

## Appendix J

# Cumulative Statistics on Exceedances, Complaints, Notifications of Summons and Successful Prosecutions

**Table J1** *Cumulative Statistics on Exceedances*

Monitoring Parameters	Action/Limit Level	Total No. recorded in this reporting quarter	Total No. recorded since Contract commencement
1-Hr TSP	Action	3	122
	Limit	0	15
24-Hr TSP	Action	0	12
	Limit	0	4
Water Quality	Action	0	167
	Limit	0	19
Impact Dolphin Monitoring	Action	0	11
	Limit	0	19
Post Construction (Operational) Dolphin Monitoring	Action	0	0
	Limit	1	3

**Table J2** *Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions*

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This Reporting Period (December 2020 to February 2021)	0	0	0
Total No. received since Contract commencement	17	1	0

Email  
message

Environmental  
Resources  
Management

**To** Ramboll Hong Kong, Limited (ENPO)

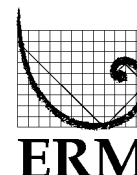
**From** ERM- Hong Kong, Limited

**Ref/Project number** Contract No. HY/2012/08 Tuen Mun–Chek Lap  
Kok Link–Northern Connection Sub-sea Tunnel  
Section

**Subject** Notification of Exceedance for Air Quality  
Impact Monitoring

**Date** 22 December 2020

2507, 25/F One Harbourfront  
18 Tak Fung Street  
Hunghom, Kowloon  
Hong Kong  
Telephone: (852) 2271 3000  
Facsimile: (852) 2723 5660



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Dear Sir or Madam,

Please find attached the Notification of Exceedance (NOE) of the following  
Log no.:

Action Level Exceedances:  
**0212330\_10December2020\_1hrTSP\_Station ASR5**

Three Action Level Exceedances were recorded on 10 December 2020.

Regards,

A handwritten signature in black ink, appearing to read 'Jasmine', written in a cursive style.

Dr Jasmine Ng  
Environmental Team Leader

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# ERM-Hong Kong, Limited

## CONTRACT NO. HY/2012/08 TUEN MUN – CHEK LAP KOK LINK – NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

### Air Quality Impact Monitoring Notification of Exceedance

Log No.	<u>Action Level Exceedance</u> 0212330_10December2020_1hrTSP_Station ASR5  [Total No. of Exceedances = 1]	
Date	10 December 2020 (Measured) 22 December 2020 (Laboratory results received by ERM)	
Monitoring Station	ASR5	
Parameter(s) with Exceedance(s)	1-hr TSP	
Action Levels	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	ASR1 = 213 ASR5 = 238 AQMS1 = 213 ASR6 = 238 ASR10 = 214
	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	ASR1 = 331 ASR5 = 340 AQMS1 = 335 ASR6 = 338 ASR10 = 337
Limit Levels	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	500
	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	260
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at ASR5 ( $348 \mu\text{g}/\text{m}^3$ ) between sampling period 9:32 and 10:32 on 10 December 2020.	
Works Undertaken (at the time of monitoring event)	On 10 December 2020, demolition of CLP substation was conducted.	
Possible Reason for Action or Limit Level Exceedance(s)	The exceedance is unlikely to be due to this Contract, in view of the following: <ul style="list-style-type: none"> <li>With reference to the recorded wind direction (vary between <math>13^\circ</math> and <math>24^\circ</math>) and wind speed (<math>1.3 \text{ m/s}</math>), the wind was mainly from north-easterly direction. Haze was observed during the sampling time.</li> <li>Dust suppression measures were implemented properly on site. Water spraying was applied during rock/cement breaking to prevent dust (refer to <i>Annex A</i>).</li> </ul> Based on the above, the exceedance is unlikely to be due to this Contract.	
Actions Taken / To Be Taken	The Contractor has been reminded to implement the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual including watering to maintain all exposed road surfaces and dust sources wet, use of sprinklers for water spraying, covering the materials having the potential to create dust by clean tarpaulin, use of water truck and watering on all exposed soil within the Contract site throughout the construction period.	
Remarks	The monitoring results, wind data and the locations of air quality monitoring stations are attached ( <i>Annex B</i> ).	

Annex A

## Watering Photo



Photo 1 - Water spraying was applied during rock/cement breaking to prevent dust

Annex B

Results of Air Quality  
Monitoring, Wind Data &  
Locations of Air Quality  
Monitoring Stations

Air quality monitoring results on 10/12/2020								
Project	Contract	Date	Station	Weather	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	2020-12-10	ASR10	Hazy	8:08:00	1-hour TSP	126	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR10	Hazy	9:10:00	1-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR10	Hazy	10:12:00	1-hour TSP	128	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR6	Hazy	8:18:00	1-hour TSP	185	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR6	Hazy	9:20:00	1-hour TSP	217	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR6	Hazy	10:22:00	1-hour TSP	131	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR5	Hazy	8:30:00	1-hour TSP	255	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR5	Hazy	9:32:00	1-hour TSP	348	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR5	Hazy	10:34:00	1-hour TSP	191	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR1	Hazy	8:42:00	1-hour TSP	140	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR1	Hazy	9:44:00	1-hour TSP	162	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR1	Hazy	10:46:00	1-hour TSP	99	ug/m3
TMCLKL	HY/2012/08	2020-12-10	AQMS1	Hazy	8:53:00	1-hour TSP	110	ug/m3
TMCLKL	HY/2012/08	2020-12-10	AQMS1	Hazy	9:55:00	1-hour TSP	114	ug/m3
TMCLKL	HY/2012/08	2020-12-10	AQMS1	Hazy	10:57:00	1-hour TSP	105	ug/m3
TMCLKL	HY/2012/08	2020-12-10	AQMS1	Hazy	11:59:00	24-hour TSP	87	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR1	Hazy	11:48:00	24-hour TSP	114	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR10	Hazy	11:14:00	24-hour TSP	72	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR5	Hazy	11:36:00	24-hour TSP	166	ug/m3
TMCLKL	HY/2012/08	2020-12-10	ASR6	Hazy	11:24:00	24-hour TSP	110	ug/m3

Action level exceedance

Limit level exceedance



Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	Time (24hrs)	Average of Wind Speed (m/s)	Average of Wind Direction(degree)
20/12/10	0:00	0.4	102
20/12/10	1:00	0.4	29
20/12/10	2:00	0.4	20
20/12/10	3:00	0.4	30
20/12/10	4:00	0	97
20/12/10	5:00	0.9	351
20/12/10	6:00	0.4	335
20/12/10	7:00	0.4	49
20/12/10	8:00	1.3	12
20/12/10	9:00	1.3	24
20/12/10	10:00	1.3	13
20/12/10	11:00	1.3	19
20/12/10	12:00	1.3	21
20/12/10	13:00	0.9	202
20/12/10	14:00	1.3	192
20/12/10	15:00	1.3	261
20/12/10	16:00	0.9	279
20/12/10	17:00	0.4	96
20/12/10	18:00	0.4	96
20/12/10	19:00	0	85
20/12/10	20:00	0.4	78
20/12/10	21:00	0.9	38
20/12/10	22:00	1.3	101
20/12/10	23:00	1.8	82
20/12/11	0:00	1.8	91
20/12/11	1:00	0.4	87
20/12/11	2:00	0.9	38
20/12/11	3:00	0.9	13
20/12/11	4:00	0.4	16
20/12/11	5:00	0	102
20/12/11	6:00	0	114
20/12/11	7:00	0	103
20/12/11	8:00	0.4	135
20/12/11	9:00	1.3	141
20/12/11	10:00	0.4	130
20/12/11	11:00	0.9	141
20/12/11	12:00	1.3	206
20/12/11	13:00	0.9	203
20/12/11	14:00	1.8	201
20/12/11	15:00	1.3	207
20/12/11	16:00	0.4	276
20/12/11	17:00	0.9	269
20/12/11	18:00	0.4	267
20/12/11	19:00	0.4	274
20/12/11	20:00	0	58
20/12/11	21:00	0	158
20/12/11	22:00	0.4	290
20/12/11	23:00	0.4	306

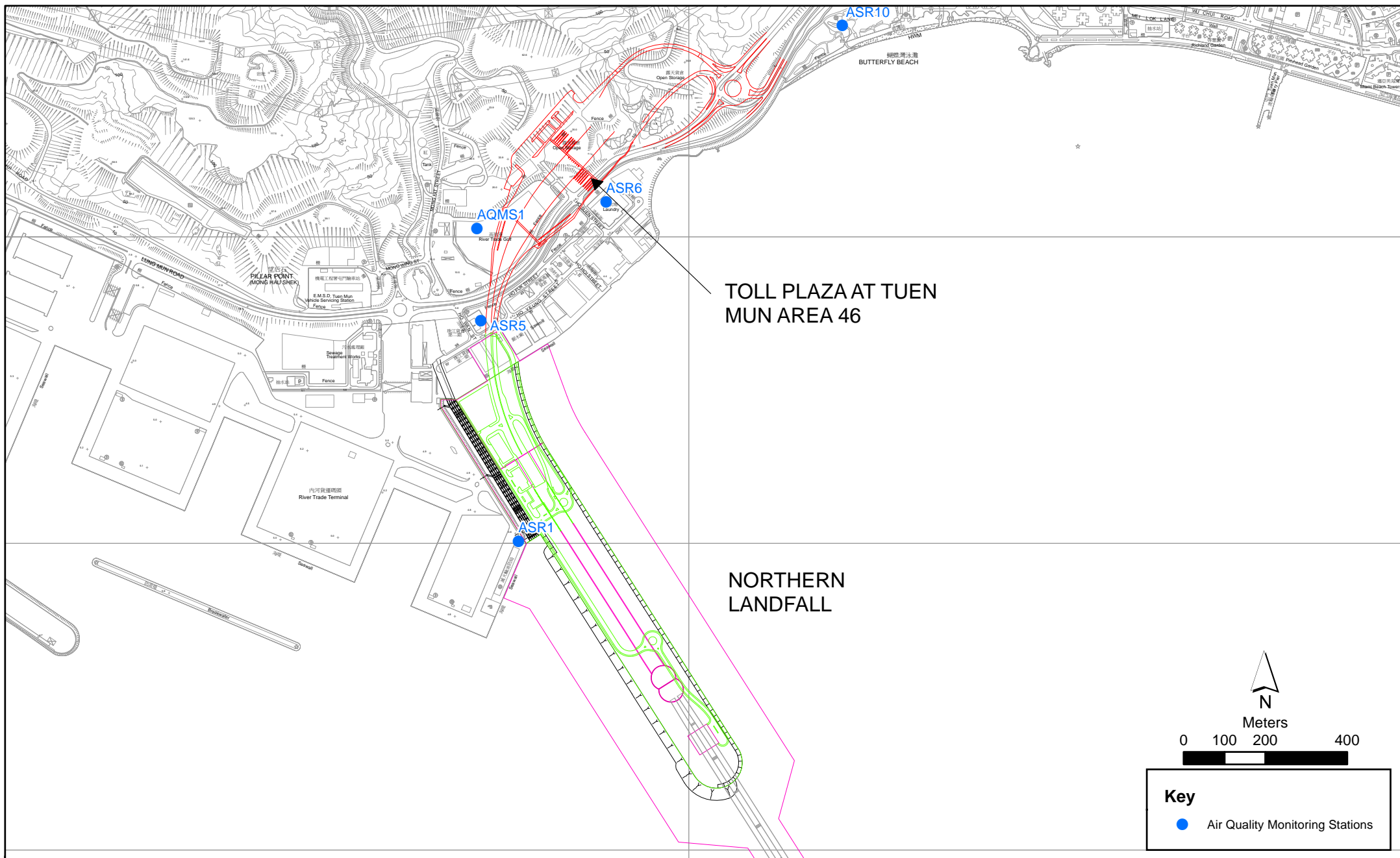


Figure 2.1b

### Air Quality Monitoring Stations for the Enhanced TSP Monitoring

File: T:\GIS\CONTRACT\0212330\Mxd\0212330\_ASR\_for\_Enhanced\_TSP\_monitoring.mxd  
Date: 21/2/2014

Environmental  
Resources  
Management



Email  
message

Environmental  
Resources  
Management

**To** Ramboll Hong Kong, Limited (ENPO)

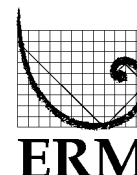
**From** ERM- Hong Kong, Limited

**Ref/Project number** Contract No. HY/2012/08 Tuen Mun–Chek Lap  
Kok Link–Northern Connection Sub-sea Tunnel  
Section

**Subject** Notification of Exceedance for Air Quality  
Impact Monitoring

**Date** 16 February 2021

2509, 25/F One Harbourfront  
18 Tak Fung Street  
Hung Hom, Kowloon  
Hong Kong  
Telephone: (852) 2271 3000  
Facsimile: (852) 2723 5660



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Dear Sir or Madam,

Please find attached the Notification of Exceedance (NOE) of the following  
Log no.:

Action Level Exceedances:  
**0212330\_16February2021\_1hrTSP\_Station ASR5**

One Action Level Exceedance was recorded on 16 February 2021.

Regards,

A handwritten signature in black ink, appearing to read 'Jasmine', written in a cursive style.

Dr Jasmine Ng  
Environmental Team Leader

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ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK –  
NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Air Quality Impact Monitoring  
Notification of Exceedance

Log No.	<u>Action Level Exceedance</u> 0212330_16February2021_1hrTSP_Station ASR5  [Total No. of Exceedances = 1]	
Date	16 February 2021 (Measured) 2 March 2021 (Laboratory results received by ERM)	
Monitoring Station	ASR5	
Parameter(s) with Exceedance(s)	1-hr TSP	
Action Levels	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	ASR1 = 213 ASR5 = 238 AQMS1 = 213 ASR6 = 238 ASR10 = 214
	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	ASR1 = 331 ASR5 = 340 AQMS1 = 335 ASR6 = 338 ASR10 = 337
Limit Levels	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	500
	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	260
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at ASR5 ( $355 \mu\text{g}/\text{m}^3$ ) between sampling period 15:37 and 16:37 on 16 February 2021.	
Works Undertaken (at the time of monitoring event)	No construction works was conducted on 16 February 2021.	
Possible Reason for Action or Limit Level Exceedance(s)	The exceedance is unlikely to be due to this Contract, in view of the following: <ul style="list-style-type: none"> <li>With reference to the recorded wind direction (vary between <math>274^\circ</math> and <math>277^\circ</math>) and wind speed (<math>0.9 \text{ m/s}</math>), the wind was mainly from north-westerly direction.</li> <li>Informed by the Contractor, no construction works was conducted on 16 February 2021.</li> </ul> Based on the above, the exceedance is unlikely to be due to this Contract.	
Actions Taken / To Be Taken	The Contractor has been reminded to implement the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual including watering to maintain all exposed road surfaces and dust sources wet, use of sprinklers for water spraying, covering the materials having the potential to create dust by clean tarpaulin, use of water truck and watering on all exposed soil within the Contract site throughout the construction period.	
Remarks	The monitoring results, wind data and the locations of air quality monitoring stations are attached (Annex A).	

Annex A

Results of Air Quality  
Monitoring, Wind Data &  
Locations of Air Quality  
Monitoring Stations

Air quality monitoring results on 16/2/2021								
Project	Contract	Date	Station	Weather	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	2021-02-16	ASR10	Sunny	13:10:00	1-hour TSP	81	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR10	Sunny	14:12:00	1-hour TSP	151	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR10	Sunny	15:14:00	1-hour TSP	62	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR6	Sunny	13:22:00	1-hour TSP	195	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR6	Sunny	14:24:00	1-hour TSP	117	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR6	Sunny	15:26:00	1-hour TSP	184	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR5	Sunny	13:33:00	1-hour TSP	118	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR5	Sunny	14:35:00	1-hour TSP	89	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR5	Sunny	15:37:00	1-hour TSP	355	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR1	Sunny	13:46:00	1-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR1	Sunny	14:48:00	1-hour TSP	237	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR1	Sunny	15:50:00	1-hour TSP	167	ug/m3
TMCLKL	HY/2012/08	2021-02-16	AQMS1	Sunny	13:58:00	1-hour TSP	100	ug/m3
TMCLKL	HY/2012/08	2021-02-16	AQMS1	Sunny	15:00:00	1-hour TSP	93	ug/m3
TMCLKL	HY/2012/08	2021-02-16	AQMS1	Sunny	16:02:00	1-hour TSP	179	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR10	Sunny	16:16:00	24-hour TSP	74	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR6	Sunny	16:28:00	24-hour TSP	83	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR5	Sunny	16:39:00	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2021-02-16	ASR1	Sunny	16:52:00	24-hour TSP	90	ug/m3
TMCLKL	HY/2012/08	2021-02-16	AQMS1	Sunny	17:04:00	24-hour TSP	87	ug/m3

Action level exceedance

Limit level exceedance

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	Time (24hrs)	Average of Wind Speed (m/s)	Average of Wind Direction(degree)
21/02/16	0:00	1.8	78
21/02/16	1:00	1.8	70
21/02/16	2:00	1.3	86
21/02/16	3:00	1.3	58
21/02/16	4:00	1.3	85
21/02/16	5:00	2.7	100
21/02/16	6:00	2.7	79
21/02/16	7:00	1.8	41
21/02/16	8:00	2.2	56
21/02/16	9:00	2.2	93
21/02/16	10:00	1.8	111
21/02/16	11:00	1.8	129
21/02/16	12:00	1.3	101
21/02/16	13:00	1.3	131
21/02/16	14:00	1.3	196
21/02/16	15:00	0.9	274
21/02/16	16:00	0.9	277
21/02/16	17:00	0.9	198
21/02/16	18:00	0.9	261
21/02/16	19:00	0.9	299
21/02/16	20:00	0.9	324
21/02/16	21:00	0.4	328
21/02/16	22:00	0.4	288
21/02/16	23:00	0.4	273
21/02/17	0:00	1.3	308
21/02/17	1:00	0.9	303
21/02/17	2:00	0	295
21/02/17	3:00	0	303
21/02/17	4:00	0.4	2
21/02/17	5:00	1.3	5
21/02/17	6:00	1.8	18
21/02/17	7:00	2.2	20
21/02/17	8:00	1.8	19
21/02/17	9:00	2.7	32
21/02/17	10:00	1.8	90
21/02/17	11:00	2.2	23
21/02/17	12:00	1.8	33
21/02/17	13:00	1.8	28
21/02/17	14:00	1.8	24
21/02/17	15:00	1.8	144
21/02/17	16:00	0.9	18
21/02/17	17:00	1.3	81
21/02/17	18:00	1.3	78
21/02/17	19:00	1.3	53
21/02/17	20:00	1.3	66
21/02/17	21:00	1.3	38
21/02/17	22:00	1.8	48
21/02/17	23:00	1.8	49

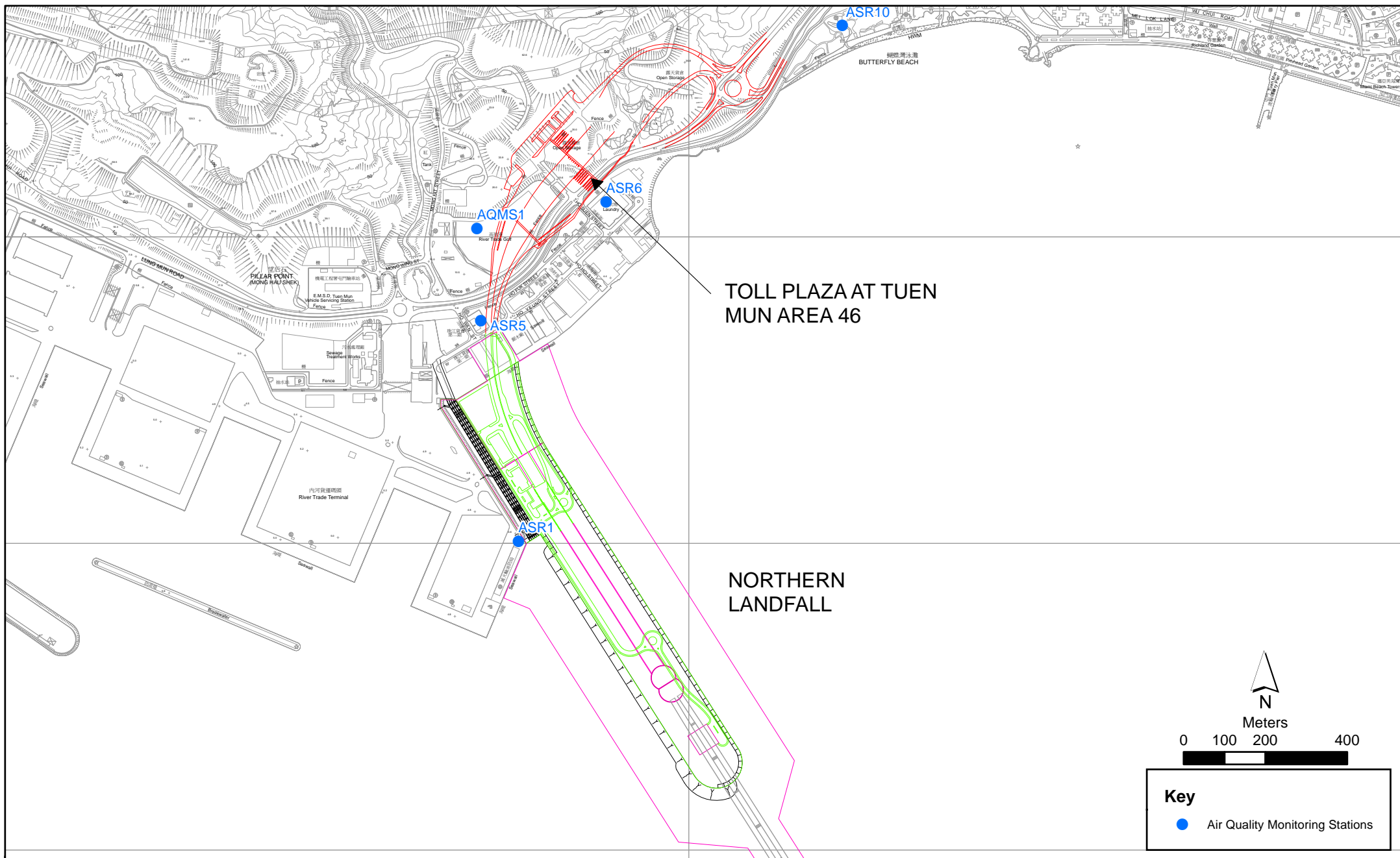


Figure 2.1

Air Quality Monitoring Stations for the Enhanced TSP Monitoring

File: T:\GIS\CONTRACT\0212330\Mxd\0212330\_ASR\_for\_Enhanced\_TSP\_monitoring.mxd  
Date: 21/2/2014

Environmental  
Resources  
Management





Email  
message

Environmental  
Resources  
Management

**To** Ramboll Hong Kong, Limited (ENPO)

**From** ERM- Hong Kong, Limited

**Ref/Project number** Contract No. HY/2012/08 Tuen Mun–Chek Lap  
Kok Link–Northern Connection Sub-sea Tunnel  
Section

**Subject** Notification of Exceedance for Air Quality  
Impact Monitoring

**Date** 22 February 2021

2509, 25/F One Harbourfront  
18 Tak Fung Street  
Hung Hom, Kowloon  
Hong Kong  
Telephone: (852) 2271 3000  
Facsimile: (852) 2723 5660



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Dear Sir or Madam,

Please find attached the Notification of Exceedance (NOE) of the following  
Log no.:

Action Level Exceedances:  
0212330\_22February2021\_1hrTSP\_Station ASR5

One Action Level Exceedance was recorded on 22 February 2021.

Regards,

A handwritten signature in black ink, appearing to read 'Jasmine', written in a cursive style.

Dr Jasmine Ng  
Environmental Team Leader

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ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08  
TUN MUN – CHEK LAP KOK LINK –  
NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Air Quality Impact Monitoring  
Notification of Exceedance

Log No.	<p><u>Action Level Exceedance</u> 0212330_22February2021_1hrTSP_Station ASR5</p> <p>[Total No. of Exceedances = 1]</p>	
Date	<p>22 February 2021 (Measured) 3 March 2021 (Laboratory results received by ERM)</p>	
Monitoring Station	ASR5	
Parameter(s) with Exceedance(s)	1-hr TSP	
Action Levels	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	<p>ASR1 = 213 ASR5 = 238 AQMS1 = 213 ASR6 = 238 ASR10 = 214</p>
	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	<p>ASR1 = 331 ASR5 = 340 AQMS1 = 335 ASR6 = 338 ASR10 = 337</p>
Limit Levels	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	500
	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	260
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at ASR5 ( $355 \mu\text{g}/\text{m}^3$ ) between sampling period 15:38 and 16:38 on 22 February 2021.	
Works Undertaken (at the time of monitoring event)	No construction works was conducted on 22 February 2021.	
Possible Reason for Action or Limit Level Exceedance(s)	<p>The exceedance is unlikely to be due to this Contract, in view of the following:</p> <ul style="list-style-type: none"> <li>With reference to the recorded wind direction (vary between <math>211^\circ</math> and <math>212^\circ</math>) and wind speed (vary between 1.3 and 1.8 m/s), the wind was mainly from south-westerly direction.</li> <li>Informed by the Contractor, no construction works was conducted on 22 February 2021.</li> </ul> <p>Based on the above, the exceedance is unlikely to be due to this Contract.</p>	
Actions Taken / To Be Taken	The Contractor has been reminded to implement the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual including watering to maintain all exposed road surfaces and dust sources wet, use of sprinklers for water spraying, covering the materials having the potential to create dust by clean tarpaulin, use of water truck and watering on all exposed soil within the Contract site throughout the construction period.	
Remarks	The monitoring results, wind data and the locations of air quality monitoring stations are attached (Annex A).	

Annex A

Results of Air Quality  
Monitoring, Wind Data &  
Locations of Air Quality  
Monitoring Stations

Air quality monitoring results on 22/2/2021								
Project	Contract	Date	Station	Weather	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	2021-02-22	ASR10	Sunny	13:10:00	1-hour TSP	97	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR10	Sunny	14:12:00	1-hour TSP	90	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR10	Sunny	15:14:00	1-hour TSP	147	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR6	Sunny	13:22:00	1-hour TSP	113	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR6	Sunny	14:24:00	1-hour TSP	97	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR6	Sunny	15:26:00	1-hour TSP	203	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR5	Sunny	13:34:00	1-hour TSP	136	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR5	Sunny	14:36:00	1-hour TSP	139	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR5	Sunny	15:38:00	1-hour TSP	472	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR1	Sunny	13:47:00	1-hour TSP	128	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR1	Sunny	14:49:00	1-hour TSP	209	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR1	Sunny	15:51:00	1-hour TSP	171	ug/m3
TMCLKL	HY/2012/08	2021-02-22	AQMS1	Sunny	13:58:00	1-hour TSP	99	ug/m3
TMCLKL	HY/2012/08	2021-02-22	AQMS1	Sunny	15:00:00	1-hour TSP	113	ug/m3
TMCLKL	HY/2012/08	2021-02-22	AQMS1	Sunny	16:02:00	1-hour TSP	154	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR10	Sunny	16:16:00	24-hour TSP	62	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR6	Sunny	16:28:00	24-hour TSP	76	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR5	Sunny	16:40:00	24-hour TSP	83	ug/m3
TMCLKL	HY/2012/08	2021-02-22	ASR1	Sunny	16:53:00	24-hour TSP	86	ug/m3
TMCLKL	HY/2012/08	2021-02-22	AQMS1	Sunny	17:04:00	24-hour TSP	69	ug/m3

Action level exceedance

Limit level exceedance

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	Time (24hrs)	Average of Wind Speed (m/s)	Average of Wind Direction(degree)
21/02/22	0:00	0.9	45
21/02/22	1:00	0.4	45
21/02/22	2:00	0	32
21/02/22	3:00	0	21
21/02/22	4:00	0	19
21/02/22	5:00	0	14
21/02/22	6:00	0.4	358
21/02/22	7:00	0.4	307
21/02/22	8:00	0.9	138
21/02/22	9:00	0.9	126
21/02/22	10:00	0.9	183
21/02/22	11:00	1.3	203
21/02/22	12:00	1.8	233
21/02/22	13:00	1.3	236
21/02/22	14:00	1.8	203
21/02/22	15:00	1.8	211
21/02/22	16:00	1.3	212
21/02/22	17:00	1.3	67
21/02/22	18:00	1.3	60
21/02/22	19:00	1.3	71
21/02/22	20:00	1.3	50
21/02/22	21:00	0.9	60
21/02/22	22:00	0.4	57
21/02/22	23:00	0.4	35
21/02/23	0:00	0.4	46
21/02/23	1:00	0.9	322
21/02/23	2:00	0.4	328
21/02/23	3:00	0.4	341
21/02/23	4:00	0	303
21/02/23	5:00	0	322
21/02/23	6:00	0.4	308
21/02/23	7:00	0	317
21/02/23	8:00	0	113
21/02/23	9:00	1.3	218
21/02/23	10:00	1.3	193
21/02/23	11:00	0.9	130
21/02/23	12:00	1.8	210
21/02/23	13:00	1.8	200
21/02/23	14:00	1.3	230
21/02/23	15:00	2.2	100
21/02/23	16:00	2.7	92
21/02/23	17:00	3.1	104
21/02/23	18:00	2.2	86
21/02/23	19:00	2.2	97
21/02/23	20:00	2.7	94
21/02/23	21:00	2.7	87
21/02/23	22:00	2.2	98
21/02/23	23:00	2.7	81

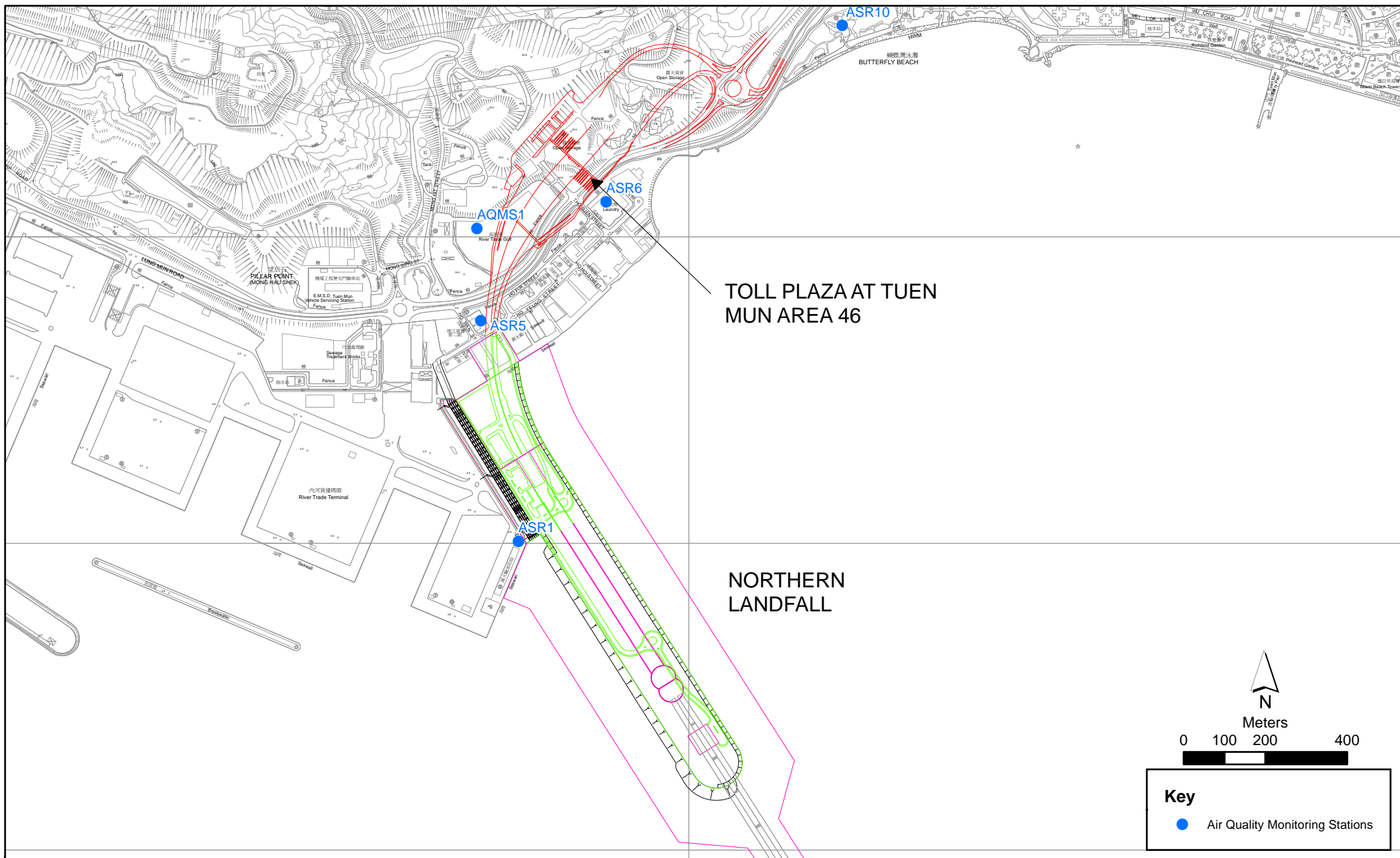


Figure 2.1

Air Quality Monitoring Stations for the Enhanced TSP Monitoring

Email  
message

Environmental  
Resources  
Management

**To** Ramboll Hong Kong, Limited (ENPO)

**From** ERM- Hong Kong, Limited

**Ref/Project number** Contract No. HY/2012/08 Tuen Mun–Chek Lap  
Kok Link–Northern Connection Sub-sea Tunnel  
Section

**Subject** Notification of Exceedance for Post Construction  
(Operational) Dolphin Monitoring

**Date** 18 May 2021

2509, 25/F One Harbourfront  
18 Tak Fung Street  
Hung Hom, Kowloon  
Hong Kong  
Telephone: (852) 2271 3000  
Facsimile: (852) 2723 5660



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Dear Sir or Madam,

Please find attached the Notification of Exceedance (NOE) of the following  
Log no.:

0212330\_December2020/February2021\_dolphin\_STG&ANI\_NEL&NWL

A total of one limit level exceedance was recorded in the quarterly post  
construction (operational) dolphin monitoring data between December 2020  
and February 2021.

Regards,

Dr Jasmine Ng  
Environmental Team Leader

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**ERM-Hong Kong, Limited**

**CONTRACT NO. HY/2012/08**

**TUEN MUN – CHEK LAP KOK LINK –  
NORTHERN CONNECTION SUB-SEA TUNNEL SECTION**

**Post Construction Dolphin Monitoring  
Notification of Exceedance**

<b>Log No.</b>	<b>0212330_ Dec2020/Feb2021_dolphin_STG&amp;ANI_NEL&amp;NWL</b> <b>[Total No. of Exceedances = 1 Limit Level Exceedance]</b>	
<b>Date</b>	December 2020 – February 2021 (monitored) 5 March 2021 (results received by ERM)	
<b>Monitoring Area</b>	Northeast Lantau (NEL) and Northwest Lantau (NWL)	
<b>Parameter(s) with Exceedance(s)</b>	Quarterly encounter rate of dolphin sightings (STG) Quarterly encounter rate of total number of dolphins (ANI)	
<b>Action Levels</b>	North Lantau Social cluster	NEL: STG < 4.2 & ANI < 15.5 or NWL: STG < 6.9 & ANI < 31.3
<b>Limit Levels</b>		NEL: STG < 2.4 & ANI < 8.9 and NWL: STG < 3.9 & ANI < 17.9
<b>Recorded Levels</b>	NEL	STG = 0 & ANI = 0
	NWL	STG = 0.55 & ANI = 1.09
	One Limit Level Exceedance was recorded in the quarterly post construction dolphin monitoring at NEL and NWL between December 2020 and February 2021.	
<b>Statistical Analyses</b>	<p>Further to the review of the available and relevant dolphin monitoring data for TMCLKL project, statistical analyses were conducted as follows:</p> <ul style="list-style-type: none"> <li>A two-way ANOVA with repeated measures and unequal sample size was conducted using Period (2 levels: baseline vs present post construction quarter, December 2020 and February 2021) and Location (2 levels: NEL and NWL) as fixed factors to examine whether there were any significant differences in the average encounter rates between the baseline and present post construction monitoring quarter. By setting <math>\alpha = 0.01</math> as the significance level in the statistical tests, significant differences in STG (<math>p = 0.0063</math>) and ANI (<math>p = 0.0268</math>) were detected between Periods.</li> <li>A two-way ANOVA with repeated measures and unequal sample size was conducted using Cumulative Period (2 levels: the first 33 quarters of impact and post construction phases) and Location (2 levels: NEL and NWL) as fixed factors to examine whether there were any significant differences in the average encounter rates between the baseline and cumulative quarters. By setting <math>\alpha = 0.00001</math> as the significance level in the statistical tests, significant difference in STG (<math>p = 0.000000</math>) and in ANI (<math>p = 0.000000</math>) between Cumulative Period and Location were detected.</li> </ul> <p>*Note: The commencement date under <i>Contract No. HY/2012/08</i> is 1 November 2013 and the Proposal for operational phase dolphin monitoring was approved by EPD on 19 May 2020. Operational phase dolphin monitoring commenced in June 2020.</p>	
<b>Works Undertaken (in the monitoring quarter)</b>	<p>No marine works was undertaken in the reporting period under Contract No. HY/2012/08. Operational phase dolphin monitoring commenced in June 2020.</p> <p>No marine works was undertaken in the reporting period under Contract No. HY/2012/07. Termination proposal for construction EM&amp;A programme of Contract No. HY/2012/07 was approved by EPD on 16 March 2020. The construction phase EM&amp;A programme of Contract No. HY/2012/07 has been terminated since 16 March 2020.</p>	



<b>Possible Reason for Action or Limit Level Exceedance(s)</b>	<p>The exceedance recorded in the quarterly post construction dolphin monitoring is unlikely to be due to TMCLKL project, in view of the following:</p> <ul style="list-style-type: none"> <li>• Blocking of CWD travelling corridor: The <i>Monitoring of Marine Mammals in Hong Kong Waters (2019 – 20)</i> <sup>(1)</sup> reported that dolphin usage and traveling activities to the northern side of the airport (dolphin traveling corridor) are affected by frequent high-speed ferry traffic from Sky Pier (not related to TMCLKL project), which is likely a major factor resulting in the decrease in dolphin abundances in North Lantau.</li> <li>• Marine works of TMCLKL project: Marine works were completed and no marine vessels will be deployed under Contract No. HY/2012/08 as per confirmed by SOR on 17 April 2020. The Proposal for operational phase dolphin monitoring was approved by EPD on 19 May 2020. Operational phase dolphin monitoring commenced in June 2020. No marine works was undertaken in the reporting period under Contract No. HY/2012/07. Termination proposal for construction EM&amp;A programme of Contract No. HY/2012/07 was approved by EPD on 16 March 2020. The construction phase EM&amp;A programme of Contract No. HY/2012/07 has been terminated since 16 March 2020. During this quarter of dolphin monitoring, no adverse impact on CWD due to the activities under TMCLKL project was observed.</li> <li>• Impact on water quality: Marine works were completed and no marine vessels will be deployed under TMCLKL project. The Proposal for operational phase water quality monitoring was approved by EPD on 19 May 2020. Operational phase water quality monitoring commenced in June 2020.</li> <li>• Provision of Marine Park: The Government has designated the Brothers Islands as a marine park in December 2016, with the aim to help better conserve the Chinese White Dolphins, their habitats and enhance the marine and fisheries resources therein.</li> </ul> <p>In view of the above, no unacceptable impact on CWD or its habitat was associated with TMCLKL project in this quarter.</p>
<b>Actions Taken / To Be Taken</b>	<p>No marine works and vessels was undertaken/deployed in the reporting period. The ET will monitor for future trends in exceedances.</p>
<b>Remarks</b>	<p>The results of post construction dolphin monitoring are documented in the approved <i>Eighty-Sixth</i> to <i>Eighty-Eighth Monthly EM&amp;A Reports</i>.</p>

(1) Hung S K Y (2020). Prepared for AFCD. Available at:  
[https://www.afcd.gov.hk/english/conservation/con\\_mar/con\\_mar\\_chi/con\\_mar\\_chi\\_chi\\_chi/files/Final\\_Report\\_2019\\_20.pdf](https://www.afcd.gov.hk/english/conservation/con_mar/con_mar_chi/con_mar_chi_chi/files/Final_Report_2019_20.pdf)