WEATHER NO. 074 - HOURLY READINGS

****

HOURLY READINGS

AT 11 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 31 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 71 PER CENT.
DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 6. THE INTENSITY OF UV RADIATION WAS HIGH.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	32 DEGREES;
WONG CHUK HANG	32 DEGREES;
TA KWU LING	33 DEGREES;
LAU FAU SHAN	31 DEGREES;
TAI PO	32 DEGREES;
SHA TIN	34 DEGREES;
TUEN MUN	33 DEGREES;
TSEUNG KWAN O	34 DEGREES;
SAI KUNG	33 DEGREES;
CHEUNG CHAU	31 DEGREES;
CHEK LAP KOK	32 DEGREES;
TSING YI	31 DEGREES;
SHEK KONG	33 DEGREES;
TSUEN WAN HO KOON	31 DEGREES;
TSUEN WAN SHING MUN VALLEY	33 DEGREES;
HONG KONG PARK	33 DEGREES;
SHAU KEI WAN	33 DEGREES;
KOWLOON CITY	33 DEGREES;
HAPPY VALLEY	35 DEGREES;
WONG TAI SIN	33 DEGREES;
STANLEY	32 DEGREES;
KWUN TONG	34 DEGREES;
SHAM SHUI PO	33 DEGREES;
KAI TAK RUNWAY PARK	33 DEGREES;
YUEN LONG PARK	34 DEGREES;
TAI MEI TUK	35 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 11:02 HKT ON 02.09.2020

PRESS WEATHER NO. 080 - HOURLY READINGS

****

HOURLY READINGS

AT NOON AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 32 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 69 PER CENT. DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 7. THE INTENSITY OF UV RADIATION WAS HIGH.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	32 DEGREES;
WONG CHUK HANG	33 DEGREES;
TA KWU LING	34 DEGREES;
LAU FAU SHAN	32 DEGREES;
TAI PO	32 DEGREES;
SHA TIN	34 DEGREES;
TUEN MUN	34 DEGREES;
TSEUNG KWAN O	34 DEGREES;
SAI KUNG	34 DEGREES;
CHEUNG CHAU	33 DEGREES;
CHEK LAP KOK	33 DEGREES;
TSING YI	32 DEGREES;
SHEK KONG	34 DEGREES;
TSUEN WAN HO KOON	31 DEGREES;
TSUEN WAN SHING MUN VALLEY	33 DEGREES;
HONG KONG PARK	33 DEGREES;
SHAU KEI WAN	35 DEGREES;
KOWLOON CITY	34 DEGREES;
HAPPY VALLEY	35 DEGREES;
WONG TAI SIN	35 DEGREES;
STANLEY	32 DEGREES;
KWUN TONG	34 DEGREES;
SHAM SHUI PO	34 DEGREES;
KAI TAK RUNWAY PARK	33 DEGREES;
YUEN LONG PARK	35 DEGREES;
TAI MEI TUK	35 DEGREES.

NO RAINFALL WAS RECORDED AT THE HONG KONG OBSERVATORY BETWEEN MIDNIGHT LAST NIGHT AND MIDDAY TODAY.

DISPATCHED BY HONG KONG OBSERVATORY AT 12:02 HKT ON 02.09.2020

PRESS WEATHER NO. 088 - HOURLY READINGS

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HOURLY READINGS

AT 1 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 33 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 67 PER CENT. DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 8. THE INTENSITY OF UV RADIATION WAS VERY HIGH.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	33 DEGREES;
WONG CHUK HANG	33 DEGREES;
TA KWU LING	35 DEGREES;
LAU FAU SHAN	32 DEGREES;
TAI PO	33 DEGREES;
SHA TIN	35 DEGREES;
TUEN MUN	33 DEGREES;
TSEUNG KWAN O	34 DEGREES;
SAI KUNG	34 DEGREES;
CHEUNG CHAU	34 DEGREES;
CHEK LAP KOK	34 DEGREES;
TSING YI	33 DEGREES;
SHEK KONG	34 DEGREES;
TSUEN WAN HO KOON	31 DEGREES;
TSUEN WAN SHING MUN VALLEY	33 DEGREES;
HONG KONG PARK	34 DEGREES;
SHAU KEI WAN	33 DEGREES;
KOWLOON CITY	35 DEGREES;
HAPPY VALLEY	35 DEGREES;
WONG TAI SIN	34 DEGREES;
STANLEY	32 DEGREES;
KWUN TONG	35 DEGREES;
SHAM SHUI PO	35 DEGREES;
KAI TAK RUNWAY PARK	33 DEGREES;
YUEN LONG PARK	35 DEGREES;
TAI MEI TUK	35 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 13:02 HKT ON 02.09.2020

PRESS WEATHER NO. 096 - HOURLY READINGS

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HOURLY READINGS

AT 2 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 34 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 62 PER CENT. DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 6. THE INTENSITY OF UV RADIATION WAS HIGH.

PLEASE BE REMINDED THAT:

THE THUNDERSTORM WARNING HAS BEEN ISSUED. IT WILL REMAIN EFFECTIVE UNTIL 3:00 P.M. TODAY. ISOLATED THUNDERSTORMS ARE EXPECTED TO OCCUR OVER HONG KONG.

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	33 DEGREES;
WONG CHUK HANG	33 DEGREES;
TA KWU LING	26 DEGREES;
LAU FAU SHAN	33 DEGREES;
TAI PO	31 DEGREES;
SHA TIN	35 DEGREES;
TUEN MUN	34 DEGREES;
TSEUNG KWAN O	34 DEGREES;
SAI KUNG	33 DEGREES;
CHEUNG CHAU	33 DEGREES;
CHEK LAP KOK	34 DEGREES;
TSING YI	34 DEGREES;
SHEK KONG	35 DEGREES;
TSUEN WAN HO KOON	31 DEGREES;
TSUEN WAN SHING MUN VALLEY	33 DEGREES;
HONG KONG PARK	33 DEGREES;
SHAU KEI WAN	33 DEGREES;
KOWLOON CITY	33 DEGREES;
HAPPY VALLEY	34 DEGREES;
WONG TAI SIN	35 DEGREES;
STANLEY	32 DEGREES;
KWUN TONG	35 DEGREES;
SHAM SHUI PO	34 DEGREES;
KAI TAK RUNWAY PARK	34 DEGREES;
YUEN LONG PARK	36 DEGREES;
TAI MEI TUK	32 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 14:02 HKT ON 02.09.2020

PRESS WEATHER NO. 104 - HOURLY READINGS

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HOURLY READINGS

AT 3 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 32 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 67 PER CENT. DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 3. THE INTENSITY OF UV RADIATION WAS MODERATE.

PLEASE BE REMINDED THAT:

THE THUNDERSTORM WARNING HAS BEEN ISSUED. IT WILL REMAIN EFFECTIVE UNTIL 5:00 P.M. TODAY. ISOLATED THUNDERSTORMS ARE EXPECTED TO OCCUR OVER HONG KONG.

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	33 DEGREES;
TA KWU LING	29 DEGREES;
LAU FAU SHAN	33 DEGREES;
TAI PO	30 DEGREES;
SHA TIN	30 DEGREES;
TUEN MUN	33 DEGREES;
TSEUNG KWAN O	27 DEGREES;
SAI KUNG	29 DEGREES;
CHEUNG CHAU	33 DEGREES;
CHEK LAP KOK	34 DEGREES;
TSING YI	29 DEGREES;
SHEK KONG	34 DEGREES;
TSUEN WAN HO KOON	30 DEGREES;
TSUEN WAN SHING MUN VALLEY	30 DEGREES;
HONG KONG PARK	32 DEGREES;
SHAU KEI WAN	31 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	34 DEGREES;
WONG TAI SIN	28 DEGREES;
STANLEY	33 DEGREES;
KWUN TONG	28 DEGREES;
SHAM SHUI PO	26 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	35 DEGREES;
TAI MEI TUK	28 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 15:02 HKT ON 02.09.2020

PRESS WEATHER NO. 108 - HOURLY READINGS
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HOURLY READINGS

AT 4 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 78 PER CENT. DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 0.9. THE INTENSITY OF UV RADIATION WAS LOW.

PLEASE BE REMINDED THAT:

THE THUNDERSTORM WARNING HAS BEEN ISSUED. IT WILL REMAIN EFFECTIVE UNTIL 5:00 P.M. TODAY. ISOLATED THUNDERSTORMS ARE EXPECTED TO OCCUR OVER HONG KONG.

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	29 DEGREES;
WONG CHUK HANG	28 DEGREES;
TA KWU LING	30 DEGREES;
LAU FAU SHAN	28 DEGREES;
TAI PO	29 DEGREES;
SHA TIN	31 DEGREES;
TUEN MUN	32 DEGREES;
TSEUNG KWAN O	28 DEGREES;
SAI KUNG	30 DEGREES;
CHEUNG CHAU	33 DEGREES;
CHEK LAP KOK	33 DEGREES;
TSING YI	29 DEGREES;
SHEK KONG	32 DEGREES;
TSUEN WAN HO KOON	28 DEGREES;
TSUEN WAN SHING MUN VALLEY	30 DEGREES;
HONG KONG PARK	30 DEGREES;
SHAU KEI WAN	28 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	29 DEGREES;
WONG TAI SIN	28 DEGREES;
STANLEY	27 DEGREES;
KWUN TONG	29 DEGREES;
SHAM SHUI PO	// DEGREES;
KAI TAK RUNWAY PARK	28 DEGREES;
YUEN LONG PARK	33 DEGREES;
TAI MEI TUK	29 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 16:02 HKT ON 02.09.2020

PRESS WEATHER NO. 126 - HOURLY READINGS

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HOURLY READINGS

AT 5 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 70 PER CENT.
DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 0.4. THE INTENSITY OF UV RADIATION WAS LOW.

PLEASE BE REMINDED THAT:

THE THUNDERSTORM WARNING HAS BEEN ISSUED. IT WILL REMAIN EFFECTIVE UNTIL 6:30 P.M. TODAY. ISOLATED THUNDERSTORMS ARE EXPECTED TO OCCUR OVER HONG KONG.
THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	29 DEGREES;
WONG CHUK HANG	29 DEGREES;
TA KWU LING	31 DEGREES;
LAU FAU SHAN	29 DEGREES;
TAI PO	30 DEGREES;
SHA TIN	31 DEGREES;
TUEN MUN	30 DEGREES;
TSEUNG KWAN O	29 DEGREES;
SAI KUNG	30 DEGREES;
CHEUNG CHAU	31 DEGREES;
CHEK LAP KOK	32 DEGREES;
TSING YI	27 DEGREES;
SHEK KONG	31 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	27 DEGREES;
HONG KONG PARK	30 DEGREES;
SHAU KEI WAN	29 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	30 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	28 DEGREES;
KWUN TONG	30 DEGREES;
SHAM SHUI PO	28 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	31 DEGREES;
TAI MEI TUK	30 DEGREES.

BETWEEN 3:45 AND 4:45 P.M., LIGHTNING WAS DETECTED OVER ALL REGIONS. THE RAINFALL RECORDED IN VARIOUS REGIONS WERE:

DISPATCHED BY HONG KONG OBSERVATORY AT 17:02 HKT ON 02.09.2020

PRESS WEATHER NO. 136 - HOURLY READINGS

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HOURLY READINGS

AT 6 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 31 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 69 PER CENT.
DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 0.2. THE INTENSITY OF UV RADIATION WAS LOW.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	30 DEGREES;
TA KWU LING	31 DEGREES;
LAU FAU SHAN	30 DEGREES;
TAI PO	30 DEGREES;
SHA TIN	31 DEGREES;
TUEN MUN	30 DEGREES;
TSEUNG KWAN O	28 DEGREES;
SAI KUNG	30 DEGREES;
CHEUNG CHAU	30 DEGREES;
CHEK LAP KOK	32 DEGREES;
TSING YI	28 DEGREES;
SHEK KONG	31 DEGREES;
TSUEN WAN HO KOON	27 DEGREES;
TSUEN WAN SHING MUN VALLEY	27 DEGREES;
HONG KONG PARK	30 DEGREES;
SHAU KEI WAN	30 DEGREES;
KOWLOON CITY	30 DEGREES;
HAPPY VALLEY	30 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	29 DEGREES;
KAI TAK RUNWAY PARK	30 DEGREES;
YUEN LONG PARK	31 DEGREES;
TAI MEI TUK	29 DEGREES.

BETWEEN 4:45 AND 5:45 P.M., LIGHTNING WAS DETECTED WITHIN LANTAU, HONG KONG AND KOWLOON. THE RAINFALL RECORDED IN VARIOUS REGIONS WERE:

ISLANDS DISTRICT	0 TO 1 MM.

DISPATCHED BY HONG KONG OBSERVATORY AT 18:02 HKT ON 02.09.2020

PRESS WEATHER NO. 144 - HOURLY READINGS

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HOURLY READINGS

AT 7 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 31 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 73 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	29 DEGREES;
TA KWU LING	29 DEGREES;
LAU FAU SHAN	30 DEGREES;
TAI PO	29 DEGREES;
SHA TIN	30 DEGREES;
TUEN MUN	29 DEGREES;
TSEUNG KWAN O	28 DEGREES;
SAI KUNG	30 DEGREES;
CHEUNG CHAU	29 DEGREES;
CHEK LAP KOK	31 DEGREES;
TSING YI	27 DEGREES;
SHEK KONG	30 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	27 DEGREES;
HONG KONG PARK	30 DEGREES;
SHAU KEI WAN	30 DEGREES;
KOWLOON CITY	30 DEGREES;
HAPPY VALLEY	30 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	29 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	31 DEGREES;
TAI MEI TUK	29 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 19:02 HKT ON 02.09.2020

PRESS WEATHER NO. 150 - HOURLY READINGS

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HOURLY READINGS

AT 8 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 31 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 77 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	29 DEGREES;
TA KWU LING	28 DEGREES;
LAU FAU SHAN	30 DEGREES;
TAI PO	29 DEGREES;
SHA TIN	30 DEGREES;
TUEN MUN	29 DEGREES;
TSEUNG KWAN O	28 DEGREES;
SAI KUNG	30 DEGREES;
CHEUNG CHAU	28 DEGREES;
CHEK LAP KOK	31 DEGREES;
TSING YI	27 DEGREES;
SHEK KONG	29 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	27 DEGREES;
HONG KONG PARK	30 DEGREES;
SHAU KEI WAN	30 DEGREES;
KOWLOON CITY	30 DEGREES;
HAPPY VALLEY	30 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	32 DEGREES;
SHAM SHUI PO	29 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	30 DEGREES;
TAI MEI TUK	29 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 20:02 HKT ON 02.09.2020

PRESS WEATHER NO. 156 - HOURLY READINGS

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HOURLY READINGS

AT 9 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 81 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	29 DEGREES;
TA KWU LING	28 DEGREES;
LAU FAU SHAN	29 DEGREES;
TAI PO	29 DEGREES;
SHA TIN	30 DEGREES;
TUEN MUN	29 DEGREES;
TSEUNG KWAN O	29 DEGREES;
SAI KUNG	29 DEGREES;
CHEUNG CHAU	28 DEGREES;
CHEK LAP KOK	31 DEGREES;
TSING YI	27 DEGREES;
SHEK KONG	29 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	27 DEGREES;
HONG KONG PARK	29 DEGREES;
SHAU KEI WAN	30 DEGREES;
KOWLOON CITY	30 DEGREES;
HAPPY VALLEY	30 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	32 DEGREES;
SHAM SHUI PO	29 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	30 DEGREES;
TAI MEI TUK	29 DEGREES.

BETWEEN 7:45 AND 8:45 P.M., THE RAINFALL RECORDED IN VARIOUS REGIONS WERE:

NORTH DISTRICT	0 TO 1 MM.

DISPATCHED BY HONG KONG OBSERVATORY AT 21:02 HKT ON 02.09.2020

PRESS WEATHER NO. 164 - HOURLY READINGS

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HOURLY READINGS

AT 10 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 83 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	29 DEGREES;
TA KWU LING	28 DEGREES;
LAU FAU SHAN	29 DEGREES;
TAI PO	29 DEGREES;
SHA TIN	30 DEGREES;
TUEN MUN	28 DEGREES;
TSEUNG KWAN O	29 DEGREES;
SAI KUNG	29 DEGREES;
CHEUNG CHAU	27 DEGREES;
CHEK LAP KOK	31 DEGREES;
TSING YI	28 DEGREES;
SHEK KONG	28 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	27 DEGREES;
HONG KONG PARK	29 DEGREES;
SHAU KEI WAN	30 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	30 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	32 DEGREES;
SHAM SHUI PO	29 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	30 DEGREES;
TAI MEI TUK	29 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 22:02 HKT ON 02.09.2020

PRESS WEATHER NO. 168 - HOURLY READINGS

****

HOURLY READINGS

AT 11 P.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 82 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	29 DEGREES;
TA KWU LING	27 DEGREES;
LAU FAU SHAN	29 DEGREES;
TAI PO	29 DEGREES;
SHA TIN	30 DEGREES;
TUEN MUN	28 DEGREES;
TSEUNG KWAN O	29 DEGREES;
SAI KUNG	29 DEGREES;
CHEUNG CHAU	27 DEGREES;
CHEK LAP KOK	31 DEGREES;
TSING YI	28 DEGREES;
SHEK KONG	28 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	27 DEGREES;
HONG KONG PARK	29 DEGREES;
SHAU KEI WAN	30 DEGREES;
KOWLOON CITY	30 DEGREES;
HAPPY VALLEY	30 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	29 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	29 DEGREES;
TAI MEI TUK	29 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 23:02 HKT ON 02.09.2020

PRESS WEATHER NO. 004 - HOURLY READINGS

****

HOURLY READINGS

AT MIDNIGHT AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 81 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	28 DEGREES;
TA KWU LING	27 DEGREES;
LAU FAU SHAN	29 DEGREES;
TAI PO	29 DEGREES;
SHA TIN	30 DEGREES;
TUEN MUN	28 DEGREES;
TSEUNG KWAN O	29 DEGREES;
SAI KUNG	29 DEGREES;
CHEUNG CHAU	27 DEGREES;
CHEK LAP KOK	30 DEGREES;
TSING YI	28 DEGREES;
SHEK KONG	28 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	27 DEGREES;
HONG KONG PARK	29 DEGREES;
SHAU KEI WAN	30 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	29 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	29 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	29 DEGREES;
TAI MEI TUK	29 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 00:02 HKT ON 03.09.2020

PRESS WEATHER NO. 010 - HOURLY READINGS

****

HOURLY READINGS

AT 1 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 83 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	28 DEGREES;
TA KWU LING	26 DEGREES;
LAU FAU SHAN	29 DEGREES;
TAI PO	28 DEGREES;
SHA TIN	29 DEGREES;
TUEN MUN	28 DEGREES;
TSEUNG KWAN O	29 DEGREES;
SAI KUNG	29 DEGREES;
CHEUNG CHAU	27 DEGREES;
CHEK LAP KOK	30 DEGREES;
TSING YI	28 DEGREES;
SHEK KONG	// DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	26 DEGREES;
HONG KONG PARK	29 DEGREES;
SHAU KEI WAN	30 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	30 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	29 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	29 DEGREES;
TAI MEI TUK	29 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 01:02 HKT ON 03.09.2020

PRESS WEATHER NO. 014 - HOURLY READINGS

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HOURLY READINGS

AT 2 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 85 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	29 DEGREES;
WONG CHUK HANG	28 DEGREES;
TA KWU LING	26 DEGREES;
LAU FAU SHAN	29 DEGREES;
TAI PO	28 DEGREES;
SHA TIN	29 DEGREES;
TUEN MUN	28 DEGREES;
TSEUNG KWAN O	29 DEGREES;
SAI KUNG	29 DEGREES;
CHEUNG CHAU	28 DEGREES;
CHEK LAP KOK	30 DEGREES;
TSING YI	27 DEGREES;
SHEK KONG	27 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	26 DEGREES;
HONG KONG PARK	28 DEGREES;
SHAU KEI WAN	29 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	30 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	28 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	28 DEGREES;
TAI MEI TUK	28 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 02:02 HKT ON 03.09.2020

PRESS WEATHER NO. 018 - HOURLY READINGS

****

HOURLY READINGS

AT 3 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 86 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	29 DEGREES;
WONG CHUK HANG	28 DEGREES;
TA KWU LING	26 DEGREES;
LAU FAU SHAN	29 DEGREES;
TAI PO	28 DEGREES;
SHA TIN	28 DEGREES;
TUEN MUN	28 DEGREES;
TSEUNG KWAN O	29 DEGREES;
SAI KUNG	28 DEGREES;
CHEUNG CHAU	28 DEGREES;
CHEK LAP KOK	30 DEGREES;
TSING YI	27 DEGREES;
SHEK KONG	27 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	26 DEGREES;
HONG KONG PARK	28 DEGREES;
SHAU KEI WAN	29 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	29 DEGREES;
WONG TAI SIN	28 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	28 DEGREES;
KAI TAK RUNWAY PARK	28 DEGREES;
YUEN LONG PARK	28 DEGREES;
TAI MEI TUK	28 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 03:02 HKT ON 03.09.2020

PRESS WEATHER NO. 026 - HOURLY READINGS

****

HOURLY READINGS

AT 4 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 29 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 86 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	29 DEGREES;
WONG CHUK HANG	28 DEGREES;
TA KWU LING	26 DEGREES;
LAU FAU SHAN	28 DEGREES;
TAI PO	28 DEGREES;
SHA TIN	28 DEGREES;
TUEN MUN	27 DEGREES;
TSEUNG KWAN O	28 DEGREES;
SAI KUNG	28 DEGREES;
CHEUNG CHAU	27 DEGREES;
CHEK LAP KOK	29 DEGREES;
TSING YI	27 DEGREES;
SHEK KONG	27 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	26 DEGREES;
HONG KONG PARK	28 DEGREES;
SHAU KEI WAN	29 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	28 DEGREES;
WONG TAI SIN	28 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	28 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	27 DEGREES;
TAI MEI TUK	28 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 04:02 HKT ON 03.09.2020

PRESS WEATHER NO. 030 - HOURLY READINGS

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HOURLY READINGS

AT 5 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 29 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 86 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	29 DEGREES;
WONG CHUK HANG	27 DEGREES;
TA KWU LING	26 DEGREES;
LAU FAU SHAN	28 DEGREES;
TAI PO	28 DEGREES;
SHA TIN	28 DEGREES;
TUEN MUN	27 DEGREES;
TSEUNG KWAN O	28 DEGREES;
SAI KUNG	28 DEGREES;
CHEUNG CHAU	27 DEGREES;
CHEK LAP KOK	30 DEGREES;
TSING YI	28 DEGREES;
SHEK KONG	27 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	26 DEGREES;
HONG KONG PARK	28 DEGREES;
SHAU KEI WAN	30 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	28 DEGREES;
WONG TAI SIN	28 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	28 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	27 DEGREES;
TAI MEI TUK	28 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 05:02 HKT ON 03.09.2020

PRESS WEATHER NO. 042 - HOURLY READINGS

****

HOURLY READINGS

AT 6 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 29 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 84 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	29 DEGREES;
WONG CHUK HANG	27 DEGREES;
TA KWU LING	26 DEGREES;
LAU FAU SHAN	28 DEGREES;
TAI PO	28 DEGREES;
SHA TIN	28 DEGREES;
TUEN MUN	27 DEGREES;
TSEUNG KWAN O	28 DEGREES;
SAI KUNG	29 DEGREES;
CHEUNG CHAU	27 DEGREES;
CHEK LAP KOK	29 DEGREES;
TSING YI	28 DEGREES;
SHEK KONG	27 DEGREES;
TSUEN WAN HO KOON	26 DEGREES;
TSUEN WAN SHING MUN VALLEY	26 DEGREES;
HONG KONG PARK	28 DEGREES;
SHAU KEI WAN	29 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	28 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	28 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	29 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	28 DEGREES;
TAI MEI TUK	28 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 06:02 HKT ON 03.09.2020

PRESS WEATHER NO. 052 - HOURLY READINGS

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HOURLY READINGS

AT 7 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 29 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 84 PER CENT.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	29 DEGREES;
WONG CHUK HANG	28 DEGREES;
TA KWU LING	26 DEGREES;
LAU FAU SHAN	29 DEGREES;
TAI PO	28 DEGREES;
SHA TIN	29 DEGREES;
TUEN MUN	28 DEGREES;
TSEUNG KWAN O	29 DEGREES;
SAI KUNG	29 DEGREES;
CHEUNG CHAU	28 DEGREES;
CHEK LAP KOK	30 DEGREES;
TSING YI	28 DEGREES;
SHEK KONG	27 DEGREES;
TSUEN WAN HO KOON	27 DEGREES;
TSUEN WAN SHING MUN VALLEY	26 DEGREES;
HONG KONG PARK	29 DEGREES;
SHAU KEI WAN	29 DEGREES;
KOWLOON CITY	29 DEGREES;
HAPPY VALLEY	29 DEGREES;
WONG TAI SIN	29 DEGREES;
STANLEY	28 DEGREES;
KWUN TONG	31 DEGREES;
SHAM SHUI PO	29 DEGREES;
KAI TAK RUNWAY PARK	29 DEGREES;
YUEN LONG PARK	28 DEGREES;
TAI MEI TUK	29 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 07:02 HKT ON 03.09.2020

PRESS WEATHER NO. 060 - HOURLY READINGS

****

HOURLY READINGS

AT 8 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 85 PER CENT.
DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 0.4. THE INTENSITY OF UV RADIATION WAS LOW.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	29 DEGREES;
TA KWU LING	28 DEGREES;
LAU FAU SHAN	29 DEGREES;
TAI PO	29 DEGREES;
SHA TIN	31 DEGREES;
TUEN MUN	29 DEGREES;
TSEUNG KWAN O	30 DEGREES;
SAI KUNG	31 DEGREES;
CHEUNG CHAU	28 DEGREES;
CHEK LAP KOK	31 DEGREES;
TSING YI	29 DEGREES;
SHEK KONG	29 DEGREES;
TSUEN WAN HO KOON	27 DEGREES;
TSUEN WAN SHING MUN VALLEY	28 DEGREES;
HONG KONG PARK	29 DEGREES;
SHAU KEI WAN	31 DEGREES;
KOWLOON CITY	31 DEGREES;
HAPPY VALLEY	30 DEGREES;
WONG TAI SIN	31 DEGREES;
STANLEY	29 DEGREES;
KWUN TONG	32 DEGREES;
SHAM SHUI PO	30 DEGREES;
KAI TAK RUNWAY PARK	30 DEGREES;
YUEN LONG PARK	30 DEGREES;
TAI MEI TUK	30 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 08:02 HKT ON 03.09.2020

PRESS WEATHER NO. 066 - HOURLY READINGS

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HOURLY READINGS

AT 9 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 30 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 83 PER CENT.
DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 2. THE INTENSITY OF UV RADIATION WAS LOW.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	30 DEGREES;
WONG CHUK HANG	32 DEGREES;
TA KWU LING	30 DEGREES;
LAU FAU SHAN	30 DEGREES;
TAI PO	30 DEGREES;
SHA TIN	32 DEGREES;
TUEN MUN	31 DEGREES;
TSEUNG KWAN O	32 DEGREES;
SAI KUNG	33 DEGREES;
CHEUNG CHAU	30 DEGREES;
CHEK LAP KOK	32 DEGREES;
TSING YI	31 DEGREES;
SHEK KONG	31 DEGREES;
TSUEN WAN HO KOON	30 DEGREES;
TSUEN WAN SHING MUN VALLEY	30 DEGREES;
HONG KONG PARK	31 DEGREES;
SHAU KEI WAN	32 DEGREES;
KOWLOON CITY	32 DEGREES;
HAPPY VALLEY	32 DEGREES;
WONG TAI SIN	33 DEGREES;
STANLEY	31 DEGREES;
KWUN TONG	34 DEGREES;
SHAM SHUI PO	32 DEGREES;
KAI TAK RUNWAY PARK	31 DEGREES;
YUEN LONG PARK	33 DEGREES;
TAI MEI TUK	31 DEGREES.

BETWEEN MIDNIGHT AND 9 A.M. THE MINIMUM TEMPERATURE WAS 29.2 DEGREES CELSIUS AT THE HONG KONG OBSERVATORY.

DISPATCHED BY HONG KONG OBSERVATORY AT 09:02 HKT ON 03.09.2020

PRESS WEATHER NO. 076 - HOURLY READINGS

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HOURLY READINGS

AT 10 A.M. AT THE HONG KONG OBSERVATORY THE AIR TEMPERATURE WAS 31 DEGREES CELSIUS AND THE RELATIVE HUMIDITY 75 PER CENT.
DURING THE PAST HOUR THE MEAN UV INDEX RECORDED AT KING'S PARK WAS 3. THE INTENSITY OF UV RADIATION WAS MODERATE.

PLEASE BE REMINDED THAT:

THE VERY HOT WEATHER WARNING IS NOW IN FORCE. THE PUBLIC SHOULD BEWARE OF HEATSTROKE AND DRINK MORE WATER.

THE AIR TEMPERATURES AT OTHER PLACES WERE:

KING'S PARK	31 DEGREES;
WONG CHUK HANG	32 DEGREES;
TA KWU LING	32 DEGREES;
LAU FAU SHAN	31 DEGREES;
TAI PO	31 DEGREES;
SHA TIN	34 DEGREES;
TUEN MUN	33 DEGREES;
TSEUNG KWAN O	34 DEGREES;
SAI KUNG	33 DEGREES;
CHEUNG CHAU	31 DEGREES;
CHEK LAP KOK	33 DEGREES;
TSING YI	32 DEGREES;
SHEK KONG	32 DEGREES;
TSUEN WAN HO KOON	30 DEGREES;
TSUEN WAN SHING MUN VALLEY	33 DEGREES;
HONG KONG PARK	32 DEGREES;
SHAU KEI WAN	34 DEGREES;
KOWLOON CITY	32 DEGREES;
HAPPY VALLEY	34 DEGREES;
WONG TAI SIN	34 DEGREES;
STANLEY	31 DEGREES;
KWUN TONG	34 DEGREES;
SHAM SHUI PO	34 DEGREES;
KAI TAK RUNWAY PARK	33 DEGREES;
YUEN LONG PARK	34 DEGREES;
TAI MEI TUK	35 DEGREES.

DISPATCHED BY HONG KONG OBSERVATORY AT 10:02 HKT ON 03.09.2020

E. Email Correspondence (including weather forecast)

Email Correspondence to IEC

Johnathan Ho

From: Johnathan Ho
Sent: 26 August 2020 11:51
To: Alice Wong
Cc: Thomas Chan; Liz Lo; cllui@dsd.gov.hk; 'WK Chiu'
Subject: RE: 4th Impact Odour Monitoring for Tuen Mun Area 54 Sewage Pumping Station
Attachments: Tuen Mun Area 54 Sewage Pumping Station

Dear Alice,

Thank you for your email. Due to 7 days advance notice for applying access to TMA54 Sewage Pumping Station is required, and the adverse weather forecast shown in HKO website for the remaining weekdays in August 2020, we have no alternatives but to postpone the 4th Odour Impact Monitoring to September 2020.

In order to conduct the odour monitoring at the earliest date with no adverse weather prediction from the HKO, we have coordinated with our team and come up with the following arrangement for the upcoming 4th impact odour monitoring. The arrangement is as follows:

Date (Commencement):	2 September 2020
Time (Commencement):	11:00am
Monitoring Duration:	24 hours

Furthermore, as discussed yesterday, we have contacted EPD to inform them on the postponement of the 4th impact odour monitoring event from August to September 2020. Attached please find the email to EPD for your reference.

Should you have queries on the above, please feel free to contact us. Thanks.

Johnathan Ho
Assistant Environmental Consultant

D +852 2585 8439
johnathan.ho@mottmac.com

7 days is required in advance to apply for access to TMA54SPS. Due to insufficient time, the odour monitoring was postponed to 2 to 3 September 2020.

Johnathan Ho

From: Alice Wong <alicehywong@meinhardt.com.hk>
Sent: 25 August 2020 15:26
To: Johnathan Ho
Cc: Thomas Chan; Liz Lo; cllui@dsd.gov.hk; 'WK Chiu'
Subject: RE: 4th Impact Odour Monitoring for Tuen Mun Area 54 Sewage Pumping Station

Dear Johnathan,

As talked, please make the effort to arrange the monitoring in August instead and update us the status as soon as possible.

Should you have any questions, please feel free to contact us. Thank you very much.

Kind regards,

Alice Wong
Environmental Consultant

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From: Johnathan Ho [mailto:Johnathan.Ho@mottmac.com]
Sent: Monday, August 17, 2020 3:24 PM
To: WK Chiu
Cc: Thomas Chan; Liz Lo; cllui@dsd.gov.hk; Alice Wong
Subject: RE: 4th Impact Odour Monitoring for Tuen Mun Area 54 Sewage Pumping Station

Dear Mr. Chiu,

As per our telephone conversation, please note that the original scheduled odour monitoring at Tuen Mun Area 54 Sewage Pumping Station from 18-19th August 2020 would be cancelled due to adverse weather **(Weather forecast is adhered below for your information)**.

The 4th odour monitoring will be rearranged in September 2020 **tentatively**. Should you have further queries on this arrangement, please feel free to contact us. Thank you.

Johnathan Ho
Assistant Environmental Consultant

D +852 2585 8439
johnathan.ho@mottmac.com

Due to adverse weather on 18 and 19 August 2020, the orginally arranged odour monitoring from 18 - 19 August 2020 is cancelled. Due to adverse weather for the remaining days of the month, there are no alternatives but to postpone the fourth impact odour monitoring to September 2020.

From: Johnathan Ho
Sent: 10 August 2020 16:11
To: WK Chiu <wkchiu@meinhardt.com.hk>
Cc: Thomas Chan <Thomas.Chan@mottmac.com>; Liz Lo <Liz.Lo@mottmac.com>; cllui@dsd.gov.hk; Alice Wong <alicehywong@meinhardt.com.hk>
Subject: 4th Impact Odour Monitoring for Tuen Mun Area 54 Sewage Pumping Station

Dear Mr. Chiu,

Please be advised that the 4th Impact Odour Monitoring for Tuen Mun Area 54 Sewage Pumping Station is scheduled as follows:

Date (Commencement):	18 August 2020
Time (Commencement):	11:00am
Monitoring Duration:	24 hours

Thank you.

Johnathan Ho
Assistant Environmental Consultant
D +852 2585 8439
johnathan.ho@mottmac.com

MOTT MACDONALD

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348 Kwun Tong Road
Kwun Tong
Kowloon
Hong Kong

Website | **Twitter** | **LinkedIn** | **Facebook** | **Instagram** | **YouTube**

Email Correspondence to EPD

Johnathan Ho

From: Liz Lo
Sent: 21 August 2020 11:59
To: josephinetychau@epd.gov.hk
Cc: Johnathan Ho; Thomas Chan; cllui@dsd.gov.hk
Subject: Tuen Mun Area 54 Sewage Pumping Station
Attachments: 20200817 Weather Forecast.pdf; 20200821 Weather Forecast.pdf

Dear Josephine,

Regarding the captioned project, the 4th Operation Phase Odour Impact Monitoring have been originally scheduled to be conducted on 18 – 19 Aug 2020. However, it was cancelled for safety reason due to the typhoon Higos. In addition, due to the adverse weather predicted for the remaining calendar days of August 2020, we have no alternatives but to postpone the 4th Odour Impact Monitoring to September 2020. Attached please find the weather forecast showing the forecasted weather from 18 August to 29 August (please refer to **20200817 Weather Forecast.pdf** & **20200821 Weather Forecast.pdf**) for your information.

Should you have further queries on the above, please feel free to contact us. Thank you.

Regards,
Liz Lo
Mott MacDonald HK Limited.
2828 5751

20200817 Weather Forecast.pdf

Due to adverse weather on 18 and 19 August 2020, the orginally arranged odour monitoring from 18 - 19 August 2020 is cancelled. Due to adverse weather for the remaining days of the month, there are no alternatives but to postpone the fourth impact odour monitoring to September 2020.

20200821 Weather Forecast.pdf

https://www.hko.gov.hk/tc/wxinfo/currwx/fnd.htm

香港天文台 HONG KONG OBSERVATORY

2020年8月21日 (五) 29.2°C 80% (09:20) ENG 簡 文字大小

天氣 | 氣候 | 地球物理 | 天文及授時 | 輻射監測 | 社群 | 學習 | 國際及區域合作 | 媒體及消息 | 電子服務 | 關於我們

> 天氣 > 天氣預測 > 香港九天天氣預報

香港九天天氣預報

天氣概況:

受高空反氣旋的支配，今明兩日中國東南部普遍晴朗及酷熱。位於呂宋附近的低壓區會在未來一兩日移向呂宋海峽至台灣一帶。預料受一股活躍西南氣流影響，下週中後期廣東沿岸驟雨增多。

8月21日 (五)	8月22日 (六)	8月23日 (日)	8月24日 (一)	8月25日 (二)	8月26日 (三)	8月27日 (四)	8月28日 (五)	8月29日 (六)
熱 HOT	熱 HOT							
27°C	27°C	27°C	27°C	27°C	27°C	26°C	26°C	27°C
33°C	33°C	33°C	32°C	31°C	31°C	30°C	30°C	31°C
65-90%	65-90%	65-95%	70-95%	75-95%	75-95%	80-95%	80-95%	75-95%
微風2級。	微風2級。	微風2級。	西南風3至4級。	西南風4級。	西南風4級。	西南風4級，離岸間中5級。	西南風4級，離岸間中5級。	西南風4級，離岸間中5級。
大致天晴，但局部地區有驟雨。日間酷熱。	部分時間有陽光，有幾陣驟雨。日間酷熱。	短暫時間有陽光，有幾陣驟雨。日間酷熱。	短暫時間有陽光，有幾陣驟雨。	大致多雲，有幾陣驟雨。	大致多雲，間中有驟雨，局部地區有雷暴。	多雲，有驟雨及狂風雷暴。	多雲，有驟雨及狂風雷暴。	大致多雲，間中有驟雨，局部地區有雷暴。

Due to adverse weather for the remaining days of the month, there are no alternatives but to postpone the fourth impact odour monitoring to September 2020.

F. Incident Report on Action Level or Limit Level Exceedance

Incident Report on Action Level or Limit Level Exceedance

Project	Tuen Mun Area 54 Sewage Pumping Station
Date	From 2 September 2020 (11am) to 3 September 2020 (10:59am), Total 24hrs
Time	From 2 September 2020 (11am) to 3 September 2020 (10:59am), Total 24hrs
Monitoring Location	A2 (Planned Primary School)
Parameter	Odour (H_2S concentration)
Action & Limit Levels	Action Level: 2.3 ppb Limit Level: 2.5 ppb
Measured Level	24-hr average H_2S conc.: 2.4 ppb
Possible reason for Action or Limit Level Non-compliance	1. At A2, it is observed that 2 out of the 8 sampling events throughout the 24-hrs monitoring period, the H_2S conc. at A2 is higher than at source. 2. Also, at Sample 2 & 3, the H_2S conc. at A2 is 14 - 17% higher than at source. 3. Under the above observations, it is considered that the source is not the major contributor to H_2S conc. at A2 during sample 2 & 3, and thus the exceedance at A2 is not project related.
Actions taken / to be taken	Since the exceedance at A2 is not project related, therefore, no remedial actions is recommended.
Remarks / Other Observations	1. Refer to the site observation at A2 during the monitoring period, no significant H_2S source was identified. 2. Detailed monitoring data will be presented in the Fourth Operation Phase Odour Impact Monitoring Report and to be deposit to EPD for record.

Prepared by: Thomas CHAN

Designation: Environmental Team Leader (ETL)

Signature: 

Date: 9 September 2020

Incident Report on Action Level or Limit Level Exceedance

Project	Tuen Mun Area 54 Sewage Pumping Station
Date	From 2 September 2020 (11am) to 3 September 2020 (10:59am), Total 24hrs
Time	From 2 September 2020 (11am) to 3 September 2020 (10:59am), Total 24hrs
Monitoring Location	A5 (Road connecting to TMA54SPS)
Parameter	Odour (H_2S concentration)
Action & Limit Levels	Action Level: 2.5 ppb Limit Level: 2.5 ppb
Measured Level	24-hr average H_2S conc.: 2.8 ppb
Possible reason for Action or Limit Level Non-compliance	1. At A5, it is observed that 2 of the sampling events throughout the 24-hrs monitoring period, the H_2S conc. at A5 is higher than at source. 2. Also, at Sample 2 & 3, the H_2S conc. at A5 is 17 - 57% higher than at source. 3. Under the above observations, it is considered that the source is not the major contributor to H_2S conc. at A5 during sample 2 & 3, and thus the exceedance at A5 is not project related.
Actions taken / to be taken	Since the exceedance at A5 is not project related, therefore, no remedial actions is recommended.
Remarks / Other Observations	1. Refer to the site observation at A5 during the monitoring period, no significant H_2S source was identified. 2. Detailed monitoring data will be presented in the Fourth Operation Phase Odour Impact Monitoring Report and to be deposit to EPD for record.

Prepared by: Thomas CHAN

Designation: Environmental Team Leader (ETL)

Signature: 

Date: 9 September 2020