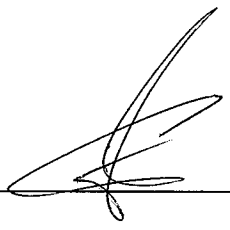
MTR Corporation Limited

West Island Line Project

Environmental Monitoring and Audit Report No.14

(October 2010)

Verified by: 

Position: Independent Environmental Checker

Date: 23 October 2010

MTR Corporation Limited

West Island Line Project

Environmental Monitoring and Audit Report No.14

(October 2010)

Certified by: Glenn Frommes

Position: Environmental Team Leader

Date: 20 October 2010

EXECUTIVE SUMMARY

The West Island Line Project commenced on 10 July 2009. The EM&A programme for the West Island Line Project commenced on 10 August 2009, the commencement date of construction of the Project. This is the fourteenth monthly Environmental Monitoring and Audit (EM&A) Report for West Island Line Project. The Report presents the results of EM&A works and the impact monitoring for the construction works undertaken during the period of 10 September 2010 to 9 October 2010. The major construction activities in the reporting period included slope works at Works Areas A/A1/A2/A3, demolition of Building Block A at Works Area A, site preparation and pipe piling at Works Area C, site preparation at Works Areas E/J2/J3, site preparation and noise enclosure erection at Works Area G, rock pre-splitting at Works Area H, pipe piling at Works Areas I and L1, reprovisioning of transformer and public toilet at Works Area M2, shaft excavation inside noise enclosure at Works Area M, diaphragm wall construction and building demolition at Works Area N1, excavation works inside construction shaft with noise decking installed to cover the shaft excavation area at Works Area J and grouting at Works Area O3.

Impact monitoring for air quality and noise were conducted in accordance with the EM&A Manual in the reporting period, no exceedance was found and there was no breach of Limit Levels for air and noise monitoring.

No environmental notification of summon and prosecution was received in the reporting period. Seven environmental complaints were received in the reporting period. The complaints had been handled in accordance with the procedures stipulated in the EM&A Manual.

Site inspections were conducted by the Environmental Team on a weekly basis to monitor proper implementation of environmental pollution control and mitigation measures for the Project. No non-conformance to the environmental requirements was identified by the Environmental Team in the reporting period.

The Environmental Permit (EP-313/2008/C) issued by EPD on 31 August 2009 is being used for the WIL Project.

In the reporting period, there was no reporting change of circumstances which may affect the compliance with the recommendations of the EIA Report.

List of Appendices

1 INTRODUCTION

1.1 Project Background

MTR Corporation Limited (MTRCL) proposes to build a new railway line, the West Island Line (WIL) which is an extension of the Island Line to the Western District. The route length of the fully underground WIL is approximately 3 km with three new underground stations namely Sai Ying Pun Station (SYP), University Station (UNI) and Kennedy Town Station (KET).

1.2 Project Programme

The West Island Line Project commenced on 10 July 2009. Commencement of construction was on 10 August 2009. The commencement of operation of the Project is scheduled to be in mid 2014.

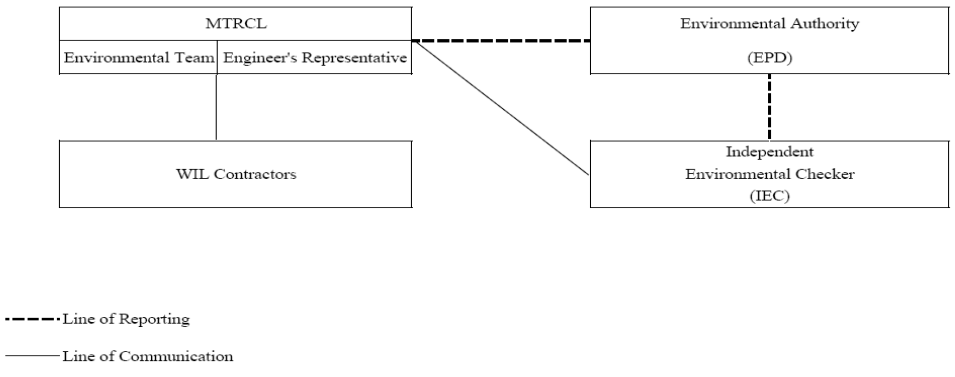
1.3 Coverage of the EM&A Report

The EM&A programme for the West Island Line Project commenced on 10 August 2009. This is the fourteenth Monthly Environmental Monitoring and Audit (EM&A) Report for the Project. The Report presents the results of EM&A works and the impact monitoring for the construction works undertaken during the period of 10 September 2010 to 9 October 2010.

2 PROJECT INFORMATION

2.1 Project Management Organization and Contact Details

The WIL Project organization chart is presented in Figure 1. Contacts of key environmental personnel of the Project are shown in Tables 1a, 1b and 1c respectively.



PROJECT ORGANIZATION
Figure 1

Table 1a Contact List of Key Personnel for Project Management

Organization	Name	Telephone
Engineer's Representative		
Project Manager – WIL Civil	Mr. Julian Saunders	3411 9828 / 9738 8634
Construction Manager(Contract 703/705/706A)	Mr. Daljit Dhanda	3411 9818 / 6292 6106
Construction Manager(Contract 704/706/708)	Mr. Stephen Hamill	34119811
Independent Environmental Checker		
Senior Environmental Consultant	Mr. Coleman Ng	2268 3097
Environmental Team		
Environmental Team Leader	Mr. Glenn Frommer	2688 1552 / 9018 0644
Deputy Environmental Team Leader	Mr. Richard Kwan	2688 1179 / 9819 9027
Contact 703 Contractor		
Project Director	Mr. Seved Robin	2541 1511
General Construction Manager	Mr. Emmanuel Clech	2541 1586
Contact 704 Contractor		
Project Director	Mr. V.H. Elias	3559 9001
Project Manager	Mr. C.C. Hau	3559 9003
Contact 705 Contractor		
Project Director	Mr. Brian Gowran	9865 0100
Project Manager	Mr. Harry Tsang	9467 0226
Contact 706 Contractor		
Project Manager	Mr. Cheng Kam Man	9650 1739
Construction Manager	Mr. Tai Yiu Tong	9047 1830
Contact 706A Contractor		
Project Manager	Mr. Hobby H.M. Lau	9828 0638
Site Agent	Mr. Stan Y.S. Lo	6276 0908
Contact 708 Contractor		
Project Manager	Mr. Jason Cheng	9837 9323
Tunnel Engineer	Mr. John Wai	6083 9220

Table 1b Contact List of Key Personnel for Emergency Response

Organization	Name	Telephone
Engineer's Representative		
Project Manager – WIL Civil	Mr. Julian Saunders	3411 9828 / 9738 8634
Construction Manager(Contract 703/705/706A)	Mr. Daljit Dhanda	3411 9818 / 6292 6106
Construction Manager(Contract 704/706/708)	Mr. Stephen Hamill	3411 9811
Independent Environmental Checker		
Senior Environmental Consultant	Mr. Coleman Ng	2268 3097
Environmental Team		
Environmental Team Leader	Mr. Glenn Frommer	2688 1552 / 9018 0644
Deputy Environmental Team Leader	Mr. Richard Kwan	2688 1179 / 9819 9027
Contact 703 Contractor		
Project Director	Mr. Seved Robin	6300 0374
General Construction Manager	Mr. Emmanuel Clech	6392 8991
Environmental Officer	Mr. Keith Lee	5191 8251
Contact 704 Contractor		
Project Director	Mr. V.H. Elias	3559 9001
Project Manager	Mr. C.C. Hau	3559 9003
Environmental Manager	Mr. Eddie Tse	3559 9053
Contact 705 Contractor		
Project Director	Mr. Brian Gowran	9865 0100
Project Manager	Mr. Harry Tsang	9467 0226
Project Environmental Manager	Mr. M.K. Cheung	9096 7254
Contact 706 Contractor		
Project Manager	Mr. Cheng Kam Man	9650 1739
Construction Manager	Mr. Tai Yiu Tong	9047 1830
Environmental Manager	Mr. Andrew Hui	9424 1926
Contact 706A Contractor		
Project Manager	Mr. Hobby H.M. Lau	9828 0638

Organization	Name	Telephone
Site Agent	Mr. Stan Y.S. Lo	6276 0908
Environmental Officer	Mr. Lee Ho Cheong	9416 8347
Contact 708 Contractor		
Project Manager	Mr. Jason Cheng	9837 9323
Tunnel Engineer	Mr. John Wai	6083 9220
Environmental Engineer	Mr. M. K. Cheung	9096 7254

Table 1c Contact List of Environmental Authority

Organization	Name	Telephone
Environmental Protection Department		
Sr Env Protection Offr(Metro Assessment) 3	Mr. Victor Yeung	2835 1155
Sr Env Protection Offr(Regional S) 1	Mr. Sean Law	2516 1806

2.2 Project Works Areas and Environmental Monitoring Locations

The WIL Project works areas and the locations of environmental monitoring stations are shown in Figures 2 and 3 to 7 respectively. Table 2 shows the details of the active monitoring stations as reported in Sections 3.1 and 3.2 below.

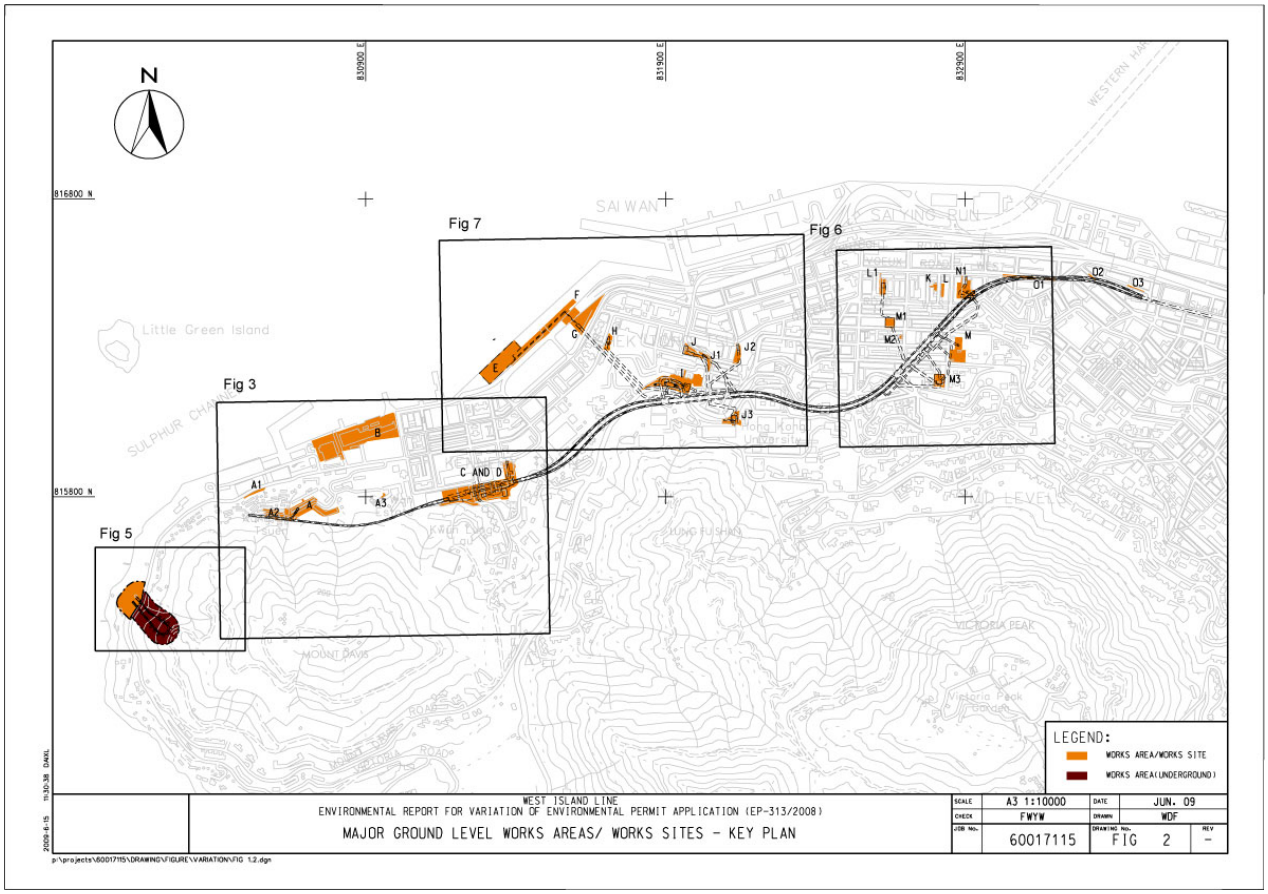


Table 2 Summary of impact air quality and noise monitoring stations

ID	Premise	Monitoring Location (Active)
Air		
AM1a+	Kwun Lung Lau Block 1	Building facing Works Area C
AM2	Victoria Public Mortuary	Building facing Works Area B
AM3a*	Hong Kong Institute of Vocational Education (Tsing Yi) Kennedy Town Centre	Building facing Works Area A
AM4	Chee Sing Kok Social Centre of the Humanity Love (current name for the premise)	Adjacent to building and facing Works Area MA
AM6a*	St. Paul's College Primary School	Building facing Works Area I
AM7a*	Hill Court	Building facing Works Area J
AM9a^	No. 28 Sai Woo Lane	Building facing Works Area N1
Noise		
CN1	Chee Sing Kok Social Centre of the Humanity Love (current name for the premise)	Adjacent to building and facing Works Area MA
CN2	Hong Kong Institute of Vocational Education (Tsing Yi) Kennedy Town Centre	Building facing Works Area A
CN3	Lui Ming Choi Primary School	Building facing Works Area B
CN4	Luen Tak Apartments	Building facing Works Area C

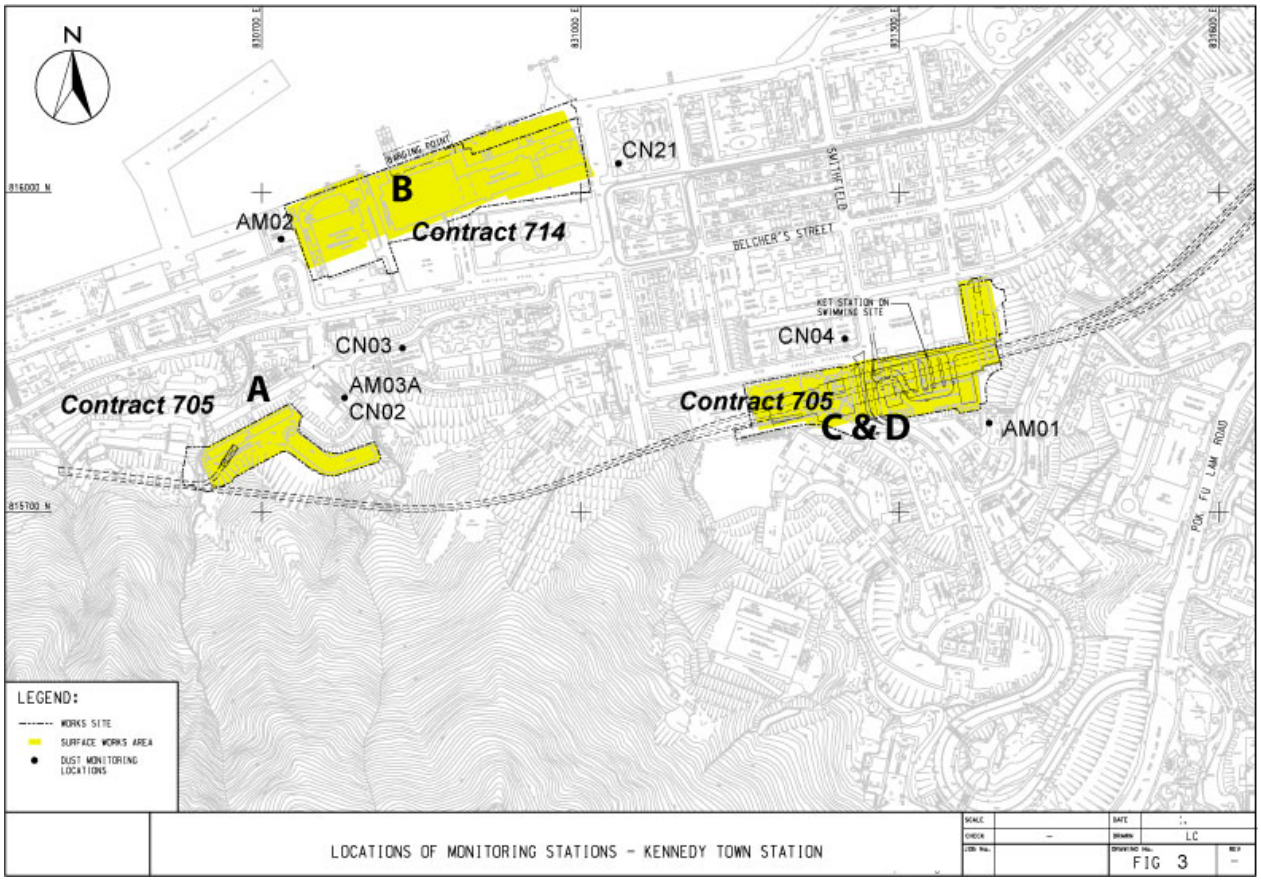
ID	Premise	Monitoring Location (Active)
CN6	Yick Fung Garden (Block A)	Building facing Works Area G
CN7a#	Bowie Court	Building facing Works Area J3
CN8	St. Paul's College Primary School	Building facing Works Area I
CN9	Hill Court	Building facing Works Area J
CN11a#	Yick Fung Garden (Block B)	Building facing Works Area H
CN13	No. 18-20 Eastern Street	Building facing Works Area N1
CN16	No. 9-11 Ki Ling Lane	Building facing Works Area L1
CN17	No. 1 Third Street	Building facing Works Area M
CN18	Princeton Tower	Building facing Works Area O1
CN20	Ka On Building	Building facing Works Area O3
CN21	The Merton (Block 2)	Building facing Works Area B

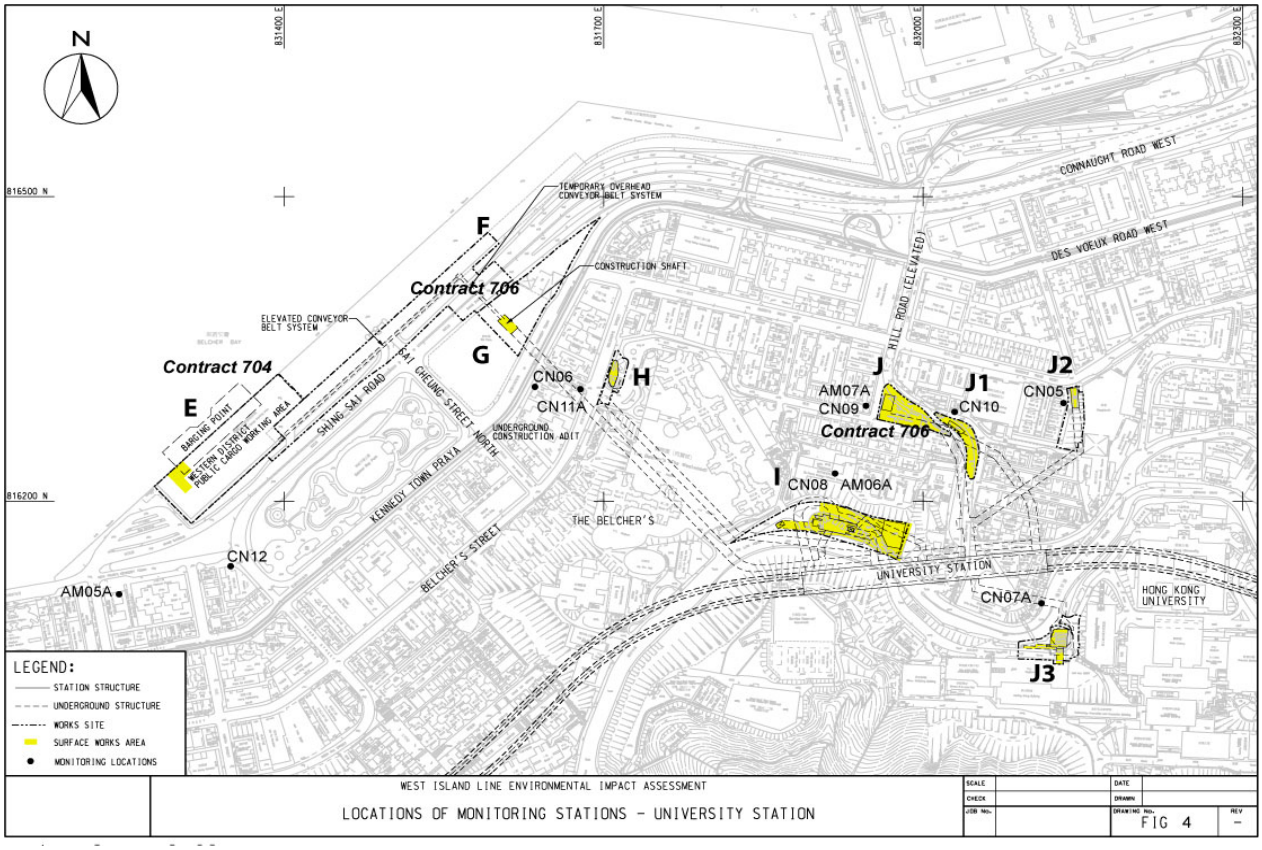
* The alternative air monitoring stations AM3a, AM6a and AM7a were approved by EPD on 10 August 2009

^The alternative air monitoring station AM9a was approved by EPD on 26 November 2009

+The alternative air monitoring station AM1a proposal was approved by EPD on 7 September 2010

The alternative noise monitoring stations CN7a and CN11a were approved by EPD on 1 September 2010




N
816500 N
816200 N
831400 E
831700 E
832000 E
832300 E
F
Contract 706
TEMPORARY OVERHEAD CONVEYOR BELT SYSTEM
CONSTRUCTION SHAFT
ELEVATED CONVEYOR BELT SYSTEM
Contract 704
G
CN06
CN11A
H
E
BARGING POINT
WESTERN DISTRICT PUBLIC CARGO WORKING AREA
SHANG SAI ROAD
SAI CHEUNG STREET NORTH
UNDERGROUND CONSTRUCTION ADIT
KENNEDY TOWN PRAYA
BELCHER'S STREET
THE BELCHER'S
CN12
AM05A
CONNAUGHT ROAD WEST
DES VOEUX ROAD WEST
HILL ROAD (ELEVATED)
J
AM07A
CN09
J1
CN10
Contract 706
J2
CN05
I
CN08
AM06A
UNIVERSITY STATION
CN07A
HONG KONG UNIVERSITY
J3
LEGEND:
STATION STRUCTURE
UNDERGROUND STRUCTURE
WORKS SITE
SURFACE WORKS AREA
MONITORING LOCATIONS
WEST ISLAND LINE ENVIRONMENTAL IMPACT ASSESSMENT
LOCATIONS OF MONITORING STATIONS – UNIVERSITY STATION
SCALE
CHECK
JOB No.
DATE
DRAWN
DRAWING No.
FIG 4
REV
-

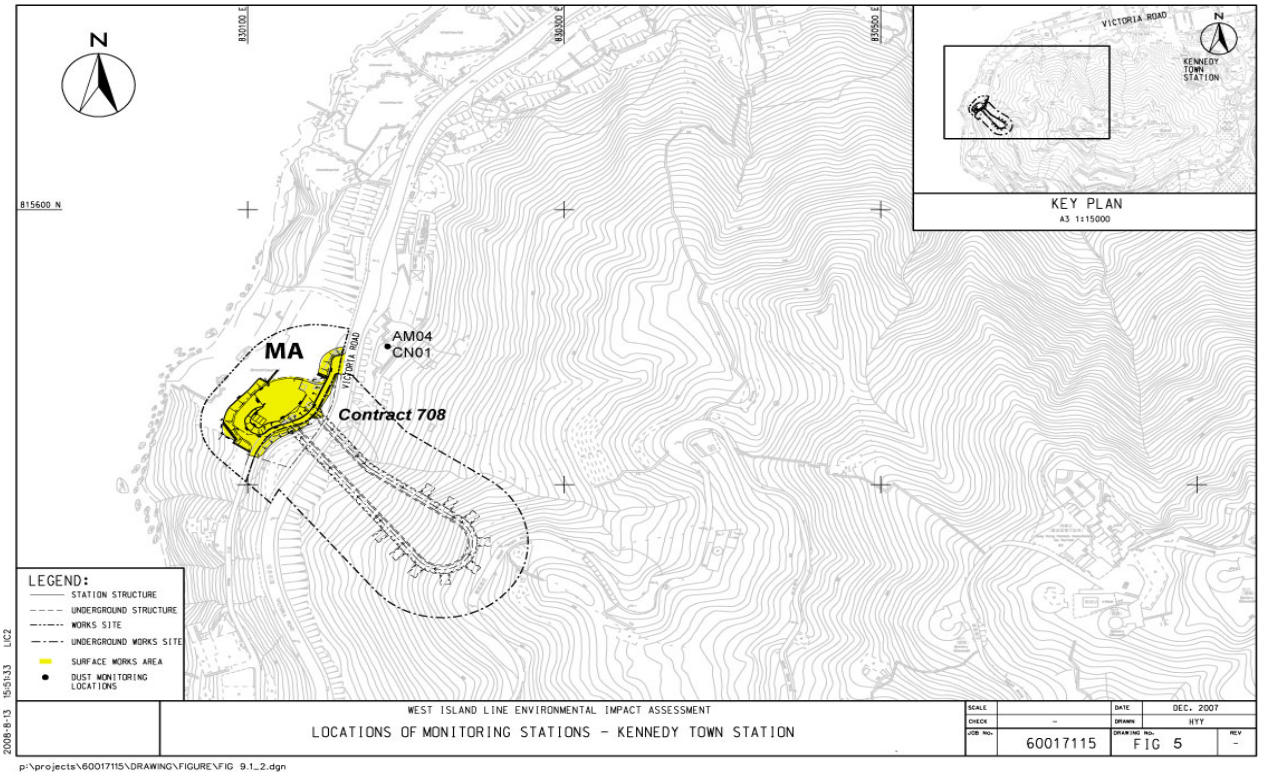

N
815600 N
830100 E
830800 E
830500 E
MA
AM04
CN01
VICTORIA ROAD
Contract 708
VICTORIA ROAD
KENNEDY TOWN STATION
KEY PLAN
A3 1:15000
LEGEND:
STATION STRUCTURE
UNDERGROUND STRUCTURE
WORKS SITE
UNDERGROUND WORKS SITE
SURFACE WORKS AREA
DUST MONITORING LOCATIONS
WEST ISLAND LINE ENVIRONMENTAL IMPACT ASSESSMENT
LOCATIONS OF MONITORING STATIONS – KENNEDY TOWN STATION
SCALE
CHECK
JOB No.
60017115
DATE
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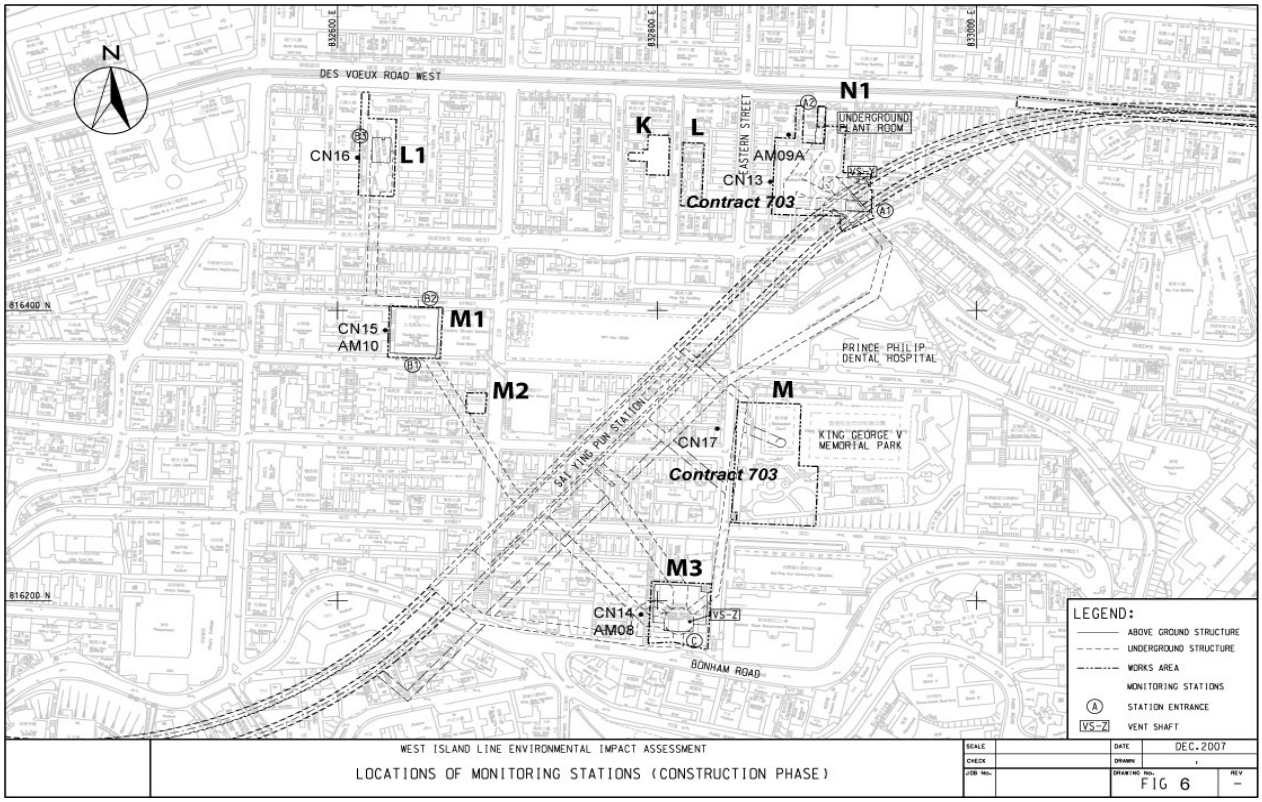
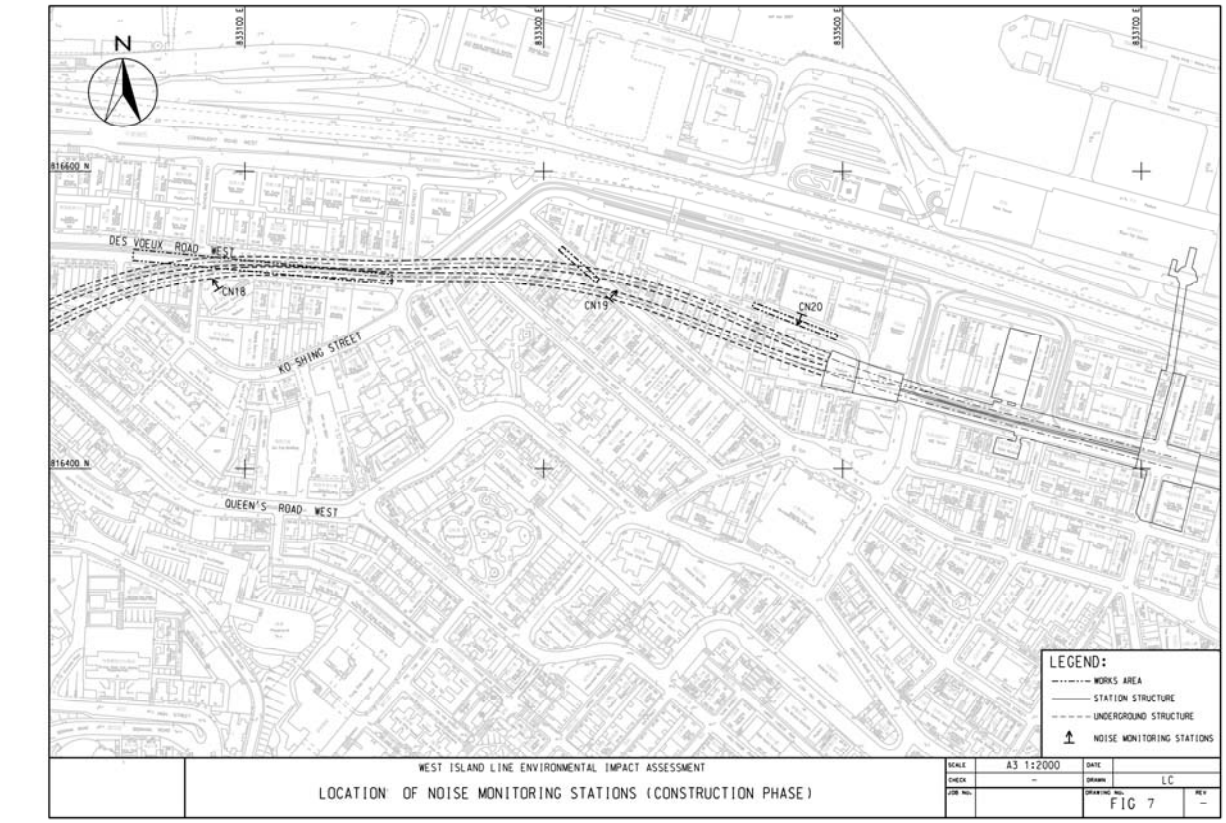
FIG 5
REV
-
2008-8-13 15:51:33 LIC2
p:\projects\60017115\DRAWING\FIGURE\FIG 9.1_2.dgn


N
DES VOEUX ROAD WEST
832600 E
832800 E
833000 E
816400 N
816200 N
N1
UNDERGROUND PLANT ROOM
EASTERN STREET
AM09A
CN13
K
L
Contract 703
CN16
L1
CN15
AM10
M1
M2
M
CN17
KING GEORGE V MEMORIAL PARK
PRINCE PHILIP DENTAL HOSPITAL
SAI YING PUN STATION
Contract 703
M3
CN14
AM08
BONHAM ROAD
LEGEND:
ABOVE GROUND STRUCTURE
UNDERGROUND STRUCTURE
WORKS AREA
MONITORING STATIONS
STATION ENTRANCE
VENT SHAFT
WEST ISLAND LINE ENVIRONMENTAL IMPACT ASSESSMENT
LOCATIONS OF MONITORING STATIONS (CONSTRUCTION PHASE)
SCALE
DATE
DEC.2007
CHECK
DRAWN
JOB No.
DRAWING No.
FIG 6
REV



2.3 Summary of EM&A Requirements

The EM&A programme requires environmental monitoring for air quality, noise, water quality and waste management as specified in the EM&A Manual.

In the reporting month, 24-hour TSP levels at the air monitoring stations shown in Table 2 were monitored during the construction stage.

In the reporting month, construction noise levels at the noise monitoring stations shown in Table 2 were monitored during the construction stage.

A summary of impact EM&A requirements as applicable to this EM&A Report is presented in Table 3 below.

Table 3 Summary of impact EM&A Requirements

Parameters	Descriptions	Locations	Frequencies	Duration
Air Quality	24-hr TSP	Shown in Table 2	Once every 6 days	During construction stage
Noise	Leq(30min)	Shown in Table 2	Once a week	During construction stage

Parameters	Descriptions	Locations	Frequencies	Duration
Waste	On-Site Audit	Active Works Sites	Monthly	During construction stage
Wastewater	On-Site Audit	Active Works Sites	Monthly	During construction stage
General Site Conditions	Environmental Site Inspection	Active Works Sites	Weekly	During construction stage

Environmental Quality Performance Limits for air quality and noise are shown in Appendix A. The Event Action Plan for air quality and noise are shown in Appendix B.

2.4 Implementation of Environmental Mitigation Measures

The WIL Civil Works Contractors are required to implement the mitigation measures as specified in the EP, EIA Report and EM&A Manual. During the regular environmental site inspections, the Contractors' implementation of mitigation measures were inspected and reviewed. A schedule of the implementation of mitigation measures identified in the WIL EIA is given in Appendix C.

2.5 Construction Activities in the Reporting Month

Major construction activities carried out by the respective WIL Civil Works Contractors during the reporting period include:

Contract 703 - Works Area K/L
- No site work

Contract 703 - Works Area M
- Shaft excavation by blasting inside noise enclosure

Contract 703 - Works Area N1
- Diaphragm wall construction
- Building demolition

Contract 703 - Works Areas O1/O2/O3
- Site preparation at Works Area O1
- Grouting at Works Area O3

Contract 704 - Works Areas E/J2/J3
- Site preparation

Contract 704 - Works Area G
- Site preparation and noise enclosure erection

Contract 704 - Works Area H
- Rock splitting

Contract 704 - Works Area I

- Pipe piling

Contract 704 - Works Area L1
- Pipe piling

Contract 704 - Works Area M2
- Reprovisioning of transformer and public toilet

Contract 705 - Works Area A
- Site preparation
- Demolition of Building Block A

Contract 705 - Works Area B
- Management of Works Area B

Contract 705 - Works Area C
- Site preparation
- Pipe piling

Contract 706 - Works Area I
- Defects rectification
- Slope works substantially complete and the completed slope will be handed back to the Hillview Garden in October 2010 which is an entrustment work by the Hillview Garden

Contract 706 - Works Area J
- Noise decking installed to cover the shaft excavation area
- Excavation works inside the construction shaft

Contract 706A - Works Areas A/A1/A2/A3
- Slope works at Works Area A/A1/A2/A3

Contract 708 - Works Area MA
- Construction works substantially complete
- Defects rectification

Contract 714 - Works Area B
- Contract completed

2.6 Construction Activities for the Coming Month

According to the construction programme for the Civil Works Contracts, the scheduled major construction activities in the next reporting month are as follows:

Contract 703 - Works Areas K/L
- No site work

Contract 703 - Works Area M
- Shaft excavation by blasting inside noise enclosure

Contract 703 - Works Area N1

- Diaphragm wall construction
- Building demolition completed

Contract 703 - Works Areas O1/O2/O3
- Grouting at Works Area O3
- Site preparation at Works Area O1

Contract 704 - Works Areas E/J2/J3
- Site preparation

Contract 704 - Works Area G
- Site preparation and noise enclosure erection

Contract 704 - Works Area H
- Rock splitting and excavation

Contract 704 - Works Area I
- Pipe piling

Contract 704 - Works Area M2
- Reprovisioning of transformer and public toilet completed

Contract 704 - Works Areas L1
- Pipe piling

Contract 705 - Works Area A
- Piling for vent shaft
- Demolition of Building Block A completed

Contract 705 - Works Area B
- Management of Works Area B
- Erection of barging point

Contract 705 - Works Area C
- Site preparation
- Pipe piling

Contract 706 - Works Area I
- Slope works substantially complete and the completed slope will be handed back to the Hillview Garden in October 2010 which is an entrustment work by the Hillview Garden

Contract 706 - Works Area J
- Noise decking installed to cover the shaft excavation area
- Excavation works inside the construction shaft
- Handover the works area to Contract 704 Contractor

Contract 706A - Works Areas A/A1/A2/A3
- Slope work at Works Area A/A1/A2/A3

Contract 708 - Works Area MA
- Handover of completed magazine to Contract 704 Contractor for management

Contract 714 - Works Area B
- Contract completed

3 IMPACT MONITORING

3.1 Air Quality

24-Hour TSP Levels Monitoring

The sampling procedure follows that described in the App. B of Pt 50 in 40CFR Ch.1 (U.S. Environmental Protection Agency). TSP is sampled by drawing air through a conditioned, pre-weighed filter paper inside the high volume sampler at a controlled rate. After 24-hour sampling the filter paper with retained particles is collected and returned to the laboratory for drying in a desiccator followed by weighing. TSP levels are calculated from the ratio of the mass of particulate retained on the filter paper to the total volume of air sampled.

The samplers should be properly maintained. Prior to dust monitoring commencing, appropriate checks should be made to ensure that all equipment and necessary power supply are in good working condition.

Calibration Requirements

The flow rate of the high volume sampler with mass flow controller will be calibrated using an orifice calibrator. Initial calibration (five points) will be conducted upon installation and prior to commissioning. Calibration will be carried out every six months. Calibration certificates are attached in Appendix E.

The sensing system of MIE will be calibrated by clean filtered air passing through the flow-sensing system, providing a controlled check of the zero-concentration condition. Calibration of the MIE by certified laboratory or manufacturer shall be carried out every two years and properly documented. Calibration certificate is attached in Appendix E.

To examine the construction dust levels, 24-hour TSP monitoring was undertaken according to the EM&A Manual. The dust monitoring locations are shown in the Section 2.2 above. Monitoring results are presented in the following table (see Appendix D for graphical plot). The 24-hour TSP levels when there were construction activities during the monitoring period were within the Action Level. No exceedance was found. This indicates that the construction activities did not have a noticeable adverse effect on the general air quality for the works areas.

For the Complaint Cases 6 and 7 mentioned in Section 8 below on construction dust/smoke, three 1-hour TSP monitoring were undertaken at monitoring station AM7a and AM9a respectively according to the EM&A Manual. Monitoring results are presented in the following table. The 1-hour TSP levels when the highest dust impacts were likely to occur when construction activities were being carried out were within the Action Level. No exceedance was found.

Monitoring schedules are shown in Appendix F.

In addition, air baseline checks for monitoring stations AM3a was conducted on Sunday when no construction activities were carried out in the vicinity. It is observed that there is no significant deviation from the air baseline level obtained during the baseline monitoring before

commencement of construction work.

AM1a- Kwun Lung Lau Block 1+					
Date	TSP (µg/m3)	Action Level (µg/m3)	Limit Level (µg/m3)	Compliance (Yes/No)	Weather Condition
10/09/2010	53.5	170	260	Yes	Cloudy
16/09/2010	66.0	170	260	Yes	Fine
22/09/2010	44.3	170	260	Yes	Fine
28/09/2010	79.9	170	260	Yes	Fine
04/10/2010	70.7	170	260	Yes	Fine
09/10/2010	60.5	170	260	Yes	Fine
AM2- Victoria Public Mortuary					
10/09/2010	57.5	155	260	Yes	Cloudy
16/09/2010	34.1	155	260	Yes	Fine
22/09/2010	48.7	155	260	Yes	Fine
28/09/2010	47.9	155	260	Yes	Fine
04/10/2010	117.9	155	260	Yes	Fine
09/10/2010	110.6	155	260	Yes	Fine
AM3a- Hong Kong Institute of Vocational Education (Tsing Yi) Kennedy Town Centre*					
05/09/2010@	50.0	155	260	Yes	Cloudy
10/09/2010	133.3	155	260	Yes	Cloudy
16/09/2010	127.0	155	260	Yes	Fine
22/09/2010	124.2	155	260	Yes	Fine
28/09/2010	123.1	155	260	Yes	Fine
04/10/2010	105.4	155	260	Yes	Fine
09/10/2010	98.0	155	260	Yes	Fine
AM6a- St. Paul's College Primary School*					
10/09/2010	37.8	157	260	Yes	Cloudy
16/09/2010	39.5	157	260	Yes	Fine
22/09/2010	45.3	157	260	Yes	Fine
28/09/2010	50.9	157	260	Yes	Fine
04/10/2010	106.2	157	260	Yes	Fine
09/10/2010	117.8	157	260	Yes	Fine
AM7a- Hill Court*					
10/09/2010	72.0	151	260	Yes	Cloudy
16/09/2010	52.6	151	260	Yes	Fine
22/09/2010	55.7	151	260	Yes	Fine
28/09/2010	37.2	151	260	Yes	Fine
04/10/2010	61.6	151	260	Yes	Fine
07/10/2010#	76.8	283	500	Yes	Fine
07/10/2010#	63.6	283	500	Yes	Fine
07/10/2010#	54.3	283	500	Yes	Fine
09/10/2010	59.4	151	260	Yes	Fine
AM9a- No.28 Sai Woo Lane^					

10/09/2010	84.8	168	260	Yes	Cloudy
16/09/2010	62.0	168	260	Yes	Fine
22/09/2010	76.7	168	260	Yes	Fine
28/09/2010	59.0	168	260	Yes	Fine
04/10/2010	93.6	168	260	Yes	Fine
08/10/2010#	79.8	287	500	Yes	Fine
08/10/2010#	83.2	287	500	Yes	Fine
08/10/2010#	104.3	287	500	Yes	Fine
09/10/2010	133.5	168	260	Yes	Fine

*The alternative air monitoring stations AM3a, AM6a and AM7a were approved by EPD on 10 August 2009

^The alternative air monitoring station AM9a was approved by EPD on 26 November 2009

+The alternative air monitoring station AM1a proposal was submitted to EPD on 11 May 2010

#Additional 3nos. 1-hr TSP monitoring for the complaint case

@ Baseline Check

3.2 Noise

B&K 2236 sound level meters which complied with the International Electrotechnical Commission Publication 651:1979 (Type 1) and 804:1985 (Type 1), specification as referred to in the Technical Memoranda to the NCO were used for the construction noise impact monitoring. The B&K sound level meters and B&K 4231 calibrator are verified by the certified laboratory or manufacturer once every two years to ensure they perform to the same level of accuracy as stated in the manufacturer's specifications. Calibration certificates are attached in Appendix E.

Immediately prior to and following each set of measurements at any NSR, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. If the calibration levels before and after the measurement differ by more than 1.0dB the measurement shall be repeated to obtain a reliable result (note: maximum deviation during this initial baseline monitoring period was 0.3dB). Periods of prolonged or repeated overloading of the sound level meter detector were avoided by setting the meter with adequate headroom prior to commencing measurements. Measurements were recorded to the nearest 0.1 dB, with values of 0.05 being rounded up.

Impact noise monitoring of $L_{A,eq30}$ was undertaken to measure construction noise levels in accordance with the EM&A Manual. The noise monitoring locations are shown in Section 2.2 above.

Monitoring results are presented in the following table (see Appendix D for graphical plot). No exceedance was found. Monitoring schedules are shown in Appendix F.

In addition, noise baseline checks for monitoring station CN2 was conducted during noon time when no construction work was carried out in the vicinity. It is observed that there is no significant deviation from the noise baseline level obtained during the baseline monitoring before commencement of construction work.

CN2- Hong Kong Institute of Vocational Education (Tsing Yi) Kennedy Town Centre

Date	Time	Leq(dBA)	Limit Level (dBA)	Compliance (Yes/No)	Weather Conditions
13/09/2010	10:54	69.2	70	Yes	Fine, wind<2m/s
13/09/2010%	19:03	64.7	65	Yes	Fine, wind<2m/s
15/09/2010@	12:15	62.8	70	Yes	Fine, wind<2m/s
24/09/2010	09:15	69.3	70	Yes	Fine, wind<2m/s
29/09/2010	09:06	68.9	70	Yes	Fine, wind<2m/s
05/10/2010	08:06	68.7	70	Yes	Fine, wind<2m/s
CN3- Lui Ming Choi Primary School					
17/09/2010	11:00	67.0	70	Yes	Fine, wind<2m/s
24/09/2010	10:45	69.6	70	Yes	Fine, wind<2m/s
30/09/2010	16:38	69.5	70	Yes	Cloudy, wind<2m/s
05/10/2010	11:15	67.5	70	Yes	Fine, wind<2m/s
CN4 - Luen Tak Apartments					
14/09/2010	10:30	73.6	75	Yes	Fine, wind<2m/s
22/09/2010	14:00	73.2	75	Yes	Fine, wind<2m/s
28/09/2010	14:30	69.6	75	Yes	Fine, wind<2m/s
08/10/2010	11:30	74.4	75	Yes	Fine, wind<2m/s
CN6- Yick Fung Garden (BlockA)					
14/09/2010	08:22	70.2	75	Yes	Fine, wind<2m/s
22/09/2010	10:50	73.1	75	Yes	Fine, wind<2m/s
28/09/2010	10:17	74.1	75	Yes	Fine, wind<2m/s
06/10/2010	09:17	73.8	75	Yes	Fine, wind<2m/s
CN7a- Bowie Court#					
14/09/2010	11:24	71.1	75	Yes	Fine, wind<2m/s
24/09/2010	10:26	72.7	75	Yes	Fine, wind<2m/s
28/09/2010	13:35	73.1	75	Yes	Fine, wind<2m/s
06/10/2010	13:35	72.8	75	Yes	Fine, wind<2m/s
CN8- St. Paul's College Primary School					
16/09/2010	15:00	69.5	70	Yes	Fine, wind<2m/s
22/09/2010	14:45	69.8	70	Yes	Fine, wind<2m/s
28/09/2010	11:11	68.6	70	Yes	Fine, wind<2m/s
06/10/2010	10:36	69.4	70	Yes	Fine, wind<2m/s
CN9- Hill Court					
16/09/2010	15:45	74.5	75	Yes	Fine, wind<2m/s
22/09/2010	15:50	73.9	75	Yes	Fine, wind<2m/s
28/09/2010	09:02	74.6	75	Yes	Fine, wind<2m/s
07/10/2010	09:10	73.9	75	Yes	Fine, wind<2m/s
07/10/2010%	11:30	74.3	75	Yes	Fine, wind<2m/s
CN11a- Yick Fung Garden (BlockB)#					
14/09/2010	08:45	72.8	75	Yes	Fine, wind<2m/s
21/09/2010%	10:05	74.8	75	Yes	Fine, wind<2m/s
22/09/2010	10:15	74.6	75	Yes	Fine, wind<2m/s
28/09/2010	08:45	71.7	75	Yes	Fine, wind<2m/s
06/10/2010	08:55	71.4	75	Yes	Fine, wind<2m/s
CN13- No. 18-20 Eastern Street					
15/09/2010	13:05	74.6	75	Yes	Fine, wind<2m/s
22/09/2010	13:10	74.8	75	Yes	Fine, wind<2m/s
30/09/2010	13:54	74.5	75	Yes	Cloudy, wind<2m/s
06/10/2010	13:00	74.8	75	Yes	Fine, wind<2m/s
08/10/2010%	16:30	74.9	75	Yes	Fine, wind<2m/s

CN16- No.9-11 Ki Ling Lane					
13/09/2010	11:00	74.8	75	Yes	Fine, wind<2m/s
22/09/2010	16:00	74.9	75	Yes	Fine, wind<2m/s
30/09/2010	11:30	74.5	75	Yes	Cloudy, wind<2m/s
06/10/2010	16:30	74.1	75	Yes	Fine, wind<2m/s
CN17- No.1 Third Street					
15/09/2010	13:45	72.8	75	Yes	Fine, wind<2m/s
22/09/2010	13:55	73.3	75	Yes	Fine, wind<2m/s
30/09/2010	13:03	72.1	75	Yes	Cloudy, wind<2m/s
06/10/2010	13:45	73.8	75	Yes	Fine, wind<2m/s
CN18- Princeton Tower					
16/09/2010	16:00	73.5	75	Yes	Fine, wind<2m/s
22/09/2010	16:15	73.0	75	Yes	Fine, wind<2m/s
29/09/2010	15:45	74.1	75	Yes	Fine, wind<2m/s
07/10/2010	15:30	72.8	75	Yes	Fine, wind<2m/s
CN20- Ka On Building					
16/09/2010	16:50	72.6	75	Yes	Fine, wind<2m/s
22/09/2010	17:10	74.9	75	Yes	Fine, wind<2m/s
29/09/2010	17:35	74.3	75	Yes	Fine, wind<2m/s
30/09/2010%	15:30	74.5	75	Yes	Cloudy, wind<2m/s
07/10/2010	16:30	73.6	75	Yes	Fine, wind<2m/s
CN21- The Merton (Block 2)					
15/09/2010	17:05	70.2	75	Yes	Fine, wind<2m/s
24/09/2010	11:30	74.9	75	Yes	Fine, wind<2m/s
28/09/2010	15:20	71.3	75	Yes	Fine, wind<2m/s
08/10/2010	10:45	70.2	75	Yes	Fine, wind<2m/s

The alternative noise monitoring stations CN7a and CN11a were approved by EPD on 1 September 2010

%Additional monitoring due to complaint as per Noise Event Action Plan

@ Baseline Check

3.3 Action taken in Event of Exceedence

There was no exceedance in air quality and noise monitoring parameters recorded in the reporting period, therefore no action was taken.

4 LANDSCAPE AND VISUAL

4.1 Monitoring Requirements

Monitoring of the implementation of the landscape and visual mitigation measures during construction phase was conducted in accordance with the requirements as stipulated in the EM&A Manual.

The landscape and visual monitoring and audit will be conducted once a month throughout the construction stage covering the entire project site areas.

4.2 Audit Results

Monthly monitoring and audit was undertaken in accordance with the EM&A Manual.

Tree Felling at Contract 703 Works Area L

15 nos. of trees were removed in accordance with the approved Tree Removal Application during the site clearance work as mentioned in the EM&A Report for October 2009.

Tree Felling at Contract 703 Works Area M

11 nos. of trees were removed in accordance with the approved Tree Removal Application during the site clearance work as mentioned in the EM&A Report for October 2009.

Tree Felling at Contract 703 Works Area N1

29 nos. of trees were removed in accordance with the approved Tree Removal Application during the site clearance work as mentioned in the EM&A Report for October 2009.

Tree Felling at Contract 704 Works Area L1

19 nos. of trees were removed in accordance with the approved Tree Removal Application during the site clearance work as mentioned in the EM&A Report for June 2010.

Tree Felling at Contract 704 Works Area I

42 nos. of trees were removed in accordance with the approved Tree Removal Application during the site clearance work as mentioned in the EM&A Report for June 2010.

Tree Felling at Contract 705 Works Area C

31 nos. of trees were removed in accordance with the approved Tree Removal Application during the site clearance work as mentioned in the EM&A Report for March 2010. 6 nos. of trees were removed during the site clearance work as mentioned in the EM&A Report for June 2010.

Tree Felling at Contract 706 Works Area G

4 nos. of trees were removed in accordance with the approved Tree Removal Application during the site clearance work as mentioned in the EM&A Report for September 2009.

Tree Felling at Contract 706 Works Area J

16 nos. of trees were removed in accordance with the approved Tree Removal Application during the site clearance work as mentioned in the EM&A Report for September 2009.

Tree Felling at Contract 708 Works Area MA

107 nos. of trees were removed in accordance with the approved Tree Removal Application during the site clearance work as mentioned in the EM&A Report for September 2009.

Tree Felling at Contract 714 Works Area B

2 nos. of trees were removed in accordance with the approved Tree Removal Application during

the site clearance work as mentioned in the EM&A Report for October 2009.

Tree Transplantation in past reporting periods

7 nos. of trees were transplanted from Works Area J to the Receptor Sites at Sheung Wan Pumping Station site (4nos.), Junction of Shing Sai Road/New Praya (2 nos.) and Shing Sai Road (1 no.) in accordance with the approved Tree Removal Application. In the approved Tree Removal Application, 5nos. of trees were approved to be transplanted in Works Area J, 2 nos. additional trees were transplanted in response to the request made by LCSD with a view to preserving the landscape resources as much as practicable.

In addition, 2nos. of trees from Works Area C and 6nos. of trees from Works Area J3 were transplanted to the Receptor Site at Sheung Wan Pumping Station site in accordance with the approved Tree Removal Application. The tree transplanting works for these two works areas were carried out prior to the construction contracts award.

3 nos. of trees were transplanted from Works Area N1 to the Receptor Sites at Sheung Wan Pumping Station site, road side planter at Shing Sai Road and Connaught Road West. 1 no. of tree was transplanted from Works Area L to the Receptor Site at road side planter at Connaught Road West. 14 nos. of trees were transplanted within the park area for Works Area M.

11 nos. of trees were transplanted from Works Area C to the Receptor Site at the road side planter at Shing Sai Road.

20 nos. of trees were transplanted from Works Area I to the Receptor Site at Shing Sai Road/Pok Fu Lam Road Playground and CEDD's GMP sites. 17 nos. of trees were transplanted from Works Area L1 to the CEDD's GMP sites. 2 nos. of trees were transplanted from Works Area G to the Receptor Site at Shing Sai Road.

Tree Transplantation in this reporting period

There was no tree transplant carried out in the reporting period.

The Certified Arborist as required by the EP has conducted inspections and audits and found that the transplanting works and the tree protection works being carried out by the civil works and transplanting contractors were in accordance with the EP/EIA, Tree Protection Plan and contract requirements. No non compliance was identified in the reporting period. Monthly inspection record for September 2010 is attached in Appendix G.

Others

In accordance with EP Condition 2.8, the two individual plants, *Pavetta hongkongensis* located at the Works Area MA shall be transplanted.

It was identified that only one of the plant as mentioned above require transplanting and the other can be retained at its original location.

With consent from AFCD on the proposed method statement for transplanting the plant and protecting the retained plant, the plant was transplanted to a nearby location with similar habitat in September 2009 as agreed by AFCD and supervised by the Certified Arborist. The retained plant was properly protected in accordance with the agreed method.

The existing trees and species of conservation importance (ie the two identified *Artocarpus hypargyreus*) located near the Works Area MA were fenced off and the trunk protected with hessian sacking.

In addition, the tree (no. BT049A) at Pok Fu Lam Road which was originally proposed for transplant was toppled by Typhoon Koppu on 14 September 2009 and was removed by LCSD. Access to this site had not been given to MTR and no work had been carried out to the tree. This incident will be included in the revised Tree Protection Plan accordingly.

The ET had reminded the ER and the civil works contractors to implement appropriate tree protection measures to ensure tree stability for the current typhoon season. In addition, the ET noted from the WIL Project Team that there was safety concern for the trees no. BT92 and BT93 at Works Area I. Decision was made by the Project Team to fell the trees which posed potential safety risk to the residents of the Hillview Garden and the trees had been felled in the reporting period due to public safety consideration in accordance with Emergency Tree Felling procedures stipulated in LAO practice note 7/2007 Appendix II Section III. The felling of the two trees had been requested and strongly supported by the Incorporated Owners of Hillview Garden in order to mitigate the saftety risk to the Hillview Garden residents and the public.

5 WASTE MANAGEMENT

Mitigation measures on waste management have been implemented in accordance with the Waste Management Plans for the respective civil works contracts submitted under the Environmental Permit. The C&D materials are to be disposed of at the public filling reception facilities while C&D wastes are to be disposed of at the landfills. Quantities of wastes disposed in the reporting period are summarized in the following table:

Amount of Construction Wastes Disposed			
Reporting Period	**Inert C&D Materials to Public Fill (ton)**	**Non-inert Waste to Landfill (ton)**	**Chemical Waste to designated treatment facility (litre)**
Contract 703			
Aug – Sep 2009	305.1	5.9	0
Oct – Dec 2009	4158.4	51.1	0
Jan – Mar 2010	7855.6	86.8	0
Apr – Jun 2010	11000.8	71.2	0
Jul 2010	3454.1	62.8	0
Aug 2010	5099.4	27.4	$2.9m^{3}$^
Sept 2010	5972.2	19.1	0
Cumulative	37845.6	324.3	0
Contract 704			
Apr 2010*	799	77	0
May 2010	1692.1	38.2	0
June 2010	770.0	80.1	0
July 2010	437.1	118.4	0
August 2010	1846.4	74	0
Sept 2010	2058.6	125.1	0

Cumulative	7603.2	512.8	0
Contract 705			
Dec 2009	0	0	0
Jan – Mar 2010	826	67	0
Apr - Jun 2010	4146	18	125kg^+400 litres
Jul 2010	5831	39.4	0
Aug 2010	4969	49.1	0
Sept 2010	3657	37.9	0
Cumulative	19429	247.4	400
Contract 706			
Jul – Sep 2009	1746.6	12.7	0
Oct – Dec 2009	5641.3	10.4	200
Jan – Mar 2010	13633.9	54.9	0
Apr – Jun 2010	21208.8	72.6	0
Jul 2010	2391.9	31.1	0
Aug 2010	1841.0	5.9	0
Sept 2010	1425	2.3	0
Cumulative	47888.5	189.9	200
Contract 706A			
Dec 2009	0	0	0
Jan – Mar 2010	8238.6	96.2	0
Apr – Jun 2010	1054.7	1724	0
Jul 2010	18.3	26.1	0
Aug 2010	5.1	104.7	0
Sept 2010	172.3	65.8	0
Cumulative	9489	2016.8	0
Contract 708 (Contract completed in August 2010)			
Jul – Sep 2009	0	181	0
Oct - Dec 2009	5698.9	12	0
Jan – Mar 2010	9989.6	12.5	0
Apr – Jun 2010	2741	54.3	0
Jul 2010	1035.4	13.3	0
Aug 2010	0	0	0
Cumulative	19464.9	273.1	0
Contract 714 (Contract completed in April 2010)			
Jul – Sep 2009	0	42.1	0
Oct - Dec 2009	271.9	161.6	0
Jan – Mar 2010	87.7	124.7	0
Apr 2010	0	0	0
Cumulative	359.6	328.4	0

*Wastes disposal generated from site clearance works
^ACM disposal from buildings demolition

6 WATER QUALITY

Monitoring of the implementation of the water quality mitigation measures during construction phase was conducted in accordance with the requirements as stipulated in the EM&A Manual.

Weekly site inspection will be conducted throughout the construction stage covering the entire project site areas to ensure the recommended mitigation measures are properly implemented.

In the reporting period, the water quality mitigation measures were implemented in accordance with the requirements as stipulated in the EM&A Manual.

Water sample tests was conducted for Works Areas A, C and G in the reporting period. Results were satisfactory and were in compliance with the requirement under the WPCO licence.

7 CULTURAL HERITAGE

The licensed archaeologist will carry out initial site inspection for Works Area J3 in September 2010 and will carry out site inspection for Works Area C in October 2010

Archaeological Watching Brief monitoring for Works Area J conducted in accordance with the approved Archaeological Watching Brief Proposal at Works Area J at two half day site visits per week during the shaft excavation was completed. No archaeological finding was observed.

Archaeological Watching Brief monitoring for Works Area M had been completed as mentioned in the EM&A Report for July 2010. No archaeological finding was observed.

Archaeological Watching Brief monitoring for Works Area M2 had been completed as mentioned in the EM&A Report for May 2010. No archaeological finding was observed.

8 RECORD OF ENVIRONMENTAL COMPLAINTS

Seven environmental complaints were referred from EPD in the reporting period as follows:

1. An environmental complaint referred to the ET on 10 September 2010 regarding dump trucks moving in and out the slopework site around the Ex-Police Quarters Kennedy Town, behind Mount Davis 33, unloading soil after 1900hr;

2. An environmental complaint referred to the ET on 15 September 2010 regarding construction work in the non-EP Contract 704 works site at Kwok Hing Lane near 15 Third Street;

3. An environmental complaint referred to the ET on 20 September 2010 regarding day time construction noise from Works Site at Belcher's Street;

4. An environmental complaint referred to the ET on 20 September 2010 regarding muddy water found at public storm drain outlet at 34 Sai Ning Street;

5. An environmental complaint referred to the ET on 28 September 2010 regarding the complaint of construction noise emitted from drilling machines at New Market Street works site;

6. An environmental complaint referred to the ET on 6 October 2010 regarding construction dust and day time construction noise from construction site at No. 38 Hill Road;

7. An environmental complaint referred to the ET on 7 October 2010 regarding construction noise and smoke / odour emitted from MTR construction site at Eastern Street.

Complaint case 1

Upon investigation of the complaint, there was no dump trucks moving in and out the slopework site behind Mount Davis 33, unloading soil after 1900hr as mentioned in the complaint.

The ER had reiterated to the Contract 706A Contractor that unless otherwise with a valid CNP no works are to be conducted in the restricted hours in order to comply with the statutory NCO requirement

Additional construction noise impact monitoring had been conducted for this environmental complaint as per the Event Action Plan in the EM&A Manual and no exceedance was recorded.

Complaint case 2

Upon investigation of the complaint, the Contract 704 Contractor carried out general site housekeeping work at the non EP works site at Kwok Hing Lane during the mentioned period. The nuisance as mentioned by the complainant was likely caused by the above captioned works by the Contract 704 Contractor during the mentioned periods. In addition, the ER / Contractor found that some renovation works in a nearby premise was being carried out on that day which was believed to be a possible source of the noise nuisance.

The ER had reiterated to the Contractor that unless otherwise with a valid CNP no works are to be conducted in the restricted hours in order to comply with the statutory NCO requirement and required the Contractor to improve their site management for compliance with NCO requirements.

Complaint case 3

Upon investigation of the complaint, the Contract 704 Contractor carried out rock breaking work at the works site with the use of noise blankets around the site hoardings to shield noise from the breaker. As a result of the complaint, the Contractor had been instructed to implement the following enhanced mitigation measures:-

1. Rockwool panels were installed at the back of the hoardings;
2. The Contractor will try to commence rock breaking after 9am at the weekday as far as practicable in order to minimize noise impact in early morning period;
3. The condition of the noise mitigation measures will be regularly checked and repaired in case of damage.

Additional construction noise impact monitoring had been conducted for this environmental complaint as per the Event Action Plan in the EM&A Manual and no exceedance was recorded.

Complaint case 4

Upon investigation of the complaint, as a result of the heavy rainstorms occurred on 10-12 September 2010, substantial quantity of silt and mud was washed down from the natural terrain above the works site causing heavy desilting at the captioned catchpit, the Contract 706A Contractor carried out desilting work at the large catchpit within their works site and some very fine silty material was drained into the public storm drain.

The Contract 706A Contractor had implemented preventive measures prior to the rainstorms to prevent silt and mud from being drained into the public storm drain.

The ER had instructed the Contractor to adopt alternative desilting method and strengthen the regular desilting of the catchpit to prevent muddy water getting into the drainage system.

Complaint case 5

Upon investigation of the complaint, the Contract 703 Contractor carried out drilling work at the captioned works site and it is likely that the noise nuisance as mentioned in the complaint was caused by the drilling operation. The Contractor had enhanced the noise mitigation measures by installing acoustic sheets on top and in front of the drilling rigs and covering the engine of the drilling rigs and the two water pumps with acoustic sheets.

Additional construction noise impact monitoringhad been conducted for this environmental complaint as per the Event Action Plan in the EM&A Manual and no exceedance was recorded.

Complaint case 6

Upon investigation of the complaint, there were excavation and welding of steelwork carried out inside the construction shaft at the Contract 706 works site at No. 38 Hill Rd for the periods mentioned in the complaint.

The ER had instructed the Contractor to enhance the following mitigation measures:-
1. The access opening had been covered with acoustic sheets to shield construction noise and smoke from the steelwork welding;
2. The frequency of water spray had been increased with the use of sprinklers;
3. Grouting machine had been fully covered.

In addition, the construction work at Hill Road works site by the Contract 706 Contractor had substantially completed and the works site will be handed over to Contract 704 Contractor in October 2010. It is understood that the Contract 704 Contractor will erect a noise enclosure at the works site.

Additional construction noise and dust impact monitoring had been conducted for this environmental complaint as per the Event Action Plan in the EM&A Manual and no exceedance was recorded.

Complaint case 7

Upon investigation of the complaint, the Contract 703 Contractor conducted piling, drilling and building demolition at the works site at Sai Woo Lane and the complainant may be affected by the noise and smoke nuisance from this works site. Minor smoke emitted intermittently during

operation of the piling/ drilling machine. The Contractor adopted acoustic sheets to cover the drilling rigs to shield noise and smoke emission. Acoustic blankets were also erected around the building under demolition to shield noise and dust emission.

The building demolition and piling work at the Sai Woo Lane works site had been completed. Minor drilling works were being carried out at the works site. The Contractor had added exhaust filter, changed lubrication oil and air filter in order to mitigate the smoke/odour problem. The Contractor will monitor the operation of the machine and will repair the engine if found necessary.

Additional construction noise and dust impact monitoring had been conducted for this environmental complaint as per the Event Action Plan in the EM&A Manual and no exceedance was recorded.

A summary of environmental complaints since commencement of construction is shown below:

Reporting Period	Frequency	Cumulative	Nature	Status
10 Aug – 9 Sep 2009	0	0	N/A	N/A
10 Sep – 9 Oct 2009	3	3	Noise	Cases closed
10 Oct – 9 Nov 2009	0	3	N/A	N/A
10 Nov – 9 Dec 2009	4	7	2 nos. - Noise/Air 2 nos. – Noise	Cases closed
10 Dec 2009 – 9 Jan 2010	1	8	Noise/Air	Case closed
10 Jan 2010 – 9 Feb 2010	1	9	Noise	Case closed
10 Feb 2010 – 9 Mar 2010	2	11	1 no. - Noise 1 no. – Dust/Smoke	Cases closed
10 Mar 2010 – 9 Apr 2010	3	14	2 nos. - Noise 1 no. – Dust/Smoke	Cases closed
10 Apr 2010 – 9 May 2010	5	19	3 nos. - Noise 2 nos. – Dust/Smoke	Cases closed
10 May 2010 – 9 Jun 2010	3	22	1 no. – Dust/Smoke 2 nos - other	Cases closed
10 Jun 2010 – 9 Jul 2010	0	22	N/A	N/A
10 Jul 2010 – 9 Aug 2010	2	24	1 no. - Noise 1 no. – Water	Cases closed
10 Aug 2010 – 9 Sept 2010	3	27	2 nos. - Noise 1 no. – Smoke	Cases closed
10 Sept 2010 – 9 Oct 2010	7	34	4 nos. - Noise 2 nos. – Dust/Noise 1 no. – Water	Cases closed

9 RECORD OF NON-COMPLIANCES

There was no non-compliance identified in the reporting period.

10 NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

No summon or prosecution related to environmental issue was received or made against the Project in the reporting period. A summary of environmental prosecution since commencement of construction is shown below:-

Reporting Period	Frequency	Cumulative	Nature	Status
10 Aug – 9 Nov 2009	0	0	N/A	N/A
10 Nov 2009– 9 Feb 2010	0	0	N/A	N/A
10 Feb 2010 – 9 May 2010	1	1	Noise	Summon served
10 May 2010 – 9 Aug 2010	0	1	N/A	N/A
10 Aug 2010 – 9 Sept 2010	0	1	N/A	N/A
10 Sept 2010 – 9 Oct 2010	0	1	N/A	N/A

11 STATUS OF STATUTORY SUBMISSIONS

11.1 Submissions required under Environmental Permit

A summary of the status of submissions required under the WIL Environmental Permit as of 9 October 2010 is shown below:

EP-313/2008/C Clause No.	Description		Status
1.11	1	Commencement date of construction	submitted on 10 July 2009
2.1 & 2.2	2	Employment of IEC, ET Leader	submitted on 23 June 2009
2.3	3	Contractor Management Organization for Civil Works Contracts 706, 708 and 714	submitted on 24 July 2009
2.3	4	Contractor Management Organization for Civil Works Contract 703	submitted on 14 September 2009 and 6 October 2009
2.3	5	Contractor Management Organization for Civil Works Contracts 705 and 706A	submitted on 22 January 2010
2.3	6	Contractor Management Organization for Civil Works Contract 704	submitted on 16 April 2010
2.5 & 2.7	7	Certified Arborist and Tree Protection Plan	submitted on 24 July 2009 and 5 August 2009
2.5 & 2.7	8	Certified Arborist and Tree Protection Plan – Responses to Comments	submitted on 10 September 2009
2.5 & 2.7	9	Certified Arborist and Tree Protection Plan – Certified Arborist	submitted on 3 November 2009
2.5 & 2.7	10	Tree Protection Plan Rev A	submitted on 19 July 2010
2.5	11	Certified Arborist	submitted on 22 June 2010
2.6	12	Set up of Community Liaison Groups and designated complaint hotline	submitted on 20 July 2009
2.11.1	13	Archaeological Watching Brief Proposal	submitted on 31 August 2009
2.11.1	14	Revised Archaeological Watching Brief Proposal	submitted on 23 September 2009
2.11.1	15	Revised Archaeological Watching Brief Proposal	submitted on 16 October 2009
2.12	16	Waste Management Plans for Civil Works Contracts 706, 708 and 714	submitted on 24 July 2009
2.12	17	Revised Waste Management Plans for Civil Works Contracts 706, 708 and 714 Rev A	submitted on 7 September 2009
2.12	18	Revised Waste Management Plans for Civil Works Contracts 706, 708 and 714 Rev B	submitted on 16 October 2009
2.12	19	Waste Management Plan for Civil Works Contract 703	submitted on 2 December 2009
2.12	20	Revised Waste Management Plan for Civil Works Contract 703 Rev A	submitted on 14 January 2010
2.12	21	Waste Management Plan for Civil Works Contract 706A	submitted on 22 January 2010
2.12	22	Waste Management Plan for Civil Works Contract 705	submitted on 5 February 2010
2.12	23	Revised Waste Management Plan for Civil Works Contract 705 Rev A	submitted on 2 September 2010
2.12	24	Waste Management Plan for Civil Works Contract 704	submitted on 22 July 2010
3.1.1(a) & 2.4	25	Works Area B programme, site layout plan and drawings of mitigation measures	submitted on 23 June 2009
3.1.1(a)	26	Remediation Report for Works Area B	submitted on 10 June 2009
3.1.2(a) & 3.1.2(b)	27	Appointment of ISC and certification of	submitted on 13 July 2009 and

		additional concrete paving for the small western portion of Works Area B occupied by HyD Depot	25 August 2009
3.1.2(a) & 3.1.2(b)	28	Appointment of ISC and certification of additional concrete paving for Works Area B for WIL Project	submitted on 30 October 2009
6.3	29	Baseline Monitoring Report (Part 1) for Works Area B	submitted on 10 July 2009
6.3	30	Baseline Monitoring Report (Part 2) for Works Area MA	submitted on 12 August 2009
6.3	31	Baseline Monitoring Report (Part 3) for Works Areas G and J	submitted on 28 August 2009
6.3	32	Baseline Monitoring Report (Part 4) for Works Areas M and N1	submitted on 9 October 2009
6.3	33	Baseline Monitoring Report (Part 5) for Works Area I	submitted on 8 December 2009
6.3	34	Baseline Monitoring Report (Part 6) for Works Area C	submitted on 10 February 2010
6.3	35	Baseline Monitoring Report (Part 7) for Works Areas C and D	submitted on 15 April 2010
6.3	36	Baseline Monitoring Report (Part 7) Rev A for Works Areas C and D	submitted on 11 June 2010
6.3	37	Baseline Monitoring Report (Part 8) for Works Area A	submitted on 23 April 2010
6.3	37	Baseline Monitoring Report (Part 8) Rev A for Works Area A	submitted on 15 June 2010
6.3	38	Baseline Monitoring Report (Part 9) for Works Area L1	submitted on 7 July 2010
6.3	39	Baseline Monitoring Report (Part 10) for Works Areas H and J3	submitted on 6 October 2010
6.4	40	EM&A Report for September 2009	submitted on 23 September 2009
6.4	41	EM&A Report for October 2009	submitted on 23 October 2009
6.4	42	EM&A Report for November 2009	submitted on 23 November 2009
6.4	43	EM&A Report for December 2009	submitted on 23 December 2009
6.4	44	EM&A Report for January 2010	submitted on 22 January 2010
6.4	45	EM&A Report for February 2010	submitted on 25 February 2010
6.4	46	EM&A Report for March 2010	submitted on 23 March 2010
6.4	47	EM&A Report for April 2010	submitted on 23 April 2010
6.4	48	EM&A Report for May 2010	submitted on 24 May 2010
6.4	49	EM&A Report for June 2010	submitted on 24 June 2010
6.4	50	EM&A Report for July 2010	submitted on 23 July 2010
6.4	51	EM&A Report for August 2010	submitted on 23 August 2010
6.4	52	EM&A Report for September 2010	submitted on 24 September 2010
7.2	53	Internet address of web site for environmental monitoring and project	submitted on 23 September 2009

		data	

11.2 Statutory Permits and Licenses

A summary of the status of all relevant environmental permits and licenses as of 9 October 2010 is shown below:

Description	**Status**
Environmental Permit for West Island Line Project (EP-313/2008)	Issued on 12 January 2009 and superseded
Environmental Permit for West Island Line Project (EP-313/2008/A)	Issued on 26 June 2009 and superseded
Environmental Permit for West Island Line Project (EP-313/2008/B)	Issued on 22 July 2009 and superseded
Environmental Permit for West Island Line Project (EP-313/2008/C)	Issued on 31 August 2009
Contract 703	
Wastewater Discharge License	WT00005106-2009, WT00005108-2009 and WT00006066-2010
Registration as a Chemical Waste Producer	Approved on 2 September 2009 Permit no. 5213-113-D2422-01 Permit no. 5213-113-D2422-02 Permit no. 5213-113-D2422-03
Disposal of Construction Waste	Billing Account no. 7009262 activated on 21 August 2009
Construction Noise Permit	GW-RS0867-09 (expired) GW-RS0025-10 (expired) GW-RS0176-10 (expired) GW-RS0086-10 (expired) GW-RS0297-10 (expired) GW-RS0367-10 (surrendered) GW-RS0448-10 (31 May – 26 Nov 10) GW-RS0467-10 (surrendered) GW-RS0606-10 (20 July 10– 19 Jan 11) GW-RS0673-10 (11 Aug 10– 10 Jan 11)
Contract 704	
Wastewater Discharge License	WT00006664-2010, WT00006823-2010 WT00006824-2010, WT00006826-2010, WT00006925-2010, WT00006958-2010 WT00006961-2010, WT00006962-2010 and WT00007021-2010,
Registration as a Chemical Waste Producer	Approved on 2 June 2010 Permit no. 5214-111-G2260-03
Disposal of Construction Waste	Billing Account no. 7010555 activated on 8 April 2010
Construction Noise Permit	GW-RS0413-10 (expired) GW-RS0552-10 (expired)

	GW-RS0572-10 (30 Jun – 20 Dec 10) GW-RS0738-10 (27 Aug – 26 Feb 11) GW-RS0836-10 (18 Oct – 31 Dec 10) GW-RS0838-10 (25 Oct – 24 Nov 10)
Contract 705	
Wastewater Discharge License	WT00006145-2010(superseded), WT00006685-2010, WT00006686-2010, WT00007225-2010 and WT00007226-2010
Registration as a Chemical Waste Producer	Approved on 8 February 2010 Permit no. 5213-111-G2347-17
Disposal of Construction Waste	Billing Account no. 7009116 activated on 8 January 2010
Construction Noise Permit	GW-RS0661-10 (1 Aug 10– 31 Jan 11) GW-RS0703-10 (11 Aug 10– 31 Dec 10) GW-RS0873-10 (6 Oct 10– 5 Mar 11)
Contract 706	
Wastewater Discharge License	WT00004519-2009, WT00004526-2009 and WT00005600-2009
Registration as a Chemical Waste Producer	Approved on 6 October 2009 Permit no. 5213-116-P2781-16
Disposal of Construction Waste	Billing Account no. 7009056 activated on 16 July 2009
Construction Noise Permit	GW-RS0703-09 for using PME for general construction works at Kennedy Town Praya works site was cancelled by EPD on 18 November 2009 GW-RS0174-10 for using PME for general construction works at Kennedy Town Praya works site was cancelled by EPD on 19 May 2010
Contract 706A	
Wastewater Discharge License	WT00005647-2009
Registration as a Chemical Waste Producer	Approved on 17 December 2009 Permit no. 5213-111-F2541-02
Disposal of Construction Waste	Billing Account no. 7009743 activated on 17 November 2009
Contract 708	
Wastewater Discharge License	WT00004902-2009
Registration as a Chemical Waste Producer	Approved on 7 September 2009 Permit no. 5213-111-G2347-08
Disposal of Construction Waste	Billing Account no. 7009116 activated on 12 August 2009
Construction Noise Permit	GW-RS0938-09 (expired) GW-RS0283-10 (expired)

Contract 714	
Wastewater Discharge License	WT00004893-2009
Registration as a Chemical Waste Producer	Approved on 21 September 2009 Permit no. 5213-111-S3305-02
Disposal of Construction Waste	Billing Account no. 7009127 activated on 14 August 2009

12 SITE INSPECTIONS

12.1 Observations

Regular site inspections were undertaken by the ET in accordance with the EM&A Manual. The contractors' performance on environmental matters were assessed. The inspection findings and the associated recommendations on improvement to the environmental protection and pollution control works were raised to the contractors for reference and/ or action.

In addition, the ET carried out night time inspections to Works Areas I, L1 and N1 in the reporting period in order to check for compliance with the NCO, the results were in general satisfactory with no construction work was observed.

Observations against the implementation of the mitigation measures recommended in the EP/EIA are summarized as follows:

Item	Description	Follow-up Status
	Contract 703	
1	The contractor was reminded to clear stagnant water inside surface channels to avoid mosquito bleeding	Ongoing
2	The contractor was reminded to provide sufficient movable noise barriers to minimize noise nuisance to nearby residents	Improved and the standard to be maintained
3	The contractor was reminded to properly implement wastes sorting	Ongoing
4	No water sample test was conducted in the reporting month	N/A
	Contract 704	
1	The contractor was reminded to properly implement wastes sorting	Ongoing
2	The contractor was reminded to provide sufficient movable noise barriers/acoustic fabric to minimize noise nuisance to nearby residents during site clearance works	Ongoing
3	Water sample test was conducted in the reporting month for Works Area G, results were satisfactory	N/A
	Contract 705	
1	The contractor was reminded to properly implement wastes sorting	Ongoing
2	The contractor was reminded to provide sufficient movable noise barriers/acoustic fabric to minimize noise nuisance to nearby residents	Ongoing
3	The contractor advised that rock crusher will not be adopted in Works Area B and wastewater treatment plant will be used instead of sedimentation tank	Ongoing
4	Water sample test was conducted in the reporting month for Works Area A, results were satisfactory	N/A
	Contract 706	
1	The contractor was reminded to provide sufficient movable noise barriers to minimize noise nuisance to nearby residents and ensure proper implementation of noise mitigation measure during shaft excavation	Improved and the standard to be maintained
2	The contractor was reminded to prevent muddy site water egress	Ongoing
3	No water sample test was conducted in the reporting month	N/A
	Contract 706A	
1	The contractor was reminded to properly implement wastes sorting	Ongoing
2	The contractor was reminded to provide proper sedimentation tank to treat site water	Ongoing
3	Water sample test was conducted in the reporting month for Works Area A, results were satisfactory	N/A

	Contract 708	
1	No water sample test was conducted in the reporting month	Contract Completed
	Contract 714	
1	No water sample test was conducted in the reporting month	Contract Completed

12.2 Other Notable Events

IEC Site Inspections

The IEC conducted site inspections for Works Areas A1, A, B, C, G, H, I, J, J3, M and N1 on 28 September 2010, minor irregularities were observed during the site inspections and the respective civil works contractors had followed up and satisfactorily rectified the issues as identified in the site inspections promptly.

Works Area B

The small western portion of Works Area B had been occupied by Highways Department as a depot upon the completion of the additional concrete paving and certification of the paving design by ISC in accordance with the EP requirements. Monthly inspections on the condition of the additional paving, site drainage and foul sewerage systems had been carried out in accordance with EP Condition 3.2.2. No new crack was found in the reporting period, the surface cracks identified previously had been satisfactorily sealed such that the structural integrity of the additional concrete paving can be maintained.

Works Area MA

As the construction of the WIL magazine had completed and a portion of land at Works Area MA had been handed over to Lands Department. The concerned plants (2nos. Hong Kong Pavetta and 2nos. Silver-back Artocarpus) as mentioned in WIL EP Condition 2.8 are located in the land area which had been handed over to Lands Department. As these plants falls outside the revised Works Area MA, the regular inspection to these plants by the ET/Certified Arborist stopped in the reporting period. In addition, as there will be no construction activities carried out in Works Area MA, the regular construction dust and noise monitoring at the monitoring stations AM4 and CN1 for Works Area MA stopped in the reporting period.

Works Area G

There was a traffic incident on 28 September 2010 which involved a CEDD Mines lorry and a tram outside the site entrance of Works Area G. The ER had instructed the Contract 704 Contractor to review the traffic arrangement for site vehicles moving in and out the site entrance and implement enhanced safety measures accordingly.

Community Liaison Groups

The Community Liaison Groups were established on 10 July 2009 in accordance with the EP Condition 2.6. Three CLGs, namely, Sai Ying Pun, University and Kennedy Town have been set

up to provide direct communication channel for the local communities to MTR during the construction stage of the Project on the project matters including enquiries and complaints handling on all environmental issues. Members of CLGs include the Central & Western District Councillors, Chairmen of Area Committees, representatives of local groups and government departments. Property management office, schools, and other local committees will be invited to participate in the CLGs. The first CLG meetings had been held in July 2009. The second CLG meetings had been held in October 2009. The third CLG meetings had been held in January 2010. The fourth CLG meetings had been held in April 2010 and the fifth CLG meetings had been held in end July 2010. The sixth CLG will be held in end October 2010.

In addition, a MTR Project hotline at 2993 3333 is in operation for public enquiries on the WIL Project and it also serves as the complaint hotline during the construction stage of the Project.

13 FUTURE KEY ISSUES

13.1 Key Issues for the Coming Month

Future key issues envisaged in the coming month include the followings:-

- Disposal of C&D waste;
- Dust generation from site activities;
- Noise impact from operating equipment;
- Site water discharge;
- Chemical wastes;
- Tree protection.

13.2 Solid and Liquid Waste Management Status

Base on the findings of the weekly site inspections, the Contractors' performance in solid and liquid waste management were acceptable and compliance with the EIA requirements were demonstrated. Solid wastes and liquid waste were properly disposed of. The current management standard should be maintained.

13.3 Effectiveness and Efficiency of Mitigation Measures

Based on the environmental monitoring results, the effectiveness and efficiency of the mitigation measures implemented were found to be satisfactory. The current practice should be maintained.

14 CONCLUSIONS

The Report presents the results of EM&A works and the impact monitoring for the construction works undertaken during the period of 10 September 2010 to 9 October 2010. The major construction activities in the reporting period included slope works at Works Areas A/A1/A2/A3, demolition of Building Block A at Works Area A, site preparation and pipe piling at Works Area C, site preparation at Works Areas E/J2/J3, site preparation and noise enclosure erection at Works Area G, rock pre-splitting at Works Area H, , pipe piling at Works Areas I and L1, reprovisioning of transformer and public toilet at Works Area M2, shaft excavation inside noise enclosure at Works Area M, diaphragm wall construction and building demolition at Works Area N1, excavation works inside construction shaft with noise decking installed to cover the shaft excavation area at Works Area J and grouting at Works Area O3.

Impact monitoring for air quality and noise were conducted in accordance with the EM&A Manual in the reporting period, no exceedance was found and there was no breach of Limit Levels for air and noise monitoring.

No environmental notification of summon and prosecution was received in the reporting period. Seven environmental complaints were received in the reporting period. The complaints had been handled in accordance with the procedures stipulated in the EM&A Manual.

Site inspections were conducted by the Environmental Team on a weekly basis to monitor proper implementation of environmental pollution control and mitigation measures for the Project. No non-conformance to the environmental requirements was identified by the Environmental Team in the reporting period.

The Environmental Permit (EP-313/2008/C) issued by EPD on 31 August 2009 is being used for the WIL Project.

In the reporting period, there was no reporting change of circumstances which may affect the compliance with the recommendations of the EIA Report.

It is concluded from the environmental monitoring and audit works for the West Island Line Project that the construction works were undertaken in an appropriately environmentally sensitive manner in the reporting period. The environmental protection and pollution control measures provided by the contractors were generally acceptable apart from some minor irregularities which were rectified timely by the respective civil works contractors.

The ET will continue the implementation of the environmental monitoring and audit programme in accordance to the EM&A Manual and to a level consistent with MTRCL's Corporate Sustainability Policy.

Appendix A
Environmental Quality Performance Limits

Action and Limit Levels for 24-hour TSP

Monitoring Station	Action Level (μg/m3)	Limit Level (μg/m3)
AM1a	170	260
AM2	155	260
AM3a	155	260
AM4	158	260
AM6a	157	260
AM7a	151	260
AM9a	168	260

Action and Limit Levels for 1-hour TSP for Complaint Handling

Monitoring Station	Action Level (μg/m3)	Limit Level (μg/m3)
AM7a	283	500
AM9a	287	500

Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level (dB(A)), Leq(30min)
0700-1900 hr on normal weekdays	When one documented complaint is received	75*
0700-2300 hr on holidays including Sundays and 1900-2300 hr on all other days		Subject to requirements stipulated in Construction Noise Permits
2300-0700 hr of next day		

* Limit for school is 70 dB(A) and 65 dB(A) during school examination periods.

Appendix B
Event Action Plans

Appendix C
Implementation of Environmental Mitigation Measures

Appendix D
Impact Monitoring Graphical Plots

Appendix E
Calibration Details

ThermoFisher
SCIENTIFIC
27 FORGE PARKWAY
FRANKLIN MA 02038
TOLL FREE: 866-282-0430
TEL: 508-553-6949
FAX: 508-541-8366
www.thermo.com/aqi

DR2000 CALIBRATION CERTIFICATE

This calibration is traceable to the National Institute of Standards and Testing

SERIAL NUMBER:	**2003**	
CALIBRATION RATIO:	**0.991**	
AVG. DR CONCENTRATION:	**2.47**	**mg/m3**
MASTER AVG CONCENTRATION:	**2.04**	**mg/m3**
PDR BACKROUND CONCENTRATION:	**0.332**	**mg/m3**

TEMPERATURE: 73 F
RH: 39 %

CALIBRATION MASTER: D187
LAST CALIBRATED: 5/1/2009

TECHNICIAN: KL **DATE:** 5/19/2009

ANDERSEN INSTRUMENTS INC.

GS2310 Series Sampler Calibration

(Dickson Recorder)

Customer -> MTRC SITE

Location -> Kwun Lung Lau Date -> 16-Jul-10

Sampler -> 994-0879 Tech -> Chan Kin Fung

CONDITIONS

Sea Level Pressure	(hpa)	1009	Sampler Elevation	(feet)	100
Sea Level Pressure	(in Hg)	29.80	Corrected Pressure	(mm Hg)	754.22
Temperature	(deg C)	25	Temperature	(deg K)	298.00
Seasonal SL Pressure	(in Hg)	29.80	Corrected Seasonal	(mm Hg)	754.22
Seasonal Temperature	(deg C)	25.00	Seasonal Temperature	(deg K)	298.00

CALIBRATION ORIFICE

Make -> Andersen Instruments Inc. Qstd Slope -> 1.99

Model -> 25A Qstd Intercept -> -0.014012

Serial# -> 5303 Date Certified ->

CALIBRATION

	Plate or Test #	H_2O (in)	Qstd (M^3/min)	I (chart)	IC (corrected)	LINEAR REGRESSION	
1	18	12.5	1.777	60	59.772	Slope =	31.9408
2	13	9.9	1.582	54	53.794	Intercept =	3.1887
3	10	7.8	1.405	48	47.817	Corr. Coeff. =	0.9984
4	7	4.9	1.115	40	39.848		
5	5	3.1	0.888	31	30.882		

Calculations

Qstd = 1/m [Sqrt (H_2O (Pa/Pstd) (Tstd/Ta)) - b]

IC = I [Sqrt (Pa/Pstd) (Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart response

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow:

1/m ((I) [Sqrt (298/Tav) (Pav/760)] - b)

m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure

This is to certify that the above equipment has been calibrated in accordance with manufacturer's procedure.

ANDERSEN INSTRUMENTS INC.

GS2310 Series Sampler Calibration

(Dickson Recorder)

Customer -> MTRC SITE

Location -> Victoria Public Mortuary Date -> 25-May-10

Sampler -> 994-0871 Tech -> Chan Kin Fung

CONDITIONS

Sea Level Pressure	(hpa)	1007	Sampler Elevation	(feet)	30
Sea Level Pressure	(in Hg)	29.74	Corrected Pressure	(mm Hg)	754.49
Temperature	(deg C)	26	Temperature	(deg K)	299.00
Seasonal SL Pressure	(in Hg)	29.74	Corrected Seasonal	(mm Hg)	754.49
Seasonal Temperature	(deg C)	26.00	Seasonal Temperature	(deg K)	299.00

CALIBRATION ORIFICE

Make -> Andersen Instruments Inc. Qstd Slope -> 1.99

Model -> 25A Qstd Intercept -> -0.014012

Serial# -> 5303 Date Certified ->

CALIBRATION

	Plate or Test #	H_2O (in)	Qstd (M^3/min)	I (chart)	IC (corrected)	LINEAR REGRESSION	
1	18	12.3	1.760	64	63.661	Slope =	36.3723
2	13	10	1.588	56	55.703	Intercept =	-1.0810
3	10	7.7	1.394	50	49.735	Corr. Coeff. =	0.9989
4	7	5	1.125	40	39.788		
5	5	3	0.873	31	30.836		

Calculations

$Qstd = 1/m [Sqrt (H_2O (Pa/Pstd) (Tstd/Ta)) - b]$

$IC = I [Sqrt (Pa/Pstd) (Tstd/Ta)]$

Qstd = standard flow rate

IC = corrected chart response

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow:

$1/m ((I) [Sqrt (298/Tav) (Pav/760)] - b)$

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m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure

This is to certify that the above equipment has been calibrated in accordance with manufacturer's procedure.

ANDERSEN INSTRUMENTS INC.

GS2310 Series Sampler Calibration

(Dickson Recorder)

Customer -> MTRC SITE

Location -> HKIVE (Tsing Yi) Kennedy Town Centre Date -> 16-Jul-10

Sampler -> 994-0875 Tech -> Chan Kin Fung

CONDITIONS

Sea Level Pressure	(hpa)	1009	Sampler Elevation	(feet)	100
Sea Level Pressure	(in Hg)	29.80	Corrected Pressure	(mm Hg)	754.22
Temperature	(deg C)	26	Temperature	(deg K)	299.00
Seasonal SL Pressure	(in Hg)	29.80	Corrected Seasonal	(mm Hg)	754.22
Seasonal Temperature	(deg C)	26.00	Seasonal Temperature	(deg K)	299.00

CALIBRATION ORIFICE

Make -> Andersen Instruments Inc. Qstd Slope -> 1.99

Model -> 25A Qstd Intercept -> -0.014012

Serial# -> 5303 Date Certified ->

CALIBRATION

	Plate or Test #	H_2O (in)	Qstd (M^3/min)	I (chart)	IC (corrected)	LINEAR REGRESSION	
1	18	12.3	1.760	60	59.672	Slope =	33.1122
2	13	9.6	1.555	53	52.710	Intercept =	1.6664
3	10	7.4	1.367	48	47.737	Corr. Coeff. =	0.9983
4	7	4.8	1.102	39	38.787		
5	5	3	0.873	30	29.836		

Calculations

Qstd = 1/m [Sqrt (H_2O (Pa/Pstd) (Tstd/Ta)) - b]

IC = I [Sqrt (Pa/Pstd) (Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart response

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow:

1/m ((I) [Sqrt (298/Tav) (Pav/760)] - b)

m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure

This is to certify that the above equipment has been calibrated in accordance with manufacturer's procedure.

ANDERSEN INSTRUMENTS INC.

GS2310 Series Sampler Calibration

(Dickson Recorder)

Customer -> MTRC SITE

Location -> Victoria Rd. Magazine Site Date -> 22-May-10

Sampler -> 994-0870 Tech -> Chan Kin Fung

CONDITIONS

Sea Level Pressure	(hpa)	1007	Sampler Elevation	(feet)	300
Sea Level Pressure	(in Hg)	29.74	Corrected Pressure	(mm Hg)	747.67
Temperature	(deg C)	26	Temperature	(deg K)	299.00
Seasonal SL Pressure	(in Hg)	29.74	Corrected Seasonal	(mm Hg)	747.67
Seasonal Temperature	(deg C)	26.00	Seasonal Temperature	(deg K)	299.00

CALIBRATION ORIFICE

Make -> Andersen Instruments Inc. Qstd Slope -> 1.99

Model -> 25A Qstd Intercept -> -0.014012

Serial# -> 5303 Date Certified ->

CALIBRATION

	Plate or Test #	H_2O (in)	Qstd (M^3/min)	I (chart)	IC (corrected)	LINEAR REGRESSION	
1	18	11.8	1.716	57	56.441	Slope =	31.7157
2	13	9.7	1.557	51	50.500	Intercept =	2.0416
3	10	7.6	1.379	47	46.539	Corr. Coeff. =	0.9964
4	7	5	1.120	39	38.618		
5	5	3	0.869	29	28.716		

Calculations

$Qstd = 1/m [Sqrt (H_2O (Pa/Pstd) (Tstd/Ta)) - b]$

$IC = I [Sqrt (Pa/Pstd) (Tstd/Ta)]$

Qstd = standard flow rate

IC = corrected chart response

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow:

1/m ((I) [Sqrt (298/Tav) (Pav/760)] - b)

m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure

This is to certify that the above equipment has been calibrated in accordance with manufacturer's procedure.

ANDERSEN INSTRUMENTS INC.

GS2310 Series Sampler Calibration

(Dickson Recorder)

Customer -> MTRC SITE

Location -> St' Paul's College Primary Date -> 22-May-10

Sampler -> 1294-1113 Tech -> Chan Kin Fung

CONDITIONS

Sea Level Pressure	(hpa)	1006	Sampler Elevation	(feet)	300
Sea Level Pressure	(in Hg)	29.71	Corrected Pressure	(mm Hg)	746.92
Temperature	(deg C)	33	Temperature	(deg K)	306.00
Seasonal SL Pressure	(in Hg)	29.71	Corrected Seasonal	(mm Hg)	746.92
Seasonal Temperature	(deg C)	33.00	Seasonal Temperature	(deg K)	306.00

CALIBRATION ORIFICE

Make -> Andersen Instruments Inc. Qstd Slope -> 1.99

Model -> 25A Qstd Intercept -> -0.014012

Serial# -> 5303 Date Certified ->

CALIBRATION

	Plate or Test #	H_2O (in)	Qstd (M^3/min)	I (chart)	IC (corrected)	LINEAR REGRESSION	
1	18	11.3	1.660	59	57.721	Slope =	36.5989
2	13	9.4	1.514	53	51.851	Intercept =	-2.9911
3	10	7.3	1.335	48	46.959	Corr. Coeff. =	0.9985
4	7	4.8	1.084	37	36.198		
5	5	2.8	0.830	28	27.393		

Calculations

$Qstd = 1/m [Sqrt (H_2O (Pa/Pstd) (Tstd/Ta)) - b]$

$IC = I [Sqrt (Pa/Pstd) (Tstd/Ta)]$

Qstd = standard flow rate

IC = corrected chart response

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow:

1/m ((I) [Sqrt (298/Tav) (Pav/760)] - b)

m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure

This is to certify that the above equipment has been calibrated in accordance with manufacturer's procedure.

ANDERSEN INSTRUMENTS INC.

GS2310 Series Sampler Calibration

(Dickson Recorder)

Customer -> MTRC SITE

Location -> Hill Court Date -> 22-May-10

Sampler -> 694-0662 Tech -> Chan Kin Fung

CONDITIONS

Sea Level Pressure	(hpa)	1006	Sampler Elevation	(feet)	400
Sea Level Pressure	(in Hg)	29.71	Corrected Pressure	(mm Hg)	744.40
Temperature	(deg C)	33	Temperature	(deg K)	306.00
Seasonal SL Pressure	(in Hg)	29.71	Corrected Seasonal	(mm Hg)	744.40
Seasonal Temperature	(deg C)	33.00	Seasonal Temperature	(deg K)	306.00

CALIBRATION ORIFICE

Make -> Andersen Instruments Inc. Qstd Slope -> 1.99

Model -> 25A Qstd Intercept -> -0.014012

Serial# -> 5303 Date Certified ->

CALIBRATION

	Plate or Test #	H_2O (in)	Qstd (M^3/min)	I (chart)	IC (corrected)	LINEAR REGRESSION	
1	18	10.6	1.605	54	52.740	Slope =	33.2178
2	13	8.7	1.455	50	48.833	Intercept =	0.1961
3	10	6.5	1.258	44	42.973	Corr. Coeff. =	0.9982
4	7	4.1	1.001	34	33.206		
5	5	2.4	0.767	26	25.393		

Calculations

Qstd = 1/m [Sqrt (H_2O (Pa/Pstd) (Tstd/Ta)) - b]

IC = I [Sqrt (Pa/Pstd) (Tstd/Ta)]

Qstd = standard flow rate
IC = corrected chart response
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m ((I) [Sqrt (298/Tav) (Pav/760)] - b)

m = sampler slope
b = sampler intercept
I = chart response
Tav = daily average temperature
Pav = daily average pressure

This is to certify that the above equipment has been calibrated in accordance with manufacturer's procedure.

ANDERSEN INSTRUMENTS INC.

GS2310 Series Sampler Calibration

(Dickson Recorder)

Customer -> MTRC SITE

Location -> No.28 Sai Woo Lane Date -> 22-May-10

Sampler -> 894-0834 Tech -> Chan Kin Fung

CONDITIONS

Sea Level Pressure	(hpa)	1008	Sampler Elevation	(feet)	30
Sea Level Pressure	(in Hg)	29.77	Corrected Pressure	(mm Hg)	755.24
Temperature	(deg C)	30.5	Temperature	(deg K)	303.50
Seasonal SL Pressure	(in Hg)	29.77	Corrected Seasonal	(mm Hg)	755.24
Seasonal Temperature	(deg C)	30.50	Seasonal Temperature	(deg K)	303.50

CALIBRATION ORIFICE

Make -> Andersen Instruments Inc. Qstd Slope -> 1.99

Model -> 25A Qstd Intercept -> -0.014012

Serial# -> 5303 Date Certified ->

CALIBRATION

	Plate or Test #	H_2O (in)	Qstd (M^3/min)	I (chart)	IC (corrected)	LINEAR REGRESSION	
1	18	11.6	1.698	60	59.267	Slope =	34.8768
2	13	9.3	1.521	54	53.341	Intercept =	0.3456
3	10	7.2	1.339	48	47.414	Corr. Coeff. =	0.9995
4	7	4.7	1.083	39	38.524		
5	5	2.9	0.852	30	29.634		

Calculations

$Qstd = 1/m [Sqrt (H_2O (Pa/Pstd) (Tstd/Ta)) - b]$

$IC = I [Sqrt (Pa/Pstd) (Tstd/Ta)]$

Qstd = standard flow rate

IC = corrected chart response

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)

Pa = actual pressure during calibration (mm Hg)

Tstd = 298 deg K

Pstd = 760 mm Hg

For subsequent calculation of sampler flow:

1/m ((I) [Sqrt (298/Tav) (Pav/760)] - b)

m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure

This is to certify that the above equipment has been calibrated in accordance with manufacturer's procedure.

MTR Corporation
Internal Calibration

Project Laboratory MTR

Balance Calibration Report
Tested to MTRC Method WI/707M/01

Laboratory Equipment Identification Number			BA0011		
Manufacturer	Sartorius	Model	A200S-**DIB	Serial No.	1065989
Capacity	120g	Discrimination	0.1mg	Type	Top Loading
Location	Concrete Testing Area		Temperature	25℃	

Reference Mass Set Used (Equip. ID. No.)		RM001	
Manufacturer	Troemner	OIML Classification	F1
Last Calibration Date	29-04-2002	Calibrated By	South China National Centre of Metrology

(1) Repeatability of Reading

Reference Mass (g)	Standard Deviation of Balance Reading (g)	Maximum Difference Between Successive Readings (g)
10	0.000071	0.0002
60	0.0001333	0.0002
120	0.0001287	0.0003

Standard Deviation of the Balance = 0.0001333

(2) Departure from Nominal Value

Reading (g)	Correction (g)	Uncertainty (g)
10.0001	-0.0001	±0.000361
20.0001	-0.00005	
30.0001	-0.00005	
40.0001	0.00003	
50.0002	-0.00028	
60.0001	-0.00018	
70.000	0.00002	
80.0001	-0.00008	
90.0000	0.00005	
100.0001	-0.00025	

Maximum Correction = -0.00028

(3) Off-Centre Loading

A mass of approximately 60 was moved to various position on the balance pan. The balance readings obtained at different position are given in the table.

Centre	Front	Back	Left	Right
60.0001	60.0001	60.0004	59.9997	59.9997

Maximum Difference = 0.0007

(4) Hysteresis

Load (g)	Hysteresis (g)
50	-0.0001333

(5) Limit of Performance of the Balance = ± 0.000680

Checked by : Kenny Li Certified by : _____

Date : 13-02-2009 Date : 16/12/2009

Notes:

1.The balance has been tested according to the specifications laid down in Chapter 6 of the CSIRO Publication "The Calibration of Balances - by David B. Prowse".

2.Uncertainties quoted in this report have been estimated on the basis of there being not more than one chance in one hundred that any value differs from the true value by more than the stated uncertainty.

3.The Limit of Performance is the tolerance band within which all readings of the balance will fall.

MAXLAB

CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	30th December, 2008	***Certificate Number***	MLCN081194S

Customer Information

Company Name	MTR Corporation Limited
Address	MTR Tower, Telford Plaza, 33 Wai Yip St., Kowloon Bay, Kowloon, Hong Kong

Unit Under Test (UUT)

Description	Precision Integrating Sound Level Meter
Manufacturer	Brüel & Kjær
Model Number	Type 2236
Serial Number	1794284
Equipment Number	-

Calibration Result

* The UUT range indication was found defective, but range selection and measurement were not affected.
* All calibration results are within the manufacturer's specification.
* Calibration data are detailed on the attached sheet(s).

Approved By

Laboratory Manager

* Calibration equipment used for this calibration are traceable to national / international standards.
* The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the UUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.
* MaxLab Calibration Centre Limited shall not be liable for any loss or damage resulting from the use of the UUT.
* The copy of this Certificate is owned by MaxLab Calibration Centre Limited. No part of this Certificate may be reproduced without the prior written approval of MaxLab Calibration Centre Limited.

The service is provided under a HKQAA ISO9001:2000 certified quality system of Certificate No. CC1929.

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MaxLab Calibration Centre Limited
Unit 1, 22/F., Futura Plaza, 111-113 How Ming Street, Kwun Tong, Kowloon, Hong Kong Tel : (852) 2116 1380 Fax : (852) 2264 6480 Email : info@maxlab.com.hk
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MAXLAB

CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	30th December, 2008	***Certificate Number***	MLCN081194S

Calibration Status

Date of Calibration			30th December, 2008
Calibration Equipment Used			4231 (MLTE008)/ CA0801167/ 24th Feb 2010
Calibration Procedure			MLCG00 & MLCG15.
Calibration Uncertainty			±0.2 dB
Calibration Condition	***Lab***	***Temperature***	23 °C ± 5 °C
		Relative Humidity	55% ± 25%
	UUT	***Stabilizing Time***	24 hours
		Warm-up Time	10 minutes
		Supply Voltage	Not applicable

Calibration Data

UUT Setting				UUT Rdg	Std Rdg	UUT Error	UUT Error Limit
Frequency Wt.	**Parameter**	**Response**	Range (dB)				
A (1 kHz Input)	SPL	F	20 - 100	93.9 dB	94 dB	-0.1 dB	0.7 dB
		S		93.9 dB	94 dB	-0.1 dB	0.7 dB
		I		93.9 dB	94 dB	-0.1 dB	0.7 dB
C (1 kHz Input)		F	20 - 100	93.9 dB	94 dB	-0.1 dB	0.7 dB
		S		93.9 dB	94 dB	-0.1 dB	0.7 dB
		I		93.9 dB	94 dB	-0.1 dB	0.7 dB
L (1 kHz Input)		F	20 - 100	94.0 dB	94 dB	0.0 dB	0.7 dB
		S		94.0 dB	94 dB	0.0 dB	0.7 dB
		I		94.0 dB	94 dB	0.0 dB	0.7 dB
A (1 kHz Input)		F	40 - 120	113.9 dB	114 dB	-0.1 dB	0.7 dB
		S		113.9 dB	114 dB	-0.1 dB	0.7 dB
		I		113.9 dB	114 dB	-0.1 dB	0.7 dB

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CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	30th December, 2008	***Certificate Number***	MLCN081193S

Customer Information

Company Name	MTR Corporation Limited
Address	MTR Tower, Telford Plaza, 33 Wai Yip St., Kowloon Bay, Kowloon, Hong Kong

Unit Under Test (UUT)

Description	Precision Integrating Sound Level Meter
Manufacturer	Brüel & Kjær
Model Number	Type 2236
Serial Number	1814957
Equipment Number	-

Calibration Result

* All calibration results are within the manufacturer's specification.
* Calibration data are detailed on the attached sheet(s).

Approved By

Laboratory Manager

* Calibration equipment used for this calibration are traceable to national / international standards.
* The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the UUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.
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CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	30th December, 2008	*Certificate Number*	MLCN081193S

Calibration Status

Date of Calibration			30th December, 2008
Calibration Equipment Used			4231 (MLTE008)/ CA0801167/ 24th Feb 2010
Calibration Procedure			MLCG00 & MLCG15.
Calibration Uncertainty			±0.2 dB
Calibration Condition	*Lab*	*Temperature*	23 °C ± 5 °C
		Relative Humidity	55% ± 25%
	UUT	*Stabilizing Time*	24 hours
		Warm-up Time	10 minutes
		Supply Voltage	Not applicable

Calibration Data

UUT Setting				UUT Rdg	Std Rdg	UUT Error	UUT Error Limit
Frequency Wt.	Parameter	Response	Range (dB)				
A (1 kHz Input)	SPL	F	20 - 100	93.9 dB	94 dB	-0.1 dB	0.7 dB
		S		93.9 dB	94 dB	-0.1 dB	0.7 dB
		I		93.9 dB	94 dB	-0.1 dB	0.7 dB
C (1 kHz Input)		F	20 - 100	93.9 dB	94 dB	-0.1 dB	0.7 dB
		S		93.9 dB	94 dB	-0.1 dB	0.7 dB
		I		93.9 dB	94 dB	-0.1 dB	0.7 dB
L (1 kHz Input)		F	20 - 100	93.9 dB	94 dB	-0.1 dB	0.7 dB
		S		93.9 dB	94 dB	-0.1 dB	0.7 dB
		I		93.9 dB	94 dB	-0.1 dB	0.7 dB
A (1 kHz Input)		F	40 - 120	113.9 dB	114 dB	-0.1 dB	0.7 dB
		S		113.9 dB	114 dB	-0.1 dB	0.7 dB
		I		113.9 dB	114 dB	-0.1 dB	0.7 dB

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CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	30th December, 2008	***Certificate Number***	MLCN081195S

Customer Information

Company Name	MTR Corporation Limited
Address	MTR Tower, Telford Plaza, 33 Wai Yip St., Kowloon Bay, Kowloon, Hong Kong

Unit Under Test (UUT)

Description	Precision Integrating Sound Level Meter
Manufacturer	Brüel & Kjær
Model Number	Type 2236
Serial Number	1814960
Equipment Number	-

Calibration Result

* All calibration results are within the manufacturer's specification.
* Calibration data are detailed on the attached sheet(s).

Approved By

Laboratory Manager

* Calibration equipment used for this calibration are traceable to national / international standards.
* The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the UUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.
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CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	30th December, 2008	***Certificate Number***	MLCN081195S

Calibration Status

Date of Calibration			30th December, 2008
Calibration Equipment Used			4231 (MLTE008)/ CA0801167/ 24th Feb 2010
Calibration Procedure			MLCG00 & MLCG15.
Calibration Uncertainty			±0.2 dB
Calibration Condition	***Lab***	***Temperature***	23 °C ± 5 °C
		Relative Humidity	55% ± 25%
	UUT	***Stabilizing Time***	24 hours
		Warm-up Time	10 minutes
		Supply Voltage	Not applicable

Calibration Data

UUT Setting				UUT Rdg	Std Rdg	UUT Error	UUT Error Limit
Frequency Wt.	**Parameter**	**Response**	Range (dB)				
A (1 kHz Input)	SPL	F	20 - 100	94.1 dB	94 dB	0.1 dB	0.7 dB
		S		94.1 dB	94 dB	0.1 dB	0.7 dB
		I		94.1 dB	94 dB	0.1 dB	0.7 dB
C (1 kHz Input)		F	20 - 100	94.1 dB	94 dB	0.1 dB	0.7 dB
		S		94.1 dB	94 dB	0.1 dB	0.7 dB
		I		94.1 dB	94 dB	0.1 dB	0.7 dB
L (1 kHz Input)		F	20 - 100	94.1 dB	94 dB	0.1 dB	0.7 dB
		S		94.1 dB	94 dB	0.1 dB	0.7 dB
		I		94.1 dB	94 dB	0.1 dB	0.7 dB
A (1 kHz Input)		F	40 - 120	114.0 dB	114 dB	0.0 dB	0.7 dB
		S		114.0 dB	114 dB	0.0 dB	0.7 dB
		I		114.0 dB	114 dB	0.0 dB	0.7 dB

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MAXLAB
CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	6th November, 2008	***Certificate Number***	MLCN080969S

Customer Information

Company Name	MTR Corporation Limited
Address	MTR Tower, Telford Plaza, 33 Wai Yip St., Kowloon Bay, Kowloon, Hong Kong

Unit Under Test (UUT)

Description	Sound Level Calibrator
Manufacturer	Brüel & Kjær
Model Number	4231
Serial Number	1795385
Equipment Number	-

Calibration Result

* All calibration results within the manufacturer's specification.
* Calibration data are detailed on the attached sheet(s).

Approved By

Laboratory Manager

* Calibration equipment used for this calibration are traceable to national / international standards.
* The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the UUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.
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MAXLAB
CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	6th November, 2008	*Certificate Number*	MLCN080969S

Calibration Status

Date of Calibration			6th November, 2008
Calibration Equipment Used			4231 (Spec) (MLTE008)/ CA0801167/ 24th Feb 2008 1351 (MLTE049)/ MLEC08/06/02/ 14th Jun 2009
Calibration Procedure			MLCG00 & MLCG15.
Calibration Uncertainty			± 0.1 dB
Calibration Condition	*Lab*	*Temperature*	23 °C ± 5 °C
		Relative Humidity	55% ± 25%
	UUT	*Stabilizing Time*	24 hours
		Warm-up Time	Not applicable
		Supply Voltage	Not applicable

Calibration Data

UUT Setting	STD Rdg	UUT Error	UUT Error Limit
94 dB	94.0 dB	0.0 dB	0.2 dB
114 dB	114.0 dB	0.0 dB	0.2 dB

The service is provided under a HKQAA ISO9001:2000 certified quality system of Certificate No. CC1929.

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MAXLAB
CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	6th November, 2008	***Certificate Number***	MLCN080973S

Customer Information

Company Name	MTR Corporation Limited
Address	MTR Tower, Telford Plaza, 33 Wai Yip St., Kowloon Bay, Kowloon, Hong Kong

Unit Under Test (UUT)

Description	Sound Level Calibrator
Manufacturer	Brüel & Kjær
Model Number	4231
Serial Number	1795391
Equipment Number	-

Calibration Result

* All calibration results within the manufacturer's specification.
* Calibration data are detailed on the attached sheet(s).

Approved By

Laboratory Manager

* Calibration equipment used for this calibration are traceable to national / international standards.
* The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the UUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.
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MAXLAB
CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	6th November, 2008	***Certificate Number***	MLCN080973S

Calibration Status

Date of Calibration			6th November, 2008
Calibration Equipment Used			4231 (Spec) (MLTE008)/ CA0801167/ 24th Feb 2008 1351 (MLTE049)/ MLEC08/06/02/ 14th Jun 2009
Calibration Procedure			MLCG00 & MLCG15.
Calibration Uncertainty			± 0.1 dB
Calibration Condition	***Lab***	***Temperature***	23 °C ± 5 °C
		Relative Humidity	55% ± 25%
	UUT	***Stabilizing Time***	24 hours
		Warm-up Time	Not applicable
		Supply Voltage	Not applicable

Calibration Data

UUT Setting	STD Rdg	UUT Error	UUT Error Limit
94 dB	94.0 dB	0.0 dB	0.2 dB
114 dB	114.1 dB	0.1 dB	0.2 dB

The service is provided under a HKQAA ISO9001:2000 certified quality system of Certificate No. CC1929.

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MAXLAB
CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	6th November, 2008	***Certificate Number***	MLCN080972S

Customer Information

Company Name	MTR Corporation Limited
Address	MTR Tower, Telford Plaza, 33 Wai Yip St., Kowloon Bay, Kowloon, Hong Kong

Unit Under Test (UUT)

Description	Sound Level Calibrator
Manufacturer	Brüel & Kjær
Model Number	4231
Serial Number	1795393
Equipment Number	-

Calibration Result

* All calibration results within the manufacturer's specification.
* Calibration data are detailed on the attached sheet(s).

Approved By

Laboratory Manager

* Calibration equipment used for this calibration are traceable to national / international standards.
* The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the UUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.
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MAXLAB

CALIBRATION CERTIFICATE

Certificate Information

Date of Issue	6th November, 2008	***Certificate Number***	MLCN080972S

Calibration Status

Date of Calibration			6th November, 2008
Calibration Equipment Used			4231 (Spec) (MLTE008)/ CA0801167/ 24th Feb 2008 1351 (MLTE049)/ MLEC08/06/02/ 14th Jun 2009
Calibration Procedure			MLCG00 & MLCG15.
Calibration Uncertainty			± 0.1 dB
Calibration Condition	***Lab***	***Temperature***	23 °C ± 5 °C
		Relative Humidity	55% ± 25%
	UUT	***Stabilizing Time***	24 hours
		Warm-up Time	Not applicable
		Supply Voltage	Not applicable

Calibration Data

UUT Setting	STD Rdg	UUT Error	UUT Error Limit
94 dB	94.0 dB	0.0 dB	0.2 dB
114 dB	114.0 dB	0.0 dB	0.2 dB

The service is provided under a HKQAA ISO9001:2000 certified quality system of Certificate No. CC1929.

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Appendix F
Monitoring Schedules

Air Impact Monitoring

1. The air impact monitoring schedule for the present reporting period is shown in Section 3.1.

2. The air impact monitoring schedule for the next reporting period will commence on 11 October 2010 and will be conducted at a sampling frequency of at least once in every six days.

Noise Impact Monitoring

1. The noise impact monitoring schedule for the present reporting period is shown in Section 3.2.

2. The noise impact monitoring schedule for the next reporting period will commence on 11 October 2010 and will be conducted at a frequency of once a week when construction activities are underway.

Appendix G
Certified Arborist Monthly Inspection Record for
September 2010

WEST ISLAND LINE

Consultancy Agreement No. : C735F - Arborist for Tree Protection

Consultant : Muni Arborist Limited

Name : Mike Leung (Certified Arborist)

Monthly Inspection Record for September 2010

Date	Activity Description	Purpose
03 September 2010	Regular Inspection for September	Monitor the conditions of transplanted and retained trees
24 September 2010	Regular Inspection for September	Monitor the conditions of transplanted and retained trees
02 October 2010	Supplementary inspection of 24 September	Monitor the conditions retained trees especially for contracts 705, 706 and 708

Signed by Muni Arborist Limited : _____

Date : 5 October 2010

The Transplant and protection works were carried out in accordance with requirement of the Tree Protection Plan in general