



東業德勤測試顧問有限公司  
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**TEST REPORT**

**Calibration Report  
of  
High Volume Air Sampler**

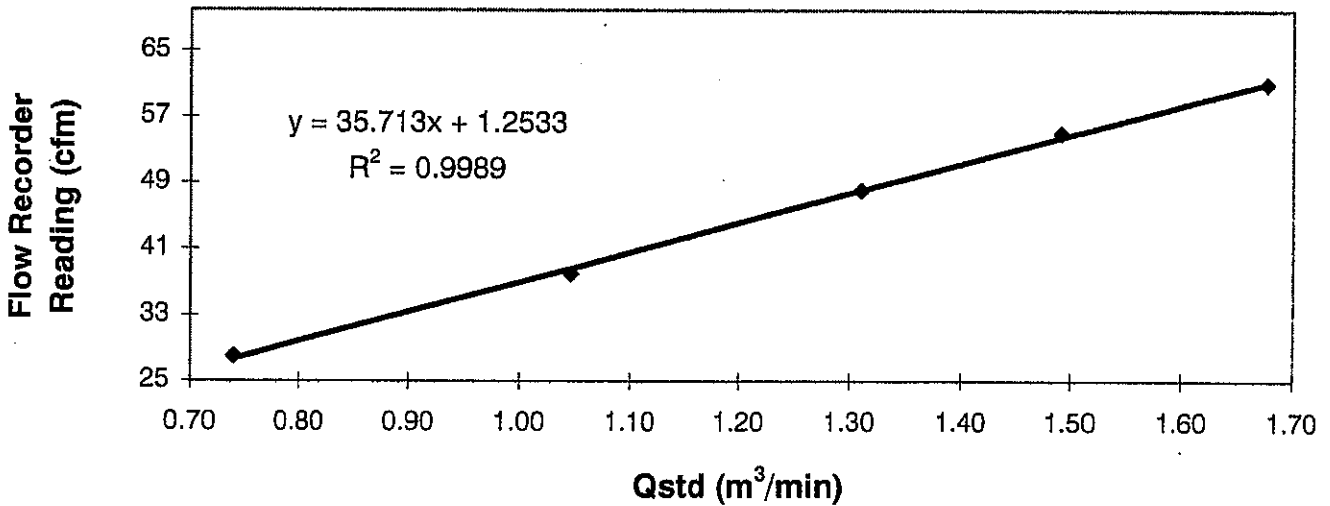
Manufacturer : Greasby GMW Date of Calibration : 18 January 2006

Serial No. : 10347 ( ET / EA / 003 / 06 ) Calibration Due Date : 17 March 2006

Method : Based on Operations Manual for in series calibration method by TISCH  
ENVIROMENTAL Model Te-5025A calibration kit

Results	Flow recorder reading (cfm)	61	55	48	38	28
	Qstd (Actual flow rate, m <sup>3</sup> /min)	1.68	1.49	1.31	1.05	0.74
	Pressure : 760.19 mm Hg	Temp. : 293 K				

**Air Sampler 10347 Calibration Curve  
Site:Tseung Kwan O (AA1)  
Date of Calibration: 18 January 2006**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies \* / ~~does not comply~~ \* with the specified requirements and is deemed acceptable \* / unacceptable \* for use.

Calibrated by : H. T. Chow  
H. T. Chow  
(Asst. Environmental Officer)

Approved by : Linda Law  
Linda Law  
(Environmental Officer)



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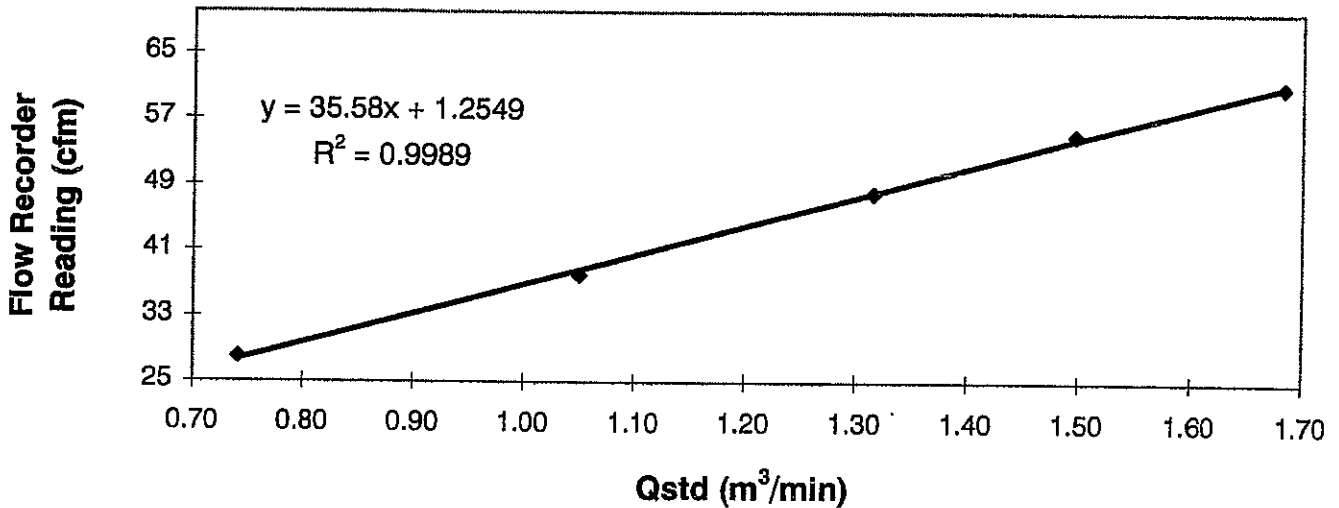
**Calibration Report  
of  
High Volume Air Sampler**

**Manufacturer** : Greasby GMW **Date of Calibration** : 20 March 2006  
**Serial No.** : 10347 ( ET / EA / 003 / 06 ) **Calibration Due Date** : 19 May 2006  
**Method** : Based on Operations Manual for in series calibration method by TISCH  
ENVIROMENTAL Model Te-5025A calibration kit

**Results** :


Flow recorder reading (cfm)	61	55	48	38	28
Qstd (Actual flow rate, m <sup>3</sup> /min)	1.68	1.50	1.32	1.05	0.74
Pressure :	761.46 mm Hg		Temp. : 291.3 K		


**Air Sampler 10347 Calibration Curve  
Site:Tseung Kwan O (AA1)  
Date of Calibration: 20 March 2006**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies \* / ~~does not comply~~ \* with the specified requirements and is deemed acceptable \* / ~~unacceptable~~ \* for use.

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**TEST REPORT**

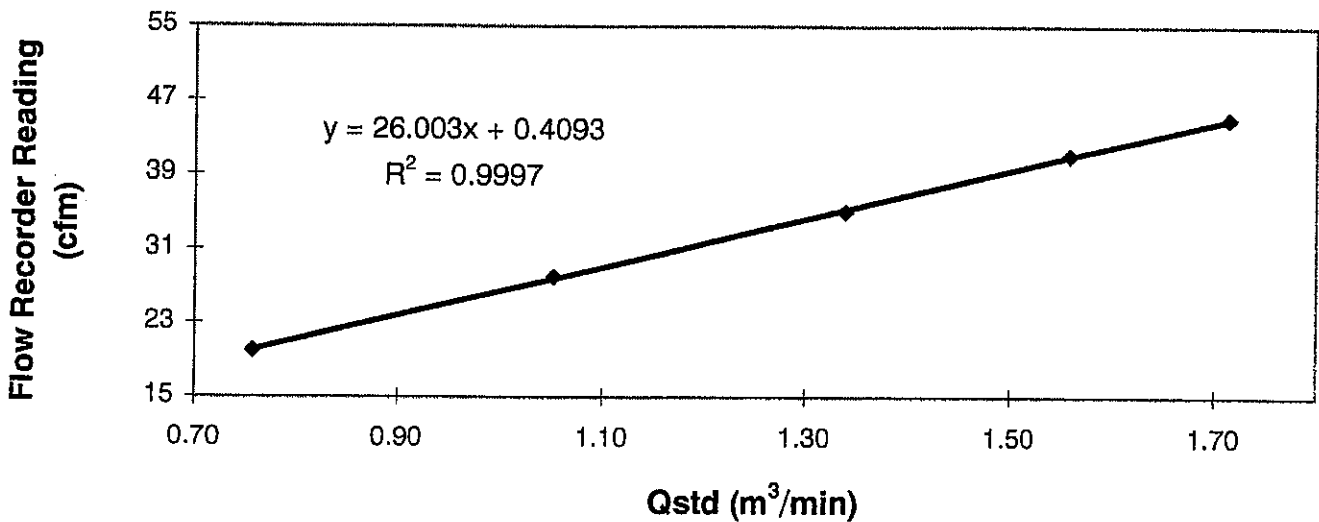
**Calibration Report**  
of  
**High Volume Air Sampler**

**Manufacturer** : Greasby GMW **Date of Calibration** : 18 January 2006  
**Serial No.** : 1176 ( ET / EA / 003 / 05 ) **Calibration Due Date** : 17 March 2006  
**Method** : Based on Operations Manual for in series calibration method by TISCH  
ENVIROMENTAL Model Te-5025A calibration kit

**Results** :

Flow recorder reading (cfm)	45	41	35	28	20
Qstd (Actual flow rate, m <sup>3</sup> /min)	1.71	1.56	1.34	1.05	0.76
Pressure :	760.19 mm Hg		Temp. :	293 K	

**Air Sampler 1176 Calibration Curve**  
**Site: Tseung Kwan O (AA2)**  
**Date of Calibration: 18 January 2006**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies \* / ~~does not comply~~ \* with the specified requirements and is deemed acceptable \* / unacceptable \* for use.

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**TEST REPORT**

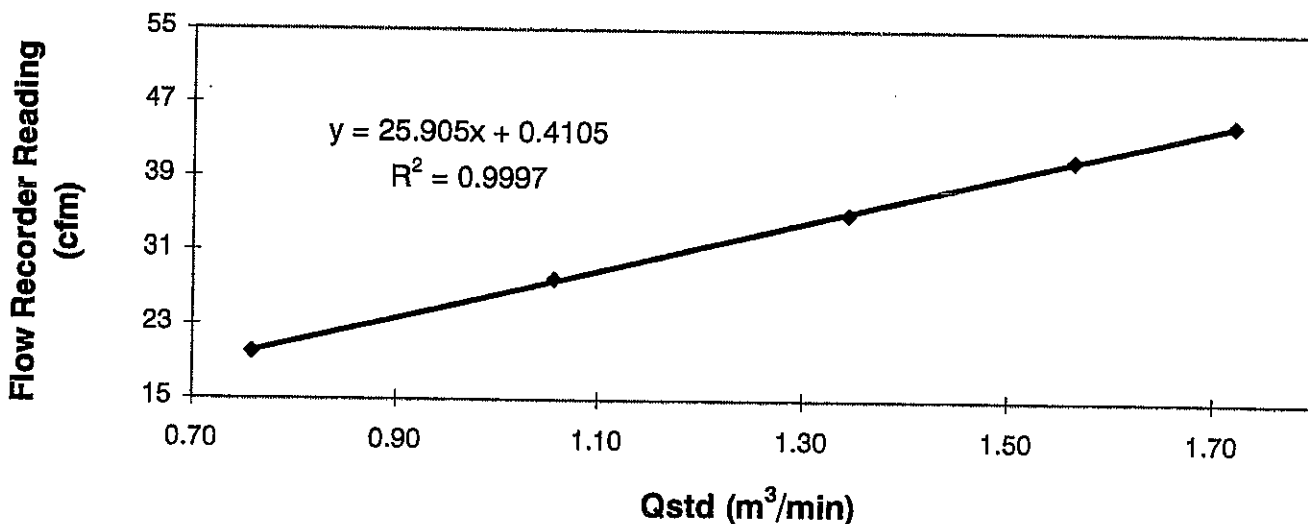
**Calibration Report  
of  
High Volume Air Sampler**

**Manufacturer** : Greasby GMW **Date of Calibration** : 20 March 2006  
**Serial No.** : 1176 ( ET / EA / 003 / 05 ) **Calibration Due Date** : 19 May 2006  
**Method** : Based on Operations Manual for in series calibration method by TISCH  
ENVIROMENTAL Model Te-5025A calibration kit

**Results** :

Flow recorder reading (cfm)	45	41	35	28	20
Qstd (Actual flow rate, m <sup>3</sup> /min)	1.72	1.56	1.34	1.06	0.76
Pressure :	761.46 mm Hg			Temp. : 291.3 K	

**Air Sampler 1176 Calibration Curve  
Site: Tseung Kwan O (AA2)  
Date of Calibration: 20 March 2006**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies \* / ~~does not comply~~ \* with the specified requirements and is deemed acceptable \* / unacceptable \* for use.

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AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Jun 24, 2005 Roots-meter S/N 9833620 Ta (K) - 292  
 Operator Tisch Orifice I.D. - 0873 Pa (mm) - 761.24

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER	ORFICE
					DIFF Hg (mm)	DIFF H2O (in.)
1	NA	NA	1.00	1.4090	3.1	2.00
2	NA	NA	1.00	0.9980	6.2	4.00
3	NA	NA	1.00	0.8930	7.8	5.00
4	NA	NA	1.00	0.8510	8.6	5.50
5	NA	NA	1.00	0.7020	12.5	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
1.0180	0.7225	1.4298	0.9959	0.7068	0.8759
1.0139	1.0159	2.0221	0.9919	0.9938	1.2387
1.0118	1.1330	2.2608	0.9898	1.1084	1.3849
1.0106	1.1876	2.3711	0.9887	1.1618	1.4525
1.0054	1.4322	2.8597	0.9835	1.4010	1.7518
Qstd slope (m) = 2.01640			Qa slope (m) = 1.26264		
intercept (b) = -0.02588			intercept (b) = -0.01585		
coefficient (r) = 0.99998			coefficient (r) = 0.99998		
y axis = SQRT[H2O(Pa/760) (298/Ta)]			y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

Vstd = Diff. Vol [(Pa-Diff. Hg)/760] (298/Ta)  
 Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]  
 Qa = Va/Time

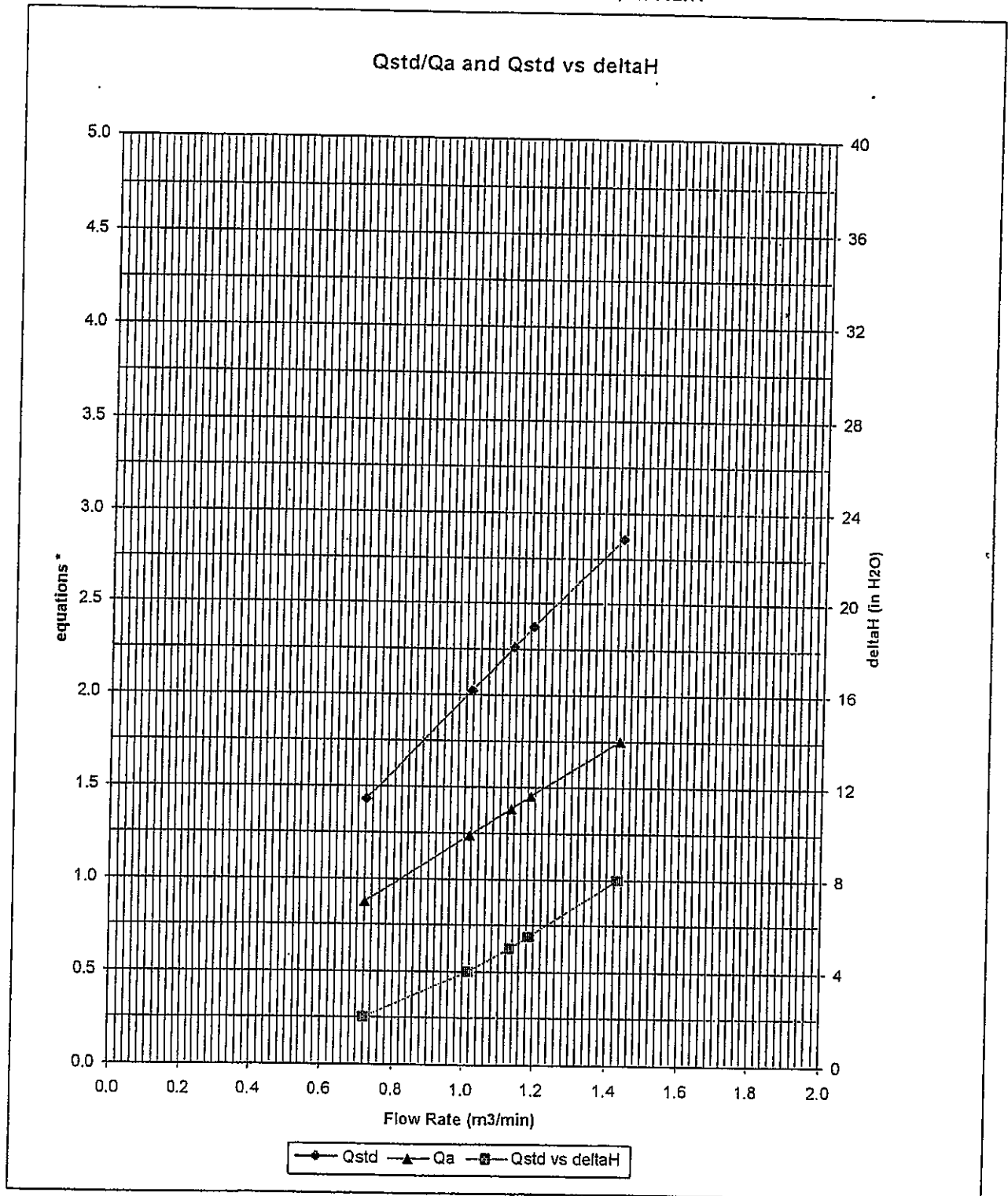
For subsequent flow rate calculations:

Qstd = 1/m { [SQRT(H2O(Pa/760) (298/Ta))] - b }  
 Qa = 1/m { [SQRT H2O(Ta/Pa)] - b }



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AIR POLLUTION MONITORING EQUIPMENT



\* y-axis equations:

Qstd series: 
$$\sqrt{\Delta H \left( \frac{P_a}{P_{std}} \right) \left( \frac{T_{std}}{T_a} \right)}$$

Qa series: 
$$\sqrt{\Delta H (T_a / P_a)}$$

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