

# FINAL REPORT



## BESSEMER PLYWOOD CORPORATION

BESSEMER, MICHIGAN

### **SOURCE TESTING PROGRAM: EUDRYER4**

RWDI # 2200224

October 13, 2022

### **SUBMITTED TO**

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## EXECUTIVE SUMMARY

RWDI USA LLC (RWDI) was retained by Bessemer Plywood Corporation (Bessemer Plywood) to complete compliance testing of the EUDRYER4 (Dryer 4) at their facility located at 1000 Yale Avenue, Bessemer, MI 49911. Bessemer Plywood processes timber into plywood. The scope of the test program was to complete particulate matter (PM), nitrogen oxides (NOx), and carbon monoxide (CO) emissions testing. There are three (3) sources related to emission unit EUDRYER4, including SVHEAT1, SVCOOL1 and SVCOOL2. Each source was tested for CO, NOx, and PM.

The testing consisted of triplicate 120-minute tests for NOx, CO, oxygen (O<sub>2</sub>), carbon dioxide (CO<sub>2</sub>) and Particulate Matter (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) from the three (3) EUDRYER4 sources noted above. As outlined in the Permit to Install (PTI) 35-20B, the emissions are reported for NOx, CO and PM (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) as pounds per hour (lb/hr). NOx and CO were determined using U.S. EPA Methods 7E and 10, respectively. The O<sub>2</sub> and CO<sub>2</sub> were measured during the testing following U.S. EPA Method 3A. PM (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) was measured during the testing following U.S. EPA Method 5 and 202. The testing was performed and completed successfully on August 16, 2022.

The following table represents a summary of the stack testing results.

**Executive Summary Table i: Average Emission Data – NOx and CO Testing**

Parameter	Concentration & Emission Rate (ppmv & lb/hr)							
	Run 1		Run 2		Run 3		Average	
	NOx	CO	NOx	CO	NOx	CO	NOx	CO
SVHEAT1	16.05 ppmv 1.61 lb/hr	129.6 ppmv 7.9 lb/hr	15.81 ppmv 1.51 lb/hr	117.8 ppmv 6.9 lb/hr	16.64 ppmv 1.67 lb/hr	117.5 ppmv 7.2 lb/hr	16.17 ppmv 1.60 lb/hr	121.7 ppmv 7.3 lb/hr
SVCOOL1	-0.06 ppmv 0 lb/hr	1.43 ppmv 0.063 lb/hr	0.099 ppmv 0.007 lb/hr	1.29 ppmv 0.054 lb/hr	-0.063 ppmv 0 lb/hr	1.08 ppmv 0.043 lb/hr	-0.006 ppmv 0 lb/hr	1.27 ppmv 0.053 lb/hr
SVCOOL2	-0.19 ppmv 0 lb/hr	0.75 ppmv 0.057 lb/hr	-0.35 ppmv 0 lb/hr	0.77 ppmv 0.057 lb/hr	-0.58 ppmv 0 lb/hr	0.46 ppmv 0.033 lb/hr	-0.37 ppmv 0 lb/hr	0.66 ppmv 0.049 lb/hr
<b>Total*</b>	<b>1.61 lb/hr</b>	<b>8.04 lb/hr</b>	<b>1.52 lb/hr</b>	<b>6.98 lb/hr</b>	<b>1.67 lb/hr</b>	<b>7.27 lb/hr</b>	<b>1.60 lb/hr</b>	<b>7.43 lb/hr</b>
	<b>Permit Limit</b>						<b>6.0 lb/hr</b>	<b>9.1 lb/hr</b>

Note: \* any negative values were treated as zero for the Total lb/hr calculation

**Executive Summary Table ii: Average Emission Data – Particulate (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) Testing**

Parameter	Emission Rate (lb/hr)			
	Run 1 (PM)	Run 2 (PM)	Run 3 (PM)	Average (PM)
SVHEAT1	2.74 lb/hr	2.26 lb/hr	2.04 lb/hr	2.35 lb/hr
SVCOOL1	0.12 lb/hr	0.08 lb/hr	0.11 lb/hr	0.10 lb/hr
SVCOOL2	0.14 lb/hr	0.23 lb/hr	0.11 lb/hr	0.16 lb/hr
<b>Total</b>	<b>3.0 lb/hr</b>	<b>2.57 lb/hr</b>	<b>2.26 lb/hr</b>	<b>2.61 lb/hr</b>
	<b>Permit Limit (PM/PM<sub>10</sub>/PM<sub>2.5</sub>)</b>			<b>3.2 lb/hr</b>



# TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>1</b>
<b>1.1</b>	<b>Location and Dates of Testing .....</b>	<b>1</b>
<b>1.2</b>	<b>Purpose of Testing .....</b>	<b>1</b>
<b>1.3</b>	<b>Description of Source .....</b>	<b>1</b>
<b>1.4</b>	<b>Personnel Involved in Testing .....</b>	<b>2</b>
<b>2</b>	<b>SUMMARY OF RESULTS .....</b>	<b>2</b>
<b>2.1</b>	<b>Operating Data .....</b>	<b>2</b>
<b>2.2</b>	<b>Applicable Permit Number.....</b>	<b>2</b>
<b>3</b>	<b>SOURCE DESCRIPTION .....</b>	<b>3</b>
<b>3.1</b>	<b>Description of Process and Emission Control Equipment.....</b>	<b>3</b>
<b>3.2</b>	<b>Process Flow Sheet or Diagram .....</b>	<b>3</b>
<b>3.3</b>	<b>Type and Quantity of Raw and Finished Materials.....</b>	<b>3</b>
<b>3.4</b>	<b>Process Instrumentation Monitored During the Test .....</b>	<b>3</b>
<b>4</b>	<b>SAMPLING AND ANALYTICAL PROCEDURES .....</b>	<b>3</b>
<b>4.1</b>	<b>Sampling for Carbon Monoxide (CO), Oxides of Nitrogen (NOx), Oxygen (O<sub>2</sub>) and Carbon Dioxide (CO<sub>2</sub>).....</b>	<b>4</b>
<b>4.2</b>	<b>USEPA Method 205 and Gas Dilution System.....</b>	<b>5</b>
<b>4.3</b>	<b>Sampling for Particulate Matter (Method 5/202) .....</b>	<b>5</b>
<b>4.4</b>	<b>Quality Assurance/Quality Control Activities .....</b>	<b>6</b>
<b>4.5</b>	<b>Description of Recovery and Analytical Procedures .....</b>	<b>6</b>
<b>4.6</b>	<b>Sampling Port Description.....</b>	<b>6</b>
<b>5</b>	<b>TEST RESULTS AND DISCUSSION .....</b>	<b>7</b>
<b>5.1</b>	<b>Detailed Results .....</b>	<b>7</b>
<b>5.2</b>	<b>Discussion of Results .....</b>	<b>7</b>
<b>5.3</b>	<b>Variations in Testing Procedures.....</b>	<b>7</b>
<b>5.4</b>	<b>Process Upset Conditions During Testing .....</b>	<b>8</b>
<b>5.5</b>	<b>Maintenance Performed in Last Three Months .....</b>	<b>8</b>
<b>5.6</b>	<b>Re-Test.....</b>	<b>8</b>
<b>5.7</b>	<b>Audit Samples .....</b>	<b>8</b>
<b>5.8</b>	<b>Calibration Sheets.....</b>	<b>8</b>
<b>5.9</b>	<b>Sample Calculations .....</b>	<b>8</b>
<b>5.10</b>	<b>Field Data Sheets.....</b>	<b>8</b>
<b>5.11</b>	<b>Laboratory Data .....</b>	<b>8</b>
<b>6</b>	<b>CONCLUSIONS .....</b>	<b>8</b>



## LIST OF TABLES

(Found within the Report Text)

<b>Table 1.3.1:</b> Summary of Source Group.....	1
<b>Table 1.4.1:</b> Testing Personnel.....	2
<b>Table 3.3.1:</b> Process Data Summary.....	3
<b>Table 4.6.1:</b> Sample Location Details.....	6
<b>Table 5.1.1:</b> Average Emission Data – NOx and CO Testing.....	Executive Summary & 7
<b>Table 5.1.2:</b> Average Emission Data – Particulate (PM/PM <sub>10</sub> /PM <sub>2.5</sub> ) Testing.....	Executive Summary & 7

## LIST OF TABLES

(Found After the Report Text)

<b>Table 1:</b>	Sampling Parameters and Methodology
<b>Table 2:</b>	Sampling Times

## LIST OF FIGURES

<b>Figure 1:</b>	SVHEAT1 Stack Diagram
<b>Figure 2:</b>	SVCOOL1 Stack Diagram
<b>Figure 3:</b>	SVCOOL2 Stack Diagram
<b>Figure 4:</b>	USEPA Method 3A, 7E, and 10 Diagram
<b>Figure 5:</b>	USEPA Method 5/202 Diagram



## LIST OF APPENDICES

- Appendix A:** Process Data
- Appendix B:** Continuous Emission Monitoring Results
  - Appendix B1:** SVHEAT1 CEM Results
  - Appendix B2:** SVCOOL1 CEM Results
  - Appendix B3:** SVCOOL2 CEM Results
- Appendix C:** Particulate Matter Results
  - Appendix C1:** SVHEAT1 PM Results
  - Appendix C2:** SVCOOL1 PM Results
  - Appendix C3:** SVCOOL2 PM Results
- Appendix D:** Field Notes
  - Appendix D1:** SVHEAT1 Field Notes
  - Appendix D2:** SVCOOL1 Field Notes
  - Appendix D3:** SVCOOL2 Field Notes
- Appendix E:** Calibration Documents
- Appendix F:** Laboratory Reports
- Appendix G:** Example Calculations
- Appendix H:** Copy of Source Testing Plan and EGLE Correspondence



# 1 INTRODUCTION

RWDI USA LLC (RWDI) was retained by Bessemer Plywood Corporation (Bessemer Plywood) to complete compliance testing of the EUDRYER4 (Dryer 4) at their facility located at 1000 Yale Avenue, Bessemer, MI 49911. Bessemer Plywood processes timber into plywood. The scope of the test program was to complete particulate matter (PM), nitrogen oxides (NOx), and carbon monoxide (CO) emissions testing. There are three (3) sources related to emission unit EUDRYER4, including SVHEAT1, SVCOOL1 and SVCOOL2. Each source was tested for CO, NOx, and PM.

The testing consisted of triplicate 120-minute tests for NOx, CO, oxygen (O<sub>2</sub>), carbon dioxide (CO<sub>2</sub>) and Particulate Matter (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) from the three (3) EUDRYER4 sources noted above. As outlined in the Permit to Install (PTI) 35-20B, the emissions are reported for NOx, CO and PM (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) as pounds per hour (lb/hr). NOx and CO were determined using U.S. EPA Methods 7E and 10, respectively. The O<sub>2</sub> and CO<sub>2</sub> were measured during the testing following U.S. EPA Method 3A. PM (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) was measured during the testing following U.S. EPA Method 5 and 202. The testing was performed and completed successfully on August 16, 2022.

## 1.1 Location and Dates of Testing

The test program was completed on August 16<sup>th</sup>, 2022 at the Bessemer Plywood Corporation facility located at 1000 Yale Street in Bessemer, Michigan.

## 1.2 Purpose of Testing

The test program was conducted to determine concentrations and emission rates of Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Particulate Matter (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) for EUDRYER4 consisting of three (3) individual sources noted as SVHEAT1, SVCOOL1, and SVCOOL2. All sources were tested at approximately the same time.

## 1.3 Description of Source

The following source was included in the program:

**Table 1.3.1:** Summary of Source Group

Emission Unit	Capacity	Pollution Control Equipment
<b>EUDRYER4</b>	65,000 MSF 3/8 per Year	Not Applicable

The EUDRYER4 is a Wood Veneer Dryer heated with a natural gas-fired 40.6 MMBTU/hr burner used for drying sheets of plywood. Dryer 4 has three (3) emission points being tested including SVHEAT1, SVCOOL1, and SVCOOL2.



## 1.4 Personnel Involved in Testing

Table 1.4.1: Testing Personnel

<b>Bill Thomason</b> Vice President Bill@bessemerplywood.com	<b>Bessemer Plywood Corporation</b> 1000 Yale Avenue Bessemer, MI 49911	(906) 667-0277
<b>Brad Bergeron</b> Senior Project Manager Brad.Bergeron@rwdi.com	<b>RWDI USA LLC</b> 2239 Star Court Rochester Hills, MI 48309	(519) 817-9888
<b>Mason Sakshaug</b> Senior Scientist Mason.Sakshaug@rwdi.com		(989) 323-0355
<b>Steve Smith</b> Project Manager Steve.Smith@rwdi.com		(734) 751-9701
<b>Rob Dickman</b> DickmanR@michigan.gov	<b>Michigan Department of Environment, Great Lakes and Energy</b>	(231) 878-4697
<b>Joe Scanlan</b> scanlanj@michigan.gov	<b>Michigan Department of Environment, Great Lakes and Energy</b>	(906) 458-6415

## 2 SUMMARY OF RESULTS

### 2.1 Operating Data

Operational data collected during the testing included the following:

- Temperature of the dryer.
- Production rate in MSF/hr, 3/8" basis.
- Confirmation of product type (hardwood and non-resinous wood).
- Natural gas usage.

This information can be found in **Appendix A**.

### 2.2 Applicable Permit Number

The facility operates under State of Michigan Permit to Install (PTI) 35-20B.

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Page 2



## 3 SOURCE DESCRIPTION

### 3.1 Description of Process and Emission Control Equipment

Bessemer Plywood uses trees harvested in the upper great lakes area and turns logs into a consumer requested product. The EUDRYER4 is a Wood Veneer Dryer heated with a natural gas-fired 40.6 MMBTU/hr burner used for drying sheets of plywood. Dryer 4 has three (3) emission points being tested including SVHEAT1, SVCOOL1, and SVCOOL2.

### 3.2 Process Flow Sheet or Diagram

Diagram of process is provided in the Source Testing Plan (**Appendix H**).

### 3.3 Type and Quantity of Raw and Finished Materials

The process data was recorded during stack testing. The following table 3.3.1 summarizes the process data for each run.

**Table 3.3.1:** Process Data Summary

Run No.	Time	Natural Gas (MMBtu/hr)	Production MSF/hr 3/8"
1	8:10AM - 10:10AM	21.5	20.5
2	11:30AM - 1:31PM	21.0	20.0
3	2:45PM - 4:46PM	22.0	20.9

### 3.4 Process Instrumentation Monitored During the Test

The process is regulated through monitoring of combustion temperature, natural gas usage and a number of other quality variables.

## 4 SAMPLING AND ANALYTICAL PROCEDURES

The emission test program utilized the following test methods codified at Title 40, Part 60, Appendix A of the Code of Federal Regulations (40 CFR 60, Appendix A):

- **Method 3A** – Determination of Molecular Weight of Dry Stack Gases (instrumental)
- **Method 7E** – Determination of Oxides of Nitrogen from Stationary Sources
- **Method 10** – Determination of Carbon Monoxide from Stationary Sources
- **Method 5/202** – Determination of Particulate Matter from Stationary Sources (including condensable)
- **Method 205** – Verification of Gas Dilution Systems For Field Instrument Calibrations





## 4.1 Sampling for Carbon Monoxide (CO), Oxides of Nitrogen (NO<sub>x</sub>), Oxygen (O<sub>2</sub>) and Carbon Dioxide (CO<sub>2</sub>)

Oxygen (O<sub>2</sub>), carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO) and oxides of nitrogen (NO<sub>x</sub>) concentrations were determined utilizing RWDI's continuous emissions monitoring (CEM) system. Prior to testing, a 3-point analyzer calibration error check was conducted using USEPA protocol gases. The calibration error check was performed by introducing zero, mid and high-level calibration gases directly into the analyzer. The calibration error check was performed to confirm that the analyzer response is within  $\pm 2\%$  of the certified calibration gas introduced. Prior to each test run, a system-bias test was performed where known concentrations of calibration gases were introduced at the probe tip to measure if the analyzers response were within  $\pm 5\%$  of the introduced calibration gas concentrations. At the conclusion of each test run a system-bias check was performed to evaluate the percent drift from pre and post-test system bias checks. The system bias checks were used to confirm that the analyzer did not drift greater than  $\pm 3\%$  throughout a test run.

Zero and upscale calibration checks were conducted both before and after each test run to quantify measurement system calibration drift and sampling system bias. Upscale is either the mid- or high-range gas, whichever most closely approximates the flue gas level. During these checks, the calibration gases were introduced into the sampling system at the probe outlet so that the calibration gases were analyzed in the same manner as the flue gas samples.

A gas sample was continuously extracted from the stack and delivered to a series of gas analyzers, which measure the pollutant or diluent concentrations in the gas. The analyzers were calibrated on-site using EPA Protocol No. 1 certified calibration mixtures. The probe tip was equipped with a sintered stainless-steel filter for particulate removal. The end of the probe was connected to a heated Teflon sample line, which delivered the sample gases from the stack to the CEM system. The heated sample line was designed to maintain the gas temperature above 250°F to prevent condensation of stack gas moisture within the line.

Before entering the analyzers, the gas sample passed directly into a refrigerated condenser, which cools the gas to approximately 35°F to remove the stack gas moisture. After passing through the condenser, the dry gas enters a Teflon-head diaphragm pump and a flow control panel, which delivers the gas in series to the O<sub>2</sub>, CO<sub>2</sub>, CO, and NO<sub>x</sub> analyzers. Each of these analyzers measured the respective gas concentrations on a dry volumetric basis.



## 4.2 USEPA Method 205 and Gas Dilution System

Calibration gas was mixed using an Environics 4040 Gas Dilution System. The mass flow controllers are factory calibrated using a primary flow standard traceable to the United States National Institute of Standards and Technology (NIST). Each flow controller utilizes an 11-point calibration table with linear interpolation, to increase accuracy and reduce flow controller nonlinearity. The calibration is done yearly, and the records are included in the Source Testing Report. A multi-point EPA Method 205 check was executed in the field prior to testing to ensure accurate gas-mixtures. The gas dilution system consisting of calibrated orifices or mass flow controllers and dilutes a high-level calibration gas to within  $\pm 2\%$  of predicted values. The gas divider is capable of diluting gases at set increments and was evaluated for accuracy in the field in accordance with US EPA Method 205 "*Verification of Gas Dilution Systems for Field Instrument Calibrations*". The gas divider dilution was measured to evaluate that the responses are within  $\pm 2\%$  of predicted values. In addition, a certified mid-level calibration gas within  $\pm 10\%$  of one of the tested dilution gases was introduced into an analyzer to ensure the response of the gas calibration is within  $\pm 2\%$  of gas divider dilution concentration.

## 4.3 Sampling for Particulate Matter (Method 5/202)

Particulate matter (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) was sampled following procedures outlined in U.S. EPA Method 5 and 202. Since US EPA Method 5/202 was used, PM measured was assumed the same for all particle sizes.

U.S. EPA Method 5 is an isokinetic test that samples the sample gas through a nozzle, a stainless-steel or glass liner, and through a glass-fiber filter which is analyzed gravimetrically for filterable PM (FPM). The probe and filter are heated to maintain a gas sample temperature of 248°F  $\pm$  25°. After filterable particulate matter has been removed from the gas stream (via Method 5), Condensable Particulate Matter (CPM) is collected via U.S. EPA Method 202. Method 202 begins in the sampling train directly following the filter in the FPM method. The gas is drawn through a vertical condenser and into a potbelly impinger. The gas then passes through a modified Greenberg-Smith impinger, and then through a CPM filter which must be maintained to a temperature between 65°F and 85°F.

After the CPM filter, the gas passes through another modified Greenberg-Smith impinger and an impinger with silica gel for moisture removal. All impingers are weighed before and after each test to determine moisture content, and all CPM glassware are recovered according to Method 202. Method 5 analysis was completed by RWDI inhouse laboratory. Method 202 samples were shipped via courier to Bureau Veritas in Mississauga, Ontario.



#### 4.4 Quality Assurance/Quality Control Activities

Applicable quality assurance measures were implemented during the sampling program to ensure the integrity of the results. These measurements included detailed documentation of field data, and equipment calibrations for all measured parameters.

Quality control procedures specific to the CEM system equipment included linearity checks to determine the instrument performance and reproducibility checks prior to its use in the field. Regular performance checks on the analyzers were also carried out during the testing program by performing hourly zero checks and span calibration checks using primary gas standards. Sample system bias checks were also done. These checks were used to verify the ongoing accuracy of the monitor and sampling system over time. Pollutant-free air was introduced to perform the zero checks, followed by a known calibration (span) gas into the monitor. The response of the monitor to pollutant-free air and the corresponding sensitivity to the span gas were recorded regularly during the tests.

#### 4.5 Description of Recovery and Analytical Procedures

There were no samples to recover during this test program for CO, NOx, O<sub>2</sub> and CO<sub>2</sub>. These parameters used real time data from the analyzers. For PM (PM/PM<sub>10</sub>/PM<sub>2.5</sub>), samples for the Method 5 (filterable) were recovered using Acetone for the probe rinse and filter folder rinse following U.S. EPA Method 5. The filter was removed from the filter holder and placed into the petri dish for further analysis. For the condensable, the filter back to the front holder of the CPM filter was recovered as per U.S. EPA Method 202 consisting of de-ionized water, acetone and hexane. The CPM filter was also recovered and submitted to the laboratory for analysis.

Prior to sampling, all glassware was baked as per U.S. EPA Method 202 at RWDI's facility. As per discussions with Mr. Rob Dickman, the recovery also include the recovery blank (double recovery) from sources SVHeat1 and SVCool1.

#### 4.6 Sampling Port Description

Continuous emissions monitoring (CEM) for NOx, CO, O<sub>2</sub> and CO<sub>2</sub> occurred at EUDRYER4. The sampling for particulate matter also occurred at the EUDRYER 4. Three (3) sources were sampled concurrently for EUDRYER4. The outlet exhaust stack was located on the roof of the building and accessed via manlift to roof area. To evaluate the emissions, triplicate 120-minute tests were conducted on the source.

Table 4.6.1: Sample Location Details

Source	Diameter	Approximate Duct Diameters from Flow Disturbance	Number of Ports	Points per Traverse	Total Points per Test	Average Stack Temperature
SVHEAT1	42"	4.25 downstream and >15 upstream	2	12 (PM) 1 (CO/NOx)	24 (PM) 1 (CO/NOx) 24 (PM) 1 (CO/NOx)	107°F
SVCOOL1	48.5"	3.5 downstream and >15 upstream	2	12 (PM) 1 (CO/NOx)	24 (PM) 1 (CO/NOx)	137°F
SVCOOL2	48"	3.75 downstream and >15 upstream	2	12 (PM) 1 (CO/NOx)	24 (PM) 1 (CO/NOx)	111°F

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## 5 TEST RESULTS AND DISCUSSION

### 5.1 Detailed Results

The following tables give a summary of the NOx, CO, and PM emissions from each source, with the total from all three (3) sources combined. Detailed information regarding each test run can be found in **Appendix B** for CO and NOx and **Appendix C** for PM.

**Table 5.1.1:** Average Emission Data – NOx and CO Testing

Parameter	Concentration & Emission Rate (ppmv & lb/hr)							
	Run 1		Run 2		Run 3		Average	
	NOx	CO	NOx	CO	NOx	CO	NOx	CO
SVHEAT1	16.05 ppmv 1.61 lb/hr	129.6 ppmv 7.9 lb/hr	15.81 ppmv 1.51 lb/hr	117.8 ppmv 6.9 lb/hr	16.64 ppmv 1.67 lb/hr	117.5 ppmv 7.2 lb/hr	16.17 ppmv 1.60 lb/hr	121.7 ppmv 7.3 lb/hr
SVCOOL1	-0.06 ppmv 0 lb/hr	1.43 ppmv 0.063 lb/hr	0.099 ppmv 0.007 lb/hr	1.29 ppmv 0.054 lb/hr	-0.063 ppmv 0 lb/hr	1.08 ppmv 0.043 lb/hr	-0.006 ppmv 0 lb/hr	1.27 ppmv 0.053 lb/hr
SVCOOL2	-0.19 ppmv 0 lb/hr	0.75 ppmv 0.057 lb/hr	-0.35 ppmv 0 lb/hr	0.77 ppmv 0.057 lb/hr	-0.58 ppmv 0 lb/hr	0.46 ppmv 0.033 lb/hr	-0.37 ppmv 0 lb/hr	0.66 ppmv 0.049 lb/hr
<b>Total*</b>	<b>1.61 lb/hr</b>	<b>8.04 lb/hr</b>	<b>1.52 lb/hr</b>	<b>6.98 lb/hr</b>	<b>1.67 lb/hr</b>	<b>7.27 lb/hr</b>	<b>1.60 lb/hr</b>	<b>7.43 lb/hr</b>
					<b>Permit Limit</b>		<b>6.0 lb/hr</b>	<b>9.1 lb/hr</b>

Note: \* any negative values were treated as zero for the Total lb/hr calculation

**Table 5.1.2:** Average Emission Data – Particulate (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) Testing

Parameter	Emission Rate (lb/hr)			
	Run 1 (PM)	Run 2 (PM)	Run 3 (PM)	Average (PM)
SVHEAT1	2.74 lb/hr	2.26 lb/hr	2.04 lb/hr	2.35 lb/hr
SVCOOL1	0.12 lb/hr	0.08 lb/hr	0.11 lb/hr	0.10 lb/hr
SVCOOL2	0.14 lb/hr	0.23 lb/hr	0.11 lb/hr	0.16 lb/hr
<b>Total</b>	<b>3.0 lb/hr</b>	<b>2.57 lb/hr</b>	<b>2.26 lb/hr</b>	<b>2.61 lb/hr</b>
			<b>Permit Limit (PM/PM<sub>10</sub>/PM<sub>2.5</sub>)</b>	<b>3.2 lb/hr</b>

Field notes are presented in **Appendix D**. All calibration information for the equipment used for the program is included in **Appendix E**.

### 5.2 Discussion of Results

Results were below the limit as outlined in **Section 5.1**.

### 5.3 Variations in Testing Procedures

As per discussions with Mr. Rob Dickman on-site, RWDI completed the recovery blank samples for U.S. EPA Method 202 on SVHEAT1 and SVCOOL1. It was determined that the recovery blank sample was not required for SVCOOL2.



## 5.4 Process Upset Conditions During Testing

There were no upsets to the process conditions during the testing for EUDRYER4.

## 5.5 Maintenance Performed in Last Three Months

Normal preventative maintenance.

## 5.6 Re-Test

This was not a retest.

## 5.7 Audit Samples

This test did not require any audit samples.

## 5.8 Calibration Sheets

Calibration sheets can be found in **Appendix E**.

## 5.9 Sample Calculations

Sample calculations can be found in **Appendix G**.

## 5.10 Field Data Sheets

Field data sheets can be found in **Appendix D**.

## 5.11 Laboratory Data

Laboratory data is in **Appendix F**.

# 6 CONCLUSIONS

Testing was successfully completed on August 16<sup>th</sup>, 2022. Testing was conducted in accordance with referenced methodologies following the protocols provided in the Source Testing Plan.

# TABLES



**Table 1: Summary of Sampling Parameters and Methodology**

Source	No. of Tests per Stack	Sampling Parameter	Sampling Method
SVHEAT1	3	Volumetric Flow Rate	U.S. EPA <sup>[1]</sup> Methods 1, 2, 3A, 4
SVCOOL1	3	Particulate Matter	U.S. EPA <sup>[1]</sup> Methods 5, 202
SVCOOL2	3	Nitrogen Oxides	U.S. EPA <sup>[1]</sup> Method 7E
	3	Carbon Monoxide	U.S. EPA <sup>[1]</sup> Method 10

**Notes:**

[1] U.S. EPA - United States Environmental Protection Agency

**Table 2: Sampling Times**

Source	Test No.	Sampling Date	Port 1 Test Time		Port 2 Test Tme	
			Start	End	Start	End
SVHEAT1	1	August 16, 2022	8:10 AM	9:10 AM	9:15 AM	10:15 AM
	2	August 16, 2022	11:30 AM	12:30 PM	12:32 PM	1:32 PM
	3	August 16, 2022	2:45 PM	3:45 PM	3:52 PM	4:52 PM
SVCOOL1	1	August 16, 2022	8:10 AM	9:10 AM	9:20 AM	10:20 AM
	2	August 16, 2022	11:43 AM	12:43 PM	12:46 PM	1:46 PM
	3	August 16, 2022	2:45 PM	3:45 PM	3:48 PM	4:49 PM
SVCOOL2	1	August 16, 2022	8:10 AM	9:10 AM	9:20 AM	10:20 AM
	2	August 16, 2022	11:43 AM	12:43 PM	12:46 PM	1:46 PM
	3	August 16, 2022	2:45 PM	3:45 PM	3:48 PM	4:48 PM

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**OCT 18 2022**  
**AIR QUALITY DIVISION**

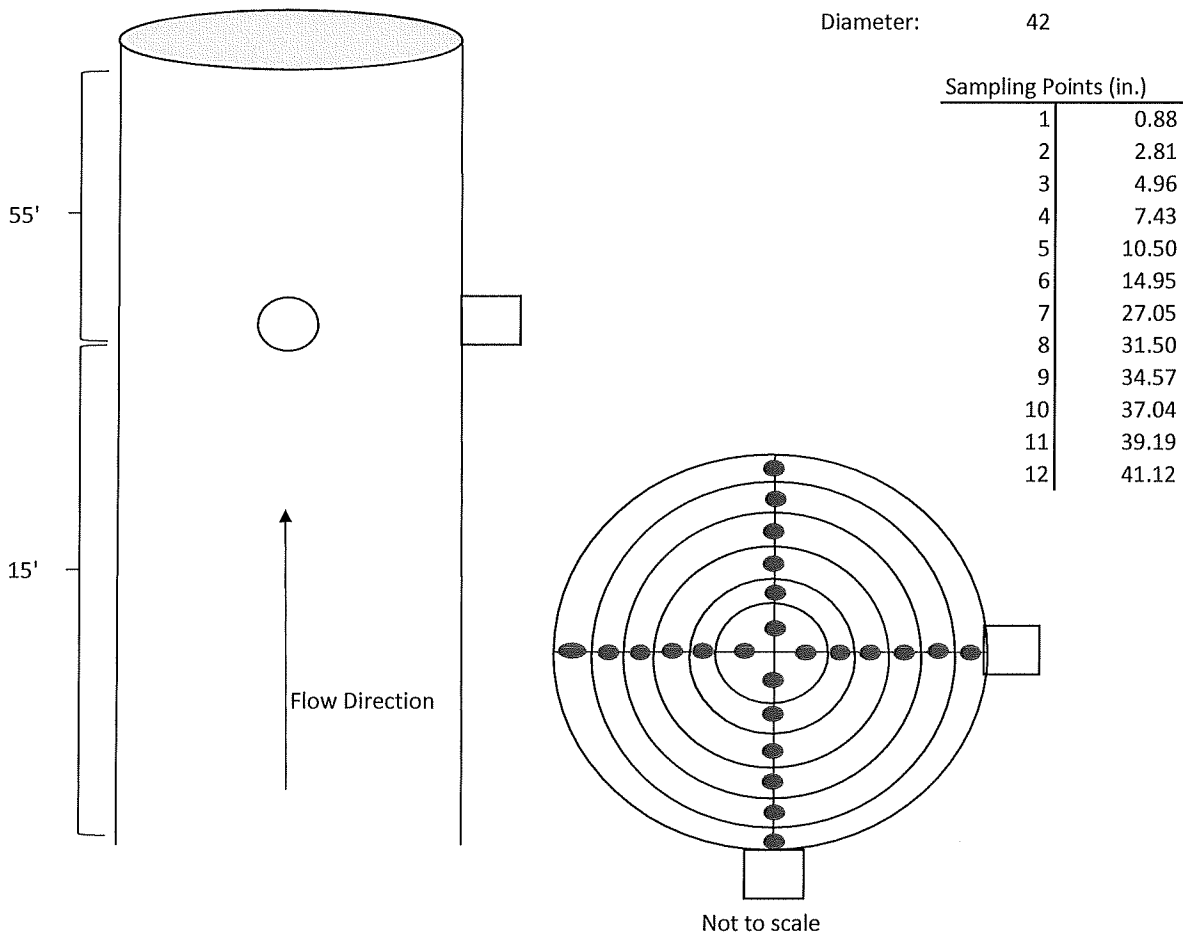


FIGURES





Figure No. 1 SVHeat1



SVHEAT1  
Bessemer Plywood Corporation  
Bessemer  
Bessemer, MI

Date:  
19-Sep-22

RWDI USA LLC  
2239 Star Court  
Rochester Hills, MI 48309

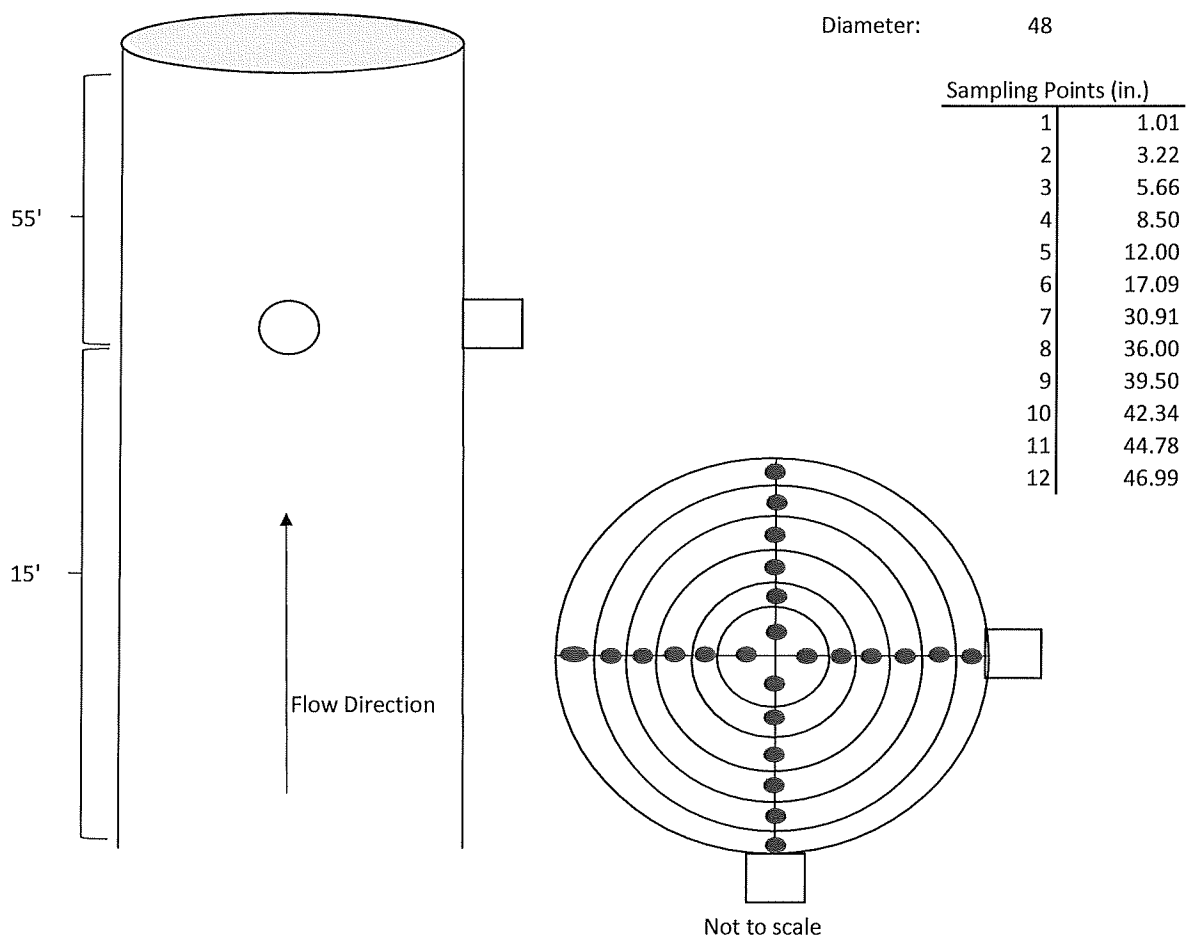
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OCT 18 2022

AIR QUALITY DIVISION



Figure No. 2 SVCOOL1



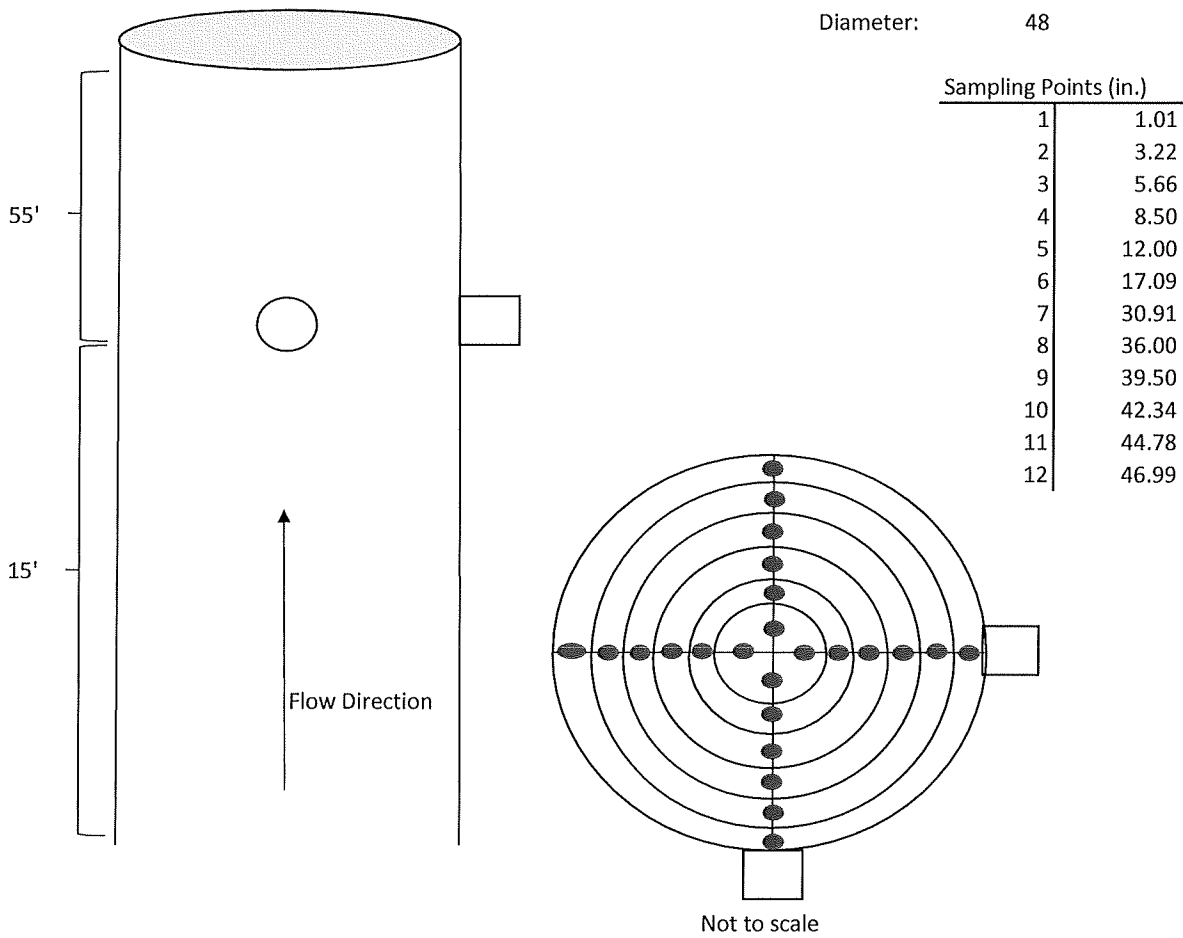
SVCOOL1  
Bessemer Plywood Corporation  
Bessemer  
Bessemer, MI

Date:  
19-Sep-22

RWDI USA LLC  
2239 Star Court  
Rochester Hills, MI 48309



Figure No. 3 - SVCOOL2



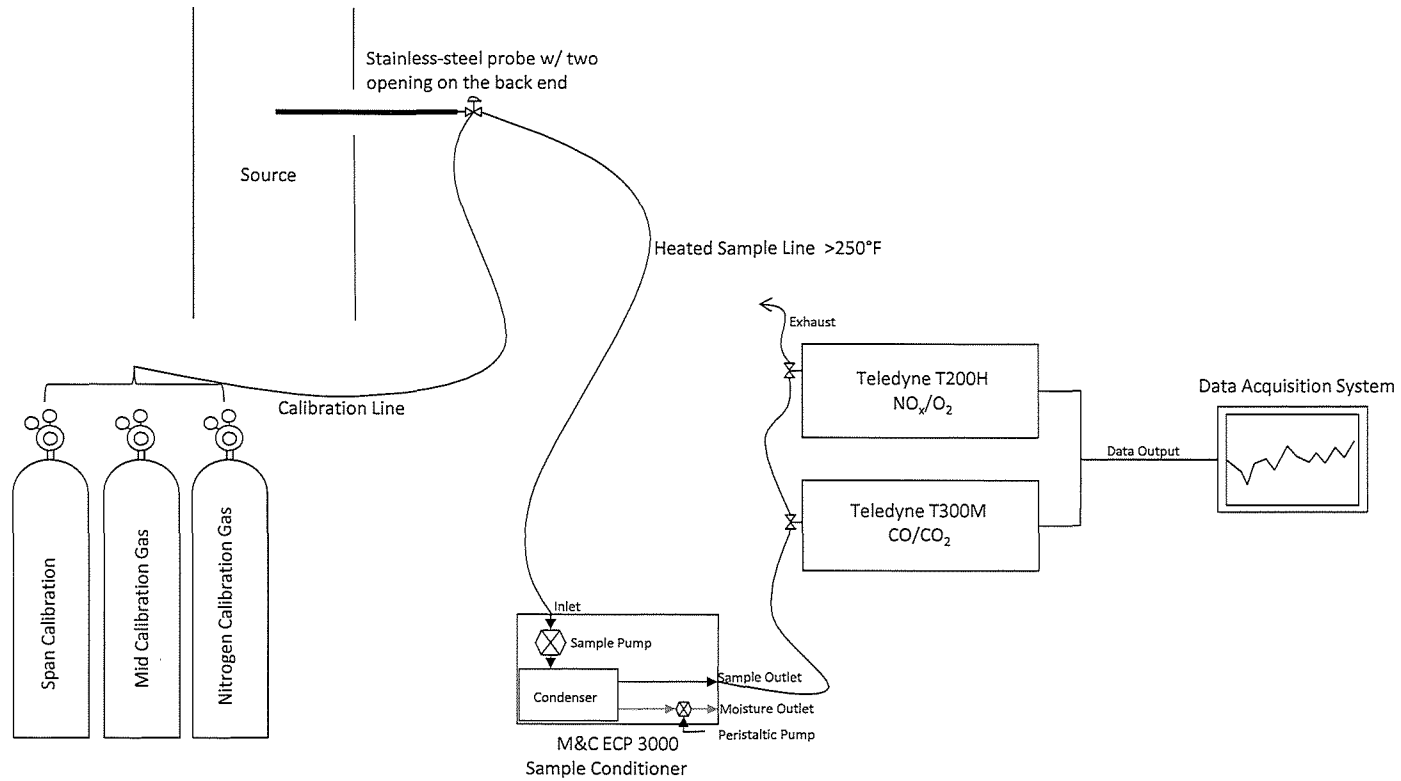
**SVCOOL2**  
Bessemer Plywood Corporation  
Bessemer  
Bessemer, MI

Date:  
19-Sep-22

**RWDI USA LLC**  
2239 Star Court  
Rochester Hills, MI 48309



Figure No. 4: USEPA Method 3A,6C,7E,10 Schematic



**USEPA Method 3A,6C,7E,10**

**Bessemer Plywood Corporation**

Bessemer

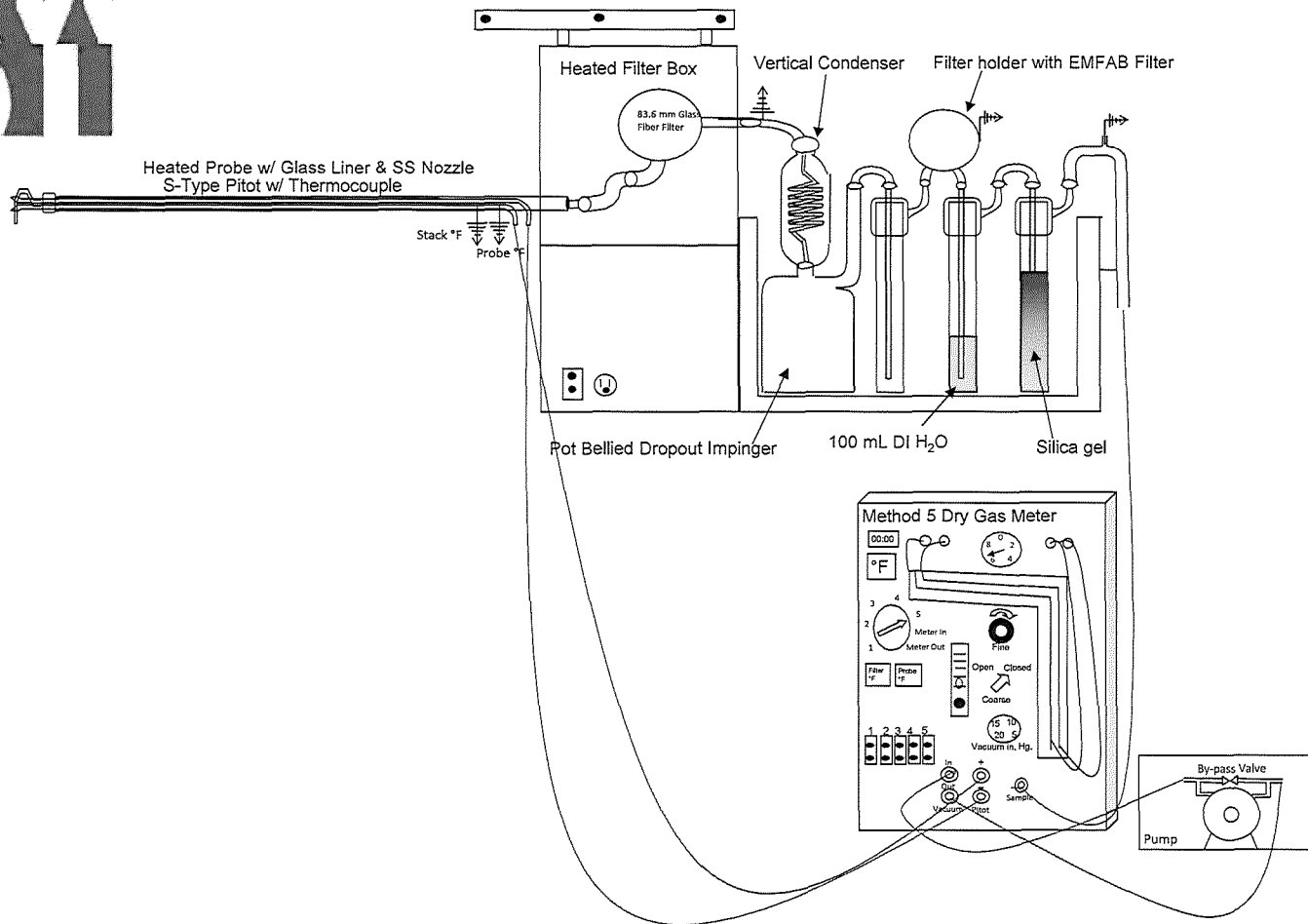
Bessemer, MI

19-Sep-22





Figure No. 5



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OCT 18 2022

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USEPA Method 5/202

Bessemer Plywood Corporation

Bessemer

EUDRYER4

Bessemer, MI

Project 2200224

Date: September 19, 2022

