



CERTIFICATE OF CALIBRATION

Certificate No.: 20CA0214 01-02 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-15269-EO | , | A14232 | 6830 |
| Adaptors used: | - | , | | |

Item submitted by

Customer Name: Lam Environmental Services Limited.
Address of Customer: -
Request No.: -
Date of receipt: 14-Feb-2020

Date of test: 17-Feb-2020

Reference equipment used in the calibration

| Description: | Model: | Serial No. | Expiry Date: | Traceable to: |
|---------------------------------|----------|------------|--------------|---------------|
| Multi function sound calibrator | B&K 4226 | 2288444 | 23-Aug-2020 | CIGISMEC |
| Signal generator | DS 360 | 33873 | 10-May-2020 | CEPREI |

Ambient conditions

Temperature: 21 ± 1 °C
Relative humidity: 55 ± 10 %
Air pressure: 1000 ± 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 SMTP004-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 responses of the Sound Level Meter.

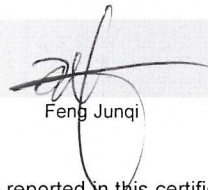
Test results

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: 18-Feb-2020

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)

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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 | | | |
| Time weightings | A | Pass | 0.3 | |
| | C | Pass | 0.3 | |
| | Lin | Pass | 0.3 | |
| Peak response | Single Burst Fast | Pass | 0.3 | |
| | Single Burst Slow | Pass | 0.3 | |
| R.M.S. accuracy | Single 100µs rectangular pulse | Pass | 0.3 | |
| Time weighting I | Crest factor of 3 | Pass | 0.3 | |
| | Single burst 5 ms at 2000 Hz | Pass | 0.3 | |
| Time averaging | Repeated at frequency of 100 Hz | Pass | 0.3 | |
| | 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 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: | | Checked by: | |
| Date: | Fung Chi Yip 17-Feb-2020 | Date: | Shek Kwong Tat 18-Feb-2020 |

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.



Test Data for Sound Level Meter

Page 1 of 6

Sound level meter type: XL2 Serial No. A2A-15269-EO Date 17-Feb-2020
Microphone type: MC230A Serial No. A14232

Report: 20CA0214 01-02

SELF GENERATED NOISE TEST

The noise test is performed in the most sensitive range of the SLM with the microphone replaced by an equivalent impedance.

Noise level in A weighting 10.5 dB
Noise level in C weighting 14.2 dB
Noise level in Lin 21.4 dB

LINEARITY TEST

The linearity is tested relative to the reference sound pressure level using a continuous sinusoidal signal of frequency 4 kHz. The measurement is made on the reference range for indications at 5 dB intervals starting from the 94 dB reference sound pressure level. And until within 5 dB of the upper and lower limits of the reference range, the measurements shall be made at 1 dB intervals. (SLM set to LEQ/SPL)

| Reference/Expected level | Actual level | | Tolerance | Deviation | |
|--------------------------|----------------|------------|-----------|----------------|------------|
| | non-integrated | integrated | | non-integrated | integrated |
| dB | dB | dB | +/- dB | dB | dB |
| 94.0 | 94.0 | 94.0 | 0.7 | 0.0 | 0.0 |
| 99.0 | 99.0 | 99.0 | 0.7 | 0.0 | 0.0 |
| 104.0 | 104.0 | 104.0 | 0.7 | 0.0 | 0.0 |
| 109.0 | 109.0 | 109.0 | 0.7 | 0.0 | 0.0 |
| 114.0 | 114.0 | 114.0 | 0.7 | 0.0 | 0.0 |
| 115.0 | 115.0 | 115.0 | 0.7 | 0.0 | 0.0 |
| 116.0 | 116.0 | 116.0 | 0.7 | 0.0 | 0.0 |
| 117.0 | 117.0 | 117.0 | 0.7 | 0.0 | 0.0 |
| 118.0 | 118.0 | 118.0 | 0.7 | 0.0 | 0.0 |
| 119.0 | 119.0 | 119.0 | 0.7 | 0.0 | 0.0 |
| 120.0 | 120.0 | 120.0 | 0.7 | 0.0 | 0.0 |
| 89.0 | 89.0 | 89.0 | 0.7 | 0.0 | 0.0 |
| 84.0 | 84.0 | 84.0 | 0.7 | 0.0 | 0.0 |
| 79.0 | 79.0 | 79.0 | 0.7 | 0.0 | 0.0 |
| 74.0 | 74.0 | 74.0 | 0.7 | 0.0 | 0.0 |
| 69.0 | 69.0 | 69.0 | 0.7 | 0.0 | 0.0 |
| 64.0 | 64.0 | 64.0 | 0.7 | 0.0 | 0.0 |
| 59.0 | 59.0 | 59.0 | 0.7 | 0.0 | 0.0 |
| 54.0 | 54.0 | 54.0 | 0.7 | 0.0 | 0.0 |
| 49.0 | 49.0 | 49.0 | 0.7 | 0.0 | 0.0 |
| 44.0 | 44.0 | 44.0 | 0.7 | 0.0 | 0.0 |
| 39.0 | 39.0 | 39.0 | 0.7 | 0.0 | 0.0 |
| 34.0 | 34.1 | 34.1 | 0.7 | 0.1 | 0.1 |
| 33.0 | 33.1 | 33.1 | 0.7 | 0.1 | 0.1 |



Test Data for Sound Level Meter

Page 2 of 6

Sound level meter type: XL2 Serial No. A2A-15269-EO Date 17-Feb-2020
Microphone type: MC230A Serial No. A14232

Report: 20CA0214 01-02

| | | | | | |
|------|------|------|-----|-----|-----|
| 32.0 | 32.2 | 32.2 | 0.7 | 0.2 | 0.2 |
| 31.0 | 31.2 | 31.2 | 0.7 | 0.2 | 0.2 |
| 30.0 | 30.3 | 30.3 | 0.7 | 0.3 | 0.3 |

Measurements for an indication of the reference SPL on all other ranges which include it

| Other ranges | Expected level | Actual level | Tolerance | Deviation |
|--------------|----------------|--------------|-----------|-----------|
| dB | dB | dB | +/- dB | dB |
| 40-140 | 94.0 | 94.0 | 0.7 | 0.0 |
| 20-120 | 94.0 | 94.0 | 0.7 | 0.0 |
| 0-100 | 94.0 | 94.0 | 0.7 | 0.0 |

Measurements on all level ranges for indications 2 dB below the upper limit and 2 dB above the lower limit

| Ranges | Reference/Expected level | Actual level | Tolerance | Deviation |
|--------|--------------------------|--------------|-----------|-----------|
| dB | dB | dB | +/- dB | dB |
| 40-140 | 52.0 | 52.5 | 0.7 | 0.5 |
| | 138.0 | 138.0 | 0.7 | 0.0 |
| 20-120 | 30.0 | 30.3 | 0.7 | 0.3 |
| | 118.0 | 118.0 | 0.7 | 0.0 |
| 0-100 | 30.0 | 30.0 | 0.7 | 0.0 |
| | 98.0 | 98.0 | 0.7 | 0.0 |

FREQUENCY WEIGHTING TEST

The frequency response of the weighting networks are tested at octave intervals over the frequency ranges 31.5 Hz to 12500 Hz. The signal level at 1000 Hz is set to give an indication of the reference SPL.

Frequency weighting A:

| Frequency | Ref. level | Expected level | Actual level | Tolerance(dB) | | Deviation |
|-----------|------------|----------------|--------------|---------------|-----|-----------|
| | | | | + | - | |
| Hz | dB | dB | dB | | | dB |
| 1000.0 | 94.0 | 94.0 | 94.0 | 0.0 | 0.0 | 0.0 |
| 31.6 | 94.0 | 54.6 | 54.7 | 1.5 | 1.5 | 0.1 |
| 63.1 | 94.0 | 67.8 | 67.7 | 1.5 | 1.5 | -0.1 |
| 125.9 | 94.0 | 77.9 | 77.9 | 1.0 | 1.0 | 0.0 |
| 251.2 | 94.0 | 85.4 | 85.4 | 1.0 | 1.0 | 0.0 |
| 501.2 | 94.0 | 90.8 | 90.8 | 1.0 | 1.0 | 0.0 |
| 1995.0 | 94.0 | 95.2 | 95.2 | 1.0 | 1.0 | 0.0 |
| 3981.0 | 94.0 | 95.0 | 95.0 | 1.0 | 1.0 | 0.0 |
| 7943.0 | 94.0 | 92.9 | 92.9 | 1.5 | 3.0 | 0.0 |
| 12590.0 | 94.0 | 89.7 | 89.6 | 3.0 | 6.0 | -0.1 |

Frequency weighting C:

| Frequency | Ref. level | Expected level | Actual level | Tolerance(dB) | | Deviation |
|-----------|------------|----------------|--------------|---------------|---|-----------|
| | | | | + | - | |
| Hz | dB | dB | dB | | | dB |



Test Data for Sound Level Meter

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Sound level meter type: XL2 Serial No. A2A-15269-EO Date 17-Feb-2020
Microphone type: MC230A Serial No. A14232

Report: 20CA0214 01-02

| | | | | | | |
|---------|------|------|------|-----|-----|------|
| 1000.0 | 94.0 | 94.0 | 94.0 | 0.0 | 0.0 | 0.0 |
| 31.6 | 94.0 | 91.0 | 90.9 | 1.5 | 1.5 | -0.1 |
| 63.1 | 94.0 | 93.2 | 93.1 | 1.5 | 1.5 | -0.1 |
| 125.9 | 94.0 | 93.8 | 93.8 | 1.0 | 1.0 | 0.0 |
| 251.2 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 501.2 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 1995.0 | 94.0 | 93.8 | 93.8 | 1.0 | 1.0 | 0.0 |
| 3981.0 | 94.0 | 93.2 | 93.2 | 1.0 | 1.0 | 0.0 |
| 7943.0 | 94.0 | 91.0 | 91.0 | 1.5 | 3.0 | 0.0 |
| 12590.0 | 94.0 | 87.8 | 87.6 | 3.0 | 6.0 | -0.2 |

Frequency weighting Lin:

| Frequency Hz | Ref. level dB | Expected level dB | Actual level dB | Tolerance(dB) | | Deviation dB |
|-----------------|------------------|----------------------|--------------------|---------------|-----|-----------------|
| | | | | + | - | |
| 1000.0 | 94.0 | 94.0 | 94.0 | 0.0 | 0.0 | 0.0 |
| 31.6 | 94.0 | 94.0 | 93.9 | 1.5 | 1.5 | -0.1 |
| 63.1 | 94.0 | 94.0 | 93.9 | 1.5 | 1.5 | -0.1 |
| 125.9 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 251.2 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 501.2 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 1995.0 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 3981.0 | 94.0 | 94.0 | 94.0 | 1.0 | 1.0 | 0.0 |
| 7943.0 | 94.0 | 94.0 | 94.0 | 1.5 | 3.0 | 0.0 |
| 12590.0 | 94.0 | 94.0 | 94.0 | 3.0 | 6.0 | 0.0 |

Note: No corrections for the frequency response of the microphone, instrument case and windshield are made to the sound level meter.

TIME WEIGHTING FAST TEST

Time weighting F is tested on the reference range with a single sinusoidal burst of duration 200 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

| Ref. level dB | Expected level dB | Actual level dB | Tolerance(dB) | | Deviation dB |
|------------------|----------------------|--------------------|---------------|-----|-----------------|
| | | | + | - | |
| 116.0 | 115.0 | 115.0 | 1.0 | 1.0 | 0.0 |

TIME WEIGHTING SLOW TEST

Time weighting S is tested on the reference range with a single sinusoidal burst of duration 500 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

| Ref. level dB | Expected level dB | Actual level dB | Tolerance(dB) | | Deviation dB |
|------------------|----------------------|--------------------|---------------|-----|-----------------|
| | | | + | - | |
| 116.0 | 111.9 | 111.9 | 1.0 | 1.0 | 0.0 |



Test Data for Sound Level Meter

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Sound level meter type: XL2 Serial No. A2A-15269-EO Date 17-Feb-2020
Microphone type: MC230A Serial No. A14232

Report: 20CA0214 01-02

PEAK RESPONSE TEST

The onset time of the peak detector is tested on the reference range by comparing the response to a 100 us rectangular test pulse with the response to a 10 ms reference pulse of the same amplitude. The amplitude of the 10 ms reference pulse is such as to produce an indication 1 dB below the upper limit of the primary indicator range.

Positive polarities: (Weighting Z, set the generator signal to single, Lzpeak)

| Ref. level | Response to 10 ms | Response to 100 us | Tolerance | Deviation |
|------------|-------------------|--------------------|-----------|-----------|
| dB | dB | dB | +/- dB | dB |
| 119.0 | 119.0 | 119.4 | 2.0 | 0.4 |

Negative polarities:

| Ref. level | Response to 10 ms | Response to 100 us | Tolerance | Deviation |
|------------|-------------------|--------------------|-----------|-----------|
| dB | dB | dB | +/- dB | dB |
| 119.0 | 119.0 | 119.4 | 2.0 | 0.4 |

RMS ACCURACY TEST

The RMS detector accuracy is tested on the reference range for a crest factor of 3.

Test frequency: 2000 Hz
Amplitude: 2 dB below the upper limit of the primary indicator range.
Burst repetition frequency: 40 Hz
Tone burst signal: 11 cycles of a sine wave of frequency 2000 Hz. (Set to INT)

| | Ref. Level | Expected level | Tone burst signal | Tolerance | Deviation |
|----------------|------------|----------------|-------------------|-----------|-----------|
| Time weighting | dB | dB | indication(dB) | +/- dB | dB |
| Slow | 118.0+6.6 | 118.0 | 118.0 | 0.5 | 0.0 |

TIME WEIGHTING IMPULSE TEST

Time weighting I is tested on the reference range (Set the SLM to LAImax)

Test frequency: 2000 Hz
Amplitude: The upper limit of the primary indicator range.

Single sinusoidal burst of duration 5 ms:

| Ref. Level | Single burst indication | | Tolerance | Deviation |
|------------|-------------------------|-------------|-----------|-----------|
| dB | Expected (dB) | Actual (dB) | +/- dB | dB |
| 120.0 | 111.2 | 111.1 | 2.0 | -0.1 |

Repeated at 100 Hz

| Ref. Level | Repeated burst indication | | Tolerance | Deviation |
|------------|---------------------------|-------------|-----------|-----------|
| dB | Expected (dB) | Actual (dB) | +/- dB | dB |
| 120.0 | 117.3 | 117.2 | 1.0 | -0.1 |

TIME AVERAGING TEST

This test compares the SLM reading for continuous sine signals with readings obtained from a sine tone burst sequence having the same RMS level. The test level is 30 dB below the upper limit of the linearity range and repeated for Type 1 SLM with 40 dB below the upper limit of the linearity.

Frequency of tone burst: 4000 Hz

Duration of tone burst: 1 ms

| Repetition Time | Level of tone burst | Expected Leq | Actual Leq | Tolerance | Deviation | Remarks |
|-----------------|---------------------|--------------|------------|-----------|-----------|---------|
| | | | | | | |



Test Data for Sound Level Meter

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Sound level meter type: XL2 Serial No. A2A-15269-EO Date 17-Feb-2020
Microphone type: MC230A Serial No. A14232
Report: 20CA0214 01-02

| msec | dB | dB | dB | +/- dB | dB | |
|-------|------|------|------|--------|------|--------------|
| 1000 | 90.0 | 90.0 | 89.9 | 1.0 | -0.1 | 60s integ. |
| 10000 | 80.0 | 80.0 | 79.9 | 1.0 | -0.1 | 6min. integ. |

PULSE RANGE AND SOUND EXPOSURE LEVEL TEST

The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency: 4000 Hz
Integration time: 10 sec

The integrating sound level meter set to Leq:

| Duration | Rms level of | Expected | Actual | Tolerance | Deviation |
|----------|-----------------|----------|--------|-----------|-----------|
| msec | tone burst (dB) | dB | dB | +/- dB | dB |
| 10 | 88.0 | 58.0 | 58.0 | 1.7 | 0.0 |

The integrating sound level meter set to SEL:

| Duration | Rms level of | Expected | Actual | Tolerance | Deviation |
|----------|-----------------|----------|--------|-----------|-----------|
| msec | tone burst (dB) | dB | dB | +/- dB | dB |
| 10.0 | 88.0 | 68.0 | 68.0 | 1.7 | 0.0 |

OVERLOAD INDICATION TEST

For SLM capable of operating in a non-integrating mode.

Test frequency: 2000 Hz
Amplitude: 2 dB below the upper limit of the primary indicator range.
Burst repetition frequency: 40 Hz
Tone burst signal: 11 cycles of a sine wave of frequency 2000 Hz.

| Level | Level reduced by | Further reduced | Difference | Tolerance | Deviation |
|------------------|------------------|-----------------|------------|-----------|-----------|
| at overload (dB) | 1 dB | 3 dB | dB | dB | dB |
| 121.6 | 120.6 | 117.6 | 3.0 | 1.0 | 0.0 |

For integrating SLM, with the instrument indicating Leq.

For integrating SLM, with the instrument indicating Leq and set to the reference range. The test signal as following:

The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency: 4000 Hz
Integration time: 10 sec
Single burst duration: 1 msec

| Rms level | Level reduced by | Expected level | Actual level | Tolerance | Deviation |
|------------------|------------------|----------------|--------------|-----------|-----------|
| at overload (dB) | 1 dB | dB | dB | dB | dB |
| 127.6 | 126.6 | 86.6 | 86.6 | 2.2 | 0.0 |

ACOUSTIC TEST

The acoustic test of the complete SLM is tested at the frequency 125 Hz and 8000 Hz using a B&K type 4226 Multifunction Acoustic Calibrator. The test is performed in A weighting.

| Frequency | Expected level | Actual level | Tolerance (dB) | | Deviation |
|-----------|----------------|---------------|----------------|---|-----------|
| Hz | dB | Measured (dB) | + | - | dB |



Test Data for Sound Level Meter

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Sound level meter type: XL2 Serial No. A2A-15269-EO Date 17-Feb-2020
Microphone type: MC230A Serial No. A14232

Report: 20CA0214 01-02

| | | | | | |
|------|------|------|-----|-----|------|
| 1000 | 94.0 | 94.0 | 0.0 | 0.0 | 0.0 |
| 125 | 77.9 | 77.9 | 1.0 | 1.0 | 0.0 |
| 8000 | 92.9 | 92.0 | 1.5 | 3.0 | -0.9 |

-----END-----



CERTIFICATE OF CALIBRATION

Certificate No.: 19CA1105 03

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

Customer: Lam Environmental Services Limited.
Address of Customer: -
Request No.: -
Date of receipt: 05-Nov-2019

Date of test: 06-Nov-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: 21 ± 1 °C
Relative humidity: 50 ± 10 %
Air pressure: 1000 ± 5 hPa

Test specifications

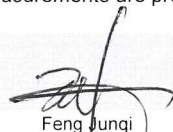
- 1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- 2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- 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: 06-Nov-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.: 19CA1105 03 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.

| Frequency Shown Hz | Output Sound Pressure Level Setting dB | Measured Output Sound Pressure Level dB | (Output level in dB re 20 μ Pa) |
|-----------------------|---|--|--------------------------------------|
| | | | Estimated Expanded Uncertainty dB |
| 1000 | 94.00 | 93.83 | 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 = 0.031 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 = 1000.2 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 = 0.5%

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:

Date:

Fung Chi Yip
06-Nov-2019

Checked by:

Date:

Shek Kwong Tat
06-Nov-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.



Portable Dust Meter Performance Check Record

Portable Dust Meter

Type : Particulate Monitor
Manufacturer : Metone AEROCET 831
Model Number : 831
Serial Number : W16848
Performance Check Date : 6-Nov-19

Standard Equipment

Type : High Volume Sampler
Manufacturer : TISCH
Model Number : TE-5170
Equipment Number : HVS018
Last Calibration Date : 30-Sep-19

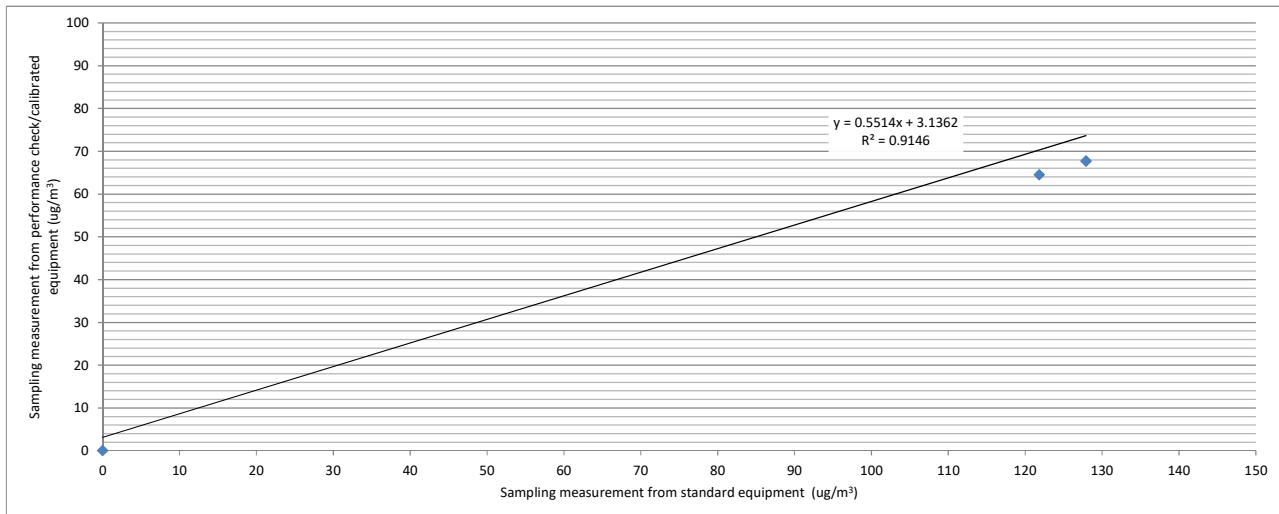
Portable Dust Meter Performance Check Results

Table with 6 columns: Trial no. in 1-hr period, Time, Mean Pressure (hPa), Mean Temp (°C), Concentration in ug/m³ (Standard equipment), Concentration in ug/m³ (Performance Check / Calibrated equipment). Rows include Zero Check and three trials on 6/11/2019.

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor) : 1.7000
Correlation Coefficient : 0.9563
Validity of Performance Check / Calibration Record : 5/11/2020



Operator: Alan Ng

Date: 6-Nov-19

Checked by: James Chu

Date: 7-Nov-19



Portable Dust Meter Performance Check Record

Portable Dust Meter

Type : Particulate Monitor
Manufacturer : Metone AEROCET 831
Model Number : 831
Serial Number : Y23153
Performance Check Date : 3-Jan-20

Standard Equipment

Type : High Volume Sampler
Manufacturer : TISCH
Model Number : TE-5170
Equipment Number : HVS018
Last Calibration Date : 29-Nov-19

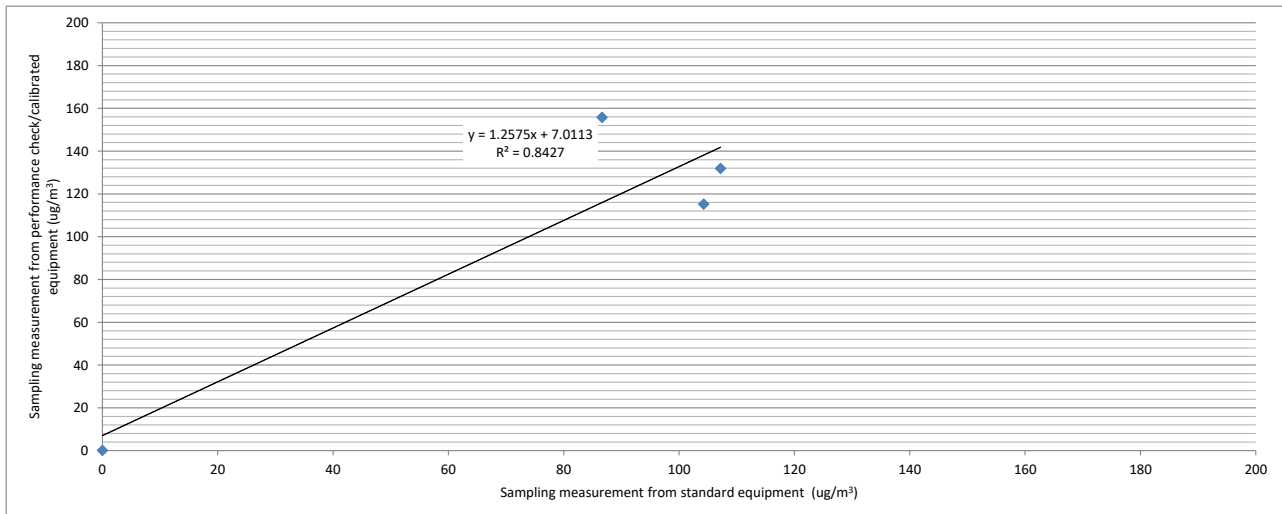
Portable Dust Meter Performance Check Results

Table with 6 columns: Trial no. in 1-hr period, Time, Mean Pressure (hPa), Mean Temp (°C), Concentration in ug/m³ (Standard equipment), Concentration in ug/m³ (Performance Check / Calibrated equipment). Rows include Zero Check and trials 1, 2, 3.

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor) : 0.7000
Correlation Coefficient : 0.9180
Validity of Performance Check / Calibration Record : 2/1/2021



Operator: Henry Lau
Checked by: James Chu

Date: 3-Jan-20
Date: 4-Jan-20



Portable Dust Meter Performance Check Record

Portable Dust Meter

Type : Particulate Monitor
Manufacturer : Metone AEROCET 831
Model Number : 831
Serial Number : Y23154
Performance Check Date : 3-Jan-20

Standard Equipment

Type : High Volume Sampler
Manufacturer : TISCH
Model Number : TE-5170
Equipment Number : HVS018
Last Calibration Date : 29-Nov-19

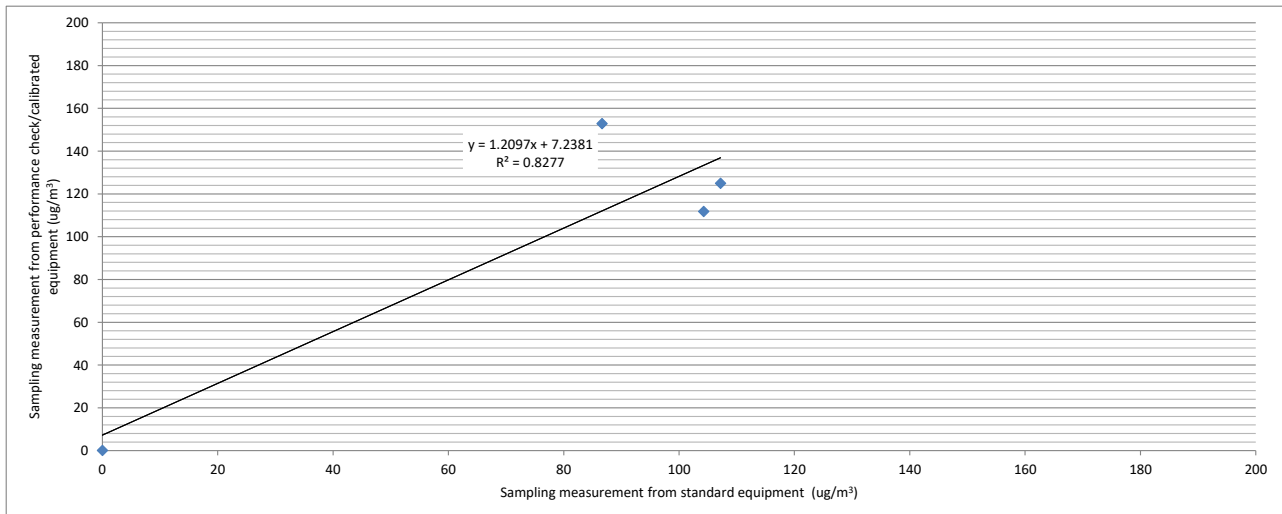
Portable Dust Meter Performance Check Results

Table with 6 columns: Trial no. in 1-hr period, Time, Mean Pressure (hPa), Mean Temp (°C), Concentration in ug/m³ (Standard equipment) (Y - Axis), Concentration in ug/m³ (Performance Check / Calibrated equipment) (X - Axis). Rows include Zero Check and trials 1, 2, 3.

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor) : 0.7000
Correlation Coefficient : 0.9098
Validity of Performance Check / Calibration Record : 2/1/2021



Operator: Henry Lau

Date: 3-Jan-20

Checked by: James Chu

Date: 4-Jan-20



Portable Dust Meter Performance Check Record

Portable Dust Meter

Type : Particulare Monitor
 Manufacturer : Metone AEROCET 831
 Model Number : 831
 Serial Number : Y23160
 Performance Check Date : 3-Jan-20

Standard Equipment

Type : High Volume Sampler
 Manufacturer : TISCH
 Model Number : TE-5170
 Equipment Number : HVS018
 Last Calibration Date : 29-Nov-19

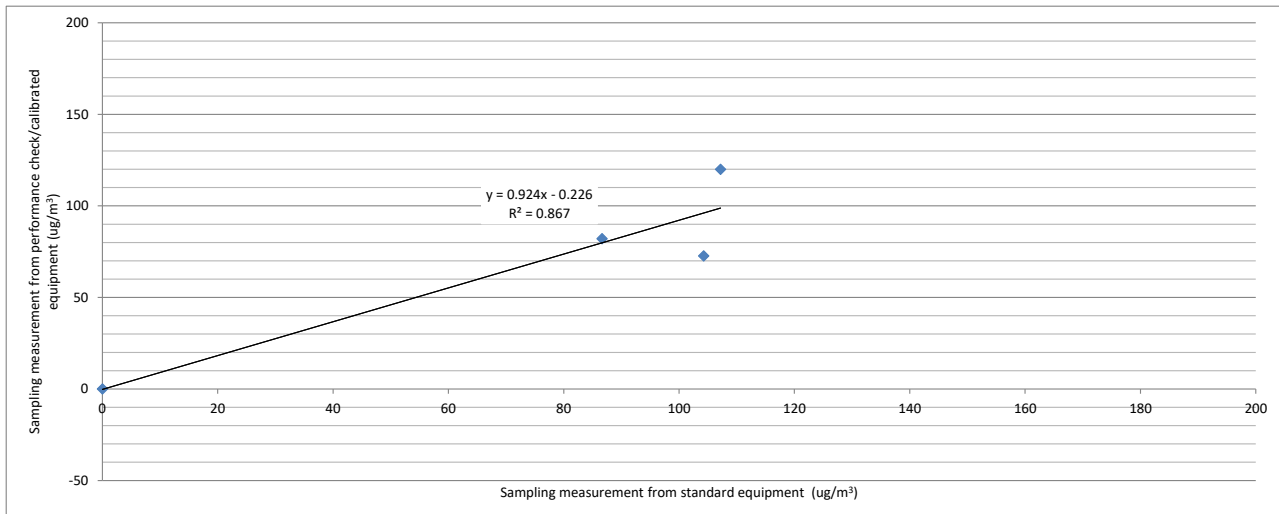
Portable Dust Meter Performance Check Results

| Trial no. in 1-hr period | Time | Mean Pressure (hPa) | Mean Temp (°C) | Concentration in ug/m ³ (Standard equipment) (Y - Axis) | Concentration in ug/m ³ (Performance Check / Calibrated equipment) (X - Axis) |
|--------------------------|----------------|---------------------|----------------|--|--|
| Zero Check | 2/1/2019 08:00 | 1025 | 18 | 0 | 0 |
| 1 | 3/1/2020 09:32 | 1023 | 19 | 87 | 82 |
| 2 | 3/1/2020 10:33 | 1023 | 19 | 104 | 73 |
| 3 | 3/1/2020 11:34 | 1023 | 19 | 107 | 120 |

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor) : 1.0000
 Correlation Coefficient : 0.9311
 Validity of Performance Check / Calibration Record : 2/1/2021



Operator: Henry Lau Date: 3-Jan-20
 Checked by: James Chu Date: 4-Jan-20



Portable Dust Meter Performance Check Record

Portable Dust Meter

Type : Particulate Monitor
 Manufacturer : Metone AEROCET 831
 Model Number : 831
 Serial Number : W15449
 Performance Check Date : 7-Dec-19

Standard Equipment

Type : High Volume Sampler
 Manufacturer : TISCH
 Model Number : TE-5170
 Equipment Number : HVS002
 Last Calibration Date : 18-Oct-19

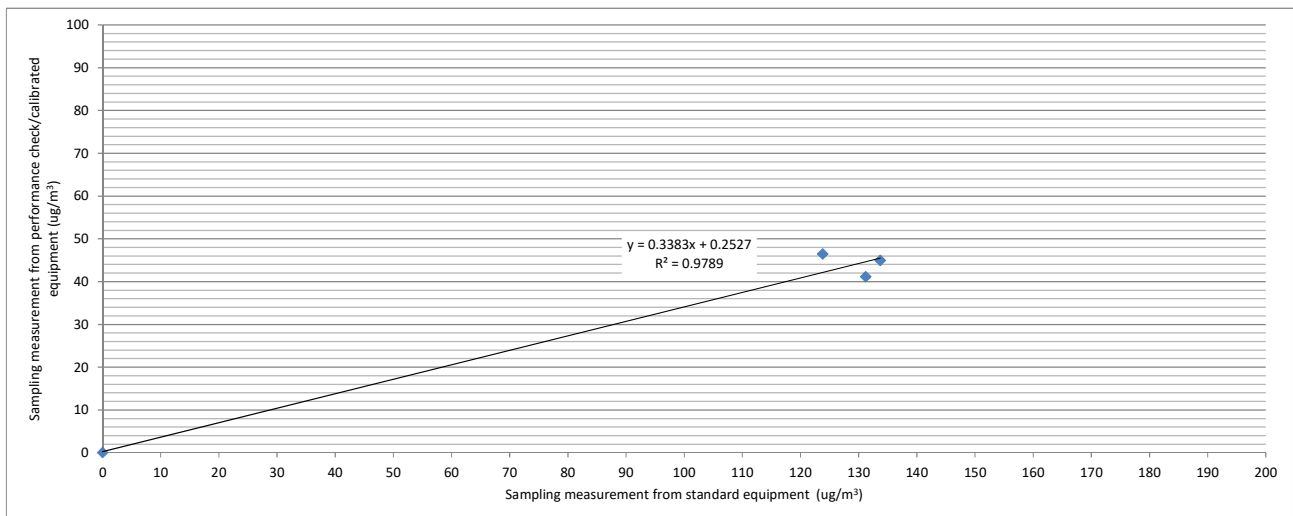
Portable Dust Meter Performance Check Results

| Trial no. in 1-hr period | Time | Mean Pressure (hPa) | Mean Temp (°C) | Concentration in ug/m ³ (Standard equipment) (Y - Axis) | Concentration in ug/m ³ (Performance Check / Calibrated equipment) (X - Axis) |
|--------------------------|-----------------|---------------------|----------------|--|--|
| Zero Check | 6/12/2019 08:00 | 1025 | 17 | 0 | 0 |
| 1 | 7/12/2019 09:45 | 1025 | 16 | 131 | 41 |
| 2 | 7/12/2019 10:46 | 1025 | 16 | 124 | 46 |
| 3 | 7/12/2019 13:00 | 1025 | 16 | 134 | 45 |

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor) : 2.9000
 Correlation Coefficient : 0.9894
 Validity of Performance Check / Calibration Record : 6/12/2020



Operator: Alan Ng Date: 7-Dec-19
 Checked by: James Chu Date: 8-Dec-19



Portable Dust Meter Performance Check Record

Portable Dust Meter

Type : Particulate Monitor
 Manufacturer : Metone AEROCET 831
 Model Number : 831
 Serial Number : W15448
 Performance Check Date : 30-Sep-19

Standard Equipment

Type : High Volume Sampler
 Manufacturer : TISCH
 Model Number : TE-5170
 Equipment Number : HVS006
 Last Calibration Date : 16-Sep-19

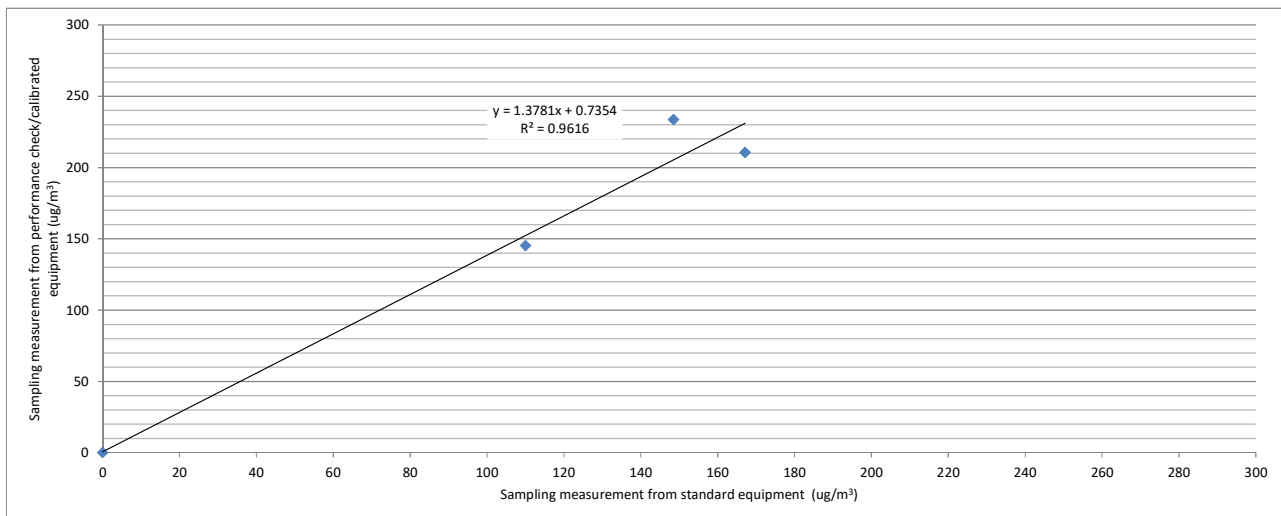
Portable Dust Meter Performance Check Results

| Trial no. in 1-hr period | Time | Mean Pressure (hPa) | Mean Temp (°C) | Concentration in ug/m ³ (Standard equipment) (Y - Axis) | Concentration in ug/m ³ (Performance Check / Calibrated equipment) (X - Axis) |
|--------------------------|-----------------|---------------------|----------------|--|--|
| Zero Check | 29/9/2019 08:00 | 1013 | 29 | 0 | 0 |
| 1 | 30/9/2019 08:16 | 1009 | 30 | 149 | 234 |
| 2 | 30/9/2019 09:17 | 1009 | 30 | 110 | 145 |
| 3 | 30/9/2019 10:18 | 1009 | 30 | 167 | 211 |

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor) : 0.7000
 Correlation Coefficient : 0.9806
 Validity of Performance Check / Calibration Record : 29/9/2020



Operator: Henry Lau Date: 30-Sep-19
 Checked by: James Chu Date: 1-Oct-19



Portable Dust Meter Performance Check Record

Portable Dust Meter

Type : Particulate Monitor
 Manufacturer : MET ONE INSTRUMENTS
 Model Number : BT645
 Serial Number : X19299
 Performance Check Date : 17-Mar-20

Standard Equipment

Type : High Volume Sampler
 Manufacturer : TISCH
 Model Number : TE-5170
 Equipment Number : HVS0003
 Last Calibration Date : 07-Mar-20

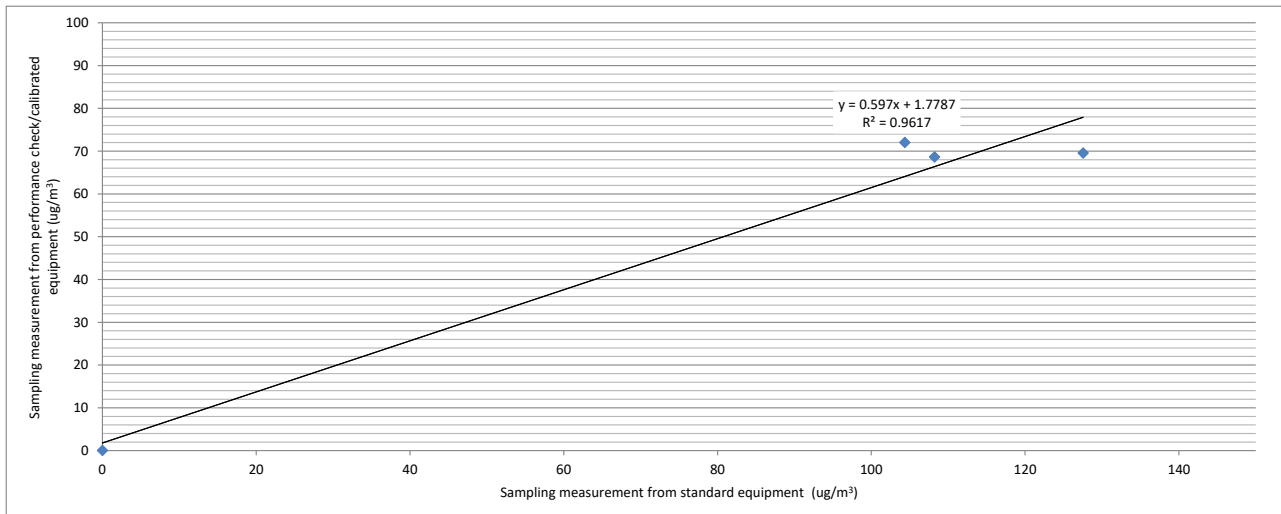
Portable Dust Meter Performance Check Results

| Trial no. in 1-hr period | Time | Mean Pressure (hPa) | Mean Temp (°C) | Concentration in ug/m ³ (Standard equipment) (Y - Axis) | Concentration in ug/m ³ (Performance Check / Calibrated equipment) (X - Axis) |
|--------------------------|-----------------|---------------------|----------------|--|--|
| Zero Check | 16/3/2020 08:00 | 1020 | 20 | 0 | 0 |
| 1 | 17/3/2020 08:16 | 1019 | 20 | 108 | 69 |
| 2 | 17/3/2020 09:17 | 1019 | 20 | 128 | 70 |
| 3 | 17/3/2020 10:18 | 1019 | 20 | 104 | 72 |

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor) : 1.7000
 Correlation Coefficient : 0.9807
 Validity of Performance Check / Calibration Record : 17/3/2021



Operator: Henry Lau

Date: 17-Mar-20

Checked by: James Chu

Date: 18-Mar-20



Portable Dust Meter Performance Check Record

Portable Dust Meter

Type : Particulate Monitor
 Manufacturer : MET ONE INSTRUMENTS
 Model Number : BT645
 Serial Number : X19295
 Performance Check Date : 17-Mar-20

Standard Equipment

Type : High Volume Sampler
 Manufacturer : TISCH
 Model Number : TE-5170
 Equipment Number : HVS0003
 Last Calibration Date : 07-Mar-20

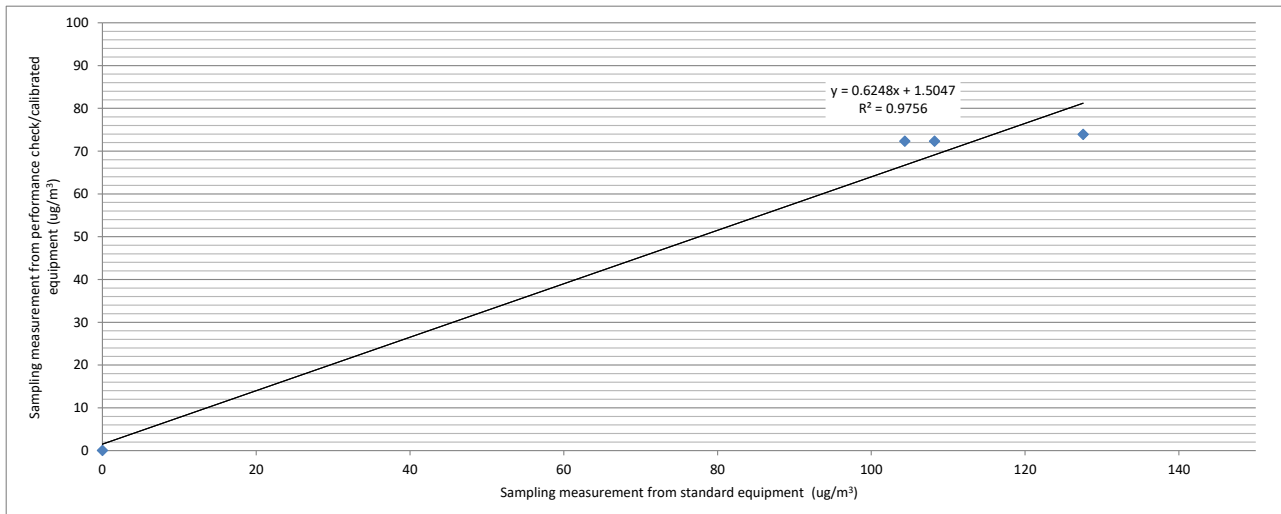
Portable Dust Meter Performance Check Results

| Trial no. in 1-hr period | Time | Mean Pressure (hPa) | Mean Temp (°C) | Concentration in ug/m ³ (Standard equipment) (Y - Axis) | Concentration in ug/m ³ (Performance Check / Calibrated equipment) (X - Axis) |
|--------------------------|-----------------|---------------------|----------------|--|--|
| Zero Check | 16/3/2020 08:00 | 1020 | 20 | 0 | 0 |
| 1 | 17/3/2020 08:16 | 1019 | 20 | 108 | 72 |
| 2 | 17/3/2020 09:17 | 1019 | 20 | 128 | 74 |
| 3 | 17/3/2020 10:18 | 1019 | 20 | 104 | 72 |

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor) : 1.6000
 Correlation Coefficient : 0.9877
 Validity of Performance Check / Calibration Record : 17/3/2021



Operator: Henry Lau Date: 17-Mar-20
 Checked by: James Chu Date: 18-Mar-20



Portable Dust Meter Performance Check Record

Portable Dust Meter

Type : Particulate Monitor
Manufacturer : MET ONE INSTRUMENTS
Model Number : BT645
Serial Number : X19297
Performance Check Date : 17-Mar-20

Standard Equipment

Type : High Volume Sampler
Manufacturer : TISCH
Model Number : TE-5170
Equipment Number : HVS0003
Last Calibration Date : 07-Mar-20

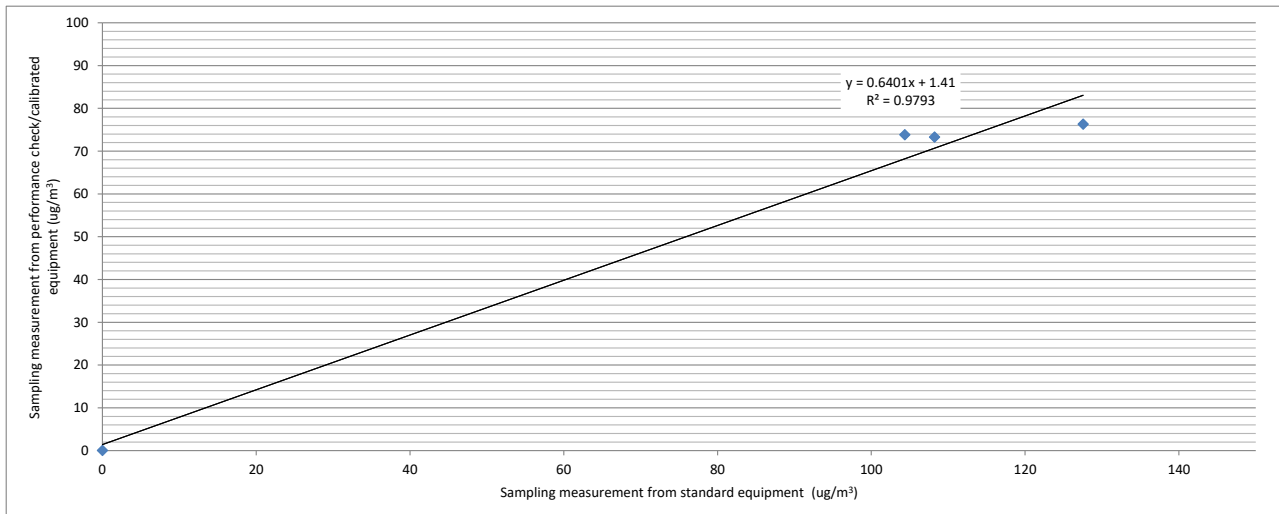
Portable Dust Meter Performance Check Results

Table with 6 columns: Trial no. in 1-hr period, Time, Mean Pressure (hPa), Mean Temp (°C), Concentration in ug/m³ (Standard equipment), Concentration in ug/m³ (Performance Check / Calibrated equipment). Rows include Zero Check and three trials on 17/3/2020.

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor) : 1.6000
Correlation Coefficient : 0.9896
Validity of Performance Check / Calibration Record : 17/3/2021



Operator: Henry Lau

Date: 17-Mar-20

Checked by: James Chu

Date: 18-Mar-20



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: HENRY LAU
CLIENT: LAM ENVIRONMENTAL SERVICES LTD
ADDRESS: 11/F CENTRE POINT,
181-185 GLOUCESTER ROAD,
WANCHAI, HONG KONG

WORK ORDER: HK2003821
SUB-BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 03-Feb-2020
DATE OF ISSUE: 11-Feb-2020

SPECIFIC 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: pH Value
Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI Professional Plus
Serial No./ Equipment No.: 14M100277
Date of Calibration: 07-Feb-2020

GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number. 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: HK2003821
SUB-BATCH: 0
DATE OF ISSUE: 11-Feb-2020
CLIENT: LAM ENVIRONMENTAL SERVICES LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: YSI Professional Plus
Serial No./
Equipment No.: 14M100277
Date of Calibration: 07-Feb-2020

Date of Next Calibration: 07-May-2020

PARAMETERS:

pH Value

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

| Expected Reading (pH unit) | Displayed Reading (pH unit) | Tolerance (pH unit) |
|----------------------------|-----------------------------|---------------------|
| 4.0 | 4.07 | +0.07 |
| 7.0 | 7.08 | +0.08 |
| 10.0 | 9.99 | -0.01 |
| | Tolerance Limit (pH unit) | ±0.20 |

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

CONTACT: HENRY LAU
CLIENT: LAM ENVIRONMENTAL SERVICES LTD
ADDRESS: 11/F CENTRE POINT,
181-185 GLOUCESTER ROAD,
WANCHAI, HONG KONG

WORK ORDER: HK2003813
SUB-BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 03-Feb-2020
DATE OF ISSUE: 11-Feb-2020

SPECIFIC 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: 11-Feb-2020

GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number. 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: HK2003813
 SUB-BATCH: 0
 DATE OF ISSUE: 11-Feb-2020
 CLIENT: LAM ENVIRONMENTAL SERVICES LTD

Equipment Type: Multifunctional Meter
 Brand Name/ Model No.: YSI Professional Plus
 Serial No./ Equipment No.: 17F100236
 Date of Calibration: 11-Feb-2020 Date of Next Calibration: 11-May-2020

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

| Expected Reading (mg/L) | Displayed Reading (mg/L) | Tolerance (mg/L) |
|-------------------------|--------------------------|------------------|
| 3.76 | 3.91 | +0.15 |
| 5.39 | 5.42 | +0.03 |
| 6.66 | 6.52 | -0.14 |
| 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 | 4.04 | +0.04 |
| 7.0 | 6.99 | -0.01 |
| 10.0 | 9.92 | -0.08 |
| Tolerance Limit (pH unit) | | ±0.20 |

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

| Expected Reading (ppt) | Displayed Reading (ppt) | Tolerance (%) |
|------------------------|-------------------------|---------------|
| 0 | 0.00 | -- |
| 10 | 9.47 | -5.3 |
| 20 | 18.46 | -7.7 |
| 30 | 30.07 | +0.2 |
| 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: HK2003813
SUB-BATCH: 0
DATE OF ISSUE: 11-Feb-2020
CLIENT: LAM ENVIRONMENTAL SERVICES LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: YSI Professional Plus
Serial No./
Equipment No.: 17F100236
Date of Calibration: 11-Feb-2020

Date of Next Calibration: 11-May-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 | 9.0 | +0.0 |
| 20.1 | 21.0 | +0.9 |
| 37.5 | 37.0 | -0.5 |
| | 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.: 22777053-B07A4901
CLIENT: LAM ENVIRONMENTAL SERVICES LTD
DATE RECEIVED: 07/02/2020
DATE OF ISSUE: 18/02/2020
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.

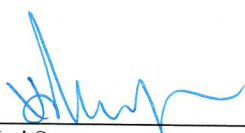
Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of FT Laboratories Ltd will be followed.

| | |
|----------------------|--------------|
| Scope of Test: | Turbidity |
| Equipment Type: | Turbidimeter |
| Brand Name: | Xin Rui |
| Model No.: | WGZ-3B |
| Serial No.: | 1807073 |
| Equipment No.: | --- |
| Date of Calibration: | 14/02/2020 |

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:



Ho Lai Sze
Senior Chemist

Issue Date:

18/02/2020



REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

WORK ORDER: 22777053-B07A4901
DATE OF ISSUE: 18/02/2020
CLIENT: LAM ENVIRONMENTAL SERVICES LTD

| | |
|---------------------------|--------------|
| Equipment Type: | Turbidimeter |
| Brand Name: | Xin Rui |
| Model No.: | WGZ-3B |
| Serial No.: | 1807073 |
| Equipment No.: | --- |
| Date of Calibration: | 14/02/2020 |
| Date of next Calibration: | 16/05/2020 |
| Lab I.D.: | H200037-01 |

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

| Expected Reading (NTU) | Display Reading (NTU) | Tolerance |
|------------------------|---------------------------|-----------|
| 0 | 0.00 | --- |
| 4 | 3.90 | -2.5% |
| 10 | 10.02 | 0.2% |
| 40 | 39.75 | -0.6% |
| 100 | 101.10 | 1.1% |
| 400 | 400 | 0.0% |
| 1000 | 1001 | 0.1% |
| | Tolerance Limit (\pm) | 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.: 22787053-B07A5001
CLIENT: LAM GEOTECHNICS LTD
DATE RECEIVED: 07/02/2020
DATE OF ISSUE: 18/02/2020
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.: | 1807069 |
| Equipment No.: | --- |
| Date of Calibration: | 14/02/2020 |

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:

Ho Lai Sze
Senior Chemist

Issue Date:

18/02/2020

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Form No.: HG022-002 Rev 0 20190101

Page 1 of 2



REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

WORK ORDER: 22787053-B07A5001
DATE OF ISSUE: 18/02/2020
CLIENT: LAM GEOTECHNICS LTD

| | |
|---------------------------|--------------|
| Equipment Type: | Turbidimeter |
| Brand Name: | Xin Rui |
| Model No.: | WGZ-3B |
| Serial No.: | 1807069 |
| Equipment No.: | --- |
| Date of Calibration: | 14/02/2020 |
| Date of next Calibration: | 16/05/2020 |
| Lab I.D.: | H200038-01 |

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

| Expected Reading (NTU) | Display Reading (NTU) | Tolerance |
|------------------------|---------------------------|-----------|
| 0 | 0.00 | --- |
| 4 | 3.84 | -4.0% |
| 10 | 10.29 | 2.9% |
| 40 | 38.68 | -3.3% |
| 100 | 100.80 | 0.8% |
| 400 | 407 | 1.8% |
| 1000 | 1013 | 1.3% |
| | Tolerance Limit (\pm) | 10% |

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