

Certificate of Calibration

Calibration Certification Information			
Cal. Date: January 11, 2019	Rootsmeter S/N: 438320	Ta: 293	°K
Operator: Jim Tisch		Pa: 760.7	mm Hg
Calibration Model #: TE-5025A	Calibrator S/N: 0005		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4090	3.2	2.00
2	3	4	1	0.9980	6.4	4.00
3	5	6	1	0.8900	7.8	5.00
4	7	8	1	0.8450	8.7	5.50
5	9	10	1	0.6990	12.6	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)	$\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)}$ (y-axis)
1.0138	0.7195	1.4269	0.9958	0.7067	0.8777
1.0095	1.0115	2.0180	0.9916	0.9936	1.2412
1.0076	1.1321	2.2561	0.9897	1.1121	1.3877
1.0064	1.1910	2.3663	0.9886	1.1699	1.4555
1.0012	1.4323	2.8538	0.9834	1.4069	1.7553
QSTD	m=	1.99861	QA	m=	1.25149
	b=	-0.00882		b=	-0.00543
	r=	0.99997		r=	0.99997

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

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



Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA3a
 Equipment no. : HVS012

Calibration Date : 18-Oct-19
 Calibration Due Date : 18-Dec-19

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	300	Kelvin	Pressure, P _a
			1017 mmHg

Orifice Transfer Standard Information					
Equipment No.	0005	Slope, m _c	1.99861	Intercept, b _c	-0.00882
Last Calibration Date	11-Jan-19	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	11-Jan-20				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	1.8	1.8	3.6	0.9523	29	28.9559
2	2.3	2.3	4.6	1.0759	34	33.9483
3	2.7	2.7	5.4	1.1653	38	37.9422
4	3.3	3.3	6.6	1.2879	44	43.9331
5	3.7	3.7	7.4	1.3634	49	48.9255

By Linear Regression of Y on X

Slope, m = 48.0324 Intercept, b = -17.4077
 Correlation Coefficient* = 0.9963
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Laurance Yung
 Date : 18-Oct-19

Checked by : James Chu
 Date : 18-Oct-19



Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA4a
 Equipment no. : HVS004

Calibration Date : 18-Oct-19
 Calibration Due Date : 18-Dec-19

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	300	Kelvin	Pressure, P _a
			1017 mmHg

Orifice Transfer Standard Information					
Equipment No.	0005	Slope, m _c	1.99861	Intercept, b _c	-0.00882
Last Calibration Date	11-Jan-19	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	11-Jan-20				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	1.3	1.3	2.6	0.8100	26	25.9605
2	1.8	1.8	3.6	0.9523	31	30.9529
3	2.6	2.6	5.2	1.1436	36	35.9452
4	3.2	3.2	6.4	1.2683	39	38.9407
5	4.1	4.1	8.2	1.4350	42	41.9361

By Linear Regression of Y on X

Slope, m = 25.5089 Intercept, b = 6.1300
 Correlation Coefficient* = 0.9931
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Laurance Yung
 Date : 18-Oct-19

Checked by : James Chu
 Date : 18-Oct-19



CERTIFICATE OF CALIBRATION

Certificate No.: 19CA0314 01 Page 1 of 2

Item tested

Description:	Sound Level Meter (Type 1)	Microphone
Manufacturer:	Larson Davis	PCB
Type/Model No.:	LxT1	377B02
Serial/Equipment No.:	0003737	171529
Adaptors used:	-	-

Item submitted by

Customer Name: Lam Geotechnics Ltd.
Address of Customer: -
Request No.: -
Date of receipt: 14-Mar-2019

Date of test: 18-Mar-2019

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	23-Aug-2019	CIGISMEC
Signal generator	DS 360	61227	26-Dec-2019	CEPREI

Ambient conditions

Temperature: 21 ± 1 °C
Relative humidity: 55 ± 10 %
Air pressure: 1005 ± 5 hPa

Test specifications

- 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 SMTPO04-CA-152.
- 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%.
- 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 response 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: 19-Mar-2019

Company Chop:



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.



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 19CA0314 01

Page 2 of 2

1. Electrical Tests

The electrical tests were performed 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 Uncertainty (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	
	C	Pass	0.8	2.1
	Lin	Pass	1.6	2.2
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	N/A	N/A	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting f	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 ³ 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 Uncertainty (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:

Date: 18-Mar-2019

Checked by:

Date: 19-Mar-2019

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.



CERTIFICATE OF CALIBRATION

Certificate No.: 19CA1024 01

Page: 1 of 2

Item tested

Description: Acoustical Calibrator (Class 1)
Manufacturer: Larson Davis
Type/Model No.: CAL200
Serial/Equipment No.: 13098
Adaptors used: -

Item submitted by

Customer: Lam Geotechnics Limited.
Address of Customer: -
Request No.: -
Date of receipt: 24-Oct-2019

Date of test: 24-Oct-2019

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2341427	03-May-2020	SCL
Preamplifier	B&K 2673	2239857	17-May-2020	CEPREI
Measuring amplifier	B&K 2610	2346941	05-Jun-2020	CEPREI
Signal generator	DS 360	33873	10-May-2020	CEPREI
Digital multi-meter	34401A	US36087050	08-May-2020	CEPREI
Audio analyzer	8903B	GB41300350	13-May-2020	CEPREI
Universal counter	53132A	MY40003662	10-May-2020	CEPREI

Ambient conditions

Temperature: 22 ± 1 °C
Relative humidity: 55 ± 10 %
Air pressure: 1000 ± 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: 26-Oct-2019

Company Chop:



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.



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: CHAN KA CHUN
CLIENT: LAM ENVIRONMENTAL SERVICES LTD

WORK ORDER: HK1945646

ADDRESS: 11/F CENTRE POINT,
181-185 GLOUCESTER ROAD,
WANCHAI, HONG KONG

SUB-BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 23-Oct-2019
DATE OF ISSUE: 01-Nov-2019

COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test: Dissolved Oxygen, pH Value, Salinity and Temperature
Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI Professional Plus
Serial No./ Equipment No.: 17F100236
Date of Calibration: 01-Nov-2019

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1945646
SUB-BATCH: 0
DATE OF ISSUE: 01-Nov-2019
CLIENT: LAM ENVIRONMENTAL SERVICES LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI Professional Plus
Serial No./ Equipment No.: 17F100236
Date of Calibration: 01-Nov-2019 **Date of Next Calibration:** 01-Feb-2020

PARAMETERS:
 Dissolved Oxygen Method Ref: APHA (21st edition), 4500-O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
7.76	7.87	+0.11
5.78	5.75	-0.03
3.84	3.69	-0.15
Tolerance Limit (mg/L)		±0.20

pH Value Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.14	+0.14
7.0	6.94	-0.06
10.0	10.15	+0.15
Tolerance Limit (pH unit)		±0.20

Salinity Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.94	-0.6
20	19.53	-2.3
30	30.33	+1.1
Tolerance Limit (%)		±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Nis

Ms. Lin Wai Yu, Iris
 Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1945646
SUB-BATCH: 0
DATE OF ISSUE: 01-Nov-2019
CLIENT: LAM ENVIRONMENTAL SERVICES LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: YSI Professional Plus
Serial No./
Equipment No.: 17F100236
Date of Calibration: 01-Nov-2019

Date of Next Calibration: 01-Feb-2020

PARAMETERS:
Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical
Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
9.0	9.7	+0.7
25.0	23.8	-1.2
38.0	36.6	-1.4
	Tolerance Limit (°C)	±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

A handwritten signature in blue ink, appearing to read 'Iris'.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

CONTACT: CHAN KA CHUN
CLIENT: LAM ENVIRONMENTAL SERVICES LTD

WORK ORDER: HK1941420

ADDRESS: 11/F CENTRE POINT,
181-185 GLOUCESTER ROAD,
WANCHAI, HONG KONG

SUB- BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 25-Sep-2019
DATE OF ISSUE: 08-Oct-2019

COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test: Dissolved Oxygen, pH Value, Salinity and Temperature
Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI/ Professional Plus
Serial No./ Equipment No.: 14E100105
Date of Calibration: 08-Oct-2019

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION



WORK ORDER: HK1941420
SUB- BATCH: 0
DATE OF ISSUE: 08-Oct-2019
CLIENT: LAM ENVIRONMENTAL SERVICES LTD

Equipment Type: Multifunctional Meter
 Brand Name/ Model No.: YSI/ Professional Plus
 Serial No./ Equipment No.: 14E100105
 Date of Calibration: 08-Oct-2019 Date of Next Calibration: 08-Jan-2020

PARAMETERS:

Dissolved Oxygen Method Ref: APHA (21st edition), 4500- O: G

Expected Reading (mg/ L)	Displayed Reading (mg/ L)	Tolerance (mg/ L)
7.43	7.40	-0.03
5.23	5.09	-0.14
4.19	4.07	-0.12
	Tolerance Limit (mg/L)	±0.20

pH Value Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.01	+0.01
7.0	7.12	+0.12
10.0	10.12	+0.12
	Tolerance Limit (pH unit)	±0.20

Salinity Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	10.12	+1.2
20	19.76	-1.2
30	28.76	-4.1
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
 Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION



WORK ORDER: HK1941420
SUB- BATCH: 0
DATE OF ISSUE: 08-Oct-2019
CLIENT: LAM ENVIRONMENTAL SERVICES LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI/ Professional Plus
Serial No./ Equipment No.: 14E100105
Date of Calibration: 08-Oct-2019 **Date of Next Calibration:** 08-Jan-2020

PARAMETERS:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
8.0	7.4	-0.6
25.5	25.1	-0.4
38.0	36.3	-1.7
	Tolerance Limit (°C)	±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

Information supplied by customer:

CONTACT: MR. CHAN KA CHUN JOB REFERENCE NO.: 22787053-K09V4101
CLIENT: LAM GEOTECHNICS LTD.
DATE RECEIVED: 09/10/2019
DATE OF ISSUE: 10/10/2019
ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,
 WANCHAI, HONG KONG
PROJECT: —

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of FT Laboratories Ltd will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1807077
Equipment No.:	---
Date of Calibration:	10/10/2019

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Certified By:

Rowena R De Jesus
Senior Chemist

Issue Date:

10/10/2019

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REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

WORK ORDER: 22787053-K09V4101
DATE OF ISSUE: 10/10/2019
CLIENT: LAM GEOTECHNICS LTD.

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1807077
Equipment No.:	---
Date of Calibration:	10/10/2019
Date of next Calibration:	09/01/2020
Lab ID:	H190307-01

Parameters:
Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance
0	0.00	---
4	3.84	-4.0%
10	10.02	0.2%
40	38.14	-4.7%
100	100.50	0.5%
400	401	0.2%
1000	997	-0.4%
	Tolerance Limit (±)	10%

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.



REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

Information supplied by customer:

CONTACT: MR. CHAN KA CHUN JOB REFERENCE NO.: 22777053-K09V4201
CLIENT: LAM ENVIRONMENTAL SERVICES LTD.
DATE RECEIVED: 09/10/2019
DATE OF ISSUE: 10/10/2019
ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,
 WANCHAI, HONG KONG
PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of FT Laboratories Ltd will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1807079
Equipment No.:	---
Date of Calibration:	10/10/2019

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Certified By:

Rowena R De Jesus
Senior Chemist

Issue Date:

10/10/2019

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REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

WORK ORDER: 22777053-K09V4201
DATE OF ISSUE: 10/10/2019
CLIENT: LAM ENVIRONMENTAL SERVICES LTD.

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1807079
Equipment No.:	---
Date of Calibration:	10/10/2019
Date of next Calibration:	09/01/2020
Lab ID:	H190308-01

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance
0	0.00	---
4	3.87	-3.3%
10	10.05	0.5%
40	37.60	-6.0%
100	100.30	0.3%
400	401	0.1%
1000	998	-0.2%
	Tolerance Limit (\pm)	10%

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.