April 6, 2020



Mr. Rich Hansen Middle Bucks Institute of Technology 2740 Old York Road Jamison, PA 18929

RE: MBIT Welding Test Results - March 5, 2020

Dear Mr. Hansen:

Attached please find the welding test results from the March 5, 2020, sampling period. This testing was conducted proactively to ensure welding fumes in the teaching lab were within acceptable regulatory limits. The indoor sampling location was selected by Dr. Barbra A. Plohocki, Project Manager, EnviraHealth Corporation.

Welding Sampling Location

One (1) airborne sample (Sample ID: W-1) was taken in between the two (2) sets of welding booths. There are several welding booths on each side of the lab with tables and supplies in the center aisle. *This was an area sample rather than a personal sample*. Sample W-1 was analyzed for a complete welding fume profile and total dust.

Interpretations/Conclusions

The welding fume sample taken in the MBIT Welding Lab on March 5, 2020, was within <u>normal limits</u> based on current regulatory limits. **Overall, the welding area was in excellent** condition from an Indoor Air Quality perspective.

NOTE 1:

- A Certified Industrial Hygiene (CIH) laboratory analyzed the welding sample.
- Welding fumes and total particulates were sampled using a pre- and post-calibrated sampling pump attached to a filter cassette.

EnviraHealth Corporation 1937 Station Avenue Center Valley, PA 18034

610-653-7216 envirahealth@gmail.com

NOTE 2:

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The lab test results are attached to this report letter.

Industrial Hygiene Testing Limitation

The welding fume and total dust test results noted in this report are indicative of the conditions present on site at the time of this investigation. EnviraHealth Corporation does not guarantee, warranty or certify the conditions represented in this investigation will not change significantly over time.

I can be reached at cell (610) 653-7216 or E-MAIL: envirahealth@gmail.com.

Regards,

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Dr. Barbra A. Plohocki Project Manager



Merging Business, Industry, and Technology

WELDING LABORATORY RESULTS TEST DATE: MARCH 5, 2020



Analytics Corporation 10329 Stony Run Lane Ashland, Va 23005 Phone: (804) 365-3000 Fax: (804) 365-3002 AIHA-LAP, LLC Accreditation ID 100531

Final Report											
Work Order Y077031									2		
ENVIRAHEALTH CORP			Customer: Attention:	P\$ B/	SC00186 ARB PLOLOCH			Date Received	: 03/17/20		
CENTER VALLEY, PA 18034		PO Number	C C	C			Client Project	ID MBIT			
Lab ID: Y077031001 Sample ID:	EY1528/102			1. 194 1. 194	Media: 3	M 3500 ORGA	NIC POVM	Sample Date:	3/5/2020 Samp	ling Time:	374
Analyte	Method	Analysis Date	Volume		Reporting Limit	Front	Rear	Total	Concentration		
Total Hydrocarbons as Hexane	NIOSH Method 1500	03/19/20	12	L	30 ug			45.1 ug	3.76 mg/M3	1.07 ppm	
Lab ID: Y077031002 Sample ID:	EY1575/103				Media: 3	M 3500 ORGA	ANIC POVM	Sample Date:	3/5/2020 Samp	ling Time:	375
Analyte	Method	Analysis Date	Volume		Reporting Limit	Front	Rear	Total	Concentration		
Total Hydrocarbons as Hexane	NIOSH Method 1500	03/19/20	12	L	30 ug			30.1 ug	2.51 mg/M3	0.712 ppm	
Lab ID: Y077031003 Sample ID:	W-1		the second		Media: 5	um Preweighe	ed PVC Filter	Sample Date:	3/5/2020 Sampling Time:		
Analyte	Method	Analysis Date	Volume		Reporting Limit	Front	Rear	Total	Concentration		
Total Dust	NIOSH 0500	03/18/20	720	L	.1 mg			0.133 mg	0.185 mg/M3		
Aluminum	OSHA ID 125	03/19/20	720	L	2 ug			< 2 ug	< 0.0028 mg/M3		
Antimony	OSHA ID 125	03/19/20	720	L	2 ug			< 2 ug	< 0.0028 mg/M3		
Beryllium	OSHA ID 125	03/19/20	720	L	0.02 ug			< 0.02 ug	< 0.028 ug/M3		
Cadmium	OSHA ID 125	03/19/20	720	L	0.5 ug			< 0.5 ug	< 0.0007 mg/M3		
Chromium	OSHA ID 125	03/19/20	720	L	2 ug			< 2 ug	< 0.0028 mg/M3		
Cobalt	OSHA ID 125	03/19/20	720	L	2 ug			< 2 ug	< 0.0028 mg/M3		
Copper	OSHA ID 125	03/19/20	720	L	1 ug			< 1 ug	< 0.0014 mg/M3		

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Lab ID: Y077031003 Sample ID: W-1 Media: 5um Preweighed PVC Filter Sample Date: 3/5/2020 Sampling Time: Analysis Reporting Limit Date Analyte Method Volume Front Total Concentration Rear Iron Oxide OSHA ID 125 03/19/20 720 L 2.85 ug 74.5 ug 0.104 mg/M3 Lead OSHA ID 125 03/19/20 720 < 2 ug < 0.0028 mg/M3 L 2 ug Manganese OSHA ID 125 03/19/20 720 L 2 ug 4.23 ug 0.0059 mg/M3 Molybdenum OSHA ID 125 03/19/20 720 < 0.0028 mg/M3 L 2 ug < 2 ug Nickel OSHA ID 125 03/19/20 720 < 0.0028 mg/M3 L 2 ug < 2 ug Titanium Dioxide OSHA ID 125 03/19/20 720 L 3.35 ug < 3.35 ug < 0.0047 mg/M3 Vanadium OSHA ID 125 03/19/20 720 L 2 ug < 2 ug < 0.0028 mg/M3 Zinc Oxide OSHA ID 125 03/19/20 720 L 2.48 ug < 2.48 ug < 0.0034 mg/M3

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General Laboratory Comments

Abbreviations:

ug = micrograms; mg=milligrams; g = grams, ppm=parts per million (volume), ppb = parts per billion (volume), mg/M3=milligrams per cubic meter of air; ug/M3=micrograms per cubic meter of air; Min=minutes, Qual=Qualifiers