綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
香港新界葵涌永基路22-24號好爸爸創科大廈
Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong
Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

CERTIFICATE OF CALIBRATION

Certificate No.: 25CA0502 03 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone	Preamp
Manufacturer:	Nti	,	Nti Andio	Nti Andio
Type/Model No.:	XL2	,	MC230A	MA220
Serial/Equipment No.:	A2A-15360-EO	,	A14232	6830
Adaptors used:	-	,		

Item submitted by

Customer Name:	Lam Environmental Services Limited.
Address of Customer:	-
Request No.:	-
Date of receipt:	02-May-2025

Date of test: 07-May-2025

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	28-Aug-2025	CIGISMEC
Signal generator	DS 360	61227	24-Feb-2026	CEPREI

Ambient conditions

Temperature:	(20.8~21.6)°C
Relative humidity:	(59.6~60.7) %
Air pressure:	(1010 ± 5) hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Feng Junqi **Date:** 08-May-2025 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

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CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 25CA0502 03 **Page** 2 **of** 2

1, Electrical Tests

The electrical tests were perfomed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertanity (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	
	C	Pass	0.8	
	Lin	Pass	1.6	
Linearity range for Leq	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
Linearity range for SPL	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
Frequency weightings	A	Pass	0.3	
	C	Pass	0.3	
	Lin	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100μs rectangular pulse	Pass	0.3	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	
	Repeated at frequency of 100 Hz	Pass	0.3	
Time averaging	1 ms burst duty factor $1/10^3$ at 4kHz	Pass	0.3	
	1 ms burst duty factor $1/10^4$ at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	
	Leq	Pass	0.4	

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertanity (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	

3, Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by: Fung Chi Yip **Date:** 07-May-2025

Checked by: Chan Yuk Yiu **Date:** 08-May-2025

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
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Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 25CA0502 02 **Page:** 1 **of** 2

Item tested

Description:	Acoustical Calibrator (Class 1)
Manufacturer:	Larson Davis
Type/Model No.:	CAL200
Serial/Equipment No.:	13437
Adaptors used:	-

Item submitted by

Curstomer:	Lam Environmental Services Ltd.
Address of Customer:	-
Request No.:	-
Date of receipt:	02-May-2025

Date of test: 03-May-2025

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	3257888	30-Jul-2025	SCL
Preamplifier	B&K 2673	3353200	29-Jun-2025	CEPREI
Measuring amplifier	B&K 2610	2346941	27-Jun-2025	CEPREI
Signal generator	DS 360	61227	24-Feb-2026	CEPREI
Digital multi-meter	34401A	US36087050	22-Apr-2026	CEPREI
Audio analyzer	8903B	GB41300350	19-Jun-2025	CEPREI
Universal counter	53132A	MY40003662	26-Jun-2025	CEPREI

Ambient conditions

Temperature:	(20.6~21.3) °C
Relative humidity:	(59.4~60.1) %
Air pressure:	(1010 ± 5) hPa

Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory: Feng Junqi **Date:** 06-May-2025 **Company Chop:** SOILS & MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

綜合試驗有限公司
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CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 25CA0502 02 **Page:** 2 **of** 2

1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

(Output level in dB re 20 μPa)

Frequency Shown Hz	Output Sound Pressure Level Setting dB	Measured Output Sound Pressure Level dB	Estimated Expanded Uncertainty dB
1000	94.00	93.75	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz **STF = 0.012 dB**

Estimated expanded uncertainty 0.005 dB

3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz **Actual Frequency = 1000.0 Hz**

Estimated expanded uncertainty 0.1 Hz Coverage factor k = 2.2

4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz **TND = 1.2%**

Estimated expanded uncertainty 0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by: Fung Chi Yip **Date:** 03-May-2025

Checked by: Chan Yuk Yiu **Date:** 06-May-2025

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

TISCH Environmental

RECALIBRATION DUE DATE:
February 24, 2026

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	February 24, 2025	**Rootsmeter S/N:** 438320	**Ta:** 295	°K
Operator:	Jim Tisch		**Pa:** 748.8	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **3880**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4400	3.2	2.00
2	3	4	1	1.0250	6.4	4.00
3	5	6	1	0.9150	7.9	5.00
4	7	8	1	0.8730	8.8	5.50
5	9	10	1	0.7200	12.7	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H(Ta/Pa)}$ (y-axis)
0.9910	0.6882	1.4109	0.9957	0.6915	0.8877
0.9868	0.9627	1.9953	0.9915	0.9673	1.2553
0.9848	1.0763	2.2308	0.9894	1.0814	1.4035
0.9836	1.1267	2.3397	0.9882	1.1320	1.4720
0.9784	1.3589	2.8217	0.9830	1.3653	1.7753
QSTD	**m=**	**2.10411**	**QA**	**m=**	**1.31756**
	b=	**-0.03396**		**b=**	**-0.02136**
	r=	**0.99998**		**r=**	**0.99998**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**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= $1/m\left(\left(\sqrt{\Delta H(Ta/Pa)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
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.
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TOLL FREE: (877)263-7610
FAX: (513)467-9009

Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location	:	GCE	**Calbration Date**	:	25-Mar-25
Equipment no.	:	2493	**Calbration Due Date**	:	25-Jun-25

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition					
Temperature, T_a	298	Kelvin	**Pressure, P_a**	1009	mmHg

Orifice Transfer Standard Information					
Equipment No.	**3880**	**Slope, m_c**	2.10411	**Intercept, bc**	-0.03396
Last Calibration Date	24-Feb-25	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$			
Next Calibration Date	24-Feb-26	$= m_c \times Q_{std} + b_c$			

Calibration of TSP						
Calibration Point	**Manometer Reading H (inches of water)**			**Q_{std}** (m^3 / min.)	**Continuous Flow Recorder, W**	**IC** ($W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31$)
	(up)	(down)	(difference)	**X-axis**	(CFM)	**Y-axis**
1	1.3	1.3	2.6	0.7808	33	32.9299
2	2.1	2.1	4.2	0.9881	39	38.9172
3	3.4	3.4	6.8	1.2528	46	45.9023
4	4.5	4.5	9.0	1.4389	52	51.8896
5	5.8	5.8	11.6	1.6314	55	54.8832

By Linear Regression of Y on X

Slope, m	=	26.4898	Intercept, b	=	12.6291
Correlation Coefficient*	=	0.9963			
Calibration Accepted	=	Yes/~~No~~**			

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : Serial No.:2493

Calibrated by	:	William Cheung	**Checked by**	:	Derek Lo
Date	:	25-Mar-25	**Date**	:	25-Mar-25

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	BT-645
Serial Number	:	B17940
Performance Check Date	:	25-Mar-25

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	2493
Last Calibration Date	:	25-Mar-25

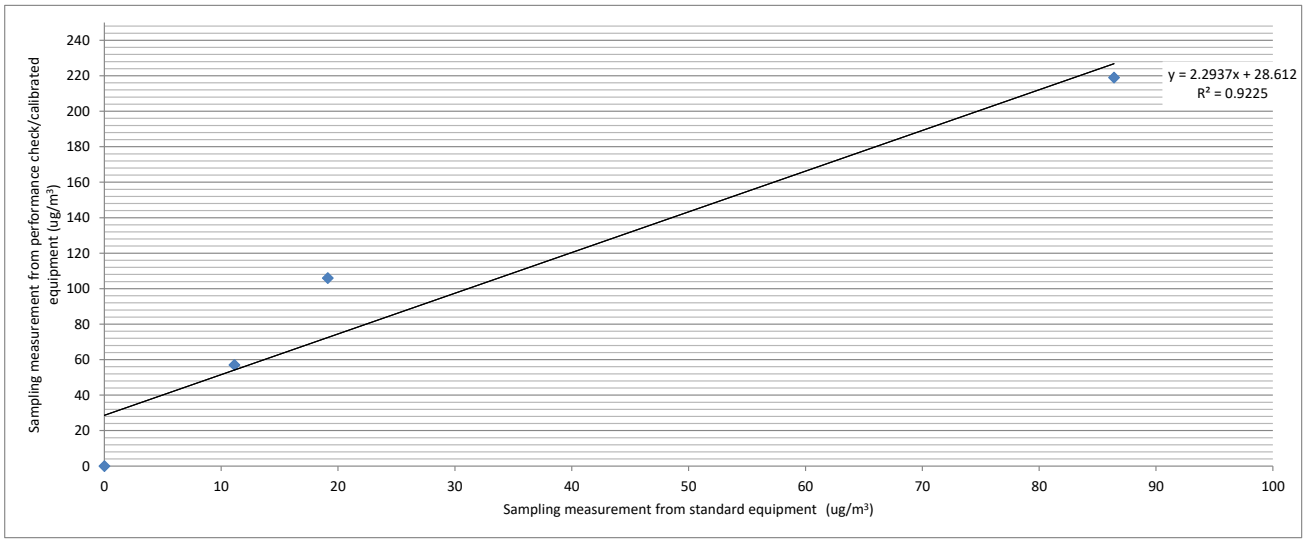
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
1	25/3/2025 9:55 -10:55	25	1009	106	19
2	25/3/2025 10:57 -11:57	25	1009	57	11
3	25/3/2025 15:06 -16:06	25	1009	219	86

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	2.3000
Correlation Coefficient	:	0.9605
Validity of Performance Check / Calibration Record	:	25/3/2026



Operator: William Cheung Date: 1/4/2025

Checked by: Derek Lo Date: 1/4/2025

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	BT-645
Serial Number	:	B17942
Performance Check Date	:	25-Mar-25

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	2493
Last Calibration Date	:	25-Mar-25

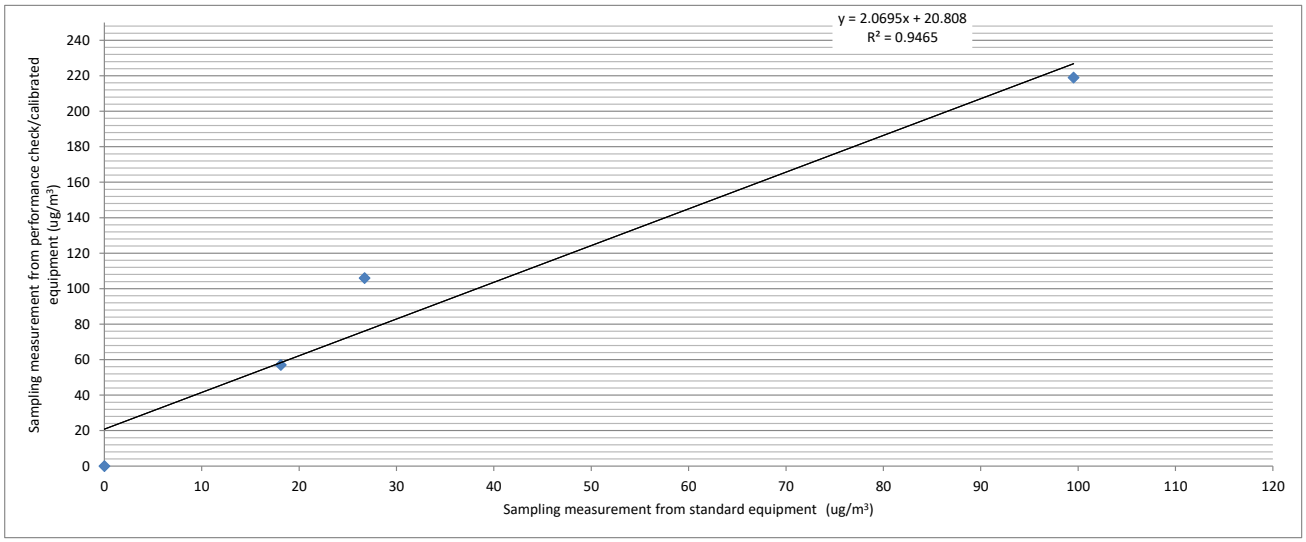
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
1	25/3/2025 9:55 -10:55	25	1009	106	27
2	25/3/2025 10:57 -11:57	25	1009	57	18
3	25/3/2025 15:06 -16:06	25	1009	219	100

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	2.1000
Correlation Coefficient	:	0.9729
Validity of Performance Check / Calibration Record	:	25/3/2026



Operator: William Cheung Date: 1/4/2025

Checked by: Derek Lo Date: 1/4/2025

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	BT-645
Serial Number	:	C15621
Performance Check Date	:	25-Mar-25

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	2493
Last Calibration Date	:	25-Mar-25

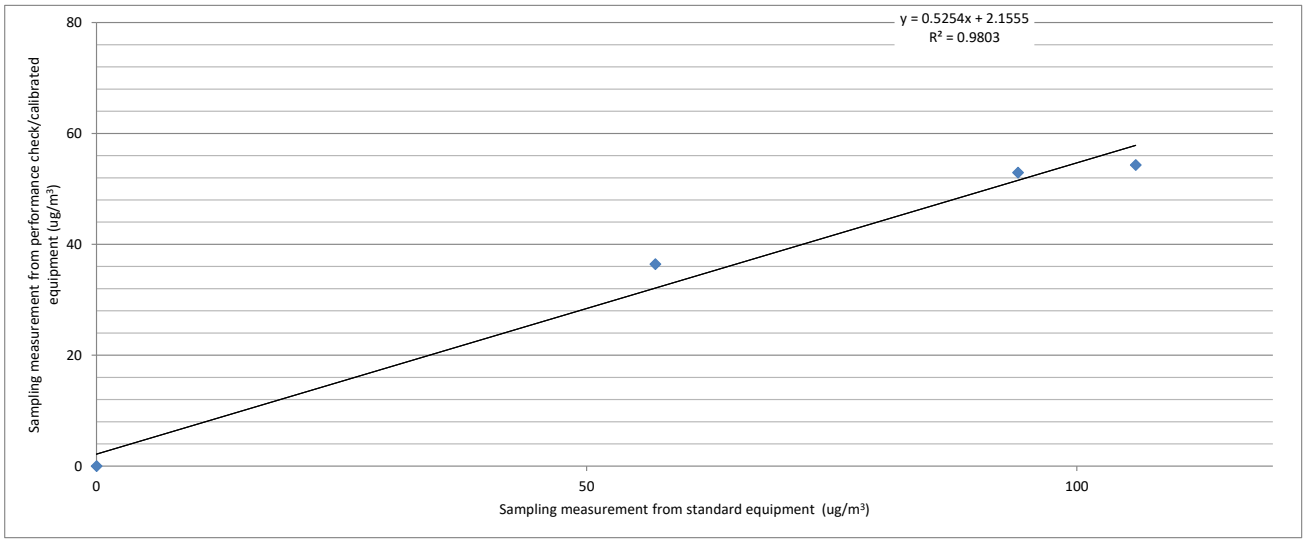
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
1	25/3/2025 9:55 -10:55	25	1009	106	54
2	25/3/2025 10:57 -11:57	25	1009	57	36
3	25/3/2025 14:04 -15:04	25	1009	94	53

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	1.9000
Correlation Coefficient	:	0.9901
Validity of Performance Check / Calibration Record	:	25/3/2026



Operator:	William Cheung	Date:	1/4/2025
Checked by:	Derek Lo	Date:	1/4/2025

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	BT-645
Serial Number	:	C15622
Performance Check Date	:	25-Mar-25

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	2493
Last Calibration Date	:	25-Mar-25

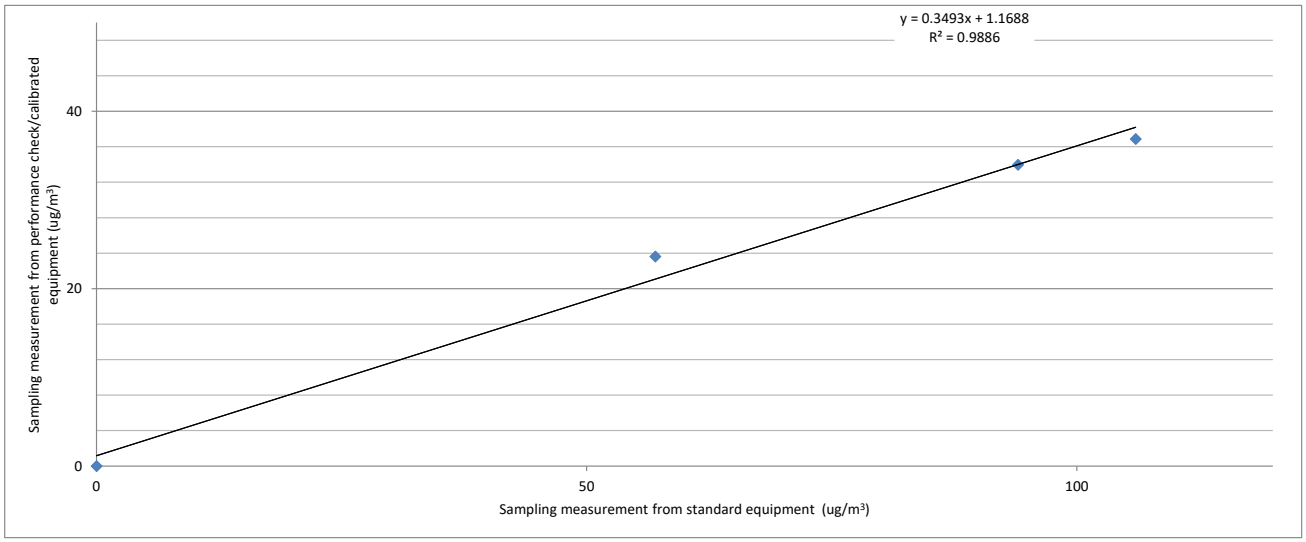
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
1	25/3/2025 9:55 -10:55	25	1009	106	37
2	25/3/2025 10:57 -11:57	25	1009	57	24
3	25/3/2025 11:59 -12:59	25	1009	94	34

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	3.7000
Correlation Coefficient	:	0.9997
Validity of Performance Check / Calibration Record	:	25/3/2026



Operator:	William Cheung	Date:	1/4/2025
Checked by:	Derek Lo	Date:	1/4/2025

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	BT-645
Serial Number	:	C15625
Performance Check Date	:	25-Mar-25

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	2493
Last Calibration Date	:	25-Mar-25

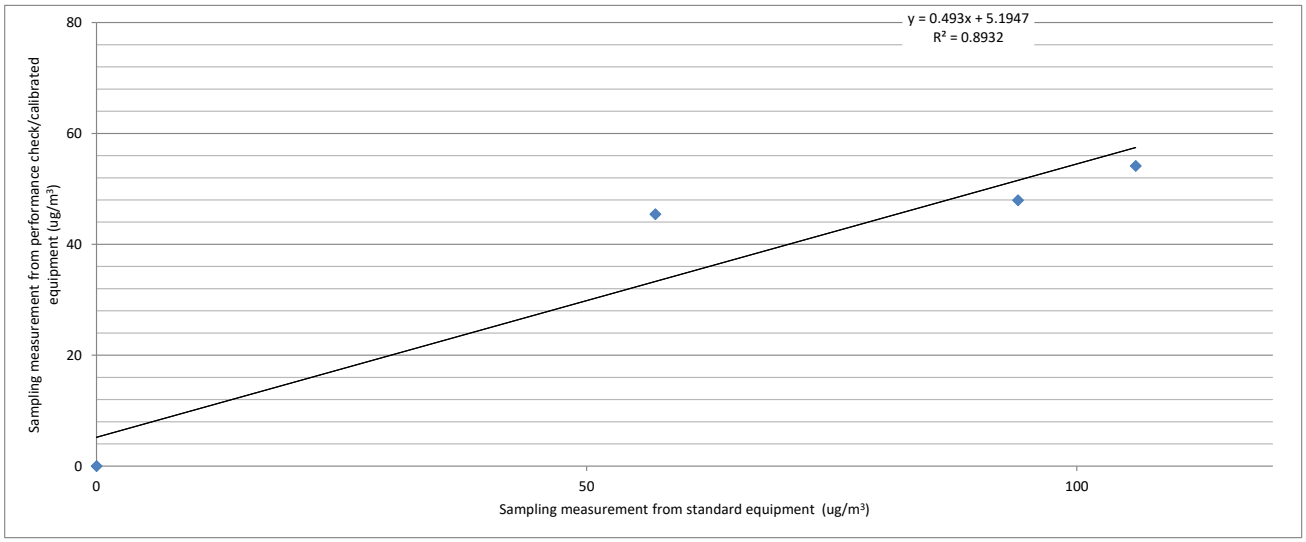
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
1	25/3/2025 9:55 -10:55	25	1009	106	54
2	25/3/2025 10:57 -11:57	25	1009	57	45
3	25/3/2025 11:59 -12:59	25	1009	94	48

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	1.9000
Correlation Coefficient	:	0.9451
Validity of Performance Check / Calibration Record	:	25/3/2026



Operator: William Cheung Date: 1/4/2025

Checked by: Derek Lo Date: 1/4/2025

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	BT-645
Serial Number	:	X19298
Performance Check Date	:	25-Mar-25

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	2493
Last Calibration Date	:	25-Mar-25

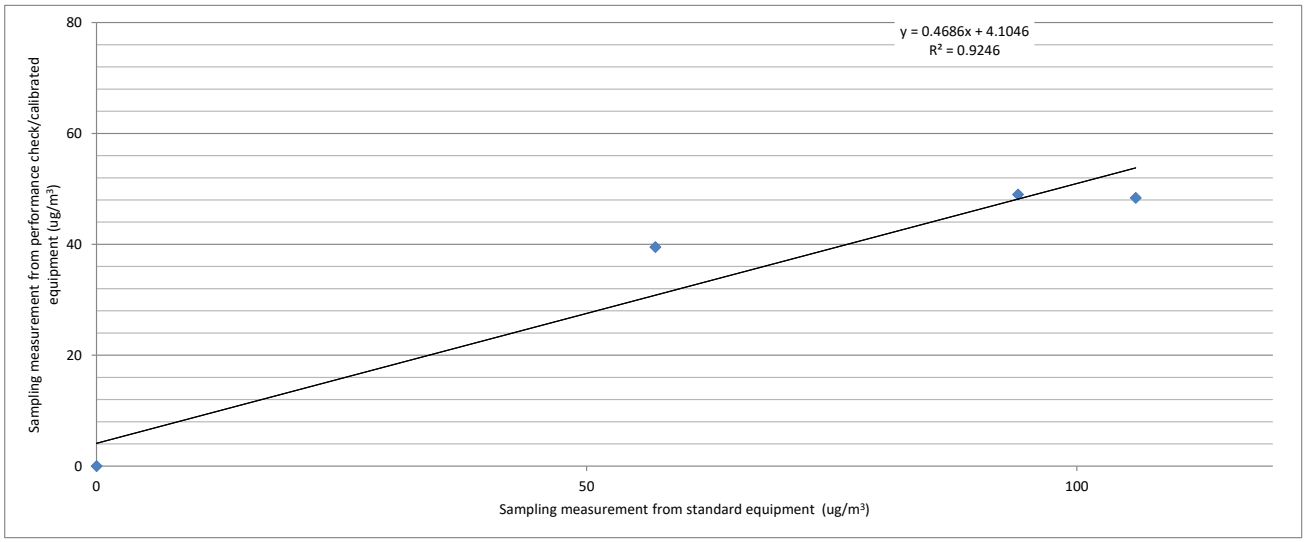
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
1	25/3/2025 9:55 -10:55	25	1009	106	48
2	25/3/2025 10:57 -11:57	25	1009	57	39
3	25/3/2025 14:04 -15:04	25	1009	94	49

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	2.0000
Correlation Coefficient	:	0.9615
Validity of Performance Check / Calibration Record	:	25/3/2026



Operator: William Cheung Date: 1/4/2025

Checked by: Derek Lo Date: 1/4/2025

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	Metone AEROCET 831
Serial Number	:	W15449
Performance Check Date	:	25-Mar-25

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	2493
Last Calibration Date	:	25-Mar-25

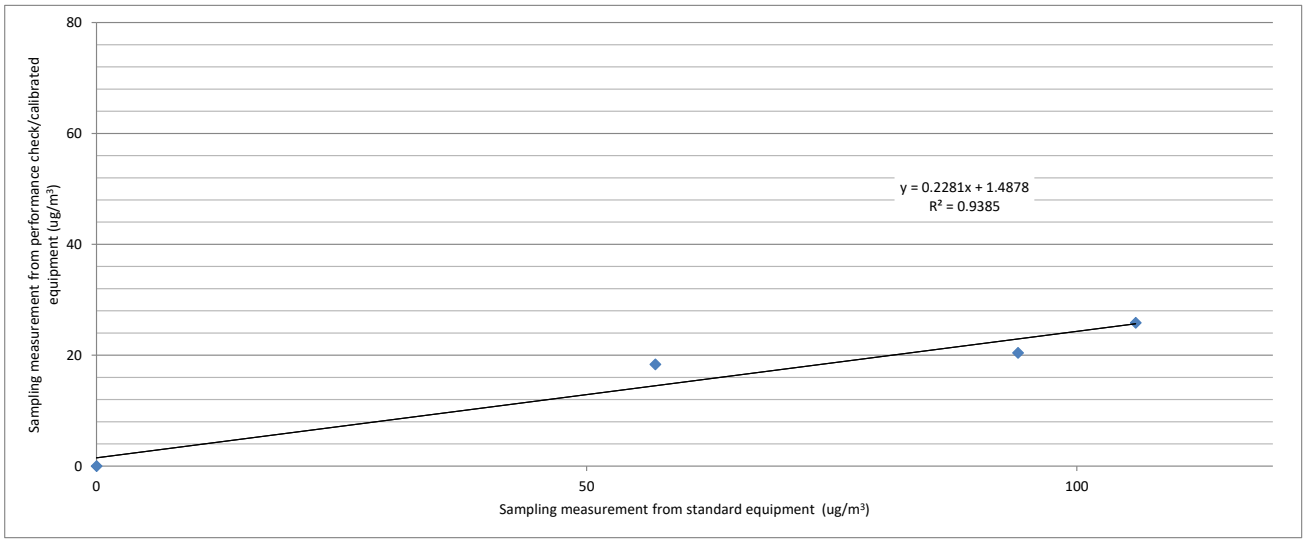
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
1	25/3/2025 9:55 -10:55	25	1009	106	26
2	25/3/2025 10:57 -11:57	25	1009	57	18
3	25/3/2025 11:59 -12:59	25	1009	94	20

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	4.2000
Correlation Coefficient	:	0.9688
Validity of Performance Check / Calibration Record	:	25/3/2026



Operator: William Cheung Date: 1/4/2025

Checked by: Derek Lo Date: 1/4/2025

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	Metone AEROCET 831
Serial Number	:	W16848
Performance Check Date	:	25-Mar-25

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	2493
Last Calibration Date	:	25-Mar-25

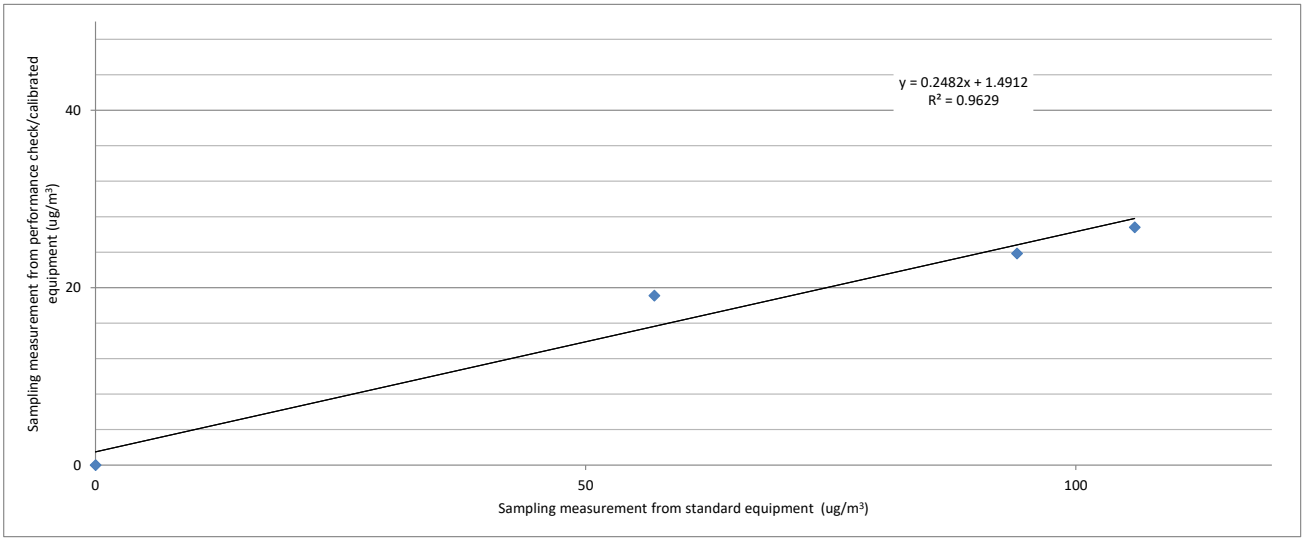
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
1	25/3/2025 9:55 -10:55	25	1009	106	27
2	25/3/2025 10:57 -11:57	25	1009	57	19
3	25/3/2025 14:04 -15:04	25	1009	94	24

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	3.9000
Correlation Coefficient	:	0.9813
Validity of Performance Check / Calibration Record	:	25/3/2026



Operator: William Cheung Date: 1/4/2025

Checked by: Derek Lo Date: 1/4/2025

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 5/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BE040049
Date of Issue : 16 April 2025

PART A - CUSTOMER INFORMATION

Lam Environmental Services Limited
19/F, Remex Centre, 42 Wong Chuk Hang Road, Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment :	YSI Professional Plus Multi Parameters
Manufacturer :	YSI
Serial Number :	17G100383
Date of Received :	14 April 2025
Date of Calibration :	15 April 2025
Date of Next Calibration :	15 July 2025
Request No. :	D-BE040049

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500-H^+ B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Dissolved oxygen	APHA 23e 4500-O G (Membrane Electrode Method)
Salinity	APHA 21e 2520 B

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance (pH unit)	Result
4.00	4.14	0.14	Satisfactory
7.42	7.52	0.10	Satisfactory
10.01	10.11	0.10	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance (°C)	Result
14.9	15.1	0.2	Satisfactory
24.4	24.0	-0.4	Satisfactory
36.9	36.2	-0.7	Satisfactory

Tolerance of Temperature should be less than ± 2.0 (°C)

(3) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance (mg/L)	Result
8.25	7.97	-0.28	Satisfactory
5.51	5.32	-0.19	Satisfactory
2.26	1.95	-0.31	Satisfactory
0.04	0.16	0.12	Satisfactory

Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

FUNG Yuen-ching
Laboratory Manager

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 5/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BE040049
Date of Issue : 16 April 2025

(4) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.08	0.8	Satisfactory
20	20.35	1.75	Satisfactory
30	30.51	1.70	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

Remark(s)

- *The "Date of Next Calibration" is recommended according to best practice principles followed by QPT or relevant international standards.*
- *The results relate only to the calibrated equipment as received.*
- *The performance of the equipment stated in this report is checked using independent reference material, with results compared against a calibrated secondary source.*
- *"Displayed Reading" denotes the figure shown on the item under calibration/checking, regardless of equipment precision or significant figures.*
- *The "Tolerance Limit" mentioned is the acceptance criteria applicable to similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.*

--- END OF REPORT ---

FT Laboratories Ltd
科達測檢試驗所有限公司

Calibration Report

Calibration No.	:	60408001-C19F2701
Laboratory	:	FT LaboratoriesLtd.
Address	:	Lot No. DD77 Section 1552 S.Ass 1RP, Ng Chow South Road, Ping Che, Fanling, New Territories
Telephone	:	(852) 2758 4861
Facsimile	:	(852) 2758 8962
Customer	:	**Lam Environmental Services Limited**
Address	:	**19/F., Remex Centre, 42 Wong Chuk Hang Road, Hong Kong**
Item Calibrated	:	Name/Description: Turbidimeter
		Manufacturer: Shanghai Xinrui Instruments & Meters co.,Ltd
		Model no: WGZ-3B
		Equipment no.: 2202020
Reference Standard / Major Measurement Equipment	:	C23/01 under NCRM reference material number GBW(E) 120125. Standard Solution of Formazine Turbidity
Calibration Method	:	In-house calibration method according to Ref: APHA22nd ed 213 OB
Date of item received	:	19 Mar.,2025
Date of Calibration	:	24 Mar.,2025
Location of Calibration	:	Chemical Laboratory of FT LaboratoriesLtd.
Calibration Conditions		
Temperature	:	20 ± 3 °C
Relative Humidity	:	30% to 80%
Test Results	:	The test results are detailed in the subsequent page(s).

Certified by : _____ Date of Issue: 26 MAR 2025

☑ CHAN Joseph Nicolas (Senior Technical Engineer)

Notes:
(1) The above equipment has been calibrated against standards which are traceable to internationally recognized standards.
(2) This certificate shall not be reproduced, except in full, without the written approval of FT LaboratoriesLtd.

FT Laboratories Ltd
科達測檢試驗所有限公司

Calibration Report

Calibration No. : 60408001-C19F2701

Results

Turbidity of standard solution used (NTU)	Measured value (NTU)	Error (%)
0	0	---
4	3.99	-0.25%
10	9.98	-0.20%
40	39.94	-0.15%
100	99.8	-0.20%
400	399.0	-0.25%
1000	998.0	-0.20%

Remarks:

(A) Each reported result is the mean of three measurements on UUT (unit-under-test).

(B) The values given in this Calibration Report only relate to the unit-under-test and the values measured at the time of the test. Any uncertainties quoted will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the measurement.

(C) Before calibration, UUT and reference equipment was placed in the laboratory for at least one hour.

< End of Report >

Calibrated by: CH Cheung
Date: 24 Mar.,2025

Checked by: Joseph Chan
Date: 26 MAR 2025

FT Laboratories Ltd
科達測檢試驗所有限公司

Calibration Report

Calibration No.	:	60408001-D17F3001
Laboratory	:	FT LaboratoriesLtd.
Address	:	Lot No. DD77 Section 1552 S.Ass 1RP, Ng Chow South Road, Ping Che, Fanling, New Territories
Telephone	:	(852) 2758 4861
Facsimile	:	(852) 2758 8962
Customer	:	**Lam Environmental Services Limited**
Address	:	**19/F., Remex Centre, 42 Wong Chuk Hang Road, Hong Kong**
Item Calibrated	:	Name/Description: Turbidimeter
		Manufacturer: Shanghai Xinrui Instruments & Meters co.,Ltd
		Model no: WGZ-3B
		Equipment no.: 2209057
Reference Standard / Major Measurement Equipment	:	C23/01 under NCRM reference material number GBW(E) 120125. Standard Solution of Formazine Turbidity
Calibration Method	:	In-house calibration method according to Ref: APHA22nd ed 213 OB
Date of item received	:	17 Apr.,2025
Date of Calibration	:	25 Apr.,2025
Location of Calibration	:	Chemical Laboratory of FT LaboratoriesLtd.
Calibration Conditions		
Temperature	:	20 ± 3 °C
Relative Humidity	:	30% to 80%
Test Results	:	The test results are detailed in the subsequent page(s).

Certified by : _____ Date of Issue: 28 APR 2025

☑ CHAN Joseph Nicolas (Senior Technical Engineer)

Notes: **(1) The above equipment has been calibrated against standards which are traceable to internationally recognized standards.**

(2) This certificate shall not be reproduced, except in full, without the written approval of FT LaboratoriesLtd.

FT Laboratories Ltd
科達測檢試驗所有限公司

Calibration Report

Calibration No. : 60408001-D17F3001

Results

Turbidity of standard solution used (NTU)	Measured value (NTU)	Error (%)
0	0	---
4	4.00	0.00%
10	10.00	0.00%
40	39.98	-0.05%
100	99.8	-0.20%
400	399.0	-0.25%
1000	999.0	-0.10%

Remarks:

(A) Each reported result is the mean of three measurements on UUT (unit-under-test).

(B) The values given in this Calibration Report only relate to the unit-under-test and the values measured at the time of the test. Any uncertainties quoted will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the measurement.

(C) Before calibration, UUT and reference equipment was placed in the laboratory for at least one hour.

< End of Report >

Calibrated by: CH Cheung
Date: 25 Apr.,2025

Checked by: Joseph Chan
Date: 28 APR 2025