



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Information supplied by customer:

CONTACT: DEREK LO WORK ORDER: HK1410014
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 03/03/2014
DATE OF ISSUE: 08/03/2014
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 Pilot Testing Limited will be followed.

Table with 2 columns: Test Parameter and Value. Rows include Scope of Test (Turbidity), Equipment Type (Turbidimeter), Brand Name (Xin Rui), Model No. (WGZ-3B), Serial No. (1203008), Equipment No. (--), and Date of Calibration (08 March, 2014).

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.

Signature of Mr. Peter Lee, Director

**REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION****WORK ORDER: HK1410014****DATE OF ISSUE: 08th March, 2014****CLIENT: LAM GEOTECHNICS LIMITED**

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203008
Equipment No.:	--
Date of Calibration:	08 March, 2014
Date of next Calibration:	08 June, 2014

Parameters:**Turbidity**Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.02	---
4	3.94	-1.5
10	10.2	+2.0
40	41.4	+3.5
100	97.5	-2.5
400	416	+4.0
1000	980	-2.0
	Tolerance Limit ($\pm\%$)	10.0

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Information supplied by customer:

CONTACT: DEREK LO **WORK ORDER:** HK1310059
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 30/01/2014
DATE OF ISSUE: 05/02/2014
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 Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203016
Equipment No.:	--
Date of Calibration:	05 February, 2014

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.

Mr. Peter Lee
Director

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**REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION****WORK ORDER: HK1310059****DATE OF ISSUE: 05th February, 2014****CLIENT: LAM GEOTECHNICS LIMITED**

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203016
Equipment No.:	--
Date of Calibration:	05 February, 2014
Date of next Calibration:	05 May, 2014

Parameters:**Turbidity**Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.02	---
4	3.72	-7.0
10	10.6	+6.0
40	42.6	+6.5
100	96.5	-3.5
400	430	+7.5
1000	972	-2.8
	Tolerance Limit ($\pm\%$)	10.0

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

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**REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION****Information supplied by customer:**

CONTACT: DEREK LO **WORK ORDER:** HK1410074
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 30/04/2014
DATE OF ISSUE: 04/05/2014
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 Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203016
Equipment No.:	--
Date of Calibration:	04 May, 2014

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.

Mr. Peter Lee
Director

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**REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION****WORK ORDER: HK1410074****DATE OF ISSUE: 04th May, 2014****CLIENT: LAM GEOTECHNICS LIMITED**

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203016
Equipment No.:	--
Date of Calibration:	04 May, 2014
Date of next Calibration:	04 August, 2014

Parameters:**Turbidity**Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.02	---
4	3.90	-2.5
10	10.1	+1.0
40	41.0	+2.5
100	96.0	-4.0
400	414	+3.5
1000	970	-3.0
	Tolerance Limit ($\pm\%$)	10.0

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Information supplied by customer:

CONTACT: DEREK LO **WORK ORDER:** HK1310060
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 30/01/2014
DATE OF ISSUE: 05/02/2014
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 Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203025
Equipment No.:	--
Date of Calibration:	05 February, 2014

Remarks:

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Mr. Peter Lee
Director

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**REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION****WORK ORDER: HK1310060****DATE OF ISSUE: 05th February, 2014****CLIENT: LAM GEOTECHNICS LIMITED**

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203025
Equipment No.:	--
Date of Calibration:	05 February, 2014
Date of next Calibration:	05 May, 2014

Parameters:**Turbidity**Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.02	---
4	3.82	-4.5
10	10.4	+4.0
40	41.0	+2.5
100	95.0	-5.0
400	420	+5.0
1000	980	-2.0
	Tolerance Limit ($\pm\%$)	10.0

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Information supplied by customer:

CONTACT: DEREK LO WORK ORDER: HK1410073
CLIENT: LAM GEOTECHNICS LIMITED
DATE RECEIVED: 30/04/2014
DATE OF ISSUE: 04/05/2014
ADDRESS: 11/E, 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 Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203025
Equipment No.:	--
Date of Calibration:	04 May, 2014

Remarks:

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Mr. Peter Lee
Director

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**REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION****WORK ORDER: HK1410073****DATE OF ISSUE: 04th May, 2014****CLIENT: LAM GEOTECHNICS LIMITED**

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203025
Equipment No.:	--
Date of Calibration:	04 May, 2014
Date of next Calibration:	04 August, 2014

Parameters:**Turbidity**Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.02	---
4	3.86	-3.5
10	10.3	+3.0
40	42.0	+5.0
100	97.0	-3.0
400	406	+1.5
1000	975	-2.5
	Tolerance Limit ($\pm\%$)	10.0

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MS PAULINE WONG
CLIENT: LAM ENVIRONMENTAL SERVICES LTD
ADDRESS: 11/F., CENTRE POINT,
181-185 GLOUCESTER ROAD,
WAN CHAI, HONG KONG
PROJECT: --

WORK ORDER: HK1412271
LABORATORY: HONG KONG
DATE RECEIVED: 22/04/2014
DATE OF ISSUE: 02/05/2014

COMMENTS

It is certified that the item under calibration/checking 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 ALS will be followed.

Scope of Test: Dissolved Oxygen, pH, Salinity and Temperature
Description: Multimeter
Brand Name: YSI
Model No.: PROFESSIONAL PLUS
Serial No.: 11F100597
Equipment No.: --
Date of Calibration: 29 April, 2014

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.


Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1412271
 Date of Issue: 02/05/2014
 Client: LAM ENVIRONMENTAL SERVICES LTD



Description: Multimeter
 Brand Name: YSI
 Model No.: PROFESSIONAL PLUS
 Serial No.: 11F100597
 Equipment No.: --
 Date of Calibration: 29 April, 2014

Date of next Calibration: 29 July, 2014

Parameters:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.94	3.88	-0.06
6.10	5.90	-0.20
7.98	7.89	-0.09
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	4.16	+0.16
7.0	7.13	+0.13
10.0	10.06	+0.06
Tolerance Limit (pH Unit)		±0.20

Salinity

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

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)
0	0.00	--
10	9.12	-8.8
20	18.80	-6.0
30	27.70	-7.7
Tolerance Limit (%)		±10.0

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical

Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)
10.5	10.2	-0.3
25.5	25.3	-0.2
37.5	37.5	0.0
Tolerance Limit (°C)		±2.0

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

Mr. Fung Lim Chee, Richard
 General Manager -
 Greater China & Hong Kong



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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MS PAULINE WONG
CLIENT: LAM GEOTECHNICS LIMITED
ADDRESS: 11/F., CENTRE POINT,
181-185 GLOUCESTER ROAD,
WAN CHAI, HONG KONG
PROJECT: --

WORK ORDER: HK1411576
LABORATORY: HONG KONG
DATE RECEIVED: 14/04/2014
DATE OF ISSUE: 17/04/2014

COMMENTS

It is certified that the item under calibration/checking 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 ALS will be followed.

Scope of Test: pH, Temperature, Salinity and Dissolved Oxygen
Description: Multimeter
Brand Name: YSI
Model No.: Professional Plus
Serial No.: 11F100420
Equipment No.: --
Date of Calibration: 17 April, 2014

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.


Mr. Fung Lim Chee, Richard
General Manager
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1411576
Date of Issue: 17/04/2014
Client: LAM GEOTECHNICS LIMITED



Description: Multimeter
Brand Name: YSI
Model No.: Professional Plus
Serial No.: 11F100420
Equipment No.: --
Date of Calibration: 17 April, 2014

Date of next Calibration: 17 July, 2014

Parameters:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.86	3.79	-0.07
5.65	5.76	+0.11
8.02	8.12	+0.10
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	3.97	-0.03
7.0	6.92	-0.08
10.0	9.97	-0.03
Tolerance Limit (pH Unit)		±0.20

Salinity

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

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)
0	0.00	--
10	9.57	-4.3
20	18.85	-5.7
30	30.14	+0.5
Tolerance Limit (%)		±10.0

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical

Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)
9.5	9.9	+0.4
22.0	22.1	+0.1
39.0	39.3	+0.3
Tolerance Limit (°C)		±2.0

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

Mr. Fung Lim Chee, Richard
 General Manager -
 Greater China & Hong Kong



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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR ALAN LI
CLIENT: LAM GEOTECHNICS LIMITED
ADDRESS: 11/F., CENTRE POINT,
181-185 GLOUCESTER ROAD,
WAN CHAI, HONG KONG
PROJECT: --

WORK ORDER: HK1406576
LABORATORY: HONG KONG
DATE RECEIVED: 05/03/2014
DATE OF ISSUE: 12/03/2014

COMMENTS

It is certified that the item under calibration/checking 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 ALS will be followed.

Scope of Test: Dissolved Oxygen, pH, Salinity and Temperature
Equipment Type: Multimeter
Brand Name: YSI
Model No.: Professional plus
Serial No.: 13A100242
Equipment No.: --
Date of Calibration: 12 March, 2014

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.


Mr. Fung Lim Chee, Richard
General Manager
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1406576
Date of Issue: 12/03/2014
Client: LAM GEOTECHNICS LIMITED



Equipment Type: Multimeter
Brand Name: YSI
Model No.: Professional plus
Serial No.: 13A100242
Equipment No.: --
Date of Calibration: 12 March, 2014 **Date of next Calibration:** 12 June, 2014

Parameters:

Dissolved Oxygen

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.63	2.55	-0.08
5.26	5.26	0.00
8.61	8.55	-0.06
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	3.92	-0.08
7.0	6.80	-0.20
10.0	9.85	-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	10.12	1.2
20	20.35	1.8
30	30.92	3.1
Tolerance Limit (±%)		10.0

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)
10.0	9.6	-0.4
20.0	20.6	0.6
42.0	41.7	-0.3
Tolerance Limit (±°C)		2.0

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


 Mr. Fung Lim Chee, Richard
 General Manager -
 Greater China & Hong Kong



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AIR POLLUTION MONITORING EQUIPMENT
 ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Jul 15, 2013 Roots-meter S/N 0438320 Ta (K) - 300
 Operator Tisch Orifice I.D. - 0005 Pa (mm) - 759.46

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER	ORFICE
					DIFF Hg (mm)	DIFF H2O (in.)
1	NA	NA	1.00	1.3910	3.2	2.00
2	NA	NA	1.00	0.9830	6.4	4.00
3	NA	NA	1.00	0.8800	7.9	5.00
4	NA	NA	1.00	0.8380	8.8	5.50
5	NA	NA	1.00	0.6930	12.7	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
0.9884	0.7106	1.4090	0.9958	0.7159	0.8888
0.9843	1.0013	1.9926	0.9916	1.0087	1.2570
0.9822	1.1161	2.2278	0.9895	1.1244	1.4054
0.9811	1.1708	2.3365	0.9884	1.1795	1.4740
0.9760	1.4084	2.8180	0.9832	1.4188	1.7777
Qstd slope (m) = 2.01968			Qa slope (m) = 1.26469		
intercept (b) = -0.02746			intercept (b) = -0.01732		
coefficient (r) = 0.99999			coefficient (r) = 0.99999		
y axis = $\sqrt{H_2O(Pa/760)(298/Ta)}$			y axis = $\sqrt{H_2O(Ta/Pa)}$		

CALCULATIONS

$$Vstd = \text{Diff. Vol} [(Pa - \text{Diff. Hg}) / 760] (298 / Ta)$$

$$Qstd = Vstd / \text{Time}$$

$$Va = \text{Diff Vol} [(Pa - \text{Diff Hg}) / Pa]$$

$$Qa = Va / \text{Time}$$

For subsequent flow rate calculations:

$$Qstd = 1/m \{ [\sqrt{H_2O(Pa/760)(298/Ta)}] - b \}$$

$$Qa = 1/m \{ [\sqrt{H_2O(Ta/Pa)}] - b \}$$



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA5a Calibration Date : 15-Mar-14
 Equipment no. : EL380 Calibration Due Dat : 15-May-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	298	Kelvin	Pressure, P _a
			1015 mmHg

Orifice Transfer Standard Information			
Equipment No.	EL086	Slope, m _c	2.01968
		Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$	
Next Calibration Date	15-Jul-14		

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	5.9	5.9	11.8	1.7158	60	60.0503
2	5.0	5.0	10.0	1.5806	52	52.0436
3	4.0	4.0	8.0	1.4152	42	42.0352
4	2.4	2.4	4.8	1.0993	25	25.0210
5	1.5	1.5	3.0	0.8719	13	13.0109

By Linear Regression of Y on X

Slope, m = 55.6207 Intercept, b = -35.9089
 Correlation Coefficient* = 0.9996
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li Checked by : Derek Lo
 Date : 15-Mar-14 Date : 15-Mar-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA4a Calibration Date : 15-Mar-14
 Equipment no. : EL390 Calibration Due Date : 15-May-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	298	Kelvin	Pressure, P _a
			1015 mmHg

Orifice Transfer Standard Information			
Equipment No.	EL086	Slope, m _c	2.01968
		Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$	
Next Calibration Date	15-Jul-14		

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	6.0	6.0	12.0	1.7302	60	60.0503
2	5.1	5.1	10.2	1.5962	52	52.0436
3	4.0	4.0	8.0	1.4152	42	42.0352
4	2.5	2.5	5.0	1.1217	28	28.0235
5	1.5	1.5	3.0	0.8719	15	15.0126

By Linear Regression of Y on X

Slope, m = 51.8132 Intercept, b = -30.3615
 Correlation Coefficient* = 0.9994
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li Checked by : Derek Lo
 Date : 15-Mar-14 Date : 15-Mar-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA3a
 Equipment no. : EL333
 Calibration Date : 19-Apr-14
 Calibration Due Date : 19-Jun-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	298	Kelvin	Pressure, P _a
			1012 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	2.01968	Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	15-Jul-14				

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	6.2	6.2	12.4	1.7560	61	60.9609
2	5.0	5.0	10.0	1.5783	52	51.9666
3	4.0	4.0	8.0	1.4131	43	42.9724
4	2.5	2.5	5.0	1.1200	26	25.9833
5	1.6	1.6	3.2	0.8987	14	13.9910

By Linear Regression of Y on X

Slope, m = 55.3043 Intercept, b = -35.6654

Correlation Coefficient* = 0.9998

Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li Checked by : Derek Lo
 Date : 19-Apr-14 Date : 19-Apr-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA2a
 Equipment no. : EL449

Calibration Date : 15-Mar-14
 Calibration Due Dat : 15-May-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	298	Kelvin	Pressure, P _a
			1015 mmHg

Orifice Transfer Standard Information			
Equipment No.	EL086	Slope, m _c	2.01968
		Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$	
Next Calibration Date	15-Jul-14		

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	6.1	6.1	12.2	1.7445	59	59.0495
2	5.0	5.0	10.0	1.5806	50	50.0419
3	4.0	4.0	8.0	1.4152	41	41.0344
4	2.5	2.5	5.0	1.1217	28	28.0235
5	1.4	1.4	2.8	0.8428	15	15.0126

By Linear Regression of Y on X

Slope, m = 48.3583 Intercept, b = -26.2139
 Correlation Coefficient* = 0.9990
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li
 Date : 15-Mar-14

Checked by : Derek Lo
 Date : 15-Mar-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA1b Calibration Date : 15-Mar-14
 Equipment no. : EL452 Calibration Due Date : 15-May-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	298	Kelvin	Pressure, P _a
			1015 mmHg

Orifice Transfer Standard Information			
Equipment No.	EL086	Slope, m _c	2.01968
		Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$	
Next Calibration Date	15-Jul-14		

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	6.2	6.2	12.4	1.7586	60	60.0503
2	5.1	5.1	10.2	1.5962	51	51.0428
3	4.0	4.0	8.0	1.4152	40	40.0335
4	2.5	2.5	5.0	1.1217	24	24.0201
5	1.5	1.5	3.0	0.8719	12	12.0101

By Linear Regression of Y on X

Slope, m = 54.5933 Intercept, b = -36.4179
 Correlation Coefficient* = 0.9993
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li Checked by : Derek Lo
 Date : 15-Mar-14 Date : 15-Mar-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA6a Calibration Date : 15-Mar-14
 Equipment no. : EL448 Calibration Due Date : 15-May-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	298	Kelvin	Pressure, P _a
			1015 mmHg

Orifice Transfer Standard Information			
Equipment No.	EL086	Slope, m _c	2.01968
		Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$	
Next Calibration Date	15-Jul-14		

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	6.1	6.1	12.2	1.7445	61	61.0511
2	5.1	5.1	10.2	1.5962	52	52.0436
3	4.0	4.0	8.0	1.4152	42	42.0352
4	2.4	2.4	4.8	1.0993	25	25.0210
5	1.4	1.4	2.8	0.8428	13	13.0109

By Linear Regression of Y on X

Slope, m = 53.2826 Intercept, b = -32.7446
 Correlation Coefficient* = 0.9992
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li Checked by : Derek Lo
 Date : 15-Mar-14 Date : 15-Mar-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA5a
 Equipment no. : EL380

Calibration Date : 13-May-14
 Calibration Due Dat : 13-Jul-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	300	Kelvin	Pressure, P _a
			1007 mmHg

Orifice Transfer Standard Information			
Equipment No.	EL086	Slope, m _c	2.01968
		Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$	
Next Calibration Date	15-Jul-14		

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	6.1	6.1	12.2	1.7319	61	60.6070
2	5.1	5.1	10.2	1.5847	52	51.6650
3	4.0	4.0	8.0	1.4050	42	41.7294
4	2.5	2.5	5.0	1.1136	26	25.8325
5	1.5	1.5	3.0	0.8657	13	12.9163

By Linear Regression of Y on X

Slope, m = 54.8622 Intercept, b = -34.9747
 Correlation Coefficient* = 0.9997
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li
 Date : 13-May-14

Checked by : Derek Lo
 Date : 13-May-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA4a Calibration Date : 13-May-14
 Equipment no. : EL390 Calibration Due Date : 13-Jul-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	300	Kelvin	Pressure, P _a
			1007 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	2.01968	Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	15-Jul-14				

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	6.0	6.0	12.0	1.7177	62	61.6006
2	5.1	5.1	10.2	1.5847	53	52.6586
3	4.0	4.0	8.0	1.4050	43	42.7230
4	2.6	2.6	5.2	1.1354	27	26.8261
5	1.5	1.5	3.0	0.8657	13	12.9163

By Linear Regression of Y on X

Slope, m = 56.9672 Intercept, b = -37.0880
 Correlation Coefficient* = 0.9993
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li Checked by : Derek Lo
 Date : 13-May-14 Date : 13-May-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA2a Calibration Date : 13-May-14
 Equipment no. : EL449 Calibration Due Date : 13-Jul-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	300	Kelvin	Pressure, P _a
			1007 mmHg

Orifice Transfer Standard Information			
Equipment No.	EL086	Slope, m _c	2.01968
		Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$	
Next Calibration Date	15-Jul-14		

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	6.1	6.1	12.2	1.7319	61	60.6070
2	5.2	5.2	10.4	1.6000	53	52.6586
3	4.0	4.0	8.0	1.4050	43	42.7230
4	2.4	2.4	4.8	1.0914	26	25.8325
5	1.4	1.4	2.8	0.8368	14	13.9098

By Linear Regression of Y on X

Slope, m = 52.1379 Intercept, b = -30.3543
 Correlation Coefficient* = 0.9995
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li Checked by : Derek Lo
 Date : 13-May-14 Date : 13-May-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA1b Calibration Date : 13-May-14
 Equipment no. : EL452 Calibration Due Date : 13-Jul-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	300	Kelvin	Pressure, P _a
			1007 mmHg

Orifice Transfer Standard Information			
Equipment No.	EL086	Slope, m _c	2.01968
		Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$	
Next Calibration Date	15-Jul-14		

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	6.2	6.2	12.4	1.7459	61	60.6070
2	5.1	5.1	10.2	1.5847	51	50.6715
3	4.1	4.1	8.2	1.4223	43	42.7230
4	2.5	2.5	5.0	1.1136	27	26.8261
5	1.4	1.4	2.8	0.8368	14	13.9098

By Linear Regression of Y on X

Slope, m = 50.9704 Intercept, b = -29.3862
 Correlation Coefficient* = 0.9991
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li Checked by : Derek Lo
 Date : 13-May-14 Date : 13-May-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA6a Calibration Date : 13-May-14
 Equipment no. : EL448 Calibration Due Date : 13-Jul-14

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	300	Kelvin	Pressure, P _a
			1007 mmHg

Orifice Transfer Standard Information			
Equipment No.	EL086	Slope, m _c	2.01968
		Intercept, b _c	-0.02746
Last Calibration Date	15-Jul-13	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$	
Next Calibration Date	15-Jul-14		

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	6.1	6.1	12.2	1.7319	62	61.6006
2	5.0	5.0	10.0	1.5692	52	51.6650
3	4.0	4.0	8.0	1.4050	42	41.7294
4	2.4	2.4	4.8	1.0914	25	24.8389
5	1.5	1.5	3.0	0.8657	13	12.9163

By Linear Regression of Y on X

Slope, m = 55.9776 Intercept, b = -36.0474
 Correlation Coefficient* = 0.9995
 Calibration Accepted = Yes/No**

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

** Delete as appropriate.

Remarks : _____

Calibrated by : Felix Li Checked by : Derek Lo
 Date : 13-May-14 Date : 13-May-14