

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>17-Feb-2025</u>

Next Due Date <u>17-Aug-2025</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	1.4	0.1
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 7, 2026

Certificate of Calibration

Calibration Certification Information

Cal. Date: January 7, 2025 Rootsmeter S/N: 438320 Ta: 293 °K

Operator: Jim Tisch Pa: 759.0 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	1.4590	3.2	2.00
2	3	4	1	1.0360	6.4	4.00
3	5	6	1	0.9160	8.0	5.00
4	7	8	1	0.8800	8.8	5.50
5	9	10	1	0.7270	12.7	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)					
1.0114	0.6932	1.4252	0.9958	0.6825	0.8787					
1.0071	0.9721	2.0156	0.9916	0.9571	1.2427					
1.0050	1.0971	2.2535	0.9895	1.0802	1.3893					
1.0039	1.1408	2.3635	0.9884	1.1232	1.4572					
0.9987	1.3737	2.8505	0.9833	1.3525	1.7574					
	m=	2.08969		m=	1.30853					
QSTD	b=	-0.02374	QA	b=	-0.01464					
	r=	0.99985	,	r=	0.99985					

	Calculations							
	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	Va=	ΔVol((Pa-ΔP)/Pa)					
Qstd=	Vstd/∆Time	Qa= Va/ΔTime						
	For subsequent flow rate calculations:							
Qstd=	$1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$	Qa=	$1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$					

Standard Conditions						
Tstd:	298.15 °K					
Pstd:	760 mm Hg					
	Key					
	ΔH: calibrator manometer reading (in H2O)					
	ter manometer reading (mm Hg)					
	solute temperature (°K)					
	arometric pressure (mm Hg)					
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

FAX: (513)467-9009

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA16034/05/0052

Project No.	AM1 - Tin Hau	Temple					
Date:	14-Feb-25		Next Due Date:	14-	Apr-25	Operator:	SK
Equipment No.:	A-0	01-05	Model No.:	G	S2310	Serial No.	10599
			Ambient C	andition			
Temperatu	ra Ta (K)	291.2	Pressure, Pa			763.4	
Temperatu	ie, ia (K)	291.2	Tiessure, Ta	(IIIIII Ig)		703.4	
		Or	ifice Transfer Star	ndard Informa	ation		
Serial	l No.	3864	Slope, mc	0.05914	Intercept	t, bc	-0.02377
Last Calibra	ation Date:	7-Jan-25	r	nc x Qstd + bo	$c = [\Delta H \times (Pa/760]]$	$(298/Ta)^{1/2}$	2
Next Calibr	ation Date:	7-Jan-26		$Qstd = \{ [\Delta H \ x] \}$	(Pa/760) x (298/7	Γa)] ^{1/2} -bc} / me	c
	I		Calibration of	ΓSP Sampler			
Calibration	ATT ('C')		rfice	0.1.075	ATT (TTTC: -	HVS	(200 T : 1/2
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	50) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water		50) x (298/Ta)] ^{1/2} -axis
1	13.1		3.67	62.45	8.6	4	2.97
2	10.2		3.24	55.15	6.4		2.56
3	7.1		2.70	46.08	4.2		2.08
4	5.1		2.29	39.12	2.7	-	1.67
5	2.9		1.73	29.60	1.4	1.20	
By Linear Regr	ression of Y on Y	X.					
Slope, $mw =$	0.0543	_	1	Intercept, bw	-0.428	9	
Correlation	coefficient* =	0	.9996	i			
*If Correlation C	Coefficient < 0.99	90, check and rec	calibrate.				
			Set Point Ca	alculation			
From the TSP Fi	eld Calibration (Curve, take Qstd	= 43 CFM				
From the Regres	sion Equation, th	ne "Y" value acco	ording to				
				~ = co> (=	2017 23/2		
		mw x ($\mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \ \mathbf{x}]$	(Pa/760) x (29	98/Ta)] ^{1/2}		
Therefore, Se	et Point; W = (m	nw x Qstd + bw)	² x (760 / Pa) x (7	Γa / 298) =	3.54		
Remarks:							
				<u></u>			
Conducted by:	Wong Sh	ning Kwai	Signature:	λ',	<u> </u>	Date:	14-Feb-25
		<i>G</i> 		1			
Checked by:	Henry	Leung	Signature:	\-lem	y Xvy	Date:	14-Feb-25

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET



File No. MA16034/08/0052

Project No.	AM2 - Sai Tso V	Van Recreation	Ground				
Date:	14-Feb-25 Next Due Date: 14-Apr-25		Operator:	SK			
Equipment No.:	A-01	1-08	Model No.:	GS	52310	Serial No.	1287
			Ambient C	Condition			
Temperatur	re, Ta (K)	291.2	Pressure, Pa			763.4	
Serial	No	3864	Slope, mc	0.05914	Intercept	t he	-0.02377
Last Calibra		7-Jan-25			$c = [\Delta H \times (Pa/760]]$		
Next Calibra		7-Jan-26			$(Pa/760) \times (298/7)$		
			<u>I</u>			,,	
			Calibration of	TSP Sampler			
Calibration		Oı	fice			HVS	
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	60) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water		0) x (298/Ta)] ^{1/2} -axis
1	13.4		3.71	63.16	8.4		2.94
2	10.2		3.24	55.15	6.2	2	2.52
3	7.6		2.80	47.66	4.1	2	2.05
4	5.3		2.33	39.87	2.6	1	1.63
5	3.2		1.82	31.12	1.4	1	1.20
Slope, mw = Correlation of *If Correlation C	coefficient* =		.9993	-	-0.535		
			Set Point C	alculation			
	eld Calibration C						
rom the regress	non Equation, un		-		419		
		mw x ($\mathbf{pstd} + \mathbf{bw} = [\Delta \mathbf{W} \ \mathbf{x}]$	x (Pa/760) x (29	$[98/Ta)]^{1/2}$		
Therefore, Se	et Point; W = (my	w x Qstd + bw)	² x (760 / Pa) x (′	Γa / 298) =	3.25		
Remarks:							
•				1 -	1		
Conducted by:	Wong Shi	ing Kwai	Signature:		<u> </u>	Date:	14-Feb-25
Checked by:	Henry	Leung	Signature:	\-lem	J Xong	Date:	14-Feb-25

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA16034/03/0052

Project No.	AM3 - Yau Lai	Estate, Bik Lai I	House			_	
Date:	14-F	14-Feb-25 Next Due Date: 14-Apr-25		Apr-25	Operator:	SK	
Equipment No.:	A-0	1-03	_		S2310	<u></u>	10379
			Ambient C	ondition			
Temperatur	re Ta (K)	291.2	Pressure, Pa			763.4	
Temperatur	ic, ia (ix)	2)1.2	Tressure, ra	(IIIIII Ig)		703.4	
		Or	ifice Transfer Star	ndard Informa	ntion		
Serial	No.	3864	Slope, mc	0.05914	Intercept	t, bc	-0.02377
Last Calibra	ation Date:	7-Jan-25	1	mc x Qstd + bo	$c = [\Delta H \times (Pa/760]]$	$(298/Ta)]^{1/2}$	2
Next Calibra	ation Date:	7-Jan-26			(Pa/760) x (298/		
			Calibration of	TSP Sampler			
Calibration		Oı	fice	I		HVS	1/2
Point	ΔH (orifice), in. of water	[ΔH x (Pa/76	50) x (298/Ta)] ^{1/2}	Qstd (CFM) X - axis	ΔW (HVS), in. of water		50) x (298/Ta)] ^{1/2} -axis
1	13.0		3.66	62.21	8.1	2	2.89
2	10.1		3.22	54.88	6.1	2	2.50
3	7.5		2.78	47.35	4.3	2	2.10
4	5.1		2.29	39.12	2.6		1.63
5	3.0		1.76	30.10	1.5	-	1.24
By Linear Regr Slope, mw = Correlation of *If Correlation C	0.0519 coefficient* =		.9991	Intercept, bw :	-0.351		
			Set Point Ca	alculation			
From the TSP Fi		ne "Y" value acc	= 43 CFM		98/Ta)] ^{1/2}		
Therefore, Se	et Point; W = (m	nw x Qstd + bw)	² x (760 / Pa) x (7	Γa / 298) =	3.44		
Remarks:							
Conducted by:	Wong Sł	ning Kwai	Signature:	K	<u></u>	Date:	14-Feb-25
Checked by:	Henry	Leung	Signature:	\-lem	1 (Xo)	Date:	14-Feb-25

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/55/030 Project No. CKL 2 - Flat 103 Cha Kwo Ling Village 4-Jan-25 Next Due Date: 6-Mar-25 Operator: SK Date: Equipment No.: A-01-55 Model No.: TE 5170 Serial No. 1956 **Ambient Condition** 292.7 Temperature, Ta (K) Pressure, Pa (mmHg) 765.4 **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 $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ ΔH (orifice), Ostd (CFM) ΔW (HVS), in. $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Point in. of water X - axis of water Y-axis 3.07 1 13.6 3.73 63.33 9.2 11.2 2.74 2 3.39 57.55 7.3 3.04 51.67 5.7 2.42 4 5.3 2.33 39.85 2.6 1.63 3.6 32.99 1.8 5 1.92 1.36 By Linear Regression of Y on X Slope , mw = 0.0581 Intercept, bw : -0.6068 Correlation coefficient* = 0.9980 *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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 3.49 Remarks: Conducted by: Wong Shing Kwai Checked by: Henry Leung

High-Volume TSP Sampler 5-POINT CALIBRATION DATA SHEET



File No. MA20003/55/031 Project No. CKL 2 - Flat 103 Cha Kwo Ling Village 6-Mar-25 Next Due Date: 6-May-25 Date: Operator: SK Equipment No.: A-01-55 Model No.: TE 5170 Serial No. 1956 **Ambient Condition** Temperature, Ta (K) 287.5 Pressure, Pa (mmHg) 764.8 **Orifice Transfer Standard Information** 0.05914 Intercept, bc 3864 Slope, mc -0.02377 Serial No. $mc \times Ostd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ 7-Jan-25 Last Calibration Date: Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ 7-Jan-26 Next Calibration Date: **Calibration of TSP Sampler** Orfice Calibration $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ ΔH (orifice), Ostd (CFM) ΔW (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 3.75 63.85 9.1 3.08 7.2 2.74 2 11.0 3.39 57.68 9.1 3.08 52.50 5.6 2.42 4 5.1 2.31 39.40 2.6 1.65 1.9 5 3.8 1.99 34.07 1.41 By Linear Regression of Y on X Slope , mw = 0.0571 Intercept, bw : -0.5684 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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) = 3.42$ Remarks: Conducted by: Wong Shing Kwai Checked by: Henry Leung



Certificate of Calibration

Tt is	certified that t	the item und	ler calibration b	nas heen	calibrated by	corresponding	calibrated High	Volume Sample
11 15	сеннестна г	ше пеш ша	ег санытанон г	Ias Deen	Cambrated by	COHESDOHUIII9	Cambrated migh	. voiime Jannoie

Description:	Laser Dust Mo	nitor		Date of	of Calibration	30-Jan-25
Manufacturer:	Sibata Scientifi	ic Technology LTD.		Validity of Calibra	ation Record	1-Apr-25
Model No.:	LD-3B					
Serial No.:	2Y6194	_				
Equipment No.:	SA-01-02		Sensitivity	0.001 mg/m3		
High Volume Sa	mpler No.:	A-01-03	Before Sensi	tivity Adjustment	578	
Tisch Calibration	n Orifice No.:	3864	After Sensiti	vity Adjustment	578	
	•		641 m	GD.		
		Laser Dust Monitor	ation of 1 hr T	SP	HVS	
Calibration		Count / Minute	<u>.</u>	Mass	s concentration (µ	(g/m^3)
Point	Total Count	X-axis	•	IVI dist	Y-axis	(g/ III)
1	4000	74.0			143.0	
2	3600	64.0			121.0	
3	3000	54.0			101.0	
Aver	age	64.0			121.7	
By Linear Regr Slope , mw =			Inter	ccept, bw =	-12.7333	3
Correla	ation coefficien	t* = 0.99	996			
Set Correlation I SCF = [K=Higl		pler / Dust Meter, (μ g/m3)]	1	1.9		
The Dust Monito (CF) between the	or was compared e Dust Monitor a	the instruction manual: d with a calibrated High Volument High Volume Sampler. ed by HOKLAS laboratory	•		d to generate the	Correlation Factor
Calibrated by:	cal Officer (Wor	ng Shing Kwai)		Approved by:	Project Manager	(Henry Leung)



Certificate of Calibration

Description:	n: Digital Dust Indicator			Date of Calibration 30-Jan-25				
Manufacturer:	Sibata Scienti	fic Technology LTD.	<u>_</u>	Validity of Calibra	ation Record	1-Apr-25		
Model No.:	LD-5R							
Serial No.:	8Y2374							
Equipment No.:	SA-01-04		Sensitivity	0.001 mg/m3				
High Volume Sa	mpler No.:	A-01-03	Before Sensiti	vity Adjustment	652			
Tisch Calibration	orifice No.:	3864	After Sensitivi	ty Adjustment	652			
		Cal	libration of 1 h	r TSP				
Calibration		Laser Dust Monitor			HVS			
Point	M	ass Concentration (μg/1 X-axis	m3)	Mass	concentration (µ Y-axis	g/m ³)		
1		75.0			136.0			
2		63.0			118.0			
3		53.0			101.0			
Average		63.7			118.3			
By Linear Regr Slope , mw = Correlation co	1.58			eept, bw =	17.2363			
		Set	t Correlation F	actor				
Particaulate Con	centration by I	High Volume Sampler ($(\mu g/m^3)$		118.3			
Particaulate Con-	centration by I	Oust Meter (μg/m ³)		63.7				
Measureing time					60.0			
Set Correlation F SCF = [K=HigI		npler / Dust Meter, (με	g/m3)]	1.9				
In-house method in according to the instruction manual: The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler. Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)								
Calibrated by: Technica		ng Shing Kwai)	_	Approved by: _ Project	Manager (Henry	/		



Certificate of Calibration

Description:	Digital Dust Indicator		Date of Calibration 30-Jan		30-Jan-25	
Manufacturer:	Sibata Scienti	fic Technology LTD.	<u>_</u>	Validity of Calibra	tion Record	1-Apr-25
Model No.:	LD-5R					
Serial No.:	8Y2373					
Equipment No.:	SA-01-05		Sensitivity	0.001 mg/m3		
High Volume Sa	mpler No.:	A-01-03	Before Sensiti	vity Adjustment	657	
Tisch Calibration	orifice No.:	3864	After Sensitiv	ity Adjustment _	657	
		Cal	libration of 1 h	r TSP		
Calibration		Laser Dust Monitor			HVS	
Point	Mass Concentration (μg/m3)			Mass	concentration (µ	g/m^3)
1		76.0			Y-axis 132.0	
2		64.0			116.0	
3		55.0			102.0	
Average		65.0			116.7	
Slope , mw = Correlation co	1.423 pefficient* =	0.9990			24.1441	
			t Correlation F	actor		
	•	High Volume Sampler ([μg/m³)	116.7 65.0		
Measureing time		Oust Meter (μg/m ³)		60.0		
Set Correlation F					00.0	
		npler / Dust Meter, (μ	g/m3)]	1.8		
In-house method	in according t	o the instruction manua	ո1։			
Factor (CF) betw	een the Dust N	ed with a calibrated Hig Monitor and High Volu ted by HOKLAS labo	me Sampler.		vas used to gener	ate the Correlation
Calibrated by:		ng Shing Kwai)	_	Approved by: _ Project	Manager (Henry	, ,



Certificate of Calibration

Description:	Digital Dust I	ndicator		Date	of Calibration	30-Jan-25
Manufacturer:	Sibata Scienti	fic Technology LTD.	<u>-</u>	Validity of Calibr	ation Record	1-Apr-25
Model No.:	LD-5R					
Serial No.:	972777					
Equipment No.:	SA-01-06		Sensitivity	0.001 mg/m3		
High Volume Sa	mpler No.:	A-01-03	Before Sensiti	vity Adjustment	645	
Tisch Calibration	n Orifice No.:	3864	After Sensitivi	ty Adjustment	645	
		Cal	libration of 1 h	r TSP		
Calibration	Calibration Laser Dust Monitor				HVS	
Point	М	ass Concentration (μg/1 X-axis	m3)	Mas	s concentration (µ Y-axis	g/m ³)
1		75.0			133.0	
2		63.0			117.0	
3		52.0			101.0	
Average		63.3			117.0	
	ession of Y on	• • •				
Slope , mw = Correlation co	1.39		Intere	cept, bw =	28.9395	
Slope, mw =	1.39	0.9997	Interent of the control of the contr		28.9395	_
Slope , mw = Correlation co	1.390 pefficient* =	0.9997	t Correlation F		28.9395 117.0	
Slope , mw = Correlation co	1.390 pefficient* =	0.9997 Set	t Correlation F			
Slope , mw = Correlation co Particaulate Con Particaulate Con Measureing time	centration by I centration centr	0.9997 Set High Volume Sampler (t Correlation F		117.0	
Slope , mw = Correlation co Particaulate Con Particaulate Con Measureing time Set Correlation F	centration by I centration by	0.9997 Set High Volume Sampler (t Correlation F μg/m³)		117.0 63.3	
Slope , mw = Correlation co Particaulate Con Particaulate Con Measureing time Set Correlation F SCF = [K=High	centration by I centration by I (min) Factor, SCF	0.9997 Set High Volume Sampler (Dust Meter (μg/m³)	t Correlation F μg/m³) g/m3)]	actor	117.0 63.3	
Slope , mw = Correlation co Particaulate Con Particaulate Con Measureing time Set Correlation F SCF = [K=High In-house method The Dust Monito Factor (CF) betw	centration by I centration by	0.9997 Set High Volume Sampler (Dust Meter (μg/m³) npler / Dust Meter, (μg	t Correlation F μg/m³) g/m3)] ul: gh Volume Samme Sampler.	1.8 oler and The result	117.0 63.3 60.0	
Slope , mw = Correlation co Particaulate Con Particaulate Con Measureing time Set Correlation F SCF = [K=High In-house method The Dust Monito Factor (CF) betw	centration by I centration by	Dust Meter (μg/m³) npler / Dust Meter, (μg o the instruction manual and with a calibrated High Monitor and High Volume	t Correlation F μg/m³) g/m3)] ul: gh Volume Samme Sampler.	1.8 oler and The result	117.0 63.3 60.0	

Digital Dust Indicator



Date of Calibration 30-Jan-25

Certificate of Calibration

Description:

Manufacturer:	Sibata Scient	ific Technology LTD.	_	Validity of Calibr	ation Record	1-Apr-25
Model No.:	LD-5R					
Serial No.:	972778					
Equipment No.:	SA-01-07		Sensitivity	0.001 mg/m3	_	
High Volume Sa	mpler No.:	A-01-03	Before Sensitiv	vity Adjustment	735 CPM	
Tisch Calibration	orifice No.:	3864	After Sensitivi	ty Adjustment	735 CPM	
		Cal	libration of 1 h	r TSP		
Calibration		Laser Dust Monitor			HVS	
Point	M	Iass Concentration (μg/1	m3)	Mas	ss concentration ($\mu g/m^3$)
		X-axis			Y-axis	
1		77.0			141.0	
3		67.0 56.0			120.0 100.0	
Average		66.7			120.3	
Slope , mw = Correlation co	1.95 pefficient* =	0.9991	Interc	ept, bw =	-9.6767	<u>'</u>
		Set	t Correlation F	actor		
Particaulate Con	centration by I	High Volume Sampler ($\mu g/m^3$)		120.3	
Particaulate Con	centration by I	Oust Meter (μg/m ³)		66.7		
Measureing time	, (min)				60.0	
Set Correlation Factor , SCF SCF = [K=High Volume Sampler / Dust Meter, (μg/m3)]				1.8		
In-house method	in according t	to the instruction manua	վ:			
Factor (CF) betw	een the Dust I	ed with a calibrated Hig Monitor and High Volu Ited by HOKLAS labo	me Sampler.		was used to gene	rate the Correlation
Calibrated by:		M.	_	Approved by:	\-len	y day
Technica	al Officer (Wo	ng Shing Kwai)		Projec	et Manager (Henr	y Leung)

Digital Dust Indicator



Date of Calibration 30-Jan-25

Certificate of Calibration

Description:

Manufacturer:	Sibata Scient	ific Technology LTD.	_	Validity of Calibr	ration Record	1-Apr-25
Model No.:	LD-5R					
Serial No.:	972780					
Equipment No.:	SA-01-09		Sensitivity	0.001 mg/m3	_	
High Volume Sa	mpler No.:	A-01-03	Before Sensitiv	vity Adjustment	739 CPM	
Tisch Calibration	n Orifice No.:	3864	After Sensitivi	ty Adjustment	739 CPM	
		Cal	libration of 1 h	r TSP		
Calibration		Laser Dust Monitor	•		HVS	
Point	N	Iass Concentration (μg/1	m3)	Mas	ss concentration ($\mu g/m^3$)
		X-axis			Y-axis	
1		73.0			139.0	
3		63.0 55.0			117.0 101.0	
Average		63.7			119.0	
Slope , mw = Correlation co	2.11 pefficient* =	0.9996		ept, bw =	-15.639	3
		Set	t Correlation F	actor		
Particaulate Con	centration by I	High Volume Sampler ($(\mu g/m^3)$	119.0		
Particaulate Con	centration by l	Oust Meter (μg/m ³)		63.7		
Measureing time	, (min)				60.0	
Set Correlation F SCF = [K=Higl	,	npler / Dust Meter, (με	g/m3)]	1.9		
In-house method	in according t	to the instruction manua	ıl:			
Factor (CF) between	een the Dust I	ed with a calibrated Hig Monitor and High Volu ted by HOKLAS labo	me Sampler.		was used to gene	rate the Correlation
Calibrated by:		M.	_	Approved by:	-lem	y Xon
Technica	al Officer (Wo	ng Shing Kwai)			et Manager (Henr	1

Digital Dust Indicator



Date of Calibration 30-Jan-25

Certificate of Calibration

Description:

Manufacturer:	Sibata Scientific Technology LTD.		Validity of Calibration	ration Record 1-Apr-25
Model No.:	LD-5R			
Serial No.:	972781			
Equipment No.:	SA-01-10	Sensitivity	0.001 mg/m3	_
High Volume Sa	mpler No.: <u>A-01-03</u>	Before Sensitiv	vity Adjustment	734 CPM
Tisch Calibration	n Orifice No.: 3864	After Sensitivit	y Adjustment	734 CPM
	C	alibration of 1 hr	· TSP	
Calibration	Laser Dust Monito	or		HVS
Point	Mass Concentration (μg	g/m3)	Mas	ss concentration (µg/m ³)
	X-axis			Y-axis
1	79.0			135.0
2	67.0			114.0
3	60.0			100.0
Average	68.7			116.3
Slope , mw =	1.8321	Interc	ept, bw =	-9.4729
Correlation co	pefficient* = 0.999	4		
	S	et Correlation Fa	actor	
Particaulate Con	S centration by High Volume Sampler	et Correlation Fa	actor	116.3
Particaulate Con	S centration by High Volume Sampler centration by Dust Meter (µg/m³)	et Correlation Fa	actor	68.7
Particaulate Con Particaulate Con Measureing time	Secentration by High Volume Sampler centration by Dust Meter (μg/m³)	et Correlation Fa	actor	
Particaulate Con Particaulate Con Measureing time Set Correlation F	Secentration by High Volume Sampler centration by Dust Meter (μg/m³)	et Correlation Fa (μg/m³)	actor	68.7
Particaulate Con Particaulate Con Measureing time Set Correlation F SCF = [K=High	Secentration by High Volume Sampler centration by Dust Meter (μg/m³) (c., (min))	et Correlation Fa (μg/m³)		68.7
Particaulate Con Particaulate Con Measureing time Set Correlation F SCF = [K=High In-house method The Dust Monito Factor (CF) betw	S centration by High Volume Sampler centration by Dust Meter (µg/m³) c, (min) Factor, SCF h Volume Sampler / Dust Meter, (µ	et Correlation Fa (μg/m³) ag/m3) al: igh Volume Samp ume Sampler.	1.7 ler and The result	68.7
Particaulate Con Particaulate Con Measureing time Set Correlation F SCF = [K=High In-house method The Dust Monito Factor (CF) betw Those filter pap Calibrated by:	Secontration by High Volume Sampler centration by Dust Meter (μg/m³) Exp. (min) Factor, SCF The Volume Sampler / Dust Meter, (μstandard Meter) In according to the instruction manual or was compared with a calibrated High Volume Sampler bust Monitor and High Volumes are weighted by HOKLAS lab	et Correlation Fa (μg/m³) ag/m3) al: igh Volume Samp ume Sampler.	ler and The result Litimed) Approved by:	was used to generate the Correlation

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 00736 Issue Date : 28 Jun 2024

Application No. : HP00592

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Sound Level Calibrator.

Equipment No.: : N-16-01

Manufacturer: : Hangzhou Aihua Instruments Co., Ltd.

Other information : Model No. AWA6021A

Serial No. 1023253

Date Received : 27 Jun 2024

Test Period : 28 Jun 2024 to 28 Jun 2024

Test Requested : Performance checking for Sound Level Calibrator

Test Method : The Sound Level Meter and Calibrator has been calibrated in accordance with

the documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 00736 | Issue Date : 28 Jun 2024

Application No. : HP00592

Certificate of Calibration

Measuring equipment

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Description	Sound Meter
Manufacturer	BSWA Technology
Model No.	BSWA 308
Serial No.	570183
Microphone No.	570605
Equipment No.	N-12-01

Test Result

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.1	+ 0.1	± 0.3
114.0	114.1	+ 0.1	± 0.5

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 01015 Issue Date : 04 Feb 2025

Application No. : HP00868

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Sound Level Calibrator.

Equipment No.: : N-16-02

Manufacturer: : Hangzhou Aihua Instruments Co., Ltd.

Other information : Model No. AWA6021A

Serial No. 1023064

Date Received : 28 Jan 2025

Test Period : 03 Feb 2025 to 04 Feb 2025

Test Requested : Performance checking for Sound Level Calibrator

Test Method : The Sound Level Meter and Calibrator has been calibrated in accordance with

the documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 01015 Issue Date : 04 Feb 2025

Application No. : HP00868

Certificate of Calibration

Measuring equipment

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Description	Sound Meter
Manufacturer	SVANTEK
Model No.	SVAN 977
Serial No.	92677
Microphone No.	10352
Equipment No.	N-14-01

Test Result

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.2	+ 0.2	± 0.3
114.0	114.3	+ 0.3	± 0.5

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 00870 | Issue Date : 14 Oct 2024

Application No. : HP00731

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-08-12

Manufacturer: : SVANTEK

Other information :

Model No.	SVAN 957
Serial No.	23851
Microphone No.	22391

Date Received : 07 Oct 2024

Test Period : 09 Oct 2024 to 09 Oct 2024

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the

documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark: 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Application No. : HP00731

Certificate of Calibration

Measuring equipment

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Test Result

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.0	± 0.0	± 1.5
114.0	114.2	+ 0.2	± 1.5

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Application No. : HP00514

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-12-01

Manufacturer: : BSWA Technology

Other information :

Model No.	BSWA 308
Serial No.	570183
Microphone No.	590073

Date Received : 09 Apr 2024

Test Period : 09 Apr 2024 to 09 Apr 2024

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the

documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark: 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 00647 Issue Date : 11 Apr 2024

Application No. : HP00514

Certificate of Calibration

Measuring equipment

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Test Result

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.1	+ 0.1	± 1.5
114.0	114.2	+ 0.2	± 1.5

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Application No. : HP00732

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-12-02

Manufacturer: : BSWA Technology

Other information :

Model No.	BSWA 308
Serial No.	570187
Microphone No.	590079

Date Received : 07 Oct 2024

Test Period : 09 Oct 2024 to 09 Oct 2024

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the

documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark: 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Application No. : HP00732

Certificate of Calibration

Measuring equipment

Description	Sound Calibrator	
Manufacturer	Brüel & Kjær	
Model No.	TYPE 4231	
Serial No.	2326353	
Equipment No.	N-02-01	

Test Result

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	93.9	- 0.1	± 1.5
114.0	113.7	- 0.3	± 1.5

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 00648 | Issue Date : 11 Apr 2024

Application No. : HP00515

Certificate of Calibration

Applicant : Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-12-05

Manufacturer: : BSWA Technology

Other information :

Model No.	BSWA 308
Serial No.	580287
Microphone No.	570610

Date Received : 09 Apr 2024

Test Period : 09 Apr 2024 to 09 Apr 2024

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the

documented procedures and using standard and instrument which are

recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius

Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark: 1. Information of the sample description provided by the Applicant.

2. The result(s) relate only to the items tested or calibrated.

For and on behalf of HIGH PRECISION CHEMICAL TESTING LIMITED

Rm 1904, Technology Park 18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: https://www.hpct.com.hk



Report No. : 00648 | Issue Date : 11 Apr 2024

Application No. : HP00515

Certificate of Calibration

Measuring equipment

Description	Sound Calibrator	
Manufacturer	Brüel & Kjær	
Model No.	TYPE 4231	
Serial No.	2326353	
Equipment No.	N-02-01	

Test Result :

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.1	+ 0.1	± 1.5
114.0	114.1	+ 0.1	± 1.5

Note

- : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
 - 2. The indication value was obtained from the average of ten replicated measurement.