



Exposure Control Technologies, Inc.  
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**Hamilton Pioneer 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

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Company Name: Fisher Hamilton  
Building Name: Columbus Street  
Laboratory: Main Test Lab  
Hood: 6 Foot Pioneer

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Technician(s): Randy Blew

Date: 8/17/2007

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## 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

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Rating: **Pass**

Reason:

Test Comments: hood met acceptance criteria for NIH protocol.

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 Foot Pioneer

Date: 8/17/2007  
 Cycle Index: 1

**Conditions:**

Cycle Rating: **Pass**

Sash Opening: 22" vertical sash opening

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 <sup>2</sup>	0 ft <sup>2</sup>	9.5 ft <sup>2</sup>

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

Apparatus In Hood: Yes NIH protocol paint cans/box loading.

Monitor Reading - As Found: n/a not installed

As Left:

Diff. Pressure Occupied:

Un-Occupied:

Test Comments: NIH protocol, multiprobe fv tests at VAV. multiprobe test with blower on.

**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. slight reverse flow at sidewalls and in front of obstructions. clearance time 44 seconds.

**Cross-Draft Test Results:**

Collection Method: DAQ

Positions:	Left	Center	Right								Max Avg
Horiz.: Max:	18	21	18								
Avg:	10	6	10								
Vertical Max:	16	16	21								
Avg:	5	4	10								
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	71	63	63	62	64	75							
Row 2	62	54	54	50	51	63							Avg: 61 fpm
Row 3													Max: 75 fpm
Row 4													Min: 50 fpm
Row 5													
Row 6													
Row 7													Exhaust
Row 8													Flow: 580 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:	0.00				ppm

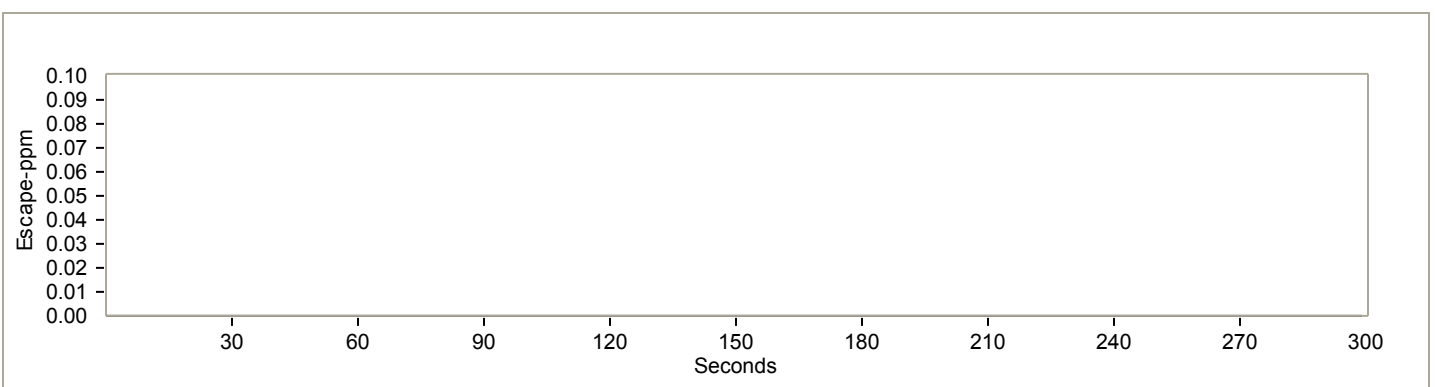
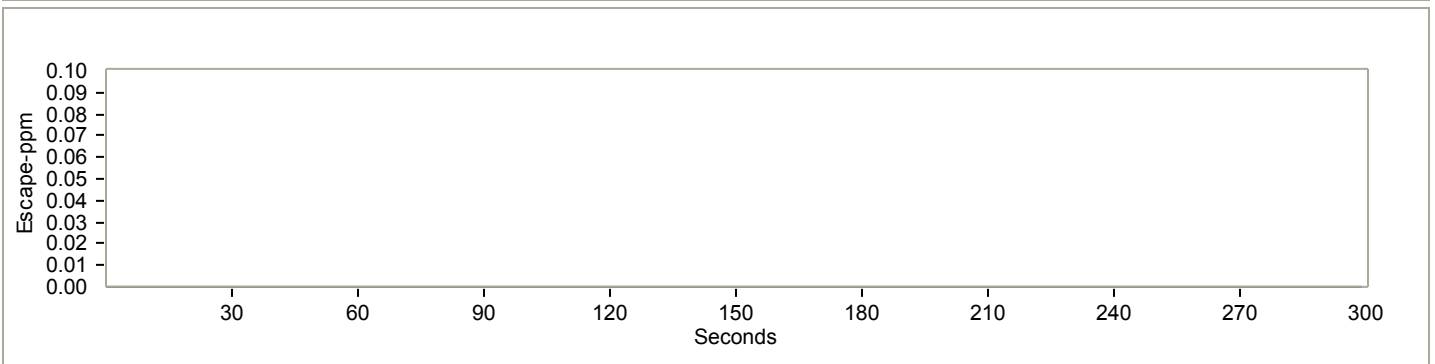
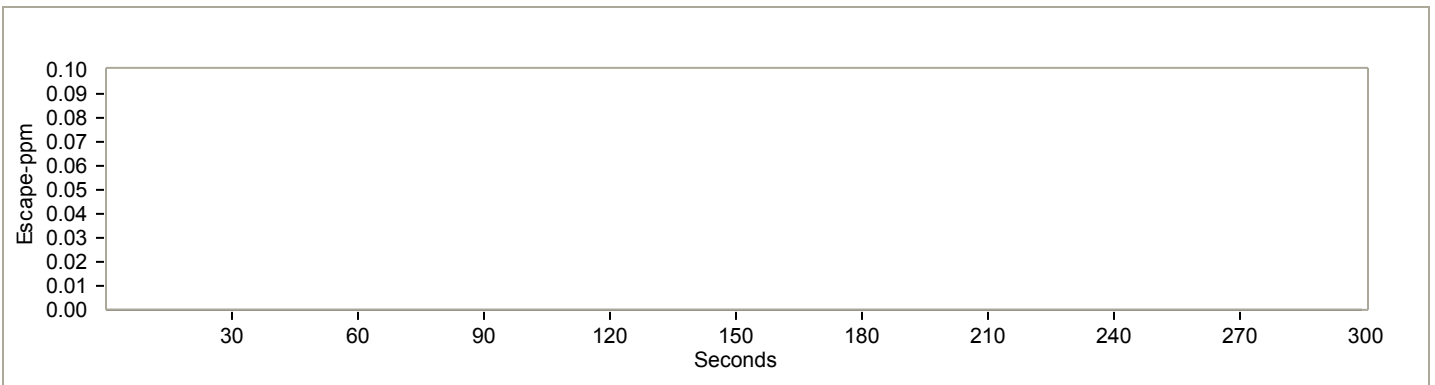
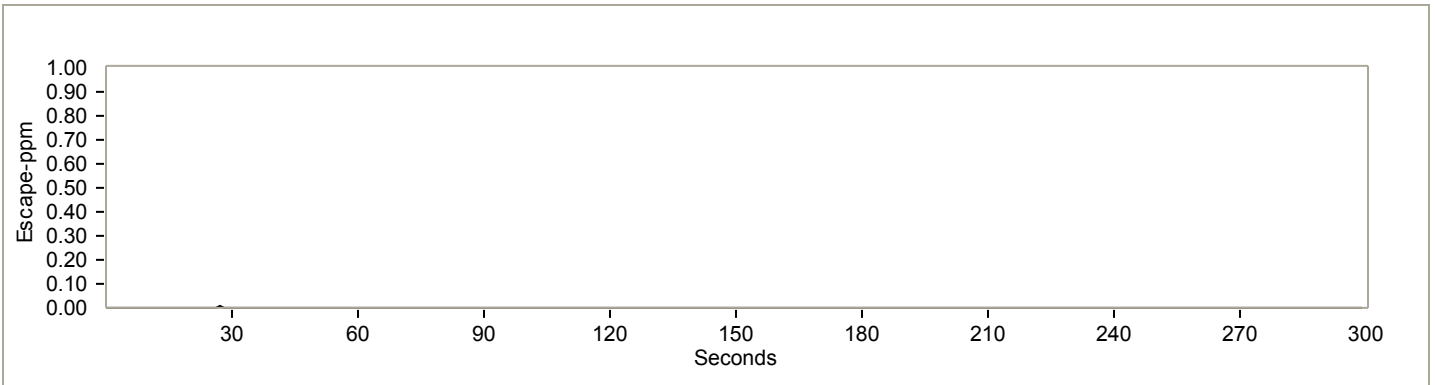
# Plots of Tracer Gas Containment

Report printed on 8/20/2007

Hood: 6 Foot Pioneer

Date: 8/17/2007

Cycle: 1



### Center

Average: .00  
Maximum: .00  
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 Foot Pioneer

Date: 8/17/2007  
 Cycle Index: 2

**Conditions:**

Cycle Rating: **Pass**

Sash Opening: 22" vertical sash opening

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 <sup>2</sup>	0 ft <sup>2</sup>	9.5 ft <sup>2</sup>

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

Apparatus In Hood: No NIH protocol paint cans/box loading.

Monitor Reading - As Found: As Left:

Diff. Pressure Occupied: Un-Occupied:

Test Comments: Dynamic walk-by tracer gas test at 30-second intervals. multi probe test with blower off.

**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:	0.01				ppm

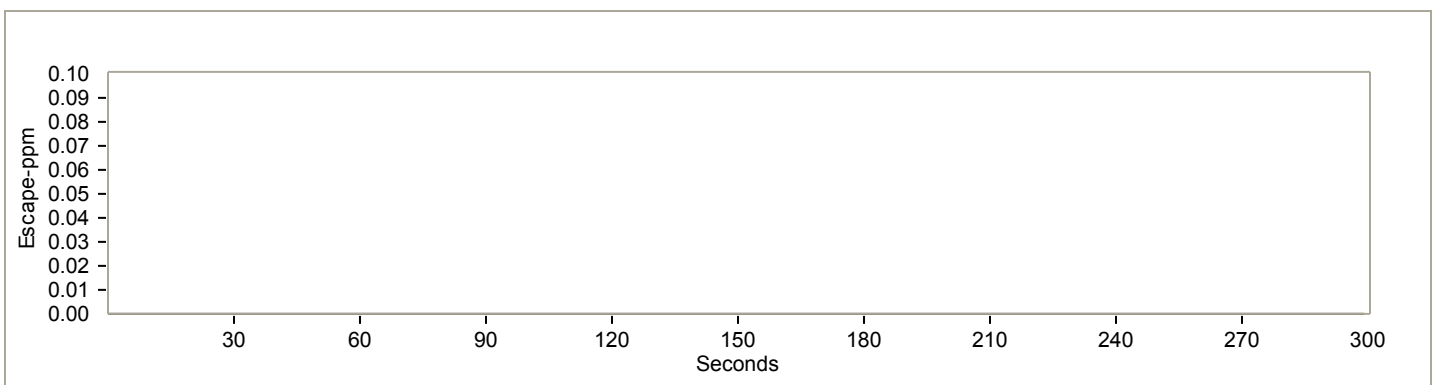
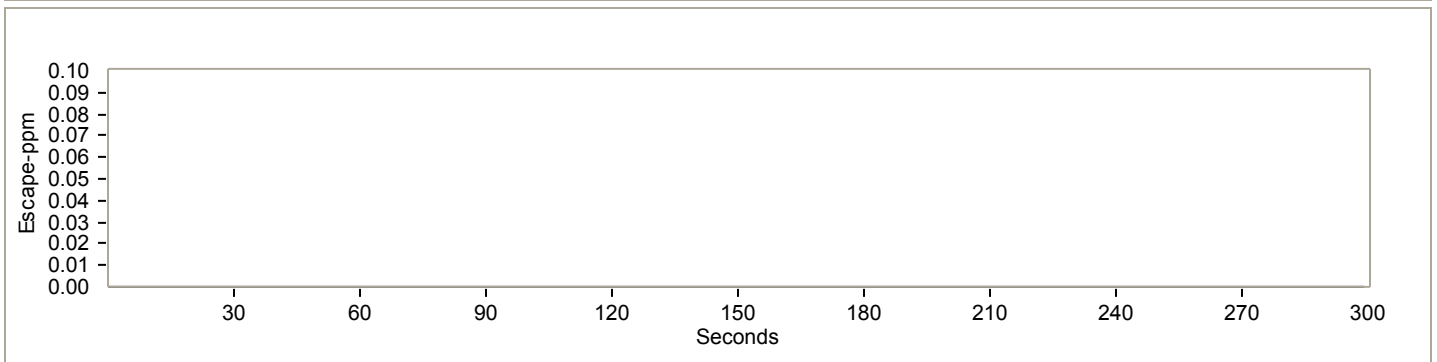
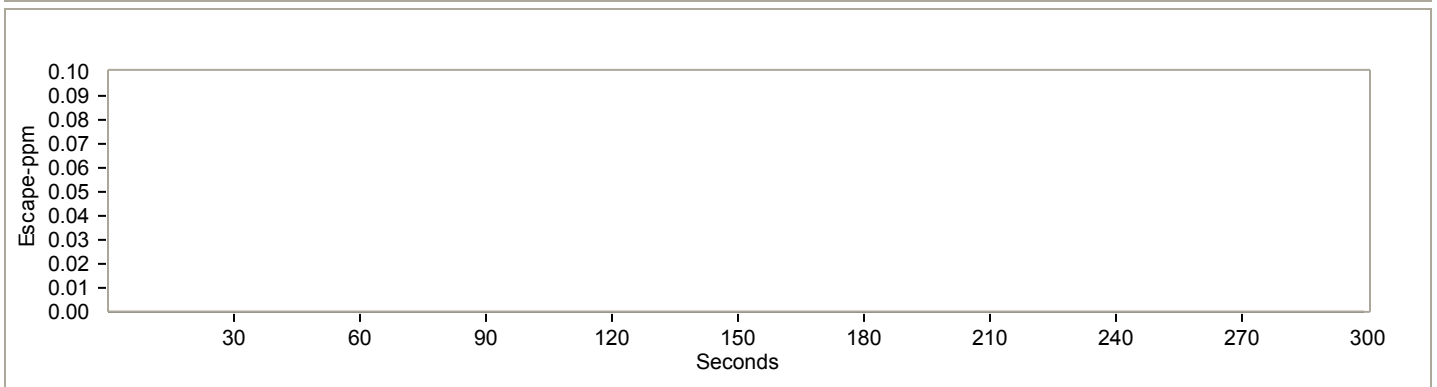
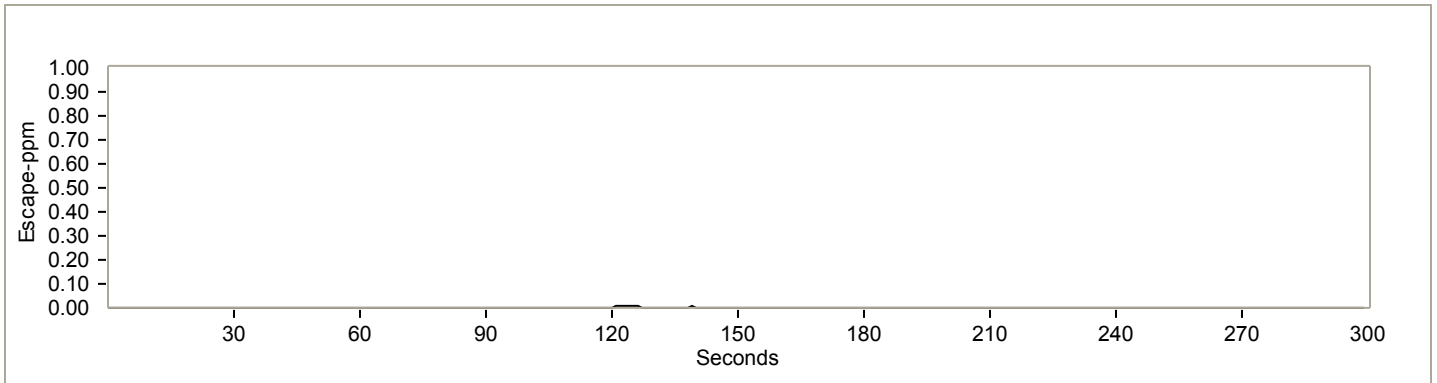
# Plots of Tracer Gas Containment

Report printed on 8/20/2007

Hood: 6 Foot Pioneer

Date: 8/17/2007

Cycle: 2



### 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 Foot Pioneer

Date: 8/17/2007  
 Cycle Index: 3

**Conditions:**

Cycle Rating: **Pass**

Sash Opening: 6" vertical sash opening

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 <sup>2</sup>	0 ft <sup>2</sup>	2.6 ft <sup>2</sup>

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

Apparatus In Hood: No NIH protocol paint cans/box loading.

Monitor Reading - As Found: As Left:

Diff. Pressure Occupied: Un-Occupied:

Test Comments: multi probe ssfv/ti test. 1st five minutes blower on, 2nd five minutes blower off.

**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	159	149	142	146	147	153						
Row 2												
Row 3												
Row 4												
Row 5												
Row 6												
Row 7												
Row 8												

Avg: 149 fpm  
 Max: 159 fpm  
 Min: 142 fpm  
 Exhaust Flow: 387 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 Foot Pioneer

Date: 8/17/2007  
 Cycle Index: 4

**Conditions:**

Cycle Rating: **Pass**

Sash Opening: 27.5" vertical sash opening, full open.

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 <sup>2</sup>	0 ft <sup>2</sup>	2.6 ft <sup>2</sup>

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

Apparatus In Hood: No NIH protocol paint cans/box loading.

Monitor Reading - As Found: As Left:

Diff. Pressure Occupied: Un-Occupied:

Test Comments: Center tracer gas test with sash at full open.

**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												
Row 2												
Row 3												
Row 4												
Row 5												
Row 6												
Row 7												
Row 8												

Avg:  
 Max:  
 Min:  
 Exhaust Flow:

**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:	0.00				ppm



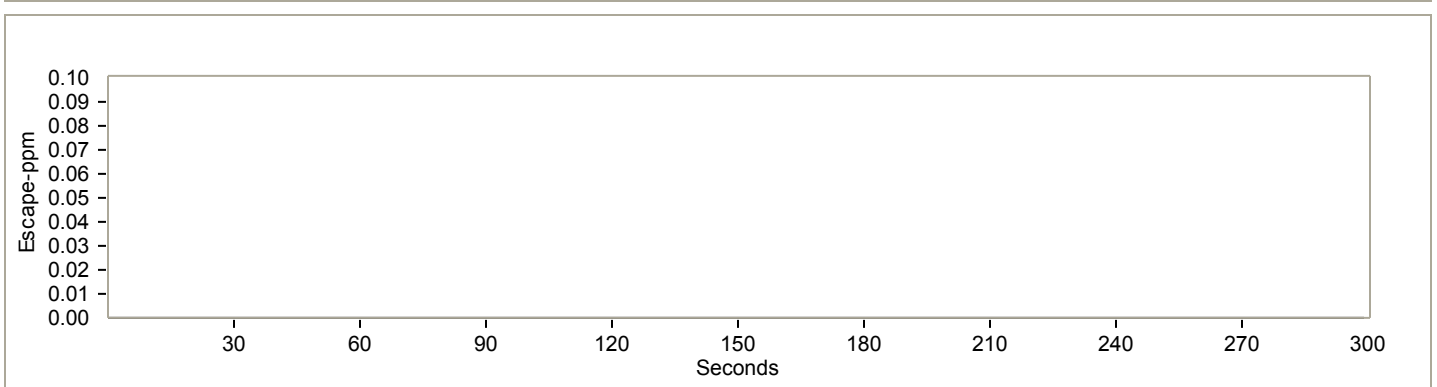
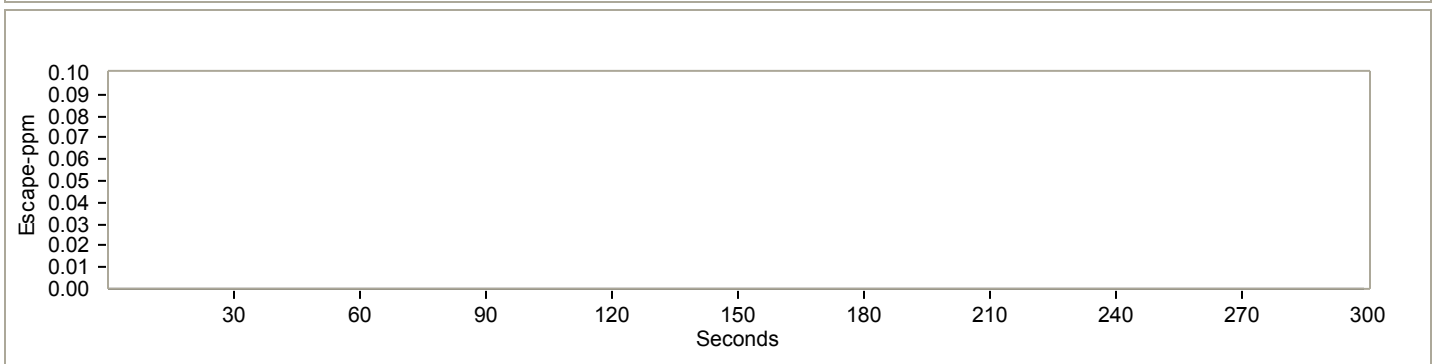
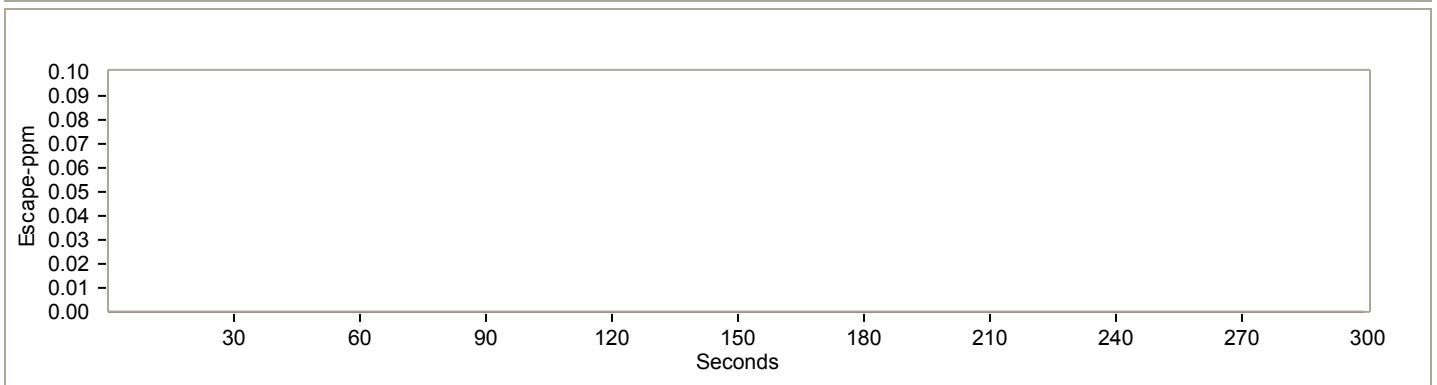
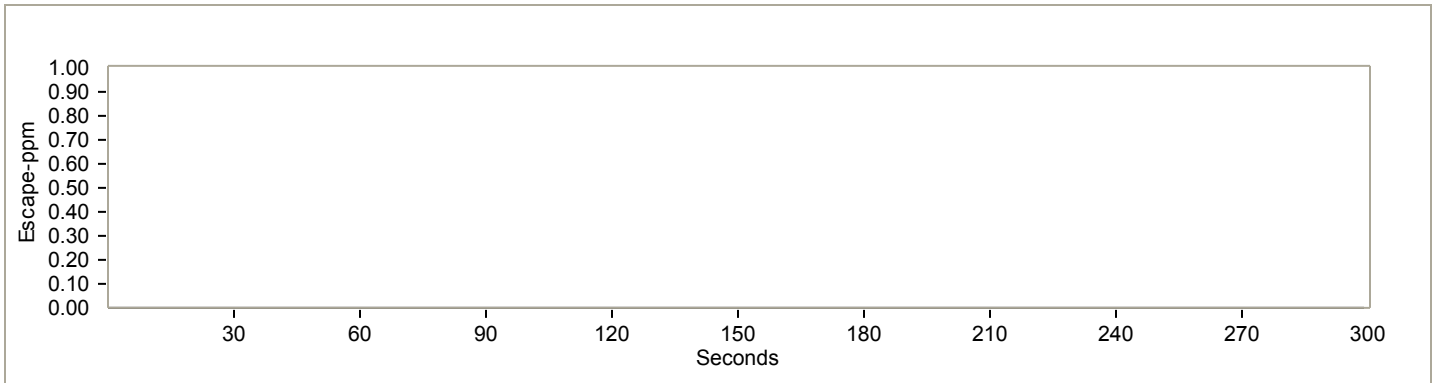
# Plots of Tracer Gas Containment

Report printed on 8/20/2007

Hood: 6 Foot Pioneer

Date: 8/17/2007

Cycle: 4



## Center

Average: .00  
Maximum: .00  
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 Foot Pioneer

Date: 8/17/2007  
 Cycle Index: 5

**Conditions:**

Cycle Rating: **Pass**

Sash Opening: Horizontal center test position.

Opening Dimensions:	<u>Height</u>	<u>Width</u>	<u>Major Area</u>	<u>Additional Area</u>	<u>Total Area</u>
	29 inches	28 inches	5.6 ft <sup>2</sup>	0 ft <sup>2</sup>	5.6 ft <sup>2</sup>

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

Apparatus In Hood: Yes NIH protocol paint cans/box loading.

Monitor Reading - As Found: n/a

As Left:

Diff. Pressure Occupied:

Un-Occupied:

Test Comments: NIH protocol, multiprobe fv tests at VAV. blower does not function at horizontal sash openings.

**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 36 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	118	104	112									
Row 2	109	105	112									
Row 3	115	95	113									
Row 4												
Row 5												
Row 6												
Row 7												
Row 8												

Avg: 109 fpm

Max: 118 fpm

Min: 95 fpm

Exhaust

Flow: 610 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:	0.00				ppm

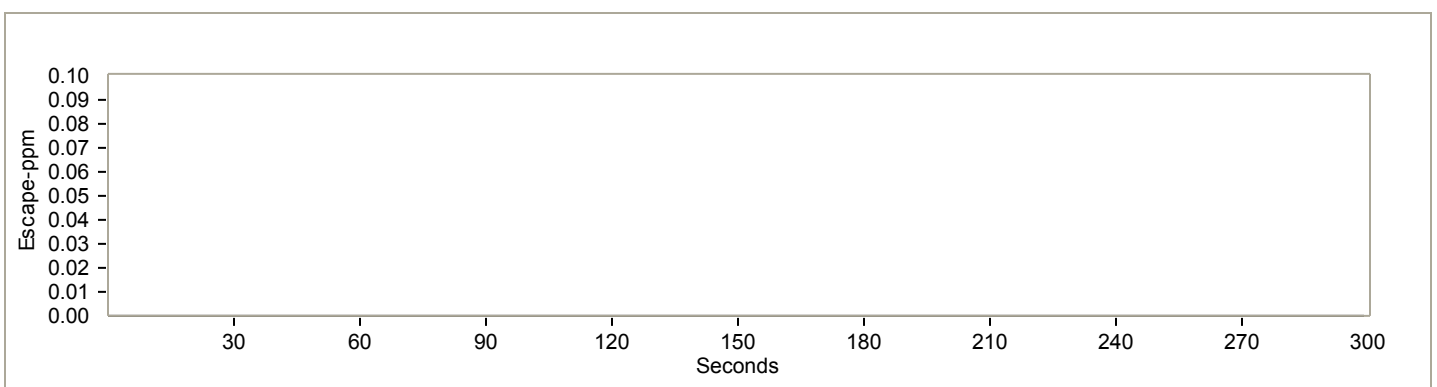
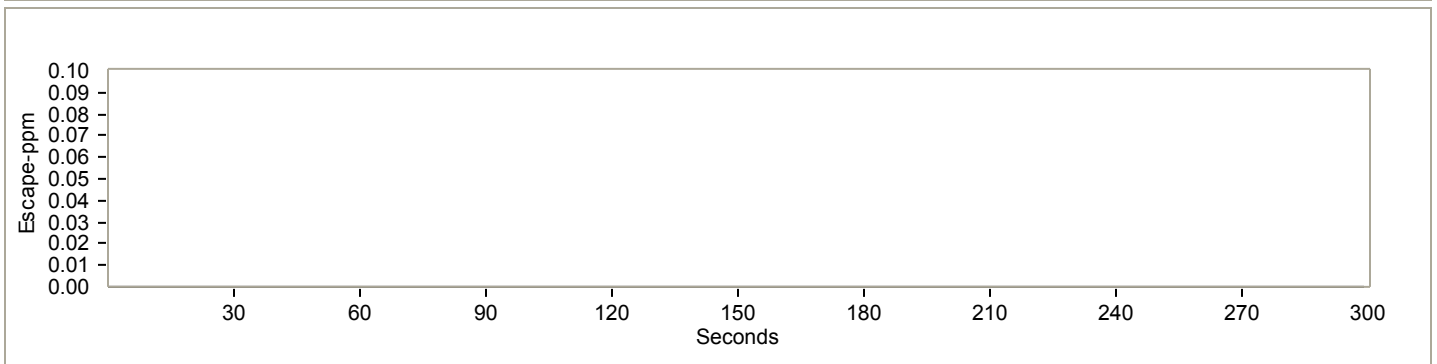
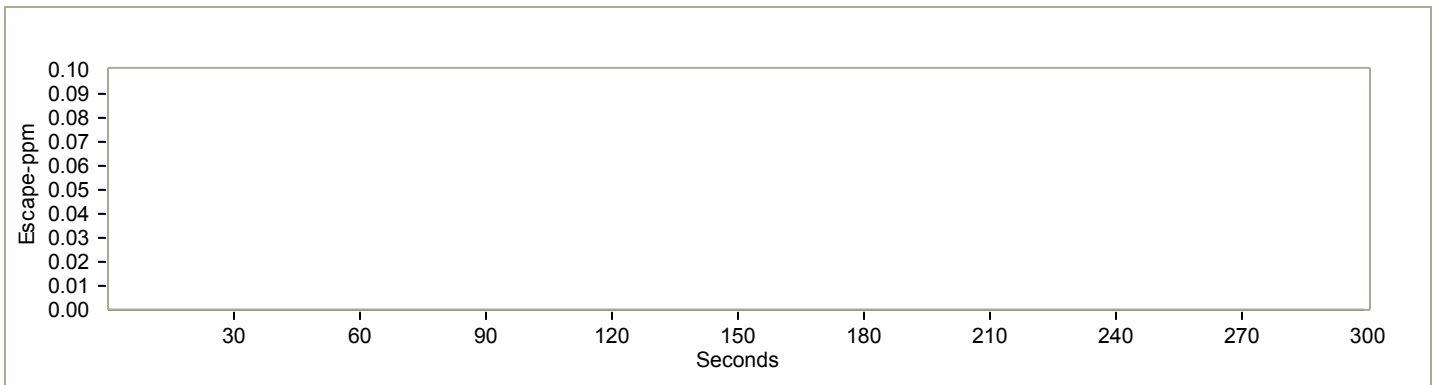
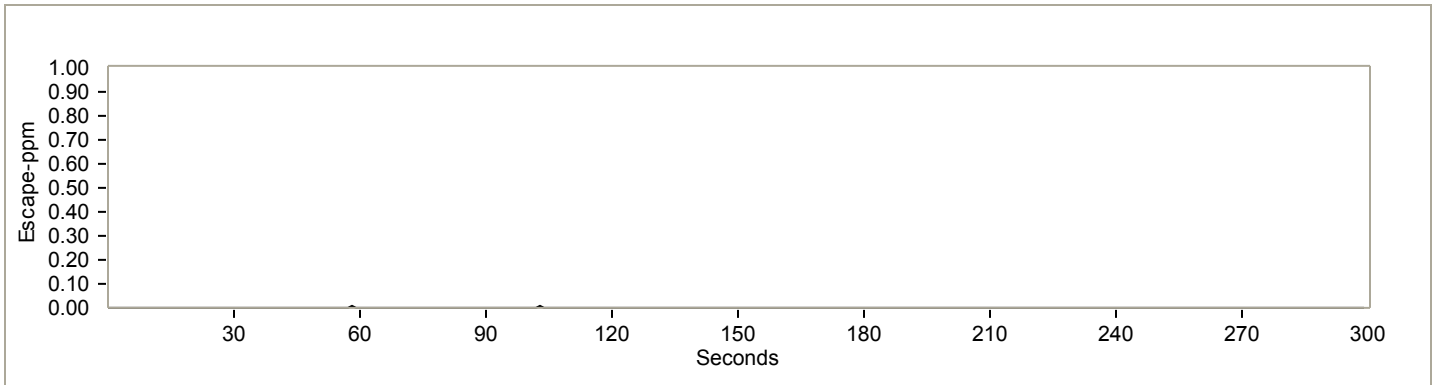
# Plots of Tracer Gas Containment

Report printed on 8/20/2007

Hood: 6 Foot Pioneer

Date: 8/17/2007

Cycle: 5



### Center

Average: .00  
Maximum: .00  
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 Foot Pioneer

Date: 8/17/2007  
 Cycle Index: 6

**Conditions:**

Cycle Rating: **Pass**

Sash Opening: Horizontal center test position.

Opening Dimensions:	<u>Height</u>	<u>Width</u>	<u>Major Area</u>	<u>Additional Area</u>	<u>Total Area</u>
	29 inches	28 inches	5.6 ft <sup>2</sup>	0 ft <sup>2</sup>	5.6 ft <sup>2</sup>

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

Apparatus In Hood: No NIH protocol paint cans/box loading.

Monitor Reading - As Found: As Left:

Diff. Pressure Occupied: Un-Occupied:

Test Comments: NIH protocol, SSFV/TI tests at VAV. blower does not function at horizontal sash opening. Dynamic walk-by tracer gas test at 30-second intervals.

**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														
Row 2														
Row 3														Avg:
Row 4														Max:
Row 5														Min:
Row 6														
Row 7														Exhaust
Row 8														Flow:

**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:	0.00				ppm

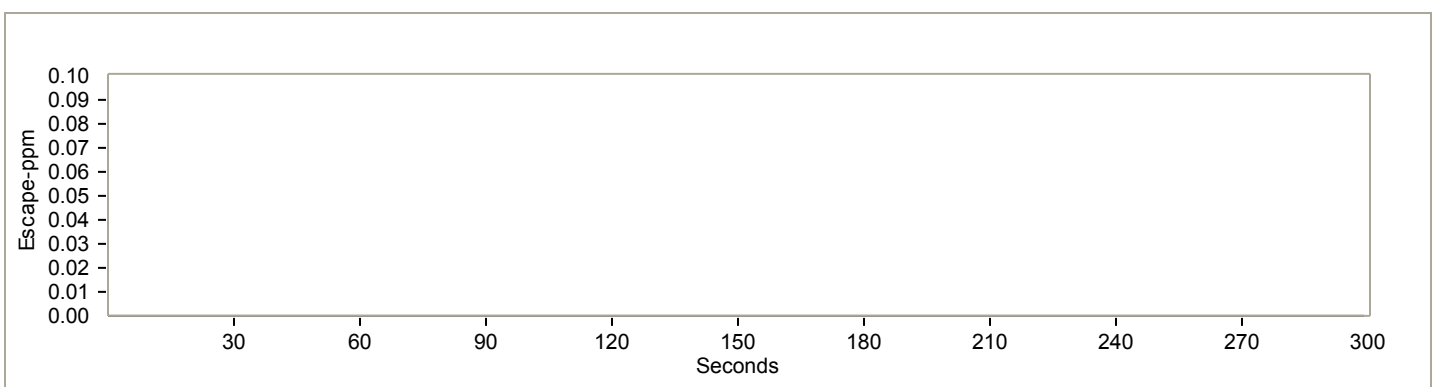
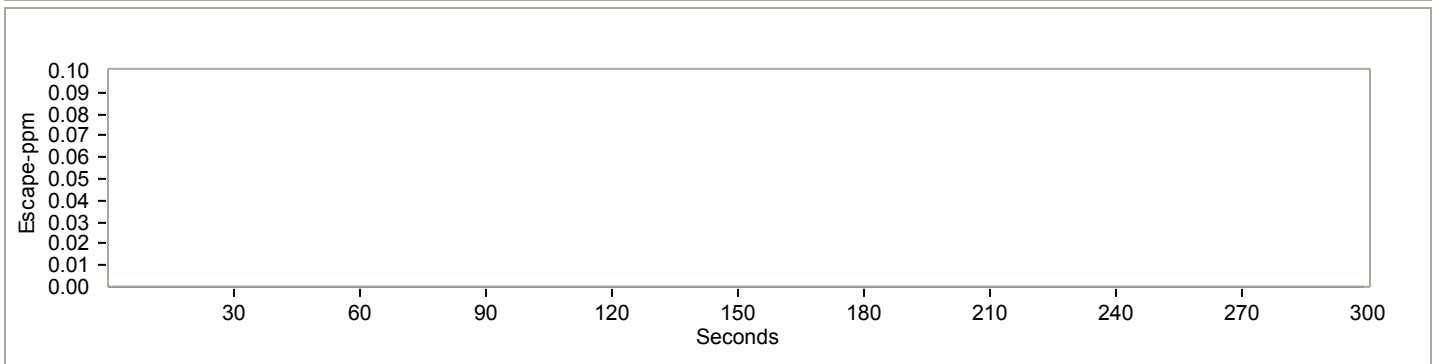
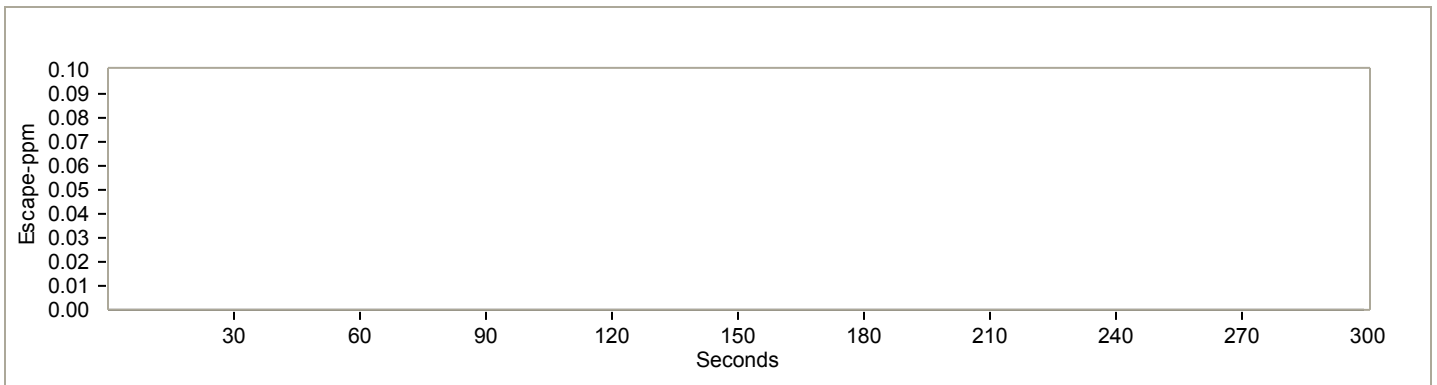
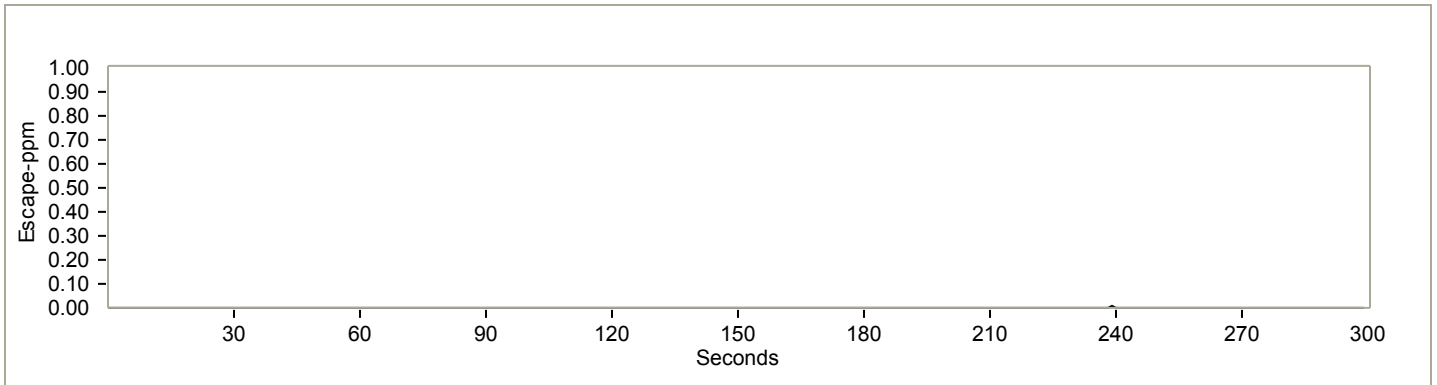
# Plots of Tracer Gas Containment

Report printed on 8/20/2007

Hood: 6 Foot Pioneer

Date: 8/17/2007

Cycle: 6



## Center

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