

#### **Certificate of Calibration - Wind Monitoring Station**

Description: Yau Lai Estate, Bik Lai House

Manufacturer: <u>Davis Instruments</u>

Model No.: <u>Davis7440</u>

Serial No.: MC01010A44

Equipment No.: <u>SA-03-04</u>

Date of Calibration <u>18-Feb-2024</u>

Next Due Date <u>18-Aug-2024</u>

#### 1. Performance check of Wind Speed

Wind Sp	peed, m/s	Difference D (m/s)		
Wind Speed Reading (V1) Anemometer Value (V2)		D = V1 - V2		
0.0	0.0	0.0		
1.5	1.7	-0.2		
2.5	2.4	0.1		
4.0	3.8	0.2		

#### 2. Performance check of Wind Direction

Wind Di	rection (°)	Difference D (°)		
Wind Direction Reading (W1)	Marine Compass Value (W2)	D = W1 - W2		
0	0	0.0		
90	90	0.0		
180	180	0.0		
270	270	0.0		

#### **Test Specification:**

- 1. Performance Wind Speed Test The wind meter was on-site calibrated against the anemometer
- 2. Performance Wind Direction Test The wind meter was on-site calibrated against the marine compass at four direction

Calibrated by:

Wong Shing Kwai

Approved by:

Henry/Leung



# RECALIBRATION DUE DATE:

January 15, 2025

# Certificate of Calibration

**Calibration Certification Information** 

Cal. Date: January 15, 2024

Rootsmeter S/N: 438320

Ta: 294

°K

Operator: Jim Tisch

**Pa:** 755.4

mm Hg

Calibration Model #: TE-5025A

Calibrator S/N: 3864

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4380	3.3	2.00
2	3	4	1	1.0270	6.4	4.00
3	5	6	1	0.9180	8.0	5.00
4	7	8	1	0.8750	8.9	5.50
5	9	10	1	0.7230	12.9	8.00

	Data Tabulation										
Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right) \left(\frac{Tstd}{Ta}\right)}$		Qa	$\sqrt{\Delta H (Ta/Pa)}$						
(m3)	(x-axis)	(y-axis)	Va	(x-axis)	(y-axis)						
1.0031	0.6975	1.4195	0.9956	0.6924	0.8823						
0.9989	0.9727	2.0075	0.9915	0.9655	1.2477						
0.9968	1.0858	2.2444	0.9894	1.0778	1.3950						
0.9956	1.1378	2.3539	0.9882	1.1294	1.4631						
0.9903	1.3697	2.8390	0.9829	1.3595	1.7645						
	m=	2.11196		m=	1.32248						
<b>QSTD</b>	b=	-0.05043	QA	b=	-0.03134						
~	r=	0.99998	4 .	r=	0.99998						

	Calculatio	ns			
Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)		
Qstd=	Vstd/∆Time	Qa=	<b>Qa=</b> Va/ΔTime		
	For subsequent flow ra	te calculatio	ns:		
Qstd=	$1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$	Qa=	$1/m\left(\left(\sqrt{\Delta H(Ta/Pa)}\right)-b\right)$		

Standard Conditions								
Tstd:	298.15 °K							
Pstd:	760 mm Hg							
	Key							
ΔH: calibrate	ΔH: calibrator manometer reading (in H2O)							
ΔP: rootsme	ter manometer reading (mm Hg)							
	solute temperature (°K)							
Pa: actual ba	rometric pressure (mm Hg)							
b: intercept	b: intercept							
m: slope	m: slope							

#### RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc. 145 South Miami Avenue Village of Cleves, OH 45002

www.tisch-env.com

TOLL FREE: (877)263-7610 FAX: (513)467-9009

# **High-Volume TSP Sampler** 5-POINT CALIBRATION DATA SHEET



						File No. N	MA20003/18/026						
Project No.	CKL 1 - Flat 12	1 Cha Kwo Ling	Village			_							
Date:	4-May-24		4-May-24		4-May-2		4-May-24		Next Due Date:	4-J	Jul-24	Operator:	SK
Equipment No.:	A-0				5170								
1 1			•										
			Ambient	Condition									
Temperatu	re, Ta (K)	297	Pressure, Pa	(mmHg)		757							
		-	101 TO 0 CV										
C - u'-	1 NI.		rifice Transfer Sta	1		. 1	0.05010						
Seria Last Calibr		3864	Slope, mc	0.05976	Intercept $c = [\Delta H \times (Pa/76)]$		-0.05018						
Last Calibr		15-Jan-24 14-Jan-25			с – [ДП x (1 а/76 x (Pa/760) x (298/								
Next Callor	ation Date.	14-Jan-23		Qsta – ([Zii z	(1 a/ 100) A (250)	(14)j bej/m							
		•	Calibration of	f TSP Sampler									
Calibration		Or	fice			HVS							
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	(0) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	ΔW (HVS), in. of water		x (298/Ta)] <sup>1/2</sup> Y-axis						
1	13.8		3.71	62.98	9.3	3	3.05						
2	10.4	:	3.22	54.79	7.2	2	2.68						
3	8.7		2.95	50.18	5.4	2	2.32						
4	6.4		2.53	43.16	3.5	1	1.87						
5	3.8		1.95	33.45	2.0	1	1.41						
By Linear Regi	ression of Y on Y	X											
Slope, mw =	0.0572	_		Intercept, bw :	-0.532	26							
Correlation	coefficient* =	0.	.9962	_									
*If Correlation (	Coefficient < 0.99	90, check and rec	calibrate.										
			Set Point (	Calculation									
From the TSP F	ield Calibration (	Curve, take Qstd	= 43 CFM										
From the Regres	ssion Equation, th	ne "Y" value acco	ording to										
			$\mathbf{Ostd} + \mathbf{bw} = [\Delta \mathbf{W}]$	(D- /7(0) (2	100 /TF - \11/2								
		mw x (	$\mathbf{Jstd} + \mathbf{bw} = \mathbf{L} \mathbf{\Delta W}$	x (Pa//60) x (2	398/Ta)]								
Therefore, S	et Point; W = ( m	nw x Qstd + bw )	<sup>2</sup> x ( 760 / Pa ) x (	Ta / 298 ) =	3.72								
						-							
Remarks:													
				•	1								
Conducted by:	Wong Sh	ning Kwai	Signature:	X	<u> </u>	Date:	4-May-24						
conducted by.	THOIR DI	12,7,41	. Signature.	1	,		1 111uj 21						
Checked by:	Henry	Leung	Signature:	-lem	, Don	Date:	4-May-24						

# **High-Volume TSP Sampler** 5-POINT CALIBRATION DATA SHEET



						File No. N	MA20003/18/027	
Project No.	CKL 1 - Flat 121	l Cha Kwo Ling	Village			_		
Date:	4-Ju	1-24	Next Due Date: 4-Sep-24		Sep-24	Operator: SK		
Equipment No.:	A-01	1-18			5170			
			Ambient	Condition				
Temperatur	re, Ta (K)	303.2	Pressure, Pa	(mmHg)		758.9		
		Oı	rifice Transfer Sta	andard Inform	nation			
Serial	No.	3864	Slope, mc	0.05976	Intercept	t, bc	-0.05018	
Last Calibra		15-Jan-24			$\mathbf{c} = [\Delta \mathbf{H} \times (\mathbf{Pa}/76$			
Next Calibra		14-Jan-25			x (Pa/760) x (298)			
-			Calibration of	TSP Sampler				
Calibration		Or	fice			HVS	1/2	
Point	$\Delta H$ (orifice), in. of water	[ΔH x (Pa/76	0) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	$\Delta$ W (HVS), in. of water		x (298/Ta)] <sup>1/2</sup> Y-	
1	13.6	,	3.65	61.97	9.4		3.04	
2	10.2	ĺ	3.16	53.78	7.3		2.68	
3	8.5		2.89	49.17	5.5		2.32	
4	6.2		2.47	42.12	3.6		1.88	
5	3.6		1.88	32.29	2.0		1.40	
By Linear Regr	ession of Y on X							
Slope, $mw = $		_	]	Intercept, bw :	-0.458	<u> </u>		
Correlation of			9968	-				
If Correlation C	Coefficient < 0.99	0, check and rec	alibrate.					
			Set Point (	Calculation				
From the TSP Fi	eld Calibration C	Curve, take Qstd						
From the Regress	sion Equation, th	e "Y" value acco	ording to					
				(D. 15(0)) (A	200 m > 1/2			
		mw x (	$\mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W}]$	x (Pa//60) x (2	298/Ta)]			
Therefore, Se	et Point; W = ( m	w x Qstd + bw )	<sup>2</sup> x ( 760 / Pa ) x ( ′	Ta / 298 ) =	4.02			
,	, ,	,	, , ,	,				
Remarks:								
CHUIKS.								
•					•			
Canduck 11-	W Ol	:	Q! t	Xr	J	Deter	4 11 24	
Conducted by:	Wong Sh	ıng Kwai	Signature:		<i>)</i>	Date:	4-Jul-24	
Chaolrad h	Hon	Loung	Signature:	10	Nog. 5	Date:	4 Jul 24	
Checked by:	Henry	Leung	Signature:	- Tem	7000	Date:	4-Jul-24	

#### 5-POINT CALIBRATION DATA SHEET



File No. MA20003/55/026 Project No. CKL 2 - Flat 103 Cha Kwo Ling Village 4-May-24 Next Due Date: 4-Jul-24 Operator: SK Date: Model No.: \_\_\_\_\_ TE 5170 Serial No. \_\_\_\_ 1956 Equipment No.: A-01-55 **Ambient Condition** Temperature, Ta (K) 297 Pressure, Pa (mmHg) 757 **Orifice Transfer Standard Information** 0.05976 Intercept, bc -0.05018 3864 Slope, mc Serial No. mc x Qstd + bc =  $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Last Calibration Date: 15-Jan-24 Qstd =  $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ Next Calibration Date: 14-Jan-25 **Calibration of TSP Sampler** Orfice HVS Calibration  $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$  $\Delta H$  (orifice), Ostd (CFM)  $\Delta W$  (HVS), in. Point  $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ in. of water X - axis of water Y-axis 13.8 3.71 62.98 9.7 3.11 1 2.77 11.5 3.39 57.57 7.7 52.67 9.6 3.10 6.0 2.45 4 5.8 2.41 41.13 3.0 1.73 2.0 5 3.7 1.92 33.02 1.41 By Linear Regression of Y on X Slope , mw = 0.0578 Intercept, bw : -0.5654 Correlation coefficient\* = \*If Correlation Coefficient < 0.990, check and recalibrate. **Set Point Calculation** From the TSP Field Calibration Curve, take Qstd = 43 CFM From the Regression Equation, the "Y" value according to mw x Qstd + bw =  $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point;  $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$  3.70 Remarks: Signature: Date: 4-May-24

Signature: Date: 4-May-24 Conducted by: Wong Shing Kwai Checked by: Henry Leung

# High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/55/027 Project No. CKL 2 - Flat 103 Cha Kwo Ling Village 4-Jul-24 Next Due Date: 4-Sep-24 Date: Operator: SK Equipment No.: A-01-55 Model No.: TE 5170 Serial No. 1956 **Ambient Condition** 303.2 Temperature, Ta (K) Pressure, Pa (mmHg) 758.9 **Orifice Transfer Standard Information** 0.05976 Intercept, bc 3864 Slope, mc Serial No. -0.05018  $mc \times Ostd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Last Calibration Date: 15-Jan-24 Qstd =  $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ 14-Jan-25 Next Calibration Date: **Calibration of TSP Sampler** Orfice Calibration  $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$  $\Delta H$  (orifice), Ostd (CFM)  $\Delta W$  (HVS), in.  $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Point in. of water X - axis of water Y-axis 1 13.5 3.64 61.75 9.5 3.05 2.71 2 11.3 3.33 56.57 7.5 3.04 51.67 2.41 4 5.5 2.32 39.72 3.1 1.74 32.29 2.1 1.44 5 3.6 1.88 By Linear Regression of Y on X Slope , mw = 0.0551 Intercept, bw : -0.3959 Correlation coefficient\* = 0.9974 \*If Correlation Coefficient < 0.990, check and recalibrate. **Set Point Calculation** From the TSP Field Calibration Curve, take Qstd = 43 CFM From the Regression Equation, the "Y" value according to mw x Qstd + bw =  $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point;  $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) = 3.97$ Remarks: Conducted by: Wong Shing Kwai Checked by: Henry Leung

### 5-POINT CALIBRATION DATA SHEET



File No. MA20003/44/0023

Project No.	KTD1 - Centre of Excellence in Paediatrics (Children's Hospital)						
Date:	10-M	ay-24	Next Due Date:	10-	-Jul-24	Operator:	SK
Equipment No.:	A-0	1-44	Model No.:	TE	E-5170	Serial No.	1316
			Ambient C	ondition			
Temperatur	re, Ta (K)	298.3	Pressure, Pa			761.4	
•	, , , , , ,		,	·			
		Or	ifice Transfer Sta	ndard Informa	ation		
Serial	No.	3864	Slope, mc	0.05976	Intercept		-0.05018
Last Calibra	ation Date:	15-Jan-24			$c = [\Delta H \times (Pa/760)]$		
Next Calibra	ation Date:	14-Jan-25		$\mathbf{Qstd} = \{ [\Delta \mathbf{H} \ \mathbf{x} ] \}$	(Pa/760) x (298/	Γa)] <sup>1/2</sup> -bc} / m	c
			Calibration of	TSP Sampler			
Calibration		Or	fice	1		HVS	
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	(50) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	ΔW (HVS), in. of water		50) x (298/Ta)] <sup>1/2</sup> - <b>axis</b>
1	13.7		3.70	62.80	9.6		3.10
2	11.4		3.38	57.36	7.4		2.72
3	9.2		3.03	51.62	5.6		2.37
4	6.5		2.55	43.52	3.8		1.95
5	3.9		1.98	33.90	2.2		1.48
By Linear Regr Slope , mw =	ession of Y on X	_	]	Intercept, bw :	-0.433	36	
<b>Correlation</b>	coefficient* =	0	.9972	<u>-</u>			
*If Correlation C	Coefficient < 0.99	0, check and rec	alibrate.				
			Set Point Ca	alculation			
From the TSP Fi	eld Calibration C	Curve, take Qstd					
From the Regres	sion Equation, th	e "Y" value acco	ording to				
					1/2		
		mw x Q	$\mathbf{pstd} + \mathbf{bw} = [\Delta \mathbf{W} \ \mathbf{x}]$	(Pa/760) x (29	98/Ta)]" <sup>2</sup>		
Therefore, Se	et Point; W = ( m	w x Qstd + bw)	<sup>2</sup> x ( 760 / Pa ) x ( 7	Γa / 298 ) =	3.78		
Remarks:							
				- 10			
Conducted by:	Wong Sh	ing Kwai	Signature:	χ'	<u> </u>	Date:	10-May-24
·				1			•
Checked by:	Henry	Leung	Signature:	1-0	X1927	Date:	10-May-24

### 5-POINT CALIBRATION DATA SHEET



File No. MA20003/44/0024

Project No.	KTD1 - Centre	of Excellence in	Paediatrics (Childr	en's Hospital)			
Date:	10-J	ul-24	Next Due Date:	10-	Sep-24	ep-24 Operator:	
Equipment No.:	A-0	01-44		TE		Serial No.	1316
			Ambient C	ondition			
Temperatu	re, Ta (K)	303.6	Pressure, Pa			756.5	
•	•						
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	l No.	3864	Slope, mc	0.05976	Intercept		-0.05018
Last Calibra	ation Date:	15-Jan-24			$c = [\Delta H \times (Pa/760)]$		
Next Calibra	ation Date:	14-Jan-25	(	$Qstd = \{ [\Delta H \ x ] \}$	(Pa/760) x (298/7	Γa)] <sup>1/2</sup> -bc} / m	c
	<u> </u>		Calibration of 7	TSP Sampler		****	
Calibration	ΔH (orifice),		fice	Octd (CEM)	AW (IIVC) :	HVS	50) x (298/Ta)] <sup>1/2</sup>
Point	in. of water	[ΔH x (Pa/76	50) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	$\Delta$ W (HVS), in. of water		50) x (298/1a)] ' <b>-axis</b>
1	13.8		3.67	62.28	9.7		3.08
2	11.2		3.31	56.19	7.5		2.71
3	9.1		2.98	50.74	5.7		2.36
4	6.4		2.50	42.68	3.9		1.95
5	3.8		1.93	33.08	2.2		1.47
Slope , mw =	coefficient* =	<u> </u>	. <b>9986</b>	Intercept, bw :	-0.381	.9	
*If Correlation C	Coefficient < 0.99	90, check and rec	calibrate.	•			
			Set Point Ca	alculation			
		Curve, take Qstd		· (P9/76M) v (20	98/T2)1 <sup>1/2</sup>		
Therefore, Se	et Point; W = ( m		<sup>2</sup> x (760 / Pa) x (7		4.02		
Remarks:							
Conducted by:	Wong Sł	ning Kwai	Signature:	<u> </u>	<u></u>	Date:	10-Jul-24
			8				
Checked by:	Henry	Leung	Signature:	\-P=	- Kon	Date:	10-Jul-24

# **High-Volume TSP Sampler** 5-POINT CALIBRATION DATA SHEET



File No. MA20003/41/0024

Project No.	KTD 2D - Next	to the SOR Offic	ce of Trunk Road T	Γ2 in Kai Tak A	rea		
Date:	10-M	ay-24	Next Due Date:	10-	-Jul-24	Operator:	SK
Equipment No.:	A-0				E 5170	Serial No.	5280
			Ambient C	Condition			
Temperatur	re, Ta (K)	298.3	Pressure, Pa	(mmHg)		761.4	
		0	101 T 0 C1				
Serial	No	3864	Slope, mc	0.05976	Intercept	t he	-0.05018
Last Calibra		15-Jan-24	_		$c = [\Delta H \times (Pa/760]]$		
Next Calibra		14-Jan-25			(Pa/760) x (298/7		
Tion cunor				<u></u>	( , (	,1	-
			Calibration of	TSP Sampler			
Calibration		Or	fice			HVS	
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	(60) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	ΔW (HVS), in. of water		50) x (298/Ta)] <sup>1/2</sup> -axis
1	14.2	:	3.77	63.92	9.5		3.08
2	11.7	:	3.42	58.10	8.5		2.92
3	9.7		3.12	52.98	6.3		2.51
4	7.2		2.68	45.76	4.4		2.10
5	4.0		2.00	34.32	2.1		1.45
Slope , mw =	cession of Y on X 0.0572 coefficient* =	_	.9958	Intercept, bw =	-0.506	58	
*If Correlation C	Coefficient < 0.99	0, check and rec	alibrate.				
			Set Point C	alculation			
From the TSP Fi	eld Calibration C	Curve, take Qstd	= 43 CFM				
From the Regres	sion Equation, th	e "Y" value acco	ording to				
		mw x Q	$\mathbf{pstd} + \mathbf{bw} = [\Delta \mathbf{W}] \mathbf{x}$	x (Pa/760) x (29	98/Ta)] <sup>1/2</sup>		
Therefore Se	et Point: W – ( m	w v Octd + hw )	<sup>2</sup> x ( 760 / Pa ) x ( '	Ta / 208 ) —	3.81		
Therefore, Se	λ 1 Omt, w = ( m	w x Qsta + 0w )	X ( 700 / 1 a ) X (	1a / 290 ) =	3.01		
Remarks:							
Conducted by:	Wong Sh	ing Kwai	Signature:		<u></u>	Date:	10-May-24
Checked by:	Henry	Leung	Signature:	\-len	J Koz	Date:	10-May-24
					√ '		

# High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/41/0025 KTD 2D - Next to the SOR Office of Trunk Road T2 in Kai Tak Area Project No. 10-Jul-24 Next Due Date: 10-Sep-24 Operator: SK Date: Equipment No.: \_\_\_\_\_ A-01-41 Model No.: TE 5170 Serial No. 5280 **Ambient Condition** Temperature, Ta (K) 303.6 Pressure, Pa (mmHg) 756.5 **Orifice Transfer Standard Information** 0.05976 Intercept, bc 3864 Slope, mc Serial No. -0.05018  $mc \times Ostd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Last Calibration Date: 15-Jan-24 Qstd =  $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ 14-Jan-25 Next Calibration Date: **Calibration of TSP Sampler** Orfice Calibration  $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$  $\Delta H$  (orifice), Ostd (CFM)  $\Delta W$  (HVS), in.  $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Point in. of water X - axis of water Y-axis 62.73 1 14.0 3.70 9.6 3.06 8.4 2.86 2 11.5 3.35 56.93 9.5 3.05 51.82 6.4 2.50 2.62 4 7.0 44.60 4.5 2.10 2.2 1.47 5 3.8 1.93 33.08 By Linear Regression of Y on X Slope , mw = 0.0554 Intercept, bw :\_\_\_\_ -0.3617 Correlation coefficient\* = 0.9975 \*If Correlation Coefficient < 0.990, check and recalibrate. **Set Point Calculation** From the TSP Field Calibration Curve, take Qstd = 43 CFM From the Regression Equation, the "Y" value according to mw x Qstd + bw =  $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point;  $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$  4.18 Remarks: Conducted by: Wong Shing Kwai

Checked by: Henry Leung

### 5-POINT CALIBRATION DATA SHEET

File No. MA20003/04/0024

Project No.	KER 1 - Future						
Date:	10-M	1ay-24	Next Due Date:	10-Jul-24		Operator:	SK
		)1-04	-		E 5170		10595
1. I		<u> </u>					
			Ambient C	ondition			
Temperatu	re, Ta (K)	298.3	Pressure, Pa	(mmHg)		761.4	
	1		ifice Transfer Star		ation	T	
Serial		3864	Slope, mc	0.05976	Intercept		-0.05018
Last Calibra		15-Jan-24			$c = [\Delta H \times (Pa/760)]$		
Next Calibra	ation Date:	14-Jan-25		$Qstd = \{ [\Delta H \ x] \}$	(Pa/760) x (298/7	ra)] - bc} / n	ac
			Calibration of T	FSP Sampler			
G 111		Or	fice	191 Sampler		HVS	
Calibration Point	ΔH (orifice), in. of water		50) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	ΔW (HVS), in. of water	[ΔW x (Pa/7	760) x (298/Ta)] <sup>1/2</sup> <b>Y-axis</b>
1	13.5		3.68	62.35	9.1		3.02
2	10.8		3.29	55.85	7.2		2.68
3	8.7		2.95	50.22	5.4		2.32
4	5.6		2.37	40.46	3.5		1.87
5	3.8		1.95	33.47	2.2		1.48
By Linear Regr		X	•	Intercent how	0.202	5 <b>4</b>	
Slope, mw =		_	.9991	intercept, bw :	-0.286	94	
		90, check and rec					
		, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,					
			Set Point Ca	alculation			
		Curve, take Qstd he "Y" value acco  mw x Q		(Pa/760) x (29	98/Ta)] <sup>1/2</sup>		
Therefore, Se	et Point; W = ( n	nw x Qstd + bw)	<sup>2</sup> x ( 760 / Pa ) x ( 7	Γa / 298 ) =	3.95		
Remarks:							
Conducted by:	Wong Si	hing Kwai	Signature:	<i>\</i> ?	<u>J.</u>	Date:	10-May-24
Checked by:	Henry	Leung	Signature:	\-lem	y Olon	Date:	10-May-24

### 5-POINT CALIBRATION DATA SHEET



File No. MA20003/04/0025

Project No.	KER 1 - Future Residential Development at Kerry Godown							
Date:	10-Jul-24		Next Due Date:	10-	Sep-24	Operator:	SK	
Equipment No.:	oment No.: A-01-				TE 5170		10595	
			Ambient C	ondition				
Temperature, Ta (K)		303.6 Pressure, Pa				756.5		
•	•							
		Or	ifice Transfer Star	ndard Informa	ation			
Serial No.		3864	Slope, mc			-0.05018		
Last Calibration Date:		15-Jan-24	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$					
Next Calibration Date:		14-Jan-25	Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$					
	1		Calibration of	TSP Sampler				
Calibration Point			fice	Ī			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)] <sup>1/2</sup>		Qstd (CFM) X - axis	ΔW (HVS), in. of water	[\( \Delta \text{W x (Pa/760) x (298/Ta)} \) \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
1	13.4		3.62	61.39	9.0	2.97		
2	10.6		3.22	54.69	7.1	2.63		
3	8.6	:	2.90	49.35	5.3	2.28		
4	5.5		2.32		3.4	1.82		
5	3.7		1.90	32.66	2.1	1.43		
Slope , mw =		<u> </u>		Intercept, bw :	-0.306	56		
	coefficient* = Coefficient < 0.99	90, check and rec	alibrate.	•				
			Set Point Ca	alculation				
		Curve, take Qstd ne "Y" value acco	= 43 CFM					
		mw x Q	$\mathbf{Qstd} + \mathbf{bw} = [\mathbf{\Delta W} \ \mathbf{x}]$	(Pa/760) x (29	<b>98/Ta</b> )] <sup>1/2</sup>			
Therefore, Se	et Point; W = ( m	nw x Qstd + bw)	$^{2}$ x ( 760 / Pa ) x ( $^{7}$	Γa / 298 ) =	4.03			
Remarks:								
				,	t			
Conducted by:	Wong Sh	ning Kwai	Signature:	<i>X</i> D\		Date:	10-Jul-24	
Checked by:	Henry	Leung	Signature:	\-Pa.	2 X27	Date:	10-Jul-24	