

Annex G

Odour Patrol Result



ALS Technichem (HK) Pty Ltd
11/F, Chung Shun Knitting Centre
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Kwai Chung, N.T., Hong Kong
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CERTIFICATE OF ANALYSIS

CLIENT:	OSCAR BIOENERGY JOINT VENTURE	WORK ORDER:	HK2225675
CONTACT:	MS ANGEL TJIA		
ADDRESS:	NO. 5, SHAM FUNG ROAD, SIU HO WAN, NORTH LANTAU ISLAND, NT, HONG KONG	LABORATORY:	HONG KONG
		SUB-BATCH:	0
		DATE OF PATROL:	06 JULY, 2022
		DATE OF ISSUE:	18 JULY, 2022
PROJECT:	ODOUR PATROL FOR THE ORGANIC RESOURCES RECOVERY CENTRE PHASE 1 IN SIU HO WAN	SAMPLE TYPE:	ODOUR PATROL
SITE:	ORGANIC RESOURCES RECOVERY CENTRE PHASE 1 (O-PARK 1)	NO. OF LOCATIONS:	8

COMMENTS

Odour Patrol was conducted by the staff of ALS Technichem (HK) Pty Ltd during 10:40 - 11:12, 11:34 - 12:00 and 15:55 - 16:13. Additional odour patrol was conducted in the morning time due to having an odour intensity level of 2 at location 7.

Sampling information (Project name, Sample ID) is provided by client.

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

The results related only to the items tested. All pages of this report have been checked and approved for release.


Richard Fung
Managing Director - Hong Kong

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1. Summary of Work

The odour patrol was conducted during daytime and evening time.

2. Odour Patrol

Odour patrolling is a process to make use of the calibrated olfactory senses (i.e. the nasal sense) of the patrol members to evaluate the odour and its intensity during a patrol exercise at the site.

The patrol work was conducted by two odour patrol team members from ALS Technichem (HK) Pty Ltd during each time session. All members are free from any respiratory diseases during patrol day. None of the members has been working or living in the area of the vicinity of the inspection zone.

The patrol team was required to move slowly from one to the other monitoring locations and use their olfactory senses to detect odour at each location.

The location of odour sources and the areas to be affected by the odour nuisance were identified as much as possible.

During the patrolling, the meteorological and surrounding information were recorded:

- the prevailing weather condition;
- the wind direction;
- the wind speed;
- location where odour is spotted;
- possible source of odour;
- perceived intensity of the odour;
- duration of odour; and
- characteristics of the odour detected.

The perceived intensity is to be divided into 5 levels which are ranked in an ascending order as follows:

0	Not detected	No odour perceives or an odour so weak that it cannot be easily characterised or described
1	Slight	Identifiable odour, slight
2	Moderate	Identifiable odour, moderate
3	Strong	Identifiable odour, strong
4	Extreme	Severe odour

The odour patrol location was shown in Appendix 1.



3. Odour Patrol Result:
3.1 Daytime (First Round):

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
8	1	Cloudy	10:40	28.4	84.7	0.5	152	1	Continuous	Side wind	Garbage	Pre-Treatment Hall
	2							1				
7	1	Cloudy	10:42	28.8	87.9	1.1	167	2	Continuous	Downwind	Garbage	#3 Pre-Treatment Hall (Gate opened)
	2							2				
2	1	Cloudy	10:45	28.4	90.6	0.0	--	1	Continuous	NA	Biogas	Biogas Tank Valve Holder
	2							1				
3	1	Cloudy	10:46	28.6	93.7	0.0	--	0	NA	NA	NA	NA
	2							0				
5	1	Cloudy	10:50	29.3	89.3	0.0	--	1	Intermittent	NA	Grassy	Vegetation
	2							0	NA	NA	NA	NA



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Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
6	1	Cloudy	11:06	29.5	86.2	1.8	113	0	NA	NA	NA	NA
	2							0				
9	1	Cloudy	11:09	29.5	85.7	1.6	158	1	Intermittent	Downwind	Compost	Composting Hall
	2							1				
10	1	Cloudy	11:12	25.5	73.1	-	-	0	NA	NA	NA	NA
	2							0				

Remark:

T: Air Temperature;
RH: Relative Humidity;
WS: Wind Speed;
WD: Wind Direction.



3.2 Daytime (Second Round):

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
8	1	Cloudy	11:34	29.8	84.9	0.6	144	0	NA	NA	NA	NA
	2							0				
7	1	Cloudy	11:36	29.6	85.0	0.4	176	1	Continuous	Downwind	Garbage	#4 Pre-Treatment Hall (Gate opened)
	2							1				
2	1	Cloudy	11:48	30.4	86.4	0.9	011	1	Continuous	Side wind	Biogas	Biogas Tank Valve Holder
	2							1	Intermittent			
3	1	Cloudy	11:49	30.3	87.9	0.0	--	1	Intermittent	NA	Biogas	Biogas Tank Valve Holder
	2							0	NA	NA	NA	NA
5	1	Cloudy	11:53	29.7	89.1	0.0	--	1	Continuous	NA	Grassy	Vegetation
	2							1				



Work Order: HK2225675

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
6	1	Cloudy	11:55	29.7	88.4	1.1	117	0	NA	NA	NA	NA
	2							0				
9	1	Cloudy	11:57	29.9	87.8	0.3	265	0	NA	NA	NA	NA
	2							0				
10	1	Cloudy	12:00	25.5	71.1	-	-	0	NA	NA	NA	NA
	2							0				

Remark:

T: Air Temperature;
RH: Relative Humidity;
WS: Wind Speed;
WD: Wind Direction.



3.3 Evening time:

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
8	1	Cloudy	15:55	28.9	81.2	0.0	--	0	NA	NA	NA	NA
	2							0				
7	1	Cloudy	15:58	29.8	77.7	1.1	183	1	Continuous	Downwind	Garbage	#1 Pre-Treatment Hall
	2							1				
2	1	Cloudy	16:01	29.2	79.5	1.1	039	1	Intermittent	Side wind	Biogas	Biogas Tank Valve Holder
	2							1				
3	1	Cloudy	16:02	29.0	79.8	1.3	096	0	NA	NA	NA	NA
	2							0				
5	1	Cloudy	16:06	30.2	81.4	0.0	--	0	NA	NA	NA	NA
	2							0				



Work Order: HK2225675

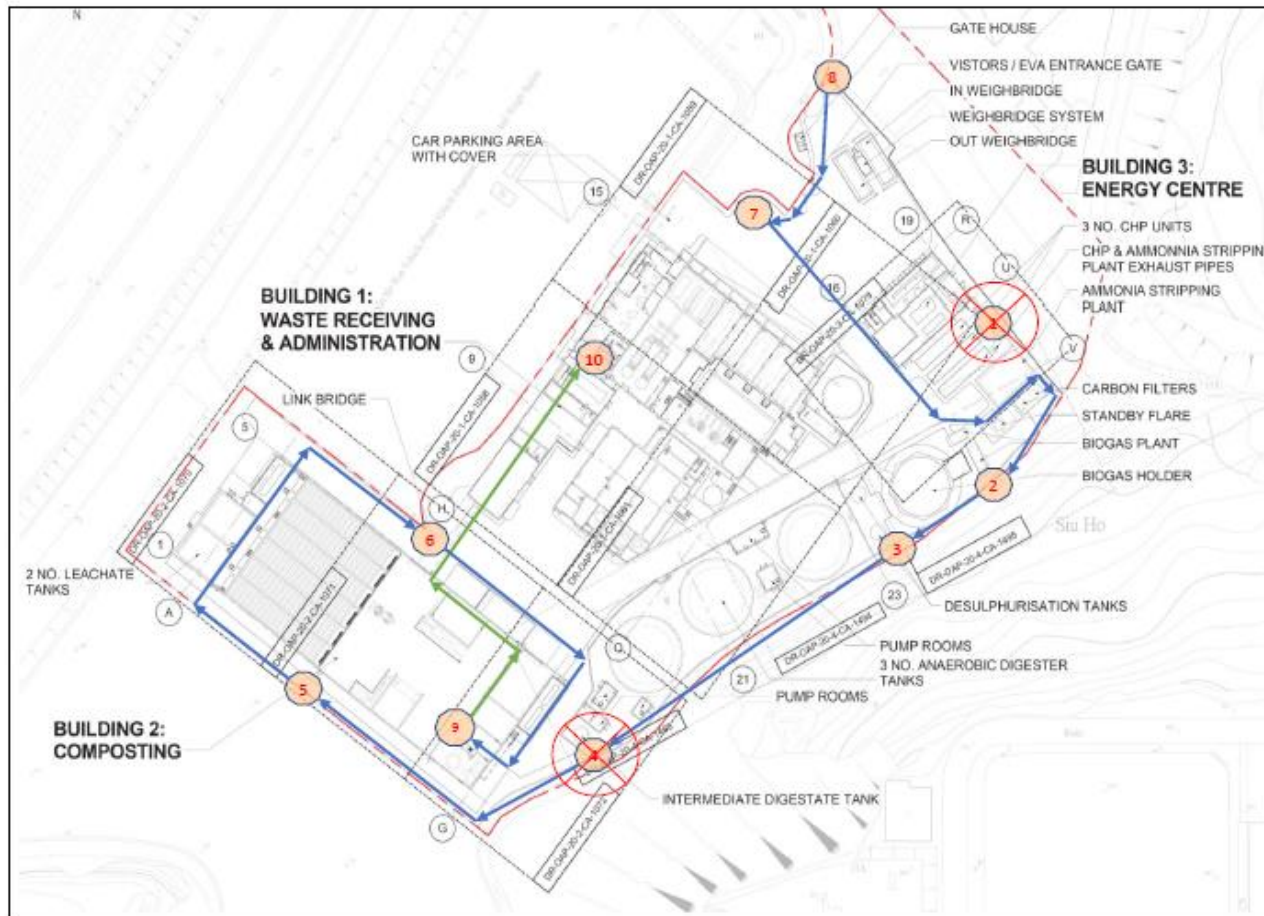
Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
6	1	Cloudy	16:08	29.5	79.7	0.8	129	0	NA	NA	NA	NA
	2							0				
9	1	Cloudy	16:10	29.6	82.5	0.0	--	0	NA	NA	NA	NA
	2							0				
10	1	Cloudy	16:13	25.3	69.0	-	-	0	NA	NA	NA	NA
	2							0				

Remark:

T: Air Temperature;
RH: Relative Humidity;
WS: Wind Speed;
WD: Wind Direction.

APPENDIX 1

Odour Patrol Route



APPENDIX 2

A2.1 Odour Patrol at Different Locations – Daytime (First round)



Location: 2



Location: 3



Location: 5



Location: 6



Location: 7



Location: 8



Location: 9



Location: 10

A2.2 Odour Patrol at Different Locations - Daytime (Second Round)



Location: 2



Location: 3



Location: 5



Location: 6



Location: 7



Location: 8



Location: 9



Location: 10

A2.2 Odour Patrol at Different Locations - Evening time



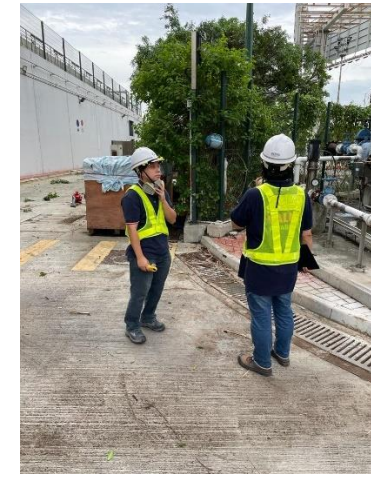
Location: 2



Location: 3



Location: 5



Location: 6



Location: 7



Location: 8



Location: 9

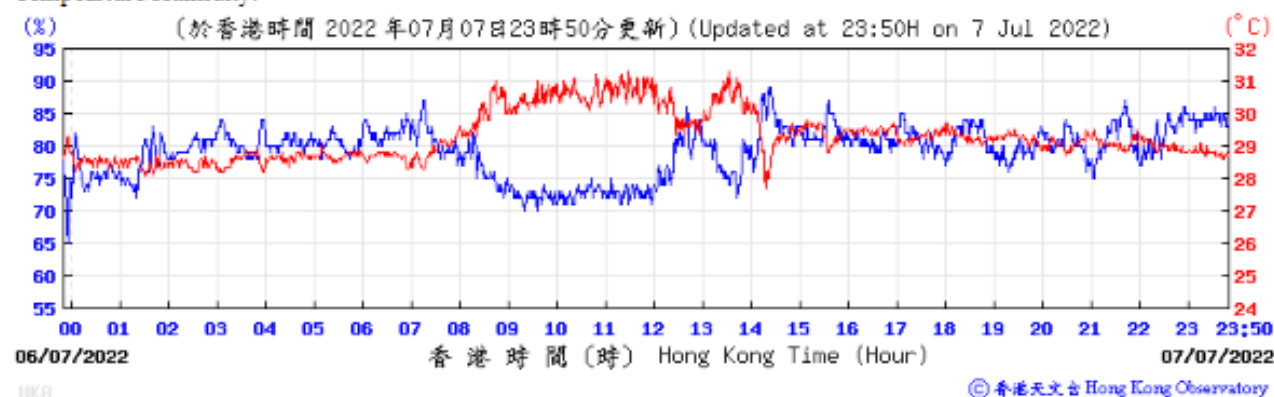


Location: 10

APPENDIX 3

Extract of Meteorological Observations from Hong Kong Airport Observatory Station

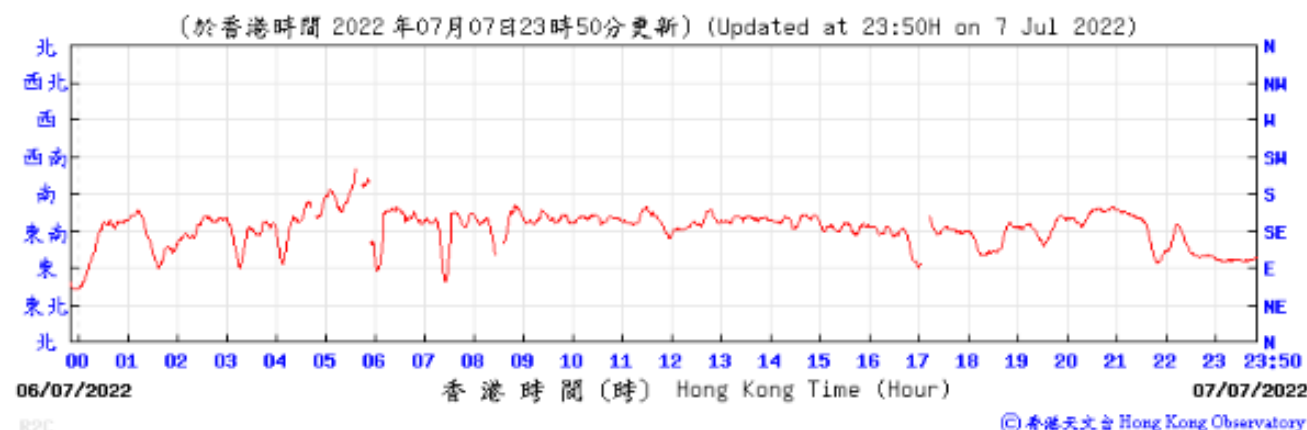
Temperature/Humidity:



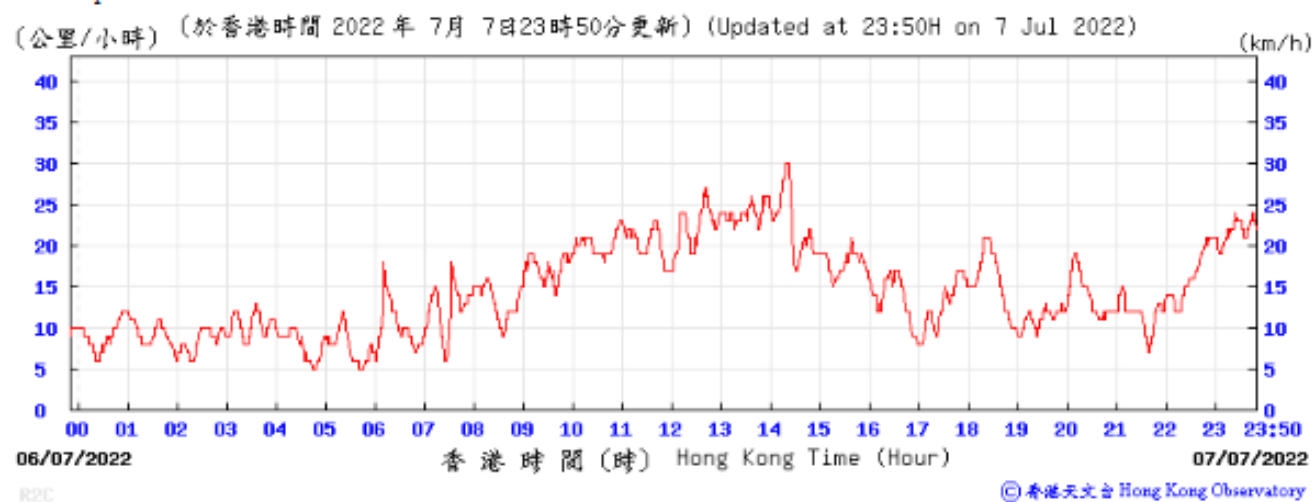
Pressure:



Wind Direction:



Wind Speed:





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1-3 Wing Yip Street
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CERTIFICATE OF ANALYSIS

CLIENT:	OSCAR BIOENERGY JOINT VENTURE	WORK ORDER:	HK2227993
CONTACT:	MS ANGEL TJIA	LABORATORY:	HONG KONG
ADDRESS:	NO. 5, SHAM FUNG ROAD, SIU HO WAN, NORTH LANTAU ISLAND, NT, HONG KONG	SUB-BATCH:	0
		DATE OF PATROL:	19 JULY 2022
		DATE OF ISSUE:	26 JULY 2022
PROJECT:	AD HOC ODOUR PATROL FOR THE ORGANIC RESOURCES RECOVERY CENTRE PHASE 1 IN SIU HO WAN	SAMPLE TYPE:	ODOUR PATROL
SITE:	ORGANIC RESOURCES RECOVERY CENTRE PHASE 1 (O-PARK 1)	NO. OF LOCATIONS:	8

COMMENTS

This was an ad hoc odour patrol event requested by the client and conducted by ALS Technichem staff during 11:03 - 11:20.

Sampling information (Project name, Sample ID) is provided by client.

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

The results related only to the items tested. All pages of this report have been checked and approved for release.

Richard Fung
Managing Director - Hong Kong

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1. Summary of Work

This ad hoc odour patrol was conducted on 19 July 2022 at eight (8) selected locations as requested by the client.

2. Odour Patrol

Odour patrolling is a process to make use of the calibrated olfactory senses (i.e. the nasal sense) of the patrol members to evaluate the odour and its intensity during a patrol exercise at the site.

The patrol work was conducted by two odour patrol team members from ALS Technichem (HK) Pty Ltd during each time session. All members are free from any respiratory diseases during patrol day. None of the members has been working or living in the area of the vicinity of the inspection zone.

The patrol team was required to move slowly from one to the other monitoring locations and use their olfactory senses to detect odour at each location.

The location of odour sources and the areas to be affected by the odour nuisance were identified as much as possible.

During the patrolling, the meteorological and surrounding information were recorded:

- the prevailing weather condition;
- the wind direction;
- the wind speed;
- location where odour is spotted;
- possible source of odour;
- perceived intensity of the odour;
- duration of odour; and
- characteristics of the odour detected.

The perceived intensity is to be divided into 5 levels which are ranked in an ascending order as follows:

0	Not detected	No odour perceives or an odour so weak that it cannot be easily characterised or described
1	Slight	Identifiable odour, slight
2	Moderate	Identifiable odour, moderate
3	Strong	Identifiable odour, strong
4	Extreme	Severe odour

The odour patrol location was shown in Appendix 1.

**3. Odour Patrol Result:**

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
8	1	Fine	11:03	33.1	77.4	1.9	186	1	Intermittent	Side wind	Garbage	Pre-Treatment Hall
	2							1				
7	1	Fine	11:04	33.0	75.6	0.8	130	1	Intermittent	Side wind	Garbage	Pre-Treatment Hall
	2							1				
2	1	Fine	11:07	31.8	82.8	0.8	153	0	NA	NA	NA	NA
	2							0				
3	1	Fine	11:09	32.1	84.3	0.8	120	0	NA	NA	NA	NA
	2							0				
5	1	Fine	11:12	31.4	86.1	1.2	109	1	Intermittent	Downwind	Grassy	Vegetation
	2							1				



Work Order: HK2227993

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
6	1	Fine	11:14	32.6	80.6	0.6	124	0	NA	NA	NA	NA
	2							0				
9	1	Fine	11:17	31.9	87.0	0.7	292	1	Continuous	Upwind	Compost	Composting Hall
	2							1				
10	1	Fine	11:20	26.9	72.7	NA	NA	1	NA	NA	Musty	Air Conditioning System
	2							1				

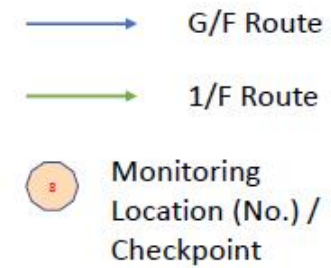
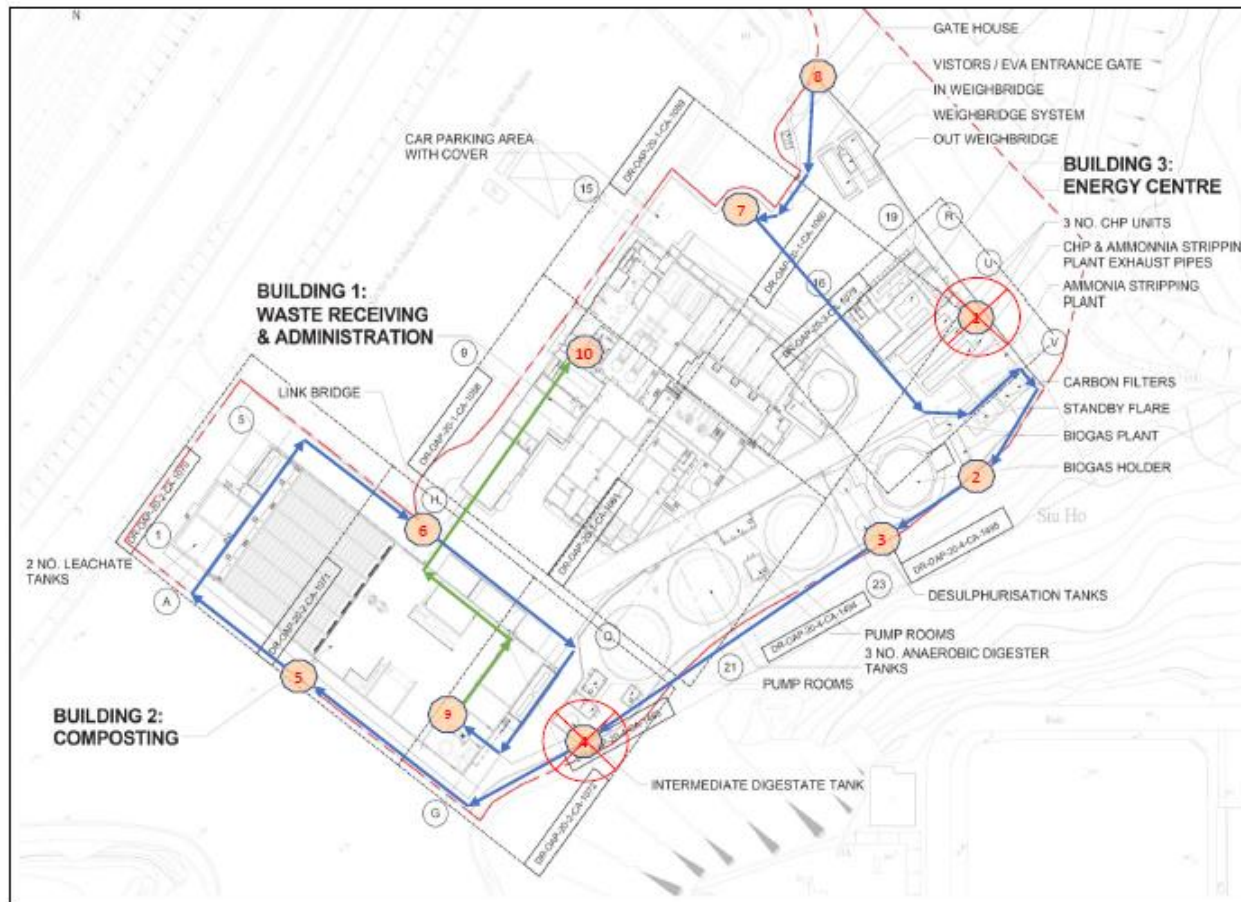
Remark:

T: Air Temperature;
RH: Relative Humidity;
WS: Wind Speed;
WD: Wind Direction.



APPENDIX 1

Odour Patrol Route





Work Order: HK2227993

APPENDIX 2



Location: 2



Location: 3



Location: 5



Location: 6



Location: 7



Location: 8



Location: 9

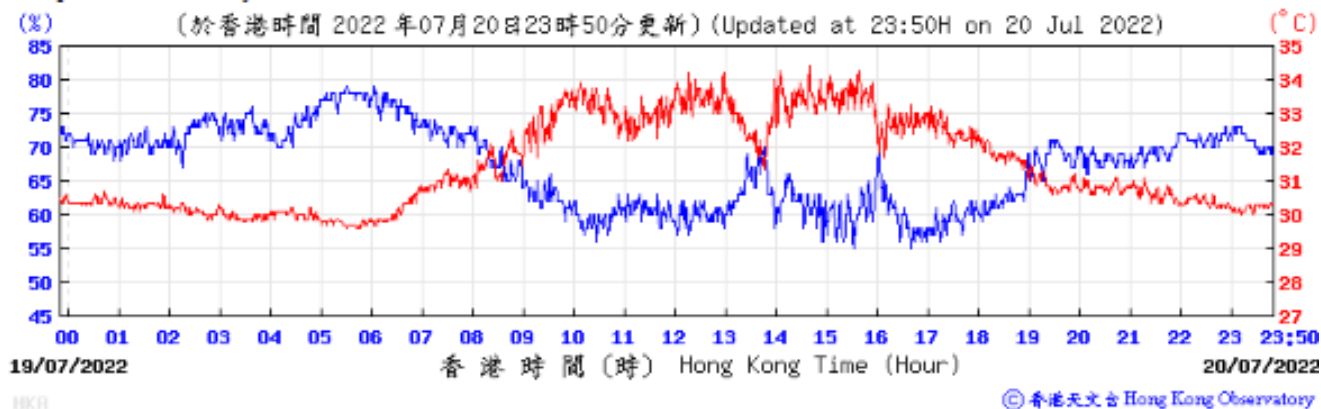


Location: 10

APPENDIX 3

Extract of Meteorological Observations from Hong Kong Airport Observatory Station

Temperature Humidity:



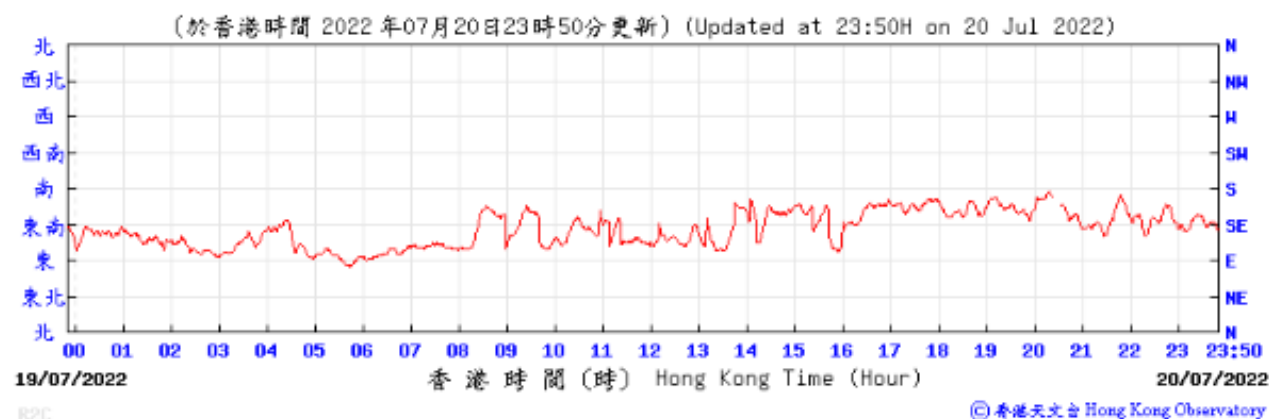
Pressure:



Wind Direction:



Wind Direction:



Wind Speed:

