

Appendix E. Calibration Certificates

EQUIPMENT CALIBRATION RECORD

Type : Laser Dust Monitor
 Manufacturer / Brand : SIBATA
 Model No.: LD-3B
 Equipment No.: LD-3B-001
 Serial No.: 934393
 Sensitivity Adjustment Scale Setting : 640 CPM

Standard Equipment

Equipment : MFC High Volume Air Sampler
 Venue : Dragonair Building
 Model No.: TE-5170 Total Suspended Particulate
 Serial No.: S/N3693

Previous Calibration Date 24/08/2017

Calibration Result

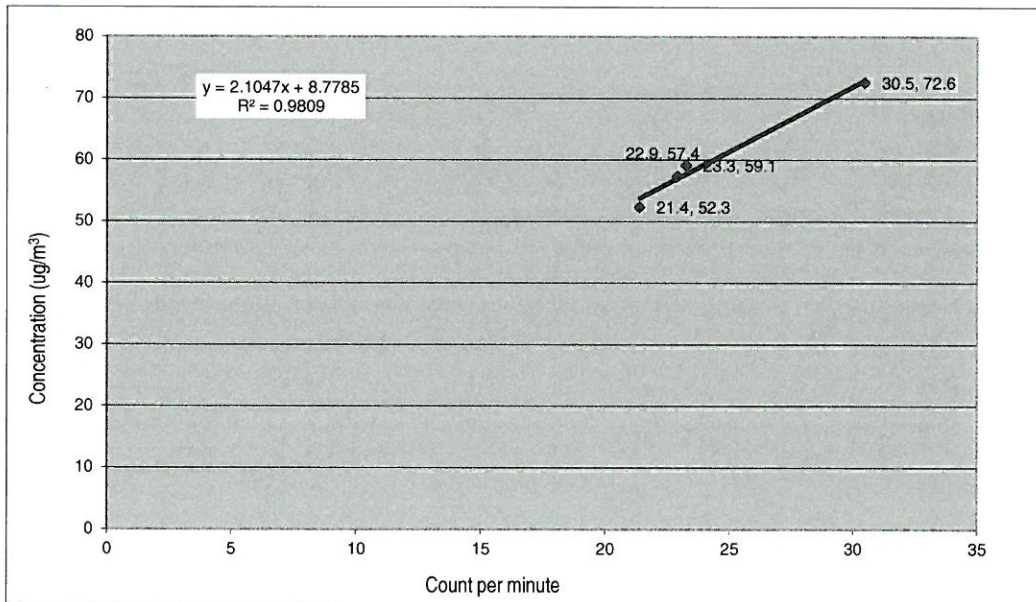
Sensitivity Adjustment Scale Setting (Before Calibration) : 640 CPM
 Sensitivity Adjustment Scale Setting (After Calibration) : 640 CPM

Hour	Date (dd-mmm-yy)	Time		Ambient Condition		Concentration (ug/m ³) Y-axis	Total Count	Count/Minute X-axis
				Temp (°C)	R.H. (%)			
1	11-Oct-17	13:00	14:00	34	45%	72.6	1829	30.5
2	11-Oct-17	14:08	15:08	34	45%	59.1	1395	23.3
3	11-Oct-17	15:13	16:13	34	45%	52.3	1283	21.4
4	11-Oct-17	16:20	17:20	34	45%	57.4	1374	22.9

Be Linear Regression of Y or X

Slope (K-factor): 2.1047 Intercept, b: 8.778
 Correlation coefficient : 0.9904

Remark: _____



Recorded by: William Chan

Signature: 

Date: 23/10/2017

Checked by: Keith Chau

Signature: 

Date: 23/10/2017

EQUIPMENT CALIBRATION RECORD

Type : Laser Dust Monitor
 Manufacturer / Brand : SIBATA
 Model No.: LD-3B
 Equipment No.: LD-3B-002
 Serial No.: 974350
 Sensitivity Adjustment Scale Setting : 622 CPM

Standard Equipment

Equipment : MFC High Volume Air Sampler
 Venue : Dragonair Building
 Model No.: TE-5170 Total Suspended Particulate
 Serial No.: S/N3693
 Previous Calibration Date : 24/08/2017

Calibration Result

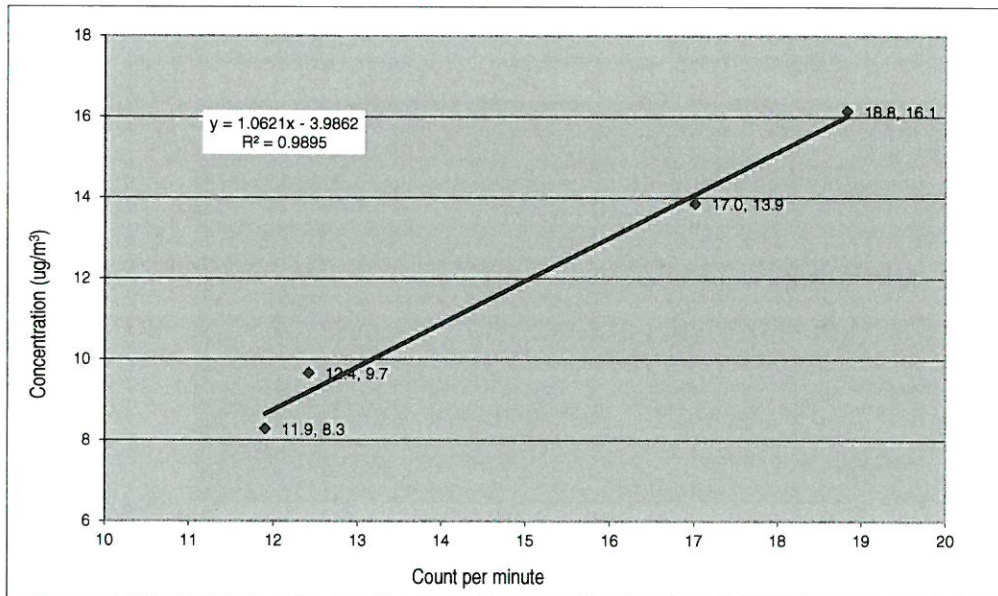
Sensitivity Adjustment Scale Setting (Before Calibration) : 622
 Sensitivity Adjustment Scale Setting (After Calibration) : 622

Hour	Date (dd-mmm-yy)	Time		Ambient Condition		Concentration (ug/m ³) Y-axis	Total Count	Count/Minute X-axis
				Temp (°C)	R.H. (%)			
1	11-Sep-17	13:51	14:51	33	60%	9.7	745	12.42
2	11-Sep-17	15:01	16:01	33	60%	8.3	714	11.90
3	11-Sep-17	16:05	17:05	33	60%	13.9	1021	17.02
4	11-Sep-17	17:05	18:05	33	60%	16.1	1130	18.83

Be Linear Regression of Y or X

Slope (K-factor): 1.062 Intercept,b: -3.986
 Correlation coefficient (R): 0.9947

Remark: _____



Recorded by: William Chan

Signature: 

Date: 20/10/2017

Checked by: Keith Chau

Signature: 

Date: 20/10/2017

EQUIPMENT CALIBRATION RECORD

Type : Laser Dust Monitor
 Manufacturer / Brand : SIBATA
 Model No.: LD-3B
 Equipment No.: LD-3B-003
 Serial No.: 276018
 Sensitivity Adjustment Scale Setting : 799 CPM

Standard Equipment

Equipment : MFC High Volume Air Sampler
 Venue : Dragonair Building
 Model No.: TE-5170 Total Suspended Particulate
 Serial No.: S/N3693

Previous Calibration Date 24/08/2017

Calibration Result

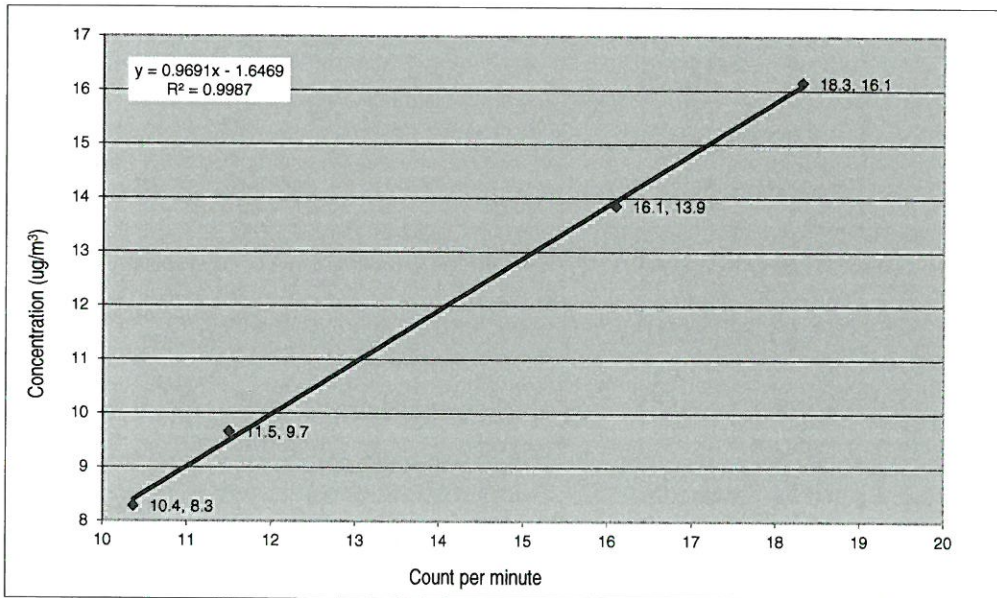
Sensitivity Adjustment Scale Setting (Before Calibration) : 799 CPM
 Sensitivity Adjustment Scale Setting (After Calibration) : 800 CPM

Hour	Date (dd-mmm-yy)	Time		Ambient Condition		Concentration (ug/m ³) Y-axis	Total Count	Count/Minute X-axis
				Temp (°C)	R.H. (%)			
1	11-Sep-17	13:51	14:51	33	60%	9.7	690	11.50
2	11-Sep-17	15:01	16:01	33	60%	8.3	622	10.37
3	11-Sep-17	16:05	17:05	33	60%	13.9	966	16.10
4	11-Sep-17	17:05	18:05	33	60%	16.1	1099	18.32

Be Linear Regression of Y or X

Slope (K-factor): 0.9691 Intercept,b: -1.6469
 Correlation coefficient (R): 0.9993

Remark: _____



Recorded by: William Chan

Signature: 

Date: 20/10/2017

Checked by: Keith Chau

Signature: 

Date: 20/10/2017

ENVIROTECH SERVICES CO.

High-Volume TSP Sampler
5-Point Calibration Record

Location : AMS6(Dragonair Building)
Calibrated by : P.F.Yeung
Date : 24/08/2017

Sampler

Model : TE-5170
Serial Number : S/N3639

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
Service Date : 20 March 2017
Slope (m) : 2.08464
Intercept (b) : -0.036840
Correlation Coefficient(r) : 0.99994

Standard Condition

Pstd (hpa) : 1013
Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1004
Ta(K) : 305

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	11.5	3.337	1.618	54	53.14
2 13 holes	9.0	2.952	1.434	49	48.22
3 10 holes	7.0	2.604	1.267	42	41.33
4 7 holes	4.6	2.111	1.030	36	35.43
5 5 holes	2.8	1.647	0.808	28	27.55

Notes: $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$, $X = Z/m - b$, $Y(\text{Corrected Flow}) = IC * \{\sqrt{Pa/Pstd}(Tstd/Ta)\}$

Sampler Calibration Relationship

Slope(m): 31.521 Intercept(b): 2.322 Correlation Coefficient(r): 0.9978

Checked by: Magnum Fan

Date: 28/08/2017