

Annex H

Odour Monitoring Result

Annex H1


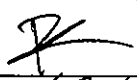

Odour Patrol Result

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	3 July 2018
Start & End Time (24hr)	From 14:03 To 14:27
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	29°C
Relative Humidity (%)	80%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 Between 0-1
Characteristic of Odour	minor smell of Bio-waste
Possible Source of Odour	Foodwaste recovery / Possible from pretreatment hall / and opening Bay 3
Monitoring Point	<u>1</u> / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	


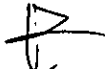

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patricia Yau		Terence CHAN
Signature			N/A	
Date	3/7/2018	03/07/2018		3/7/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	3 July 2018
Start & End Time (24hr)	From 14:03 To 14:27
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	29°C
Relative Humidity (%)	80%
Monitoring Point	① 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	② 1 / 2 / 3 / 4
Characteristic of Odour	Smell of hot air / plastic
Possible Source of Odour	Gas Hider Outlet of PRV
Monitoring Point	1 / 2 / ③ 4 / 5 / 6 / 7 / 8
Intensity of Odour	③ 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ 4 / 5 / 6 / 7 / 8
Intensity of Odour	④ 0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ 5 / 6 / 7 / 8
Intensity of Odour	⑤ 0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ 6 / 7 / 8
Intensity of Odour	⑥ 0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Yim		Terence CHAN
Signature			N/A	
Date	3/7/2018	03/07/2018		3/7/2018


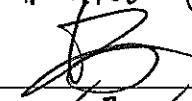

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	3 July 2018
Start & End Time (24hr)	From 11:08 To
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up /
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	29°C
Relative Humidity (%)	69%
Monitoring Point	(1) 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	(0) 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / (1) 2 / 3 / 4
Characteristic of Odour	PLASTIC
Possible Source of Odour	MEMBRANE MATERIAL
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	(0) 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / (4) 5 / 6 / 7 / 8
Intensity of Odour	(0) 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / (5) 6 / 7 / 8
Intensity of Odour	(0) 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / (6) 7 / 8
Intensity of Odour	(0) 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	

7 B
0 0

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	FIONA LAM	Victor Leung		FRANCIS WONG
Signature				
Date	4/7/2018	04/07/2018		4 Jul. 2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	6 July 2018
Start & End Time (24hr)	From 15:17 To 15:53
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	24°C
Relative Humidity (%)	80%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 Between 0-1
Characteristic of Odour	Smell of Hot plastic.
Possible Source of Odour	Outlet of PRV
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	

Point 7:
Between 1-2
Smell of bad wash
Door opening RL
Point 8:
0

Extra monitor Post:
- Near Contractor office
Emergency Exit Door
- Between 1-2
- Doors open
- Smell from Pretend system.

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Patrick Yim		Terence CHAN
Signature			N/A	
Date	6.7.2018	06/07/2018		6/7/2018



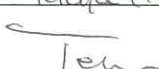
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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	10 July 2018
Start & End Time (24hr)	From 14:10 To 14:44
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	33°C
Relative Humidity (%)	70%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 + 1 + 2 + 3 + 4 = 0-1
Characteristic of Odour	Smell of Hot Plastic
Possible Source of Odour	PRV of Gas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	

Note 1:
 4 Doors
 Between 6-7
 0-1
 Smell from Retreatment
 Feed waste
 Point 7:
 0
 Point 8:
 0
 Note 2:
 Front Door of ORR
 Car Park:
 Smell of waste /
 feed waste

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terese Ng	Patrick Ym		Terese CHAN
Signature			N/A	
Date	10.7.2018	10/7/18		10/7/2018

Note 1 & 2: Not the monitoring Points.

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	12 July 2018
Start & End Time (24hr)	From 14:05 To 14:36
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	24°C
Relative Humidity (%)	67%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 Between 0-1
Characteristic of Odour	Smell of Hot Plastic
Possible Source of Odour	PRV of Bourac.
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks:
-	Between 6-7/outside contractor office/Near Emergency exit → No odour detected
-	Outside main door / Car Park → Small amount of odour.

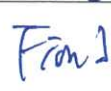

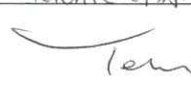
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Jun		Terence Chan
Signature			N/A	
Date	12/7/2018	12/07/18		12/7/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	13 July 2018
Start & End Time (24hr)	From _____ To _____ N/A
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy / Rainy
Temperature (°C)	
Relative Humidity (%)	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remark:
The patrol was cancelled due to the rainy weather	



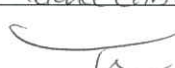
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Jim		Terence CHAN
Signature			N/A	
Date	13/7/2018	13/7/18		13/7/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	16 July 2018
Start & End Time (24hr)	From 11:03 To 11:16
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	32°C
Relative Humidity (%)	74%
Monitoring Point	1 / <u>2</u> / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 Between 0-1
Characteristic of Odour	Smell of Hot Plastic
Possible Source of Odour	PSV of Gas Holder
Monitoring Point	1 / 2 / <u>3</u> / 4 / 5 / 6 / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / <u>4</u> / 5 / 6 / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / <u>5</u> / 6 / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remark:

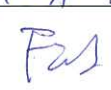
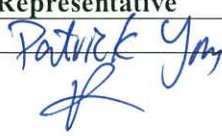

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terence Ng	Patrick Yau		Terence CHAN
Signature			N/A	
Date	16 / 7 / 2018	16 / 07 / 18		16 / 7 / 2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	18 July 2018
Start & End Time (24hr)	From 15:30 To 15:47
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	31°C
Relative Humidity (%)	75%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Smell of hot Plastic
Possible Source of Odour	PRV of Biogas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	

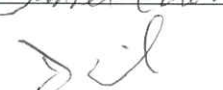

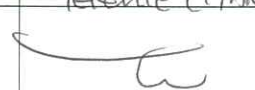
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Ym		Terence Chan
Signature			N/A	
Date	18/7/2018	18/7/18		18/7/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	20 July 2018
Start & End Time (24hr)	From 15:05 To 15:23
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T&C Period Patrol
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	33°C
Relative Humidity (%)	76%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / <u>2</u> / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 Between 0-1
Characteristic of Odour	Hot Plastic Smell
Possible Source of Odour	PSV of Gas Holder
Monitoring Point	1 / 2 / <u>3</u> / 4 / 5 / 6 / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / <u>4</u> / 5 / 6 / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / <u>5</u> / 6 / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / <u>6</u> / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions - Remark	<p>- Between Pent 4-5, Exhaust ^{Louver} / Windows next to polymer storage tank., smell of digestate.</p> <p>- In front of main lobby, car park, smell of food waste.,</p>

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Chou	Patrick Yim		Terence CHAN
Signature			N/A	
Date	20.7.2018	20/7/2018		20/7/2018




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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	20 July 2018
Start & End Time (24hr)	From 15:05 To 15:23
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	23
Relative Humidity (%)	76%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Patrick Lam		Terence CHAN
Signature			N/A	
Date	20.7.2018	20/07/18		20/7/2018




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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	23 July 2018
Start & End Time (24hr)	From 14:03 To 14:24
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	32°C
Relative Humidity (%)	87%
Monitoring Point	① 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	Hot air, smell of running engine
Possible Source of Odour	CHP running
Monitoring Point	1 / ② 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot plastic smell
Possible Source of Odour	PSU of biomass holder
Monitoring Point	1 / 2 / ③ 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks
	- Lower next to polymer storage tank at Bld 2, smell of digester
	- Car Park, main lobby of bld 1, smell of food waste.



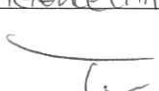
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Patrick Yim		Terence CHAN
Signature			NA	
Date	23/7/2018	23/07/18		23/7/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	23 July 2018
Start & End Time (24hr)	From 14:03 To 14:24
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	27°C
Relative Humidity (%)	87%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / <u>3</u> / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Patrick Jun		Terence CHAN
Signature			NA	
Date	23/7/2018	23/07/18		23/7/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	25 July 2018
Start & End Time (24hr)	From 14:07 To 14:35
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	33°C
Relative Humidity (%)	73%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 Between 0-1
Characteristic of Odour	Hot plastic smell
Possible Source of Odour	PRV of Biogas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks:
- Lower next to polymer storage tank at building 2, smell of digestate - outside contractor office, Emergency exit, some smell of foodwaste, intermittent.	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Yam		Terence CHAN
Signature			N/A	
Date	25/7/2018	25/7/18		25/7/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	25 July 2018
Start & End Time (24hr)	From 14:07 To 14:35
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	(Sunny) Cloudy / Windy / Humid / Foggy /
Temperature (°C)	33°C
Relative Humidity (%)	75%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / (7) / 8
Intensity of Odour	(0) / 1 / 2 / 3 / 4
Characteristic of Odour	Intermittent smell of food waste
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / (8)
Intensity of Odour	(0) / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions - Remarks	Outside main lobby, car park, smell of digest food waste, intermittent, small

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona LAM	Patrick Fan		Terence CHAN
Signature			NA	
Date	25/7/2018	25/7/18		25/7/2018


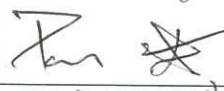
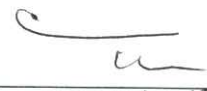
6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	27 July 2018
Start & End Time (24hr)	From 17:57 To 18:21
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	~ 30°C
Relative Humidity (%)	~ 77%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	垃圾味
Possible Source of Odour	outside the facility.
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	plastic
Possible Source of Odour	Biogas Holder Retard valve.
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	up at farm wood
Possible Source of Odour	Bores half
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks
No extra monitoring points measured.	

* This log is only a copy record. Detail shall refer to the patrol report of ALS.

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name		Philip Cheung	PAN YUEN Tsing Ho	Terence CHAN
Signature	N/A			
Date		27/7/2018	27/7/2018	27/7/2018



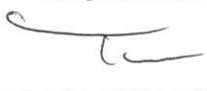
6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	27 July 2018
Start & End Time (24hr)	From 17:57 To 18:21
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	~30°C
Relative Humidity (%)	~77%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks
No extra monitoring points measured.	

* This log is only a copy record. Detail shall refer to the patrol report from ALS

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name		Philip Cheung	PAN YUEN Tsikin Ho	Terence CHAN
Signature	N/A			
Date	27/7/2018 27/7/2018	27/7/2018	27/7/2018	27/7/2018




6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	27 July 2018
Start & End Time (24hr)	From 10:11 To 10:56
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	22°C
Relative Humidity (%)	73%
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	Plastic
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Plastic
Possible Source of Odour	Biggers holder Retif valves
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 0 & 1
Characteristic of Odour	Vegetable
Possible Source of Odour	Vegetable
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks
No extra monitoring points measures.	

* This log is just a copy record of External Odour Patrol. Detail shall refer to External

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name		Patrick Yim	PAN YUEN Tsing Ho	Terence CHAN
Signature	Tess CHAN Jess			
Date	27/7/2018	27/7/2018	27/7/2018	27/7/2018

Recd from ALS.





6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	27 July 2018
Start & End Time (24hr)	From 10:11 To 10:56
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	32°C
Relative Humidity (%)	73%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 0.81
Characteristic of Odour	Roscoe
Possible Source of Odour	waste track / Bedding 1
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions - Remarks	No extra monitoring points necessary

* This log is just a copy record of External odour Patrol. Detail shall refer to External Record Book ALS.




	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Tess CHAN	Patrick yam	PAN YUEN Tszkin HO	Terence CHAN
Signature				
Date	27/7/2018	27/7/2018	27/7/2018	27/7/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	30 July 2018
Start & End Time (24hr)	From 14:10 To 14:45
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	~33°C
Relative Humidity (%)	~74%
Monitoring Point	(1) 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	(0) / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / (2) / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / (1) / 2 / 3 / 4
Characteristic of Odour	Hot Plastic smell
Possible Source of Odour	PSV of Gas Holder
Monitoring Point	1 / 2 / (3) / 4 / 5 / 6 / 7 / 8
Intensity of Odour	(0) / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / (4) / 5 / 6 / 7 / 8
Intensity of Odour	(0) / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / (5) / 6 / 7 / 8
Intensity of Odour	(0) / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / (6) / 7 / 8
Intensity of Odour	(0) / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks




	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terence Ng	Patrick Yim		Terence Chan
Signature			N/A	
Date	30/7/2018	30/7/2018		30/7/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	30 July 2018
Start & End Time (24hr)	From 14:10 To 14:45
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	~33°C
Relative Humidity (%)	~74%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terence Ng	Patrick Yim		Terence CHAN
Signature			N/A	
Date	30/7/2018	30/7/2018		30/7/2018



CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1842748
CONTACT:	Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE OF PATROL:	27 July 2018
		DATE OF ISSUE:	10 August 2018
PROJECT:	Odour Patrol for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan		
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)		


COMMENTS

Date of Odour Patrol: 27 July 2018.
Odour Patrols were conducted by ALS Technichem (HK) Pty Ltd staff during 10:11 - 10:56 and 17:57 - 18:21.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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1. Summary of Work

The odour patrol was conducted during daytime and evening / night time.

2. Odour Patrol

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

Two odour patrol team members from ALS Technichem (HK) Pty Ltd were sent to conduct the patrol work during each session. All members are free from any respiratory diseases during patrol day. None of the members has been working or living in the area in the vicinity of the inspection area.

The odour patrol was conducted during daytime and evening / night time.

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 are 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 is shown in Appendix 1.



Result:

1. Odour Patrol:

1.1. Daytime:

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
1	1	Sunny	10:11	31.7	73.8	0.8	099	0	NA	NA	NA	NA
	2							0				
2	1	Sunny	10:21	32.0	73.9	0.5	099	1	Intermittent	Upwind	Plastic	Biogas Holder Tank Relief Valve
	2							1	Intermittent	Upwind	Plastic	Biogas Holder Tank Relief Valve
3	1	Sunny	10:30	33.0	67.3	0.6	113	0	NA	NA	NA	NA
	2							0				
4	1	Sunny	10:35	32.9	65.3	0.5	137	0	NA	NA	NA	NA
	2							0				
5	1	Sunny	10:39	34.0	69.3	0	NA	0	NA	NA	Grassy	Tree and grass
	2							1	Continuous	NA		



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	Sunny	10:45	34.3	64.1	0.6	111	0	NA	NA	NA	NA
	2							0				
7	1	Sunny	10:50	32.1	69.4	1.1	101	0	NA	NA	NA	NA
	2							1	Intermittent	Sidewind	Refuse	Waste truck; Building 1
8	1	Sunny	10:56	34.7	66.1	0	NA	0	NA	NA	NA	NA
	2							0				

Remark:

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



1.2. Evening / Night 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
1	1	Fine	17:57	30.1	78.7	0.3	092	1	Intermittent	Downwind	Mosquito Repellent	Outside the boundary of ORRC1
	2							Intermittent	Downwind			
2	1	Fine	18:02	30.4	77.2	1.3	107	1	Intermittent	Upwind	Plastic	Biogas Holder Tank Relief Valve
	2							Intermittent	Upwind	Plastic	Biogas Holder Tank Relief Valve	
3	1	Fine	18:05	30.7	77.7	0.4	111	0	NA	NA	NA	NA
	2							0				
4	1	Fine	18:08	30.7	76.3	0.4	140	0	NA	NA	NA	NA
	2							0				
5	1	Fine	18:11	30.5	77.7	0.7	117	1	Intermittent	Sidewind	Musty from wood	Process Hall
	2							1	Intermittent	Sidewind		



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	18:15	30.0	79.5	1.2	117	0	NA	NA	NA	NA
	2							0				
7	1	Fine	18:18	30.7	79.3	0.8	119	0	NA	NA	NA	NA
	2							0				
8	1	Fine	18:21	30.4	79.1	0.8	125	0	NA	NA	NA	NA
	2							0				

Remark:

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



APPENDIX 1 Odour Patrol Route



→ Proposed Patrol Route

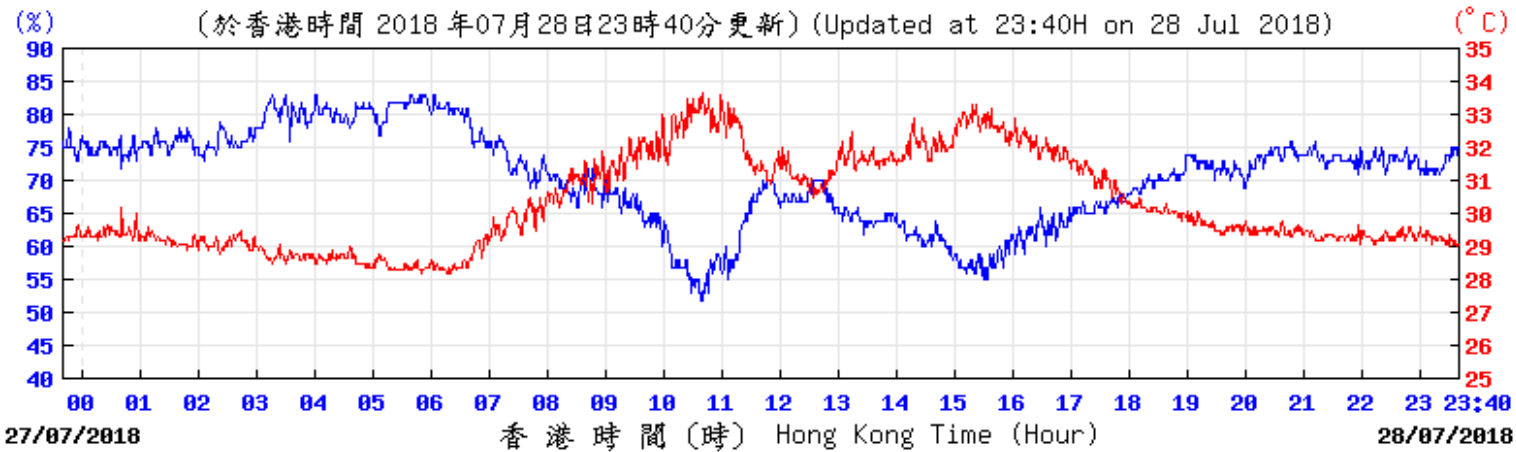
8 Possible Odour Sources (No.) / Checkpoint

1 Assumed Odour Potential (normal operation)
From 1 (min.) to 3 (max.)



APPENDIX 2 Extract Of Meteorological Observations From Hong Kong Airport Observatory Station

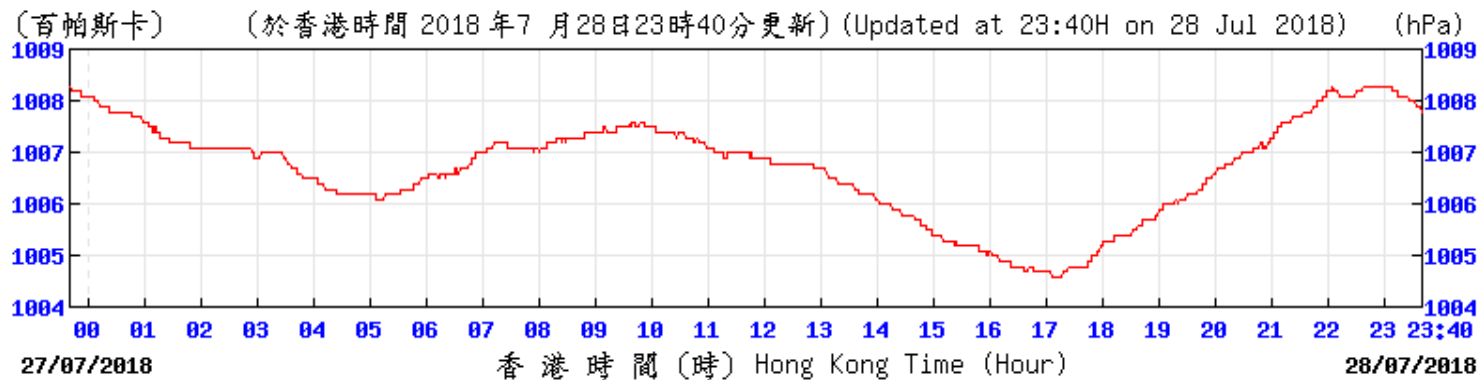
Temperature/Humidity:



HKA

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Pressure:



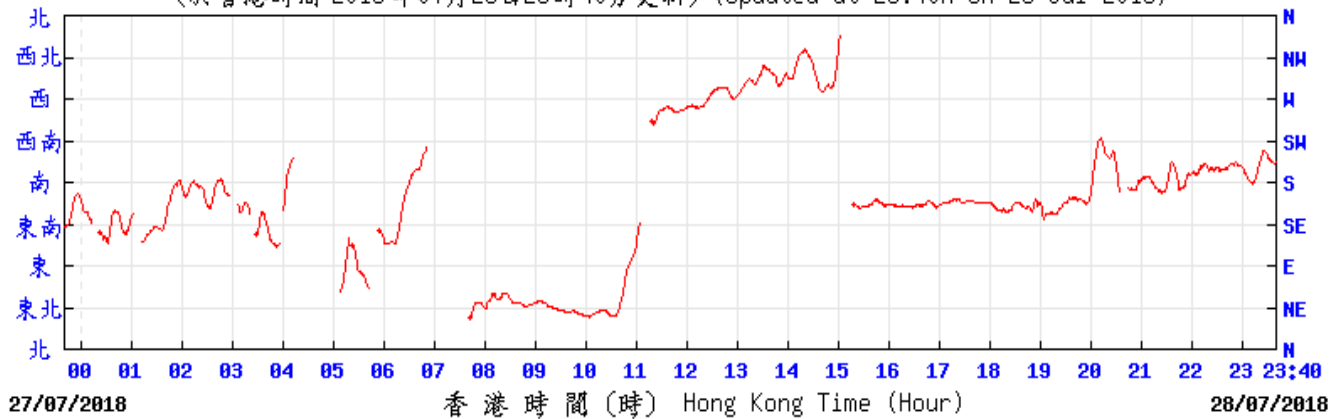
HKA

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Wind Direction:

(於香港時間 2018 年 07 月 28 日 23 時 40 分更新) (Updated at 23:40H on 28 Jul 2018)

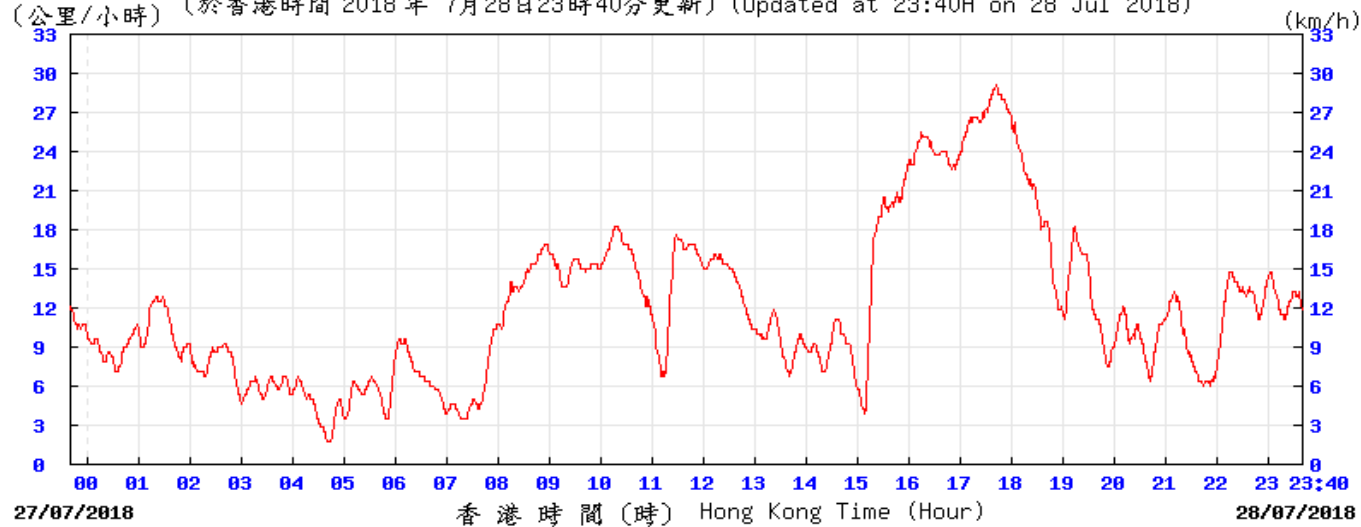


R2C

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Wind Speed:

(公里/小時) (於香港時間 2018 年 7 月 28 日 23 時 40 分更新) (Updated at 23:40H on 28 Jul 2018)



R2C

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APPENDIX 3

A3.1. Odour Patrol at Different Locations – Daytime



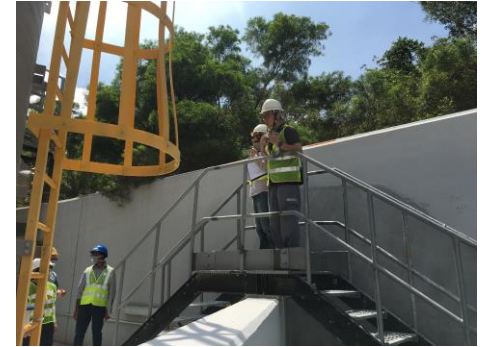
Location: 1



Location: 2



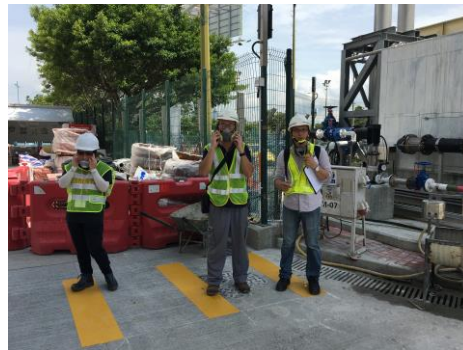
Location: 3



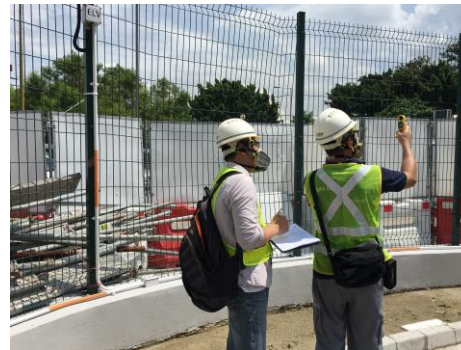
Location: 4



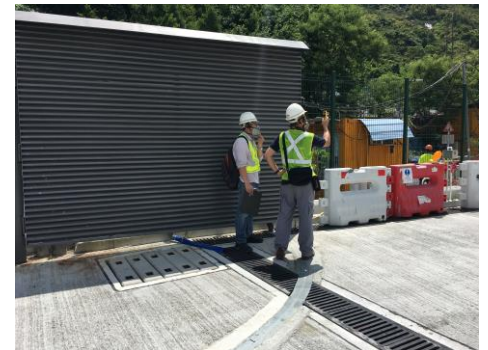
Location: 5



Location: 6



Location: 7



Location: 8



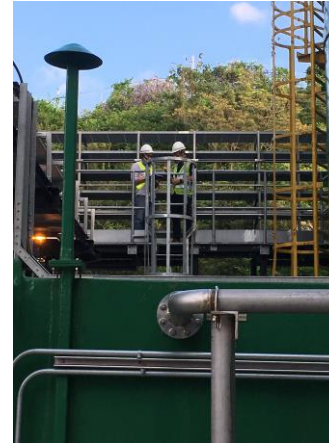
A3.2. Odour Patrol at Different Locations – Evening / Night time



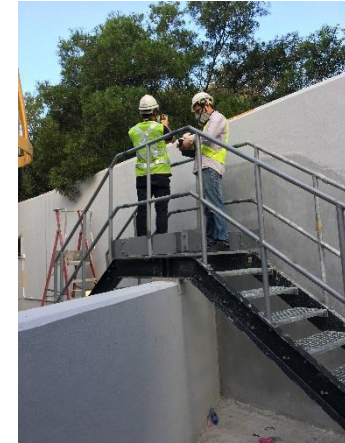
Location: 1



Location: 2



Location: 3



Location: 4



Location: 5



Location: 6



Location: 7



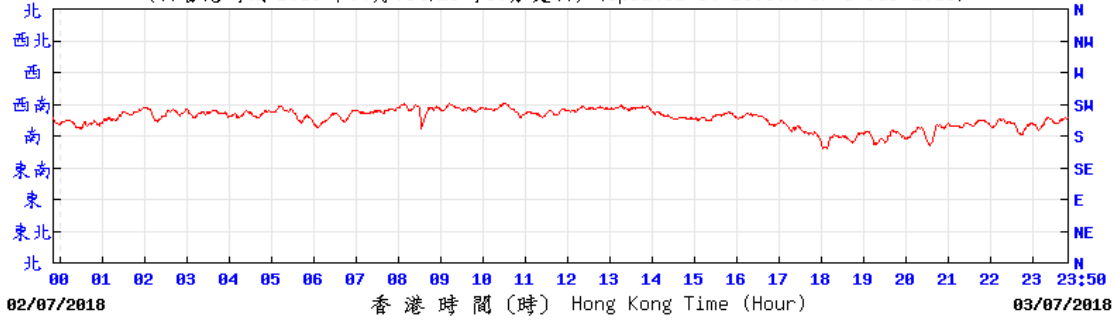
Location: 8

Annex H2

Local Wind Direction and Wind Speed

Wind Direction

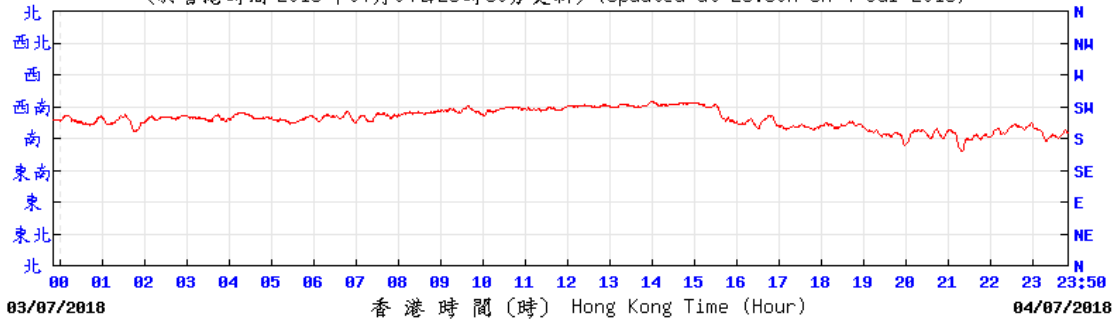
(於香港時間 2018 年07月03日23時50分更新) (Updated at 23:50H on 3 Jul 2018)



R2C

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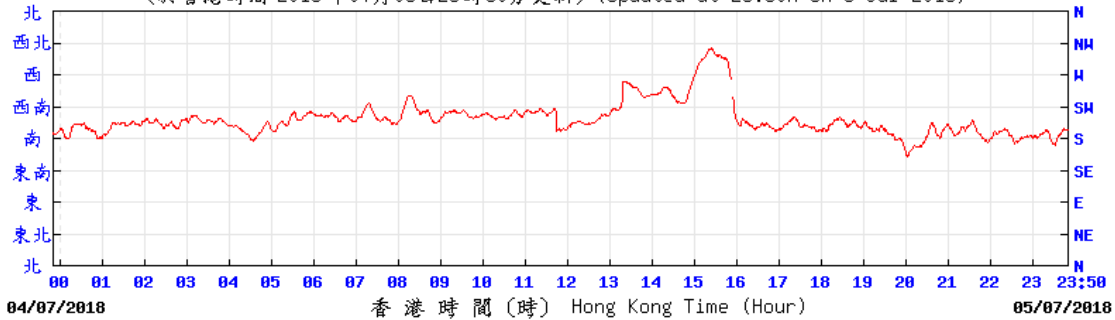
(於香港時間 2018 年07月04日23時50分更新) (Updated at 23:50H on 4 Jul 2018)



R2C

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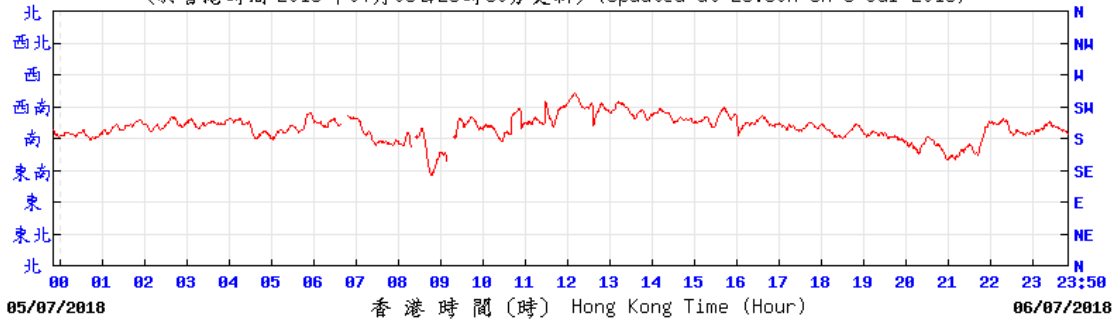
(於香港時間 2018 年07月05日23時50分更新) (Updated at 23:50H on 5 Jul 2018)



R2C

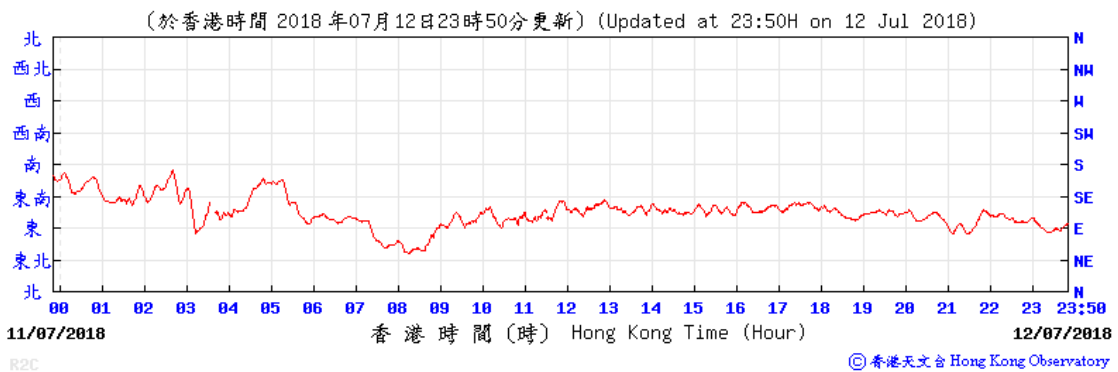
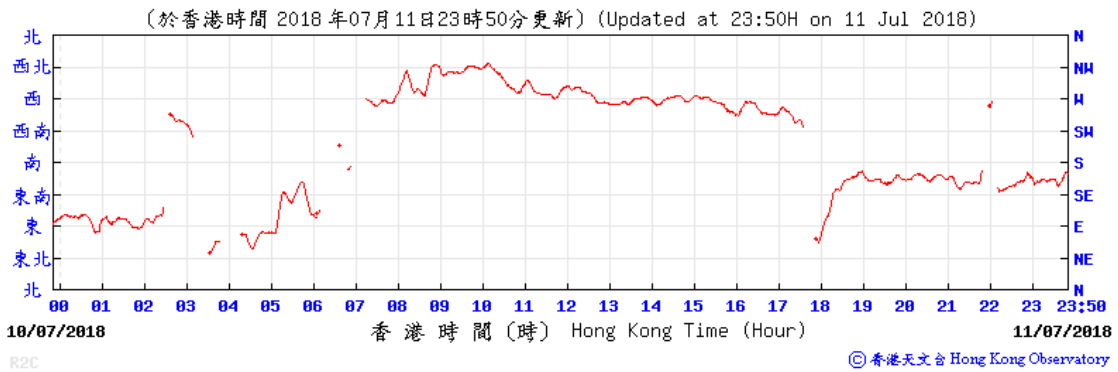
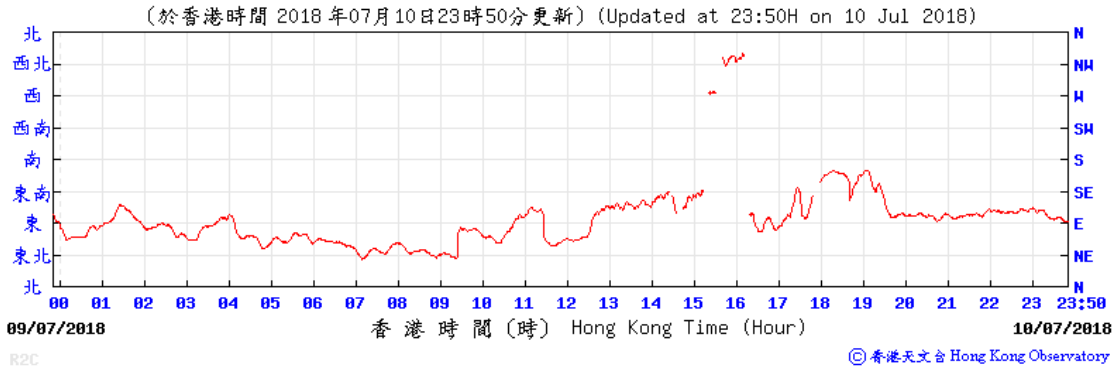
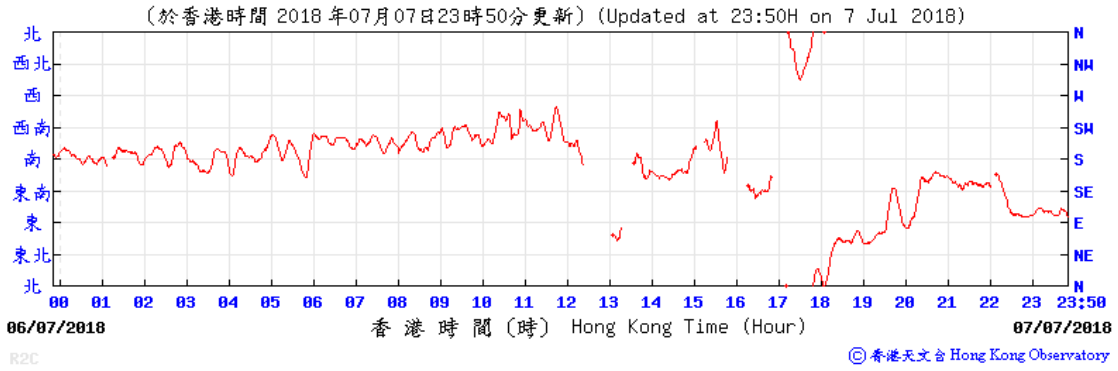
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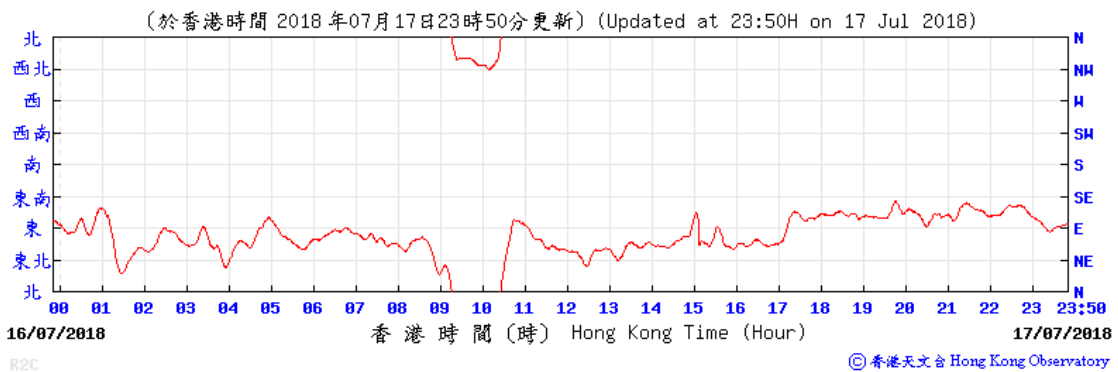
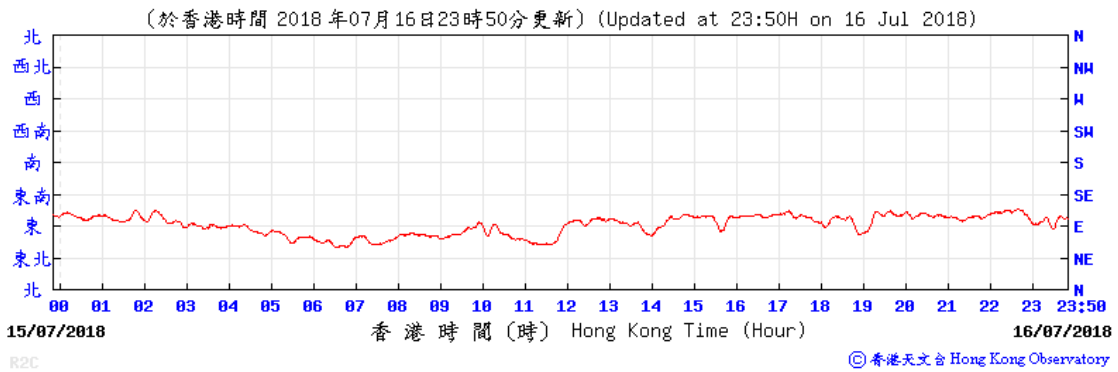
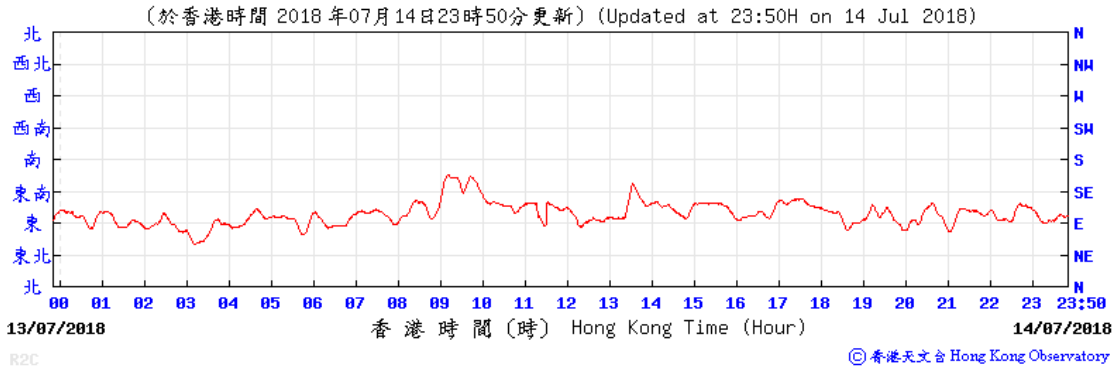
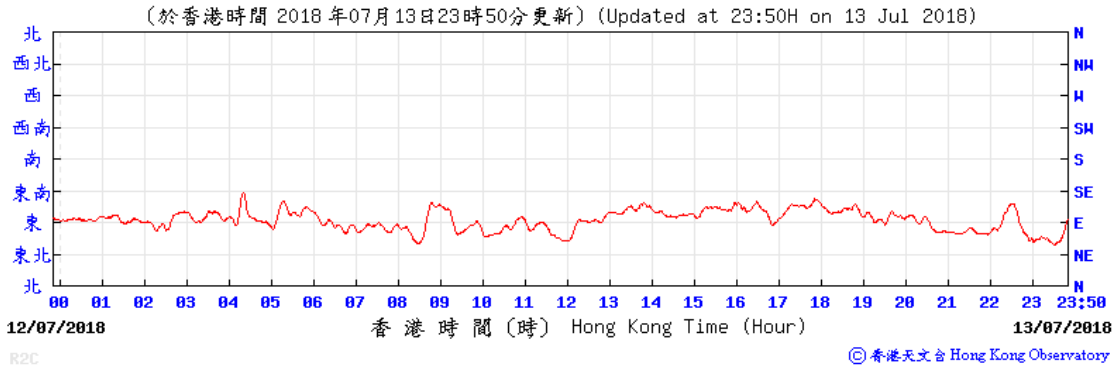
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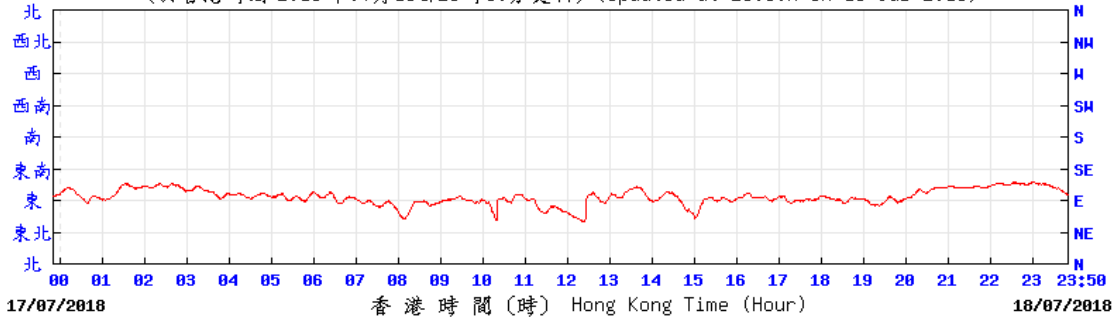
R2C

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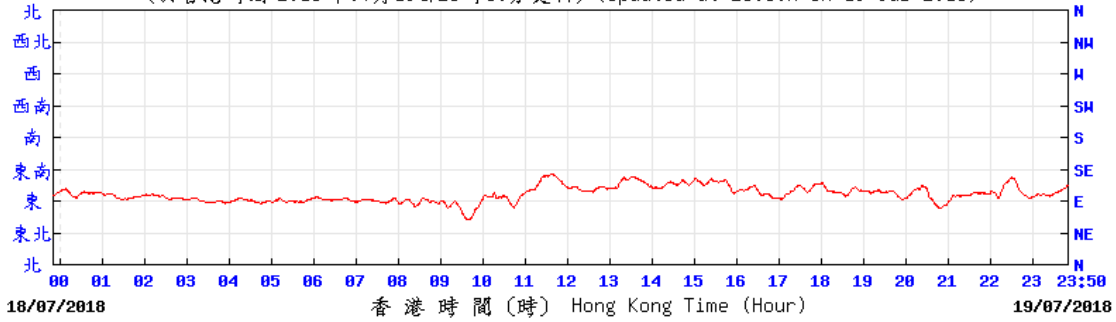
(於香港時間 2018 年07月18日23時50分更新) (Updated at 23:50H on 18 Jul 2018)



R2C

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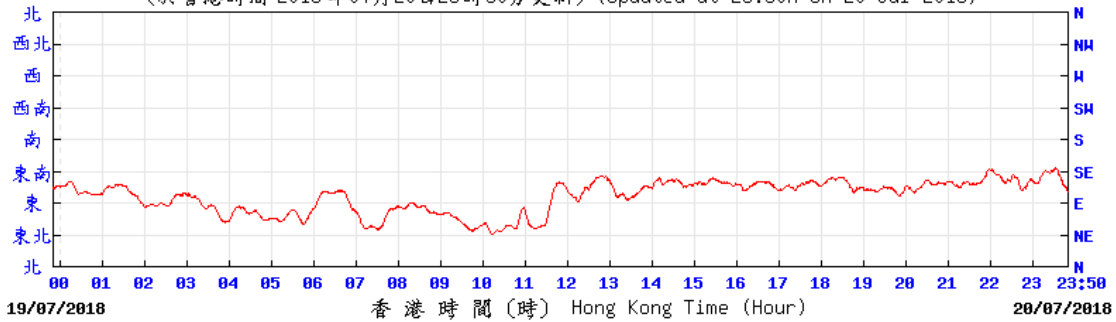
(於香港時間 2018 年07月19日23時50分更新) (Updated at 23:50H on 19 Jul 2018)



R2C

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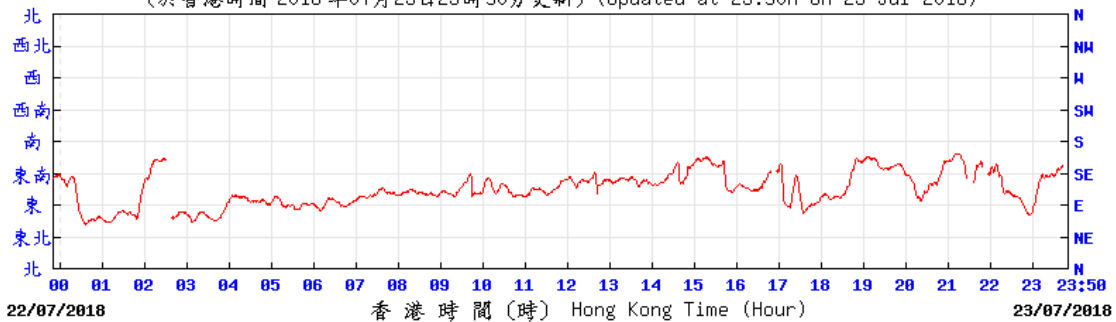
(於香港時間 2018 年07月20日23時50分更新) (Updated at 23:50H on 20 Jul 2018)



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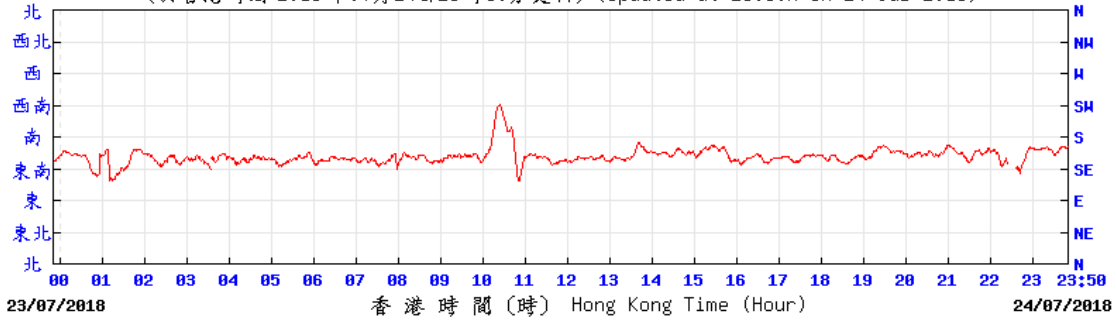
(於香港時間 2018 年07月23日23時50分更新) (Updated at 23:50H on 23 Jul 2018)



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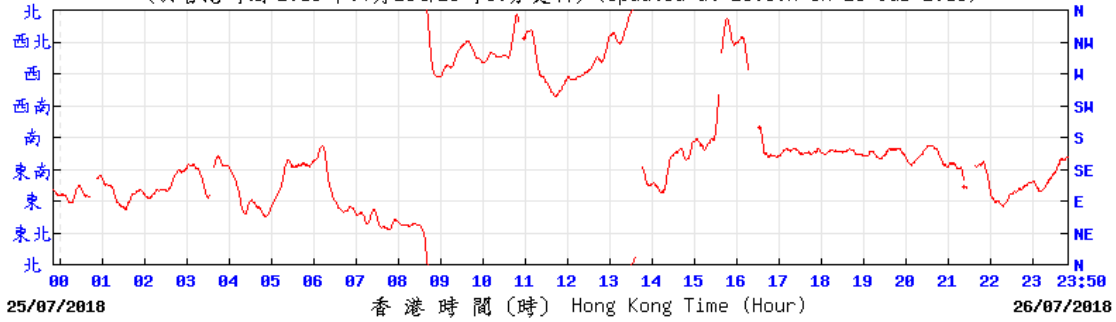
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R2C

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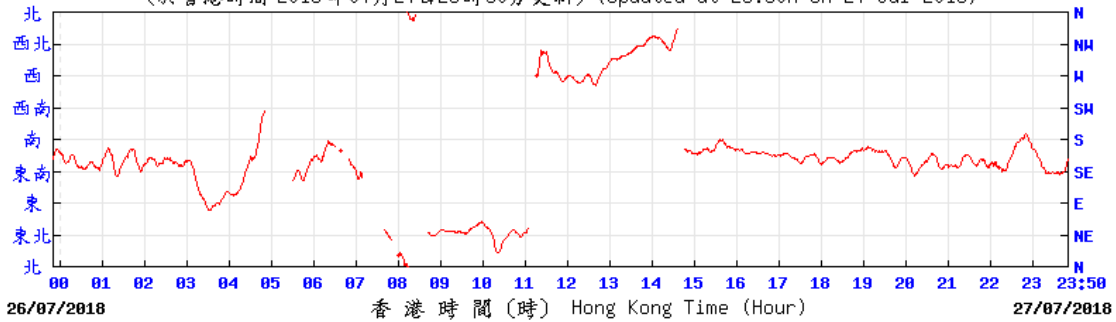
(於香港時間 2018 年07月26日23時50分更新) (Updated at 23:50H on 26 Jul 2018)



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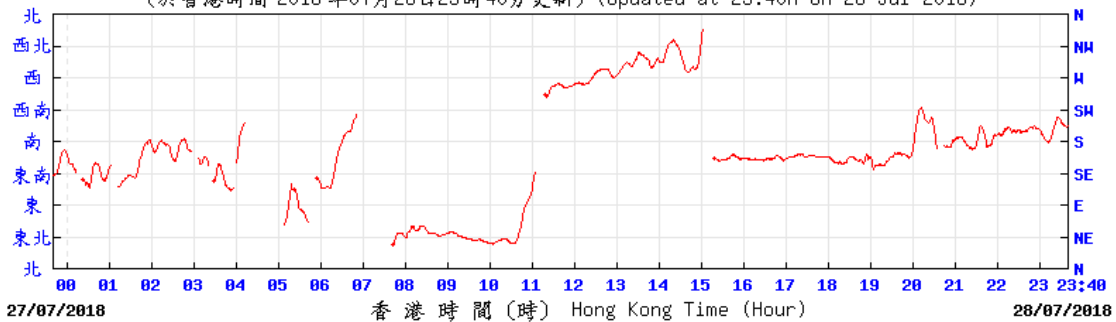
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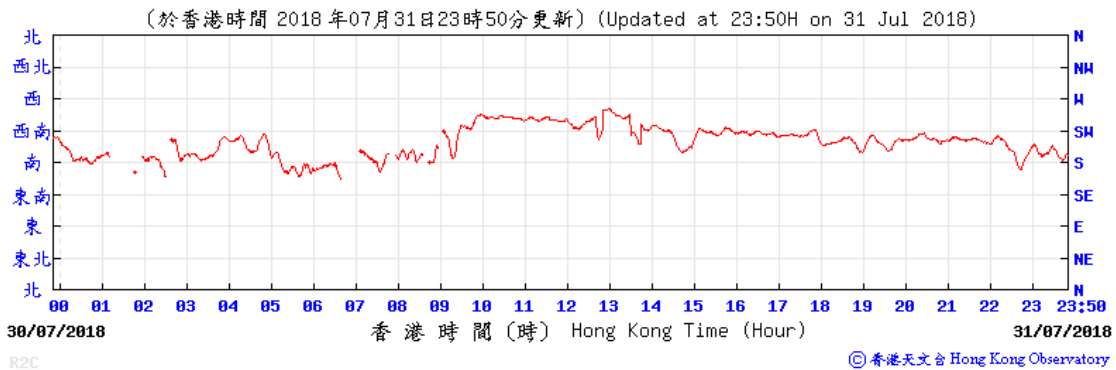
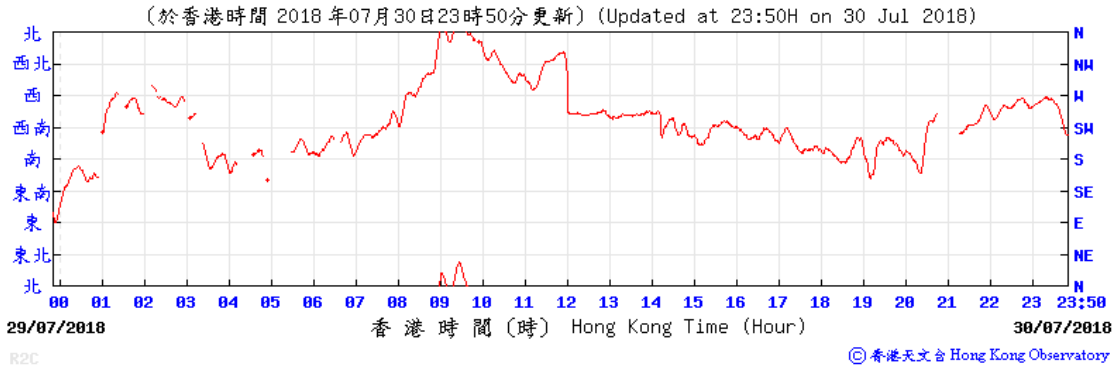
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(於香港時間 2018 年07月28日23時40分更新) (Updated at 23:40H on 28 Jul 2018)

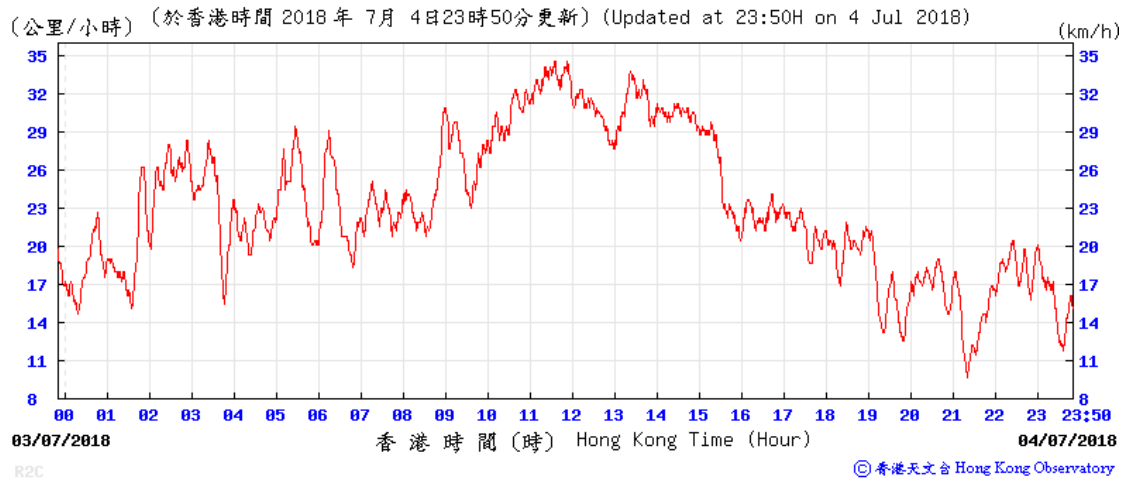
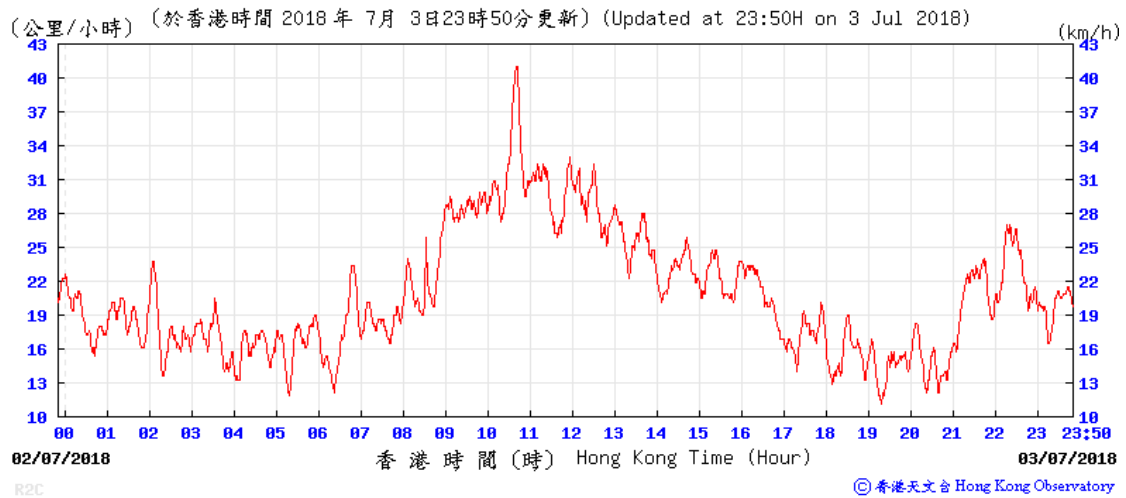


R2C

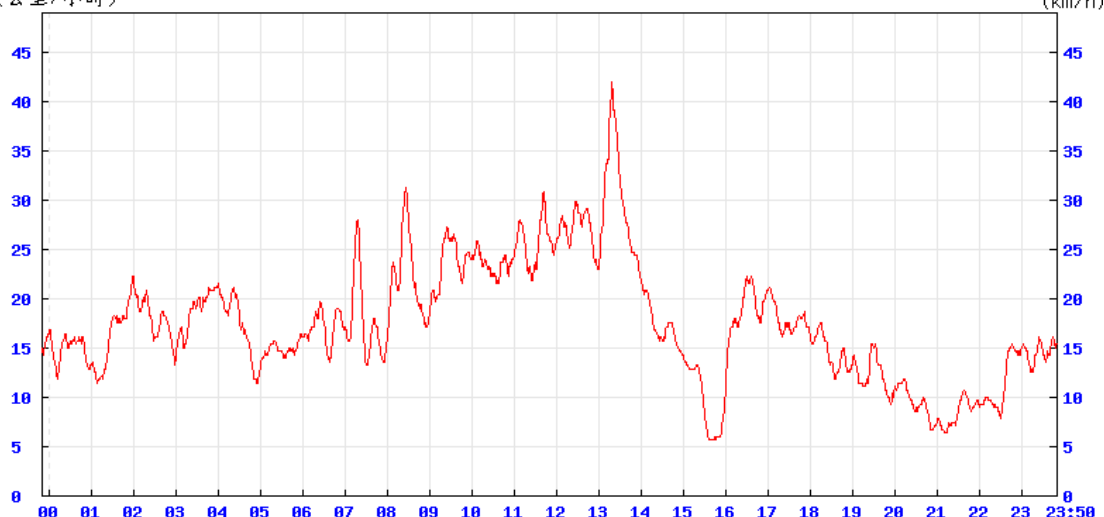
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Wind Speed



(公里/小時) (於香港時間 2018 年 7 月 5 日 23 時 50 分更新) (Updated at 23:50H on 5 Jul 2018) (km/h)

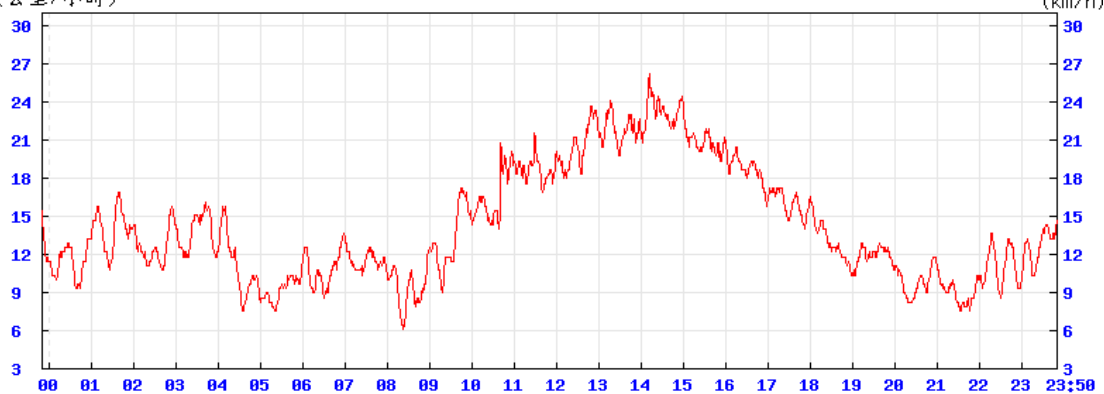


04/07/2018 香港時間 (時) Hong Kong Time (Hour) 05/07/2018

R2C

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(公里/小時) (於香港時間 2018 年 7 月 6 日 23 時 50 分更新) (Updated at 23:50H on 6 Jul 2018) (km/h)

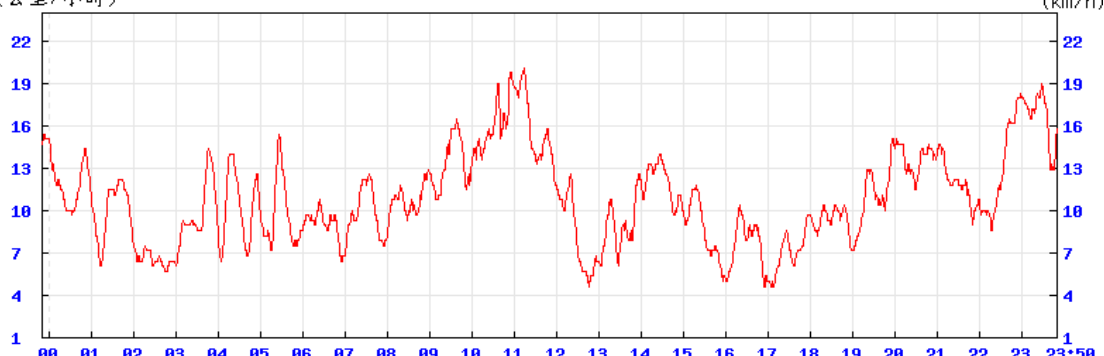


05/07/2018 香港時間 (時) Hong Kong Time (Hour) 06/07/2018

R2C

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(公里/小時) (於香港時間 2018 年 7 月 7 日 23 時 50 分更新) (Updated at 23:50H on 7 Jul 2018) (km/h)

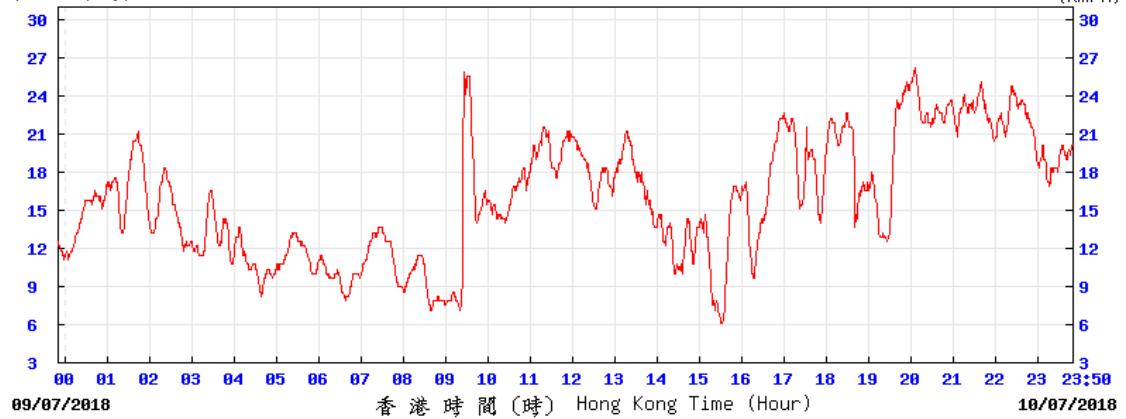


06/07/2018 香港時間 (時) Hong Kong Time (Hour) 07/07/2018

R2C

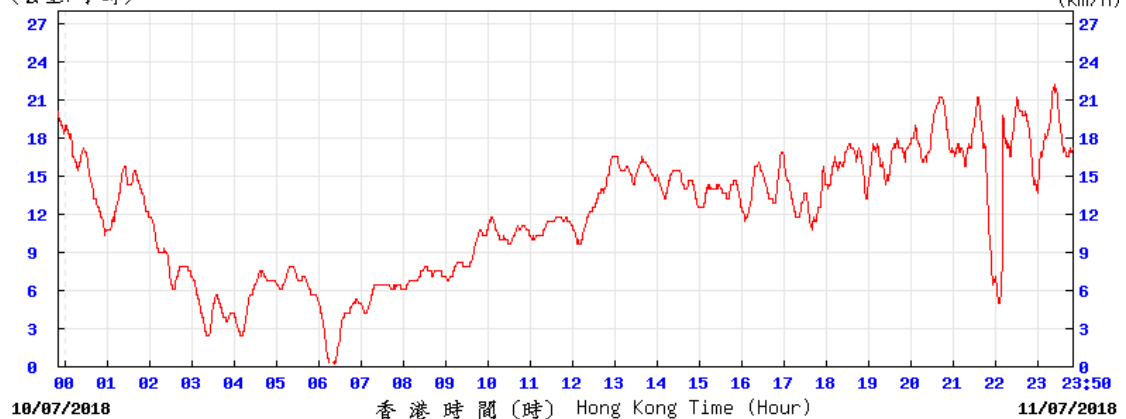
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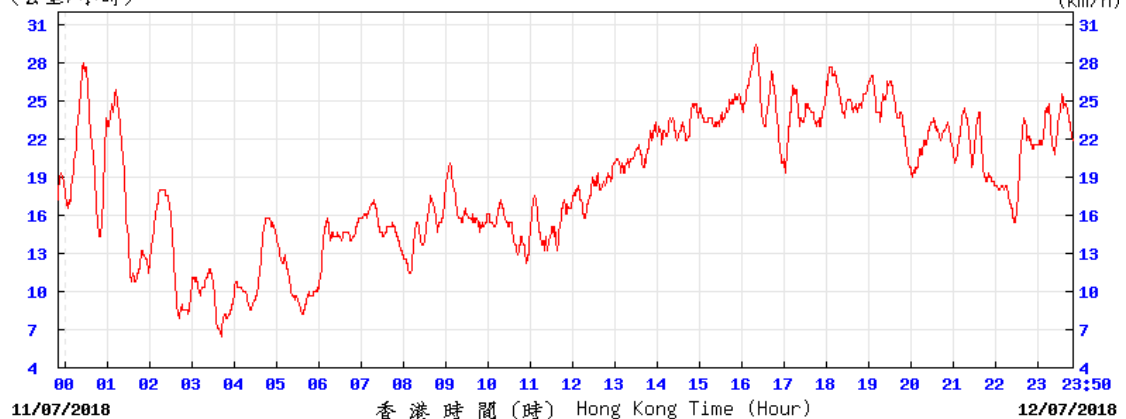
R2C ©香港天文台 Hong Kong Observatory

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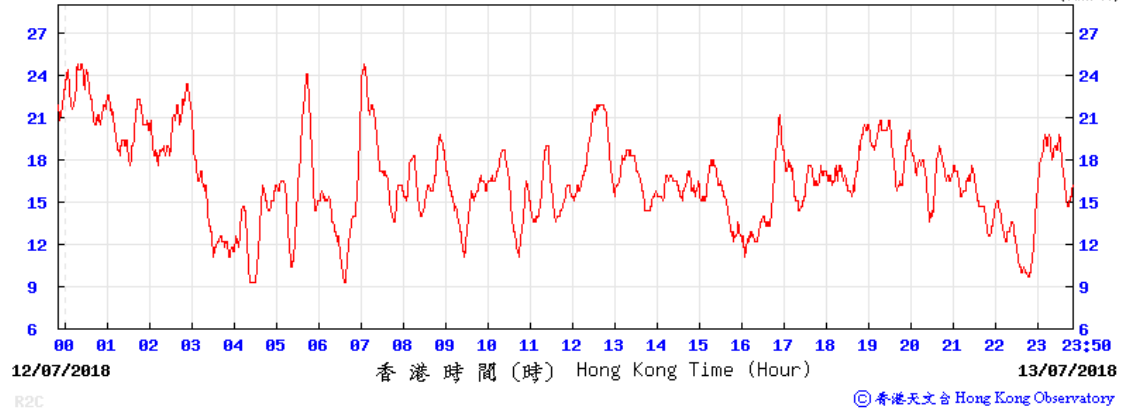
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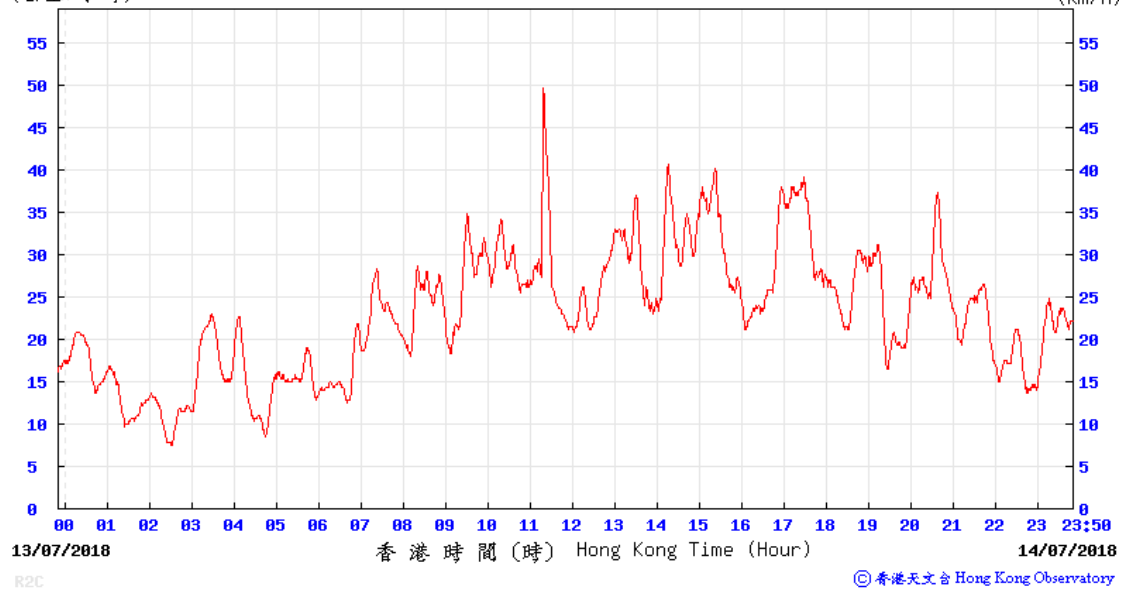


R2C ©香港天文台 Hong Kong Observatory

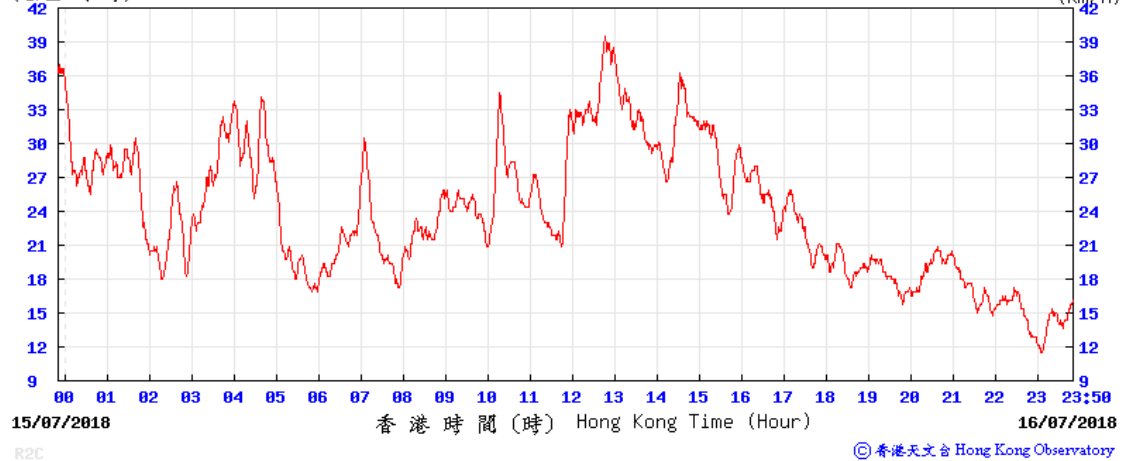
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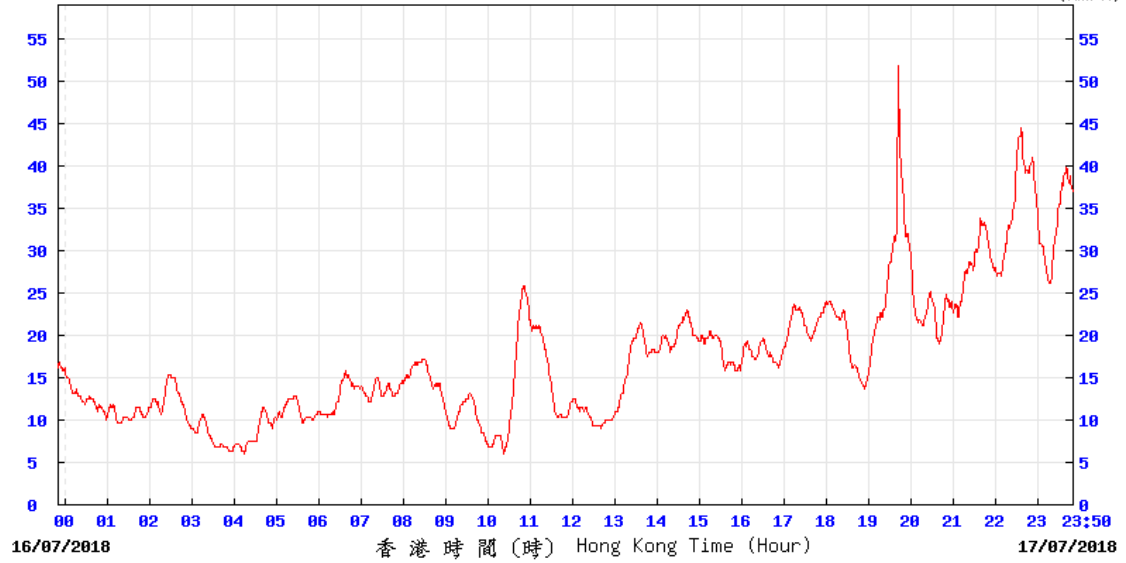
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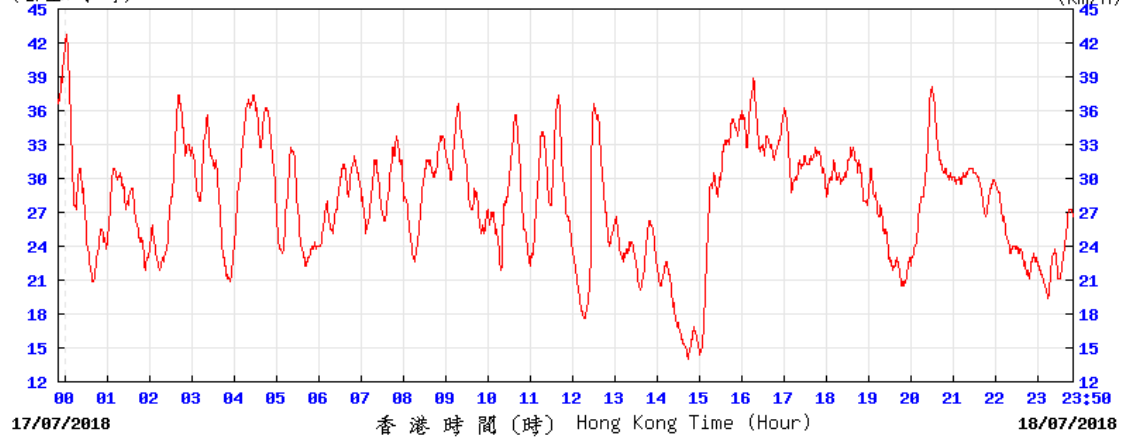
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R2C

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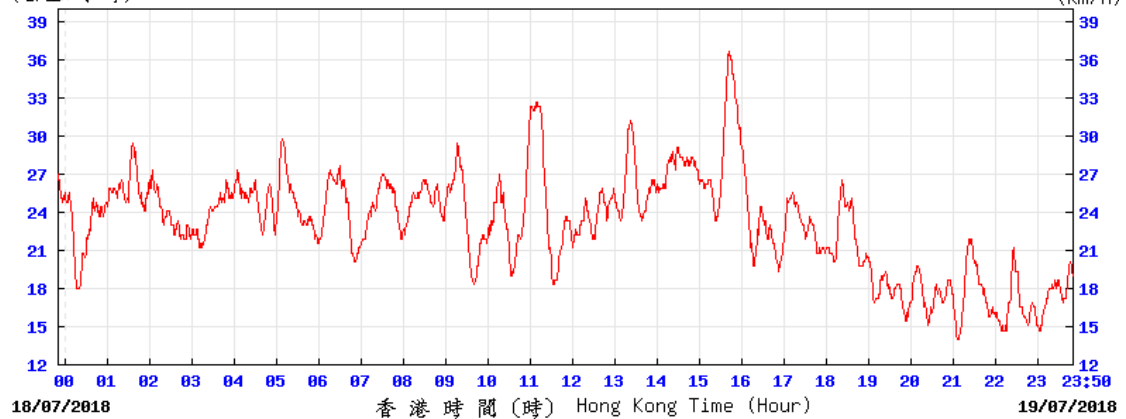
(公里/小時) (於香港時間 2018 年 7 月 18 日 23 時 50 分更新) (Updated at 23:50H on 18 Jul 2018)



R2C

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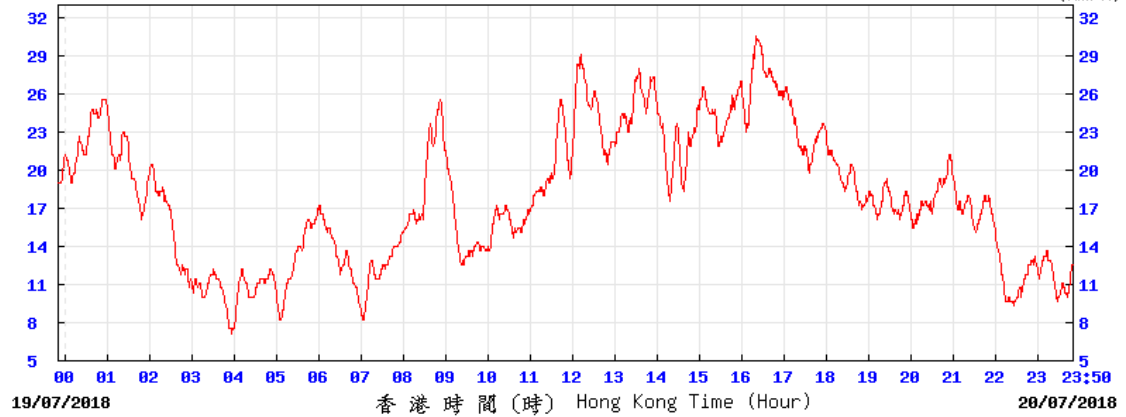
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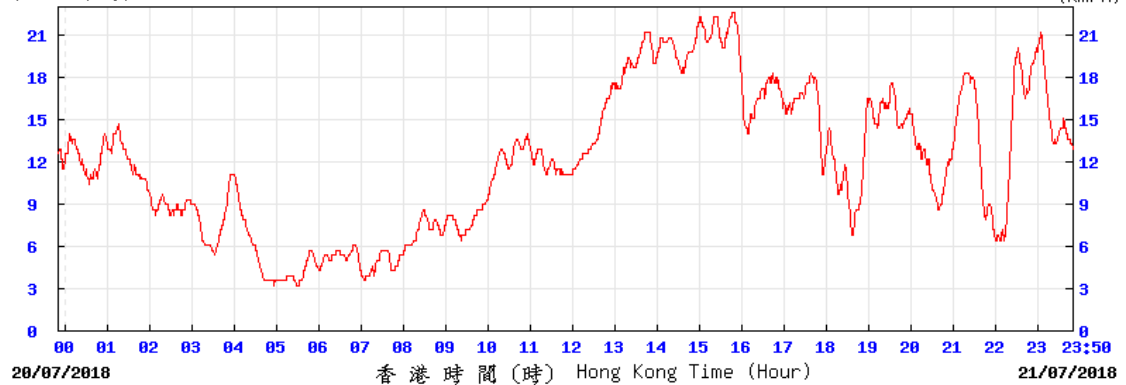
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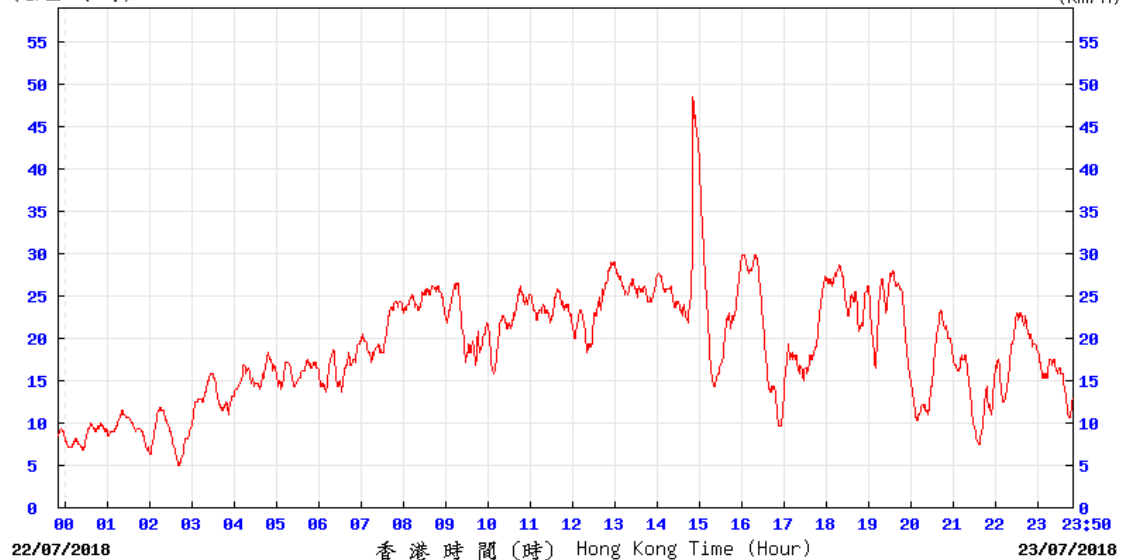
R2C ©香港天文台 Hong Kong Observatory

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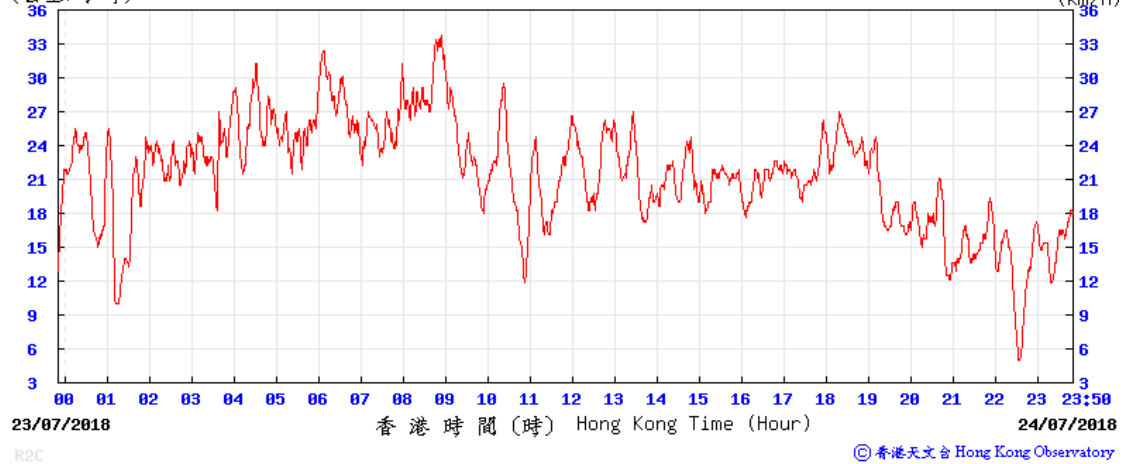
R2C ©香港天文台 Hong Kong Observatory

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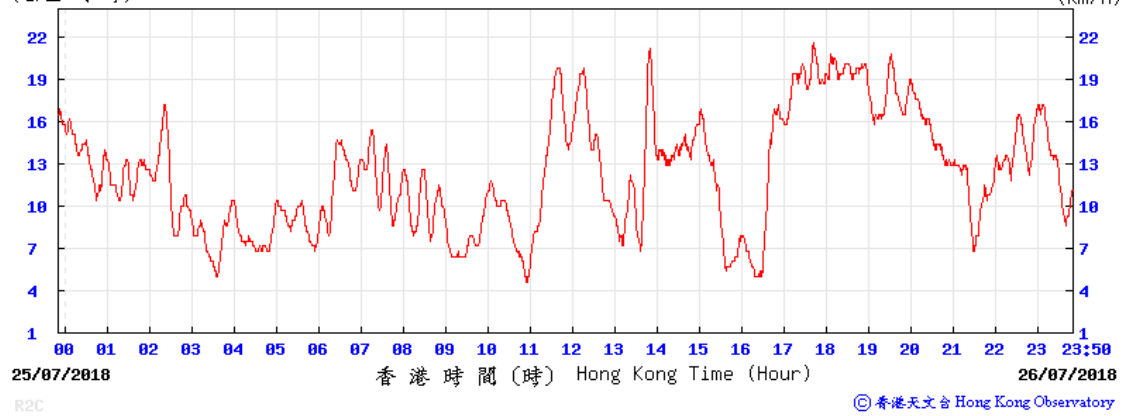


R2C ©香港天文台 Hong Kong Observatory

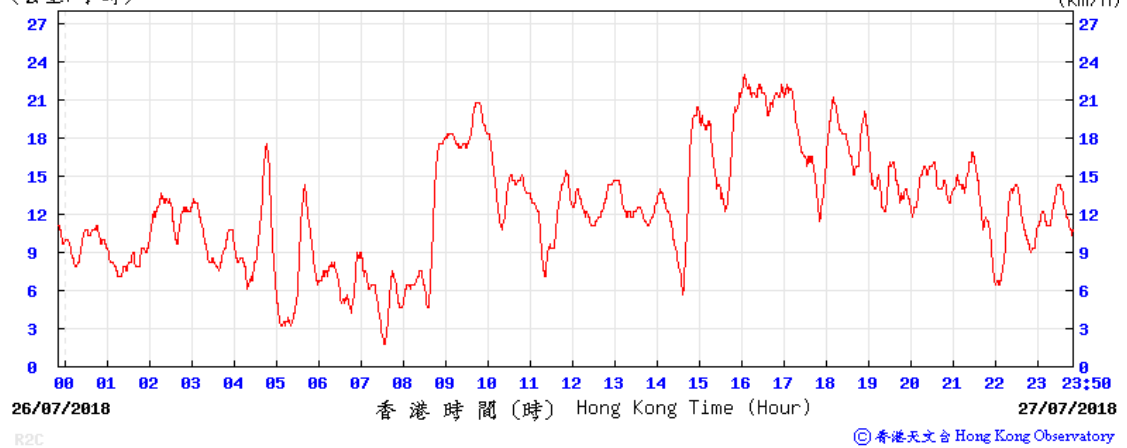
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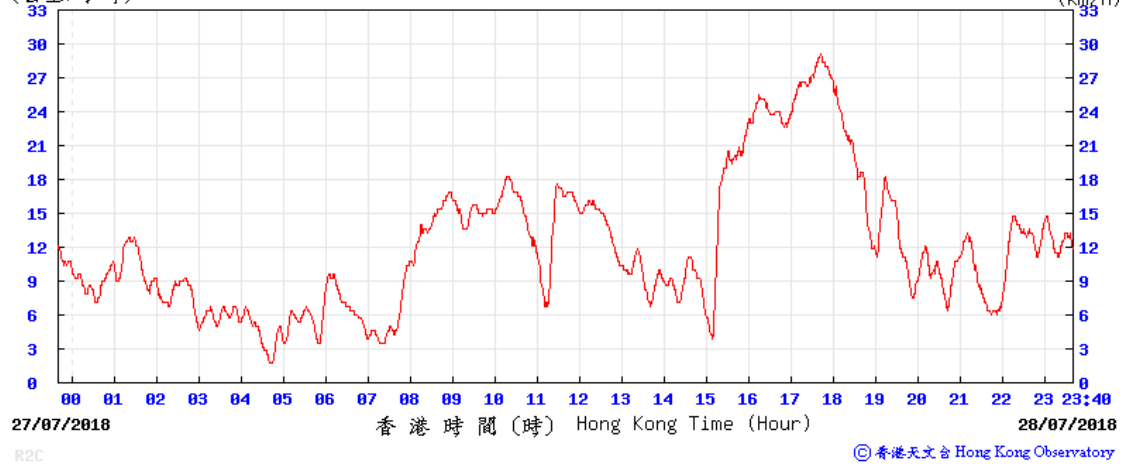
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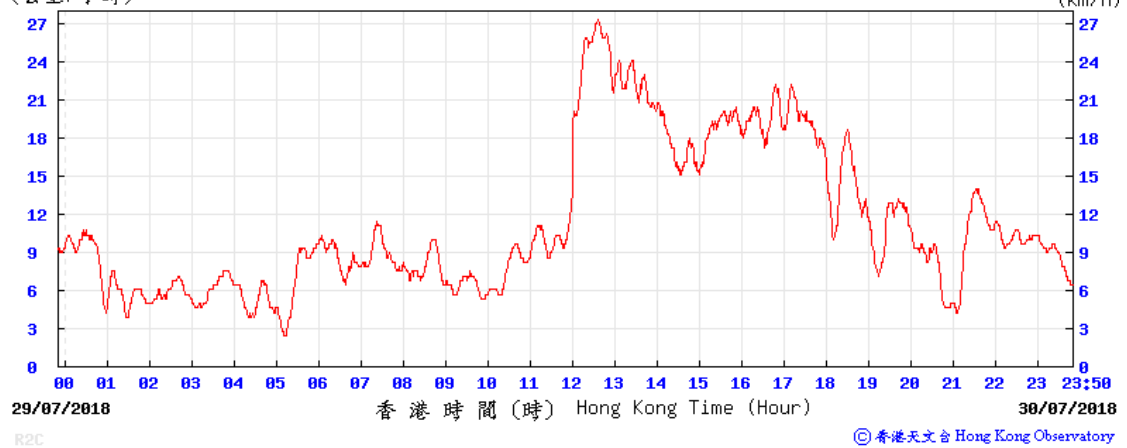
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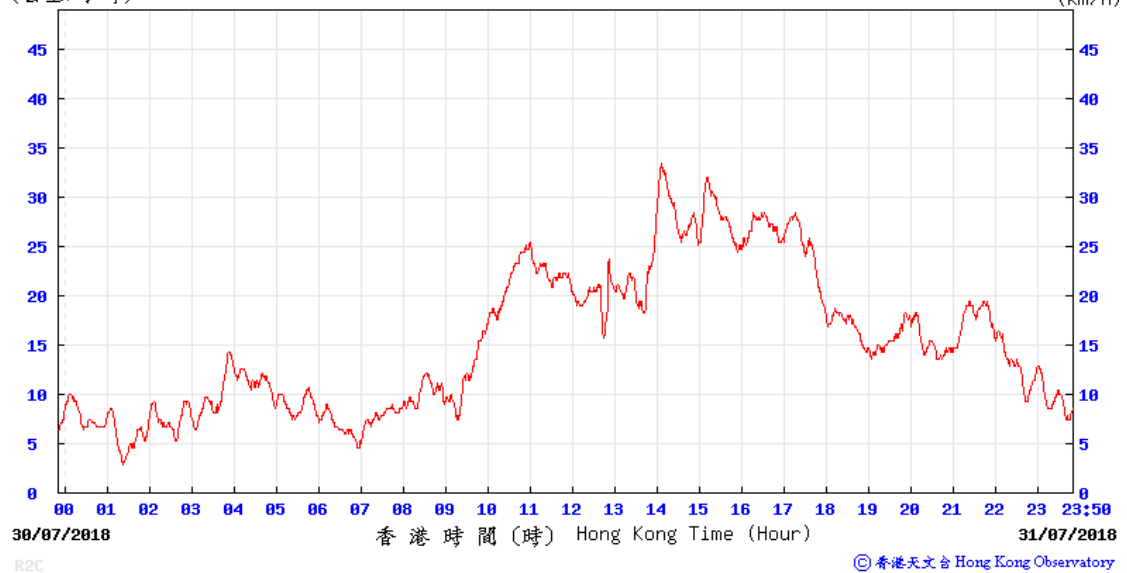
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(公里/小時) (於香港時間 2018 年 7 月 30 日 23 時 50 分更新) (Updated at 23:50H on 30 Jul 2018)



(公里/小時) (於香港時間 2018 年 7 月 31 日 23 時 50 分更新) (Updated at 23:50H on 31 Jul 2018)



Annex H3

Laboratory Analysis Result



CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1842747
CONTACT:	Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE RECEIVED:	27 July 2018
		DATE OF ISSUE:	28 August 2018
PROJECT:	Odour Monitoring for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan	SAMPLE TYPE:	Air
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)	NO OF SAMPLES:	3
PO:	---		

COMMENTS

Air sample(s) were collected by ALS Technichem (HK) staff on 27th July, 2018 at the Organic Resources Recovery Centre Phase 1 (ORRC1) in Siu Ho Wan for Odour Monitoring.

The sample(s) were analysed and reported on an as received basis.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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METHOD STATEMENT

A. Odour Concentration

1. Odour Sampling

Odour gas sample was collected by passive sampling technique. A Nalophan™ sampling bag was placed inside an air-tight sampler and then drawn to vacuum. Approximately 60 litre of gas sample was collected into the sampling bag for testing.

The odour sample was collected at the Organic Recovery Resources Centre Phase 1 (ORRC1) and sampling locations were shown in Appendix A1.

2. Olfactometry Testing

Odour concentration was determined by a Forced-choice Dynamic Olfactometer in accordance with the European Standard Method (EN13725).

This European Standard specifies a method for the objective determination of the odour concentration of a gaseous sample using dynamic olfactometry with human assessors and the emission rate of odours emanating from point sources, area sources with outward flow and area sources without outward flow.

This European Standard is applicable to the measurement of odour concentration of pure substances, defined mixtures and undefined mixtures of gaseous odorants in air or nitrogen, using dynamic olfactometry with a panel of human assessors being the sensor.

The unit of measurement is the odour unit per cubic metre: OU_e/m^3 . The odour concentration is measured by determining the dilution factor required to reach the detection threshold. The odour concentration at the detection threshold is by definition 1 OU_e/m^3 . The odour concentration is then expressed in terms of multiples of the detection threshold. The range of measurement including pre-dilution prior to the olfactometry analysis is typically from 10^1 OU_e/m^3 to 10^7 OU_e/m^3 .

Olfactometry Testing was performed by using the Scentroid™ SS600 Olfactometer. The testing was performed by at least five qualified panellists who have been selected through an n-butanol screening test.

All testing finished within 24 hours after sample receipt.

**RESULT****1. Odour Concentration**

Sample ID	Location	Sampling Date	Sampling Time	LOR (OU _E /m ³)	Odour Concentration (OU _E /m ³)	Characteristics of the odour detected of the gas sample	Volumetric Flow Rate (m ³ /min)	Emission rate (OU _E /hr)
HK1842747-001	CAPC Unit	27-Jul-18	11:43 - 11:48	11	35	Musty smell	1252.6	2,630,000
HK1842747-002	CAPC Unit	27-Jul-18	11:49 - 11:54	11	27	Musty smell	1249.7	2,020,000
HK1842747-003	Field Blank	27-Jul-18	--	11	<11	--	--	--

Remark:

1. LOR denotes limit of reporting.
2. The collected sample volume of the gas bag is sufficient for olfactometry analysis.
3. Field Blank containing pure nitrogen gas was collected and filled by ALS staff on site.
4. The volumetric flow rate used for calculation of the emission rate was provided by the client.

**APPENDIX 1****A1. SITE CONDITIONS AND OBSERVATION**

Location	Date	Time	Ambient Temperature (°C)	Relative Humidity (%)	Ambient Pressure (hPa)	Wind Speed (m/s)	Wind Direction (Degree)	Direction from Source ¹	Duration of Odour	On-Site Observation		Weather Condition
										Odour Nature	Possible Source	
CAPC Unit	27-07-18	11:43 -11:54	32.6	65.7	1002.6	1.1	118	NA	NA	No odour was smelled.	NA	Sunny

Note:

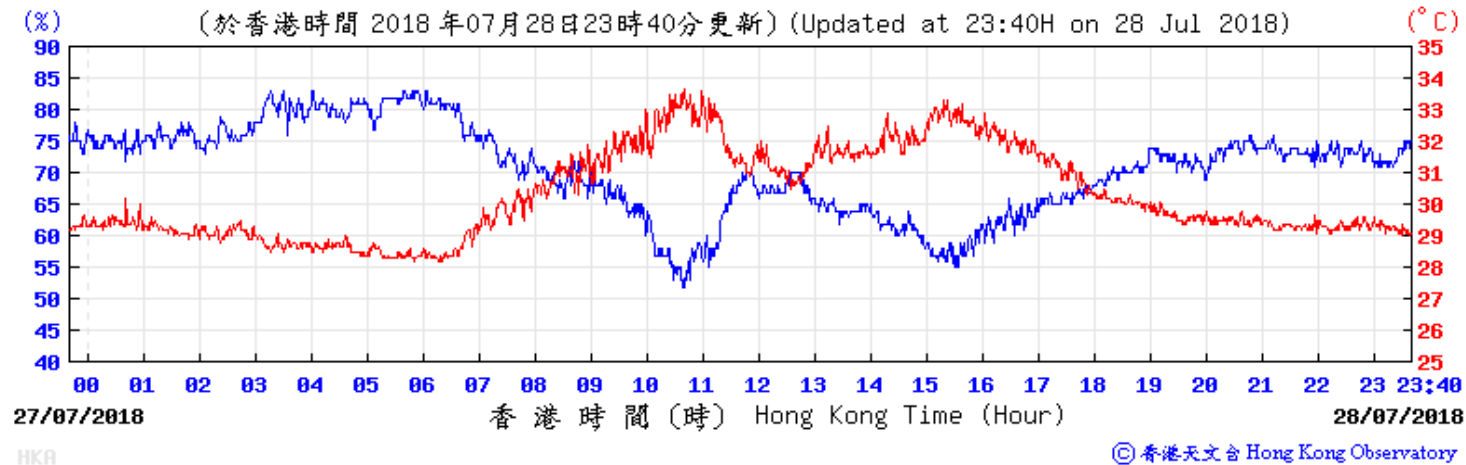
1. It was assumed that the exhaust of the CAPC Unit was from the odour source.



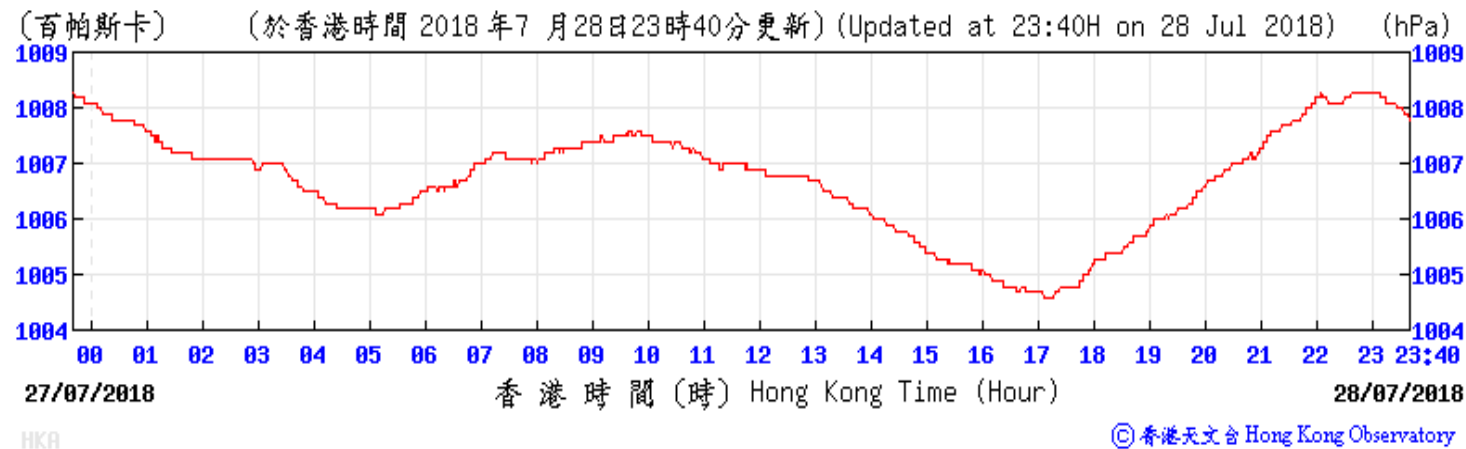
APPENDIX 2

A2. EXTRACT OF METEOROLOGICAL OBSERVATIONS FROM HONG KONG AIRPORT OBSERVATORY STATION

Temperature/Humidity:

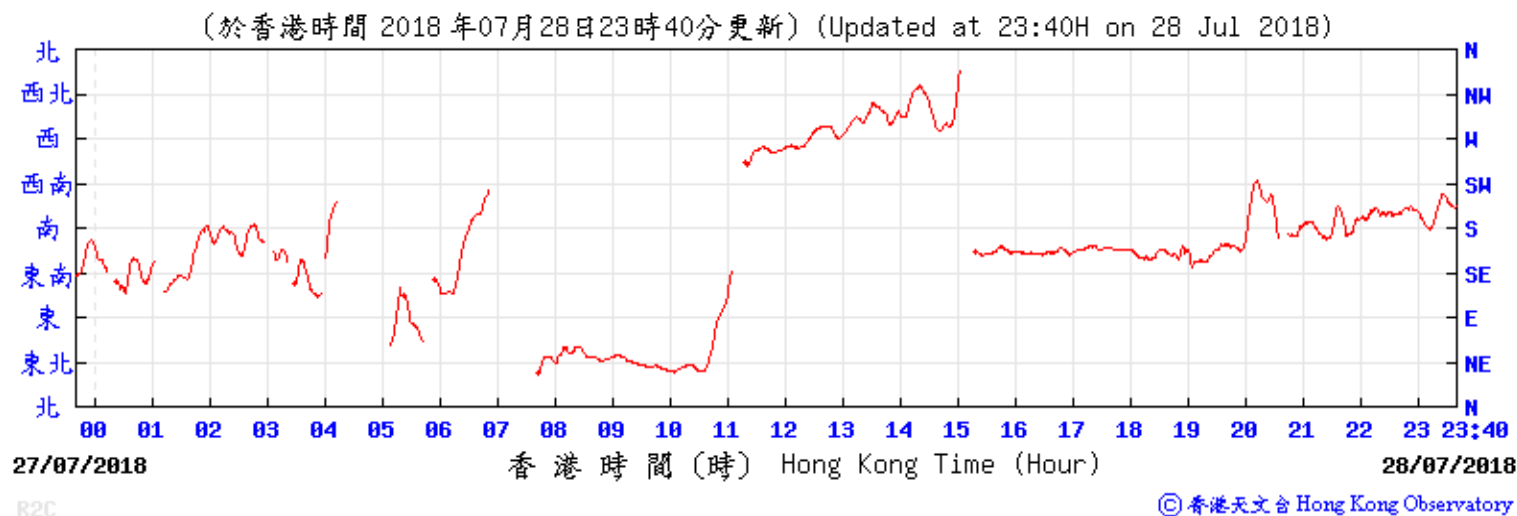


Pressure:

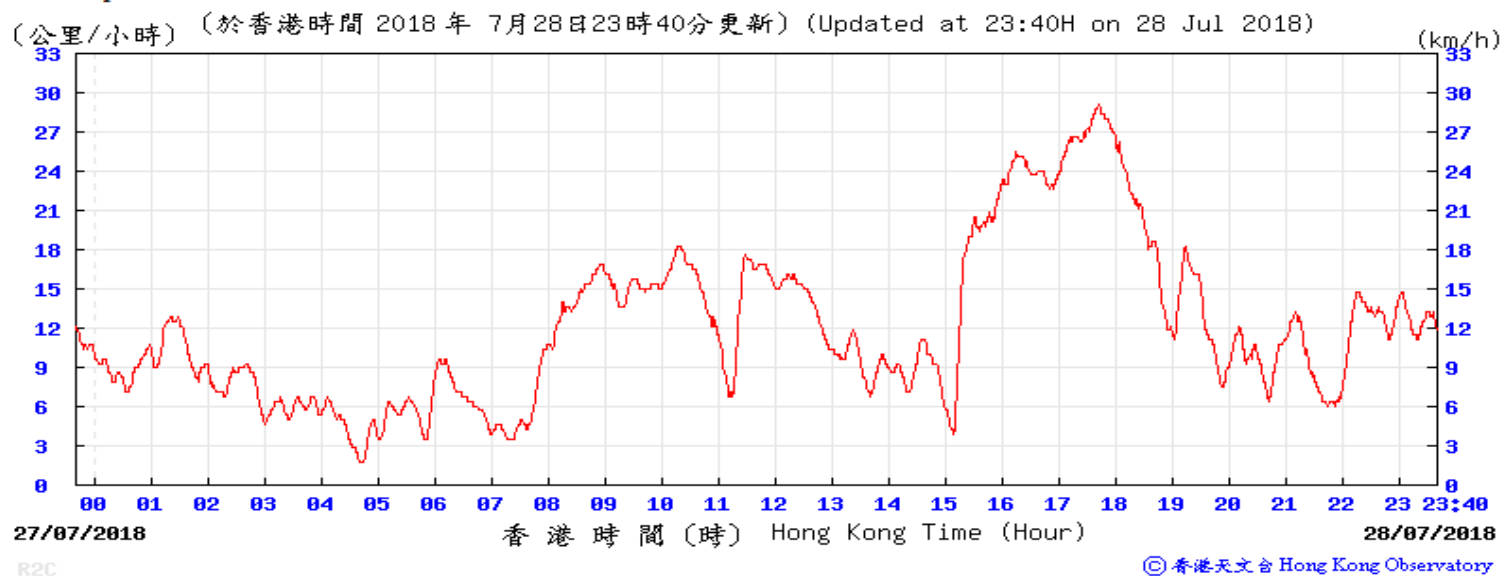




Wind Direction:



Wind Speed:



APPENDIX 3

A3. PHOTO OF THE SAMPLING LOCATION



Annex H4

Action and Limit Levels for Odour Nuisance

Odour Intensity Level

Level	Odour Intensity
0	Not detected. No odour perceived or an odour so weak that it cannot be easily
1	Slight identifiable odour, and slight chance to have odour
2	Moderate identifiable odour, and moderate chance to have odour
3	Strong identifiable, likely to have odour nuisance
4	Extreme severe odour, and unacceptable odour level

Action and Limit Levels for Odour Nuisance

Parameter	Action Level	Limit Level
Odour Nuisance (from odour patrol)	When one documented compliant is received ⁽¹⁾ , or Odour Intensity of 2 is measured from odour patrol.	Two or more documented complaints are received ⁽¹⁾ within a week; or Odour intensity of 3 or above is measured from odour patrol.

Note:

- (1) Once the compliant is received by the Project Proponent (EPD), the Project Proponent would investigate and verify the complaint whether it is related to the potential odour emission from the OWTF and its on-site wastewater treatment unit.

Event and Action Plan for Odour Monitoring

EVENT	ACTION	
	Person-in-charge of Odour	Project Proponent ⁽¹⁾
ACTION LEVEL		
Exceedance of action level (Odour Patrol)	<ol style="list-style-type: none"> 1. Identify source/reason of exceedance; 2. Repeat odour patrol to confirm finding. 	<ol style="list-style-type: none"> 1. Carry out investigation to identify the source/reason of exceedance. Investigation should be completed within 2 weeks; 2. Rectify any unacceptable practice; 3. Implement more mitigation measures if necessary; 4. Inform DSD or the operator of the Siu Ho Wan Sewage Treatment Works (SHWSTW) if exceedance is considered to be caused by the operation of the SHWSTW. 5. Inform North Lantau Refuse Transfer Station (NLTS) operator if exceedance is considered to be caused by the operation of NLTS.

EVENT	ACTION	
	Person-in-charge of Odour	Project Proponent ⁽¹⁾
Exceedance of action level (Odour Complaints)	<ol style="list-style-type: none"> 1. Identify source/reason of exceedance; 2. Carry out odour patrol to determinate odour intensity. 	<ol style="list-style-type: none"> 1. Carry out investigation and verify the complaint whether it is related to potential odour emission from the nearby SHWSTW; 2. Carry out investigation to identify the source/reason of exceedance. Investigation should be completed within 2 weeks; 3. Rectify any unacceptable practice; 4. Implement more mitigation measures if necessary; 5. Inform DSD or the operator of the SHWSTW if exceedance is considered to be caused by the operation of the SHWSTW.

EVENT	ACTION	
	Person-in-charge of Odour	Project Proponent ⁽¹⁾
LIMIT LEVEL		
Exceedance of Limit level	<ol style="list-style-type: none"> 1. Identify source/reason of exceedance; 2. Inform EPD; 3. Repeat odour patrol to confirm findings; 4. Increase odour patrol frequency to bi-weekly; 5. Assess effectiveness of remedial action and keep EPD informed of the results; 6. If exceedance stops, cease additional odour patrol. 	<ol style="list-style-type: none"> 1. Carry out investigation to identify the source/reason of exceedance. Investigation should be completed within 2 week; 2. Rectify any unacceptable practice; 3. Formulate remedial actions; 4. Ensure remedial actions properly implemented; 5. If exceedance continues, consider what more/enhanced mitigation measures should be implemented;

Note: ⁽¹⁾Project Proponent shall identify an implementation agent