

Annex C

Calibration Certificates for High Volume Samplers

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM1 (1hr)
Calibrated by : K.T.Ho
Date : 28/09/09

Sampler

Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 0816

Calibration Office and Standard Calibration Relationship

Serial Number : 9833620
Service Date : 18 May 2009
Slope (m) : 1.97702
Intercept (b) : -0.00070
Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1010
Ta(K) : 301

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (indicated flow)	Y
1 18 holes	12.0	3.5263	1.7154	50	50.9
2 13 holes	9.0	3.0539	1.4872	42	42.8
3 10 holes	6.9	2.6739	1.3036	34	34.6
4 7 holes	7.0	2.0862	1.0197	24	24.4
5 5 holes	5.0	1.5770	0.7737	15	15.3

Sampler Calibration Relationship

Slope(m): 38.039 Intercept(b): -14.333

Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan

Date: 29/09/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM1 (24hr)
Calibrated by : K.T.Ho
Date : 28/09/09

Sampler
Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 1808

Calibration Office and Standard Calibration Relationship

Serial Number : 9833620
Service Date : 18 May 2009
Slope (m) : 1.97702
Intercept (b) : -0.00070
Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1011
Ta(K) : 302

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	12.2	3.5173	1.7777	57	57.4
2 13 holes	9.5	3.1038	1.5712	48	48.3
3 10 holes	7.0	2.6643	1.3516	40	40.3
4 7 holes	4.3	2.0882	1.0638	28	28.2
5 5 holes	2.3	1.5272	0.7836	18	18.1

Sampler Calibration Relationship

Slope(m): 39.502 Intercept(b): -13.264 Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan

Date: 29/09/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM2 (1hr)
Calibrated by : K.T.Ho
Date : 28/09/09

Sampler
Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 0106

Calibration Office and Standard Calibration Relationship

Serial Number : 9833620
Service Date : 18 May 2009
Slope (m) : 1.97702
Intercept (b) : -0.00070
Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1011
Ta(K) : 302

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	8.6	2.9560	1.4973	53	53.4
2 13 holes	6.8	2.6285	1.3338	45	45.4
3 10 holes	5.8	2.4276	1.2334	40	40.3
4 7 holes	4.3	2.0902	1.0649	32	32.3
5 5 holes	2.2	1.4951	0.7676	18	18.1

Sampler Calibration Relationship

Slope(m): 48.303 Intercept(b): -19.067 Correlation Coefficient(r): 0.9999

Checked by: Magnum Fan

Date: 29/09/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM2 (24hr)
Calibrated by : K.T.Ho
Date : 28/09/09

Sampler
Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 0145

Calibration Office and Standard Calibration Relationship

Serial Number : 9833620
Service Date : 18 May 2009
Slope (m) : 1.97702
Intercept (b) : -0.00070
Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1011
Ta(K) : 302

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	10.9	3.2868	1.6626	52	51.8
2 13 holes	8.8	2.9533	1.4960	46	45.8
3 10 holes	6.6	2.5576	1.2983	39	38.8
4 7 holes	4.4	2.0883	1.0639	29	28.9
5 5 holes	2.6	1.6053	0.8226	20	19.9

Sampler Calibration Relationship

Slope(m): 38.247 Intercept(b): -11.488 Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan

Date: 29/09/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM3 (1 hr)
Calibrated by : K.T.Ho
Date : 28/09/09

Sampler

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

Calibration Office and Standard Calibration Relationship

Serial Number : 9833620
Service Date : 18 May 2009
Slope (m) : 1.97702
Intercept (b) : -0.00070
Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1010
Ta(K) : 301

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	11.8	3.4592	1.7487	60	60.4
2 13 holes	9.2	3.0544	1.5465	52	52.3
3 10 holes	7.1	2.6832	1.3611	45	45.3
4 7 holes	4.6	2.1598	1.0996	34	34.2
5 5 holes	2.9	1.7149	0.8773	24	24.2

Sampler Calibration Relationship

Slope(m):41.453 Intercept(b): -11.692 Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan

Date: 29/09/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM3 (24hr)
 Calibrated by : K.T.Ho
 Date : 28/09/09

Sampler

Model : GMWS-2310 ACCU-VOL
 Serial Number : S/N 0481

Calibration Office and Standard Calibration Relationship

Serial Number : 9833620
 Service Date : 18 May 2009
 Slope (m) : 1.97702
 Intercept (b) : -0.00070
 Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1010
 Ta(K) : 301

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	12.4	3.5460	1.7921	53	53.4
2 13 holes	9.8	3.1524	1.5954	45	45.3
3 10 holes	7.6	2.7761	1.4075	38	38.3
4 7 holes	4.8	2.2062	1.1228	27	27.2
5 5 holes	2.9	1.7149	0.7676	18	18.1

Sampler Calibration Relationship

Slope(m): 38.467 Intercept(b): -15.825 Correlation Coefficient(r): 0.9999

Checked by: Magnum Fan

Date: 29/09/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM4 (1 hr)
Calibrated by : K.T.Ho
Date : 09/10/09

Sampler

Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 0764

Calibration Office and Standard Calibration Relationship

Serial Number : 9833620
Service Date : 18 May 2009
Slope (m) : 1.97702
Intercept (b) : -0.00070
Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1011
Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	10.8	3.2717	1.6550	52	51.8
2 13 holes	8.9	2.9700	1.5043	45	44.8
3 10 holes	6.7	2.5769	1.3080	38	37.8
4 7 holes	4.3	2.0644	1.0520	28	27.9
5 5 holes	2.7	1.6358	0.8379	20	19.9

Sampler Calibration Relationship

Slope(m): 38.563 Intercept(b): -12.593 Correlation Coefficient(r): 0.9994

Checked by: Magnum Fan

Date: 10/10/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM4 (24hr)
Calibrated by : K.T.Ho
Date : 09/10/09

Sampler

Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 9315

Calibration Orifice and Standard Calibration Relationship

Serial Number : 9833620
Service Date : 18 May 2009
Slope (m) : 1.97702
Intercept (b) : -0.00070
Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1011
Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	10.7	3.2973	1.6048	52	53.4
2 13 holes	6.8	2.6285	1.2817	45	45.4
3 10 holes	6.1	2.4896	1.2145	40	40.3
4 7 holes	3.6	1.9125	0.9358	32	32.3
5 5 holes	2.0	1.4255	0.7005	18	18.1

Sampler Calibration Relationship

Slope(m): 37.967 Intercept(b): -8.285 Correlation Coefficient(r): 0.9997

Checked by: Magnum Fan

Date: 10/10/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM5 (1hr)
Calibrated by : K.T.Ho
Date : 25/09/09

Sampler

Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 1658

Calibration Office and Standard Calibration Relationship

Serial Number : 9833620
Service Date : 18 May 2009
Slope (m) : 1.97702
Intercept (b) : -0.00070
Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1012
Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	11.4	3.3468	1.6925	61	60.5
2 13 holes	9.6	3.0712	1.5549	56	55.5
3 10 holes	8.2	2.8384	1.4386	51	50.6
4 7 holes	6.0	2.4280	1.2336	43	42.6
5 5 holes	3.0	1.7169	0.8783	29	28.7

Sampler Calibration Relationship

Slope(m): 39.140 Intercept(b): -5.635 Correlation Coefficient(r): 0.9999

Checked by: Magnum Fan

Date: 26/09/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM5 (24 hr)
Calibrated by : K.T.Ho
Date : 25/09/09

Sampler

Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 8162

Calibration Office and Standard Calibration Relationship

Serial Number : 9833620
Service Date : 18 May 2009
Slope (m) : 1.97702
Intercept (b) : -0.00070
Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1012
Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	10.9	3.2868	1.6626	51	50.8
2 13 holes	8.9	2.9700	1.5043	44	43.8
3 10 holes	6.7	2.5769	1.3080	38	37.8
4 7 holes	4.3	2.0644	1.0520	28	27.9
5 5 holes	2.7	1.6359	0.8379	21	20.9

Sampler Calibration Relationship

Slope(m): 35.953 Intercept(b): -9.528 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan

Date: 26/09/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM6 (1hr)
Calibrated by : P.F.Yeung
Date : 09/10/09

Sampler
Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 7580

Calibration Orifice and Standard Calibration Relationship

Serial Number : 9833620
Service Date : 18 May 2009
Slope (m) : 1.97702
Intercept (b) : -0.00070
Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1011
Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	12.0	3.4201	1.7292	50	49.4
2 13 holes	9.0	2.9619	1.5003	42	41.5
3 10 holes	6.9	2.5934	1.3162	35	34.6
4 7 holes	4.2	2.0234	1.0315	24	23.7
5 5 holes	2.4	1.5295	0.7848	15	14.8

Sampler Calibration Relationship

Slope(m): 36.869 Intercept(b): -14.132 Correlation Coefficient(r): 0.9998

Checked by: Magnum Fan

Date: 10/10/09

High-Volume TSP Sampler
5-Point Calibration Record

Location : AM6 (24hr)
 Calibrated by : P.F.Yeung
 Date : 09/10/09

Sampler

Model : GMWS-2310 ACCU-VOL
 Serial Number : S/N 1254

Calibration Office and Standard Calibration Relationship

Serial Number : 9833620
 Service Date : 18 May 2009
 Slope (m) : 1.97702
 Intercept (b) : -0.00070
 Correlation Coefficient(r) : 0.99992

Standard Condition

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

Calibration Condition

Pa (hpa) : 1011
 Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	11.8	3.4016	1.7199	60	59.4
2 13 holes	9.2	3.0036	1.5211	52	51.5
3 10 holes	7.1	2.6386	1.3388	44	43.6
4 7 holes	4.6	2.1238	1.0816	33	32.7
5 5 holes	2.9	1.6863	0.8631	24	23.8

Sampler Calibration Relationship

Slope(m): 41.856 Intercept(b): -12.434 Correlation Coefficient(r): 0.9998

Checked by: Magnum Fan

Date: 10/10/09