



Exposure Control Technologies, Inc.
231 C East Johnson Street
Cary, NC 27513
Phone: (919) 319-4290
Fax: (919) 319-4291

**Hamilton Concept Fume Hood
Datasheet Batch Report**

This report contains test data collected between 8/17/2007 and 08/20/2007.

Report printed 8/20/2007.

This report contains data from Columbus Street building only.

Datasheets - Laboratory Hood Summary Performance Reports
Datasheets - Laboratory Hood Performance Test Results
Tracer Gas Graph(s)

Datasheet - Laboratory Hood Summary Performance Report

Report printed on 8/20/2007

Company Name: Fisher Hamilton
Building Name: Columbus Street
Laboratory: Main Test Lab
Hood: 6 ft Concept Hood

Technician(s): Randy Blew

Date: 8/17/2007

Hood Inspection:

Satisfactory

Satisfactory

Hood Integrity:	Yes	Sash Operation:	Yes
Liner Integrity:	Yes	Light Operation:	Yes
Airfoil Operation:	Yes	Monitor Operation:	Yes
Bypass Operation:	Yes	Alarm Operation:	Yes

Rating: **Pass**

Reason:

Test Comments: NIH protocol at vertical and horizontal center sash openings. Hood meets NIH test protocol specifications.

Recommendations:

Datasheet - Laboratory Hood Performance Test Results

Report printed on 8/20/2007

Company Name: Fisher Hamilton

Building Name: Columbus Street

Laboratory: Main Test Lab

Hood: 6 ft Concept Hood

Date: 8/17/2007

Cycle Index: 1

Conditions:

Cycle Rating: **Pass**

Sash Opening: Vertical open to 22" sash height

Opening Dimensions:	<u>Height</u>	<u>Width</u>	<u>Major Area</u>	<u>Additional Area</u>	<u>Total Area</u>
	22 inches	62.5 inches	9.5 ft ²	0 ft ²	9.5 ft ²

Baffle Opening: Top Slot - 1", Middle Slot - 1", Bottom Slot - 2"

Apparatus In Hood: Yes NIH hood loading scenario.

Monitor Reading - As Found: n/a

As Left: n/a

Diff. Pressure Occupied:

Un-Occupied:

Test Comments: Tests per NIH protocol.

Smoke Visibility Test Results:

Low Volume Rating: Pass (Fair)

High Volume Rating: Pass (Fair)

Comments: Lazy and reverse flow along worksurface. Reverse flow in corners of opening. Turbulent vortex in top of hood. Clearance time 39 seconds.

Cross-Draft Test Results:

Collection Method: DAQ

Positions:	Left	Center	Right							Max Avg
Horiz.: Max:	18	14	37							
Avg:	15	2	18							
Vertical Max:	14	8	25							
Avg:	6	0	17							
Perpend.: Max:										
Avg:										

Hood Face-Velocity Test Results:

Collection Method: DAQ

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	
Row 1	85	70	69	66	63	73							
Row 2	71	71	68	64	61	68							Avg: 69 fpm
Row 3													Max: 85 fpm
Row 4													Min: 61 fpm
Row 5													
Row 6													Exhaust
Row 7													Flow: 656 cfm
Row 8													

Tracer Gas Test Results:

Collection Method: DAQ

Position:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	
Tested:	Center	Walk-by			
Average:	0.00	0.00			ppm
Minimum:	0.00	0.00			ppm
Maximum:	0.01	0.00			ppm

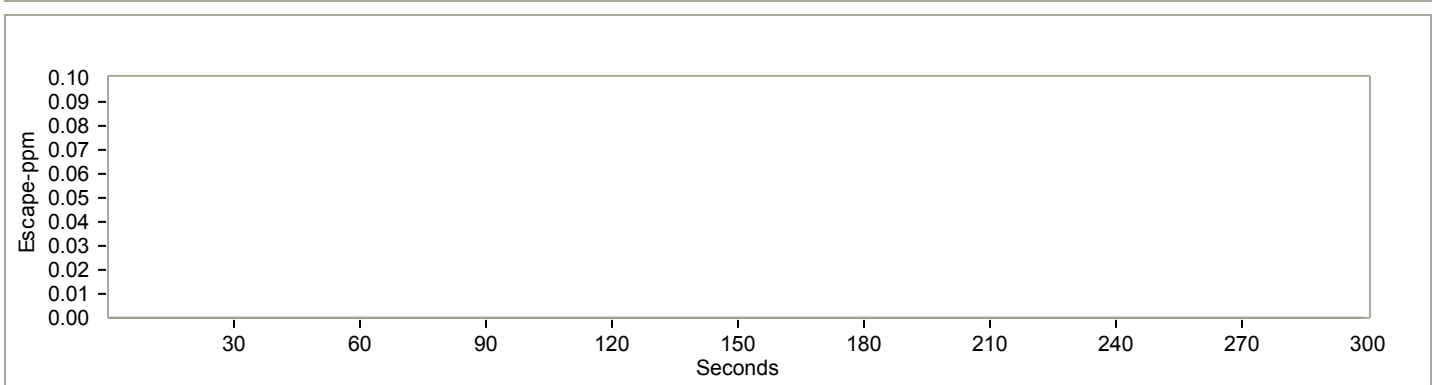
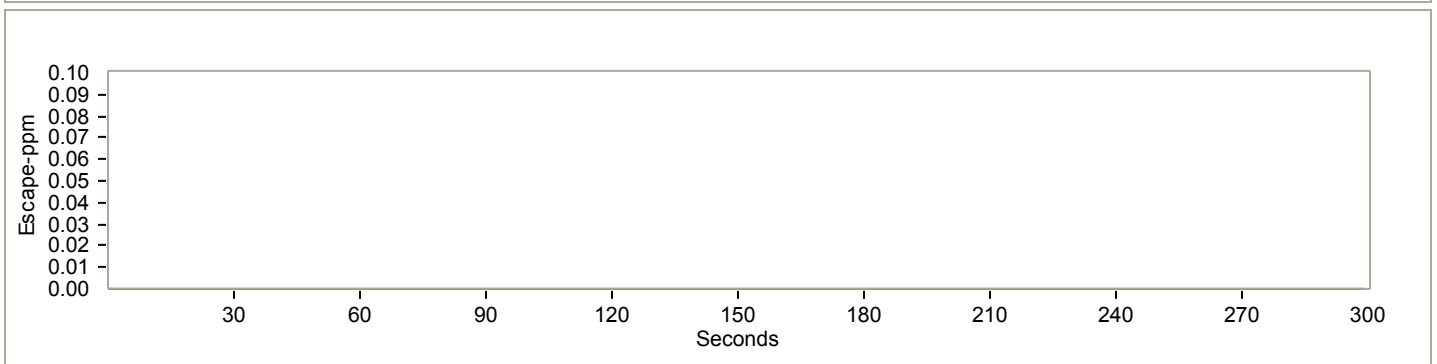
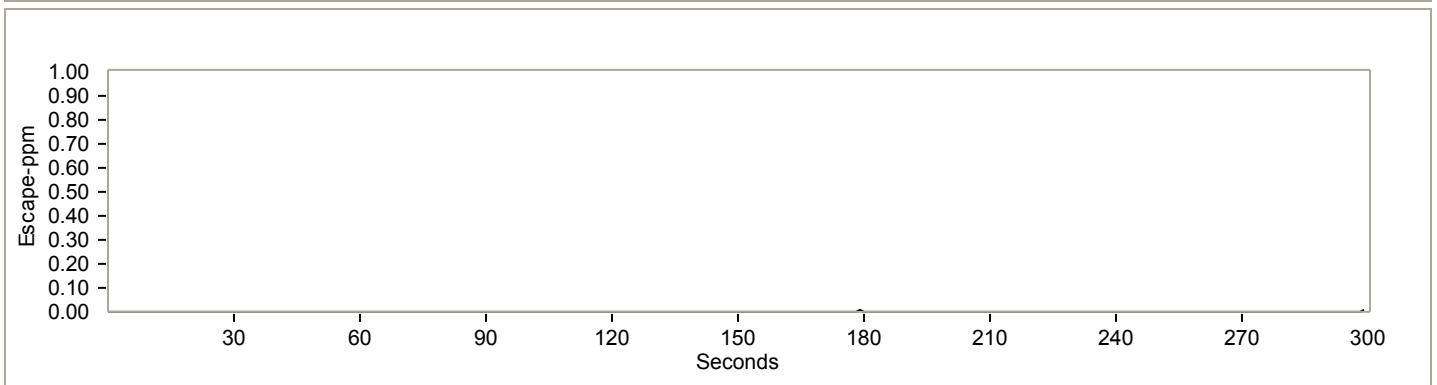
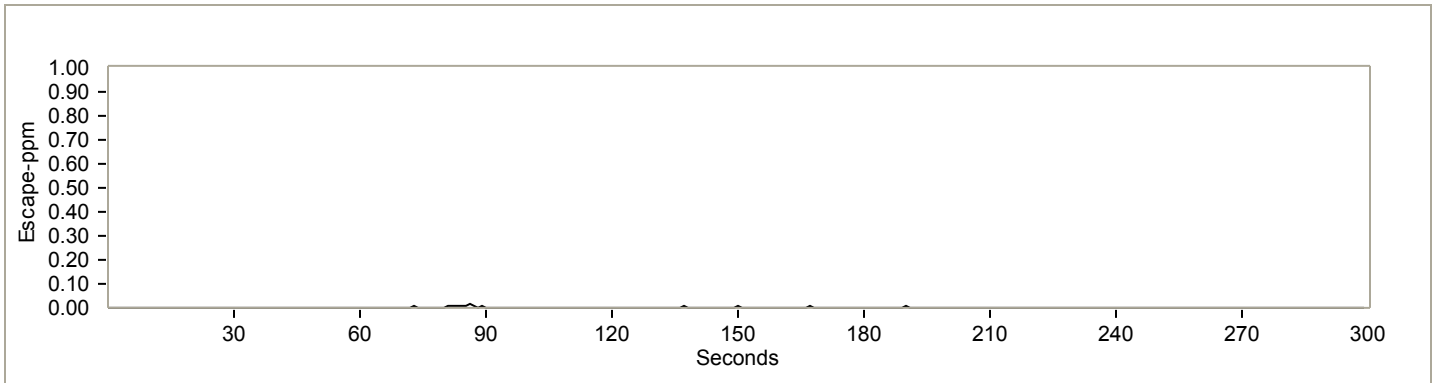
Plots of Tracer Gas Containment

Report printed on 8/20/2007

Hood: 6 ft Concept Hood

Date: 8/17/2007

Cycle: 1



	<u>Center</u>	<u>Walk-by</u>
Average:	.00	.00
Maximum:	.01	.00
Minimum:	.00	.00

Datasheet - Laboratory Hood Performance Test Results

Report printed on 8/20/2007

Company Name: Fisher Hamilton

Building Name: Columbus Street

Laboratory: Main Test Lab

Hood: 6 ft Concept Hood

Date: 8/17/2007

Cycle Index: 2

Conditions:

Cycle Rating: **Pass**

Sash Opening: Vertical open to 22" sash height

Opening Dimensions:	<u>Height</u>	<u>Width</u>	<u>Major Area</u>	<u>Additional Area</u>	<u>Total Area</u>
	28.5 inches	62.5 inches	12.4 ft ²	0 ft ²	12.4 ft ²

Baffle Opening: Top Slot - 1", Middle Slot - 1", Bottom Slot - 2"

Apparatus In Hood: No NIH hood loading scenario.

Monitor Reading - As Found:

As Left:

Diff. Pressure Occupied:

Un-Occupied:

Test Comments: full open tracer gas test, center position.

Smoke Visibility Test Results:

Low Volume Rating:

High Volume Rating:

Comments:

Cross-Draft Test Results:

Collection Method:

Positions:													
Horiz.: Max:													
Avg:													
Vertical Max:													
Avg:													
Perpend.: Max:													
Avg:													

Hood Face-Velocity Test Results:

Collection Method:

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	
Row 1													Avg: Max: Min: Exhaust Flow:
Row 2													
Row 3													
Row 4													
Row 5													
Row 6													
Row 7													
Row 8													

Tracer Gas Test Results:

Collection Method:

DAQ

Position:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	
Tested:	Center				
Average:	0.00				ppm
Minimum:	0.00				ppm
Maximum:	0.03				ppm

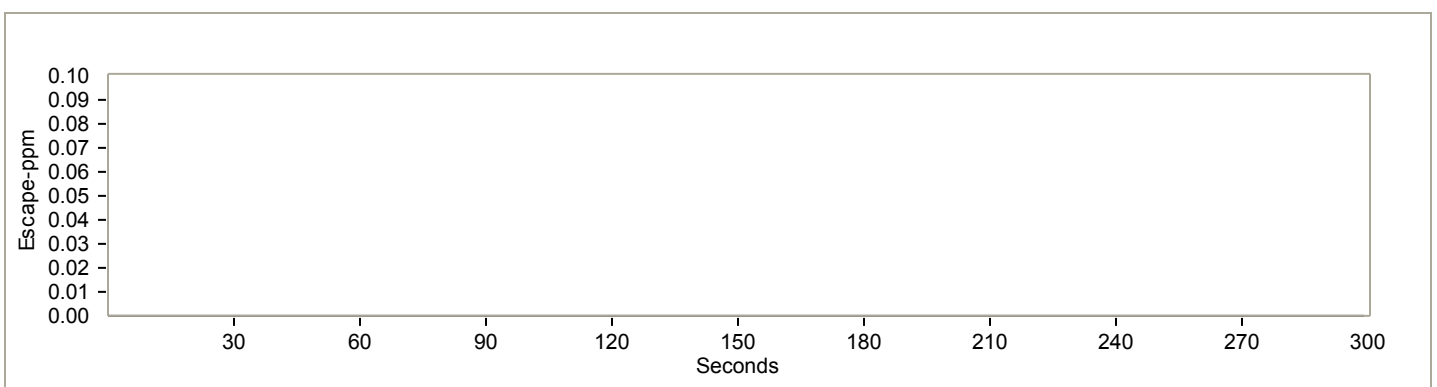
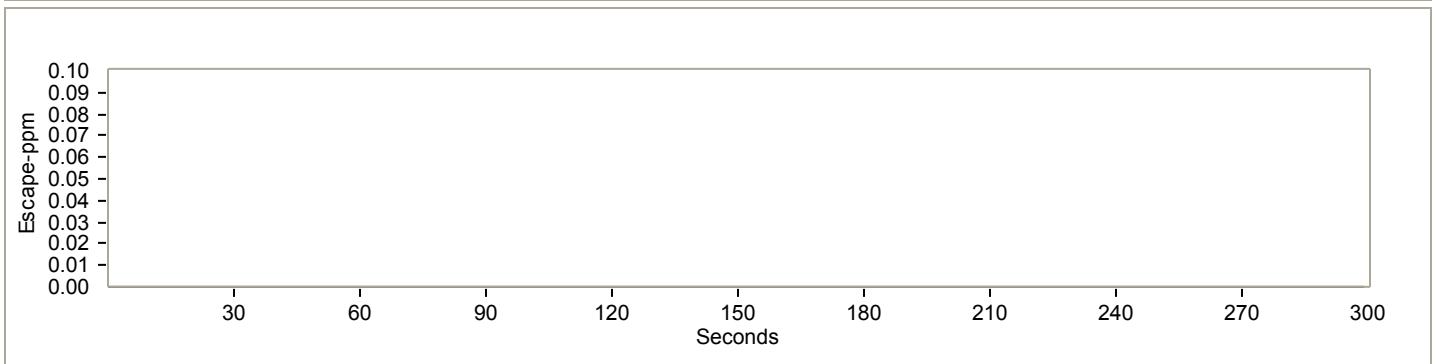
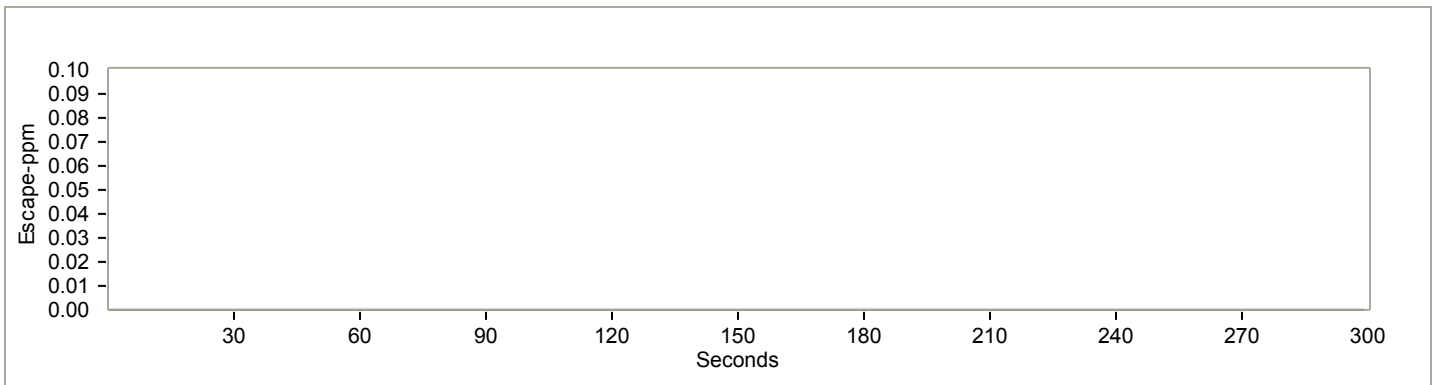
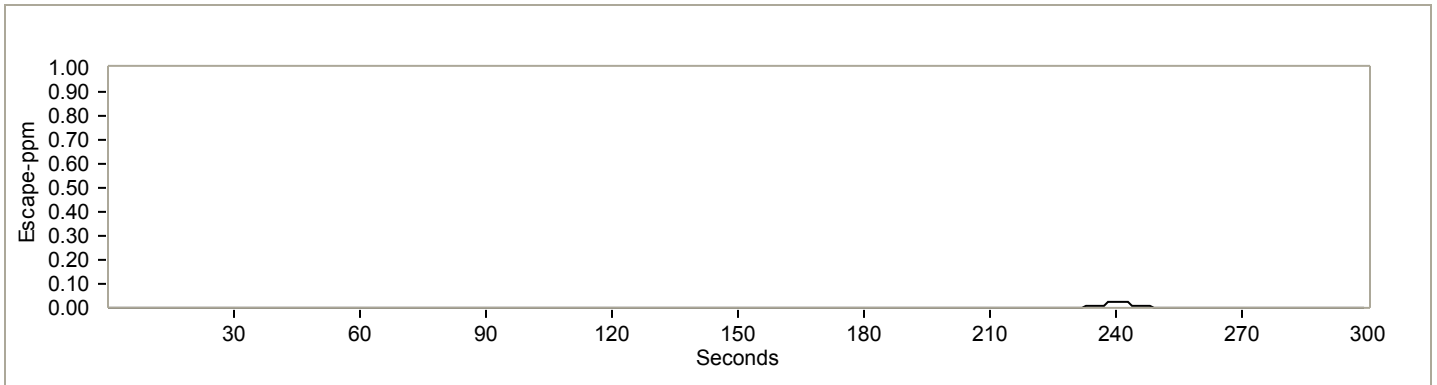
Plots of Tracer Gas Containment

Report printed on 8/20/2007

Hood: 6 ft Concept Hood

Date: 8/17/2007

Cycle: 2



Center

Average: .00
Maximum: .03
Minimum: .00

Datasheet - Laboratory Hood Performance Test Results

Report printed on 8/20/2007

Company Name: Fisher Hamilton

Building Name: Columbus Street

Laboratory: Main Test Lab

Hood: 6 ft Concept Hood

Date: 8/17/2007

Cycle Index: 3

Conditions:

Cycle Rating: **Pass**

Sash Opening: Vertical open to 6" sash height

Opening Dimensions:	<u>Height</u>	<u>Width</u>	<u>Major Area</u>	<u>Additional Area</u>	<u>Total Area</u>
	6 inches	62.5 inches	2.6 ft ²	0 ft ²	2.6 ft ²

Baffle Opening: Top Slot - 1", Middle Slot - 1", Bottom Slot - 2"

Apparatus In Hood: No NIH hood loading scenario.

Monitor Reading - As Found:

As Left:

Diff. Pressure Occupied:

Un-Occupied:

Test Comments: 6" opening velocity test. Multiprobe SSFV/TI test at VAV.

Smoke Visibility Test Results:

Low Volume Rating:

High Volume Rating:

Comments:

Cross-Draft Test Results:

Collection Method:

Positions:												
Horiz.: Max:												
Avg:												
Vertical Max:												
Avg:												
Perpend.: Max:												
Avg:												

Hood Face-Velocity Test Results:

Collection Method:

DAQ

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12
Row 1	216	203	179	178	159	184						
Row 2												
Row 3												
Row 4												
Row 5												
Row 6												
Row 7												
Row 8												

Avg: 186 fpm

Max: 216 fpm

Min: 159 fpm

Exhaust

Flow: 484 cfm

Datasheet - Laboratory Hood Performance Test Results

Report printed on 8/20/2007

Company Name: Fisher Hamilton

Building Name: Columbus Street

Laboratory: Main Test Lab

Hood: 6 ft Concept Hood

Date: 8/17/2007

Cycle Index: 4

Conditions:

Cycle Rating: **Pass**

Sash Opening: Horizontal center sash opening

Opening Dimensions:	<u>Height</u>	<u>Width</u>	<u>Major Area</u>	<u>Additional Area</u>	<u>Total Area</u>
	26.5 inches	27.5 inches	5.1 ft ²	0 ft ²	5.1 ft ²

Baffle Opening: Top Slot - 1", Middle Slot - 1", Bottom Slot - 2"

Apparatus In Hood: Yes NIH hood loading scenario.

Monitor Reading - As Found:

As Left:

Diff. Pressure Occupied:

Un-Occupied:

Test Comments:

Smoke Visibility Test Results:

Low Volume Rating: Pass (Fair)

High Volume Rating: Pass (Fair)

Comments: Lazy and reverse flow along worksurface. Reverse flow in corners of opening. Turbulent vortex in top of hood. Clearance time 39 seconds.

Cross-Draft Test Results:

Collection Method:

Positions:												
Horiz.: Max:												
Avg:												
Vertical Max:												
Avg:												
Perpend.: Max:												
Avg:												

Hood Face-Velocity Test Results:

Collection Method:

DAQ

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12
Row 1	105	88	92									
Row 2	97	90	101									
Row 3	101	92	118									
Row 4												
Row 5												
Row 6												
Row 7												
Row 8												

Avg: 98 fpm

Max: 118 fpm

Min: 88 fpm

Exhaust

Flow: 500 cfm

Tracer Gas Test Results:

Collection Method:

DAQ

Position:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	
Tested:	Center				
Average:	0.00				ppm
Minimum:	0.00				ppm
Maximum:	0.01				ppm

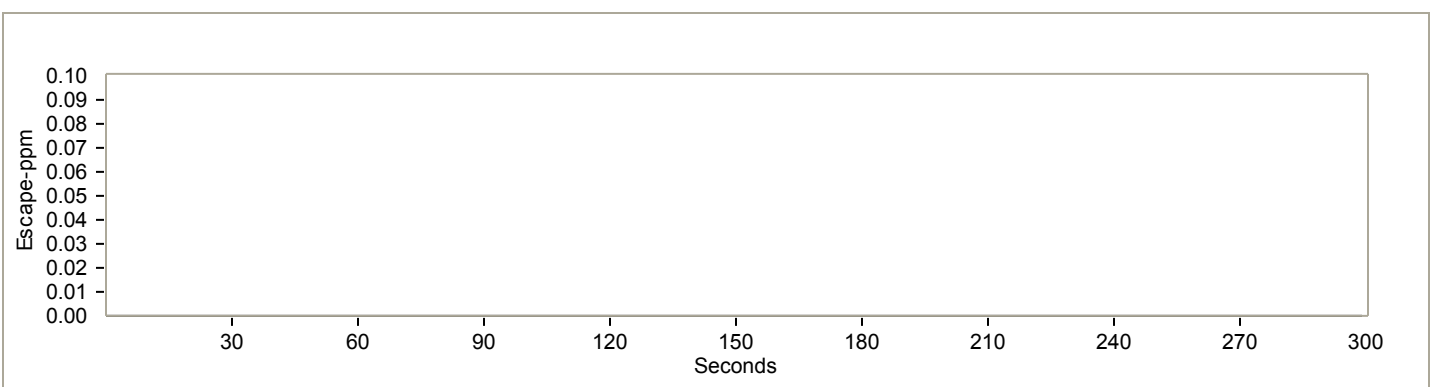
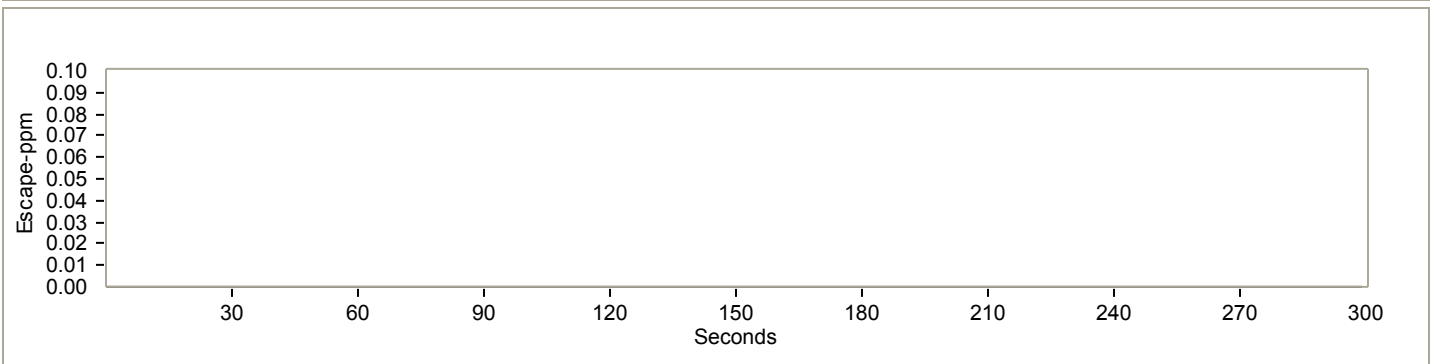
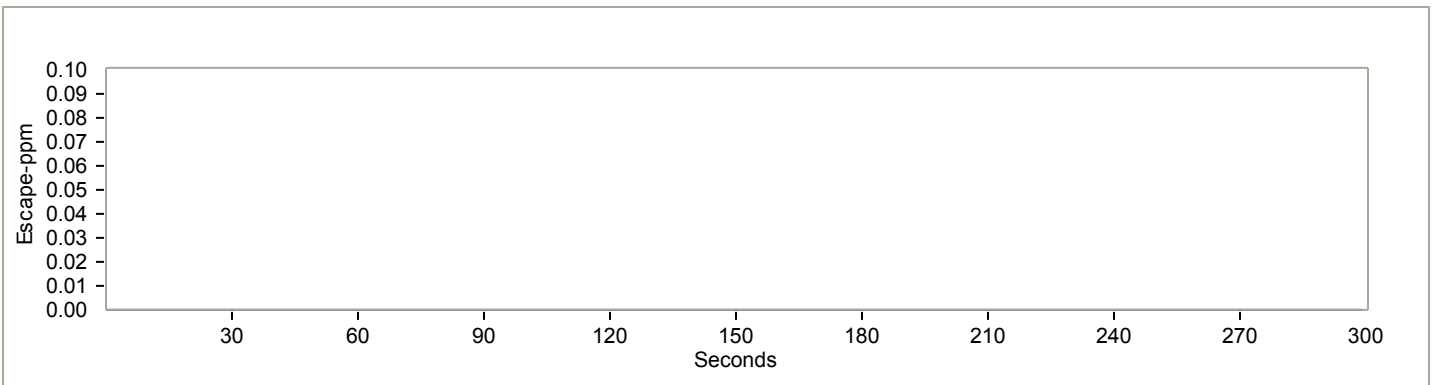
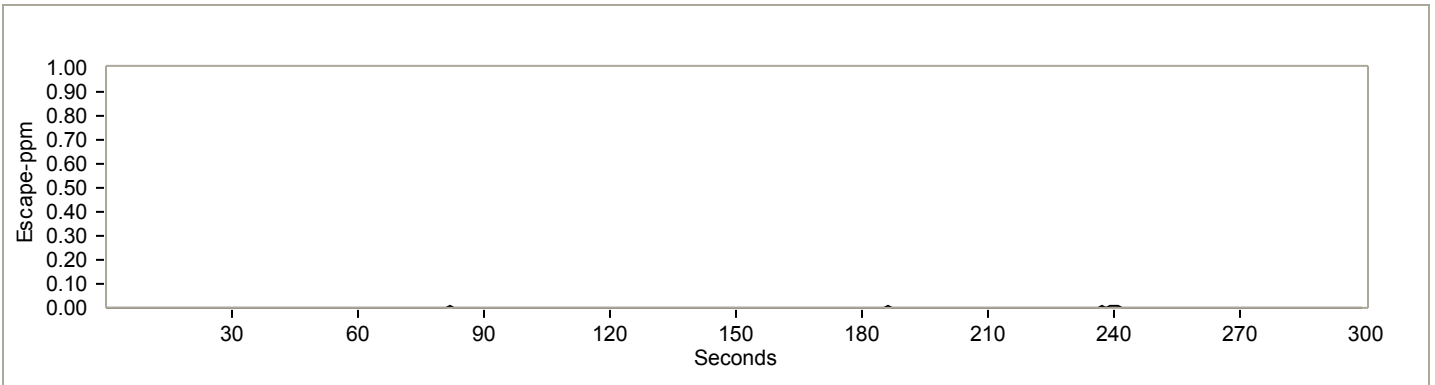
Plots of Tracer Gas Containment

Report printed on 8/20/2007

Hood: 6 ft Concept Hood

Date: 8/17/2007

Cycle: 4



Center

Average: .00
Maximum: .01
Minimum: .00

Datasheet - Laboratory Hood Performance Test Results

Report printed on 8/20/2007

Company Name: Fisher Hamilton

Building Name: Columbus Street

Laboratory: Main Test Lab

Hood: 6 ft Concept Hood

Date: 8/17/2007

Cycle Index: 5

Conditions:

Cycle Rating: **Pass**

Sash Opening: Horizontal center sash opening

Opening Dimensions:	<u>Height</u>	<u>Width</u>	<u>Major Area</u>	<u>Additional Area</u>	<u>Total Area</u>
	26.5 inches	27.5 inches	5.1 ft ²	0 ft ²	5.1 ft ²

Baffle Opening: Top Slot - 1", Middle Slot - 1", Bottom Slot - 2"

Apparatus In Hood: No NIH hood loading scenario.

Monitor Reading - As Found:

As Left:

Diff. Pressure Occupied:

Un-Occupied:

Test Comments: multiprobe test at VAV. Dynamic walk-by tracer gas test.

Smoke Visibility Test Results:

Low Volume Rating:

High Volume Rating:

Comments:

Cross-Draft Test Results:

Collection Method:

Positions:													
Horiz.: Max:													
Avg:													
Vertical Max:													
Avg:													
Perpend.: Max:													
Avg:													

Hood Face-Velocity Test Results:

Collection Method:

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	
Row 1													Avg: Max: Min: Exhaust Flow:
Row 2													
Row 3													
Row 4													
Row 5													
Row 6													
Row 7													
Row 8													

Tracer Gas Test Results:

Collection Method:

DAQ

Position:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	
Tested:	Center				
Average:	0.00				ppm
Minimum:	0.00				ppm
Maximum:	0.03				ppm

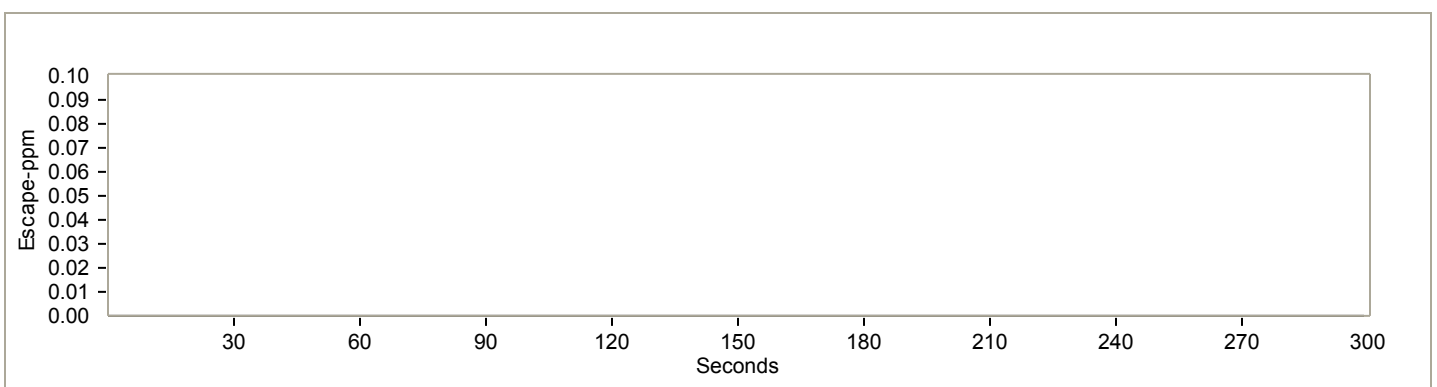
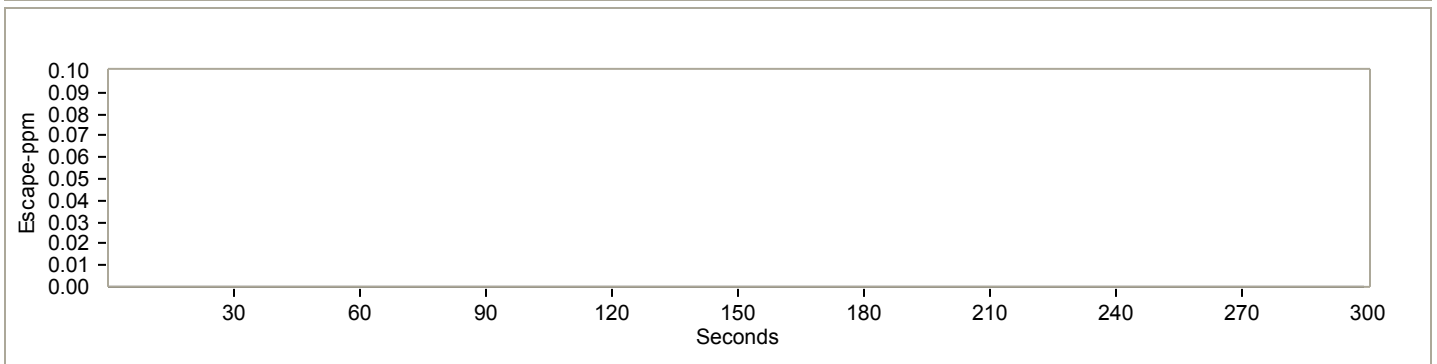
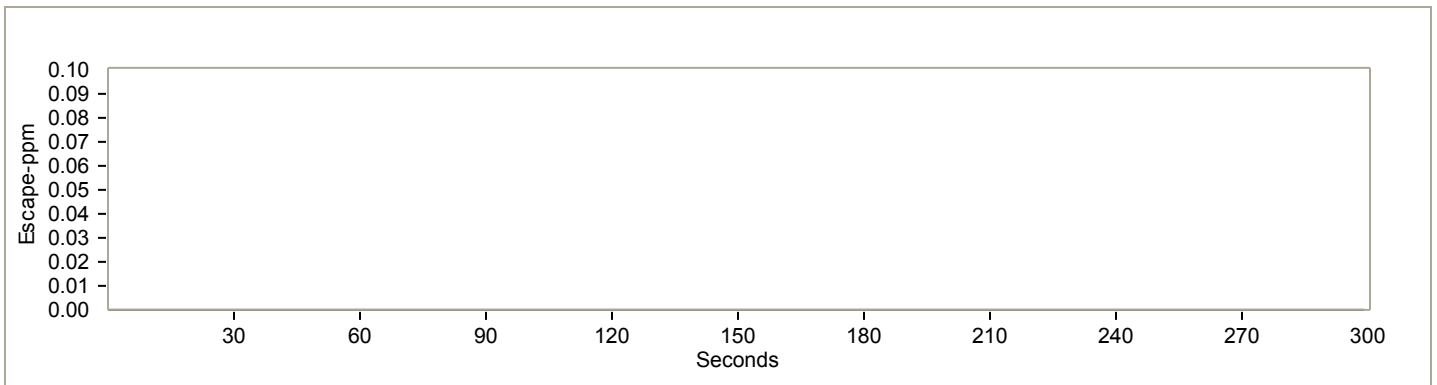
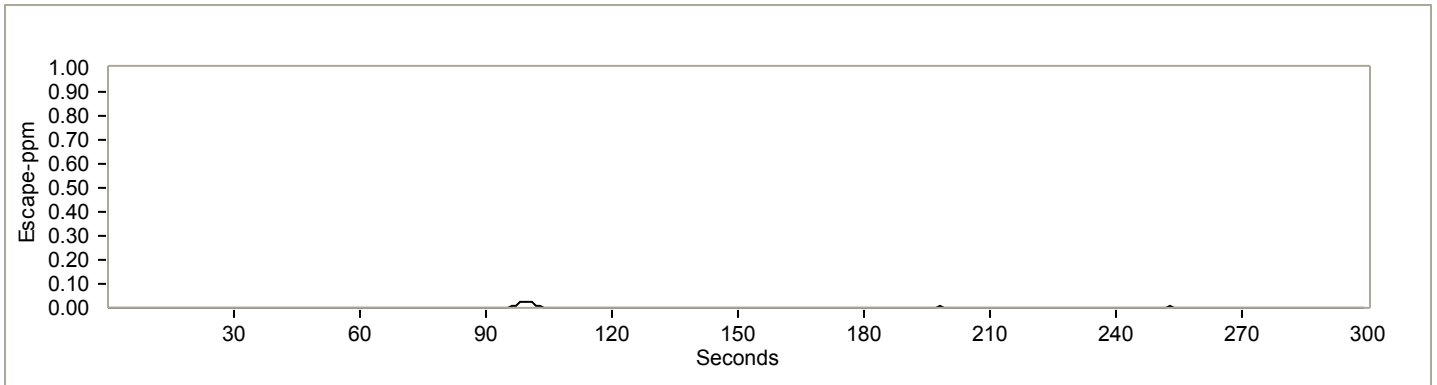
Plots of Tracer Gas Containment

Report printed on 8/20/2007

Hood: 6 ft Concept Hood

Date: 8/17/2007

Cycle: 5



Center

Average: .00
Maximum: .03
Minimum: .00