Appendix E
Calibration Record
(Air Quality Monitoring)

CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

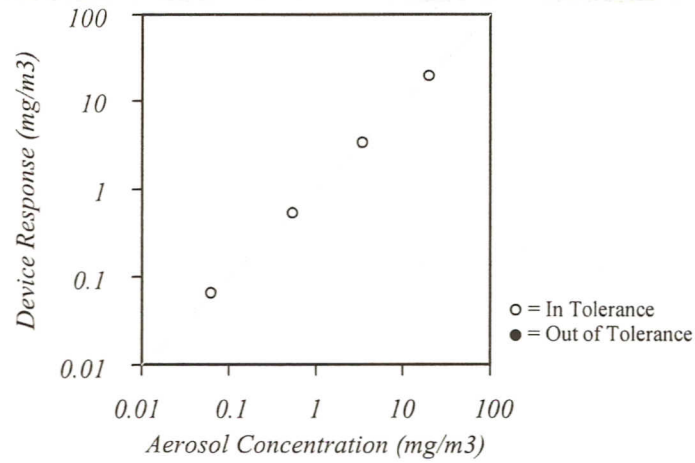
Environment Condition		
Temperature	74.7 (23.7)	°F (°C)
Relative Humidity	35	%RH
Barometric Pressure	28.87 (977.7)	inHg (hPa)

Model	**8520**
Serial Number	**22378**

☒ As Left ☐ As Found

☒ In Tolerance ☐ Out of Tolerance

Concentration Linearity Plot



System ID: DTII01-02

Zero Stability Results

Average:	Minimum:	Maximum:	Time:
0.000 :mg/m³	0.000 :mg/m³	0.001 :mg/m³	4.00 :hrs.

TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil and has been nominally adusted to respirable mass of standard ISO 12103-1, A1 test dust (Arizona dust). Our calibration ratio is greater than 1.2:1

Measurement Variable	System ID	Last Cal.	Cal. Due
Barometric Pressure	E001329	04-23-09	04-23-10
Humidity	E002873	02-24-09	02-24-10
DC Voltage	E003315	01-06-09	01-06-10
Microbalance	E003403	06-25-09	06-25-10
Pressure	E003511	11-12-09	11-12-10

Measurement Variable	System ID	Last Cal.	Cal. Due
Temperature	E002873	02-24-09	02-24-10
DC Voltage	E003314	01-06-09	01-06-10
Photometer	E003319	07-02-09	01-02-10
Flow and Temperature	E003512	02-16-09	02-16-10

Tom Day
Calibrated

☒ Final Function Check

November 24, 2009
Date

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR2A
Calibrated by : P.F.Yeung
Date : 12/05/2010

Sampler
Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 1061

Calibration Orfice and Standard Calibration Relationship
Serial Number : 1785
Service Date : 10 May 2010
Slope (m) : 2.01637
Intercept (b) : -0.02316
Correlation Coefficient(r) : 0.99996

Standard Condition
Pstd (hpa) : 1013
Tstd (K) : 298.18

Calibration Condition
Pa (hpa) : 1012
Ta(K) : 297

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1	18 holes	10.4	3.228	1.633	50	50.0
2	13 holes	8.2	2.866	1.450	44	44.0
3	10 holes	6.2	2.492	1.261	37	37.0
4	7 holes	4.0	2.002	1.013	29	29.0
5	5 holes	2.5	1.583	0.801	22	22..0

Sampler Calibration Relationship

Slope(m):33.788 Intercept(b): -5.179 Correlation Coefficient(r): 0.9998

Checked by: Magnum Fan Date: 15/05/2010

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR4
Calibrated by : P.F.Yeung
Date : 12/05/2010

Sampler
Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 1273

Calibration Orfice and Standard Calibration Relationship
Serial Number : 1785
Service Date : 10 May 2010
Slope (m) : 2.01637
Intercept (b) : -0.02316
Correlation Coefficient(r) : 0.99996

Standard Condition
Pstd (hpa) : 1013
Tstd (K) : 298.18

Calibration Condition
Pa (hpa) : 1012
Ta(K) : 297

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1	18 holes	7.6	2.760	1.396	50	50.1
2	13 holes	6.0	2.452	1.241	43	43.1
3	10 holes	4.6	2.147	1.086	36	36.0
4	7 holes	3.1	1.762	0.892	28	28.1
5	5 holes	2.0	1.416	0.716	20	20.0

Sampler Calibration Relationship

Slope(m):43.920 Intercept(b): -11.394 Correlation Coefficient(r): 0.9998

Checked by: Magnum Fan Date: 15/05/2010

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR3
Calibrated by : K.T.Ho
Date : 12/05/2010

Sampler
Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 7577

Calibration Orfice and Standard Calibration Relationship
Serial Number : 1785
Service Date : 10 May 2010
Slope (m) : 2.01637
Intercept (b) : -0.02316
Correlation Coefficient(r) : 0.99996

Standard Condition
Pstd (hpa) : 1013
Tstd (K) : 298.18

Calibration Condition
Pa (hpa) : 1012
Ta(K) : 297

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1	18 holes	10.5	3.244	1.641	58	58.1
2	13 holes	9.0	3.003	1.519	53	53.1
3	10 holes	7.0	2.648	1.340	47	47.1
4	7 holes	4.4	2.100	1.062	37	37.0
5	5 holes	2.6	1.614	0.817	28	28.0

Sampler Calibration Relationship

Slope(m):36.093 Intercept(b): -1.406 Correlation Coefficient(r): 0.9997

Checked by: Magnum Fan Date: 15/05/2010

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR1
Calibrated by : P.F.Yeung
Date : 12/05/2010

Sampler
Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 1806

Calibration Orfice and Standard Calibration Relationship
Serial Number : 1785
Service Date : 10 May 2010
Slope (m) : 2.01637
Intercept (b) : -0.02316
Correlation Coefficient(r) : 0.99996

Standard Condition
Pstd (hpa) : 1013
Tstd (K) : 298.18

Calibration Condition
Pa (hpa) : 1012
Ta(K) : 297

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1	18 holes	10.6	3.259	1.649	55	55.1
2	13 holes	8.5	2.918	1.476	49	49.1
3	10 holes	6.4	2.532	1.281	42	42.0
4	7 holes	4.3	2.076	1.050	34	34.0
5	5 holes	2.6	1.614	0.817	26	26.0

Sampler Calibration Relationship

Slope(m):34.945 Intercept(b): -2.605 Correlation Coefficient(r): 0.9999

Checked by: Magnum Fan Date: 15/05/2010

Appendix E
Calibration Record
(Noise Monitoring)

輝創工程有限公司
Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C093598

Certificate of Calibration

This is to certify that the equipment

Description : Sound Level Calibrator

Manufacturer : Rion

Model No. : NC-73

Serial No. : 10786708

has been calibrated for the specific items and ranges.
The results are shown in the Calibration Report No. C093598.

The equipment is supplied by

Co. Name : Envirotech Services Co.

Address : Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road, Hong Kong

Date of Issue : 10 July 2009

Certified by : H C Chan

Calibration and Testing Laboratory of Sun Creation Engineering Limited
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited Calibration and Testing Laboratory

Report No. : C093598

Calibration Report

ITEM TESTED

DESCRIPTION : Sound Level Calibrator
MANUFACTURER : Rion
MODEL NO. : NC-73
SERIAL NO. : 10786708

TEST CONDITIONS

AMBIENT TEMPERATURE : (23 ± 2)°C RELATIVE HUMIDITY : (55 ± 20)%
LINE VOLTAGE : ---

TEST SPECIFICATIONS

Calibration check

DATE OF TEST : 9 July 2009 ***JOB NO.*** : IC09-1664

TEST RESULTS

The results apply to the particular unit-under-test only.
All results are within manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested by : *K C Lee* *Date : 10 July 2009*

Calibration and Testing Laboratory of Sun Creation Engineering Limited
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com

Report No. : C093598

Calibration Report

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
TST150A	Measuring Amplifier	C080751
CL129	Universal Counter	C093121
CL281	Multifunction Acoustic Calibrator	DC090052

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.9	± 0.5	± 0.2

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (Hz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.991 6	1 kHz ± 2 %	± 0.1

Remark : - The uncertainties are for a confidence probability of not less than 95 %.

Note :
The values given in this Calibration Report only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

輝創工程有限公司
Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C093733

Certificate of Calibration

This is to certify that the equipment

Description : Sound Level Meter

Manufacturer : Rion

Model No. : NL-31

Serial No. : 00320533

has been calibrated for the specific items and ranges.
The results are shown in the Calibration Report No. C093733.

The equipment is supplied by

Co. Name : Envirotech Services Co.

Address : Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road, Hong Kong

Date of Issue : 16 July 2009

Certified by : H C Chan

Calibration and Testing Laboratory of Sun Creation Engineering Limited
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited Calibration and Testing Laboratory

Report No. : C093733

Calibration Report

ITEM TESTED

DESCRIPTION : Sound Level Meter
MANUFACTURER : Rion
MODEL NO. : NL-31
SERIAL NO. : 00320533

TEST CONDITIONS

AMBIENT TEMPERATURE : (23 ± 2)°C RELATIVE HUMIDITY : (55 ± 20)%
LINE VOLTAGE : ---

TEST SPECIFICATIONS

Calibration check

DATE OF TEST : 15 July 2009 ***JOB NO.*** : IC09-1740

TEST RESULTS

The results apply to the particular unit-under-test only.
All results are within manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested by : *K C Lee* *Date : 16 July 2009*

Calibration and Testing Laboratory of Sun Creation Engineering Limited
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com

Report No. : C093733

Calibration Report

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration was performed before the test.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C090024
CL281	Multifunction Acoustic Calibrator	DC090052

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L_A	A	Fast	94.00	1	94.2	± 0.7

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 120	L_A	A	Fast	94.00	1	94.2 (Ref.)
				104.00		104.2
				114.00		114.2

IEC 60651 Type 1 Spec. : ± 0.4 dB per 10 dB step and ± 0.7 dB for overall different.

6.2 Time Weighting

6.2.1 Continuous Signal

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L_A	A	Fast	94.00	1	94.2	Ref.
			Slow			94.1	± 0.1

Report No. : C093733

Calibration Report

6.2.2 Tone Burst Signal (2 kHz)

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Burst Duration		
20 - 110	L_A	A	Fast	106.00	Continuous	106.0	Ref.
	L_{Amax}				200 ms	105.0	-1.0 ± 1.0
	L_A		Slow		Continuous	106.0	Ref.
	L_{Amax}				500 ms	102.0	-4.1 ± 1.0

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L_A	A	Fast	94.00	31.5 Hz	55.0	-39.4 ± 1.5
					63 Hz	68.3	-26.2 ± 1.5
					125 Hz	78.3	-16.1 ± 1.0
					250 Hz	85.7	-8.6 ± 1.0
					500 Hz	91.0	-3.2 ± 1.0
					1 kHz	94.2	Ref.
					2 kHz	95.2	+1.2 ± 1.0
					4 kHz	94.4	+1.0 ± 1.0
					8 kHz	90.1	-1.1 (+1.5 ; -3.0)
					12.5 kHz	83.9	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 60651 Type 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L_C	C	Fast	94.00	31.5 Hz	91.4	-3.0 ± 1.5
					63 Hz	93.6	-0.8 ± 1.5
					125 Hz	94.1	-0.2 ± 1.0
					250 Hz	94.3	0.0 ± 1.0
					500 Hz	94.3	0.0 ± 1.0
					1 kHz	94.2	Ref.
					2 kHz	93.9	-0.2 ± 1.0
					4 kHz	92.7	-0.8 ± 1.0
					8 kHz	88.3	-3.0 (+1.5 ; -3.0)
					12.5 kHz	82.1	-6.2 (+3.0 ; -6.0)

Report No. : C093733

Calibration Report

6.4 Time Averaging

UUT Setting				Applied Value					UUT	IEC 60804
Range (dB)	Mode	Frequency Weighting	Time Weighting	Freq. (kHz)	Burst Duration (ms)	Burst Duty Factor	Burst Level (dB)	Equivalent Level (dB)	Reading (dB)	Type 1 Spec. (dB)
20 - 110	L_{Aeq}	A	10 sec.	4	1	1/10	110.0	100	100.3	± 0.5
						$1/10^2$		90	90.3	± 0.5
			60 sec.			$1/10^3$		80	80.3	± 1.0
			5 min.			$1/10^4$		70	70.3	± 1.0

Remarks : - Mfr's Spec. : IEC 60651 & IEC 60804 Type 1

- Uncertainties of Applied Value : 94 dB : 31.5 Hz - 125 Hz : ± 0.35 dB
  250 Hz - 500 Hz : ± 0.30 dB
  1 kHz : ± 0.20 dB
  2 kHz - 4 kHz : ± 0.35 dB
  8 kHz : ± 0.45 dB
  12.5 kHz : ± 0.70 dB
  104 dB : 1 kHz : ± 0.10 dB (Ref. 94 dB)
  114 dB : 1 kHz : ± 0.10 dB (Ref. 94 dB)
  Burst equivalent level : ± 0.2 dB (Ref. 110 dB continuous sound level)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :
The values given in this Calibration Report only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Calibration and Testing Laboratory of Sun Creation Engineering Limited
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com

Appendix E
Calibration Record
(Water Quality Monitoring)

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

ALS TECHNICHEM (HK) Pty Ltd
Environmental Division

CERTIFICATE OF ANALYSIS

CONTACT:	MR THOMAS WONG	**Batch:**	HK1005529
CLIENT:	ENOVATIVE ENVIRONMENTAL TECHNOLOGY COMPANY	**LABORATORY:**	HONG KONG
ADDRESS:	RM 3704, SIK MAN HOUSE, HOMANTIN ESTATE, KOWLOON, HONG KONG.	**DATE RECEIVED:**	01/03/2010
		DATE OF ISSUE:	15/03/2010
		SAMPLE TYPE:	EQUIPMENT
ORDER No.:		**No. of SAMPLES:**	1

COMMENTS

The calibration procedure used for the analysis has been applied for the calibration of the above instrument.

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.

ISSUING LABORATORY: HONG KONG

Address

ALS Technichem (HK) Pty Ltd

11/F
Chung Shun Knitting Centre
1-3 Wing Yip Street
Kwai Chung
HONG KONG

Phone: 852-2610 1044
Fax: 852-2610 2021
Email: hongkong@alsenviro.com

Mr Chan Kwok Fai, Godfrey
Laboratory Manager - Hong Kong

Other ALS Environmental Laboratories

AUSTRALIA		*AMERICAS*
Brisbane	*Hong Kong*	*Vancouver*
Melbourne	*Singapore*	*Santiago*
Sydney	*Kuala Lumpur*	*Amtofagasta*
Newcastle	*Bogor*	*Lima*

Abbreviations: *% SPK REC denotes percentage spike recovery*
CHK denotes duplicate check sample
LOR denotes limit of reporting
LCS % REC denotes Laboratory Control Sample percentage recovery

CERTIFICATE OF ANALYSIS

Batch: HK1005529
Date of Issue: 15/03/2010
Client: ENOVATIVE ENVIRONMENTAL TECHNOLOGY COMPANY
Client Reference:

Calibration of Turbidimeter

Item :	Hach Turbidimeter	Serial No.:	09120C000514
Model No.:	2100Q	Equipment No.:	N/A
ALS Lab ID:	HK1005529 -001	Date of Calibration:	01 March, 2010

Testing Results :

Turbidimeter

Expected Reading	Recording Reading
4.00 NTU	4.20 NTU
20.0 NTU	20.1 NTU
100 NTU	100 NTU
Allowing Deviation	±10%

Testing Method:

APHA (20th edition), 2130 B

Mr Chan Kwok Fai, Godfrey
Laboratory Manager - Hong Kong

ALS Technichem (HK) Pty Ltd
ALS Environmental

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

ALS TECHNICHEM (HK) Pty Ltd
Environmental Division

CERTIFICATE OF ANALYSIS

CONTACT:	MR THOMAS WONG	**Batch:**	HK1013955
CLIENT:	ENOVATIVE ENVIRONMENTAL TECHNOLOGY COMPANY	**LABORATORY:**	HONG KONG
ADDRESS:	RM 3704, SIK MAN HOUSE,	**DATE RECEIVED:**	01/06/2010
	HOMANTIN ESTATE,	**DATE OF ISSUE:**	15/06/2010
	KOWLOON, HONG KONG.	**SAMPLE TYPE:**	EQUIPMENT
ORDER No.:		**No. of SAMPLES:**	1

COMMENTS

The calibration procedure used for the analysis has been applied for the calibration of the above instrument.

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.

ISSUING LABORATORY: HONG KONG

Address

ALS Technichem (HK) Pty Ltd

11/F
Chung Shun Knitting Centre
1-3 Wing Yip Street
Kwai Chung
HONG KONG

Phone: 852-2610 1044
Fax: 852-2610 2021
Email: hongkong@alsenviro.com

Mr Chan Kwok Fai, Godfrey
Laboratory Manager - Hong Kong

Other ALS Environmental Laboratories

AUSTRALIA		*AMERICAS*
Brisbane	*Hong Kong*	*Vancouver*
Melbourne	*Singapore*	*Santiago*
Sydney	*Kuala Lumpur*	*Amtofagasta*
Newcastle	*Bogor*	*Lima*

Abbreviations: *% SPK REC denotes percentage spike recovery*
CHK denotes duplicate check sample
LOR denotes limit of reporting
LCS % REC denotes Laboratory Control Sample percentage recovery

CERTIFICATE OF ANALYSIS

Batch: HK1013955
Date of Issue: 15/06/2010
Client: ENOVATIVE ENVIRONMENTAL TECHNOLOGY COMPANY
Client Reference:

Calibration of Turbidimeter

Item :	Hach Turbidimeter	Serial No.:	09120C000514
Model No.:	2100Q	Equipment No.:	N/A
ALS Lab ID:	HK1013955 -001	Date of Calibration:	01 June, 2010

Testing Results :

Turbidimeter

Expected Reading	Recording Reading
4.00 NTU	4.40 NTU
16.0 NTU	16.3 NTU
40.0 NTU	40.7 NTU
400 NTU	402 NTU
Allowing Deviation	±10%

Testing Method:

APHA (20th edition), 2130 B

Mr Chan Kwok Fai, Godfrey
Laboratory Manager - Hong Kong

ALS Technichem (HK) Pty Ltd
ALS Environmental

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

ALS TECHNICHEM (HK) Pty Ltd
Environmental Division

CERTIFICATE OF ANALYSIS

CONTACT:	MR THOMAS WONG	**Batch:**	HK1010466
CLIENT:	ENOVATIVE ENVIRONMENTAL TECHNOLOGY COMPANY	**LABORATORY:**	HONG KONG
ADDRESS:	RM 3704, SIK MAN HOUSE,	**DATE RECEIVED:**	23/04/2010
	HOMANTIN ESTATE,	**DATE OF ISSUE:**	13/05/2010
	KOWLOON, HONG KONG.	**SAMPLE TYPE:**	EQUIPMENT
		No. of SAMPLES:	1

COMMENTS

The calibration procedure used for the analysis has been applied for the calibration of the above instrument.

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.

ISSUING LABORATORY: HONG KONG

Address

ALS Technichem (HK) Pty Ltd

11/F
Chung Shun Knitting Centre
1-3 Wing Yip Street
Kwai Chung
HONG KONG

Phone: 852-2610 1044
Fax: 852-2610 2021
Email: hongkong@alsenviro.com

Mr Chan Kwok Fai, Godfrey
Laboratory Manager - Hong Kong

Other ALS Environmental Laboratories

AUSTRALIA		*AMERICAS*
Brisbane	*Hong Kong*	*Vancouver*
Melbourne	*Singapore*	*Santiago*
Sydney	*Kuala Lumpur*	*Amtofagasta*
Newcastle	*Bogor*	*Lima*

Abbreviations: *% SPK REC denotes percentage spike recovery*
CHK denotes duplicate check sample
LOR denotes limit of reporting
LCS % REC denotes Laboratory Control Sample percentage recovery

CERTIFICATE OF ANALYSIS

Batch: HK1010466
Date of Issue: 13/05/2010
Client: ENOVATIVE ENVIRONMENTAL TECHNOLOGY COMPANY
Client Reference:

Calibration of Mulitimeter

Item : YSI Professional Plus — Model No.: YSI Professional Plus
ALS Lab ID: HK1010466 -001 — Equipment No.: N/A
Date of Calibration: 23 April, 2010 — Serial No.: 09K100735

Testing Results :

pH

Expected Reading	Recording Reading
4.0	4.0
7.0	7.1
10.0	10.0
Allowing Deviation	± 0.2 unit

Testing Method:
APHA (20th edition), 4500-H^+B

Conductivity

Expected Reading	Recording Reading
146.9 uS/cm	135.5 uS/cm
6667 uS/cm	6305 uS/cm
12890 uS/cm	12183 uS/cm
58670 uS/cm	55467 uS/cm
Allowing Deviation	± 10%

Testing Method:
APHA (20th edition), 2510B

Temperature

Expected Reading	Recording Reading
21.3 °C	21.4 °C
Allowing Deviation	±2.0°C

Testing Method:
In-House Method

Salinity

Expected Reading	Recording Reading
10.0 g/L	10.3 g/L
20.0 g/L	20.5 g/L
30.0 g/L	30.5 g/L
Allowing Deviation	± 10%

Testing Method:
APHA (20th edition), 2520 A and B

Dissolved Oxygen

Expected Reading	Recording Reading
4.36 mg/L	4.30 mg/L
6.10 mg/L	6.05 mg/L
8.32 mg/L	8.45 mg/L
Allowing Deviation	± 0.2 mg/L

Testing Method:
APHA (20th edition), 4500-OC & G

ORP

Solution	Recording Reading
Solution A	195 mV
Solution B	270.3 mV

Testing Method:
In house method

Acceptance Criteria for ORP:
Reading of solution B should be about 66mV higher than solution A.

Mr Chan Kwok Fai, Godfrey
Laboratory Manager - Hong Kong