

## #24017585

Analysis Report prepared for

# **Sample Company**

123 Main Street Midlothian, VA 23112

Phone: (804) 562-3435

**001** Soot Sample Report

Collected: August 28, 2024 Received: August 29, 2024 Reported: August 29, 2024 We would like to thank you for trusting Hayes Microbial for your analytical needs! We received 4 samples by Drop Off in good condition for this project on August 29th, 2024.

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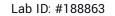
Stephen N. Hoycs

Steve Hayes, BSMT(ASCP) Laboratory Director Hayes Microbial Consulting, LLC.



EPA Laboratory ID: VA01419







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#### John Doe Sample Company 123 Main Street

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## Soot Analysis

#	Sample Media	Sample Number	Sample Name	Total Soot	Particle	Raw Ct.	Ct/unit
1	Bio-Tape (1.00 in2)	001	Kitchen Wall	90%	Aciniform-like Soot Ash and Char-like Soot	2600 320	16774/in² 2065/in²
2	Bio-Tape (1.00 in2)	002	Den Ceiling	40%	Aciniform-like Soot Ash and Char-like Soot	680 10	4387/in² 65/in²
3	Bio-Tape (1.00 in2)	003	Living Room Wall	50%	Aciniform-like Soot Ash and Char-like Soot	220 360	1419/in² 2323/in²
4	Bio-Tape (1.00 in2)	004	Entry Baseboard	2%	Aciniform-like Soot Ash and Char-like Soot	2 3	13/in² 19/in²

D	HAYES	Collected: Aug 28, 2024	Received: Aug 29, 2024	, 2024 Reported: Aug 29, 2024	
		Project Analyst: Steve Hayes, BSMT Stephen N.	Date:	Reviewed By: P. Parma	Date:
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### Soot Particulate Analysis Information

Dur Soot Particulate Analysis test is based on the initial screening procedures from ASTM #D6602. Our Lab only uses light, polarized light, and phase contrast microscopy.	
No SEM or X-ray defraction is performed. Below are some guidelines to help find totals for the most common particle counts analyzed by light microscopy.	

The expected normal value of Total Soot is $\leq$ 5%.		
Particle	Air *	Surface *
Ash and Char-like Soot	0-100 / M <sup>3</sup>	0-300 / cm <sup>2</sup>
Aciniform-like Soot	0-100 / M <sup>3</sup> 0-800 / cm <sup>2</sup>	
* Estimated Normal Ranges are based on prior experience. There are no standard ranges for this form of testing.	M <sup>3</sup> = Cubic Meter	cm <sup>2</sup> = Square Centimeter



John Doe Sample Company 123 Main Street		<b>001 #240175</b> Soot Sample Report	#24017585	
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soot should not be confused with Carbon Black, which is a		Also known as black carbon, aciniform soot comes from the combustion of oil based or hydrocarbon containing materials. This type of soot should not be confused with Carbon Black, which is a manufactured product that has been used in commerce for over a century and consists of a fine black powder of nearly pure elemental carbon.		
	Health Effects:	Sources are from the combustion of waste oil, fuel oil, gasoline fuel, diesel fuel, coal, coal-tar pitch, oil shale, rubber, plastics and resins, natural gas fireplaces and stoves, candles etc.		
Ash and Char-like Soot	Habitat:	Ash-like soot is formed from the combustion of wood and paper products. Char-like soot comes from the incomplete combustion of wood and paper products.		
	Health Effects:	Sources are wood fireplaces, house fires, forest fires, and burning of leaves and other yard debris.		

